

Basewide Remedial Investigation/Feasibility Study Fort Ord, California

Volume IV - Baseline Ecological Risk Assessment

HLA Project No. 23366 071724

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**Basewide Remedial Investigation/Feasibility Study
Fort Ord, California**

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Volume IV - Baseline Ecological Risk Assessment Test, Tables, and Plates

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Summary of Text Changes

This final version of the Baseline Ecological Risk Assessment Text, Tables, and Plates addresses comments received on the Draft Final version of the report dated December 1994. Responses to agency comments on the Draft Final report are included in Volume VI of this report. Text changes have been made to the following pages in response to agency comments. Replacement pages are indicated with an R.

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ACRONYMS AND ABBREVIATIONS

1,1-DCA	1,1-Dichloroethane
1,1-DCE	1,1-Dichloroethene
1,1,1-TCA	1,1,1-Trichloroethane
1,1,2-TCA	1,1,2-Trichloroethane
1,1,2,2-PCA	1,1,2,2-Tetrachloroethane
1,2-DCA	1,2-Dichloroethane
1,2-DCE	1,2-Dichloroethene (total)
1,2-DCP	1,2-Dichloropropane
1,2,3,4,6,7,8-HpCDF	1,2,3,4,6,7,8-Heptachlorodibenzofuran
1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin
1,2,3,4,7,8,9-HpCDF	1,2,3,4,7,8,9-Heptachlorodibenzofuran
1,2,3,4,7,8-HxCDD	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin
1,2,3,4,7,8-HxCDF	1,2,3,4,7,8-Hexachlorodibenzofuran
2,3,4,7,8-PeCDF	2,3,4,7,8-Pentachlorodibenzofuran
1,2,3,7,8-PeCDD	1,2,3,7,8-Pentachlorodibenzo-p-dioxin
1,2,3,7,8-PeCDF	1,2,3,7,8-Pentachlorodibenzofuran
1,2,3,7,8,9-HxCDD	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin
1,2,3,7,8,9-HxCDF	1,2,3,7,8,9-Hexachlorodibenzofuran
1,3-DNB	1,3-Dinitrobenzene
1,3,5-TNB	1,3,5-Trinitrobenzene
2-Amino-DNT	2-Amino-dinitrotoluene
2-Methnaphthalene	2-Methylnaphthalene
2-Methylphenol	2-Methylphenol
2,3,4,6,7,8-HxCDF	2,3,4,6,7,8-Hexachlorodibenzofuran
2,3,7,8-TCDD	2,3,7,8-Tetrachlorodibenzo-p-dioxin
2,3,7,8-TCDF	2,3,7,8-Tetrachlorodibenzofuran
2,4-DNT	2,4-Dinitrotoluene
2,4,6-TNT	2,4,6-Trinitrotoluene
2,6-DNT	2,6-Dinitrotoluene
4-Amino-DNT	4-Amino-dinitrotoluene
AA	Atomic adsorption
AAFES	Army and Air Force Exchange Service
AAL	Applied action level
ACM	Asbestos-containing materials
ADD	Average daily dose
AEC	Army Environmental Center
AEHA	U.S. Army Environmental Hygiene Agency
AF	Absorption factor
AF	Adherence factor (soil to skin)
Ag	Silver
AL	Action level
Alkalinity, Hydrox	Alkalinity, Hydrox. (as HCO ₃)
Alkalinity, Bicarb	Alkalinity, Bicarb. (as CaCO ₃)
Alkalinity, Total	Alkalinity, Total (as CaCO ₃)
AMBAG	Association of Monterey Bay Area Governments
-AP	Armor piercing
APC	Armored personnel carrier

AR200-1	Army Regulation 200-1
ARAR	Applicable or relevant and appropriate requirement
ARB	Air Resources Board
Army	Department of the Army
As	Arsenic
ASP	Ammunition supply point
ASR	Archives search report
AST	Aboveground storage tank
ASTM	American Society for Testing and Materials
AT	Averaging time
atm-m ³ /mol	Atmospheres per cubic meter per mole
ATSDR	Agency for Toxic Substances and Disease Registry
B	Below quantitation limits (inorganic) or detected in blank as well as in sample (organic)
B(a)P	Benzo(a)pyrene
B(a)P-TE	Benzo(a)pyrene toxic equivalent
BAM	Behavior assessment model
BbC	Baywood (USDA soil type)
BCP	BRAC Cleanup Plan
BCT	BRAC Cleanup Team
BDC	Below detection limit
Be	Beryllium
BEC	Base Environmental Coordinator
BEHP	bis(2-Ethylhexyl)phthalate
Benzo(b)fluoranthene	Benzo(b)fluoranthene
BEP	bis(2-Ethylhexyl)phthalate
bgs	Below ground surface
BHC	Benzohexachloride
Bis(2ethylhex)phlat	bis(2-Ethylhexyl)phthalate
BNA	Base/neutral/acid extractable compound
BOD	Biological oxygen demand
BRA	Baseline Human Health Risk Assessment
BRAC	Base Realignment and Closure
BS/BSD	Blank spike/blank spike duplicate
BSI	Background Soil Investigation
BTC	Base Transition Coordinator
BTEX	Benzene, toluene, ethylbenzene, xylenes
BW	Basewide
BWBS	Basewide Background Soil Investigation
BWHC	Basewide Hydrogeologic Characterization
BWSDSSI	Basewide Storm Drain and Sanitary Sewer Investigation
BWSWOI	Basewide Surface Water Outfall Investigation
C-4	A type of plastic explosive
C	Chemical concentration in environmental medium
Ca	Calcium
CAIS	Chemical agent identification set
Cal/EPA	California Environmental Protection Agency
Cal/OSHA	California Occupational Safety and Health Act/Administration
Cal-Am	California-American Water Company
CAMU	Corrective action management unit
Carbon Tet	Carbon tetrachloride
CAS	Chemical Abstracts Service
Cat Ex Capacity	Cation Exchange Capacity as Na (sodium)

CBR	Chemical, biological, and radioactive
CCC	California Conservation Corps
CCR	California Code of Regulations
Cd	Cadmium
CDD	Chlorinated dibenzodioxin
CDF	Chlorinated dibenzofuran
CDFG	California Department of Fish and Game
CDI	Chronic daily intake
CDP	Common depth point
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act (Superfund)
CERFA	Community Environmental Response Facilitation Act
CF	Conversion factor
CFR	Code of Federal Regulations
CGI	Combustible gas indicator
cis-1,2-DCE	cis-1,2-Dichloroethene
CLP	Contract Laboratory Program (EPA)
CNCC	California Natural Coordinating Council
COC	Chemical of concern
COE	U.S. Army Corps of Engineers
COPC	Chemical of potential concern
cPAH	Carcinogenic polycyclic aromatic hydrocarbon
Cr	Chromium
cRfD	Chronic reference dose
CRL	Certified reporting limit
CSL	Chemical Systems Laboratory
Cu	Copper
CV	Coefficient of variation
CVAA	Cold vapor atomic absorption
CWM	Chemical warfare material
%D	Percent difference
DAF	Dermal absorption factor
DBCM	Dibromochloromethane
DBMS	Database management system
DCE	Dichloroethene
DDD	Dichlorodiphenyldichloroethane
DDE	Dichlorodiphenyldichloroethene
DDNP	Diazodinitrophenol
DDT	Dichlorodiphenyltrichloroethane
DEH	Directorate of Engineering and Housing
DHS	California Department of Health Services (before 7/1/91)
DI	Deionized
Di-n-butyl phlat	Di-n-butylphthalate
Dibenzo(ah)anthrac	Dibenzo(a,h)anthracene
Dinocetylphthalate	Di-n-octylphthalate
DMA	U.S. Defense Mapping Agency
DnB	Di-n-butylphthalate
DNB	Dinitrobenzene
DNT	Dinitrotoluene
DOD	Department of Defense
DOL	Directorate of Logistics
DOT	Department of Transportation

DPR	Department of Pesticide Regulation
DQO	Data quality objective
DRMO	Defense Reutilization and Marketing Office
DTSC	Department of Toxic Substances Control (after 7/1/91)
DWR	California Department of Water Resources
E	Serial dilution analysis not within control limits
EA	EA Engineering, Science and Technology, Inc.
EBS/EBST	Environmental Baseline Survey/Environmental Baseline Survey for Transfer
EC	Effective concentration
ED	Exposure duration
ED1	Exposure in years (to a toxic chemical)
ED2	Exposure in days per year
EDD	Expected daily dose
EF	Exposure frequency
EGSTP	East Garrison Sewage Treatment Plant
EIR	Environmental impact report
EIS	Environmental impact statement
EM	Electromagnetic
EOD	Explosive ordnance disposal
EPA	U.S. Environmental Protection Agency
EPC	Exposure point concentration
ERA	Ecologic Risk Assessment
ET	Exposure time
F	Fahrenheit
F	Fischer distribution
FAAF	Fritzsche Army Airfield
FAASTP	Fritzsche Army Airfield Sewage Treatment Plant
Fe	Iron
FFA	Federal Facilities Agreement
FFE	Flame field expedient
FI	Fraction of intake
FO-SVA	Fort Ord-Salinas Valley Aquiclude
FOD	Frequency of detection
FORG	Fort Ord Reuse Group
FOSL	Findings of suitability for lease
FOST	Findings of suitability for transfer
FOSTA	Fort Ord Soil Treatment Area
FOSTS	Fort Ord Soil Treatment System
FP	Firing point
FS	Feasibility study
FSP	Field sampling plan
FUDS	Formerly used defense site
FWS	U.S. Fish and Wildlife Service
GC	Gas chromatograph
GC/MS	Gas chromatography/mass spectrometry
GF	Graphite furnace
GFAA	Graphite furnace atomic absorption
GP	General purpose (bomb)
gpd	Gallons per day
GPR	Ground penetrating radar
GPS	Global Positioning System
GRA	General response action

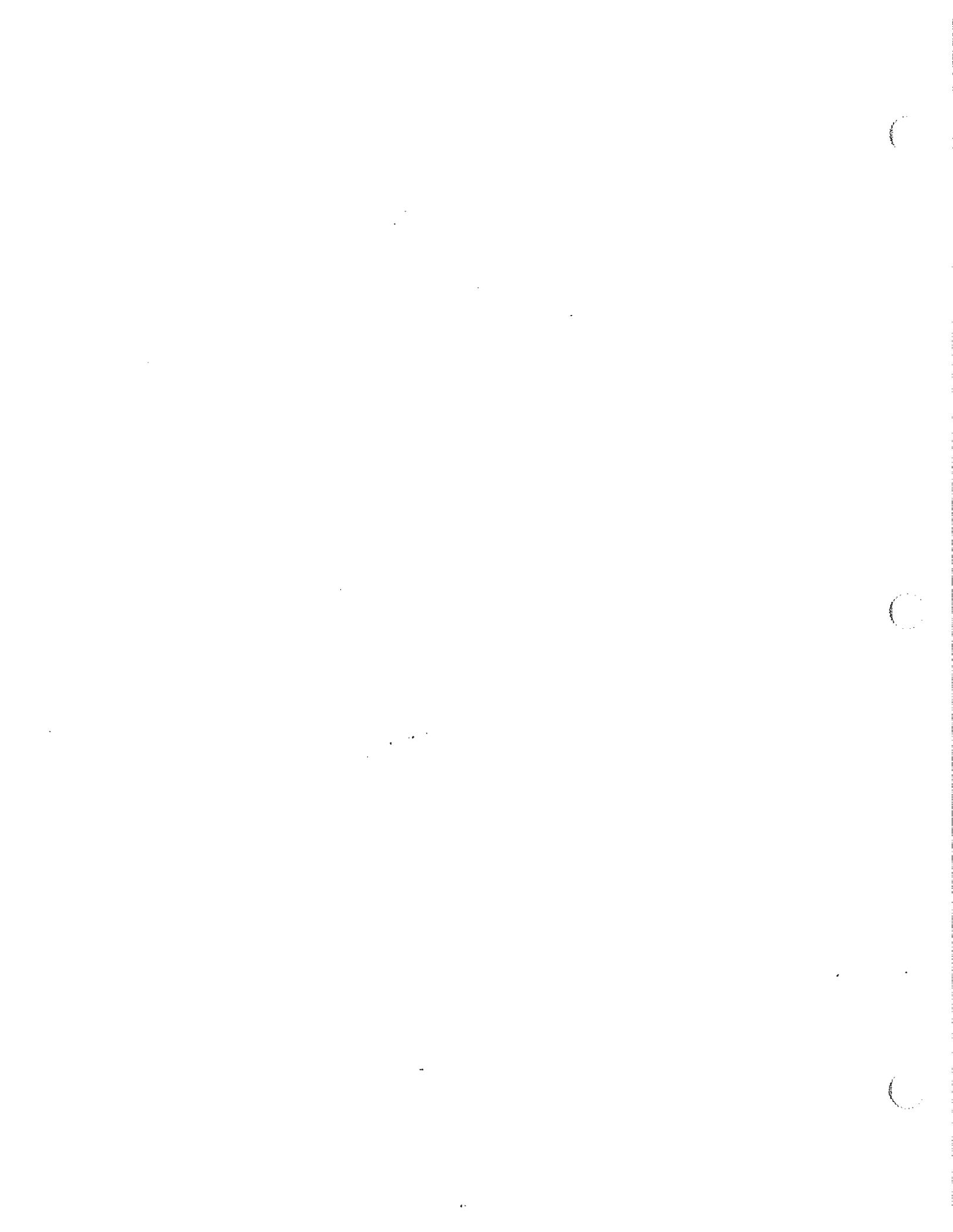
GTC	Geotechnical Consultants, Inc.
H	Henry's Law constant
HBL	Health-based level
HBPHC	High boiling point hydrocarbon
HBSL	Health-based screening level
HCRS	Heritage Conservation and Recreation Service
HE	High explosive
Hg	Mercury
HHAG	Human Health Assessment Group
HHRA	Human Health Risk Assessment
HI	Hazard index
HIA	High impact area
HLA	Harding Lawson Associates
HMX	Cyclotetramethylene tetranitramine (explosive compound)
HpCDDs (total)	Heptachlorodibenzo-p-dioxins (total)
HpCDFs (total)	Heptachlorodibenzofurans (total)
HPLC	High-pressure liquid chromatography
HQ	Hazard quotient
HxCDDs (total)	Hexachlorodibenzo-p-dioxins (total)
HxCDFs (total)	Hexachlorodibenzofurans (total)
IA	Interim action
IAFS	Interim action feasibility study
IAROD	Interim action record of decision
ICP	Inductively coupled plasma
ICS	Interference check sample
IF	Intake factors
IFR	Interim final report
IR	Ingestion rate (of soil)
IR	Intake rate/inhalation rate
IRIS	Integrated Risk Information System
IWMB	Integrated Waste Management Board
J	Estimated concentration
J&S	Jones and Stokes Associates
JMM	James M. Montgomery Consulting Engineers
K	Potassium
Kd	Distribution coefficient
Kh	Henry's Law constant
K _{oc}	Distribution coefficient divided by soil fraction of organic carbon
K _{ow}	Octanol/water partition coefficient
LADD	Lifetime average daily dose
LAW	Light antitank weapon
LBP	Lead-based paint
LCP	Local coastal program
LCS	Laboratory control samples
LDR	Land disposal restriction
LOAEL	Lowest observed adverse effect level
LRTC	Leadership Reaction Training Compound
LRTS	Leadership Reaction Training Structure
LUFT	Leaking underground fuel tank
MBA	Mine and booby trap area
MBAS	Methylene blue active substances
MBUAPCD	Monterey Bay Unified Air Pollution Control District
MCDH	Monterey County Department of Health

MCL	Maximum contaminant level
MCPD	Monterey County Planning Department
MCPHD	Monterey County Public Health Department
MCX	Mandatory center of expertise
Methylethyl ketone	Methyl ethyl ketone
MG	Machine gun
µg/kg	Micrograms per kilogram
µg/l	Micrograms per liter
mg/kg	Milligrams per kilogram
mg/l	Milligrams per liter
Mg	Magnesium
mgd	Million gallons per day
MGSTP	Main Garrison Sewage Treatment Plant
MIBK	4-Methyl-2-pentanone
Mn	Manganese
MPN	Most probable number
MPWMD	Monterey Peninsula Water Management District
MRTP	Monterey Regional Treatment Plant
MS/MSD	Matrix spike/matrix spike duplicate
MSL	mean sea level
MW	Monitoring well
2-NT	2-Nitrotoluene
3-NT	3-Nitrotoluene
4-NT	4-Nitrotoluene
N	Nitrogen
Na	Sodium
NA	Not analyzed, not applicable, or not available
NAAQS	National Ambient Air Quality Standard
Nap	Naphthalene
NAS	National Academy of Sciences
NBC	Nuclear, biological, and chemical
NCP	National Contingency Plan (40 CFR 300)
ND	Not detected
NDDDB	Natural Diversity Database
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
Ni	Nickel
NIOSH	National Institute of Occupational Safety and Health
NoA	No Action
Nitrate	Nitrate as nitrogen
NOAA	U.S. National Oceanic and Atmospheric Administration
NOAEL	No observed adverse effect level
NoFA	No further action
NoFAROD	No Further Action Record of Decision
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NPV	Net present value
NQTP	non-QTP (not from Paso Robles Formation [QTP])
NRC	National Research Council
O&M	Operation and maintenance
OaD	Oceano (USDA soil type)
OAF	Oral absorption factor
OB/OD	Open burn/open detonation

OCDD	Octachlorodibenzo-p-dioxin
OCDF	Octachlorodibenzofuran
OEHHA	Office of Environmental Health Hazard Assessment
OEW	Ordnance and explosive waste
Orthophosphate	Orthophosphate as phosphorus
OSHA	Occupational Safety and Health Act/Administration
OU	Operable unit
OVA	Organic vapor analyzer
OVM	Organic vapor monitor
OVSTP	Ord Village Sewage Treatment Plant
PA/ST	Preliminary Assessment/Site Investigation
PAH	Polycyclic aromatic hydrocarbon
PARCC	Precision, accuracy, representativeness, completeness, and comparability
Pb	Lead
PCB	Polychlorinated biphenyl
PCDD	Polychlorinated dibenzodioxin
PCDF	Polychlorinated dibenzofuran
PCE	Tetrachloroethene
PCP	Pentachlorophenol
PD	Percent difference
PEA	Preliminary exposure analysis
PeCDDs (total)	Pentachlorodibenzo-p-dioxins (total)
PeCDFs (total)	Pentachlorodibenzofurans (total)
PEL	Permissible exposure limit
%D	Percent difference
PETN	Pentaerythritol tetranitrate
PM ₁₀	Particulates with mean diameter of less than 10 microns
PNA	Polynuclear aromatic hydrocarbon
POL	Petroleum, oil, lubricants
POTW	Publicly owned treatment works
PP	Priority pollutants
ppb	Parts per billion
PPE	Personal protective equipment
ppm	Parts per million
PQL	Practical quantitation limit
PRG	Preliminary remediation goal
PS	Protection standards
PVC	Polyvinyl chloride
QA	Quality assurance
QAPP	Quality assurance project plan
QASAS	Quality Assurance Specialist Ammunition Surveillance
QC	Quality control
QTp	Paso Robles Formation
R	Rejected
RAB	Restoration Advisory Board
RAO	Remedial action objectives
RAP	Remedial action plan
RCRA	Resource Conservation and Recovery Act
RD/RA	Remedial design/remedial action
RDA	Recommended daily allowance
RDX	Cyclotrimethylenetrinitramine (explosive compound)
RfC	Reference concentration
RfD	Reference dose

RI/FS	Remedial investigation/feasibility study
RI	Remedial investigation
RME	Reasonable maximum exposure
ROC	Record of concurrence
ROD	Record of decision
RP	Respirable particulate rate
RPD	Relative percent difference
RSCL	Recommended soil cleanup level
RTS	Remedial technologies screening
RU	Remedial unit
RWQCB	California Regional Water Quality Control Board
SA	Surface area (of exposed skin)
SAAQS	State Ambient Air Quality Standard
SAP	Sampling and analysis plan
Sb	Antimony
SDG	Sample delivery group
SDI	Subchronic daily intake
Se	Selenium
SF	Slope factor
SGD	Staal, Gardner & Dunne, Inc.
ShE	Santa Inez Soil Series
SMAW	Shoulder-fired medium assault weapon
Sn	Tin
SOC	Statement of conditions
SOC	Semivolatile organic compound
SOP	Standard operating procedure
Spec Cond	Specific conductance
Specific Conduct.	Specific conductance at 25°C
SQL	Sample quantitation limit
SRE	Screening risk evaluation
sRfD	Subchronic reference dose
STLC	Soluble threshold limit concentration
SVA	Salinas Valley Aquiclude
SVE	Soil vapor extraction
SWMU	Solid waste management unit
SWRCB	State Water Resources Control Board
TBC	To-be-considered requirements
TCDD	2,3,7,8-Tetrachlorodibenzo-p-dioxin
TCDD-TE	2,3,7,8-Tetrachlorodibenzo-p dioxin toxic equivalent
TCDDS (total)	Tetrachlorodibenzo-p-dioxins (total)
TCDFs (total)	Tetrachlorodibenzofurans (total)
TCE	Trichloroethene
TCL	Target cleanup level
TCLP	Toxicity characteristic leaching procedure
TCP	Tricresyl phosphate
TDS	Total dissolved solids
TE	Toxic equivalent
TEF	Toxicity equivalent factor
TFH	Total fuel hydrocarbons
TIC	Tentatively identified compound
Tl	Thallium
TL	Target (cleanup) level
TNB	Trinitrobenzene

TNT	Trinitrotoluene
TOC	Total organic carbon
TOG	Total oil and grease
Tot. Susp. Part.	Total suspended particulates
TPH	Total petroleum hydrocarbons
TPH-D Unknown	TPH-extractable unknown hydrocarbon
TPH-D	TPH as diesel
TPH-G Unknown	TPH-purgeable unknown hydrocarbon
TPH-G	TPH as gasoline
TPHmo	TPH as motor oil
TPH-Motor Oil	TPH as motor oil
TPHd	TPH as diesel
TPHg	TPH as gasoline
TPHh	TPH of heavy molecular weight (diesel or heavier)
TRA	Thomas Reid Associates
trans-1,2-DCE	trans-1,2-Dichloroethene
TRGs	Target remedial goals
TRPH	Total recoverable petroleum hydrocarbons
TSCA	Toxic Substances Control Act
TSS	Total suspended solids
TTLC	Total threshold limit concentration
U	Not detected
UBK	Uptake Biokinetic Model (computer program)
UCL	Upper concentration limit
UF	Uncertainty factor
USA	Underground Service Alert
USAEDH	United States Army Engineer Division, Huntsville
USATHAMA	U.S. Army Toxic and Hazardous Materials Agency
USCS	Unified Soil Classification System
USGS	United States Geological Survey
UST	Underground storage tank
UXO	Unexploded ordnance
VES	Vertical electrical soundings
VF	Volatilization factor
VOC	Volatile organic compound
WOE	Weight of evidence
WP	White phosphorous (or "Willie Pete")
WP	Work plan
WTP	Water treatment plant
XRF	X-ray fluorescence
Zn	Zinc



1.0 INTRODUCTION

The U.S. Army Corps of Engineers, Sacramento District (COE), has conducted a remedial investigation/feasibility study (RI/FS) at Fort Ord, Monterey County, California. This document was prepared by Harding Lawson Associates (HLA) in compliance with a Federal Facilities Agreement (FFA) signed in July 1990 by representatives from Fort Ord, the U.S. Army (Army), the U.S. Environmental Protection Agency, Region IX (EPA), the California Department of Health Services (DHS; now the Department of Toxic Substances Control [DTSC]), and the California Regional Water Quality Control Board, Central Coast Region (RWQCB) (the FFA agencies).

The National Contingency Plan (NCP; EPA, 1990f) identifies the need to evaluate possible impacts to human health and the environment from hazardous substances at National Priorities List (NPL) sites. This ecological risk assessment (ERA) has been prepared by HLA under contract to the COE to assess possible environmental impacts associated with the release of hazardous substances during Army activities at Fort Ord. Possible impacts to human health are addressed in Volume III.

1.1 General Background

Environmental investigations at Fort Ord began in the mid 1980s. The first areas of concern (sites) investigated were the Fritzsche Army Airfield Fire Drill Burn Pit Area (now Operable Unit 1) and the Fort Ord landfills (now Operable Unit 2). Other sites were investigated during the late 1980s. In 1990, Fort Ord was placed on the NPL. An Enhanced Preliminary Assessment conducted in 1990 identified 61 Areas Requiring Environmental Evaluation (AREEs) (JMM, 1990). The AREEs included sites previously investigated as well as sites not previously investigated. A Base Inventory and Literature Review was conducted in 1990 and 1991 to develop a comprehensive list of areas of concern at Fort Ord (EA, 1991a).

In 1991, HLA produced a Work Plan (HLA, 1991c) and a Sampling and Analysis Plan (HLA, 1991b) that presented the investigation strategy and detailed plans for 39 sites identified for investigation. The project plans were implemented, and additional sampling and analysis plans were prepared and implemented, where required, for the 39 original sites plus 2 additional sites totalling 41 sites. The locations of all sites are shown on Plate 1.1. Human health screening risk evaluations (SREs) were conducted for many of the sites to assess the potential for health impacts from exposure to chemicals at the sites and to address the potential for chemicals in soil to impact groundwater.

Three of the 41 sites were eliminated from further evaluation in the ERA. Based on site characterization work, Sites 26 and 38 were shown not to contain chemicals of potential concern and were not further evaluated. Site 4, the Ocean Outfalls, is discussed as part of the aquatic assessment of Monterey Bay summarized in Section 4.0 of this report and is not separately addressed as a "site." This initial characterization left 38 sites for further evaluation in the ERA. Additionally, Sites 5, 6, 7, 8, and 9, all associated with inland ranges, are included as part of Site 39 and not evaluated separately. Therefore, 33 sites remained for evaluation. Based on the results of the site characterization activities and the SREs, the sites were tentatively assigned to one of three categories: (1) the site needs no further action (NoFA site), (2) the site (or a portion of a site) requires interim action (IA site), or (3) the site must undergo an RI (RI site). All 33 sites were evaluated for ecological effects and the category to which each site was assigned based on the SREs was reevaluated based on the results of the ERA.

The ERA for Fort Ord is a basewide program (i.e., not restricted to identified "sites"). For purposes of the ERA, "basewide" is defined as the 41 identified potential source areas and areas potentially receiving chemicals from these source areas (e.g., watersheds). Therefore, although the

assessment focuses on "sites," the information is applicable to the base as a whole within this context. Areas outside of the 41 source areas and their associated drainages are not considered to be impacted by chemicals and are outside the assessment presented herein (other than their potential use as "reference" areas).

1.2 Purpose and Objectives

The overall purpose of the ERA is to assess whether chemicals associated with Army activities at Fort Ord may currently, or in the future, adversely affect flora and fauna. To fulfill this purpose, the following objectives were identified:

- Develop a conceptual site model to identify endpoints
- Identify locations where chemicals of potential concern (COPCs) are present that have not adversely affected flora and/or fauna
- Identify locations where COPCs are present that may be adversely affecting flora and/or fauna and characterize the magnitude and extent of these effects.

A phased approach comprising several evaluations was used to fulfill these objectives. The approach is discussed in the following sections.

1.3 EPA Program Approach

The ERA at Fort Ord followed the framework set forth by EPA (1992j) and Norton, et al., (1992). EPA's (1992j) conceptual framework for an ERA identifies three main tasks (Plate 1.2, leftmost panel):

- Problem formulation
- Analysis
- Risk characterization.

As presented by EPA (1992j), the problem formulation task includes the following components:

- Endpoint selection
- Conceptual model development.

The selection of measurement and assessment endpoints depends upon the characteristics of the identified stressors (e.g., chemicals of potential concern), the ecosystem and its components that may be at risk (indicator species), and the expected or observed ecological effects associated with the stressors. This information is used to develop a conceptual site model, which describes the relationships among the assessment and measurement endpoints, data needs to adequately evaluate endpoints, and the methods that will be used to analyze the data. The conceptual model serves as input to the analysis step, the second task of the framework.

The analysis phase, as presented by EPA (1992j), has two main components:

- Characterization of exposure
- Characterization of ecological effects.

Characterization of exposure (i.e., exposure assessment) involves quantification of the magnitude and spatial and temporal distributions of exposure for selected components of the ecosystem. Characterization of ecological effects (i.e., effects assessment) involves relating stressors to the assessment and measurement endpoints identified during problem formulation. Extrapolations from measurement to assessment endpoints are conducted in this step. This results in an exposure profile that relates the identified stressor to the appropriate assessment endpoint. The exposure and effects profiles developed in this phase are then used as input to the risk characterization step, the third task of the framework.

Risk characterization, as presented by EPA (1992j), includes the following components:

- Risk estimation
 - Integration
 - Uncertainty analysis

Text Revisions

In Volume IV, Baseline Ecological Risk Assessment, change the first bullet in the first column of Page 2, Section 1.2 to read:

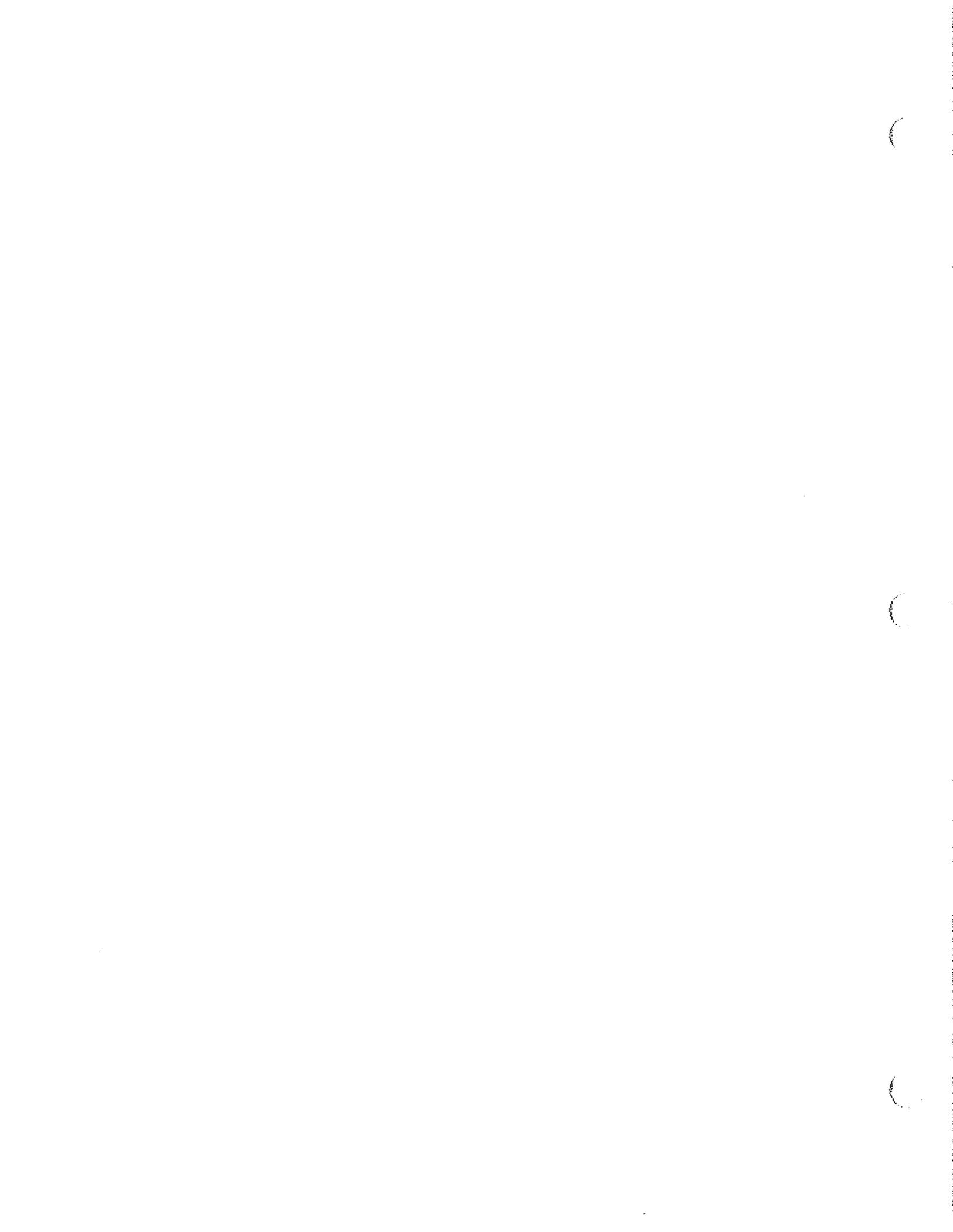
- *Develop a conceptual site model and identify endpoints*

In Volume IV, Baseline Ecological Risk Assessment, replace the first paragraph in the second column of Page 2, Section 1.3 to read:

The selection of measurement and assessment endpoints is an iterative process that involves the characteristics of the identified stressors (e.g., chemicals of potential concern), the ecosystem and the species that may be at risk (indicator species), and the expected or observed ecological effects associated with the stressors. The measurement and assessment endpoints are directly related to the goal of the assessment which is to evaluate the degree to which chemicals may currently, or in the future, adversely impact flora and fauna at Fort Ord sites. The endpoints should be selected so as to evaluate impacts to the species of value (e.g., special status-species) to be protected. A conceptual site model is developed that describes the relationships among the assessment and measurement endpoints, the data needs to adequately evaluate the endpoints, and the methods that will be used to analyze the data. The conceptual model serves as input to the analysis step, the second task of the framework.

In Volume IV, Baseline Ecological Risk Assessment, replace the first sentence in the third paragraph of the second column of Page 2, Section 1.3 to read:

Characterization of exposure (i.e., exposure assessment) involves quantification of the magnitude and spatial and temporal distributions of exposure for selected chemicals of potential concern.



- Risk description
 - Ecological risk summary
 - Interpretation of ecological significance.

This phase evaluates the likelihood of adverse effects occurring to the ecosystem components as a result of exposure to stressors. Risk estimation involves comparing the exposure and stressor-response (e.g., effects) profiles. This comparison includes a weight-of-evidence discussion that provides supporting information in the integration step, and analysis and summary of all uncertainties identified during all phases of the assessment. Risk description involves summarizing the results of risk estimation and the uncertainty analysis, and assessing confidence in the risk estimates by discussing of weight-of-evidence. This information is then used to interpret the ecological significance of the results, evaluate the identified risks in the context of the assessment endpoints, and link risk estimation to risk communication.

These activities are summarized on Plate 1.2 (leftmost panel). EPA guidelines (EPA, 1991i, j; 1992h, j) recommend that activities be phased and iterative.

The program approach adopted for Fort Ord was consistent with these guidelines. Because of the accelerated nature of the RI/FS program at Fort Ord, many of the ERA activities overlapped temporally. In addition, different sites were on different schedules of sampling, analysis, and reporting. The organization of this document reflects the overlapping and phased nature of the project. The following discussion, summarized on Plate 1.2, discusses the temporal sequence followed during the ERA, and provides a road map for identifying what aspects of the framework are represented by the various activities conducted in the ERA. The various phases were conducted, consistent with *Developing a Work Scope for Ecological Assessments* (EPA, 1992h), to focus the assessment on areas most in need of study.

1.4 Phases of the Fort Ord ERA

The Fort Ord ERA includes the following discrete phases (Plate 1.2):

- Problem Formulation, including conceptual model development, endpoint selection, indicator species selection, and COPC selection (Section 2.0), Preliminary Hazard Assessment 1 (Section 3.0), and Preliminary Hazard Assessment 2 (Section 4.0).
- Analysis, including the exposure and ecological effects characterizations portions of the quantitative ecological screening assessment (Section 5.0) and quantitative ecological risk assessment (Section 6.0).
- Risk characterization, including portions of quantitative assessments (Sections 5.0 and 6.0) and risk description (Section 7.0).

The first three activities conducted as the Problem Formulation step were phased and iterative and were conducted to focus field activities on sites and areas with potential ecological concerns based on the conceptual model, and to refine the conceptual model (Section 1.4.1). The work plan presented a draft conceptual site model for the area, but additional data in the form of habitat surveys were needed to complete the model development. Preliminary Hazard Assessment 1 (PHA1; Section 3.0) evaluated sites and outfalls to identify the presence or absence of complete exposure pathways, part of conceptual model development. Sites and outfalls that did not have complete exposure pathways were not evaluated beyond PHA1. In Preliminary Hazard Assessment 2 (PHA2; Section 4.0), results of the habitat surveys were used to identify receptors and discuss complete exposure pathways. Measurement and assessment endpoints were selected, methods to address the endpoints were discussed, and further data needed to assess the endpoints were identified using the data from PHA1 and PHA2. Section 2.0 of this volume summarizes most of the information relevant to the conceptual site model, and presents the measurement and assessment endpoints, selection of indicator species, and selection of chemicals of potential concern.

Section 5.0 presents the first iteration of the analysis and risk estimation components of the framework (Plate 1.2). A quantitative ecological screening assessment was conducted based on

chemical data from soil and toxicity criteria from the literature using a hazard quotient approach and conservative exposure assumptions (Section 1.4.2). Consistent with the phased, focused approach outlined in *Developing a Work Scope for Ecological Assessments (EPA, 1992h)*, the PHA1 and PHA2 evaluations were conducted in part to focus the field work on sites most in need of study. This effort was further focused through the quantitative ecological screening assessment, which identified sites where the conservative screen indicated potential hazards based on the endpoints identified in the problem formulation component. This screening assessment involved both characterization of exposure and ecological effects using modeling, as shown on Plate 1.2. The modeled estimates of exposure and effects were compared using the hazard quotient method in the first risk estimation iteration of the risk characterization component (Section 1.4.2).

Results of field work to address data gaps identified in the problem formulation step (and presented in Section 6.0), were then used to modify these modeled estimates. A second iteration of the analysis, called the quantitative ecological risk assessment in Plate 1.2, was conducted. Measured exposures were factored into the characterization of exposure, and bioassay results were incorporated into the characterization of ecological effects. This is provided in the analysis portion of Section 6.0. The combination of measured and modeled exposures and effects were then compared in the second iteration of the risk estimation component, and uncertainties associated with the assessment were then discussed.

Section 7.0, the risk description phase of risk characterization, provides a summary of ecological risks identified in Section 6.0 and discusses the ecological significance of the results.

The following sections outline the specific activities conducted in each phase of the assessment.

1.4.1 Problem Formulation

The problem formulation step included PHA1, PHA2, conceptual model development and selection of endpoints, selection of indicator species, and selection of chemicals of potential concern. These activities are summarized below.

1.4.1.1 Preliminary Hazard Assessment 1

In PHA1, all 33 sites were evaluated to identify complete exposure pathways. Potential impacts to terrestrial and aquatic receptors were assessed. The following activities were conducted as part of PHA1:

- Review of chemical data and other information available as of February 1, 1994, from the following reports/programs/consultants:
 - Basewide Biological Inventory (HLA)
 - Flora and Fauna Basewide Study of Fort Ord (COE)
 - California Natural Diversity Database, Marina Quadrangle (CDFG)
 - Basewide Surface Water Outfall Investigation, first round (HLA)
 - Basewide Storm Drain and Sanitary Sewer Investigation (HLA)
 - Site Characterization Reports (HLA, several)
 - Site Investigation Reports (James M. Montgomery [JMM] and EA Engineering, Science and Technology [EA])
 - Site Use Review Reports (Roy F. Weston, Inc., EA)
 - UST Report (Rogers E. Johnson, for Site 34)
- Habitat surveys were conducted at sites in November or December 1993. The surveys were comprised of aerial photograph review,

on- and offsite plant and animal surveys (at sites not fully paved), compilation of plant and animal species lists, and identification and mapping of plant community types.

- Chemicals considered to be possible laboratory contaminants and metals at concentrations lower than background were excluded as COPCs (consistent with Fort Ord background metals concentrations reported in the Basewide Background Soil Investigation).
- Sediment samples were collected at the outfalls for chemical analysis.
- Fate and transport parameters for detected chemicals were compiled and evaluated to assess the potential for offsite migration.
- A qualitative exposure analysis was conducted to identify potentially complete exposure pathways at each site and stormwater outfall.

These activities are discussed on a site-by-site and outfall-by-outfall basis in Section 3.0.

1.4.1.2 Preliminary Hazard Assessment 2

PHA2 evaluated the sites for which complete exposure pathways were identified in PHA1. Both site-specific and basewide activities were conducted. Outfalls identified in PHA1 with complete exposure pathways were evaluated in the outfall assessment portion of the quantitative ecological screening assessment (Section 5.6). The following tasks were performed:

- Summary of information about the general plant community types present at Fort Ord, the dominant plants and animals found in these communities, and descriptions of special status plants and animals on the base.
- Augmentation of site habitat and species surveys with field notes and maps outlining locations of special status species.
- Conduct of additional habitat surveys in April 1994 at designated PHA2 sites to augment the fall and winter surveys. The

surveys included reviewing aerial photographs and mapping and identifying individual species and habitats on and adjacent to the designated sites.

- Preparation of site-specific habitat maps and identification of species present at each site.
- Identification of ecologically important areas on the base considering both present and potential future uses (based on reuse plans) to help focus the ERA.
- Assessment of overt plant stress during the species and habitat surveys based on visual evaluation.
- Incorporation of information on habitat, species, chemicals, and the fate, transport, and toxicity of these chemicals into the problem formulation for each site.
- Conduct of American Society for Testing and Materials (ASTM) leaching tests at the small arms trainfire ranges along the beach to assess the potential for lead and other metals to leach from bullets.
- Assessment and definition of potential reference site locations.
- Identification of groundwater plume areas.
- Assessment of the potential for groundwater recharge to surface water.
- Review of information from local agencies to identify future land uses for individual source areas.

These activities are further discussed on a site-by-site basis in Section 4.0.

1.4.1.3 Other Problem Formulation Activities

The following activities were also conducted during the problem formulation step and are summarized in Section 2.0:

- Development of conceptual site models for similar sites (e.g., coastal sites) and other areas of potential concern
- Definition of data quality objectives and measurement and assessment endpoints for the site-specific and basewide evaluations
- Identification of COPCs, special status species, and representative "indicator" species.

Basewide activities for PHA2 included gathering information on the outfalls, watersheds, Monterey Bay, and the Salinas River to perform the following tasks:

- Assessment of the potential for runoff from source areas to surface water; verification of field information from the watershed study (summarized in the *Draft Basewide Surface Water Outfall Investigation* [BSWOI], April 6, 1993, and Phase 2 Data Summary Report [HLA, 1994b]).
- Collection and chemical analysis of surface and subsurface soil and sediment samples from applicable outfall locations (also summarized in the BSWOI documents).
- Collection and chemical analysis of stormwater samples from specific outfalls and potential "reference" locations (where adequate rainwater was available).
- Performance of bioassays on collected stormwater samples using *Selenastrum capricornutum*, *Ceriodaphnia dubia*, and *Pimephales promelas* (fathead minnows). The results of the first round of bioassays and chemical analyses were available for interpretation in the PHA2 assessment.

The above activities are discussed in Section 5.6.

1.4.2 Analysis

The analysis component included characterization of exposure and effects. Two iterations of characterizing exposure and ecological effects were performed: first, in the quantitative ecological screening assessment and

second, in the quantitative ecological risk assessment.

In the quantitative ecological screening assessment, the potential for adverse ecological effects was evaluated based on the results of modeling potential exposures for indicator species; the results are presented in Section 5.0. In the quantitative ecological risk assessment, additional data were evaluated to assess whether the screening assessment conclusions were the result of the conservative assumptions used in the assessment or actually representative of site-specific conditions; the results are presented in Section 6.0.

The analysis phases of the quantitative ecological screening and quantitative ecological risk assessments are described below. Descriptions of the specific approaches used to characterize exposure and ecological effects for each of these assessments are presented below.

1.4.2.1 Characterization of Exposure Approach

As part of the analysis components potential levels of exposure to site-related chemicals, were estimated using the methods described below.

Exposure Based on Soil Observations

Potential exposures of plants and animals to site-related chemicals were characterized based on observations of chemicals in soil. The following comparisons were made:

- Concentrations of inorganic chemicals in soil samples from designated sites were compared with concentrations in reference or background areas. If chemicals were detected at a site at higher concentrations than at reference locations or background areas (screening assessment), inorganic chemical concentrations were considered to be site-related (Section 5.2).
- For terrestrial receptors at sites and outfalls, chemical analyses data for soil was used to estimate doses in mammals and to estimate tissue concentrations in plants in the screening assessment (Section 5.3 and 5.5).

The deer mouse and the gray fox were selected as mammalian indicator species (Section 5.2), and conservative assumptions were made concerning home range, exposure frequency and duration, and contact rates (Section 5.3).

- Potential risks to receptors from chemicals detected in stormwater outfalls were estimated based on chemical concentrations in soil, sediment, stormwater, and groundwater samples using highly conservative criteria (Section 5.6).

Exposure Based on Biological Observations

Potential ecological exposures were characterized in the quantitative ecological risk assessment based on observations of mammals, plants, litter, and litter organisms.

For plant indicator species, concentrations of inorganic and organic chemicals in plant samples from designated sites were compared with concentrations in plant tissue and soil from reference areas to assess whether chemical concentrations are site-related. The comparisons were based on a comparison of maximum and arithmetic mean chemical concentrations at site and reference locations.

Several approaches were used to estimate exposures for animal indicator species. These include:

- For Smith's blue butterfly, potential accumulation of chemicals in buckwheat (the butterfly's food source) was assessed in laboratory studies where the buckwheat was grown in soil samples from Site 3 at Fort Ord. Effects on buckwheat were assessed using root elongation and biomass bioassays, chemical analysis of tissues, and ecological surveys.
- For the legless lizard, the potential for decreased biomass of litter organisms (part of the diet of legless lizard) was assessed by measuring and comparing the biomass and/or taxonomic diversity of litter organisms at sites and at litter reference locations.
- Litter and soil samples were analyzed and chemical concentrations in litter were compared to those in soil.
- For the dusky-footed woodrat exposure assessment, potential accumulation of chemicals in reproductive portions (i.e., seeds) of plants used as food sources (e.g., oats and hottentot fig) were compared to chemical accumulation in plants from reference locations.
- Concentrations of inorganic and organic chemicals in tissue samples from surrogates for the dusky-footed woodrat (i.e., deer mouse) from designated sites and reference areas were compared by comparing maximum and arithmetic mean chemical concentrations from site and reference locations.

The basis for selecting indicator and surrogate species is discussed in Section 2.0.

1.4.2.2 Characterization of Ecological Effects Approach

Ecological effects were characterized using a combination of benchmark values from the literature (Section 5.3) and bioassay results. Where available, benchmark values intended to protect biota were identified for stormwater, sediment, soil, and plants. For terrestrial animal benchmark values, critical toxicity values based on appropriate endpoints were developed from the literature and compared with estimated exposure doses. Examples of benchmark values are no observed adverse effects levels (NOAELs); toxicity reference values (TRVs); regulatory levels; or taxa-specific levels from the scientific literature.

Ecological effects based on bioassays were quantified for buckwheat plants at Site 3 and for stormwater runoff basewide. The buckwheat bioassays are discussed in Section 6.0; the stormwater bioassays are discussed in Section 5.6.

1.4.3 Risk Characterization

Risk characterization consists of two steps: risk estimation and risk description as described below.

1.4.3.1 Risk Estimation

Risks were estimated based on modeled concentrations in the quantitative ecological screening assessment (Section 5.0). Risks were estimated using measured concentrations in the quantitative ecological screening assessment (Section 6.0). In risk estimation, potential exposure doses or tissue concentrations are compared with appropriate benchmark values (stressor-response profiles) to estimate the potential for adverse effects and toxicity quotients are calculated. Toxicity quotients can be widely applied for screening purposes (Suter, 1986) and are defined as the ratio of expected environmental concentrations to toxicological benchmark concentrations (e.g., TRVs). Toxicity quotients were used to compare soil, plant tissue, litter, rodent tissue, and lizard tissue data with appropriate benchmarks. Examples of this approach include:

- Estimates of COPC concentrations in soil at sites were compared to benchmarks for phytotoxic effects in plants. Benchmarks are available from Kabata-Pendias and Pendias (1984) and Argonne National Laboratory (EPA, 1980c; Section 5.3)
- The potential for adverse effects on buckwheat growth at Site 3 was assessed using plant bioassays. The criterion for possible adverse effects on plant growth was decreased root growth correlated with metals concentrations in soil and plant tissues. Following the root elongation bioassay, plants were grown to maturity, biomass was measured, and the plants were analyzed for COPCs. The biomass values and COPC concentrations were compared with biomass values and concentrations of COPCs in control plants grown in soil from reference locations.
- To estimate risk for the terrestrial assessment, the calculated lifetime exposure doses

estimated in the quantitative ecological screening assessment were divided by appropriate toxicity benchmark values to derive hazard quotients for effects other than cancer (Section 5.0).

Uncertainties associated with risk estimation are discussed qualitatively in Sections 5.7 and 6.0.

1.4.3.2 Risk Description

Risk description is presented in Section 7.0, where conclusions are made using all data in a weight-of-evidence approach, as recommended by EPA (1992j).

Because the screening assessment uses maximum concentrations of each of the COPCs and assumed that the indicator species will be continuously exposed for their entire lifetimes, no further action is planned for the site if the estimated hazard indices were calculated to be less than 1.0. If the risks calculated using the conservative screening assumptions were substantially greater than 1.0, additional efforts were undertaken to assess whether the assumptions used to estimate the risks accurately reflect conditions at the site. These additional activities are described in the quantitative ecological risk assessment (Section 6.0). This step allowed further focusing of additional analysis and risk characterization on those sites with hazard indices greater than 1.0.

The results of the plant screening assessment are presented in Section 5.5. Because of the conservative nature of this assessment, hazard indices less than 10 were assumed to indicate that no additional efforts to assess plants were necessary at a site. Hazard indices greater than 10 indicated the need for further analysis.

For aquatic receptors, the likelihood of runoff reaching the watersheds of concern, the contribution of site related chemicals, and actual toxicity and potential dilution of runoff were evaluated in order to evaluate whether actual effects might occur (i.e., a complete exposure pathway exists).

For terrestrial receptors, hazard indices were calculated using site soil and outfall sediment for

In Volume IV, Baseline Ecological Risk Assessment, add the following sentences to the end of the first paragraph in the first column of Page 8, Section 1.4.3:

Risk estimation, as described below, consists mainly of a toxicologically based assessment that compares exposure concentrations to toxicity benchmark values. In the risk description phase, these toxicological effects are extrapolated to evaluate possible ecological impacts to higher levels of organization.

In Volume IV, Baseline Ecological Risk Assessment, replace the second paragraph in the second column of Page 8, Section 1.4.3.2 to read:

Risk description is presented in Section 7.0. In order to evaluate the ecological implications of the toxicological effects predicted during risk estimation, the results of the risk estimation phase and all other data for the site are used in a weight-of-evidence approach, as recommended by EPA (1992j), to formulate conclusions.

In Volume IV, Baseline Ecological Risk Assessment, replace the third paragraph in the second column of Page 8, Section 1.4.3.2 to read:

For the mammal and plant screening assessments (Sections 5.4 and 5.5, respectively), no further action was planned for a site if the estimated hazard indices were less than or equal to 1.0 because the maximum COPC concentrations were used, and it was assumed that the indicator species would be continuously exposed to these maximum concentrations for their entire lifetimes. If the risks estimated using these conservative assumptions were greater than 1.0, additional efforts were undertaken to assess whether these assumptions accurately reflected conditions at the site. These additional activities are described in Section 6.0, the quantitative ecological risk assessment. These activities allowed further focusing of additional data collection, analysis, and risk characterization on those sites with hazard indices greater than 1.0. For the sites where the calculated risks were substantially greater than one following additional data collection and analysis, additional evaluations were conducted including comparisons with background concentrations from sampling of reference locations and levels from the literature (Sections 6.2 and 6.4). For sites where potential impacts were still identified in the terrestrial assessments following these evaluations, the ecological significance of the potential effects, the nature and magnitude of the effects, the spatial and temporal patterns, and the potential for recovery were evaluated (Section 7.0) in order to assess whether the predicted toxicological effects would translate to ecological impacts on biota.

In Volume IV, Baseline Ecological Risk Assessment, delete the fourth paragraph in the second column of Page 8, Section 1.4.3.2.



sites not addressed in the terrestrial assessment (PHA sites). Hazard indices less than 1.0 indicate no potential impacts at those sites. The results of this screening assessment are presented in Section 5.6.

1.5 Assumptions Used in the ERA

The general assumptions used as a basis for conducting the ERA are as follows:

- Site-specific and basewide chemical and biological data have been collected for many years at the base. These data were used as the basis of the conceptual site model.
- Site-specific data collected at the base were used for the ERA. Samples were taken at and around chemical source areas. The ERA focused additional collection of data to meet the objectives of the evaluation.
- The scope outlined herein was not directed toward assessing damage or injury resulting from development by the Army, interruption of services (e.g., fisheries), or collection of data that may be necessary for conducting a Natural Resource Damage Assessment (NRDA).
- Nonpoint sources of chemicals (e.g., from roadways, paved areas, the mammal eradication program, landscaped areas, or agricultural areas) were considered in evaluating the results of the assessment; justification for consideration and/or application of these data are provided where appropriate.
- Because collection of threatened or endangered species, prey, and other food items, or shelter for special status species is generally not allowed under the Endangered Species Act, other indicator species were typically used. However, permission was obtained to sample, with supervision, buckwheat on Site 3.
- Current and future ecological impacts were evaluated. The assessment of current impacts did not consider any remedial action

at the sites (i.e., "baseline" conditions). Assessment of the potential for future impacts due to site-specific chemical concentrations assumed that the Interim Actions (IAs) planned at this time had been implemented. Future land use assumptions were based on the current reuse plan (COE, 1994).

Other specific assumptions are provided, where applicable, throughout this volume.

1.6 Limitations of Approach

In 1991, Fort Ord was placed on the Base Realignment and Closure List and Congress passed Public Law 102-190 (the Panetta Bill), which requires federal installations on the 1991 Base Closure List to submit a Draft Final RI/FS by December 5, 1994. In June 1992, Fort Ord, the COE, and HLA developed an Action Plan for the Environmental Restoration Acceleration at Fort Ord (*Fort Ord et al.*, 1992). The action plan outlined an accelerated RI/FS approach intended to result in the completion of the RI/FS by the Congressionally mandated deadline. The action plan was also designed to meet the needs of the regulatory agencies (agencies) overseeing the characterization and remediation activities and the local socioeconomic need to turn over property for reuse as quickly as possible.

One effect of the Panetta Bill is to cause the ERA to be completed in a shorter period of time than would otherwise be the case. The abbreviated period for completing the ERA limited analysis of some of the recommended ecological endpoints (e.g., there was not sufficient time to establish a database of seasonal population cycles); therefore, the assessment is a "snapshot" in time, considering at most 10 months of data. In addition, the 1994 drought and other seasonal, natural, and anthropogenic influences on the ecosystem have resulted in impacts to sites under investigation that may have masked any chemical impacts. These limitations are discussed in applicable portions of the text, along with possible impacts to data interpretations.

2.0 PROBLEM FORMULATION

The following sections describe components of the problem formulation phase. Section 2.1 outlines data quality objectives used to focus sampling and analysis programs to obtain data that will fulfill the goals of an investigation (i.e. address the endpoints of the ERA). Sections 2.2 through 2.5 present the results of the problem formulation phase.

2.1 Overview of Data Quality Objectives (DQOs)

The DQOs (EPA, 1993c) were used throughout the ERA; the components of the DQO process are described below and sections where they were used are referenced.

The components of the EPA data quality objectives process can be listed as follows:

- State the problem
- Identify the decision
- Identify inputs to the decision
- Define study boundaries
- Develop a decision rule
- Specify limits on the decision errors
- Optimize the design for obtaining data

The problem can be stated as follows:

- What are the current or future levels of impacts to natural (e.g. biological and ecological) resources at Fort Ord from the presence, observed concentrations, and distribution of chemical and other stressors resulting from Army activities at the base?

Components of this problem are listed below.

- Previous studies have described contamination in terms of concentrations of

chemicals at a number of locations designated as sites.

- On the basis of the results of toxicity testing, chemicals at concentrations potentially toxic to freshwater organisms have been identified at some watersheds.
- Locations where chemicals had been identified were grouped on the basis of similar habitat characteristics and conceptual site models (CSMs) were developed (Section 2.2). A general CSM was developed, with group-specific conceptual models developed as subsets of the general model. Possible exposure pathways were identified in the group-specific conceptual models. Specific exposure scenarios are developed in Section 5.0.

In order to identify the decision (i.e., the key questions to be addressed in order to proceed), assessment and measurement endpoints were developed (Section 2.2) and receptors identified (Section 2.4) as part of the conceptual site model (Section 2.2); these are presented on a site-by-site basis in Section 4.0. Endpoints incorporate receptors and COPCs, and are developed as null hypotheses. If null hypotheses are rejected, impacts are considered to be present and the magnitude of the impacts is further addressed.

Inputs to the decision include identifying data needs (Section 4.0 and 5.8) and analytical methods (Appendix F) in order to address the endpoints. Benchmark values are developed as well (Section 5.3).

Study boundaries are identified by characterizing the nature and extent of chemical contamination. Investigations of spatial boundaries included sampling at different depths at and around the source based on previous site use, as discussed in Section 2.5. The temporal extent of the study includes the period of sampling. Due to the abbreviated schedule of the study, samples were not taken in different seasons with the exception

that stormwater was collected during two different rain events (Section 5.6).

Parameters and action criteria to be included in decision rules are described in the development of measurement endpoints (Section 2.2). Decision rules for the measurement endpoints are described as part of risk characterization (Sections 5.0, 6.0, and 7.0) on a site-by-site basis. Decision rules and action criteria for recommending remedial action based on ecological risk assessment alone were developed as part of the FS for appropriate areas of the base.

Limits on decision errors are discussed as uncertainties in Section 5.0 and 6.0.

The DQOs are iterative in nature, allowing the design for data collection to be optimized at each stage, as discussed on a site-by-site basis in Sections 4.0 and 5.8.

2.2 Formulation of Conceptual Models and Endpoint Identification

The major components of the problem formulation step are conceptual model development, and assessment and measurement endpoints identification (discussed below) as well as selection of indicator species (Section 2.4) and selection of chemicals of potential concern (Section 2.5).

2.2.1 Generalized Conceptual Site Model

This section describes the generalized conceptual site model; group-specific conceptual models were developed for sites and areas (e.g., watersheds) by habitat type. Several habitat types were identified on the base; any one site may include up to several habitat types.

The Fort Ord site characterization reports describe the chemicals identified at the sites on the base in terms of groundwater fate and transport and potential human health effects. Metals and organic chemicals are described as being heterogeneously distributed in the soil. Chemicals of potential concern (COPCs) were grouped as follows: metals, pesticides and

herbicides, polycyclic aromatic hydrocarbons (PAHs), dioxins and furans (CDDs and CDFs), volatile organic compounds (VOCs), and other analytes (e.g., oil and grease or total petroleum hydrocarbons [TPH]). For most sites, sources were typically identified as localized, such as spills or discharges. Chemicals may have moved toward or into groundwater or offsite with stormwater runoff.

This ERA defines the site-specific plant and animal communities potentially at risk as the communities on the sites, which are part of the larger basewide and regional communities and ecosystems. Site communities share many attributes, though each is treated individually herein. Most sites are terrestrial, although aquatic and marine habitats occur on or near the base.

The climate is seasonally dry, which affects pathways, movement of chemicals from the sites, and methods of analysis. Precipitation between July 1992 and June 1993 was high, and that year was preceded by several years of drought. Based on precipitation data, 1994 was also a drought year.

Chemicals may enter plants through root uptake. Some chemicals bioconcentrate in plant tissues. Plants also form part of potential exposure pathways for herbivores via ingestion and for the litter decomposer community through loss of vegetative structures (e.g., leaves, twigs, and branches), loss of reproductive products (e.g., pollen, fruit, and seeds), and death. Some plants are species of concern (see *Draft Basewide Biological Inventory*, dated December 9, 1992, and the *Draft Ecological Risk Assessment Work Plan*, dated September 27, 1993) and are described where applicable to individual sites in subsequent sections.

Litter, composed of both plant and animal products, supports decomposer communities. Fungi, bacteria, and microorganisms decompose litter, and form the base of a food web that may support larger organisms including vertebrates. Bioaccumulation is a potential pathway through the litter food web to vertebrates. On Fort Ord, black and silvery legless lizards, species of special concern, occur near the soil surface under

litter. As such, they are considered part of the decomposer food web. Some bird species depend on the decomposer food web. Decomposers may be exposed to chemicals both through direct contact with soil and indirectly through the litter. Legless lizards and some birds are species of concern on some sites (Sections 4.0).

Ingestion of living plants is a potential route of exposure for herbivores, including seed eaters. At Fort Ord, species of concern that may be exposed to chemicals through plants include Smith's blue butterfly, the dusky-footed woodrat, and some birds. Such species are addressed on a site-specific basis for sites where they may occur. Herbivore populations are prey (food sources) for carnivores and may provide a pathway for exposure through biomagnification.

Carnivores of potential concern at Fort Ord include mammals such as the gray fox, coyote, and American badger, and birds such as hawks, kites, golden eagles, vultures (which are omnivores), loggerhead shrikes, and owls. Some of these species require large territories compared to the size of most sites, which tends to lessen their potential exposures to site-related chemicals.

For scoping purposes, three terrestrial groups of sites were identified based on general habitat characteristics: Coastal Sites, Inland Partially Disturbed Sites, and Inland Disturbed Sites.

The classification criteria for each terrestrial group are:

- Coastal Sites
 - Presence of dune habitat on sites adjacent to the ocean
- Inland Partially Disturbed Sites
 - Majority of the site is unpaved
 - Onsite plant communities are not limited to upland ruderal and landscape
- Inland Disturbed Sites
 - Majority of the site is paved

- Onsite plant communities are limited to upland ruderal and landscaped.

Separate conceptual site models and endpoints were initially developed for each group; however, the conceptual models for the inland sites were combined. Models were also developed for Monterey Bay and the Salinas River, which may receive runoff from stormwater outfalls. The coastal and inland conceptual models are described in Sections 2.2.2 and 2.2.3 and include evaluations of potential effects from chemicals in soil at stormwater outfalls to terrestrial receptors.

Assessment and measurement endpoints were identified for each conceptual site model. An assessment endpoint is defined by EPA (1992j) as "an explicit expression of the environmental value that is to be protected." A measurement endpoint is defined by EPA (1992j) as "a measurable ecological characteristic that is related to the valued characteristic chosen as the assessment endpoint. Measurement endpoints are often expressed as the statistical or arithmetic summaries of the observations that comprise the measurement."

2.2.2 Coastal Sites

The coastal sites conceptual model is shown on Plate 2.1. Chemicals (mostly metals) have been identified in soil at the three coastal sites (Sites 1, 2, and 3). Two species of concern, both special-status species, have been identified at these sites: the Smith's blue butterfly and the black legless lizard. The butterfly depends on buckwheat in both its larval and adult stages. Black legless lizards feed on insects and other species assumed to be part of a litter-based food web. The black legless lizard also represents species feeding on at least the secondary trophic level of a litter-based food chain. Because the black legless lizard is an endangered species, a surrogate species was chosen for sampling.

Loggerhead shrikes and California gulls were identified as bird species of concern, primarily because their breeding areas are generally isolated islands on large fresh or saline lakes. California gulls occur commonly on the base but are likely to use the site only for resting; the gulls feed either offshore as avian marine

predators or inland at large sources of garbage such as active landfills. Because the California gull is migratory and exposed garbage has not been associated with chemical use at any of the sites, this bird was not selected as a target species in the conceptual models.

The loggerhead shrike, a raptor, is likely to feed in terrestrial areas around the coastal sites. It may consume lizards, which are primarily part of the litter-based food web, and rodents, which are known to feed primarily on grain and other plant products. This bird was selected as a potential target species in the conceptual models.

At Site 3, eroded spent shot fragments, composed mostly of lead, have been found on the dunes. Shorebirds, which are found on the high energy beaches between high tide and low tide, are not continuously exposed to lead and therefore were not selected as an indicator species. Doves are found primarily on the dunes and are therefore potentially exposed to lead more directly. Doves pick up small pebbles and stones that lodge in their crops. The birds use the pebbles to help grind and digest their food. Doves are known to produce "bird milk" to feed their young, which could provide a potential lead exposure pathway for second generation doves.

In conceptual models, species of concern can be represented by other natural populations in the same trophic level. For example, potential effects on the western fence lizard may be used to represent effects on black legless lizard populations; various observations concerning the western fence lizard would be the measurement endpoints, and extrapolation to potential effects on the black legless lizard would comprise the actual assessment endpoints. Species identified for evaluation in this conceptual model are expected to be directly exposed to chemicals at a site on a long-term basis, and therefore provide conservative estimates of exposure. Therefore, this conceptual model implicitly assumes that if no adverse effects are predicted for the representative measurement species (e.g., western fence lizard), then no adverse effects would be predicted for species at the same trophic level (e.g., legless lizard). This also assumes that represented and unrepresented species are equally sensitive to a given chemical.

Assessment endpoints and associated measurement endpoints developed based on the coastal sites conceptual model are presented in Table 2.1. Taxa addressed by the endpoints are plants (especially buckwheat), Smith's blue butterfly, black legless lizards, small rodents such as the deer mouse that may feed on plants from the coastal habitats, raptors that may feed on lizards and rodents from the coastal habitats (e.g., loggerhead shrike), and foxes that may feed on plants, small mammals, and birds. The investigations for some measurement endpoints addressed multiple assessment endpoints. Endpoints are worded in terms of null hypotheses; the decision criteria are therefore built into the endpoints.

For plants, measurement endpoints include soil metal concentrations above background levels, organic chemical levels above detection limits and levels detected at reference areas, any chemical concentrations above soil screening values (Section 5.3), and predicted or measured accumulation of chemicals in plant tissue above benchmark levels.

For the Smith's blue butterfly, measurement endpoints focused on the dune and coastal buckwheat on which the butterfly depends. Plant endpoints described above were also applied to buckwheat or a surrogate. Investigations related to Smith's blue butterfly were conducted at Site 3 (Table 2.1).

Black legless lizards feed on insects that are part of the litter-based food web. Endpoints related to exposure of, and through, the litter food web include comparisons between concentrations of chemicals in litter, the litter community, and lizards (i.e., black legless lizard surrogates) at sites as compared to reference locations.

Migratory mourning doves were identified as birds that could have ingested pebbles and thus may have been exposed to metals by ingesting spent shot fragments at Site 3. Published information on ingestion rates and toxicological effects was used to assess the potential for adverse effects to mourning doves from chemicals at Site 3.

Because neither threatened, endangered, or listed species nor their food sources should be sampled, measurement endpoints were assessed by using surrogate species and by sampling soil and biota on sites and in reference locations. However, approval was obtained for supervised sampling of the buckwheat on Site 3. For assessment endpoints that required either estimates of concentrations or comparisons between site and reference locations, experimental designs for sampling were developed. Assessment endpoints that related chemical exposure and biological response (e.g., plant growth) were addressed through bioassays (e.g., root elongation bioassay) and subsequent tissue analysis for confirmation of uptake.

The terrestrial assessment endpoint evaluated for the outfalls is that exposures of rodents to site-related chemicals are associated with no adverse effects. The measurement endpoints used to evaluate this assessment endpoint included a comparison of the chemical concentrations at upland outfalls with background concentrations and toxicity criteria based on published literature (hazard indices).

2.2.3 Inland Sites Model and Endpoints

The inland sites conceptual model for the 30 inland sites was adapted from the basewide conceptual model. Plate 2.2 shows the conceptual model for the inland sites, with the exception of Site 39. The conceptual site model for Site 39 is shown on Plate 2.2a, and includes mourning doves that could ingest bullet fragments. Species of concern at the inland sites include the dusky-footed woodrat (a rodent), silvery legless lizard, California horned lizard, California quail, raptors such as the loggerhead shrike, hawks (e.g., red-tailed hawk, northern harrier, and black shouldered kite), owls (e.g., burrowing owl), and golden eagle, and carnivores such as the foxes and coyotes. The inland sites conceptual model is similar to the coastal site model except as noted below.

The following pathways evaluated for coastal sites are not applicable to the inland sites:

- Possible ingestion of soil containing spent shot fragments at all sites except Site 39 (no trainfire ranges occur on the other inland sites)
- Possible ingestion of buckwheat by the Smith's blue butterfly (the butterfly only inhabits Site 3).

The following additional pathways are relevant to the inland sites model:

- Possible ingestion of plant parts (annual grasses/seeds) by California quails and dusky-footed woodrats
- Possible ingestion of California quail by raptors.

As for the coastal sites model, species of concern were considered representative of other natural populations on the same trophic level. Therefore, the model implicitly assumes that unrepresented species occupy trophic niches similar to those of represented species, as discussed above.

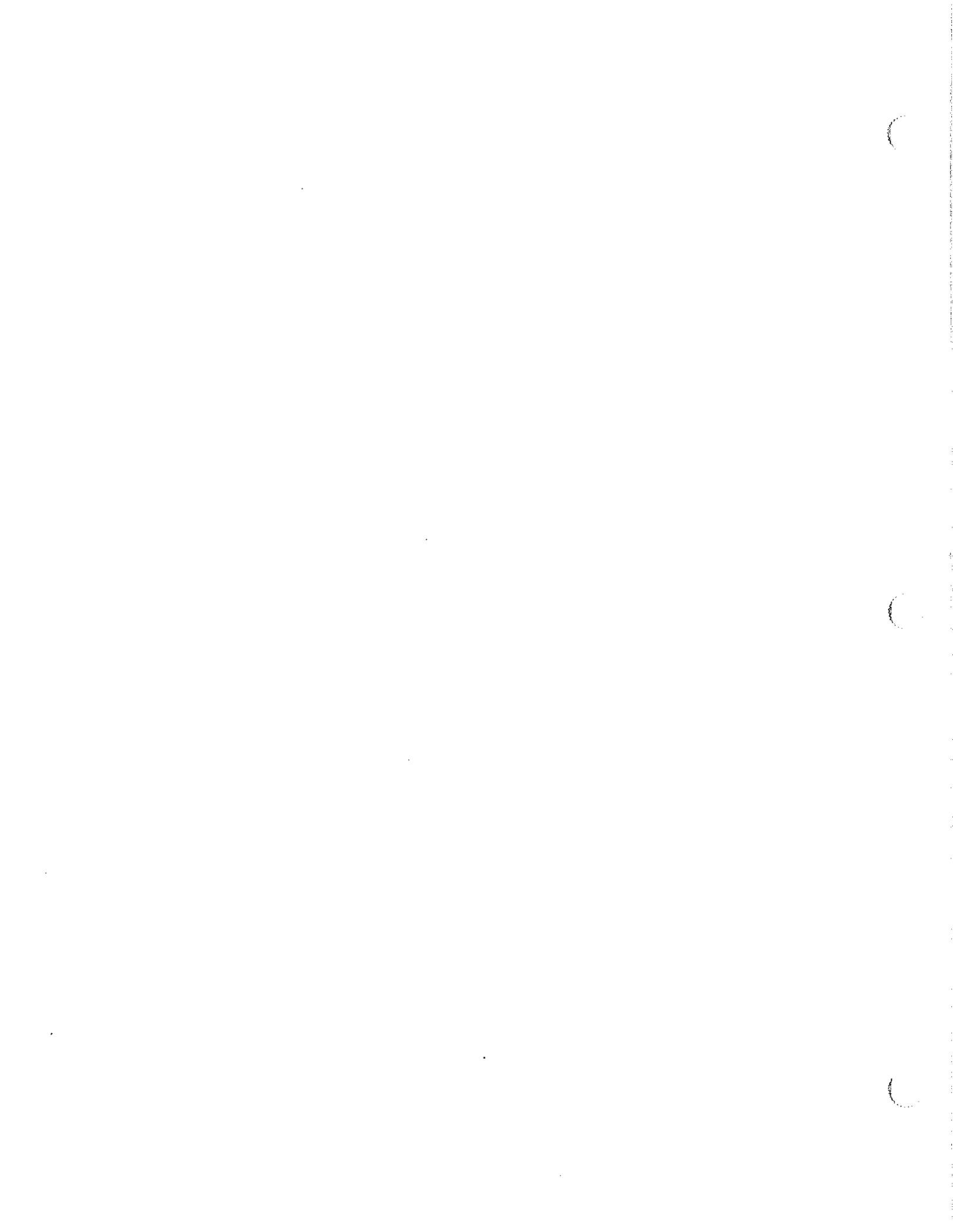
Assessment endpoints and associated measurement endpoints were developed based on the inland sites conceptual model and are presented in Table 2.2. The taxa addressed by the assessment endpoints are plants (especially oats), lizards (such as the silvery legless lizard and the California horned lizard), California quail, dusky-footed woodrats, gray foxes, raptors (such as loggerhead shrikes, hawks, golden eagle, and owls), and mourning doves.

The terrestrial assessment endpoint evaluated for the outfalls is that exposures of rodents to site-related chemicals are associated with no adverse effects. The measurement endpoints used to evaluate this assessment endpoint included a comparison of the chemical concentrations at upland outfalls with background concentrations and toxicity criteria based on published literature (hazard indices).

As for the coastal sites model, the investigations for some measurement endpoints addressed multiple assessment endpoints and surrogate

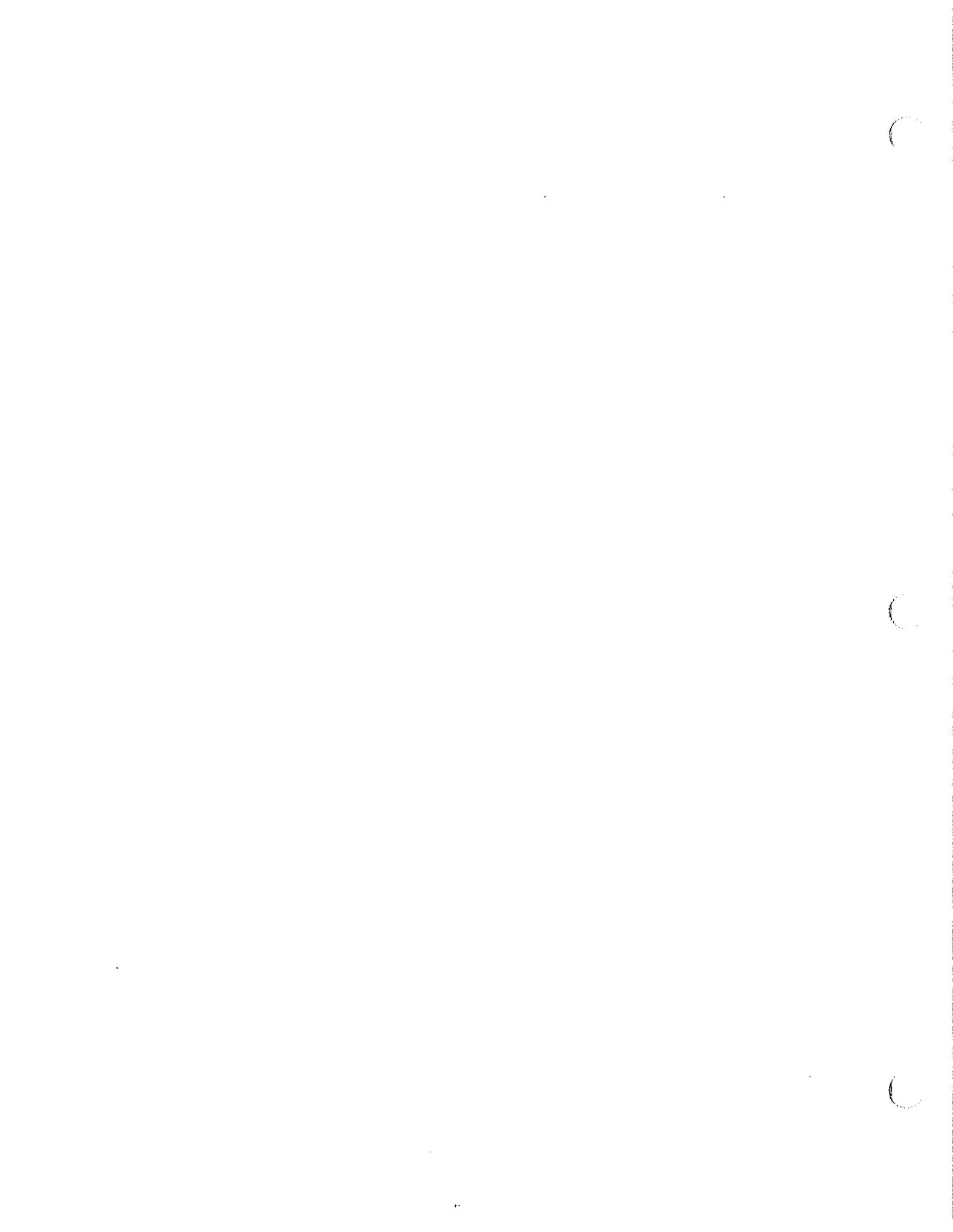
In Volume IV, Baseline Ecological Risk Assessment, replace the second sentence in the second paragraph of the second column of Page 14, Section 2.2.3 with the following sentences:

Therefore, the model assumes that the species assessed have similar feeding habits and habitat requirements and are similar in sensitivity to a given chemical as other species at the same trophic level. In addition, it is assumed that any potential toxicological or ecological impacts predicted for one species within a trophic level will translate to toxicological or ecological effects for other species within the same trophic level.



In Volume IV, Baseline Ecological Risk Assessment, replace the bullets starting at the bottom of the first column of page 15 and ending on page 16, Section 2.3 with the following bullets:

- *No known "historical" chemical or other uses by the Army*
- *Not downgradient of any known sources of chemical release*
- *Representative of habitat under evaluation*
- *Similar soil type to areas under evaluation*
- *Similar nonchemical stressors*
- *Similar introduced species, both qualitatively and quantitatively*
- *Similar microhabitats to those under evaluation.*



species were used to obtain measurement endpoints.

2.2.4 Monterey Bay

The conceptual model for Monterey Bay is shown on Plate 2.3. The only potential pathway evaluated in the ERA is that of stormwater releases to the bay. The other pathways are described in the *Enhanced Preliminary Assessment of Monterey Bay* (EnPA) dated October 27, 1994.

Site-related chemicals may be discharged into Monterey Bay from three sources at the base: stormwater discharge pipes at the beach, stormwater discharges from two former sewage treatment plants (Sites 1 and 2), and groundwater seepage in the intertidal zone. Discharge of water and sediments to the bay through the pipes depends on rain, which occurs seasonally; samples were collected during two rain events in the winter of 1994 (Section 5.6). Groundwater samples are discussed in Section 5.6 as well. Upland areas also receive runoff during rain events, and may be another potential exposure pathway to terrestrial receptors.

Chemicals in sediment and stormwater entering the bay will be influenced by current dispersal as described in the EnPA. Currents are likely to disperse chemicals rapidly throughout the bay and deposit sediments in the Monterey submarine canyon. It is likely that chemicals would be diluted to non-detectable levels prior to reaching receptors, putting them below toxic levels. Potential receptors include marine aquatic invertebrates and fish.

Assessment and measurement endpoints for the outfalls are presented in Table 2.3. The assessment endpoint evaluated for the bay is that exposures of aquatic receptors such as invertebrates and fish to site-related chemicals are associated with no adverse effects. The measurement endpoints used to evaluate this assessment endpoint included a comparison of the concentrations of site-related chemicals with background concentrations and benchmark concentrations (BCs; Section 5.3) based on published literature, an analysis of stormwater

toxicity (Section 5.6), and an analysis of dilution factors (Section 6.0).

2.2.5 Salinas River

The conceptual model for the Salinas River is shown on Plate 2.3; the only relevant pathway shown on the plate is that of stormwater releases to the river. If runoff from the base reaches the river, long-term effects would be most likely to occur from concentrations of site-related chemicals in sediments and stormwater. Currents in the river are likely to disperse chemicals rapidly, diluting them to non-detectable levels prior to reaching receptors and putting them below toxic levels. Potential receptors in the Salinas River include freshwater aquatic invertebrates and fish.

Assessment and measurement endpoints for the outfalls are presented in Table 2.3. The assessment and measurement endpoints for the river are the same as those for the bay. Results of these assessments for the Salinas River outfalls are presented in Section 5.6.

2.3 Reference Area Selection and Application

Reference areas are areas of no known contamination where soil and biota were collected to be used as comparison to soil and biota collected at sites. Reference areas were used in this ERA in two different capacities:

- To compare inorganic chemical concentrations in soil from sites with inorganic chemical concentrations representative of background
- To compare tissue concentrations and bioassay results for selected organisms at reference areas and contaminated sites.

The first of these uses was defined in the *Draft Final Basewide Background Soil Investigation*, dated March 15, 1993. The latter use is discussed here. Appropriate reference areas were selected using the following criteria:

- No known "historical" chemical or other uses by the Army

- Not downgradient of any known sources of chemical release
- Similar soil type to areas under evaluation
- Representative of the habitat under evaluation, including similar nonchemical stressors
- Similar introduced species, both qualitatively and quantitatively
- Similar microhabitats to those under evaluation.
- The species should occupy important nodes in the ecosystem food web
- The species should be abundant throughout the study area, including the reference locations
- The species should be abundant enough to provide adequate samples for analysis
- The species should be easy to collect
- The organisms should have relatively small home ranges in order to relate body burdens to specific sites

Not all of these criteria may be met for any one area; additionally, one location may serve as a reference area for more than one site based upon ecological and physical features. Agency participation was sought in selecting appropriate reference areas incorporating as many of these criteria as possible. Based on these criteria, one reference area was selected for each plant community type under evaluation, including central maritime chaparral, coast live oak woodland, and upland ruderal. Detailed descriptions of the reference areas can be found in Section 6.0.

2.4 Indicator Species Selection

Indicator species were selected on the basis of the conceptual models and measurement and assessment endpoints discussed in Section 2.2 using the approach presented in the Draft Work Plan, as modified in the PHA2 Draft Data Summary and Work Plan Addendum. This section summarizes the criteria used to select indicator species and lists the plants and animals identified as potential indicator species for quantitative evaluation. Site-by-site exceptions to this list of indicator species are discussed where applicable in Section 5.0.

2.4.1 Selection Criteria

Indicator species were selected based on their potential for being highly exposed in light of the objectives identified in the endpoints discussion (Section 2.2). The following criteria (consistent with methods described by *Suter, 1993*) were used to select indicator species:

- The species should exhibit a relatively constant correlation between chemical concentrations and body burdens across sites
- The species should persist at the maximum concentrations encountered in the environment
- The species should be long-lived enough to provide chronically exposed individuals.

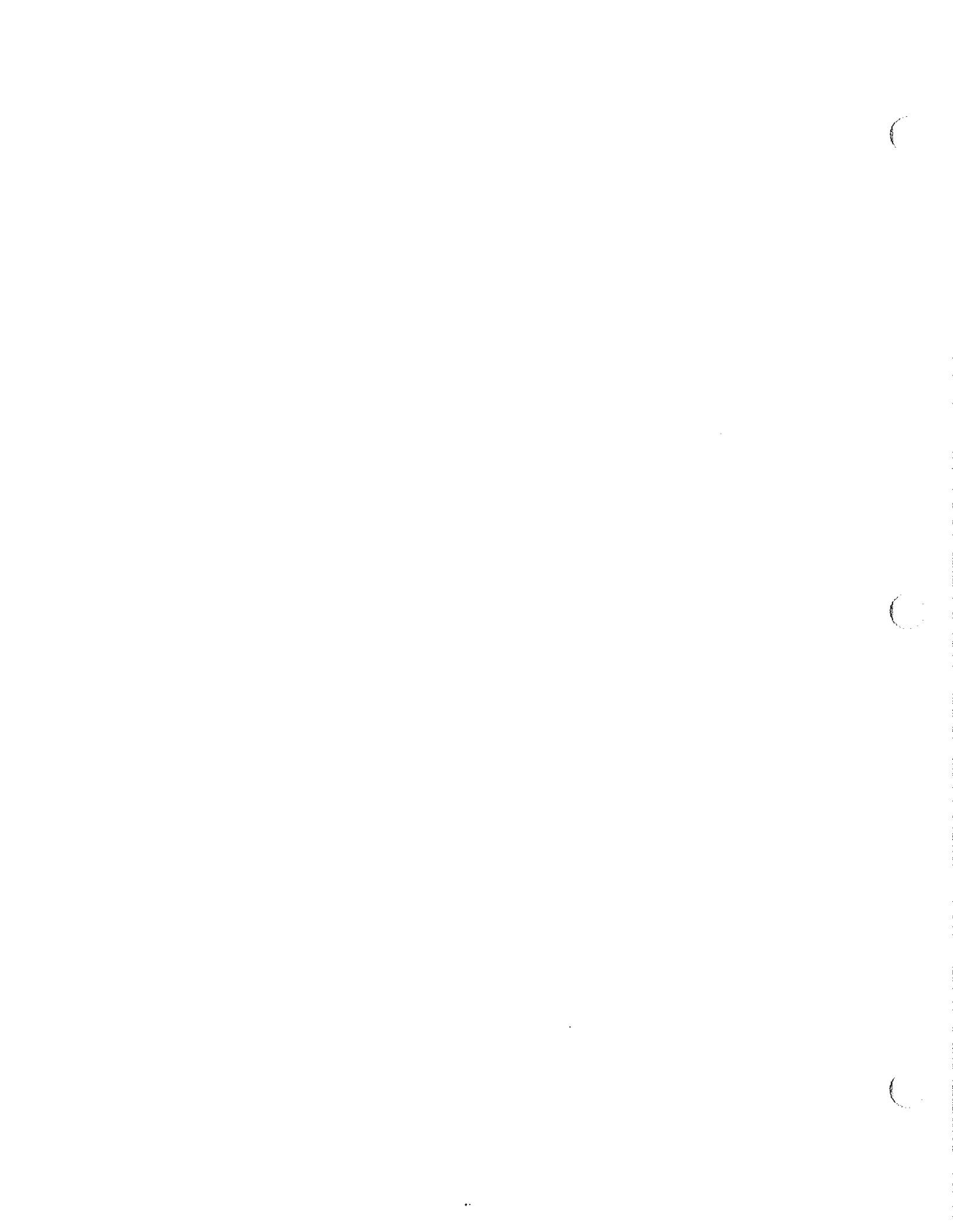
It was not practicable to meet all listed criteria for all indicator species selected. The criteria are listed in relative order of importance; all selected species met at least the first four criteria. Except for the carnivores selected, indicator species also met the fifth criterion. Sensitivity to COPCs at Fort Ord was not addressed by the selection of indicator species as much as by the endpoints selected in developing benchmark values (Section 5.3). Plants and animals selected as indicator species are discussed separately below.

2.4.2 Plants

Plant communities at the Fort Ord sites have developed in response to climate, soil, hydrologic regimes, land use, and disturbance histories. Field observations indicate that with few exceptions, populations of plant species tend to occur in patches rather than continuously. Patch size is often reflective of disturbance history and length of time since disturbance. The occurrence and distributions of plant species and communities are in transition in response to past

In Volume IV, Baseline Ecological Risk Assessment, replace the first sentence in the first paragraph of the first column of Page 16, Section 2.3 with the following sentences:

Not all of these criteria may be met for any one area; however, the requirements of the first three bullets must be met. One location may serve as a reference area for more than one site based on ecological and physical features.



practices during the Army's occupation and current uses since the base has been deactivated.

These processes, in combination with current weather patterns and climatic cycles (1994 is a functional drought year following an abnormally wet year), are problematic both in retrospect and prospect because what constitutes the botanical resources of a particular site are transitory and ephemeral.

Ideally, indicator species would include a herbaceous plant, a grass, and a shrub. However, to maximize the value of data taken within the available timeframe, plant indicator species were selected that occur throughout Fort Ord and produce materials that serve as food sources for small mammals that were chosen as indicator species and are the prey base for higher trophic levels. These plants are common annual grasses and iceplant.

Common annual grasses typically have more diffuse root systems than woody species and therefore are more likely to be exposed to chemicals in surface soil than are woody species. Small vertebrates (mammals) feed on both the seeds and shoots of annual grasses. Small vertebrates also feed on the flowers, seeds, and new shoots of iceplant, making this abundant plant an appropriate non-grassy indicator species. On the basis of this information, the plant indicator species, from most preferred to least preferred, are as follows:

- *Avena fatua* (wild oat) or *A. barbata* (slender wild oat)
- *Carpobrotus edulis* (hottentot fig) or *Drosanthemum floribundum* (iceplant)
- *Bromus carinatus* (California brome)
- *Bromus diandrus* (ripgut grass)
- *Poa douglasii* (sand-dune bluegrass; coastal sites only)
- *Ammophila arenaria* (European beachgrass; coastal sites only).

Plants were selected as specific indicator species for each site based on the results of plant collection field activities. Based on these results, wild oat was selected as the plant indicator species.

2.4.3 Animals

Animal indicator species were selected using the criteria presented in Section 2.4.1 and on the conceptual models and endpoints discussed in Section 2.2. Small mammals were selected as specific indicator species for each site based on results of the trapping effort. The following rodent species met the selection criteria for indicator species since they could serve as a food source for carnivores and would consume the plant indicator species as selected for Fort Ord:

- *Peromyscus maniculatus* (deer mouse)
- *Mus musculus* (house mouse)
- *Microtus californicus* (California vole)
- *Dipodomys heermanni* (Heerman's kangaroo rat)
- *Spermophilus beecheyi* (California ground squirrel)
- *Reithrodontomys megalotis* (western harvest mouse).

Based on trapping results, the deer mouse was selected as the indicator species representing small mammals for this phase of the assessment because of its presence at the sites and its relatively small body weight (compared to, for example, the California vole [Burt and Grossenheider, 1976]). The body weight of a dusky-footed woodrat is ten times that of the deer mouse, making the deer mouse more highly exposed; this adds to the conservatism of the assessment. The deer mouse has a similar diet, lifespan, and home range to the dusky-footed woodrat.

Mammals occupying higher trophic levels were also selected as indicator species although no trapping was conducted for these species; exposures and possible risks to these species are

based on modeling. The following species were selected as indicator species representing carnivorous and/or omnivorous mammals:

- Red fox (*Vulpes vulpes*)
- Gray fox (*Urocyon cinereoargenteus*).

For this quantitative ecological screening assessment, the gray fox was selected as the indicator species. The gray fox is present at the inland sites and is similar in body weight, dietary habits, and home range to the red fox, making it applicable to the coastal sites where the red fox is found.

For all sites except Sites 3 and 39, birds were not selected as indicator species because they range over too large an area to allow for direct correlation with specific sites, they are special-status species, and/or they are migratory and therefore potentially exposed to chemicals from many areas outside of Fort Ord. In addition, toxicity data for birds is scarce, especially for organics. As a special case for Sites 3 and 39 mourning doves were selected as an indicator species because they may ingest bullet fragments and retain them as grit in the gizzard.

The lizard species listed below were selected as indicator species because they were similar in size and diet to the legless lizard and were abundant at Fort Ord. The species can be listed as follows:

- *Sceloporus occidentalis* (western fence lizard)
- *Uta stansburiana* (side-blotched lizard)
- *Gerrhonotus caeruleus* (northern alligator lizard)
- *Gerrhonotus multicarinatus* (southern alligator lizard).

However, no lizards were evaluated in this phase of the assessment for the following reasons:

- Toxicity information on lizards is not readily available

- Small mammals are expected to be more highly exposed to COPCs
- Field collection of lizards was unsuccessful (see Section 6.0).

Impacts to lizards are estimated in Section 6.0 using data from leaf litter samples.

2.5 Chemicals of Potential Concern Selection

COPCs for the ERA were identified using the approach presented in the Draft Work Plan, as modified in the PHA2 Draft Data Summary and Work Plan Addendum. The following summarizes the COPC selection approach.

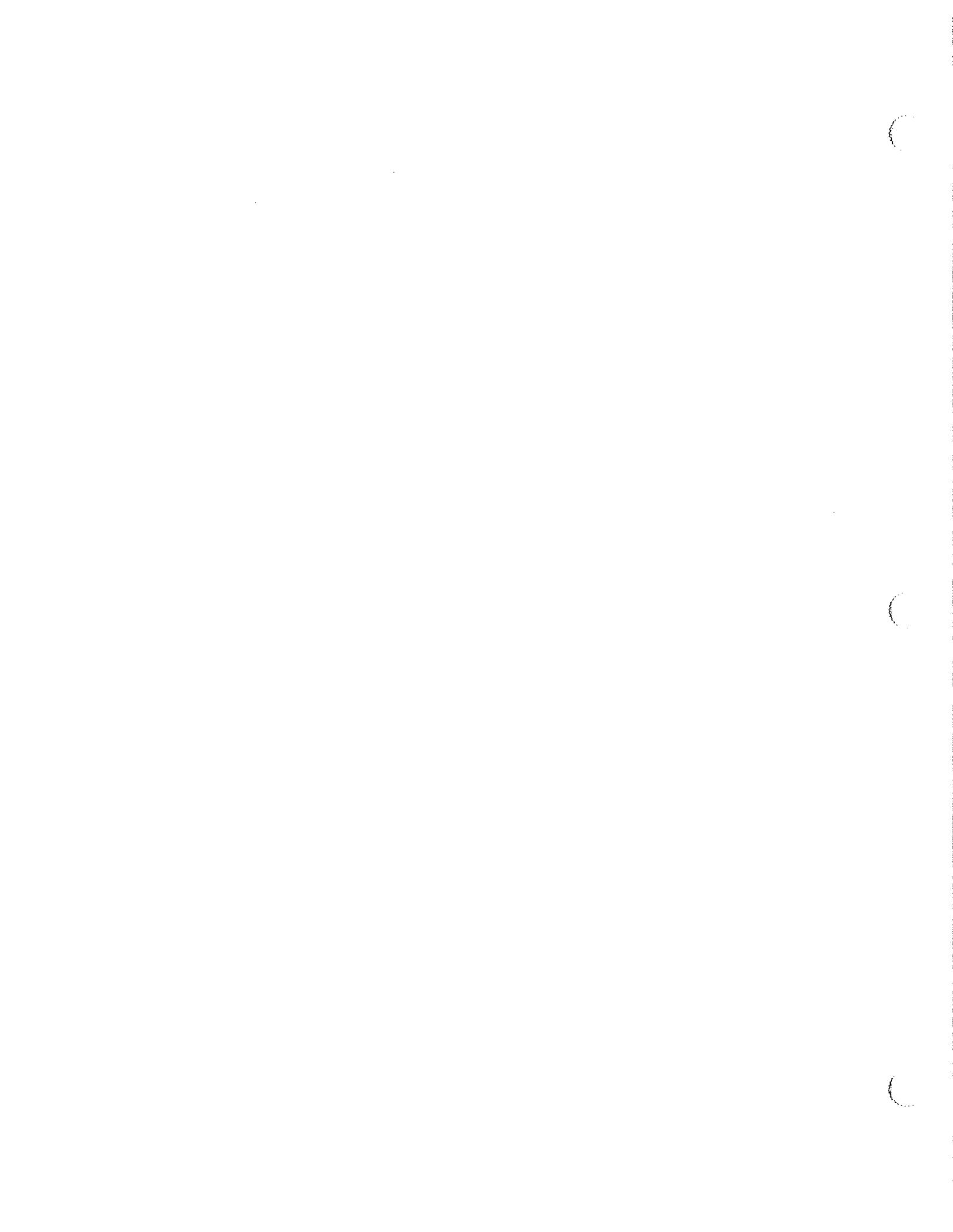
As stated by EPA (1989b, c), all detected chemicals should be considered for risk evaluation. Where this is not practical, COPCs should include the most prevalent, mobile, persistent, and toxic chemicals detected at a site. In the approach used for this assessment, all detected chemicals were conservatively considered for inclusion as COPCs, regardless of their prevalence.

The factors considered in selecting COPCs included:

- Comparison of detected concentrations of inorganic chemicals with Fort Ord background concentrations
- Comparison of reported concentrations of organic chemicals known to be common laboratory contaminants with analytical results for blank samples and detection limits
- Classification of chemicals as tentatively identified.

In addition, chemical-specific issues (e.g., essential nutrients, coliform bacteria, complex mixtures such as TPH) were evaluated on a site-by-site basis and are discussed where applicable. In general, complex mixtures (e.g., TPH, oil and grease) were not selected as COPCs for a given site if the following criteria were met:

In Volume IV, Baseline Ecological Risk Assessment, in the second sentence of the second paragraph in the second column of Page 18, Section 2.5 delete "*Where this is not practical*" at the start of the sentence.



- Polynuclear aromatic hydrocarbons (PAHs) were included in the analytical suite
- For TPH as gasoline, BTEX was included in the analytical suite.

The following inorganic elements were not generally selected as COPCs on the basis of their low toxicity and/or essential nutrient status for biota:

- Sodium
- Chloride
- Magnesium
- Iron
- Sulfur.

The three principal factors considered in selecting COPCs for each site are discussed below.

2.5.1 Comparison with Background

Concentrations of metals detected onsite were compared with background concentrations identified in the *Draft Final Basewide Background Soil Investigation* report dated March 15, 1993. Metals detected at concentrations below background were excluded from further evaluation because they occur naturally at Fort Ord.

Two sets of background concentrations for metals are reported in the *Draft Final Basewide Background Soil Investigation* report; one for shallow soil (0 to 2 feet bgs), and one for deep soil (greater than 2 feet bgs). Three depth intervals were identified as relevant for ecological receptors:

- 0 to 0.5 foot bgs; relevant for surface-dwelling organisms and plants with shallow root systems
- 0.5 to 4.0 feet bgs; relevant for burrowing animals and forbs and shrubs with deeper roots

- 4.0 to 10 feet bgs; relevant for trees with deep roots.

Shallow soil background concentrations were used for comparison with chemical concentrations in samples collected in both the 0 to 0.5 foot bgs and 0.5 to 4.0 feet bgs intervals because shallow background samples were collected in both depth intervals. Deep soil background concentrations were used for comparison with concentrations in samples collected in the 4.0- to 10.0-foot bgs range because deep background samples were collected only in this depth interval, or deeper. Chemical data for each site were divided into these three categories for comparison with background values; these tables are presented in Appendix A. In all cases, maximum background concentrations were compared with maximum site concentrations, and mean background concentrations were compared with mean site concentrations. A chemical was retained as a potential COPC for a given depth interval if either the maximum or mean site concentration exceeded the relevant background concentration.

For organic chemicals, site concentrations were compared with concentrations from reference locations, when available. All organic chemicals were retained through this phase of the quantitative ecological screening assessment because data were not yet available from reference locations.

2.5.2 Comparison with Blank Samples and Detection Limits

Consistent with EPA guidance (1989b), acetone, methylene chloride, phthalate esters, and 2-butanone are considered common laboratory contaminants. Detected concentrations of these chemicals were considered to be due to laboratory contamination, and therefore these chemicals were not selected as COPCs if the following criteria were met:

- No known use of the chemical has been identified at a site
- The chemical was detected below the sample quantitation limit (i.e., was "j" qualified)

- The chemical was detected in a sample at less than 10 times the concentration detected in the appropriate blank sample
- The chemical was detected at less than 5 times the reporting limit.

The data tables presented in Appendix A include all detected chemicals, including those meeting these criteria. However, chemicals considered to represent laboratory contamination are not included as COPCs and are not quantitatively evaluated.

2.5.3 Tentatively Identified Compounds

Tentatively identified compounds (TICs) were present at several sites. TICs are listed for each site in site characterization reports. In most cases, TICs include relatively nontoxic alkanes considered to be components of TPH. Because TPH and PAHs were target analytes in most of these cases, TICs were not separately evaluated.

3.0 PRELIMINARY HAZARD ASSESSMENT 1 (PHA1)

The PHA1 evaluation was conducted to identify sites and outfalls having potentially complete exposure pathways. On the basis of this evaluation, 20 sites were considered to have complete exposure pathways and were further evaluated in PHA2. Thirteen sites were identified as requiring no further action because exposure pathways were incomplete (Table 3.1). All null hypotheses of the assessment endpoints were supported for these 13 sites because no exposures were identified. All outfall locations were evaluated for potentially complete exposure pathways for aquatic and terrestrial receptors. On the basis of this evaluation, 8 outfall locations were identified as having potentially complete exposure pathways for aquatic receptors and 11 outfall locations were identified as having potentially complete exposure pathways for terrestrial receptors. These outfalls were evaluated further as described in Section 5.8.

3.1 Methods

To evaluate the sites/outfalls for complete exposure pathways in PHA1, HLA conducted habitat surveys and evaluated validated soil and sediment data; complete exposure pathways were then identified using criteria listed in Section 3.1.3.1 and 3.1.3.2. In general, for the sites, soil data were used to evaluate the presence of complete exposure pathways with respect to terrestrial receptors. For the outfall locations, the presence of complete exposure pathways was evaluated with respect to terrestrial receptors onsite and to aquatic receptors in Monterey Bay, Pete's Pond, or the Salinas River.

3.1.1 Habitat Surveys

- An HLA botanist surveyed sites on November 11 through 13, 1993, and an HLA biologist surveyed sites on November 20 through 22; they also surveyed the sites on December 11 through 13, 1993. All sites for which environmental characterization information was incomplete were surveyed.
- Plants onsite and in the vicinity offsite were identified and mapped in the field. The extent of the survey varied at each site according to the nature of the area (e.g., at developed areas with little or no vegetation offsite, surveys extended to the site boundary; for less developed sites, surveys included contiguous offsite areas having plant communities).
- Overt signs of stress to plants were recorded. Items noted included discoloration such as yellowing, wilted, or dead leaves; areas of low population density relative to expected density; low species diversity where not expected; and overabundance of introduced opportunistic species. The site-specific and habitat-specific analyses did not identify specific areas where plant communities could be designated as stressed due to site chemical concentrations; conditions such as differences in substrate, physical disturbances, location (e.g., next to roadways, high traffic areas, landscaped areas that have been fertilized, etc.) made interpretation and application of these data difficult.
- Plant communities were identified during the PHA1 site surveys and delineated on site maps.

These communities are:

- Upland ruderal (dry disturbed areas)
- Wet ruderal (wet disturbed areas)
- Landscaped
- Coast live oak woodland
- Central dune scrub
- Central maritime chaparral.
- Outlying plant communities and small patches of vegetation in developed areas were identified using color aerial photographs

taken in 1986 (scale: 1 inch = 1,000 feet) and delineated on site maps.

- Each identified plant species was classified as to special status and native versus introduced.
- Animals were identified on the basis of visual observations, including the presence of scat, burrows, and track, and vocalizations (e.g., bird songs).
- Animals possibly present in the plant community type(s) onsite, but not observed during the survey, were also listed for each site.
- Each observed and expected animal species was classified with respect to special status.

3.1.2 Data Evaluation

- All chemical data for soil were divided on the basis of depth below ground surface (bgs): surficial (0-0.5 foot bgs), shallow (0.5-4.0 feet bgs) and deep (4.0-10.0 feet bgs), corresponding to expected surface contact and uptake by herbaceous plants, contact to subsurface soil and uptake by shrubs, and uptake by trees, respectively.
- Data collected and validated on or before December 31, 1993, were available for use in this assessment.
- All inorganic chemical concentrations in soil and sediment were compared to background concentrations.
- COPCs were identified as discussed in Section 2.5.
- Soil gas and groundwater data were not directly used in the assessment; soil gas data were reviewed only to verify consistency with soil data. Because the depth to groundwater at Fort Ord is greater than 50 feet (over 150 feet in many areas), groundwater was only considered as a vector for transport of chemicals to surface water (e.g., Monterey Bay).

- "Sediment" (soil) data from inside drainage structures were used to evaluate potential impacts to aquatic receptors.
- "Sediment" (soil) data from outside drainage structures were used to evaluate potential impacts to terrestrial receptors.

3.1.3 Identification of Complete Exposure Pathways

Potentially complete exposure pathways were identified for each site and outfall location using the criteria presented below. For species identified at the sites to be included in further evaluation, complete exposure pathways need to be present. In the absence of complete exposure pathways, endpoints provided in Tables 2.1, 2.2, and 2.3 are not relevant.

3.1.3.1 Evaluation of Site Soils

The following criteria were used to identify potentially complete exposure pathways at sites, excluding the outfall locations:

- Presence of vegetation (suitable habitat) and other potential receptors
- Presence of site-related chemicals
- Presence of metals at concentrations above background
- Presence of potential exposure points
- Potential for chemicals to migrate to areas where receptors are present (e.g., volatilization, dust generation)
- Potential for receptors to migrate to areas where they could come into contact with chemicals.

The above criteria were evaluated on a site-by-site basis relative to potential receptors and relevant exposure pathways. Other information was also considered in the assessment, including but not necessarily limited to, the following:

- Future land use

- Proposed interim actions
- Other human activities (e.g., nonchemical stressors).

3.1.3.2 Evaluation of Outfalls

Potentially complete exposure pathways were also identified for outfall locations. To identify potential exposure pathways for aquatic receptors, the following criteria were used (Plate 3.1):

- Presence of sediment inside pipes or drainage structures at the outfall locations with chemical concentrations greater than background (Plate 3.1, Box A1)
- Potential for chemicals from the pipes or drainage structures to migrate to the river or bay (e.g., stormwater runoff; Plate 3.1, Box A2)
- Presence of chemicals at the associated site contributing to chemical concentrations at the outfall at levels likely to result in stormwater toxicity (Plate 3.1, Boxes A3 and A4).

If the above criteria were met, the outfall was evaluated for the endpoints identified in Table 2.3 for aquatic receptors (Section 5.8).

To identify potential exposure pathways for terrestrial receptors (Plate 3.2), the following criteria were used:

- Presence of chemicals at the site where the outfall is located at concentrations above background (Plate 3.2, Box T1)
- Presence of suitable habitat at the outfall location (i.e., outfall is not a paved or concrete-lined structure; Plate 3.2, Box T2)
- Presence of sediment outside the pipes at the outfall location with chemical concentrations greater than background (Plate 3.2, Box T3).

If the above criteria were met, the outfall was evaluated for endpoints identified in Table 2.3 for terrestrial receptors (Section 5.8).

3.2 Site Soil Evaluations

This section presents the results of the soil data evaluations for the 13 sites listed in Table 3.1. All other sites were identified as having complete exposure pathways and were further evaluated as part of Problem Formulation in PHA2 (Section 4.0).

3.2.1 Site 10 - Burn Pit

No further action is required at Site 10 from an ecological risk assessment perspective on the basis of the following information:

- The site is in a developed area and includes four buildings (including a Burger King and a fire station) and an unpaved burn pit (Plate 3.3).
- The burn pit is inactive; the Burger King and fire station are in use.
- The results of a habitat survey indicate that the unpaved areas on and around the burn pit are representative of upland ruderal habitat. Areas of coast live oak woodland are between the burn pit and Burger King and north of the fire station, and small patches of landscaped habitat occur along North-South Road and near the fire station (Plate 3.3). Two of the three HLA sampling locations are in the upland ruderal habitat.
- One special-status plant species, sandmat manzanita (a federal category 2 species and a California Native Plant Society category 1B species) was identified during the habitat survey; the animal survey identified seven avian and three mammalian species in the area; one of these (California gull) is a California species of special concern but is expected to be only an occasional visitor to the area on the basis of the location and nature of the site (e.g., scavenging near Burger King).
- Six deep soil samples (3 to 75 feet bgs) were collected from the burn pit by EA (Boring SB-10-01); seven metals, toluene, xylenes, five PAHs, and total recoverable petroleum hydrocarbons (TRPH) were detected (all

metals were below background concentrations). Since the burn pit area will be excavated to 8 to 10 feet bgs as part of interim action activities, no surface soil samples were taken.

- Current exposures by ecological receptors to the chemicals detected by EA are not expected to be substantial, given their depth; however, the interim action planned for the site will eliminate the potential for future exposure. The environmental impact from the interim action is expected to be minimal.
- Eight deep soil samples (5.5 to 219.5 feet bgs) were collected by HLA; only zinc exceeded background concentrations.
- Zinc exceeded background at only one location (MW-10-04-180); this maximum concentration (16.6 milligrams per kilogram [mg/kg] at 219.5 feet bgs) exceeded background by less than 20 percent.
- Fate and transport analysis indicates that zinc in soil at Site 10 is expected to remain in place and not move through deep soil or volatilize; zinc and the chemicals detected by EA are not available for transport through stormwater runoff because of their depth.
- The exposure analysis (Plate 3.4) indicates that probably no exposure pathways exist, because the zinc above background is present at more than 200 feet bgs, below the depth of any organisms identified as assessment endpoints.
- The site is in the Main Garrison and within the Presidio of Monterey (POM) parcel; in the future, the site is expected to remain developed.

3.2.2 Site 13 - Railroad Right-of-Way

No further action is required at Site 13 from an ecological risk assessment perspective on the basis of the following information:

- The site is developed; most of the area is paved or covered with gravel, including all

sampling locations (Plate 3.5). Therefore, no surface soil was exposed and none could be sampled.

- The site is currently inactive.
- Aerial photographs indicate the presence of small strips and patches of upland ruderal and landscaped communities adjacent to some of the sampled areas (Plate 3.5).
- Data from boring locations SB-13-01 through -05 were incorporated into the Site 12 evaluation on the basis of the chemicals detected and their proximity to Site 12 and were not evaluated as part of Site 13.
- Twenty shallow soil samples (1 to 2 feet bgs) were collected; beryllium, chromium, copper, and TPH-unknown extractable hydrocarbon met the criteria for being COPCs.
- Copper was identified as a COPC. Maximum concentrations of copper in shallow soil exceeded background by less than a factor of 2; the mean copper concentration was twice the background concentration.
- A TPH-unknown extractable hydrocarbon was detected only twice in shallow samples at a maximum concentration of 19 mg/kg.
- Thirty-seven deep soil samples (5.0 to 6.5 feet bgs) were collected; chromium, copper, lead, and zinc concentrations exceeded background; TPH-unknown extractable hydrocarbon was also detected.
- TPH-unknown extractable hydrocarbon was detected only twice in deep samples (5.5 feet bgs), at concentrations of 28 and 75 mg/kg.
- All deep mean COPC metal concentrations were less than background except for copper; the mean copper concentration was approximately 7 percent above background.
- Fate and transport analysis indicates that metals and the remaining constituents of the TPH in soil at Site 13 are not expected to move off the rights-of-way to vegetated areas to any appreciable extent and are not

available for stormwater runoff because they are at depth.

- The exposure analysis (Plate 3.6) indicates that only a few complete exposure pathways may exist, because chemicals are present at depth beneath gravel-covered and paved ground. Only microorganisms are expected to have contact with the chemicals at all depths; insects may contact the chemicals detected in shallow samples in areas covered with gravel. No species associated with assessment endpoints were identified as having potentially complete exposure pathways at this site.
- The site is anticipated to be under the jurisdiction of the City of Marina in the future; the site is expected to remain a railroad right-of-way in the future.

3.2.3 Site 14 - 707th Maintenance Facility

No further action is required at Site 14 from an ecological risk assessment perspective on the basis of the following information:

- The site is developed and almost completely paved with asphalt (Plate 3.7); potential sources include an abandoned wash rack, grease racks, oil/water separators, gasoline and waste oil USTs, and storage areas; the areas directly beneath the grease racks are unpaved and stained with oil.
- The site is inactive and fenced.
- No vegetation is present onsite because the site is paved; small patches of upland ruderal and landscaped communities are present along the perimeter of the site; coast live oak woodland is present in a small area southwest of the site; two sampling locations are within the upland ruderal community (Plate 3.7).
- No special-status plant or animal species were observed on or adjacent to the site during biological clearance activities.

- No shallow samples were collected, because the site is mostly paved.
- During previous investigation (EA), deep samples were collected at three locations in the upland ruderal community on the southern border of the site. Arsenic was detected above background at one location (45 mg/kg at 13 feet bgs), and TRPH was detected at four locations up to 2,100 mg/kg (3 to 30 feet bgs); this area is planned to be excavated as part of interim action activities.
- HLA collected 44 deep soil samples (4 to 125.5 feet bgs); chromium, lead, zinc, and total oil and grease (TOG) concentrations exceeded background.
- Metals in deep soil were present above background at only three locations (all paved) at depths of 4 feet bgs and greater; maximum concentrations of chromium (25 mg/kg) and zinc (14.5 mg/kg) were less than twice background; lead exceeded background by up to 10 times (a maximum of 26.2 mg/kg), but at only one location; soil at this location will be removed as part of an interim action for Site 14.
- TOG was detected twice in deep samples at a maximum concentration of 78 mg/kg.
- All mean COPC metal concentrations were less than background.
- Fate and transport analysis indicates that metals, TOG, and TRPH are expected to remain in place rather than move through soil or volatilize; chemicals present beneath pavement are not available for transport through stormwater runoff.
- The exposure analysis (Plate 3.8) indicates that only one complete exposure pathway may exist, because the chemicals are currently either present beneath pavement and/or are at depths below the reach of plant roots and burrowing animals in the upland ruderal community; only microorganisms are expected to contact the chemicals. No species associated with assessment endpoints were identified as having potentially complete exposure pathways at this site.

- The interim action planned for the site on the basis of potential human health exposures is not expected to result in environmental impacts.
- The site is within the California State University parcel; in the future, the site is expected to remain developed.

3.2.4 Site 18 - 1600 Block Facility

No further action is required at Site 18 from an ecological risk assessment perspective on the basis of the following information:

- The site is developed and paved with asphalt or concrete (Plate 3.9); potential sources include abandoned wash racks, grease racks, a gasoline station, gasoline and diesel USTs, a hazardous waste storage shed, an oil storage and distribution facility, and graphics and plastic shops.
- The site is inactive and fenced.
- Small strips of upland ruderal, landscaped, and coast live oak woodland communities occur near the site, but not within 150 feet of any sampled location (Plate 3.9).
- No special-status plant or animal species were observed on or adjacent to the site during biological clearance activities.
- No shallow soil samples were collected because the site is paved; sampling occurred near wash racks, the oil storage and distribution facility, and the graphics shop.
- Twenty-three deep soil samples (5 to 30 feet bgs) were collected; chromium, copper, lead, and zinc exceeded background concentrations; methylene chloride and TPH-unknown extractable hydrocarbon were also detected.
- TPH-unknown extractable hydrocarbon was detected once only (5 feet bgs), at a concentration of 44 mg/kg.
- Methylene chloride was detected at a maximum concentration of 0.034 mg/kg at

15.5 feet bgs; this was the only detected concentration of methylene chloride greater than 5 times the reporting limit (i.e., cannot be considered a laboratory contaminant). However, there was no known historical use of methylene chloride at this site.

- Copper, lead, and zinc in deep soil were present above background only beneath wash rack 1687 (SB-18-25 at 6 feet bgs); chromium was present above background only at SB-18-06 (at 15.5 feet bgs).
- All mean COPC metal concentrations were less than background concentrations.
- Fate and transport analysis indicates that methylene chloride and TPH are not likely to volatilize to the surface through pavement at detectable concentrations, or to leach to groundwater; metals are expected to remain in place rather than move laterally through soil or to volatilize.
- The exposure analysis (Plate 3.10) indicates that only one complete exposure pathway may exist, because chemicals are currently beneath pavement and are at depths below the reach of plant roots and burrowing animals; only microorganisms are expected to contact chemicals. No species associated with assessment endpoints were identified as having potentially complete exposure pathways at this site.
- The site is within the California State University parcel; the site is expected to remain developed in the future.

3.2.5 Site 19 - 2200 Block Facility

No further action is required at Site 19 from an ecological risk assessment perspective on the basis of the following information:

- The site is in a developed area and is approximately 90 percent paved and 10 percent landscaped (Plate 3.11); potential source areas include a vehicle maintenance area, photo lab, gasoline station, and an UST used to store both diesel fuel and waste oil.

- The site is inactive and partially fenced.
- No vegetation is present in paved areas of the site; results of a habitat survey indicate that small patches of landscaped community are present along streets and around buildings onsite; all sampling locations were in paved areas of the site (Plate 3.11).
- Twenty-nine plant species were identified onsite during the habitat survey. The animal survey identified two avian species in the area; one of these was the California gull, a California species of special concern, expected to be only an occasional visitor to the area on the basis of the location and nature of the site.
- One shallow soil sample was collected beneath a concrete vault at the former photo lab; only chlordane, detected at 3 mg/kg, met the criteria for being a COPC.
- Six deep soil samples were collected (5.5 to 20 feet bgs) from paved locations; only lead exceeded background concentrations.
- Lead in deep soil was present above background at only one location; the maximum lead concentration (5.2 mg/kg) is less than twice background.
- All mean COPC metal concentrations were less than background.
- Fate and transport analysis indicates that lead and chlordane are expected to remain in place rather than move through soil or volatilize to outdoor air; lead (present beneath pavement) and chlordane (present beneath a building) are not available for transport through stormwater runoff.
- The exposure analysis (Plate 3.12) indicates that only a few complete exposure pathways may exist, because lead is present beneath pavement at a depth below the reach of plant roots and burrowing animals, and chlordane is present beneath a building; only microorganisms are expected to contact both of the COPCs (the same organisms will not be exposed to both COPCs, because the COPCs were detected in different locations). Insects may contact chlordane beneath the building; it should be noted that application for insect control is a legal use of chlordane. No species associated with assessment endpoints were identified as having potentially complete exposure pathways at this site.
- The site is in a parcel designated for corporation yards; the site is expected to remain developed in the future.

3.2.6 Site 20 - South Parade Ground; 3800 and 519th Motor Pools

No further action is required at Site 20 from an ecological risk assessment perspective on the basis of the following information:

- The site is in a developed area; approximately 27 acres in the western portion of the site are unpaved and have been used in the past for troop training exercises; a small area along the southern end of the 519th Motor Pool is also unpaved but is covered with gravel and does not support vegetation (Plate 3.13). An interim action to remove a grease rack from a paved area is planned; this will have no ecological impacts.
- The site is inactive and fenced.
- The results of a habitat survey indicated that unpaved areas of the site are representative of upland ruderal habitat, with small patches of landscaped habitat intermingled (Plate 3.13); coast live oak was located just south and east of the site boundary. Two sampling locations were in the landscaped habitat; one sampling location was in the upland ruderal habitat.
- No special-status plant species were identified during the habitat survey. Eight avian and two mammalian species were observed in the area during the animal survey; none of these is a special-status species.

- Two shallow soil samples were collected from trenches dug in the landscaped habitat in the western portion of the site; no chemicals met the criteria for being COPCs.
- Thirty-one deep soil samples (5.5 to 20.5 feet bgs) were collected; chromium, copper, and zinc exceeded background concentrations; TPH-unknown extractable hydrocarbon was also detected.
- Maximum concentrations of chromium and zinc (at 10.5 feet bgs) exceeded background by less than 30 percent; the maximum concentration of copper (at 5.5 feet bgs) exceeded background by less than 10 percent.
- All of the samples in which metals exceeded background were from paved locations; all soil mean COPC metal concentrations were less than background.
- TPH-unknown extractable hydrocarbon was detected once only (5.5 feet bgs), at a concentration of 45 mg/kg.
- Fate and transport analysis indicates that metals and the constituents of TPH in soil at Site 20 are expected to remain in place rather than move laterally through deep soil or volatilize.
- The exposure analysis (Plate 3.14) indicates that only one complete exposure pathway may exist, because the chemicals are currently present beneath pavement and are at depths below the reach of plant roots and burrowing animals. Only microorganisms are expected to contact the ansate chemicals present at depth; chemicals at the site are not available for stormwater runoff because they are present at depth and/or beneath pavement. No species associated with assessment endpoints were identified as having potentially complete exposure pathways at this site.
- The site is in the Main Garrison and within the Seaside parcel; the site is expected to remain developed for light industrial use and high-density residential use.

3.2.7 Site 23 - 3700 Motor Pool Complex

No further action is required at Site 23 from an ecological risk assessment perspective on the basis of the following information:

- The northern portion of the site is developed; the southern portion is unpaved and supports upland ruderal vegetation (Plate 3.15); potential source areas (all in the northern portion of the site) include an oil/water separator, grease rack, and wash area.
- The site is inactive and fenced.
- No special-status plant or animal species were observed onsite during biological clearance activities.
- The upland ruderal community occurs on the southern portion of the site, with small strips of landscaped community between paved areas; coast live oak woodland is present southwest and east of the site; nine sampling locations were in the upland ruderal habitat (Plate 3.15).
- Five shallow soil samples were collected by JMM beneath pavement; cadmium, lead, and zinc were detected above background at one location.
- HLA collected 21 deep soil samples (5.5 to 30.5 feet bgs); arsenic, chromium, lead, and zinc concentrations exceeded background; TOG was also detected.
- Metals in deep soil were present above background at only two locations (one in upland ruderal habitat) at 5.5 feet bgs; maximum concentrations of arsenic (3.4 mg/kg), chromium (22.5 mg/kg), and lead (6.5 mg/kg) were less than twice the background concentrations, and zinc (36.3 mg/kg) was three times the background concentrations.
- TOG was detected at a maximum concentration of 140 mg/kg in SB-23-05 at 5.5 feet bgs; TOG was also detected in

Borings SB-23-04, SB-23-06, and SB-23-07 at depths ranging from 5.5 to 20.5 feet bgs.

- All mean metal concentrations were less than background.
- Fate and transport analysis indicates that metals and TOG in soil at Site 23 are expected to remain in place rather than move laterally through soil or volatilize.
- The exposure analysis (Plate 3.16) indicates that only two complete exposure pathways may exist, because chemicals are at depths below the reach of plant roots and burrowing animals in the upland ruderal community or are beneath pavement; only microorganisms are expected to contact chemicals. No species associated with assessment endpoints were identified as having potentially complete exposure pathways at this site.
- Chemicals at the site are not available for stormwater runoff, because they are present at depth and/or beneath pavement.
- The interim action planned for the site, removal of the grease rack and the soil beneath it, is not expected to result in environmental impacts.
- The site is within the California State University parcel; the site is expected to remain developed in the future.

3.2.8 Site 27 - Army Reserve Motor Pool

No further action is required at Site 27 from an ecological risk assessment perspective on the basis of the following information:

- The site is developed and paved (Plate 3.17); potential source areas include an abandoned wash rack, oil/water separator, waste oil UST, and hazardous waste storage area.
- The site is inactive and fenced.
- Upland ruderal, landscaped, and coast live oak woodland communities occur near the site, but not within 50 feet of any sampled

onsite location; upland ruderal habitat is the predominant plant community near the site (Plate 3.17).

- No special-status plant or animal species were observed on or adjacent to the site during biological clearance activities.
- No shallow soil samples were collected; deep sampling occurred near the oil/water separator, hazardous waste storage area, and wash rack.
- Three deep soil samples were collected (6 to 25 feet bgs); no metals were detected at concentrations exceeding background. Only tetrachloroethene (PCE) met criteria as a COPC.
- PCE was detected only once (6 feet bgs) at a concentration of 0.002 mg/kg.
- Fate and transport analysis indicates that PCE is not expected to appreciably volatilize because of the low detected concentration, the depth at which it was detected, and the barrier of pavement present onsite.
- The exposure analysis (Plate 3.18) indicates that only one complete exposure pathway may exist, because the chemical is present beneath pavement and at a depth below the reach of plant roots and burrowing animals; only microorganisms are expected to contact the chemical. No species associated with assessment endpoints were identified as having potentially complete exposure pathways at this site.
- PCE is not available for stormwater runoff because it is present at depth beneath pavement.
- The site is in the Main Garrison and within the POM parcel; the site is expected to remain developed.

3.2.9 Site 28 - Barracks and Main Garrison Facilities

No further action is required at Site 28 from an ecological risk assessment perspective on the basis of the following information:

- The site is in a developed area and consists of four buildings (not contiguous) (Plate 3.19); the area around the buildings is covered with gravel and sidewalks and does not support plant life.
- The site is currently inactive.
- Upland ruderal, landscaped, and coast live oak woodland communities are nearby but not within 250 feet of any of the buildings (Plate 3.19).
- The animal survey identified four avian and one mammalian species in the area; one of these (the California gull) is a California species of special concern.
- Three shallow soil samples were collected from beneath the Photo Developing Unit building; chromium, copper, lead, mercury, silver, and zinc met the criteria for COPCs.
- Eighteen deep soil samples were collected (5.5 to 21.5 feet bgs); no chemical concentrations exceeded background.
- Fate and transport analysis indicates that metals in shallow soil are not expected to move offsite to vegetated areas to an appreciable extent because they are present beneath a building.
- The exposure analysis (Plate 3.20) indicates that only a few complete exposure pathways may exist, because the chemicals are present either beneath a building or beneath pavement (at depths below the reach of plant roots and burrowing animals); only microorganisms are expected to contact the chemicals at all depths. Insects may also contact the chemicals in shallow soil beneath the building; chemicals are not available for stormwater runoff, because they are present at depth beneath pavement or a building. No

species associated with assessment endpoints were identified as having potentially complete exposure pathways at this site.

- The site is anticipated to be under the jurisdiction of the City of Marina in the future; the site is expected to remain residential/light industrial in the future.

3.2.10 Site 30 - Driver Training Area

No further action is required at Site 30 from an ecological risk assessment perspective on the basis of the following information:

- The site is mostly undeveloped (Plate 3.21); potential sources include a former grease rack, former gasoline station with USTs excavated and removed, and an abandoned wash rack.
- The site is inactive and fenced.
- The site is sparsely covered with plants of the upland ruderal community; coast live oak woodland borders the site in three directions (Plate 3.21).
- No special-status plant or animal species were observed onsite during biological clearance activities.
- No shallow soil samples were collected; sampling occurred beneath the grease rack, beneath the wash rack, and beneath the filled UST excavation to assess the vertical extent of possible contamination; visibly stained surface areas beneath the grease rack are proposed for soil excavation as part of an interim action.
- Thirty-one deep soil samples (5.0 to 160 feet bgs) were collected; beryllium, chromium, lead, and zinc concentrations exceeded background; carbon disulfide and TOG were also detected.
- Maximum concentrations of COPCs other than TOG were at 20 feet bgs, except for lead at 10 feet bgs.

- TOG was detected once only (10.5 feet bgs), at a concentration of 63 mg/kg.
- All mean metal concentrations were less than background.
- Fate and transport analysis indicates that metals and the constituents of TOG in soil at Site 30 are expected to remain in place rather than move laterally through deep soil or volatilize; carbon disulfide is not expected to appreciably volatilize, because of the low detected concentration and the depth at which it was detected.
- The exposure analysis (Plate 3.22) indicates that only one complete exposure pathway may exist because chemicals are present at depths below the reach of plant roots and burrowing animals in the upland ruderal community; only microorganisms are expected to contact the chemicals. No species associated with assessment endpoints were identified as having potentially complete exposure pathways at this site.
- Chemicals are not available for stormwater runoff because they are present at depth.
- The interim action planned for the site to remove areas of stained soil beneath the existing grease rack is not expected to result in environmental impacts.
- The site is in the East Garrison parcel; the site is expected to remain associated with military operations.
- The site is inactive; one portion of the site is fenced, and a fence exists west of the site.
- No vegetation is present in the paved areas; small patches of upland ruderal and coast live oak woodland communities are present near some of the wash racks and aprons; central maritime chaparral occurs offsite to the west; only historical samples associated with a UST investigation are located in any plant community (upland ruderal; Plate 3.23).
- No special-status plant or animal species were observed onsite during biological clearance activities; sandmat manzanita, monterey ceanothus, monterey spineflower, eastwood's ericameria, and coast wallflower may occur in the central maritime chaparral community west of the site.
- One shallow sample was collected at wash apron 517 at 1 foot bgs; only selenium met the criteria for being a COPC (selenium was not detected in background samples); selenium was detected at 0.74 mg/kg, less than twice the reporting limit.
- Twenty-six deep soil samples were collected (5 to 20.5 feet bgs); chromium and selenium exceeded background concentrations; xylenes were also detected.
- Selenium was detected only twice in deep samples (10.5 feet bgs) at a maximum concentration of 0.81 mg/kg (less than twice the reporting limit); chromium was detected above background at a maximum concentration of 21.4 mg/kg, less than twice background; the mean chromium concentration was less than background; xylenes were detected twice (5.5 and 10.5 feet bgs) at one paved location at a maximum concentration of 6.5 mg/kg.

3.2.11 Site 34 - FAAF Fueling Facility

No further action is required at Site 34 from an ecological risk assessment perspective on the basis of the following information:

- The site is developed and completely paved with asphalt or concrete, except for a small gravel strip (Plate 3.23); potential sources include four wash aprons, a vehicle wash rack, and oil-water separators; these areas are not contiguous.
- Fate and transport analysis indicates that xylenes are not expected to appreciably volatilize, because of the low detected concentration, the depth at which they were detected, and the barrier of pavement present. Metals detected onsite beneath pavement are expected to remain in place rather than move through deep soil or

volatilize. COPCs detected onsite are not available for transport through stormwater runoff, because they are present beneath pavement; chemicals detected at the stormwater outfalls may be representative of surface runoff from pavement.

- The exposure analysis (Plate 3.24) indicates that only one complete exposure pathway may exist, because the chemicals are currently present beneath pavement and are at depths below the reach of plant roots and burrowing animals; only microorganisms are expected to contact the chemicals present at depth. No species associated with assessment endpoints were identified as having potentially complete exposure pathways at this site.
- Wash rack 516 will be removed, and the soil beneath the wash rack will be excavated as part of interim action activities; this is not expected to result in environmental impacts.
- The site is within the U.C. Santa Cruz parcel; the site is expected to remain developed in the future.

3.2.12 Site 36 - FAAF Sewage Treatment Plant

No further action is required at Site 36 from an ecological risk assessment perspective on the basis of the following information:

- The site is in a largely undeveloped area and is unpaved (Plate 3.25); potential source areas include two evaporation ponds and two sludge beds.
- The site is inactive and almost completely fenced.
- Results of a habitat survey indicate that upland ruderal, central coastal scrub, and wet ruderal communities are present onsite. The central coastal scrub has invaded the northern area of the site (except for one small area in the evaporation pond); sparse upland ruderal growth is present in the southern area of the site; all sampling locations were in

vegetated areas; coast live oak is present offsite to the east (Plate 3.25).

- Eighteen plant species were identified onsite during the habitat survey; the animal survey identified 10 avian and three mammalian species; none of these species is considered to be of special-status.
- One shallow soil sample was collected from the upland ruderal community; only nitrate and orthophosphate (detected at a depth of 1 foot bgs) met the criteria for COPCs.
- Eleven deep soil samples were collected from the central coastal scrub community; beryllium, chromium, zinc, and nitrate concentrations exceeded background.
- Beryllium, chromium, and zinc exceeded background at only one location (SB-36-02) at 5.5 feet bgs; these concentrations were no more than 25 percent above background. Nitrate was detected at a maximum concentration of 13.1 mg/kg at 20.5 feet bgs from SB-36-02.
- All mean COPC metal concentrations were below background concentrations.
- Fate and transport analysis indicates that metals are expected to remain in place rather than move through soils or volatilize. Nitrate may dissolve in water, but the lined ponds are expected to prevent movement away from the site, including movement in stormwater.
- The exposure analysis (Plate 3.26) indicates that only a few complete exposure pathways may exist because chemicals are present at depth beneath lined depressions where holding ponds once were located. Terrestrial species may contact nitrate and orthophosphate in shallow soil in the upland ruderal community; plant roots of the central coastal scrub may contact metals in deep soil at one location; however the invasion of this community into the area containing these metals indicates that possible exposures do not have an adverse impact on the community. Therefore, no assessment endpoint null hypotheses are violated for this

site. Chemicals at the site have a low potential to bioconcentrate.

- The site is in the FAAF parcel; part of the area may be developed, and part may be retained as habitat reserve land.

3.2.13 Site 37 - Trailer Park Maintenance Shop

No further action is required at Site 37 from an ecological risk assessment perspective on the basis of the following information:

- The site is partially developed; a trailer is present in a fenced, unpaved yard containing dirt and little or no vegetation, and a 55-gallon waste oil drum was formerly present in the fenced yard (Plate 3.27). A paved parking area north of the fenced yard is stained and degraded. Concrete slabs support an aboveground gasoline storage tank in the parking area.
- The site is inactive.
- No vegetation is present in the paved northern portion of the site; two small patches of the landscaped community are present along the perimeter of the site. An upland ruderal community is present in the fenced, unpaved yard and extends beyond the site in most directions. Three small patches of coast live oak woodland are located offsite. One sampling location is within the upland ruderal community (Plate 3.27).
- No special-status plant or animal species were observed on or adjacent to the site during biological clearance activities.
- No shallow samples were collected.
- Nine deep soil samples were collected (5 to 16 feet bgs); all metal concentrations were below background. TOG was the only substance that exceeded background concentrations; TPH was not detected in samples from paved locations.

- TOG was detected only once (5.5 feet bgs), at a concentration of 63 mg/kg in a sample from the unpaved area beneath the former location of the waste oil drum.
- Fate and transport analysis indicates that TOG is expected to remain in place rather than move through deep soil or volatilize; chemicals present at depth are not available for transport through stormwater runoff; chemicals detected at the stormwater outfalls may be representative of surface runoff from pavement.
- The exposure analysis (Plate 3.28) indicates that only one complete exposure pathway may exist because TOG is present at a depth below the reach of plant roots and burrowing animals in the upland ruderal community; only soil-dwelling microorganisms are expected to contact the TOG present at depth. No species associated with assessment endpoints was identified as having potentially complete exposure pathways at this site.
- The site is within the California State University parcel; the site is expected to remain developed in the future.

3.3 Aquatic Assessment of Outfalls

This section presents the results of the aquatic assessment for outfalls with incomplete exposure pathways for aquatic receptors. All other outfalls are further evaluated in Section 5.6.

Concentrations of metals in sediments from inside pipes/drainage structures at outfall locations were compared to background concentrations (Plate 3.1, Box A1). Table 3.2 presents a summary of the analytical results for sediment samples collected inside pipes/drainage structures for surface water outfalls. Metals were detected at concentrations exceeding background, at all outfalls except OF-20N. Organic chemicals were detected at all outfalls except OF-01-MH-01.

All outfalls were evaluated to assess the potential for chemicals detected above background from inside the pipes/drainage structure to migrate to

Pete's Pond, the river, or the bay (Plate 3.1, Box A2). For all outfalls with the potential to reach Pete's Pond, the bay, or the river, concentrations of chemicals detected in sediment were compared to concentrations detected in site soil (Plate 3.1, Box A3) and in stormwater (Plate 3.1, A4). The results of these evaluations are presented by watershed below.

3.3.1 Monterey Bay Watershed

Outfall OF-05 (located at Site 3; primarily drains Site 13)

- This outfall is approximately 1,400 feet from the bay. Flow is unlikely to reach the bay because of intervening terrain at higher elevations.

Outfall OF-11 (located at Site 22; primarily drains Site 22)

- This outfall is over 1 mile from the bay. Flow is unlikely to reach the bay over this distance.

Outfall OF-13 (located at Sites 21 and 22; primarily drains at Site 21)

- This outfall is over 1 mile from the bay. Flow is unlikely to reach the bay over this distance.

Outfall OF-15 (located at Site 12; primarily drains Site 12)

- This outfall is approximately 1,200 feet from the bay. Flow is unlikely to reach the bay, because intervening terrain is at a higher elevation.

Outfall OF-32 (located at Site 14; primarily drains Site 15)

- This outfall is over 1 mile from the bay. Flow is unlikely to reach the bay over this distance.

Only outfalls OFF-01 (2 locations, -01 and -03), OF-02, OF-03-MH, OF-04-MH, and OF-07 terminate in beach or dune zones where flow is likely to reach the bay. Outfall OF-07 lies

upgradient of OF-03. Surface water from the other outfalls is unlikely to reach the bay. Outfalls OF-01-MH-03 and OF-01-MH-01 are at Site 2, Outfalls OF-02-MH, OF-03-MH, and OF-04-MH are at Site 3, and Outfall OF-07 is at Site 20. Chemicals detected at these outfalls were also detected in site soil and stormwater samples. Further evaluations of these outfalls are presented in Section 5.6.

3.3.2 Pete's Pond

Pete's Pond is part of Site 16 but receives stormwater from several sites, including Sites 15, 16, 17, and 23.

Chemicals detected in sediment at these outfalls were also detected in site soil and stormwater samples. Therefore, further evaluation of Pete's Pond is necessary to assess these chemicals' potential toxicity to aquatic receptors. Further activities at this watershed are discussed in Section 5.6.

3.3.3 Salinas River Watershed

Outfall OF-20 and OF-21 (located at Site 34; primarily drains Sites 34 and 40 at FAAF)

- These outfalls are over 1/2 mile from the Salinas River. Flow is unlikely to reach the river over this distance.

Outfall OF-24 (located at Site 30; primarily drains Sites 30 and 32)

- This outfall is approximately 1/2 mile from the Salinas River; runoff is restricted to ditches adjacent to an agricultural field and is therefore unlikely to reach the river.

Outfall OF-25 (located near Site 30; does not appear to drain any RI/FS sites)

- This outfall is approximately 1/2 mile from the Salinas River; runoff is restricted to ditches adjacent to an agricultural field and is therefore unlikely to reach the river.

Outfall OF-26 (located at Site 26; primarily drains Site 29)

- This outfall is approximately 1/2 mile from the Salinas River; runoff is restricted to ditches adjacent to an agricultural field and is therefore unlikely to reach the river.

Only Outfall OF-23, located at Site 36, terminates close to the river; it is unlikely that runoff from the other outfall locations would reach the river. Chemicals detected at this outfall were also detected in site soil and stormwater samples. Further evaluations of Outfall OF-23 are presented in Section 5.6.

3.4 Terrestrial Assessment of Outfalls

This section presents the results of the terrestrial assessment for outfalls having complete exposure pathways for terrestrial receptors.

First, for each outfall, concentrations of metals in surface soil from the site where the outfall is located were compared to background concentrations (Plate 3.2, Box T1). All sites except Sites 22, 27, 30, and 37 had concentrations of metals above background. However, Sites 27, 30, and 37 had detectable levels of organics.

Next, all outfalls were evaluated for the presence of suitable habitat (i.e., the outfall is not paved or concrete-lined; Plate 3.2, Box T2). Outfalls OF-01-01S and OF-01-02S (Site 37) and OF-07 (Site 20) are paved structures and were not further evaluated due to the lack of suitable habitat for receptors at the outfall locations.

Last, all remaining outfalls were evaluated by comparing concentrations of metals in sediment outside of pipes to background metal concentrations and by comparing chemical concentrations detected above background in sediment with concentrations detected above background in soil. The results of these comparisons can be summarized as follows:

- Acetone was detected in sediments from Outfalls OF-01-01N and OF-01-02N (Site 37) and soil samples from Site 37; therefore,

these outfalls were further evaluated (Section 5.6).

- Copper, lead and zinc were detected above background in sediments from Outfall OF-05 (Site 3) and soil from Site 3. Therefore, this outfall was further evaluated (Section 5.6).
- Sediments from Outfall OF-14 (Site 21) and soil from Site 21 had concentrations of cadmium, chromium, copper, lead, silver, and zinc above background and detected concentrations of methylene chloride. Therefore, this outfall was further evaluated (Section 5.6).
- Sediments from Outfall OF-15 (Site 12) and soil from Site 12 had concentrations of antimony, arsenic, cadmium, chromium, copper, lead, mercury, and zinc above background. Therefore, this outfall was further evaluated (Section 5.6).
- Sediments from Outfalls OF-16-04 and OF-16-05 (Site 16) and soil from Site 16 had concentrations of copper, lead, and zinc above background. Therefore, these outfalls were further evaluated (Section 5.6).
- Sediments from Outfalls OF-21 and OF-22 (Site 34) and soil from Site 34 had detected concentrations of selenium. Therefore, these outfalls were further evaluated (Section 5.6).
- Sediments from Outfall OF-23 (Site 36) and soil from Site 36 had concentrations of cadmium, lead, and silver above background and detected concentrations of acetone. Therefore, this outfall was further evaluated (Section 5.6).
- Sediments from Outfall OF-26 (Site 29) and soil from Site 29 had concentrations of chromium above background. Therefore, this outfall was further evaluated (Section 5.6).
- For the remaining outfalls (OF-07, Site 20; OF-08, Site 11; OF-11 and OF-13, Site 22; OF-16-01, -02, -03 and -06, Site 16; OF-19 and OF-20-01N, -01S, -02N, and -01N, Site 34; OF-24 and OF-25, Site 30; OF-27, Site 27), metals detected above background

in site soil were not detected above background in sediments, and organic chemicals detected in site soil were not detected in sediments. Therefore, these outfalls were not further evaluated.

3.5 Summary of PHA1

Table 3.4 summarizes the results of PHA1 indicating that 13 sites were identified as having no complete exposure pathways and 20 sites would be further evaluated. In addition, 11 outfalls were identified as having complete exposure pathways for terrestrial receptors and 7 outfalls were identified as having complete exposure pathways for aquatic receptors (six at the Monterey Bay watershed, one at Pete's Pond, and one at the Salinas River watershed).

4.0 PRELIMINARY HAZARD ASSESSMENT 2 (PHA2)

The next stage of work conducted in the ERA, also part of the problem formulation phase, was a preliminary assessment of the 20 sites identified in PHA1 as having potentially complete exposure pathways (Table 4.1). This assessment was also done to identify data gaps based on the endpoints selected in Section 2.0, and to provide a basis for completing the conceptual model development. This section presents the results of the PHA2 evaluation.

4.1 Methods

The methods used in PHA2 are described in Section 1.4.1. The purpose of PHA2 was to identify appropriate COPCs and indicator species based on the assessment and measurement endpoints selected for the quantitative assessments, and to focus additional field and laboratory activities to address identified data gaps at the sites. The results of PHA2 are provided in the following sections.

4.2 Results

This section applies the methods and approaches discussed in Sections 1.4.1 and 4.1 for the 20 sites not eliminated in PHA1 (Table 4.1). No outfalls were assessed in PHA2; outfalls are further discussed in Section 5.6, under the analysis component of the ERA framework.

Site descriptions, ecological and chemical characterizations, and data gaps identified at the site are provided. This information was used to conduct the quantitative ecological screening assessment (Section 5.0) and complete the problem formulation phase of the framework.

Data collected and validated through February 28, 1994, were used in this phase of the assessment.

4.2.1 Site 1 - Ord Village Sewage Treatment Plant

The Ord Village Sewage Treatment Plant (OVSTP), located near the beach at Monterey Bay

and the southern boundary of the base, operated from the early 1950s to 1964, receiving wastewater from Ord Village. In 1964, the OVSTP was abandoned and the sewage pump station at Site 1 was built to pump sewage to the Monterey Regional Treatment Plant (MRTP). In 1983, the buildings at the OVSTP were demolished. Much of the original treatment structure remains in place but most parts are not used. Influent enters the pump station from the former chlorination tank, but it is not chlorinated. The original unlined holding ponds are used as surge reservoirs for the pump station.

The OVSTP is inactive, but the pump station is active. The site is the proposed site of a desalination plant. The existing piping, parking, and other facilities are planned to be used (COE, 1994).

4.2.1.1 Ecological Site Characterization Status

A habitat survey conducted December 12, 1993, and a borehole clearance survey on January 16, 1992, indicated the presence of five plant communities associated with the site:

- Landscaped
- Upland ruderal
- Wet ruderal
- Active dune
- Vegetatively stabilized dune.

The approximate distribution of these habitats within and adjacent to the site is depicted on Plate 4.1. None of these habitats is currently considered rare or declining, as the vegetatively stabilized dunes are dominated by hottentot fig, a non-native, invasive species (*Carpobrotus edulis*; CDFG, 1992b; Holland, 1986). Plant species observed during the habitat survey and borehole clearance activities (HLA, 1992g) are listed in

Table B1-1. The following special-status plants were observed on or near the site:

- Eastwood's ericameria
- Coast wallflower
- Monterey Indian paintbrush.

The first two species are federal Category 2 candidates for listing as threatened or endangered; all three species are on California Native Plant Society lists, the first two on List 1B and the latter on List 4.

Seventeen animal species were observed during the habitat survey; of these, the loggerhead shrike is a California species of special concern. One special-status reptile (the black legless lizard) and two special-status birds (the merlin and California gull) are listed as expected in these habitat types. The black legless lizard and the loggerhead shrike are also listed as federal Category 2 candidates. Observed and expected animals at Site 1 are listed in Table B2-1.

4.2.1.2 Chemical Site Characterization

Chemical site characterization activities, all conducted by HLA, included the following:

- Drilling 13 soil borings to depths of 20.5 feet bgs, all in upland ruderal habitat in or adjacent to the overgrown STP structures (i.e., holding pond, sludge drying beds, and sludge digestion tanks)
- Installing three monitoring wells to 180 feet bgs; two are located in vegetatively stabilized dune habitat and one in upland ruderal habitat
- Collecting 45 soil samples from the soil borings and monitoring wells; 2 to 3 samples were collected per soil boring to 20.5 feet bgs and 3 soil samples were collected per monitoring well borehole to 55.5 feet bgs; samples were analyzed for VOCs, semivolatile organic compounds (SOCs), metals, and fecal coliform bacteria

- Collecting nine groundwater samples, three per monitoring well, and analyzing them for VOCs, SOCs, metals, inorganic compounds, total dissolved solids (TDS), and fecal coliform bacteria
- Excavating two trenches at the former locations of two trickling filters and visually inspecting the soil for elemental mercury, which was observed; excavating a third trench and collecting and analyzing three soil samples for elemental mercury; and backfilling the trenches.

Results of the soil sample analyses are summarized by depth to 10 feet bgs in Tables A1 and A2. Three VOCs and two SOCs detected below the reporting limit are considered to represent laboratory contamination, consistent with EPA (1989b) methods. One-hundred and twelve TICs were reported; most were alkanes associated with petroleum hydrocarbons and were detected at low concentrations. Nine metals were detected overall; seven in the only shallow sample and eight in the deep samples. In the shallow sample, only mercury was detected above its background concentration. In deep samples, the maximum concentration of zinc exceeded background; no other metals were detected at concentrations above background. Fecal coliform bacteria were detected in one deep soil sample at 110 MPN (most probable number) per 10 grams of soil.

Depth to groundwater at the site is assumed to be over 60 feet; however, no human health screening risk assessment has been conducted for Site 1 to characterize potential impacts to groundwater from chemicals in soil. This site has been classified as a Human Health NoFA site in the site characterization report on the basis of the low concentrations of the detected chemicals.

4.2.1.3 Site 1 - Addressing Data Gaps

COPCs identified in soil include mercury in shallow soil and zinc in deep soil. The assessment and measurement endpoints relevant to Site 1 are numbered C1 through C4 and C9 through C15 in Table 2.1. On the basis of these

endpoints, the following field data needs are identified:

- Additional surface soil data to adequately address assessment endpoints C1 and C2
- Plant data to address assessment endpoints C3, C4, and C14
- Lizard data to address assessment endpoints C9 and C15
- Litter data to address assessment endpoints C10 through C12
- Rodent data to address assessment endpoints C13 and C15.

Indicator species identified at Site 1 include the hottentot fig and deer mouse. A preliminary quantitative analysis step was conducted for Site 1 using these indicator species to identify if hazards may exist based on the identified COPCs. The results of the preliminary analysis using these additional data, presented in Section 5.4.1, identify which of the data gaps identified above warrant additional data collection. Additional surface soil samples were collected to allow further evaluation of assessment endpoints C1 and C2. Results of additional data collection and analysis are provided in Section 6.0.

4.2.2 Sites 2 and 12 - Main Garrison Sewage Treatment Plant and Lower Meadow, DOL Automotive Yard, and Cannibalization Yard

Sites 2 and 12 comprise one RI site for the purposes of site characterization; they are physically near each other in the northwest portion of Fort Ord and a chemical-bearing groundwater plume crosses both. However, the ecological communities at the sites are substantially different.

Site 2, the Main Garrison Sewage Treatment Plant (MGSTP), is near Range Road and Stilwell Hall. The MGSTP was the primary sewage treatment facility for Fort Ord, serving most of the housing areas and the main industrial areas from the late 1930s until May 1990 when it was

decommissioned. During plant operation, effluent from the MGSTP was discharged under a National Pollutant Discharge Elimination System permit to a storm drain that emptied into Indian Head Beach during low tide and discharged to Monterey Bay during high tide. Frequent effluent violations occurred during operation. These violations were all for BOD removal efficiency, elevated ammonia, coliform, and suspended solids counts. No violations occurred with regard to metals or organics other than one cyanide violation. There are three unlined former sewage ponds and 10 asphalt-lined former sludge-drying beds onsite. Two underground storage tanks were located at the MGSTP; one was never used and one was a 500-gallon tank used for storing diesel fuel. Both tanks were removed in 1992.

Site 12 includes four areas: the Lower Meadow, the DOL Automotive Yard, the Cannibalization Yard, and a Southern Pacific Railroad (SPRR) spur between the DOL and Cannibalization yards. Waste materials such as scrap metal, oil, and batteries from the DOL Yard were disposed of at the adjacent Lower Meadow, which is east of Highway 1 and north of the SPRR spur near the Twelfth Street Gate. The layer of fill materials is reported to be up to 30 feet thick. The Lower Meadow also received runoff from the DOL Yard. The DOL Automotive Yard is east of Highway 1 and northeast of the SPRR spur. This area consists of several buildings, two wash racks, a paint shop, and USTs. The Cannibalization Yard is a paved, fenced yard where old vehicles and other obsolete equipment are stripped of usable parts. Two oil/water separators are present in this area.

Site 2 is inactive. Site 12 is active. An aquaculture facility is proposed for Site 2; a portion of the site may also be used for desalination. The proposed future land use for Site 12 is development-oriented; business, light industrial, and retail uses are possible (COE, 1994).

4.2.2.1 Ecological Site Characterization

Habitat surveys were conducted at Site 2 on December 12, 1993, and at Site 12 on

December 11, 1993. Borehole clearance surveys were conducted for Site 2 on January 15, 1992, and for Site 12 on November 18, 1991. Results of these surveys indicated the presence of five plant communities associated with the sites:

- Upland ruderal
- Landscaped
- Dry impoundments
- Area of active dune
- Vegetatively stabilized dune.

The approximate distribution of these habitats within and adjacent to the sites is depicted on Plate 4.2. None of these habitats is currently considered rare or declining (CDFG, 1992b; Holland, 1986), as the vegetatively stabilized dunes are dominated by hottentot fig (*Carpobrotus edulis*), a non-native, invasive species. Plant species observed during the habitat survey and borehole clearance activities (HLA, 1992g) are listed in Tables B1-2 and B1-6 for Sites 2 and 12, respectively.

The following special-status plants were observed on or near Site 2:

- Eastwood's ericameria
- Coast wallflower
- Monterey ceanothus
- Seaside bird's-beak.

The first three species are federal Category 2 candidates for listing as threatened or endangered; the fourth is a federal Category 1 species and is listed as endangered by the CDFG. In addition, all species except Monterey ceanothus are on California Native Plant Society List 1B.

Sandmat manzanita was the only special-status plant species observed at Site 12.

Eight animal species were observed during the habitat survey at Site 2 and nine species were

observed at Site 12. Of those species observed at either site, the California gull and the loggerhead shrike are California species of special concern. One special-status amphibian (the black legless lizard) and three special-status birds (the merlin, the loggerhead shrike, and the California gull) are listed as expected in these habitat types. The black legless lizard and the loggerhead shrike are also listed as federal Category 2 candidate. The loggerhead shrike was observed at Site 2, and the California gull was observed at Site 12. Observed and expected animals at Site 2 and 12 are listed in Tables B2-2 and B2-6, respectively.

4.2.2.2 Chemical Site Characterization

Chemical site characterization activities conducted at Site 2 by James M. Montgomery Consulting Engineers (JMM) in 1991 included the following:

- Drilling six soil borings and installing three monitoring wells to depths of up to 40 feet in and around the sludge beds and ponding areas
- Collecting 10 soil samples (at least one from each location) between 0 and 40 feet bgs and analyzing them for VOCs, SOCs, pesticides, polychlorinated biphenyls (PCBs), and petroleum hydrocarbon constituents.

Methylene chloride was the only VOC detected in these soil samples and was detected below the reporting limit. Because no known source of methylene chloride has been identified at Site 2, it is considered to represent laboratory contamination, consistent with EPA (1989b) methods. High boiling point hydrocarbons (HBPHC) were detected at 0 to 40 feet bgs and may represent site-related contamination. No SOCs or PCBs were detected. Four pesticides were detected at the site. Two of these (dieldrin and 4,4-DDT) were detected below the laboratory detection limits; 4,4-DDD and 4,4-DDE were detected above laboratory detection limits and may represent site-related contamination.

Chemical site characterization activities conducted by HLA at Site 2 include the following:

- Installing two monitoring wells within the Site 2 boundary in upland ruderal habitat and five near Site 2 to depths of 180 feet (Plate 4.2)
- Collecting 11 soil samples, at least 2 from each well borehole between 0 and 100.5 feet bgs and analyzing them for VOCs, SOCs, and priority pollutant metals; additional samples have been collected, but the data were not available for this portion of the assessment.
- Drilling four soil borings to 20.5 feet bgs in the sludge ponds
- Collecting 10 soil samples, at least 2 from each boring, between 0 and 20.5 feet bgs and analyzing them for VOCs, SOCs, and priority pollutant metals
- Collecting 3 soil samples from a piezometer borehole between 24.5 and 198 feet bgs and analyzing them for VOCs and SOCs.

Results of the soil analysis for Site 2 are summarized by depth in Tables A3 through A5. Thirteen metals were detected at the site; beryllium and nickel were detected below background concentrations. The remaining 11 metals (antimony, arsenic, cadmium, chromium, copper, lead, mercury, selenium, silver, thallium, and zinc) were detected at Site 2 (at 0 to 100.5 feet bgs) above background levels or were not detected in the background data set; therefore these metals may represent site-related contamination. Twenty-seven tentatively identified compounds (TICs) were reported, primarily unknown hydrocarbons and several decanes, nonanes, and octanes.

Chemical site characterization at Site 12 conducted by EA in 1989 included the following:

- Drilling four soil borings and installing three monitoring wells within and adjacent to the DOL Yard
- Collecting 11 soil samples (at least one from each location) between 3 and 28 feet bgs and analyzing them for VOCs, SOCs, TRPH, and metals.

Three VOCs were detected; however, two of these (methylene chloride and chloroform) were detected below the reporting limit, were not known to have been used at Site 12, and are considered to represent laboratory contamination, consistent with EPA (1989b) methods. Toluene was also detected and may represent site-related contamination. Bis(2-ethylhexyl)phthalate was the only SOC detected, but was detected below the reporting limit, was not known to have been used at Site 12, and is considered to represent laboratory contamination, consistent with EPA (1989b) methods. TRPH was detected from 3 to 9 feet bgs and may represent site-related contamination. Eight metals were detected, seven below background concentrations. Arsenic was detected at Site 12 above background levels at 9 feet bgs and may represent site-related contamination.

Chemical site characterization activities conducted by HLA at Site 12 included the following:

- Drilling 25 soil borings to 71 feet bgs
- Collecting 92 soil samples, 1 to 5 from each boring at depths ranging from 0.35 to 71 feet and analyzing them for VOCs, SOCs, TPH, and priority pollutant metals
- Installing monitoring wells to 70.5 feet bgs
- Collecting 13 soil samples, 3 to 4 from each well, at depths between 5.5 and 7 feet and analyzing them for VOCs, SOCs, TPH, and priority pollutant metals
- Collecting five surface soil samples at 0.35 feet bgs and analyzing them for VOCs, SOCs, TPH, and priority pollutant metals
- Digging seven trenches to 9.5 feet bgs, collecting soil samples and analyzing them for VOCs, SOCs, TPH, and priority pollutant metals.

Results of the soil analysis for Site 12 are summarized by depth in Tables A19 through A21. Seven VOCs were detected, but three of these (acetone, methylene chloride, and methyl ethyl ketone) were detected below the reporting

limit, were not known to have been used at Site 12, and are considered to represent laboratory contamination, consistent with EPA (1989b) methods. The remaining four chemicals (TCE, PCE, toluene and xylenes) detected at Site 12 may represent site-related contamination. Four SOCs were detected, but three of these (bis(2-ethylhexyl)phthalate, diethylphthalate, and di-n-butylphthalate) are also considered laboratory contaminants. The remaining SOC (2-methylnaphthalene) detected at Site 12 may represent site-related contamination. Over 200 TICs were reported, primarily unknown compounds and hydrocarbons. Eleven metals were detected; nickel was detected below its background concentration. The remaining 10 metals (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, selenium, and zinc) were detected (at 0.35 to 71 feet bgs) above background levels or were not detected in the background data set; therefore these metals may represent site-related contamination.

4.2.2.3 Site 2 - Addressing Data Gaps

COPCs identified in soil include 11 metals (antimony, arsenic, cadmium, chromium, copper, lead, mercury, selenium, silver, thallium, and zinc). The assessment and measurement endpoints relevant to Site 2 are numbered C1 through C4 and C9 through C15 in Table 2.1. On the basis of these endpoints, the following field data needs are identified:

- Additional surface soil data to adequately address assessment endpoints C1 and C2
- Plant data to address assessment endpoints C3, C4, and C14
- Lizard data to address assessment endpoints C9 and C15
- Litter data to address assessment endpoints C10 through C12
- Rodent data to address assessment endpoints C13 through C15.

Indicator species identified at Site 2 include the hottentot fig and deer mouse. A preliminary quantitative analysis was conducted for Site 2 using these indicator species to identify if hazards may exist based on the identified COPCs. The results of the preliminary analysis using these additional data, presented in Section 5.4.2, identify which of the data gaps identified above warrant additional data collection. Additional surface soil and collocated hottentot fig samples were collected to allow further evaluation of assessment endpoints C1, C2, C3, C4, and C14. Collection of leaf litter was not considered relevant at this site because hottentot fig dominates the ground cover, and leaf litter associated with this plant is not expected to provide a habitat for the legless lizard. Mammal sampling was conducted to allow further evaluation of assessment endpoints C13 through C14. Results of additional data collection and analysis are provided in Section 6.0.

4.2.2.4 Site 12 - Addressing Data Gaps

COPCs identified in soil include five organics (TCE, PCE, toluene, xylenes, and 2-methylnaphthalene) and ten metals (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, selenium, and zinc). The assessment and measurement endpoints relevant to Site 12 are numbered I1 through I8, I10, and I12 in Table 2.2. On the basis of these endpoints, the following field data needs are identified:

- Additional surface soil data to adequately address assessment endpoints I1 and I2
- Plant data to address assessment endpoints I3 and I4
- Lizard data to address assessment endpoint I5
- Litter data to address assessment endpoints I6 through I8
- Rodent data to address assessment endpoints I10 through I12.

Indicator species identified at Site 12 include the hottentot fig, wild oat, deer mouse, and gray fox. A preliminary quantitative analysis was conducted for Site 12 using these indicator species to identify if hazards may exist based on the identified COPCs. The results of the preliminary analysis using these additional data, presented in Section 5.4.5, identify which of the data gaps identified above warrant additional data collection. Additional surface soil and collocated hottentot fig and wild oat samples were collected to allow further evaluation of assessment endpoints I1 through I4 and I11. On the basis of the developed nature of the site, collection of leaf litter was not considered relevant at this site and legless lizards are unlikely to be present because leaf litter is mostly absent. Mammal sampling was conducted to allow further evaluation of assessment endpoints I10 through I12. Results of additional data collection and analysis are provided in Section 6.0.

4.2.3 Site 3 - Beach Trainfire Ranges

Site 3 spans approximately 3.2 miles and 780 acres along the western boundary of Fort Ord. The site is bordered to the south by Sand City, to the north by the city of Marina, to the west by Monterey Bay, and to the east by Highway 1. Small arms firing ranges, numbered 1 through 17, are scattered throughout the eastern half of the site. There are no firing ranges numbered 10 or 13. A former ammunition storage area is located between Ranges 3 and 4. The site was used for small arms trainfire beginning in the 1940s. Activities at the trainfire ranges consisted of firing handheld weapons at targets located near the leeward dune faces.

Most of the surface area of Site 3 is unpaved and vegetated, with dune sand present at the surface. The topography is controlled by a series of sand dunes that have been eroded on the west side by wind and wave action, resulting in steep drops to the beach.

Stilwell Hall and two sewage treatment plants comprise the main onsite structures. Stilwell Hall, in the central part of Site 3 and currently used as a recreational center, was 200 to 300 feet

from the shoreline when it was built in the 1940s; however, natural forces have eroded the shoreline cliffs so that Stilwell Hall is now adjacent to the shoreline. A seawall was constructed to protect the structure from the encroaching surf zone.

Seven storm drain outfalls, which collect stormwater from the Main Garrison, discharge to either the dune area or the intertidal zone of Site 3. Three of the storm drains discharge to the dunes near Ranges 11 and 8 and Site 1. The other four outfalls discharge to Monterey Bay at the shoreline. The outfalls are being investigated as part of the Basewide Storm Drain and Sanitary Sewer Investigation. Potential ecological impacts from this stormwater system are being evaluated as part of the basewide ERA rather than on a site-specific basis.

The site is inactive. The proposed future land use entails conversion of the area to a limited-access state park. Boardwalks between planned parking lots and the beaches are proposed to limit human impacts to the dunes (COE, 1994).

4.2.3.1 Ecological Characterization

A habitat survey conducted between November 22 and December 1, 1993, and a borehole clearance survey on April 24, 1992, indicated the presence of six plant communities associated with the site (Plates 4.3, 4.4, and 4.5):

- Upland ruderal
- Landscaped
- Central coastal scrub
- Vegetatively stabilized dune
- Active dune
- Beach.

The approximate locations of these habitats within the site are depicted on Plates 4.3, 4.4 and 4.5. None of the habitats is currently considered a rare or declining habitat (CDFG, 1992b; Holland, 1986), as the vegetatively stabilized dunes are dominated by hottentot fig, a

non-native invasive species. Plant species observed during the habitat survey and borehole clearance activities (HLA, 1992g) are listed in Table B1-3. The following special-status plant species were observed on or near the site:

- Monterey spineflower
- Monterey indian paintbrush.

The Monterey spineflower is a federal Category 2 candidate for listing as threatened or endangered; the Monterey indian paintbrush is on California Native Plant Society List 4.

Fourteen animal species were observed during the habitat survey (Table B2-3); three of these, the black legless lizard, the merlin, and the loggerhead shrike, are California species of special concern. The black legless lizard and the loggerhead shrike are also listed as federal category 2 candidates. One special-status bird (the California gull) is listed as expected in these habitat types. In addition, the federally endangered Smith's blue butterfly is known to occur at Site 3.

4.2.3.2 Chemical Site Characterization

Chemical site characterization activities were all conducted by HLA at three areas within the site: Study Area 1, the area of greatest trainfire use, Area 2, an area of lesser trainfire use, and a Control Area containing no trainfire ranges (Plates 4.3, 4.4, and 4.5, respectively). Sampling activities in these three areas included the following:

- Collecting surface and subsurface soil samples from 23 locations, 10 locations each in Study Areas 1 and 2, and 3 locations in the Control Area at depths ranging from 0 to 2.75 feet. Samples were analyzed for metals, total organic carbon, pH, and cation exchange capacity as sodium.
- Collecting bullet fragments from 10 surface soil locations across the entire site.
- Collecting soil samples for leachate testing from five locations, two locations each in

Areas 1 and 2 and one from the Control Area at depths ranging from 0.13 to 6.25 feet. These samples were leached by being subjected to sieved rainwater, sieved seawater, unsieved rainwater, and unsieved seawater following ASTM protocols, and analyzed for metals and pH.

Results of the soil sample analyses are summarized by depth in Tables A6 through A8. Five metals were detected (antimony, chromium, copper, lead, and zinc); all except antimony were detected above background concentrations in the 4- to 10-foot samples. The results of the leachate analyses using ASTM Method D4793-88 indicate that these metals do leach to a limited extent, but are not expected to reach groundwater in any significant concentration. Depth to groundwater at the site ranges from approximately 20 feet (near the beaches) to over 100 feet inland. Based on the results of the human health screening risk assessment, Site 3 has been classified as an RI/FS site.

4.2.3.3 Site 3 - Addressing Data Gaps

COPCs identified in soil include chromium, copper, lead, and zinc. The assessment and measurement endpoints relevant to Site 3 are numbered C1 through C15 in Table 2.1. On the basis of these endpoints, the following field data needs are identified:

- Additional surface soil data to adequately address assessment endpoints C1 and C2
- Plant data to address assessment endpoints C3, C4, C8, and C14
- Plant bioassay data to address assessment endpoints C5 through C7
- Lizard data to address assessment endpoints C9 and C15
- Litter data to address assessment endpoints C10 through C12
- Rodent data to address assessment endpoints C13 and C15.

Indicator species identified at Site 3 include the hottentot fig, coast and dune buckwheat, and the deer mouse. A preliminary quantitative analysis step was conducted for Site 3 using the hottentot fig and deer mouse to identify if hazards may exist based on the identified COPCs. The results of the preliminary analysis using these additional data, presented in Section 5.4.3, identify which of the data gaps identified above warrant additional data collection. Additional surface soil data were collected to allow further evaluation of assessment endpoints C1 and C2, and hottentot fig, buckwheat, and collocated soil samples were collected to allow evaluation of assessment endpoints C3 through C7. Mammal sampling was conducted at this site to allow further evaluation of assessment endpoints C13 through C15. Leaf litter was not collected for the same reason discussed for Site 2. Results of additional data collection and analysis are provided in Section 6.0.

4.2.4 Site 11 - AAFES Fuel Station

The AAFES fueling station is on the northwest corner of North-South and Gilling roads in a highly developed area of the Main Garrison. The site is bordered by a Burger King to the northeast, other buildings to the southeast, southwest, and west, and small areas of undeveloped land to the east, south, and north. The undeveloped land consists of ruderal habitat composed mostly of weedy grasses and shrubs, as well as coast live oak woodland. This site is used for automotive engine work, auto supply, storage, and fueling (i.e., a gas station). Although highly developed and disturbed, the presence of coast live oak woodland at the site warrants inclusion of the site in this assessment.

The site is active. The site is proposed to be developed as university housing and other university-related structures for California State University (COE, 1994).

4.2.4.1 Ecological Site Characterization

A habitat survey conducted in April 1994 and a borehole clearance survey conducted November 26, 1991, indicated the presence of three plant communities associated with the site:

- Landscaped
- Coast live oak woodland
- Upland ruderal.

The approximate distribution of these habitats within and adjacent to the site is depicted on Plate 4.6. Plant species observed during the habitat survey and borehole clearance activities (HLA, 1992g) are listed on Table B1-5. No special-status plants were observed onsite.

Nine animal species (Table B2-5) were observed during the habitat survey; none has special status. One special-status bird (Cooper's hawk) was listed as expected in these habitat types.

4.2.4.2 Chemical Site Characterization

Chemical site characterization activities, all conducted by JMM, included the following:

- Drilling six soil borings to 20 feet bgs, two each in the coast live oak woodland and upland ruderal habitats, and two in paved areas
- Collecting two soil samples from each boring at depths between 5 and 20 feet, and analyzing them for lead, total fuel hydrocarbons (TFH), and benzene, toluene, ethylbenzene, and xylenes (BTEX)
- Collecting 10 surface soil samples, 5 each within the upland ruderal and coast live oak woodland habitats, and analyzing them for lead, TFH, and BTEX.

Results of the soil boring analyses are summarized in the Site 11 letter report dated February 26, 1993. The only organic chemical detected, TFH (similar to TPH), was detected at a relatively low concentration in only one sample in the upland ruderal habitat. Lead was detected below background concentrations in five of nine surface soil samples analyzed; in four of these nine samples, lead was detected above background and may represent site-related contamination. Lead was detected below background in seven of eight subsurface soil

samples analyzed; in one of these eight samples, lead was detected above background and may represent site-related contamination.

Depth to groundwater at the site is expected to be greater than 100 feet; chemicals detected in soil are not expected to adversely impact groundwater. On the basis of potential human health risks and impacts to groundwater, Site 11 was classified as a NoFA site.

4.2.4.3 Site 11 - Addressing Data Gaps

The only COPC identified at Site 11 in soil is lead. The assessment and measurement endpoints relevant to Site 11 are numbered I1 through I8 in Table 2.2. On the basis of these endpoints, the following field data needs are identified:

- Additional surface soil data to adequately address assessment endpoints I1 and I2
- Plant data to address assessment endpoints I3 and I4
- Lizard data to address assessment endpoint I5
- Litter data to address assessment endpoints I6 through I8.

Indicator species identified at Site 11 include the hottentot fig, wild oat, deer mouse, and gray fox. A preliminary quantitative analysis was conducted for Site 11 using these indicator species to identify if hazards may exist based on the identified COPCs. The results of the preliminary analysis using these additional data, presented in Section 5.4.4, identify which of the data gaps identified above warrant additional data collection. Additional surface soil and collocated hottentot fig and wild oat samples were collected to allow further evaluation of assessment endpoints I1 through I4. Mammal sampling was conducted to allow further evaluation of assessment endpoints I9 through I11. Litter was not sampled because the site is mostly paved. Results of additional data collection and analysis are provided in Section 6.0.

4.2.5 Site 15 - DEH Yard

The DEH Yard, also known as the Facilities Engineering Compound, consists of approximately 10 acres in the Salinas Basin, in the Main Garrison north of the 707th Maintenance Facility and south and east of the DOL Yard. The site slopes to the west with elevations ranging from approximately 160 to 190 feet MSL. Most of the site is paved. Historically, transformers, degreasers, and pavement crack sealant were stored at this site, and pesticides were mixed onsite. The site was also a parking area for trucks and pesticide spraying equipment.

The site is largely paved and its proposed future use is as a corporation yard (COE, 1994); it is currently active, with buildings onsite used as administrative offices or for light industry and storage.

4.2.5.1 Ecological Site Characterization

A habitat survey conducted at the site April 11, 1994, and a borehole clearance survey conducted November 26, 1991, indicated the presence of three plant communities associated with the site:

- Upland ruderal
- Landscaped
- Coast live oak woodland.

The approximate distribution of these habitats within and adjacent to the site is depicted on Plate 4.7. Plant species observed during the habitat survey and borehole clearance activities (HLA, 1992g) are listed in Table B1-7. The only special-status plant observed onsite is sandmat manzanita. Sandmat manzanita is a federal Category 2 candidate for listing as threatened or endangered, and is on California Native Plant Society List 1B.

Six animal species were observed at the site; none are special-status species (Table B2-7). One special-status bird (Cooper's hawk) is listed as expected in these habitat types.

4.2.5.2 Chemical Site Characterization

Chemical site characterization activities, all conducted by HLA, included the following:

- Drilling four soil borings to 10 feet bgs in the fully developed area (Plate 4.7), collecting nine soil samples, three from one boring and two each from three borings, between 0.5 and 10 feet bgs, and analyzing them for pesticides and selected metals.
- Drilling five soil borings to 20.5 feet bgs in the landscaped habitat (Plate 4.7). Collecting 17 soil samples, 5 from one boring and 3 each from four borings between 0.5 and 20.5 feet bgs, and analyzing them for pesticides and VOCs.
- Collecting 18 surface soil samples (0.25 feet bgs) and analyzing them for VOCs and pesticides.

Results of the soil sample analyses are summarized by depth in Tables A26 through A28. Four VOCs and four pesticides were detected and may represent site-related contamination. The samples collected from paved areas were not analyzed for VOCs. The highest concentrations of pesticides detected at Site 15 were found in surface samples. Six metals were detected in soil boring samples; four of the metals were detected below background concentrations. Copper was detected in one sample at 1 foot bgs at a concentration exceeding the background concentration for shallow soil. Cadmium was detected at Site 15 at 1 foot bgs and was not detected in the background data set. Therefore, copper and cadmium may represent site-related contamination.

Depth to groundwater at Site 15 is over 120 feet. Chemicals are not expected to leach down to groundwater at this site; pesticides have high organic carbon partition coefficients (Koc) values (implying low mobility), VOCs were detected only in the top 6 inches and were expected to volatilize rather than migrate downward (supported by the lack of detected concentrations of VOCs in deeper soil), and metals have low mobility in the nonacidic soils present onsite.

No human health screening assessment has been conducted for this site; however, the site has been classified as an IA site based on the elevated concentrations of chlordane in soil.

4.2.5.3 Site 15 - Addressing Data Gaps

COPCs identified in soil include four organochloride pesticides (chlordane, dieldrin, DDE, DDT), four VOCs (1,2-DCE, ethylbenzene, toluene, and xylenes) and two metals (cadmium and copper). The assessment and measurement endpoints relevant to Site 15 are numbered I1 through I4, and I7 through I12 in Table 2.2. On the basis of these endpoints, the following field data needs are identified:

- Additional surface soil data to adequately address assessment endpoints I1, I2, and I11
- Plant data to address assessment endpoints I3, I4, and I9
- Litter data to address assessment endpoints I6 through I8
- Rodent data to address assessment endpoints I10 and I12.

Indicator species identified at Site 15 include the hottentot fig, wild oat, deer mouse, and gray fox. A preliminary quantitative analysis was conducted for Site 15 using these indicator species to identify if hazards may exist based on the identified COPCs. The results of the preliminary analysis using these additional data, presented in Section 5.4.6, identify which of the data gaps identified above warrant additional data collection. Additional surface soil and collocated hottentot fig and wild oat samples were collected to allow further evaluation of assessment endpoints I1 through I4, I9, and I11. Rodents and litter were not sampled because the site is mostly paved. Results of additional data collection and analysis are provided in Section 6.0.

4.2.6 Sites 16 and 17 - DOL Maintenance Yard, Pete's Pond, Pete's Pond Extension, and Site 17 Disposal Area

Sites 16 and 17 comprise one RI site for the purposes of site characterization because they are adjacent to each other in the Main Garrison. However, the ecological communities at these sites are substantially different.

Site 16 includes three areas: the Directorate of Logistics (DOL) Maintenance Yard, Pete's Pond, and Pete's Pond Extension. The DOL Maintenance Yard is an approximately 4-acre area on Eighth Street near the Fifth Avenue cutoff. The DOL Yard has been used for a heavy equipment maintenance facility since the 1950s, and consists of several buildings, a wash rack, a paint shop, a steam cleaner, and an oil/water separator enclosed by a chainlink fence. The southern portion of the yard is unpaved. Pete's Pond is a triangular depression between Eighth Street, Fifth Avenue, and the Fifth Avenue cutoff. Six storm drains discharge to Pete's Pond. Although the depression is dry most of the year, it floods to depths of up to 5 feet during heavy rainfall. Pete's Pond Extension is east of the Fifth Avenue cutoff between Pete's Pond and the DOL Maintenance Yard; the eastern portion of the site (adjacent to the DOL Maintenance Yard) is a hillside and the southwest portion is relatively flat. The area is vegetated with low-lying brush and trees; no buildings are present.

Site 17, the 1400 Block Motor Pool, is west of Site 16. The site consists of three areas: the 1400 Block Motor Pool complex, a baseball field, and several buildings along the east side of Fourth Avenue. One of these buildings, the Army and Air Force Exchange Service (AAFES) drycleaners (Building 1424), has been investigated separately as Site 38. Two USTs used for Stoddard solvent are near the AAFES drycleaners; another UST was removed in 1992. The 1400 Block Motor Pool complex consists of paved areas, buildings used for motor vehicle maintenance, service, and storage, 13 USTs (8 waste oil USTs, and 5 diesel or unleaded fuel USTs), several wash racks and grease racks, and four oil-water separators. The paved area east of

the baseball field is a suspected disposal area. The buildings along Fourth Avenue are or were used for storage. Although the baseball field was suspected to have been used for disposal, no surface features typical of a landfill have been observed during site investigation activities.

4.2.6.1 Ecological Site Characterization

A habitat survey was conducted for Site 16 on November 11 and 20, 1993, and for Site 17 on December 11, 1993. Borehole clearance surveys were conducted at Site 16 on November 18, 1991, and at Site 17 on November 19, 1991. Results of these surveys indicated the presence of four plant communities associated with Site 16 (Plate 4.8):

- Central maritime chaparral
- Landscaped
- Wet ruderal
- Upland ruderal.

Results of these surveys indicated the presence of three plant communities associated with Site 17 (Plate 4.9):

- Upland ruderal
- Landscaped
- Coast live oak woodland.

The approximate distributions of these habitats within and adjacent to the sites are depicted on Plates 4.8 and 4.9 for Sites 16 and 17, respectively. Central maritime chaparral, the most extensive natural community at Fort Ord, is considered a rare or declining habitat by the CDFG (1992b). None of the other habitats listed above is considered rare or declining by the CDFG (CDFG, 1992b). Plant species observed during the habitat survey and borehole clearance activities (HLA, 1992g) are listed in Tables B1-8 and B1-9 for Sites 16 and 17, respectively. The following special-status plants were observed at Site 16:

- Sandmat manzanita
- Kellogg's horkelia
- Monterey ceanothus.

All three species are federal Category 2 candidates for listing as threatened or endangered. All three are also on California Native Plant Society lists; the first two on List 1B, and the latter on List 4. The only special-status plant species observed at Site 17 was Monterey spineflower.

Twenty animal species were observed during the habitat survey for Site 16; 17 animal species were observed at Site 17. One of those observed at Site 16, the loggerhead shrike, is a federal Category 2 candidate for listing as threatened or endangered, and is a California species of special concern. One of the animals observed at Site 17, the California gull, is a California species of special concern. For Site 16, one expected species, the California gull, has special status; for Site 17, one expected species, the loggerhead shrike, has special status. Observed and expected animals at Site 16 and 17 are summarized in Tables B2-8 and B2-9, respectively.

4.2.6.2 Chemical Site Characterization

Chemical site characterization activities conducted by HLA at Site 16 included the following:

- Installing one monitoring well in upland ruderal habitat at Pete's Pond, collecting three soil samples (taken at depths of 30.3 - 110.5 feet) from the well borehole, and analyzing them for TPH, TOG, VOCs, and metals
- Drilling 28 soil borings (at least one in each habitat type identified at the site) to depths of 42.25 feet and collecting 83 soil samples from depths ranging from 0.5 - 42.25 feet (1 to 3 samples from each boring location), and analyzing them for one or more of the following, as appropriate: TPH, VOCs, BTEX, SOCs, PCBs, CDDs and CDFs, priority

pollutant metals, and hexavalent chromium (chromium VI)

- Excavating 40 trenches (several in each habitat type identified at the site, except landscaped areas) to depths of 12 feet; collecting 63 soil samples at depths ranging from 0.5 - 12 feet (1 to 3 samples from each trench), and analyzing them for one or more of the following as appropriate: TPH, VOCs, SOCs, PCBs, dioxins and furans, metals, and chromium VI.

Results of the soil analyses at Site 16 are summarized by depth in Tables A29 through A31. Six VOCs were detected at the site, but two of these (methylene chloride and toluene) were detected below the reporting limit and are considered to represent laboratory contaminants, consistent with EPA (1989b) methods. The other four VOCs (acetone, methyl ethyl ketone [MEK], PCE, and 1,1,1-trichloroethane [TCA]) detected in Site 16 soil may represent site-related contamination. Seven SOCs were detected at Site 16 and may represent site-related contamination: bis(2-ethylhexyl)phthalate, di-n-butyl-phthalate, dibenzofuran, fluorene, 2-methylnaphthalene, naphthalene, and phenanthrene. With the exception of bis(2-ethylhexyl)phthalate, SOCs were detected only at the DOL Maintenance Yard. Several dioxin and furan congeners were also detected at Site 16; these were detected in Pete's Pond (at a depth of 2 feet), and Pete's Pond Extension (at depths of 5.7 to 7.0 feet). Extractable TPH mixtures were detected at Site 16 in surface soil (including TPH identified as diesel, oil and grease, and unknown extractable hydrocarbon mixtures; Table A29). However, because the more toxic constituents of extractable TPH mixtures (i.e., PAHs) were also analyzed for, potential effects of TPH mixtures were evaluated by analysis of individual PAHs. Eleven metals were detected: antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc. Only two metals, antimony and mercury, were detected above background concentrations in surface (0.0 - 0.5 foot bgs) soil or were not detected in the background data set, and may therefore represent site-related contamination. All 11 metals detected deeper than 0.5 foot bgs were

detected above background concentrations or were not detected in the background data set; therefore these metals may represent site contamination.

No other investigations have been performed at Site 16.

Chemical site characterization activities at Site 17 conducted by JMM in 1990 included the following:

- Drilling two soil borings adjacent to the AAFES dry cleaners
- Collecting soil samples (at depths of 0, 10, and 20 feet) from each location, and analyzing them for VOCs.

No VOCs were detected in the soil borings.

Three USTs used to store diesel fuel were located at Building 1426. These tanks were removed in January 1991. Soil samples collected from the tank excavation during tank removal contained BTEX.

Chemical site characterization activities conducted by HLA at Site 17 include the following:

- Installing two monitoring wells in fully developed areas of the site, collecting two soil samples (taken at depths ranging from 1.75 to 5.75 feet) from each borehole and analyzing them for TPH, BTEX, and metals
- Drilling two soil borings outside the suspected disposal area (in fully developed areas of the site) to depths of 45.5 feet, collecting three soil samples from each boring, at depths ranging from 5.5 to 45.5 feet, and analyzing them for TPH, BTEX, and metals
- Drilling 10 soil borings within the suspected disposal area (in fully developed areas of the site) to depths of 31.25 feet, collecting 25 soil samples, at least 2 from each boring, and analyzing them for one or more of the following, as appropriate: TPH, VOCs, SOCs,

PCBs, CDDs and CDFs, metals, and chromium VI

- Excavating 20 trenches (in fully developed areas of the site) to depths of 14 feet, collecting 35 soil samples from depths ranging from 0.5 to 14 feet (1 to 3 samples from each trench), and analyzing them for one or more of the following, as appropriate: TPH, VOCs, SOCs, PCBs, CDDs and CDFs, metals, and chromium VI.

Results of the soil analyses at Site 17 are summarized by depth in Tables A32 through A34. Two VOCs were detected at the site (acetone and methylene chloride), and may represent site-related contamination. One SOC, bis(2-ethylhexyl)phthalate, was detected at Site 17 but was considered to be present due to laboratory contamination. Several dioxin and furan congeners were detected at depth in developed areas of the site. Unknown extractable TPH mixtures were detected; however, because the more toxic constituents of extractable TPH mixtures (i.e., PAHs) were also analyzed for, potential effects of TPH mixtures were evaluated by analysis of individual PAHs. Twelve metals were detected: antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, and zinc. No metals exceeded background concentrations in surficial soil samples, but all 12 metals were detected above background concentrations in samples deeper than 4 feet bgs or were not detected in the background data set; therefore these metals may represent site contamination at depth.

4.2.6.3 Site 16 - Addressing Data Gaps

COPCs identified in soil include five VOCs (acetone, MEK, toluene, TCE, PCE), seven SOCs (bis[2-ethylhexyl]phthalate, di-n-butylphthalate, dibenzofuran, fluorene, 2-methylnaphthalene, naphthalene, and phenanthrene), CDDs and CDFs, and 11 metals (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, and zinc). The assessment and measurement endpoints relevant to Site 16 are numbered I1 through I12 in Table

2.2. On the basis of these endpoints, the following field data needs are identified:

- Additional surface soil data to adequately address assessment endpoints I1, I2, and I11
- Plant data to address assessment endpoints I3, I4, and I9
- Lizard data to address assessment endpoint I5
- Litter data to address assessment endpoints I6 through I8
- Rodent data to address assessment endpoints I10 and I12.

Indicator species identified at Site 16 include the hottentot fig, wild oat, deer mouse, and gray fox. A preliminary quantitative analysis step was conducted for Site 16 using these indicator species to identify if hazards may exist based on the identified COPCs. The results of the preliminary analysis using these additional data, presented in Section 5.4.7, identify which of the data gaps identified above warrant additional data collection. Additional surface soil and collocated hottentot fig and wild oat samples were collected to allow further evaluation of assessment endpoints I1 through I4, I9, and I11. Rodent sampling was conducted to allow further evaluation of assessment endpoints I9 through I11, and litter was collected to evaluate endpoints I5 through I8. Results of additional data collection and analysis are provided in Section 6.0.

4.2.6.4 Site 17 - Addressing Data Gaps

COPCs identified in shallow and deep soil include two VOCs (acetone and methylene chloride) and 12 metals (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, and zinc). No COPCs were identified in surface soil samples. All COPCs were detected in paved areas. Therefore, no complete exposure pathways were identified at this site, and no assessment and measurement endpoints were identified at Site 17. No data gaps are identified at this site, and no further work is recommended.

4.2.7 Site 21 - 4400/4500 Motor Pool, East Block

The 4400/4500 Motor Pool, East Block, is east of Eighth Avenue between Inter-Garrison and Gigling roads in the Main Garrison. The nine motor pools in the East Block were all used for motor vehicle service, maintenance, and storage. Light and heavy trucks and other army vehicles were serviced at the facilities. Lubricating oils, brake fluids, coolants, cleaning solvents, and gasoline and diesel fuels were used or stored on the premises. Approximately 95 percent of the site is paved with either asphalt or concrete.

The site is inactive and is planned to be retained as part of the POM Annex; alternatively, the area may be used for light industry/offices supporting California State University (COE, 1994).

4.2.7.1 Ecological Site Characterization Status

A habitat survey conducted November 12 and 21, 1993, and a borehole clearance survey conducted November 27, 1991, indicated the presence of three plant communities associated with the site (Plate 4.10):

- Coast live oak woodland
- Upland ruderal
- Wet ruderal.

The approximate distribution of these habitats within and adjacent to the site is depicted on Plate 4.10. Plant species observed during the habitat survey are listed in Table B1-12. No special-status plant species were observed onsite.

Thirty-two animals species were observed during the habitat survey; of these, the dusky-footed woodrat is a federal Category 2 candidate for listing as threatened or endangered and the Cooper's hawk is a California species of special concern. In addition, one special-status reptile (the silvery legless lizard), and two special-status birds (sharp-shinned hawk and loggerhead shrike) are listed as expected in these habitat types. Observed and expected animals at and near Site 21 are summarized in Table B2-12.

4.2.7.2 Chemical Site Characterization Status

Chemical site characterization activities, all conducted by HLA, included the following:

- Drilling eight soil borings to depths of 20.5 feet bgs; five borings were in paved areas and three borings were in upland ruderal habitat
- Collecting 22 samples between 0.25 and 20.5 feet bgs (at least two from each boring), and analyzing them for VOCs, SOCs, TPH, and metals
- Collecting six surface soil samples, all in wet ruderal habitat, and analyzing them for VOCs, SOCs, TOG, and metals.

Results of the soil analyses are summarized by depth in Tables A40 and A41. Three VOCs were detected, but two of these (acetone and methylene chloride) were detected below the reporting limit and are considered to represent laboratory contamination, consistent with EPA (1989b) methods. Xylenes were detected above reporting limits and may represent site-related compounds. Two SOCs, chrysene and bis(2-ethylhexyl)phthalate, were detected at Site 21 and may represent site-related compounds. TPH-extractable unknown hydrocarbons and total oil and grease were detected at Site 21 and may represent site-related compounds. These complex mixtures were not separately evaluated, as discussed in Section 5.2. Eleven metals were detected; nickel was the only metal detected below background concentration in surface soil samples; all metals were below background levels at depth. The other 10 metals (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, silver, and zinc) were detected at Site 21 at 0.0 to 2.0 feet bgs at concentrations above background levels or were not detected in the background data set; these metals may represent site-related chemicals of potential concern.

Depth to groundwater at the site is approximately 165 feet. No human health screening risk evaluation has been conducted for Site 21. Site 21 has been classified as an IA site based on

elevated concentrations of chemicals in the wet ruderal habitat. The soil in this wet ruderal area is planned to be removed as part of the IA for Site 21.

4.2.7.3 Site 21 - Addressing Data Gaps

COPCs identified in soil include three organics (xylenes, chrysene, and bis[2-ethylhexyl]phthalate). The assessment and measurement endpoints relevant to Site 21 are numbered I1 through I8 and I12 in Table 2.2. On the basis of these endpoints, the following field data needs are identified:

- Additional surface soil data to adequately address assessment endpoints I1 and I2
- Plant data to address assessment endpoints I3 and I4
- Lizard data to address assessment endpoint I5
- Litter data to address assessment endpoints I6 through I8
- Rodent data to address assessment endpoint I12.

Indicator species identified at Site 21 include the hottentot fig, wild oat, deer mouse, and gray fox. A preliminary quantitative analysis was conducted for Site 21 using these indicator species to identify if hazards may exist based on the identified COPCs. The results of the preliminary analysis using these additional data, presented in Section 5.4.9, identify which of the data gaps identified above warrant additional data collection. Additional surface soil and collocated hottentot fig and wild oat samples were collected to allow further evaluation of assessment endpoints I1 through I4. Rodents and litter were not sampled because the site is mostly paved. Results of additional data collection and analysis are provided in Section 6.0.

4.2.8 Site 22 - 4400/4500 Motor Pool West Block

The west block of the 4400/4500 Motor Pool comprises approximately 10 acres in the Main Garrison and is bordered by Inter-Garrison Road to the north, Gigling Road to the south, Eighth Avenue to the east, and Seventh Avenue to the west. The site consists primarily of paved areas with scattered areas of landscaped and upland ruderal habitats and two small patches of coast live oak woodland. There are 18 underground storage tanks, four grease racks, three oil/water separators, and one aboveground storage tank onsite. Historically, the site was used for motor vehicle repair.

The site is inactive. The proposed future land use for this site is unclear based on site boundaries. Possible options for the area are inclusion in either the California State University or Office Park #3 parcels, which indicates that the area will likely remain developed (COE, 1994).

4.2.8.1 Ecological Site Characterization

A habitat survey conducted in April 1994 and a borehole clearance survey conducted on December 10, 1991, indicated the presence of three plant communities associated with the site:

- Upland ruderal
- Landscaped
- Coast live oak woodland.

The approximate distribution of these habitats within and adjacent to the site is depicted on Plate 4.11. Plant species observed during the habitat survey and borehole clearance activities (HLA, 1992g) are listed in Table B1-13. Two special-status plant species were observed onsite.

- Kellogg's horkelia
- Monterey spineflower.

Kellogg's horkelia is a federal Category 2 candidate for listing as threatened or endangered;

Monterey spineflower is listed as endangered. Both species are on the California Native Plant Society List 1B.

Twelve animal species were observed during the habitat survey; none of these was special status (Table B2-13). Additionally, no special-status animals are expected at or near the site.

4.2.8.2 Chemical Site Characterization

Chemical site characterization activities conducted by EA in 1990 included the following:

- Drilling six soil borings to 75 feet bgs, one in upland ruderal habitat; one in landscaped habitat, and the other four in fully developed areas
- Collecting 18 soil samples between 3 and 75 feet bgs, 5 from Borings SB-22-01 and SB-22-08 and 2 from the other four borings, and analyzing them for TRPH, VOCs, SOCs, and metals
- Collecting three sediment samples at 1 foot bgs, and analyzing them for TRPH, VOCs, SOCs, and metals.

Methylene chloride and toluene were the only VOCs detected; methylene chloride was detected below the reporting limit and is considered to represent laboratory contamination, consistent with EPA (1989b) methods. Detected concentrations of toluene exceeded the reporting limit and may represent site-related contamination.

Chemical site characterization activities conducted by HLA included the following:

- Drilling six soil borings to 26 feet bgs in fully developed areas
- Collecting 18 soil samples, 3 from each boring, between 5.5 and 26 feet bgs, and analyzing them for TPH, TOG, VOCs, SOCs, and metals.

Results of the soil boring analyses are summarized by depth in Tables A42 and A43. Acetone was the only VOC detected, but was detected below the reporting limit and is considered to represent laboratory contamination, consistent with EPA (1989b) methods.

Bis(2-ethylhexyl)phthalate was detected in one surface soil sample above the reporting limit, and may represent site-related contamination. Eight metals were detected at depth; four of these were detected below background concentrations. Chromium, lead, nickel, and zinc were detected above background concentration, and therefore these metals may represent site-related contamination. Twenty TICs were reported; most were low concentrations of unknown hydrocarbons.

Depth to groundwater at the site is assumed to be over 100 feet; results of a human health screening risk assessment for Site 22 indicate that substantial migration of chemicals is not expected to occur. On the basis of potential human health risks and impacts to groundwater, Site 22 was classified as an IA site.

4.2.8.3 Site 22 - Addressing Data Gaps

COPCs identified in soil include one organic chemical (bis[2-ethylhexyl]phthalate) and four metals (chromium, lead, nickel, and zinc). The assessment and measurement endpoints relevant to Site 22 are numbered I1 through I12 in Table 2.2. On the basis of these endpoints, the following field data needs are identified:

- Additional surface soil data to adequately address assessment endpoints I1, I2, and I11
- Plant data to address assessment endpoints I3, I4, and I9
- Lizard data to address assessment endpoint I5
- Litter data to address assessment endpoints I6 through I8
- Rodent data to address assessment endpoints I10 and I12.

Indicator species identified at Site 22 include the hottentot fig, wild oat, deer mouse, and gray fox. A preliminary quantitative analysis was conducted for Site 22 using these indicator species to identify if hazards may exist based on the identified COPCs. The results of the preliminary analysis using these additional data, presented in Section 5.4.10, identify which of the data gaps identified above warrant additional data collection. Additional surface soil and collocated hottentot fig and wild oat samples were collected to allow further evaluation of assessment endpoints I1 through I4, I9, and I11. Rodents and litter were not sampled because the site is mostly paved. Results of additional data collection and analysis are provided in Section 6.0.

4.2.9 Site 24 - Old Directorate of Engineering and Housing (DEH) Yard

The former DEH Yard is east of North-South Road and north of Owen Road, which is east of the Fort Ord Main Entrance in the Main Garrison. The area is bounded by North-South Road, a quarter-mile track, and Buildings 3725 and 3803. A former plant nursery was located in the northeast corner of the site. Historically, this site was used for maintenance, pest control, plumbing, and electrical work. A paint shop, vehicle fueling area, and auto maintenance shop were also present. The rest of the site is an open field containing the remains of demolished buildings.

The former DEH Yard is closed and inactive. It is part of Polygon 16, which is planned for future development as part of the California State University campus. The area for the future campus, which also includes Polygons 8a and 10, contains numerous buildings on a developed 1,000-acre parcel that will be used for university staff and student housing and academic buildings. A 300-acre area that is presently undeveloped may be developed for additional university housing (COE, 1994). Precise plans for Site 24 are unknown at this time.

4.2.9.1 Ecological Site Characterization

A habitat survey conducted at the site on November 10 and 20, 1993, and a borehole clearance survey conducted on November 26, 1991, indicated the presence of three plant communities associated with the site (Plate 4.12):

- Landscaped
- Coast live oak woodland
- Upland ruderal.

The approximate distribution of these habitats within and adjacent to the site is depicted on Plate 4.12. Upland ruderal habitat is the most extensive habitat onsite; vegetation typical of this habitat has invaded several structures, including the abandoned quarter-mile track and plant nursery. Plant species observed during the habitat survey are listed in Table B1-14. No special-status plants were observed onsite.

Thirty-three species of animals were observed during the habitat survey; none of these is listed as special-status species by the state or federal government. One special-status reptile (the silvery legless lizard), two special-status birds (the loggerhead shrike and California gull), and one special-status mammal (the dusky-footed woodrat) are expected in these habitat types. Observed and expected animals at Site 24 are summarized in Table B2-14.

4.2.9.2 Chemical Site Characterization

Chemical site characterization activities were conducted at the site by James M. Montgomery Engineering Company (JMM) and HLA. Site characterization activities by JMM included the following:

- Drilling six soil borings in upland ruderal habitats to 20 feet bgs
- Installing three monitoring wells to depths of 185 to 230 feet bgs, two in coast live oak woodland habitat and one in upland ruderal habitat

- Collecting 39 soil samples, 6 from each monitoring well and 3 from each soil boring, and analyzing them for VOCs and BTEX, TPH as HPBHC, base-neutral SOCs, pesticides/PCBs, and metals.

No VOCs, BTEX, or PCBs were detected. TPH was detected at 600 mg/kg in one surface soil sample from MW-24-01, located in upland ruderal habitat. Diethylphthalate was detected in samples from 0.0 and 5.0 feet bgs, both from MW-24-03, located in coast live oak woodland. No data were available to assess if these concentrations were due to laboratory contamination. DDT was detected at concentrations ranging from 0.01 to 1.3 mg/kg at 0.0 foot bgs at three locations, MW-24-01, MW-24-02, and SB-24-05, which are in upland ruderal, coast live oak woodland, and upland ruderal habitats, respectively. The TPH and DDT could possibly be site-related given historical site uses. Eleven metals were detected; there are no available HLA background data for three of them (barium, cobalt, and vanadium), so no background comparison was conducted for these metals. None of the other eight metals were detected above background concentrations in surface (0.0-0.5 foot bgs) or shallow soil (>0.5-4 feet bgs). The concentration of lead exceeded background in one deep sample (10 feet bgs at MW-24-02) in coast live oak woodland. These data are not included in the enclosed data tables; only HLA data are represented.

Chemical site characterization activities conducted by HLA included the following:

- Drilling 10 soil borings in upland ruderal habitat to 25.5 feet bgs
- Collecting 24 soil samples and analyzing them for VOCs, pesticides, PCBs, TPH, and metals.

Results of the surface soil and soil boring analyses are summarized by depth in Tables A46 through A48. Toluene, various pesticides, PCBs (Aroclor 1260), TPH-extractable unknown hydrocarbons, and nine metals were detected in surface soil samples (0- to 0.5 foot bgs). Lead, mercury, silver, and zinc concentrations at depths between 0.5 and 4 feet exceeded

background; chromium, lead, and zinc concentrations at depth between 4 and 10 feet exceeded background. Five VOCs were detected at depths greater than 0.5 foot bgs. One of these, acetone, was detected below the reporting limit and is considered to represent laboratory contamination. PCE, trichloroethene (TCE), and xylenes were detected between 4 and 10 feet bgs, and may represent site-related contamination.

Depth to groundwater at the site is over 100 feet; however, no human health screening risk assessment has been conducted for Site 24 to characterize potential impacts to groundwater from chemicals in soil. This site has been classified as an IA site because buried drums were found onsite.

4.2.9.3 Site 24 - Addressing Data Gaps

COPCs identified in soil include four VOCs (toluene, PCE, TCE, xylenes), five pesticides (chlordane, DDD, DDE, DDT, and dieldrin) and five metals (chromium, lead, mercury, silver, and zinc). The assessment and measurement endpoints relevant to Site 24 are numbered I1 through I12 in Table 2.2. On the basis of these endpoints, the following field data needs are identified:

- Additional surficial soil data to adequately address assessment endpoints I1, I2, and I11
- Plant data to address assessment endpoints I3, I4, and I9
- Lizard data to address assessment endpoint I5
- Litter data to address assessment endpoints I6 through I8
- Rodent data to address assessment endpoints I10 and I12.

Indicator species identified at Site 24 include the hottentot fig, wild oat, deer mouse, and gray fox. A preliminary quantitative analysis was conducted for Site 24 using these indicator species to identify if hazards may exist based on the identified COPCs. The results of the preliminary analysis using these additional data,

presented in Section 5.4.11, identify which of the data gaps identified above warrant additional data collection. Additional surface soil and collocated hottentot fig and wild oat samples were collected to allow further evaluation of assessment endpoints I1 through I4, I9, and I11. Rodent sampling was conducted to allow further evaluation of assessment endpoints I9 through I11, and litter was collected to evaluate endpoints I5 through I8. Results of additional data collection and analysis are provided in Section 6.0.

4.2.10 Site 25 - Former DRMO

The former Defense Reutilization and Marketing Office (DRMO) site is an approximately 11-acre field southeast of the intersection of Ninth Street and Fourth Avenue in the northwest quadrant of Fort Ord. The site is an unpaved, open field; all buildings and structures have been removed. The site was historically used for storing decommissioned equipment, including electrical transformers (*JMM, 1991a; Weston, 1990*). Hazardous wastes such as waste oil, diesel fuel, and miscellaneous solvents may have been stored sporadically at the site for varying periods (*Weston, 1990*).

The site is inactive. Mixed commercial and residential uses to support the faculty, staff, and students of the adjoining CSU campus are proposed for the site (*COE, 1994*).

4.2.10.1 Ecological Site Characterization

A habitat survey conducted at the site on December 11, 1993, and a borehole clearance survey conducted on November 26, 1991, indicated the presence of three plant communities associated with the site (Plate 4.13):

- Upland ruderal
- Central maritime chaparral
- Landscaped.

The approximate distribution of these habitats within and adjacent to the site is depicted on Plate 4.13. Central maritime chaparral, the most

extensive natural community at Fort Ord, is considered a rare or declining habitat of highest priority by the California Department of Fish and Game (CDFG, 1992b). Plant species observed during the habitat survey and borehole clearance activities (HLA, 1992g) are listed in Table B1-15. The only special-status plant observed onsite is sandmat manzanita. This species is a federal Category 2 candidate for listing as threatened or endangered and is on California Native Plant Society List 1B.

Twenty animal species were observed during the habitat survey; none is listed as threatened or endangered. Three special-status birds (the loggerhead shrike, California gull, and Cooper's hawk) are listed as expected in these habitat types. Observed and expected animals at Site 25 are summarized in Table B2-15.

4.2.10.2 Chemical Site Characterization

Chemical site characterization activities, all conducted by JMM (1991), included the following:

- Drilling five soil borings to 20 feet bgs in upland ruderal habitat and one soil boring to 20 feet bgs in the landscaped habitat
- Collecting 12 soil samples, 2 from each boring at depths between 5 and 20 feet and analyzing them for metals
- Collecting six surface soil samples (0 foot bgs) in the upland ruderal habitat and analyzing them for metals; four samples were also analyzed for TPH (HBPHC), VOCs, SOCs, and pesticides/PCBs.

Results of the soil analyses are summarized by depth in Tables A49 and A50. Acetone was the only VOC detected, but acetone is not known to have been historically used onsite; acetone was detected in one of five samples (including a duplicate analysis) at a concentration only slightly above the reporting limit and is considered to represent laboratory contamination, consistent with EPA (1989b) methods. Three pesticides were detected and are considered to represent site-related contamination. Seven

metals were detected at Site 25, six below background concentrations. Cadmium was detected in surface soil but was reported as not detected in the background dataset; therefore, cadmium may represent site-related contamination.

Although rainwater is expected to infiltrate the porous site soil and percolate downward, the likelihood of site-related chemicals leaching to groundwater is considered low. Site-related chemical concentrations in soil are relatively low, the chemicals are at or near the ground surface, the organic chemicals have high Koc values (implying low mobility), the inorganic chemicals are metals (expected to have low mobility), and the depth to groundwater is over 140 feet. Downward migration would be expected to dilute the already low site-related chemical concentrations. Site 25 was classified as a NoFA site on the basis of the results from the human health screening risk assessment.

4.2.10.3 Site 25 - Addressing Data Gaps

COPCs identified in soil include three pesticides (DDE, DDT, and dieldrin) and one metal (cadmium). The assessment and measurement endpoints relevant to Site 25 are numbered I1 through I12 in Table 2.2. On the basis of these endpoints, the following field data needs are identified:

- Additional surface soil data to adequately address assessment endpoints I1, I2, and I11
- Plant data to address assessment endpoints I3, I4, and I9
- Lizard data to address assessment endpoint I5
- Litter data to address assessment endpoints I6 through I8
- Rodent data to address assessment endpoints I10 and I12.

Indicator species identified at Site 25 include the hottentot fig, wild oat, deer mouse, and gray fox. A preliminary quantitative analysis was

conducted for Site 25 using these indicator species to identify if hazards may exist based on the identified COPCs. The results of the preliminary analysis using these additional data, presented in Section 5.4.12, identify which of the data gaps identified above warrant additional data collection. Additional surface soil and collocated hottentot fig and wild oat samples were collected to allow further evaluation of assessment endpoints I1 through I4, I9, and I11. Rodent sampling was conducted to allow further evaluation of assessment endpoints I9 through I11, and litter was collected to evaluate endpoints I5 through I8. Results of additional data collection and analysis are provided in Section 6.0.

4.2.11 Site 29 - DRMO

The DRMO site is in the eastern portion of the East Garrison. The site is a fenced, 2-acre hazardous materials storage area where hazardous wastes were stored prior to disposal or recycling, storehouses, and a field adjacent to the hazardous materials storage area. The storage area was paved in 1990. Transformers were stored in the past in a fenced, paved enclosure between Buildings 110 and 111. PCB-containing oil has been stored in drums in Building 111 since 1985. The floor of Building 111 is bermed and sealed with epoxy. The field was reportedly used prior to 1982 for transformer fluid disposal, and is not currently fenced.

The developed portion of the site is active. The proposed future land use for this site is either as part of an agricultural center or as open space/habitat (COE, 1994).

4.2.11.1 Ecological Site Characterization

A habitat survey conducted at the site on December 11, 1993, and a borehole clearance survey conducted on November 19, 1991, indicated the presence of three plant communities associated with the site:

- Coast live oak woodland
- Landscaped

- Upland ruderal.

The approximate distribution of these habitats in and adjacent to the site is depicted on Plate 4.14. Plant species observed in the onsite upland ruderal habitat during the habitat survey and borehole clearance activities (HLA, 1992g) are listed in Table B1-16. The only special-status plant species observed at Site 29 was Kellogg's horkelia.

Twenty-six species of animals were observed during the habitat survey; one of these, the loggerhead shrike, is a federal Category 2 candidate species for listing as threatened or endangered and a California species of special concern. One special-status bird (the black-shouldered kite) is listed as expected in these habitat types. Observed and expected animals at Site 29 are summarized in Table B2-16.

4.2.11.2 Chemical Site Characterization

Chemical site characterization activities, all conducted by HLA, included the following:

- Drilling 29 soiling borings to depths of 5.5 feet; 20 of the borings were drilled in upland ruderal habitat; 3 borings each were located in fully developed, landscaped, and coast live oak woodland habitats
- Collecting 58 soil samples, 3 from each boring between 1.0 and 5.5 feet bgs, and analyzing them for TPH, TOG, and metals.

Results of the soil sample boring analyses are summarized by depth in Tables A54 and A55. TPH and TOG were detected in several samples at Site 29; however, these are considered to be related to asphaltic fill material in the soil and not of concern based on lack of bioavailability. Ten metals were detected at the site; four were detected below background concentrations. The other six metals (cadmium, copper, mercury, selenium, silver, and zinc) were detected above background concentrations or were not detected in the background data set and may represent site-related contamination.

Depth to groundwater at the site is over 150 feet; results of a human health screening risk evaluation conducted for Site 29 indicate that the chemicals detected at the site are not expected to migrate to groundwater (*Draft Site Characterization Site 29 - DRMO, December 4, 1992*). On the basis of potential human health risks and impacts to groundwater, Site 29 was classified as a NoFA site. Subsequently, PCBs were detected in storm drain inlets in the open field. These storm drains will be cleaned out as part of an interim action at the site. Results of stormwater sampling at the outlets of this system did not indicate the presence of PCBs at detectable concentrations.

4.2.11.3 Site 29 - Addressing Data Gaps

COPCs identified in soil include six metals (cadmium, copper, mercury, selenium, silver, and zinc). The assessment and measurement endpoints relevant to Site 29 are numbered I1 through I12 in Table 2.2. On the basis of these endpoints, the following field data needs are identified:

- Additional surface soil data to adequately address assessment endpoints I1, I2, and I11
- Plant data to address assessment endpoints I3, I4, and I9
- Lizard data to address assessment endpoint I5
- Litter data to address assessment endpoints I6 through I8
- Rodent data to address assessment endpoints I10 and I12.

Indicator species identified at Site 29 include the hottentot fig, wild oat, deer mouse, and gray fox. A preliminary quantitative analysis was conducted for Site 29 using these indicator species to identify if hazards may exist based on the identified COPCs. The results of the preliminary analysis using these additional data, presented in Section 5.4.13, identify which of the data gaps identified above warrant additional data collection. Additional surface soil and collocated hottentot fig and wild oat samples

were collected to allow further evaluation of assessment endpoints I1 through I4, I9, and I11. Rodent sampling was conducted to allow further evaluation of assessment endpoints I9 through I11, and litter was collected to evaluate endpoints I5 through I8. Results of additional data collection and analysis are provided in Section 6.0.

4.2.12 Site 31 - Former Dump Site

The Former Dump Site is near the northeast base boundary on topographically elevated land overlooking the Salinas Valley to the north. The site is adjacent to the intersections of Watkins Gate and Barloy Canyon roads; the East Garrison is northwest of the site. Site 31 includes the north slope of a ravine, the ravine floor and the lower part of the south slope, as well as a relatively level area above the north slope partially occupied by an area called the Leadership Reaction Training Structure. Structures from this training area remain onsite. The site is surrounded by dune sand hills and both coast live oak woodland and central maritime chaparral habitats. The ravine is approximately 100 feet deep and the north slope has a gradient of approximately 45 degrees. Site 31 was a dump site in the 1940s and 1950s and debris including glass, cans, bottles, wood, concrete, scrap metals, drums, and ash are visible at the surface. The ash and debris are thought to come from an incinerator formerly located on the level area above the north slope.

Site 31 is inactive. It has been designated as part of Polygon 11B, which comprises approximately 730 acres and includes the East Garrison and Sites 30 and 32. Two hundred acres of this parcel are slated to become the Monterey County Agricultural Center, which will include facilities for agricultural production, storage, packaging, and distribution, as well as approximately 250 housing units for families and workers. This development is expected to take place predominantly in currently developed areas, including the East Garrison and the Ammo Supply Point east of Site 31. The remainder of Polygon 11B is to be set aside as open space/habitat, with a priority on preserving areas that are currently natural habitat (*COE, 1994*). Although the precise plans for Site 31 are

unknown, the steep nature of the site and natural habitats onsite suggest that much of Site 31 will be set aside as open space.

4.2.12.1 Ecological Site Characterization

A habitat survey conducted at the site on November 21 and December 1, 1993, and a borehole clearance survey conducted on November 26, 1992, indicated the presence of four plant communities associated with the site:

- Coast live oak woodland
- Upland ruderal
- Wet ruderal
- Valley needlegrass grassland.

The approximate distribution of these habitats within and adjacent to the site is depicted on Plate 4.15. Debris from former dumping is found mostly in the upland ruderal habitat that covers most of the north slope of the ravine. Coast live oak woodland occurs mostly on the south slope and west of the ravine. Monterey County has adopted an ordinance to preserve oak trees in these woodlands (Chapter 16.10, *Monterey County Code*). Valley needlegrass grassland is listed as a special-status biological community in the California Department of Fish and Game's Natural Diversity Data Base (*CDFG, 1992c*). Plant species observed during the habitat survey are listed in Table B1-17. No special-status plant species were observed onsite.

Eighteen species of animals were observed onsite during the habitat survey; one of these, the Monterey dusky-footed woodrat, is listed as a California species of special concern and a federal Category 2 candidate. One special-status reptile (the silvery legless lizard) and three special-status birds (Cooper's and sharp-shinned hawk, and loggerhead shrike) are listed as expected in these habitat types. Observed and expected animals are summarized in Table B2-17.

4.2.12.2 Chemical Site Characterization

Chemical site characterization activities, all conducted by HLA, included the following:

- Collecting 56 surface soil samples (0.0 foot bgs) and drilling 39 soil borings to depths up to 16 feet (additional surface soil samples were collected from some of these borings); surface soil samples were collected and soil borings were drilled in all plant communities onsite except the wet ruderal habitat, from which only surface soil samples were collected; the majority of samples were collected from upland ruderal habitat, which is in the area of heaviest debris (i.e., the north slope of the ravine)
- Collecting 61 soil samples from the soil borings as well as the surface soil samples described above; 1 to 3 samples were collected from each boring at depths ranging from 0.0 to 16 feet; samples were analyzed for VOCs, SOCs, pesticides/PCBs, CDDs and CDFs, TPH as diesel, and metals including chromium VI.

Results of the soil analyses are summarized by depth in Tables A58 through A60 and are described by depth and chemical group below:

Surface Soil (0.0 to 0.5 foot bgs):

- Carcinogenic and noncarcinogenic PAHs and dibenzofuran were detected; maximum concentrations were at SS-31-29 on the north slope in a small pocket of coast live oak woodland
- 4,4'-DDE and 4,4'-DDT were detected; the maximum concentrations of both were located at SS-31-34 in upland ruderal habitat on the north slope
- Four dioxins and five furans, including 2,3,7,8-TCDD, were detected; the maximum concentrations of the various congeners were scattered in three sampling locations on the north slope in upland ruderal habitat, as well as at SB-31-24, located in coast live oak woodland on the ravine floor

- Eleven metals were detected, of which 10 (all except nickel) exceeded background; the majority of the background exceedances occurred in the areas of heaviest surface debris on the north slope of the ravine in upland ruderal habitat, where the site maximum concentrations of lead and zinc were found.

Shallow soil (greater than 0.5 to 4 feet bgs):

- Two pesticides, 4,4'-DDE and 4,4'-DDT, were detected once (at 3 feet bgs) at SB-31-34, in upland ruderal habitat on the north slope of the ravine
- Four dioxins and five furans, including 2,3,7,8-TCDD, were detected; the maximum concentrations were at SB-31-24 (on the ravine floor in coast live oak woodland) and SB-31-23 (on the north slope in upland ruderal habitat) at depths of 2 to 3 feet bgs
- Eleven metals were detected, of which nine (all except beryllium and nickel) exceeded background; the maximum concentrations were at 3 feet bgs at SB-31-23 and SB-31-22, which are both in areas of extensive surface debris in upland ruderal habitat on the north slope; background concentrations were exceeded in three of these eight samples.

Deep Soil (greater than 4 to 10 feet bgs):

- Two VOCs (acetone and methylene chloride) were detected, both at concentrations below reporting limits; these were not known to have been onsite and are considered to represent laboratory contamination, consistent with EPA (1989b) methods
- Two pesticides, 4,4'-DDE and 4,4'-DDT, were detected; the maximum concentrations of both were from the 6-foot sample from SB-31-33 in upland ruderal habitat on the north slope
- Four dioxins and four furans, including 2,3,7,8-TCDD, were detected; the maximum concentrations were from 6-foot samples from SB-31-26, -27, -30, and -33, in upland ruderal habitat on the north slope

- Twelve metals were detected, of which all but one (antimony) exceeded background; the maximum concentrations were mostly located at SB-31-04 and -05, in upland ruderal habitat on the north slope; detected concentrations exceeded background in 16 of 30 samples, all but 1 of which were collected in upland ruderal habitat on the north slope.

4.2.12.3 Site 31 - Addressing Data Gaps

COPCs identified in soil include two pesticides (DDE and DDT), 11 SOCs (benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, chrysene, dibenzo[a,h]anthracene, dibenzofuran, fluoranthene, 2-methylnaphthalene, naphthalene, phenanthrene, and pyrene), CDDs and CDFs, and 11 metals (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, silver, thallium, and zinc). The assessment and measurement endpoints relevant to Site 31 are numbered I1 through I12 in Table 2.2. On the basis of these endpoints, the following field data needs are identified:

- Additional surface soil data to adequately address assessment endpoints I1, I2, and I11
- Plant data to address assessment endpoints I3, I4, and I9
- Lizard data to address assessment endpoint I5
- Litter data to address assessment endpoints I6 through I8
- Rodent data to address assessment endpoints I10 and I12.

Indicator species identified at Site 31 include the wild oat, deer mouse, and gray fox. A preliminary quantitative analysis was conducted for Site 31 using these indicator species to identify if hazards may exist based on the identified COPCs. The results of the preliminary analysis using these additional data, presented in Section 5.4.14, identify which of the data gaps identified above warrant additional data collection. Additional surface soil and collocated wild oat samples were collected to allow further

evaluation of assessment endpoints I1 through I4, I9, and I11. Rodent sampling was conducted to allow further evaluation of assessment endpoints I9 through I11, and litter was collected to evaluate endpoints I5 through I8. Results of additional data collection and analysis are provided in Section 6.0.

4.2.13 Site 32 - East Garrison Sewage Treatment Plant

The East Garrison Sewage Treatment Plant (EGSTP) is north of Inter-Garrison Road and south of Reservation Road at the eastern Fort Ord boundary, west of the Salinas River valley. Site 30, the Heavy Vehicle Precision Driving Course, and the East Garrison are north of the EGSTP. The site is in a topographically elevated area and is surrounded by gently rolling hills vegetated with coast live oak woodland and central maritime chaparral. The EGSTP was built before the 1940s to serve the East Garrison. The plant contains unlined sludge beds, an unlined percolation pond, and concrete Dotton-sedimentation tanks. The site is closed and inactive. An unused road runs through the site to the east. Although areas within Site 32 have been disturbed as a result of clearing of the site and operation and maintenance of the percolation ponds, some undeveloped areas remain. (*Draft Data Recommendations Report, Site 32 - East Garrison Sewage Treatment Plant, August 6, 1993.*)

The site is located in Polygon 11B, an approximately 730-acre parcel of which 200 acres have been slated for future use as the Monterey County Agri-Center (*COE 1994*). This parcel will include growing, cooling, and distributing facilities in addition to 250 dwelling units for families and farm workers. Most of the development of this parcel is expected to take place at the East Garrison and another site to the northeast, the Ammo Supply Point. The remainder of the parcel, including areas that are not developed or that are considered to contain natural habitat, will be set aside as open space/habitat (*COE, 1994*). Precise plans for Site 32 are unknown.

4.2.13.1 Ecological Site Characterization

A habitat survey conducted at the site on November 10 and 22, 1993, and a borehole clearance survey conducted on November 26, 1991, indicated the presence of three plant communities associated with the site:

- Coast live oak woodland
- Landscaped
- Upland ruderal.

The approximate distribution of these habitats within and adjacent to the site is depicted on Plate 4.16. The former percolation ponds have been overgrown by upland ruderal habitat and the unused road runs through both coast live oak woodland and upland ruderal habitats. Monterey County has adopted an ordinance to preserve oak trees in coast live oak woodlands (Chapter 16.60, *Monterey County Code*). Plant species observed during the habitat survey and borehole clearance activities (*HLA, 1992g*) are listed in Table B1-18. No special-status plants were observed onsite.

Thirty species of animals were observed onsite during the habitat survey; none is listed as a special-status species by the federal or state government. Two special-status reptiles (the silvery legless lizard and the California horned lizard), three special-status birds (Cooper's hawk, northern harrier, and loggerhead shrike), and one special-status mammal (dusky-footed woodrat) are listed as expected in these habitat types. Observed and expected animals are summarized in Table B2-18.

4.2.13.2 Chemical Site Characterization

Chemical site characterization activities have been conducted at the site by JMM (*1991a*) and HLA. The JMM investigation comprised:

- Installing three monitoring wells in the coast live oak woodland habitat to depths of 180, 220, and 225 feet adjacent to the percolation ponds (Plate 4.16)

- Collecting 20 soil samples, 6 from each well (plus duplicates from MW-32-01-A and MW 32-03-A) between 0.0 and 220 feet bgs and analyzing them for HBPHCs, VOCs, SOCs, PCBs, and metals.

HBPHCs were detected in one surface soil sample from MW-32-01-A at 24 mg/kg. VOCs, SOCs, and PCBs were not detected in any soil samples. Five metals (chromium, copper, nickel, lead, and zinc) were detected within the range of background values. Two metals with no background values were detected and may represent site-related contamination.

Chemical site characterization activities conducted by HLA included the following:

- Drilling three soil borings in the upland ruderal habitat to a depth of 19.5 feet
- Collecting 18 soil samples, 6 from each boring, between 4 and 19.5 feet bgs, and analyzing them for VOCs, metals, and coliform fecal bacteria.

Results of the soil sample analyses are summarized in Tables A61 and A62. No VOCs were detected. Seven metals were detected, five at concentrations below background concentrations. Two metals, beryllium and cadmium, either exceeded background or were not detected in the background study; these two metals may represent site-related contamination.

On the basis of potential human health risks and impacts to groundwater, Site 32 was classified as a NoFA site.

4.2.13.3 Site 32 - Addressing Data Gaps

COPCs identified in soil include two metals (beryllium and cadmium). The assessment and measurement endpoints relevant to Site 32 are numbered I1 through I12 in Table 2.2. On the basis of these endpoints, the following field data needs are identified:

- Additional surface soil data to adequately address assessment endpoints I1, I2, and I11

- Plant data to address assessment endpoints I3, I4, and I9
- Lizard data to address assessment endpoint I5
- Litter data to address assessment endpoints I6 through I8
- Rodent data to address assessment endpoints I10 and I12.

Indicator species identified at Site 32 include the hottentot fig, wild oat, deer mouse, and gray fox. A preliminary quantitative analysis step was conducted for Site 32 using these indicator species to identify if hazards may exist based on the identified COPCs. The results of the preliminary analysis using these additional data, presented in Section 5.4.15, identify which of the data gaps identified above warrant additional data collection. Additional surface soil and collocated hottentot fig and wild oat samples were collected to allow further evaluation of assessment endpoints I1 through I4, I9, and I11. Rodent sampling was conducted to allow further evaluation of assessment endpoints I9 through I11. Litter was not sampled at this site because much of surface contains sludge beds and concrete-lined tanks, and structures were recently cleared, substantially disturbing the litter community. Results of additional data collection and analysis are provided in Section 6.0.

4.2.14 Site 33 - Golf Course

The golf course site comprises approximately 0.7 acre of the golf course in the southwest portion of Fort Ord, north of Seaside. The golf course was developed in the 1950s and has operated continuously since then. Pesticides and fertilizers are stored onsite. A landscaper reported that a pit next to a concrete washing pad was used for mixing pesticides and disposing of unknown materials.

The site is active. It is expected that the golf course will be retained by the Army and operated as a golf course.

4.2.14.1 Ecological Site Characterization

A habitat survey conducted at the site on December 11, 1993, and borehole clearance survey conducted on November 26, 1991, indicated that only the landscaped plant community is associated with the site.

The approximate distribution of this habitat within and adjacent to the site is depicted on Plate 4.17. Plant species observed during the habitat survey activities are listed in Table B1-19. No special-status plants were observed onsite.

Fourteen animal species were observed during the habitat survey; none is a special-status species. Three special-status birds (the northern harrier, loggerhead shrike, and Cooper's hawk) are listed as expected in this habitat type. Observed and expected animals at Site 33 are summarized in Table B2-19.

4.2.14.2 Chemical Site Characterization

Chemical site characterization activities, all conducted by HLA, included the following:

- Drilling eight soil borings to 10 feet bgs; five borings were located in the fully developed areas of the site and three borings were in the landscaped habitat
- Collecting 25 soil samples, 4 from Boring SB-33-01 between 0.4 and 10 feet bgs, and 3 from the other borings between 0.5 and 5 feet bgs, and analyzing them for pesticides, herbicides, and metals.

Results of the soil boring analyses are summarized by depth in Tables A63 through A65. Five pesticides and one herbicide were detected at the site, all of which may represent site-related contamination. Two inorganics, sodium and sulfur, were detected at 0.4 to 10 feet bgs. Eleven metals were detected, three (beryllium, chromium, and nickel) below background concentrations. The other eight metals detected may represent site-related contamination. On the basis of potential human

health risks, Site 33 was classified as a NoFA site.

4.2.14.3 Site 33 - Addressing Data Gaps

COPCs identified in soil include five pesticides (chlordane, dieldrin, DDD, DDT, and endrin), one herbicide (dicamba) and eight metals (antimony, arsenic, cadmium, copper, lead, mercury, thallium, and zinc). The assessment and measurement endpoints relevant to Site 33 are numbered I1 through I4 and I12 in Table 2.2. On the basis of these endpoints, the following field data needs are identified:

- Additional surface soil data to adequately address assessment endpoints I1 and I2
- Plant data to address assessment endpoints I3 and I4
- Rodent data to address assessment endpoint I12.

Indicator species identified at Site 33 include riggut grass, deer mouse, and gray fox. A preliminary quantitative analysis step was conducted for Site 33 using these indicator species to identify if hazards may exist based on the identified COPCs. The results of the preliminary analysis using these additional data, presented in Section 5.4.16, identify which of the data gaps identified above warrant additional data collection. Additional surface soil and collocated riggut brome and California brome samples were collected to allow further evaluation of assessment endpoints I1 through I4. Rodent sampling was conducted to allow further evaluation of assessment endpoints I9 through I11; litter was not collected because the site is either paved or landscaped, and litter is not prevalent at the site. Results of additional data collection and analysis are provided in Section 6.0.

4.2.15 Site 35 - Aircraft Cannibalization Yard

The aircraft cannibalization yard comprises approximately 11 acres near the northern boundary of Fort Ord, just west of Fritzsche

Army Air Field (FAAF) and south of the FAAF burn pit. The area lies in a topographically elevated area of windblown dune sand deposits and is surrounded by gentle rolling hills composed of dune sand and central maritime chaparral habitat. Several unpaved roadways meander through the site. Scattered throughout the site is aircraft debris, including helicopter and small plane fuselages, engines, and wing sections. Several of the airplane sections are supported on dilapidated wooden crates. Historically, this site was used to store damaged or antiquated aircraft for future salvaging of parts.

The site is inactive. The proposed future land use for this site is as a habitat research area for the University of California Natural Reserve System (COE, 1994). Therefore, this site represents an important ecological area of Fort Ord.

4.2.15.1 Ecological Site Characterization

A habitat survey conducted at the site on December 11, 1993, and a borehole clearance survey conducted on November 26, 1991, indicated the presence of three plant communities associated with the site:

- Central maritime chaparral
- Coast live oak woodland
- Upland ruderal.

The approximate distribution of these habitats within and adjacent to the site is depicted on Plate 4.18. Aircraft debris is present in all three community types. Central maritime chaparral, the most extensive natural community at Fort Ord, is considered a rare or declining habitat by the California Department of Fish and Game (CDFG, 1992b). Plant species observed during the habitat survey and borehole clearance activities (HLA, 1992g) are listed in Table B1-20. The following special-status plants were observed onsite:

- Sand gilia

- Monterey spineflower
- Coast wallflower
- Sandmat manzanita
- Monterey manzanita
- Monterey ceanothus.

Sand gilia is federally listed as endangered and state listed as threatened. Monterey spineflower is federally listed as threatened. The latter four species are federal Category 2 candidates for listing as threatened or endangered; the first three are also on California Native Plant Society List 1B and the latter one is on List 4.

Twenty-seven animal species were observed during the habitat survey; one of these, the dusky-footed woodrat, is a federal Category 2 candidate for listing as threatened or endangered, and is considered as a California species of special concern. In addition, two special-status reptiles (the silvery legless lizard and the California horned lizard), three special-status birds (the golden eagle, black-shouldered kite, and loggerhead shrike), and one special-status mammal (American badger) are listed as expected in these habitat types. Observed and expected animals at Site 35 are summarized in Table B2-20.

4.2.15.2 Chemical Site Characterization

Chemical site characterization activities, all conducted by HLA, included the following:

- Drilling three soil borings in the central maritime chaparral habitat to depths of 19.5 feet
- Collecting nine soil samples, three from each boring, between 4 and 19.5 feet bgs, and analyzing them for TPH as gasoline and diesel, VOCs, and metals
- Collecting soil gas samples at 32 locations (a total of 34 samples were collected) and analyzing for TPH (vapor phase), BTEX, chlorinated solvents, and vinyl chloride.

Results of the soil sample analyses are summarized by depth in Tables A68 and A69. Acetone was the only VOC detected, but was not known to have been used onsite; acetone was detected below the reporting limit, and is considered to represent laboratory contamination, consistent with EPA (1989b) methods. Six metals were detected, five of them below background concentrations. Mercury was detected above background levels and may represent site-related contamination.

Depth to groundwater at the site is over 80 feet; results of a human health screening risk evaluation conducted for Site 35 indicate that mercury is not expected to migrate to groundwater (*Site Characterization Site 35 - Fritzsche Army Airfield Aircraft Cannibalization Yard*, dated June 25, 1993). On the basis of potential human health risks and impacts to groundwater, Site 35 was classified as a NoFA site. Because of the proposed future land use and size of this site, as well as the lack of surface soil chemical data, additional ecological work is recommended, as discussed in the *Draft Data Summary and Work Plan Addendum*, dated May 6, 1994, and Section 5.6.17.

4.2.15.3 Site 35 - Addressing Data Gaps

The only COPC identified in soil was mercury, although insufficient surficial soil sampling has been conducted to evaluate any of the endpoints listed in Table 2.2. The assessment and measurement endpoints relevant to Site 35 are numbered I1 through I12 in Table 2.2. On the basis of these endpoints, the following field data needs are identified:

- Additional surface soil data to adequately address assessment endpoints I1, I2, and I11
- Plant data to address assessment endpoints I3, I4, and I9
- Lizard data to address assessment endpoint I5
- Litter data to address assessment endpoints I6 through I8
- Rodent data to address assessment endpoints I10 and I12.

Indicator species identified at Site 35 include the hottentot fig, riggut brome, deer mouse, and gray fox. A preliminary quantitative analysis step was conducted for Site 35 using these indicator species to identify if hazards may exist based on the identified COPCs. The results of the preliminary analysis using these additional data, presented in Section 5.4.17, identify which of the data gaps identified above warrant additional data collection. Additional surface soil and collocated hottentot fig and riggut brome samples were collected to allow further evaluation of assessment endpoints I1 through I4, I9, and I11. Rodent sampling was conducted to allow further evaluation of assessment endpoints I9 through I11, and litter was collected to evaluate endpoints I5 through I8. Results of additional data collection and analysis are provided in Section 6.0.

4.2.16 Site 39 - Inland Ranges and 2.36-inch Rocket Range

Site 39 is in the southwest portion of Fort Ord and includes the Inland Ranges (approximately 8,000 acres) and the 2.36-inch Rocket Range (approximately 50 acres). The Inland Ranges are bounded by Eucalyptus Road to the north, Barloy Canyon Road to the east, South Boundary Road to the south, and North-South Road to the west (Plate 4.19). The 2.36-inch Rocket Range is immediately north of Eucalyptus Road, near the north-central portion of the Inland Ranges.

The Inland Ranges were reportedly used since the early 1900s for ordnance training exercises, including onshore naval gunfire. Over the years, various types of ordnance have been used or found in the Inland Ranges, including hand grenades, mortars, rockets, mines, artillery rounds, and small arms rounds. Some training activities using petroleum hydrocarbons were also conducted. The 2.36-inch Rocket Range was reportedly used for anti-armor (bazooka) training during and shortly after World War II.

The proposed future use of most of the Inland Ranges is as a natural resource management area (NRMA). This area will be managed by the

U.S. Department of the Interior, Bureau of Land Management, and public access will be very restricted.

Several areas within, but on the periphery of, the Inland Ranges have a proposed future land use other than as an NRMA. The Military Operations on Urban Terrain (MOUT) Area, at the northeast edge of the Inland Ranges, is proposed for use as a peace officer training area. The areas along the south boundary of the Inland Ranges (and Fort Ord) are proposed for uses that include city and county parks, a school expansion, and relocation of Highway 68.

4.2.16.1 Ecological Site Characterization

Habitat surveys conducted at Site 39 April 4 through 6, April 11 through 13, and May 19, 1994, indicated the presence of seven plant communities associated with the site:

- Central maritime chaparral
- Coast live oak woodland
- Landscaped
- Seasonally wet grassland
- Upland ruderal
- Valley needle grassland
- Vernal pool
- Wet ruderal.

The approximate distribution of these habitats within the site is depicted on Plate 4.19. Upland ruderal areas include areas within target ranges where there is no vegetation. Some small areas without vegetation are not depicted on the plate due to the scale. Wet ruderal areas are not shown on the plate since they are small areas within seasonally wet grassland and would not be visible due to the scale of the plate. Central maritime chaparral, the most extensive natural community at Fort Ord, is considered a rare or declining habitat by the California Department of Fish and Game (CDFG, 1992b). Plant species

observed during habitat surveys are listed in Table B1-22. The following special-status plants were observed onsite:

- Monterey spineflower
- Kellogg's horkelia
- Monterey manzanita
- Sandmat manzanita
- Monterey ceanothus
- Sand gilia.

Monterey spineflower is federally listed as threatened. The next four species are federal Category 2 candidates for listing as threatened or endangered. Sand gilia is federally listed as endangered and state listed as threatened. Monterey spineflower, Kellogg's horkelia, Monterey manzanita, sandmat manzanita, and sand gilia are also on California Native Plant Society list 1B, and Monterey ceanothus is on list 4.

Forty-nine animal species were observed during the habitat survey; one of these, the dusky-footed woodrat, is a federal Category 2 candidate for listing as threatened or endangered. The golden eagle is listed by the California Department of Fish and Game as fully protected. The above-mentioned species, as well as the northern harrier and California horned lizard, are designated California species of special concern. In addition, four special-status birds (cooper's hawk, sharp-shinned hawk, black shouldered kite, and burrowing owl), one special-status amphibian (California tiger salamander), one special-status reptile (southwestern pond turtle), and one special-status mammal (American badger) are listed as expected in these habitat types. Observed and expected animals at Site 39 are listed in Table B2-22.

4.2.16.2 Chemical Site Characterization

Site 39 was defined on the basis of the results of previous investigations at several ranges within the Inland Ranges and information from research

on ordnance-related training areas within and outside the Inland Ranges. Based on that research, the Site 39 RI focused on the following:

- Range 36A - Explosive Ordnance Disposal (EOD) Range
- Range 40A - Flame Field Expedient (FFE) Training Range
- Range 33 - Demolition Range
- Explosive ordnance target areas, including the 2.36-inch Rocket Range
- Small arms ranges
- Groundwater sampling
- Occurrence of unexploded ordnance/ordnance and explosive waste (UXO/OEW).

These areas investigated are described below and statistical summaries of the results of soil sample analyses are presented in Tables A74 through A79. Groundwater sampling is not discussed herein; it is discussed in detail in the December 1994 Basewide RI/FS, Volume II - Remedial Investigation, Site 39. Plates 4.19 through 4.22 show the locations of the soil borings and monitoring wells.

Range 36A - EOD Range

Range 36A is an explosive ordnance disposal (EOD) range that was used for disposing of commercial explosives and military ordnance and ammunition. Disposal occurred by open burning and open detonation (OB/OD). The range was used until October 1992, when Fort Ord's EOD unit was deactivated as part of base closure. In January 1994, Range 36A was temporarily reactivated for disposal of UXO from Fort Ord's Time-Critical Removal Action Program for UXO/OEW found outside the Inland Ranges. Chemicals potentially present at the range as a result of past activities include explosive compounds and metals.

Investigations have been conducted at Range 36A by JMM and HLA. Sampling locations are shown

on Plate 4.21. In 1990, JMM performed a preliminary assessment/site investigation (PA/SI) at Range 36A to evaluate the presence of explosive compounds and metals. The JMM investigation consisted of drilling two soil borings and installing three wells. Twenty-four soil samples, plus one split sample and one duplicate sample, were collected from the borings and monitoring well boreholes; these samples were analyzed for explosive compounds and metals.

HLA's 1992 RI at Range 36A included:

- Conducting UXO/OEW and biological clearance
- Drilling 23 borings to depths of 15 to 20 feet on an approximately 50-foot grid
- Collecting 69 surface and subsurface soil samples for lithologic characterization and chemical and physical analysis
- Analyzing the soil samples for explosive compounds and priority pollutant metals.

The findings of the field investigations at Range 36A indicated the following:

- Low levels of the explosive compounds cyclotetramethylenetetranitramine (HMX) and cyclotrimethylenetrinitramine (RDX) are present, but generally limited to surface soil
- With the exception of 176 mg/kg lead in one surface soil sample and 5.9 mg/kg beryllium in one surface sample, metals in soil at the site do not appear to be substantially above maximum background concentrations.

Range 40A - FFE Training Range

Range 40A was used for training military personnel to construct and use improvised weapons using flammable substances. In the training exercises, a drum containing a gelatinous mixture of gasoline was partially buried so that its top pointed at a selected target. Detonation cord was used to blow the top off the drum while a TNT charge in the drum ejected the burning material. In addition to the FFE training

exercises, three shallow trenches, which still exist at the site, were used for fire and smoke demonstrations. During the demonstrations, the trenches were filled with a fuel similar to that used for FFE training, then the fuel was ignited and allowed to burn. Chemicals potentially present at Range 40A include TPH and related constituents, metals, and explosive compounds.

HLA's field investigation at Range 40A was completed in two phases. Sampling locations are shown on Plate 4.22. The Phase 1 investigation, completed in February 1992, included:

- Conducting UXO/OEW and biological clearance
- Drilling seven borings to 5 feet bgs at potential source areas
- Collecting 14 surface and subsurface soil samples for lithologic characterization and chemical analysis and 7 samples for physical analysis
- Analyzing the 14 soil samples for TPH as gasoline, TPH as diesel, BTEX, SOCs, and lead.

Based on the results of the Phase 1 activities and on additional information obtained after Phase 1, a Phase 2 investigation was conducted in April 1994 which consisted of the following:

- Conducting UXO/OEW and biological clearance
- Drilling 12 borings to 10 feet bgs and 4 borings to 5 feet bgs to investigate additional potential source areas
- Collecting 60 surface and subsurface soil samples for lithologic characterization and chemical analysis and 10 samples for physical analysis
- Analyzing the soil samples for TPH as gasoline, TPH as diesel, BTEX, SOCs, priority pollutant metals, and explosive compounds.

The Phase 1 and Phase 2 field investigations at Range 40A indicated the following:

- An approximately 8-foot-thick relatively horizontal clay layer appears to underlie most of the range; this clay layer may retard vertical migration of chemicals.
- Unknown TPH as diesel and unknown TPH as gasoline were detected, primarily in surface soil samples, at concentrations up to 1,400 mg/kg; the highest concentrations (i.e., those exceeding 100 mg/kg) are limited to surface soil within or adjacent to the three trenches used for fire and smoke demonstrations
- Other organic compounds, including noncarcinogenic PAHs and TICs, were detected in surface and near-surface (2.5 feet bgs) samples at relatively low concentrations and appear to be related to petroleum hydrocarbons (except for potentially naturally occurring TICs)
- Arsenic, beryllium, chromium, copper, lead, nickel, silver, and zinc were detected at least once at concentrations above maximum background soil concentrations in surface and/or subsurface soil samples. However, with the exception of two detections of lead at 23 and 168 mg/kg, metals were not detected significantly above maximum background concentrations.
- No explosive compounds were detected in the soil samples.

Range 33 - Demolition Range

Range 33 was used as a standard demolition and field expedient demolition training range. Materials used included TNT, C-4 (plastic explosive), and a field expedient explosive that consisted of a sack of ammonium nitrate soaked with diesel fuel. Chemicals potentially present include petroleum hydrocarbons and related constituents, metals, and explosive compounds that may have impacted the soil during training activities.

The field investigation completed in April 1994 at Range 33 included:

- Conducting UXO/OEW and biological clearance
- Drilling 16 borings to 10 feet bgs
- Collecting 64 surface and subsurface soil samples for lithologic characterization and chemical analysis and 6 samples for physical analysis
- Analysis of soil samples for TPH as gasoline, TPH as diesel, BTEX, SOCs, priority pollutant metals, and explosive compounds.

Sampling locations are shown on Plate 4.20. The field investigation at Range 33 indicated the following:

- Unknown TPH as diesel was detected in only one surface soil sample at a concentration of 230 mg/kg; this indicates that hydrocarbon contamination related to training activities, where present, is likely to be at low concentrations and limited to surface soil in small, localized areas.
- Other organic compounds, including noncarcinogenic PAHs and TICs, were also detected; these occurred at relatively low concentrations, primarily in surface soil.
- Several explosive compounds, including HMX and RDX, were detected in soil samples from borings adjacent to the explosion craters resulting from recent ordnance disposal activities.
- Beryllium, chromium, copper, lead, and zinc concentrations were above depth- and soil-specific maximum background concentrations. However, concentrations were generally only slightly (up to 2 times) greater than maximum background and were detected in subsurface soil samples. These detected concentrations do not appear to be related to the source areas for the unknown petroleum hydrocarbons and explosive compounds.

Explosive Ordnance Target Areas

Portions of the Inland Ranges and the 2.36-inch Rocket Range have been used in the past for training troops in the use of explosive ordnance. Explosive ordnance targets are located in specific ranges within the Inland Ranges and at the 2.36-inch Rocket Range. Chemicals potentially present at these target areas include explosive compounds and metals.

The investigation completed in April 1994 at the explosive ordnance target areas included:

- Conducting UXO/OEW clearance of sampling locations and access routes near target areas
- Drilling 120 borings to 2 to 2.5 feet bgs and 15 borings to 5 feet bgs at explosive ordnance targets in several ranges, the High Impact Area, and the 2.36-inch Rocket Range
- Collecting 285 surface and subsurface soil samples for lithologic characterization and chemical analysis and 22 samples for physical analysis
- Analysis of soil samples for explosive compounds, priority pollutant metals, and total organic carbon.

The results of the investigation at the explosive ordnance target areas indicated the following:

- Several explosive compounds, including HMX; RDX; 1,3,5-trinitrobenzene (1,3,5-TNB); 2,4,6-trinitrotoluene (2,4,6-TNT); 2-amino-dinitrotoluene (2-amino-DNT); 4-amino-dinitrotoluene (4-amino-DNT); nitroglycerine, and pentaerythritoltetranitrate (PETN), are present, generally only in surface soil. Except for HMX, which was detected at a maximum concentration of 1,100 mg/kg, the explosive compounds were present at relatively low concentrations. Concentrations of explosive compounds detected in the shallow subsurface were significantly lower than surface concentrations.
- Explosive compounds were detected primarily in Ranges 44 and 48; these ranges show evidence of heavy use, such as

demolished targets and abundant UXO/OEW at the bases of the targets. Elsewhere, the occurrences of explosive compounds were sporadic and concentrations were usually below reporting limits.

- Arsenic, beryllium, cadmium, total chromium, copper, lead, nickel, silver, and zinc were detected in surface and/or subsurface soil samples at concentrations above maximum background concentrations. Copper, lead, and zinc were the metals most frequently detected at concentrations significantly above maximum background concentrations. In general, elevated metals concentrations in soil corresponded to the presence of explosive compounds in soil at the high use areas.

Small Arms Ranges

Seventeen small arms ranges in the Inland Ranges were used for pistol, rifle, and machine gun practice. The main chemical potentially present in these areas is lead from spent ammunition. The investigations at the small arms ranges were based on the approach used at Site 3, the Beach Trainfire Ranges, and included:

- Identifying of the types of spent ammunition present in the small arms ranges
- Conducting a visual survey of the distribution of spent ammunition along the lines of fire, at targets, and at backstops or open areas behind the targets
- Visually estimating of the surface distribution and density of spent ammunition at each of the study areas
- Making measurements to confirm range boundaries and target locations.

The methods and results of the Site 3 investigation were used to draw general conclusions about the distribution of spent ammunition at the Site 39 small arms ranges and its potential impacts. The results indicate the following:

- Spent ammunition consisted primarily of various caliber bullets and lesser amounts of black powder rifle balls and lead shot
- The main chemical potentially present is expected to be lead
- In general, most of the areas within the small arms ranges contain less than 1 percent surface coverage of spent ammunition
- A few small localized areas have a bullet surface coverage of 1 to 10 percent, or greater than 10 percent
- Based on the Site 3 investigation, lead concentrations in soil are anticipated to exceed 1,000 mg/kg in areas where bullet surface coverage is 10 percent or greater and occasionally in areas where coverage is 1 to 10 percent
- Based on the leaching tests performed for the Site 3 investigation, it appears that there is little potential for contamination of groundwater by lead or other metals in the small arms ranges.

Occurrence of UXO/OEW

Because Site 39 was used for ordnance-related training activities, OEW (including UXO) is present at the site. Typically, UXO/OEW at a contaminated site is quantified as it is remediated (i.e., as UXO/OEW are found, they are removed or detonated). In the Site 39 investigation, several research activities were conducted to provide qualitative information regarding the surface distribution and density of UXO/OEW at the site.

The results of the research activities indicated the following:

- In general, ordnance used or found at the site is conventional ordnance that includes small arms ammunition, grenades, rockets, mortars, artillery rounds, mines, and bombs
- The distribution and density of UXO/OEW in a given area appears to be influenced by the locations of targets

- High densities of UXO/OEW at Site 39 appear to be associated with targets in the high explosive/anti-armor ranges in the northwest part of the Inland Ranges and in the 2.36-inch Rocket Range
- Several small, localized areas containing high densities of UXO/OEW were identified as piles of debris that appear to have either been consolidated during range clearance or dumped during disposal
- Medium densities of UXO/OEW are present in the central portion of the Inland Ranges
- Areas containing low densities of UXO/OEW are predominantly along the perimeter of the Inland Ranges
- Maximum subsurface penetration of UXO, based on a variety of conditions (e.g., ordnance type, weight, trajectory, and soil type), may range from less than 1 foot to several tens of feet
- Because of missing or incomplete range activity records, misdirected shots, and poor or undocumented disposal practices, no area in Site 39 can be considered clear of UXO/OEW.

4.2.16.3 Site 39 - Addressing Data Gaps

COPCs identified in soil include eight organics (bis[2-ethylhexyl]phthalate, pentachlorophenol, 2-amino-dinitrotoluene, 4-amino-dinitrotoluene, HMX, PETN, RDX, and tetryl) and 12 metals (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, and zinc). The assessment and measurement endpoints relevant to Site 39 are numbered I1 through I12 in Table 2.2. On the basis of these endpoints, the following field data needs are identified:

- Additional surficial soil data to adequately address assessment endpoints I1, I2, and I11
- Plant data to address assessment endpoints I3, I4, and I9

- Lizard data to address assessment endpoint I5
- Litter data to address assessment endpoints I6 through I8
- Rodent data to address assessment endpoints I10 and I12.

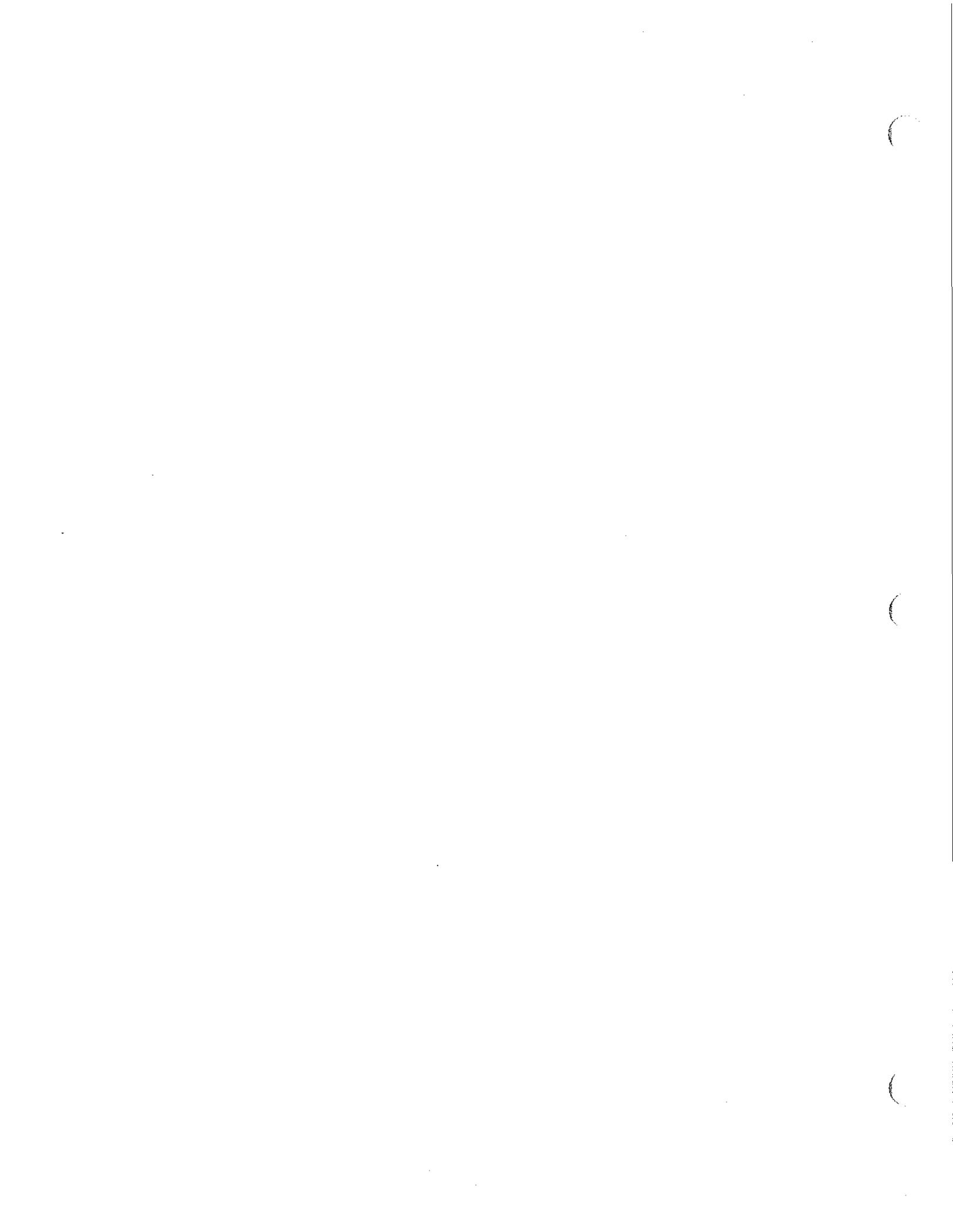
Indicator species identified at Site 39 include the hottentot fig, wild oat, deer mouse, and gray fox. A preliminary quantitative analysis step was conducted for Site 39 using these indicator species to identify if hazards may exist based on the identified COPCs. The results of the preliminary analysis using these additional data, presented in Section 5.4.18, identify which of the data gaps identified above warrant additional data collection. Due to the presence of UXO, sampling of biota was not conducted at this site. These data needs are addressed by extrapolating information compiled for Site 3, which also consists of small arms trainfire ranges. Results of additional data collection and analysis are provided in Section 6.0

4.2.17 Site 40 - FAAF Defueling Area

The FAAF defueling area comprises approximately 5 acres near FAAF Maintenance Building 533. The three areas of concern at Site 40 are: Area A, an unpaved dune sand area east of Building 533 with several 3- to 5-foot-diameter dark, petroleum-stained surface soil areas; Area B, a concrete paved area north of Building 533; and Area C, a partially asphalt-paved/partially unpaved "hardpan" area northwest of Building 533 with unstained surface soil. The southern portion of Area C is a suspected landfill area and the possible location of a sewer line.

The site is inactive and is part of the FAAF area to be converted to a general aviation facility to complement the adjoining University of California (COE, 1994).

In Volume IV, Baseline Ecological Risk Assessment, in the first sentence of first paragraph in the first column of Page 73, Section 4.2.17.1 replace "six" with "five".



4.2.17.1 Ecological Site Characterization

A review of aerial photographs indicated the presence of six plant communities associated with the site:

- Central coastal scrub
- Coast live oak woodland
- Landscaped
- Upland ruderal
- Valley needlegrass grassland.

Valley needlegrass grassland is listed as a special-status biological community in the California Department of Fish and Game's Natural Diversity Data Base (CDFG, 1992c).

The following special-status plants were observed onsite (Table B1-23):

- Sandmat manzanita
- Monterey spineflower
- Sand gilia.

All three species are on California Native Plant Society List 1B. The sandmat manzanita is also a federal Category 2 candidate, the Monterey spineflower is listed by the federal government as a threatened species, and the sand gilia is listed by the federal government as an endangered species. The approximate distribution of these habitats within and adjacent to the site is depicted on Plate 4.23.

Twenty-two animal species were observed onsite (Table B2-23). Three species, the golden eagle, Monterey dusky-footed woodrat, and the California horned lizard, are all California species of special concern. The golden eagle is also listed as fully protected by the CDFG, and the Monterey dusky-footed woodrat is a federal Category 2 candidate. Additionally, four birds (Cooper's hawk, sharp-shinned hawk, northern harrier, and the black-shouldered kite) are special status expected to be present at this site. The

site is mostly paved; only upland ruderal habitat is present in unpaved areas onsite. Other habitats shown on Plate 4.23 are near but not on the site. Site investigation work is ongoing; additional ecological site characterization will be conducted as part of the site investigation activities.

4.2.17.2 Chemical Site Characterization

Chemical site characterization activities, all conducted by HLA, included the following:

- Drilling two soil borings to depths of approximately 105 feet, one in Area C and one in Area A
- Collecting eight soil samples, four from each boring between 2 and 41 feet bgs, and analyzing them for VOCs, SOCs, TPH, and metals
- Excavating six trenches, collecting 17 soil samples from the trenches at depths between 0.5 and 20 feet, and analyzing samples for VOCs, SOCs, TPH, and metals
- Collecting soil gas samples at 67 locations (a total of 74 samples were collected) and analyzing them for VOCs and TPH (vapor phase)
- Collecting six HydroPunch groundwater samples in three soil borings at depths of 85 and 95 feet and analyzing them for VOCs and TPH.

Results of the soil analyses are summarized by depth in Tables A80 through A82. Four VOCs were detected, but three of these (acetone, methylene chloride, and MEK), which were not known to have been used onsite, were detected below the reporting limit and are considered to represent laboratory contamination, consistent with EPA (1989b) methods. Toluene was detected above the laboratory reporting limit at 0.5 foot bgs. Bis(2-ethylhexyl)phthalate was the only SOC detected; it was detected below the reporting limit and is considered to represent laboratory contamination, as described above. TPH-unknown extractable hydrocarbon was

detected above the laboratory reporting limit at 0.5 foot bgs. Fifty-one TICs were reported; most were low concentrations of unknown hydrocarbons. Eight metals were detected, seven below background concentrations. Zinc was detected at Site 40 above the background concentrations at 2 to 41 feet bgs; zinc may therefore represent site-related contamination.

4.2.17.3 Site 40 - Addressing Data Gaps

Toluene was the only COPCs identified in surficial soil, zinc was the only COPC identified in deep soil. Both COPCs were detected only in paved areas. Therefore, no complete exposure pathways were identified at this site, and no assessment and measurement endpoints were identified at Site 40. No data gaps are identified at this site, and no further work is recommended.

4.2.18 Site 41 - East Garrison Burn Pit

The East Garrison Burn Pit comprises a small area (approximately 2 acres) south of the developed portion of the East Garrison, near Barloy Canyon Road. Several small depressions were reportedly used as burn pits for military exercises. These depressions have since become overgrown, and now contain ponded water in the wet season. The area is topographically varied; topographic features are shown on Plate 4.24. Soil at the site is mostly sandstone; an eroded ridge is present across the paved road to the south of the site. Small areas of dune sand are also present.

The site is inactive. The site is in Polygon 11B, most of which is planned for development as an agricultural center. Part of this polygon will be set aside as open space (COE, 1994). The specific proposed land use at Site 41 is unknown.

4.2.18.1 Ecological Site Characterization

A habitat survey conducted in March 1994 indicated the presence of five plant communities associated with the site:

- Coast live oak woodland

- Central maritime chaparral
- Upland ruderal
- Wet ruderal
- Ponds.

The approximate distribution of these habitats within and adjacent to the site is depicted on Plate 4.24. A grassland-dominated area of central maritime chaparral was also identified at the site. Central maritime chaparral, the most extensive natural community at Fort Ord, is considered a rare or declining habitat by the CDFG (1992b). The ponds are considered wetlands; as such they are protected by the federal government. None of the other habitats listed above is currently considered rare or declining by the CDFG (1992b). Plant species observed during the habitat survey and borehole clearance activities (HLA, 1992g) are listed in Table B1-24. The following special-status plants were observed on or near Site 41:

- Monterey manzanita
- Monterey ceanothus.

Both species are federal Category 2 candidates for listing as threatened or endangered. Both are also on California Native Plant Society Lists, the former on List 1B, and the latter on List 4.

Thirty-one animal species were observed at Site 41. One of these, the Monterey dusky-footed wood rat is a federal category 2 candidate for listing as threatened or endangered, and is a California species of special concern. In addition, three special status birds (Cooper's and sharp-shinned hawks, and loggerhead shrike) are listed as expected in these habitat types. Observed and expected animals at Site 41 are summarized in Table B2-24.

4.2.18.2 Chemical Site Characterization

Chemical site characterization activities, all conducted by HLA, included the following:

- Drilling eight soil borings to depths of 20.5 feet; all of the borings were located in the wetland pond habitat after permits were obtained and the ponds were dry for the season
- Collecting 46 soil samples, 6 from each of seven borings between 0.0 and 20.5 feet bgs at approximately 5-foot intervals, and 3 from one boring at 0.0 foot bgs, and analyzing them for one or more of the following, as appropriate: TPH, VOCs, SOCs, CDDs and CDFs, and metals.

Results of the soil sample boring analyses are summarized by depth in Tables A83 through A85.

4.2.18.3 Site 41 - Addressing Data Gaps

COPCs identified in soil include one VOC (toluene), one SOC (pentachlorophenol), one CDD (OCDD), and 12 metals (arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, silver, selenium, thallium, and zinc). The assessment and measurement endpoints relevant to Site 41 are numbered I1 through I12 in Table 2.2. On the basis of these endpoints, the following field data needs are identified:

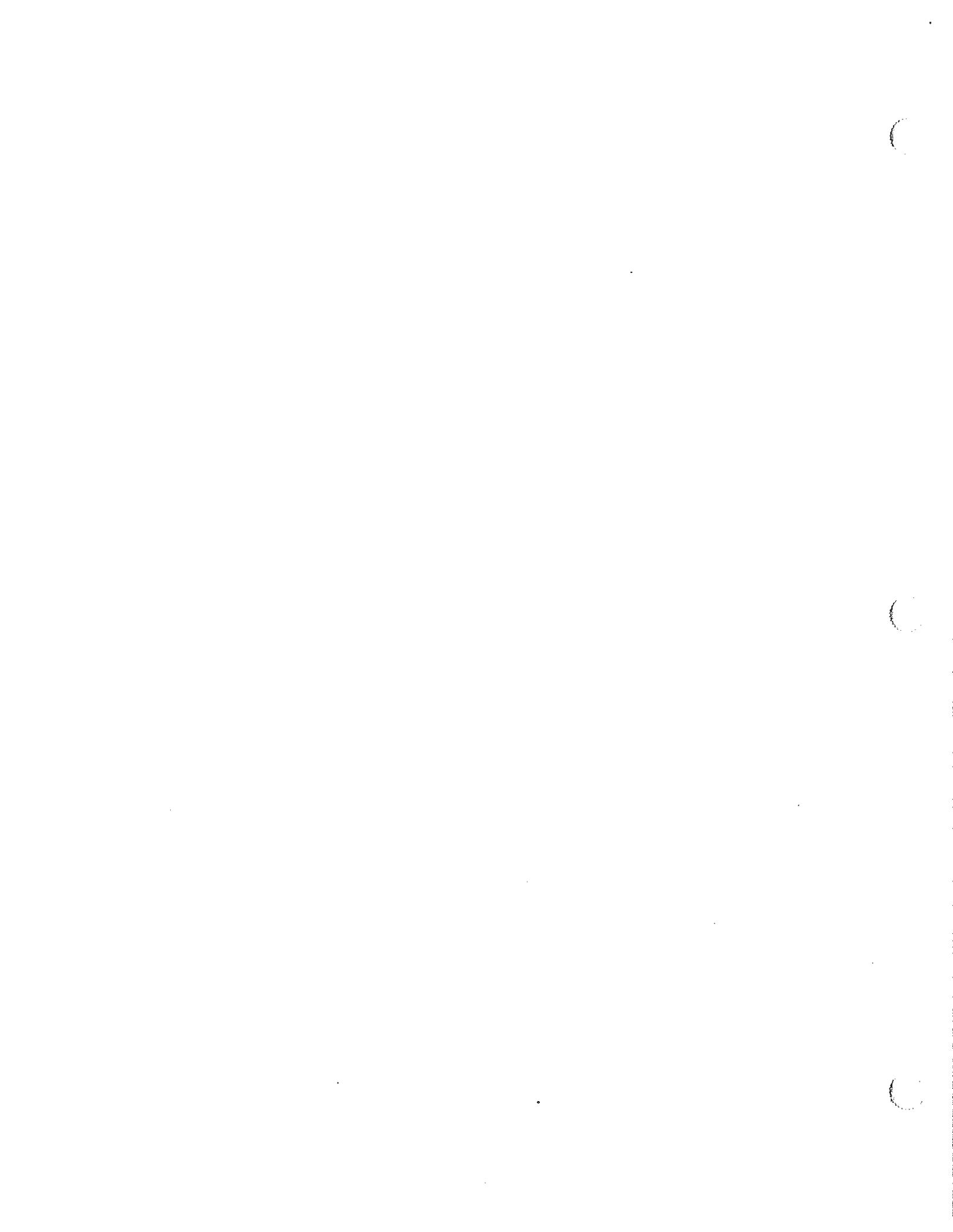
- Additional surface soil data to adequately address assessment endpoints I1, I2, and I11
- Plant data to address assessment endpoints I3, I4, and I9
- Lizard data to address assessment endpoint I5
- Litter data to address assessment endpoints I6 through I8
- Rodent data to address assessment endpoints I10 and I12.

Indicator species identified at Site 41 include the hottentot fig, deer mouse, and gray fox. A preliminary quantitative analysis step was conducted for Site 41 using these indicator species to identify if hazards may exist based on the identified COPCs. The results of the preliminary analysis using these additional data,

presented in Section 5.4.19, identify which of the data gaps identified above warrant additional data collection. No additional data have been collected to address these data needs because site characterization results were only recently available. Data needs are addressed through extrapolation from similar sites (e.g., Site 31), as discussed in Section 6.0.

4.3 Summary of PHA2 Results

Table 4.2 summarizes the results of PHA2 indicating that no sites or outfalls were eliminated as a result of activities conducted in PHA2. These sites and outfalls will be further evaluated in Section 5.0.



5.0 QUANTITATIVE ECOLOGICAL SCREENING ASSESSMENT

This section presents the methods and results of the quantitative ecological screening assessment for the sites discussed in Section 4.0 and for surface water outfalls identified in Section 3.0 as needing further evaluation. This assessment includes parts of the problem formulation, analysis, and risk estimation components of EPA's framework (Plate 1.2).

This quantitative ecological screening assessment is based on the preliminary soil and storm water data presented in Appendix A for sites and outfalls. It is an initial evaluation that identifies sites or outfalls that do not pose potential risks to ecological receptors based on a number of conservative assumptions. This assessment also provides a mechanism for identifying sites and scenarios that may pose potential ecological risks and for focusing further data analysis and/or collection activities. Sites and outfalls identified in this quantitative ecological screening assessment as posing potential risks were evaluated further as part of the analysis phase in Section 6.0 using additional field data.

The following two mutually exclusive hypotheses were tested in this first iteration of the analysis component: either the risks estimated in this section are the result of the conservative assumptions used in this initial quantitative ecological screening assessment or the sites and outfalls do pose potential risks to ecological receptors. This section builds on the problem formulation (PHA1 and PHA2) information presented in Sections 2.0, 3.0 and 4.0.

5.1 Overview of Methods

This section presents an overview of the approach used in the quantitative ecological screening ecological assessment.

Section 5.2 summarizes the problem formulation component of the EPA framework including, selection of chemicals of potential concern

(COPCs) and indicator species. As outlined in Section 2.4, species were selected to allow evaluation of potential effects at multiple trophic levels, based on their probability of occurrence on the sites evaluated. The species selection process focused on species that would most likely be affected by the exposure pathways for COPCs most probably associated with the highest levels of exposure.

The analysis component for this phase of the assessment is discussed in Section 5.3. The analysis component includes characterization of exposure and ecological effects. Exposure pathways, discussed in Section 5.3.1 for plants and mammals, include direct exposure pathways such as soil dermal contact or root uptake and indirect exposure pathways such as consumption of food (i.e., consumption of plants that have taken up chemicals in soil). Species-specific exposure parameters are quantified, and the equations used to estimate potential doses are presented. Section 5.3.2 presents the characterization of ecological effects for this phase of the assessment, the methods used to derive benchmark concentrations, and the critical toxicity values used to assess the potential toxicity of the COPCs to ecological receptors are presented in this section.

Section 5.4 is the risk estimation part of risk characterization completed for mammals in this phase of the assessment. In this section, the information presented in Sections 5.3.1 and 5.3.2 are combined to estimate the potential for adverse effects to ecological receptors from the COPCs at each of the sites. Section 5.5 discusses the risk estimation component of the initial quantitative ecological screening for plants, and Section 5.6 presents the risk estimation component of the initial quantitative ecological screening for potential effects to terrestrial and aquatic receptors due to chemicals at outfalls. The uncertainties in the initial quantitative ecological screening assessment are discussed in

Section 5.7. The results of the screening assessment are summarized and additional data collection activities identified in Section 5.8.

5.2 Summary of Problem Formulation

This section summarizes the COPCs selected and the indicator species evaluated.

5.2.1 Summary of COPCs

On the basis of the approach described in Section 2.5 chemicals were selected as COPCs in soil for each of the 18 sites evaluated with data available at the time of the screening assessment (Appendix A); these COPCs are listed in Table 5.1. Because no background concentrations of chemicals were available for stormwater and sediment, all detected chemicals were evaluated as COPCs for these media (Section 5.6). COPC selection was reevaluated in Section 6.0 on the basis of additional data collection results (Appendix G).

5.2.2 Summary of Indicator Species

Criteria for selecting indicator species are identified in Section 2.4. Indicator species were selected on the basis of the conceptual models and measurement and assessment endpoints (Section 2.2). Terrestrial species identified as potential indicator species for quantitative evaluation are summarized in Section 2.4 and as follows:

- Plants were selected as specific indicator species for each site based on the results of plant collection field activities. Based on these results, wild oat was selected as the plant indicator species for this phase of the assessment.
- Based on trapping results, the deer mouse was selected as the indicator species representing small mammals for this phase of the assessment because of its presence at the sites and its relatively small body weight (compared to, for example, the California vole [Burt and Grossenheider, 1976]).

- The gray fox was selected as the carnivore indicator species. The gray fox is present at the inland sites and is similar in body weight, dietary habits, and home range to the red fox, making it applicable to the coastal sites where the red fox is found.
- For all sites except Sites 3 and 39, birds were not selected as indicator species. For these sites, mourning doves were selected as an indicator species because they occur on the dunes of Site 3 and at Site 39 and may ingest bullet fragments and retain them as grit in the gizzard.
- Lizards were also selected as potential indicator species using the criteria listed in Section 2.4. However, impacts to lizards are estimated in Section 6.0 using data from leaf litter sampling since field collection of lizards was unsuccessful.

Exceptions to this list of indicator species are discussed where applicable on a site-by-site basis in Section 5.4.

5.3 Analysis

Section 5.3.1 summarizes the exposure pathways and assumptions used for the mammalian indicator species evaluated in this phase of the assessment. Section 5.3.2 describes the approach used and the critical toxicity values and benchmark concentrations developed to assess toxicity of chemicals to receptors. Plants are discussed in Section 5.5 and stormwater outfalls in Section 5.6. These activities are part of the analysis component of EPA's framework (Plate 1.2).

5.3.1 Characterization of Exposure

For each of the indicator species (deer mouse and gray fox), lifetime average daily doses (LADDs) were calculated for complete exposure pathways as described below.

5.3.1.1 Deer Mouse

The deer mouse (*Peromyscus maniculatus*) was assumed to reside at each site for its entire lifetime. The home range of these mice is reported to be between 0.2 and 1.2 hectares by Burt and Grossenheider (1976) and between 0.014 and 0.13 hectares by EPA (1993i). Thus, it was assumed that the deer mouse could spend its entire lifetime exposed to site-related chemicals, and that the deer mouse obtains its entire daily food requirements from the site. Potential exposure pathways and the assumptions used to estimate potential exposures to site-related chemicals (Table 5.2) are presented below.

Plant Ingestion

The following equation was used to estimate the potential exposure, as the lifetime average daily dose (LADD), of deer mice to concentrations of site-related chemicals in plants:

Plant Ingestion LADD (milligrams per kilogram per day [mg/kg/day]) =

$$\begin{aligned} & \text{Chemical concentration in soil (mg/kg soil)} \\ & \times \text{Plant uptake factor (kg soil/kg plant)} \\ & \times \text{Plant ingestion rate (kg plant/day)} \\ & \times \text{Exposure frequency (days exposed/} \\ & \quad \text{365 days)} \\ & \times \text{Exposure duration (years exposed/years} \\ & \quad \text{lifetime)} \\ & \div \text{Body weight (kg).} \end{aligned}$$

The chemical concentration in soil used in this assessment was the maximum concentration observed in surface soil (0 to 0.5 foot bgs) at the site, where available. Where data were not available for this depth range, the maximum concentration observed between 0.5 and 4.0 feet bgs was used.

The deer mouse eats plants and invertebrates. Chapman and Feldhamer (1992) indicate that deer mice are omnivorous, preferring cereal grains. Because of the availability of methods for calculating the concentrations of site-related chemicals in plants and the lack of methods for calculating the concentrations of site-related chemicals in insects, this assessment assumes that the entire diet of the deer mouse consists of plants from the site. The plant uptake factors

were estimated using the approach described by Travis and Arms (1988) and presented in Appendix C.

The body weight of mice ranges from 0.015 to 0.035 kilograms (EPA, 1993i); the midpoint of this range was used in this assessment, and the median food consumption rate of 0.005 kg/day reported by EPA (1993i) for deer mice was used. Mice were assumed to be exposed to site-related chemicals every day for their entire lifetime.

Drinking Water Ingestion

Deer mice can obtain their entire requirement for water (0.0068 liters per day [L/day]) from their food and the production of metabolic water (Chapman and Feldhamer, 1992). Therefore, drinking water exposures were not calculated in this assessment.

Soil Ingestion

Deer mice are also assumed to be exposed to site-related chemicals in the soil through inadvertent soil ingestion. Potential exposures through inadvertent soil ingestion were estimated using the following equation:

Soil ingestion LADD (mg/kg/day) =

$$\begin{aligned} & \text{Chemical concentration in soil (mg/kg soil)} \\ & \times \text{Soil ingestion rate (kg soil/day)} \\ & \times \text{Exposure frequency (days} \\ & \quad \text{exposed/365 days)} \\ & \times \text{Exposure duration (years exposed/years} \\ & \quad \text{lifetime)} \\ & \div \text{Body weight (kg).} \end{aligned}$$

No information on soil ingestion was found for deer mice. An inadvertent soil ingestion rate for deer mice was calculated based on the assumption that a certain percentage of the total intake of food is soil. This approach has been used for larger foraging mammals such as sheep, cattle, and deer. Data for foraging mammals indicate that inadvertent soil ingestion typically represents 1 percent of total ingestion. To account for potential soil ingestion while grooming, this value was increased to 3 percent of the plant ingestion rate, or 0.00015 kg/day. Mice are assumed to be exposed to site-related

chemicals in soil every day for their entire lifetime.

Dermal Contact with Soil

Potential exposures through dermal contact with soil were estimated using the following equation:

Dermal contact LADD (mg/kg/day) =

Chemical concentration in soil (mg/kg soil)
 X Amount of soil on skin (kg soil/cm²/day)
 X Exposed surface area (cm²)
 X Dermal soil absorption adjustment factor (unitless)
 X Exposure frequency (days exposed/365 days)
 X Exposure duration (years/lifetime)
 ÷ Body weight (kg).

The amount of soil on skin used in this assessment was 1.0 mg/cm². This value was reported by EPA (EPA, 1992m) as a reasonable upper value for humans. One value was also reported by EPA (1992m) for shaved rat skin using the "monolayer" method. However, this value was not used by EPA because of questions about skin texture, types of soil tested, soil moisture contents, or the methodology used to measure soil adhesion. EPA (1992m) concluded that the monolayer concept was not sufficiently well understood to use in the estimation of soil adherence.

The surface area used in this assessment was 10 percent of the total surface area of the deer mouse based on professional judgment and by analogy to comparable estimates for the muskrat (V. Hayssen, personal communication, March 1993). The total surface area was calculated from the following equation based on body weight (Schildt and Nilsson, 1970, and Ettinger, 1975):

$$\text{Surface area} = k \times \text{BW}^{2/3}$$

where: BW = body weight in kilograms
 k = a constant equal to 10.

For the deer mouse, a total surface area of 85.50 cm² was calculated and an exposed skin area of 8.55 cm²/day was estimated.

5.3.1.2 Gray Fox

The gray fox indicator species was also conservatively assumed to spend its entire lifetime at each site exposed to the site-related chemicals, and to obtain its entire daily food requirements from the site. These assumptions are conservative in that (1) the home range of gray fox was reported by two sources in Chapman and Feldhamer (1992), to be between 75 and 185 hectares, and 3.2 km², and (2) there may not be sufficient food sources at all the sites to meet the second assumption. Two factors that influence the size of the home range are abundance of food and diversity of habitat (Chapman and Feldhamer, 1992). Therefore, it is unlikely that the gray fox would spend its entire lifetime at a single site. Assumptions are revised in Sections 6.0 and 7.0 to reflect site-specific information as appropriate. The assumptions used to estimate potential exposures to site-related chemicals are presented below.

The diet of the gray fox consists of both plants and small animals. Chapman and Feldhamer (1992) indicate that, depending on availability, foxes feed on small mammals, birds, fruits, and insects. The typical vegetative portion of the diet of the gray fox is manzanita berries, cherries, and coffee berries (*Rhamnus californica*). In this assessment, gray fox were assumed to consume 2.25 kg of prey/week, the value presented for red fox (Chapman and Feldhamer, 1992). This value was used to calculate an average total daily consumption rate of 0.32 kg/day for the gray fox. This assessment assumed that the entire diet of the gray fox consists of deer mice and plants from each of the sites evaluated. Vegetative and reproductive plant tissue concentrations have been modeled for each site, and it was assumed that these represent the concentrations of COPCs in the plant parts typically consumed by the gray fox. No data on food distribution were presented for the gray fox. Chapman and Feldhamer (1992) present food distribution data for the red fox that indicate that mice are the major food source. Burt and Grossenheider (1976) indicate, in their section on economic value, that the gray fox is "a wonderful mouser." This assessment assumes that 60 percent (0.19 kg/day) of the food consumed by gray fox at each site is deer mice from the site and 40 percent (0.13 kg/day) is plants from the site.

Plant Ingestion

The following equation was used to estimate the potential lifetime average daily dose (LADD) to gray fox from concentrations of site-related chemicals in plants:

Plant ingestion LADD (mg/kg/day) =

Chemical concentration in soil (mg/kg soil)
 X Plant uptake factor (kg soil/kg plant)
 X Plant ingestion rate (kg plant/day)
 X Exposure frequency (days exposed/365 days)
 X Exposure duration (years exposed/lifetime)
 ÷ Body weight (kg).

The chemical concentration in soil used in this assessment was the maximum concentration observed in the surface soil (0 to 0.5 foot bgs) at the site, where available. Where data were not available for this depth range, then the maximum concentration observed between 0.5 and 4.0 feet bgs was used. The methods for calculating the content of site-related chemicals in plants are described above for the house mouse.

Mammal Ingestion

The following equation is used to estimate the potential lifetime average daily dose to gray fox from consuming mammals:

Mammal ingestion LADD (mg/kg/day) =

Chemical concentration in mice (mg/kg)
 X Ingestion rate (kg/day)
 X Exposure frequency (days exposed/365 days)
 X Exposure duration (years exposed/lifetime)
 ÷ Body weight (kg).

The average daily dose calculated above for the deer mouse was assumed to represent a steady-state approximation of the concentration of the chemicals of potential concern in the field mouse. This value was used to represent the concentration of the COPCs in the small mammal portion of the gray fox diet.

Drinking Water Ingestion

Drinking water exposures were not calculated for the gray fox (which requires 0.44 L/day; *Chapman and Feldhammer, 1992*) because no standing water was observed at any site that could serve as a source of drinking water, except at Sites 16, 39, and 41. Chemical concentration data have not been collected from the water at Sites 39 and 41 so drinking water exposures were not calculated for these sites. Part of Site 16, Pete's Pond, is a triangular depression surrounded by roads that is dry most of the year. Therefore, the potential for exposures to surface water at Site 16 is limited and not evaluated here.

Soil Ingestion

Gray fox are also assumed to be exposed to site-related chemicals in the soil through inadvertent soil ingestion. Potential exposures through inadvertent soil ingestion were estimated using the following equation:

Soil ingestion LADD (mg/kg/day) =

Chemical concentration in soil (mg/kg soil)
 X Soil ingestion rate (kg soil/day)
 X Exposure frequency (days exposed/365 days)
 X Exposure duration (years/lifetime)
 ÷ Body weight (kg).

No information on soil ingestion was found for fox. An inadvertent soil ingestion rate for fox was calculated from the assumption that a certain percentage of the total intake of food is soil. This approach has been used for larger foraging mammals such as sheep, cattle, and deer. Data for foraging mammals indicates that inadvertent soil ingestion typically represents 1 percent of total ingestion. To also account for potential soil ingestion while grooming, this value was increased to 3 percent of the plant ingestion rate, or 0.0039 kg/day.

Dermal Contact with Soil

Potential exposures through dermal contact with soil were estimated using the following equation:

Lifetime average daily dose (mg/kg/day) =

Chemical concentration in soil (mg/kg soil)
 X Amount of soil on skin (kg soil/cm²/day)
 X Exposed surface area (cm²)
 X Dermal soil absorption adjustment factor
 (unitless)
 X Exposure frequency (days exposed/365 days)
 X Exposure duration (years/lifetime)
 ÷ Body weight (kg).

The amount of soil on skin used in this assessment was 1.0 mg/cm². This value was reported by EPA (EPA, 1992m) as a reasonable upper value for humans. One value was also reported by EPA (1992m) for shaved rat skin using the "monolayer" method. However, this value was not used by EPA because of questions about skin texture, types of soil tested, soil moisture contents, or the methodology used to measure soil adhesion. EPA (1992m) concluded that the monolayer concept was not sufficiently well understood to use in the estimation of soil adherence.

The exposed surface area used in this assessment was 10 percent of the total surface area of the fox based on professional judgment and by analogy to comparable estimates for the muskrat (V. Hayssen, personal communication, March 1993). The total surface area was calculated from the following equation based on body weight (Schildt and Nilsson, 1970 and Ettinger, 1975):

$$\text{Surface area} = k \times \text{BW}^{2/3}$$

BW = body weight in kilograms
 k = a constant equal to 10.

For the fox, a total surface area of 3019 cm² was calculated and an exposed skin area of 301.9 cm²/day was estimated.

5.3.1.3 Multipathway Exposure

The LADDs calculated for each pathway for each species were summed to obtain chemical-specific, species-specific LADDs, which were used in the calculation of chemical-specific hazard quotients in the risk characterization section (Section 5.6).

5.3.2 Characterization of Ecological Effects

This section presents the benchmark concentrations and critical toxicity values used to assess the toxicity of chemicals to ecological receptors at Fort Ord. Where available, benchmark concentrations intended to protect biota were compared to detected chemical concentrations in stormwater, sediment, soil, and plants to identify exceedances. Critical toxicity values, expressed as doses, were developed from literature sources to provide toxicity values to compare with estimated exposure doses for terrestrial animals.

5.3.2.1 Benchmark Concentrations

Benchmark concentrations (BCs) are chemical concentrations representing levels below which adverse effects are not expected. BCs are available for some chemicals in surface water, sediment, soil, and plant matrices, as discussed below. No benchmark concentrations have been developed for the protection of terrestrial animals from exposure to chemicals in soil.

For surface water, available BCs include the following:

- Ambient water quality criteria (AWQC)
- Apparent effects thresholds (AETs).

Both marine and freshwater AWQC are listed in the Code of Federal Regulations (40 CFR 131.36). At Fort Ord, marine AWQC are conservative BCs to apply to stormwater runoff at the ocean outfalls and for potential groundwater recharge in the bay. Freshwater AWQC are conservative BCs to assess stormwater runoff to areas such as the Salinas River and for ponded water such as that found at Sites 16, 39, and 41. In all cases, chronic values are more protective than acute values; both values are presented in Table 5.3. Chemical concentrations lower than AWQCs indicate the absence of a potential problem; chemical concentrations that exceed appropriate AWQCs indicate the potential for toxicity to result, and may warrant further evaluation if aquatic species are chronically exposed to chemicals at the detected concentrations. Any exposure to chemicals in groundwater or in

stormwater runoff is expected to be lower than the measured concentration, due to dilution. The dilution factor is expected to be much greater for groundwater and stormwater potentially reaching the bay than for other areas. Therefore, the use of AWQCs in the screening assessment results in a very conservative evaluation of the potential toxicity of chemicals in water to aquatic receptors.

AETs were not used in this assessment. AETs were originally developed for Puget Sound and other estuarine and enclosed embayments, and are not considered relevant for the Monterey Bay and Salinas River.

For sediments, available BCs include effects range-low (ER-L) and effects range-median (ER-M) concentrations. Originally developed by the National Oceanic and Atmospheric Administration (NOAA; *Long and Morgan, 1990*), and recently revised (*EPA, 1992n*), ER-Ls and ER-Ms represent concentrations from National Status and Trends program sites across the country resulting in toxicity to target species 10 percent (ER-Ls) or 50 percent (ER-Ms) of the time. These concentrations represent chronic exposures of both freshwater and marine (mostly marine) aquatic organisms to chemicals in sediment. According to NOAA, concentrations below ER-Ls are not likely to be of concern, concentrations above ER-Ms indicate the likelihood of toxicity, and concentrations between the two may indicate a potential problem. Chemical concentrations in non-submerged in-pipe and outside of pipe sediment were compared with available ER-Ls and ER-Ms, and exceedances were identified as discussed in Section 5.6. ER-Ls and ER-Ms are highly conservative values based on true sediment and are only meant to be screening values. The available ER-Ls and ER-Ms are presented in Table 5.4.

Soil and plant tissue BCs for metals are presented in Table 5.5. No BCs for organic chemicals are available for plants.

For exposure of plants to metals in soil, the available BCs are soil and plant tissue screening concentrations. The soil screening concentrations are concentrations in soil from that EPA (1980c) considers to be protective of

crop plants, above which toxic effects may occur (hereafter referred to as EPA screening concentrations). Metals concentrations in soil were compared with these soil BCs as described in Section 5.5; detected concentrations lower than BCs indicate the absence of a problem and concentrations greater than BCs indicate the possible presence of a problem.

Available plant tissues screening concentrations are the normal and toxic range concentrations for plants reported by Kabata-Pendias and Pendias (1984) and the tissue screening levels reported by EPA (1980c). The Kabata-Pendias and Pendias plant tissue screening values were used as in this evaluation, rather than the EPA values. Kabata-Pendias and Pendias (1984) present "normal" (i.e., nontoxic) and "excessive" (i.e., toxic) concentration ranges for inorganic constituents in plant tissues. The EPA tissue screening values were not used for the following reasons:

- The EPA values are below the Kabata-Pendias and Pendias lower bound of the toxic range for arsenic, cadmium, chromium, and copper, and below the upper bound of the normal range for copper and arsenic; the value for chromium was derived from data for vegetables and fruit, not oats, and the value for copper was derived from data for millet (*Dvorak, 1978*).
- Additionally, plant uptake and accumulation of metals can vary greatly among species; many plants, including oats, can adapt to soil containing metals at concentrations that exceed the EPA screening values (*Dvorak and Lewis, 1978*).
- Third, the EPA screening values are reported based on wet weight (although some sources cited by EPA report the values as dry weights) and the Fort Ord analytical results are based on dry weight.

Measured chemical concentrations in plants from the sites were compared to the plant tissue screening concentrations as described in Section 6.0.

5.3.2.2 Critical Toxicity Values

Critical toxicity values were developed for comparison with the LADDs calculated in Section 5.3.1. The method used to develop these values is discussed below.

For humans, reference doses (RfDs) have been developed for many chemicals (EPA, 1989b). An RfD (expressed in units of mg/kg/day) is an estimated daily intake (dose) of a single chemical that is not expected to result in adverse health effects, even over a lifetime of exposure (Vettorazzi, 1976; Dourson and Stara, 1983). The RfD is based on the relationship between the dose of a chemical and the toxic effects that can occur in test animals and/or humans. The relationship used by the EPA to develop RfDs assumes that a threshold exists for the initiation of toxic effects (Dourson and Stara, 1983). The majority of RfDs are based on toxicity studies in experimental animals. To derive a human RfD for a chemical from experimental animal toxicity studies, the threshold of observed effects in a test animal is divided by uncertainty factors (and possibly modifying factors). The resulting RfD is expected to be protective of the most sensitive members of the human population (EPA, 1989b).

A similar method is applied to experimental animal studies to derive doses expected to be protective of any given species, assuming appropriate uncertainty factors are used to extrapolate among species. These doses, herein referred to as toxicity reference values (TRVs), are conservative values established to be protective of terrestrial species and address the assessment endpoints (e.g., organisms not affected by site-related chemicals) and measurement endpoints (e.g., NOAEL for receptor or surrogate species) in Tables 2.1 through 2.3.

Concentrations below TRVs are not expected to result in adverse health effects to the indicator species, even if exposure occurs over an extended period of time. The proper selection of toxicity endpoints from which TRVs are derived is an important component of the ecological risk assessment (EPA, 1991b). It is important to elucidate available toxicological endpoints that are relevant and measurable for the terrestrial species evaluated in the assessment. Appropriate endpoints that can be used to evaluate chemical

toxicity include laboratory studies on changes in growth or behavior, histopathological abnormalities such as liver necrosis or tumorigenesis, changes in blood chemistry, and changes in reproductive or developmental processes. These endpoints were evaluated for the ecological risk assessment to derive conservative TRVs.

The following sections discuss the toxicity parameters considered in deriving TRVs and the TRV method used for terrestrial indicator species.

Overview of Ecological Toxicity Parameters

On the basis of information available from the scientific literature, the following toxicity endpoints and parameters are relevant for deriving TRVs:

Parameter	Definition
NOAEL	No Observed Adverse Effect Level -- The highest concentration or dose of a chemical by any exposure route resulting in no adverse effects.
NOEL	No Observed Effect Level -- The highest concentration or dose of a chemical by any exposure route resulting in no measured effects of any kind (including beneficial effects).
LOAEL	Lowest Observed Adverse Effect Level -- The lowest concentration or dose of a chemical by any exposure route resulting in adverse effects.
LOEL	Lowest Observed Effect Level -- The lowest concentration or dose of a chemical by any exposure route resulting in measured effects of any kind (including beneficial effects).
TDLo	Toxic Dose Low -- The lowest dose of a chemical over any exposure period resulting in any toxic, tumorigenic, or reproductive effects for any noninhalation exposure route.
LDLo	Lethal Dose Low -- The lowest dose of a chemical by any exposure route

other than inhalation, over a defined exposure period, resulting in death.

LD50 Lethal Dose Fifty -- A calculated noninhalation dose of a chemical resulting in the death of 50 percent of an entire population of experimental (terrestrial) organisms.

Definitions for these parameters were compiled from the literature, including the Registry of Toxic Effects of Chemical Substances database (RTECS, 1992).

Based on toxicological endpoints for this assessment (i.e., sublethal, physiological effects due to chronic exposure), the chronic NOAEL was used, if available, to represent the most relevant, health-protective toxicological parameter on which to base TRVs. If toxicity data for a chemical were not available, the TRV was based on data for a structurally similar surrogate chemical.

Development of Toxicity Reference Values (TRVs)

Because the majority of available toxicological data for site-related chemicals are for species other than those present at Fort Ord, data were extrapolated as necessary to selected Fort Ord indicator species.

To develop human reference doses (RfDs), NOAELs generally based on animal studies are extrapolated to humans by incorporating "safety factors," or uncertainty factors, to account for uncertainties involved with such extrapolations (EPA, 1994). Several uncertainty factors are currently used by EPA to derive human RfDs, as follows (Dourson and Stara, 1983; Lewis *et al.*, 1990):

- To extrapolate from a test species to humans, the NOAEL is divided by a factor of 10
- To extrapolate from a LOAEL value to a NOAEL value, the LOAEL is divided by a factor of 10
- To extrapolate from acute or subchronic studies to a chronic (i.e., majority of lifetime)

exposure basis, the value is divided by a factor of 10

- To account for especially sensitive members of the population, the value is divided by a factor of 10
- To account for any uncertainties not covered by the above factors, a "professional judgment" modifying factor from 1 to 10 is used.

Depending on the chemical and the type of data available, the overall uncertainty factor used to adjust the value reported in the critical toxicity study can range from 1 to 100,000. These factors of 10 were originally derived to incorporate a margin of safety and were not based on actual data. Indeed, when these factors were first suggested in 1954, available information on comparative toxicity was relatively scarce (Lehman and Fitzhugh, 1954). Only very meager information was available at that time, even for laboratory animals, and very conservative methods were deemed necessary to protect human health. More recently, it has been suggested that these order-of-magnitude factors should be regarded as boundaries on actual differences rather than best estimates of the differences (Lewis *et al.*, 1990).

Recent attempts to quantify uncertainty factors have been made for both aquatic (EPA, 1991a) and terrestrial (Lewis *et al.*, 1990) species. For a variety of marine and freshwater invertebrate and fish species, EPA (1991a) has evaluated extrapolations based on taxonomy (i.e., species differences) and endpoints (i.e., acute or chronic). Results of the evaluation indicate that the average differences between the LC50 and maximum allowable toxic concentration (MATC) for a variety of taxa ranged from a factor of 10 for marine crustaceans, to a factor of 34 for freshwater fish. Based on this evaluation, EPA (1991a) suggests using an uncertainty factor of 10 to 40 when extrapolating from acute to chronic toxicity for single chemicals in aquatic organisms.

For extrapolating between species, the appropriate uncertainty factor increases with increasing differences between the test and indicator species. For example, for extrapolation

within a genus, a factor of 5 is appropriate; factors of 10 and 20 are more appropriate for extrapolations within families and orders, respectively (EPA, 1991a).

This discussion highlights the complexity in quantifying uncertainty inherent in the extrapolation process. EPA (1991a) underscores this complexity by pointing out that the factors discussed above reflect the quantity, quality, and types of data used in their analyses and that this information should not be generalized for all datasets.

A similar analysis was conducted for terrestrial laboratory species (i.e., rats and mice; Lewis *et al.*, 1990). These authors developed extrapolations between species, from LOAEL to NOAEL values, and from less than chronic (i.e., acute or subchronic) to chronic exposure durations, based on an evaluation of the literature. These represent three of the five factors of 10 listed above for human RfD derivation.

In the study, LOAEL to NOAEL ratios were examined from 27 subchronic and 25 chronic laboratory studies (Lewis *et al.*, 1990). Of the 52 studies, 96 percent of all ratios of the LOAEL to the NOAEL for both the subchronic and chronic studies were less than or equal to 5; the arithmetic average was 3.5 for chronic studies and less than 3 for subchronic studies. Based on this information, a value of 5 was used to extrapolate from LOAEL or TDLo to NOAEL values within a terrestrial species to be protective at the 95th percentile level. A factor of 6 was used to extrapolate from LD50 to NOAEL.

Extrapolations from subchronic to chronic studies were evaluated for the same 52 studies used above. Ratios of the subchronic NOAEL to the chronic NOAEL were less than or equal to 5 in 90 percent of all cases; 97 percent of all ratios were found to be less than 10. Evaluation of a different dataset on 41 different chemicals indicated that all ratios of subchronic to chronic studies with the same test organisms were less than 3 (McNamara, 1979). To be conservative, the higher calculated value of 5 was used to extrapolate from subchronic to chronic values.

On the basis of the above discussion, the following uncertainty factors were used to convert the available toxicity data to an equivalent chronic NOAEL for the terrestrial indicator species:

- To extrapolate from a test species to an indicator species within the same genus, a factor of 5 was used
- To extrapolate from a test species to an indicator species within the same family, but in a different genus, a factor of 10 was used
- To extrapolate from a test species to an indicator species within the same order, but in a different family, a factor of 20 was used
- To extrapolate from a LOAEL or TDLo value to a NOAEL value, a factor of 5 was used
- To extrapolate from an LD50 value to a NOAEL value, a factor of 6 was used
- To extrapolate from acute or subchronic studies to a chronic exposure basis (i.e., majority of lifetime), a factor of 5 was used.

Where multiple values were available for a given endpoint, the geometric mean of the values was selected, consistent with published methods (Edmisten Watkin and Stelljes, 1993). For all indicator species, uncertainty factors used to derive TRVs can range from 1 to 500 (i.e., $20 \times 5 \times 5$). This approach is discussed by Edmisten Watkin and Stelljes (1993).

To decrease the uncertainty factors used in deriving TRVs, indicator species were selected that are closely related taxonomically to species for which there is a strong toxicological database. This increases confidence in the conclusions drawn during the risk characterization.

TRVs developed for the deer mouse and gray fox for each of the COPCs identified in Section 5.2 are summarized in Table 5.6. Supporting toxicity documentation is provided in Appendix D.

5.4 Terrestrial Risk Estimation for Mammals - First Iteration

This section evaluates the potential for adverse ecological effects on terrestrial receptors from exposures to the COPCs (risk estimation component of EPA's framework, Plate 1.2). The estimates of the potential for adverse ecological effects are calculated in a manner similar to that calculating hazard indices for human health risk assessments. The total exposure dose (estimated as presented in Section 5.3.1 by using the exposure assumptions summarized in Table 5.2) for each chemical at a site is divided by an appropriate TRV (presented in Section 5.3.2 and Table 5.6) to derive a hazard quotient for effects other than cancer.

For the initial conservative screening assessment, the maximum site concentrations of all COPCs were used, regardless of where the individual maximum concentrations occurred on the site. Maximum concentrations were used instead of mean concentrations or the 95 percent upper confidence level (UCL) of the mean in order to be highly conservative. The maximum concentration observed in the surface soil (0 to 0.5 foot bgs) at the site was used if available. If data were not available for this depth range, the maximum concentration observed between 0.5 and 4.0 feet bgs was used.

The terrestrial receptors were assumed to spend their entire lifetimes simultaneously exposed to the maximum concentrations of all COPCs detected at a site. Although this is unrealistic given the home ranges reported for these organisms, this assumption is highly conservative and therefore highly protective.

The level of ecological concern of the hazard quotient is defined in part in material presented by EPA (1988):

- If the ratio is less than 0.1, the site is categorized as being of "no concern."
- If the ratio is between 0.1 and 10, the site is categorized as being of "possible concern."
- If the ratio is greater than 10, the site is categorized as being of "probable concern."

Because of the number of conservative assumptions used in the quantitative ecological screening assessment, including the use of chronic NOAELs to develop TRVs, the categories presented above were modified for this assessment as follows:

- If the sum of the hazard quotients (i.e., hazard index) for all the COPCs observed at an individual site is at or below 1.0, then no adverse impacts are expected at that site ("no concern").
- If the hazard index for all the COPCs observed at a site is between 1.0 and 10.0, then the site is considered to be of "possible concern" from an ecological perspective.
- If the hazard index for all the COPCs observed at a site is greater than 10.0, then the site is considered to be of "probable concern".

The results of the quantitative ecological screening assessment are presented on a site-by-site basis in the following sections. Within the discussion of each site, results are presented from the evaluation of the potential for adverse effects on a deer mouse (*Peromyscus maniculatus*) and a gray fox (*Urocyon cinereoargenteus*). The exposure pathways and COPCs contributing to a hazard index above 1.0 are listed for each site in descending order of importance for both of these species. If the results of the assessment indicate no adverse impacts for both the mouse and the fox, then no further action is recommended for that site.

If results of the quantitative ecological screening assessment using the maximum COPC concentrations indicated a hazard index above 1.0 for either or both species, then additional evaluations were performed to determine whether the risks calculated using the maximum concentrations were a result of the conservative assumptions. The uncertainty of the numerator (LADD) was evaluated by collecting biota and comparing the tissue concentrations to the LADDs (Section 6.0). The denominator (TRV) is considered a conservative (i.e., protective) value. Uncertainties related to the hazard quotients are discussed in Section 5.8 and 6.0. For sites where most of the site is paved, the specific sample

location that contained the highest concentrations of the COPCs that contributed the most to the estimated hazard index was determined. If this sample location was from a paved area, then the site may have been screened out because a complete exposure pathway was lacking. If an interim remedial action is planned at a site whereby COPCs in soil will be remediated, the site was screened out and not considered further in the analysis. For sites that are of possible or probable concern in this initial quantitative ecological screening assessment, additional data were collected to more directly quantify the potential for adverse ecological effects in the quantitative ecological risk assessment.

5.4.1 Site 1

The results of the quantitative ecological screening assessment conducted at Site 1 for the deer mouse and gray fox are presented in Table 5.7. Both species were assumed to spend their entire lifetimes on Site 1, exposed to the maximum concentrations of COPCs found at the site. Data from 0.5 to 4 feet bgs were used. The hazard index for the deer mouse was estimated to be 0.01, below levels of concern. The hazard index for the gray fox was estimated to be 0.03, also below levels of concern. In both cases, the estimated hazard indices were attributable to cumulative exposures from mercury in shallow soil at Site 1. These analyses indicate that Site 1 is in the "no concern" category, and adverse ecological effects to the deer mouse and the gray fox are not expected to result from chemical exposure at the site. Because these species were assumed to be highly exposed, other less highly exposed species are also unlikely to be affected by concentrations of metals at the site. Therefore, on the basis of estimated potential risks to terrestrial ecological receptors, no further action is required at Site 1. Additional surficial soil samples were collected to fill a data gap (Section 5.8.1).

5.4.2 Site 2

The results of the quantitative ecological screening assessment conducted at Site 2 for the deer mouse and gray fox are presented in Table 5.8. Both species were assumed to spend their entire lifetimes on Site 2, exposed to the

maximum concentrations of COPCs found at the site. Data from up to 0.5 foot bgs were used. The hazard index for the deer mouse was estimated to be 58, which indicates "probable concern." Most of the estimated risks to the deer mouse were due to the ingestion of plants and to the soil exposure pathways. The hazard index for the gray fox was estimated to be 61, which also indicates "probable concern." Most of the estimated risks to the gray fox were due to the ingestion of plants and mice and to the soil exposure pathways.

In order of importance, the COPCs responsible for most of the hazard index for the mouse are zinc, lead, cadmium, chromium, and selenium. In order of importance, the COPCs responsible for most of the hazard index for the fox are zinc, cadmium, selenium, chromium, and lead. The maximum concentrations of the contributing metals were from one boring location in an upland ruderal area of the site. Site 2 is expected to be developed as an aquaculture facility.

This analysis indicates that the deer mouse and gray fox may be affected by COPCs at the site on the basis of a conservative current exposure scenario. Therefore, additional data were collected and additional site data analysis was performed to assess whether the potential for adverse effects is the result of the conservative screening assessment or whether exposure to the COPCs may result in potential adverse effects on terrestrial species at trophic levels comparable to the deer mouse and gray fox. Additional data included collecting collocated soil and biota as discussed in Section 5.8.2. The additional data analyses included assessing whether the maximum COPC concentrations were collocated and what potential risks were associated with the single soil boring that poses the highest risks.

5.4.3 Site 3

The results of the quantitative ecological screening assessment conducted at Site 3 for the deer mouse and gray fox are presented in Table 5.9. Both species were assumed to spend their entire lifetimes on Site 3, exposed to the maximum concentrations of chemicals found at the site. Data from up to 0.5 foot bgs were used. The hazard index for the deer mouse was

estimated to be 5,332, which indicates "probable concern." Most of the estimated risks to the deer mouse are due to the ingestion of soil and to the plant exposure pathways. The hazard index for the gray fox was estimated to be 629, which also indicates "probable concern." Most of the estimated risks to the gray fox are due to the ingestion of soil, plants, and mice. In order of importance, the COPCs responsible for most of the hazard index for the mouse are lead, antimony, and zinc; for the fox they are lead, zinc, and copper. The maximum concentrations of these metals were detected in different areas. The site is expected to be developed as a state park. This analysis indicates that the house mouse and gray fox may be affected by COPCs at the site, on the basis of a conservative current scenario. Therefore, additional data analysis was performed and additional data were collected to assess whether the potential for adverse effects is the result of the conservative screening assessment. The additional data included collection and analysis of collocated soil and biota, as discussed in Section 5.8.3.

Additionally, birds such as doves may ingest expended bullet fragments and retain them as grit in the gizzard; this activity is known to be toxic to waterfowl and raptors that ingest lead shot (*Eisler, 1988*). Lead shot consists almost entirely of lead, whereas the bullet fragments at Site 3 are composed of alloys that contain other metals, such as copper and zinc, as well as lead. The presence of these other metals makes the alloy harder than lead shot. These other metals may be less toxic to avian wildlife, thus reducing the toxicity of a given weight of bullet fragments compared with that for lead shot. Because the lead is combined with other metals, it is less likely to be bioavailable, although the relative bioavailability of lead in lead shot is also unclear.

The metals in the bullet fragments at Site 3 are not readily available; results of leachate tests on the fragments indicate that only about 0.1 percent of the metals leach under neutral conditions. The effect of these factors on birds at Site 3 is unclear; literature reports indicate large variability in the amount of lead shown to cause adverse effects. The differences in bioavailability between lead shot and bullet fragments may further complicate the analysis (*Eisler, 1988*).

Additional analysis to clarify this issue is discussed in Section 6.0.

5.4.4 Site 11

As discussed in Section 4.2.4.2, the chemical site characterization for Site 11 was performed by JMM and summarized in a letter report, dated February 26, 1993. Because these data were not collected by HLA, they are not included in the data summaries presented in Appendix A. Only lead was selected as a COPC for Site 11. The maximum concentration of lead observed at this site was 220 mg/kg detected in an upland ruderal area (*JMM, 1991b*).

The results of the quantitative ecological screening assessment conducted at Site 11 for the deer mouse and gray are presented in Table 5.10. Both the species were assumed to spend their entire lifetimes on Site 11, exposed to the maximum concentrations of chemicals found at the site. Data from up to 4 feet bgs were used. The hazard index for the deer mouse was estimated to be 25, which indicates "probable concern." Most of the estimated risk to the deer mouse is due to the ingestion of soil. The hazard index for the gray fox was estimated to be 3, which indicates a "possible concern." Most of the estimated risk to the gray fox is due to the ingestion of soil.

The site is approximately 25 percent paved and is expected to be developed for university purposes. This analysis indicates that the house mouse and gray fox may be affected by the COPC at the site, on the basis of the conservative current scenario. Therefore, additional chemical data analysis was performed to assess whether the potential for adverse effects was the result of the conservative screening assessment. Additional data collected included collocated soil and biota, as discussed in Section 5.8.4.

5.4.5 Site 12

The results of the quantitative ecological screening assessment conducted at Site 12 for the deer mouse and gray fox are presented in Table 5.11. Both species were assumed to spend their entire lifetimes on Site 12, exposed to the maximum concentrations of the COPCs at the site. Data from up to 4 feet bgs were used. The

hazard index for the deer mouse was estimated to be 146, which indicates "probable concern." Most of the estimated risks to the deer mouse are due to the ingestion of soil and plants. The hazard index for the gray fox was estimated to be 51, which also indicates "probable concern." Most of the estimated risks to the gray fox are due to the ingestion of soil and plants.

In order of importance, the COPCs responsible for most of the hazard indices are lead, zinc, cadmium, and chromium for the mouse and cadmium, lead, zinc, and chromium for the fox. The maximum concentrations were detected at one boring location in a landscaped area. The site is approximately 75 percent paved, and is expected to be developed. On the basis of the current and future land uses, it is unlikely that the modeled exposures represent site-specific conditions. Therefore, additional chemical data analysis was performed and additional data collected, including collocated soil and biota samples, to assess whether the potential for adverse effects was the result of the conservative screening assessment. These data analyses are discussed in Section 5.8.5.

5.4.6 Site 15

A quantitative ecological screening assessment was conducted at Site 15 for the deer mouse and gray fox. The results of this assessment are presented in Table 5.12. Both species were assumed to spend their entire lifetimes on Site 15, exposed to the maximum concentrations of the COPCs at the site. Data from up to 4 feet bgs were used. The hazard index for the deer mouse was estimated to be 178, which indicates "probable concern." Most of the estimated risks to the deer mouse are due to the ingestion of plants. The hazard index for the gray fox was estimated to be 1,455, which also indicates a "probable concern." Most of the estimated risks to the gray fox from most chemicals are due to the ingestion of plants. However, most of the estimated risks to the gray fox from chlordane were calculated to be from ingestion of mice.

The COPCs responsible for most of these risks are chlordane, dieldrin, and heptachlor for the mouse and heptachlor and chlordane for the fox. The maximum concentrations were detected in an area planned for interim remedial action. The

site is approximately 65 percent paved and is expected to be used as a corporation yard. The soil in the areas contributing to the hazard index will be remediated. Therefore, on the basis of estimated potential risks to terrestrial ecological receptors, no further ecological action is required at Site 15. Additional data analysis and collection of soil and biota samples was performed to validate the models used in the screening assessment (Sections 5.8.6).

5.4.7 Site 16

The results of the quantitative ecological screening assessment conducted at Site 16 for the deer mouse and gray fox, are presented in Table 5.13. Both species were assumed to spend their entire lifetimes on Site 16, exposed to the maximum concentrations of COPCs at the site. Data from up to 4 feet bgs were used. The hazard index for the deer mouse was estimated to be 8, which indicates "possible concern." Most of the estimated risks to the deer mouse are due to the ingestion of plants and to the soil exposure pathways. The hazard index for the gray fox was estimated to be 6, which also indicates "possible concern." Most of the estimated risks to the gray fox are due to the ingestion of plants and to soil exposure pathways.

In order of importance, the COPCs responsible for most of hazard indices are lead, cadmium, zinc, chromium, nickel, and antimony for the mouse and cadmium, zinc, chromium, and lead for the fox. The maximum concentrations of these metals were detected in unpaved upland ruderal areas, or, in the case of zinc, in a central maritime chaparral area. The site is unpaved and is expected to be developed. This analysis indicates that the deer mouse and gray fox may be affected by the COPCs at the site, on the basis of a conservative current scenario. Therefore, additional site data analysis was performed and additional data were collected to assess whether the potential for adverse effects is the result of the conservative screening assessment. Additional data collected included collocated soil and biota, as discussed in Section 5.8.7.

5.4.8 Site 17

The results of the quantitative ecological screening assessment conducted at Site 17 for the deer mouse and gray fox are presented in Table 5.14. Both species were assumed to spend their entire lifetimes on Site 17, exposed to the maximum concentrations of COPCs at the site. Data from up to 4 feet bgs were used. The hazard index for the deer mouse was estimated to be 1, which also indicates "no concern." The hazard index for the gray fox was estimated to be 1, which also indicates "no concern." Most of the estimated risks to the gray fox are due to the ingestion of plants and to the soil exposure pathways.

For the mouse, in order of importance, the COPCs responsible for most of the hazard index are chromium, cadmium, and nickel. For the fox, in order of importance, the COPCs responsible for most of the hazard index are cadmium and chromium which contributed 73 percent of the total hazard index; all other metals and dioxins had a combined hazard index of less than 0.3.

The site is approximately 95 percent paved; the maximum concentrations of the metals were detected in paved areas; the maximum concentrations of dioxins were detected in soil from a boring on the border of or in an upland ruderal area. This analysis indicates that the deer mouse and gray fox should not be adversely impacted by the COPCs at Site 17. On the basis of the estimated potential risks to terrestrial ecological receptors, no further ecological action is recommended at this site.

5.4.9 Site 21

The results of the quantitative ecological screening assessment conducted at Site 21 for the deer mouse and gray fox are presented in Table 5.15. Both species were assumed to spend their entire lifetimes on Site 21, exposed to the maximum concentrations of COPCs at the site. Data from up to 0.5 foot bgs were used. The hazard index for the deer mouse was estimated to be 105, which indicates "probable concern." Most of the estimated risks to the deer mouse are due to the ingestion of plants. The hazard index for the gray fox was estimated to be 56, which

also indicates "probable concern." Most of the estimated risks to the gray fox are also due to the ingestion of plants.

In order of importance, the COPCs responsible for most of the hazard indices are lead, zinc, cadmium, chromium, and antimony for the mouse and cadmium, zinc, lead, and chromium for the fox. The maximum concentrations of these metals were detected in wetland ruderal areas planned for interim remedial action. The site is approximately 90 percent paved.

This analysis indicates that the deer mouse and gray fox may be impacted by COPCs on the basis of the a conservative current scenario; however, additional data were not collected at this site because the areas with metal concentrations contributing to the hazard index will be remediated. Therefore, on the basis of potential risks to terrestrial ecological receptors, no further ecological action is required at Site 21. However, additional soil and biota samples were collected and analyzed to validate the models used in the screening assessment (Section 5.8.9).

5.4.10 Site 22

The results of the quantitative ecological screening assessment conducted at Site 22 for the deer mouse and gray fox are presented in Table 5.16. Both species were assumed to spend their entire lifetimes on Site 22, exposed to the maximum concentrations of COPCs at the site. Data from up to 0.5 foot bgs were used. The hazard index for the deer mouse was estimated to be 0.04, which is below levels of concern. The hazard index for the gray fox was estimated to be 0.1, which is also below levels of concern.

These analyses indicate that Site 22 is in the "no concern" category, and adverse ecological effects to the deer mouse and the gray fox are not expected to result from chemical exposures at the site. Because these species were assumed to be highly exposed, other, less highly exposed species are also unlikely to be affected by concentrations of chemicals at the site. Therefore, on the basis of potential risks to terrestrial ecological receptors, no further action is required at Site 22. However, additional soil and biota samples were collected and analyzed to

validate the models used in the screening assessment (Section 5.8.10).

5.4.11 Site 24

The results of the quantitative ecological screening assessment conducted at Site 24 for the deer mouse and gray fox are presented in Table 5.17. Both species were assumed to spend their entire lifetimes on Site 24, exposed to the maximum concentrations of COPCs at the site. Data from up to 4 feet bgs were used. The hazard index for the deer mouse was estimated to be 20, which indicates "probable concern." The hazard index for the gray fox was estimated to be 5, which indicates "possible concern."

In order of importance, the COPCs responsible for most of the hazard indices are lead and zinc for the mouse and zinc and lead for the fox. The maximum concentrations were detected in coast live oak woodland areas.

This analysis indicates that the deer mouse and gray fox may be affected by COPCs at the site, on the basis of a conservative current scenario. The interim remedial action to be performed does not include remediation of the soil at the site that contributed to these estimated hazard indices. Therefore, additional chemical data analysis was performed, and additional data were collected at Site 24 to assess whether the potential for adverse effects is the result of the conservative screening assessment. Additional data collected included collocated soil and biota, as discussed in Section 5.8.11.

5.4.12 Site 25

A quantitative ecological screening assessment was conducted at Site 25 for the deer mouse and gray fox. The results of this assessment are presented in Table 5.18. Both species were assumed to spend their entire lifetimes on Site 25, exposed to the maximum concentrations of COPCs at the site. Data from up to 0.5 foot bgs were used. The hazard index for the deer mouse was estimated to be 8, which indicates "possible concern." Most of the estimated risks to the house mouse are due to the ingestion of plants. The hazard index for the gray fox was estimated to be 7, which indicates "possible

concern." Most of the estimated risks to the gray fox are also due to the ingestion of plants.

In order of importance, the COPCs responsible for most of the hazard indices are lead, zinc, and cadmium for the mouse and cadmium, barium, and lead for the fox. The maximum concentrations of these metals were detected at one boring location in an upland ruderal area.

This analysis indicates that the house mouse and gray fox may be affected by COPCs at the site, on the basis of a conservative current scenario. Therefore, additional chemical data analysis was performed and additional data were collected at this site to assess whether the potential for adverse effects is the result of the conservative screening assessment. Additional data collected included collocated soil and biota, as discussed in Section 5.8.12.

5.4.13 Site 29

The results of the quantitative ecological screening assessment conducted at Site 29 for the deer mouse and gray fox are presented in Table 5.19. Both species were assumed to spend their entire lifetimes on Site 29, exposed to the maximum concentrations of COPCs at the site. Data from 0.5 to 4 feet bgs were used. The hazard index for the deer mouse was estimated to be 1, and no adverse impacts are expected. Most of the estimated risks to the deer mouse are due to the ingestion of plants and to soil exposure pathways. The hazard index for the gray fox was estimated to be 1, also indicating "no concern."

This analysis indicates that the deer mouse and gray fox are not likely to be impacted by the COPCs at the site. Therefore, on the basis of potential risks to terrestrial ecological receptors, no further action is required at Site 29. However, additional soil and biota samples were collected and analyzed to validate the model used in the screening assessment (Section 5.8.13).

5.4.14 Site 31

A quantitative ecological screening assessment was conducted at Site 31 for the deer mouse and gray fox. The results of this assessment are presented in Table 5.20. Both species were assumed to spend their entire lifetimes on Site 31, exposed to the maximum concentrations of COPCs found at the site. Data from up to 4 feet bgs were used. The hazard index for the deer mouse was estimated to be 2,489, which indicates "probable concern." Most of the estimated risks to the deer mouse are due to the ingestion of plants and to soil exposure pathways. The hazard index for the gray fox was estimated to be 343, which also indicates "probable concern." Most of the estimated risks to the gray fox are also due to the ingestion of plants and to soil exposure pathways.

In order of importance, the chemicals responsible for most of the hazard indices were lead and zinc for both species. The maximum concentrations of lead and zinc were detected in boring locations in upland ruderal areas. The site is planned for use as an agricultural center and/or open space.

This analysis indicates that the deer mouse and gray fox may be affected by COPCs at the site, on the basis of a conservative current scenario. Therefore, additional chemical data analysis was performed and additional data were collected assess whether the potential for adverse effects is the result of the conservative screening assessment. Additional data collected included collocated soil and biota, as discussed in Section 5.8.14.

5.4.15 Site 32

The results of the quantitative ecological screening assessment conducted at Site 32 for the deer mouse and gray fox are presented in Table 5.21. Both species were assumed to spend their entire lifetimes on Site 32, exposed to the maximum concentrations of COPCs found at the site. Data from 0.5 to 4 feet bgs were used. The hazard index for the deer mouse was estimated to be 0.2, and the hazard index for the gray fox was estimated to be 1. The COPCs contributing most to these hazard indexes are metals to which both species were cumulatively exposed. Analysis of

these metals data indicates no adverse ecological effects to the deer mouse and the gray fox are expected to result from chemical exposure at the site. Because these two species were assumed to be highly exposed, other, less highly exposed species are also unlikely to be affected by concentrations of chemicals detected at the site. Therefore, no further action is required at Site 32 on the basis of potential risks to terrestrial ecological receptors. However, additional soil and biota samples were collected and analyzed to validate the models used in screening assessment (Section 5.8.15).

5.4.16 Site 33

A quantitative ecological screening assessment was conducted at Site 33 for the deer mouse and gray fox. The results of this assessment are presented in Table 5.22. Both species were assumed to spend their entire lifetimes on Site 33, exposed to the maximum concentrations of COPCs found at the site. Data from 0 to 0.5 foot bgs were used. The hazard index for the deer mouse was estimated to be 26, which indicates "probable concern." Most of the estimated risks to the deer mouse are due to the ingestion of plants. The hazard index for the gray fox was estimated to be 19, which also indicates "probable concern." Most of the estimated risks to the gray fox are also due to the ingestion of plants.

In order of importance, the COPCs responsible for most of the hazard indices are lead, dieldrin, zinc, and mercury for the mouse and mercury, zinc, cadmium, and chromium for the fox. The maximum concentrations for mercury and chlordane used in this analysis were detected in landscaped areas; all other chemicals' maximum concentrations were in paved areas. The hazard index in the landscaped area alone results in a hazard quotient that indicates "possible concern" because of exposures of mouse and fox to mercury and exposures of the fox to zinc. The site is an area of the golf course which is 90 percent paved and will remain part of the golf course.

This analysis indicates that the deer mouse and gray fox may be affected by the COPCs at the site, on the basis of a conservative current scenario. Therefore, additional chemical data

analysis was performed and additional data were collected at this site to assess whether the potential for adverse effects is the result of the conservative screening assessment. Additional data collected included collocated soil and biota, as discussed in Section 5.8.1.6.

5.4.17 Site 35

The results of the quantitative ecological screening assessment conducted at Site 35 for the deer mouse and gray fox are presented in Table 5.23. Both species were assumed to spend their entire lifetimes on Site 35, exposed to the maximum concentrations of COPCs found at the site. Data from 0.5 to 4 feet bgs were used. The hazard index for the deer mouse was estimated to be 0.02, which indicates "no concern." The hazard index for the gray fox was estimated to be 0.05, which also indicates "no concern." These results are based on preliminary sampling efforts that did not include surface soil sampling; additional soil and biota samples were collected (Section 5.8.17) and risks at this site are reevaluated in Section 6.0.

5.4.18 Site 39

The results of the quantitative ecological screening assessment conducted at Site 39 for the deer mouse and gray fox are presented in Table 5.24. Both species were assumed to spend their entire lifetime in the vegetated areas of Site 39 (see Section 5.2.5), exposed to maximum concentrations of the COPCs found at the site.

Soil sample data from Site 39 were separated into two groups: data for samples collected in vegetated areas and data for those collected in unvegetated areas. Areas were designated as vegetated or unvegetated based upon examination of the site and aerial photographs. The unvegetated areas are not considered ecologically important because there is no habitat for ecological receptors within these areas as a result of historical detonations of ordnance. Therefore, the soil samples from the unvegetated areas were not used in the quantitative ecological screening assessment. COPCs for Site 39 were selected using the COPC selection methods described in Section 2.5 to evaluate the analytical results for soil samples from the vegetated areas. Data from up to 10 feet bgs were used.

The hazard index for the deer mouse was estimated to be 850, which indicates "probable concern." Most of the estimated risks to the deer mouse are due to the ingestion of plants and to soil exposure pathways. The hazard index for the gray fox was estimated to be 337, which also indicates "probable concern." Most of the estimated risks to the gray fox are due to the ingestion of plants and to soil exposure pathways.

In order of importance, the COPCs responsible for most of the hazard indices are lead, HMX, and zinc for the mouse, and zinc, HMX, lead, and cadmium for the fox. The highest concentrations of HMX were detected at three locations, and the highest concentrations of metals were detected at several locations.

This analysis indicates that the deer mouse and gray fox may be impacted by COPCs at this site on the basis of a conservative current scenario. Therefore, additional chemical data analysis was performed to assess whether the potential for adverse effects is the result of the conservative screening assessment, as discussed in Section 5.8.18. Additional data collected at Site 3 will be used to address impacts at Site 39.

Additionally, birds may ingest expended bullet fragments and retain them as grit in the gizzard; this activity is known to be toxic to waterfowl and raptors that ingest lead shot (Eisler, 1988). Lead shot consists almost entirely of lead, whereas bullet fragments are composed of alloys that contain other metals such as copper and zinc as well as lead. The presence of these other metals makes the alloy harder than lead shot. These other metals may be less toxic to avian wildlife, thus reducing the toxicity of a given weight of bullet fragments compared with that for lead shot. Because the lead is combined with other metals, it is less likely to be bioavailable, although the relative bioavailability of lead in lead shot is also unclear.

The metals in the bullet fragments are not readily available; results of leachate tests on bullet fragments from Site 3, which would be applicable at Site 39, indicate that only about 0.1 percent of the metals leach under neutral conditions. The effect of these factors on birds is unclear; literature reports indicate large

variability in the amount of lead shown to cause adverse effects. The differences in bioavailability between lead shot and bullet fragments may further complicate the analysis (Eisler, 1988). Additional analysis to clarify this issue is discussed in Section 6.0.

5.4.19 Site 40

The results of the quantitative ecological screening assessment conducted at Site 40 for the deer mouse and gray fox are presented in Table 5.25. Both species were assumed to spend their entire lifetimes on Site 40, exposed to the maximum concentrations of COPCs found at the site. Data from up to 4 feet bgs were used. The hazard index for the deer mouse was estimated to be 0.4, and the hazard index for the gray fox was estimated to be 0.5.

These analyses indicate that adverse ecological effects to the deer mouse and the gray fox are not expected to result from exposure to chemicals at the site. Because these species were assumed to be highly exposed, other, less highly exposed species are also unlikely to be affected by concentrations of mercury at the site. Therefore, no further action is recommended at Site 40, on the basis of potential risks to terrestrial ecological receptors.

5.4.20 Site 41

The results of the quantitative screening ecological risk assessment conducted at Site 41 for the deer mouse and gray fox are presented in Table 5.26. Both species were assumed to spend their entire lifetimes on Site 41, exposed to the maximum concentrations of COPCs found at the site. Data from up to 4 feet bgs were used. The hazard index for the deer mouse was estimated to be 31, which indicates "probable concern." The hazard index for the gray fox was estimated to be 24, which also indicates "probable concern." In order of importance, the COPCs responsible for most of the hazard indices are zinc, lead, chromium, and nickel for the mouse, and zinc, chromium, cadmium, selenium, and lead for the fox.

This analysis indicates that the deer mouse and gray fox may be affected by COPCs at the site, on the basis of a conservative current scenario.

However, no additional data was collected at this site since site characterization results were only recently available. To assess whether the potential for adverse effects is the result of the conservative screening assessment, additional data collected from other sites including tissue samples from species used as food sources by the house mouse and gray fox will be used to evaluate Site 41. These evaluations are discussed in Section 6.0.

5.5 Risk Estimation for Plants - First Iteration

This section summarizes the assessment data of potential effects to plant due to chemicals detected in soil from each site (risk estimation components of EPA's framework, Plate 1.2). Modeled plant tissue concentrations were calculated and compared to BCs as described below. Sites where no adverse impacts were predicted in the mammalian screening assessment were not evaluated for potential effects on plants.

5.5.1 Plant Screening Assessment Concentrations

Two references were used to identify screening concentrations (i.e., benchmark concentrations) for metals' potential toxicity to plants (Section 5.3.2.1). EPA (1980c) presented a set of soil screening concentrations for some metals above which toxic effects may occur (hereafter referred to as EPA screening concentrations). Kabata-Pendias and Pendias (1984) present "normal" (i.e., nontoxic) and "excessive" (i.e., toxic) concentration ranges for inorganic constituents in plant tissue. These screening benchmark concentrations are presented in Table 5.5. No similar benchmark concentrations for organic compounds in plants were found.

5.5.2 Plant Screening Assessment Methods

For the plant screening assessments, the maximum detected chemical concentration in soil was first compared with the EPA soil screening concentration (if available) since Kabata-Pendias and Pendias values are for concentrations in plant tissue. If an EPA screening concentration was unavailable, the

plant uptake factor was assumed to be 1.0 and the lower bound of the toxic range as reported by Kabata-Pendias and Pendias (1984) was used. On a site-by-site basis, the following criteria were employed in evaluating metals' potential toxicity to plants:

- Inorganic COPCs were excluded from further evaluation if the maximum detected site concentration was below both the lower bound of the toxic range (if available) and the EPA screening concentration (if available). No toxicity is expected under such conditions.
- Inorganic COPCs were excluded from further analysis if the maximum detected site concentration was within the naturally occurring range (i.e., at or below the midpoint of the maximum and the minimum background concentration). Toxicity, if any, under such conditions is considered to be the result of naturally occurring concentrations of these inorganics.
- The available information on a chemical is considered inconclusive if the maximum detected site concentration could be classified in either of two different ways:
 - The maximum detected site concentration is below the upper bound of the normal range but above the lower bound of the toxic range
 - The maximum detected site concentration is above the lower bound of the toxic range but below the EPA screening concentration.
- Inorganic COPCs are considered to have potentially toxic effects on plants if either of these conditions occurs:
 - The maximum detected site concentration exceeds the EPA screening concentration
 - No EPA screening concentration is available, and the maximum detected site concentration exceeds the lower bound of the toxic range.

This screening procedure is conservative because it compares the maximum detected site concentrations with the screening concentrations referenced above. This assumes that all plants at a site are continuously exposed to the maximum concentration of all COPCs, regardless of location.

5.5.3 Results of Plant Screening Assessment

The results of this screening evaluation are summarized in Table 5.27. Toxicity of metals to plants was evaluated only for sites classified as being of "possible" or "probable" concern with respect to impacts to terrestrial animals (Section 5.4). A hazard quotient/hazard index approach similar to that used in human health risk assessment was used to quantitatively evaluate each site's potential for toxicity of metals to plants. In Table 5.27, the data are presented in the form of hazard quotients, with the numerator being the maximum soil concentration observed at the site and the denominator being the appropriate benchmark concentration. Thus a value greater than 1 indicates that the maximum concentration at a site exceeds the screening-BC. An asterisk (*) indicates that the results of this evaluation are inconclusive. Blank spaces indicate that no toxicity is expected, for one or more of the following reasons: the chemical was not analyzed for, not detected, detected below mean background, or had a hazard quotient equal to or less than 1.0. Potential additive effects are addressed by calculating a hazard index for each site, that is the sum of the chemical-specific hazard quotients.

Table 5.27 also compares the maximum and mean background concentrations to the lower of the screening level BCs. The hazard index calculated by using the maximum background concentrations of arsenic, chromium, lead, and nickel exceeded 1, but only the mean concentration of chromium exceeded the screening BC. This indicates that some potential for toxicity to plants may exist from background soil concentrations. The screening evaluation presented below includes the BCs that are lower than background concentrations, and thus conservatively estimates the potential cumulative

effects of metals in background in addition to site-related soil concentrations.

The following discussion of the results of this evaluation addresses sites where metals are expected to have no adverse effects to plants, sites for which inconclusive information is available, and sites where metals may be associated with adverse effects to plants. Sites are classified as "no concern", "possible concern", or "probable concern", using the same criteria as used for the mammalian assessment (Section 5.4).

The data analysis results presented in Table 5.27 indicate that no toxicity of metals to plants is expected at Site 35. This analysis was based on preliminary data; additional data were collected, and this site is reevaluated in Section 6.0.

The results of the data analysis were inconclusive for lead, mercury, nickel, selenium and/or zinc at Sites 2, 11, 12, 16, 24, 25, 31, 33, 39, and 41 (Table 5.27). Although these chemicals met the criteria for COPC selection, the maximum detected concentrations were above the lower bound of the toxic range but below the EPA screening soil concentration. Additional data collected at these sites were used to clarify the potential toxicity of these metals to plants and to determine whether metals at these sites may be toxic to plants (see Section 6.0).

The results of this screening evaluation indicate that antimony, arsenic, cadmium, chromium, copper, lead, silver, tin, vanadium, and zinc were associated with hazard quotients greater than 1 at one or more sites. This screening assessment indicated that the most important inorganic COPCs at Fort Ord (in terms of the number of sites affected and the severity of potential impacts on plants as reflected by hazard quotients) were arsenic, cadmium, chromium, copper, lead, silver, and zinc. These chemicals are reevaluated for potential effects to plants (Section 6.0).

The highest hazard quotients were associated with Site 3, which has a hazard index of 596 (primarily because of copper and lead), and Site 39, which has a hazard index of 154, primarily because of cadmium, copper, and zinc. These sites were of "probable concern" along with

Sites 2, 12, 31, and 41 which had hazard indices of 75, 40, 83, and 35, respectively. Sites 16, 24, 25, and 33, which had hazard indices of 1, 2, 3, and 5, respectively, were of "possible concern". The results for Sites 11 and 35 were inconclusive as indicated above.

5.6 Risk Estimation for Outfalls - First Iteration

Several independent analyses were conducted to address runoff/watershed issues. The results of these analyses were used to assess the potential for adverse impacts to aquatic receptors in Monterey Bay, the Salinas River Valley, and Pete's Pond at Site 16 by evaluating the toxicity of stormwater and chemical concentrations in sediments and stormwater from outfalls (risk estimation component of EPA's framework, Plate 1.2). The watersheds of potential concern were identified in Sections 2.3.2.4 and 2.3.2.5 and locations of outfalls can be found on Plates 5.1 through 5.11. In addition, potential outfall impacts to terrestrial receptors were assessed. Outfalls with potentially complete exposure pathways needing further investigation are identified in Section 3.0.

5.6.1 Methods

Analyses conducted to address runoff/watershed issues included the following:

- Collection and chemical analysis of sediment samples (i.e., nonsubmerged sediment inside pipes and nonsubmerged sediment deposited outside the pipe at outfall locations) at various outfalls over two sampling periods.
- Collection and bioassays of stormwater samples from various outfalls at two different storm events.
- Collection and chemical analysis of stormwater samples from various outfalls and groundwater samples from the plume beneath Sites 2 and 12.
- Comparison of chemical results with BCs: AWQCs for stormwater and groundwater ER-L and ER-M values for sediment. See discussion below and in Section 5.3.2.1.

- Analysis of complete exposure pathways from various outfalls to the watersheds.

The following section is a discussion of the methods used to assess the results of sediment, stormwater, and groundwater sampling and toxicity tests. The sampling program is described in Section 5.6.1.3. Two separate assessments were conducted for the outfalls, one to address potential impacts to terrestrial receptors, and one to address potential impacts to aquatic receptors.

5.6.1.1 Aquatic Assessment

Potential impacts to aquatic receptors in the watersheds of concern were evaluated using chemical concentration data for sediment and stormwater samples as well as stormwater toxicity data. Outfalls were evaluated in PHA1 to identify complete exposure pathways using the methods outlined on Plate 3.1. Outfalls identified in PHA1 as needing further evaluation are assessed here using the procedures outlined on Plate 5.12.

In Section 3.0, potentially complete exposure pathways for aquatic receptors were identified for outfall locations within sites using the following criteria (Plate 3.1):

- Sediment present inside pipes or drainage structures at the outfall locations at chemical concentrations greater than background (Plate 3.1, Box 1)
- Potential for chemicals from the pipes or drainage structures to migrate to the river or bay (i.e., stormwater runoff; Plate 3.1, Box 2)
- Presence of chemicals at the site contributing to chemical concentrations at the outfall at levels likely to result in stormwater toxicity (Plate 3.1, Boxes 3 and 4)

If the above criteria were met, the outfall was further evaluated for potential impacts to aquatic receptors as follows:

- Chemical concentrations of sediments inside the pipes were compared to ER-Ls and ER-Ms (Plate 5.12, Box 5)

- Stormwater toxicity was assessed (Plate 5.12, Box 6)
- In addition, chemical concentrations in stormwater and groundwater (Sites 2 and 12) were compared to AWQCs.

Chemical concentrations in sediment samples collected at outfall locations were compared to ER-Ls and ER-Ms (*Long and Morgan 1990, EPA 1992n*). In reality, these sediment samples more closely resemble soil samples; they are not "true" sediment samples because intermittent fresh water overlies these soils only during storm events. The BCs used to evaluate the potential toxicity of these "sediments" to aquatic receptors, ER-Ls and ER-Ms were determined for "true" sediment, primarily in marine environments (Table 5.4). Therefore, they are highly conservative screening values; they are being used as BCs because other applicable sediment or soil criteria are not available. Because ER-Ls and ER-Ms were largely derived for marine organisms, they are less applicable for the Salinas River than for Monterey Bay. In addition, ER-Ls and ER-Ms are conservative even for "true" sediments, and the degree of confidence in the values varies for each analyte. Chemical concentrations in sediments were compared to the ER-Ls and ER-Ms only as an initial screening step. If the chemical concentrations in the sediments did not exceed these BCs, the outfall was considered to have no potential impacts on aquatic receptors.

The results of these analyses must be interpreted cautiously because it is unlikely that exceedances of ER-Ls and/or ER-Ms could actually impact receptors in the watersheds of concern when the distance from the watershed of concern, dilution factors, and soil-to-water partitioning of chemicals are taken into account.

Stormwater bioassay results were evaluated by calculating no observable effects concentrations (NOECs). Stormwater samples having NOECs of 100 percent stormwater were considered nontoxic. Samples with NOECs below 100 percent were identified as demonstrating moderate toxicity. Samples with NOECs below 100 percent that also caused acute lethality were considered highly toxic.

Stormwater and groundwater (Sites 2 and 12) chemical analysis results for were compared with AWQCs for marine and fresh water (40 CFR 131.36; see Table 5.3) to confirm the chemical sources of toxicity identified by the stormwater bioassays. The percent exceedances of AWQCs were calculated for each chemical detected, and results from the first round of sampling were compared with those from the second round to correlate changes in toxicity with changes in chemical concentrations. AWQCs are conservative estimates of toxic effects, and exceedances of AWQCs do not necessarily mean that toxic effects will occur. The bioavailability of the chemical also affects its potential toxicity. In addition, the toxicity of a chemical depends on the aquatic species as well as on the characteristics of the water body.

Each outfall showing toxicity was also evaluated as to whether stormwater is likely to reach the watershed, and whether concentrations of chemicals in that stormwater have a potential to impact aquatic receptors if the stormwater did enter the watershed. Potential dilution was evaluated to predict potential concentrations of chemicals from the outfalls in the watershed.

5.6.1.2 Terrestrial Assessment

Potential impacts to the deer mouse from chemicals in sediment outside the pipes were evaluated. It was assumed that if no impacts were predicted for the deer mouse, other receptors potentially exposed to chemicals at the outfall locations would not be impacted either. Outfalls identified in PHA1 as needing further evaluations are assessed here using the procedures outlined on Plate 5.13.

In Section 3.0, the following criteria were used to identify potential exposure pathways for terrestrial receptors (Plate 3.2):

- Presence of chemicals at concentrations above background (Plate 3.2, Box 1)
- Presence of suitable habitat at the outfall location (i.e., outfall is not paved; Plate 3.2, Box 2)
- Presence of sediment outside the pipe at the outfall location having chemical concentrations greater than background (Plate 3.2, Box 3).

If the above criteria were met, the outfall was further evaluated for potential impacts to terrestrial receptors as follows:

- Site soil concentrations were used to calculate HIs for the deer mouse (Plate 5.13, Box 4) as described in Sections 5.1 through 5.4. If this analysis indicated "no concern" ($HI \leq 1.0$), the outfall was considered to have no potential impacts to terrestrial receptors.
- If the site soil HI was greater than 1.0, a new HI was calculated using the difference between site soil and sediment concentrations (Plates 5.13, Box 5). This was done to evaluate whether the site was the source of chemicals at the outfall. Once again, if the HI was at or less than 1.0, the outfall was considered to be of "no concern."
- If the sediment/site HI was greater than 1.0, an adjustment for home range (Section 6.0) was made and a new HI was calculated (Plate 5.13, Box 6). If this new HI was greater than 1, the outfall required additional analysis (Section 6.0). If the new HI was less than 1, the outfall was of no concern.

5.6.1.3 Sediment, Stormwater, and Groundwater Sampling Program

Sediment, stormwater, and groundwater samples were collected from outfall locations to evaluate the potential effects of stormwater runoff and groundwater seepage on watersheds and terrestrial receptors. The rationale and methods for these activities are outlined below:

- Watershed information was obtained from the *Draft Basewide Surface Water Outfall Investigation (BSWOI)*, dated April 6, 1993
- Sediment and soil sampling results from the BSWOI were used to identify outfalls where detected chemical concentrations exceeded ER-Ls and ER-Ms and posed potential impacts

- Sampling decisions for stormwater were based on analytical results for sediment samples, historical use of the sites within the watershed, and professional judgment
- To identify outfalls that could adversely impact receptors in Monterey Bay, the Salinas River, or Site 16 (Pete's Pond), bioassays were conducted on stormwater samples collected from outfalls during storm events
- Chemical analyses were performed on stormwater samples collected from all locations for which bioassays were conducted. Chemical analysis results were correlated with bioassay results.
- One or more sewage releases or overflows had been reported in the drainage basin upstream of the outfall or point of concentration
- There was potential contamination by several chemical compounds at the outfall
- Accessibility was adequate to allow field personnel to obtain samples.

Sediment Sampling

Soil samples (outside a pipe) and sediment samples (inside a pipe or drainage structure) were collected from 32 surface water outfalls associated with specific sites during two sampling rounds in Spring 1992 and Fall 1993. For the purposes of this evaluation, all these samples are referred to as "sediment." Sampling methods are described in *Volume I - Draft, Basewide Surface Water Outfall Investigation RI/FS, Fort Ord, California (BSWOI)*, Section 3.4. The samples were collected from within the outfall pipe and at 0.0 foot bgs and 5.0 feet bgs at both the outfall location and 20 feet downgradient of the outfall location, if feasible.

Sediment samples were analyzed for all of following: TPH as diesel and gasoline, VOCs, priority pollutant metals, pesticides and PCBs, PAHs, and total organic carbon (TOC). The results of these analyses are summarized in Tables 3.2 and 3.3.

Stormwater and Groundwater Sampling

Twenty-nine locations were identified for investigation within the Main Garrison, FAAF, and East Garrison on the basis of the following criteria:

- Historical discharges from one or more RI/FS sites were reported, or there was a high likelihood that discharges had occurred within the outfall drainage basin

The *Sampling and Analysis Plan (HLA, 1991b)* described 20 sampling locations (4 of which were to be the Monterey Bay ocean outfalls) where surface water (sampled during 2 storm events), soil gas, soil, and sediment were to be sampled. The number of sampling locations was increased to 29 to allow HLA to sample all the highest-priority outfalls or points of concentration within the areas of outfall locations that possibly drain to Monterey Bay or the Salinas River. Several outfall locations were inaccessible or did not produce enough water to sample. Reference locations were sampled as well.

Stormwater samples were collected from 12 locations during a storm event on January 23, 1994, and from 7 locations during a storm event on March 24, 1994 (Plates 5.1 through 5.11). Stormwater samples were analyzed for TPH as diesel and gasoline, VOCs, SOCs, priority pollutant metals, pesticides/PCBs, and PAHs. The results of these analyses are summarized in Appendix Tables A86 and A87 and Section 6.3.3. Groundwater samples from the plume beneath Sites 2 and 12 were also collected and analyzed (Section 5.6.3.3.).

5.6.2 Sample Designations

The sampling station numbering scheme is as follows. In the alphanumeric OF-20-01N, "OF" is an abbreviation for outfall; the first pair of digits (20) identifies a specific outfall within the 29 prioritized sampling locations; and the second pair of digits identifies the sampling station: 01 refers to the station adjacent to the outfall, and 02 refers to the station 20 feet downgradient of the outfall. If more than one outfall was sampled at a particular location, a directional designation (such as N or S) was added to the end of the sampling station number. This numbering

scheme was maintained at all outfalls except for Pete's Pond (Location 16 and part of Site 16).

The six pipe outfalls at Pete's Pond were originally designated as Sampling Locations 9, 10, 16, 17, 18, and 28. However, during the field investigation, the samples taken at these locations were referenced as multiple sampling stations within Sampling Location 16 rather than as five separate sampling locations. Thus, no sampling station numbers reference Sampling Locations 9, 10, 17, 18, or 28. The sampling station numbering system for Pete's Pond is as follows. In the number OF-16-04-02, "OF" is an abbreviation for outfall, 04 designates the fourth pipe outfall location at Sampling Location 16, and 02 indicates that the sampling station was the boring 20 feet from the pipe outfall ("01" in this location would indicate that the sampling station was adjacent to the pipe outfall).

One or more sites may be a potential source area for each outfall. Table 5.28 lists the outfalls, their related sites, sites drained, and the status of each outfall as a result of PHA1 for both aquatic and terrestrial receptors. Plates 5.1 through 5.11 show all the sampling locations.

The aquatic assessment is presented in Section 5.6.3 with the results of the sediment sampling and comparison with BCs presented in Sections 5.6.3.1, and bioassay and stormwater results discussed in Sections 5.6.3.2 and 5.6.3.3, respectively. The terrestrial assessment is presented in Section 5.6.4.

5.6.3 Aquatic Assessment

The following sections describe activities conducted to assess potential impacts to aquatic receptors at the seven outfalls identified in PHA1 as having potentially complete exposure pathways to aquatic receptors.

5.6.3.1 Comparison of Sediment Results with BCs

To assess the potential for adverse effects from chemicals at each outfall, the data from sediment sample analyses were compared with ER-L and ER-M values (Plate 5.12, Box A5). There were several chemicals for which both ER-L and ER-M values were not available (Tables 3.2 and 3.3).

These chemicals were not evaluated as part of the aquatic assessment since they were not detected in stormwater.

The chemicals that exceeded the ER-L and/or ER-M values inside or outside the pipes at each sampling location are listed in Tables 5.29 and 5.30. Results are summarized separately below for outfalls likely to discharge to Monterey Bay, Pete's Pond, and the Salinas River.

Monterey Bay Outfalls

The results of the chemical characterizations and their comparisons with BCs at outfalls that could impact Monterey Bay are summarized below, by outfall.

Outfalls OF-01-MH-01 and -03 (Plate 5.3; at Site 2 and primarily drains Sites 2, 18, 19, and 28):

- Seven PAHs as well as mercury, silver, and zinc exceeded the ER-L and ER-M values at OF-01-MH-03; lead and copper exceeded the ER-L values at this location. Four metals (cadmium, copper, lead, and zinc) exceeded the ER-L values at OF-01-MH-01.
- These sampling locations were approximately 1,000 feet from the bay; the outfall terminates in the beach zone adjacent to the bay.

Outfall OF-03-MH (Plate 5.3; at Site 3 and primarily drains Sites 20 and 24):

- 4,4-DDT concentrations exceeded both the ER-L and ER-M values
- These sampling locations were 450 to 3,000 feet from the bay; the outfall terminates in the beach zone adjacent to the bay.

Outfall OF-04-MH (Plate 5.3 at Site 3 and primarily drains Sites 10 and 11):

- Three PAHs and four metals (cadmium, copper, lead, and zinc) exceeded the ER-L values. Chrysene and zinc had concentrations that also exceeded the ER-M values.

- These sampling locations were 75 to 2,100 feet from the bay; the outfall terminates in the beach zone adjacent to the bay.

Outfall OF-07 (Plate 5.3; at Site 20 and primarily drains Sites 20):

- Cadmium and zinc concentrations inside the pipe exceeded the ER-L values. Outside the pipe, 4,4-DDT and dieldrin concentrations exceeded the ER-L and ER-M values, and lead concentrations exceeded the ER-L values.
- This sampling location is approximately 0.5 mile from the bay. The outfall terminates in the beach zone adjacent to the bay.

At all outfall sampling locations, one or more chemicals were detected at concentrations that exceeded BCs. All of these outfalls terminate in beach zones adjacent to the bay. Outfall OF-02-MH also terminates in beach zones but no sediment was present in the pipe at that location. Surface water from the other outfalls is unlikely to reach the bay. Further activities at this watershed are discussed in Section 5.8.

Site 16 - Pete's Pond

The results of the chemical characterizations and their comparisons with the BCs for the six outfalls at Pete's Pond are summarized below (Plates 5.6 and 5.7). Pete's Pond is part of Site 16 but receives stormwater from several sites, including Sites 15, 16, 17, and 23.

Outfall OF-16, inside and outside the pipe samples:

- 4,4'-DDT concentrations exceeded both the ER-L and ER-M values outside the pipe at these outfalls as well as inside the pipe. Cadmium, lead, and zinc exceeded the ER-L and ER-M values inside the pipe and, for one or more outfalls, the ER-L values outside the pipe. In addition, copper exceeded the ER-L inside the pipe, and, at one outfall, outside the pipe.
- Pete's Pond may be further evaluated to assess these chemicals' potential toxicity to aquatic receptors. Further activities at this watershed are discussed in Section 5.8.

Salinas River Outfalls

The results of the chemical characterizations and their comparisons with the BCs for outfalls that could impact the Salinas River are summarized below.

Outfall OF-23 (Plate 5.8; at Site 36 and primarily drains Sites 34 and 36):

- Lead concentrations exceeded both the ER-L and ER-M values, and cadmium concentrations exceeded the ER-L values inside and outside the pipe. Three pesticides (4,4'-DDE, 4,4'-DDT, and dieldrin) exceeded both the ER-L and ER-M values inside the pipe, but not outside the pipe.
- This sampling location is approximately 1,200 feet from the Salinas River; the outfall terminates close to the river.

Only outfall OF-23 terminates close to the river; it is unlikely that runoff from any other outfall locations would reach the river. Further activities at this watershed are discussed in Section 5.8.

5.6.3.2 Bioassay Results for Stormwater Samples

Aquatic bioassays were conducted on stormwater samples collected during rain events on January 23 and March 24, 1994. Outfall and sampling locations are shown on Plates 5.1 through 5.5. Concentrations of chemicals detected in soil, stormwater, and groundwater were compared with observed toxicity and used to predict potential impacts to receptors in the associated watersheds (Plate 5.12, Box A6). The results are summarized in Table 5.31. Stormwater samples are referred to as "effluent" in this section. Chronic bioassay methods were used to test three freshwater species: the waterflea, *Ceriodaphnia dubia*; fathead minnow larvae, *Pimephales promelas*; and green algae, *Selenastrum capricornutum*.

In all cases, NOECs were calculated using diluent controls for comparison; responses that were not dose-response-related (i.e., not biologically significant) were not considered. Chemical analysis results are discussed in Section 5.6.3.3.

Monterey Bay Outfalls

The results of the aquatic bioassays for outfalls that could reach Monterey Bay are summarized below.

Samples from three outfalls showed a moderate level of toxicity:

- Samples from Outfall OF-02-MH-1 adversely affected the growth of fathead minnows in both rounds and the growth of *Selenastrum* in Round 2 (March 1994). The NOECs (for both rounds) for fathead minnows were 50 percent effluent. The NOEC for *Selenastrum* was 25 percent effluent in Round 2.
- Samples from Outfall OF-03-MH-1 demonstrated adverse effects on the reproduction of *Ceriodaphnia* during the first round of tests, with a NOEC of 50 percent effluent for minnows.
- Samples from Outfall OF-04-MH-1 adversely affected the growth of fathead minnows, with NOECs of 50 percent effluent in both rounds.

Samples from two outfalls showed a high degree of toxicity:

- Samples from Outfall OF-01-MH-2 were the most toxic, with growth effects on fathead minnows in Round 1 and lethality to *Ceriodaphnia* and fathead minnow larvae in Round 2. In addition, the growth/reproduction of all three species was affected. In Round 2, the NOEC values were 50 percent effluent for *Ceriodaphnia*, 25 percent effluent for fathead minnows, and 12.5 percent effluent for the *Selenastrum*.
- Samples from Outfall OF-15 (dechlorinated) showed effects on both survival and growth for the second round of tests, with NOEC of 50 percent effluent for fathead minnows.

Although these results indicate that undiluted stormwater may be toxic to these freshwater organisms, an eight-fold dilution is sufficient to reach NOEC values in all cases. Because of the dynamic wave action at the shore and the volume of water in the bay, dilution factors are

expected to be much greater than 10:1; therefore, toxicity to aquatic organisms from these outfalls is not expected to be significant. Further evaluations were conducted at this watershed to determine whether actual impacts are likely. These activities are discussed in Section 5.8.

Site 16 - Pete's Pond

The results of the aquatic bioassays for outfalls at Pete's Pond (Plates 5.6 and 5.7) are summarized below:

- Samples from Outfall OF-16-04 showed no toxicity to any of the species tested.
- Samples from Outfall OF-16-02, which was tested only in the first round, demonstrated adverse effects on the growth of fathead minnows, with a NOEC of 6.25 percent effluent.
- Samples from Outfall OF-16-01 (dechlorinated), which demonstrated no toxicity during the first round, demonstrated effects on the growth of fathead minnows and *Selenastrum* in the second round, with NOECs of 6.25 and 12.5 percent effluent, respectively.

These results indicate that more than a tenfold dilution is necessary to reach NOECs for all tested species. This is likely to occur during storm events when the pond fills up; standing water may be toxic to select aquatic species that are present only during short-lived low-water periods. Further investigations at this site may be necessary and are discussed in Section 5.8.

Salinas River Outfalls

The results of aquatic bioassays for outfalls that could reach the Salinas River (Plates 5.8 through 5.10) are summarized below:

- Samples from Outfall OF-23 showed no toxicity to any of the species tested.
- Samples from Outfall OF-26 were highly toxic, although this outfall was not sampled in Round 2. Lethality to *Ceriodaphnia* as well as adverse effects on reproduction were detected, with an NOEC of 12.5 percent

effluent. However, as described previously, runoff from this outfall is not expected to reach the Salinas River.

It is expected that inflow of water from agricultural fields adjacent to the outfalls, combined with partitioning of chemicals between water and sediments, should result in at least a tenfold dilution of any chemicals reaching the river (although it is unlikely that chemicals reach the river); therefore, the potential for toxicity from these outfalls at the river is considered low. Further activities at this watershed are therefore not recommended.

Reference Site

The reference location (BKG-03) was selected within Pilarcitas Canyon, southeast of the East Garrison (Plate 5.11). This site drains from Fort Ord into the agricultural lands adjacent to the Salinas River and contains no known military sites or operations. A reference site was tested to collect data on the toxicity and chemical concentrations at a background site for comparison with the test sites. The sample collected from this site showed some toxicity with a NOEC of 50 percent effluent for *Ceriodaphnia*. The fathead minnows showed an apparent response, but this cannot be directly related to chemicals in the water, because of confounding laboratory difficulties during the test. This location may not be an appropriate reference site, because toxic response was detected.

5.6.3.3 Results of Stormwater and Groundwater Chemical Analyses

Stormwater and groundwater data were compared to potential BCs, in this case AWQCs for both marine and fresh water, to assess the potential for adverse impacts to receptors in Monterey Bay, the Salinas River, and Site 16 (Pete's Pond). It was assumed that there is no dilution of chemicals. Chemicals for which no AWQCs are available were not evaluated. Analytical results are summarized in Tables 5.32, 5.33, and 5.34, and the chemicals that exceeded their AWQCs and their degrees of exceedance are identified in Tables 5.35 and 5.36 (stormwater), and 5.37 (groundwater). Further activities at these

watersheds on the basis of these results are described in Section 5.8.

Stormwater Results

- For the first sampling round, five metals (cadmium, copper, lead, silver, and zinc) exceeded freshwater acute AWQCs, and six metals (cadmium, copper, lead, mercury, nickel, and zinc) and two phthalates exceeded freshwater chronic AWQCs for one or more stormwater samples. Four metals (copper, nickel, silver, and zinc) exceeded marine acute AWQCs, and seven metals (arsenic, cadmium, copper, lead, mercury, nickel, and zinc) and two phthalates exceeded marine chronic AWQCs for one or more stormwater samples.
- For the second sampling round, four of the five metals listed above (excluding silver) exceeded freshwater acute AWQCs, and five out of the six metals listed above (excluding nickel) and one phthalate exceeded freshwater chronic AWQCs for one or more stormwater samples. Three out of four metals listed above (excluding nickel) exceeded marine acute AWQCs, and five out of seven metals listed above (excluding arsenic and cadmium) and one phthalate exceeded marine chronic AWQCs.

Monterey Bay Outfalls

The analytical results can be correlated with the bioassay results for outfalls that could reach Monterey Bay as summarized in the following bullets:

- For Outfalls OF-01-MH-2, OF-02-MH-1, OF-03-MH-1, and OF-15, changes in toxicity between sampling events can be explained by changes in one or more metal concentrations. Lead, zinc, and copper demonstrated the highest increases in concentration for Outfalls OF-01-MH-2 and OF-02-MH-1. The highest increase in concentration for Outfall OF-03-MH-1 was lead, and zinc showed the highest increases in concentration for Outfall OF-15.

- Outfall OF-04-MH-1, which had moderate amounts of toxicity, had low levels of metals. Toxicity in this sample may reflect nonchemical stressors or other factors not related to Army activities (e.g., low nutrient content, low dissolved oxygen).

Site 16 - Pete's Pond

The analytical results can be correlated with the bioassay results for outfalls to Pete's Pond as summarized as follows:

- For Outfall OF-16-01, the increase in toxicity between sampling events can be explained by an increase in the concentration of two metals (cadmium and copper).
- Outfall OF-16-04, which showed no toxicity in the bioassays, had fairly low levels of metals.
- Outfall OF-16-02, which demonstrated moderate toxicity, had low levels of metals. Toxicity in this sample may reflect nonchemical stressors or other factors not related to Army activities (e.g., runoff from roads).

Salinas River Outfalls

The analytical results can be correlated with the bioassay results for outfalls that could reach the Salinas River as summarized as follows:

- Outfall OF-23, which showed no toxicity in the bioassays, had fairly low levels of metals.
- Outfall OF-26, which was the most toxic, had relatively high levels of five metals.

Reference Outfall

The analytical results can be correlated with the bioassay results for the reference sample as follows:

- The background sample (BKG-03) had the highest metal concentrations of all the samples, but only a moderate amount of toxicity. These results do not correlate with the other outfall results.

- The relatively low toxicity level in this sample is probably due to other factors (e.g., high binding capacity or high nutrient levels).

Because of the toxicity and chemical concentrations present, this site may not be appropriate for use as a reference site. Further activities to address the reference site are discussed in Section 5.8.

Groundwater Results

- Four metals (cadmium, copper, nickel, and zinc) and pentachlorophenol exceeded freshwater acute AWQCs, and six metals (cadmium, copper, lead, mercury, nickel, and zinc), one phthalate, and pentachlorophenol exceeded freshwater chronic AWQCs for one or more samples.
- Three metals (copper, nickel, and zinc) and pentachlorophenol exceeded marine acute AWQCs, and five metals (copper, lead, mercury, nickel, and zinc), one phthalate, and pentachlorophenol exceeded marine chronic AWQCs for one or more samples.

The concentrations of chemicals in groundwater are similar to those in stormwater with the exception of the presence of pentachlorophenol. Potential impacts to the bay as a result of groundwater are not expected to differ from those of stormwater. Therefore, impacts due to stormwater at the ocean outfalls will be used to estimate effects from groundwater (Section 5.8).

5.6.4 Terrestrial Assessment

The following sections describe activities conducted to assess potential impacts to terrestrial receptors at the 11 outfall locations identified in PHA1 as having potentially complete exposure pathways for terrestrial receptors.

5.6.4.1 Risk Estimation

To assess the potential for adverse effects due to chemicals detected at outfalls, hazard indices (HIs; Section 5.4) were calculated for the deer mouse for COPCs at each outfall (Plate 5.13, Boxes T4 and T5). COPCs were identified for

each outfall location as described in Section 5.1. The list of COPCs for each outfall was modified to include only those metals detected above background in both soil from the site in which the outfall was located and sediment outside the pipe at the outfall location. All organics detected in both site soil and outfall sediment were retained as COPCs. Two sets of HIs were calculated for each outfall location. The first set was calculated using the maximum detected concentrations of COPCs detected in soil from the site in which the outfall was located. The second set was calculated using the maximum detected concentrations of COPCs detected in sediment from the outfall location. The two sets of HIs were compared to determine the source of chemicals detected at the outfalls as well as to evaluate risks. The results of these comparisons are presented in Table 5.38 and summarized as follows:

- Hazard indices for both site soil and sediment were calculated at less than 1.0 for four sites/outfalls: OF-01-01N and OF-01-02N, Site 37, and OF-21 and OF-22, Site 34. Therefore, chemicals at these outfall locations are of "no concern" to terrestrial receptors.
- Outfall OF-05, which had an HI of 37 for site soil at Site 3, had an HI of 3 for outfall sediment indicating "possible concern." Because the sediment HI is less than 10 percent of the soil HI and since the source (Site 3) is being further evaluated, this outfall is not further evaluated for effects to terrestrial receptors.
- Outfall OF-14, which had a HI of 101 for site soil at Site 21, had an HI of 19 for outfall sediment, indicating "probable concern." Because the sediment HI is less than 25 percent of the soil HI, an interim remedial action for the upland ruderal areas where high concentrations of metals were detected at the source (Site 21) is planned, and the site is 90 percent paved, this outfall is not further evaluated for effects to terrestrial receptors.
- Outfall OF-15, which had a HI of 145 for site soil at Site 12, had an HI of 23 for outfall sediment indicating "probable concern". Because the sediment HI is less than 20 percent of the soil HI, the site is 75 percent paved, and the source (Site 12) is being further evaluated, this outfall is not further evaluated for effects to terrestrial receptors.
- Outfalls OF-16-04 and OF-16-05, which had HIs for site soil at Site 16 of 6, had HIs of 8 and 11 for outfall sediments, indicating "possible concern." The concentrations of chemicals in sediments from these outfall locations are higher than those in soil from Site 16, indicating that metals may be concentrated in the outfall locations. Sites 15, 16, 17, and 23 all drain to Site 16. Site 17 is 90 percent paved and Site 23 was characterized as having no complete exposure pathways in PHA1; Site 15 is planned for interim remedial action and Site 16 is being further evaluated. These outfalls are further evaluated for effects to terrestrial receptors in Section 6.0.
- Outfall OF-23, which had an HI of 8 for site soil at Site 36, had an HI of 18 for outfall sediment, indicating "probable concern." The concentrations of chemicals in sediments from the outfall location are higher than those in soil from Site 36, indicating that metals are being concentrated in the outfall location. Sites 34 and 36 drain to Outfall OF-23; these sites are largely paved sites that were characterized as having no complete exposure pathways in PHA1. This outfall was further evaluated for effects to terrestrial receptors in Section 6.0.
- Outfall OF-26, which had an HI of 0.6 for site soil at Site 29, had an HI of 2.9 for outfall sediment indicating "possible concern." The concentrations of chemicals in sediments from the outfall location are higher than those in soil from Site 29, indicating that metals are being concentrated in the outfall location. Therefore this outfall was further evaluated for effects to terrestrial receptors in Section 6.0.

Additional surface soil data were collected at Sites 3, 12, 16, 22, and 29. Outfalls at these sites are further evaluated in Section 6.0. Additional soil from Outfall OF-15 and soil from four newly identified outfalls, OF-12, OF-31, OF-34, and OF-35, was collected. These outfalls are also evaluated in Section 6.0.

5.7 Uncertainties

Uncertainty is inherent in many aspects of the risk assessment process. In addition to the uncertainty inherent in the use of many conservative assumptions and approximations, the identification and analysis of environmental conditions is difficult and inexact and adds to the uncertainty in calculated risk estimates. The following sections discuss some of the factors that influence the accuracy of the screening risk assessment presented in this report.

5.7.1 Collection of Soil Data and Identification of COPCs

This analysis assumes that the soil sampling activities conducted at each of the evaluated sites has adequately characterized the nature and distribution of chemicals in soil at these sites, except where noted otherwise, and that the concentrations used herein are representative of the chemicals at the sites through May 31, 1994. If activities since that date have changed the site conditions, then soil concentrations and estimated risks may be different than those estimated herein.

Sampling locations were selected near known or suspected sources (a deterministic sampling strategy). The consequence of such a sampling strategy is the skewing of the mean soil concentrations of chemicals away from (higher than) actual representative concentrations of chemicals at a site, because the sampled areas are more likely to contain chemicals than other areas are. This strategy results in an overestimation of risks from exposure to site chemicals by using an average scenario; however, such a result has little impact on the screening (i.e., maximum exposure) assessment herein.

Chemicals were included as COPCs if they were detected above background concentrations, were positively identified (i.e., were not TICs), and

were not essential macronutrients or likely to be laboratory contaminants. As a result, most detected chemicals were evaluated in this quantitative screen. Although evaluation of all chemicals may have resulted in slightly higher risks, the chemicals evaluated were expected to account for the vast majority of risks from chemicals potentially related to site activities.

5.7.2 Selection of Indicator Species

Indicator species were selected on the basis of the likelihood of exposure to chemicals in soil. The mammalian species that were expected to be maximally exposed to the chemicals in soil were selected; exposure of other mammals is not expected to exceed that of the species quantified herein. This is an inherently uncertain assumption. However, exposure assumptions were conservatively developed in an attempt to minimize the potential for underestimating exposure by another mammal that is not evaluated herein (Section 5.7.3). Birds, lizards, and other taxa were not evaluated in this assessment. The uncertain assumption was made that exposures by these other taxa would not exceed those by the indicator species evaluated. This assumption will be evaluated once additional field data on biota are collected.

5.7.3 Exposure Assessment

Much uncertainty surrounds noninvasive estimates of the exposure of populations of plants and animals to chemicals in the natural environment. This screening assessment used assumptions that tend to overestimate actual exposures. Assumptions that may introduce uncertainty into the estimates in the quantitative screening assessment include, but are not limited, to the following:

1. Chemicals do not degrade in the environment but remain at measured concentrations.
2. Individuals are exposed simultaneously and chronically to the maximum concentrations of all COPCs at a site down to 4 feet bgs.
3. Individuals spend their lifetime within the contaminated portion of a site.

4. Individuals feed only on items exposed to maximum site concentrations.
 5. Chemicals are completely absorbed via all evaluated routes of exposure.
 6. All significant exposure pathways have been identified.
 7. Chemicals do not react with one another to generate new (more or less) toxic chemicals.
 8. The midpoint of the range of body weights reported in the literature accurately describes the body weights that typify the indicator species.
 9. Plant uptake modeling accurately describes actual uptake into plants.
- Animal data can be extrapolated across species with little error by using the methodology outlined in this report.
 - Data from laboratory species can be accurately extrapolated to species in the natural environment.
 - Toxicity values derived for oral exposures may be used to evaluate dermal exposures.
 - The indicator species are equally sensitive, or more sensitive, to the toxic effects of chemicals than are the other species that may be onsite.
 - Plant, sediment, and surface water screening values adequately address the potential toxicity of COPCs to relevant species at Fort Ord.

Assumptions 1 through 5 are considered conservative; i.e., the uncertainties are biased toward overestimating actual exposures.

Assumption 6 may underestimate exposures, although it is likely that the overall uncertainty associated with exposure is biased toward overestimating exposures, consistent with a screening assessment. The direction of uncertainty is unclear with respect to

Assumptions 7 through 9. Uptake of chemicals into plants depends on several factors, including the physical composition of the soil, the life stage of the plant, the availability and form of the chemical that is present in soil, and other stressors acting on the plant. In addition, the location of accumulation in plant tissues may or may not correspond to the portion of the plant (e.g., vegetative or reproductive) that is affected or consumed. The direction of uncertainty will be better understood after additional plant and animal sampling activities are completed.

5.7.4 Toxicity Assessment

Little toxicity information is available for plants and animals in the natural environment. As a result, much of the uncertainty in an ecological risk assessment lies in the assessment of toxicity. The toxicity assessment was designed so that uncertainties are more likely to overestimate actual toxicity. Assumptions that may introduce uncertainty into the toxicity assessment include the following:

The direction of uncertainty for all the foregoing assumptions is itself uncertain; it is likely that the first assumption inherently contains a conservative bias through the use of uncertainty factors. The use of the lowest toxicity value available in the literature was considered to be very conservative, and likely dwarfs the other uncertainties listed above.

5.7.5 Uncertainties Associated with Plant Screening Assessment

The exposure point concentrations used in this screening assessment are extremely conservative. The concentration of each chemical at the hypothetical exposure point for each site is conservatively assumed to be equal to the maximum detected site concentration.

Other potentially conservative steps taken in this assessment include the following:

- Background levels were not subtracted; estimated hazard quotients therefore include both naturally occurring and potentially site-related sources.
- Both surface and shallow analytical soil concentration data from each site (if available) were used in the selection of inorganic COPCs. Nonsurficial

contamination may not, however, be relevant to all species of potentially exposed plants, especially those with shallow root systems.

- Possible additive effects were considered.
- The maximum detected concentrations at each site were treated as though they all occurred together at a single exposure point.
- Highly tolerant plant species were not considered.

A potentially nonconservative step is that highly sensitive species were not considered (i.e., no uncertainty factors were used).

Organic chemicals have not been included in this evaluation, because no readily available screening concentrations for the toxicity of organic chemicals to plants have been identified. Plant tissue samples have been collected at most sites to assess actual uptake of organic chemicals and to evaluate the validity of the plant uptake model used in this screen.

5.7.6 Risk Estimation

The uncertainties associated with the risk estimation step are in part the sum of the uncertainties discussed for the other components. If the overall direction of the uncertainties is toward overestimation of exposure and toxicity, then the risk estimation will also tend to overestimate actual risks. The quantitative ecological screening assessment was designed to be consistent with this assumption. In addition, the following assumptions also add uncertainty to this component of the ERA:

- Chemicals within a site do not have synergistic or antagonistic effects.
- Potential risks from chemicals with different target organs and endpoints add linearly.

These two assumptions are related. Only a relatively small number of chemicals are known to exhibit synergistic or antagonistic effects when combined with certain other chemicals. This assumption may either underestimate or

overestimate risks, but is probably not of substantial magnitude. The second assumption further states that, regardless of the endpoint of a chemical, risks are additive with the risks associated with all other chemicals that an individual is exposed to. Except for chemicals that have synergistic actions on the absorption or toxicity of other chemicals, this assumption probably results in an overestimation of risk.

Overall, the assessment was designed so that uncertainties would tend to cause overestimation of actual exposures and toxicity and thus is likely to overestimate actual risks to the indicator species. The magnitude of this uncertainty will be further addressed after completion of field biota collection and analysis.

5.8 Summary of Results and Additional Activities

The potential effects to terrestrial mammalian receptors (Section 5.4) and plants (Section 5.5) are addressed on a site-by-site basis. Terrestrial and aquatic receptors potentially affected by chemicals from outfalls are addressed in Section 5.6. These assessments are summarized in Tables 5.39 and 5.40 and presented below as follows: first, the potential ecological risks estimated using conservative screening assumptions at the site or watershed are summarized; then, the further activities conducted for the site or outfall are described. Further activities include collection and analysis of additional soils, plants, small mammals, lizards, and/or litter.

In Section 6.0, the data from sampling efforts are compared to the predicted concentrations from the quantitative ecological screening assessment. This comparison addresses whether the screening hazard indices were the result of the screening assessment assumptions or whether there are potential ecological risks posed by the site.

5.8.1 Site 1

The site description and conceptual site model for Site 1, the Ord Village Sewage Treatment Plant, are presented in Section 4.2.1. In the quantitative ecological screening assessment, hazard indices for both mammalian species and plants were estimated to be below 0.1. Based on

these data, this site falls into the category of "no concern." No soil or biota samples were collected at Site 1 and no further ecological action is recommended. However, surficial soil samples were collected to fill a data gap as described in Section 6.1.

5.8.2 Site 2

The site description and conceptual site model for Site 2, the Main Garrison Sewage Treatment Plant, are presented in Section 4.2.2. The COPCs for this site are presented in Section 5.4.2 and include metals. Based on results of the quantitative ecological screening assessment, mice and foxes may be affected by the COPCs. Additional activities at Site 2 included collection and analyses of five soil samples and plant and mammal samples (lizard trapping was unsuccessful) as described in Section 6.1.

5.8.3 Site 3

The site description and conceptual site model for Site 3, the Beach Trainfire Ranges, are presented in Section 4.2.3. The COPCs for this site are presented in Section 5.4.3 and include metals. Based on results of the quantitative ecological screening assessment, mice, foxes, and plants may be affected by the COPCs. Additional activities at Site 3 included collection and analysis of 13 soil samples (4 each from Areas 1 and 2, and 5 from the central area) and plant and mammal samples (lizard trapping was unsuccessful) as described in Section 6.1.

A unique feature at Site 3 is the presence of Smith's blue butterfly, a special-status species. The Smith's blue butterfly spends its life cycle intimately associated with two species of buckwheat, coast and dune buckwheat. Because the screening assessment indicates potential toxicity to plants, the following activities were conducted to assess whether the buckwheat onsite may be affected by COPCs:

- Buckwheat plants of both species were collected in each of the three areas. Plants were collected under the supervision of an entomologist to ensure that no butterflies were touched (i.e., only plants with no signs of use by butterflies were collected; Section 6.1 and Appendix F).

- Plant tissues were analyzed for metals.
- Seeds were used for two laboratory assays: root elongation and plant biomass determination (SOPs for these assays are in Appendix F).
- Comparisons of results from Areas 1 and 2 of Site 3 were made with both the control area and a control from a seed bank to assess whether buckwheat growth is affected by COPCs.

In addition, potential impacts to birds (i.e., mourning doves) from ingestion of bullet fragments is discussed in Section 6.5.

5.8.4 Site 11

The site description and conceptual site model for Site 11, the AAFES Fuel Station, are presented in Section 4.2.4. The COPCs selected for further evaluation at this site include metals (see Section 5.4.4). Based on results of the quantitative ecological screening assessment, mice and foxes may be affected by lead; no data was available for other metals. Insufficient information was available to assess whether plants at the site may be affected by metals.

Additional activities at Site 11 included collection and analysis of four surface soil samples and plant and mammal samples (lizard trapping was unsuccessful) as described in Section 6.1.

5.8.5 Site 12

The site description and conceptual site model for Site 12, the Lower Meadow, DOL Automotive Yard, and Cannibalization Yard, are presented in Section 4.2.2. The COPCs for at this site are presented in Section 5.4.5 and include metals, VOCs, and phthalates. Based on the results of the quantitative ecological screening assessment, mice, foxes, and plants may be affected by the COPCs. Additional data activities at Site 12 included collection and analysis of four surface soil samples and plant samples (mammal trapping was unsuccessful) as described in Section 6.1.

5.8.6 Site 15

The site description and conceptual site model for Site 15, the DEH Yard, are presented in Section 4.2.5. The COPCs selected for this site are presented in Section 5.4.6 and include metals, VOCs, and pesticides. Based on the quantitative ecological screening assessment, mice and foxes may be affected by the COPCs. This site is 65 percent paved and is expected to be developed as a corporation yard. The maximum concentrations were detected in an area planned for interim remedial action (Section 5.4.6). Therefore, no further ecological action is necessary. However, four additional surface soil samples and collocated oats were collected and analyzed for metals and pesticides/PCBs to validate the models used in the screening assessment (Section 6.0).

5.8.7 Site 16

The site description and conceptual site model for Site 16, the DOL Maintenance Yard, Pete's Pond, and Pete's Pond Extension, are presented in Section 4.2.6. The COPCs selected for further evaluation at this site are presented in Section 5.4.7 and include metals, VOCs, phthalates, pesticides, PAHs, and dioxins. Based on the quantitative ecological screening assessment, mice, foxes, and plants may be impacted by the COPCs. Additional activities at Site 16 included collection and analysis of 10 soil samples (3 each from Pete's Pond and the DOL Yard, and 4 from Pete's Pond Extension), and plant and litter samples (mammal trapping was unsuccessful) as described in Section 6.1. All samples were analyzed for dioxins, metals, pesticides/PCBs, and PAHs.

5.8.8 Site 17

The site description and conceptual site model for Site 17, the 1400 Block Motor Pool, are presented in Section 4.2.6. The COPCs selected for at this site are presented in Section 5.4.8 and include metals, VOCs, and dioxins. Based on the quantitative ecological screening assessment, mice and foxes should not be adversely affected by the COPCs (Section 5.4.8). This site is approximately 95 percent paved, the maximum concentrations of metals were detected in paved areas, and the maximum concentrations of

dioxins were detected in a boring location bordering an upland ruderal area. Therefore, no further ecological action is recommended and no additional data were collected at Site 17.

5.8.9 Site 21

The site description and conceptual site model for Site 21, the 4400/4500 Motor Pool, East Block, are presented in Section 4.2.7. The COPCs selected for this site are presented in Section 5.4.9. Based on the quantitative screening assessment, mice and foxes may be affected by the COPCs. However, this site is 90 percent paved and areas with metal concentrations contributing to the hazard index will be remediated. Maximum concentrations were detected in wet ruderal areas planned for interim remedial action. Therefore no further ecological action is recommended.

However, four additional surface soil samples and plants were collected and analyzed for metals, pesticides/PCBs, and PAHs (Section 6.1) to validate the models used in the screening assessment.

5.8.10 Site 22

The site description and conceptual site model for Site 22, the 4400/4500 Motor Pool, West Block, are presented in Section 4.2.8. Hazard indices for both mice and foxes were estimated to be at or below 0.1 (Section 5.4.10). Based on these data, this site falls into the category of "no concern." Therefore, no further ecological action is recommended. However, four additional surface soil samples and collocated plants were collected and analyzed for phthalates, pesticides/PCBs, and PAHs (Section 6.1) to validate the models used in the screening assessment.

5.8.11 Site 24

The site description and conceptual site model for Site 24, the old Directorate of Engineering and Housing (DEH) yard, are presented in Section 4.2.9. The COPCs selected for further evaluation at this site are presented in Section 5.4.11 and include metals, VOCs, pesticides, phthalates, and PCBs. Based on the quantitative ecological screening assessment,

mice, foxes, and plants may be affected by the COPCs. Additional activities at Site 24 included collection and analysis of six surface soil samples, and plant, mammal, and litter samples as described in Section 6.1. Samples were analyzed for metals, pesticides/PCBs, and PAHs. PAHs were analyzed for because TPH was detected in previous samples.

5.8.12 Site 25

The site description and conceptual site model for Site 25, the former DRMO, are presented in Section 4.2.10. The COPCs selected for further evaluation at this site are presented in Section 5.4.12 and include metals, VOCs, pesticides, and PCBs. Based on the quantitative screening assessment, mice, foxes, and plants may be affected by the COPCs. Additional activities at Site 25 included collection and analysis of four surface soil samples and plant, mammal, and litter samples as described in Section 6.1. Samples were analyzed for metals and pesticides/PCBs.

5.8.13 Site 29

The site description and conceptual site model for Site 29, the DRMO, are presented in Section 4.2.11. Hazard index for the mouse was estimated to be less than 1 and the hazard index for the fox was 1. Based on these data, mice and foxes should not be adversely affected by the COPCs. Therefore, no further ecological action is recommended.

However, four additional surface soil samples and plants were collected and analyzed for metals, pesticides/PCBs, and PAHs (Section 6.1) to validate the models used in the screening assessment. In addition, mammals and litter from this site were collected and analyzed, also to validate the models.

5.8.14 Site 31

The site description and conceptual site model for Site 31, the former dump site, are presented in Section 4.2.12. The COPCs selected for this site are presented in Section 5.4.14 and include metals, pesticides, PAHs, and dioxins. Based on the quantitative ecological screening assessment, mice, foxes, and plants may be affected by the

COPCs. Additional data activities at Site 31 included collection and analysis of four surface soil samples and plant, mammal, and litter samples (lizard trapping was unsuccessful) as described in Section 6.1. Samples were analyzed for metals, pesticides/PCBs, PAHs, and dioxins.

5.8.15 Site 32

The site description and conceptual site model for Site 32, the East Garrison Sewage Treatment Plant, are presented in Section 4.2.13. Hazard indices for both mammalian species and plants were estimated to be 1 or less than 1. Based on these data, this site falls into the category of no adverse effects are expected for mammalian species or plants. Therefore, no further ecological action is recommended.

However, four additional surface soil samples and plants were collected and analyzed for metals, pesticides/PCBs, and PAHs (Section 6.1) to validate the models used in the screening assessment.

5.8.16 Site 33

The site description and conceptual site model for Site 33, the Golf Course, are presented in Section 4.2.14. The COPCs selected for this site are presented in Section 5.4.16 and include metals and pesticides. Based on the quantitative ecological screening assessment, mice, foxes, and plants may be affected by the COPCs. Additional data activities at Site 33 included collection and analysis of four surface soil samples and plant and mammal samples as described in Section 6.1. Samples were analyzed for metals and pesticides/PCBs.

5.8.17 Site 35

The site description and conceptual site model for Site 35, the Aircraft Cannibalization Yard, are presented in Section 4.2.15. Hazard indices for both mammalian species and plants were estimated to be less than 0.1. These results were based on preliminary data, as no surface soil samples were collected at this site. Additional activities were conducted, including collection and analysis of 10 surface soil samples (incorporating all habitats present onsite) and plant, mammal, and litter samples as described

in Section 6.1. Samples were analyzed for metals, pesticides/PCBs, and PAHs; these chemicals may be present due to historical site activities. This site was reevaluated in the quantitative ecological risk assessment (Section 6.0).

5.8.18 Site 39

The site description and conceptual site model for Site 39, the Inland Ranges and 2.36-inch Rocket Range, are presented in Section 4.2.16. The COPCs selected for this site are presented in Section 5.4.18 and include metals and HMX. Based on the quantitative ecological screening assessment, mice, foxes, and plants may be affected by the COPCs. No additional field activities were conducted at Site 39 because Site 39 is inaccessible due to the presence of UXO. Soil, plant, mammal, and litter samples collected and analyzed for Site 3 will be used in lieu of similar sampling at Site 39. Data from Site 3 are an acceptable surrogate, because activities similar to those conducted at Site 39 took place at Site 3, and the chemicals of concern at Site 39 are similar to those of concern at Site 3. Data from these sampling efforts were compared to the predicted concentrations used in the screening assessment (Section 6.0). This comparison was used to address whether the screening hazard indices were the result of the screening assessment assumptions or whether there are potential ecological risks posed by the site. HMX is not present at Site 3; however, it was detected in only 7 of 103 surface samples at Site 39, indicating localized contamination.

In addition, potential impacts to birds (i.e., mourning doves) from ingestion of bullet fragments is discussed in Section 6.5.

5.8.19 Site 40

The site description and conceptual site model for Site 40, the FAAF defueling area, are presented in Section 4.2.17. Hazard indices for both mice and foxes were estimated to be less than 1.0. Based on these data, mice and foxes should not be adversely affected by COPCs at Site 40. Therefore, no further ecological action is recommended and no additional data were collected at Site 40.

5.8.20 Site 41

The site description and conceptual site model for Site 41, the Crescent Bluff Burn Pit, are presented in Section 4.2.18. Hazard indices for both mice and foxes were estimated to be greater than 1.0. Based on these data, foxes and mice may be affected by the COPCs. Because site characterization data were only recently received, no additional activities are planned for this site as part of this assessment. Additional data on biota obtained from Sites 16 and 31, both of which have COPCs and habitat types similar to those of Site 41, will be used to estimate potential impacts to ecological receptors at Site 41.

5.8.21 Summary of Outfall Results

The following sections summarize the results of evaluations of potential impacts to aquatic and terrestrial receptors due to chemical detected at outfall locations.

5.8.21.1 Aquatic Assessment

The results of soil/sediment, groundwater, stormwater, and bioassay analyses and their potential impacts to receptors in watersheds adjacent to and on Fort Ord are presented in Section 5.6. Results of the aquatic assessment are summarized below for each watershed.

The results from outfalls and groundwater analyses with a potential impact on Monterey Bay are summarized as follows:

- Chemicals were detected at concentrations exceeding BCs at all soil and sediment sampling locations.
- TCE, although found in groundwater, was detected at low concentrations, as was vinyl chloride (a breakdown product). TCE was not detected in the stormwater samples. Therefore, it is unlikely that toxic concentrations of TCE are entering Monterey Bay. However, dilution of groundwater in the bay will be further addressed in Section 6.0.

- Only five outfalls (OF-01-MH [2 locations], OF-02, OF-03, OF-04, and OF-07) are close enough to the bay to produce runoff likely to enter the bay; Outfall OF-07 is upgradient of Outfall OF-03. For three of these locations (OF-01-MH, OF-03, and OF-04), only sediments inside the pipe were sampled. No sediment or soil was sampled at OF-02.
- Bioassay results correlated fairly well with stormwater chemical analyses showing a moderate level of toxicity at three locations (OF-02, OF-03, and OF-04); runoff from all three locations is likely to enter the bay. High levels of toxicity were seen at two locations, OF-01-MH and OF-15; runoff from OF-01-MH may reach the bay; runoff from OF-15 is unlikely to reach the bay.

The use of BCs derived for sediment to evaluate soil, and ultimately runoff, is very conservative. It appears that runoff from only five outfalls ever reaches the bay. Because of the high dilution expected at the high-energy beaches, chemical concentrations may be diluted to the point where there will be no impact on aquatic receptors. Discussions with NOAA and the California Coastal Commission were conducted to identify studies that may be necessary to address data gaps. In the absence of additional analytical data, dilution factors in Monterey Bay were modeled in Section 6.7 to assess whether toxic concentrations of chemicals are likely to reach the bay. These dilution factors can also be applied to estimate the impacts of groundwater on the bay.

The results from outfalls at Site 16, Pete's Pond, are summarized as follows:

- Chemicals were detected at concentrations exceeding BCs in sediment samples (inside the pipe). Four of six soil sampling locations (outside the pipe) showed similar contamination.
- Bioassay data correlated fairly well with stormwater chemical data showing a moderate level of toxicity at two locations and no toxicity at a third location.

All outfalls to Site 16 empty into Pete's Pond, which is dry most of the year. Further activities at this site to evaluate potential effects to terrestrial receptors are described in Section 5.8.7.

The results from outfalls with a potential to reach the Salinas River are summarized as follows:

- Chemicals were detected in soil and sediment samples at concentrations exceeding BCs in all but two sampling locations (OF-20 and OF-21).
- Bioassay data correlated well with stormwater chemical data, showing a high level of toxicity at OF-26 and no toxicity at OF-23. A standard dilution factor of 10:1 would lower metal concentrations in the river, but, in the case of OF-26, not to levels below the BCs. The dilution factor in both dry and wet weather would most likely exceed 10:1, dropping metal concentrations well below the BCs. However, only Outfall OF-23, which was not toxic, terminates near the river and is likely to produce runoff that would reach the river.

Since the use of BCs derived for sediment to evaluate soil, and ultimately runoff, is very conservative, and toxic stormwater is not likely to reach the river, further activities are not proposed for the Salinas River watershed.

An additional concern regarding the stormwater reference site was identified. Because Sample BKG-03 showed high levels of metals as well as a moderate level of toxicity to aquatic organisms, this location can be considered unsuitable as a reference site. Toxicity at this site could be attributed to deposition of chemicals from nearby Laguna Seca or from the base. Because the 1993-1994 storm season is over, selection of a more suitable reference site is not possible. If deemed necessary, additional sites could be sampled during the 1995 storm season.

5.8.21.2 Terrestrial Assessment

Four of the 11 outfalls (OF-01-O1N, OF-01-02N, OF-21, and OF-22) identified in PHA1 as potentially having complete exposure pathways were shown to be of "no concern" to mammals (Section 5.6.4.1) and will not be further evaluated. Four outfalls (OF-05, OF-16-04, OF-16-05, and OF-26) were shown to be of "possible concern"; sediment concentrations at OF-05 were lower than site soil concentrations.

Three outfalls (OF-14, OF-15, and OF-23) were shown to be of "probable concern"; sediment concentrations at OF-14 and OF-15 were lower than site soil concentrations.

Due to additional data collection efforts, Outfalls OF-05, OF-14, OF-15, OF-16, OF-23, and OF-26 will be reevaluated (Section 6.7). In addition, data were collected for four newly identified outfalls (OF-12, OF-31, OF-34, and OF-35). These additional evaluations of outfalls are also discussed in Section 6.7.

6.0 QUANTITATIVE ECOLOGICAL RISK ASSESSMENT

This section presents the results of the additional quantitative assessments performed in support of the analysis and risk estimation components of EPA's framework (Plate 1.2) for the sites and outfalls identified in Section 5.0. Additional components of the problem formulation component of EPA's framework included addressing remaining data gaps and revising COPC selection based on new data collected in the ERA (Section 6.1.2).

Section 5.0, the quantitative ecological screening assessment, indicates for each terrestrial site whether the COPCs at the site are anticipated to result in ecological risks to the indicator species or whether no further action is necessary. On the basis of the results of the screening assessment, additional data collection and analysis were performed for some sites and outfalls. The work was performed to further characterize potential risks to indicator species at the sites, terrestrial receptors near the outfalls, and aquatic receptors in the watersheds of concern. Additional data were collected at previously evaluated outfalls and sites and at newly identified outfall locations.

Based on the results of the screening risk characterization steps (Sections 5.4 through 5.6), anticipated future activities were evaluated and summarized (Section 5.8). For the terrestrial characterization for most sites, if hazard indices were equal to or less than 1.0, no further activities were conducted. If hazard indices were greater than 1.0, additional efforts were undertaken to evaluate whether the conservative screening assumptions used to estimate the risks accurately reflected conditions at the site. These efforts included additional chemical data analysis and collection and analysis of soil, plant, litter, and mammal tissue samples.

At several sites where the hazard indices were less than 1.0, additional chemical sampling of biota and soil was conducted to validate the models used in the quantitative ecological screening assessment.

Two models were used in the quantitative ecological screening assessment (Section 5.0). The plant uptake model calculated the concentrations of COPCs in plants based on soil COPC concentrations. Soil and plant tissue data were used to validate this model (Section 6.2). Potential impacts to Smith's blue butterfly were assessed by evaluating impacts on buckwheat (Section 6.3).

The second model used the lifetime average daily dose (LADD) for the deer mouse as an estimate of the concentration of a COPC in the whole mouse. Biota sampling results were used to evaluate this model; additional biota sampling was limited to inland, unpaved sites. Revised risk estimates based on measured plant and animal tissue data were calculated (Section 6.4). Potential impacts to birds ingesting spent shot at Site 3 were estimated based on results of literature information and leaching analyses (Section 6.5).

Potential impacts to lizards were assessed by evaluating their food supply. Species abundance and diversity in leaf litter were correlated with detected concentrations of chemicals in collocated soil samples at all sites and reference areas to see if chemicals were affecting the number or diversity of litter organisms (Section 6.6). Additionally, chemical concentrations in soil and leaf litter were used to assess potential direct impacts to lizards.

This section is organized parallel to EPA's framework document (*EPA, 1992*). Section 6.1 summarizes the final iteration of the problem formulation component as it relates to addressing data gaps identified in Section 5.0. Sections 6.2 through 6.7 summarize the further analyses and risk estimation components for assessment endpoints relevant to plants, Smith's blue butterfly, mammals, birds, lizards, and outfalls, respectively. Section 6.8 presents a summary of all results.

6.1 Problem Formulation

In the problem formulation component for this stage of the assessment, remaining data gaps were addressed, and COPC selection was revised based on newly collected data. These activities are discussed below in Sections 6.1.1 and 6.1.2.

6.1.1 Addressing Data Gaps

Field sampling of surface soil, plants, small mammals, leaf litter, and lizards was planned on the basis of the results of the quantitative ecological screening assessment and identified data gaps (see Section 5.8). Soil sampling was conducted at 16 sites to further characterize the nature and extent of chemicals in surface soil.

Plants were sampled at 15 of the 16 sites (excluding Site 1) so that soil concentration data could be compared with plant concentration data, the bioavailability and toxicity of detected chemicals to plants could be assessed, and the plant uptake model used in the screening assessment could be validated. Plants were not sampled at Site 1; the only sampling at Site 1 was surficial soil. The screening assessment indicated "no concern" at Site 1, but additional soil samples were collected to fill a data gap. Collection of plants addressed assessment endpoints C1 through C5 and I1 through I4 (Tables 2.1 and 2.2). Oats (*Avena fatua*) were collected at 11 sites, hottentot fig (iceplant; *Carpobrotus edulis*) at 13 sites, buckwheat (*Erigonium* sp.) at 1 site (Site 3), and brome grass (*Bromus* sp.) at 2 sites (Sites 33 and 35). Collection of buckwheat at Site 3 specifically addressed the Smith's blue butterfly endpoints (C6, C7, and C8 in Table 2.1).

Small mammals were collected at 9 sites to assess whether animals are exposed to potentially toxic concentrations of chemicals and to validate the model used in the screening assessment; small mammal trapping was unsuccessful at 2 other sites. Collecting small mammals addressed assessment endpoints C13 through C15 (Table 2.1) and I9 through I12 (Table 2.2).

Leaf litter was collected at 6 sites to assess chemical concentrations in the litter community and to identify animals living in the litter layer.

Collecting leaf litter addressed assessment endpoints I5 through I8 (Table 2.2).

Lizards were not successfully trapped; therefore no lizard data are available. Litter analysis results were used to assess potential impacts to lizards.

Soil, plants, small mammals, and leaf litter were collected at coast live oak woodland, central maritime chaparral, and upland ruderal reference locations to further evaluate assessment endpoints involving comparison of site conditions with background or ambient conditions (endpoints C1, C3, C13, I1, I3, I5, I7, I9, and I10 in Tables 2.1 and 2.2). Additional rationale for biota collection at specific sites is presented in Section 4.0 of the *Draft Data Summary and Work Plan Addendum* dated May 6, 1994.

In all cases, sampling at each site was conducted along predefined transects, and all media samples were collocated, i.e., collected from the same locations within a site. Table 6.1 lists the sites at which sampling was conducted and summarizes the media sampled, the number of samples collected, the dates of collection, and the target analytes. Validated data for soil and plants (oats, brome grass, and some hottentot fig) are presented herein; invalidated data on collected mammals, litter, and buckwheat are also presented.

Several sampling transects were set up at each site for collecting soil samples, plants, small mammals, leaf litter, and lizards and placed to pass through oat, brome, and/or hottentot fig stands to ensure availability of plant material for analysis. To prevent depleting a specific stand of plants, no more than 50 percent of the stand was sampled. Because this strategy resulted in insufficient plant material for chemical analysis, plant samples were collected from a number of stands along a given transect and composited, resulting in one plant sample per transect. Surface soil samples were collected from each location where plants were sampled and were also composited to provide one soil sample per transect. The resulting analytical data were used to relate soil and plant chemical concentrations, evaluate plant uptake along the transect, and provide representative exposure point

concentrations for small mammals using the plants for food.

The following sections describe the sampling efforts by medium in more detail.

6.1.1.1 Soil

Additional surface soil samples were collected at 16 sites in order to:

- Further characterize sites where previous surface soil sample collection had been limited (Sites 1, 11, and 35)
- Compare modeled and measured chemical concentrations in plants with concentrations in surface soil
- Compare chemical concentrations in surface soil with concentrations in mammalian tissue and litter
- Provide exposure point concentrations for direct contact with soil.

All surface soil samples were collected using the methods described in the Quality Assurance Project Plan (QAPP; HLA, 1991 and 1992) with the following exception. Each plant sample comprised plants from several locations along a given transect to prevent depletion of resources; therefore soil samples were collected from these same multiple locations and composited. (Composite soil samples have not generally been collected at Fort Ord.) Table 6.1 identifies sampling dates, the number of samples collected per site, and analyses performed.

Soil sample analytical results (Appendix G) were used as follows:

- To compare metal concentrations detected in surface soil with naturally occurring (background) levels (endpoints C1 and I1, Tables 2.1 and 2.2). Metals having concentrations above background levels were retained as COPCs and considered to be site-related; those with concentrations below background were eliminated as COPCs (Section 6.1.2).

- To evaluate whether chemical concentrations in surface soil adversely impact plants (endpoints C2 and I2, Tables 2.1 and 2.2). Soil data were used to estimate site-specific plant tissue concentrations for comparison with plant screening concentrations from the literature.
- To evaluate the plant uptake model used in the screening assessment (endpoints C14, C15, and I12, Tables 2.1 and 2.2). Analysis of variance (ANOVA) and regression analyses were used to compare concentrations in soil with measured concentrations in plants.
- To evaluate potential accumulation of chemicals in lizards, rodents, and mammalian and avian predators (endpoints C12, C14, C15, I6, I8, and I12; Tables 2.1 and 2.2) and to validate the models used in the screening assessment. Chemical concentrations in surface soil were compared with chemical concentrations in mammalian tissue and leaf litter.

The assessment and measurement endpoints for surface soil data are presented in Tables 2.1 and 2.2. Surface soil sampling results are discussed in Section 6.1.2.

6.1.1.2 Plants

Plants were collected from 14 sites (Sites 3, 11, 12, 15, 16, 21, 22, 24, 25, 29, 31, 32, 33, and 35; Table 6.1) and the three reference locations for chemical analysis. In the quantitative ecological screening assessment (Section 5.5), hazard indices based on prior soil data indicated potential risks to plants at 9 sites (Sites 3, 12, 16, 24, 25, 31, 33, 39 and 41); plants from 7 of these sites were evaluated to assess potential effects on plant species and habitats of concern and on mammals ingesting plants from these sites. Plants were not collected from Site 39 due to the presence of unexploded ordnance; data for Site 3 were used to refine the assessment for Site 39. No field data were collected at Site 41 since site characterization data were only recently available. Biota samples taken at Sites 16 and 31 were used to evaluate Site 41 because these sites have similar chemicals at similar concentrations. Results of the screening assessment indicated that 5 of the sites where plants were collected

(Sites 15, 21, 22, 29, and 32) were of "no concern" for mammals. Analytical results for plants from these sites were used to validate the models used in the screening assessment. Sites 35 and 11 were not classified for plants in the screening assessment because existing data for these sites were insufficient. Although the conservative plant screening analysis identified potential risks to plants at Site 2, no plants were collected from the areas of concern because they are sludge beds with no vegetation. Plants were sampled at other areas of the site which support vegetation including hottentot fig. Potential risks to plants at Site 2 are further discussed in Section 6.2.

Four types of plants were collected. The plant species chosen were based on the prioritized list of indicator species (Section 5.2). Both oats (*Avena fatua*) and hottentot fig (*Carpobrotus edulis*) were collected if available; both species were collected at Sites 11, 12, 15, 16, 21, 22, 24, 25, 29, and 32. Only oats were collected from Site 31; no hottentot fig, California brome (*B. carinatus*), or ripgut brome (*B. diandrus*) was present at this site. Hottentot fig and buckwheat (*E. latifolium* and *E. parvifolium*) were collected from Site 3; no oats were present at this site. Neither oats nor hottentot fig was present at Site 33; ripgut brome and California brome were collected from Site 33. At Site 35, hottentot fig and ripgut brome were collected; no oats were present. The number of plant samples collected at each site is shown in Table 6.1; plant sampling locations are shown on Plates 4.1 through 4.20.

Plants were collected as prescribed in standard operating procedure (SOP) F3.0 in Appendix F, as modified herein. In general, vegetative portions of plants were not collected because they are not eaten by indicator animals (e.g., small mammals). Fruits of the hottentot fig, seedheads of wild oat and brome grass, and buckwheat inflorescences were collected.

The chemical analyses selected were based on chemicals previously detected in soil samples (see Section 4.0). All plant tissues were analyzed for metals, and all plant tissues except those collected at Site 3 were analyzed for pesticides/PCBs. Plants from all sites except Sites 3, 15, 25, 32 and 33 were analyzed for

PAHs. Plants from Sites 16 and 31 were also analyzed for CDDs and CDFs.

All samples of oats, ripgut brome and California brome, as well as hottentot fig at Site 25 and the three reference sites were chemically analyzed; the results of these analyses are presented in Section 6.2.

Because oats are used as a food supply to a greater extent than hottentot fig and because data collected at Site 25 indicate oats have a higher plant uptake ratio than the hottentot fig, oats, if present, were preferentially analyzed at all sites.

Buckwheat samples collected from Site 3 were also used to evaluate potential hazards to the Smith's blue butterfly. This special case is separately discussed in Section 6.1.1.3 below.

To assess whether the hazard indices calculated in the screening assessment were a result of conservative assumptions or whether there are potential risks at a site (i.e., to further assess endpoints C2 through C4 and I2 through I4, Tables 2.1 and 2.2), the following data comparisons were made:

- Chemical concentrations in plants were compared to chemical concentrations in the collocated soil samples using an analysis of variance (ANOVA) and a regression analysis (Section 6.2)
- Hazard indices calculated using concentrations in plants were compared to those calculated using soil concentrations in the screening assessment (Section 6.2)
- Chemical concentrations in plants were compared to benchmark concentrations (BCs; Section 6.2).

6.1.1.3 Buckwheat

At Fort Ord, Smith's blue butterfly (*Euphilotes enoptes smithi*), a federally listed endangered species, lives exclusively on two species of buckwheat along the beach ranges (Site 3), the coast buckwheat (*Erigonium latifolium*) and the dune buckwheat (*E. parvifolium*). A cooperative agreement was made with the U.S. Fish and Wildlife Service (USFWS) to collect

inflorescences of these species at Site 3 to evaluate endpoints C6, C7, and C8 (Table 2.1), which are relevant to this butterfly. The agreement included oversight by Dr. Richard Arnold, an entomologist with expertise in the Smith's blue butterfly. The buckwheat inflorescence samples were collected for use in conducting root elongation bioassays. In addition, plant residues were analyzed for metal content (Section 6.3).

Because of the special-status nature of the butterflies that use these plants, more detail is provided regarding methods used to evaluate the butterfly than for other endpoints. Buckwheat inflorescence samples were collected in accordance with SOP F7.0 in Appendix F and the USFWS letter from Jonathan Hoekstra to Bill Collins, Fort Ord, dated July 20, 1994 (Attachment 1 to Appendix F). Populations of both species of buckwheat were identified and mapped (Plate 6.1). Some populations did not meet the criteria for possible sampling outlined in the USFWS letter; these are shown on Plate 6.1 as populations with no designation.

Seventeen locations were identified as meeting the criteria for potential sampling: 11 stands of *E. parvifolium* and 6 stands of *E. latifolium*. These stands were grouped based on visible bullet density into one of three classes: control (no bullets), low density (less than 1 percent bullets), and high density (greater than 1 percent bullets; Table 6.2). Because the ecological risk assessment data quality objectives are different from the DQOs for the RI/FS for Site 3, the bullet density definitions are different in the ERA. The stations for buckwheat were selected based on the presence of stands of buckwheat, not on bullet density. The categories for bullet density were developed based on the densities present at these locations.

Each stand was then observed for 10-minute periods on three separate days (August 1, 5, and 12, 1994) to look for adult or larval Smith's blue butterflies. The weather was foggy in the mornings of the first two days, but sunny the entire third day. Observations began at the south end of the ranges on the first day; this was reversed on the second day so that each population was observed for at least two periods of sunshine. On the basis of these observation

periods, six of the *E. parvifolium* stands and one of the *E. latifolium* stands were eliminated as possible sampling locations because adult Smith's blue butterflies were seen in the area (Table 6.2). No larvae were seen during any observation period.

Buckwheat sampling occurred on August 12, 1994. Inflorescences were pinched off at the base, placed into marked quart-sized baggies, and weighed to ensure sufficient sample was collected. The baggies were sealed, placed into a cooler with blue ice, and delivered the day the samples were collected to Plant Research Technologies (PRT), Sunnyvale, California, for laboratory bioassays. The samples were air dried, processed and cleaned, and seeds were separated from chaff and other flower parts and weighed. Germination rates were evaluated to estimate the number of seeds needed for each bioassay. Sampled populations, visible bullet density class, and sample weights are summarized in Table 6.3.

Surface soil samples were collected from around each sampled plant population on September 14, 1994, following completion of preliminary testing and method finalization by PRT. The samples were collected in gallon-sized baggies and placed in a cooler on blue ice. The approximate bullet density of each soil sample was recorded. Sufficient soil samples were collected for the bioassays so that three separate samples within each density class for each species could be tested in the laboratory.

Only one high-density plant sample of *E. latifolium* was collected. To evaluate three high density samples for this species, the seeds from this sample were randomly divided into three separate samples, and soil samples were collected from three separate areas near this plant location to comprise the three samples.

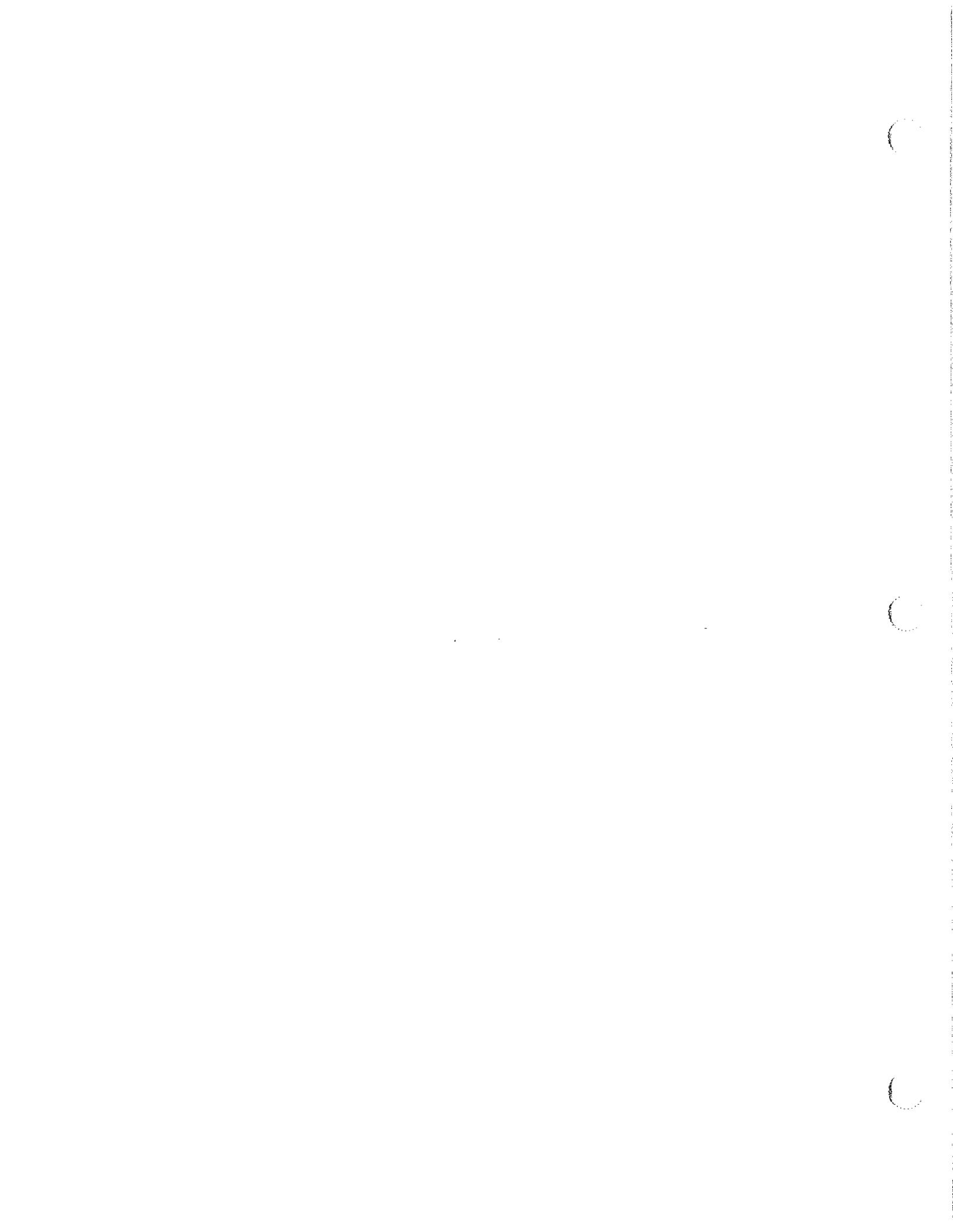
The final experimental design for the plant bioassays is summarized in Table 6.4. A surrogate laboratory soil sample (clean sand) matching the Fort Ord soil in physical parameters was included in the experimental design for comparison with the control site samples.

In Volume IV, Baseline Ecological Risk Assessment, replace the last paragraph in the second column of Page 120 and the first paragraph in the first column of Page 121, Section 6.1.1.5 with the following paragraphs:

Leaf litter samples were collected at six sites (Sites 16, 24, 25, 29, 31, and 35) and the reference sites (Table 6.1). At Sites 2 and 3 leaf litter was not collected because hottentot fig dominates the ground cover, and leaf litter associated with this plant is not expected to provide habitat for the legless lizard. For the remaining sites (Sites 11, 12, 15, 21, 22, 32, 39, and 41) leaf litter was not collected for the following reasons:

- *Leaf litter was mostly absent, indicating a lack of the habitat with which the legless lizard is normally associated. Specifically, the overall cover in vegetated areas of these sites is low and the soils are compacted. The legless lizards need loose soil for burrowing and plant cover for foraging in leaf litter by day (Stebbins, 1985).*
- *Because of the developed or disturbed nature of these sites, existing vegetated areas are isolated and either surrounded by paved areas, buildings and/or roads or highly disturbed. If lizards could use these areas, access to them would be difficult because of the lack of cover between suitable areas of habitat.*

All leaf litter samples were collected in accordance with SOP F4.2 (Appendix F). Samples were extracted over a six day period. The classes and orders of extracted organisms as well as the functional groups to which they belong were identified (e.g., predators, detritivores). The mass of organisms extracted at each site was insufficient for chemical analysis; therefore, only litter material was sent to the laboratory for chemical analysis.



Results of the root elongation bioassays were used to assess whether bullets or site-related chemical concentrations in Site 3 soil adversely impact buckwheat growth. Any adverse impacts to the buckwheat could indicate potential stress to the Smith's blue butterfly, because the butterfly relies on these two buckwheat species for food and habitat.

The following data were compiled for this assessment, all relevant to endpoints C6, C7, and C8 (Table 2.1):

- Plant chaff from field collected samples were analyzed for metals to measure chemical residues
- Aliquots of field-collected soil and elutriate samples were analyzed for metals to identify initial metals concentrations for the bioassays.

6.1.1.4 Small Mammals

Small mammals were trapped and whole body burdens analyzed to assess the potential for impacts on the mammals from site-related chemicals and potential exposures of raptors or carnivorous mammals such as foxes through the food chain. Because the dusky-footed woodrat, the small mammal species of concern identified in the conceptual model, is a candidate for listing as an endangered species, it was not trapped.

All small mammals for tissue analysis were collected in accordance with SOP F5.0 in Appendix F. Small mammal trapping was attempted at all 11 designated sites and the reference locations (Table 6.1). Deer mice (*Peromyscus* sp.) were successfully caught at Sites 2, 3, 11, 24, 25, 29, 31, 33, and 35. No animals were trapped at Sites 12 or 16. Deer mice were also caught at the coast live oak woodland and central maritime chaparral reference locations; collection was not successful at the upland ruderal reference location. Deer mice were the only small mammals caught. The number of trap nights at each site and the number and sex and age ratio of animals trapped at each site are summarized in Table 6.5.

One positive occurrence of hantavirus in deer mice has been documented in Monterey County. Because of the possible presence of hantavirus in these animals, it was necessary to identify an alternative laboratory for chemical analysis. Triangle Laboratories of Research, Triangle Park, Durham, North Carolina, conducted the chemical analyses on these rodents. All other chemical analyses were conducted by Quanterra (formerly ENSECO).

The small mammal data (Appendix G) were used as follows:

- To assess whether the hazard indices estimated in the screening assessment are the result of the conservative assumptions used or reflect potential ecological risks at sites, chemical data from analysis of rodent tissue were compared with modeled rodent concentrations (endpoints C15 and I12, Tables 2.1 and 2.2)
- To assess the degree of biomagnification of chemicals at Fort Ord sites, chemical data from rodents were compared with soil and plant data (endpoints C14 and I11, Tables 2.1 and 2.2)
- To reassess doses and hazard indices estimated in the screening assessment for carnivores (e.g., fox), chemical body burdens were used as exposure point concentrations (endpoints C15 and I12, Tables 2.1 and 2.2).

6.1.1.5 Leaf Litter

Leaf litter sampling was conducted to estimate the concentrations of site-related chemicals at various sites for use in assessing potential hazards to the black legless lizard (*Anniella pulchra nigra*) and the silvery legless lizard (*Anniella pulchra pulchra*), special-status species that are associated with the litter layer.

All leaf litter samples were collected in accordance with SOP F4.2 (Appendix F). Samples were extracted over a 6 day period.

Leaf litter samples were collected at six designated sites (Sites 16, 24, 25, 29, 31, and 35) and all reference locations (Table 6.1). The orders of extracted organisms were identified. The mass of organisms extracted at each site was insufficient for chemical analysis; therefore, only litter material was sent to the laboratory for chemical analysis.

Results of chemical analysis of litter material (Appendix G) were used as follows:

- To assess the black and silvery legless lizards' potential exposures, chemical concentrations in soil and leaf litter were compared (endpoints C10 through C12 and I6 through I8; Tables 2.1 and 2.2)
- To evaluate partitioning of chemicals among soil, plant, and litter material, data from litter material were compared with collocated plant and soil data (endpoints C10, C12, C14, C15, I6, I8, I11, and I12; Tables 2.1 and 2.2)
- To provide an indication of litter community composition and variability, the relative taxonomic abundance of litter organisms was compared across sites and to reference locations within each sampled habitat type (endpoints C10 and I6, Tables 2.1 and 2.2).

6.1.1.6 Lizards

Trapping of lizards and chemical analysis of lizard tissue samples were planned for several sites to evaluate body burdens of site-related chemicals. Because the black legless lizard and the silvery legless lizard are special-status species, they cannot be trapped for tissue analysis, and surrogate species were planned to be used.

All lizard trapping efforts were conducted in accordance with SOP F5.0 (Appendix F). Trapping was attempted at four sites (Sites 2, 3, 11, and 31) for at least 2 nights. Eight to 24 traps were placed at each site. Only one lizard, a juvenile western fence lizard weighing less than 1 gram, was collected using pitfall traps. No lizards were collected with nooses. Because a minimum of 6 grams dry weight is needed for chemical analysis of metals, insufficient material was collected for chemical analysis. Therefore,

endpoints relevant to lizards (C9 through C12 and I5 through I8; Tables 2.1 and 2.2) were evaluated using data from leaf litter.

6.1.1.7 Reference Locations

Central maritime chaparral, coast live oak woodland, and upland ruderal habitat reference sampling locations were selected to provide a basis for comparison with biota from the identified sites. These reference sites are described below. Criteria used to select reference locations are summarized in Section 2.3.

Central Maritime Chaparral

The central maritime chaparral plant community reference site is on the north side of Parker Flats Road approximately 1/4 mile north of its intersection with Eucalyptus Road. The chaparral habitat is in a triangular area created by the intersection of Parker Flats Road and two unnamed dirt roads (Plate 6.2). This area is characterized by rolling terrain with chaparral communities occupying hilltops and exposed slopes. Coast live oak woodland and grassland is found in nearby protected ravines, swales and low lying areas.

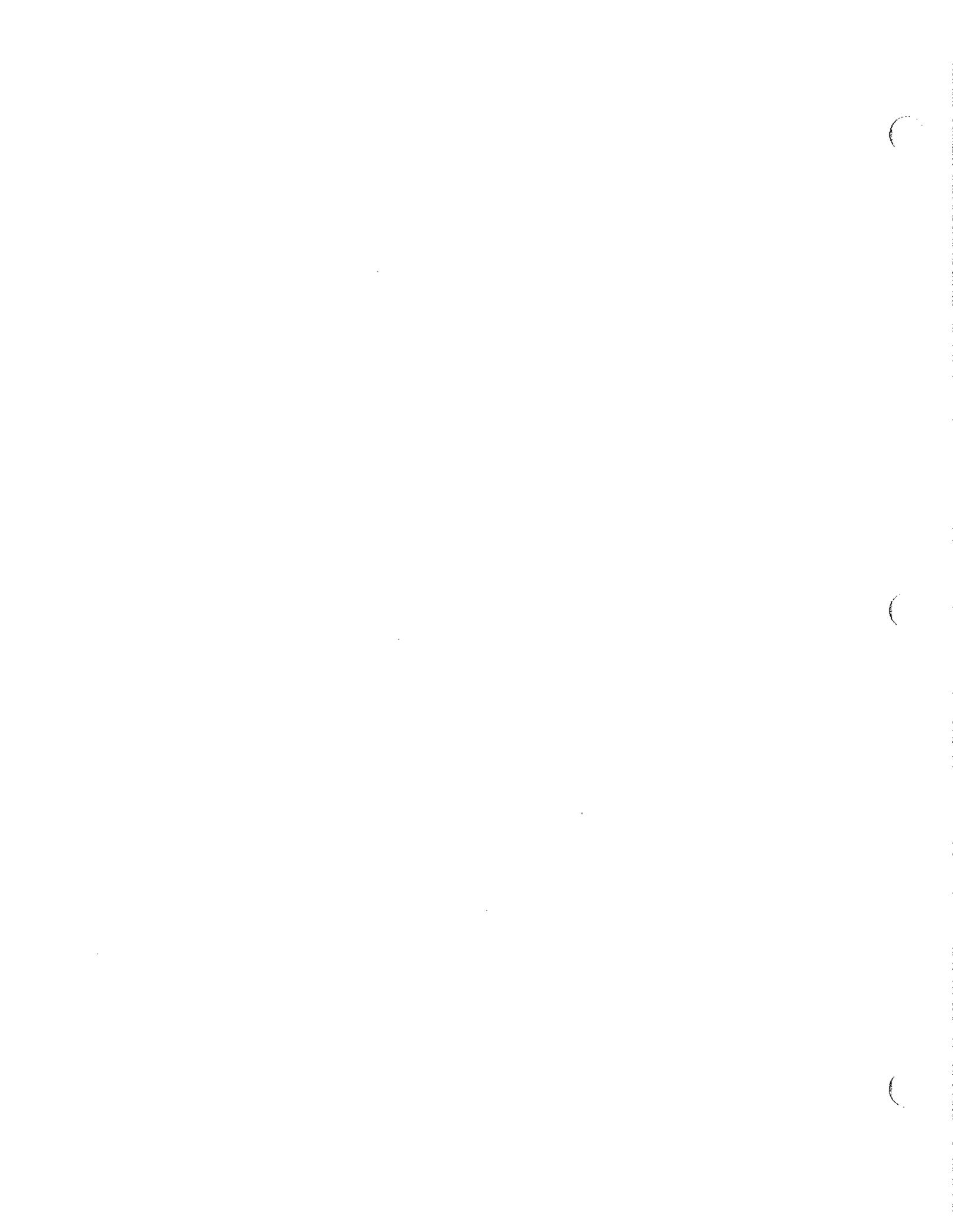
One transect was set up at the site to collect soil samples, plants, small mammals, and leaf litter (Plate 6.2). The transect is dominated by species typical of central maritime chaparral, including shaggy-bark manzanita (*Arctostaphylos t. tomentosa*), sandmat manzanita (*Arctostaphylos pumila*), and coffeeberry (*Rhamnus californica*). Adjacent dirt roads provide upland ruderal habitat for disturbance-adapted native and alien species. Animal species expected in this area include the dusky-footed woodrat (*Neotoma fuscipes luciana*), brush mouse (*Perognathus boyleii*), wrenit (*Chamaea fasciata*) and scrub jay (*Aphelocoma coerulescens*).

Coast Live Oak Woodland

The coast live oak woodland plant community reference site is near the edge of a northeast-facing slope adjacent to a dirt road approximately 300 feet south of Imjin Road and southeast of the 12th Avenue-Imjin Road intersection (Plate 6.3). Existing habitat in this area forms a mosaic of upland ruderal, chaparral, coastal scrub and

In Volume IV, Baseline Ecological Risk Assessment, replace the second bullet in the first column of Page 121, Section 6.1.1.5 to read:

- *To evaluate partitioning of chemicals between soil and litter material, chemical analysis data for litter material were compared with colocated data on soil(endpoints C10, C12, I6,and I8; Tables 2.1 and 2.2)*



coast live oak woodland habitats. The reference site is in an extensive oak woodland interrupted to the north, west, and south by central maritime chaparral. Dirt roads traversing the area provide upland ruderal habitat for disturbance-adapted species. The oak woodland interdigitates with central coastal scrub to the east.

One transect was set up at the site to collect soil, plants, small mammals, and leaf litter (Plate 6.3). The transect is dominated by coast live oak (*Quercus a. agrifolia*) with an understory of poison oak (*Toxicodendron diversiloba*), snowberry (*Symphoricarpos mollis*), hedge nettle (*Stachys bullata*) and rip-gut grass (*Bromus diandrus*). In the transition zone between oak woodland and chaparral, species such as shaggy-bark manzanita, black sage (*Salvia mellifera*), and bush monkey flower (*Mimulus aurantiacus*) occur as an understory in the woodland. Animal species characteristic of coast live oak woodland include scrub jay, yellow-rumped warbler (*Dendroica coronata*), and Monterey dusky-footed woodrat.

Upland Ruderal

The upland ruderal plant community reference site is in a primarily developed area in a large rectangular area bounded by Fourth Avenue to the east, Third Street to the north, a series of buildings along Third Avenue to the west, and First Street to the south (Plate 6.4). Asphalt roads partially overgrown with encroaching vegetation traverse the site. The area slopes down from the southeast then flattens out from near the middle of the site to the northern edge.

One transect was set up at the site to collect soil, plants, small mammals, and leaf litter (Plate 6.4). The site is populated with landscape tree species typical of plantings on base such as Monterey cypress (*Cupressus macrocarpa*), Monterey pine (*Pinus radiata*) and bluegum eucalyptus (*Eucalyptus globulus*) with a ruderal understory. Plant species dominating the upland ruderal habitat include cut-leaved plantain, hottentot fig, kikuyu grass, stork's bill, and rip-gut grass. Sparingly distributed native shrub species such as California broom (*Lotus scoparius*) and coyote brush (*Baccharis pilularis*) have begun to colonize the area. Species expected to occur in this area include common crow (*Corvus*

brachyrhynchus), California vole (*Maniculatus californicus*), downy woodpecker (*Picoides pubescens*) and raccoon (*Procyon lotor*).

Summary

Surface soil, hottentot fig, leaf litter, and deer mice were collected from each reference site. Results of chemical analysis of these samples were used to address data gaps and evaluate endpoints C1, C3, C9, C11, C13, I1, I3, I5, I7, I9, and I10 (Tables 2.1 and 2.2).

Results of soil sampling at reference locations and additional soil sampling discussed above are presented in the following section, and COPCs are revised based on these new data.

6.1.2 COPC Selection

The following sections summarize the COPC selection methods and the results of the soil and biota sampling as they relate to COPC selection. Table 6.6 is a revised summary of COPCs for each site.

6.1.2.1 Methods Used for COPC Selection

COPCs for the quantitative ecological risk assessment were selected on a site-by-site basis using chemical data for soil from the screening data set (Appendix A) and the new data set (Appendix G) and data for plants, mammals, and litter (Appendix G) collected as described in Section 6.1.1. COPCs were selected based on the concentrations of chemicals detected in soil (as described in Section 2.5), plant tissues, and mammals at each site. COPC selection for each assessment can be summarized as follows:

- For the plant assessment, all chemicals detected in plant tissues were evaluated as potential COPCs using criteria presented in Section 6.2.1.2 which include evaluations of available BCs, and comparisons of chemical concentrations in plant tissue to those BCs and to background concentrations.
- COPCs selected for the mammalian assessment include chemicals detected in soil as described in Section 2.5. All chemicals detected in plant tissue and all metals

detected in mammal (mouse) tissue were initially included as COPCs as well. Organic chemicals detected in mammals were considered to be COPCs only if the organics detected could be considered site-related. For example, if one or more pesticides were detected in site soil, all pesticides detected in mammal tissue were considered to be COPCs. If no pesticides were initially detected in site soil, pesticides detected in mammal tissue were not considered to be COPCs. Further efforts to select COPCs for mammals are described in Section 6.4.

- COPCs for mourning doves at Site 3 include the metals that are components of the bullet fragments at Site 3.
- COPCs for the litter assessment were selected for each habitat and not site-by-site, based on concentrations of chemicals detected in litter samples. Metals were retained as COPCs if the concentrations in collocated site soil were above background concentrations and if they were detected in four or more samples from that habitat type. In addition, all organic chemicals detected in four or more samples from a habitat type were retained as COPCs because background values for organics are not available. Four or more samples were needed to meet the requirements for the statistical tests conducted on the leaf litter data.
- As in the screening assessment, all chemicals detected in sediments were retained as COPCs for the outfall assessment.

6.1.2.2 Sampling Results

This section describes chemical concentrations in surface soil samples and in biota (Appendix G).

Soil

Additional COPCs selected on the basis of the results of additional surface soil sampling include additional metals at several sites; four pesticides (chlordane, 4,4'-DDD, 4,4'-DDE, and 4,4'-DDT) at Sites 29 and 32; and two pesticides (4,4'-DDE and gamma-BHC) at Site 33. No additional organic COPCs were identified for the remainder of the sites. Only metals analyses were conducted at

reference sites; metals detected at reference sites and soil sampling result for the other sites are summarized in Appendix G.

Plants

COPCs selected for the plant assessment can be summarized as follows:

- The following 11 metals were detected in oat tissues from 11 sites (Sites 11, 12, 15, 16, 21, 22, 24, 25, 29, 31, and 32): arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, and zinc.
- Hottentot fig samples from Site 25 were analyzed to compare oats to hottentot figs and test the hypothesis that chemical concentrations in oats are higher than those in hottentot fig. Six metals were detected in hottentot fig tissues from Site 25: cadmium, chromium, copper, lead, nickel, and zinc. Chromium, copper, and nickel were detected at higher concentrations in the oats. All other metals were at similar concentrations in tissues from both plant types, supporting the hypothesis that oats have equal or higher concentrations than hottentot fig.
- Seven metals were detected in hottentot fig samples from the reference sites: arsenic, cadmium, chromium, copper, lead, nickel, and zinc.
- Seven metals were detected in ripgut brome and California brome tissues from Sites 33 and 35: antimony, cadmium, chromium, copper, lead, nickel, and zinc.
- Five metals were detected in buckwheat tissues from Site 3: antimony, chromium, copper, lead, and zinc.
- Three pesticides (4,4'-DDD, 4,4'-DDE, and 4,4'-DDT) were detected in plant tissues from Site 32 and three CDDs and CDFs were detected in plant tissues from Site 16 (OCDD, PeCDF, and TCDF).

These data are discussed in Section 6.2 and summarized in Appendix G.

Mammals

All chemicals detected in mammal tissue were initially included as COPCs; the results of these analyses are summarized in Appendix G, Table G33. Pesticides, PAHs, and dioxins/furans were detected in all mammal samples in which they were analyzed for. Nine metals were detected in mammal tissues: barium, cadmium, chromium, copper, lead, nickel, thallium, vanadium, and zinc. Mammal tissue samples were not analyzed for antimony, mercury, or selenium. The list of COPCs for mammals was modified based on analyses in described Section 6.4.

Leaf Litter

The following 13 metals were detected in leaf litter: antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc. Pesticides were detected in leaf litter from Sites 24, 29, 31, and 35 and included 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, heptachlor, dieldrin, and chlordane. Dioxins were detected at Site 31 and 16. The COPCs selected for leaf litter included chromium, copper, lead, nickel, zinc, 4,4'-DDT, chlordane, and dioxins, as described in Section 6.6. The results of the leaf litter chemical analyses are summarized in Appendix G, Table G34.

Reference Locations

Soil, plants, mammals and leaf litter from reference locations were analyzed as well. The results of these analyses are presented in Appendix G, Table G32, and are discussed in Section 6.0 where relevant.

6.2 Plant Assessment

This section summarizes the analysis and risk estimation components based on analyses conducted using data collected for collocated soil and plant tissue samples. These analyses were conducted to address the assessment endpoints presented in Tables 2.1 and 2.2 as summarized in Section 6.1.1.2. Metal concentrations in soil samples from the sites were compared to concentrations in soil from background locations. Collocated plant tissue chemical concentrations were compared to soil chemical concentrations using statistical procedures. Both analysis of

variance (ANOVA) and regression analyses were performed. In addition, plant tissue chemical concentrations were compared to benchmark concentrations (BCs) and hazard indices calculated using the in-plant concentrations were compared to those calculated in the screening assessment.

In the quantitative ecological screening assessment (Section 5.5), high hazard indices (HIs greater than 100) for plants were associated with Sites 3 and 39 and moderate hazard indices (HIs between 10 and 100) were associated with Sites 2, 12, 31, and 41, making these sites of "probable concern." Low hazard indices (HIs between 1.0 and 10) were associated with Sites 16, 24, 25, and 33, making them of "possible concern." Sites 35 and 11 were not classified in the screening assessment because additional data from these sites were needed.

Sites where no adverse impacts were expected based on the results of the mammalian screening assessment were not evaluated for potential effects to plants. No samples were collected at Site 39 because the site is inaccessible due to the presence of unexploded ordnance; Site 3 data were used to evaluate Site 39. No samples were collected at Site 41, as described in Section 6.1.2; data from Sites 16 and 31 were used to evaluate Site 41. Chemical data analyses for plant tissues at Site 2 are not available from laboratory at this time. Therefore, Sites 3, 11, 12, 16, 24, 25, 31, 33, 35, 39, and 41 are addressed in this evaluation. Sites 15, 21, 22, 29, and 32, which were of "no concern" to mammals based on results of the quantitative ecological screening assessment, were evaluated to further assess the validity of the models used in the screening assessment.

6.2.1 Analysis

This section describes activities conducted for the analysis component, which includes characterizations of exposure and effects.

6.2.1.1 Characterization of Exposure

Characterization of exposure consists of the following components (EPA, 1992j):

- Stressor characterization
- Ecosystem characterization
- Exposure analysis
- Exposure profile.

For this stage of the ERA, stressor characterization involved identifying chemicals in surface soil at a particular site. Because plant tissues were also analyzed for chemicals and the assessment only evaluates a snapshot in time, no further evaluation of the pattern of change of chemicals over time is included in this discussion. Chemicals identified in surface soil were further evaluated if they were detected in plant tissues.

The ecosystem characterization evaluates spatial and temporal distributions of the biota and considers attributes that influence the distribution and nature of the stressors (EPA, 1992). As previously discussed, temporal distributions of biota were not evaluated in this assessment due to time constraints. Factors that may influence exposure, such as habitat needs, were considered only in the selection of sampling locations (Section 6.1).

Exposure analysis, as defined by EPA (1992), is broadly expressed as co-occurrence of chemicals and receptors. This co-occurrence was quantitatively measured in plants from 13 sites, and evaluated by extrapolation for 3 sites. This analysis is used to assess the health of plants at the individual sites. Concentrations of site-related chemicals in plants is the measurement endpoint for assessing the health of plants identified as assessment endpoints.

Lastly, the exposure profile as defined by EPA (1992) quantifies the magnitude of and spatial and temporal patterns of exposure, and serves as input to risk characterization. Chemical stressors in plants were evaluated at the level of the organism, and the analysis focused on chronic exposures, consistent with the measurement endpoints listed in Tables 2.1 and 2.2.

An ANOVA analysis was performed to assess whether chemical-specific plant uptake factors calculated on the basis of data collected from

individual sites differ from the plant uptake factor calculated for that chemical based on all data for all sites. ANOVA compares the variability of a sample (in this case, measured plant uptake factors at a site) to the variability of the population (in this case, the overall measured plant uptake factor). If within-site variability is similar to across-site variability, no significant differences are identified in the ANOVA. If within-site variability is substantially different from across-site variability, the ANOVA is significant. Thus, analysis of variance results can provide an indication of any effects that compositing the samples within a transect may have had on data interpretation. If plant uptake factors within a site are significantly more variable than the basewide plant uptake factors, this may indicate that hotspots were sampled along the transects at that site, resulting in higher variability than would be found for transects at other sites. If no significant differences are identified in the ANOVA, the hypothesis that compositing the samples has not adversely impacted the validity of the data is supported, it can be assumed that all sites are part of the same population, and data can be further evaluated.

ANOVA Results

Single-factor ANOVA tests were conducted on the chemical data for the collocated soil and oat samples from 11 sites using the analysis tools package available on Excel. Because of limitations in sample size, these analyses were restricted to the five metals most commonly detected in both soil and oats (chromium, copper, lead, nickel, and zinc). These metals are also responsible for most of the high hazard indices calculated in the quantitative ecological screening assessment using modeled concentrations.

In this context, ANOVA tested the variability of individual plant uptake factors using samples from within a site with the variability based on the overall dataset. For the overall data set, average soil and plant concentrations were estimated using data for all collocated samples, and an overall plant uptake factor was estimated from these averages. For each of the five metals, an overall ANOVA was conducted to identify any significant differences among the sites. Significance was based on a p-level of 0.05; a

result less than 0.05 indicated that the plant uptake factors from at least one site were significantly different from the overall plant uptake factor. A result greater than 0.05 indicated that all sites were not significantly different and that the data were drawn from the same population. This was interpreted to indicate that the overall plant uptake factor for that chemical could be used at each site.

If the ANOVA was significant for a chemical, pairwise t-tests were conducted for each site to identify which site(s) differed from the rest.

Results of the chemical-specific ANOVA tests (Table 6.7) were not significant for copper and zinc, indicating that the overall plant uptake factors of 3.2 and 1.8, respectively (Appendix H, Tables H-2 and H-5), could be used for all sites. Results were significant for chromium (Table H-1), lead (Table H-3), and nickel (Table H-4). Therefore, pairwise t-tests were conducted for these three metals. Results of the t-tests indicated that plant uptake data from only three sites were responsible for the significant ANOVA results. For nickel, the t-test based on comparison of data from Site 29 with the overall mean was highly significant ($p < 0.00001$), probably because nickel was not detected in three of the four soil samples but was detected in all four plant samples. Because the assumed concentration for a nondetect sample is fixed and not known, this artificially impacts the calculated plant uptake factor for such samples, leading to a significant t-test result. Similar results were indicated for chromium at Site 22 (concentrations in two of four soil samples were below detection limits) and lead at Site 24 (the concentration in one of six soil samples was below the detection limit), indicating that the difference in variability of within-site data to the overall variability for Sites 22, 24, and 29 is considered to be due to the presence of nondetect data.

For all three sites with significant t-test results, the site-specific plant uptake factors were higher than the overall plant uptake factors. Because assumed soil concentrations of nondetect samples is fixed at one-half the detection limit, the plant uptake factors calculated for these samples are likely to be artificially high (the soil concentration could be as high as the detection limit, which would lower the plant uptake factor

by a factor of 2). For example, at Site 29, the plant uptake factor for nickel based on the one sample with detected values in both soil and plants was 0.43. For the three samples with nondetect soil levels, the calculated plant uptake factors ranged from 1.8 to 5.3. The overall plant uptake factor for nickel of 0.35 is consistent with the plant uptake factors calculated for the detected sample, but is substantially lower than those based on nondetect soil data.

Because plant uptake factors based on nondetect soil values are not consistent with factors using detected concentrations, regression analyses for metals were conducted using only censored data (i.e., nondetect samples were not used).

The only significant paired t-test that did not include nondetect data was for chromium at Site 29 ($p > 0.0001$; Table 6.7). The plant uptake factor (Appendix H, Table H7) for chromium for this site (0.67) was higher than that for the entire data set (0.19). Chromium was not detected above background concentrations at Site 29 in surface soil samples collected along the same transects as the oats, and only one oat sample in four showed elevated concentrations of chromium. A hotspot may be present along the transects sampled at Site 29, or some other factor may be responsible for the anomalous results.

6.2.1.2 Characterization of Effects

The characterization of ecological effects consists of the following components (EPA, 1992f):

- Evaluation of relevant effects data
- Ecological response analyses, which includes
 - Stressor-response analysis
 - Analysis relating measurement and assessment endpoints
 - Evaluation of causal evidence
- Stressor-response profile.

As discussed in Section 5.3, relevant effects data were compiled for all COPCs in soil for plants, rodents, and carnivores. For plants, BCs were developed using available literature sources on

both toxic and normal levels of chemicals in plant tissues as described in Section 5.3. These BCs were used to provide an indication of potential hazards for a given chemical. If a problem is not identified for a chemical at a site based on the BC, the assessment endpoint is unlikely to be affected.

Regression analyses were performed to identify the presence or absence of a dose-response relationship between chemical concentrations in soil and those in plants, and to test the applicability of the plant uptake factors used to model uptake and exposures in the quantitative ecological screening assessment.

The effects assessment also included development of BCs for comparison to plant tissue concentrations.

Evaluation of causal evidence is most important when the stressor-response relationship is based on field observations (EPA, 1992f). Because effects in plants for this assessment are based on literature studies, this evaluation is limited to a qualitative discussion based on observational data.

The stressor-response profile for plants conducted for this assessment includes BCs used to develop hazard quotients. The assumptions and uncertainties involved in the evaluation are discussed in Section 6.2.2.2.

Regression Analyses - Metals

A regression analysis for oats was performed for five metals (chromium, copper, lead, nickel and zinc), comparing in-plant chemical concentrations in oats to chemical concentrations in collocated soil from 11 sites. There were too few data points to warrant a regression analysis for other metals detected, or for hottentot fig or the bromes. An additional regression analysis for buckwheat at Site 3 was performed for five metals (antimony, chromium, copper, lead, and zinc).

The results of the regression analysis for oats showed no correlation between soil and plant tissue concentrations with r-square values less than 0.1 (Table 6.8). Because nontransformed data were significantly skewed, data were

transformed to fit a lognormal distribution. The regressions were performed on nontransformed data as well as on log-transformed data, with nontransformed data having slightly higher r-square values. The data indicate that when metals concentrations in soil are high, the concentrations of metals in reproductive portions of the plants do not increase. Similarly, when metals concentrations in soil are low, the concentrations of metals in plants do not decrease.

Best-fit regression lines were calculated by Excel, including slope and y-intercept values. The slopes were not significantly different from zero, indicating no correlation between individual soil levels and corresponding plant concentrations. However, all y-intercept terms were significantly different from zero, which was interpreted to imply that the plants have a basal level of these metals in their seedheads regardless of the soil levels. Therefore, the y-intercept values from the regressions, using nontransformed data, were assumed to represent typical basal, or background concentrations, in oats. No reference location data were collected for oats; therefore, the y-intercept values were used to represent background levels.

The results of the regression analysis for buckwheat at Site 3 showed significant correlations between soil and plant tissue concentrations for antimony, copper, and lead (Table 6.9). However, these data were highly skewed, with two of the eight-samples having concentrations 2 to 8 times higher than the mean concentrations.

Samples TP-ST-1 and TP-R15-1 (Appendix H, Table H6) were taken from control locations at Site 3. However, a bullet fragment was recovered from Sample TP-R15-1, making it invalid for use as a reference sample. Therefore, concentrations of chemicals detected in plant tissue Sample TP-ST-1 are used to represent background concentrations for buckwheat. Concentrations measured in reference plants, which are summarized in Appendix G, were used to evaluate risks as described in Section 6.2.2.

Plant:soil ratios for the five metals were also analyzed; in-plant chemical concentrations in oats were compared to chemical concentrations

in collocated soil from the 11 sites. For copper, lead, and zinc, in areas where soil concentrations were high, the plant:soil ratio was low, and in areas where soil concentrations were low, the soil:plant ratio was high. For chromium and nickel, which had smaller ranges of soil concentrations, the plant:soil ratios did not correlate as well with changes in soil concentrations.

Regression Analyses - CDDs and CDFs

An analysis of plant:soil ratios was performed for CDDs and CDFs, comparing in-plant chemical concentrations for oats from Site 16 with chemical concentrations in collocated soil. Plant data are for seeds (i.e., reproductive tissue) and supporting tissue (stems, leaves, and roots were not collected). Although several congeners were detected in soil, only octochlorodibenzo-p-dioxin (OCDD), total pentachlorodibenzo-p-furan (PeCDF total), and total tetrachlorodibenzo-p-furan (TCDF total) were detected in any of the plant samples. Therefore, this analysis is restricted to these three congeners. OCDD was detected in all five oat samples; PeCDF (total) and TCDF (total) were detected in one and two plant samples, respectively. Only the OCDD data include enough samples for regression analysis, although plant:soil ratios were estimated for all three congeners.

Plant tissue concentrations resulting in toxicity to plants from the Seveso accident in Italy were in excess of 10,000 parts per trillion, more than 300 times greater than the highest concentration of 32 parts per trillion found in plants at Fort Ord (*Pocchiarri et al., 1983*). Therefore, concentrations of CDDs and CDFs detected in plant samples at Site 16 are not expected to result in toxicity to plants. However, this analysis was conducted to evaluate trends in the data.

Uncensored and censored data sets were the same for OCDD. Censored data for the other congeners reduced the dataset to none or one data point. Because the largest dataset was not affected by using uncensored data, and because censoring the data drastically reduced the sample size for the other congeners, only uncensored data were evaluated for the CDDs and CDFs (Table 6.10). Uncensored data include all data

points for soil and oats from Site 16, including samples for which concentrations of CDDs and CDFs were below detection limits. Uncensored data were also used to evaluate "worst-case" scenarios, which assume that CDD/CDF congeners are present in each nondetected plant sample at the detection limit. Because concentrations of congeners in nondetected samples cannot be greater than the detection limit, use of the detection limit for these samples is conservative. This was done for the analysis rather than using one-half the detection limit to provide a conservative analysis of these congeners. For summary statistics provided in Appendix G, congener concentrations in nondetected samples were assumed to be one-half the detection limit, as recommended by EPA (1989b).

No significant correlation between concentrations of OCDD in plants and soil was identified on the basis of the regression analysis (r-square less than 0.1). As shown in Table 6.10, paired sample plant:soil ratios ranged from 0.02 to 0.19 for OCDD. The average plant:soil ratio for these five samples was 0.08.

Ratios for PeCDFs (total) could not be estimated using detected concentrations because no collocated plant and soil sample pairs had detected concentrations in both oats and soil (Table 6.10). An estimate of uptake and accumulation can be made assuming that the plant concentrations are equal to the detection limits. The range of ratios for PeCDFs (total) based on the comparison between detected soil concentrations and the plant sample detection limits was 0.001 to 0.0157.

For the TCDF (total) samples, the ratios obtained using concentrations detected in both plant and soil samples were 0.12 and 20 (Table 6.10). Ratios based on the oat detection limits and actual soil concentrations for the other samples range from 0.0145 to 0.046. The ratio of 20 that is based on the oat concentration of 32 picograms per gram (pg/g; parts per trillion) and a soil concentration of 1.6 pg/g is apparently an outlier; this ratio is 10 times greater than any other ratio from the dataset. The highest ratio reported in EPA (1994c), which provides a summary of plant uptake data for CDD and CDFs, was 2.5 for zucchini fruit; EPA considers this ratio

unreliable. Therefore, the ratio of 20 may also be considered unreliable.

The data, organized in Table 6.10 by increasing soil OCDD concentration, indicate that an inverse relationship exists between the soil concentration and plant uptake ratios for all three sets of congeners. As the soil concentration increases, the plant uptake ratio decreases. This is consistent with the results of German and Italian laboratory and field experiments for a variety of soils and plants, as summarized by EPA (1994c). In the data from Site 16, an OCDD ratio of approximately 0.03 appears to be relatively constant between a soil concentration of 200 and 500 pg/g. TCDD ratios reported by EPA (1994c) for grasses (structurally similar to oats) ranged from 0.003 to 0.66 for soil concentrations ranging from 12 to 2,200 parts per trillion, with the lower values associated with the higher soil concentrations. Other than the ratio of 20 for the one TCDF (total) sample, results from Site 16 are consistent with these other studies.

Note that the ratios reported by EPA (1994c) are for TCDD, and those discussed here are for TCDFs and more highly-substituted congeners, such as OCDD. Data from Site 16 indicate that the plant uptake ratios for these congener groups are not substantially different. This is true even though Fort Ord soil has very little organic content, with a concomitant lower adsorption potential for CDD and CDF congeners than in more fertile soil.

Regression Analyses - Pesticides

An analysis of plant:soil ratios was performed for three pesticides (4,4'-DDD, 4,4'-DDE, and 4,4'-DDT), comparing in-plant chemical concentrations to chemical concentrations in collocated soil for oats from Site 32 (Table 6.11). 4,4'-DDD was detected at low levels in both plant (TP-32-06) and soil (SS-32-02) at one location. All three congeners were detected at high concentrations in soil from location SS-32-04, but were not detected in plants from that location (TP-32-08). These results indicate no correlation between in-plant and soil concentrations. Concentrations of DDT congeners in green alfalfa, a plant similar to brome, reported in the literature ranged from 27 to 220 parts per billion (ATSDR, 1989a). These residue levels were not

toxic to the alfalfa. Concentrations detected in plants at Site 32 were all less than 20 parts per billion.

Benchmark Concentrations

As described in Section 5.3.2.1, two references were used to develop BCs for evaluating toxicity of metals to plants: Kabata-Pendias and Pendias (1984; upper bound of normal range and lower bound of toxic range for plant tissue concentrations, dry weight) and Argonne (EPA, 1980c; EPA tissue screening levels and soil screening levels, wet weight). EPA tissue screening levels were considered inappropriate for use (Section 5.3.2.1). The BCs used in this assessment are presented in Table 5.4. No data were found that included a similar set of BCs for organic chemicals. Therefore, organic chemicals were not evaluated as COPCs for plants and the following assessments address the effects of metals only. COPCs were selected for each site based on the following criteria:

- Inorganic chemicals (metals) were excluded from further evaluation if the maximum detected in-plant concentration was below the lower of the upper bound of the normal range and the lower bound of the toxic range. No toxicity is expected under such conditions.
- If the maximum soil concentration of a chemical was below the maximum background soil concentration and the mean soil concentration was below the mean background soil concentration, the inorganic chemical was excluded from further analysis. Possible toxicity under such conditions is considered to be the result of naturally occurring concentrations of these inorganics.
- If the maximum measured plant concentration was below the calculated mean in-plant background concentration (y-intercept of regression analysis for oats, as described below, and actual values for buckwheat and hottentot fig) the chemical was eliminated as a COPC. Possible toxicity under these conditions is considered to be a result of naturally occurring concentrations of these metals.

6.2.2 Risk Estimation

The following sections summarize the integration of the exposure and effects assessments, as well as uncertainties associated with the risks calculated as a result of the integration activities.

6.2.2.1 Integration

All metals except cadmium, copper, chromium, and nickel were eliminated as COPCs because they were detected at concentrations below BCs, as stated in the first criterion listed in Section 6.2.1.2. Maximum concentrations of copper and/or chromium detected in soil from the combined datasets (Appendix G) exceeded maximum background soil concentrations at all sites except Sites 22, 24, 32, and 35. Mean concentrations of copper and/or chromium detected in soil from the combined datasets exceeded mean background soil concentrations at all sites except Sites 22 and 35. The mean copper and chromium concentrations detected in soil at Sites 24 and 32 exceeded the mean background concentrations by less than 10 percent, well within the random variability of the data. Therefore, copper and chromium were eliminated as COPCs at Sites 22, 24, 32, and 35. Since no other COPCs are present at these sites, they are not evaluated further with respect to plants.

Maximum concentrations of nickel detected in soil at Site 29, the only site in which nickel was detected at concentrations above BCs in plant tissue, do not exceed maximum background concentrations, and mean soil concentrations do not exceed mean background concentrations. Therefore, nickel was not selected as a COPC at Site 29.

Mean in-plant background concentrations for oats were calculated as the Y-intercept value from the regressions discussed in the previous section, because no data for oats was collected from reference locations. The Y-intercept values were assumed to represent the average concentration in plants from the site. The Y-intercept of the regression for the censored dataset was 1.67 mg/kg for chromium and 24.02 mg/kg for copper (Table 6.8). These numbers are similar to the mean chromium and copper concentrations

in oats, which were 1.99 mg/kg and 18.53 mg/kg, respectively.

Hazard quotients for the COPCs were calculated using the lower value of the upper bound of the normal range and the lower bound of the toxic range as reported by Kabata-Pendias and Pendias (LOAELs). Hazard indices were calculated by summing the hazard quotients for each metal. The hazard index for oats at Sites 29 indicates "probable concern" for plants from concentrations of copper and chromium at this site. If background levels of metals in plants are not considered, hazard indices for oats at Sites 11, 15, 25, and 33 and for hottentot fig at Site 25 indicate "possible concern" to plants from concentrations of chromium, copper, and/or cadmium at these sites (Table 6.12). All other sites showed no potential for adverse effects to plants.

Cadmium concentrations in plant tissue exceeded BCs for both oats and hottentot fig at Site 25 (Table 6.12). No background concentrations are available for cadmium in surface soil. Hottentot fig collected at reference sites had HQs for cadmium between 0.6 and 2.0 (Table 6.13). The HQs for cadmium at Site 25 were 1.2 and 1.8 respectively for oats and hottentot fig, within the range for the hottentot fig reference sites. Therefore, the HQs for cadmium may not contribute to impacts at Site 25.

The HQs for chromium in oats at Sites 12, 16, 21, 25, and 41 were below the background value for oats based on the y-intercept of 3.3. Therefore, the HQs for chromium may not contribute to the impacts at these sites. In conclusion, Sites 12, 16, 21, and 41 as well as hottentot fig at Site 25 are of "no concern" if the HQs due to background levels of cadmium and chromium are eliminated, and the HI for oats at Site 25 becomes 3.

Chromium at Site 29 is of "probable concern"; however, only one of four plant tissue concentrations is elevated (Transect 4, Table H1, Appendix H). As seen in the ANOVA results, this could indicate the presence of a hot spot along transect four. When the other three transects are evaluated alone, Site 29 becomes of "possible concern."

In summary, Site 29 is of probable concern due to the results along one transect, and Sites 2, 11, 15, 25, and 33 are of "possible concern;" all other sites are of "no concern" to plants.

Comparison of Screening Assessment Results to Quantitative Assessment Results

For the quantitative ecological screening assessment, a conservative approach was taken where the maximum detected soil concentration for each metal was used to evaluate risks to plants by comparing soil concentrations to EPA soil screening concentrations. If the EPA soil value was unavailable for a metal (i.e., EPA had not developed a screening value for that metal), the plant uptake factor was assumed to be 1.0 and the maximum chemical concentration detected in soil was instead compared to the lower bound of the toxic range as reported by Kabata-Pendias and Pendias (1984). The hazard indices calculated using this method are presented in Table 5.27. Only sites which were of "possible" or "probable" concern to mammals were evaluated in the screening assessment. This differed from the methods used in the quantitative assessment, which compared actual tissue concentrations to tissue screening values. The results of the screening assessment were compared with the results of the quantitative assessment (Table 6.14) and can be summarized as follows:

- Analysis of oats at Site 29 indicated "probable concern" for plants at these sites as a result of the quantitative evaluations whereas soil concentrations in the screening assessment would have indicated "possible concern" at Site 29 (Site 29 was not originally evaluated in the screening assessment).
- Analysis of oats at Sites 11, 15, 25, and 33 indicated "possible concern" for plants at these sites as a result of the quantitative evaluations. The screening assessment results were inconclusive for Site 11 and indicated "no concern" for Site 15. Screening assessment results indicated "probable concern" at Site 21 and "possible concern" at Sites 25 and 33 (Sites 15 and 21 were not originally evaluated in the screening assessment).
- Analysis of oats at Sites 3/39, 12, 16, 21, 22, 24, 31, 32, 35, and 41 as well as hottentot fig at Site 25 indicate "no concern" to plants at these sites as a result of the quantitative evaluations. The screening assessment results were inconclusive for Site 35, of "no concern" for Sites 16, 22, and 32, of "possible concern" for Sites 21, 24, and 25, and of "probable concern" for Sites 3/39, 12, 31, and 41 (Sites 22 and 32 were not originally evaluated in the screening assessment).
- Hazard indices for Site 1, calculated using additional surficial soil sampling results, confirmed the conclusion of "no concern" to plants from the initial screening assessment
- Screening assessment results for Site 2 indicated "probable concern" for plants. No data on plant tissue concentrations (hottentot fig) are available for Site 2.

6.2.2.2 Uncertainties

The assessment of plants was designed so that uncertainties would tend to cause overestimation of exposures and effects. Uncertainties associated with the plant assessment that would tend to overestimate risks include the following:

- Plants at Fort Ord were assumed not to have adapted to concentrations of metals presented at the site.
- Background levels were not subtracted when calculating hazard quotients; estimated hazard quotients therefore include concentrations for both naturally occurring and site-related chemicals
- Since no oats were collected from reference locations, concentrations of chemicals detected in oat tissues may be a result of background conditions.

Uncertainties associated with the plant assessment which would tend to underestimate risks include the following:

- Organic chemicals have not been included in this evaluation because no toxicity data are readily available on the effects of organic chemicals in plants

Uncertainties associated with the plant assessment that would either underestimate or overestimate risks include the following:

- The assessment assumed additive effects for chemicals when they may have synergistic or antagonistic effects
- The benchmark concentrations used were developed by Kabata-Pendias and Pendias (1984) by compiling data on toxic and normal levels of metals in many different types and species of plants, and are not specific to the plant species evaluated at Fort Ord.

6.3 Buckwheat Assessment

A buckwheat assessment was performed to evaluate possible toxic effects of lead and other metals in soil at Site 3 and other sites at Fort Ord on the growth of native plants and to assess endpoints related to the Smith's blue butterfly. The measurement endpoints for this assessment are germination frequency and growth rates in buckwheat seeds. This section presents a summary of the methods and results of the field and laboratory investigation efforts performed as the basis for the analysis and risk estimation sections presented below.

6.3.1 Analysis

This section presents the results of the analysis component of EPA's framework (EPA, 1992j) including characterization of exposure and effects.

6.3.1.1 Characterization of Exposure

The experimental design and methods are presented in Appendix I; the following is a summary of those methods. The plant growth bioassays were performed using coast buckwheat (*Erigonium latifolium*) and dune buckwheat (*E. parvifolium*) and soil samples collected from Site 3. Flowers were collected from different areas at Site 3 on August 22, 1994. Samples of the soil in which the flowers were growing were also collected. Flower and soil sampling locations included areas with high bullet cover at the soil surface, low bullet cover, and from reference areas not used as trainfire ranges. Seeds were

removed from the flowers and saved, the remaining plant parts were analyzed for antimony, chromium, copper, lead, and zinc. Aliquots of the soil samples were also analyzed for total metal concentrations of antimony, copper, lead, and zinc. Aqueous soil extracts (elutriates) were prepared using soil samples from each flower collection location. Aliquots of each elutriate were also analyzed for antimony, copper, lead, and zinc. Seeds from the flowers were germinated and allowed to grow in elutriate from soil collected at the same location (treatment). Seeds of the same species growing in control areas (Santa Barbara, California) were also obtained and treated with each of the elutriates. Germination frequency, root length and hypocotyl length were measured at the end of 7 days. Soil pH, bullet density in soil, and soil metal concentrations were also measured to evaluate possible correlations.

The plant and soil samples were collected by HLA and delivered to Plant Research Technology (PRT) of Sunnyvale, California for elutriate preparation and bioassay. Chemical analyses were performed by Quanterra Laboratories of West Sacramento, California.

A second phase of the buckwheat assay evaluating uptake of metals from the soil into buckwheat plants is ongoing. The second phase is being performed by PRT to provide additional information about possible foodchain exposure of Smith's Blue Butterfly to lead in Site 3 soils.

6.3.1.2 Characterization of Ecological Effects

Possible ecological effects on the two buckwheat species were evaluated using the germination frequency, root length and hypocotyl length data obtained by PRT. PRT also performed statistical analyses of the data were performed using analysis of variation (ANOVA) to compare the effects of different elutriates with elutriates from reference area soils. Significant differences identified in the ANOVA were confirmed using the least significant difference (LSD) test.

6.3.2 Risk Estimation

The ANOVA and LSD analyses indicated that measurements in five elutriate treatment groups

differed from measurements in the corresponding reference area samples (Table 6.15). However, similar effects were not observed in elutriates with higher metal concentrations, and no systematic dose-related effects were observed (Table 6.15). Additionally, 3 measurements were made in each of 37 treatment groups, which corresponds to 111 observations. Accordingly, 6 false positive results are expected at the significance level of $p < 0.05$ used. Therefore, the data (Table 6.15) do not indicate that the metals in Site 3 soil display a toxic effect on the Site 3 plants.

6.3.2.1 Integration

The following stressor-response profiles were observed with the buckwheat assessment performed for this ERA:

- Statistically significant differences in root elongation were associated with elutriates from soils collected at range locations R1-2, R17-2a, R17-2b, R17-2c. Statistically significant differences in seed germination frequency and hypocotyl length were associated with elutriates from soils collected at range location R1516-1h (Table 6.15 and Appendix I).
- All observed statistically significant differences were associated with elutriate from soils containing at least 928 mg/kg soil lead concentration and 12.5 percent bullets by weight.
- Similar differences in measurement endpoints were not observed in elutriates with substantially higher metal concentrations.
- In several cases higher elutriate metal concentrations were associated with higher germination rates and longer root and hypocotyl lengths.
- No consistent dose-dependent response relationships were identified by comparing measurement endpoints for seeds from the same group treated with elutriates with different metal concentrations (Table 6.15).

- No correlations were identified between pH and measurements in the three plant part tests (Appendix I)
- No relationship was identified between three plant part tests and individual elutriate metals (Table 6.15)
- No correlations were identified between the three plant part tests and individual soil metal concentrations (Appendix I)
- Correlations were observed between concentrations of individual elutriates (Appendix I)
- Correlations were observed between total soil metals and percent bullets (Appendix I)
- Correlations were observed between total elutriate metals and percent bullets (Appendix I)
- Correlations between total soil metals and total elutriate metals were observed (Appendix I).

Overall, no dose-dependent biological effects on germination or growth were found.

6.3.2.2 Uncertainty Analysis

The ecological effects were measured under short term exposure durations (7 days). One uncertainty in the analysis is that the effects on the survivability of the plants under extended durations of time in combination with other chemical or physical changes in the environment are unknown.

The power of the experiment to identify effects was limited by the number of seeds collected; this is offset by the number of different locations evaluated. Additionally, the sample soil from one of the reference areas (ST1a-f) contained bullets and had a corresponding elutriate that contained metal concentrations substantially higher than some of the other elutriates. The elevated metal concentrations may have limited the power of the statistical comparisons performed using *E. parvifolium*.

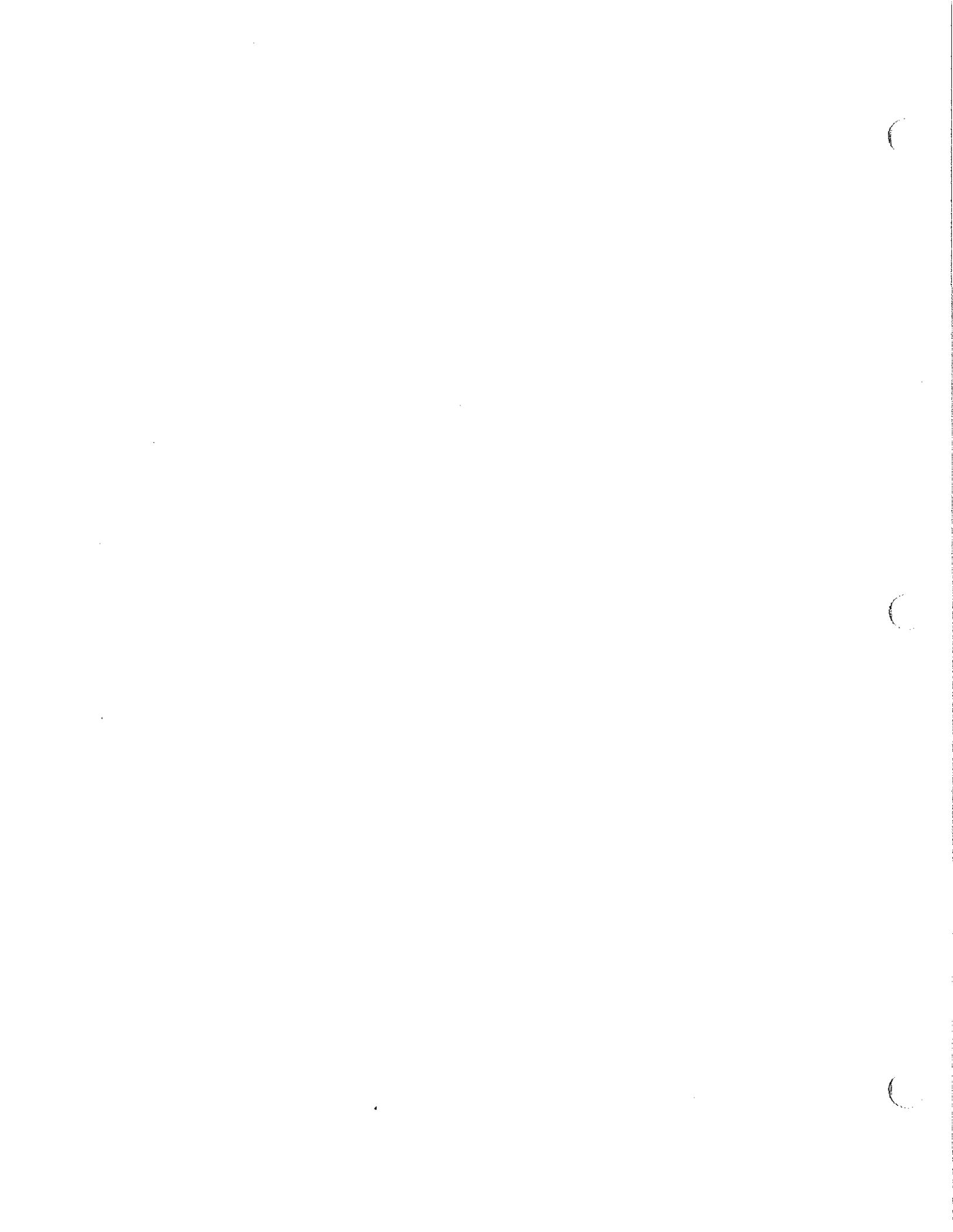
In Volume IV, Baseline Ecological Risk Assessment, replace the third sentence in the first paragraph of the second column of Page 134, Section 6.4.1.1 to read:

Additionally, all chemicals detected in mammal tissue at a site were selected as COPCs for mammal tissue even if not detected, or detected at concentrations less than background, in soil and plant tissue.

In Volume IV, Baseline Ecological Risk Assessment, replace the second bullet in the first column of Page 134, Section 6.4.1.1 to read:

- *Habitat characterization*

In Volume IV, Baseline Ecological Risk Assessment, in the first sentence of the second paragraph in the second column of Page 134, Section 6.4.1.1 replace "ecosystem" with "habitat".



6.4 Mammal Assessment

Using data from chemical analyses of mice trapped at individual sites (Section 6.1.1.4), data on chemical concentrations in plants (Section 6.2), and new soil data (Section 6.1.2.1), potential risks to mammalian receptors selected in Section 2.5 (deer mice and gray foxes) are estimated in this section. Sites evaluated in this part of the assessment include sites classified as being of "possible" or "probable concern" using modeled data (Sites 2, 3, 11, 12, 16, 24, 25, 29, 31, 33, 39, and 41; Section 5.4); several sites (Sites 15, 21, 22, and 32) classified as of "no concern" in the screening assessment were also evaluated to validate the model used in the screening assessment. Site 35 was not classified in the screening assessment because the data for this site were incomplete; Site 35 is evaluated in this assessment. In addition, newly collected surficial soil data for Site 1 were used to confirm the "no further action" decision at this site.

The methods used to estimate risks are described below.

6.4.1 Analysis

This section provides a technical evaluation of chemical concentrations detected in deer mice from nine sites (Sites 2, 3, 11, 24, 25, 29, 31, 33, and 35), estimates of chemical concentrations in deer mice at eight sites where small mammals were not collected (Sites 12, 15, 16, 21, 22, 32, 39, and 41), and potential effects from these chemicals. This information is relevant to assessment endpoints C14, C15, I11, and I12, as summarized in Section 6.1.1.4.

6.4.1.1 Characterization of Exposure

The characterization of exposure consists of the following components (EPA, 1992j):

- Stressor characterization
- Ecosystem characterization
- Exposure analysis
- Exposure profile.

For this stage of the ERA, stressor characterization involved identifying chemicals in mammals at a particular site. Because this assessment only evaluates a snapshot in time, no further evaluation of the pattern of change of chemicals over time is included in this discussion. Chemicals identified in surface soil were selected as COPCs if they were detected in small mammal tissues. Nonchemical stressors and their potential impact on the extent of exposure of the deer mice are qualitatively discussed in this section.

The ecosystem characterization evaluates spatial and temporal distributions of biota and considers characteristics that influence the distribution and nature of the stressors (EPA, 1992j). As previously discussed, temporal distributions of biota were not evaluated due to time constraints. Because actual chemical concentrations were measured in deer mice, factors that may influence exposure, such as habitat needs, food preferences, and selective use of resources, are discussed only to extrapolate results to other seasons or other species (e.g., dusky-footed woodrat) as necessary to further address assessment endpoints.

Exposure analysis, as defined by EPA (1992j), is broadly expressed as the co-occurrence of chemicals and receptors. Co-occurrence was quantitatively measured in deer mice from nine sites, and evaluated by extrapolation for eight sites. This analysis is also extrapolated to assess the health of the dusky-footed woodrat. The measured body burdens were then used as exposure point concentrations for the gray fox. Modelled exposure of the gray fox to site-related chemicals is the measurement endpoint for assessing health of predatory mammals and birds identified as assessment endpoints.

Lastly, the exposure profile (EPA, 1992j) quantifies the magnitude and spatial and temporal patterns of exposure, and serves as input to risk characterization. Chemical stressors in mammals were evaluated at the level of the organism and the analysis focused on chronic exposures, consistent with the measurement endpoints listed in Tables 2.1 and 2.2. The main assumption used in developing the exposure profile for the deer mouse was that measured chemical body burdens can be directly related to

lifetime average daily doses (LADDs). This assumption is further addressed below. The following text first presents the results of deer mouse collection activities, identifies chemicals detected in deer mice, and relates them to chemicals detected in surface soil samples. This is followed by development of an exposure profile for the deer mouse, and the body burden to LADD assumption is discussed. Finally, body burdens in deer mice are used to estimate exposure profiles for the gray fox.

Forty-seven deer mice were collected from the nine sites. The most animals (10) were collected from Site 35, the fewest (1) from Site 25 (Table 6.1). Body weights ranged from less than 5 grams to greater than 30 grams. Chemical analysis for metals was conducted on 44 mice due to sample volume limitations. Due to lack of sufficient tissue in some animals, additional analytical suites were modified on an animal-specific basis to maximize data usability (e.g., to achieve low detection limits for some analyses, other analyses were not performed). Of the 47 mice, 21 were analyzed for pesticides and PCBs using EPA Method 8080, 11 were analyzed for PAHs (EPA Method 8310) and 8 were analyzed for CDDs and CDFs (EPA Method 8290). In addition, 27 of the mice were analyzed for percent lipid to evaluate hydrophobic chemicals (e.g., dioxins) on a lipid-weight basis. A summary of mouse sampling activities and results is provided in Appendix G, Table G33. Results are analyzed by test method below.

Pesticides/PCBs

None of the 21 mice analyzed by Method 8080 had detectable levels of PCBs (detection limits for congeners ranged from 26 to 104 $\mu\text{g}/\text{kg}$). Six pesticides were detected: heptachlor, heptachlor epoxide, 4,4'-DDE, 4,4'-DDT, delta BHC, gamma chlordane, and endosulfan II; no more than three of these were detected in any single mouse. Frequency of detection for the six pesticides ranged from 5 percent for endosulfan II, heptachlor epoxide, and 4,4'-DDT (1 of 19 samples) to 48 percent for chlordane (10 of 21 samples). Detected concentrations of pesticides ranged from 0.61 $\mu\text{g}/\text{kg}$ (delta BHC from a sample at Site 35) to 11 $\mu\text{g}/\text{kg}$ (4,4'-DDE from a sample at Site 2). Endosulfan II, heptachlor epoxide, and 4,4'-DDT were detected

only in one mouse, each at concentrations below the reporting limit (2.7 $\mu\text{g}/\text{kg}$, 1.9 $\mu\text{g}/\text{kg}$, and 5.8 $\mu\text{g}/\text{kg}$, respectively). All detected heptachlor concentrations were below the reporting limit of 5.5 $\mu\text{g}/\text{kg}$. Chlordane and 4,4'-DDE were detected above the reporting limit in at least one sample.

PAHs

Of the 11 mice analyzed for PAHs (Sites 31 and 35), 13 different PAHs were detected at concentrations ranging from 1 $\mu\text{g}/\text{kg}$ (one sample) and 2 $\mu\text{g}/\text{kg}$ (several samples) to 2800 $\mu\text{g}/\text{kg}$ (acenaphthalene in a sample at Site 31; Table G33). PAHs were detected in soil at Site 31, but not at Site 35 (Appendixes A and G). Because a chemical source of PAHs is present at Site 31 but not at Site 35, PAH data from the mice were compared at these two sites to identify if concentrations at Site 31 were higher than at Site 35. If body burdens are a function of the detected chemical concentrations in soil, levels should be higher at Site 31. A paired two-sample Students t-test was conducted on the mean PAH concentrations from mice collected at Sites 31 and 35; no significant difference was identified between the means of the two data sets. Therefore, PAH body burdens at Site 31 were assumed to be unrelated to the identified source. Because PAH body burdens could not be related to soil concentrations at Site 31, and because no PAHs were detected in soil at Site 35, PAHs were not further evaluated in mammals because they could not be shown to be site-related.

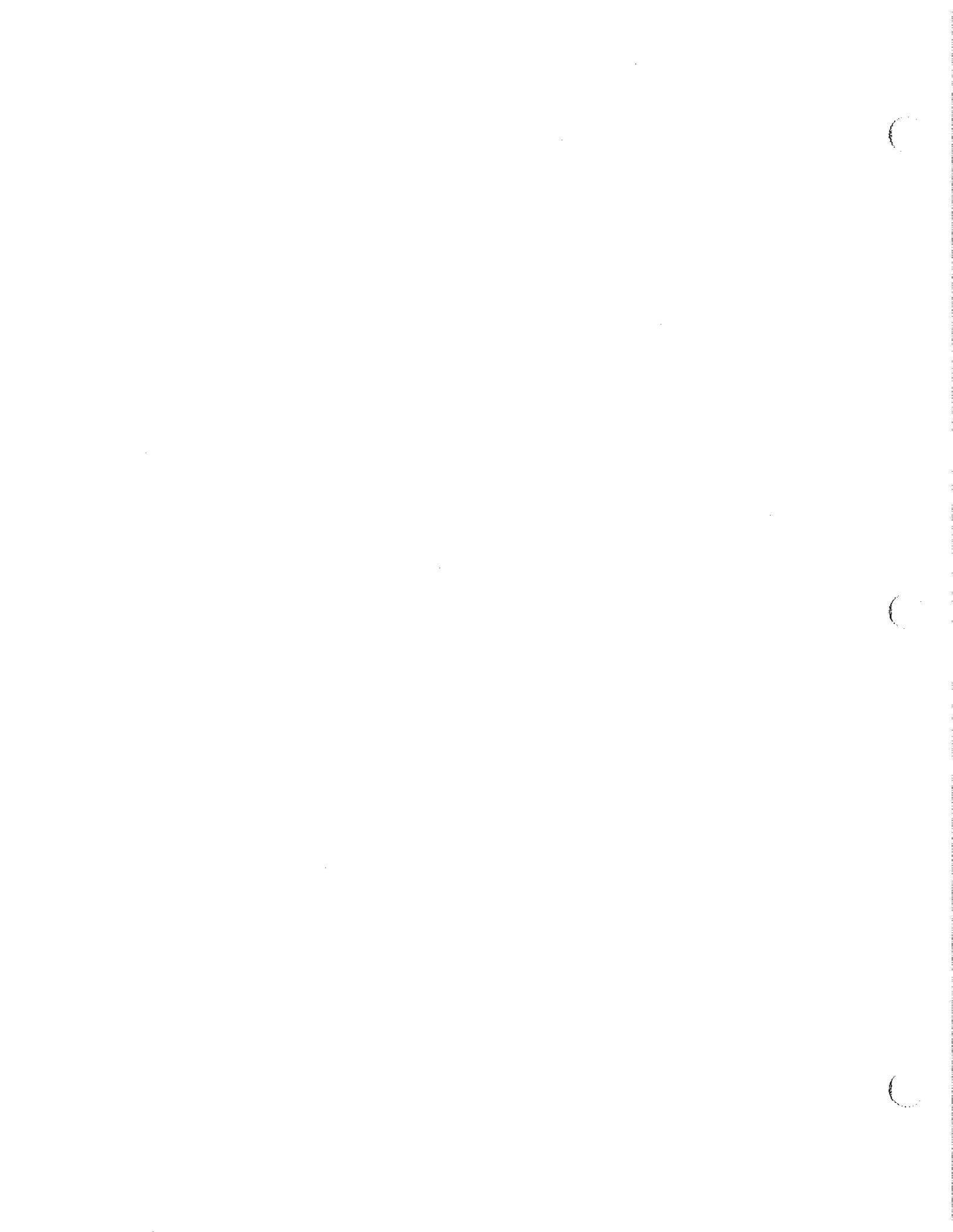
Dioxins

Mice from Site 31 were analyzed for CDDs and CDFs. Fourteen congeners were detected in the eight mice collected, at concentrations ranging from 0.33 pg/g for 2,3,7,8-TCDF to 210 pg/g for OCDD. Four congeners (1,2,3,6,7,8-HxCDD, 1,2,3,4,6,7,8-HpCDD, 1,2,3,4,6,7,8-HpCDF, and OCDD) were detected in all eight mice.

Information on the body burden of dioxins in wild mouse populations is limited. Studies at a dump site near Amsterdam (*Heida and Olie, 1985; Heida et al., 1986*) compared topsoil concentrations and body burdens in voles. Soil concentrations of individual congeners ranged from 115 to 7356 pg/g, higher than those found at Site 31. Concentrations in voles measured as

In Volume IV, Baseline Ecological Risk Assessment, delete the fifth through thirteenth sentences in the paragraph starting at the bottom of the second column of Page 135 and ending at the top of the first column of Page 136, Section 6.4.1.1 and replace with the following paragraph:

Only one of the eight mice collected from Site 31 was analyzed for lipid content due to the limited tissue sample sizes. However, an average lipid content of 6.5 percent was measured for 27 deer mice collected at other Fort Ord sites. Mouse tissue dioxin data for Site 31 are presented on a lipid basis and compared to background deer mouse tissue concentrations of 2,3,7,8-TCDD and 2,3,7,8-TCDF as reported by Thiel et al. (1989) in Table 6.16. TCDD was not detected in mouse tissue from Site 31. However, comparisons of the detection limit for TCDD at Site 31 with background TCDD concentrations from the literature indicates that body burdens of TCDD in mice from Site 31 could be no greater than half the background tissue level seen in deer mice (Thiel et al., 1989). The comparison indicates that body burdens of TCDF in deer mice from Site 31 are approximately one-third the background body burdens seen in deer mice (Thiel et al., 1989). These observations, combined with the fact that dioxin concentrations in soil at Site 31 are consistent with background levels seen in soil based on the EPA dioxin reassessment report (EPA, 1994e), indicate that deer mice are not exposed to dioxin concentrations in excess of background. Therefore, foxes and other predators are not expected to be exposed to elevated levels from ingesting rodents at Site 31. Since the soil concentrations at Site 16 are similar to those at Site 31, the same conclusion is also relevant for Site 16.



total body burdens ranged from 131 to 59,000 pg/g, indicating accumulation over concentrations in soil. However, these data were not reported on a lipid-weight basis, which tends to provide a better indication of concentration than whole-body data. Only one of the eight mice collected from Site 31 was analyzed for lipid content due to tissue limitations. However, lipid data on 27 mice collected at Fort Ord indicate the average lipid content is 6.5 percent. Extrapolating this to the body burden data for dioxins at Site 31, data are presented on a lipid-weight basis in Table 6.16. These data are compared with background concentrations of dioxin congeners in humans as reported by EPA in its dioxin reassessment document (*Estimating Exposure to Dioxin-Like Compounds, Volume II; Review Draft, June 1994*). This comparison indicates that body burdens in deer mice from Site 31 are approximately 2 times the background levels seen in humans. Because the burrowing and preening habits of mice expose them through direct ingestion of soil in addition to the direct contact exposures expected with humans, it is expected that background levels in mice would be higher than background levels in humans. This observation, combined with the fact that dioxin concentrations in soil at Site 31 are consistent with background levels seen in soil based on the same EPA reassessment report, indicates that mice are not exposed to dioxin concentrations substantially in excess of background. Therefore, foxes and other predators are not expected to be exposed to elevated levels of dioxins from ingesting rodents at Site 31. By extrapolation, the same conclusion is also relevant for Site 16.

Metals

Forty-four of the 47 mice were analyzed for metals. Four metals (barium, copper, lead, and zinc) were detected in all 44 mice. Arsenic, beryllium, and silver were not detected in any mouse. Thallium (6 mice) and vanadium (7 mice) were only rarely detected. The other three analyzed metals (cadmium, chromium, and nickel) were detected in more than 50 percent of the mice. In general, zinc was the metal detected at the highest concentrations, ranging from 8.3 to 52 mg/kg. Of the other metals detected in all mice, lead concentrations ranged from 0.16 to 2.5 mg/kg at all sites except Site 3; lead

concentrations in mice from Site 3 ranged from 0.45 to 26 mg/kg. Copper concentrations ranged from 1.3 to 11 mg/kg, and barium concentrations ranged from 0.54 to 12 mg/kg. All detected cadmium and chromium concentrations were less than 1.0 mg/kg. Nickel concentrations were generally less than 1.0 mg/kg, but were as high as 4.8 mg/kg at Site 3.

Three of the metals detected in mice (chromium, copper, and zinc) are essential trace elements in mammals (*National Research Council, 1989*). Although chromium was not detected in all samples, chromium requirements in humans are lower than those for copper and zinc (50-200 µg/day for chromium compared with 2 to 5 mg/day and 12.5 mg/day for copper and zinc, respectively). Assuming similar ratios of requirements for rodents, chromium levels should be lower than those for copper and zinc, which is supported by the data. Because of this, many of the chromium levels in mice were near or below the detection limit of approximately 0.06 mg/kg. These three metals are further discussed below.

Body burdens of zinc range only by a factor of 2 in mice (Table G33), although zinc concentrations in soil at the nine sites where mice were collected range by a factor of approximately 340 (9 to 3,090 mg/kg, Appendix G). This implies that deer mice regulate the amount of zinc in their bodies, consistent with physiological mechanisms for maintaining homeostasis with essential elements. This is supported by a study by Cooke et al. (1990) from a contaminated grassland and scrub community established on fluorspar tailings in England. They observed differences in three species of small mammals in patterns between body burden concentrations of lead and cadmium and those of zinc. They saw bioconcentration of zinc at low levels in soil, and a decrease in retention with higher soil concentrations of zinc. The authors concluded that the study provided good evidence for homeostatic control of zinc in all three species, even at high dietary intakes at the site (soil concentrations not reported). They also reported that, for 26 species of small mammals not associated with waste sites, average zinc concentrations range from 95 to 117 mg/kg. All zinc concentrations for deer mice collected from

Fort Ord are below this range, indicating that body burdens are not elevated due to soil contamination.

Body burdens of copper range by approximately a factor of 10 (1.3 to 11 mg/kg; Table G33). Copper concentrations in soil at the nine sites where deer mice were collected ranged by a factor of approximately 8,300 (2.4 to 19,900 mg/kg). Given the wide range of copper concentrations in soil and the narrow range of body burdens, it is likely that homeostatic control provides at least a partial explanation. This is further supported by the data collected from Site 3. At Site 3, mice were collected from along three transects. Soil from transect 3.2-2 had a copper concentration of 9.5 mg/kg; the two mice collected from this transect had copper concentrations of 2.1 and 3.5 mg/kg. Soil from transect 3.2-4 had a copper concentration of 11.4; the mouse collected from this transect had a copper concentration of 4.8 mg/kg. Soil from transect 3.1-2 had a copper concentration of 740 mg/kg and the three mice collected from this transect had copper concentrations ranging from 4.8 to 7.2 mg/kg. Although the body burdens were highest for the transect with the highest soil concentrations, they were only about a factor of 2 greater than those from the transect with the lowest soil concentration. Although there was an approximately 100-fold difference in soil concentrations, copper body burdens varied by only a factor 3 overall. These data indicate homeostatic control, and suggest that copper concentrations in this range do not adversely impact mice. Because body burdens are much lower than soil concentrations, especially at high soil concentrations, predators are not expected to be exposed to substantial copper concentrations in mice.

Body burdens of chromium ranged by approximately a factor of 8 (0.056 to 0.44 mg/kg; Table G33), and soil concentrations ranged by a factor of approximately 20 (4.5 to 91 mg/kg). Although comparison of these data does not indicate the same level of homeostatic control discussed above for zinc and copper, it indicates that body burdens in mice are less variable than soil concentrations. Information on cotton rats indicates that body burdens of 0.19 mg/kg are associated with background (Eisler, R., 1986. *Chromium Hazards to Fish, Wildlife, and*

Invertebrates: a Synoptic Review. U.S. Fish Wildl. Serv. Biol. Rep. 85[1.6]). The median body burden in deer mice at Fort Ord of 0.27 is quite close to this number. Considering the different habits of the cotton rat and the deer mouse and the variability associated with measuring background concentrations in free-ranging animals, these are essentially consistent numbers. This indicates that body burdens are at most only slightly elevated over background levels, and are not expected to pose a hazard to either rodents or predators.

Barium was detected in all 44 mice samples, but was not analyzed for in plants from any site or soil from sites other than Site 25. The average and maximum soil concentrations of barium at Site 25 were 14.14 and 22 mg/kg, respectively. Although no soil background data for barium from Fort Ord are available, the range of background levels for the western United States reported by Shacklette and Boerngen (1984) is 70 to 5,000 mg/kg. The maximum concentration in site soil is less than the lowest reported background value. The barium concentration in the one mouse collected from Site 25 was 2.23, within the range of reported barium concentrations for other sites (0.54 to 6.8 mg/kg). Therefore, concentrations of barium in mice were considered to be representative of background soil conditions, and not site-related.

The other four detected metals in deer mice (cadmium, nickel, thallium, and vanadium) do not follow any general pattern or trend and are discussed as applicable in the risk estimation component (Section 6.4.2).

Deer Mouse Exposure Profile

Site-by-site exposure profiles for deer mice are summarized in Appendix H. For sites where deer mice were not collected, soil concentrations in mg/kg were used as estimated exposure point concentrations. Concentrations of COPCs in oats were estimated based either on data collected at a site or on modeled concentrations. Modeled oat concentrations were generally higher than measured oat concentrations. For example, lead, which is prevalent at the sites, was identified as a COPC, and was responsible for the majority of exposures at most sites, was detected in oats from Sites 11, 12, 15, 16, 21, 22, 24, 25, 29, 31,

and 32 at concentrations ranging from non-detect (less than 0.14 mg/kg) to 1.2 mg/kg (Table H3). Modeled concentrations for these sites, which were based on maximum detected soil concentrations, ranged from 0.8 to 393 mg/kg (Appendix E). Ratios of modeled maximum oat concentrations to maximum detected lead concentrations ranged from 2 (at Sites 16 and 25) to 580 (at Site 31). As expected based on the conservative nature of the screening assessment, the modeled concentrations were conservative estimates of the actual levels in plants.

Therefore, exposures of mice to COPCs based on modeled concentrations in oats are likely to substantially overestimate actual exposures, especially at sites where soil concentrations are high.

For sites where deer mice were collected, body burdens were directly used to provide estimates of LADDs. The measured and modeled exposure point concentrations in oats were then combined with conservative assumptions regarding soil and plant ingestion rates and dermal contact to estimate exposures on a mg/kg/day basis.

The key assumption in using body burdens to estimate doses is that COPCs are in equilibrium in the organisms, i.e., uptake equals depuration. To test this assumption, Tables 6.17 through 6.33 provide both average measured body burdens and estimated LADDs for all sites where deer mice were collected. Body burdens are measured in concentration units (mg/kg) while LADDs are estimated in dose units (mg/kg/day). In general, at low soil concentrations, modeled LADDs are similar to body burdens. This supports the assumption that COPCs have reached a steady-state in the organisms. However, the model used tends to overpredict body burdens at high corresponding soil concentrations.

Few differences were seen between body burdens and modeled LADDs for the nine sites where deer mice were collected. Body burdens were more than 5 times higher than modeled LADDs at one site (Tables 6.17 through 6.33) for the following chemicals: selenium, lead, nickel, vanadium, and CDDs and CDFs. Body burdens were more than 5 times higher than modeled LADDs at two sites for DDT, thallium, and cadmium. Body burdens were more than 5 times lower than modeled LADDs for lead, barium, and copper at one site

each, and for chromium at two sites (Tables 6.17 through 6.33). Zinc showed a consistent trend of average body burdens exceeding average modeled LADDs by less than a factor of 5, consistent with the essential status of this chemical as discussed above. Based on the variability of the mouse body burdens and concentrations used to estimate LADDs, values within a factor of 5 are essentially similar numbers. Differences greater than a factor of 5 may indicate that body burdens and LADDs are different.

No clear trend was evident for lead. Because lead accumulates in bone, juvenile mice may have higher body burdens than adults because their bones are growing and lead may be deposited at a higher rate than in adults. An analysis of body burdens and tissue concentrations of lead in subadult shrews and voles (*Cooke et al., 1990*) indicated that lead concentrations in bone were more than 3 times greater than in other measured organs (liver and kidney), consistent with this interpretation.

Other differences noted above between LADDs and body burdens are discussed on a site-specific basis, as applicable, in the risk estimation section (6.4.2).

Gray Fox Exposure Profile

Site-by-site exposure profiles for the gray fox are presented in Appendix H. For all evaluated sites, soil concentrations in mg/kg were used as estimated exposure point concentrations. Concentrations of COPCs in oats were estimated based either on data collected for a site or on modeled concentrations in oats. As discussed for deer mice, modeled concentrations are expected to be more conservative than those based on measured data. Concentrations of COPCs in mice were estimated based either on body burdens in deer mice, if available for a site, or on modeled LADDs in mice. For Site 39, concentrations in mice detected at Site 3 were used for exposure point concentrations for the fox because both sites were historically used as trainfire ranges. For Site 41, data on mice from Site 31 and oats from Site 16 were used for exposure point concentrations for the fox. These three sites had similar COPCs at similar concentrations. These exposure point concentrations were combined with conservative

assumptions regarding soil, plant, and rodent ingestion rates and dermal contact to estimate exposures on a mg/kg/day basis.

6.4.1.2 Characterization of Ecological Effects

Characterization of ecological effects comprise the following components (EPA, 1992f):

- Evaluation of relevant effects data
- Ecological response analyses, which includes
 - Stressor-response analysis
 - Analysis relating measurement and assessment endpoints
 - Evaluation of causal evidence
- Stressor-response profile.

As previously discussed (Section 5.3), relevant effects data were compiled for all COPCs in soil for plants, rodents, and canids. For rodents, chronic NOAELs for the most sensitive endpoint in mice were considered the most relevant data. The most sensitive endpoint was conservatively used to provide an indication of potential hazards for a given chemical. If no problem is associated with a chemical at a site based on the most sensitive endpoint for a relevant species, the assessment endpoint is not likely to be affected.

Because NOAELs were preferentially used in the assessment, stressor-response analysis was not conducted. The potency of a chemical, which is an index of the stressor-response, is evaluated on a case-by-case basis where appropriate in the risk estimation section (6.4.2).

Analysis relating measurement and assessment endpoints was done by establishing the relationship between the chemical and the measurement endpoint, which involved extrapolation of toxicity data across species, as discussed in Section 5.3. Additional analyses and assumptions were then used to infer changes in the assessment endpoint. Toxicological data used in these extrapolations for mammals are presented in Appendix D; TRVs resulting from

these extrapolations and based on these data are summarized in Table 5.6.

Evaluation of causal evidence is most important when the stressor-response relationship is based on field observations (EPA, 1992f). Because effects in mammals for this assessment are based on literature studies, this evaluation is limited to a qualitative discussion based on observational data.

The stressor-response profile for mammals prepared for this assessment includes TRVs used to develop hazard quotients. The extrapolations used in the profile are summarized in Appendix D. The assumptions and uncertainties involved in the evaluation are discussed in Section 6.4.2.

6.4.2 Risk Estimation

As presented by EPA (1992f), the risk estimation component of risk characterization integrates stressor-response and exposure profiles, and discusses uncertainty associated with the problem formulation, analysis, and risk characterization components. Risk description is discussed on a site-by-site basis in Section 7.0.

EPA (1992f) lists three methods for integrating stressor-response and exposure profiles:

- Comparing single effect and exposure values
- Comparing distributions of effects and exposure
- Conducting simulation modeling.

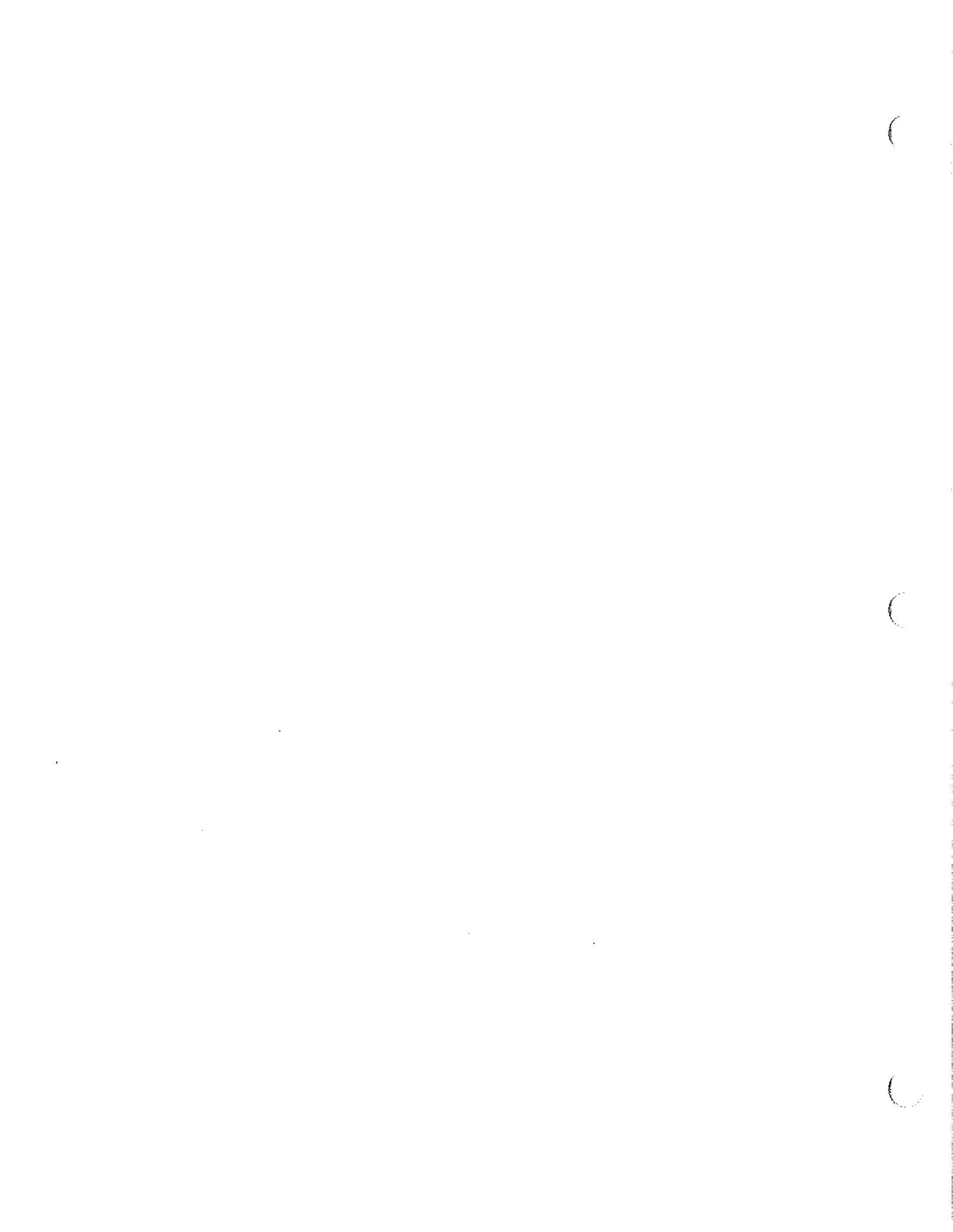
For this assessment, integration of stressor-response and exposure profiles is primarily based on comparing single effect and exposure values (i.e., TRVs and LADDs or body burdens).

Distributions of exposure at each site were developed based on the soil, plant, and mouse data collected. These distributions were evaluated in a Monte Carlo simulation, as discussed in the uncertainty section (Section 6.4.2.2).

In Volume IV, Baseline Ecological Risk Assessment, replace the second sentence in the second paragraph of the first column of Page 139, Section 6.4.1.2 to read:

For rodents and canids, chronic NOAELs for the most sensitive endpoint were considered the most relevant data for evaluating impacts and were preferentially used in the assessment; no additional stressor-response analyses were conducted.

In Volume IV, Baseline Ecological Risk Assessment, delete the third paragraph in the first column of Page 139, Section 6.4.1.2.



Simulation exposure modeling was conducted to predict bioaccumulation in single populations of concern (e.g., dusky-footed woodrats) using measurement endpoints at the individual level. This exposure modeling, discussed in Section 5.0, was conducted for mice where body burden data were not available and for foxes.

Comparison of modeled bioaccumulation with body burdens for the mouse indicates that modeled LADDs can be used as indicators of bioaccumulation, but levels may be similar to those resulting from background exposures. Extrapolation of this to assessment endpoints (the woodrat and the fox) is presented below.

A combination of all three methods was used in a weight-of-evidence manner to describe risks (Section 7.0).

6.4.2.1 Integration of Stressor-Response and Exposure Profiles

This section discusses the single effect and exposure value approach used to estimate risks to mammals. Exposures were measured either as mouse body burdens or modeled LADDs for foxes. For mice, all exposure point concentrations were modeled LADDs. Exposures were divided by TRVs specific to the deer mouse and the fox to estimate hazard quotients (HQs) for each COPC at each site. HQs at a site were summed to estimate a hazard index (HI) for each species. HIs less than 1.0 indicate no concern to the species; HIs between 1.0 and 10.0 indicate a possible concern, and HIs greater than 10.0 indicate a probable concern for the species. These results for the deer mouse measurement endpoint were then directly extrapolated to the assessment endpoints (i.e., the dusky-footed woodrat for inland sites; endpoints I10 and I11 in Table 2.2, and rodents in general at coastal sites; endpoints C13 and C14 on Table 2.1). Results for the gray fox were directly used for the assessment endpoints relative to predators (endpoints C15 and I12 in Tables 2.1 and 2.2). HQs and HIs are discussed below.

Deer Mouse

For the deer mouse, the following approach was used to estimate risks. Because body burdens were only measured at some of the sites, modeled LADDs were first used to estimate HQs for each COPC at each site to provide a consistent measure of risk across all sites. These results are summarized in Tables 6.17 through 6.34. Body burden data from sites where deer mice were collected were then compared with body burdens from mice collected from reference locations. This comparison was conducted to identify chemicals evaluated by modeled LADDs that actually reflect exposures representative of background. In effect, the LADD modeling was not valid for these chemicals because exposures are similar to those from background areas. HQs based on modeled LADDs for these chemicals were subtracted from the total HI for a site because exposures were not considered to be site-related. Results of this process are presented below.

On the basis of modeled exposures (i.e., LADDs) for all COPCs, only Site 1 was categorized as no concern. Nine sites (11, 15, 22, 24, 25, 32, 33, 35, and 41) were categorized as of possible concern, and eight sites as probable concern (2, 3, 12, 16, 21, 29, 31, and 39). The nine "possible concern" sites are discussed first below, followed by the eight sites of "probable concern."

Of the nine "possible concern" sites, the estimated HQ for chromium is greater than 1.0 for all sites except Site 24. Based on the exposure analysis component presented above (Section 6.4.1.1), chromium is not considered to represent exposures above background. In addition, body burdens of chromium are substantially lower than LADDs for five sites (11, 25, 33, 35, and 41) and recalculating HQs based on the body burdens drops chromium hazards below levels of concern for these five sites. HQs estimated for chromium at the other three sites (15, 22, 32) ranged from 1.1 to 2.2 (Tables 6.22, 6.25 and 6.30). On the basis of this information, concentrations of chromium at these sites were not considered to pose a health threat to deer mice.

Chromium was the only COPC with an HQ greater than 1.0 at Site 35. At seven of the other

eight "possible concern" sites, lead is the only other chemical with an estimated HQ greater than 1.0 (chlordane also has an HQ greater than 1 at Site 15). Body burdens are higher than LADDs for three of these sites (24, 25, and 41), and similar to LADDs at two sites (11 and 33). Mice were not collected from the other four sites. Background body burdens of lead in mice collected from reference locations ranged from 0.17 to 3.4 mg/kg, with an average concentration of 0.80 mg/kg. The average lead body burdens at Sites 11, 24, 25, 33, and 35 were less than background; lead concentrations at these sites therefore do not represent levels of concern to mice. Lead concentrations in soil and plants at Sites 15, 22, 32, and 41 are consistent with concentrations at these sites, and therefore also are not expected to represent levels of concern by extrapolation.

Chlordane at Site 15 had an HQ of 1.2 based on modeled exposures. Data from Site 24 indicate that LADDs and body burdens for chlordane are similar. Chlordane may pose a hazard to mice at Site 15, based on this information.

Of the eight "probable concern" sites (2, 3, 12, 16, 21, 29, 31, and 39), chromium exceeded an HQ of 1.0 at three sites (12, 21, and 29). HQs ranged from 1.4 to 6.6 for these three sites. As discussed above, chromium was not considered to represent exposures above background, and body burdens were less than LADDs. On the basis of this information, concentrations of chromium at these three sites were not considered to pose a health threat to deer mice.

Zinc exceeded an HQ of 1.0 at Site 3 (HQ of 4.0). The body burden was less than the LADD at this site, consistent with the homeostatic control of zinc discussed above. Therefore, zinc was not considered to pose a health threat to deer mice at Site 3.

Lead exceeded an HQ of 1.0 at all eight "probable concern" sites. HQs ranged from 2.3 at Site 29 to 495 at Site 3. Body burdens are higher than LADDs for three sites (2, 29, and 39), and lower than LADDs at two sites (3 and 31). Body burdens were not available for the other three sites. HQs based on body burdens also exceed 1.0 for the five sites where they were estimated. Background body burdens of lead in mice

collected from reference locations ranged from 0.17 to 3.4 mg/kg, with an average concentration of 0.80 mg/kg. The average lead body burdens at Sites 2 and 29 were less than background; lead concentrations at these sites therefore do not represent levels of concern to mice. The average lead body burden at Site 31 of 0.90 is similar to the reference area mice, and the Site 31 range of 0.75 to 2.5 is within the background range; therefore, lead at this site does not represent a level of concern. Lead concentrations in soil and plants at Sites 12, 16, and 21 are consistent with concentrations at Sites 2, 29, and 31, and therefore also are not expected to represent levels of concern by extrapolation. Lead body burdens at Site 3 (and Site 39 by extrapolation) are substantially above background, and may indicate potential hazards to mice.

Four of the "probable concern" sites also had other chemicals with estimated HQs greater than 1.0:

- At Site 3, antimony had an HQ of 5.4 (Table 6.19)
- At Site 16, total PeCDFs had an HQ of 5.7 (Table 6.23)
- At Site 29, nickel had an HQ of 1.7 (Table 6.28)
- At Site 39, HMX had an HQ of 4.3 (Table 6.33).

These COPCs may indicate potential hazards to mice at these sites.

To summarize, although lead is responsible for most of the hazards at the sites, lead body burdens are only above those from reference locations for Site 3 (and, by extrapolation, for Site 39). Lead is considered to pose a potential risk to deer mice only at Sites 3 and 39. Chromium and zinc are not considered to pose a risk to deer mice at any of the sites. Tables 6.16 through 6.32 summarize HIs based on all COPCs, including chromium and zinc. Revising HIs to exclude chromium and zinc at all sites, and lead at all sites other than Sites 3 and 39 resulted in recategorization of several sites. The following ten sites have revised HIs less than or equal to

1.0 and are considered to be of "no concern": Sites 11, 12, 21, 22, 24, 25, 32, 33, 35, and 41.

Five of the remaining seven sites have revised HIs between 1.0 and 10 and are considered to be of "possible concern":

- Site 2 (HI of 2, no COPC with HQ greater than 1.0; Table 6.18)
- Site 15 (HI of 2, primarily from chlordane; Table 6.22)
- Site 16 (HI of 7, primarily from total PeCDFs; Table 6.23)
- Site 29 (HI of 2, primarily from nickel; Table 6.28)
- Site 31 (HI of 3, no COPC with HQ greater than 1.0; Table 6.29).

Sites 3 and 39 remain of "probable concern".

Gray Fox

Results for the gray fox were similar to those for the deer mouse. HQs estimated for the gray fox are summarized in Tables 6.16 through 6.32. On the basis of modeled exposures (i.e., LADDs) for all COPCs, only Site 1 was categorized as no concern. Eight sites (11, 12, 16, 21, 22, 24, 32, and 35) were categorized as of possible concern, and nine sites as probable concern (2, 3, 15, 25, 29, 31, 33, 39, and 41). The eight "possible concern" sites are discussed below, followed by the nine sites of "probable concern".

Chromium exceeded an HQ of 1.0 at all "possible concern" sites except Site 24. Concentrations of chromium in the mouse (which comprises 60 percent of the assumed diet of the gray fox) were not considered to be elevated over background at any site, as discussed above. Concentrations of chromium in oats (which comprises 40 percent of the assumed diet of the gray fox) were less than plant background concentrations at four sites (11, 12, 21, and 32). Therefore, chromium was not considered site-related at these sites, and no hazards are indicated. The majority of the estimated chromium HQ is due to ingestion of mice, which did not have body burden levels above

background. No site-related hazards are therefore associated with exposure to chromium by foxes at the "possible concern" sites.

Barium exceeded an HQ of 1.0 at three "possible concern" sites (Sites 11, 24, and 35). As previously discussed, barium is not considered to be present in soil above background, and therefore possible hazards associated with exposure to barium are assumed to be associated with background. In addition, background body burdens of barium in mice collected from reference locations ranged from 5.51 to 9.83 mg/kg, with an average concentration of 7.02 mg/kg. The average barium body burdens in deer mice at these three sites were less than background; barium concentrations at these sites therefore do not represent levels of concern to foxes.

Zinc HQs at the "possible concern" sites ranged from 0.7 to 1.5. As previously discussed, zinc levels in mice are considered to be homeostatically controlled over the range of soil concentrations detected at these sites. Zinc is also an essential nutrient to foxes, and foxes may consume deer mice containing zinc. This small range of HQs for zinc indicates that exposures by foxes are only expected to vary by a factor of 2 in spite of great variation in zinc concentrations in soil. Foxes are also expected to forage and hunt in areas having lower zinc concentrations than those seen at the sites due to their home range size, thus decreasing exposures. Exposures to zinc are expected to be within levels of homeostatic control by foxes based on these data, and estimated HQs based on the conservative assumptions used in the assessment are not expected to indicate the presence of site-related hazards from zinc.

Six of the "possible concern" sites also had other chemicals with estimated HQs greater than 1.0:

- At Site 11, thallium had an HQ of 1.3 (Table 6.20)
- At Site 12, lead had an HQ of 1.7 (Table 6.21)
- At Site 16, total PeCDFs had an HQ of 1.8 (Table 6.23)

- At Site 21, cadmium had an HQ of 1.3 and lead had an HQ of 1.4 (Table 6.24)
- At Site 24, thallium had an HQ of 1.2 (Table 6.26)
- At Site 35, thallium had an HQ of 1.1 (Table 6.32).

HQs for these chemicals were all less than 2.0.

Lead at Site 12 was present in mice at levels consistent with background body burdens, as discussed for deer mice. Therefore, exposures of foxes to lead are not expected to be elevated over background, and do not pose a hazard to the fox.

The modified HIs to the nearest whole number for these sites excluding exposures to chromium, barium, lead, and zinc at all sites for the reasons discussed above are as follows:

- One or less for 5 sites (11, 12, 21, 22, and 32)
- Two for 2 sites (24, 35)
- Three for 1 site (16).

Given the conservative assumptions used in the characterization of exposure for foxes (e.g., foxes feed only within the site boundaries), actual exposures are expected to be considerably less than those estimated herein. The actual home range size and foraging range of foxes is much larger than 3 times the area of any of the sites (*Chapman and Feldhammer, 1992*), and implies that exposures would be at least three-fold lower than those estimated herein, assuming all areas within the home range of the fox are used with the same frequency. Therefore, these sites are not expected to present a chemical hazard to foxes.

Of the nine "probable concern" sites (2, 3, 15, 25, 29, 31, 33, 39, and 41), chromium exceeded an HQ of 1.0 at eight sites (2, 3, 15, 25, 29, 33, 39, and 41). HQs ranged from 1.1 to 7 for these sites. Concentrations of chromium in the mouse (which comprises 60 percent of the assumed diet of the gray fox) were not considered to be elevated over background at any site, as discussed above. Concentrations of chromium in oats (which comprises 40 percent of the assumed

diet of the gray fox) were less than plant background concentrations at Site 25 and were not measured at Sites 2 and 41. In addition, mean soil chromium concentrations did not exceed mean background soil concentrations at any of these sites. Maximum soil concentrations exceeded maximum background concentrations at Sites 2 and 41 by factors of 1.1 and 2.2, respectively. Because foxes would be expected to hunt and ingest plants from all areas of a site, mean concentrations are more likely representative than maximum concentrations. Because mean soil concentrations of chromium did not exceed mean background concentrations, chromium was not considered site-related at these sites, and no hazards are indicated. This is supported by the results of the deer mice sampling presented above.

Barium exceeded an HQ of 1.0 at eight "probable concern" sites (all except Site 15). As previously discussed, barium is not considered to be present in soil above background, and therefore possible hazards associated with exposure to barium are assumed to be associated with background. In addition, background body burdens of barium in mice collected from reference locations ranged from 5.51 to 9.83 mg/kg, with an average concentration of 7.02 mg/kg. The average barium body burdens in deer mice at Sites 2, 3, 25, 31, and 33 were less than background; barium concentrations at these sites therefore do not represent site-related concentrations. By extrapolation, barium body burdens in deer mice at Sites 39 and 41 also are likely less than background and are not considered to be site-related. Barium body burdens in the two mice collected at Site 29 averaged 8.84 mg/kg. One mouse had a body burden of 12.2, above the range of background levels. However, given that the background soil range of barium for the western United States (*Shacklette and Boerngen, 1984*) is greater than the concentrations detected at Fort Ord, as discussed in the Characterization of Exposure section (6.4.1.1), and that no known sources of barium exist at Site 29, it is likely that the elevated barium level seen in the one Site 29 mouse reflects natural variability and is not a site-related problem. Therefore, barium concentrations are not expected to pose a site-related hazard to foxes at any of the "probable concern" sites.

Zinc HQs at the "probable concern" sites ranged from 0.8 to 1.6, essentially the same as for the "possible concern" sites. As discussed for those sites, exposures to zinc are expected to be within levels of homeostatic control by foxes based on these data, and estimated HQs based on the conservative assumptions used in the assessment are not expected to indicate the presence of site-related hazards from zinc.

Lead exceeded an HQ of 1.0 at four of the "probable concern" sites (Sites 2, 3, 31, and 39). HQs ranged from 2.9 at Site 2 to 44.7 at Site 3. As previously discussed for deer mice, background body burdens of lead in mice collected from reference locations ranged from 0.17 to 3.4 mg/kg, with an average concentration of 0.80 mg/kg. The average lead body burden at Site 2 is 0.72, with a range from 0.3 to 1.3. The average lead body burden at Site 31 is 0.90, with a range of 0.3 to 2.5. These values are within the background range. Therefore, lead concentrations at these two sites do not represent levels above background, and exposures by foxes do not indicate the presence of site-related hazards. Lead body burdens at Sites 3 and 39 are substantially above background, and may indicate potential hazards to mice.

Vanadium had a HQ greater than 1.0 at Site 25 (HQ of 15.1; Table 6.27). Background body burdens of vanadium in mice collected from reference locations ranged from nondetect to 0.94 mg/kg, with an average concentration of 0.60 mg/kg. The body burden for the one mouse collected at Site 25 of 1.11 mg/kg, is only slightly elevated over background. Approximately 90 percent of the vanadium HQ of 15.1 is due to ingestion of deer mice by the fox. Because the deer mouse body burden is only slightly elevated over background levels, and because vanadium was only detected in about 15 percent of all mice analyzed, it is unlikely that the vanadium concentration from this one mouse represents a sitewide concern for the fox.

Six of the "probable concern" sites also had other chemicals with estimated HQs greater than 1.0:

- At Site 2, selenium and thallium had HQs of 3.0 and 2.4, respectively (Table 6.17)

- At Site 15, chlordane and heptachlor had HQs of 4.3 and 14.4, respectively (Table 6.22)
- At Site 29, thallium had an HQ of 2.7 (Table 6.28)
- At Site 31, total PeCDFs and thallium had HQs of 1.4 and 1.3, respectively (Table 6.29)
- At Site 33, thallium had an HQ of 1.7 (Table 6.31)
- At Site 39, HMX had an HQ of 1.4 (Table 6.33).

These COPCs may indicate potential hazards to foxes at these sites.

The modified HIs for these sites, excluding exposures to chromium, barium, and zinc at all sites, vanadium at Site 25, and lead at all sites except Sites 3 and 39 for the reasons discussed above, are as follows:

- Between 2.0 and 4.0 for 4 sites (25, 29, 33, and 41)
- Between 6.0 and 8.0 for 3 sites (2, 31, and 39)
- Greater than 10 for two sites (3 and 15).

Given the conservative assumptions used in characterizing exposure for foxes (e.g., foxes feed only within the site boundaries), actual exposures are expected to be considerably lower than those estimated herein. Considering the actual home range size and foraging range of foxes, which is much larger than 4 times any of the areas of the sites having revised HIs between 2 and 4 (*Chapman and Feldhammer, 1992*), exposures would be at least four-fold lower than those estimated herein, assuming all areas within the home range of the fox are used with the same frequency. Therefore, Sites 25, 29, 33, and 41 are not expected to present a chemical hazard to foxes. Sites 2, 31, and 39 may present a hazard to the fox based on this assessment, and should be categorized as of "possible concern." Sites 3, and 15 are likely to present a hazard to the fox if it hunts and forages heavily in the areas associated with pesticides at Site 15 and high bullet cover at Site 3, and should be categorized

as of "probable concern." However, several foxes are known to have dens and roam Site 3, indicating that impacts are not presently occurring to foxes at Site 3, which is not surprising considering the conservative nature of the assumptions used to estimate exposures for the fox. This may indicate that no sites are posing a potential hazard based on exposure to site-related chemicals. This is further addressed in Section 7.0, Risk Description.

6.4.2.2 Uncertainties

As presented by EPA (1992j), uncertainties associated with ecological risk assessments may be present in up to four categories, as follows:

- Conceptual model development
- Information and data
- Stochasticity (natural variability)
- Error.

Uncertainties associated with conceptual model development may exist in the assumptions used as input to the analysis phase. Uncertainties associated with the environments that are impacted and the species residing within them are considered to be minor, on the basis of the iterative nature of the assessment that enabled data gaps relating to these variables to be identified and addressed.

Uncertainties related to information and data are considered to be minor with regard to the snapshot in time in which the study was conducted. Data gaps were identified at each phase of the assessment, and these data gaps were filled to allow completion of the assessment with as few data uncertainties as possible relative to the assessment endpoints identified in the conceptual site models.

Uncertainties regarding potential long-term impacts due to minor perturbations in the ecosystem may be substantial because these types of effects were not considered in the ERA.

Uncertainties relative to error are also considered to be minor, because of the QA/QC protocols established for data collection, analysis, and

reporting programs. Uncertainties exist because some of the more recently received data (i.e., leaf litter, deer mice, and plants) have not yet been validated. However, uncertainties relative to this are likely to result in overestimation of risks; data validation would likely reduce mean concentrations through comparison with blank data and other qualified data, resulting in elimination of some detected values. No uncertainties are likely associated with maximum concentrations.

The focus of this uncertainty analysis lies with stochasticity. Risks were estimated using a hazard quotient approach. HQs require three types of data: media chemical concentrations, exposure (e.g., intake) values, and toxicity levels. Media chemical concentrations were estimated based on collected soil, plant, and rodent samples. Means and standard deviations were calculated for each medium at each site to provide an indication of the variability of the chemical data at the sites and at reference areas. As stated by EPA (1992j), of all the contribution to uncertainty, stochasticity is the only one that can be acknowledged and described but not reduced. EPA (1992j) also states that natural variability is amenable to quantitative analysis, such as Monte Carlo simulation. Such quantitative analysis was conducted on the chemical data. The other two types of data required for estimating HQs are qualitatively discussed below.

Exposure values (e.g., food ingestion rates, diet, body weight) for the deer mouse and gray fox were conservatively derived from the literature. Uncertainties associated with this portion of the HQ are expected to overestimate actual exposures, and thus overestimate risks. Toxicity levels were also conservatively derived from the literature. NOAELs for the most sensitive endpoint for the most closely related taxonomic species were used to derive TRVs for the deer mouse and the gray fox. It is expected that uncertainties associated with this portion of the HQ substantially overestimate levels at which populations are expected to be at risk.

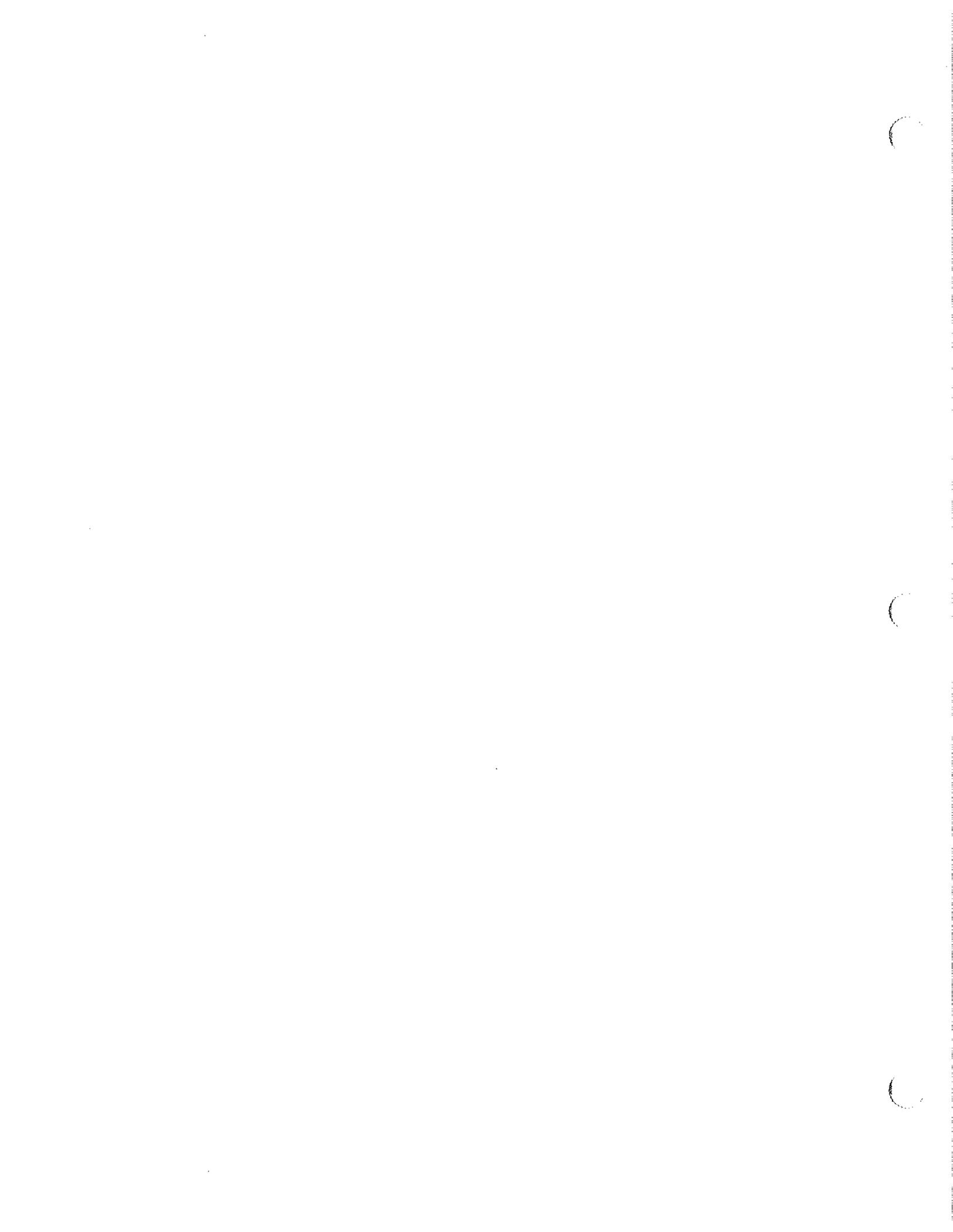
The remainder of this discussion focuses on the Monte Carlo simulation conducted using the soil, plant, and rodent data. The theory, methods, software, inputs, distributions, and outputs for

In Volume IV, Baseline Ecological Risk Assessment, replace the fourth through sixth sentences in the first full paragraph of the first column of Page 146, Section 6.4.2.2 to read:

It was assumed that if the expected value from the distribution of HQs was not greatly different than one and the upper 95th percent confidence limit of the distribution of HQs was not more than one order of magnitude greater than the expected value, then the particular chemical at the specific site was not likely to pose an unacceptable risk to the population of receptors at that site. This means that the expected value for potential adverse effects to the population is at or below the level that would cause concern in an individual but the upper 95th percent confidence level for the population is above the level that would cause concern for the individual. Taking into account the conservative exposure assumptions and TRVs, this provides an underlying rationale for the following evaluation.

In Volume IV, Baseline Ecological Risk Assessment, delete the heading in the first column of Page 146, Section 6.4.2.2 that reads "No Concern' Sites".

In Volume IV, Baseline Ecological Risk Assessment, delete the heading in the second column of Page 146, Section 6.4.2.2 that reads "Possible Concern' Sites".



the simulations are described in Appendix H. This discussion evaluates the results of the uncertainty analysis as it relates to chemical- and species-specific HQs, and site- and species-specific HIs.

Because the variability in exposure parameters and sensitivity to the chemicals assessed were assumed to result in an overestimate of potential risks and these were not incorporated into the current Monte Carlo analyses, it was assumed that the use of Monte Carlo simulations on the chemical concentration data would provide a conservative but more realistic evaluation of the potential for adverse effects than the point estimates generated thus far. Monte Carlo analysis was used as a decision tool to help evaluate the potential for adverse effects to populations. The variability in the soil data, the measured plant data, and the measured mammal data was used to generate a distribution of potential exposures that was compared to the single point TRV to derive a distribution of HQs. It was assumed that if the expected value from the distribution of HQs was not greatly different from one, and the upper 95th percent confidence limit of the distribution of HQs was not greater than 10, then the particular chemical at the specific site did not pose an unacceptable risk to the population of receptor organisms at that site. This means that the expected value for the potential adverse effects to the population is around the level that would cause possible concern in an individual but the upper 95th percent confidence level for the population is below the level of probable concern for the individual. With the use of conservative exposure assumptions and the use of the conservative TRVs, this provides the underlying rationale for the following evaluation.

The analysis was restricted to COPCs with estimated single point HQs (Section 6.4.2.1) greater than 1.0. Table 6.35 summarizes these results.

"No Concern" Sites

Based on the results in Section 6.4.2.1, no hazards are associated with exposures of deer mice or foxes to chemicals at 10 of the 17 evaluated sites (11, 12, 21, 22, 24, 25, 32, 33, 35,

and 41). Therefore, these sites were not evaluated using Monte Carlo analysis.

"Possible Concern" Sites

Two sites were categorized in Section 6.4.2.1 as being of "possible concern" for the deer mouse and being of "no concern" for the fox (16 and 29), and two sites were categorized above as of "possible concern" for both the deer mouse and the fox (2 and 31). For the deer mouse, lead had a point estimate HQ greater than 1.0 at all four sites.

At Sites 2, 16, 29, and 31, distributions of lead HQs for deer mice based on Monte Carlo analysis were generated. The results are presented in Table 6.35 and compared with the corresponding point estimates. Site 2, the expected lead HQ is 1.0, and 97.5 percent of the estimated HQs calculated were less than 1.6. For Site 16, the expected lead HQ was 2.0 and the upper 95 percent confidence level of the calculated HQs was 2.9. For Site 29, the expected HQ was 1.8 and the upper 95 percent confidence level of the calculated HQs was 2.23. For Site 31, the expected HQ was 2.7 and the upper 95 percent confidence level of the calculated HQs was 4.0. All of the expected values for the lead HQs are only slightly above one, and the upper 95th percent confidence limits for these three sites are 4 or less. The upper 95th percent confidence limit HQ for lead at each of these sites is less than the corresponding point estimate, indicating that the point estimate is overestimating potential risks at these sites. Because the upper 95 percent confidence levels of the HQs calculated for Sites 2, 16, 29, and 31 are 1.6, 2.9, 2.2, and 4.0, respectively and the expected values for the lead HQs are at or only slightly above one, it is unlikely that deer mouse populations at these sites are adversely affected by lead.

Nickel at Site 29 had a single point estimate HQ for the deer mouse of 1.7. A distribution of nickel HQs for deer mice based on Monte Carlo analysis was generated. The results are presented in Table 6.35 and compared with the single point estimate HQ. The expected nickel HQ was 1.7 and the upper 95 percent confidence level of the calculated HQs was 3.9. Because the upper 95 percent confidence level of the HQs

calculated for nickel at Site 29 was 3.9 and because the expected HQ value was only slightly above one, it is unlikely that the deer mouse population at Site 29 is adversely affected by nickel.

Total PeCDFs at Site 16 had a single point estimate HQ for the deer mouse of 5.7. In the Monte Carlo analysis, the expected total PeCDF HQ was 2.3 and the upper 95 percent confidence level of the calculated HQs was 8.8. Because the upper 95th percent confidence level of the HQs calculated for total PeCDFs at Site 16 was 8.8 and the expected HQ value was not substantially greater than one, it is unlikely that the deer mouse population at Site 16 is adversely affected by total PeCDF.

Section 6.4.2.1 also provided estimates of the potential risks to fox at Sites 2, 16, 29, and 31. For Site 2, single point estimates of the HQs for lead and selenium were both estimated to exceed 1.0. In the Monte Carlo analysis, the expected lead HQ was 0.3 and the upper 95th percent confidence level of the calculated lead HQs was 0.5. Both these values are below 1.0 and indicate no adverse effects to the fox are expected from concentrations of lead at Site 2. The expected selenium HQ was 0.4 and the upper 95th percent confidence level of the calculated selenium HQs was 1.2. Because the expected value was below 1.0 and the upper 95th percent confidence level of the HQs estimated for selenium was only slightly above 1.0, no adverse effects to the fox are expected from concentrations of selenium at Site 2.

Total PeCDFs at Site 16 had a single point estimate HQ for the fox of 1.8. In the Monte Carlo analysis, the expected total PeCDF HQ was 1.0 and the upper 95 percent confidence level of the calculated HQs was 2.6. Because the upper 95th percent confidence level of the HQs calculated for total PeCDFs at Site 16 was 2.6 and because the expected HQ value was equal to one, it is unlikely that the fox population at Site 16 is adversely affected by total PeCDF.

At Site 29, a single point thallium HQ for the fox of 2.7 was estimated. In the Monte Carlo analysis, for Site 29, the expected thallium HQ was also 2.7, and the upper 95 percent confidence level of the calculated HQs was 4.1.

Because the upper 95th percent confidence level of the HQs calculated for thallium at Site 29 was 4.1 and the expected HQ value was not substantially greater than one, it is unlikely that the fox population at Site 29 is adversely affected by thallium.

For Site 31, single point estimates of the HQs for total PeCDF and thallium were both estimated to exceed 1.0. In the Monte Carlo analysis, the expected total PeCDF HQ was 1.3 and the upper 95th percent confidence level of the calculated total PeCDF HQs was 3.7. Because the upper 95th percent confidence level of the HQs calculated for total PeCDF at Site 31 was 3.7 and because the expected HQ value was not greater than one by a large amount, it is unlikely that the fox population at Site 31 is adversely affected by total PeCDF. For thallium, the expected HQ was 1.2, and the upper 95 percent confidence level of the calculated HQs was 2.2. Because the upper 95th percent confidence level of the HQs calculated for thallium at Site 31 was 2.2 and the expected HQ value was not greater than one by a large amount, it is unlikely that the fox population at Site 31 is adversely affected by thallium.

"Probable Concern" Sites

The other three sites (3, 15, and 39) were identified as sites of "probable concern" for one (fox at Site 15, deer mouse at Site 39) or both (Site 3) of the evaluated mammalian species. Because the assessment for Site 39 used biota data from Site 3, no uncertainty analysis was separately conducted for Site 39. The results of the analysis for Site 3 are extrapolated to Site 39 herein.

For the deer mouse, lead was responsible for the majority of identified hazards at Site 3. The expected hazard quotient value of 34 generated in the Monte Carlo analysis for lead indicates that a hazard likely exists for mice residing in the high bullet cover areas. Site 3 should be categorized as "probable concern" for mice based on the Monte Carlo uncertainty analysis.

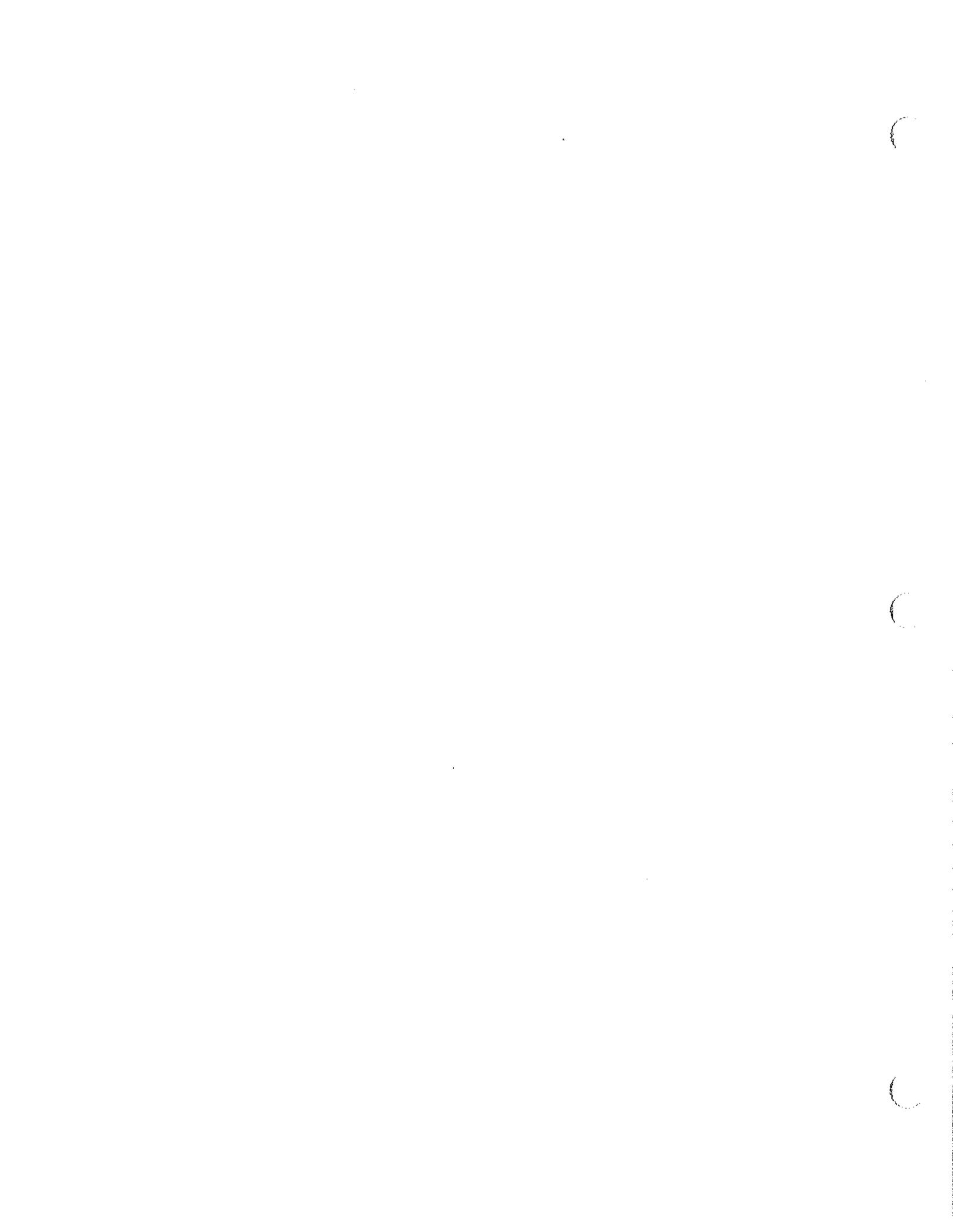
Lead at Site 3 had a single point estimate HQ for the fox of 45. In the Monte Carlo analysis, the expected lead HQ was 4.8, and the upper 95th percent confidence level of the calculated

In Volume IV, Baseline Ecological Risk Assessment, delete the heading in the second column of Page 147, Section 6.4.2.2 that reads "*Probable Concern Sites*".



In Volume IV, Baseline Ecological Risk Assessment, replace the second sentence in the fourth paragraph of the second column of Page 148, Section 6.5.1 to read:

This analysis focuses on lead as the indicator COPC because lead has been shown to have adverse toxicological effects at high concentrations granivorous birds such as pigeons (Bellrose, 1959; Cory-Slechta et al., 1980; Kendall, 1993; Ohi, 1974) and doves and other birds (Buerger, 1986; Kendall, 1981; Veit, 1983).



HQs was 12.3. Because the upper 95th percent confidence level of the HQs calculated for lead at Site 3 was above the level of probable concern, and the expected HQ value was 4.8, it is possible that the deer mouse population at Site 3 may be adversely affected by lead, especially in the high lead concentration areas. Therefore, Site 3 should be categorized as "possible concern" for deer mice exposed to lead.

At Site 39, the deer mouse lead point estimate of HQ was only 10 percent of that for Site 3 (27 versus 495), and HQs less than 1.0 may result more often than at Site 3. However, without additional information, it cannot be determined with confidence that the deer mouse population is not adversely impacted, especially in areas of high bullet cover or detonation areas. Site 39 should be classified as of "possible concern" to mice based on this uncertainty analysis.

Lead at Site 15 had a single point estimate HQ for the deer mouse of 2.9. A distribution of lead HQs for deer mice based on Monte Carlo analysis was generated. The results are presented in Table 6.35 and compared with the single point estimate HQ. For Site 15, the expected lead HQ was also 2.9, and the upper 95 percent confidence level of the calculated HQs was 3.5. Because the upper 95th percent confidence level of the HQs calculated for lead at Site 15 was 3.5, far below the level of probable concern, and the expected HQ value was 2.9, it is unlikely that the deer mouse population at Site 15 is adversely affected by lead.

Chlordane at Site 15 had a single point estimate HQ for the deer mouse of 1.2. In the Monte Carlo analysis, the expected HQ was 1.07, and the upper 95 percent confidence level was 1.3. Because these HQs are similar to 1.0, it is unlikely that the deer mouse population at Site 15 is adversely affected by chlordane.

For Site 15, single point estimates of the HQs for the fox exposed to chlordane and heptachlor were both estimated to exceed 1.0. In the Monte Carlo analysis, the expected chlordane HQ was 1.03 and the upper 95th percent confidence level of the calculated chlordane HQs was 1.22. Because the expected value was at 1.0 and the upper 95th percent confidence level of the HQs estimated for chlordane was only slightly above

1.0, no adverse effects to the fox are expected from concentrations of chlordane at Site 15. For heptachlor, the expected HQ was 3.61, and the upper 95 percent confidence level of the calculated HQs was 4.3. Because the upper 95th percent confidence level of the HQs calculated for heptachlor at Site 15 was 4.3 and the expected HQ value was not substantially greater than one, it is unlikely that the fox population at Site 15 is adversely affected by heptachlor.

6.5 Possible Ingestion of Bullet Fragments by Doves

Site 3 comprises 16 small arms trainfire ranges in the coastal dunes west of Highway 1. Spent ammunition in various stages of decomposition is present at and below the surface of the dune slopes. Site 3 spans approximately 3.2 miles and occupies 780 acres along the western boundary of Fort Ord.

This section provides a technical evaluation of mourning dove (*Zenaida macroura*), an identified species of concern that may be exposed to metals by purposeful or accidental ingestion of bullet fragments at trainfire ranges where fragments have been identified (see Volume II, Site 3).

A conceptual model describing mourning dove as a potential species of concern is presented in Section 2.1. Published biological and toxicological information on doves is evaluated in this section to assess the potential for adverse health effects from chemicals detected at Site 3.

6.5.1 Analysis

The following analysis was performed to evaluate assessment endpoint C16 (Table 2.1), which is specific to Site 3. This analysis focuses on lead as the indicator COPC because lead has been shown to have adverse toxicological effects on granivorous birds such as pigeons at high exposures (*Bellrose, 1959, Ohi, 1974, Cory-Slechta et al., 1980, Kendall, 1993*). The analysis is described in the Characterization of Exposure and Ecological Effects sections presented below.

6.5.1.1 Characterization of Exposure

Site 3 is the only coastal site where exposure pathways leading to ingestion of bullet fragments by the dove are likely to be present. Site 39 is the only inland site at which these pathways are relevant. This analysis focuses on terrestrial exposure pathways and the potential for exposures to upland impacted areas of Sites 3 and 39 that may be directly used for foraging or nesting by doves. Marine transport is evaluated separately.

As presented in the RI, Volume II, the small arms trainfire ranges at Site 3 were used for many years. The surface area is unpaved dune sands. The topography is varied and mostly comprises dunes with ridges parallel to the shoreline. Backslopes (landward) are generally steeper than seaward slopes; flat surfaces are rare. Previous Army activities at the ranges resulted in spent bullet and metal fragments (e.g., bullet casings) in and around the dunes used as target areas. Bullet densities differ significantly across the site and across the ranges. According to site reconnaissance and sampling activities, approximately 5 percent of the site has a bullet fragment cover of greater than 10 percent; approximately 4 percent of the site has a fragment cover of between 1 and 10 percent; and approximately 91 percent of the area has a fragment cover of less than 1 percent (Volume II; Site 3). As presented in the RI, Volume II, Site 39 contains small arms trainfire ranges in addition to other areas used for high explosive ordnance training. Locations of the ranges and associated target areas are shown on Plate 20 of Volume II, Site 39. Small arms ranges were used for machine gun, rifle, and pistol practice. The surface area is unpaved and consists of central maritime chaparral habitat with locally devegetated areas associated with targets. The topography is varied and consists of gentle slopes and steep ridges. Unlike Site 3, few backstops are present at the target areas. As a result, bullet cover is more dispersed; areas with greater than 10 percent bullet cover are rare at Site 39. These high bullet cover areas are restricted to very small areas (up to 20 feet in diameter; Volume II, Site 39). Based on RI activities, it is estimated that less than 5 percent of the ground surface at Site 39 appears to be

impacted by small arms training activities. The majority of the areas associated with bullets contains less than 1 percent bullets by cover; fewer areas contain between 1 and 10 percent bullets.

Mourning dove may occur in low densities year-round in the Monterey area (CNDDDB, 1992c). The home range of mourning dove is generally considered to be up to 10 km² (Zeiner *et al.*, 1990). They are considered to be "peregrine" species; that is they do not remain in one location for a significant part of their life and typically use a variety of habitats throughout the year (Zeiner, 1990). Although this species may be a resident in nearly all of its California range, there is a general southward movement in fall and winter and a corresponding northward population shift during spring and summer months. This species was not recorded in the site-specific biota survey conducted in Winter and Spring 1994 at Sites 3 or 39 (Section 4.0). These birds have been observed incidentally at Sites 3 and 39 during other surveys and are found in the surrounding areas of Fort Ord, and it is expected that the species occupies both sites at some time in its lifetime. Although mourning dove can occur almost anywhere at Fort Ord, they are likely to be found in greater numbers in upland areas, due to the greater availability of preferred foraging materials, as well as more appropriate nesting locations. Doves forage in open woodlands, grasslands, croplands, and deserts.

At Site 3, the predominant vegetation is iceplant, with lesser amounts of herbs and grasses. At Site 39, dense vegetation associated with central maritime chaparral habitat is not expected to provide optimal foraging habitat for the dove. Mourning dove feeds almost entirely on seeds of herbs and grasses in open flat areas, with occasional feeding in spring on snails and other invertebrates. Feeding behavior largely involves pecking on the ground (Zeiner *et al.*, 1990). Occasionally they may also directly forage on seeds of low-lying plants, presumed to include seeds in iceplant fruits. At both sites, foraging is not expected to occur in steeply sloped areas, in heavy brush areas, or on windward slopes of dunes or ridges. Rather, foraging is most likely to occur in flat, open areas around seed-bearing plants, and possibly at the base of the dune and

ridge slopes where seeds have accumulated. Flocking with other bird species while foraging is common. Mourning dove is not considered territorial, except when nesting. Few areas meeting these criteria are present at either Site 3 or Site 39.

At Site 3, based on the RI data indicating that lead is present at the highest weight-percent in the bullet fragments, and only 9 percent of the site contains a fragment cover greater than 1 percent (HLA, 1994), exposure of doves to lead is unlikely, especially if they are in the area for only short periods of time. In addition, the irregular size and shape of the fragments, their tendency to be encrusted in the sand, and their large size (mostly greater than 3 mm), also makes it unlikely that doves ingest fragments containing lead. Based on their good eyesight, doves' purposeful ingestion of metal debris during feeding at Site 3 is not considered likely because the fragments do not look like seeds.

This argument also applies to Site 39. Because the ground surface at Site 39 is less impacted than Site 3 and contains lower bullet cover percentages, ingestion of metal debris by doves is considered even less likely than at Site 3.

In addition to feeding on seeds, which comprise over 99 percent of their diet (Ehrlich *et al.*, 1988), doves also ingest small rocks and grit of very consistent size and shape, generally between 3 and 6 mm in diameter, for effective digestion of their food. As identified in Section 2.0, an important feature of the digestive system of a dove is the crop; at Sites 3 and 39 bullet fragments and/or soil containing lead may be mistaken for pebbles and stones and could lodge in the crop of a dove. The crop, a sac-like pouch on one portion of the esophagus, is used to temporarily store food. Although there are no digestive glands in the crop, glandlike structures are used to produce "crop milk." The milk represents a potential exposure pathway to second generation doves during the reproductive season. The stomach (ventriculus) of pigeons and doves consists of two portions: an anterior portion that secretes the gastric enzymes important for food digestion, and a muscular, corrugated posterior area, the gizzard, used to grind up the food to facilitate the digestive process. Small, rough-edged rocks from 3 to

6 mm in size are stored in the gizzard. Digestion in the gizzard and ventriculus may release chemicals from objects in the gizzard, which may then be secreted into the crop.

Dove exposures to metals via the inhalation and dermal routes of exposure are considered to be secondary pathways and insignificant compared to oral exposures because the crop is considered the most important target organ of lead toxicity to doves.

In California, from 3 to 40 pairs of doves can nest in a 100-acre area. Mourning dove nests are built in valley foothill hardwood and valley foothill riparian habitats (Zeiner *et al.*, 1990). Nests of both species are built 1 to 6 meters above the ground. Pigeons also nest on protected building ledges, under eaves or bridges (Ehrlich *et al.*, 1988). According to *A Guide to Bird Behavior (Volume II; Little, Brown, and Company, Boston, 1983)*, the territory defended during mating and nesting periods ranges from 2 to 50 yards from the nest. Other studies have indicated an average nesting territory of 100 feet (Zeiner *et al.*, 1990). Because Site 3 is located adjacent to Monterey Bay, high winds are expected to reduce the probability of nesting in the available trees because doves prefer to nest in more protected locations. Although winds are not expected to be as severe at Site 39, the habitat is not appropriate for Mourning dove nesting because it consists of dense, low-lying vegetation.

Mourning doves breed from late January to late September, with peak season in May and June. Because of the mild climate in the Monterey area, it is likely that breeding can occur year-round. Although breeding generally occurs once per year, doves can raise up to 6 broods per year; one brood is far more common. Generally two eggs are laid per clutch. Both the male and female incubate the eggs, and the young are fed seeds and crop milk by both adults only during the first three days following hatching (Zeiner *et al.*, 1990). The next few weeks they are fed seeds from the parents; the young leave the nest and begin foraging for themselves within approximately one month of hatching. Because doves are not expected to nest in the areas, and any foraging in impacted areas is considered minimal, chemical exposures from lead at Sites 3

and 39 for a dove and its brood is not considered to be a significant exposure pathway.

6.5.1.2 Characterization of Ecological Effects

The potential for adverse health effects to a dove from possible exposure to lead is discussed in this section. In order for exposures to cause an adverse health effects, a dove (1) must be present at the site and forage in the impacted areas during an extended period of time, (2) the ingested debris must be of the appropriate size and shape, (3) any metals such as lead would need to become bioavailable to the bird and/or its offspring, and (4) the chemicals must cause an adverse toxicological effect to the adult or its offspring. Based on an evaluation of the first two items in Section 6.5.1.1, the likelihood of exposures to lead at Site 3 by a dove is considered minimal and to be insignificant.

In the unlikely event of possible exposures via the oral route, the bioavailability of lead from Site 3 and 39 is considered minimal as well. On the basis of sieve analyses and leachate tests of the larger fragments (greater than 2.36 mm), which comprise the majority of debris and contain the highest levels of lead, the lead at Site 3 is not expected to substantially leach at a pH of 5.0 (at which the leachate studies were conducted for Site 3). Because the pH of the crop is similar to this (*Avian Physiology, P.D. Sturkie, Editor; Springer-Verlag, 1976*), lead is not expected to be bioavailable at significant concentrations.

Although exposures are not likely at Site 3, toxicological data are available that show a potential systemic toxic effect on pigeons as a result of lead exposures. One study on pigeons evaluated the effects of exposure to lead acetate on the passage time of 2 mm smooth, round steel ball bearings from the crop of pigeons (*Cory-Slechta, et al. 1980*). The study showed that the ball bearings failed to pass through the stomach; lead acetate doses ranged from 12 and 72 mg/kg/day via crop intubation, and 1,000 to 3,000 mg/l via drinking water. Exposures were terminated when signs of overt toxicity appeared, which occurred as early as 10 days and up to 200 days following placement of the ball bearings. At 12 mg/kg/day, behavioral effects

were not noticed, even after 200 days of exposure. Tissue samples of brain, liver, and kidney showed histopathological changes that were likely the result of systemic effects, specifically disturbances in cholinergic transmission. Exposures to doses similar to those used in this study are not expected at Site 3.

6.5.2 Risk Estimation

A weight of evidence discussion is provided here to assess potential risks to the mourning dove from exposure to spent bullets and associated metals in soil. On the basis of habitat use and the feeding habits of the dove, intentional ingestion of bullet fragments is not likely to occur at Sites 3 and 39. Accidental exposures are expected to be minimal due to the relatively small areas of the sites that contain bullets, and because the majority of the fragments are too large to ingest. Based on leachability studies, any ingested fragments are not expected to be bioavailable to an appreciable extent.

Toxicological evidence from the literature on pigeons suggests that lead doses resulting in toxicity are substantially above those expected to be associated with lead exposure at Sites 3 and 39. Therefore, no adverse impacts to mourning doves or their young are predicted on the basis of low potential exposures, low metal bioavailability, and high concentrations required to exert toxicity.

6.6 Lizard Assessment

This section presents the assessment of potential impacts of site-related chemicals to the black and silvery legless lizards (endpoints C9 through C15; Table 2.1, and I5 through I8; Table 2.2). The assessment was designed to include two types of analyses: leaf litter and body burdens from surrogate lizard species. However, no lizards were successfully collected from the sites (Table 6.1). Therefore, endpoints C9 and I5 could not be evaluated in this assessment. Assessment of potential impacts to the legless lizards was therefore restricted to evaluation of leaf litter. The coastal sites where the black legless lizard is present are dominated by hottentot fig; a litter layer is not associated with this plant. As a result, no litter could be collected from the coastal sites, and endpoints

ridge slopes where seeds have accumulated. Flocking with other bird species while foraging is common. Mourning dove is not considered territorial, except when nesting. Few areas meeting these criteria are present at either Site 3 or Site 39.

At Site 3, based on the RI data indicating that lead is present at the highest weight-percent in the bullet fragments, and only 9 percent of the site contains a fragment cover greater than 1 percent (HLA, 1994), exposure of doves to lead is unlikely, especially if they are in the area for only short periods of time. In addition, the irregular size and shape of the fragments, their tendency to be encrusted in the sand, and their large size (mostly greater than 3 mm), also makes it unlikely that doves ingest fragments containing lead. Based on their good eyesight, doves' purposeful ingestion of metal debris during feeding at Site 3 is not considered likely because the fragments do not look like seeds.

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6 mm in size are stored in the gizzard. Digestion in the gizzard and ventriculus may release chemicals from objects in the gizzard, which may then be secreted into the crop.

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In the unlikely event of possible exposures via the oral route, the bioavailability of lead from Site 3 and 39 is considered minimal as well. On the basis of sieve analyses and leachate tests of the larger fragments (greater than 2.36 mm), which comprise the majority of debris and contain the highest levels of lead, the lead at Site 3 is not expected to substantially leach at a pH of 5.0 (at which the leachate studies were conducted for Site 3). Because the pH of the crop is similar to this (*Avian Physiology, P.D. Sturkie, Editor; Springer-Verlag, 1976*), lead is not expected to be bioavailable at significant concentrations.

Although exposures are not likely at Site 3, toxicological data are available that show a potential systemic toxic effect on pigeons as a result of lead exposures. One study on pigeons evaluated the effects of exposure to lead acetate on the passage time of 2 mm smooth, round steel ball bearings from the crop of pigeons (*Cory-Slechta, et al. 1980*). The study showed that the ball bearings failed to pass through the stomach; lead acetate doses ranged from 12 and 72 mg/kg/day via crop intubation, and 1,000 to 3,000 mg/l via drinking water. Exposures were terminated when signs of overt toxicity appeared, which occurred as early as 10 days and up to 200 days following placement of the ball bearings. At 12 mg/kg/day, behavioral effects

were not noticed, even after 200 days of exposure. Tissue samples of brain, liver, and kidney showed histopathological changes that were likely the result of systemic effects, specifically disturbances in cholinergic transmission. Exposures to doses similar to those used in this study are not expected at Site 3.

6.5.2 Risk Estimation

A weight of evidence discussion is provided here to assess potential risks to the mourning dove from exposure to spent bullets and associated metals in soil. On the basis of habitat use and the feeding habits of the dove, intentional ingestion of bullet fragments is not likely to occur at Sites 3 and 39. Accidental exposures are expected to be minimal due to the relatively small areas of the sites that contain bullets, and because the majority of the fragments are too large to ingest. Based on leachability studies, any ingested fragments are not expected to be bioavailable to an appreciable extent.

Toxicological evidence from the literature on pigeons suggests that lead doses resulting in toxicity are substantially above those expected to be associated with lead exposure at Sites 3 and 39. Therefore, no adverse impacts to mourning doves or their young are predicted on the basis of low potential exposures, low metal bioavailability, and high concentrations required to exert toxicity.

6.6 Lizard Assessment

This section presents the assessment of potential impacts of site-related chemicals to the black and silvery legless lizards (endpoints C9 through C15; Table 2.1, and I5 through I8; Table 2.2). The assessment was designed to include two types of analyses: leaf litter and body burdens from surrogate lizard species. However, no lizards were successfully collected from the sites (Table 6.1). Therefore, endpoints C9 and I5 could not be evaluated in this assessment. Assessment of potential impacts to the legless lizards was therefore restricted to evaluation of leaf litter. The coastal sites where the black legless lizard is present are dominated by hottentot fig; a litter layer is not associated with this plant. As a result, no litter could be collected from the coastal sites, and endpoints

In Volume IV, Baseline Ecological Risk Assessment, replace the first sentence in the third paragraph of the first column of Page 151, Section 6.5.1.2 to read:

Although exposures are not likely at Site 3, toxicological data are available that show potential systemic toxic and reproductive effects on birds as a result of lead exposures.

In Volume IV, Baseline Ecological Risk Assessment, replace the last sentence in the third paragraph starting in the first column and ending in the second column of Page 151, Section 6.5.1.2 with the following text:

*Studies conducted using ringed turtle doves (*Streptopelia risoria*; Kendall 1981 and Veit, 1983) showed significant gross and microscopic effects on the testes of doves exposed to lead in drinking water (at a concentration of 100ug/ml) and to lead shot (440 mg lead shot). Lead was shown to be transmitted from adults to juveniles via the egg and most likely the crop milk. Another reproductive study that used mourning doves (Buerger, 1986) showed that, in doves fed one Number 8 lead shot, there were no observed differences in egg measurement, productivity, fertility, or squab weight, but there were differences observed for hatchability. However, exposure doses similar to those used in these studies are higher than expected at Site 3.*



In Volume IV, Baseline Ecological Risk Assessment, in the first sentence of the first paragraph in the second column of Page 152, Section 6.6.1.1 replace "summarize" with "summarizes".

In Volume IV, Baseline Ecological Risk Assessment, in the third sentence of the first paragraph in the second column of Page 152, Section 6.6.1.1 replace "COPCs" with "chemicals".

In Volume IV, Baseline Ecological Risk Assessment, in the last sentence of the first paragraph in the second column of Page 152, Section 6.6.1.1 replace "COPC" with "chemical".

In Volume IV, Baseline Ecological Risk Assessment, in the first sentence of the second paragraph in the second column of Page 152, Section 6.6.1.1 replace "COPC" with "chemical".

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relevant to the black legless lizard could not be directly measured. A qualitative discussion of potential exposures and toxicity to this species at the coastal sites is provided herein. Results of leaf litter collection activities are quantitatively discussed for the inland sites, as relevant to the silvery legless lizard (endpoints I6 through I8; Table 2.2).

6.6.1 Analysis

Silvery legless lizards may inhabit three habitat types at the inland sites:

- Central maritime chaparral (CMC)
- Coast live oak woodland (CLOW)
- Upland ruderal (UR).

This analysis focuses on these habitat types at Sites 16, 24, 25, 29, 31, and 35, which were identified as having sufficient leaf litter layers representative of these habitats for sampling.

6.6.1.1 Characterization of Exposure

The analysis focused on the collection of leaf litter and the identification of species composition and abundance and concentrations of chemicals in litter. Species composition and abundance was evaluated to assess the food supply for the legless lizard and to provide an indication of the health of the litter community. Chemical concentrations in leaf litter were assessed to provide an indication of potential bioaccumulation of chemicals in leaf litter and, via extrapolation, to the litter community. Insufficient mass of organisms was collected to allow for chemical analysis of organisms to directly assess bioaccumulation.

At each of the six sites, transects collocated with soil and plant sampling locations were used to collect leaf litter. Six samples were collected from the CLOW habitat, 11 from the CMC habitat, and 20 from the UR habitat. Samples were also collected at the reference locations. Organisms were extracted as described in Appendix F (SOPs), and counted and keyed out to order. The leaf litter was chemically analyzed in the laboratory for metals and other chemicals,

as appropriate (Table 6.1). Results of the taxonomic and chemical analyses are provided below.

Table 6.36 summarize the numbers and type of taxa extracted from each transect at each site. A summary of all chemical results for leaf litter is provided in Appendix G, Table G34. Eight COPCs were identified across all transects, including five metals (chromium, copper, lead, nickel, and zinc), two pesticides (chlordane and DDT), and CDDs and CDFs (totals at each locations are considered to represent one COPC).

Tables 6.37, 6.38, and 6.39 present the COPC concentrations, numbers of organisms, and numbers of taxa for each transect within the CLOW, CMC, and UR habitats, respectively. The average number of organisms and taxa across all transects within a habitat are also listed in these tables. For each COPC in each habitat, graphs using the data in these tables were prepared that relate chemical concentrations in soil to the number of organisms and taxa (Appendix H; Figures H1 through H15). The average number of organisms and taxa within that habitat type are also shown on the graphs for comparison. Background soil concentrations are shown on the graphs where applicable; background soil concentrations are presented in the Basewide Background Soil Investigation report (HLA, 1993e). Background leaf litter concentrations from reference locations are presented in Table G34. Similar graphs are provided for chemical concentrations in leaf litter (Figures H16 through H20), where appropriate.

In general, chemical concentrations in leaf litter were greater than in the respective soil samples. This was true for all samples from the CLOW habitat. For the CMC habitat, this trend was not observed for chromium and nickel, which were detected at both higher and lower concentrations in litter compared with soil. Several chemicals did not follow this trend in the UR habitat. Copper, lead, and zinc were detected at higher concentrations in soil than in litter in 85, 30, and 15 percent of the UR samples, respectively. Chlordane and DDT were detected in soil at concentrations equal to or greater than those in litter in 86 and 65 percent of the samples, respectively. Data on organic chemicals in litter were not available. The results indicate that, in

general, litter concentrates metals to levels above those in soil. Concentrations of the two pesticides were not generally higher in litter, indicating that these chemicals do not concentrate in litter. Leaf litter consists primarily of plant material and metals are shown to be taken up by oats at Fort Ord to a greater extent than pesticides (Section 6.2). Therefore, this trend is consistent with plant data from the sites.

Results of the comparisons of soil and leaf litter chemical data with numbers of organisms and taxa are summarized by habitat type below, focusing on decreasing trends with increasing chemical concentrations, which may be of potential significance.

Coast Live Oak Woodland

Figures H1 through H5 compare chemical concentrations in soil with numbers of organisms and taxa for the six CLOW transects. Samples from this habitat were collected from Sites 29, 31, and 35 (Table 6.37). One location (31-2; Table G34) had anomalously high concentrations of copper, lead, zinc, and antimony in litter. The relative ratios of these four metals detected at this location were consistent with those found in bullet samples from Site 3, indicating that a bullet fragment may have been collected and extracted as part of the litter analysis at this location. The area in which this sample was collected is known to contain surface debris. Therefore, this sample was excluded from the analysis.

No decreasing trends in numbers of individuals were observed for metals (Figures H1 through H4). Concentrations of copper and chromium in soil were below background (Figures H2 and H3, respectively). Analysis of these figures illustrates the high natural variability present in the samples. For dioxins (Figure H5), an increase in the number of organisms and taxa relative to habitat average levels was observed at the highest total dioxin congener concentration of 0.46 pg/g. Figures H16 and H17 present the same comparisons for chemical concentrations in leaf litter. Only lead and zinc were graphed because other chemicals were detected in soil at levels consistent with background, and therefore leaf litter concentrations were not considered to be site-related. Results for lead and zinc in litter

were similar to those seen for soil; no decreasing trends in numbers of individuals or taxa with increasing litter concentrations were noted.

Central Maritime Chaparral

Figures H6 through H9 present the comparisons of concentrations in soil of lead, nickel, chromium, and zinc, respectively, with numbers of organisms and taxa for the 11 CMC transects. Samples from this habitat were collected from Sites 16 and 35 (Table 6.38). Soil concentrations were below background for nickel and chromium (Figures H7 and H8, respectively). A decrease in number of organisms and taxa were noted for lead and zinc relative to averages at the one location with soil concentrations above background. All samples were collected from soils with concentrations far below or far above background for these two metals (Figures H6 and H9). No chemical concentrations were available for leaf litter.

Upland Ruderal

Figures H10 through H15 present the comparisons of concentrations in soil of lead, copper, zinc, chlordane, DDT, and total dioxin congeners respectively, with numbers of organisms and taxa for the 20 UR transects. Samples from this habitat were collected from Sites 16, 24, 25, 29, and 35 (Table 6.39). No trend was apparent for lead (Figure H10). For copper and zinc, the number of organisms and taxa was lower relative to the habitat average where soil concentrations were the highest (Figures H11 and H12, respectively). However, similarly low numbers were also observed at concentrations below background for both metals. No trends were apparent for the three organic COPCs (Figures H13 through H15).

Figures H18 through H20 present the same comparisons for concentrations of lead, copper, and zinc in leaf litter. The organic COPCs were not detected in sufficient samples in litter for graphical presentation. Results for the three metals are similar to those for soil; no decreasing trends with increasing litter concentrations were noted.

In Volume IV, Baseline Ecological Risk Assessment, replace the fifth and sixth sentences in the second paragraph in the first column of Page 154, Section 6.6.2 to read:

For lead, although fewer organisms were seen in the one sample with a concentration above background, no organisms were present in a sample collected from the upland ruderal habitat with a soil concentration less than the background soil concentration of 10 mg/kg. Therefore, this apparent decrease at a higher lead level is not considered to indicate a chemical impact to the litter community because similar changes are seen at concentrations less than background.

In Volume IV, Baseline Ecological Risk Assessment, replace the first sentence in the third paragraph of the first column of Page 154, Section 6.6.2 to read:

Some taxa (e.g., woodlice) have been shown to accumulate lead and zinc above levels seen in litter (Martin et al., 1976).

In Volume IV, Baseline Ecological Risk Assessment, replace the first full paragraph in the second column of Page 154, Section 6.6.2 to read:

Conclusions regarding potential impacts to the black legless lizard from exposure to site-related chemicals at the coastal sites are complicated by lack of data. No lizards were successfully collected from the coastal sites. As previously discussed black legless lizards are not expected at Site 2 because of the absence of habitat components (Section 6.1.1.5). For similar reasons, black legless lizards are not expected at Site 1. Site 1 contains sewage treatment ponds, which do not consist of loose soil and thus do not provide adequate habitat for the lizard. Black legless lizards have been observed on Site 3, the other coastal site. Because black legless lizards require loose soil for movement, they are not expected to be present in areas of high bullet density because the bullets have formed an encrusted layer just beneath the soil surface, presenting a physical barrier to the lizards. The majority of the rest of Site 3 is not contaminated with bullets, and chemical concentrations are consistent with background. Therefore, impacts to the black legless lizard outside of the areas of high bullet density are not expected. In addition, any soil remediation at this site outside of the areas containing encrusted bullet layers, which would include excavation of soil, would likely have greater impacts due to loss of habitat than leaving the chemicals in place. Although the extent of chemical impacts to the black legless lizard, if any, could not be quantified in this assessment, no action outside the high bullet density areas is likely preferable to other alternatives.



6.6.1.2 Characterization of Ecological Effects

The indirect measures of exposure identified above were combined to evaluate potential impacts to the lizards because relevant toxicological information is not available.

6.6.2 Risk Estimation

No decreasing trends in organism abundance or diversity with increasing soil concentrations were apparent from the data collected at the six sites. A decrease in number and diversity of organisms was seen for lead and zinc in the CMC habitat at the only location with concentrations above background in soil (Figures H6 and H9, respectively). However, given the variability of the data, changes at this one location cannot be considered to represent evidence that the community is being affected by soil concentrations above background. The opposite effect was seen at a similarly elevated zinc concentration in CLOW habitat (i.e., increased number and diversity of organisms; Figure H4). For lead, although fewer organisms were seen in the one sample with a concentration above background, no organisms were present in a sample collected from the upland ruderal habitat with a soil concentration less than 10 mg/kg. Therefore, this apparent decrease at a higher lead level is not considered to indicate an impact to the litter community. Overall, evaluation of the data indicate that no adverse impacts are apparent to the litter community.

Some insects (e.g., woodlice) have been shown to accumulate lead and zinc above levels seen in litter (*Martin et al., 1976*). Although this may occur at Fort Ord, it has not had an apparent impact on the structure of the litter community. The number of organisms collected from the six sites was substantially lower than the number of organisms collected from the reference locations (Table 6.35). The number of taxa were similar at sites and reference locations. However, the number of organisms was not shown to be related to chemical concentrations because soil concentrations were similar between reference and site treatments. Because the lower number of organisms cannot be explained on the basis of chemical concentrations, it is unlikely that this result is indicative of a chemical impact to the

community at the sites, but rather may be explained by the high degree of human activity at the sites relative to the reference locations: human disturbance of the ground surface at the sites may result in fewer organisms being present in the disturbed leaf layer. On the basis of this analysis, which indicates no adverse chemical impacts to the litter community, the silvery legless lizard is not expected to be adversely impacted due to chemical concentrations in soil or litter at these six sites.

Conclusions cannot be reached regarding potential impacts to the black legless lizard from exposure to site-related chemicals at the coastal sites because of lack of data. Black legless lizards have been observed along Site 3, indicating that they are present at the coastal sites. The extent of any potential impacts to these lizards is not known. Because they are present at the site, it is unlikely that significant impacts are occurring due to concentrations of chemicals in soil. In addition, any soil remediation at these sites, which would include excavation of soil, would likely have greater impacts due to loss of habitat than leaving the chemicals in place. Therefore, although the extent of impacts to the black legless lizard, if any, could not be quantified in this assessment, no action is likely preferable to other alternatives.

6.7 Outfall Assessment

The following sections describe additional evaluations of surface water outfalls (Table 6.40) to address assessment endpoints outlined in Table 2.3. Section 6.7.1 describes efforts to evaluate potential dilution factors for stormwater from Outfalls OF-01-MH (2 locations), OF-02, OF-03, OF-04, and OF-07 entering Monterey Bay. Section 6.7.2 includes additional terrestrial evaluation of Outfalls OF-05, OF-14, OF-15, OF-16, and OF-26 based on new surface soil data collected at the sites where the outfalls are located. In addition, sediment from outside pipes/drainage structures was collected from four newly identified outfall locations, OF-12; OF-31, OF-34, and OF-35; these outfalls were evaluated for potential impacts to terrestrial receptors.

6.7.1 Aquatic Assessment of Outfalls

Five outfalls (OF-01-MH [locations-01 and -03], OF-02, OF-03, OF-04, and OF-07) were identified in the screening assessment as needing further evaluation. All five outfalls are likely to produce stormwater that could enter Monterey Bay, and stormwater from all five outfalls demonstrated toxic effects to freshwater organisms in aquatic bioassays. Outfall OF-07 is upgradient of Outfall OF-03 and is therefore evaluated in the Outfall OF-03 evaluation.

In order to quantify the magnitude of effects to receptors in Monterey Bay, dilution was modeled for sediment, stormwater, and groundwater entering the bay. Separate analyses were performed for stormwater and sediment; potential groundwater effects were estimated using the results of the stormwater evaluation. These modeling efforts are described in detail in Appendix H and summarized below.

6.7.1.1 Stormwater Evaluation Method

Stormwater dilution was evaluated based on both annual and individual rainfall events (Appendix H). It was assumed that the entire volume of water that fell on a watershed/area is available as runoff (i.e., no water is absorbed into the soil), collects in the outfall(s) and is deposited into the bay. Furthermore, it is assumed that the higher chemical concentrations observed from the two stormwater samplings events were present in this estimated volume of water. For the annual stormwater evaluation, the stormwater input to the bay was compared to the volume of the restricted zone off Fort Ord. For the individual rain events, the stormwater inputs were compared to the volume of the surf zone.

6.7.1.2 Sediment Evaluation Method

In calculating annual sediment inputs, it was assumed that the entire volume of soil loss from erosion for the entire area of Fort Ord is available for deposition into the bay. It was also assumed that all the sediments in the watershed for each event, generated by the approaches discussed

below and in Appendix H, would be collected in the outfalls and deposited into the bay.

Estimates of the amount of annual soil erosion expected in each of the drainage areas contributing surface water runoff to Outfalls OF-01, OF-02, OF-03 and OF-04 were calculated using two methods.

The first method used was the universal soil loss equation (USLE; *U.S. Department of Agriculture, 1991*). The USLE computes the average annual erosion expected on sloped drainage areas as a function of factors for rainfall erosion, soil erodibility, slope length and steepness, vegetative cover, and erosion control practices within a drainage area. The average annual soil losses in tons/acre-year for the drainage areas upgradient of Outfalls OF-01, OF-02, OF-03 and OF-04 were 0.24, 0.24, 0.26, and 0.3 respectively. These values were also used to calculate an area-weighted average soil loss for Fort Ord of 0.281 tons/acre-year.

The second method for calculating the watershed based sediment inputs is a rainfall-based method that uses an empirical water/sediment discharge relationship (*Oradiwe, 1986*) to estimate sediment content in rainfall as described in Appendix H.

The sediment inputs calculated using the two methods identified above were compared with two estimates of sediment transport in Monterey Bay. The first estimate was an average of longshore sediment transport rates for four stations located offshore of Fort Ord. These values are presented in Appendix H and were used to calculate an average rate of 2.9E+05 cubic yards per year. The second estimate of sediment transport was the littoral yield of sediment from cliff erosion. *Oradiwe (1986)* presented two estimates of annual yield in cubic yards: 1.5E+05 for Marina to Fort Ord and 2.1E+05 for Fort Ord to Sand City; the average of these two values was used in this evaluation.

6.7.1.3 Results and Conclusions

The results of bay stormwater and sediment modeling with conclusions for both the entire base area and each outfall-related watershed area are summarized in Tables 6.41 and 6.42, Appendix H, and below.

In Volume IV, Baseline Ecological Risk Assessment, replace "0.016" with "0.16" in the second bullet in the first column of Page 156, Section 6.7.1.3.

In Volume IV, Baseline Ecological Risk Assessment, delete the third sentence in the third paragraph in the first column of Page 156, Section 6.7.1.3.



Stormwater Dilution

The concentrations of COPCs detected in stormwater at the four beach outfalls are unlikely to result in toxicity to biota in the bay on the basis of the substantial dilution estimated to occur for both total annual rainfall at Fort Ord and total rainfall contribution from each outfall-specific watershed, and the conservative assumptions used to calculate dilution. The estimated dilutions are summarized in Table 6.41 and below as follows:

- The dilution estimated on the basis of comparing the total annual rainfall contribution from the entire Fort Ord area and the volume in the restricted area of Monterey Bay is 0.022, or 45-fold.
- The dilutions estimated on the basis of comparing the volume of runoff from each outfall-specific watershed and the volume of water in the corresponding surf zone to provide an estimate of immediate potential impact on biota may be summarized as follows: Outfall OF-01, 0.026 or 38-fold; Outfalls OF-02 and OF-03, 0.037 or 27-fold; Outfall OF-04, 0.016 or 63-fold.

The above estimates are based on the conservative assumption that the entire rainfall amount received in a watershed is directly discharged to the bay. The contribution of both the entire base and each watershed is, therefore, likely to be an overestimate.

Because the lowest NOEC was 12.5 percent (Section 5.6.3.2), only an 8-fold dilution, the above dilution factors are expected to dilute stormwater below levels of concern. It is unlikely that the instantaneous concentration of the COPCs in stormwater would cause acute effects to organisms in the surf zone, as no acutely toxic effects were seen in the stormwater bioassays. Stormwater runoff itself is expected to stress biota because of the mixing of fresh water with salt water, making it difficult to separate the effects of osmotic shock from the potential toxic effects of the COPCs. Additionally, the high energy beach at Fort Ord is a stressed environment caused by the rapid mixing between low water and high water.

Groundwater Dilution

Dilution of groundwater entering Monterey Bay is expected to be equal to or greater than that for stormwater since groundwater flow rates are expected to be lower than stormwater flow rates. Therefore, no adverse effects are expected due to groundwater entering Monterey Bay.

Sediment Dilution

COPCs contained in sediment from stormwater outfalls entering the bay are unlikely to cause substantial toxicity to marine biota because of the expected dilution of the sediment and the conservative assumptions used to estimate dilution. Dilutions were estimated for the entire base and for the watershed areas for each of the four outfalls. A 100-fold dilution factor is necessary to decrease chemical concentrations in sediment to below ER-L values.

The total annual sediment contribution from entire Fort Ord area calculated using the USLE was compared to the volume of longshore sediment drift in the southern cell of Monterey Bay and also to the volume of sediment from cliff erosion data, resulting in two estimated dilution values (Table 6.42):

- The dilution of USLE-derived sediment volume to drift-derived sediment volume is 0.021, or 48-fold.
- The dilution of USLE-derived sediment volume to cliff erosion-derived sediment volume is 0.033, or 30-fold.

These values are extremely conservative; such amounts of sediment would never enter Monterey Bay during one rain event.

Two methods were used to estimate the sediment contribution from each outfall-specific watershed; in the first, the USLE was used to estimate annual contribution. In the second, daily rainfall event-based sediment estimates were used to estimate annual sediment volume from each Fort Ord beach outfall. Each estimate was compared to both the longshore sediment drift (southern cell) volume and the volume of sediment from cliff erosion data. The results are

summarized in Table 6.42 and below for each stormwater outfall:

- Outfall OF-01
 - The dilution of USLE-derived to drift-derived sediment is 1.3E-04, or 7,690-fold
 - The dilution of USLE-derived to cliff erosion-derived sediment is 2.1E-04, or 4,760-fold
 - The dilution of daily event-derived to drift-derived sediment is 8.7E-06, or 115,000-fold
 - The dilution of daily event-derived to cliff erosion-derived sediment is 1.4E-05, or 71,400-fold.
- Outfall OF-02
 - The dilution of USLE-derived to drift-derived sediment is 1.9E-04, or 5,260-fold
 - The dilution of USLE-derived to cliff erosion-derived sediment is 3.0E-04, or 3,330-fold
 - The dilution of daily event-derived to drift-derived sediment is 1.6E-05, or 62,500 fold
 - The dilution of daily event-derived to cliff erosion-derived sediment is 2.5E-05, or 40,000-fold.
- Outfall OF-03
 - The dilution of USLE-derived to drift-derived sediment is 2.0E-04, or 5,000-fold
 - The dilution of USLE-derived to cliff erosion-derived sediment is 3.2E-04, or 3,130-fold
 - The dilution of daily event-derived to drift-derived sediment is 1.6E-05, or 62,500-fold

- The dilution of daily event-derived to cliff erosion-derived sediment is 2.5E-05, or 40,000-fold.

- Outfall OF-04
 - The dilution of USLE-derived to drift-derived sediment is 1.1E-03, or 909-fold
 - The dilution of USLE-derived to cliff erosion-derived sediment is 1.8E-03, or 556-fold
 - The dilution of daily event-derived to drift-derived sediment is 2.0E-04, or 5,000-fold
 - The dilution of daily event-derived to cliff erosion-derived sediment is 3.2E-04, or 3,130 fold.

The estimates of annual sediment inputs are based on the conservative assumption that the entire volume of soil loss from erosion of the entire area of Fort Ord is available for deposition in the bay; for the individual watershed analyses and rainfall event analyses, it was assumed that all sediment generated by each event would be transported into the bay. The contribution of both the entire base and each watershed-specific area is, therefore, likely to be an overestimate. Due to concentrations of PAHs and other organics in sediment samples from OF-01 and OF-04, a 100-fold dilution of sediments would be necessary to lower the concentrations of these chemicals to below ER-L values at these outfalls. Only a 10-fold dilution factor would be necessary to reduce concentrations in Outfall OF-03 to below ER-Ls; no sediments were samples at OF-02, so dilution factors could not be evaluated. Because outfall-specific dilution factors are all well above 100-fold, it is unlikely that COPCs present in base-derived sediment will cause toxic effects in marine biota.

6.7.2 Terrestrial Assessment of Outfalls

This section presents the results of additional terrestrial assessments for outfalls identified in Section 5.6.

6.7.2.1 Evaluation of New Outfalls

Four newly identified outfalls were sampled for sediments outside the pipe (Table 6.43). Complete exposure pathways (as described in Section 3.0 and Plate 3.2) were identified for Outfalls OF-12, OF-31, OF-34, and OF-35 as follows:

- First, for each outfall, concentrations of metals in surface soil from the site where the outfall is located were compared to background concentrations (Plate 3.2, Box T1).
- Next, all outfalls were evaluated for the presence of suitable habitat (i.e., the outfall is not paved or concrete-lined; Plate 3.2, Box T2).
- Last, all remaining outfalls were evaluated by comparing concentrations of metals in sediment outside of pipes to background metal concentrations and by comparing chemical concentrations detected above background in sediment with concentrations detected above background in soil.

The results of these comparisons can be summarized as follows:

- Sediments from Outfall OF-31 (Site 12) and soil from Site 12 had concentrations of antimony, cadmium, copper, lead, and zinc above background. Therefore, this outfall was further evaluated.
- Sediments from Outfall OF-34 (Site 34) and soil from Site 34 had concentrations of selenium above background. Therefore, this outfall was further evaluated.
- Sediments from Outfalls OF-12 (Site 22) and OF-35 (Site 34) had no concentrations of detected metals above background that were detected above background in site soil as well, and no organic chemicals detected in sediments were detected in site soil. Therefore, these outfalls were not further evaluated.

Because Outfalls OF-31 and OF-34 have potentially complete exposure pathways, the following methods, as described in Section 5.6 and on Plate 5.13, were used to further evaluate potential risks to terrestrial receptors:

- Site soil concentrations were used to calculate HIs for the deer mouse (Plate 5.13, Box 4) as described in Sections 5.3 and 5.4. If this analysis indicated "no concern" ($HI < 1.0$), the outfall was considered to have no potential impacts to terrestrial receptors.
- If the site soil HI was greater than 1.0, a new HI was calculated using the difference between site soil and sediment concentrations (Plate 5.13, Box 5). This was done to evaluate whether the site is the source of chemicals at the outfall. Once again, if the HI was at or less than 1.0, the outfall was considered to be of "no concern."
- If the sediment/site HI was greater than 1.0, an adjustment for home range (Section 6.0) was made and a new HI was calculated (Plate 5.13, Box 6). If this new HI was greater than 1, the outfall required additional analysis (Section 6.0). If the new HI was less than 1, the outfall was considered to be of no concern.

The results of these comparisons are presented in Table 6.44 and can be summarized as follows:

- Outfall OF-31, which had an HI of 139 for site soil at Site 12, had an HI of 19 for outfall sediment, indicating "probable concern." However, because the sediment HI was less than 25 percent of the site soil HI, the site is 75 percent paved, and the source (Site 12) is being further evaluated, this outfall is not further evaluated for effects to terrestrial receptors.
- Hazard indices for both site soil and sediment were calculated at less than 1.0 for Outfall OF-34. Therefore, chemicals at this outfall location are of "no concern" to terrestrial receptors.

6.7.2.2 Evaluation of Additional Data for Outfalls Identified in the Screening

Additional surface soil samples were collected and analyzed at several sites (Appendix G), as discussed in Section 6.1. As a result, Outfalls OF-05, OF-14, OF-15, OF-16, and OF-26 were reevaluated. Outfalls OF-05, OF-16, and OF-26 were of "possible concern" and Outfalls OF-14 and OF-15 were of "probable concern" in the screening assessment. Outfall OF-23 at Site 36, which was also of "probable concern," is further evaluated as well although no new soil data are available for this outfall. All of these outfalls are identified as having potentially complete exposure pathways in Section 3.0 using the methods outlined on Plate 3.2. Further evaluations following the procedures outlined in Plate 5.13 are discussed in Section 6.7.2.1. The results of these evaluations are summarized below:

Additional surface soil results for Sites 3, 12, and 21 did not affect the assessments of outfalls OF-05, OF-14, and OF-15. Outfall OF-05 was of "possible concern" and Outfalls OF-14 and OF-15 were of "probable concern," but concentrations of chemicals in sediment were 10 percent to 25 percent of site soil concentrations. In addition, site soils at Sites 3, 12, and 21 were evaluated in the mammalian assessment. As a result, Outfalls OF-05, OF-14, and OF-15 are not further evaluated.

Outfall OF-16-03 had a sediment HI of less than 1, classifying chemicals at this location as of "no concern" to terrestrial receptors. However, Outfalls OF-16-02, OF-16-04, and OF-16-05 had HIs of 1.5, 9.1, and 11.5, respectively, classifying OF-16-02 and -04 of "possible concern" and OF-16-05 of "probable concern." Concentrations of chemicals in these sediments were higher than those in soil from Site 16. Sites 15, 16, 17, and 23 all drain to Site 16. Sites 15 and 16 were evaluated in the mammalian assessment; Site 17 is 90 percent paved and Site 23 was characterized as having no complete exposure pathways in PHA1. Site 15 is planned for interim remedial action. Therefore, because the source areas are addressed elsewhere, these outfalls are not further evaluated.

The evaluation of Outfall OF-23 at Site 36 was not affected by the additional surface soil results. As stated in Section 5.6, sediment at this outfall had an HI of 18, indicating "probable concern" and chemicals in sediment were higher than those detected in site soil. Outfall OF-23 drains Sites 34 and 36, which are largely paved sites and were characterized as having no complete exposure pathways in PHA1. The only COPC with an HQ greater than 1 in sediment was lead. These concentrations are most likely due to runoff from paved areas and not from specific source areas. Therefore, this outfall is not further evaluated.

Additional surface soil results at Site 29 did not affect the results of the assessment at Outfall OF-26 which had an HI of 2.9 for sediment indicating "possible concern". This outfall will be discussed further in Section 7.0.

6.7.3 Uncertainties

The outfall assessment was designed so that uncertainties would tend to cause overestimation of exposures and effects.

Assumptions used in modeling dilution for the aquatic assessment were highly conservative. Uncertainties associated with the aquatic assessment for stormwater that would tend to overestimate risks include the following:

- It was assumed that the entire volume of water that falls on the particular watershed/area is available as surface water runoff to the bay (i.e., no rainfall is absorbed into the soil)
- It was assumed that all the runoff collects in the outfalls and is deposited to the bay during a 24-hour period
- It was assumed that all runoff during the rainfall event is at a constant chemical concentration
- It was assumed that all runoff would be diluted into a fixed area and not be dispersed further.

Uncertainties associated with the aquatic assessment for sediment that would tend to overestimate risks include the following:

- It was assumed that the entire volume of soil loss for the area evaluated is available for deposition into the bay
- It was assumed that the entire volume of soil loss collects in the outfalls and is deposited to the bay
- It was assumed that all sediment contains constant chemical concentrations.

Uncertainties associated with the aquatic outfall assessment that would either underestimate or overestimate risks include the following:

- Drainage areas to specific outfalls were estimated based on the boundaries delineated in the BWSOI
- For stormwater, annual normal rainfall (NOAA, 1992b) was used to estimate the total volume of rainfall expected to fall on Fort Ord and daily rainfall was estimated as 0.48 inch, based on the daily rainfall total for the first stormwater collection date (January 23, 1994)
- Stormwater bioassays were conducted during only two sampling events
- The BCs used to evaluate sediment and stormwater may or may not be directly applicable to the media evaluated and the potential receptors

The above uncertainties overall would be more likely to overestimate impacts than to underestimate them.

Assumptions used in evaluating potential impacts to terrestrial receptors due to chemicals at outfall locations were highly conservative. Uncertainties associated with the terrestrial assessment for outfalls that would tend to overestimate risks include those detailed in the mammalian assessment with regards to characterizing exposure and effects (Section 5.4.3), as well as the following:

- HIs for sediment that exceed those in soil may not be site-related; metals detected in sediment may originate from paved areas
- Outfall areas are small areas representing much less than 10 percent of the entire home range of the organisms being evaluated; there is little likelihood of organisms being exposed to chemicals in those areas for extended periods of time.

6.8 Summary of Results for the Quantitative Ecological Risk Assessment

This section includes a site-by-site summary of the results of the terrestrial quantitative ecological risk assessment as well as the aquatic and terrestrial assessments of the outfalls. The terrestrial results are summarized in Table 6.45.

6.8.1 Site 1

Five additional surface soil samples were taken at Site 1, the Ord Village Sewage Treatment Plant, and the screening assessment models were reevaluated. No biota samples were collected. The COPCs at this site were metals (Table 6.6). Hazard indices for both mammalian species were estimated at 1, indicating "no concern." Hazard indices for plants were below 1. On the basis of these data, the "no concern" categorization of this site reached in the screening assessment is confirmed.

6.8.2 Site 2

Five additional surface soil samples, hottentot fig, and deer mice were collected at Site 2, the Main Garrison Sewage Treatment Plant, and analyzed (Section 6.1). The COPCs at this site were metals (Table 6.6). Because no plant tissue sample results were available for Site 2 (Section 6.2), potential impacts on plants at this site could not be quantitatively evaluated. Site 2 was initially classified as of "probable concern" to plants in the screening assessment. On the basis of a comparison of chemicals detected at Site 2 and chemicals detected at other sites and the results of the quantitative ecological risk assessment for other sites, Site 2 should be recategorized as being of "possible concern" to plants for

assessment endpoints C1, C2, C3, and C4 (Table 2.1).

For mammals, Site 2 was initially classified in the screening assessment as of "probable concern" for both mice and foxes. As a result of the quantitative evaluation, this site should be recategorized as "no concern" for both mice and foxes for assessment endpoints C13, C14, and C15 (Table 2.1). No other assessment endpoints were relevant for evaluation at Site 2.

6.8.3 Site 3

Thirteen additional surface soil samples, buckwheat, and deer mice were collected at Site 3, the Beach Trainfire Ranges, and analyzed (Section 6.1). The COPCs at this site were metals (Table 6.6). Site 3 was initially classified as of "probable concern" to plants in the screening assessment. On the basis of the results of the quantitative evaluation, Site 3 should be recategorized as of "no concern" to plants for assessment endpoints C1, C2, C3, and C4 (Table 2.1).

As a result of the quantitative evaluation, statistically significant impacts to buckwheat were observed only in some areas of high bullet density (i.e. greater than 12 percent bullets by weight). However, when taken as a whole, these data do not indicate that soluble metals concentrations in soil effect plant germination and growth. Therefore, the available data indicate that impacts to the Smith's blue butterfly are unlikely (endpoints C5, C6, C7, and C8, Table 2.1).

For mammals, Site 3 was initially classified in the screening assessment as of "probable concern" for both mice and foxes. As a result of the quantitative evaluation, this site should be recategorized as "probable concern" for mice and "possible concern" for foxes for assessment endpoints C13, C14, and C15 (Table 2.1). The hazard index for the mouse is due to lead and antimony with lead contributing to over 90 percent of the total HI. The hazard index for the fox is due to lead, and 85 percent of the HQ for lead is due to exposure through ingestion of soil. The remainder is due, approximately equally, to ingestion of plants, ingestion of mice, and dermal exposure to soil.

The quantitative evaluation also indicated no impacts to mourning doves are expected as a result of ingesting bullet fragments (assessment endpoint C16, Table 2.1)

6.8.4 Site 11

Four additional surface soil samples, oats, and deer mice were collected and analyzed for Site 11, the AAFES Fueling Station, as described in Section 6.1. The COPCs at this site were metals (Table 6.6). Site 11 was initially classified as inconclusive for plants based on the screening assessment results. As a result of the quantitative evaluation, Site 11 should be recategorized as being of "possible concern" to plants due to chromium for assessment endpoints I1, I2, I3, and I4 (Table 2.2).

For mammals, Site 11 was initially classified in the screening assessment as being of "probable concern" for mice and "possible concern" foxes. As a result of the quantitative evaluation, this site should be recategorized as being of "no concern" for both mice and foxes for assessment endpoints I9 through I12 (Table 2.2).

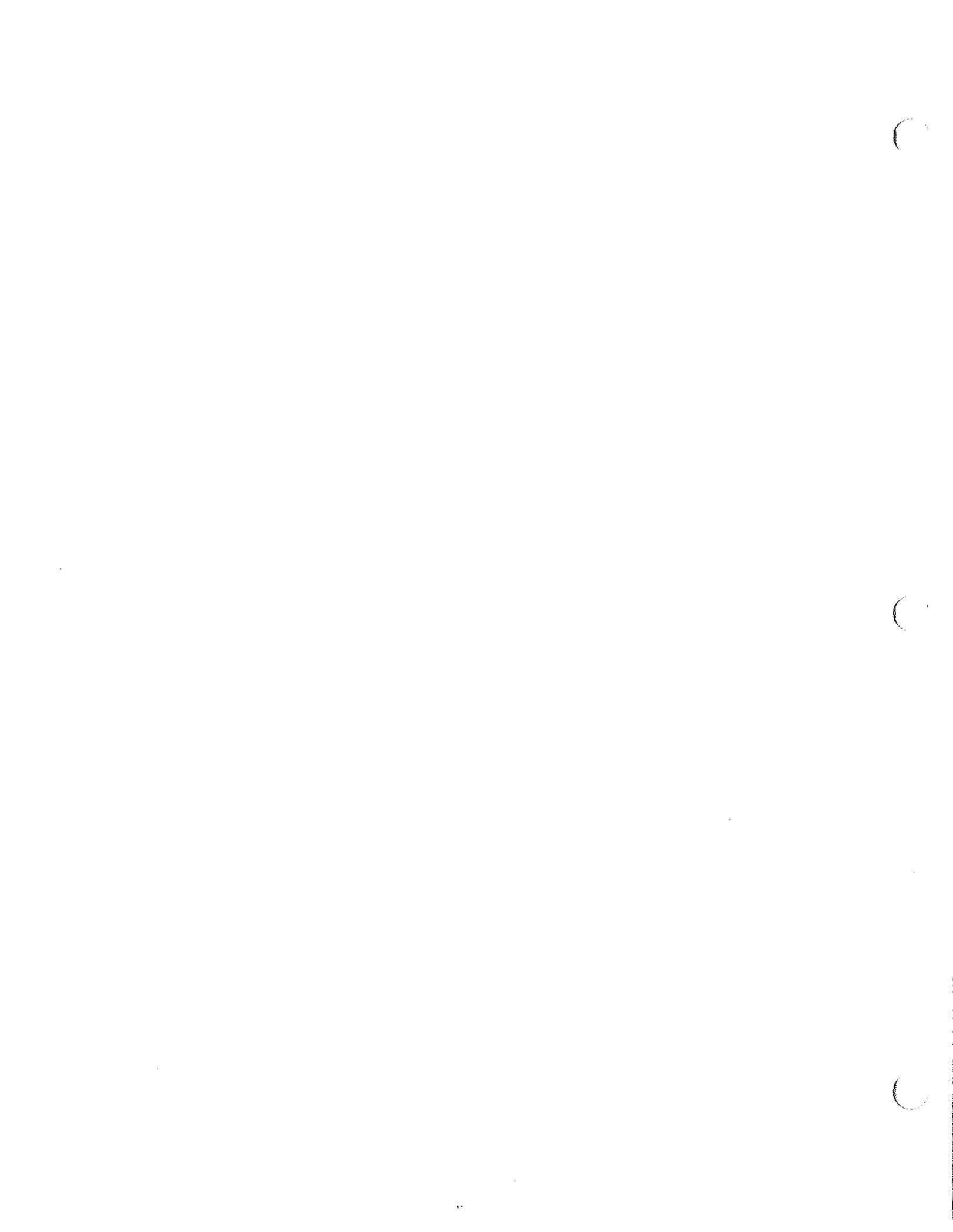
6.8.5 Site 12

Four additional surface soil samples and oats were collected and analyzed for Site 12, the Lower Meadow, DOL Yard, and Cannibalization Yard, as described in Section 6.1. The COPCs at this site were metals, three VOCs, and three phthalates (Table 6.6). Site 12 was initially classified as of "probable concern" for plants based on the screening assessment results. As a result of the quantitative evaluation of measured plant concentrations, Site 12 should be recategorized as being of "no concern" to plants for assessment endpoints I1, I2, I3, and I4 (Table 2.2).

For mammals, Site 12 was initially classified in the screening assessment as being of "probable concern" for both mice and foxes. On the basis of the quantitative evaluation, this site should be recategorized as a "no concern" site for both mice and foxes for assessment endpoints I9 through I12 (Table 2.2).

In Volume IV, Baseline Ecological Risk Assessment, Section 6.8.3, change the second and third sentences of the third paragraph in the first column of page 161 to read:

However, when taken as a whole, these data do not indicate that soluble metals concentrations in soil have substantial effects on plant germination and growth. Therefore, the available data do not indicate that impacts to the food source and habitat of the Smith's blue butterfly are likely (endpoints C5, C6, C7, and C8, Table 2.1).



6.8.6 Site 15

Four additional surface soil samples and oats were collected and analyzed for Site 15, the DEH Yard, as described in Section 6.1. The COPCs for this site were metals, four VOCs and six pesticides (Table 6.6). Site 15 was initially classified as a NoFA site because an interim action (IA) is planned for the site, and was evaluated in the quantitative assessment only to validate the model used in the screening assessment. Although plants were not evaluated in the screening assessment, a modeled HI was calculated which indicated "no concern" for plants based on the screening assessment results. As a result of the quantitative evaluation, Site 15 is of "possible concern" to plants (due to chromium) for assessment endpoints I1, I2, I3, and I4 (Table 2.2).

For mammals, Site 15 was initially identified as of "probable concern" to both mice and foxes in the screening assessment. The results of the quantitative evaluation indicate "no concern" for both mice and foxes for assessment endpoints I9 through I12 (Table 2.2). Site 15 is categorized as a NoFA site because of the soil in the areas of concern will be removed in a planned IA.

6.8.7 Site 16

Ten additional surface soil samples, oats, and litter were collected and analyzed for Site 16, the DOL/Maintenance Yard and Pete's Pond, as described in Section 6.1. The COPCs at this site included metals, two VOCs, five PAHs, two phthalates, four pesticides, and CDDs/CDFs (Table 6.6). Site 16 was initially classified as being of "no concern" for plants based on the screening assessment results. The results of the quantitative evaluation also indicate "no concern" to plants for assessment endpoints I1, I2, I3, and I4 (Table 2.2).

Based on data compiled for leaf litter at Site 16, no impacts to the leaf litter community are expected. There is "no concern" from site-related chemicals for assessment endpoints relative to the black legless lizard (I5 through I8 on Table 2.2) indicate.

For mammals, Site 16 was initially classified in the screening assessment as "possible concern" to

mice and foxes. The results of the quantitative evaluation indicate "no concern" for mice and foxes for assessment endpoints I9 through I12 (Table 2.2).

6.8.8 Site 21

Four additional surface soil samples and oats were collected and analyzed for Site 21, the 4400/4500 Motor Pool, East Block, as described in Section 6.1. The COPCs at this site included metals, two VOCs, one PAH, and one phthalate (Table 6.6). Site 21 was initially classified as a NoFA site because an IA is planned for the site. It was evaluated in the quantitative assessment only to validate the model used in the screening assessment. Although plants were not evaluated in the screening assessment, a modeled HI was calculated which indicated "probable concern" for plants based on the screening assessment results. The quantitative evaluation indicated that Site 21 is of "no concern" to plants for assessment endpoints I1, I2, I3, and I4 (Table 2.2).

For mammals, the screening assessment indicated "probable concern" to mice and foxes. The quantitative evaluation indicated "no concern" for mice and foxes for assessment endpoints I9 through I12 (Table 2.2); Site 21 will remain a NoFA site due to these results and the planned IA.

6.8.9 Site 22

Four additional surface soil samples and oats were collected and analyzed for Site 22, the 4400/4500 Motor Pool, West Block, as described in Section 6.1. The COPCs at this site were metals, one PAH, two phthalates, and two pesticides (Table 6.6). Site 22 was initially classified as a NoFA site based on the results of the mammalian screening assessment; it was evaluated in the quantitative assessment only to validate the model used in the screening assessment. Although plants were not evaluated in the screening assessment, a modeled HI was calculated which indicated "no concern" for plants based on the screening assessment results. The results of the quantitative evaluation for Site 22 also indicate "no concern" to plants for assessment endpoints I1, I2, I3, and I4 (Table 2.2).

For mammals, Site 22 was initially classified in the screening assessment as "no concern" to mice and foxes. The quantitative evaluation also indicated "no concern" for mice and foxes for assessment endpoints I9 through I12 (Table 2.2).

6.8.10 Site 24

Six additional surface soil samples, oats, deer mice, and litter were collected and analyzed for Site 24, the Old DEH Yard, as described in Section 6.1. The COPCs at this site were metals, one VOCs, one phthalate, six pesticides, and PCBs (Table 6.6). Site 24 was initially classified as of "possible concern" for plants based on the screening assessment results. The results of the quantitative evaluation indicate "no concern" to plants for assessment endpoints I1, I2, I3, and I4 (Table 2.2).

Based on leaf litter data for the site, no impacts to the leaf litter community are expected at Site 24. Therefore, assessment endpoints relative to the black legless lizard (I5 through I8 on Table 2.2) indicate no concern from site-related chemicals.

For mammals, Site 24 was classified in the screening assessment as "probable concern" for mice and "possible concern" for foxes. The results of the quantitative evaluation indicate this site should be recategorized as a "no concern" site for both mice and foxes for assessment endpoints I9 through I12 (Table 2.2).

6.8.11 Site 25

Four additional surface soil samples, oats, hottentot fig, deer mice, and litter were collected and analyzed for Site 25, the Former DRMO, as described in Section 6.1. The COPCs at this site included metals, one VOC, five pesticides, and PCBs (Table 6.6). Site 25 was initially classified as being of "possible concern" for plants based on the screening assessment results. The quantitative evaluation indicate "possible concern" to oats due to copper and "no concern" to hottentot fig for assessment endpoints I1, I2, I3, and I4 (Table 2.2).

Based on leaf litter data for the site, no impacts to the leaf litter community are expected at Site 25. Therefore, there is "no concern" from site-

related chemicals for assessment endpoints relative to the black legless lizard (I5 through I8 on Table 2.2) indicate.

For mammals, Site 25 was initially classified in the screening assessment as being of "possible concern" for both mice and foxes. The quantitative evaluation indicate this site should be recategorized as a "no concern" site for mice and foxes for assessment endpoints I9 through I12 (Table 2.2).

6.8.12 Site 29

Four additional surface soil samples, oats, deer mice, and litter were collected and analyzed for Site 29, the DRMO, as described in Section 6.1. The COPCs at this site included metals and four pesticides (Table 6.6). Site 29 was initially classified as an NoFA site based on the results of the mammalian screening assessment. It was evaluated in the quantitative assessment only to validate the model used in the screening assessment. Although plants were not evaluated in the screening assessment, a modeled HI was calculated which indicated "possible concern" for plants based on the screening assessment results. The results of the quantitative evaluation, indicate "probable concern" to plants for assessment endpoints I1, I2, I3, and I4 (Table 2.2) due to chromium at one transect.

Leaf litter data for the site indicate that no impacts to the leaf litter community are expected at Site 29. Therefore, there is "no concern" from site-related chemicals for assessment endpoints relative to the black legless lizard (I5 through I8 on Table 2.2).

For mammals, Site 29 was initially classified in the screening assessment as "no concern" for mice and foxes. The results of the quantitative evaluation also indicate "no concern" for mice and foxes for assessment endpoints I9 through I12 (Table 2.2).

6.8.13 Site 31

Four additional surface soil samples, oats, deer mice, and litter were collected and analyzed for Site 31, the Former Dump Site, as described in Section 6.1. The COPCs at this site included metals, 11 PAHs, two pesticides, and CDDs/CDFs

(Table 6.6). Site 31 was initially classified as being of "probable concern" for plants based on the screening assessment results. The results of the quantitative evaluation indicate "no concern" to plants for assessment endpoints I1, I2, I3, and I4 (Table 2.2).

Leaf litter data for the site indicate no impacts to the leaf litter community are expected at Site 31. Therefore, there is "no concern" from site-related chemicals assessment endpoints relative to the black legless lizard (I5 through I8 on Table 2.2).

For mammals, Site 31 was classified in the screening assessment as being of "probable concern" for mice and foxes. As a result of the quantitative evaluation, this site should be recategorized as a "no concern" site for mice and foxes for assessment endpoints I9 through I12 (Table 2.2).

6.8.14 Site 32

Four additional surface soil samples and oats were collected and analyzed for Site 32, the East Garrison Sewage Treatment Plant, as described in Section 6.1. The COPCs at this site were metals and four pesticides (Table 6.6). Site 32 was initially classified as an NoFA site based on the results of the mammalian screening assessment and was evaluated in the quantitative assessment only to validate the model used in the screening assessment. Although plants were not evaluated in the screening assessment, a modeled HI was calculated which indicated "no concern" for plants based on the screening assessment results. The results of the quantitative evaluation also indicate "no concern" to plants for assessment endpoints I1, I2, I3, and I4 (Table 2.2).

For mammals, Site 32 was initially classified in the screening assessment as "no concern" to mice and foxes. The results of the quantitative evaluation indicate "no concern" to mice and foxes for assessment endpoints I9 through I12 (Table 2.2).

6.8.15 Site 33

Four additional surface soil samples, brome, and deer mice were collected and analyzed for Site 33, the Golf Course, as described in Section 6.1. The COPCs at this site included metals and seven

pesticides (Table 6.6). Site 33 was initially classified as being of "possible concern" for plants based on the screening assessment results. The quantitative evaluation results also indicate "possible concern" to plants due to copper and chromium for assessment endpoints I1, I2, I3, and I4 (Table 2.2).

For mammals, Site 33 was initially classified in the screening assessment as "probable concern" for both mice and foxes. As a result of the quantitative evaluation, this site should be recategorized as a "no concern" site for mice and foxes for assessment endpoints I9 through I12 (Table 2.2).

6.8.16 Site 35

Ten additional surface soil samples, brome, deer mice, and litter were collected and analyzed for Site 35, the Aircraft Cannibalization Yard, as described in Section 6.1. The COPCs at this site were metals (Table 6.6). The screening assessment results for Site 35 were inconclusive for plants. The results for the quantitative evaluation indicate "no concern" to plants for assessment endpoints I1, I2, I3, and I4 (Table 2.2).

Leaf litter data for the site indicate no impacts to the leaf litter community are expected at Site 35. Therefore, there is "no concern" from site-related chemicals for assessment endpoints relative to the black legless lizard (I5 through I8 on Table 2.2).

For mammals, the screening assessment results for Site 35 were inconclusive for both mice and foxes. The results of the quantitative evaluation indicate "no concern" for mice or foxes for assessment endpoints I9 through I12 (Table 2.2).

6.8.17 Site 39

No additional soil samples or biota were collected at Site 39, the Inland Ranges and 2.36-inch Rocket Range, due to the presence of unexploded ordnance (Section 6.1). The COPCs at this site included metals, one phthalate, pentachlorophenol, and explosives (Table 6.6). Site 39 was initially classified as being of "probable concern" for plants based on the screening assessment results. The results of the

quantitative evaluation indicate "no concern" to plants for assessment endpoints I1, I2, I3, and I4 (Table 2.2).

Leaf litter data for Site 16 and 35 indicate by analogy that no impacts to the leaf litter community are expected at Site 39 over the range of chemical concentrations seen at Sites 16 and 35. Therefore, there is "no concern" from site-related chemicals for assessment endpoints relative to the black legless lizard (I5 through I8 on Table 2.2).

For mammals, Site 39 was classified in the screening assessment as being of "probable concern" for mice and foxes. The results of the quantitative evaluation indicate this site should be recategorized as a "possible concern" site for mice and a "no concern" site for foxes for assessment endpoints I9 through I12 (Table 2.2). The hazard index for the mouse is due to lead and HMX with HQs of 27 and 4, respectively. For lead, 79 percent of the exposures are due to ingestion of plants, 20 percent from ingestion of soil, and the remainder from dermal exposure to soil. For HMX, nearly 100 percent of the exposures are due to ingestion of plants; plant tissues were not analyzed for explosives so this value was derived using modeled plant uptake factors.

The quantitative evaluation also indicated no impacts to mourning doves are expected as a result of ingesting bullet fragments (assessment endpoint C16, Table 2.1).

6.8.18 Site 41

No additional soil samples or biota were collected at Site 41, the Crescent Bluff Fire Drill Area, because site characterization data only recently became available for the site as described in Section 6.1. The COPCs at this site included metals and one VOC (Table 6.6). Site 41 was initially classified as being of "probable concern" for plants based on the screening assessment results. The results of the quantitative evaluation indicate "no concern" to plants for assessment endpoints I1, I2, I3, and I4 (Table 2.2).

Leaf litter data for Sites 16 and 31 indicate by analogy that no impacts to the leaf litter

community are expected at Site 41 over the range of chemicals seen at Sites 16 and 31. Therefore, there is "no concern" from site-related chemicals for assessment endpoints relative to the black legless lizard (I5 through I8 on Table 2.2).

For mammals, Site 41 was classified in the screening assessment as "probable concern" for foxes. The quantitative evaluation results indicate this site should be recategorized as a "no concern" site for mice and foxes for assessment endpoints I9 through I12 (Table 2.2).

6.8.19 Summary of Aquatic Assessment for Outfalls

Dilution modeling for stormwater and sediment entering Monterey Bay from all stormwater outfalls likely to produce runoff to the bay resulted in dilution factors exceeding the required dilution factor of 8 for stormwater (to dilute runoff to below levels of concern), and 100 for sediments (to dilute chemicals in sediment to below BCs). The outfalls likely to produce runoff to the bay are OF-01-MH, OF-02, OF-03, and OF-04 as well as OF-07, which is upgradient of OF-03.

6.8.20 Terrestrial Outfalls

Two of the four newly identified outfalls (OF-12 and OF-35) were not further evaluated because there are no complete exposure pathways at these outfalls. The remaining two outfalls, OF-31 and OF-34, were further evaluated by estimating potential risks to deer mice. The hazard indices for site soil and sediment at Outfall OF-34 were less than 1, indicating "no concern." The sediment HI at Outfall OF-31 was lower than the soil HI for the site it drains, making this outfall of "no concern" as well.

Outfalls OF-05, OF-14, and OF-15, which were initially evaluated in the screening assessment, had sediment HIs lower than site soil HIs, making these outfalls of "no concern." Three outfall locations at Site 16 (OF-16-02, -04 and -05) showed "possible" to "probable concern." Because soil at Site 16 has been shown to be of "no concern" (Section 6.8.7), these outfalls are not further evaluated. Outfall OF-26 at Site 29 was of "possible concern" and is evaluated further as part of Site 29 (Section 7.0).

In Volume IV, Baseline Ecological Risk Assessment, replace the third sentence of the first paragraph in the first column of Page 166, Section 7.0 to read:

Sections 7.2 through 7.5 provide the interpretation portion of the risk description step where the potential toxicological effects identified in Section 6.0 are translated into potential ecological impacts.



7.0 RISK DESCRIPTION

An ecological risk assessment, as discussed in the EPA framework document (*EPA, 1992j*) and by Norton et al. (1992) comprises three steps: problem formulation, analysis, and risk characterization. The risk characterization step consists of risk estimation and risk description. Section 6.0 presents the risk estimation. This section presents the risk description portion of risk characterization, consistent with the EPA framework document (*EPA, 1992j*).

Risk description (*EPA, 1992j; Norton et al., 1992*) consists of two parts: (1) ecological risk summary and (2) interpretation of ecological significance. Section 7.1, the ecological risk summary, discusses the results of the risk estimation and uncertainty analyses presented in Section 6.0. Sections 7.2 through 7.5 provide the interpretation portion of the risk description step. In Section 7.2, the magnitude and ecological significance of the identified risks are discussed. Section 7.3 continues the discussion of ecological significance with an evaluation of the nature and magnitude of the effects. Section 7.4 discusses spatial and temporal patterns and Section 7.5 presents an evaluation of the potential for recovery.

7.1 Ecological Risk Summary

The results of the risk estimation and uncertainty analysis for terrestrial and aquatic sites are summarized below in Sections 7.1.1 and 7.1.2, respectively.

7.1.1 Ecological Risk Summary - Terrestrial Sites

Terrestrial sites were categorized as requiring no further action if (1) no complete exposure pathways were identified, (2) evaluation of measurement endpoints (presented in Tables 2.1 and 2.2) using conservative assumptions and modeling exposures indicated that no adverse effects were expected, or (3) evaluation of the measurement endpoints using field data to replace modeled assumptions indicated no adverse effects were expected. This evaluation of

measurement endpoints was used to critically assess the likelihood of an effect on the assessment endpoints identified in Tables 2.1 and 2.2. Because of the assumptions used in the selection of the measurement endpoints, if no adverse effects were expected based on evaluation of the measurement endpoint, then no effects are expected to the assessment endpoint.

As shown in Table 7.1, 41 terrestrial sites were initially evaluated in the ERA. Two of these were not evaluated as RI/FS sites, five sites were included as part of the evaluation of Site 39, and one site was evaluated as part of the outfall investigation discussed in Section 7.1.2. Therefore, 33 terrestrial sites were identified for analysis in the ERA.

The evaluation of complete exposure pathways, part of the problem formulation step of an ERA, is presented in Table 7.1 under the heading PHA1. In this step, 13 of the 33 sites were identified as having incomplete exposure pathways and were therefore excluded from further consideration in the ERA. Because no complete exposure pathways were identified, neither the measurement endpoints nor the assessment endpoints identified in Table 2.2 would be affected at these sites (Section 3.0). These sites were categorized as No Further Action (NoFA) sites from an ecological perspective.

In the analysis and risk estimation steps, presented in part in Table 7.1 as the quantitative screening assessment, the 20 remaining terrestrial sites were evaluated using site maximum chemical concentrations in soil and modeled chemical concentrations in plants for the mouse, and site maximum chemical concentrations in soil, modeled chemical concentrations in plants, and modeled chemical concentrations in mice for the fox. The results showed that two sites (Sites 1 and 40) posed no potential ecological risks based on an estimated hazard index of less than 1. Site 17 was not evaluated further because only low risks were estimated and the site is 95 percent paved, and the maximum

concentrations of COPCs were detected in the paved areas. The results of this assessment indicated that the remaining 17 terrestrial sites needed further analysis. Data gaps were identified based on the modeled estimates of plant and animal concentrations used in the exposure assessment, and additional chemical data from biota were gathered to validate the models and provide direct inputs into the exposure assessment (Section 6.1).

In a second iteration of the analysis and risk estimation steps, presented in Table 7.1 under the heading quantitative ecological risk assessment, the data gathered were used to fill data gaps to provide more realistic estimates of potential exposures for the indicator species. The quantitative ecological risk assessment used average soil concentration data in place of the maximum to provide more realistic estimates of the concentrations to which the indicator receptors would likely be exposed. In this analysis, 8 sites were shown to pose no estimated potential risk based on exposures consistent with background exposures (Sites 12, 16, 22, 24, 31, 32, 35, and 41). Therefore, these 8 sites were categorized as NoFA sites from an ecological perspective. Site 21 was also shown to pose no estimated potential risk based on exposures less than levels of concern. In addition, this site is scheduled for an interim action, and it was categorized as a NoFA site. The remaining eight sites (Sites 2, 3, 11, 15, 25, 29, 33, and 39) were shown to pose low estimated potential risks and to need further analysis. These sites are discussed below.

Site 2 was identified as being of possible concern to plants based on concentrations found in the former sludge pits. Sites 11, 15, 29, and 33 were identified as being of possible concern to plants based on concentrations of chromium. Sites 25 and 33 were also estimated to present a possible concern to plants based on measured plant concentrations of copper. Three sites (Sites 3, 15, and 39) posed additional risks based on other analyses. Site 3 was estimated to be of possible concern to buckwheat and to fox and of probable concern to deer mice. Site 39 was estimated to be of possible concern for deer mice.

7.1.2 Ecological Risk Summary - Outfall Assessment

This section evaluates potential impacts to aquatic receptors. Because impacts to aquatic resources (e.g., Monterey Bay and the Salinas River) are primarily attributable to surface water runoff (and the associated suspended soil), this section evaluates the outfalls for their potential effects on aquatic and terrestrial organisms. Outfalls were categorized as requiring no further action if (1) no complete exposure pathways were identified, (2) evaluation of measurement endpoints (presented in Table 2.3) comparing stormwater concentrations to AWQCs and comparing sediment concentrations to ER-Ls and ER-Ms indicated no adverse effects were likely, and (3) modeled dilution of the stormwater or sediments to the receiving water body indicated that concentrations in the receiving water body would cause a potential problem.

As shown in Tables 5.28 and 6.40, a total of 28 outfalls was also evaluated. Table 7.2 provides an outfall by outfall summary and a comparison of the results from the ecological risk assessment with the results of the human health screening assessment presented in Volume II. Of the 28 outfalls, 17 were evaluated for potential effects to aquatic receptors and 24 were evaluated for potential effects to terrestrial receptors. Only 24 outfalls were evaluated in PHA1, PHA2, and the screening assessment (Sections 3.0 through 5.0), 17 for aquatic and 20 for terrestrial effects; the 4 newly identified outfalls were evaluated for potential effects to terrestrial receptors in the quantitative assessment (Section 6.0).

In the problem formulation step presented in PHA1 (Table 3.4), 10 outfalls were identified as having incomplete exposure pathways to aquatic receptors and were categorized as NoFA outfalls, leaving 7 outfalls for further evaluation, 5 at Monterey Bay, 1 at Pete's Pond, and 1 at the Salinas River. Eleven outfalls were identified as having incomplete exposure pathways to terrestrial receptors and were categorized as NoFA outfalls, leaving 9 outfalls for further evaluation for potential effects (Table 3.4). Because no complete exposure pathways were identified at these outfalls, neither the measurement endpoints nor the assessment

endpoints identified in Table 2.3 would be affected at these sites (Section 3.0). No outfalls were eliminated from further consideration in PHA2 (Table 4.2, Section 4.0) which included the results of site characterizations.

In a first iteration of the analysis and risk estimation steps, presented in Table 7.1 under the heading quantitative ecological screening assessment, further evaluation of the outfalls identified as having potentially complete exposure pathways was performed. The aquatic assessment (Section 5.6.3) included comparisons of chemical concentrations in sediments with ER-Ls and ER-Ms, evaluations of chemical concentrations in stormwater, and an evaluation of stormwater toxicity. One outfall at the Salinas River was shown to have no potential impacts to aquatic receptors and the outfall at Pete's Pond was to be evaluated as part of Site 16; these were categorized as NoFA outfalls, leaving the 5 outfalls at Monterey Bay for further evaluation. The terrestrial assessment (Section 5.6.4) included calculating hazard indices for the deer mouse for both sediment and site soil. As a result of these evaluations, 3 outfalls were shown to be of "no concern" (NoFA outfalls) and 6 outfalls were of "possible" or "probable concern". Therefore, 10 outfalls (6 identified in the screening assessment plus the 4 newly identified outfalls) were to be further evaluated in the quantitative assessment.

For the aquatic portion of the quantitative assessment, dilution modeling was conducted to evaluate whether concentrations of chemicals in stormwater and sediment were likely to be above levels of concern in Monterey Bay. However, the modeling showed that these chemicals would be diluted to below levels of concern, making all 5 outfalls NoFA outfalls. For the terrestrial portion of the aquatic assessment, 2 of the 4 newly identified outfalls were identified as having incomplete exposure pathways and one was shown to be of "no concern" (NoFA) to deer mice; the last outfall (OF-31) was of "probable concern." The six outfalls of "possible" or "probable concern" from the screening assessment plus OF-31 were further evaluated to assess whether the risks calculated were due to site-related chemicals (and therefore evaluated in the terrestrial site investigation) by comparing the site soil HIs with the sediment HIs. As a result

of these evaluations, only one outfall, OF-26, was still deemed to be of "possible concern"; the other five were categorized as NFA outfalls.

7.2 Interpretation of Ecological Significance

The magnitude of the identified risks presented in Section 7.1 to the assessment endpoints is discussed in this section. The interpretation of ecological significance "places risk estimates in the context of the types and extent of anticipated effects" (EPA, 1992j). This step relies on professional judgment and may emphasize factors such as (1) the nature and magnitude of effects, (2) spatial and temporal patterns of the effects, and (3) recovery potential, depending on the assessment endpoints being evaluated. Some or all of these factors are discussed in subsequent sections to place the risks estimated in this ERA, based on the assessment endpoints, into a broader ecological context.

7.2.1 Terrestrial Sites

As discussed in Section 7.1.1, of the 41 terrestrial sites initially considered, 8 sites were estimated to have potential ecological effects. The rest of the sites were estimated to have no significant effects based on:

- The lack of complete exposure pathways
- Calculation of hazard indices using conservative models
- Use of site-specific data to modify the models used to calculate the hazard indices
- Comparison of site specific body burdens to background body burdens
- Quantitative discussion of uncertainty using Monte Carlo Analysis.

The remaining sites (Sites 2, 3, 11, 15, 25, 29, 33 and 39) showed probable or possible concern. Site 2 was identified as being of possible concern to plants based on chemical concentrations in soil in the former sludge pits. No plants were found growing there because the pits are lined with asphalt. Plants were found in other areas of the site.

Sites 11, 15, 29, and 33 were identified as being of possible concern to plants based on concentrations of chromium in plants. This evaluation was based on a comparison of chromium concentrations in plant tissues with benchmark concentrations. However, the mean soil concentrations of chromium at these sites (12.3, 13.6, 11.5, and 13.3 mg/kg, respectively) were all below both the deep background chromium threshold of 16.6 mg/kg and the shallow background chromium threshold of 24.0 mg/kg. Thus the soil concentrations at these sites are considered to represent background conditions and any adverse effects to plants at these sites are the result of background exposures. Sites 25 and 33 were also estimated to present a possible concern to plants based on measured concentrations of copper in plants. The mean soil concentration of copper at Sites 25 and 33 were 5.6 and 16.0 mg/kg, respectively, which were above the deep copper background threshold of 8.2 mg/kg but below the shallow background copper threshold of 18.2 mg/kg as presented in the Basewide Background Soil Investigation (HLA, 1993e). Therefore adverse effects to plants at these sites are not expected because site concentrations are similar to background.

Two sites (Sites 3 and 39) were evaluated as being of possible or probable concern based on other analyses. Site 3 was estimated to be of possible concern to buckwheat and to fox and of probable concern to deer mice. Possible affects to legless lizards could not be easily evaluated as discussed below. Site 39 was estimated to be of possible concern to deer mice.

At Site 3, some areas containing greater than 12.5 weight percent of bullets may be associated with decreased root elongation of buckwheat plants. However, buckwheat plants are present in these areas of the site, so adverse impacts are not likely to result to the Smith's blue butterfly due to habitat loss under current conditions.

At Site 3, possible effects on the assessment endpoints for the black legless lizard are difficult to evaluate for several reasons. First, no data were gathered on the litter communities because no distinct litter samples were obtained as at other sites. Black legless lizards were observed onsite. However, because no surrogate species

were trapped (Section 6.1), there was no way to evaluate potential effects on the lizards. The extent of any potential effects may be a function of bullet density, as lower numbers of individuals and lower numbers of taxa were observed at other sites having higher soil lead concentrations. In interpreting the ecological significance of these potential effects, it should be noted that destruction of habitat by remediation may be more damaging than any potential effects. Limited removal of high impact areas may provide an alternative solution.

For deer mice at Site 3, probable concern was estimated based primarily on the concentrations of lead in soil, and for fox at Site 3, possible concern was estimated also based primarily on the concentrations of lead in soil. For the deer mouse, with its smaller home range, the concentrations of lead in soil may pose an ecological concern, but for the fox, with its larger home range, the lower exposures may not be of ecological significance. As discussed above, these conclusions should be weighed against the clearly adverse effects of remediation of the habitats currently present on Site 3.

At Site 39, the two COPCs that contributed the most to the estimated possible concern for the deer mouse are lead and HMX. However, the presence of unexploded ordnance probably presents a greater physical threat than the concentrations of metals such as lead in soil.

7.2.2 Outfall Assessment

As a result of the summary of outfall evaluations presented in Section 7.1.2, only one outfall, OF-26, was still deemed to be of "possible concern." This section evaluates the potential ecological significance of effects to terrestrial receptors from soil outside Outfall OF-26. Chromium, detected in soil outside the pipe at 94.6 mg/kg, is the chemical that posed the greatest risk. Outfall OF-26 drains Site 29, but the mean concentrations of chromium detected in soil at this site (11.5 mg/kg) are below background threshold both for shallow soil (24.0 mg/kg) and deep soil (16.61 mg/kg). There appears to be no correlation between chromium concentrations in soil at Site 29 and those in the ditch at the outfall location. However, soil concentrations inside the pipe appear to be

In Volume IV, Baseline Ecological Risk Assessment, Section 7.2.1, change the third sentence of the second paragraph in the first column of page 169 to read:

Possible effects to legless lizards could not be evaluated as discussed below.

In Volume IV, Baseline Ecological Risk Assessment, Section 7.2.1, change the second sentence of the third paragraph in the first column of page 169 to read:

However, buckwheat plants have been observed in many of these areas at the site.

In Volume IV, Baseline Ecological Risk Assessment, Section 7.2.1, change the fourth and fifth sentences of the paragraph beginning at the bottom of the first column and ending at the top of the second column of page 169 to read:

However, because trapping of surrogate species was unsuccessful (Section 6.1) there was no way to adequately evaluate potential effects on the lizards. The extent of any potential effects on litter communities may be a function of bullet density, as lower numbers of taxa were observed in leaf litter from other sites with soil lead concentrations equivalent to, or higher than, those at Site 3.



In Volume IV, Baseline Ecological Risk Assessment, Section 7.3, change the first sentence of the first paragraph in the second column of page 170 to read:

However, there was no significant correlation between soil concentration and decreased root growth because some plants grown in soil with lead concentrations greater than 12.5 weight percent of bullets were not affected.

In Volume IV, Baseline Ecological Risk Assessment, Section 7.3, change the third sentence of the first paragraph in the second column of page 170 to read:

The root elongation measurement endpoint was used to assess potential impacts to the food supply and habitat of the Smith's blue butterfly, which use these plants for their entire life cycle.

In Volume IV, Baseline Ecological Risk Assessment, Section 7.3, delete the last sentence of the first paragraph in the second column of page 170.



correlated with Site 29 soil concentrations. This outfall drains to a ditch offsite, and there may be some other source upgradient.

7.3 Nature and Magnitude of Effects

Direct effects due to chemical contamination are not readily observed at Ford Ord. This ERA focused on evaluation of potential current or future impacts on ecological systems due to past activities by the Army. Habitats representative of Fort Ord were evaluated, especially coast live oak woodland and central maritime chaparral, both endemic to the area and containing resources of ecological value. Potential impacts to various trophic levels were evaluated, with a focus on special status species such as the Smith's blue butterfly, dusky-footed woodrat, and silvery legless lizard. Potential stormwater runoff to Monterey Bay and the Salinas River was also evaluated to assess potential impacts to the Marine Sanctuary offshore of Ford Ord and fish resources in the Salinas River, respectively.

Three effects relative to endpoints evaluated in the ERA were observed:

- A statically significant difference in root elongation was observed in buckwheat grown in some soil from Site 3 having lead concentrations above 12.5 weight percent of bullets in soil (Section 6.3 and Appendix I).
- Fewer organisms were present in leaf litter from coast live oak woodland, central maritime chaparral, and upland ruderal habitats at the sites than in comparable reference areas (Section 6.6)
- Toxicity to freshwater aquatic organisms was observed in undiluted and slightly diluted stormwater that drains into the Monterey Bay and Salinas River watersheds.

The nature and magnitude of these effects are discussed below.

At Site 3, root growth for some buckwheat grown in soil elutriates containing greater than 12.5 weight percent bullets in soil was less than that observed for buckwheat plants grown in soil containing lower weight percentages of bullets.

However, there was no significant correlation between soil concentration and decreased root growth, and some plants grown in soil with lead concentrations greater than 12.5 weight percent of bullets were not affected. No plant mortality or impacts on germination were noted. The root elongation measurement endpoint was used to assess the food supply of the Smith's blue butterfly, which uses these plants for their entire life cycle. Two species of buckwheat inhabit the 4-mile stretch of coastline comprising Site 3; many stands of buckwheat are present along the dunes (Plate 6.1), some associated with trainfire ranges and target areas where soil is heavily impacted with bullets. There is no apparent correlation between the presence of bullets in soil and an absence of buckwheat plants, indicating that the presence of bullets does not necessarily prevent the plants from growing. Therefore, the nature of the effect is shorter root growth in newly emerged seedlings, and the magnitude of the effect is not significant due to the lack of an identified stressor-response curve.

Fewer organisms are present in leaf litter in coast live oak woodland, central maritime chaparral, and upland ruderal habitats at the sites relative to reference areas. This trend was not statistically significant, although only one sample was collected from each of the three reference areas. This measurement endpoint was used to assess the food supply for the silvery legless lizard and the community structure associated with its microhabitat. The magnitude of the effect was not significant and is expected to be of little ecological significance in the context of CERCLA because the decreases in the number of organisms are not related to elevated chemical concentrations in soil. Rather, the effect may be due to the relatively high degree of human disturbance at the source areas relative to the reference areas (i.e., a nonchemical stressor).

Stormwater toxicity to freshwater organisms was observed at five Monterey Bay outfall locations and one Salinas River location. The nature of the effect included both diminished growth of fathead minnows and lethality to *Ceriodaphnia dubia* and minnows in 7-day chronic tests. The magnitude of the effect was considered negligible to the assessment endpoint of the health of the aquatic community in Monterey Bay because of the magnitude of dilution of the stormwater once

it enters the bay. Toxicity associated with the outfall draining into the Salinas Valley was also considered negligible to the assessment endpoint of the health of fish resources in the river because the stormwater drains into a ditch adjacent to an agricultural field and does not have a transport pathway to reach the river.

Impacts to plants (other than buckwheat), rodents, and predators were not directly measured, but chemical body burdens in plants and rodents do not indicate that impacts are likely occurring to these receptors except potentially at Sites 3, 15, and 39. Plants are growing in heavily impacted soil at all three sites, and rodents were collected from impacted soil at Sites 3 and 15 (trapping was not conducted at Site 39). Therefore, although chemical body burdens at these sites were either measured or estimated to be elevated over those from reference locations, impacts were not identified. Any impacts present but not identified are likely to be of low magnitude and, on the basis of the limited information gathered in this assessment, have not resulted in a change in the community structure at these sites.

7.4 Spatial and Temporal Patterns of the Effects

This section presents (1) an overview of the spatial and temporal patterns of chemical contamination at Fort Ord and (2) discussion of the spatial and temporal patterns of the three observed effects described in Section 7.3 within the context of the overall nature of the base.

Fort Ord is, in effect, a small town occupying approximately 28,000 acres. It is surrounded on the north and south by tract housing (the cities of Seaside and Marina, respectively), on the east by agricultural fields, and on the west by Monterey Bay. Chemical source areas other than Site 39, which occupies approximately 8,000 contiguous acres, are restricted to localized areas mainly within the developed, formerly inhabited part of the base. Sites 3, 35, and 39 are the only identified source areas at the base not associated with developed land. The majority of the base is undeveloped and not associated with known chemical releases. Relative to the surrounding lands, much of the land within Fort Ord contains

the highest quality habitats, especially central maritime chaparral habitat.

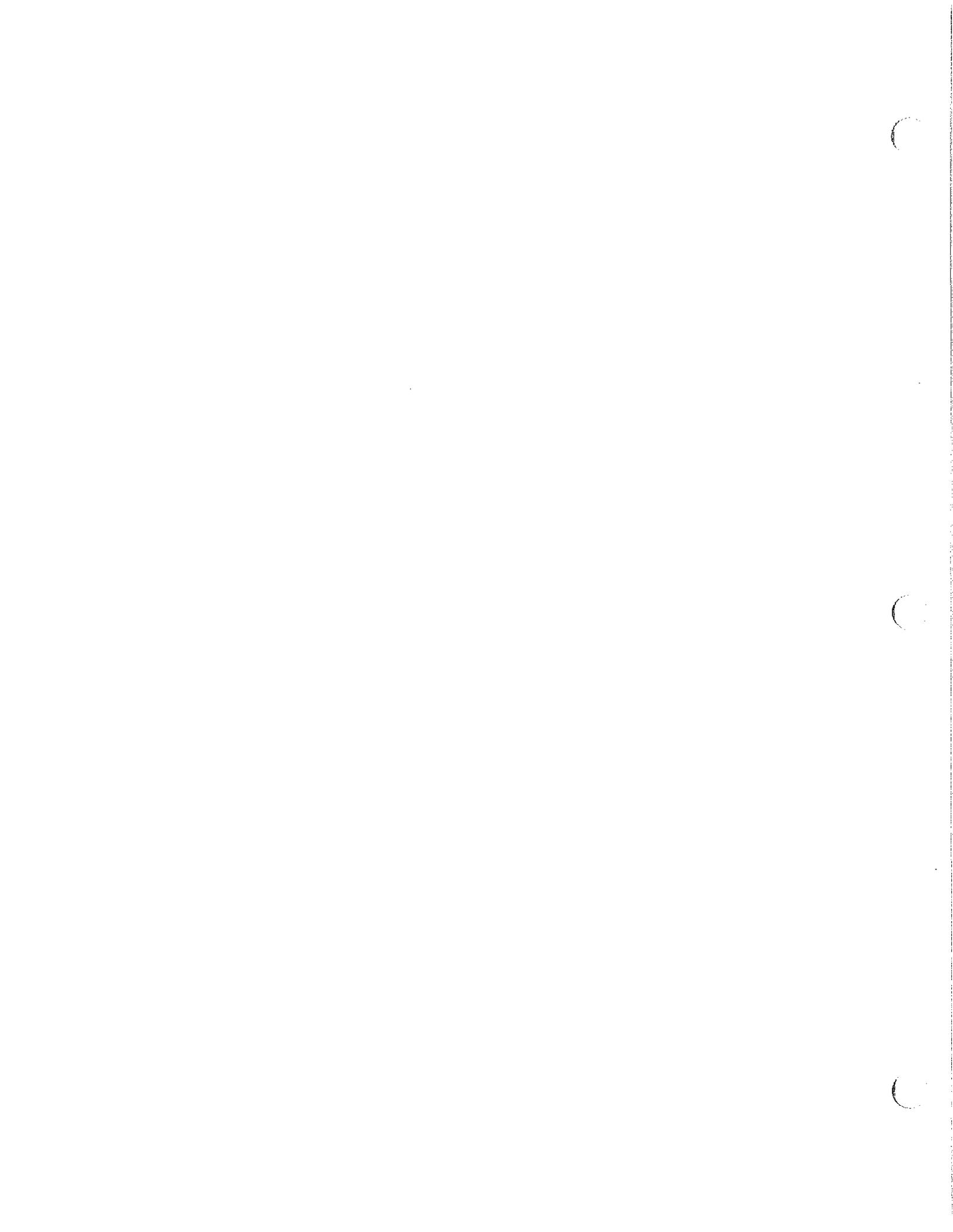
In this context, chemical stressors are restricted to a small area of the base. Physical stressors, including land development and associated loss of habitat, and human activities and disturbance are likely of greater impact than chemical stressors, based on this assessment. Even at the mostly undeveloped Site 39, stressors are primarily physical rather than chemical and are associated with detonations of high explosives in designated target areas. These target areas comprise less than one-third of the 8,000 acres. The physical stressors are all historical; because the base is closed and land is being transferred to other uses, development activities are not presently occurring at Site 39 and use of the inland ranges has ceased. While inland range use is not expected to recur in the future, human disturbance of the developed areas of the base is likely to continue once land transfer is complete. Development of new areas within the base may also occur, increasing the potential effects of nonchemical stressors on the ecological communities.

Within the relatively small chemical source areas, critical resources include the Smith's blue butterfly at Site 3, the legless lizard (both black and silvery), and the central maritime chaparral habitat. The maritime sanctuary offshore of Site 3 is another critical resource that may receive chemicals from source areas through stormwater runoff. As discussed in Section 7.3, however, the nature and magnitude of chemical effects were not considered significant to any of the critical resources identified as assessment endpoints.

The trainfire ranges at Site 3 occupy only 9 percent of the land area of the site; the other 91 percent is not physically impacted by bullets or chemically impacted by chemicals associated with the bullets. Most of the buckwheat plants are located in areas away from those that are physically impacted. Because the base is closed, trainfire activities are not expected to recur at the site, so the physical stressors associated with firing bullets have ceased. New physical stressors associated with restoration of the dunes and construction of boardwalks, etc., may further impact the ecological resources, but likely to a

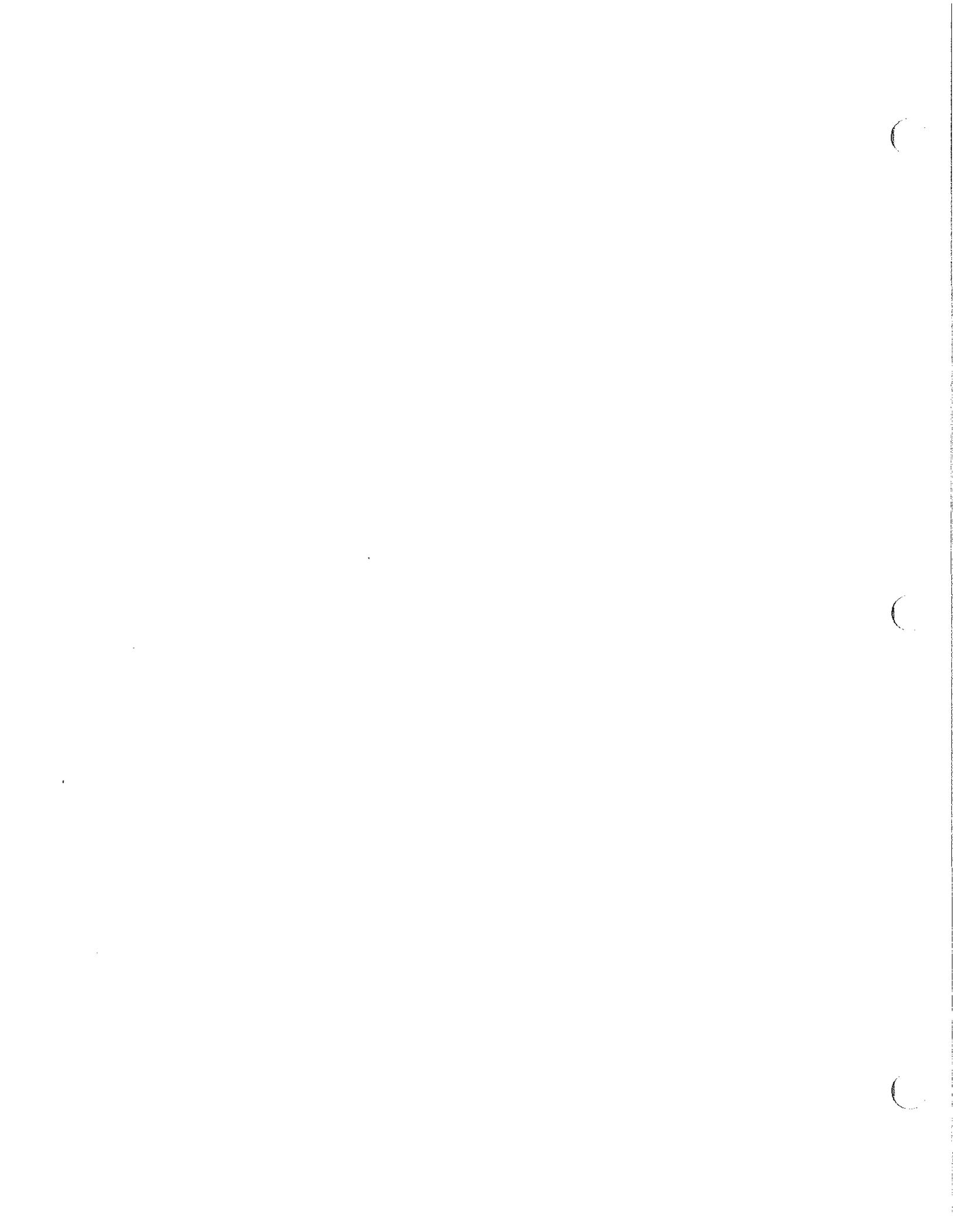
In Volume IV, Baseline Ecological Risk Assessment, Section 7.4, change the second sentence of the last paragraph in the second column of page 171 to read:

The majority of buckwheat plants are located in areas of the site away from those that are most heavily impacted physically.



In Volume IV, Baseline Ecological Risk Assessment, Section 7.4, change the last sentence of the first paragraph in the first column of page 172 to read:

Beacuse the site is mostly covered with hottentot fig, an exotic introduced species, and one objective of the planned restoration is to replace this vegetation with native plants, impacts to the ecological resources (e.g., Smith's blue butterfly and legless lizard) may be reduced in the long term.



lesser extent than in the past. Because the site is mostly covered with hottentot fig, an exotic introduced species, and one objective of the planned restoration is to replace this vegetation with native plants, impacts to the ecological resources (e.g., Smith's blue butterfly and legless lizard) will most likely be reduced in the long term.

Leaf litter associated with chemically impacted areas occupies only a small portion of a few source areas, which in themselves comprise only a small fraction of the base. Most of the leaf litter in contaminated areas is associated with partially developed areas of the base (e.g., upland ruderal patches of land surrounded by buildings or roads), and impacts are unlikely to have ramifications to ecological resources outside of these developed areas.

The central maritime chaparral habitat is rare and declining in Monterey County; the largest contiguous area of this habitat in the county is at Fort Ord. Much of the undeveloped land not associated with known chemical releases consists of this habitat, as does the majority of Sites 35 and 39. Although small patches of this habitat occur in more developed areas, sometimes associated with source areas (e.g., Site 16, Pete's Pond Extension), impacts to these small patches are unlikely to substantially affect the resources associated with this habitat, which include sandmat manzanita and silvery legless lizards. Preservation of undeveloped tracts of this habitat is the most appropriate scenario to achieve protection of this habitat.

The marine sanctuary encompasses an area offshore of Site 3 that extends 4 nautical miles out to sea. Due to dilution of chemicals that may enter the bay from stormwater or sediment runoff associated with stormwater, the spatial extent of any effect on the aquatic community in the sanctuary is expected to be minimal. Physical stressors associated with fishing and other boating activities and chemical stressors associated with discharges from industry in Monterey and agriculture from the Salinas Valley are expected to dwarf any contributions due to Army activities, which have ceased.

7.5 Potential for Recovery

On the basis of the preceding discussion, few impacts to ecological resources due to chemical releases at Fort Ord are identified. These impacts are restricted to small source areas that are not expected to substantially impact ecological resources on the base. The largest areas of impacts are associated with the trainfire ranges at Site 3 and the inland ranges at Site 39. Remediation activities on the basis of potential human health impacts may result in soil excavation and removal on a small scale at Sites 16, 17, and 31, and on a larger scale at Sites 3 and 39. In addition, soil will be excavated in small areas at several sites planned for interim action in the developed portions of the base, mainly areas associated with grease racks and paved areas.

Recovery from an ecological perspective is not applicable to the interim actions planned at paved areas. Small patches of soil in upland ruderal habitats at Sites 15 and 21 are expected to rapidly recover as opportunistic species revegetate the areas. Revegetation with native plants may speed recovery to mature habitats native to the area (e.g., coast live oak woodland).

Recovery at Site 3 will depend on excavation and revegetation plans. Excavation of only the areas of high bullet cover and revegetation with native plants may lead to rapid recovery in the short term, but invasion by surrounding hottentot fig may slow this process and prevent recovery in the long term. Recovery to existing conditions (i.e., dominated with hottentot fig) is expected to be relatively fast. Recovery to a native dune habitat is likely to be much slower and problematic, primarily due to the presence of exotic plant species and not to chemical stressors.

Recovery at Site 39 also depends on excavation and revegetation plans. Removal of soil from high-impact areas and natural revegetation is likely to result in encroachment of the central maritime chaparral habitat into the unvegetated areas, but this process is likely to take several years. Controlled burning is likely to speed up reproduction of the sandmat manzanita and increase growth of existing plants due to increased organic matter in the soil, but may

cause UXO to detonate and slow the process of revegetation. No action may result in the most expeditious rate of recovery of the unvegetated portions of this site.

In summary, chemical impacts at Fort Ord are restricted to small source areas comprising less than one-third the area of the base, including the 8,000-acre inland ranges (Site 39). Impacts to ecological receptors have not been observed on a large scale, and critical resources across the base, other than the central maritime chaparral habitat at Site 39, are not expected to be at risk due to chemical stressors or potential remediation activities.

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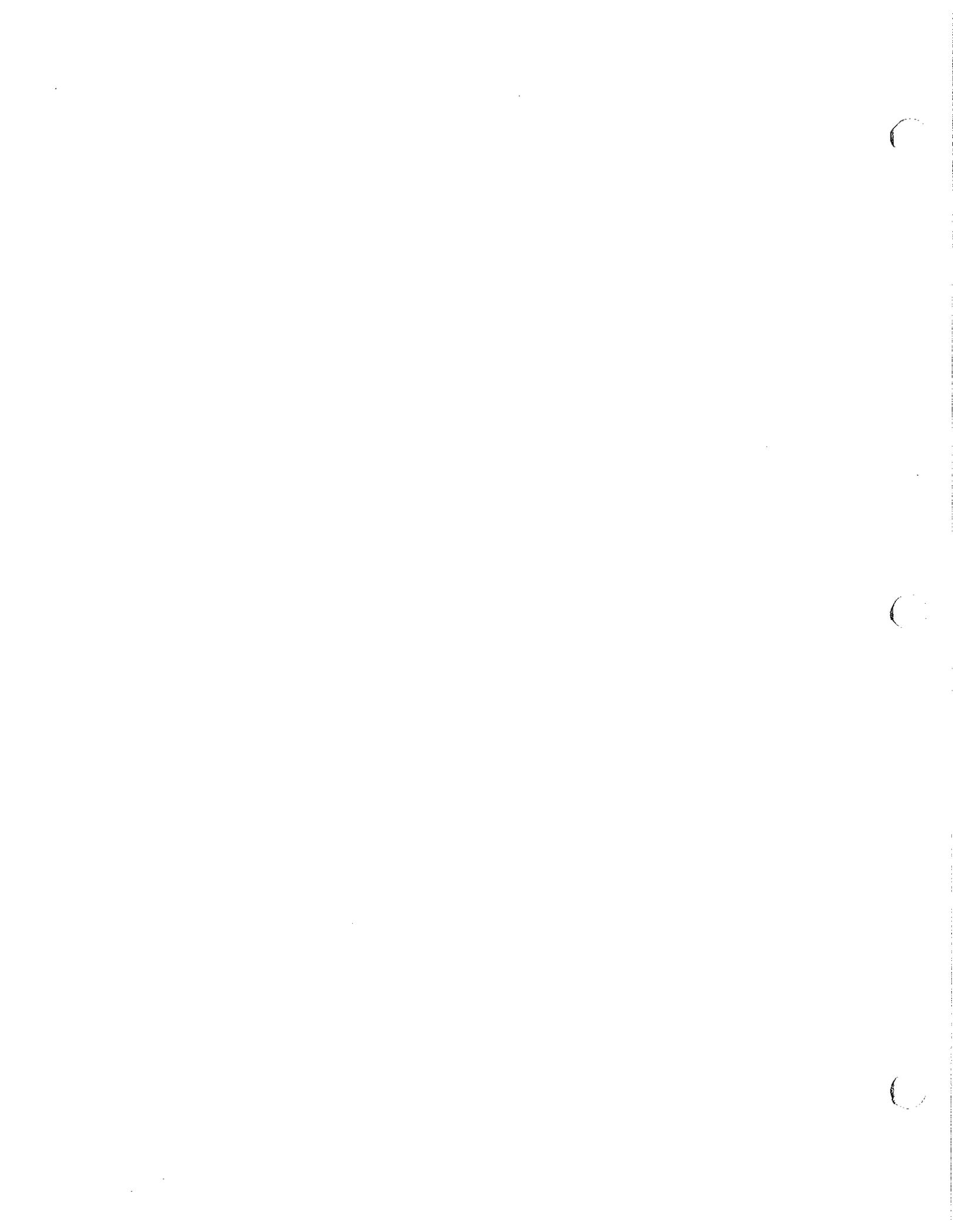
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TABLES



**Table 1.1. List of Sites at Fort Ord
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site No.	Site Name	Sites Evaluated as Part of the ERA
1	Ord Village STP	Yes
2	Main Garrison Sewage Treatment Plant	Yes
3	Beach Trainfire Ranges	Yes
4	Ocean Outfalls	No /a/
5	Inland Ranges	No /b/
6	Inland Ranges	No /b/
7	Inland Ranges	No /b/
8	Inland Ranges	No /b/
9	Inland Ranges	No /b/
10	Burn Pit	Yes
11	AAFES Fueling Station	Yes
12	Lower Meadow, DOL Yard, Cannibalization Yard	Yes
13	Railroad Right-of-Way	Yes
14	707th Maintenance Facility	Yes
15	DEH Yard	Yes
16	DOL/Maint. Yard, Pete's Pond	Yes
17	1400 Block Motor Pool/Disposal Area	Yes
18	1600 Block Facility	Yes
19	2200 Block Facility	Yes
20	South Parade Ground, Motor Pools	Yes
21	4400/4500 Motor Pool, East Block	Yes
22	4400/4500 Motor Pool, West Block	Yes
23	3700 Motor Pool	Yes
24	Old DEH Yard	Yes
25	Former DRMO	Yes
26	Sewage Pump Stations	No /c/
27	Army Reserve Motor Pool	Yes
28	Barracks and Main Garrison Area	Yes
29	DRMO	Yes
30	Driver Training Area	Yes
31	Former Dump Site	Yes
32	East Garrison STP	Yes
33	Golf Course.	Yes
34	FAAF Fueling Facility	Yes
35	Aircraft Cannibalization Yard	Yes
36	FAAF STP	Yes
37	Trailer Park Maintenance Shop	Yes

Table 1.1. List of Sites at Fort Ord
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Site No.	Site Name	Sites Evaluated as Part of the ERA
38	AAFES Dry Cleaners	No /c/
39	Inland Ranges and 2.36-inch Rocket Range	Yes
40	FAAF Defueling Area	Yes
41	Crescent Bluff Fire Drill Area	Yes

ERA Ecological Risk Assessment

/a/ The ocean outfalls are discussed as part of the aquatic assessment of Monterey Bay.

/b/ These sites are evaluated as part of Site 39.

/c/ These sites were not evaluated under the RI/FS program.

**Table 2.1. Habitat or Site-Specific Assessment and Measurement Endpoints for Coastal Sites
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Endpoint Number	Organism	Assessment Endpoint	Measurement Endpoint	Data Required (type of data)	Sites
C1	Plants	Plant growth not affected; soil concentrations not elevated	Soil metal concentrations not different from controls Metals within Ft. Ord background range for appropriate soils	Soil chemistry data at site and reference location (field) Published studies (literature)	1, 2, 3
C2	Plants	Soil concentrations lower than levels that might cause phytotoxic effects	Soil metals concentrations below literature values for phytotoxic effects	Soil chemistry (field); Published studies (literature)	1, 2, 3
C3	Plants	Plant tissue concentrations not elevated	No difference between concentrations of metals and organics in plants/surrogates at sites and reference locations	Plant tissue concentrations at site and reference location (field)	1, 2, 3
C4	Plants	Plant tissue concentrations below levels that might cause phytotoxic effects	Plant tissue concentrations below literature values for phytotoxic effects	Plant tissue chemistry (field); Published studies (literature)	1, 2, 3
C5	Plants	Plant growth not affected by soil concentrations	No difference between root growth tests in site and reference soils	Root growth test results at site and reference locations (laboratory)	3
C6	Smith's blue butterfly	Food source not affected by site-related chemicals	Growth rate of buckwheat not affected-no difference between site and reference location for buckwheat root elongation test	Buckwheat or surrogate root elongation test and plant biomass assays (laboratory)	3
C7	Smith's blue butterfly	Food source not affected by site-related chemicals-tissue concentrations	No difference in tissue concentrations between site and reference location	Tissue analyses after plant biomass test (laboratory)	3
C8	Smith's blue butterfly	Food source not affected by site-related chemicals-tissue concentrations	No difference in tissue concentrations between site and reference location (field)	Tissue analyses of buckwheat/surrogate at site and reference location	3
C9	Black legless lizard	Lizard tissue concentrations not elevated above background	No difference in concentrations in surrogate between site and reference	Chemical analyses of tissues in surrogate species (field)	1, 2, 3

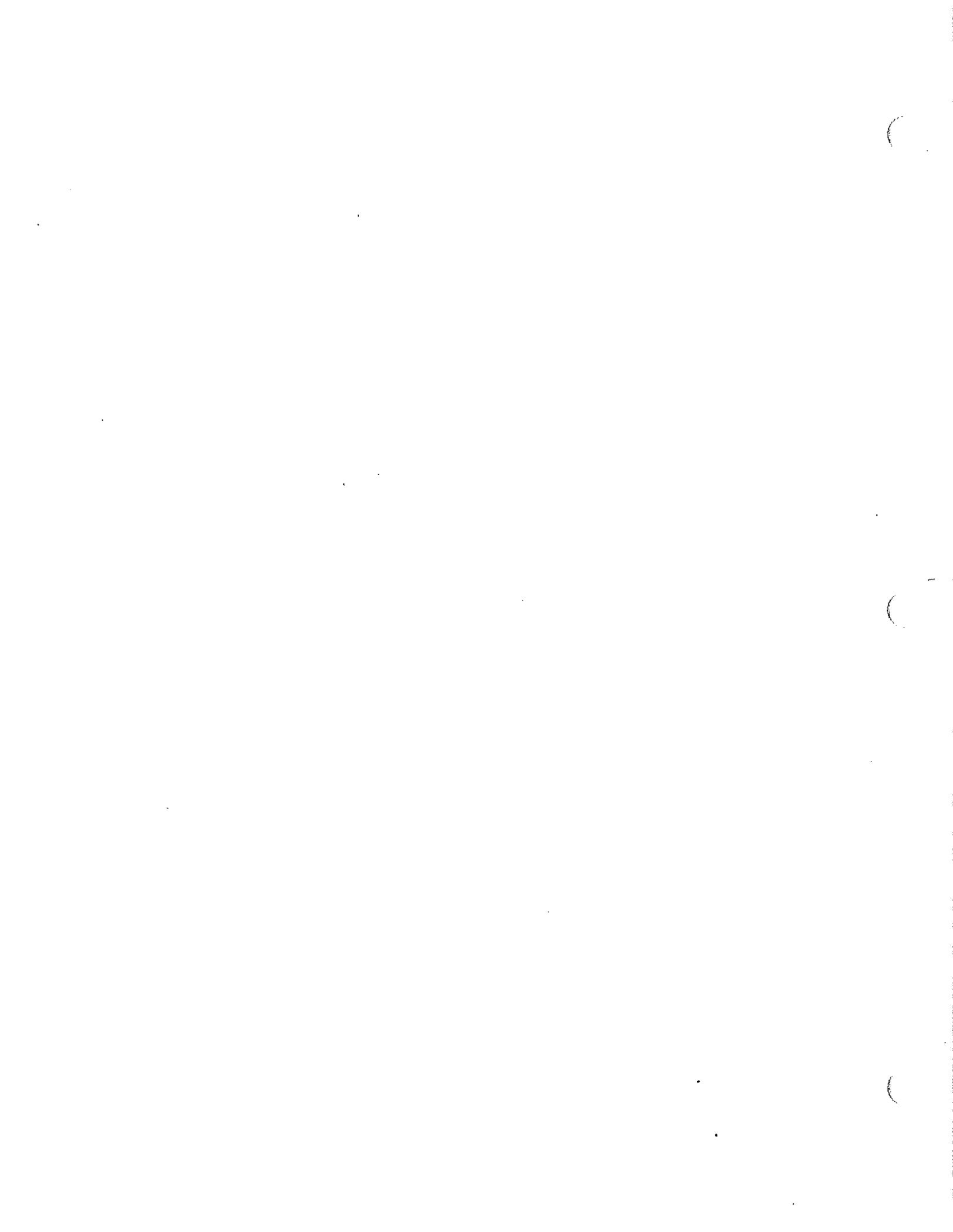
**Table 2.1. Habitat or Site-Specific Assessment and Measurement Endpoints for Coastal Sites
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Endpoint Number	Organism	Assessment Endpoint	Measurement Endpoint	Data Required (type of data)	Sites
C10	Black legless lizard	Concentrations in litter community lower than lizard adverse effects levels	Predicted accumulation of chemicals lower than NOAEL based on surrogate species	Chemical analyses of soil and litter community (field) Litter community to lizard accumulation model NOAEL for lizard for surrogate species (literature)	1, 2, 3
C11	Black legless lizard	No accumulation in lizard through litter pathway	No difference in litter chemical concentrations between site and reference location	Chemical analyses of soil and litter at site and reference location (field)	1, 2, 3
C12	Black legless lizard	No accumulation in litter at levels that might cause adverse effects in lizards	Measured concentrations in litter below levels predicted to have adverse effects	Chemical analyses of soil and litter at site (field) Litter to lizard accumulation model (model) NOAEL for lizard or surrogate species (literature)	1, 2, 3
C13	Rodents	Organism not affected by site-related chemicals-tissue levels	No difference in chemical concentrations in surrogate tissues between site and reference location	Chemical analyses of surrogate tissues at site and reference location (field)	1, 2, 3
C14	Rodents	Organism not affected by site-related chemicals-tissue levels	Predicted accumulation of chemicals lower than NOAEL based on surrogate species	Chemical analyses of seeds (field) Food to receptor bioaccumulation model (literature) NOAEL for receptor or surrogate species (literature)	1, 2, 3

**Table 2.1. Habitat or Site-Specific Assessment and Measurement Endpoints for Coastal Sites
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Endpoint Number	Organism	Assessment Endpoint	Measurement Endpoint	Data Required (type of data)	Sites
C15	Loggerhead shrike, gray fox	Ingestion of rodents or reptiles causes no adverse effects	Exposure doses below published NOAELs	Chemical analyses of rodents, lizards, or surrogate species (field) Food to receptor uptake dose model (literature) NOAEL for receptor or surrogate (literature)	1, 2, 3
C16	Migratory mourning dove	Ingestion of shot causes no adverse effects to doves or offspring	Dose from ingestion not above no observed adverse effects level	Analysis/assessment of published information (literature)	3

NOAEL No Observed Adverse Effects Level



**Table 2.2. Habitat or Site-Specific Assessment and Measurement Endpoints for Inland Sites
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Endpoint Number	Organism	Assessment Endpoint	Measurement Endpoint	Data Required (type of data)	Sites
11	Plants	Plant growth not affected; soil concentrations not elevated	Soil metal concentrations not different from controls Metals within literature range for appropriate soils	Soil chemistry data at site and reference location (field) Published studies (literature)	11, 12, 15, 16, 21, 22, 24, 25, 29, 31, 32, 33, 35, 39, 41
12	Plants	Soil concentrations lower than levels that might cause phytotoxic effects	Soil metals concentrations below literature values for phytotoxic effects	Soil chemistry (field); Published studies (literature)	11, 12, 15, 16, 21, 22, 24, 25, 29, 31, 32, 33, 35, 39, 41
13	Plants	Plant tissue concentrations not elevated	No difference between concentrations in plants/surrogates at sites and reference locations	Plant tissue concentrations at site and reference location (field)	11, 12, 15, 16, 21, 22, 24, 25, 29, 31, 32, 33, 35, 39, 41
14	Plants	Plant tissue concentrations below levels that might cause phytotoxic effects	Plant tissue concentrations below literature values for phytotoxic effects	Plant tissue chemistry (field); Published studies (literature)	11, 12, 15, 16, 21, 22, 24, 25, 29, 31, 32, 33, 35, 39, 41
15	Silvery legless lizard	Lizard tissue concentrations not elevated above background	No difference in concentrations in surrogate between site and reference	Chemical analyses of tissues in surrogate species (field)	11, 12, 16, 21, 22, 24, 25, 29, 31, 32, 35, 39, 41
16	Silvery legless lizard	Concentrations in litter community lower than lizard adverse effects levels	Predicted accumulation of chemicals lower than NOAEL based on surrogate species	Chemical analyses of soil and litter community (field) Litter community to lizard accumulation model NOAEL for lizard for surrogate species (literature)	11, 12, 16, 21, 22, 24, 25, 29, 31, 32, 35, 39, 41

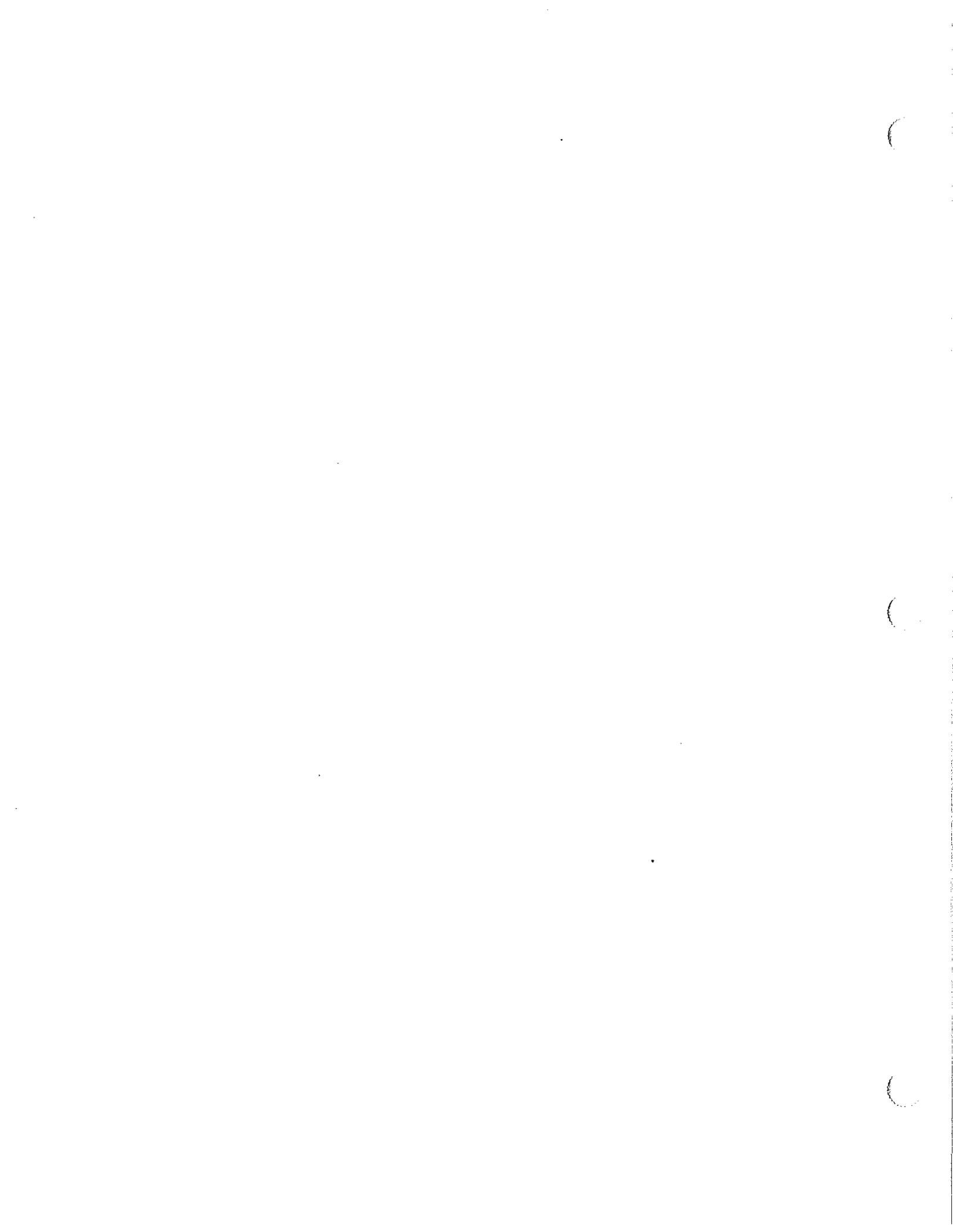
**Table 2.2. Habitat or Site-Specific Assessment and Measurement Endpoints for Inland Sites
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Endpoint Number	Organism	Assessment Endpoint	Measurement Endpoint	Data Required (type of data)	Sites
I7	Silvery legless lizard	No accumulation in lizard through litter pathway	No difference in litter concentrations between site and reference location	Chemical analyses of soil and litter at site and reference location (field)	11, 12, 15, 16, 21, 22, 24, 25, 29, 31, 32, 35, 39, 41
I8	Silvery legless lizard	No accumulation in litter at levels that might cause adverse effects in lizards	Measured concentrations in litter below levels predicted to have adverse effects	Chemical analyses of soil and litter at site (field) Litter to lizard accumulation model (model) NOAEL for lizard or surrogate species (literature)	11, 12, 15, 16, 21, 22, 24, 25, 29, 31, 32, 35, 39, 41
I9	Dusky-footed woodrat	Organism not affected by site-related chemicals-food source	No difference in chemical concentrations in plants at site and reference location	Chemical analyses of plants at site and reference location (field)	15, 16, 22, 24, 25, 29, 31, 32, 35, 39, 41
I10	Dusky-footed woodrat, Quail	Organism not affected by site-related chemicals-tissue levels	No difference in chemical concentrations in surrogate tissues between site and reference location	Chemical analyses of surrogate tissues at site and reference location (field)	15, 16, 22, 24, 25, 29, 31, 32, 35, 39, 41
I11	Dusky-footed woodrat	Organism not affected by site-related chemicals-tissue levels	Predicted accumulation of chemicals lower than NOAEL based on surrogate species	Food to receptor bioaccumulation model (literature) NOAEL for receptor or surrogate species (literature)	15, 16, 22, 24, 25, 29, 31, 32, 35, 39, 41

**Table 2.2. Habitat or Site-Specific Assessment and Measurement Endpoints for Inland Sites
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Endpoint Number	Organism	Assessment Endpoint	Measurement Endpoint	Data Required (type of data)	Sites
I12	Loggerhead shrike, gray fox	Ingestion of rodents or reptiles causes no adverse effects	Exposure doses below published NOAELs	Chemical analyses of rodents, lizards, or surrogate species (field) Food to receptor uptake dose model (literature) NOAEL for receptor or surrogate (literature)	12, 15, 16, 21, 22, 24, 25, 29, 31, 32, 33, 35, 39, 41
I13	Migratory mourning dove	Ingestion of shot causes no adverse effects to doves or offspring	Dose from ingestion not above no observed adverse effects level	Analysis/assessment of published information (literature)	39

NOAEL No Observed Adverse Effects Level



**Table 2.3. Assessment and Measurement Endpoints for Outfalls
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Endpoint Number	Organism	Assessment Endpoint	Measurement Endpoint	Data Required (type of data)
O1	Aquatic Organisms	Deposition of "outfall sediments" and stormwater to the bay or the river does not cause toxicity to aquatic receptors	"Sediment" and soil chemical concentrations within Ft. Ord background range "Sediment" chemical concentrations less than ER-L values Stormwater chemical concentrations less than chronic AWQC values Stormwater is not toxic to sensitive freshwater receptors	"Sediment" chemistry data at outfall (field) Soil data at the site (field) Published studies (NOAA, 1990) Published studies (EPA, 1992) Stormwater aquatic, 3-species bioassays
O2	Dusky-footed woodrat	Deposition of "outfall sediments" to upland areas does not cause toxicity to terrestrial receptors	"Sediment" and soil chemical concentrations within Ft. Ord background range "Sediment" chemical concentrations do not result in hazard indices greater than one for the deer mouse	"Sediment" chemistry data at outfall (field) Soil data at the site (field) Exposure and effects estimated and hazard indices calculated (modeled)

ER-L Effects range low.
AWQC Ambient water quality criteria.

**Table 3.1. Preliminary Hazard Assessment 1 Sites
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site No.	Site Name	Predominant Habitat	Site Category Based on Human Health Evaluation /a/	Site Category Based on Preliminary Ecological Assessment /a/
10	Burn Pit	Coast live oak	IA	NoFA
13	Railroad Right-of-Way	Paved	NoFA	NoFA
14	707th Maintenance Facility	Paved	IA	NoFA
18	1600 Block Facility	Paved	NoFA	NoFA
19	2200 Block Facility	Landscaped	NoFA	NoFA
20	South Parade Ground, Motor Pools	Ruderal	IA	NoFA
23	3700 Motor Pool	Paved	IA	NoFA
26	Sewage Pump Stations	Ruderal	/b/	/b/
27	Army Reserve Motor Pool	Paved	NoFA	NoFA
28	Barracks and Main Garrison Area	Landscaped	NoFA	NoFA
30	Driver Training Area	Paved	IA	NoFA
34	FAAF Fueling Facility	Paved	IA	NoFA
36	FAAF STP	Central coast scrub	NoFA	NoFA
37	Trailer Park Maintenance Shop	Paved	NoFA	NoFA
38	AAFES Dry Cleaners	Paved	/b/	/b/

/a/ IA = Interim Action; NoFA = No Further Action; RI = Remedial Investigation.
/b/ These sites are not evaluated under the RI/FS program.

**Table 3.2. Summary of Analytical Results for Sediment Samples from
Surface Water Outfalls (Inside the pipe)
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Analyte	Sampling Location								
	OF-01-MH-03	OF-01-MH-01	OF-03-MH	OF-04-MH	OF-05	OF-07	OF-11	OF-13	OF-15
<u>Organics (ppb)</u>									
4,4'-DDD					59				
4,4'-DDE									
4,4'-DDT			9.3		590				
4-Methyl-2-pentanone(MIBK)*									
Acetone *			13						
Anthracene	1100			150					
Aroclor-1248 *									
Benzo(a)anthracene	5500								8.4
Benzo(a)pyrene	4900								23
Benzo(B)fluorathene *	5300								2.7
Benzo(ghi)perylene *	3700								
Benzo(k)fluoranthene *	3100								
Chlordane									
Chloromethane *	6.6								
Chrysene	4200		97	7300			940		
Dieldrin									
Endosulfan II *									
Fluoranthene	11000			660		63			
Heptachlor *									
Heptachlor Epoxide *									
Indeno (1,2,3-cd)pyrene *	3700								
Methyl Ethyl Ketone *									
Methylene chloride *			7.2		3			4.6	

**Table 3.2. Summary of Analytical Results for Sediment Samples from
Surface Water Outfalls (inside the pipe)
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Analyte	Sampling Location								
	OF-16	OF-20N	OF-20S	OF-21	OF-23	OF-24-MH	OF-25-MH	OF-26-MH	OF-32-MH
<u>Organics (ppb)</u>									
4,4'-DDD							97		
4,4'-DDE					46		44	44	
4,4'-DDT	9.5				95		16	230	
4-Methyl-2-pentanone(MIBK)*	10								
Acetone *	24								
Anthracene									
Aroclor-1248 *								84000	
Benzo(a)anthracene									
Benzo(a)pyrene									
Benzo(B)fluorathene *					24				
Benzo(ghi)perylene *					35				
Benzo(k)fluoranthene *					13				
Chlordane							3100		
Chloromethane *									
Chrysene									
Dieldrin					14				
Endosulfan II *					16				
Fluoranthene							130		94
Heptachlor *							20	110	
Heptachlor Epoxide *							10		
Indeno (1,2,3-cd)pyrene *									
Methyl Ethyl Ketone *	37								
Methylene chloride *	5.6	12	9.3	9.3	7.1				

**Table 3.2. Summary of Analytical Results for Sediment Samples from
Surface Water Outfalls (inside the pipe)
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Analyte	Sampling Location								
	OF-01-MH-03	OF-01-MH-01	OF-03-MH	OF-04-MH	OF-05	OF-07	OF-11	OF-13	OF-15
Phenanthrene	5200			660					
Pyrene	5400			990					
Tetrachloroethene *	7.2								
Toluene *	2.3			4800					
Xylenes *									
<u>Metals (ppm)</u>									
Antimony	1.5	0.96							
Arsenic	1.9	1.8	0.62	1.6	1.2	0.79	2.4	0.79	0.99
Beryllium *		0.14			0.29	0.22	0.4		
Cadmium		1.4	0.62	2.2		1.3	7.3	3.5	
Chromium	37	36	13.9	10.5	8.5	15.9	31.4	10.6	
Copper	197	91.5	30.8	83.3	15.4	17.8	116		8.1
Lead	96.2	107	193	51	111	24.6	147		15.4
Mercury	3.9	0.05		0.09	0.15	0.13			
Nickel				10					
Selenium *									
Silver	20.1								
Zinc	1450	182	109	338		207	553	120	64.2
<u>Other Analytes (ppm)</u>									
Total Oil & Grease *									
Total Organic Carbon *	190000	4440	7960	76000	14900	2710	60200	4250	1180

**Table 3.2. Summary of Analytical Results for Sediment Samples from
Surface Water Outfalls (Inside the pipe)
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Analyte	Sampling Location								
	OF-16	OF-20N	OF-20S	OF-21	OF-23	OF-24-MH	OF-25-MH	OF-26-MH	OF-32-MH
Phenanthrene									
Pyrene							180		
Tetrachloroethene *									
Toluene *						1	1.3	1.4	
Xylenes *									
<u>Metals (ppm)</u>									
Antimony									
Arsenic	5.1	0.42		0.6	1.2	0.54	5	0.94	1.1
Beryllium *	0.37	0.33		0.32	0.39	0.13			
Cadmium	27.3		0.78		6.6		33.2	1.5	3.7
Chromium	70.2	8.3	4.3	6.8	30.8	5.9	16.2	9.1	31.4
Copper	75.2				36.1	27.4	337	18.4	92.4
Lead	380	2.5	5.1	3	392	17.9	898	142	85.7
Mercury							0.92		0.1
Nickel	19.4				20.6		77.1		11.3
Selenium *	1.1			2.3					
Silver							1.4		
Zinc	325					70.7	2190	77.2	130
<u>Other Analytes (ppm)</u>									
Total Oil & Grease *								1500	
Total Organic Carbon *	60900	8010	481	4370	25300	3320	24900	8760	11700

**Table 3.3. Summary of Analytical Results for Soil Samples from
Surface Water Outfalls (Outside Pipe)
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Analyte	Sampling Location									
	OF-01-01N	OF-01-01S	OF-01-02N	OF-01-02S	OF-05	OF-07	OF-08	OF-11	OF-13	OF-14
<u>Organics (ppb)</u>										
4,4'-DDD					170					
4,4'-DDE			25		35					
4,4'-DDT		12	54		1400	100	9.6			
Acenaphthene										
Acetone *	8.8	11	11		47		9.8			15
Benzo(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene *										
Benzo(ghi)perylene *								370		
Benzo(k)fluoranthene *										
Bromoform *										
Chlordane										
Chrysene										
Dibromochloromethane*										
Dieldrin						14				
Endosulfan II *										
Endosulfan sulfate *										
Fluoranthene	58									
Methyl ethyl ketone *										
Methylene chloride *	3.7									14
Pyrene	40									
1,1,1-Trichloroethane*										

**Table 3.3. Summary of Analytical Results for Soil Samples from
Surface Water Outfalls (Outside Pipe)
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Analyte	Sampling Location									
	OF-15	OF-16-01	OF-16-02	OF-16-03	OF-16-04	OF-16-05	OF-16-06	OF-19	OF-20-01N	
<u>Organics (ppb)</u>										
4,4'-DDD	50									
4,4'-DDE	46									
4,4'-DDT	160		22	14	16					
Acenaphthene										
Acetone *		6.6		7.5	10	18	10	15	12	
Benzo(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene *										
Benzo(ghi)perylene *										
Benzo(k)fluoranthene *										
Bromoform*	2.3									
Chlordane										
Chrysene										
Dibromochloromethane*	1.2									
Dieldrin	16									
Endosulfan II *										
Endosulfan sulfate *										
Fluoranthene										
Methyl ethyl ketone *										
Methylene chloride *	3			3				3.7	12	
Pyrene										
1,1,1-Trichloroethane*	17									

**Table 3.3. Summary of Analytical Results for Soil Samples from
Surface Water Outfalls (Outside Pipe)
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Analyte	Sampling Location									
	OF-20-01S	OF-20-02N	OF-20-02S	OF-21	OF-22	OF-23	OF-24	OF-25	OF-26	OF-27
<u>Organics (ppb)</u>										
4,4'-DDD										
4,4'-DDE					14			71	27	
4,4'-DDT					42	74		110	52	
Acenaphthene										
Acetone *		9	8.7	13	41	9.7	11	1.7	3.8	9.9
Benzo(a)anthracene										
Benzo(a)pyrene	5.4					18				
Benzo(b)fluoranthene *	8.6			10	38	33			2.9	
Benzo(ghi)perylene *	16					41	130			
Benzo(k)fluoranthene *						15				
Bromoform*										
Chlordane										
Chrysene										
Dibromochloromethane*										
Dieldrin					12				57	
Endosulfan II *					15					
Endosulfan sulfate *						32				
Fluoranthene					38	58				
Methyl ethyl ketone *							2.5			
Methylene chloride *		9.3	12	3.8	5.7	5.3				3.7
Pyrene						54				
1,1,1-Trichloroethane*										

**Table 3.3. Summary of Analytical Results for Soil Samples from
Surface Water Outfalls (Outside Pipe)
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Analyte	Sampling Location									
	OF-01-01N	OF-01-01S	OF-01-02N	OF-01-02S	OF-05	OF-07	OF-08	OF-11	OF-13	OF-14
<u>Metals (ppm)</u>										
Antimony								20	7.5	
Arsenic	1.3	1.7	0.79	1.5	1.3	0.99	1.4	2.2	1	
Beryllium *					0.41			0.32		
Cadmium					1.2	0.82	0.7	3.6	6.2	13.6
Chromium	4.4	7.6	4	5.6	23.7	11.5	8.4	30.8	52.9	52.1
Copper	15.2	16.4	6.2		34.3	13.3	9.4	9.3	43.9	79.9
Lead	20.7	5.1	8.7	1.9	27.6	42.2	19.5	263	189	274
Mercury					0.59		1.6	0.24		
Nickel		6.2			15.7			24	9.1	15.7
Selenium *										
Silver										0.56
Thallium *										
Zinc	156	15	106		197	47.2	42.6	372	276	397
<u>Other Analytes (ppm)</u>										
Total Organic Carbon	5710	5620	8830	5540	27600	23800	10600	75500	26600	34200

**Table 3.3. Summary of Analytical Results for Soil Samples from
Surface Water Outfalls (Outside Pipe)
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Analyte	Sampling Location								
	OF-15	OF-16-01	OF-16-02	OF-16-03	OF-16-04	OF-16-05	OF-16-06	OF-19	OF-20-01N
<u>Metals (ppm)</u>									
Antimony	7.4							9.6	
Arsenic	3.9	0.62	0.98	1.5	1.1	0.84	1.2	2.2	
Beryllium *									
Cadmium	3.7		4.5		2.4	3.1		2.1	
Chromium	89.3	2.8	7.8	9.9	15.3	16.3	7.6	13.9	7.5
Copper	105	6	12.9	8.3	31.8	40.3		15.9	
Lead	117	7.3	31.4	14.9	56.8	80.1	6.7	20.3	2.5
Mercury	0.14								
Nickel			7.4	10.4	8.1	9.2		11.6	8
Selenium *									
Silver									
Thallium *									
Zinc	375	13	61	36.6	137	114	22.1	69.9	8.5
<u>Other Analytes (ppm)</u>									
Total Organic Carbon	11000	1010	16300	6010	18100	31400	14200	1600	7440

**Table 3.3. Summary of Analytical Results for Soil Samples from
Surface Water Outfalls (Outside Pipe)
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Analyte	Sampling Location									
	OF-20-01S	OF-20-02N	OF-20-02S	OF-21	OF-22	OF-23	OF-24	OF-25	OF-26	OF-27
<u>Metals (ppm)</u>										
Antimony										
Arsenic					1.9	1.4	2	2.2	2.3	1.2
Beryllium *							0.4	0.24		
Cadmium	0.66				1.5	2.7		1.4	5.4	6.1
Chromium	4.8	6	6.6	6	8.2	21	48.4	23.6	94.6	17.2
Copper					11.9	18.2	122	17	17.3	17.2
Lead	7	3.8	5.1	10	281	155	53.5	14.2	7	40.1
Mercury							0.06			
Nickel						10.8	62.6	35.3	65.9	7.9
Selenium *				0.59	0.68					
Silver						0.56				
Thallium *							0.69	0.69		
Zinc	20.1	8.5	9.4	7.8	51.2	58.5	66.9	117	59.8	102
<u>Other Analytes (ppm)</u>										
Total Organic Carbon	2000	3720	5960	7140	17600	28000	12000	7340	1710	5320

**Table 3.4. Summary of Site-by-Site Decisions for PHA1
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site Number	Site Name	PHA1 Decision /a/	Decision Rationale
1	Ord Village STP		Further evaluation
2	Main Garrison Sewage Treatment Plant		Further evaluation
3	Beach Trainfire Ranges		Further evaluation
4	Beach Outfalls		Evaluated in the outfall assessment
5	Inland Ranges		Evaluated as part of Site 39
6	Inland Ranges		Evaluated as part of Site 39
7	Inland Ranges		Evaluated as part of Site 39
8	Inland Ranges		Evaluated as part of Site 39
9	Inland Ranges		Evaluated as part of Site 39
10	Burn Pit	X	No complete exposure pathways
11	AAFES Fueling Station		Further evaluation
12	Lower Meadow, DOL Yard, Cannibalization Yard		Further evaluation
13	Railroad Right-of-Way	X	No complete exposure pathways
14	707th Maintenance Facility	X	No complete exposure pathways
15	DEH Yard		Further evaluation
16	DOL/Maint. Yard, Pete's Pond		Further evaluation
17	1400 Block Motor Pool/Disposal Area		Further evaluation
18	1600 Block Facility	X	No complete exposure pathways
19	2200 Block Facility	X	No complete exposure pathways
20	South Parade Ground, Motor Pools	X	No complete exposure pathways
21	4400/4500 Motor Pool, East Block		Further evaluation
22	4400/4500 Motor Pool, West Block		Further evaluation
23	3700 Motor Pool	X	No complete exposure pathways
24	Old DEH Yard		Further evaluation
25	Former DRMO		Further evaluation
26	Sewage Pump Stations		Not evaluated under RI/FS program
27	Army Reserve Motor Pool	X	No complete exposure pathways
28	Barracks and Main Garrison Area	X	No complete exposure pathways
29	DRMO		Further evaluation
30	Driver Training Area	X	No complete exposure pathways
31	Former Dump Site		Further evaluation
32	East Garrison STP		Further evaluation
33	Golf Course		Further evaluation
34	FAAF Fueling Facility	X	No complete exposure pathways
35	Aircraft Cannibalization Yard		Further evaluation
36	FAAF STP	X	No complete exposure pathways
37	Trailer Park Maintenance Shop	X	No complete exposure pathways
38	AAFES Dry Cleaners		Not evaluated under RI/FS program
39	Inland Ranges and 2.36-inch Rocket Range		Further evaluation
40	FAAF Defueling Areas		Further evaluation

**Table 3.4. Summary of Site-by-Site Decisions for PHA1
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site Number	Site Name	PHA1 Decision /a/	Decision Rationale
41	Crescent Bluff Fire Drill Area		Further evaluation
---	Terrestrial Assessment - Outfalls	11 /b/	Further evaluation
---	Aquatic Assessment - Monterey Bay Outfalls	5 /b/	Further evaluation
---	Aquatic Assessment - Pete's Pond Outfalls	1 /b/	Further evaluation
---	Aquatic Assessment - Salinas River Outfalls	1 /b/	Further evaluation

/a/ X indicates that the site was eliminated for further evaluation.

/b/ Number of outfalls to be further evaluated.

**Table 4.1. Preliminary Hazard Assessment 2 Sites
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site No.	Site Name	Predominant Habitat	Site Category Based on Human Health Evaluation /a/
1	Ord Village STP	Northern foredune	NoFA
2	Main Garrison Sewage Treatment Plant	Ruderal	RI
3	Beach Trainfire Ranges	Northern foredune	RI
11	AAFES Fueling Station	Ruderal	NoFA
12	Lower Meadow, DOL Yard, Cannibalization Yard	Landscaped	RI
15	DEH Yard	Ruderal	IA
16	DOL Maintenance Yard, Pete's Pond	Ruderal	RI
17	1400 Block Motor Pool/Disposal Area	Paved	RI
21	4400/4500 Motor Pool, East Block	Coast live oak	IA
22	4400/4500 Motor Pool, West Block	Coast live oak	IA
24	Old DEH Yard	Coast live oak	IA
25	Former DRMO	Central maritime chaparral	NoFA
29	DRMO	Ruderal	IA
31	Former Dump Site	Coast live oak	RI
32	East Garrison STP	Central coastal scrub	NoFA
33	Golf Course	Landscaped	NoFA
35	Aircraft Cannibalization Yard	Central maritime chaparral	NoFA
39	Inland Ranges and 2.36-inch Rocket Range	Central maritime chaparral	RI
40	FAAF Defueling Areas	Paved	IA
41	Crescent Bluff Fire Drill Area	Central maritime chaparral	IA

/a/ IA = Interim Action; NoFA = No Further Action; RI = Remedial Investigation.

**Table 4.2. Summary of Site-by-Site Decisions for PHA2
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site Number	Site Name	PHA1 Decision /a/	PHA2 Decision /a/	Decision Rationale
1	Ord Village STP			Further evaluation
2	Main Garrison Sewage Treatment Plant			Further evaluation
3	Beach Trainfire Ranges			Further evaluation
4	Beach Outfalls			Evaluated in the outfall assessment
5	Inland Ranges			Evaluated as part of Site 39
6	Inland Ranges			Evaluated as part of Site 39
7	Inland Ranges			Evaluated as part of Site 39
8	Inland Ranges			Evaluated as part of Site 39
9	Inland Ranges			Evaluated as part of Site 39
10	Burn Pit	X		No complete exposure pathways
11	AAFES Fueling Station			Further evaluation
12	Lower Meadow, DOL Yard, Cannibalization Yard			Further evaluation
13	Railroad Right-of-Way	X		No complete exposure pathways
14	707th Maintenance Facility	X		No complete exposure pathways
15	DEH Yard			Further evaluation
16	DOL/Maint. Yard, Pete's Pond			Further evaluation
17	1400 Block Motor Pool/Disposal Area			Further evaluation
18	1600 Block Facility	X		No complete exposure pathways
19	2200 Block Facility	X		No complete exposure pathways
20	South Parade Ground, Motor Pools	X		No complete exposure pathways
21	4400/4500 Motor Pool, East Block			Further evaluation
22	4400/4500 Motor Pool, West Block			Further evaluation
23	3700 Motor Pool	X		No complete exposure pathways
24	Old DEH Yard			Further evaluation
25	Former DRMO			Further evaluation
26	Sewage Pump Stations			Not evaluated under RI/FS program
27	Army Reserve Motor Pool	X		No complete exposure pathways

**Table 4.2. Summary of Site-by-Site Decisions for PHA2
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site Number	Site Name	PHA1 Decision /a/	PHA2 Decision /a/	Decision Rationale
28	Barracks and Main Garrison Area	X		No complete exposure pathways
29	DRMO			Further evaluation
30	Driver Training Area	X		No complete exposure pathways
31	Former Dump Site			Further evaluation
32	East Garrison STP			Further evaluation
33	Golf Course			Further evaluation
34	FAAF Fueling Facility	X		No complete exposure pathways
35	Aircraft Cannibalization Yard			Further evaluation
36	FAAF STP	X		No complete exposure pathways
37	Trailer Park Maintenance Shop	X		No complete exposure pathways
38	AAFES Dry Cleaners			Not evaluated under RI/FS program
39	Inland Ranges and 2.36-inch Rocket Range			Further evaluation
40	FAAF Defueling Areas			Further evaluation
41	Crescent Bluff Fire Drill Area			Further evaluation
---	Terrestrial Assessment - Outfalls	11 /b/	-	Further evaluation
---	Aquatic Assessment - Monterey Bay Outfalls	5 /b/	5 /b/	Further evaluation
---	Aquatic Assessment - Pete's Pond Outfalls	1 /b/	1 /b/	Further evaluation
---	Aquatic Assessment - Salinas River Outfalls	1 /b/	1 /b/	Further evaluation

/a/ X indicates that the site was eliminated for further evaluation.

/b/ Number of outfalls to be further evaluated.

**Table 5.1. Chemical of Potential Concern (COPC) Selection for the Screening Assessment
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Site /a/																				
	01	02	03	11	12	15	16	17	21	22	24	25	29	31	32	33	35	39	40	41	
Acetone							Yes	Yes				Yes								Yes	
1,2-Dichloroethene (total)						Yes															
Ethlybenzene						Yes															
Methylene chloride								Yes	Yes												
Tetrachloroethene					Yes																
Toluene					Yes	Yes					Yes									Yes	Yes
Trichloroethene					Yes		Yes														
Xylenes						Yes			Yes												
Benzo(a)anthracene																				Yes	
Benzo(a)pyrene																				Yes	
Benzo(b)fluoranthene																				Yes	
Bis(2-ethylhexyl)phthalate					Yes		Yes		Yes	Yes	Yes									Yes	Yes
Butylbenzylphthalate										Yes											
Chrysene									Yes											Yes	
Dibenzo(a,h)anthracene																				Yes	
Dibenzofuran								Yes												Yes	
Di-n-butylphthalate					Yes		Yes														
Diethylphthalate					Yes																
Fluoranthene																				Yes	
Fluorene							Yes														
2-Methylnaphthalene							Yes													Yes	
Naphthalene							Yes													Yes	
Pentachlorophenol																					Yes
Phenanthrene							Yes													Yes	
Pyrene																				Yes	
PCBs (aroclor-1254)													Yes								
PCBs (aroclor-1260)											Yes										
2-Amino-dinitrotoluene																					Yes
4-Amino-dinitrotoluene																					Yes
HMX																					Yes
PETN																					Yes
RDX																					Yes

**Table 5.1. Chemical of Potential Concern (COPC) Selection for the Screening Assessment
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Site /a/																				
	01	02	03	11	12	15	16	17	21	22	24	25	29	31	32	33	35	39	40	41	
Tetryl																					Yes
Chlordane						Yes					Yes					Yes					
4,4'-DDD											Yes					Yes					
4,4'-DDE						Yes					Yes	Yes			Yes						
4,4'-DDT						Yes					Yes	Yes			Yes						Yes
Dicamba																					Yes
Dieldrin						Yes					Yes	Yes				Yes					Yes
Endrin																					Yes
Gamma-BHC											Yes										
Heptachlor						Yes															
Heptachlor epoxide						Yes															
1,2,3,4,6,7,8-HpCDD							Yes	Yes							Yes						
1,2,3,4,6,7,8-HpCDF							Yes	Yes							Yes						
1,2,3,4,7,8,9-HpCDF															Yes						
1,2,3,4,7,8-HxCDF															Yes						
1,2,3,6,7,8-HxCDF							Yes								Yes						
1,2,3,7,8,9-HxCDF															Yes						
2,3,4,6,7,8-HxCDF															Yes						
1,2,3,4,7,8-HxCDD															Yes						
1,2,3,6,7,8-HxCDD															Yes						
1,2,3,7,8,9-HxCDD															Yes						
1,2,3,7,8-PeCDD															Yes						
1,2,3,7,8-PeCDF															Yes						
2,3,4,7,8-PeCDF															Yes						
OCDD							Yes	Yes							Yes						
OCDF							Yes	Yes							Yes						
2,3,7,8-TCDD															Yes						
2,3,7,8-TCDF															Yes						
Antimony		Yes	Yes		Yes		Yes	Yes	Yes						Yes		Yes		Yes		
Arsenic		Yes			Yes		Yes		Yes						Yes		Yes		Yes		Yes
Barium												Yes									
Beryllium					Yes		Yes		Yes						Yes	Yes			Yes		Yes

**Table 5.1. Chemical of Potential Concern (COPC) Selection for the Screening Assessment
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Site /a/																			
	01	02	03	11	12	15	16	17	21	22	24	25	29	31	32	33	35	39	40	41
Cadmium		Yes			Yes	Yes	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes		Yes		Yes
Chromium		Yes	Yes		Yes		Yes	Yes	Yes						Yes	Yes	Yes		Yes	Yes
Copper		Yes	Yes		Yes	Yes	Yes		Yes				Yes	Yes		Yes		Yes		Yes
Lead		Yes	Yes	Yes	Yes		Yes		Yes		Yes	Yes		Yes		Yes		Yes		Yes
Mercury	Yes	Yes			Yes		Yes	Yes	Yes		Yes		Yes	Yes		Yes	Yes			
Nickel		Yes			Yes		Yes	Yes	Yes										Yes	Yes
Selenium		Yes			Yes								Yes					Yes		Yes
Silver		Yes					Yes		Yes		Yes		Yes	Yes				Yes		Yes
Tin			Yes																	
Thallium		Yes												Yes		Yes				Yes
Vanadium												Yes								
Zinc		Yes	Yes		Yes		Yes		Yes		Yes	Yes		Yes		Yes		Yes		Yes

/a/ "YES" indicates that the chemical is a COPC. A blank space indicates that the chemical is not a COPC.

Table 5.2. Exposure Assumptions
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Parameter	Gray Fox	Deer Mouse	Notes /a/
Body Weight (kg)	5.25	0.025	Midpoint of range
Food Consumption Rate (kg/day) - Total	0.3214	0.005	
Food Consumption Rate (kg/day) - Mammals	0.1929	0.005	
Food Consumption Rate (kg/day) - Plants	0.1285	0.005	
Water Consumption Rate L/day)	0.44	0.0068	
Soil Ingestion Rate (kg/day)	0.0039	0.00015	3 percent of plant ingestion
Exposure Frequency (days/365 days)	1	1	Exposure frequency *percent
Soil Dermal Exposure Time (hours/day)	1	1	
Duration of Exposure per Lifetime (year/year)	1	1	
Skin exposed - Water (cm2)	301.9	8.550	$(k \cdot BW^{2/3}) \cdot 10\%$, $k=10$
Skin exposed - Soil/Sediment (cm2/day)	301.9	8.550	$(k \cdot BW^{2/3}) \cdot 10\%$, $k=10$
Soil on Skin (kg/cm2)	0.000001	0.000001	

/a/ See text for definitions of mathematical symbols.

**Table 5.3. Surface Water Criteria (Federal AWQCs)
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Ford Ord, California**

Chemical /a/	Federal AWQC /b/			
	Marine Acute	Marine Chronic	Fresh Water Acute	Fresh Water Chronic
Antimony	1500	500	88	30
Arsenic	69	36	360	190
Benzene	5100	NA	5300	NA
Beryllium	NA	NA	130	5
Bis(2-ethylhexyl)phthalate	244	3.4	940	3
Cadmium	43	9.3	4	1.1
Chloroform	NA	NA	28000	1240
Chromium /c/	NA	NA	1700	210
Copper	2.9	2.9	18	12
Di-n-butylphthalate	2944	3.4	940	3
1,2-Dichloroethane	113000	NA	18000	20000
Ethyl benzene	430	NA	32000	NA
gamma-BHC	0.34	NA	100	NA
Iron	NA	1000	NA	NA
Lead	220	8.5	82	3.2
Mercury	2	0.025	2.4	0.012
Nickel	75	8.3	1400	160
Pentachlorophenol	13	7.9	20	13
Phenol	5800	NA	10200	2560
Selenium	300	71	20	5
Silver	2	NA	4	NA
1,1,2,2-Tetrachloroethane	9020	NA	NA	2400
Thallium	2130	NA	1400	40
Toluene	6300	5000	17500	NA
1,1,1-Trichloroethane	31200	NA	NA	NA
Zinc	95	86.0	120	110

AWQC Ambient Water Quality Criteria.
NA Not applicable.

/a/ All units in micrograms per liter (ug/L).
/b/ In 40CFR 131.36.

**Table 5.4. Sediment Criteria (ER-Ls, ER-Ms)
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Ford Ord, California**

Analyte	Long & Morgan /a/		MacDonald /b/	
	ER - L	ER - M	ER - L	ER - M
<u>Organics (ppb)</u>				
4,4'-DDD	2.0	20	*	*
4,4'-DDE	2.0	15	*	*
4,4'-DDT	1.0	7	*	*
Anthracene	85	960	85.3	1600
Acenaphthene	150	650	16	500
Benzo(a)anthracene	230	1600	261	16
Benzo(a)pyrene	400	2500	430	1600
Chlordane	0.5	6	*	*
Chrysene	400	2800	384	2800
Dieldrin	0.02	8	*	*
Fluoranthene	600	3600	600	5100
Phenanthrene	225	1380	240	1500
Pyrene	350	2200	670	2600
<u>Metals (ppm)</u>				
Antimony	2	25	*	*
Arsenic	33	85	8.2	70
Cadmium	5	9	1.2	9.6
Chromium	80	145	81	370
Copper	70	390	34	270
Lead	35	110	46.7	223
Mercury	0.15	1.3	0.15	0.71
Nickel	30	50	20.9	51.6
Silver	1.0	2.2	1.0	3.7
Zinc	120	270	150	410

ER-L Effects Range Low
ER-M Effects Range Median
* No ER-L / ER-M values available

/a/ In Long and Morgan, 1990.

/b/ In EPA, 1992n.

**Table 5.5. Summary of Toxicity Benchmark Values for Plants and Soil
Ecological Risk Assessment
Fort Ord, California**

Chemical /a /	Kabata-Pendias & Pendias /b/		EPA Screening Level /c/
	Upper Bound of Normal Range	Lower Bound of Toxic Range	Soil Level
Antimony	50	150	NA
Arsenic	1.7	5	3
Beryllium	7	10	NA
Cadmium	0.2	5	2.5
Chromium	0.5	5	8.4
Copper	30	20	40
Lead	10	30	1000
Mercury	NA	1	455
Nickel	5	10	500
Selenium	2	5	13
Silver	0.5	5	NA
Thallium	NA	20	NA
Tin	NA	60	NA
Vanadium	1.5	5	2.5
Zinc	150	100	NA

NA Not applicable.

/a/ All concentrations are in milligrams per kilogram (mg/kg).

/b/ Kabata-Pendias and Pendias, 1984; tissue screening concentrations in mg/kg dry weight.

/c/ EPA (Argonne), 1980c; soil screening concentrations in mg/kg wet weight.

**Table 5.6R. Mammalian Toxicity Reference Values (TRVs)
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Mouse TRV (mg/kg/day)	Fox TRV (mg/kg/day)	References
2-Aminodinitrotoluene /a/	50.7	2.54	Roberts and Hartley, 1992
4-Aminodinitrotoluene /a/	44.7	2.24	Roberts and Hartley, 1992
Acetone /a/	2.00	1.00	EPA, 1994
Antimony	0.35	2.99	ATSDR, 1990c
Arsenic	0.70	0.37	ATSDR, 1992a, 1990f
Barium /a/	0.83	0.04	EPA, 1994
Benzo(a)anthracene /b/	0.40	0.02	--
Benzo(a)pyrene /a/	0.40	0.02	ATSDR, 1990d
Benzo(b)fluouranthene /c/	25.0	1.25	--
gamma-BHC	32.5	0.25	ATSDR, 1992d
Beryllium /a/	0.95	0.05	EPA, 1994
Bis(2-ethylhexyl) phthalate /a/	2.60	0.13	ATSDR, 1989d
Butylbenzyl-phthalate /a/	15.9	7.95	EPA, 1994
Cadmium /a/	0.17	0.0085	EPA, 1987i; ATSDR, 1987
Chlordane /a/	0.90	0.04	EPA, 1994; ATSDR, 1992b
Chromium (as Cr VI)	0.24	0.03	EPA, 1994
Chrysene /b/	0.40	0.02	--
Copper /a/	347	17.3	ATSDR, 1990j
t1,2-DCE /a/	3.40	0.17	ATSDR, 1990f
DDD /a/	107	5.35	ATSDR, 1992c
4,4'-DDE /a/	34.0	1.70	ATSDR, 1992c
4,4'-DDT	3.11	1.60	ATSDR, 1992c
Dibenzo(a,h) anthracene /b/	0.40	0.02	--

**Table 5.6R. Mammalian Toxicity Reference Values (TRVs)
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Mouse TRV (mg/kg/day)	Fox TRV (mg/kg/day)	References
Dibenzofuran /d/	25.0	1.25	--
Dicamba	2.50	10.4	EPA, 1988k
Dieldrin	0.003	0.02	EPA, 1994
Di-n-butyl-phthalate /a/	12.5	6.25	EPA, 1994
Di-n-octyl-phthalate /e/	12.5	6.25	--
Diethylphthalate /a/	77.0	38.50	EPA, 1994
Endrin	0.003	0.003	EPA, 1994; Velsicol Chem. Corp., 1969
Ethylbenzene /a/	9.71	4.86	EPA, 1994
Fluoranthene /a/	25.0	1.25	EPA, 1993e
Fluorene /a/	25.0	1.25	EPA, 1994
Heptachlor /f/	0.25	0.0003	EPA, 1994
Heptachlor epoxide /g/	0.25	0.0003	EPA, 1994
HMX /a/	1.00	0.50	EPA, 1994
Lead	0.09	0.13	ATSDR, 1991a
Mercury /a/	1.90	0.10	ATSDR, 1992e
Methylene chloride /a/	0.62	0.31	EPA, 1994
Methylethyl ketone	3.46	1.76	ATSDR, 1988
2-Methylnaphthalene /h/	16.8	0.84	--
Naphthalene /a/	16.8	0.84	ATSDR, 1990g
Nickel	0.85	2.69	EPA, 1987i; ATSDR, 1988
Nitroglycerin /a/	4.60	0.23	29 CFR Part 1910
4-Nitrophenol /a/	21.7	1.08	EPA, 1987k
PCB-1254 /a/	0.49	0.02	ATSDR, 1991b
PCB-1260 /a/	0.14	0.07	ATSDR, 1991b; EPA, 1991b

**Table 5.6R. Mammalian Toxicity Reference Values (TRVs)
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Mouse TRV (mg/kg/day)	Fox TRV (mg/kg/day)	References
PETN /i/	4.60	0.23	--
Pentachlorophenol /a/	0.35	0.17	ATSDR, 1992g
Phenanthrene /j/	15.0	0.75	--
Pyrene /a/	15.0	0.75	EPA, 1994
RDX	7.00	0.30	ATSDR, 1993b
Selenium /a/	0.06	0.003	ATSDR, 1989e
Silver /a/	1.78	0.89	EPA, 1994
TCDD-Equiv /a/	0.0000001	0.00000005	EPA, 1987h
PCE /k/	2.80	0.14	EPA, 1994
Tetryl /l/	1.25	1.25	ATSDR, 1993c
Thallium /a/	0.01	0.003	ATSDR, 1990h
Tin /a/	0.70	0.04	ATSDR, 1990j; 1990i
Toluene /a/	250.00	12.50	EPA, 1994
TCE /k/	128	1.3	RTECS, 1992;NTIS (AD-A080-636)
1,3,5-Trinitrobenzene /m/	0.01	0.005	EPA, 1994
2,4,6-Trinitrotoluene	1.50	0.01	EPA, 1994
Vanadium /a/	4.10	0.21	ATSDR, 1990j; 1990i
Xylenes /a/	179	8.95	EPA, 1994

**Table 5.6R. Mammalian Toxicity Reference Values (TRVs)
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Mouse TRV (mg/kg/day)	Fox TRV (mg/kg/day)	References
Zinc	14.0	1.75	ATSDR, 1992f

Note: Endpoints addressed by these TRVs include C14, C15, I11, I12, and O2.

TRV	Toxicity reference value		
mg/kg/day	Milligrams per kilogram per day		
--	Indicate that no data was available and/or used for this category.		
gamma BHC	Gamma benzene hexachloride	PETN	Pentaerythritol tetranitrate
dDCE	Trans dichloroethene	RDX	Hexahydro-1,3,5-trinitro-1,3,5-triazine
DDD	Tetrachlorodiphenylethane	TCDD Equiv	Tetrachlorodibenzo-p-dioxin equivalents
DDE	Dichlorodiphenyldichloroethylene	PCE	Tetrachloroethene
DDT	Dichlorodiphenyltrichloroethane	TCE	Trichloroethene
HMX	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine		
PCB	Polychlorinated Biphenyl 1254		
PCB 1260	Polychlorinated Biphenyl 1260		

- /a/ No caudae information available; rodent data used to develop fox TRV.
- /b/ Insufficient information for noncancer endpoints. Because, it is metabolized in the same manner as B(a)P, the TRV developed for B(a)P was used to represent the toxicity of this chemical.
- /c/ Insufficient information for noncancer endpoints. Due to structural similarities, the TRV for fluoranthrene was used to represent the toxicity of this chemical. This chemical is not metabolized to epoxides it is considered less toxic than other PAHs.
- /d/ Insufficient information for any endpoint. Based on structural and metabolic similarities to benzo(b)fluoranthene, the TRV developed for fluoranthrene was used to represent the toxicity of this chemical.
- /e/ Insufficient information available. Based on structural similarities, the TRV developed for di-n-butylphthalate was used to represent the toxicity of this chemical.
- /f/ Dog toxicity data obtained from studies using heptachlor epoxide-not heptachlor.
- /g/ Mouse data from studies using heptachlor-not heptachlor epoxide.
- /h/ Insufficient information available. Based on structural similarities, the TRV developed for naphthalene was used to represent the toxicity of this chemical.
- /i/ Insufficient information available. Based on structural similarities, the TRV developed for nitroglycerin was used to represent the toxicity of this chemical.
- /j/ Insufficient information available. Based on structural similarities, the TRV developed for pyrene was used to represent the toxicity of this chemical.
- /k/ No sublethal canidae information
- /l/ No data from mouse or dog studies was available. Data from rabbit studies was located and used to develop the TRV.
- /m/ Insufficient information available. Based on structural similarities, the NOAEL for 1,3-dinitrobenzene was used and adjusted for differences in molecular weight.

**Table 5.7. Summary of Screening Assessment Hazard Quotients and
 Hazard Index for COPCs
 Site 01 - Ord Village Sewage Treatment Plant
 Volume IV - Ecological Risk Assessment, Basewide RI/FS
 Fort Ord, California**

Compound	Hazard Quotient	
	Mouse	Gray Fox
Mercury	0.01	0.03
TOTAL (Hazard Index)	0.01	0.03

**Table 5.9. Summary of Screening Assessment Hazard Quotients and
 Hazard Index for COPCs
 Site 03 - Beach Trainfire Ranges
 Volume IV - Ecological Risk Assessment, Basewide RI/FS
 Fort Ord, California**

Compound	Hazard Quotient	
	Mouse	Gray Fox
Antimony	199	3.7
Chromium	1.7	2.1
Copper	3.6	12
Lead	5094	567
Tin	0.8	2.4
Zinc	33	42
TOTAL (Hazard Index)	5332	629

**Table 5.11. Summary of Screening Assessment Hazard Quotients and Hazard Index for COPCs
Site 12 - Lower Meadow, DOL Automotive Yard, and Cannibalization Yard
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Compound	Hazard Quotient	
	Mouse	Gray Fox
Tetrachloroethene	0.0013	0.004
Toluene	0.0000006	0.000002
Trichloroethene	0.000002	0.000007
Bis(2-ethylhexyl)phthalate	0.0008	0.002
Di-n-butylphthalate	0.00007	0.00002
Diethylphthalate	0.00005	0.00002
Antimony	0.3	0.005
Arsenic	0.08	0.02
Beryllium	0.003	0.008
Cadmium	6.1	20
Chromium	5.7	7.3
Copper	0.02	0.1
Lead	125	14
Mercury	0.01	0.04
Nickel	0.3	0.02
Selenium	0.1	0.5
Zinc	7.6	9.7
TOTAL (Hazard Index)	146	51

**Table 5.13. Summary of Screening Assessment Hazard Quotients and
Hazard Index for COPCs
Site 16 - DOL Maintenance Yard, Pete's Pond, and Pete's Pond Extension
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Compound	Hazard Quotient	
	Mouse	Gray Fox
Acetone	0.05	0.02
Trichloroethene	0.00006	0.0002
Bis(2-ethyhexyl)phthalate	0.014	0.04
Dibenzofuran	0.0003	0.0009
Di-n-butylphthalate	0.00006	0.00002
Fluorene	0.0007	0.002
2-Methylnaphthalene	0.01	0.03
Naphthalene	0.004	0.01
Phenanthrene	0.002	0.005
1,2,3,4,6,7,8-HpCDD	0.02	0.007
1,2,3,4,6,7,8-HpCDF	0.02	0.007
1,2,3,6,7,8 HxCDF	0.06	0.02
OCDD	0.01	0.004
OCDF	0.002	0.0006
Antimony	0.2	0.005
Arsenic	0.02	0.007
Beryllium	0.003	0.01
Cadmium	1.1	3.6
Chromium	0.5	0.6
Copper	0.003	0.008
Lead	4.9	0.5
Mercury	0.01	0.03
Nickel	0.4	0.02
Silver	0.03	0.009
Zinc	1.0	1.3
TOTAL (Hazard Index)	8	6

**Table 5.15. Summary of Screening Assessment Hazard Quotients and
Hazard Index for COPCs
Site 21 - 4400/4500 Motor Pool, East Block
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Compound	Hazard Quotient	
	Mouse	Gray Fox
Methylene chloride	0.005	0.002
Xylenes	0.0000007	0.000002
Bis(2-ethyhexyl)phthalate	0.0004	0.001
Chrysene	0.0007	0.002
Antimony	3.1	0.06
Arsenic	0.05	0.02
Beryllium	0.005	0.02
Cadmium	7.5	24
Chromium	4.3	5.6
Copper	0.04	0.1
Lead	76	8.4
Mercury	0.01	0.04
Nickel	0.7	0.04
Silver	0.01	0.003
Zinc	14	17
TOTAL (Hazard Index)	105	56

**Table 5.17. Summary of Screening Assessment Hazard Quotients and
Hazard Index for COPCs
Site 24 - Old Directorate of Engineering and Housing (DEH) Yard
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Compound	Hazard Quotient	
	Mouse	Gray Fox
Toluene	0.0000005	0.000001
Bis(2-ethylhexyl)phthalate	0.0005	0.001
PCBs (aroclor-1260)	0.03	0.01
Chlordane	0.01	0.04
4,4'-DDD	0.00001	0.00003
4,4'-DDE	0.00002	0.00007
4,4'-DDT	0.006	0.002
Dieldrin	0.5	0.01
Gamma-BHC	0.0001	0.0003
Lead	17	1.9
Mercury	0.01	0.03
Silver	0.01	0.004
Zinc	2.3	2.9
TOTAL (Hazard Index)	20	5

**Table 5.19. Summary of Screening Assessment Hazard Quotients and
Hazard Index for COPCs
Site 29 - DRMO
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Compound	Hazard Quotient	
	Mouse	Gray Fox
Cadmium	0.2	0.5
Copper	0.008	0.02
Mercury	0.01	0.04
Selenium	0.1	0.3
Silver	0.5	0.2
TOTAL (Hazard Index)	1	1

**Table 5.21. Summary of Screening Assessment Hazard Quotients and
Hazard Index for COPCs
Site 32 - East Garrison Sewage Treatment Plant
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Compound	Hazard Quotient	
	Mouse	Gray Fox
Beryllium	0.004	0.01
Cadmium	0.2	0.7
TOTAL (Hazard Index)	0.2	1

**Table 5.23. Summary of Screening Assessment Hazard Quotients and
Hazard Index for COPCs
Site 35 - Aircraft Cannibalization Yard
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Compound	Hazard Quotient	
	Mouse	Gray Fox
Mercury	0.02	0.05
TOTAL (Hazard Index)	0.02	0.05

**Table 5.25. Summary of Screening Assessment Hazard Quotients and
 Hazard Index for COPCs
 Site 40 - Helicopter Defuelling Area
 Volume IV - Ecological Risk Assessment, Basewide RI/FS
 Fort Ord, California**

Compound	Hazard Quotient	
	Mouse	Gray Fox
Acetone	0.005	0.002
Toluene	0.0000003	0.000001
Bis(2-ethyhexyl)phthalate	0.0002	0.0006
Chromium	0.4	0.5
TOTAL (Hazard Index)	0.4	0.5

**Table 5.27. Results of Quantitative Ecological Screening Assessment for Plants Using
Maximum Soil Concentrations (Based on EPA Soil Screening Levels)
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Hazard Quotient /a/													
	Background		Site											
	Maximum	Mean	02	03	11	12	16	24	25	31	33	35	39	41
Antimony				22.0										
Arsenic	1.1		1.2			1.9				1.9	1.5		2.3	15.9
Barium														
Beryllium														
Cadmium			7.0			7.4	1.4			3.3			10.1	
Chromium	9.2	1.0	10.8	6.4		21.9				5.9			7.7	8.8
Copper			29.0	498.0		3.1				17.0	1.3		41.0	3.0
Lead	1.7		*	46.0	*	1.1	*	*	*	22.0	*		4.1	*
Mercury			*							*	*			
Nickel	5.8		*			*	*			*			*	*
Selenium			*											
Silver			11.7							1.5				
Thallium														
Tin				1.1										
Vanadium									3.0					
Zinc			15.5	22.0		5.0		1.5	*	31.0	2.1		89.1	7.7
TOTAL /b/	18	1	75	596	IC	40	1	2	3	83	5	IC	154	35

* Maximum detected site concentration was above lower bound of toxic range but below the EPA screening concentration.
IC Results for this site were inconclusive.

/a/ The hazard quotients shown here represent the ratio of the maximum detected site concentration to the applicable screening concentration (EPA soil screening level if available; otherwise lower bound of toxic range). Blank spaces indicate that the chemical was eliminated as a COPC or had a hazard quotient less than 1.0.

/b/ The total of the hazard quotients for each site represents the hazard index for the potential effects of inorganic COPC on plants.

**Table 5.29. Comparison of Sediment Data (Inside of Pipe) With Potential BCs
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Sampling Location	Site	Exceeds ER-L	Reference /a/	Exceeds ER-L & ER-M	Reference /a/
OF-01-MH-03	2	Anthracene	3	Anthracene	1
		Benzo(a)anthracene	3	Benzo(a)anthracene	3
		Benzo(a)pyrene	3	Benzo(a)pyrene	3
		Chrysene	3	Chrysene	3
		Copper	3	Fluoranthene	3
		Fluoranthene	3	Mercury	3
		Lead	3	Phenanthrene	3
		Mercury	3	Pyrene	3
		Phenanthrene	3	Silver	3
		Pyrene	3	Zinc	3
		Silver	3		
		Zinc	3		
OF-01-MH-01	2	Cadmium	2	N	
		Copper	3		
		Lead	3		
		Zinc	3		
OF-03-MH	3	4, 4' DDT	1	4, 4' DDT	1
OF-04-MH	3	Cadmium	2	Chrysene	3
		Chrysene	3	Zinc	1
		Copper	3		
		Fluoranthene	3		
		Lead	3		
		Phenanthrene	3		
Zinc	3				
OF-07	20	Cadmium	2	N	
		Zinc	3		
OF-16	16	4,4' DDT	1	4,4' DDT	1
		Cadmium	3	Cadmium	3
		Copper	3	Lead	3
		Lead	3	Zinc	1
		Zinc	3		
OF-23	FAAF 36	4,4' DDE	1	4, 4' DDE	1
		4,4' DDT	1	4, 4' DDT	1
		Cadmium	3	Dieldrin	1
		Copper	2	Lead	3
		Dieldrin	1		
Lead	3				

**Table 5.30. Comparison of Soil Data (Outside of Pipe) With Potential BCs
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Sampling Location	Site	Exceeds ER-L	Reference /a/	Exceeds ER-L & ER-M	Reference /a/
OF-07	20	4,4' DDT	1	4,4' DDT	1
		Dieldrin	1	Dieldrin	1
		Lead	1		
OF-16-01	16	N		N	
OF-16-02	16	4,4' DDT	1	4,4' DDT	1
		Cadmium	2		
OF-16-03	16	4,4' DDT	1	4,4' DDT	1
OF-16-04	16	4,4' DDT	1	4,4' DDT	1
		Cadmium	2		
		Lead	3		
		Zinc	1		
OF-16-05	16	Cadmium	2	N	
		Copper	2		
		Lead	3		
OF-16-06	16	N		N	
OF-23	FAAF 36	Cadmium	2	Lead	1
		Lead	3		

BC Benchmark concentrations.
ER-L Effects range low.
ER-M Effects range median.
N No exceedances.

/a/ Reference:

- 1 Exceeds Long and Morgan value (Long & Morgan, 1990).
- 2 Exceeds MacDonald value (EPA, 1992n).
- 3 Exceeds both referenced values.

**Table 5.32. Summary of Stormwater Data from January 23, 1994
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Ford Ord, California**

Chemical	Frequency of Detection (percent)	Statistical Results /a/	
		Maximum Detected Concentration	Arithmetic Mean Concentration
Acetone	20	2.9	4.4
Arsenic	10	53	6.7
Beryllium	10	29.5	3.3
Bis(2-ethylhexyl)phthalate	90	13	4.6
Cadmium	20	21.6	4.5
Chromium /b/	50	936	109
Copper	20	388	54.0
Di-n-butylphthalate	60	2.7	3.4
Lead	90	214	48.5
Mercury	10	0.4	0.1
Nickel	20	602	80.1
Phenol	10	13	5.8
Silver	10	24	3.4
Thallium	10	4.5	1.4
Zinc	80	1,620	327

/a/ All units in micrograms per liter.

/b/ Data are for chromium III.

**Table 5.34. Summary of Groundwater Data
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Ford Ord, California**

Chemical	Frequency of Detection (percent)	Statistical Results /a/	
		Maximum Detected Values	Arithmetic Mean Values
Antimony	27	26.8	8.7
Arsenic	12	5.3	1.4
Benzene	2	0.4	1.1
Bis(2-ethylhexyl)phthalate	20	7.9	5.8
Cadmium	3	5.8	1.9
Chloroform	14	7.3	1.3
Chromium /b/	26	343	7.05
Copper	13	50.8	3.89
Dibromochloromethane	1	1.4	1.2
Bromodichloromethane	1	1.3	1.2
1,1-Dichloroethane	3	9.0	1.2
1,2-Dichloroethane	6	43	1.6
1,1-Dichloroethene	13	6.2	1.3
1,2-Dichloroethene (total) /c/	54	120	12.1
Ethyl benzene	1	9.4	1.1
Iron	36	10100	308
Lead	5	12.1	1.3
Magnesium	100	1200000	140000
Manganese	100	568	115
Mercury	7	0.7	0.1
Methyl ethyl ketone	2	27	5.6
Methylene chloride	2	2.9	2.6
Nickel	20	1530	36.0
Pentachlorophenol	4	2.0	24
Potassium	84	47000	6784.6
Selenium	1	3.7	2.0
Silver	1	1.6	1.2
Sodium	100	7960000	889000
1,1,2,2-Tetrachloroethane	1	1.3	1.2
Tetrachloroethene	61	52	6.9
Thallium	2	10.6	1.9
Toluene	2	1.6	1.1
Freon 113	2	15	2.2
1,1,1-Trichloroethane	23	71	2.4
Trichloroethene	66	230	25.7

**Table 5.35. Comparison of Stormwater Data from January 23, 1994 with Potential BCs
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Comparison to Fresh Water AWQCs				Comparison to Marine AWQCs			
	Maximum Exceeds		Mean Exceeds		Maximum Exceeds		Mean Exceeds	
	Acute	Chronic	Acute	Chronic	Acute	Chronic	Acute	Chronic
Acetone	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arsenic	N	N	N	N	N	Y (47%)	N	N
Beryllium	N	N/A	N	N	N/A	N/A	N/A	N/A
Bis(2-ethylhexyl)phthalate	N	Y(333%)	N	Y(53%)	N	Y(282%)	N	Y(35%)
Cadmium	Y (454%)	Y (1864%)	Y (15%)	Y (307%)	N	Y (132%)	N	N
Chromium /a/	N	N	N	N	N/A	N/A	N/A	N/A
Copper	Y (2056%)	Y (3133%)	Y (200%)	Y (350%)	Y (13279%)	Y (13279%)	Y (1762%)	Y (1762%)
Di-n-butylphthalate	N	N	N	Y(13%)	N	N	N	N
Lead	Y (161%)	Y (6588%)	N	Y (1415%)	N	Y (2418%)	N	Y (470%)
Mercury	N	Y (3233%)	N	Y (983%)	N	Y (1500%)	N	Y (420%)
Nickel	N	Y (276%)	N	N	Y (703%)	Y (7153%)	Y (7%)	Y (865%)
Phenol	N	N	N	N	N	N/A	N	N/A
Silver	Y (485%)	N/A	N	N/A	Y (943%)	N/A	Y (50%)	N/A
Thallium	N	N	N	N	N	N/A	N	N/A
Zinc	Y (1250%)	Y (1373%)	Y (173%)	Y (197%)	Y (1605%)	Y (1784%)	Y (244%)	Y (280%)

BC Benchmark concentration.
 AWQC Ambient water quality criteria.
 Y Yes.
 N No.
 N/A Not available.
 (1964%) Percent by which detected concentration exceeds AWQC.

/a/ Comparison is for chromium III.

**Table 5.37. Comparison of Groundwater Data with Potential BCs
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Comparison to Fresh Water AWQCs				Comparison to Marine AWQCs			
	Maximum Exceeds		Mean Exceeds		Maximum Exceeds		Mean Exceeds	
	Acute	Chronic	Acute	Chronic	Acute	Chronic	Acute	Chronic
Antimony	N	N	N	N	N	N	N	N
Arsenic	N	N	N	N	N	N	N	N
Benzene	N	N/A	N	N/A	N	N/A	N	N/A
Bis(2-ethylhexyl)phthalate	N	Y(163%)	N	Y(93%)	N	Y(132%)	N	Y(71%)
Cadmium	Y (48%)	Y (427%)	N	Y (73%)	N	N	N	N
Chloroform	N	N	N	N	N/A	N/A	N/A	N/A
Chromium /a/	N	N	N/A	N	N/A	N/A	N	N/A
Copper	Y (182%)	Y (323%)	N	N	Y (1652%)	Y (1652%)	Y (34%)	Y (34%)
Dibromochloromethane	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bromodichloromethane	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1-Dichloroethane	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichloroethane	N	N	N	N	N	N/A	N	N/A
1,1-Dichloroethene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichloroethene (total) /b/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ethyl benzene	N	N/A	N	N/A	N	N/A	N	N/A
Iron	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lead	N	Y (278%)	N	N	N	Y (142%)	N	N
Magnesium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manganese	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mercury	N	Y (5817%)	N	Y (900%)	N	Y (2740%)	N	Y (380%)
Methyl ethyl ketone	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Methylene chloride	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nickel	Y (9%)	Y (856%)	N	N	Y (1940%)	Y (18334%)	N	Y (334%)
Pentachlorophenol	N	N	Y (20%)	Y (85%)	N	N	Y (85%)	Y (204%)
Potassium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Selenium	N	N	N	N	N	N	N	N

**Table 5.38. Summary of Terrestrial Assessment Results for Surface Water Outfalls
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Outfall	Site	Chemicals detected /a/ in sediment and soil	Soil Conc. (mg/kg)	Depth	Soil HI	Sediment Conc. (mg/kg)	Sediment HI	Sediment HI- Soil HI /a/
OF-01-01N	37	acetone	0.0052	D	0.009	0.009	0.02	0.01
OF-01-02N	37	acetone	0.0052	D	0.009	0.011	0.02	0.01
OF-05	3	copper	19900	S	3.6	34.3	0.006	-3.6
		zinc	2160	S	33	197	3.0	-29.9
		TOTAL			37		3	
OF-14	21	cadmium	22.8	S	7.5	13.6	4.5	-3.0
		chromium	141	S	4.3	52.1	0.1	-4.2
		copper	235	S	0.04	79.9	0.00	-0.04
		lead	689	S	76	274	8	-67.4
		silver	0.43	S	0.01	0.56	0.01	0.0
		zinc	889	S	14	397	6.1	-7.5
		methylene chloride	0.0075	S	0.005	0.014	0.01	0.005
		TOTAL			101		19	

**Table 5.38. Summary of Terrestrial Assessment Results for Surface Water Outfalls
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Outfall	Site	Chemicals detected /a/ in sediment and soil	Soil Conc. (mg/kg)	Depth	Soil HI	Sediment Conc. (mg/kg)	Sediment HI	Sediment III- Soil III /a/
OF-21	34	selenium	0.74	SH	0.1	0.59	0.1	-0.03
OF-22	34	selenium	0.74	SH	0.1	0.68	0.1	-0.01
OF-23	36	cadmium	4.3	S	1.4	2.7	0.9	-0.5
		lead	54	S	5.9	155	17	11.1
		silver	0.88	S	0.02	0.56	0.01	-0.01
		acetone	0.0039	S	0.007	0.0097	0.02	0.01
		TOTAL			8	18		
OF-26	29	chromium	17.9	SH	0.6	94.6	2.9	2.4

HI Hazard index.
S Surficial
SH Shallow
D Deep

/a/ Metals detected above background and organics.

/b/ A negative value indicates that the HI for sediment is less than the HI for soil.

**Table 5.39. Summary of Results of the Terrestrial Quantitative Ecological Screening Assessment
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site	Hazard Index Mouse	Hazard Index Fox	Current Site Classification and Planned Activities	Proposed Future Land Use /a/	Approximate % Paved	Screening ERA Decision
1 /c/	0.01	0.03	NoFA	Desalination Plant	0	NoFA
2 /b/	58	61	RI	Develop; aquaculture facility	5	More data analysis
3 /b/	5332	629	RI	State Park	0	Biota collection
11 /d/	25	3	NoFA	University	25	More data analysis; biota collection
12 /d/	146	51	RI	Develop; business; Light industrial	75	More data analysis; biota collection
15 /d/	178	1455	IA; all but SB-15-01	Develop; corporate yard	70	NoFA due to IA
16 /d/	8	6	RI	Develop; university parcel	5	More data analysis; biota collection
17 /d/	1	1	RI	Develop; university parcel	95	NoFA
21 /b/	105	56	IA; SS01 to 06	Industrial	90	NoFA due to IA
22 /b/	0.04	0.1	IA (grease rack)	Develop; university parcel	85	NoFA
24 /d/	20	5	IA (drums)	Develop; university parcel	0	More data analysis; biota collection
25 /b/	8	7	NoFa	University Housing	0	More data analysis; biota collection
29 /c/	1	1	IA; PCB drains	Agricultural & Open Space	5	NoFA
31 /d/	2489	343	RI	Open Space & Development	5	Biota collection
32 /c/	0.2	1	NoFA	Open Space & Development	5	NoFA
33 /b/	26	19	Unclear	Golf course	90	More data analysis; biota collection
35 /c/	0.02	0.05	NoFA	University Research	0	Incomplete data; additional field work
39 /d/	850	337	RI	Natural Resources Management Area and Development	0	Biota collection
40 /d/	0.4	0.5	Unclear	Aviation Facility	86	NoFA

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**Table 5.40. Summary of Site-by-Site Decisions for the Quantitative Ecological Screening Assessment
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site Number	Site Name	Phase of ERA In Which Site Screened Out /a/			
		PIA1	PIA2	Quantitative Screening Assessment	
1	Ord Village STP			X	NoFA; HI<1
2	Main Garrison Sewage Treatment Plant				HI>1
3	Beach Trainfire Ranges				HI>1
4	Beach Outfalls				Evaluated in the outfall assessment
5	Inland Ranges				Evaluated as part of Site 39
6	Inland Ranges				Evaluated as part of Site 39
7	Inland Ranges				Evaluated as part of Site 39
8	Inland Ranges				Evaluated as part of Site 39
9	Inland Ranges				Evaluated as part of Site 39
10	Burn Pit	X			No complete exposure pathways
11	AAFES Fueling Station				HI>1
12	Lower Meadow, DOL Yard, Cannibalization Yard				HI>1
13	Railroad Right-of-Way	X			No complete exposure pathways
14	707th Maintenance Facility	X			No complete exposure pathways
15	DEH Yard			X	NoFA due to IA
16	DOL Maintenance Yard, Pete's Pond				HI>1
17	1400 Block Motor Pool/Disposal Area			X	NoFA (paved)
18	1600 Block Facility	X			No complete exposure pathways
19	2200 Block Facility	X			No complete exposure pathways
20	South Parade Ground, Motor Pools	X			No complete exposure pathways
21	4400/4500 Motor Pool, East Block			X	NoFA due to IA

**Table 5.40. Summary of Site-by-Site Decisions for the Quantitative Ecological Screening Assessment
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site Number	Site Name	Phase of ERA In Which Site Screened Out /a/			Decision Rationale
		PHA1	PHA2	Quantitative Screening Assessment	
---	Aquatic Assessment - Pete's Pond Outfalls	1 /b/	1 /b/	none /b/	NoFA; evaluated as part of Site 16
---	Aquatic Assessment - Salinas River Outfalls	1 /b/	1 /b/	none /b/	NoFA; No toxicity

/a/ X indicates that the site was eliminated from further evaluation.

/b/ Number of outfalls to be further evaluated.

**Table 6.1. Numbers and Types of Samples Collected
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site	Surface Soil		Plants /a/				Small Mammals /b/		Leaf Litter		Lizards	Analytical Suite /d/
	Number	Date /c/	Oats	Iceplant	Other	Date /c/	Number	Date /c/	Number	Date /c/		
1	5	5/23	--	--	--		--		--	--	Full	
2	5	5/20	--	4	--	8/30	4	8/24-25	--	0 /e/	Full	
3	13	5/23; 9/14	NA	2	5 (EP), 5 (EL)	8/31; 8/12	6	8/11-12	--	0 /e/	Metals only	
11	4	5/19	4	4	--	5/16; 5/14	4	8/31, 9/15	--	0 /e/	Full	
12	4	5/19	4	4	--	5/17	0 /e/		--	--	Full	
15	4	5/31	4	4	--	5/27	--		--	--	Full except no PAHs	
16	10	5/20	8	8	--	5/18; 5/20	0 /e/		9	8/19	Full plus CDDs and CDFs	
21	4	5/31	4	4	--	5/25	--		--	--	Full	
22	4	5/31	4	4	--	5/16	--		--	--	Full	
24	6	5/19	6	6	--	5/13	6	9/14-15	6	9/16	Full	
25	4	5/19	4	4	--	5/14; 5/17	1	9/14	4	9/16	Full except no PAHs	
29	4	5/24	4	4	--	5/11	2	9/15	4	9/1	Full	
31	4	5/24	1	NA	--	4/29	8	6/23	4	9/1	0 /e/	Full plus CDDs and CDFs
32	4	5/24	6	4	--	5/5	--		--	--	Full except no PAHs	
33	4	5/19	NA	NA	3 (BD), 1 (BC)	5/18	4		--	--	Full except no PAHs	
35	10	5/31	NA	1	10 (BD)	5/27; 5/31	5	8/18	10	9/2	--	Full

**Table 6.1. Numbers and Types of Samples Collected
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site	Surface Soil		Plants /a/				Small Mammals /b/		Leaf Litter		Lizards	Analytical Suite /d/
	Number	Date /c/	Oats	Iceplant	Other	Date /c/	Number	Date /c/	Number	Date /c/		
CLOW	1	10/13	--	3	--	10/13	2	10/12-13	2	10/13	--	Differed by medium
CMC	1	10/13	--	3	--	10/13	3	10/14	1	10/13	--	Differed by medium
UR	1	10/14	--	3	--	10/14	0 /e/		1	10/14	--	Differed by medium

-- No sampling.
 NA Not available.
 CDD Chlorinated dibenzodioxin.
 CDF Chlorinated dibenzofuran.
 N/A Not applicable.
 CLOW Coast Live Oak woodland.
 CMC Central maritime chaparral.
 UR Upland ruderal.

/a/ Entries are number of samples; species code in parentheses.

Oats	<i>Avena fatua</i>	BD	<i>Bromus diandrus</i>	(ripgut brome)
Iceplant	<i>Carpobrotus edulis</i>	EP	<i>Erigonium parvifolium</i>	(dune buckwheat)
BC	<i>Bromus carinatus</i>	EL	<i>Erigonium latifolium</i>	(coast buckwheat)

/b/ All small mammals caught were deermice (*Peromyscus* sp.).

/c/ 1994 date(s) sampled.

/d/ Analytical suite conducted for all samples collected at a site. Full includes metals, pesticides/PCBs, and PAHs.
 See text for reference site analytical suites (Section 6.1.2).

/e/ Trapping unsuccessful at this site.

**Table 6.2. Populations of Buckwheat Identified for Potential Sampling
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Population Designation /a/	Plant Species /b/	Bullet Density /c/	Smith's Blue Evidence /d/
R1-1	EP	H	Y
R1-2	EP	H	N
R2-1	EP	L	Y
R3-1	EP	L	Y
ASA-1	EP	C	Y
R7-1	EP	L	Y
R7-2	EP	H	Y
R8-1	EP	H	N
R8-2	EP	L	N
R8-3	EP	L	N
ST-1	EP	C	N
R12-1	EL	L	N
R14-1	EL	L	Y
R1516-1	EL	C	N
R1516-2	EL	L	N
R17-1	EL	L	N
R17-2	EL	H	N

/a/ Trainfire range where population is located; last number refers to multiple locations within a range. See Plate 1.

/b/ EP *Erigonium parvifolium*.

EL *Erigonium latifolium*.

/c/ H High density bullet site (>1% based on visual inspection).

L Low density bullet site (<1% based on visual inspection).

C Control (no bullets).

/d/ Y Flying and/or perched butterflies seen; buckwheat population not sampled.

N None seen; buckwheat population sampled.

**Table 6.3. Identification and Characterization of Buckwheat Seed Lots from Fort Ord /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

HLA I.D. (Range)	PRT I.D. (RS00086-)	Sample Classification /b/	Seed Weight (mg)	Sample Residue Weight (g)	Estimate of Seed Count
<i>E. parvifolium</i>					
R1-2	A	High	430	7.6	450
R8-2	B	Low	425	6.4	700
R8-1	C	High	600	6.1	1000
R8-3	D	Low	365	7.9	450
ST-1	E	Control	510	9.0	600
<i>E. latifolium</i>					
R12-1	F	Low	335	14.5	350
R1516-2	G	Low	565	18.5	725
R1516-1	H	Control	990	16.7	1000
R17-1	I	Low	325	18.8	500
R17-2	J	High	600	11.6	700

PRT Plant Research Technologies
mg Milligrams
g Grams

/a/ Samples collected from Site 3 on August 12, 1994.

/b/ Control = 0% bullets, Low = <1% bullets, High = >1% bullets; % is w/w based on visual observation of bullets in

**Table 6.4. Representation of Experimental Design for Buckwheat Bioassays
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

E. parvifolium /a/

	High, Ap	High, Cp	Low, Bp	Low, Dp	Cont., Ep	Surrogate EP
High, Am	X					X
High, Cm		X				
Low, Bm			X			X
Low, Dm				X		
Cont., Em	X	X	X	X	X	X

E. latifolium /a/

	High, Jp	Low, Fp	Low, Gp	Low, Ip	Cont., Hp	Surrogate EL
High, Jm	X					X
Low, Fm		X				
Low, Gm			X			X
Low, Im				X		
Cont., Hm	X	X	X	X	X	X

p Plant
m Test matrix (soil)
X Triplicate determination
EP *E. parvifolium*
EL *E. latifolium*
Cont. Control (0% bullets)
Low Low bullet density (<1% bullets)
High High bullet density (>1% bullets)

/a/ Letters A through J correspond to Plant Research Technologies ID number RS00086-A through J.

**Table 6.5. Summary of Small Mammal Trapping
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site	Number of Trap Nights /a/	Number Collected /b/	Trap Success (percent) /c/	Age Structure (juvenile: subadult: adult)	Condition /d/
2	300	4	1.3	0:2:2	OK
3	700	9	1.3	0:5:4	OK
11	114	4	3.5	4:0:0	OK
12	300	0	0.0	NA	NA
16	200	0	0.0	NA	NA
24	300	6	2.0	6:0:0	OK
25	300	1	0.3	0:0:1	OK
29	300	2	0.7	0:1:1	1 dead in trap
31	60	8	13.3	0:4:4	OK
33	300	4	1.3	0:2:2	OK
35	360	10	2.8	0:2:8	OK
CLOW	300	2	0.5	0:0:2	OK
CMC	200	3	1.5	0:0:3	2 dead in trap
UR	100	0	0.0	NA	NA

NA Not applicable.
 CLOW Coast Live Oak Woodland reference location.
 CMC Central Maritime Chaparral reference location.
 UR Upland Ruderal.

/a/ Number of traps placed multiplied by the number of nights traps were open and baited.

/b/ All rodents collected were *Peromyscus* spp.

/c/ Calculated as number collected / number of trap nights; some animals were trapped and released (wrong species or more animals than needed).

/d/ OK indicates animals were alive and appeared healthy.

**Table 6.6. Revised Summary of Chemicals of Potential Concern (COPCs) for All Matrices /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Site /b/																				
	01	02	03	11	12	15	16	17	21	22	24	25	29	31	32	33	35	39	40	41	
Acetone							Yes	Yes				Yes								Yes	
1,2-Dichloroethene (total)						Yes															
Ethylbenzene					Yes																
Methylene chloride								Yes	Yes												
Tetrachloroethene					Yes																
Toluene					Yes	Yes					Yes									Yes	Yes
Trichloroethene					Yes		Yes														
Xylenes					Yes				Yes												
Benzo(a)anthracene																				Yes	
Benzo(a)pyrene																				Yes	
Benzo(b)fluoranthene							Yes			Yes										Yes	
Bis(2-ethylhexyl)phthalate					Yes		Yes		Yes	Yes	Yes									Yes	Yes
Butylbenzylphthalate										Yes											
Chrysene									Yes											Yes	
Dibenzo(a,h)anthracene																				Yes	
Dibenzofuran							Yes													Yes	
Di-n-butylphthalate					Yes		Yes														
Diethylphthalate					Yes																
Fluoranthene																				Yes	
Fluorene							Yes														
2-Methylnaphthalene							Yes													Yes	
Naphthalene							Yes													Yes	
Pentachlorophenol																				Yes	
Phenanthrene							Yes													Yes	
Pyrene																				Yes	
PCBs (aroclor-1254)												Yes									
PCBs (aroclor-1260)											Yes										
2-Amino-dinitrotoluene																				Yes	
4-Amino-dinitrotoluene																				Yes	
HMX																				Yes	

**Table 6.6. Revised Summary of Chemicals of Potential Concern (COPCs) for All Matrices /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Site /b/																					
	01	02	03	11	12	15	16	17	21	22	24	25	29	31	32	33	35	39	40	41		
PETN																					Yes	
RDX																						Yes
Tetryl																						Yes
Chlordane						Yes	Yes				Yes	Yes	Yes		Yes	Yes						
4,4'-DDD										Yes	Yes		Yes		Yes	Yes						
4,4'-DDE						Yes					Yes	Yes	Yes	Yes	Yes	Yes						
4,4'-DDT						Yes				Yes												
Dicamba																					Yes	
Dieldrin						Yes					Yes	Yes									Yes	
Endrin																					Yes	
Gamma-BHC											Yes	Yes										
Heptachlor						Yes								Yes								
Heptachlor epoxide						Yes								Yes								
1,2,3,4,6,7,8-HpCDD							Yes	Yes								Yes						
1,2,3,4,6,7,8-HpCDF							Yes	Yes								Yes						
1,2,3,4,7,8,9-HpCDF							Yes									Yes						
1,2,3,4,7,8-HxCDF																Yes						
1,2,3,6,7,8-HxCDF							Yes									Yes						
1,2,3,7,8,9-HxCDF							Yes									Yes						
2,3,4,6,7,8-HxCDF							Yes									Yes						
1,2,3,4,7,8-HxCDD							Yes									Yes						
1,2,3,6,7,8-HxCDD							Yes									Yes						
1,2,3,7,8,9-HxCDD							Yes									Yes						
1,2,3,7,8-PeCDD																Yes						
1,2,3,7,8-PeCDF							Yes									Yes						
2,3,4,7,8-PeCDF							Yes									Yes						
OCDD							Yes	Yes								Yes						
OCDF							Yes	Yes								Yes						
2,3,7,8-TCDD							Yes									Yes						
2,3,7,8-TCDF							Yes									Yes						

**Table 6.6. Revised Summary of Chemicals of Potential Concern (COPCs) for All Matrices /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Site /b/																			
	01	02	03	11	12	15	16	17	21	22	24	25	29	31	32	33	35	39	40	41
Antimony		Yes	Yes		Yes		Yes	Yes	Yes		Yes	Yes	Yes	Yes		Yes	Yes	Yes		
Arsenic		Yes	Yes	Yes	Yes		Yes		Yes	Yes		Yes								
Barium		Yes	Yes	Yes							Yes	Yes	Yes	Yes		Yes	Yes	Yes		Yes
Beryllium					Yes		Yes		Yes					Yes	Yes				Yes	Yes
Cadmium		Yes		Yes		Yes														
Chromium	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Copper	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes											
Lead		Yes	Yes	Yes	Yes	Yes	Yes		Yes											
Mercury	Yes	Yes			Yes	Yes	Yes	Yes	Yes		Yes		Yes	Yes	Yes	Yes	Yes	Yes		
Nickel	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Selenium		Yes			Yes					Yes			Yes				Yes	Yes		Yes
Silver	Yes	Yes	Yes				Yes		Yes		Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes
Tin			Yes																	
Thallium		Yes		Yes							Yes		Yes	Yes		Yes	Yes			Yes
Vanadium				Yes							Yes	Yes		Yes			Yes			Yes
Zinc	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes											

/a/ COPCs listed here are the combined COPCs for all matrices evaluated at a given site. Matrix-specific COPCs are discussed in Section 6.0 of the text.

/b/ "YES" indicates that the chemical is a COPC. A blank space indicates that the chemical is not a COPC.

**Table 6.7. Summary of ANOVA Plant:Soil Ratio Results
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	ANOVA p-value	Significant t-test Sites (p-value)		
		Site 22	Site 24	Site 29
Chromium	6.28E-04	2.56E-03	NA	9.95E-05
Copper	1.60E-01	NA	NA	NA
Lead	2.32E-02	NA	7.47E-06	NA
Nickel	4.41E-05	NA	NA	4.03E-09
Zinc	1.38E-01	NA	NA	NA

NA Not applicable.

**Table 6.8. Summary of Regression Analyses for Soil and Oats /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Uncensored Dataset /b/			Censored Dataset /c/		
	Slope	Y-intercept (mg/kg)	R-Square	Slope	Y-intercept (mg/kg)	R-Square
Nontransformed data						
Chromium	0.042	1.5	0.0025	0.018	1.67	0.00032
Copper	0.060	18.11**	0.00062	-0.18	24.02*	0.0049
Lead	0.0017*	0.29**	0.092*	0.0014	0.35**	0.070
Nickel	-0.20*	3.7**	0.067	0.028	2.02*	0.0032
Zinc	-0.0082	43.28	0.0017	-0.021	44.26**	0.013
Log-transformed data						
		/d/		/d/		
Chromium	0.017	1.12	0.00005	-0.25	1.83	0.0023
Copper	0.071	11.99**	0.011	0.070	12.76**	0.0047
Lead	0.065	0.20**	0.010	-0.052	0.35*	0.0077
Nickel	-0.34	3.74*	0.069	-0.068	2.44	0.0024
Zinc	0.038	36.49**	0.016	-0.036	46.75**	0.013

mg/kg Milligrams per kilogram.

* Significantly different from 0 (p < 0.05).

** Significantly different from 0 (p < 0.0001).

/a/ Regression for the following equation: $Y = mX + b$ where:

Y Plant concentration
m Slope
X Soil concentration
b Y-intercept.

/b/ Includes all paired sampling locations for which either plants or soil had a detected value.

/c/ Includes only paired sampling locations having detected values both in plants and soil.

/d/ Inverse log of log-transformed y-intercept.

**Table 6.9. Summary of Regression Analyses for Soil and Buckwheat /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Slope		Y-intercept (mg/kg)		R-Square	
Nontransformed data						
Antimony	0.005	**	0.11	*	0.956	**
Chromium	0.008		0.35	*	0.092	
Copper	0.010	*	7.46	**	0.405	*
Lead	0.003	**	3.50	*	0.946	**
Zinc	0.022		43.44	**	0.006	
Log-transformed data						
			/b/			
Antimony	0.360	*	0.12	**	0.656	*
Chromium	0.248		0.24	*	0.126	
Copper	0.269	*	3.43	*	0.735	*
Lead	0.381	*	0.73		0.752	*
Zinc	0.067		35.41	**	0.084	

mg/kg Milligrams per kilogram.

* Significantly different from 0 (p < 0.05).

** Significantly different from 0 (p < 0.0001).

/a/ Regression for the following equation: $Y = mX + b$ where:

Y Plant concentration

m Slope

X Soil concentration

b Y-intercept.

/b/ Inverse log of log-transformed y-intercept.

**Table 6.10. Comparison of Plant and Soil CDD/CDF Data - Site 16
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Soil Station No.	Soil Concentration (pg/g)						Plant Station No.	Oat Concentration (pg/g)						OCDD Ratio	PeCDF Ratio	TCDF Ratio
	OCDD	dl /a/	PeCDF	dl /a/	TCDF	dl /a/		OCDD	dl /a/	PeCDF	dl /a/	TCDF	dl /a/			
UNCENSORED DATA /b/																
SS-16-05	63.0	--	nd	4.70	1.6	--	TP-16-05	12	--	9.8	--	32	--	0.19	2.1	20
SS-16-01	120.0	--	51.0	--	10.0	--	TP-16-01	16	--	nd	0.75	nd	0.46	0.13	0.0147	0.046
SS-16-07	210.0	--	750.0	--	39.0	--	TP-16-07	6.6	--	nd	0.75	nd	0.64	0.031	0.00100	0.0164
SS-16-04	480.0	--	83.0	--	18.0	--	TP-16-04	14	--	nd	1.30	2.2	--	0.029	0.0157	0.12
SS-16-02	510.0	--	200.0	--	44.0	--	TP-16-02	10	--	nd	1.10	nd	0.64	0.020	0.0055	0.0145
Mean														0.08	0.42	4.04
Standard Deviation (SD)														0.08	0.93	8.92
One SD Range														-0.14 to 0.52	-0.89 to 2.13	-4.47 to 9.65
Two SD Range														-0.47 to 0.85	-2.35 to 3.59	-11.50 to 16.69
Travis and Arms Uptake Factor /c/														0.00023	0.00062	0.0054

pg/g Picograms per gram (parts per trillion).
 OCDD Octachlorodibenzo-p-dioxin.
 dl Detection limit.
 PeCDF Pentachlorodibenzo-p-furan.
 TCDF Tetrachlorodibenzo-p-furan.
 nd Not detected.
 -- Not applicable.

/a/ Detection limit for that sample.

/b/ Includes all paired plant and soil sample results.

/c/ Travis and Arms uptake factor for 2,3,4,7,8-PeCDF was used for total PeCDFs.

**Table 6.11. Comparison of Plant and Soil Pesticide Data - Site 32
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Soil Station No.	Soil Concentration ($\mu\text{g}/\text{kg}$)						Plant Station No.	Oat Concentration ($\mu\text{g}/\text{kg}$)						4,4'-DDD Ratio	4,4'-DDE Ratio	4,4'-DDT Ratio
	4,4'-DDD dl /a/	8.5	4,4'-DDE dl /a/	8.0	4,4'-DDT dl /a/	8.3		4,4'-DDD dl /a/	8.0	4,4'-DDE dl /a/	8.0	4,4'-DDT dl /a/	8.0			
UNCENSORED DATA /b/																
SS-32-01	nd	8.5	nd	8.5	nd	8.5	SS-32-05	nd	8.0	nd	8.0	nd	8.0	0.94	0.94	0.94
SS-32-02	13.0	--	nd	8.0	8.3	--	SS-32-06	12	--	nd	8.0	nd	8.0	0.92	1.00	0.96
SS-32-03	nd	8.0	nd	8.0	nd	8.0	SS-32-07	14	--	17	--	12	--	1.75	2.13	1.50
SS-32-04	280	--	400	--	750	--	SS-32-08	nd	8.0	nd	8.0	nd	8.0	0.03	0.02	0.01
Mean														0.91	1.02	0.85
Standard Deviation (SD)														0.70	0.86	0.62
One SD Range /c/														0.21 to 1.61	0.16 to 1.88	0.23 to 1.47
Two SD Range /c/														-0.49 to 2.31	-0.70 to 2.74	-0.39 to 2.09
Travis and Arms Uptake Factor														0.00325	0.00112	0.00329

$\mu\text{g}/\text{kg}$ Micrograms per kilogram (parts per billion; ppb).
 DDD Dichlorodiphenyldichloroethane.
 dl Detection limit.
 DDE Dichlorodiphenyldichloroethene.
 DDT Dichlorodiphenyltrichloroethane.
 nd Not detected.
 -- Not applicable.

/a/ Value is one-half the detection limit for that sample.
 /b/ Includes all paired plant and soil sample results.
 /c/ Shaded values indicate that the Travis and Arms uptake factor is outside this range.

**Table 6.12R. Results of Evaluation of Toxicity Using In-Plant Metal Concentrations
(Based on Kabata-Pendias and Pendias Screening Levels)
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Hazard Quotient /a/															
	Site /b/															
	3/39	11	12	15	16	21	22	24	25a	25b	29	31	32	33	35	41
Antimony																
Arsenic																
Beryllium																
Cadmium									1.2	1.8						
Chromium		6.5	1.3	4.2	1.3	2.2			2.9		15.2			4.1		1.3
Copper									2.7		2.0			5.1		
Lead																
Nickel																
Selenium																
Zinc																
TOTAL /c/	<1	7	1	4	1	2	NC	NC	7	2	17	<1	NC	9	NC	1
TOTAL (excluding Background) /d/	<1	7	<1	4	1	<1	NC	NC	3	<1	17	<1	NC	9	NC	<1

NC No COPCs.

/a/ The hazard quotients shown here represent the ratio of the mean detected in-plant concentration to the applicable screening concentration (lower of upper bound of normal range and lower bound of toxic range). Blank spaces indicate that the chemical was eliminated as a COPC or had a hazard quotient less than 1.0.

/b/ Oats were evaluated for all sites except Site 33 (rippgut and California brome), Site 35 (rippgut brome), Site 25b (hottentot fig), and Site 3/39 (buckwheat).

/c/ The total of the hazard quotients for each site represents the hazard index for the potential effects of inorganic COPCs on plants.

/d/ Hazard quotients due to background levels were excluded in this value.

**Table 6.13. Comparison of Background Values
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Hazard Quotient						
	Oats	Buckwheat		Hottentot fig /c/			Average
	y-Int /a/	y-Int /a/	Actual /b/	CLOW	CMC	UR	
Antimony	NA	0.002	0.001	NA	NA	NA	NA
Arsenic	NA	NA	NA	0.1	0.1	0.1	0.1
Cadmium	NA	NA	NA	0.6	0.7	2.0	1.1
Chromium	3.3	0.7	0.8	0.4	1.0	0.7	0.7
Copper	1.2	0.4	0.2	0.09	0.2	0.2	0.2
Lead	0.04	0.4	0.06	0.03	0.03	0.2	0.09
Nickel	0.4	NA	NA	NA	0.4	0.4	0.4
Zinc	0.4	0.4	0.4	0.2	0.2	0.6	0.3

CLOW Coast live oak woodland.
 CMC Central maritime chaparral.
 UR Upland ruderal.
 NA Not available.

/a/ From regression analysis.
 /b/ Data from control or area of Site 3.
 /c/ Data from reference locations.

**Table 6.14. Comparison of Hazard Indices Based on Modeled Plant Tissue Concentrations and Hazard Indices Based on Measured Plant Tissue Concentrations
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site /a/	Hazard Indices		Status
	Screening /b/	Quantitative /c/	
1	<1	NA	No concern
2	75	NA	Possible concern
3/39	596/154	<1	No concern
11	Inconclusive	7	Possible concern
12	40	<1	No concern
15 /d/	1	4	Possible concern
16	1	1	No concern
21 /d/	42	<1	No concern
22 /d/	<1	NC	No concern
24	2	NC	No concern
25a	3	3	Possible concern
25b	3	<1	No concern
29 /d/	6	17	Probable concern
31	83	<1	No concern
32 /d/	<1	NC	No concern
33	5	9	Possible concern
35	Inconclusive	NC	No concern
41	35	<1	No concern

NA Not analyzed.
NC No COPCs.

/a/ Oats were evaluated for all sites except Site 33 (ripgut and California brome), Site 35 (ripgut brome), Site 25b (hottentot fig), and Site 3/39 (buckwheat).

/b/ Hazard quotients calculated using maximum soil concentrations and EPA tissue screening values (if available) or lower bound of toxic range.

/c/ Hazard quotients calculated using measured plant tissue concentrations and lower of lower bound of toxic range and upper bound of normal range.

/d/ Not originally evaluated in the Draft ERA.

Table 6.15. Buckwheat Assay Results
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Seed Group /2/	Test Species	PRT Elutriate Group /2/	PRT Treatment Group Number /2/	Elutriate Range ID /2/	Elutriate Concentrations					Measurement Endpoints		
					Antimony (ug/l)	Chromium (ug/l)	Copper (ug/l)	Lead (ug/l)	Zinc (ug/l)	Germination Frequency (Arcsine Transformed)	Hypocotyl Length (mm)	Root Length (mm)
					EL	<i>E. latifolium</i>	S	37	Reference Sand	ND (2.2)	ND (3.6)	3.3
EL	<i>E. latifolium</i>	J	24	R12-1	ND (2.2)	ND (3.6)	31.1	12.9	44.4	25.37	3.22	0.03
EL	<i>E. latifolium</i>	P /1/	32	R1516-1a-f	19.6	ND (3.6)	38.4	52.8	17.3	17.71	1.97	0.49
EL	<i>E. latifolium</i>	O	22	R17-2d	115	ND (3.6)	148	1250	510	23.85	1.51	0.38
F	<i>E. latifolium</i>	J	23	R12-1	ND (2.2)	ND (3.6)	31.1	12.9	44.4	71.56	14.97	1.55
F	<i>E. latifolium</i>	P /1/	28	R1516-1a-f	19.6	ND (3.6)	38.4	52.8	17.3	63.93	10.13	1.84
G	<i>E. latifolium</i>	P /1/	29	R1516-1a-f	19.6	ND (3.6)	38.4	52.8	17.3	48.84	11.25	1.12
G	<i>E. latifolium</i>	K	25	R1516-2	121	ND (3.6)	198	223	48	54.78	16.47	1.20
H	<i>E. latifolium</i>	S	36	Reference Sand	ND (2.2)	ND (3.6)	3.3	7.9	12	57.78	18.84	3.07
H	<i>E. latifolium</i>	R(1) sieved	35	R1516-1h	55.4	ND (3.6)	29	47.4	11.5	50.93	11.26*	2.12
H	<i>E. latifolium</i>	P /1/	31	R1516-1a-f	19.6	ND (3.6)	38.4	52.8	17.3	63.93	15.15	3.70
H	<i>E. latifolium</i>	R (1) unsieved	34	R1516-1h	26.3	ND (3.6)	35.1	58.2	297	37.22*	11.10*	2.01
H	<i>E. latifolium</i>	Q	33	R1516-1g	49.2	ND (3.6)	34.3	78.2	16.5	54.78	15.55	3.53
I	<i>E. latifolium</i>	P /1/	30	R1516-1a-f	19.6	ND (3.6)	38.4	52.8	17.3	57.00	11.01	2.05
I	<i>E. latifolium</i>	L	26	R17-1	45.2	ND (3.6)	125	272	89.7	65.85	14.85	2.97
J	<i>E. latifolium</i>	P /1/	27	R1516-1a-f	19.6	ND (3.6)	38.4	52.8	17.3	57.00	13.47	4.12
J	<i>E. latifolium</i>	O	21	R17-2d	115	ND (3.6)	148	1250	510	58.08	11.44	1.78
J	<i>E. latifolium</i>	N	20	R17-2c	92.5	4.8	764	1520	154	51.14	13.42	0.92*
J	<i>E. latifolium</i>	M	19	R17-2a-b	1260	ND (3.6)	640	3350	102	53.15	15.57	1.42*

Table 6.15. Buckwheat Assay Results
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Seed Group /2/	Test Species	PRT Elutriate Group /2/	PRT Treatment Group Number /2/	Elutriate Range ID /2/	Elutriate Concentrations					Measurement Endpoints		
					Antimony (ug/l)	Chromium (ug/l)	Copper (ug/l)	Lead (ug/l)	Zinc (ug/l)	Germination Frequency (Arcsine Transformed)	Hypocotyl Length (mm)	Root Length (mm)
					A	<i>E. parvifolium</i>	G /1/	9	ST1a-f	47.2	ND (3.6)	229
A	<i>E. parvifolium</i>	A	1	R1-2	370	ND (3.6)	829	7010	229	65.85	21.03	5.38*
B	<i>E. parvifolium</i>	F2	7	R8-2c	9.3	ND (3.6)	25.8	133	42.4	41.07	5.09	0.65
B	<i>E. parvifolium</i>	D	5	R8-2a	ND (2.2)	3.6	56	517	48.9	41.07	4.48	0.65
B	<i>E. parvifolium</i>	G /1/	11	ST1a-f	47.2	ND (3.6)	229	1590	79.5	39.06	2.96	0.26
C	<i>E. parvifolium</i>	B	2	R8-1a	4.2	ND (3.6)	48.3	27.4	26	43.08	8.81	1.33
C	<i>E. parvifolium</i>	G /1/	10	ST1a-f	47.2	ND (3.6)	229	1590	79.5	55.07	14.42	2.42
C	<i>E. parvifolium</i>	C2	3	R8-1c	8.3	ND (3.6)	561	16900	1850	48.93	11.35	1.29
D	<i>E. parvifolium</i>	E	6	R8-3	4	6.1	44.2	167	101	52.77	11.35	2.88
D	<i>E. parvifolium</i>	G /1/	12	ST1a-f	47.2	ND (3.6)	229	1590	79.5	52.77	12.91	3.66
E	<i>E. parvifolium</i>	S	17	Reference Sand	ND (2.2)	ND (3.6)	3.3	7.9	12	51.14	13.90	2.50
E	<i>E. parvifolium</i>	H	15	ST-1g	ND (2.2)	4.8	11.1	29.9	65.8	52.77	10.33	3.55
E	<i>E. parvifolium</i>	I	16	ST1-h	ND (2.2)	ND (3.6)	13.9	33	106	59.71	16.36	5.02
E	<i>E. parvifolium</i>	G /1/	13	ST1a-f	47.2	ND (3.6)	229	1590	79.5	48.84	12.83	3.66
EP	<i>E. parvifolium</i>	S	18	Reference Sand	ND (2.2)	ND (3.6)	3.3	7.9	12	59.00	21.26	5.42
EP	<i>E. parvifolium</i>	F2	8	R8-2c	9.3	ND (3.6)	25.8	133	42.4	61.92	21.59	5.93
EP	<i>E. parvifolium</i>	G /1/	14	ST1a-f	47.2	ND (3.6)	229	1590	79.5	71.56	22.01	7.52
EP	<i>E. parvifolium</i>	C2	4	R8-1c	8.3	ND (3.6)	561	16900	1850	72.78	20.78	2.89

Source: Appendix I

* Significantly difference (p < 0.05) between observed value and value for reference area elutriate

/1/ Elutriate of soil from reference area

/2/ See Appendix I for full discussion

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Table 6.16R. Dioxin Analysis
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Congener	Site-Related Concentrations			Text Background /c/		
	Avg. Body-Burden Mouse Concentration /a/	Avg. Lipid-Based Mouse Concentration /b/	TEQ Mouse Concentration	Avg. Body-Burden Mouse Concentration	Avg. Lipid-Based Mouse Concentration	TEQ Mouse Concentration
2,3,7,8-TCDD /d/	ND (0.82)	ND (12.5)	ND (12.5)	2.58	39.51	39.51
2,3,7,8-PeCDD	1.73	26.45	13.23	NA	NA	NA
2,3,7,8-HxCDD	2.17	33.18	3.32	NA	NA	NA
2,3,7,8-HpCDD	17.8	272.17	2.72	NA	NA	NA
OCDD	83.13	1271.10	1.27	NA	NA	NA
2,3,7,8-TCDF	0.72	11.01	1.10	1.96	30.02	3.00
1,2,3,7,8-PeCDF /d/	ND (0.72)	ND (11)	ND (0.56)	NA	NA	NA
2,3,4,7,8-PeCDF	3.9	59.63	29.82	NA	NA	NA
2,3,7,8-HxCDF	2.45	37.46	3.75	NA	NA	NA
2,3,7,8-HpCDF	3.82	58.41	0.58	NA	NA	NA
OCDF	9.04	138.23	0.14	NA	NA	NA
Sum	124.74	1907.65	55.98	N/A	N/A	N/A

Units are in picograms per gram (pg/g).

TEQ ??
 ND Not detected.
 NA Not available.
 N/A Not applicable.

/a/ Based on detected concentrations only.
 /b/ Assumes an average lipid content of 6.53 percent based on 27 samples.
 /c/ Values were presented by Thiel et al. (1989) for TCDD and TCDF.
 No values (i.e., NAs) were presented for other dioxin congeners.
 /d/ Values in parentheses represent the average detection limit.

**Table 6.17. Summary of Quantitative Risk Assessment Hazard Quotients
and Hazard Index for COPCs
Site 01 - Ord Village Sewage Treatment Plant
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPCs	Hazard Quotient Mouse	Hazard Quotient Gray Fox
Chromium	0.3	0.41
Copper	0.002	0.01
Mercury	0.01	0.03
Nickel	0.2	0.01
Silver	0.02	0.01
Zinc	0.4	0.54
TOTAL (Hazard Index)	1	1

COPC Chemical of potential concern.

**Table 6.18. Summary of Quantitative Risk Assessment Hazard Quotients
and Hazard Index for COPCs
Site 02 - Main Garrison Sewage Treatment Plant
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Hazard Quotient Mouse	LADD Mouse (mg/kg/day)	Body Burden Mouse (mg/kg)	Hazard Quotient Gray Fox
Antimony	0.24	0.084	0.08	0.004
Arsenic	0.03	0.022	ND	0.007
Barium	NA	NA	3.22	3
Cadmium	1.0	0.163	0.09	0.7
Chromium	0.8	0.194	0.19	7.0
Copper	0.033	11.275	4.15	0.02
Lead	3.9	0.352	0.72	2.9
Mercury	0.052	0.098	0.098	0.06
Nickel	0.22	0.188	0.35	0.010
Selenium	0.3	0.02	0.017	3
Silver	0.23	0.414	ND	0.009
Thallium	0.2	0.002	ND	2.36
Zinc	4.0	55.515	39.7	1
TOTAL (Hazard Index)	11			20

LADD Lifetime average daily dose.
COPC Chemical of potential concern.
ND Not detected.
NA Not applicable.

**Table 6.19. Summary of Quantitative Risk Assessment Hazard Quotients
and Hazard Index for COPCs
Site 03 - Beach Trainfire Ranges
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Hazard Quotient Mouse	LADD Mouse (mg/kg/day)	Body Burden Mouse (mg/kg)	Hazard Quotient Gray Fox
Antimony	5.4	1.88	1.9	0.1
Arsenic	0.02	0.015	ND	0.005
Barium	NA	NA	1.93	1.8
Cadmium	NA	NA	0.13	0.6
Chromium	0.9	0.205	0.30	1.2
Copper	0.02	6.912	4.71	0.06
Lead	495.2	44.566	6.89	44.7
Nickel	0.07	0.062	2.52	0.04
Silver	0.001	0.002	ND	0.0002
Tin	0.05	0.036	0.04	0.1
Zinc	0.68	9.524	34.70	1.4
TOTAL (Hazard Index)	502			50

LADD Lifetime average daily dose.
COPC Chemical of potential concern.
ND Not detected.
NA Not applicable.

**Table 6.20. Summary of Quantitative Risk Assessment Hazard Quotients
and Hazard Index for COPCs
Site 11 - AAFES Fueling Station
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Hazard Quotient Mouse	LADD Mouse (mg/kg/day)	Body Burden Mouse (mg/kg)	Hazard Quotient Gray Fox
Arsenic	0.023	0.016	ND	0.0053
Barium	NA	NA	3.8	3.5
Cadmium	NA	NA	0.02	0.09
Chromium	3	0.73	0.07	3.1
Copper	0.01	3.35	3	0.03
Lead	5.1	0.46	0.5	0.6
Nickel	0.9	0.77	0.5	0.04
Thallium	NA	NA	0.1	1.3
Vanadium	NA	NA	0.5	0.09
Zinc	0.6	7.85	38.5	1.4
TOTAL (Hazard Index)	10			10

LADD Lifetime average daily dose.
COPC Chemical of potential concern.
ND Not detected.
NA Not applicable.

**Table 6.21. Summary of Quantitative Risk Assessment Hazard Quotients
and Hazard Index for COPCs
Site 12 - Lower Meadow, DOL Yard, Cannibalization Yard
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Hazard Quotient Mouse	Hazard Quotient Gray Fox
Tetrachloroethene	0.00002	0.00007
Toluene	0.00000005	0.0000002
Trichloroethene	0.0000001	0.0000004
Bis(2-ethylhexyl)phthalate	0.0004	0.001
Di-n-butylphthalate	0.00006	0.00002
Diethylphthalate	0.000003	0.000001
Antimony	0.02	0.0004
Arsenic	0.02	0.005
Beryllium	0.0009	0.003
Cadmium	0.1	0.3
Chromium	1.4	1.8
Copper	0.008	0.02
Lead	15.4	1.7
Mercury	0.0002	0.0006
Nickel	0.5	0.03
Selenium	0.04	0.1
Zinc	0.7	0.9
TOTAL (Hazard Index)	18	5

COPC Chemical of potential concern.

**Table 6.22. Summary of Quantitative Risk Assessment Hazard Quotients
and Hazard Index for COPCs
Site 15 - DEH Yard
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Hazard Quotient Mouse	Hazard Quotient Gray Fox
1,2-Dichloroethene (total)	0.000003	0.00001
Ethylbenzene	0.000002	0.0000006
Toluene	0.00000007	0.0000002
Xylenes	0.00000008	0.0000003
Chlordane	1.2	4.3
4,4'-DDE	0.00002	0.00006
4,4'-DDT	0.00012	0.00004
Dieldrin	0.3	0.008
Heptachlor	0.1	14.4
Heptachlor epoxide	0.0008	0.1
Cadmium	0.09	0.3
Chromium	2.1	2.7
Copper	0.006	0.02
Lead	2.9	0.3
Mercury	0.0003	0.0008
Nickel	0.5	0.02
Zinc	0.6	0.8
TOTAL (Hazard Index)	8	23

COPC Chemical of potential concern.

**Table 6.23. Summary of Quantitative Risk Assessment Hazard Quotients
and Hazard Index for COPCs
Site 16 - DOL Maintenance Yard, Pete's Pond
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Hazard Quotient Mouse	Hazard Quotient Gray Fox
Acetone	0.00002	0.000008
Trichloroethene	0.0000003	0.000001
Benzo(b)fluoranthene	0.0000008	0.00001
Bis(2-ethylhexyl)phthalate	0.002	0.006
Chlordane	0.0001	0.001
Dibenzofuran	0.00005	0.0002
4,4'-DDD	0.000002	0.000002
4,4'-DDT	0.000004	0.00001
Di-n-butylphthalate	0.00005	0.00002
Fluorene	0.00007	0.0002
2-Methylnaphthalene	0.0004	0.001
Naphthalene	0.0001	0.0004
Phenanthrene	0.0001	0.0005
Total PeCDF	5.7	1.8
Total HpCDD	0.05	0.02
Total HpCDF	0.03	0.01
Total HxCDD	0.08	0.02
Total HxCDF	0.2	0.07
Total TCDD	0.05	0.01
Total TCDF	1	0.3
Total OCDD	0.05	0.01
Total OCDF	0.001	0.0004
Antimony	0.01	0.0002
Arsenic	0.03	0.01
Beryllium	0.0008	0.002
Cadmium	0.2	0.6
Chromium	0.9	1.1
Copper	0.007	0.02
Lead	3	0.3
Mercury	0.0002	0.0007
Nickel	0.4	0.02
Silver	0.002	0.0006
Zinc	0.7	0.9
TOTAL (Hazard Index)	12	5

COPC Chemical of potential concern.

**Table 6.24. Summary of Quantitative Risk Assessment Hazard Quotients
and Hazard Index for COPCs
Site 21 - 4400/4500 Motor Pool, East Block
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Hazard Quotient Mouse	Hazard Quotient Gray Fox
Methylene chloride	0.00007	0.00002
Xylenes	0.0000001	0.0000003
Bis(2-ethyhexyl)phthalate	0.0002	0.0008
Chrysene	0.0004	0.001
Antimony	0.2	0.003
Arsenic	0.01	0.003
Beryllium	0.001	0.004
Cadmium	0.4	1.3
Chromium	1.9	2.4
Copper	0.007	0.02
Lead	12.6	1.4
Mercury	0.0003	0.0009
Nickel	0.4	0.02
Silver	0.0009	0.0003
Zinc	0.7	0.9
TOTAL (Hazard Index)	16	6

COPC Chemical of potential concern.

**Table 6.25. Summary of Quantitative Risk Assessment Hazard Quotients
and Hazard Index for COPCs
Site 22 - 4400/4500 Motor Pool, West Block
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Hazard Quotient Mouse	Hazard Quotient Gray Fox
Bis(2-ethyhexyl)phthalate	0.02	0.07
Benzo(b)fluoranthene	0.000002	0.000006
Butylbenzylphthalate	0.005	0.002
4,4'-DDD	0.0000006	0.000002
4,4'-DDT	0.00002	0.000008
Arsenic	0.01	0.004
Chromium	2.2	2.8
Copper	0.01	0.03
Lead	2.3	0.3
Nickel	0.7	0.04
Selenium	0.3	1.03
Zinc	0.6	0.7
TOTAL (Hazard Index)	6	5

COPC Chemical of potential concern.

**Table 6.26. Summary of Quantitative Risk Assessment Hazard Quotients
and Hazard Index for COPCs
Site 24 - Old DEH Yard
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Hazard Quotient Mouse	LADD Mouse (mg/kg/day)	Body Burden Mouse (mg/kg)	Hazard Quotient Gray Fox
Toluene	0.00000004	0.00001	0.00001	0.0000001
Bis(2-ethylhexyl)phthalate	0.0002	0.00054	0.0005	0.0007
PCBs (aroclor-1260)	0.01	0.0019	0.002	0.006
Chlordane	0.0005	0.00042	0.0004	0.002
4,4'-DDD	0.000002	0.00019	0.0002	0.000006
4,4'-DDE	0.000003	0.00011	0.0001	0.00001
4,4'-DDT	0.0005	0.00141	0.001	0.0001
Dieldrin	0.02	0.000071	0.00007	0.0006
Gamma-BHC	0.00001	0.000035	0.00003	0.00002
Antimony	0.005	0.0017	0.002	0.00009
Barium	NA	NA	6.03	5.5
Cadmium	NA	NA	0.02	0.09
Chromium	0.06	0.193	0.09	0.9
Copper	0.006	2.106	4.4	0.02
Lead	2.2	0.196	0.7	0.4
Mercury	0.0001	0.00025	0.0003	0.0004
Nickel	0.4	0.346	0.5	0.02
Thallium	NA	NA	0.1	1.2
Vanadium	NA	NA	1.1	0.2
Silver	0.001	0.0018	ND	0.0002
Zinc	0.7	9.293	42.3	1.5
TOTAL (Hazard Index)	3			10

LADD Lifetime average daily dose.
COPC Chemical of potential concern.
ND Not detected.
NA Not applicable.

**Table 6.27. Summary of Quantitative Risk Assessment Hazard Quotients
and Hazard Index for COPCs
Site 25 - Former DRMO
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Hazard Quotient Mouse	LADD Mouse (mg/kg/day)	Body Burden Mouse (mg/kg)	Hazard Quotient Gray Fox
Acetone	0.0005	0.00101	0.001	0.0002
PCBs (aroclor-1254)	0.003	0.00133	ND	0.008
4,4'-DDE	0.000001	0.00004	ND	0.000003
4,4'-DDT	0.00006	0.00017	0.006	0.0001
Dieldrin	0.00002	0.00000006	ND	0.0000004
gamma-BHC	NA	NA	0.002	0.0002
Chlordane	NA	NA	0.002	0.002
Antimony	0.03	0.01129	0.01	0.0006
Arsenic	0.01	0.00863	ND	0.003
Barium	0.1	0.08942	2.2	2.3
Cadmium	0.3	0.05646	0.03	0.9
Chromium	1.6	0.38142	0.09	1.7
Copper	0.03	10.56539	2.6	0.08
Lead	2	0.17913	0.8	0.4
Nickel	0.4	0.38	0.5	0.02
Vanadium	0.009	0.03672	1.1	15.1
Silver	0.002	0.00279	ND	0.0004
Zinc	0.5	7.64589	27	1.1
TOTAL (Hazard Index)	5			22

LADD Lifetime average daily dose.
COPC Chemical of potential concern.
ND Not detected.
NA Not applicable.

**Table 6.28. Summary of Quantitative Risk Assessment Hazard Quotients
and Hazard Index for COPCs
Site 29 - DRMO
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Hazard Quotient Mouse	LADD Mouse (mg/kg/day)	Body Burden Mouse (mg/kg)	Hazard Quotient Gray Fox
Chlordane	0.0008	0.00075	0.003	0.005
4,4'-DDD	0.000001	0.00015	ND	0.000003
4,4'-DDE	0.00003	0.00091	ND	0.00007
4,4'-DDT	0.0005	0.00168	ND	0.0001
Antimony	0.006	0.00222	0.002	0.0001
Barium	NA	NA	8.8	8.1
Cadmium	0.009	0.00159	0.03	0.2
Chromium	6.6	1.58893	0.06	6.6
Copper	0.02	8.18883	3.4	0.07
Lead	2.3	0.20938	0.4	0.3
Mercury	0.0002	0.00044	0.0004	0.0007
Nickel	1.7	1.446	1	0.08
Selenium	0.03	0.00178	0.002	0.09
Silver	0.005	0.00818	ND	0.001
Thallium	NA	NA	0.2	2.7
Zinc	0.6	7.72597	36.2	1.3
TOTAL (Hazard Index)	11			19

LADD Lifetime average daily dose.
COPC Chemical of potential concern.
ND Not detected.
NA Not applicable.

**Table 6.29. Summary of Quantitative Risk Assessment Hazard Quotients
and Hazard Index for COPCs
Site 31 - Former Dumpsite
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Hazard Quotient Mouse	LADD Mouse (mg/kg/day)	Body Burden Mouse (mg/kg)	Hazard Quotient Gray Fox
Benzo(a)anthracene	0.0004	0.00015	0.101	0.001
Benzo(a)pyrene	0.0003	0.00012	0.010	0.0008
Benzo(b)fluoranthene	0.000005	0.00013	0.028	0.00001
Chrysene	0.0007	0.00028	0.028	0.002
Dibenzo(a,h)anthracene	0.0009	0.00034	ND	0.002
Dibenzofuran	0.000009	0.00022	ND	0.00002
Fluoranthene	0.00001	0.00026	0.016	0.00003
2-Methylnaphthalene	0.00005	0.00086	ND	0.0001
Naphthalene	0.00008	0.00142	0.050	0.0002
Phenanthrene	0.00003	0.00045	0.087	0.00007
Pyrene	0.00002	0.00031	0.138	0.00005
4,4'-DDE	0.00002	0.00084	0.006	0.0002
4,4'-DDT	0.0003	0.001	ND	0.00008
Heptachlor	NA	NA	0.002	0.3
HeptachlorEpoxide	NA	NA	0.002	0.3
Total HpCDD	0.06	0.00000063	0.00002	0.2
Total HpCDF	0.1	0.00000133	0.000007	0.08
Total HxCDD	0.1	0.00000015	0.000006	0.4
Total HxCDF	0.4	0.00000038	0.000006	0.5
Total PeCDD	0.2	0.00000004	0.000001	0.6
Total PeCDF	0.9	0.00000019	0.000003	1.4
Total OCDD	0.02	0.00000216	0.00009	0.07
Total OCDF	0.005	0.00000051	0.000007	0.007
Total TCDD	0.5	0.00000005	ND	0.1
Total TCDF	0.2	0.00000023	0.0000006	0.1
Antimony	0.03	0.01027	0.01	0.0006
Arsenic	0.01	0.00907	ND	0.003
Barium	NA	NA	4.5	4.1
Beryllium	0.001	0.00114	ND	0.003
Cadmium	0.04	0.00641	0.02	0.2
Chromium	0.7	0.16757	0.06	0.8
Copper	0.002	0.81368	2.7	0.01
Lead	42.9	3.86228	0.9	4.0
Mercury	0.0003	0.00051	0.0005	0.0008
Nickel	NA	NA	0.5	0.007

**Table 6.29. Summary of Quantitative Risk Assessment Hazard Quotients
and Hazard Index for COPCs
Site 31 - Former Dumpsite
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Hazard Quotient Mouse	LADD Mouse (mg/kg/day)	Body Burden Mouse (mg/kg)	Hazard Quotient Gray Fox
Silver	0.003	0.00564	ND	0.0008
Thallium	0.2	0.00190	0.1	1.3
Vanadium	NA	NA	0.9	0.2
Zinc	0.5	6.58453	34.5	1.2
TOTAL (Hazard Index)	47			16

LADD Lifetime average daily dose.
COPC Chemical of potential concern.
ND Not detected.
NA Not applicable.

**Table 6.30. Summary of Quantitative Risk Assessment Hazard Quotients
and Hazard Index for COPCs
Site 32 - East Garrison STP
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Hazard Quotient Mouse	Hazard Quotient Gray Fox
4,4'-DDD	0.00002	0.00007
4,4'-DDE	0.00007	0.0002
4,4'-DDT	0.0009	0.0003
Chlordane	0.0004	0.001
Beryllium	0.02	0.07
Cadmium	0.01	0.05
Chromium	1.1	1.4
Copper	0.004	0.01
Lead	1.1	0.1
Mercury	0.003	0.009
Nickel	0.4	0.02
Silver	0.008	0.06
Zinc	0.6	0.8
TOTAL (Hazard Index)	3	2

COPC Chemical of potential concern.

**Table 6.31. Summary of Quantitative Risk Assessment Hazard Quotients
and Hazard Index for COPCs
Site 33 - Golf Course
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Hazard Quotient Mouse	LADD Mouse (mg/kg/day)	Body Burden Mouse (mg/kg)	Hazard Quotient Gray Fox
Chlordane	0.006	0.0053	0.002	0.02
4,4'-DDD	0.000007	0.0008	ND	0.00002
4,4'-DDE	0.00001	0.0003	ND	0.00002
4,4'-DDT	0.001	0.0039	ND	0.0003
gamma-BHC	0.000002	0.000057	ND	0.00003
Dicamba	0.00008	0.0002	ND	0.000003
Dieldrin	0.4	0.0013	ND	0.008
Endrin	0.04	0.00011	ND	0.005
Antimony	0.01	0.0049	0.005	0.0003
Arsenic	0.02	0.0119	ND	0.004
Barium	NA	NA	5.8	5.3
Cadmium	0.2	0.0340	0.03	0.6
Chromium	2.06	0.4943	ND	2.02
Copper	0.06	20.3915	2.8	0.2
Lead	3.4	0.3041	0.3	0.4
Mercury	0.03	0.0538	0.05	0.09
Nickel	0.4	0.3720	0.5	0.02
Silver	0.005	0.0096	ND	0.001
Thallium	0.2	0.0016	0.1	1.7
Zinc	0.9	11.9405	28.9	1.4
TOTAL (Hazard Index)	8			12

LADD Lifetime average daily dose.
COPC Chemical of potential concern.
ND Not detected.
NA Not applicable.

**Table 6.32. Summary of Quantitative Risk Assessment Hazard Quotients
and Hazard Index for COPCs
Site 35 - Aircraft Cannibalization Yard
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Hazard Quotient Mouse	LADD Mouse (mg/kg/day)	Body Burden Mouse (mg/kg)	Hazard Quotient Gray Fox
Antimony	0.06	0.022	0.0	0.00
Barium	NA	NA	3.6	3.3
Cadmium	NA	NA	0.06	0.3
Chromium	2.2	0.534	0.2	2.4
Copper	0.01	4.866	2.1	0.04
Lead	0.4	0.034	0.5	0.2
Mercury	0.001	0.0025	0.002	0.004
Nickel	0.5	0.414	0.4	0.02
Selenium	0.05	0.0029	0.003	0.2
Thallium	NA	NA	0.1	1.1
Vanadium	NA	NA	0.9	0.2
Zinc	0.4	5.374	26.8	0.9
TOTAL (Hazard Index)	4			9

LADD Lifetime average daily dose.
COPC Chemical of potential concern.
NA Not applicable.

**Table 6.33. Summary of Quantitative Risk Assessment Hazard Quotients
and Hazard Index for COPCs
Site 39 - Inland Ranges and 2.36-inch Rocket Range
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Hazard Quotient Mouse	LADD Mouse (mg/kg/day)	Body Burden Mouse (mg/kg)	Hazard Quotient Gray Fox
Bis(2-ethylhexyl)phthalate	0.0005	0.00119	0.001	0.001
2-amino Dinitrotoluene	0.0005	0.02407	0.02	0.002
4-amino Dinitrotoluene	0.0005	0.02407	0.02	0.002
HMX	4.3	4.29694	4.3	1.4
PETN	0.02	0.07653	0.08	0.05
Pentachlorophenol	0.002	0.00072	0.0007	0.0007
RDX	0.02	0.14408	0.1	0.08
Tetryl	0.03	0.03981	0.04	0.005
Antimony	0.2	0.06736	0.1	0.004
Arsenic	0.01	0.00717	ND	0.002
Barium	NA	NA	1.9	1.8
Beryllium	0.001	0.00095	ND	0.002
Cadmium	0.03	0.00558	0.1	0.6
Chromium	0.7	0.16874	0.3	1.06
Copper	0.006	2.11525	4.7	0.02
Lead	27.3	2.45282	6.9	4.3
Nickel	0.07	0.05765	2.5	0.04
Selenium	0.04	0.00266	0.003	0.1
Silver	0.0009	0.00165	ND	0.0002
Zinc	0.7	9.55967	34.7	1.4
TOTAL (Hazard Index)	33			11

LADD Lifetime average daily dose.
COPC Chemical of potential concern.
ND Not detected.
NA Not applicable.

**Table 6.34. Summary of Quantitative Risk Assessment Hazard Quotients
and Hazard Index for COPCs
Site 41 - Crescent Bluff Fire Drill Area
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Hazard Quotient Mouse	LADD Mouse (mg/kg/day)	Body Burden Mouse (mg/kg)	Hazard Quotient Gray Fox
Toluene	0.00000007	0.00002	0.00002	0.0000002
Arsenic	0.1	0.09	ND	0.03
Barium	NA	NA	4.5	4.1
Beryllium	0.009	0.009	ND	0.02
Cadmium	0.2	0.03	0.02	0.9
Chromium	1.9	0.5	0.06	2.2
Copper	0.008	2.7	2.7	0.05
Lead	3.5	0.3	1.0	0.6
Nickel	0.6	0.5	0.5	0.05
Selenium	0.10	0.006	ND	0.2
Silver	0.004	0.007	ND	0.001
Thallium	0.2	0.002	0.10	1.3
Vanadium	NA	NA	0.9	0.2
Zinc	0.8	10.9	34.5	1.6
TOTAL (Hazard Index)	7			11

LADD Lifetime average daily dose.
COPC Chemical of potential concern.
ND Not detected.
NA Not applicable.

Harding Lawson Associates

/e/ Upper bound of the 95% confidence interval.

**Table 6.36. Summary of Organisms Extracted from Leaf Litter
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Class / Order	Site 16								Site 24						Site 25				Site 29			
	Transect								Transect						Transect				Transect			
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	1	2	3	4	1	2	3	4
	Habitat /a/								Habitat /a/						Habitat /a/				Habitat /a/			
	R	R	R	R	R	R/C	C	R	R/W	R	R	R	R	R	R	R/L	R/L	R/L	W	R	R	R
	Site/Transect Total Organisms								Site/Transect Total Organisms						Site/Transect Total Organisms				Site/Transect Total Organisms			
	16	22	4	1	11	13	5	18	17	2	29	5	3	18	4	46	3	7	6	16	6	5
ARACHNIDA																						
Arachnida / Acarina	2	1	1		1	11	3	8	3		1	1	1	1		9	1	5	1	3	1	3
Arachnida / Araneae	1				1			1	3		10	1		2		1			1			
Arachnida / Pseudoscorpionidae																						
CRUSTACEAE																						
Crustaceae / Isopoda														2								
INSECTA																						
Insecta / Anophera											2											
Insecta / Coleoptera	2	7	1	1	1		2	7		1				8	1	4			3	7		1
Insecta / Collembola																1						
Insecta / Dermaptera																					1	
Insecta / Diptera	4	1			2	1					1								1	1	1	1
Insecta / Embioptera																						
Insecta / Hemiptera		1												5								
Insecta / Homoptera	1														1				1	1		
Insecta / Hymenoptera		2			1	1			1	1	10					2	1	1	1			
Insecta / Isoptera									5		2		1			1		1				
Insecta / Lepidoptera																						
Insecta / Orthoptera	6	6	2					2											3			
Insecta / Psocoptera					5				5		3	1			1	24	1					
Insecta / Thysanoptera		4									3				1	1					2	
Insecta / Thysanura																3			1			

/a/ Habitat Type: W = Coast Live Oak Woodland; C = Central Maritime Chaparral; R = Upland Ruderal; L = Landscaped.

Table 6.36. Summary of Organisms Extracted from Leaf Litter
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Class / Order	Site 31				Site 35										Reference Sites - Leaf Litter Extract			
	<u>Transect</u>				<u>Transect</u>										Oak	Upland		
	1	2	3.1	3.2	1	2	3	4	5	6	7	8	9	10.1	10.2	Woodland	Chaparral	Ruderal
	<u>Habitat /a/</u>				<u>Habitat /a/</u>										<u>Habitat /a/</u>			
W	W	W	W	C	C/R	C	W	C	C	C/W	C/R	R	C	C	W	C	R	
	<u>Site/Transect Total Organisms</u>				<u>Site/Transect Total Organisms</u>										<u>Site/Transect Total Organisms</u>			
	11	13	47	17	36	21	35	24	114	24	34	45	0	17	29	125	135	75
ARACHNIDA																		
Arachnida / Acarina	1	5	15	3	20	11	10	5	44	8	20	19		4	12	97	105	29
Arachnida / Araneae	4		10	1	3	2	4		5	1	2	1		4		1	4	1
Arachnida / Pseudoscorpionidae					1			2	4	2	2					1		
CRUSTACEAE																		
Crustaceae / Isopoda																		
INSECTA																		
Insecta / Anoplura				1														1
Insecta / Coleoptera		1	9	5	1	1		1	4		4	2		1	1	5	4	3
Insecta / Collembola	2		1		4		3	10	53	12	2	6		5	5	3	2	
Insecta / Dermaptera							3											
Insecta / Diptera			1			1		1								1	1	
Insecta / Embioptera	2																	
Insecta / Hemiptera									1							1	2	
Insecta / Homoptera	2	1					1											
Insecta / Hymenoptera		1	8	1		1	6		2	1		2		2	2	3	1	2
Insecta / Isoptera				3	1	2	3	4	1		1			1	1	1		
Insecta / Lepidoptera								1										3
Insecta / Orthoptera		2	3	1												2	5	27
Insecta / Psocoptera					6	3	3				3	9			6	10	2	8
Insecta / Thysanoptera		3		1			2					6		2			8	
Insecta / Thysanura				1														

**Table 6.37. Evaluation of Litter Data for Coast Live Oak Woodland Habitat
6 Transects (Sites 29, 31, and 35)
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Transect	Data Used for Analysis					
	29-1	31-1	31-2	31-3.1	31-3.2 /a/	35-4
Lead (mg/kg)	16	7.6	4.6	91.1	6.2	6.8
Copper (mg/kg)	5.9	5.4	1.95	13.4	2.05	2.3
Chromium (mg/kg)	12	11.6	6.7	13.6	8.6	8.7
Zinc (mg/kg)	19	8	5.75	114	6.95	16.1
Dioxin (pg/g)	NA	0.017	0.019	0.464	0.026	NA
No. Individuals	6	11	13	47	17	24
Avg. No. Indiv.	20	19.7	19.7	19.7	19.7	19.7
No. Taxa	4	5	6	7	9	7
Avg. No. Taxa	6.3	6.3	6.3	6.3	6.3	6.3

		Raw Data																		
		Metals (mg/kg)				Dioxin Congeners (pg/g)														
Site	Transect	Lead	Copper	Chromium	Zinc	1,2,3,4,6,7,8- HpCDD		1,2,3,4,6,7,8- OCDD		1,2,3,4,6,7,8- HpCDF		OCDF		Total HxCDD	Total HpCDD	Total PeCDF	Total HxCDF	Total HpCDF	Total Dioxins	
29	1	15.8	5.9	11.9	19	ND (0.0023)	0.017	ND (0.0083)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.017
31	1	7.6	5.4	11.6	ND (16)	ND (0.0029)	0.019	ND (0.008)	ND (0.0012)	ND (0.0008)	ND (0.0029)	ND (0.0011)	ND (0.0007)	ND (0.0008)	ND	ND	ND	ND	ND	0.019
31	2	4.6	ND (3.9)	6.7	ND (11.5)	0.033	0.29	0.011	0.015	0.0055	0.064	0.0078	0.014	0.024	0.4643					
31	3.1	91.1	13.4	13.6	114	ND	0.026	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.026
31	3.2	6.2	ND (4.1)	8.6	ND (13.9)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
35	4	6.8	ND (4.6)	8.7	16.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NA Not analyzed.
ND Not detected.

One-half detection limit used for copper and zinc nondetects.
No PAHs or pesticides were evaluated because they were detected only at one transect (31-3) and are not considered COPCs.

/a/ Data from duplicate samples are not included in analysis; data from transect 31-3.1 conservatively considered instead.

**Table 6.38. Evaluation of Litter Data for Central Maritime Chaparral Habitat
11 Transects (Sites 16 and 35)
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Transect	Data Used for Analysis										
	16-6	16-7	35-1	35-10.1	35-10.2	35-2	35-3	35-5	35-6	35-7	35-8
Lead (mg/kg)	NA	72.7	7.1	10.1	10.1	2.8	5.8	4.2	6.3	6.8	2.6
Nickel (mg/kg)	NA	8.9	2.45	9.5	9.5	6.3	2.4	4.8	5.3	5.4	6.1
Chromium (mg/kg)	NA	10.4	6.1	15.7	15.7	8.5	7	6.1	10.9	9	9
Zinc (mg/kg)	NA	133	16.8	19.8	19.8	22	7.55	6.3	18.4	16.1	19.4
No. Individuals	13	5	36	17	29	21	35	114	24	34	45
Avg. No. Individ.	33.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9
No. Taxa	3	2	7	6	7	7	9	8	5	7	7
Avg. No. Taxa	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2

Raw Data (mg/kg)						
Site	Transect	Lead	Nickel	Chromium	Zinc	
16	7	72.7	8.9	10.4	133	
35	1	7.1	ND (4.9)	6.1	16.8	
35	2	2.8	6.3	8.5	22	
35	3	5.8	ND (4.8)	7	ND (15.1)	
35	5	4.2	4.8	6.1	ND (12.6)	
35	6	6.3	5.3	10.9	18.4	
35	7	6.8	5.4	9	16.1	
35	8	2.6	6.1	9	19.4	
35	10.1	10.1	9.5	15.7	19.8	
35	10.2	10.1	9.5	15.7	19.8	

NA Not analyzed.
ND Not detected.

One-half detection limit used for nickel and zinc nondetects.
No soil chemical data for Transect 16-6 available; however, litter data used to compute average number of individuals and taxa.
No copper or dioxin data evaluated since they were only detected in one transect (16-70); they are not considered COPCs.
No PAHs or pesticides detected.

**Table 6.39. Evaluation of Litter Data for Upland Ruderal Habitat
20 Transects (Sites 16, 24, 25, 29, and 35)
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Transect	Data Used for Analysis																			
	16-1	16-2	16-3	16-4	16-5	16-8	24-1	24-2	24-3	24-4	24-5	24-6	25-1	25-2	25-3	25-4	29-2	29-3	29-4	35-9
Lead (mg/kg)	10.6	36.3	NA	36.7	8.2	NA	14.3	ND	5.8	6.5	1.8	3.3	15.3	23.7	69.9	27.5	70.1	17.4	10.9	4.8
Copper (mg/kg)	ND	15.7	NA	53.9	ND	NA	3.1	2.4	3	ND	2.6	2.5	4.6	6.6	20.6	5.4	14.2	5.8	7.4	ND
Zinc (mg/kg)	ND	ND	NA	ND	ND	NA	20.8	9.2	15.1	13.7	10	15.9	20.8	46.2	386	73.4	58.7	22.2	23.6	24.3
Chlordane (µg/kg)	ND	84	NA	63	ND	NA	ND	ND	ND	ND	47	ND	ND	ND	ND	ND	350	ND	ND	ND
Total DDT (µg/kg)	ND	15	NA	9.2	96	NA	ND	11	24	ND	1619	35	17	ND						
Total Dioxins (pg/g)	307	1279	NA	954.6	93.1	NA														
No. Individuals	16	22	4	1	11	18	17	2	29	5	3	18	4	46	3	7	16	6	5	0
Avg. No. Individ.	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
No. Taxa	6	7	3	1	6	4	5	2	7	3	3	5	4	9	3	3	6	5	3	0
Avg. No. Taxa	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5

		Raw Data					Dioxin congeners			
		Metals (mg/kg)					Total Dioxin	Total DDT	Chlordane	PAH total
Site	Transect	Lead	Nickel	Chromium	Copper	Zinc	(pg/g)	(µg/kg)	(µg/kg)	(µg/kg)
16	1	10.6	5.7	9.9	ND (4.9)	ND (23)	307	ND	ND	ND
16	2	36.3	12.1	14.8	15.7	ND (52.3)	1279	15	84	ND
16	4	36.7	10.4	14.3	53.9	ND (87.1)	954.6	9.2	63	8.3
16	5	8.2	5.2	10.3	ND (4.9)	ND (13.1)	93.1	96	ND	ND
24	1	14.3	7.2	9.1	3.1	20.8	NA	ND	ND	ND
24	2	ND (0.61)	5	9.3	2.4	9.2	NA	ND	ND	ND
24	3	5.8	9.3	12.2	3	15.1	NA	ND	ND	ND
24	4	6.5	7.6	9.7	ND (1.3)	13.7	NA	ND	ND	ND
24	5	1.8	6.8	11.7	2.6	10	NA	ND	47	ND
24	6	3.3	8.1	11.9	2.5	15.9	NA	ND	ND	ND
25	1	15.3	7.7	11.3	4.6	20.8	NA	ND	ND	NA
25	2	23.7	8.3	11.2	6.6	46.2	NA	11	ND	NA
25	3	69.9	10.3	22.3	20.6	386	NA	24	ND	NA
25	4	27.5	8.8	11.5	5.4	73.4	NA	ND	ND	NA
29	2	70.1	ND (4.9)	12.4	14.2	58.7	NA	1619	350	ND
29	3	17.4	7.4	10.9	5.8	22.2	NA	35	ND	NA
29	4	10.9	ND (5.0)	10.9	7.4	23.6	NA	17	ND	ND
35	9	4.8	5.9	10.9	ND (3.6)	24.3	NA	ND	ND	ND

NA Not analyzed.
ND Not detected.

No soil samples collected at Transects 16-3 or 16-8 for chemical analysis; however litter data used to compute average number of individuals and taxa.
ND values not evaluated since sufficient data points available.
No PAHs evaluated because they were detected only at one transect (16-4); they are not considered COPCs.

**Table 6.40. Summary of Surface Water Outfalls Evaluated in the Quantitative Risk Assessment,
Their Related Sites, and Areas of Potential Impact
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Outfall	Site	Sites Drained	Area of Potential Impact	Evaluated for: /a/	
				Aquatic Impacts	Terrestrial Impacts
OF-01-MH-01	2	Sites 2, 18, 19, 28	Monterey Bay	X (2 locations)	
OF-01-01	37	Site 37	Monterey Bay		
OF-01-02	37	Site 37	Monterey Bay		
OF-02	2	Site 13	Monterey Bay	X	
OF-03-MH	3	Sites 20, 24	Monterey Bay	X	
OF-04-MH	3	Sites 10, 11	Monterey Bay	X	
OF-05	3	Site 13	Monterey Bay		X
OF-07	20	Site 20	Monterey Bay	X	
OF-12	22	Site 22	Monterey Bay		X
OF-14	21	Site 21	Monterey Bay		X
OF-15	12	Site 12	Monterey Bay		X
OF-31	12	Site 12	Monterey Bay		X
OF-16	16	Sites 15, 16, 17, 23	Pete's Pond		X (2 locations)
OF-23	36	FAAF Runway, Sites 34, 36	Salinas River		X
OF-26	29	Site 29	Salinas River		X
OF-34	34	FAAF Runway, Sites 34, 40	Salinas River		X
OF-35	34	FAAF Runway, Sites 34, 40	Salinas River		X

/a/ An "X" indicates that this outfall is being evaluated for this pathway.

**Table 6.41R. Summary of Stormwater Dilutions
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Outfall	Receiving Water	Averaging Period	Dilution
Fort Ord	Restricted Zone	Annual	0.022
OF-01	Surf Zone	Daily	0.026
OF-02	Surf Zone	Daily	0.037
OF-03	Surf Zone	Daily	0.037
OF-04	Surf Zone	Daily	0.16

**Table 6.42. Summary of Sediment Dilutions
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Outfall	Averaging Period	Dilution to Longshore Sediment Drift		Dilution to Cliff Erosion	
		USLE	Rainfall	USLE	Rainfall
Fort Ord	annual	0.021	NC	0.033	NC
OF-01	annual	1.30E-04	8.70E-06	2.10E-04	1.40E-05
OF-02	annual	1.90E-04	1.60E-05	3.00E-04	2.50E-05
OF-03	annual	2.00E-04	1.60E-05	3.20E-04	2.50E-05
OF-04	annual	1.10E-03	2.00E-04	1.80E-03	3.20E-04

USLE Universal Soil Loss Equation
 NC Not Calculated

**Table 6.43. Summary of Analytical Results for Soil Samples from
Surface Water Outfalls (Outside Pipe)
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Analyte	Sampling Location				
	Site Drained	OF-12 22	OF-31 12	OF-34 34	OF-35 34
<u>Organics (ppb)</u>					
4,4'-DDD					14
4,4'-DDE					
4,4'-DDT			15		14
Acenaphthene					
Acetone *					
Benzo(a)anthracene			450		
Benzo(a)pyrene					
Benzo(b)fluoranthene *					
Benzo(ghi)perylene *					
Benzo(k)fluoranthene *					
Bromoform*					
Chlordane				51	66
Chrysene			800		
Dibromochloromethane*					
Dieldrin					
Endosulfan II *					
Endosulfan sulfate *					
Fluoranthene					
Methyl ethyl ketone *					
Methylene chloride *					
Pyrene			950		
1,1,1-Trichloroethane*					
<u>Metals (ppm)</u>					
Antimony		20	0.82	0.92	1.8
Arsenic		2.2	1.6	1.2	3.3
Beryllium *		0.32	0.18	0.22	0.54
Cadmium		3.6	1.7	4.1	37
Chromium		30.8	20.2	56.5	1479
Copper		9.3	81.2	43.6	142
Lead		263	149	62.5	1500
Mercury		0.24	0.1	0.12	0.42
Nickel		24		13.2	34.1
Selenium *				0.32	
Silver				0.34	0.92
Thallium *				0.28	
Zinc		372	181	302	515

**Table 6.44. Summary of Terrestrial Assessment Results at Surface Water Outfalls
for the Quantitative Ecological Risk Assessment /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Outfall	Site	Chemicals detected in Sediment and Soil /b/	Soil Conc. (mg/kg)	Depth	Soil HI	Sediment Conc. (mg/kg)	Sediment HI	Sediment HI- Soil HI /c/
OF-05	3	copper	19900	S	3.6	34.3	0.006	-3.6
		zinc	2160	S	33	197	3.0	-29.9
OF-14	21	cadmium	22.8	S	7.5	13.6	4.5	-3.0
		chromium	141	S	4.3	52.1	0.1	-4.2
		copper	235	S	0.04	79.9	0.00	-0.04
		lead	689	S	76	274	8	-67.4
		silver	0.43	S	0.01	0.56	0.01	0.0
		zinc	889	S	14	397	6.1	-7.5
		methylene chloride	0.0075	S	0.005	0.014	0.01	0.005
OF-15	12	antimony	4.5	S	0.3	7.4	0.4	0.2
		arsenic	5.7	S	0.1	3.9	0.05	-0.02
		cadmium	18.6	S	6.1	3.7	1.2	-4.9
		chromium	184	S	5.7	89.3	2.7	-2.9
		copper	125	S	0.02	105	0.02	0
		lead	1140	S	125	117	13	-112
		mercury	0.33	S	0.01	0.14	0.006	-0.01
		zinc	499	S	7.8	375	5.9	-1.9

**Table 6.44. Summary of Terrestrial Assessment Results at Surface Water Outfalls
for the Quantitative Ecological Risk Assessment /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Outfall	Site	Chemicals detected in Sediment and Soil /b/	Soil Conc. (mg/kg)	Depth	Soil HI	Sediment Conc. (mg/kg)	Sediment HI	Sediment HI-Soil HI /c/
OF-16-02	16	cadmium	2.4	S	0.8	4.5	1.5	0.7
		4,4'-DDT	0.076	S	0.0002	0.022	0.00005	-0.0001
OF-16-03	16	4,4'-DDT	0.076	S	0.0002	0.014	0.00003	-0.0001
OF-16-04	16	copper	13.8	S	0.003	31.8	0.01	0.003
		lead	44.7	S	4.9	56.8	6.2	1.3
		zinc	64.9	S	1.0	137	2.1	1.1
		4,4'-DDT	0.076	S	0.0002	0.016	0.00004	-0.0001
		cadmium	2.4	S	0.8	2.4	0.8	0
OF-16-05	16	copper	13.8	S	0.003	40.3	0.01	0.005
		lead	44.7	S	4.9	80.1	8.8	3.9
		zinc	64.9	S	1.0	114	1.7	0.7
		cadmium	2.4	S	0.8	3.1	1.0	0.2
OF-23	36	cadmium	4.3	S	1.4	2.7	0.9	-0.5
		lead	54	S	5.9	155	17	11.1
		silver	0.88	S	0.02	0.56	0.01	-0.01
		acetone	0.0039	S	0.007	0.0097	0.02	0.01

**Table 6.44. Summary of Terrestrial Assessment Results at Surface Water Outfalls
for the Quantitative Ecological Risk Assessment /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Outfall	Site	Chemicals detected in Sediment and Soil /b/	Soil Conc. (mg/kg)	Depth	Soil HI	Sediment Conc. (mg/kg)	Sediment HI	Sediment HI- Soil HI /c/
OF-26	29	chromium	17.9	SH	0.6	94.6	2.9	2.4
		4,4'-DDE	0.55	S	0.0001	0.027	0.00001	-0.0001
		4,4'-DDT	1	S	0.002	0.052	0.00012	-0.0021
OF-31	12	antimony	4.5	S	0.3	0.82	0.05	-0.2
		cadmium	18.6	S	6.1	1.7	0.6	-5.5
		copper	125	S	0.02	81.2	0.01	-0.01
		lead	1140	S	125	149	16	-109
		zinc	499	S	7.8	181	2.8	-5.0
OF-34	34	selenium	0.74	SH	0.1	0.92	0.2	0.03

HI Hazard index.
S Surficial
SH Shallow
D Deep

/a/ Shaded areas are based on new data for surficial soils.

/b/ Metals detected above background and organics.

/c/ A negative value indicates that the HI for sediment is less than the HI for soil.

**Table 6.45. Status of Sites Based on Quantitative Assessment
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site	Conclusion Based On:					
	Plant Assessment	Buckwheat Assessment	Mouse Assessment	Fox Assessment	Dove Assessment	Litter Assessment
2	PC	NA	NC	NC	NA	NA
3	NC	PC*	RC	PC	NC	NA
11	PC	NA	NC	NC	NA	NA
12	NC	NA	NC	NC	NA	NA
15	PC	NA	NC	NC	NA	NA
16	NC	NA	NC	NC	NA	NC
21	NC	NA	NC	NC	NA	NA
22	NC	NA	NC	NC	NA	NA
24	NC	NA	NC	NC	NA	NC
25	PC	NA	NC	NC	NA	NC
29	RC	NA	NC	NC	NA	NC
31	NC	NA	NC	NC	NA	NC
32	NC	NA	NC	NC	NA	NA
33	PC	NA	NC	NC	NA	NA
35	NC	NA	NC	NC	NA	NC
39	NC	NA	PC	NC	NC	NC
41	NC	NA	NC	NC	NA	NC

NA Not assessed.
 NC No concern.
 PC Possible Concern.
 RC Probable Concern.
 * High bullet cover areas only. Other areas NC.

**Table 6.45. Status of Sites Based on Quantitative Assessment
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site	Conclusion Based On:					
	Plant Assessment	Buckwheat Assessment	Mouse Assessment	Fox Assessment	Dove Assessment	Litter Assessment
2	PC	NA	NC	NC	NA	NA
3	NC	PC*	RC	PC	NC	NA
11	PC	NA	NC	NC	NA	NA
12	NC	NA	NC	NC	NA	NA
15	PC	NA	PC	PC	NA	NA
16	NC	NA	NC	NC	NA	NA
21	NC	NA	NC	NC	NA	NA
22	NC	NA	NC	NC	NA	NA
24	NC	NA	NC	NC	NA	NA
25	PC	NA	NC	NC	NA	NA
29	RC	NA	NC	NC	NA	NA
31	NC	NA	NC	NC	NA	NA
32	NC	NA	NC	NC	NA	NA
33	PC	NA	NC	NC	NA	NA
35	NC	NA	NC	NC	NA	NA
39	NC	NA	PC	NC	NC	NA
41	NC	NA	NC	NC	NA	NA

NA Not assessed.
 NC No concern.
 PC Possible Concern.
 RC Probable Concern.
 * High bullet cover areas only. Other areas NC.

**Table 7.1. Summary of Site-by-Site Decisions for the Ecological Risk Assessment
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site Number	Site Name	Phase of ERA In Which Site Screened Out /a/					Decision Rationale /b/
		PHA1	PHA2	Quantitative Screening Assessment	Quantitative Ecological Risk Assessment	Section 7 Risk Description	
26	Sewage Pump Stations						Not evaluated under RI/FS program
27	Army Reserve Motor Pool	X					No complete exposure pathways
28	Barracks and Main Garrison Area	X					No complete exposure pathways
29	DRMO					X	HI > 1, plants
30	Driver Training Area	X					No complete exposure pathways
31	Former Dump Site				X		Exposures less than levels of concern
32	East Garrison STP				X		Exposures less than levels of concern
33	Golf Course					X	HI > 1, plants.
34	FAAF Fueling Facility	X					No complete exposure pathways
35	Aircraft Cannibalization Yard				X		Exposures less than levels of concern
36	FAAF STP	X					No complete exposure pathways
37	Trailer Park Maintenance Shop	X					No complete exposure pathways
38	AAFES Dry Cleaners						Not evaluated under RI/FS program
39	Inland Ranges and 2.36-inch Rocket Range					X	HI > 1, plants and mammals
40	FAAF Defueling Areas			X			NoFA; HI < 1
41	Crescent Bluff Fire Drill Area				X		Exposures less than levels of concern

/a/ Shading indicates that the site was considered in the specified evaluation. X indicates that the site was eliminated from further evaluation.

/b/ Number of outfalls to be further evaluated.

**Table 7.2. Summary of Risk Assessment of Surface Water Outfall Data
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Sampling Locations	Volume II - Human Health Screening Risk Assessment		Volume IV - Ecological Risk Assessment	
	Residential Exposure Scenario Results	Groundwater Impact Assessment Results	Aquatic	Terrestrial
OF-01 (Ocean outfall manholes)	NoFA	NoFA	NoFA, dilution	NA
OF-01S	NoFA	NoFA	NA	NoFA, HI <1
OF-01N	NoFA	NoFA	NA	NoFA, HI <1
OF-02 (Ocean Outfall manholes)	NoFA, no sediment present	NoFA	NoFA, dilution	NA
OF-03 (Ocean Outfall manholes)	NoFA	NoFA	NoFA, dilution	NA
OF-04 (Ocean Outfall manholes)	NoFA	NoFA	NoFA, dilution	NA
OF-05	NoFA, possible site source	NoFA	NoFA, incomplete exposure pathway	NoFA, below levels of concern
OF-06	Included in OF-01 evaluation	NoFA	Included in OF-01 evaluation	Included in OF-01 evaluation
OF-07	NoFA	NoFA	NoFA, dilution	NoFA, incomplete exposure pathway
OF-08	NoFA	NoFA	NA	NoFA, incomplete exposure pathway
OF-09	Included in Pete's Pond evaluation (sampling location OF-16)	NoFA	Included in OF-16 evaluation	Included in OF-16 evaluation
OF-10	Included in Pete's Pond evaluation (sampling location OF-16)	NoFA	Included in OF-16 evaluation	Included in OF-16 evaluation

**Table 7.2. Summary of Risk Assessment of Surface Water Outfall Data
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

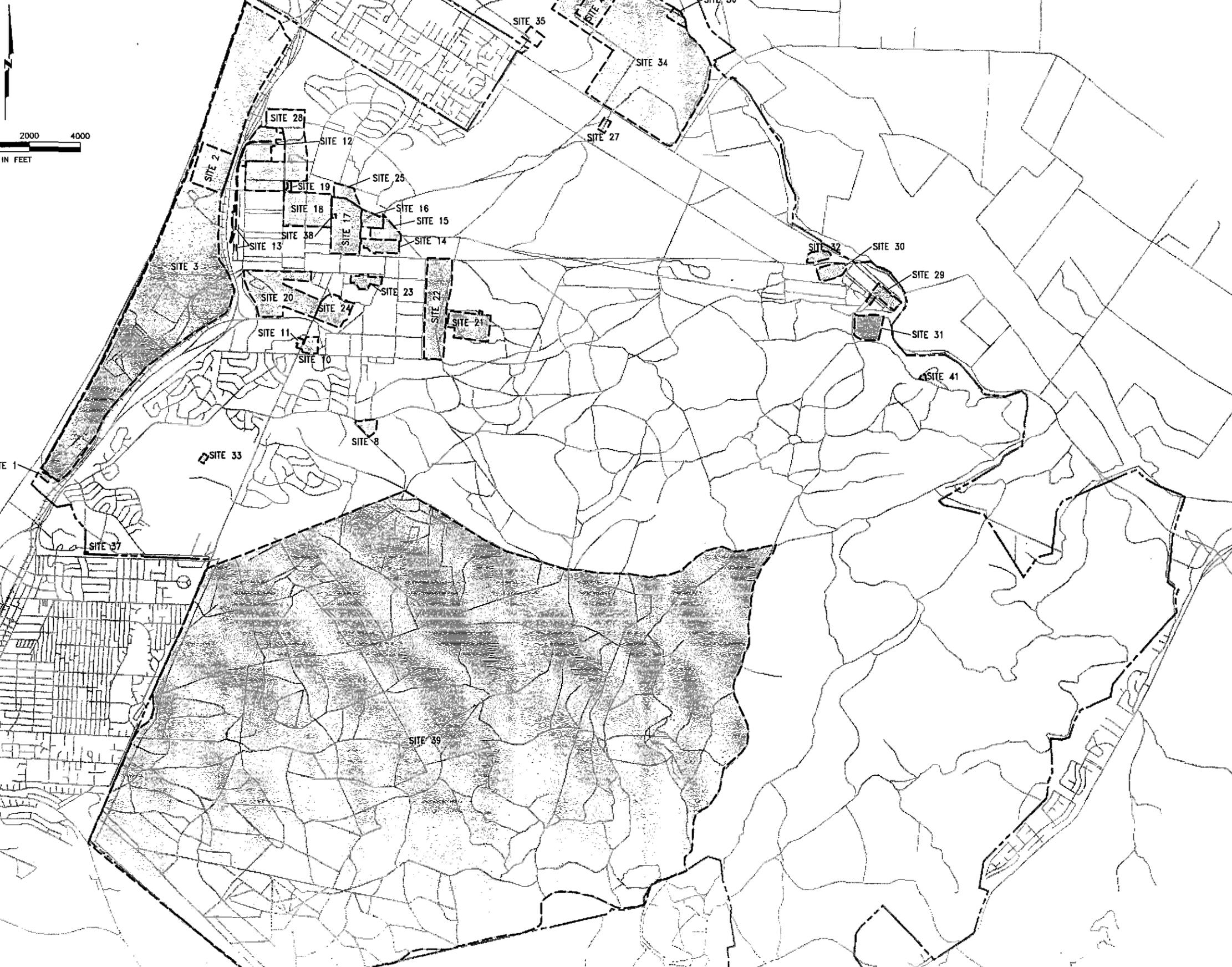
Sampling Locations	Volume II - Human Health Screening Risk Assessment		Volume IV - Ecological Risk Assessment	
	Residential Exposure Scenario Results	Groundwater Impact Assessment Results	Aquatic	Terrestrial
OF-11	NoFA, possible site source	NoFA	NoFA, incomplete exposure pathway	NoFA, incomplete exposure pathway
OF-12	NoFA	NoFA	NA	NoFA, incomplete exposure pathway
OF-13	NoFA, possible site source	NoFA	NoFA, incomplete exposure pathway	NoFA, incomplete exposure pathway
OF-14	NoFA, possible site source	NoFA	NA	NoFA, below levels of concern
OF-15	IAROD	NoFA	NoFA, incomplete exposure pathway	NoFA, below levels of concern
OF-16 (6 outfalls at Pete's Pond)	NoFA, possible site source	NoFA	NoFA, evaluated as part of Site 16	NoFA, below levels of concern
OF-17	Included in Pete's Pond evaluation (sampling locations OF-16)	NoFA	Included in OF-16 evaluation	Included in OF-16 evaluation
OF-18	Included in Pete's Pond evaluation (sampling locations OF-16)	NoFA	Included in OF-16 evaluation	Included in OF-16 evaluation
OF-19	NoFA	NoFA	NA	NoFA, incomplete exposure pathway
OF-20S	NoFA	NoFA	NoFA, incomplete exposure pathway	NoFA, incomplete exposure pathway
OF-20N	NoFA	NoFA	NoFA, incomplete exposure pathway	NoFA, incomplete exposure pathway

PLATES

EXPLANATION

- NPL SITE BOUNDARY
- FORT ORD SITE BOUNDARY

SITE 28 CONSISTS OF THREE BUILDINGS WITHIN THE MAIN GARRISON AND IS NOT SHOWN ON THIS PLATE.



NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates Engineering and Environmental Services		Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California	Site Location Map	PLATE: 1.1
1	7/94	DRAFT	23366434	23366 041711			AED					
2	12/94	DRAFT FINAL	23366434	23366 041724	MES	11/17/94						



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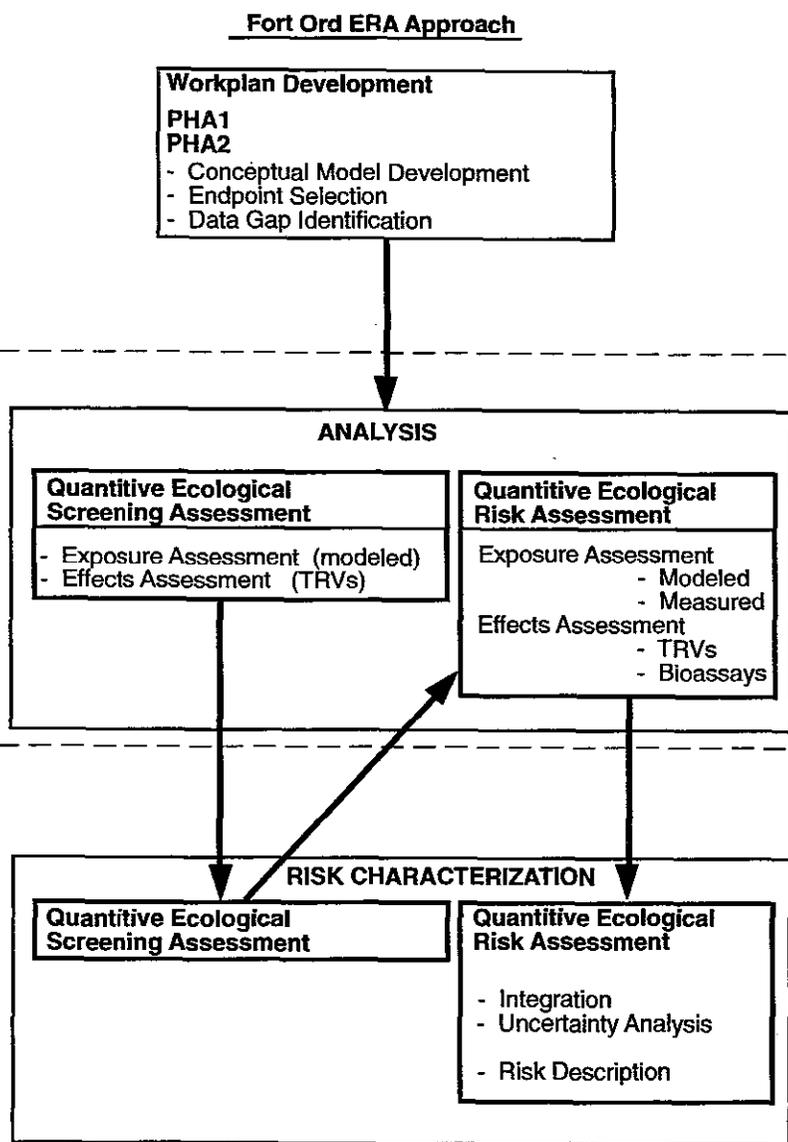
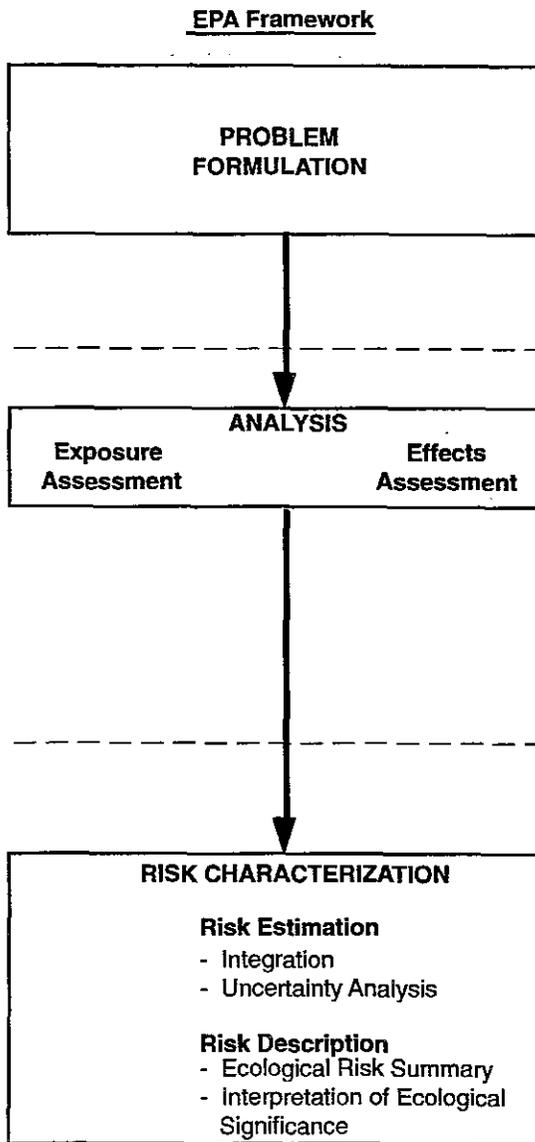
Volume IV - Ecological Risk
Assessment - Basewide RI/FS
Fort Ord, California

RELATION BETWEEN
EPA FRAMEWORK AND
FORT ORD ERA APPROACH

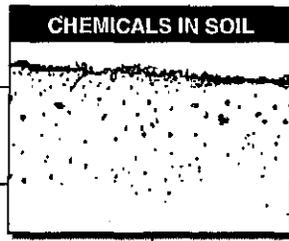
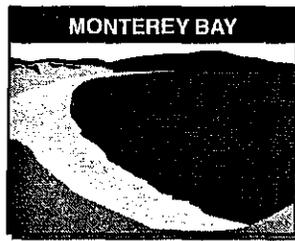
DRAWING

1.2

NO.	DATE	REVISIONS	H.A. FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
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	12/94	DRAFT FINAL		23366 041724			



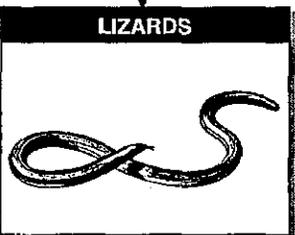
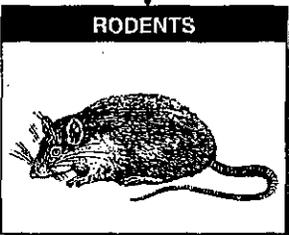
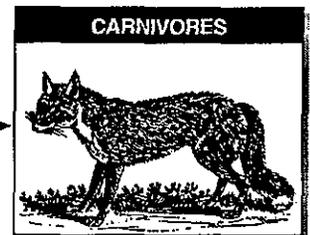
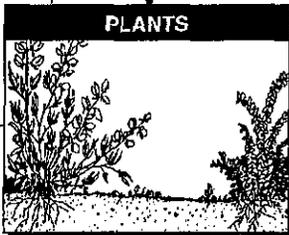
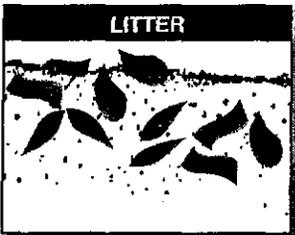
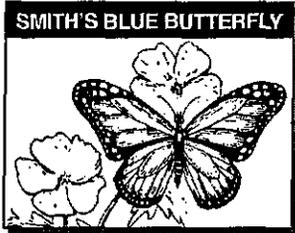
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2.2, 4.0
2.7
2.7; 5.2
4.2
5.3; 5.4
5.3; 6.0
5.3; 6.0
6.0
6.0
5.4
5.7.4; 6.0
5.5; 6.0; 7.0
7.0
7.0
7.0



Groundwater

Runoff

Bullet Fragments



HLA Harding Lawson Associates
Engineering and Environmental Services

Volume IV - Ecological Risk Assessment- Basewide RI/FS Fort Ord, California

CONCEPTUAL MODEL FOR COASTAL SITES

DRAWING
2.1

NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
	7/84	DRAFT		23366 041714			AG
	12/94	DRAFT FINAL		23366 041724	MES	11/28/94	



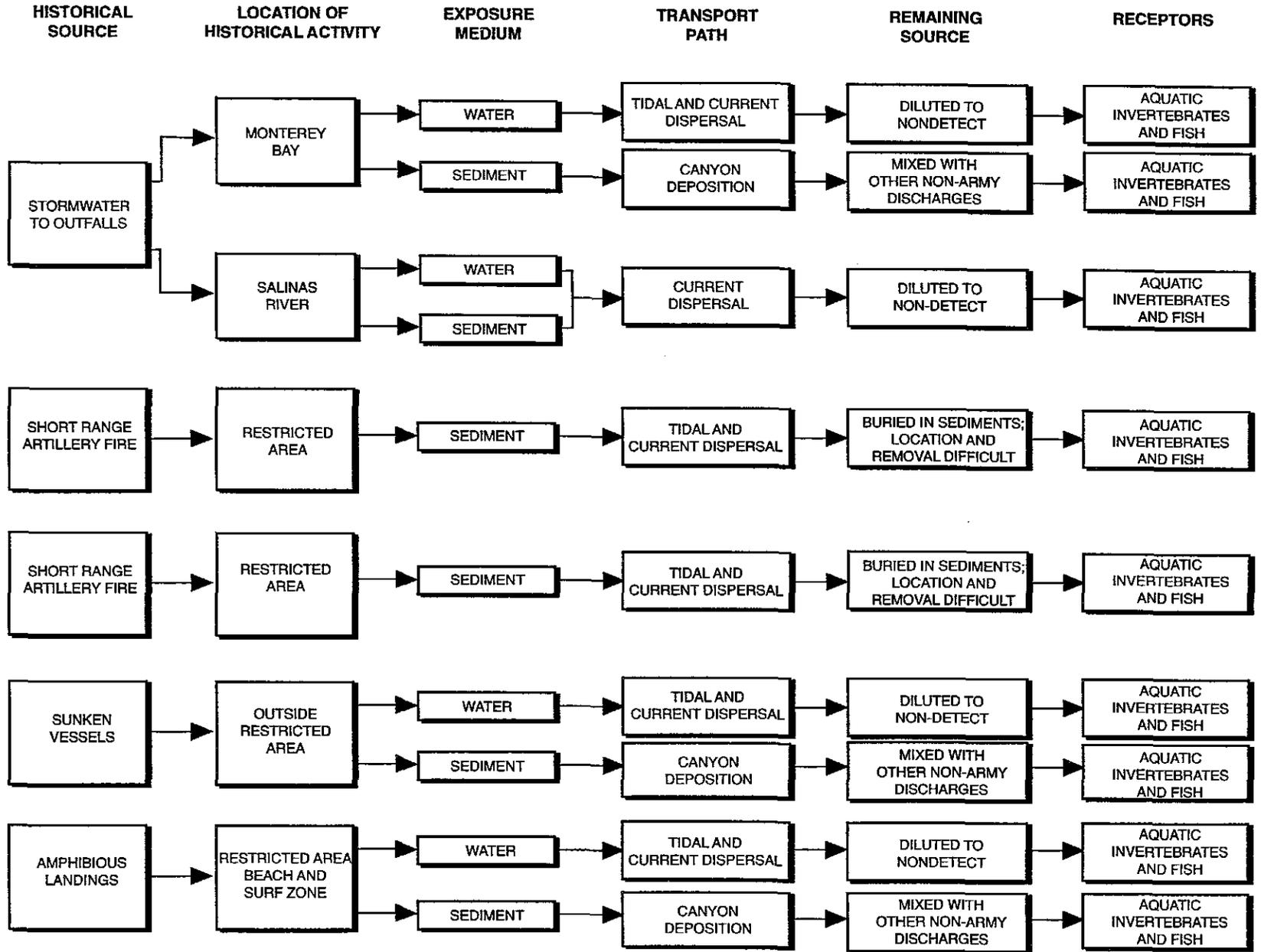
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Volume IV - Ecological Risk
Assessment - Basewide RI/FS
Fort Ord, California

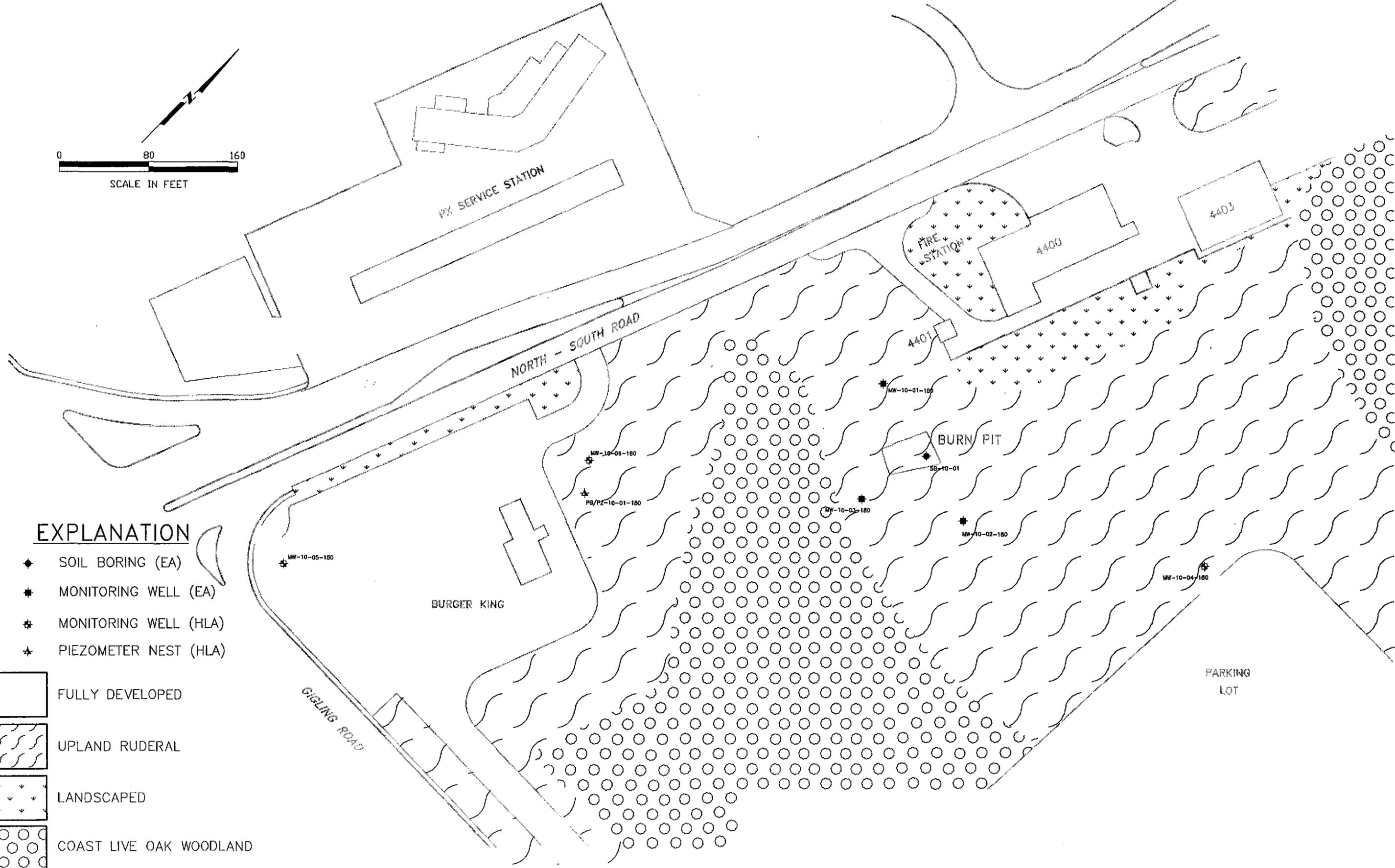
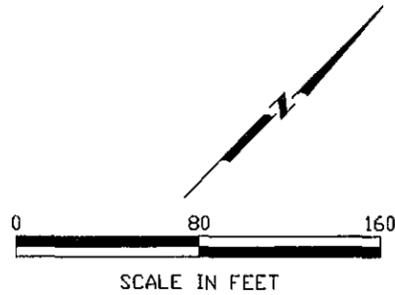
CONCEPTUAL MODEL
FOR MONTEREY BAY
AND THE SALINAS RIVER

DRAWING

2.3



NO.	DATE	REVISIONS	FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
11/94	DRAFT		23966 041774	23966 041774	MS	11/27/94	DJP
12/94	DRAFT FINAL			23966 041724			



EXPLANATION

- ◆ SOIL BORING (EA)
- MONITORING WELL (EA)
- ⊕ MONITORING WELL (HLA)
- ⊛ PIEZOMETER NEST (HLA)

- FULLY DEVELOPED
- UPLAND RUDERAL
- LANDSCAPED
- COAST LIVE OAK WOODLAND

NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates Engineering and Environmental Services	Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California	Plant Communities and Sampling Locations Site 10 - Burn Pit	PLATE: 3.3
1	7/11/94	DRAFT	23366288	23366 041714			PH				
2	12/94	DRAFT FINAL	23366288	23366 041724	ME3	11/17/94	PH				

23366288_B04_19941115.DWG



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Environmental Services

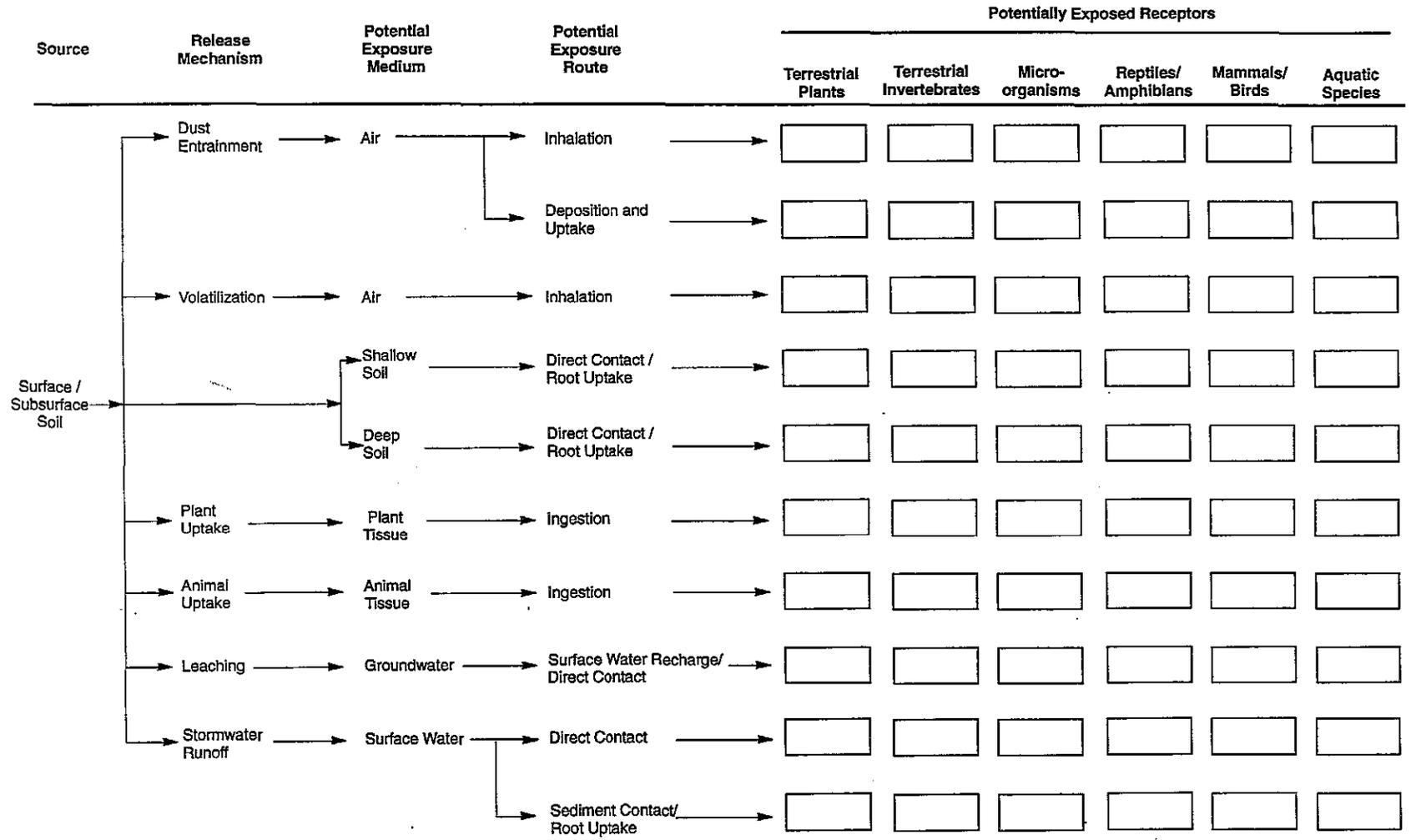
Volume IV - Ecological Risk
Assessment - Basewide RI/FS
Fort Ord, California

PRELIMINARY EXPOSURE
ANALYSIS - SITE 10

DRAWING

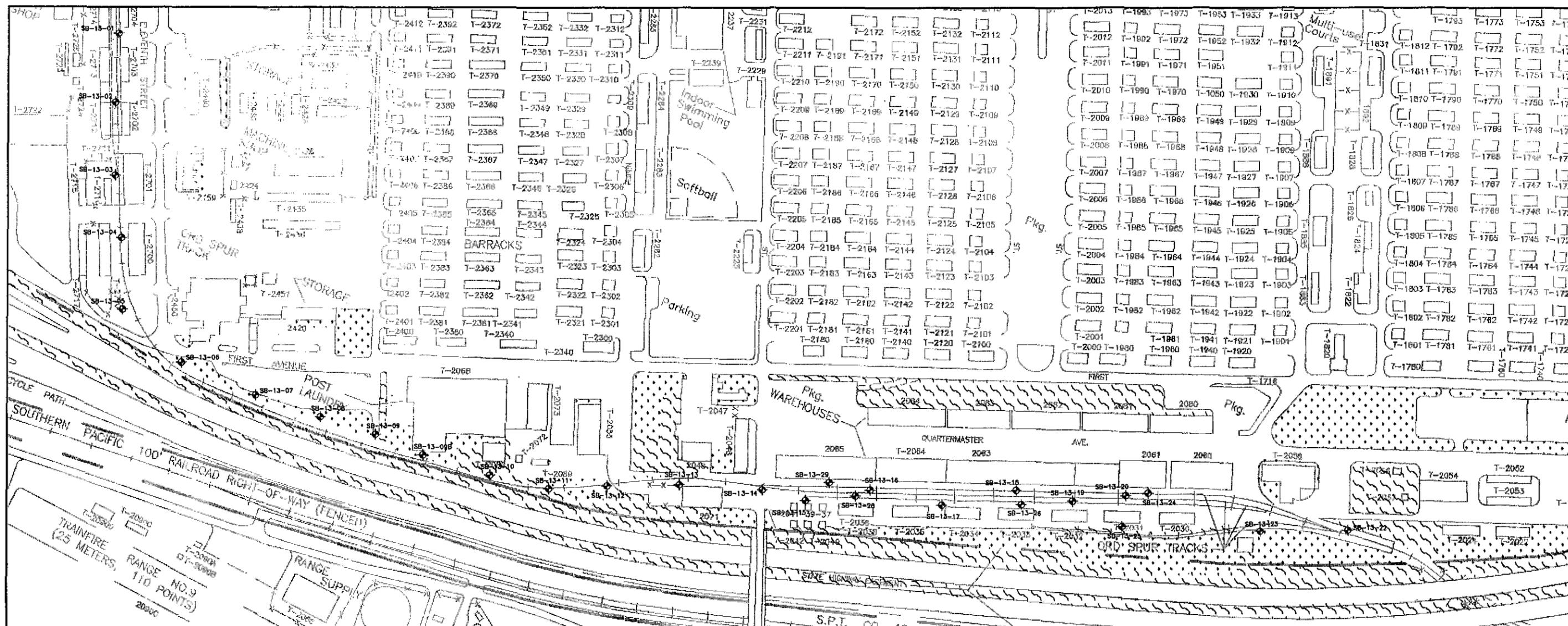
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NO.	DATE	REVISIONS	H/A FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
1	06/09/94	DRAFT		23396 041714	MES	11/50	AG
2	12/91	DRAFT FINAL		23396 041724			



EXPLANATION

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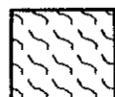


EXPLANATION

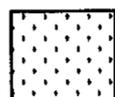
SB-13-01 ◆ SOIL BORING LOCATION



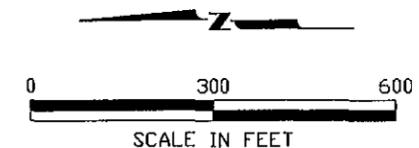
FULLY DEVELOPED



UPLAND RUDERAL



LANDSCAPED



23366290_300
19941031.1523

NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates Engineering and Environmental Services		Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California	Plant Communities and Sampling Locations Site 13 - Railroad Right of Way	PLATE: 3.5
1	7/11/94	DRAFT	23366290	23366 041714			PH					
2	12/94	DRAFT FINAL	23366290	23366 041724	MES	11/19/94	PH					



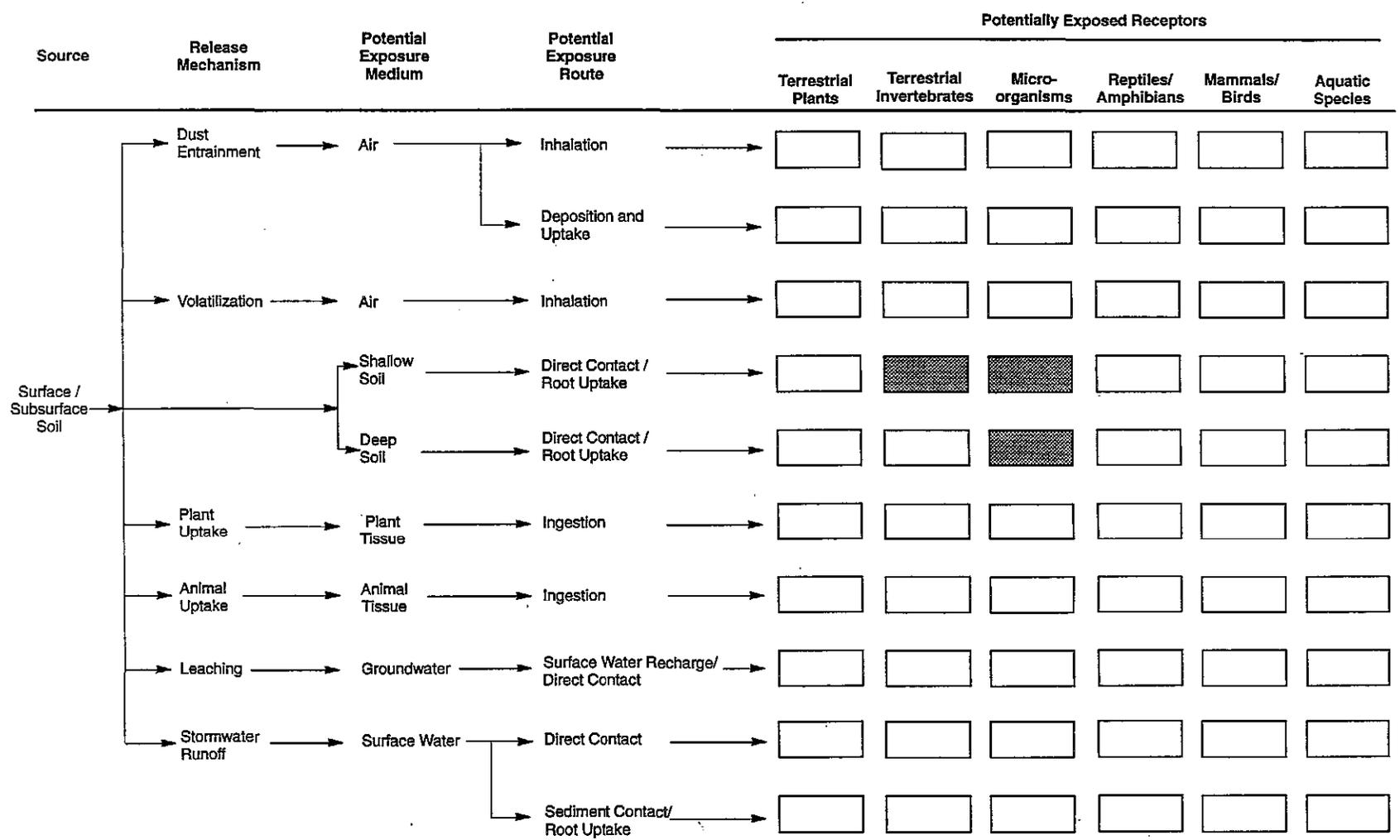
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Volume IV - Ecological Risk
Assessment - Basewide RI/FS
Fort Ord, California

PRELIMINARY EXPOSURE
ANALYSIS - SITE 13

DRAWING
3.6

NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
1	06/08/94	DRAFT		23389 041714	<i>MCS</i>	11/30	AG
2	12/94	DRAFT FINAL		23389 041724			



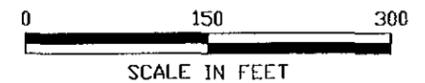
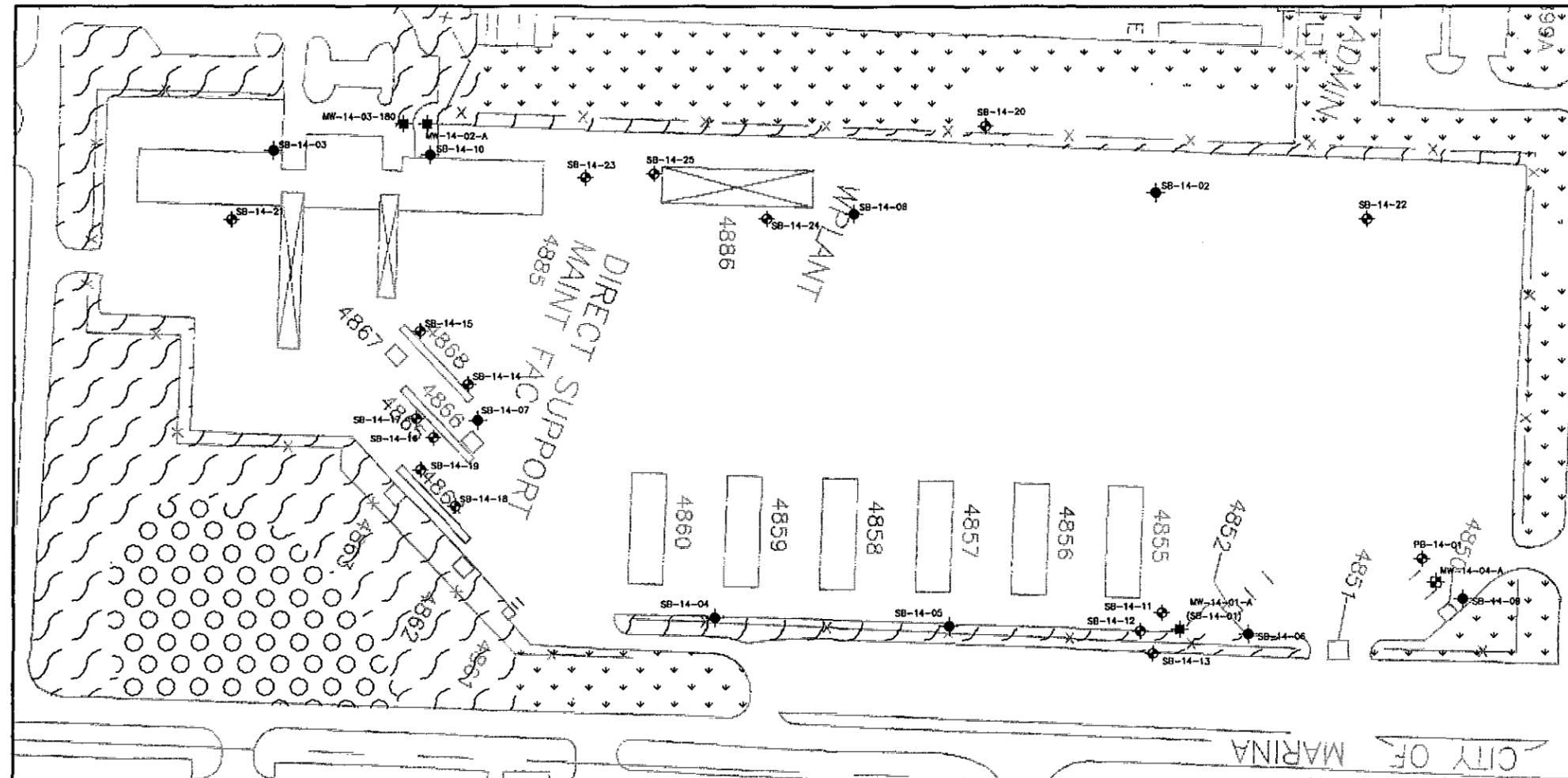
EXPLANATION

<input type="checkbox"/>	Pathway not considered to be complete	<input checked="" type="checkbox"/>	Pathway is or might be complete; however pathway is judged to be minor on the basis of available information
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EXPLANATION

- SB-14-02 SOIL BORING LOCATION
- MW-14-04-A MONITORING WELL (HLA)
- SB-14-04 SOIL BORING (JMM)
- MW-14-01-A MONITORING WELL (JMM)

- FULLY DEVELOPED
- UPLAND RUDERAL
- LANDSCAPED
- COAST LIVE OAK WOODLAND



NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates Engineering and Environmental Services		Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California	Plant Communities and Sampling Locations Site 14 - 707th Maintenance Facility	PLATE: 3.7
1	7/11/94	DRAFT	23366291	23366 041714			PH					
2	12/94	DRAFT FINAL	23366291	23366 041724	MES	11/17/94	PH					

23366291 15 1599410011528



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Engineering and
Environmental Services

Volume IV - Ecological Risk
Assessment - Basewide RI/FS
Fort Ord, California

PRELIMINARY EXPOSURE
ANALYSIS - SITE 14

DRAWING
3.8

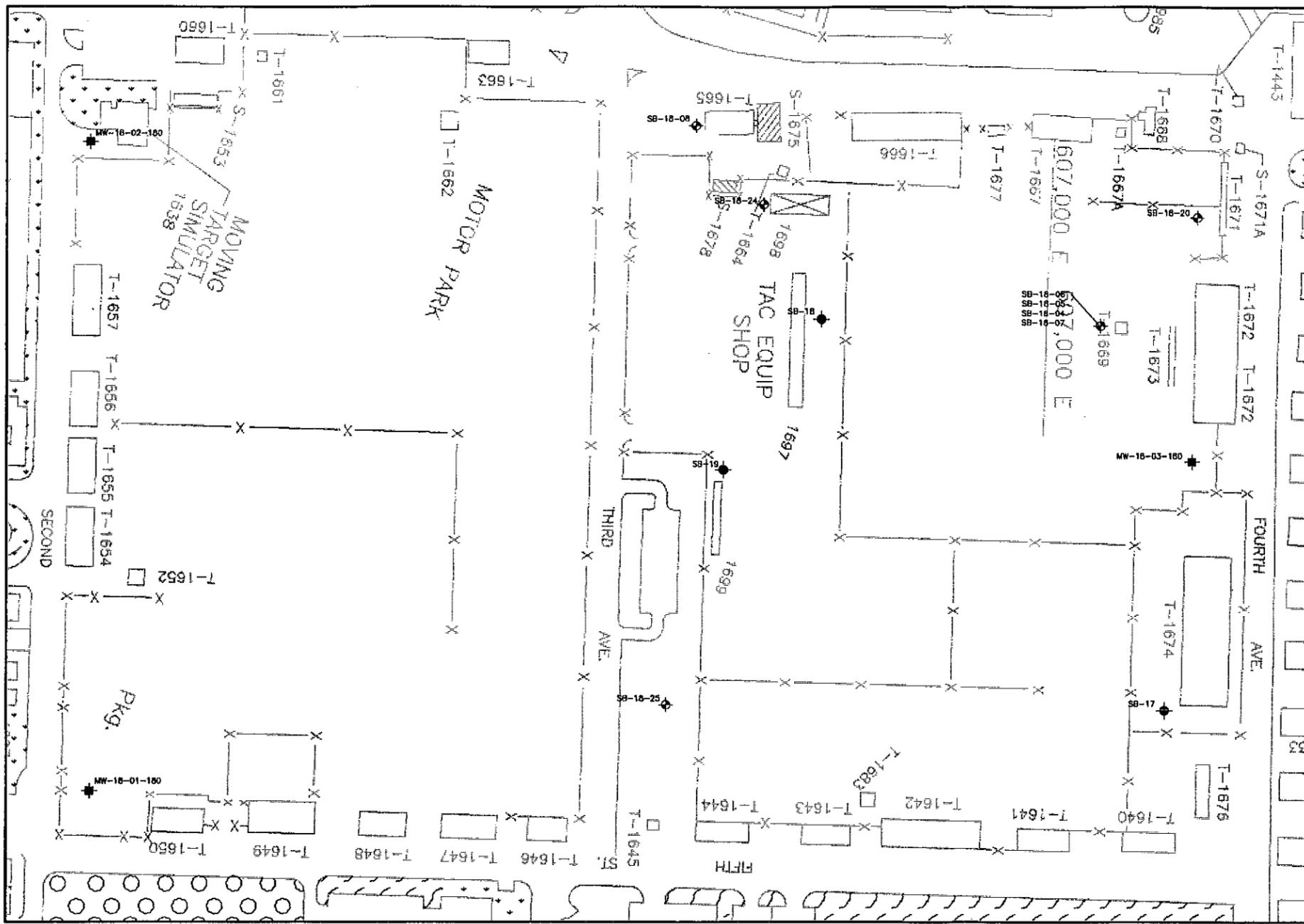
NO.	DATE	REVISIONS	H/A FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
1	06/08/94	DRAFT		23386 041714			AS
2	12/94	DRAFT FINAL		23386 041724	MCS	1/1/95	

Source	Release Mechanism	Potential Exposure Medium	Potential Exposure Route	Potentially Exposed Receptors					
				Terrestrial Plants	Terrestrial Invertebrates	Micro-organisms	Reptiles/Amphibians	Mammals/Birds	Aquatic Species
Surface / Subsurface Soil	Dust Entrainment	Air	Inhalation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			Deposition and Uptake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Volatilization	Air	Inhalation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Shallow Soil	Direct Contact / Root Uptake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			Deep Soil	Direct Contact / Root Uptake	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Plant Uptake	Plant Tissue	Ingestion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Animal Uptake	Animal Tissue	Ingestion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Leaching	Groundwater	Surface Water Recharge / Direct Contact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Stormwater Runoff	Surface Water	Direct Contact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sediment Contact / Root Uptake			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

EXPLANATION

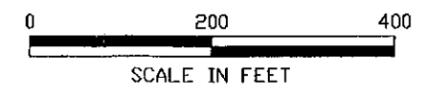
Pathway not considered to be complete

Pathway is or might be complete; however pathway is judged to be minor on the basis of available information



EXPLANATION

- SB-18-05 SOIL BORING LOCATION
- SB-18 SOIL BORING (JMM)
- MW-18-07-180 MONITORING WELL (JMM)
- FULLY DEVELOPED
- UPLAND RUDERAL
- LANDSCAPED
- COAST LIVE OAK WOODLAND



NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates Engineering and Environmental Services		Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California	Plant Communities and Sampling Locations Site 18 - 1600 Block Facility	PLATE: 3.9
1	7/11/94	DRAFT	23366295	23366 041714			PH					
2	12/94	DRAFT FINAL	23366295	23366 041724	<i>[Signature]</i>	11/17/94	PH					

23366056_200
1994030115.S0



Harding Lawson Associates
Engineering and
Environmental Services

Volume IV - Ecological Risk
Assessment - Basewide RI/FS
Fort Ord, California

PRELIMINARY EXPOSURE
ANALYSIS - SITE 18

DRAWING
3.10

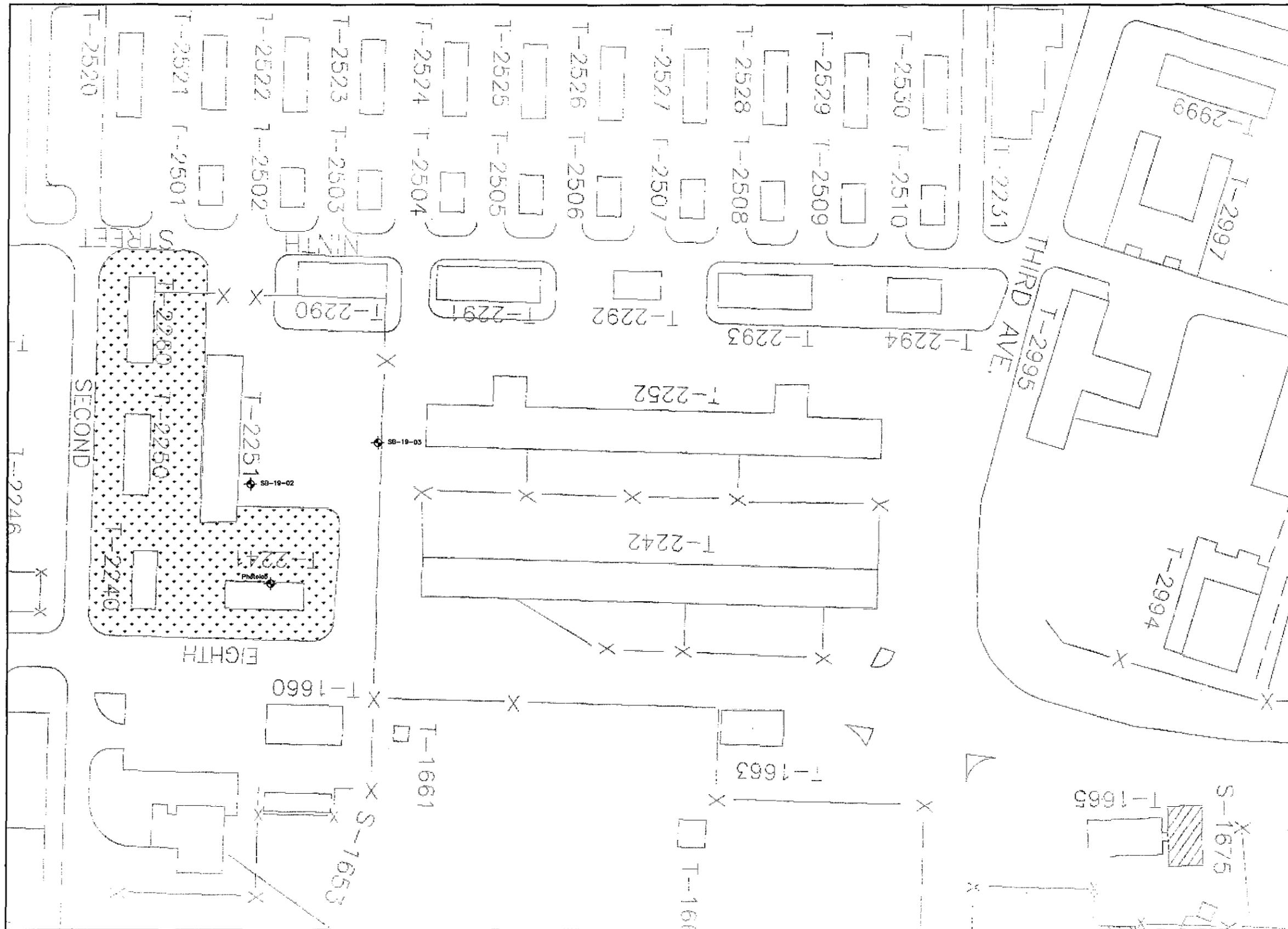
NO.	DATE	REVISIONS	H/A FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
1	06/08/94	DRAFT		23968 041714			AG
2	12/94	DRAFT FINAL		23968 041724	MCS	11/90	

Source	Release Mechanism	Potential Exposure Medium	Potential Exposure Route	Potentially Exposed Receptors						
				Terrestrial Plants	Terrestrial Invertebrates	Micro-organisms	Reptiles/Amphibians	Mammals/Birds	Aquatic Species	
Surface / Subsurface Soil	Dust Entrainment	Air	Inhalation							
			Deposition and Uptake							
	Volatilization	Air	Inhalation							
		Shallow Soil	Direct Contact / Root Uptake							
		Deep Soil	Direct Contact / Root Uptake							
		Plant Uptake	Plant Tissue	Ingestion						
		Animal Uptake	Animal Tissue	Ingestion						
		Leaching	Groundwater	Surface Water / Direct Contact						
Stormwater Runoff	Surface Water	Direct Contact								
		Sediment Contact / Root Uptake								

EXPLANATION

 Pathway not considered to be complete

 Pathway is or might be complete; however pathway is judged to be minor on the basis of available information

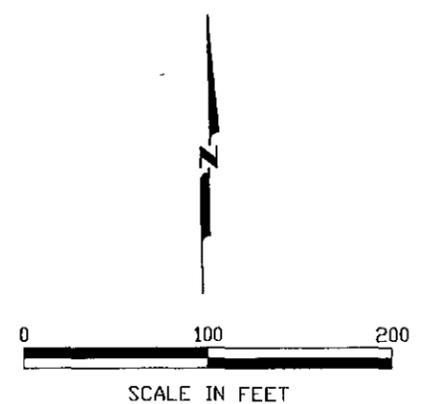


EXPLANATION

SB-19-01 SOIL BORING LOCATION

FULLY DEVELOPED

LANDSCAPED



NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
1	7/11/94	DRAFT	23366296	23366 041714			PH
2	12/94	DRAFT FINAL	23366296	23366 041724	<i>MES</i>	11/17/94	PH

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Volume IV - Ecological Risk Assessment
 Basewide RI/FS
 Fort Ord, California

Plant Communities and Sampling Locations
 Site 19 - 2200 Block Facility

010120117661
 1001 962993622



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Volume IV - Ecological Risk
Assessment - Basewide RI/FS
Fort Ord, California

PRELIMINARY EXPOSURE
ANALYSIS - SITE 19

DRAWING

3.12

NO.	DATE	REVISIONS	H.L.A. FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
1	06/09/94	DRAFT		23398 041714	MSJ	1/18/95	AG
2	12/94	DRAFT FINAL		23398 041724			

Source	Release Mechanism	Potential Exposure Medium	Potential Exposure Route	Potentially Exposed Receptors					
				Terrestrial Plants	Terrestrial Invertebrates	Micro-organisms	Reptiles/Amphibians	Mammals/Birds	Aquatic Species
Surface / Subsurface Soil	Dust Entrainment	Air	Inhalation						
			Deposition and Uptake						
	Volatilization	Air	Inhalation						
			Direct Contact / Root Uptake		■	■			
	Shallow Soil	Deep Soil	Direct Contact / Root Uptake			■			
			Direct Contact / Root Uptake			■			
	Plant Uptake	Plant Tissue	Ingestion						
	Animal Uptake	Animal Tissue	Ingestion						
	Leaching	Groundwater	Surface Water / Direct Contact						
	Stormwater Runoff	Surface Water	Direct Contact						
Sediment Contact / Root Uptake									

EXPLANATION

 Pathway not considered to be complete

 Pathway is or might be complete; however pathway is judged to be minor on the basis of available information



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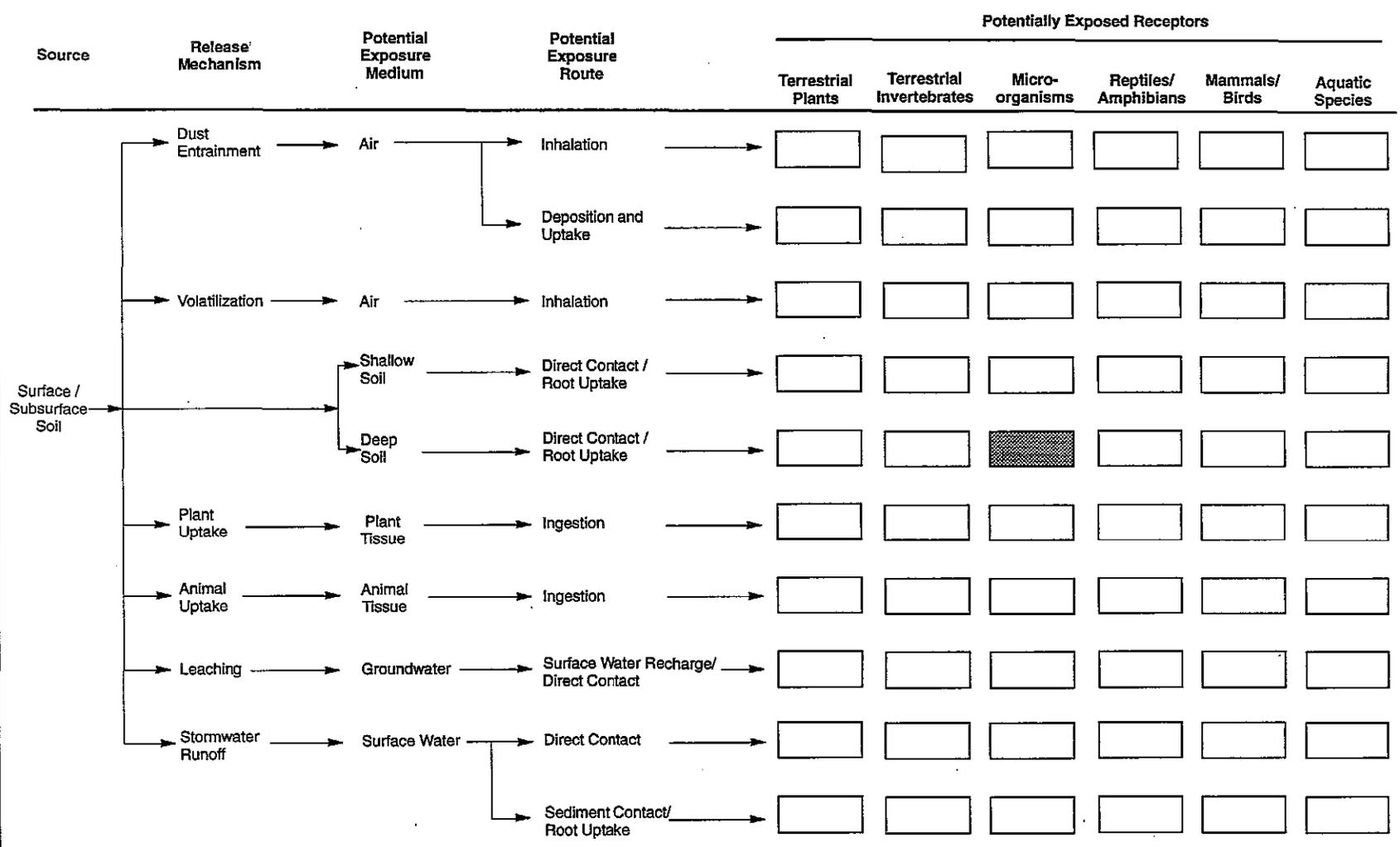
Volume IV - Ecological Risk
Assessment - Basewide RI/FS
Fort Ord, California

PRELIMINARY EXPOSURE
ANALYSIS - SITE 20

DRAWING

3.14

NO.	DATE	REVISIONS	FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
1	09/09/94	DRAFT		23366 041714	MCS	11/30	AG
2	12/94	DRAFT FINAL		23366 041724			

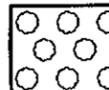


EXPLANATION

Pathway not considered to be complete

Pathway is or might be complete; however pathway is judged to be minor on the basis of available information

EXPLANATION

- SB-14-02  SOIL BORING LOCATION
- SB-14-04  SOIL BORING (JMM)
- MW-14-01-A  MONITORING WELL (JMM)
-  FULLY DEVELOPED
-  UPLAND RUDERAL
-  LANDSCAPED
-  COAST LIVE OAK WOODLAND



23366300 150
19941031159

NO.	DATE	REVISIONS	HILA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates Engineering and Environmental Services	Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California	Plant Communities and Sampling Locations Site 23 - 3700 Motor Pool Complex	PLATE: 3.15
1	7/11/94	DRAFT	23366300	23366 041714			PH				
2	12/94	DRAFT FINAL	23366300	23366 041724	MLC	11/17/94	PH				



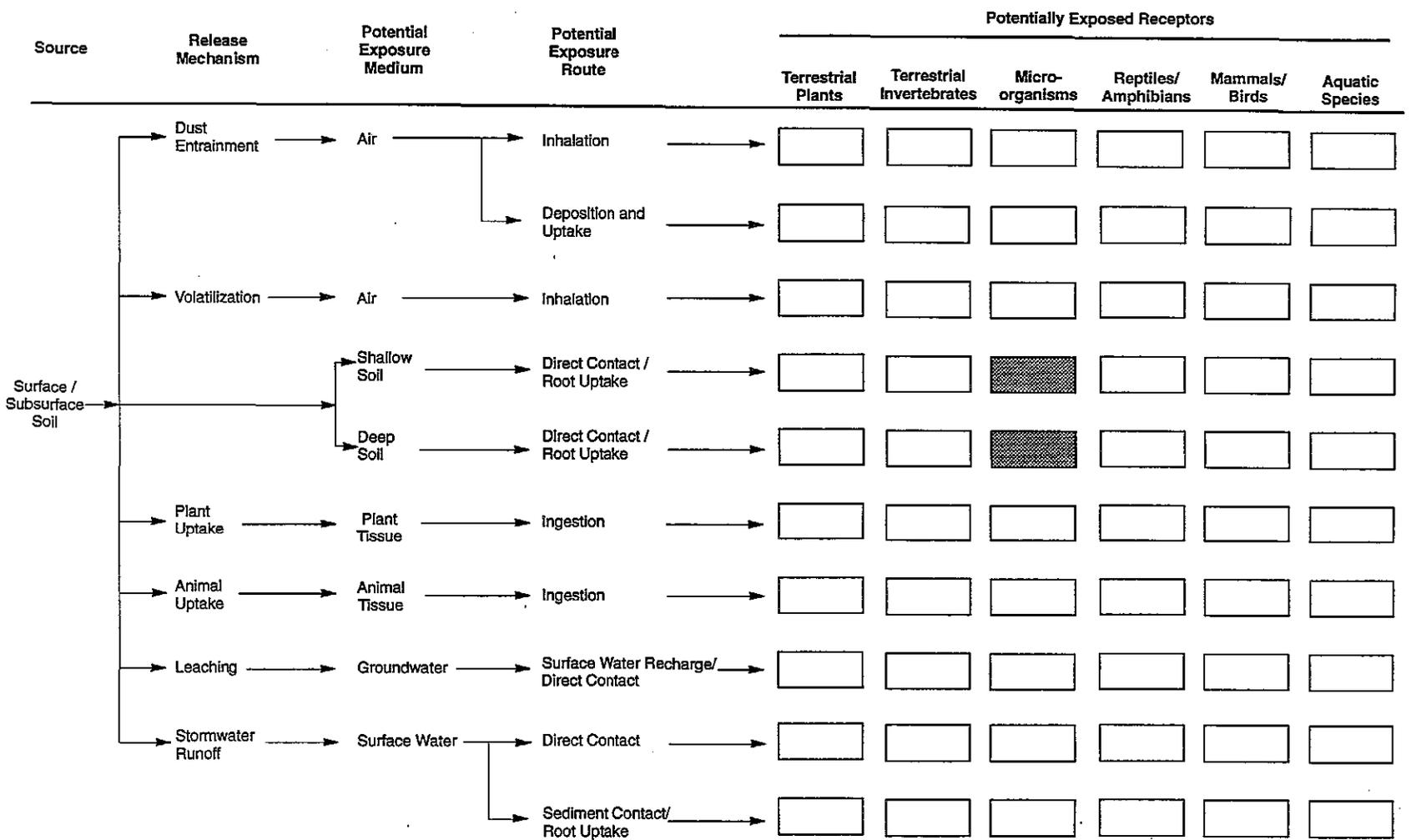
Harding Lawson Associates
Engineering and Environmental Services

Volume IV - Ecological Risk Assessment - Basewide RI/FS Fort Ord, California

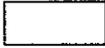
PRELIMINARY EXPOSURE ANALYSIS - SITE 23

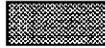
DRAWING
3.16

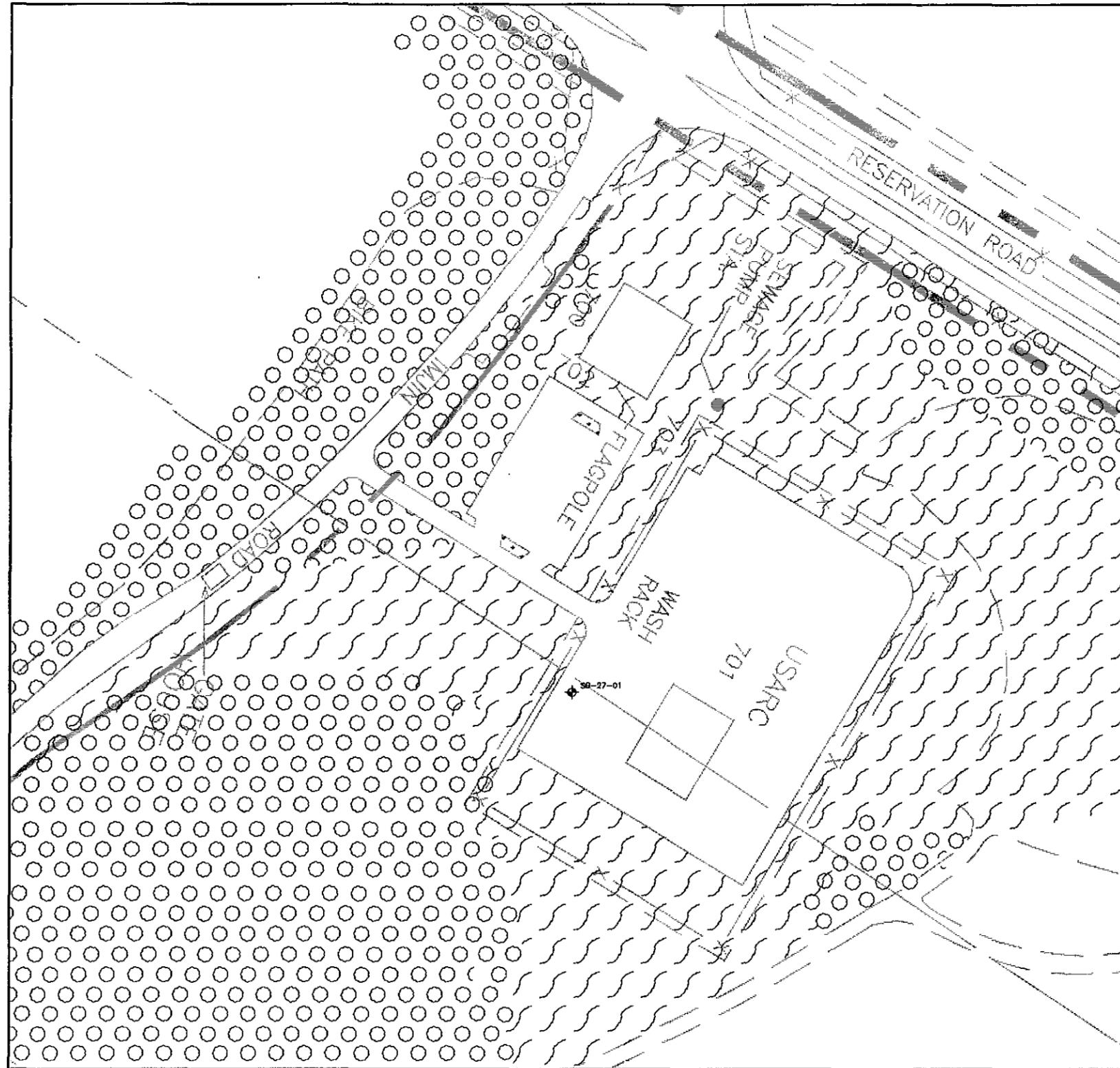
NO.	DATE	REVISIONS	H/A FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
1	06/09/04	DRAFT		23396 041714	MS	11/13	AG
2	12/24	DRAFT FINAL		23396 041724			



EXPLANATION

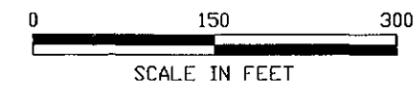
 Pathway not considered to be complete

 Pathway is or might be complete; however pathway is judged to be minor on the basis of available information



EXPLANATION

- SR-27-01 ◆ SOIL BORING LOCATION
- FULLY DEVELOPED
- ▨ UPLAND RUDERAL
- ▩ LANDSCAPED
- ⊙ COAST LIVE OAK WOODLAND



NO.	DATE	REVISIONS	H/A FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
1	6/94	DRAFT	23366303	23366 041714			MEK
2	12/94	DRAFT FINAL	23366303	23366 041724	MEK	11/13/04	PH

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Volume IV - Ecological Risk Assessment
 Basewide RI/FS
 Fort Ord, California

Plant Communities and Sampling Locations
 Site 27 - Army Reserve Motor Pool

23366303 150p
199410311552



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Engineering and
Environmental Services

Volume IV - Ecological Risk
Assessment - Basewide RI/FS
Fort Ord, California

PRELIMINARY EXPOSURE
ANALYSIS - SITE 27

DRAWING
3.18

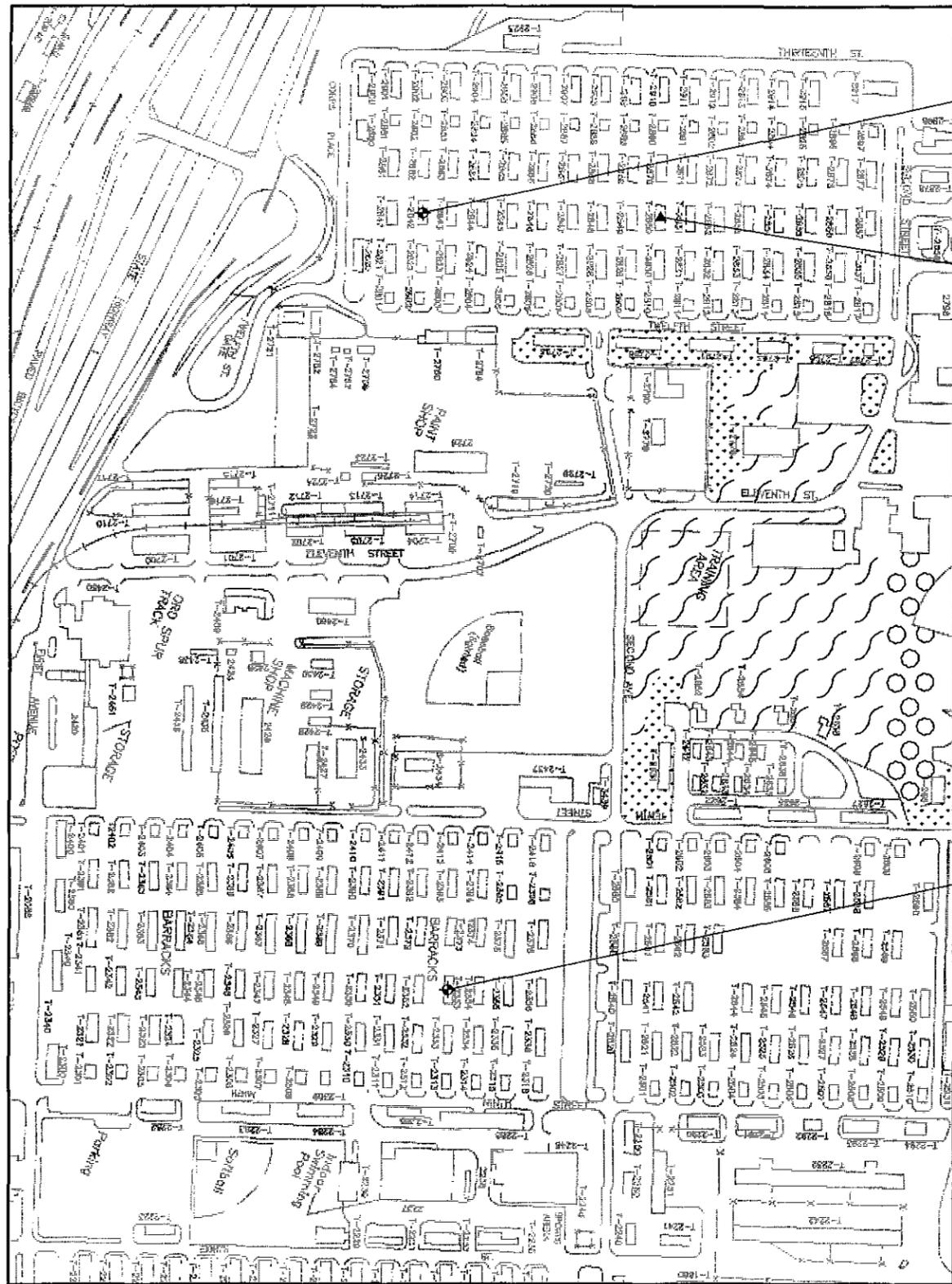
NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
1	06/09/04	DRAFT		23396 041714	<i>MES</i>	11/30	AG
2	12/94	DRAFT/FINAL		23396 041724			

Source	Release Mechanism	Potential Exposure Medium	Potential Exposure Route	Potentially Exposed Receptors					
				Terrestrial Plants	Terrestrial Invertebrates	Micro-organisms	Reptiles/Amphibians	Mammals/Birds	Aquatic Species
Surface / Subsurface Soil	Dust Entrainment	Air	Inhalation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			Deposition and Uptake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Volatilization	Air	Inhalation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			Shallow Soil	Direct Contact / Root Uptake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Deep Soil	Direct Contact / Root Uptake			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Plant Uptake	Plant Tissue	Ingestion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Animal Uptake	Animal Tissue	Ingestion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Leaching	Groundwater	Surface Water Recharge / Direct Contact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Stormwater Runoff	Surface Water	Direct Contact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			Sediment Contact / Root Uptake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

EXPLANATION

Pathway not considered to be complete

Pathway is or might be complete; however pathway is judged to be minor on the basis of available information



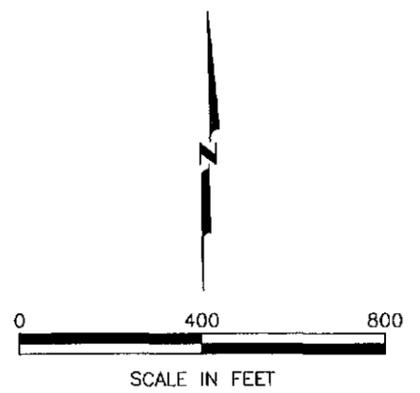
T-2542
Visual Information Center
(Site 28)
SB-28-01
SB-28-02
SB-28-03

T-2850
Optim Photo Developing Unit
(Site 28)
SS-28-01
SS-28-02
SS-28-03

T-2363
Optim Photo
(Site 28)
SB-28-04
SB-28-05
SB-28-06

EXPLANATION

- SB-28-04 SOIL BORING LOCATION
- SS-28-01 SURFACE SOIL SAMPLE LOCATION
- FULLY DEVELOPED
- UPLAND RUDERAL
- LANDSCAPED
- COAST LIVE OAK WOODLAND



23366304 40'
19941031.155

NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates Engineering and Environmental Services	Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California	Plant Communities and Sampling Locations Site 28 - Barracks and Garrison Area	PLATE: 3.19
1	7/10/94	DRAFT	23366304	23366 041714			AED				
2	12/94	DRAFT_FINAL	23366304	23366 041724	RLS	11/17/94	PH				

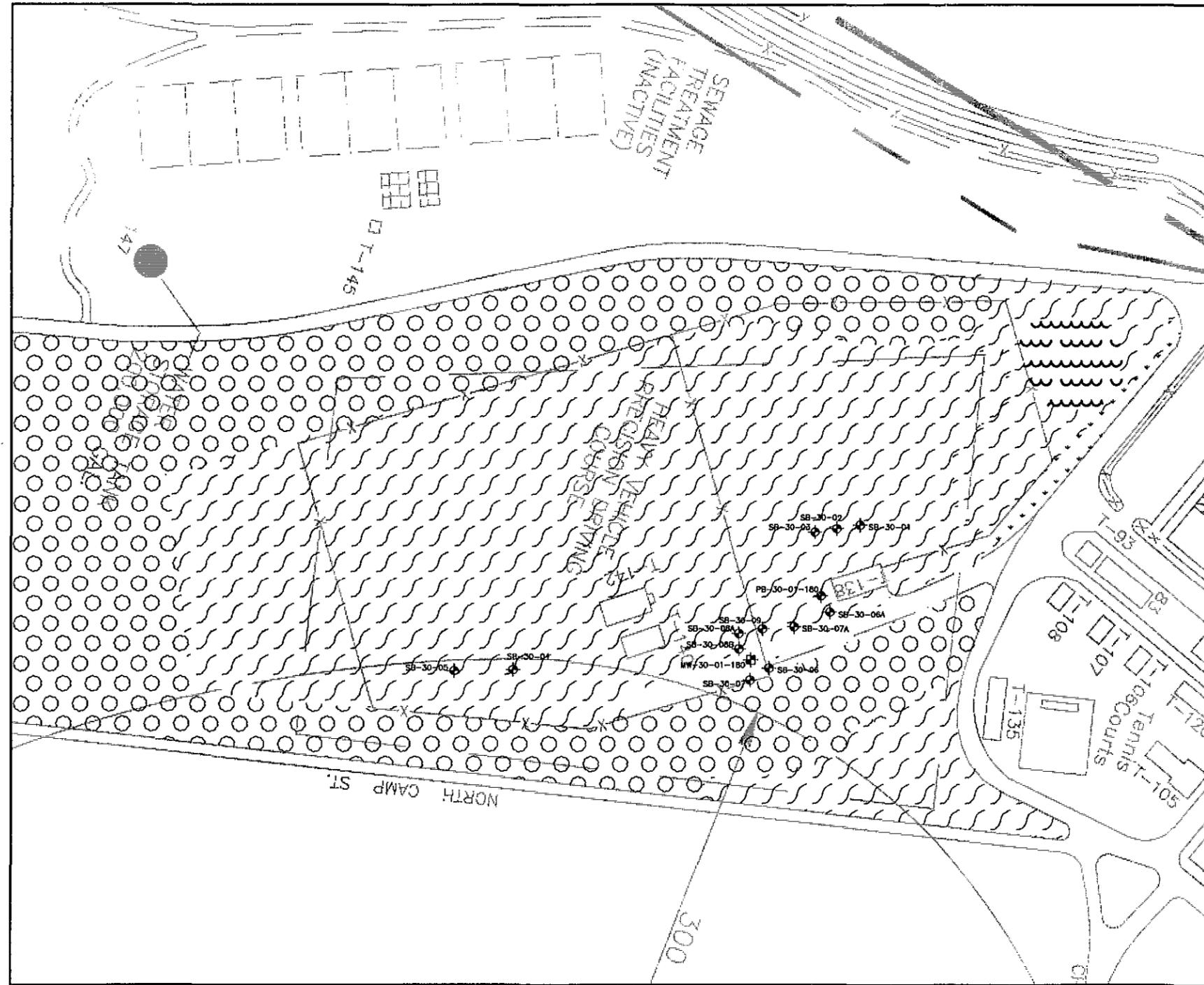
NO.	DATE	REVISIONS	H.A. FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	
	08/08/94 12/94							DRAFT DRAFT/FINAL
 Harding Lawson Associates Engineering and Environmental Services			Volume IV - Ecological Risk Assessment - Basewide RI/FS Fort Ord, California			PRELIMINARY EXPOSURE ANALYSIS - SITE 28		3.20 DRAWING

Source	Release Mechanism	Potential Exposure Medium	Potential Exposure Route	Potentially Exposed Receptors					
				Terrestrial Plants	Terrestrial Invertebrates	Micro-organisms	Reptiles/Amphibians	Mammals/Birds	Aquatic Species
Surface / Subsurface Soil	Dust Entrainment	Air	Inhalation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			Deposition and Uptake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Volatilization	Air	Inhalation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			Shallow Soil	Direct Contact / Root Uptake	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Deep Soil	Direct Contact / Root Uptake			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			Plant Uptake	Plant Tissue	Ingestion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Animal Uptake	Animal Tissue	Ingestion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Leaching	Groundwater	Surface Water Recharge/ Direct Contact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Stormwater Runoff	Surface Water	Direct Contact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			Sediment Contact/ Root Uptake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

EXPLANATION

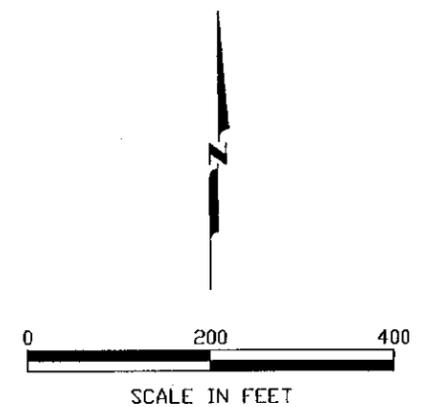
Pathway not considered to be complete

Pathway is or might be complete; however pathway is judged to be minor on the basis of available information



EXPLANATION

- SB-30-01 SOIL BORING LOCATION
- MW-30-01-180 MONITORING WELL
- FULLY DEVELOPED
- UPLAND RUDERAL
- LANDSCAPED
- COAST LIVE OAK WOODLAND
- WET RUDERAL



23366306 20" 199410101743

NO.	DATE	REVISIONS	HILA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
1	7/14/94	DRAFT	23366306	23366 041714			AED
2	12/94	DRAFT FINAL	23366306	23366 041724	hes	11/17/04	PH

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 Engineering and Environmental Services

Volume IV - Ecological Risk Assessment
 Basewide RI/FS
 Fort Ord, California

Plant Communities and Sampling Locations
 Site 30 - Driver Training Area



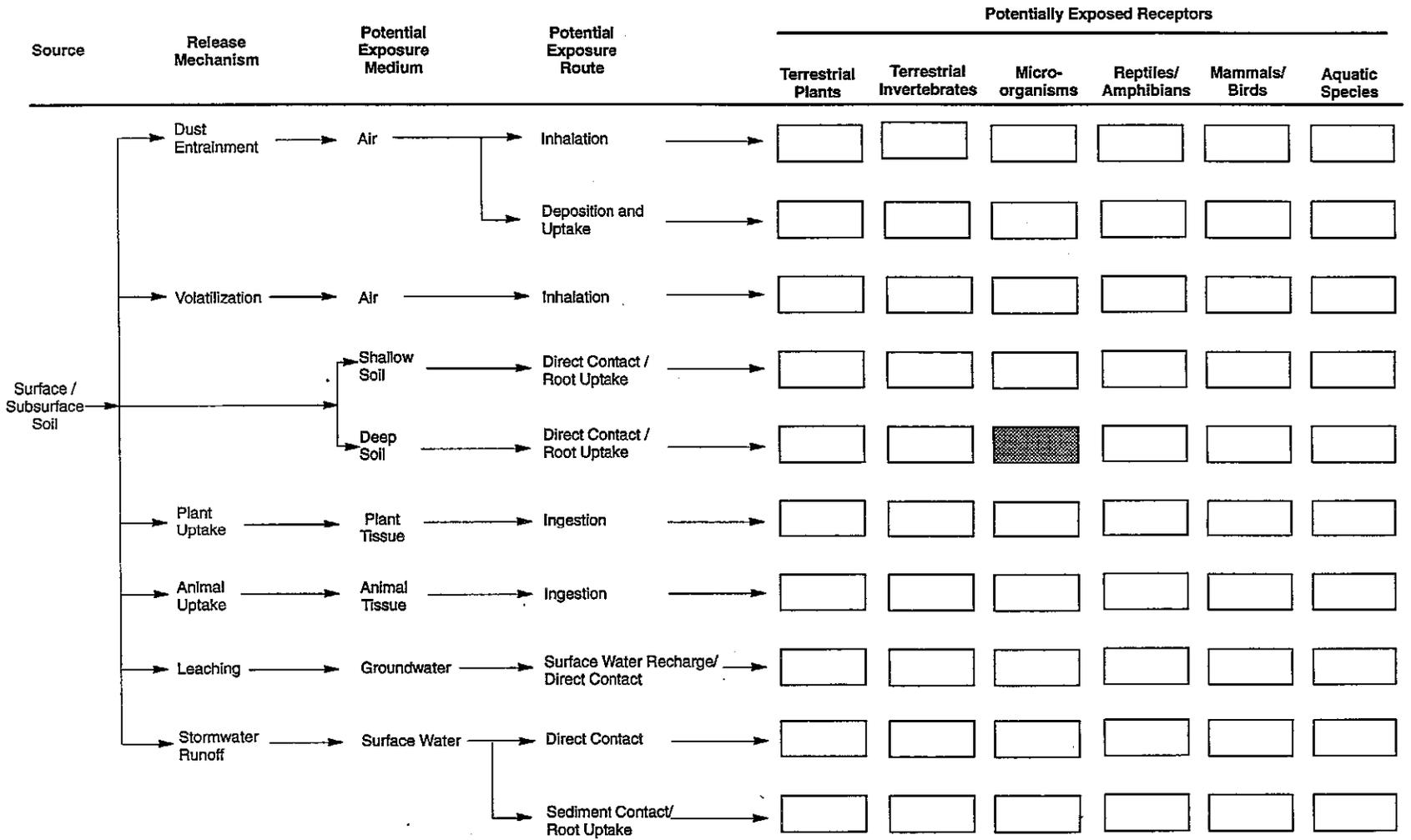
Harding Lawson Associates
Engineering and
Environmental Services

Volume IV - Ecological Risk
Assessment - Basewide RI/FS
Fort Ord, California

PRELIMINARY EXPOSURE
ANALYSIS - SITE 30

DRAWING
3.22

NO.	DATE	REVISIONS	FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
1	08/09/04	DRAFT		23396 041714	MJS	11/30	AG
2	12/04	DRAFT/FINAL		23396 041724			



EXPLANATION

Pathway not considered to be complete

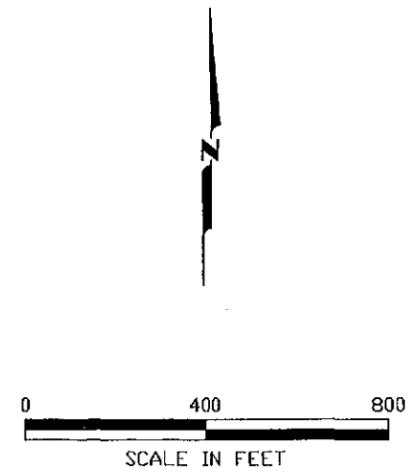
Pathway is or might be complete; however pathway is judged to be minor on the basis of available information



EXPLANATION

- SB-34-05 SOIL BORING LOCATION
- SG-34-01 SOIL GAS PROBE LOCATION
- F-01A SOIL BORING LOCATION (Rogers E. Johnson)

- FULLY DEVELOPED
- UPLAND RUDERAL
- COAST LIVE OAK WOODLAND
- CENTRAL MARITIME CHAPARRAL
- LANDSCAPED



23366310 400
19941010748

NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates Engineering and Environmental Services	Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California	Plant Communities and Sampling Locations Site 34 - FAAF Fueling Facility	PLATE:
1	7/10/94	DRAFT	23366310	23366 041714			AED				
2	12/94	DRAFT FINAL	23366310	23366 041724	<i>ML</i>	11/12/94	PH				3.23



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Volume IV - Ecological Risk
Assessment - Basewide RI/FS
Fort Ord, California

PRELIMINARY EXPOSURE
ANALYSIS - SITE 34

DRAWING

3.24

NO.	DATE	REVISIONS	HA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
1	08/09/04	DRAFT		23366 041714	MCS	11/20	AG
2	12/94	DRAFT FINAL		23366 041724			

Source	Release Mechanism	Potential Exposure Medium	Potential Exposure Route	Potentially Exposed Receptors					
				Terrestrial Plants	Terrestrial Invertebrates	Micro-organisms	Reptiles/Amphibians	Mammals/Birds	Aquatic Species
Surface / Subsurface Soil	Dust Entrainment	Air	Inhalation						
			Deposition and Uptake						
	Volatilization	Air	Inhalation						
		Shallow Soil	Direct Contact / Root Uptake						
			Deep Soil	Direct Contact / Root Uptake					
	Plant Uptake	Plant Tissue	Ingestion						
	Animal Uptake	Animal Tissue	Ingestion						
	Leaching	Groundwater	Surface Water Recharge / Direct Contact						
	Stormwater Runoff	Surface Water	Direct Contact						
Sediment Contact / Root Uptake									

EXPLANATION

 Pathway not considered to be complete

 Pathway is or might be complete; however pathway is judged to be minor on the basis of available information

NO.		DATE		REVISIONS	H.I.A. FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
1	08/08/94	DRAFT							
2	12/84	DRAFT FINAL				23389 041714 23389 041724	MCS	11/3	AG



Harding Lawson Associates
Engineering and Environmental Services

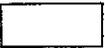
Volume IV - Ecological Risk Assessment - Basewide RI/FS Fort Ord, California

PRELIMINARY EXPOSURE ANALYSIS - SITE 36

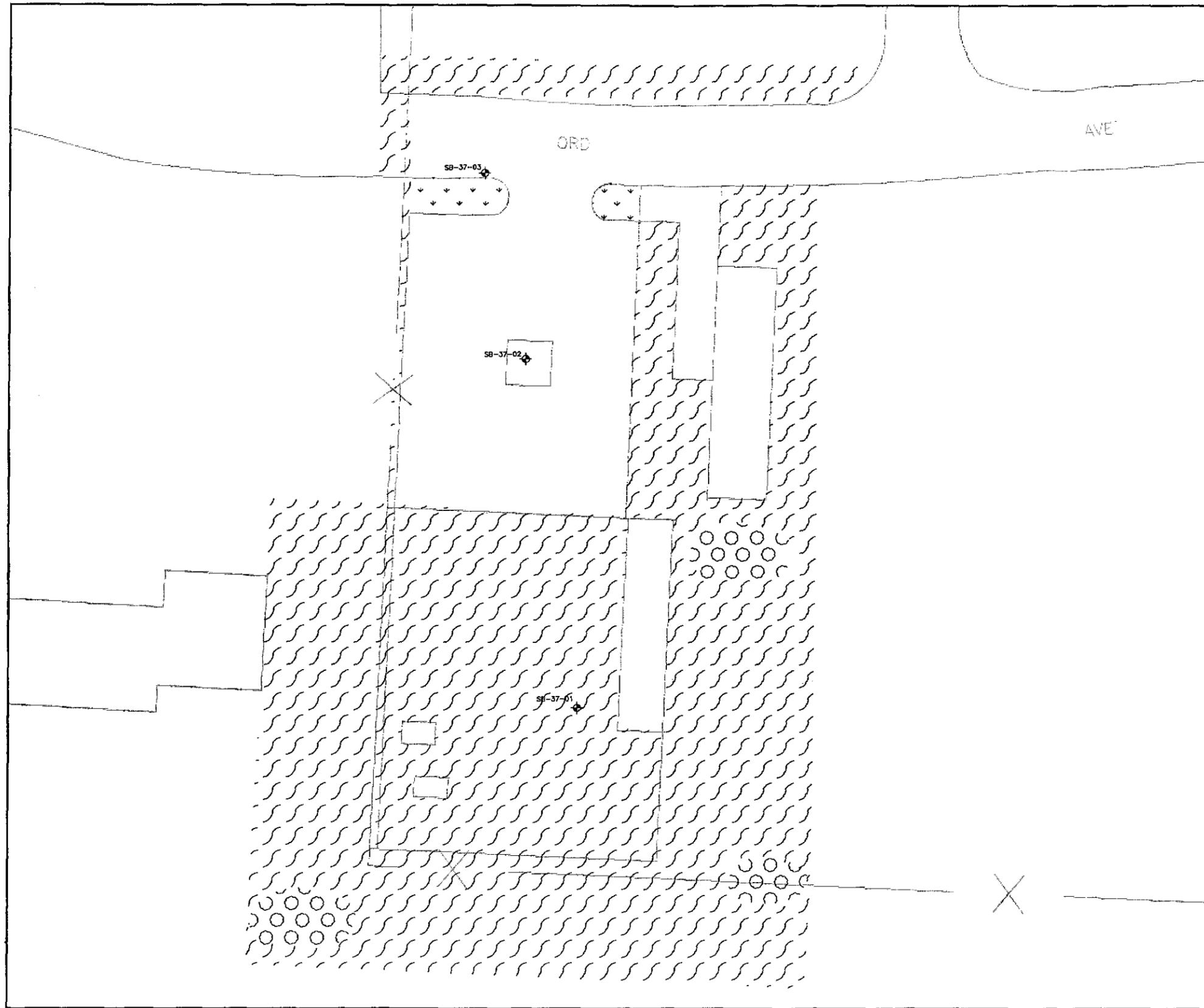
3.26

Source	Release Mechanism	Potential Exposure Medium	Potential Exposure Route	Potentially Exposed Receptors					
				Terrestrial Plants	Terrestrial Invertebrates	Micro-organisms	Reptiles/Amphibians	Mammals/Birds	Aquatic Species
Surface / Subsurface Soil	Dust Entrainment	Air	Inhalation						
			Deposition and Uptake						
	Volatilization	Air	Inhalation						
			Shallow Soil	Direct Contact / Root Uptake	■	■	■		■
	Deep Soil	Direct Contact / Root Uptake	■		■				
		Plant Uptake	Plant Tissue	Ingestion					■
	Animal Uptake	Animal Tissue	Ingestion					■	
	Leaching	Groundwater	Surface Water Recharge/ Direct Contact						
	Stormwater Runoff	Surface Water	Direct Contact						
			Sediment Contact/ Root Uptake						

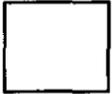
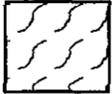
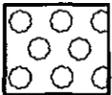
EXPLANATION

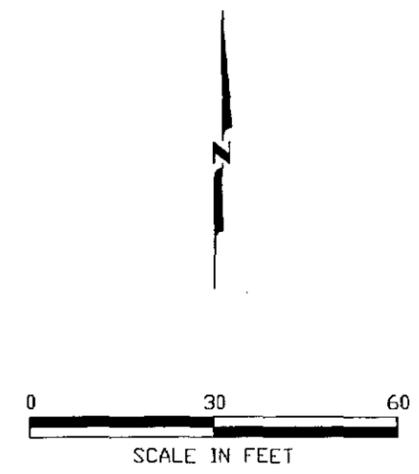
 Pathway not considered to be complete

 Pathway is or might be complete; however pathway is judged to be minor on the basis of available information



EXPLANATION

- SB-37-01  SOIL BORING LOCATION
-  FULLY DEVELOPED
-  UPLAND RUDERAL
-  LANDSCAPED
-  COAST LIVE OAK WOODLAND



23366312 30
19941010755

NO.	DATE	REVISIONS	H/A FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY					
1	7/11/94	DRAFT	23366312	23366 041714			PH	 Harding Lawson Associates Engineering and Environmental Services	Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California	Plant Communities and Sampling Locations Site 37 - Trailer Park Maintenance Shop	PLATE: 3.27	
2	12/94	DRAFT FINAL	23366312	23366 041724	MCS	11/12/94	PH					



Harding Lawson Associates
Engineering and
Environmental Services

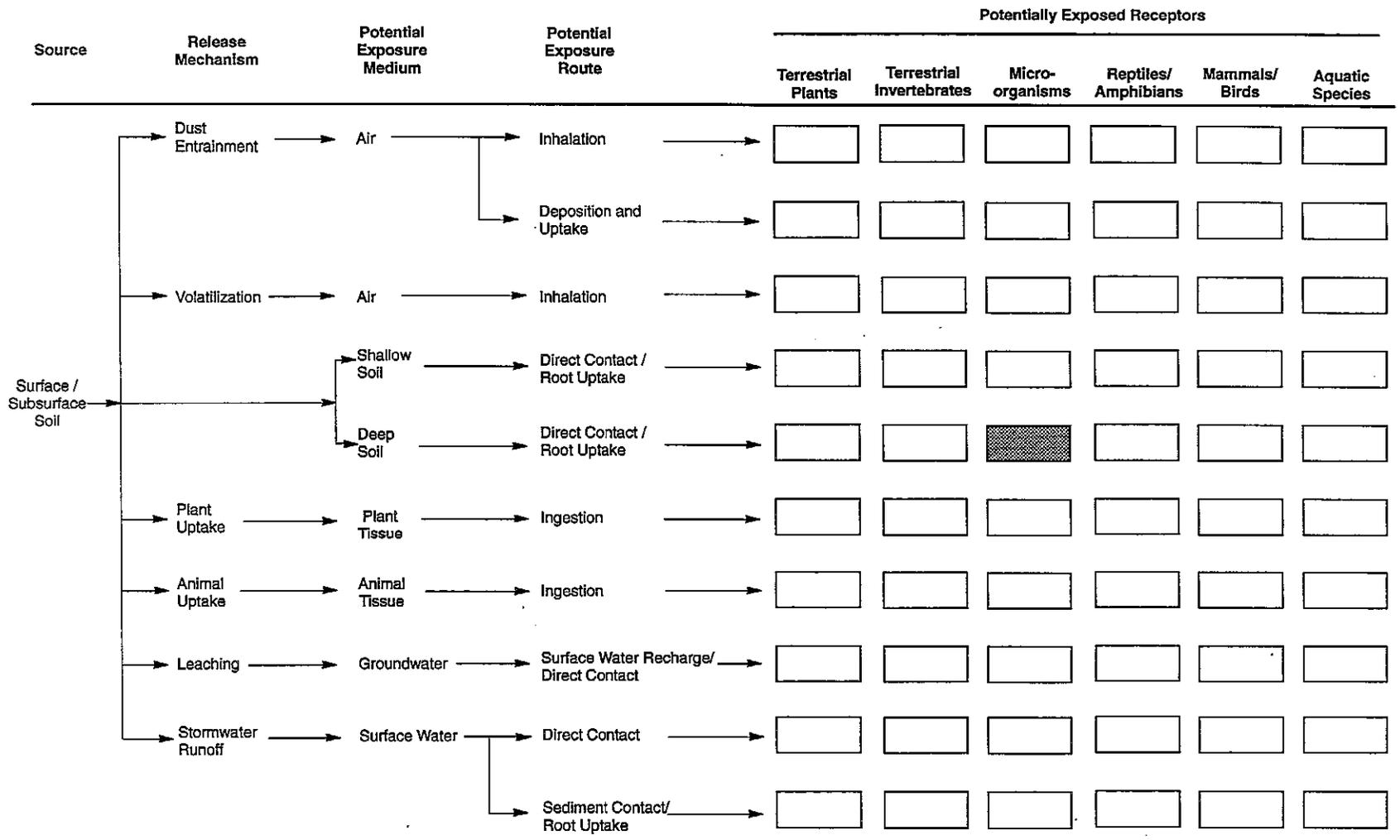
Volume IV - Ecological Risk
Assessment - Basewide RI/FS
Fort Ord, California

PRELIMINARY EXPOSURE
ANALYSIS - SITE 37

3.28

DRAWING

NO.	DATE	REVISIONS	H/A FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
1	06/09/94	DRAFT		23369 041714	<i>MSJ</i>	1/1/94	AG
2	12/94	DRAFT FINAL		23369 041724			



EXPLANATION

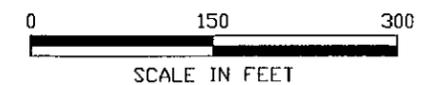
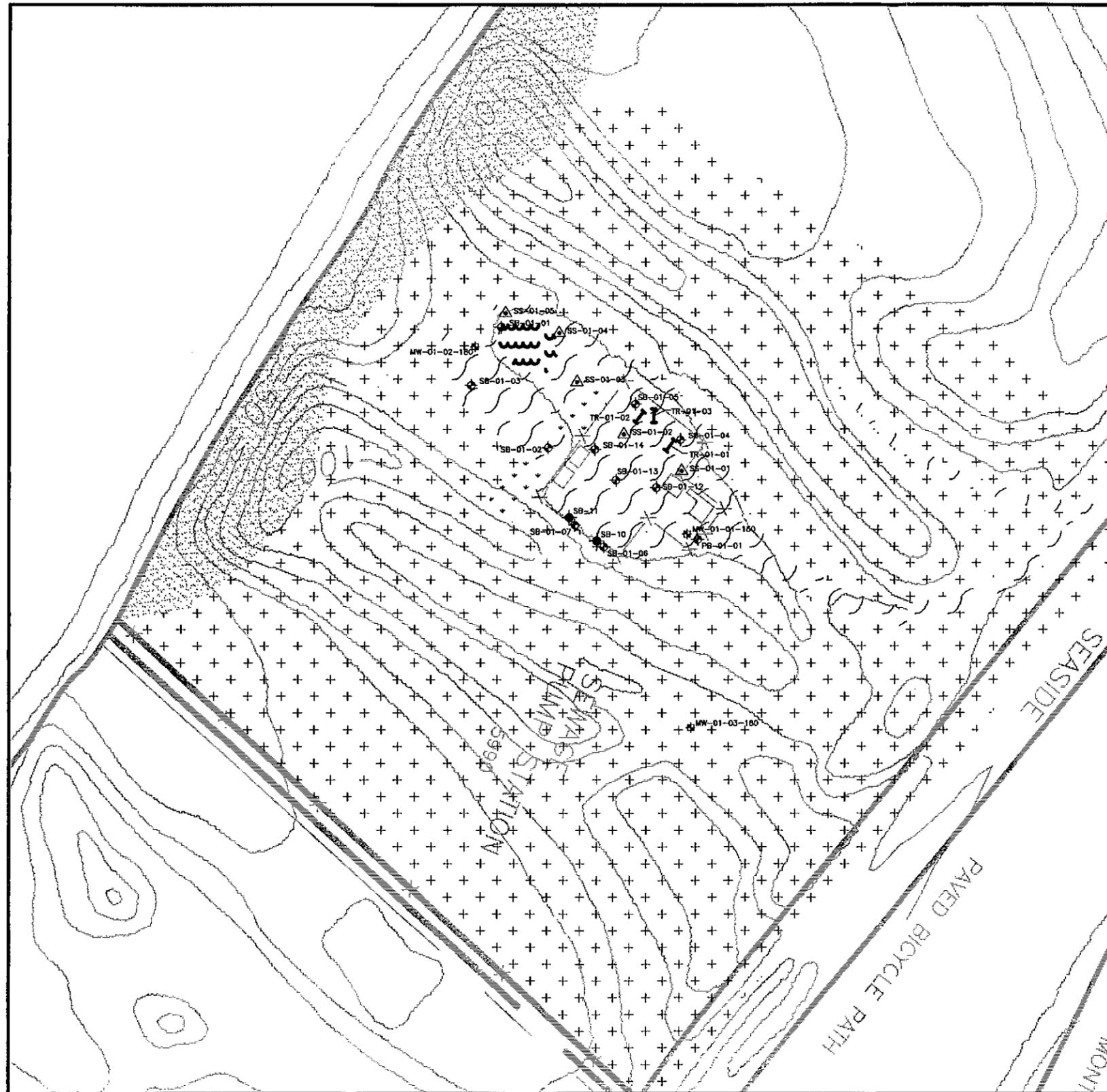
Pathway not considered to be complete

Pathway is or might be complete; however pathway is judged to be minor on the basis of available information

EXPLANATION

- SB-01-05 SOIL BORING LOCATION
- MW-01-02-180 MONITORING WELL (HLA)
- SB-10 SOIL BORING (JMM)
- TR-01-01 MONITORING WELL (JMM)
- SS-01-01 SURFACE SOIL SAMPLE (HLA)

- FULLY DEVELOPED/NOT SURVEYED
- UPLAND RUDERAL
- WET RUDERAL
- LANDSCAPED
- AREA OF ACTIVE DUNE
- VEGETATIVELY STABILIZED DUNE



23366607 15
199410251102

NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
1	7/10/94	DRAFT	23366283	23366 041714			AED
2	12/94	DRAFT FINAL	23366283	23366 041724	MES	11/17/94	PH

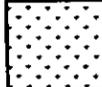
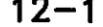
HLA Harding Lawson Associates
Engineering and Environmental Services

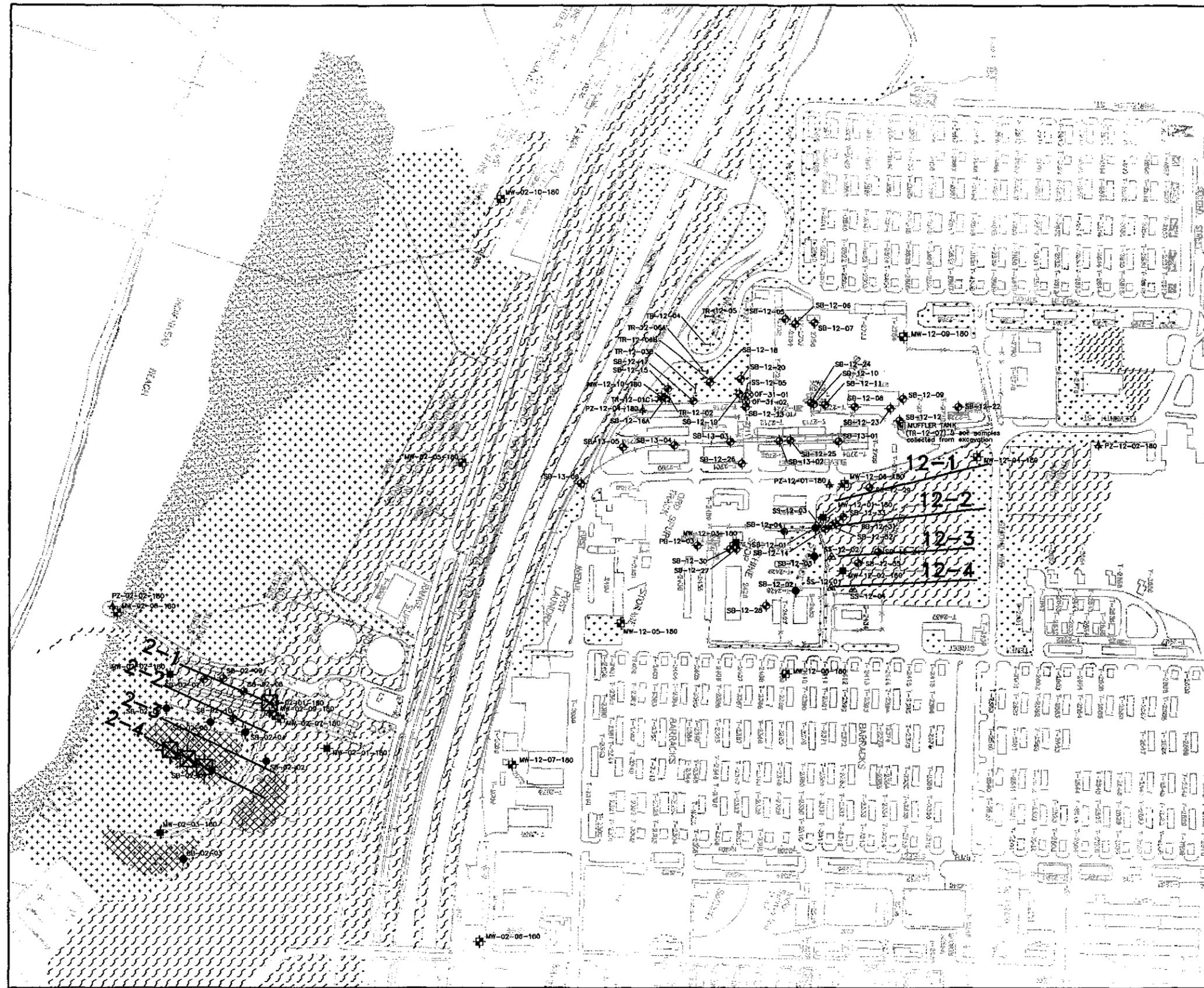
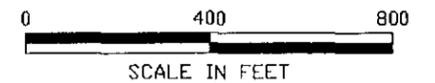
Volume IV - Ecological Risk Assessment
Basewide RI/FS
Fort Ord, California

Plant Communities and Sampling Locations
Site 1 Ord Village
Sewage Treatment Plant

PLATE:
4.1

EXPLANATION

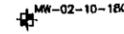
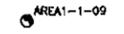
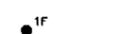
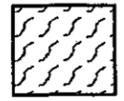
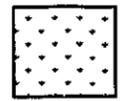
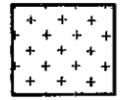
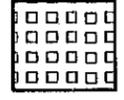
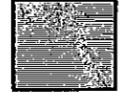
- MW-12-04-180  MONITORING WELL (HLA)
- MW-12-01-180  MONITORING WELL (JMM)
- SB-12-07  SOIL BORING (HLA)
- SB-12-03  SOIL BORING (JMM)
- PZ-12-02-180  PIEZOMETER NEST
- OF-31-01  SURFACE WATER OUTFALL
- SS-12-02  SURFACE SOIL SAMPLE (HLA)
- TR-12-01C  TRENCH LOCATION
- MUFFLER TANK  UNDERGROUND MUFFLER
-  RODENT COLLECTION
-  FULLY DEVELOPED/NOT SURVEYED
-  UPLAND RUDERAL
-  LANDSCAPED
-  AREA OF ACTIVE DUNE
-  VEGETATIVELY STABILIZED DUNE
-  DRY IMPOUNDMENTS
- 12-1**  BIOTA TRANSECT (OATS, ICEPLANT, SOIL, RODENT)

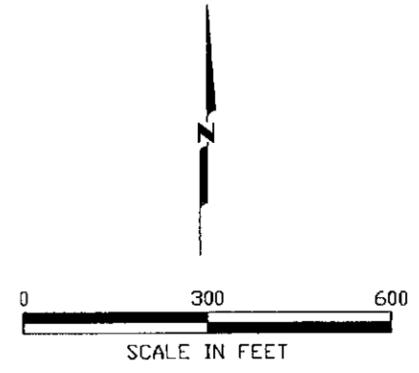
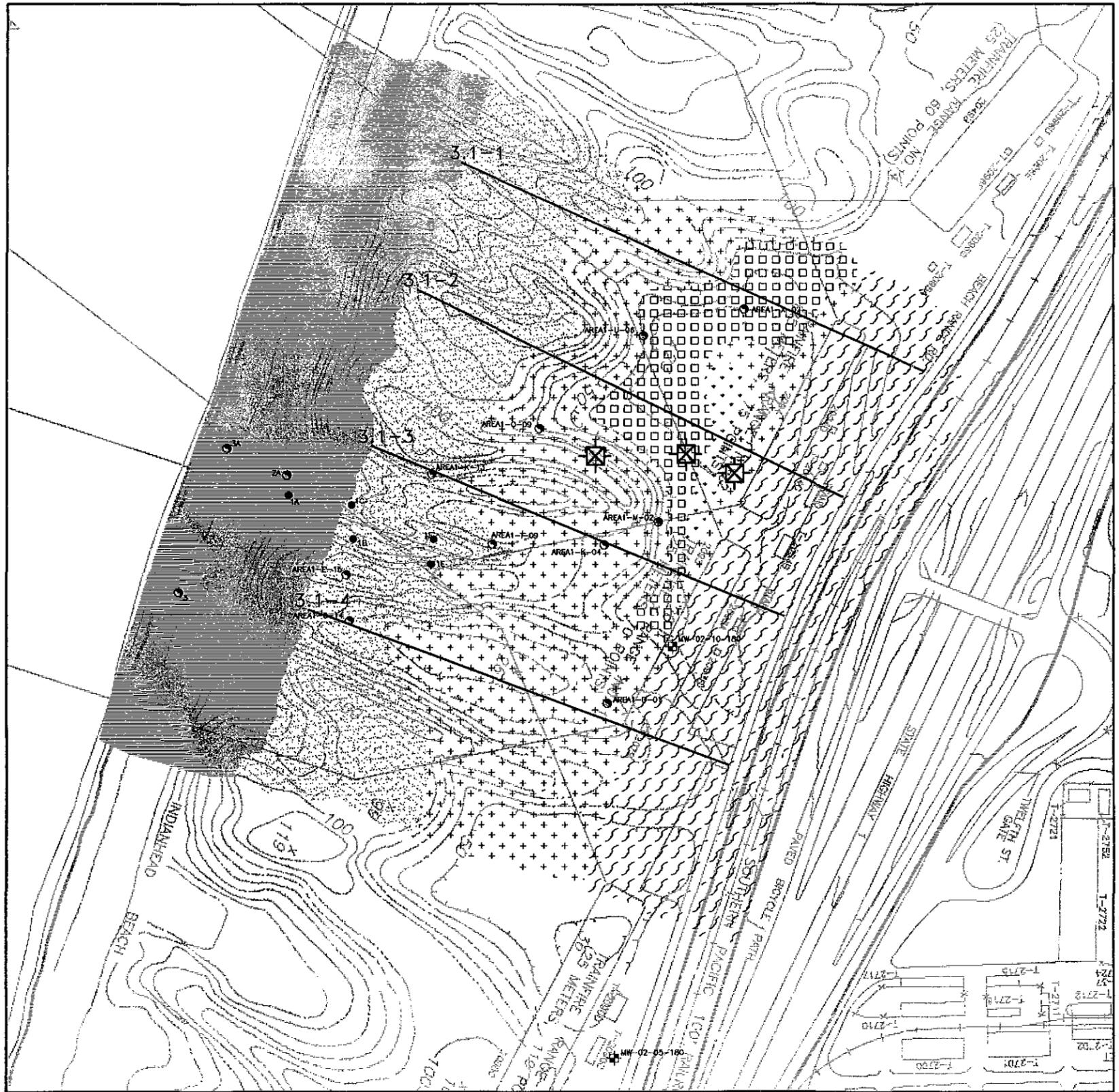


23366284 400L
199410251352

NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	 Harding Lawson Associates Engineering and Environmental Services	Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California	Plant Communities and Sampling Locations Sites 2 and 12	PLATE:
1	7/10/94	DRAFT	23366284	23366 041714			AED				
2	12/94	DRAFT FINAL	23366284	23366 041724	MES	11/12/04	PH				

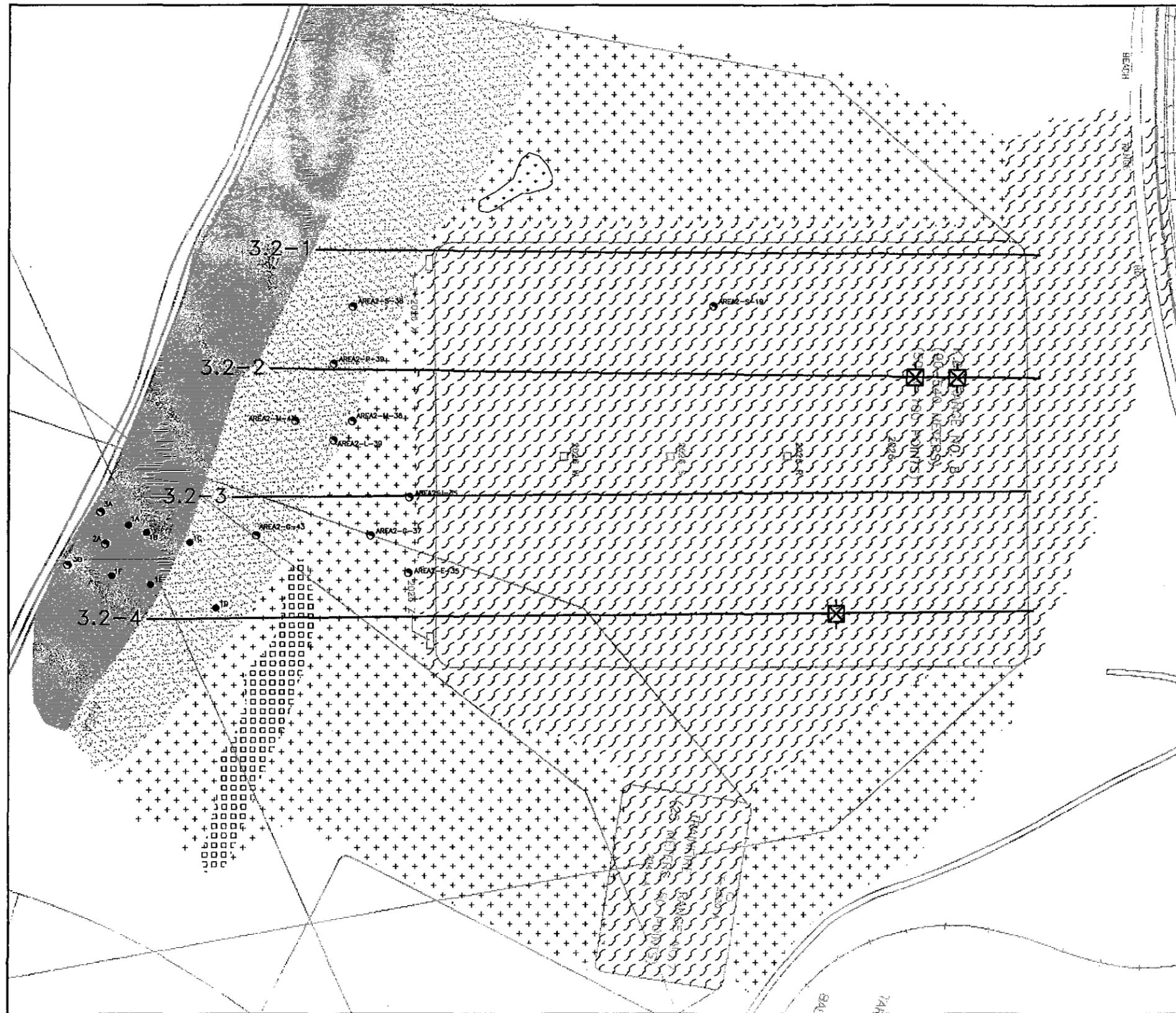
EXPLANATION

-  MONITORING WELL (HLA)
-  TEST PIT LOCATION
-  BULLET WEIGHT PERCENT CONFIRMATION SAMPLING LOCATION
-  RODENT COLLECTION
-  FULLY DEVELOPED/NOT SURVEYED
-  UPLAND RUDERAL
-  LANDSCAPED
-  AREA OF ACTIVE DUNE
-  VEGETATIVELY STABILIZED DUNE
-  CENTRAL COASTAL SCRUB
-  BEACH
-  3.1-1 BIOTA SAMPLING TRANSECT (ICEPLANT, SOIL, RODENT)



23366285 3' 19941025.1401

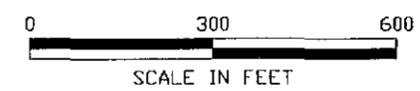
NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY			
1	7/12/94	DRAFT	23366285	23366 041714			AED		Harding Lawson Associates Engineering and Environmental Services	Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California
2	12/94	DRAFT FINAL	23366285	23366 041724	MES	11/17/94	PH			



EXPLANATION

- AREA2-M-11 TEST PIT LOCATION
- 1A BULLET WEIGHT PERCENT CONFIRMATION SAMPLING LOCATION
- ⊠ RODENT COLLECTION
- FULLY DEVELOPED/NOT SURVEYED
- ▨ UPLAND RUDERAL
- ▩ LANDSCAPED
- ▧ AREA OF ACTIVE DUNE
- ▦ VEGETATIVELY STABILIZED DUNE
- ▤ CENTRAL COASTAL SCRUB
- ▣ BEACH

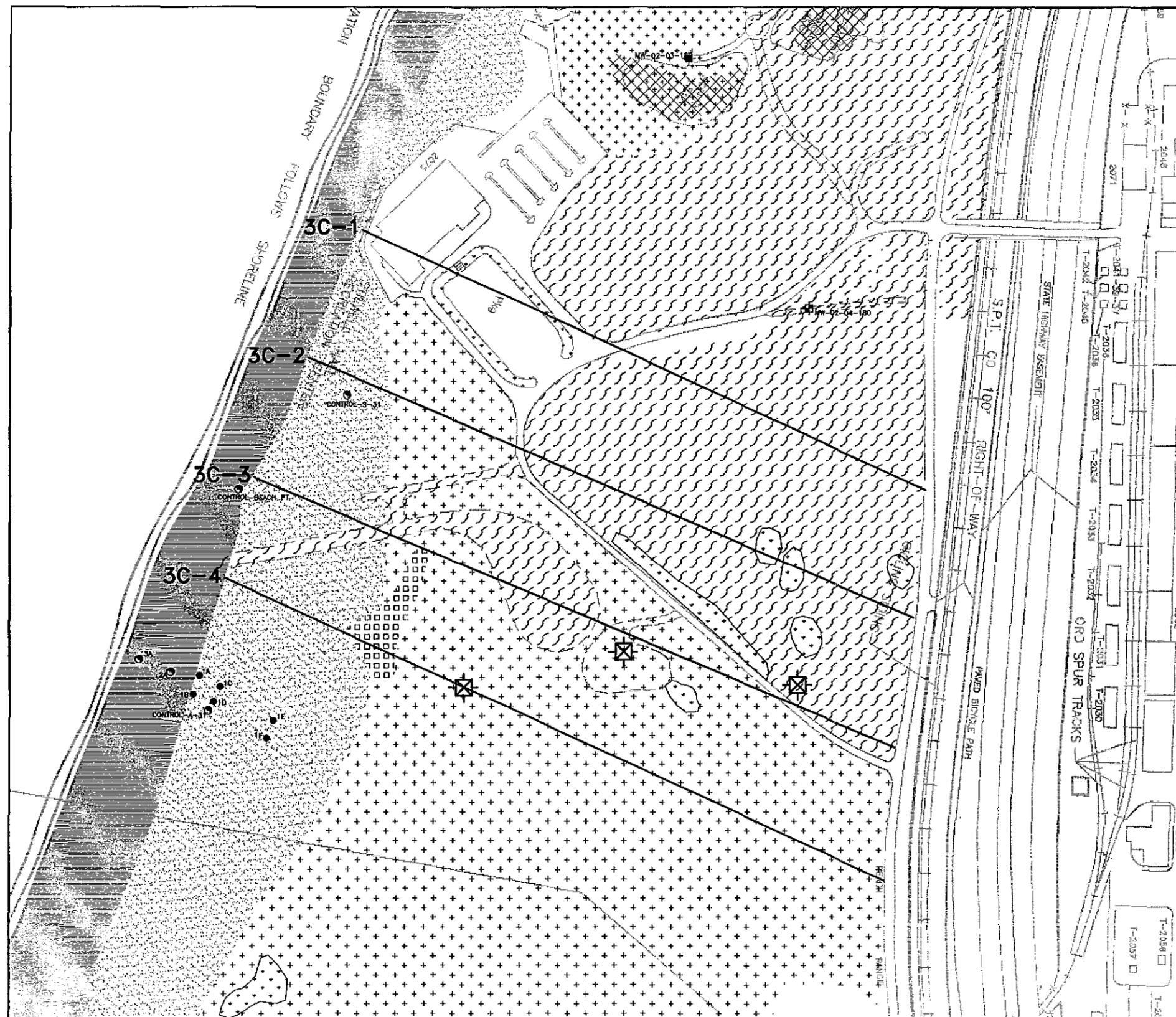
3.2-1 — BIOTA SAMPLING TRANSECT (ICEPLANT, SOIL, RODENT)

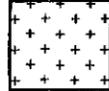


23366286, 31
19941025.1413

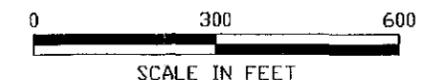
NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates		Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California	Plant Communities and Sampling Locations Site 3 - Area 2	PLATE: 4.4
1	7/08/94	DRAFT	23366286	23366 041714			AED	Engineering and Environmental Services				
2	12/94	DRAFT FINAL	23366286	23366 041724	MEJ	11/2/99	PH					

EXPLANATION



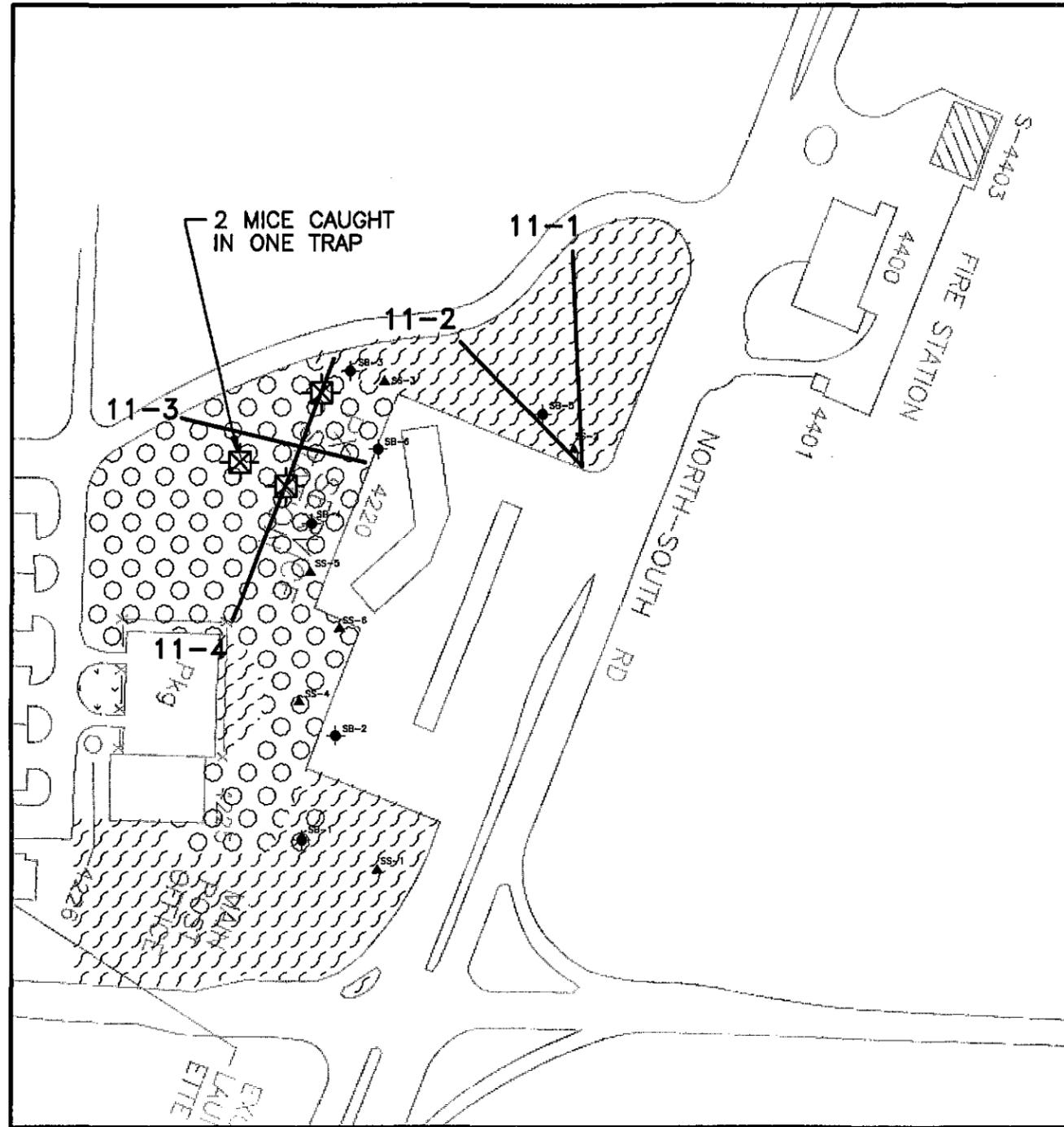
-  CONTROL-S-31 TEST PIT LOCATION
-  1A BULLET WEIGHT PERCENT CONFIRMATION SAMPLING LOCATION
-  RODENT COLLECTION
-  FULLY DEVELOPED/NOT SURVEYED
-  UPLAND RUDERAL
-  LANDSCAPED
-  AREA OF ACTIVE DUNE
-  VEGETATIVELY STABILIZED DUNE
-  CENTRAL COASTAL SCRUB
-  BEACH
-  DRY IMPOUNDMENTS

3C-1 — BIOTA SAMPLING TRANSECT (ICEPLANT, SOIL, RODENT)



23366287_30
19941025:1419

NO.	DATE	REVISIONS	HIA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates		Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California	Plant Communities and Sampling Locations Site 3 - Control Area	PLATE: 4.5
1	7/08/94	DRAFT	23366287	23366 041714			AED	Engineering and Environmental Services				
2	12/94	DRAFT FINAL	23366287	23366 041724	MCS	11/12/04	PH					

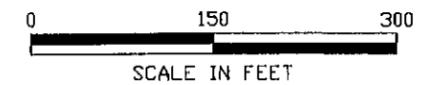


EXPLANATION

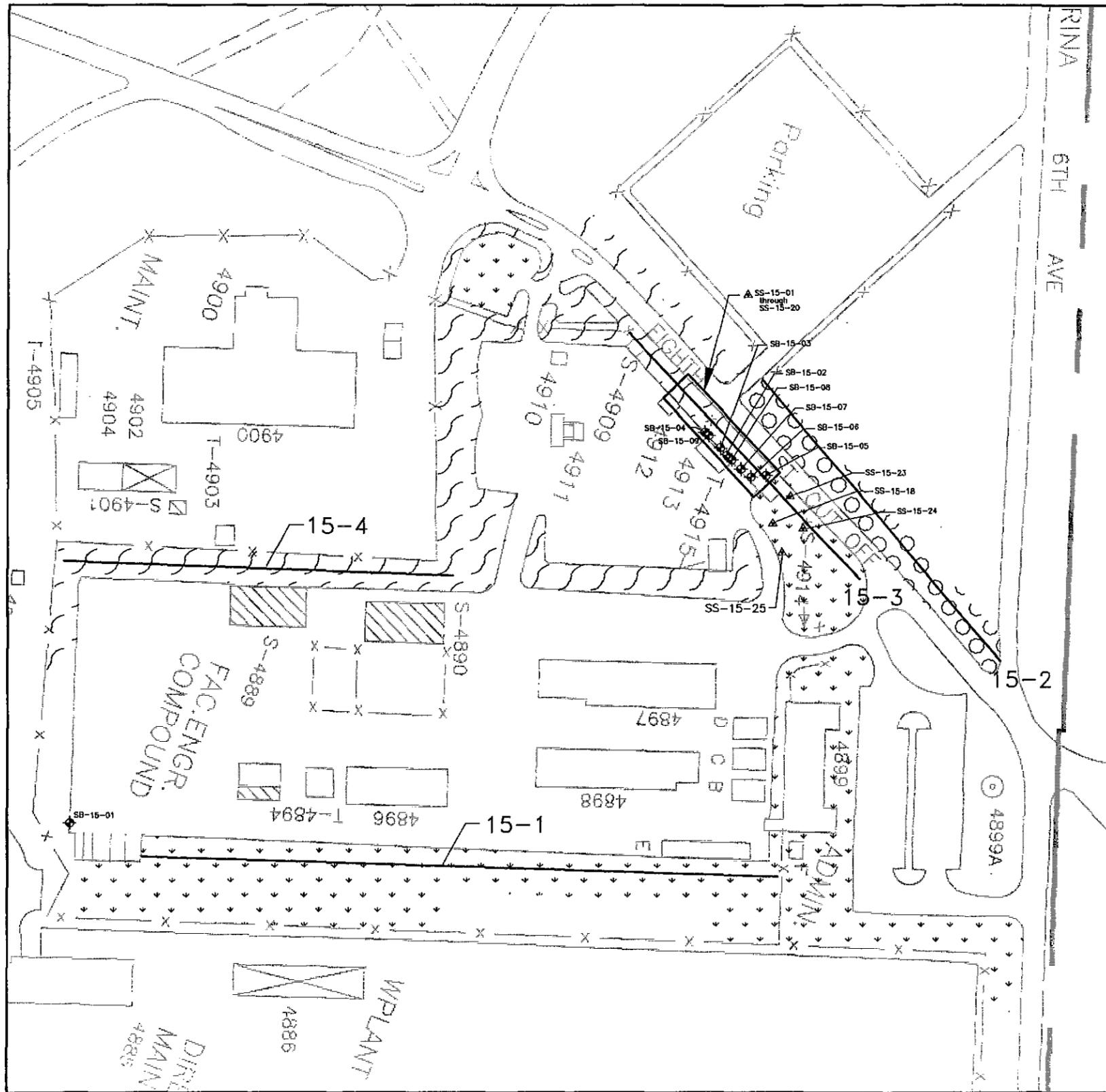
- SS-1 ▲ SURFACE SOIL SAMPLE (JMM)
- SB-1 ◆ SOIL BORING (JMM)
- ⊠ RODENT COLLECTION

- FULLY DEVELOPED/NOT SURVEYED
- UPLAND RUDERAL
- LANDSCAPED
- COAST LIVE OAK WOODLAND

11-1 — BIOTA SAMPLING TRANSECT (OATS/ICEPLANT, SOIL, RODENT)



NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates Engineering and Environmental Services	Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California	Plant Communities and Sampling Locations Site 11 - AAFES Fueling Facility	PLATE 4.6
1	7/08/94	DRAFT	23366289	23366 041714			AED				
2	12/94	DRAFT FINAL	23366289	23366 041724	MCS	11/12/99	PH				

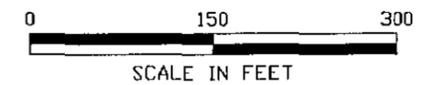


EXPLANATION

- SB-15-01 SOIL BORING LOCATION
- SS-15-23 SURFACE SAMPLING LOCATION

- FULLY DEVELOPED/NOT SURVEYED
- UPLAND RUDERAL
- LANDSCAPED
- COAST LIVE OAK WOODLAND

15-1 BIOTA SAMPLING TRANSECT (OAT/ICEPLANT, SOIL)



23366292 11/1994 10/26/94

NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates Engineering and Environmental Services	Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California	Plant Communities and Sampling Locations Site 15 - DEH Yard	PLATE: 4.7
1	7/14/94	DRAFT	23366292	23366 041714			AED				
2	12/94	DRAFT FINAL	23366292	23366 041724	MS	11/17/94	PH				

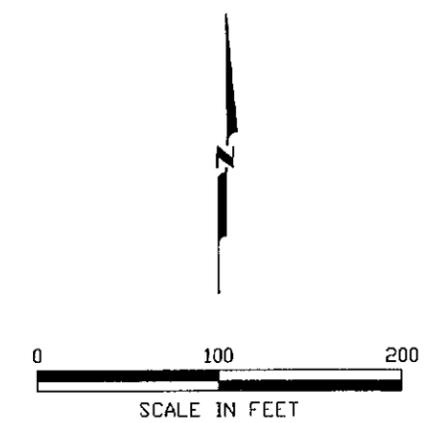


EXPLANATION

- SB-16-12 SOIL BORING LOCATION
- MW-16-01-A MONITORING WELL (HLA)
- TR-16-07 TRENCH LOCATION
- SS-16-01 SURFACE SOIL SAMPLE (HLA)

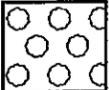
- FULLY DEVELOPED/NOT SURVEYED
- UPLAND RUDERAL
- WET RUDERAL
- CENTRAL MARITIME CHAPARRAL
- LANDSCAPED

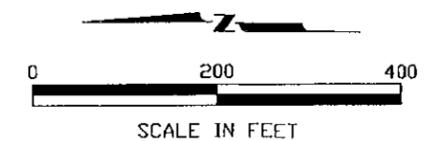
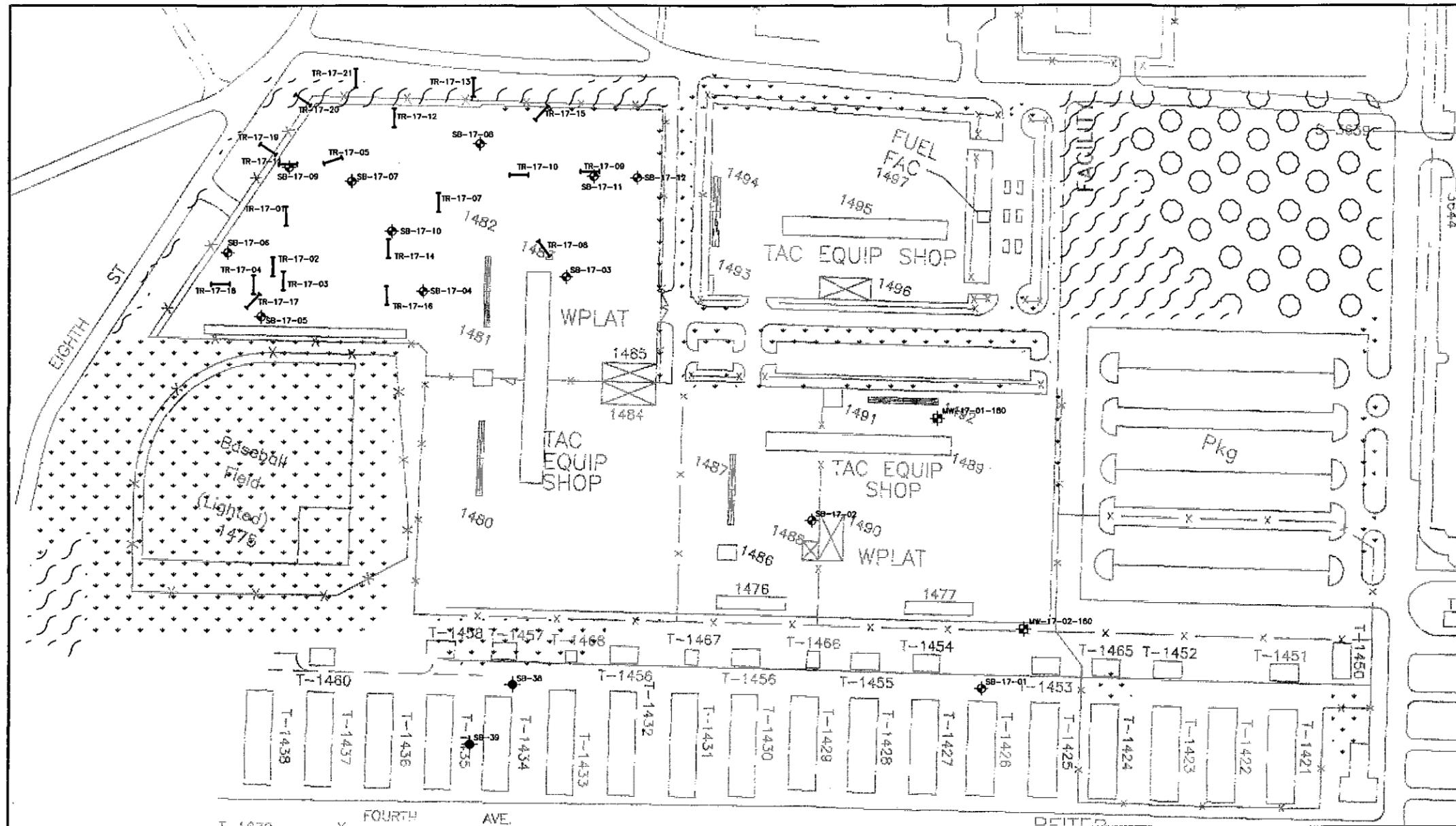
16-1 BIOTA SAMPLING TRANSECT
(OAT/ICEPLANT, SOIL, RODENT, LITTER)
(No soil collected from transects 16-3, 16-6, or 16-8)



NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates Engineering and Environmental Services	Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California	Plant Communities and Sampling Locations Site 16 - Pete's Pond and DOL Maintenance Yard	PLATE: 4.8
1	7/12/94	DRAFT	23366293	23366 041714			AED				
2	12/94	DRAFT FINAL	23366293	23366 041724	MLJ	11/13/94	PH				

EXPLANATION

- SB-17-01 ◆ SOIL BORING LOCATION
- MW-17-01-180 ◆ MONITORING WELL (HLA)
- TR-17-10 — TRENCH LOCATION
- SB-38 ◆ SOIL BORING (JMM)
-  FULLY DEVELOPED/NOT SURVEYED
-  UPLAND RUDERAL
-  LANDSCAPED
-  COAST LIVE OAK WOODLAND



NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates		Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California	Plant Communities and Sampling Locations Site 17 - 1400 Block Motor Pool and Disposal Area	PLATE: 4.9
1	7/10/94	DRAFT	23366294	23366 041714			AED	Engineering and Environmental Services				
2	12/94	DRAFT FINAL	23366294	23366 041724	UES	11/17/94	PH					

0910117661
 16899682

EXPLANATION

SB-21-01 ◆ SOIL BORING LOCATION

SS-21-01 ▲ SURFACE SAMPLING LOCATIONS

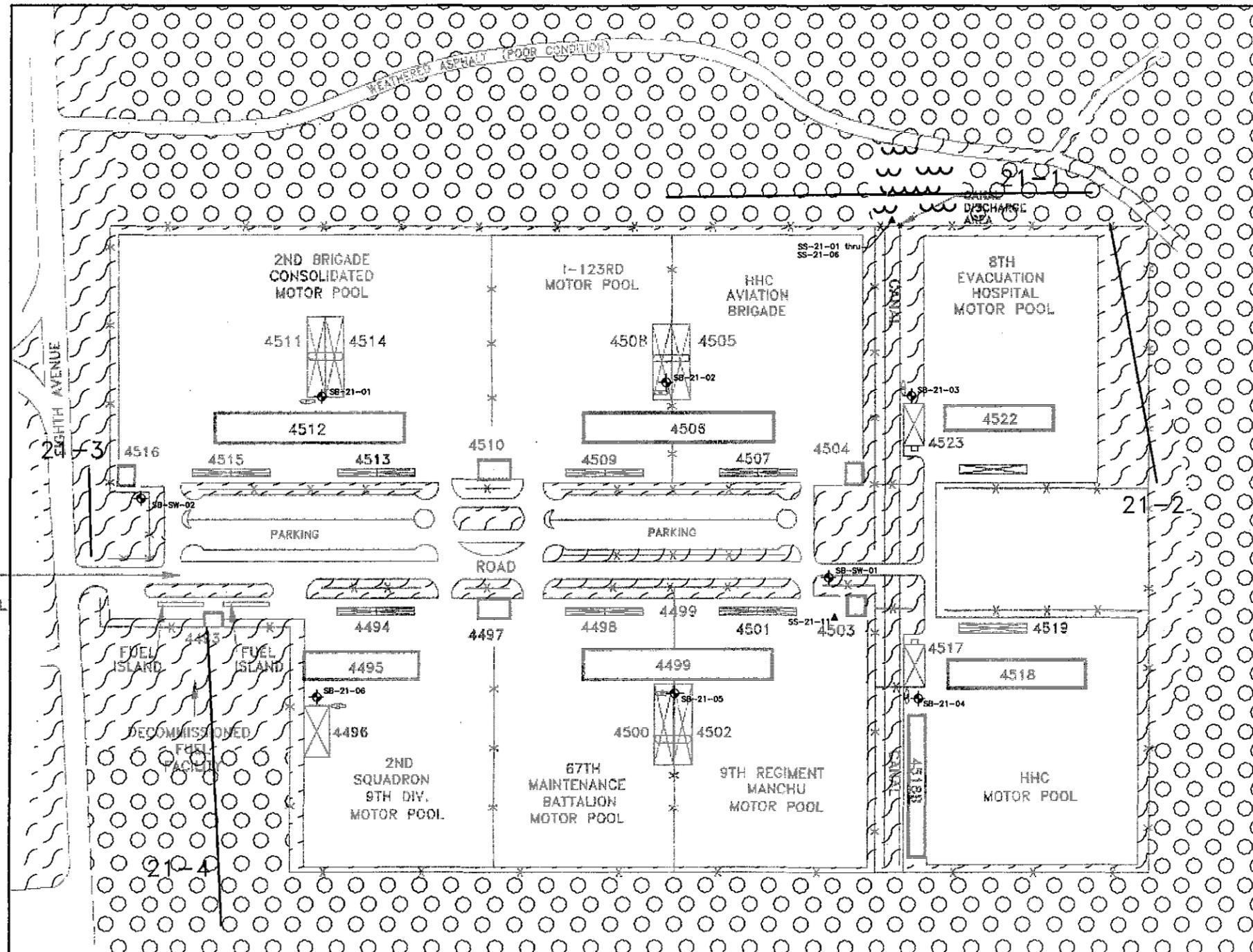
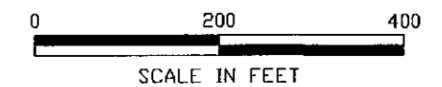
□ FULLY DEVELOPED/NOT SURVEYED

▨ UPLAND RUDERAL

▨ WET RUDERAL

○ COAST LIVE OAK WOODLAND

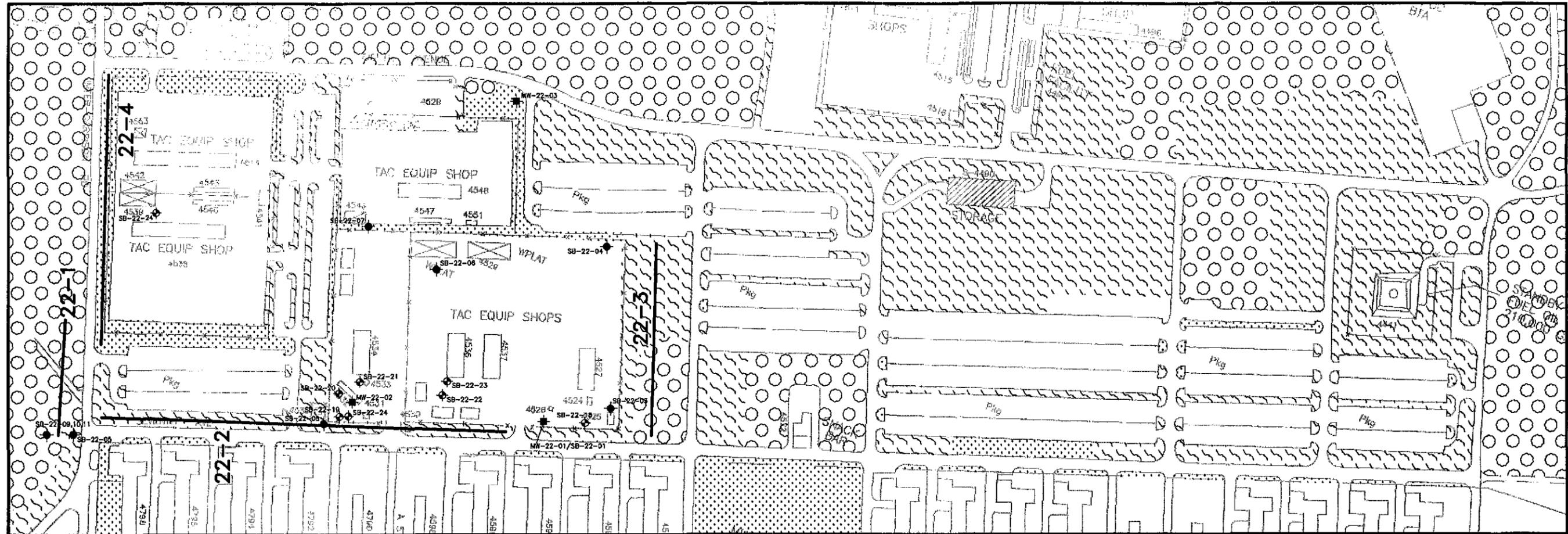
21-1 — BIOTA SAMPLING TRANSECT (OAT/ICEPLANT, SOIL)



APPROXIMATE AREA OF GASOLINE SPILL

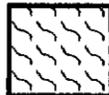
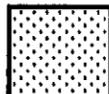
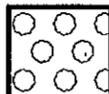
NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates		Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California	Plant Communities and Sampling Locations Site 21 - 4400/4500 Motor Pool, East Block	PLATE: 4.10
1	7/12/94	DRAFT	23366298	23366 041714			AED	Engineering and Environmental Services				
2	12/94	DRAFT FINAL	23366298	23366 041724	MEJ	11/19/94	PH					

23366298.dwg 8/25/94

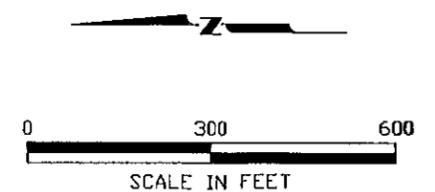


EXPLANATION

- SB-22-01 ◆ SOIL BORING LOCATION
- SB-22-03 ◆ SOIL BORING (EA)
- MW-22-02 ◆ MONITORING WELL (EA)

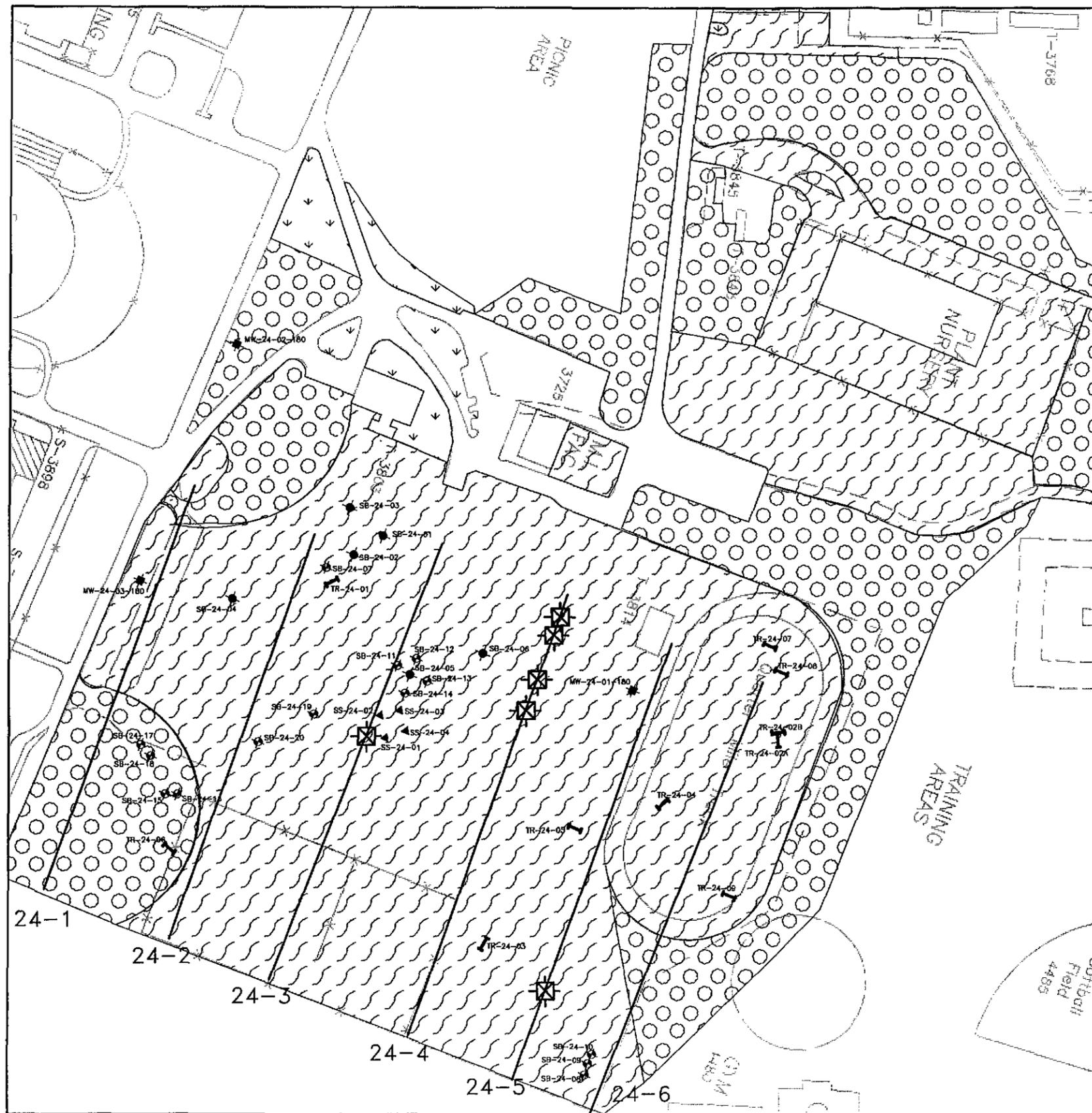
-  FULLY DEVELOPED
-  UPLAND RUDERAL
-  LANDSCAPED
-  COAST LIVE OAK WOODLAND

22-1 ——— BIOTA SAMPLING TRANSECT (OAT/ICEPLANT, SOIL)



23366299 300.0
199-41026.0803

NO.	DATE	REVISIONS	H/A FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates		Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California	Plant Communities and Sampling Locations Site 22 - 4400/4500 Motor Pool, West Block	PLATE: 4.11
1	7/08/94	DRAFT	23366299	23366 041714			AED		Engineering and Environmental Services			
2	12/94	DRAFT FINAL	23366299	23366 041724	MCS	11/12/94	PH					

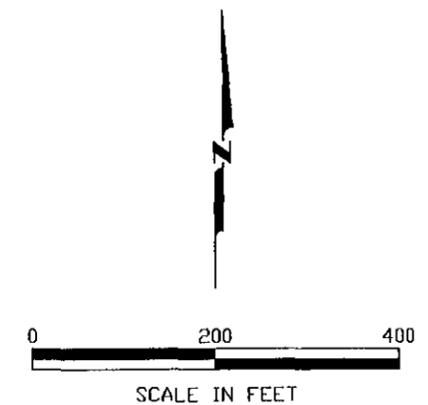


EXPLANATION

- SB-24-07 SOIL BORING LOCATION
- SB-24-04 SOIL BORING (JMM)
- MW-24-03-180 MONITORING WELL (JMM)
- SS-24-01 SOIL GAS SAMPLE (HLA)
- RODENT COLLECTION

- FULLY DEVELOPED
- UPLAND RUDERAL
- LANDSCAPED
- COAST LIVE OAK WOODLAND

24-1 BIOTA SAMPLING TRANSECT
(OAT/ICEPLANT, SOIL, RODENT, LITTER)



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19941026.0817

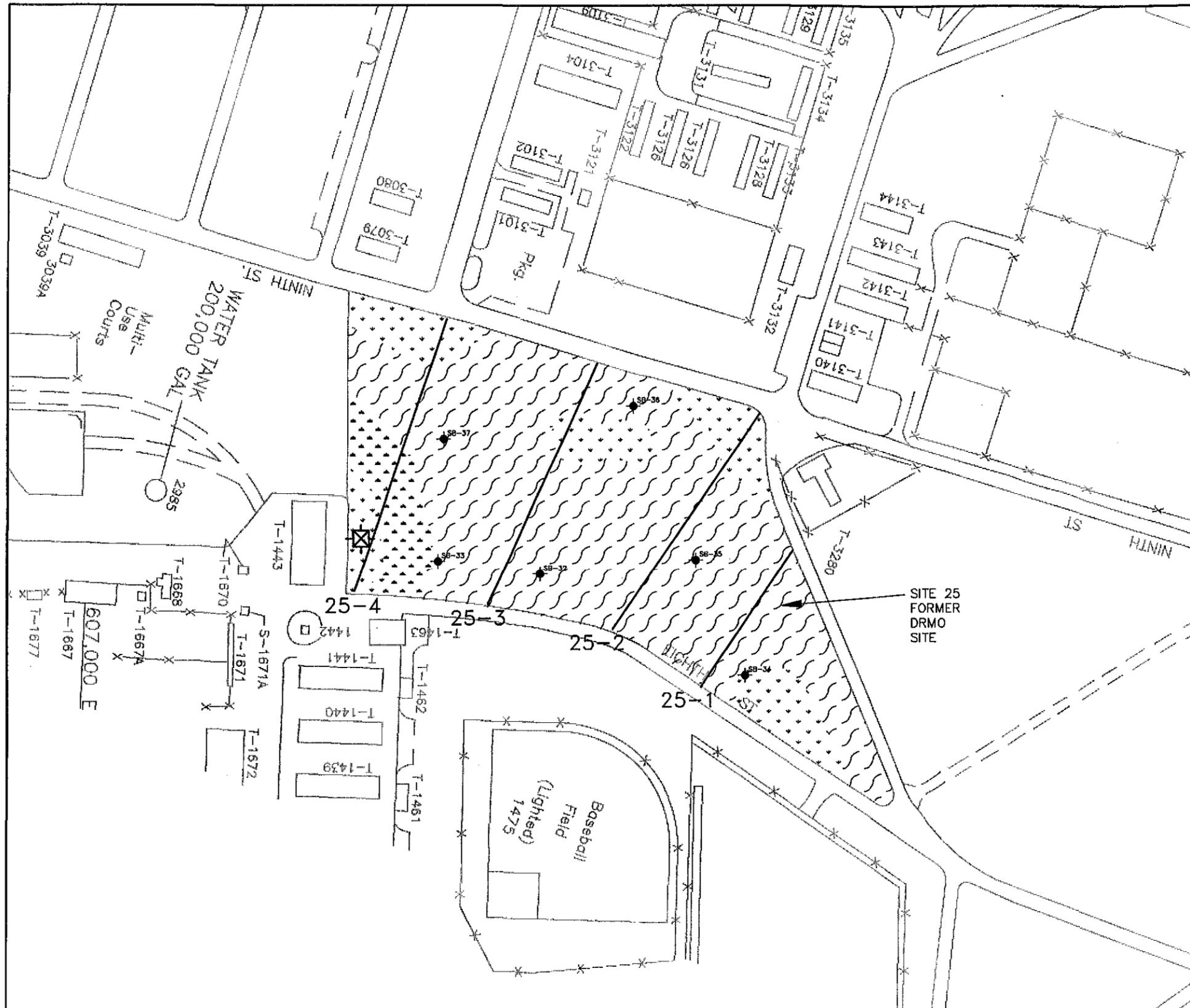
NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
1	7/12/94	DRAFT	23366301	23366 041714			AED
2	12/94	DRAFT FINAL	23366301	23366 041724	MES	11/19/94	PH

Harding Lawson Associates
Engineering and Environmental Services

Volume IV - Ecological Risk Assessment
Basewide RI/FS
Fort Ord, California

Plant Communities and Sampling Locations
Site 24 - Old DEH Yard

PLATE:
4.12

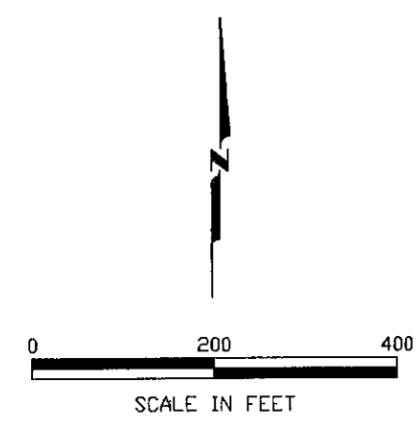


EXPLANATION

- SOIL BORING LOCATION (JMM)
- RODENT COLLECTION

- FULLY DEVELOPED/NOT SURVEYED
- UPLAND RUDERAL
- LANDSCAPED
- CENTRAL MARITIME CHAPARRAL

25-1 BIOTA SAMPLING TRANSECT (OAT/ICEPLANT, SOIL, RODENT, LITTER)



NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	 Harding Lawson Associates Engineering and Environmental Services	Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California	Plant Communities and Sampling Locations Site 25 - Former DRMO	PLATE: 4.13
1	7/12/94	DRAFT	23366302	23366 041714			AED				
2	12/94	DRAFT FINAL	23366302	23366 041724	HLS	11/19/94	PH				



EXPLANATION

SB-29-01 ◆ SOIL BORING LOCATION

◆ RODENT COLLECTION

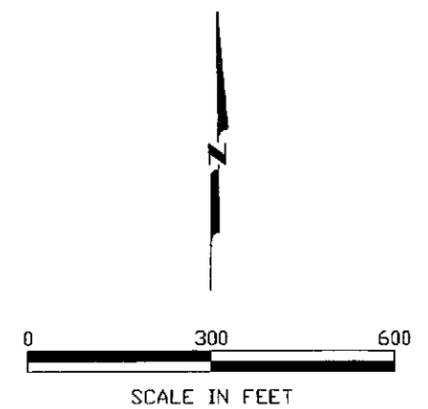
□ FULLY DEVELOPED/NOT SURVEYED

▨ UPLAND RUDERAL

▩ LANDSCAPED

○ COAST LIVE OAK WOODLAND

29-1 — BIOTA SAMPLING TRANSECT
(OAT, ICEPLANT, SOIL, RODENT, LITTER)



23366305_300
19941026.1413

NO.	DATE	REVISIONS	H/A FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
1	7/14/94	DRAFT	23366305	23366 041714			AED
2	12/94	DRAFT FINAL	23366305	23366 041724	MES	11/17/94	AED

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Basewide RI/FS
Fort Ord, California

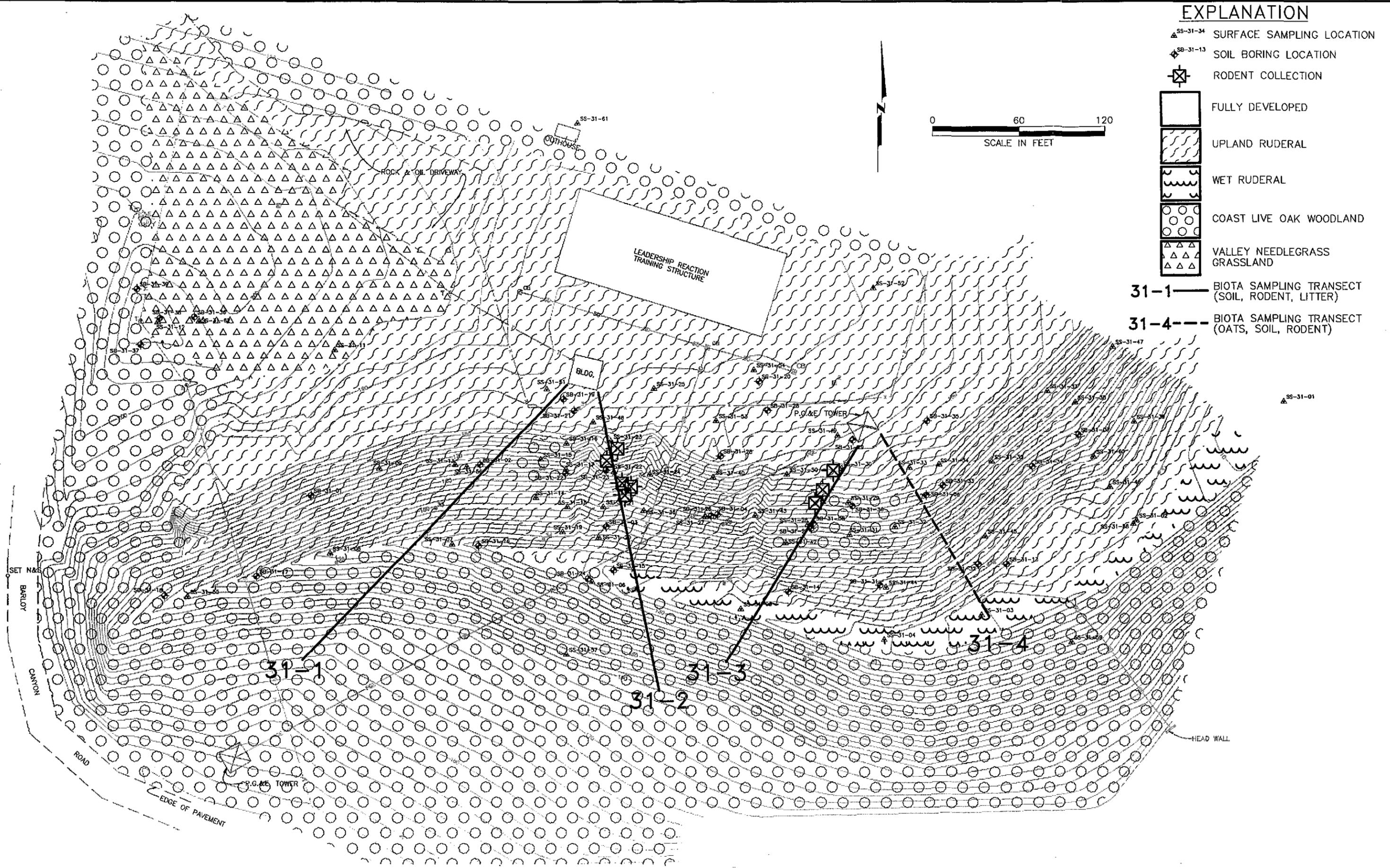
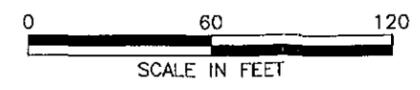
Plant Communities and Sampling Locations
Site 29 - DRMO

PLATE:
4.14

EXPLANATION

- ▲ SS-31-34 SURFACE SAMPLING LOCATION
- ◆ SB-31-13 SOIL BORING LOCATION
- ⊠ RODENT COLLECTION
- FULLY DEVELOPED
- ▨ UPLAND RUDERAL
- ▩ WET RUDERAL
- COAST LIVE OAK WOODLAND
- △ VALLEY NEEDLEGRASS GRASSLAND

- 31-1 BIOTA SAMPLING TRANSECT (SOIL, RODENT, LITTER)
- 31-4 BIOTA SAMPLING TRANSECT (OATS, SOIL, RODENT)



23366307 600
19941026.1410

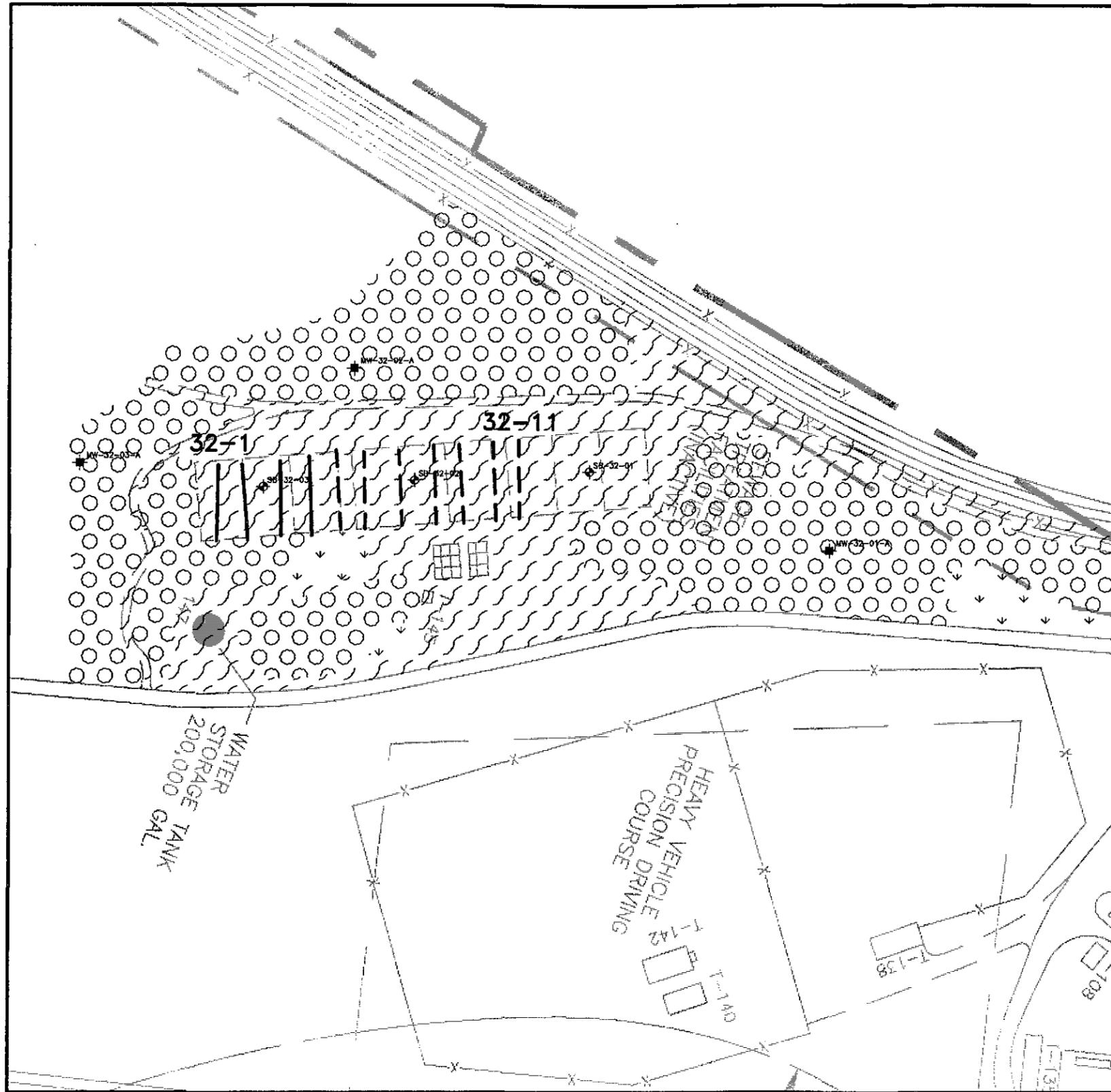
NO.	DATE	REVISIONS	H/A FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
1	7/08/94	DRAFT	23366307	23366 041714			AED
2	12/94	DRAFT FINAL	23366307	23366 041724	<i>[Signature]</i>	11/2/94	AED

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Fort Ord, California

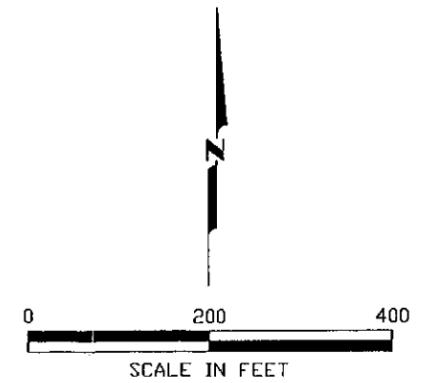
Plant Communities and Sampling Locations
Site 31 - Former Dump Site

PLATE:
4.15



EXPLANATION

- SB-32-01 ◆ SOIL BORING LOCATION
- MW-32-01-A ◆ MONITORING WELL
- FULLY DEVELOPED/NOT SURVEYED
- ▨ UPLAND RUDERAL
- ▧ LANDSCAPED
- ⊙ COAST LIVE OAK WOODLAND
- 32-1 ——— BIOTA SAMPLING TRANSECT (ICEPLANT, SOIL)
- 32-11 - - - BIOTA SAMPLING TRANSECT (OAT/SOIL)



23366308_200.0
139410261.405

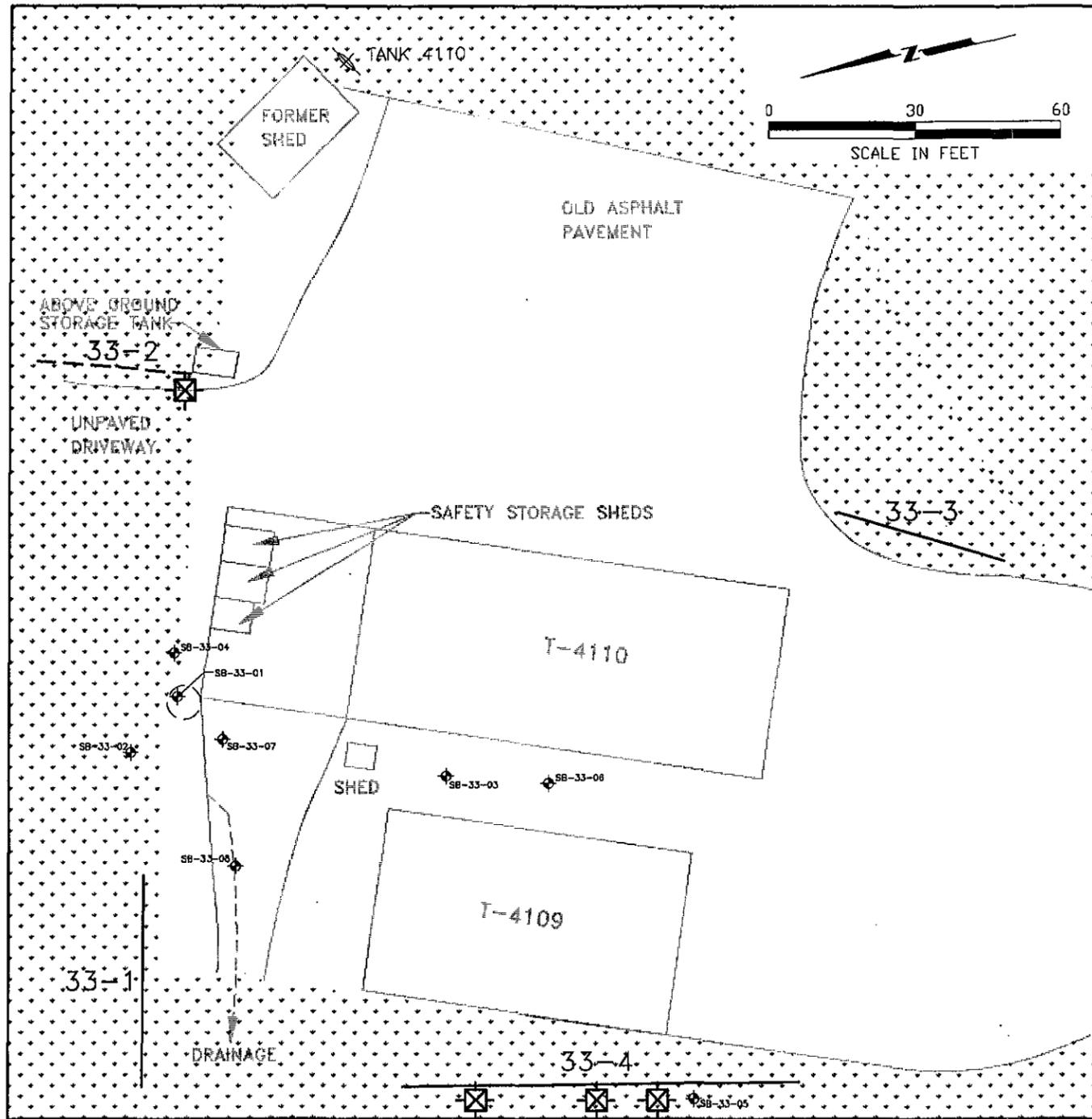
NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
1	7/94	DRAFT	23366308	23366 041714			AED
2	12/94	DRAFT FINAL	23366308	23366 041724	MCS	11/12/94	AED

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Basewide RI/FS
Fort Ord, California

Plant Communities and Sampling Locations
Site 32 - East Garrison
Sewage Treatment Plant

PLATE:
4.16



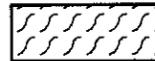
EXPLANATION

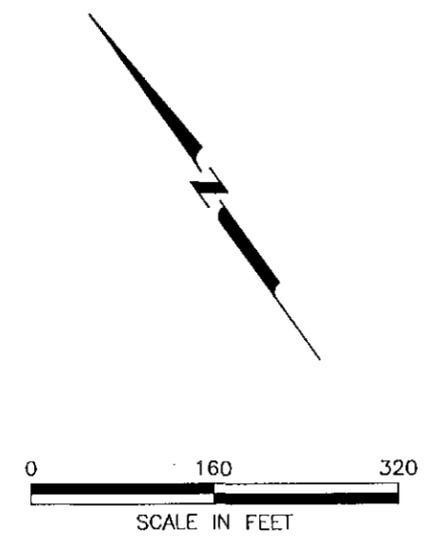
- APPROXIMATE LOCATION OF FORMER PIT
- SOIL BORING
- FORMER UNDERGROUND TANK
- RODENT COLLECTION
- FULLY DEVELOPED
- LANDSCAPED
- 33-1 ——— BIOTA SAMPLING TRANSECT (RIPGUT GRASS, SOIL, RODENT)
- 33-2 - - - - - PLANT SAMPLING TRANSECT (CALIFORNIA BROME, SOIL, RODENT)

NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates Engineering and Environmental Services	Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California	Plant Communities and Sampling Locations Site 33 - Golf Course	PLATE: 4.17
1	7/14/94	DRAFT	23366309	23366 041714			AED				
2	12/94	DRAFT FINAL	23366309	23366 041724	MEs	11/17/94	PH				



EXPLANATION

-  SOIL BORING LOCATION
-  MONITORING WELL
-  RODENT COLLECTION
-  UPLAND RUDERAL
-  CENTRAL MARITIME CHAPARRAL
-  COAST LIVE OAK WOODLAND
- 35-2  BIOTA SAMPLING TRANSECT
(ICEPLANT/RIPGUT GRASS, SOIL, RODENT, LITTER)
- 35-1  BIOTA SAMPLING TRANSECT
(RIPGUT GRASS, SOIL, RODENT, LITTER)
(No litter collected from 35-9)



23366436 1f
19941026.092R

NO.	DATE	REVISIONS	H/A FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
1	7/14/94	DRAFT	23366436	23366 041714			AED
2	12/94	DRAFT FINAL	23366436	23366 041724	MS	11/12/94	PH

Harding Lawson Associates
Engineering and Environmental Services

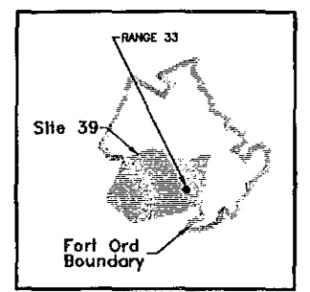
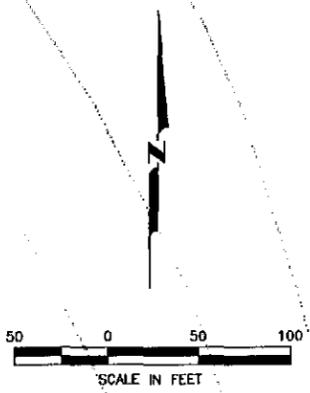
Volume IV - Ecological Risk Assessment
Basewide RI/FS
Fort Ord, California

Plant Communities and Sampling Locations
Site 35

PLATE:
4.18

EXPLANATION

- ◆ SOIL BORING (HLA)
- GROUND SURFACE CONTOUR (FEET ABOVE MEAN SEA LEVEL, CONTOUR INTERVAL 20 FEET)
- BARBED WIRE
- - - TRAIL (DASHED WHERE APPROXIMATE)
- ⊗ EXPLOSION CRATERS



NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
1	9/94	DRAFT	23366575	23366 041711			DMC
2	12/94	DRAFT FINAL	23366575	23366 041724	MES	11/17/94	

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Engineering and Environmental Services

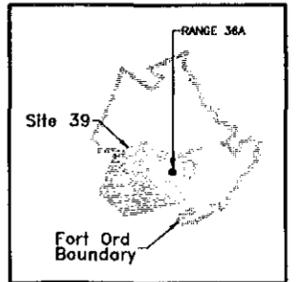
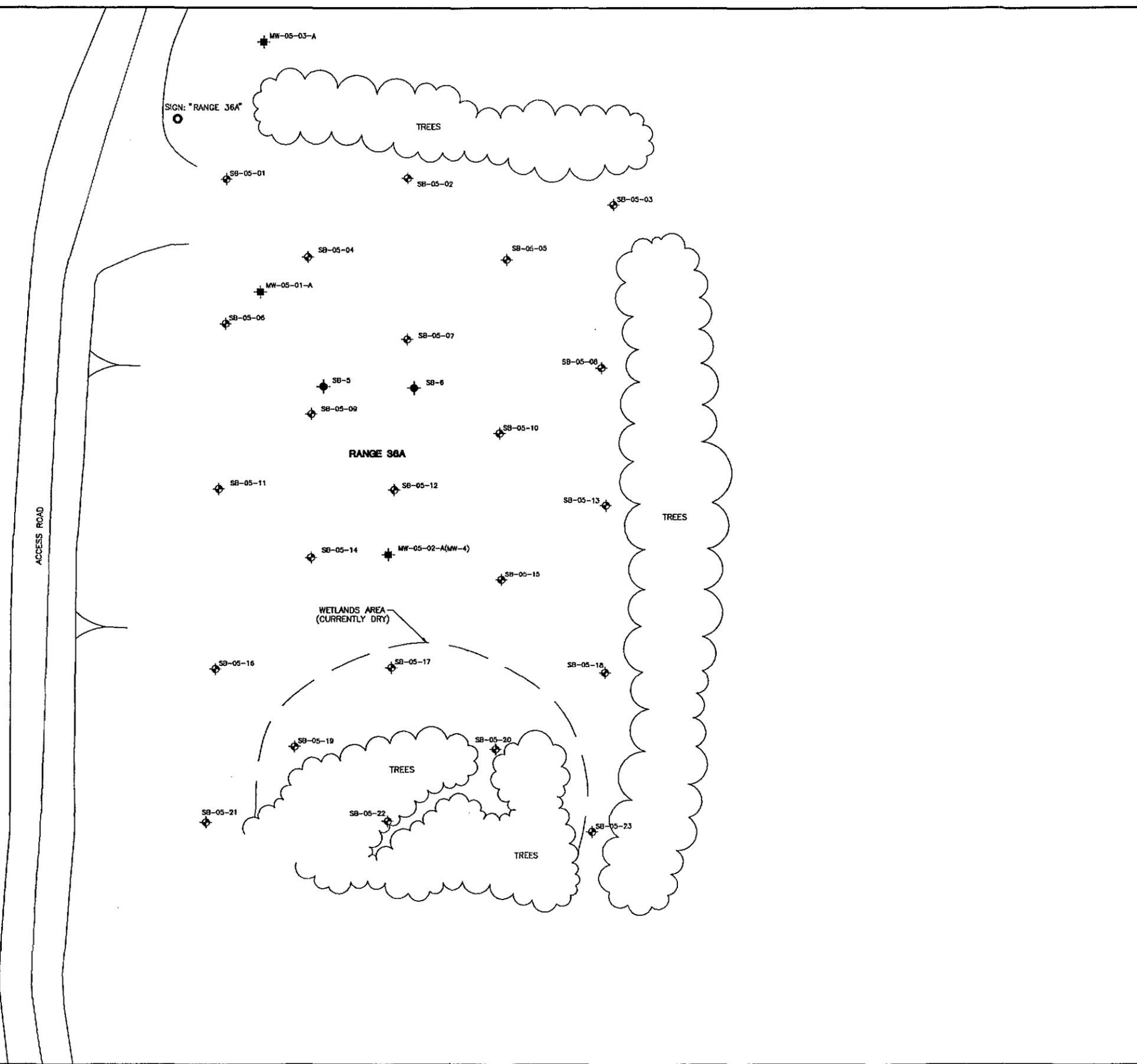
Volume IV - Ecological Risk Assessment
Basewide RI/FS
Fort Ord, California

Sampling Locations - Range 33
Site 39

PLATE:
4.20

EXPLANATION

- ◆ SOIL BORING (HLA)
- ◆ SOIL BORING (BY OTHERS)
- ◆ MONITORING WELL (BY OTHERS)

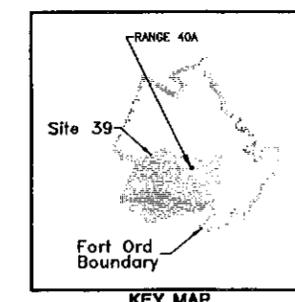


KEY MAP

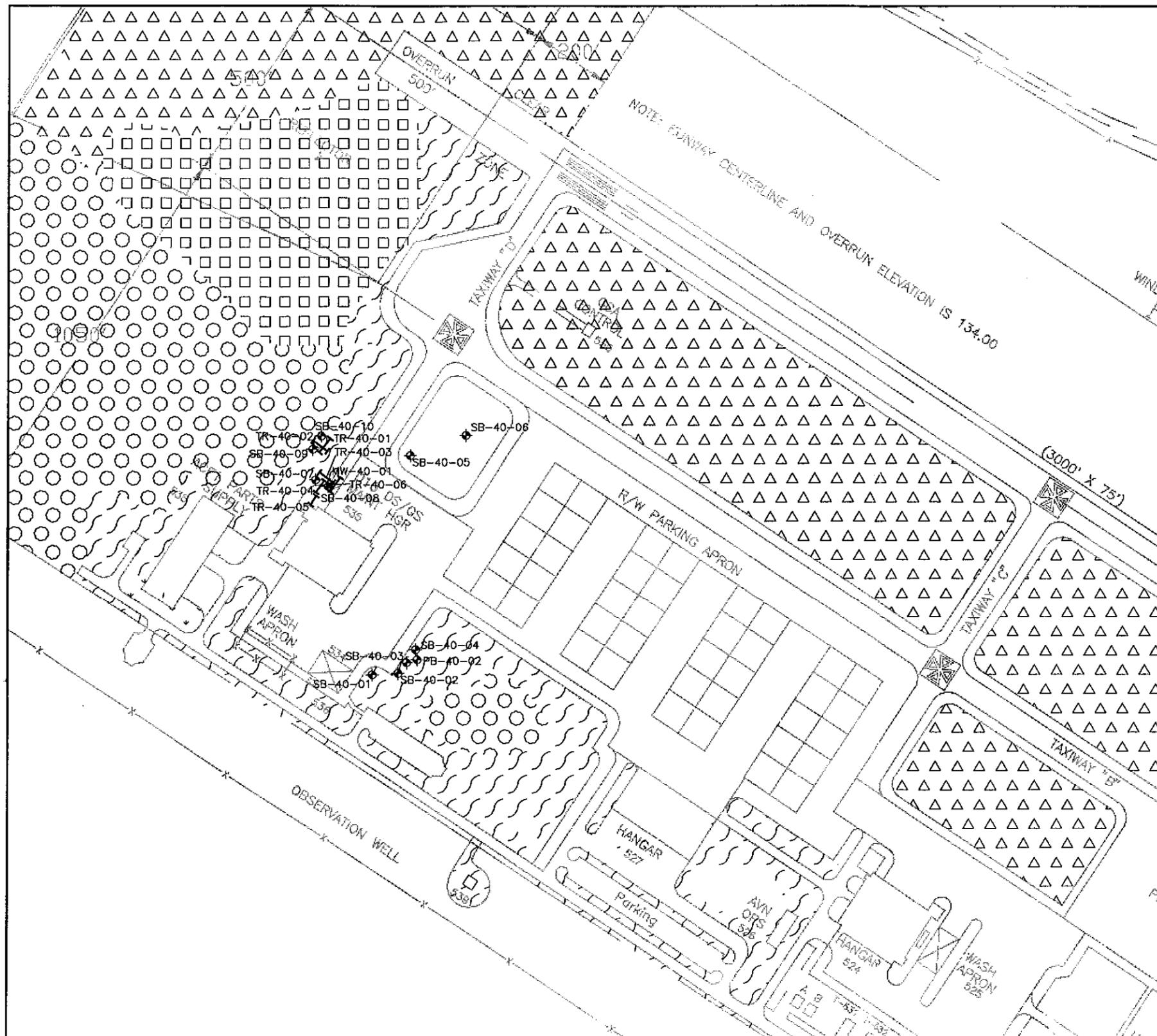
NO.	DATE	REVISIONS	HILA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	 Harding Lawson Associates Engineering and Environmental Services	Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California	Sampling Locations - Range 36A Site 39	PLATE: 4.21
1	9/94	DRAFT	23366576	23366 07171			DMC				
2	12/94	DRAFT FINAL	23366576	23366 041724	MCS	11/13/94					

EXPLANATION

- ◆ SOIL BORING (HLA)
- GROUND SURFACE CONTOUR (FEET ABOVE MEAN SEA LEVEL, CONTOUR INTERVAL 20 FEET)
- BARBED WIRE
- DEPRESSION
- ▭ SHALLOW TRENCH
- RANGE FAN LIMITS
- APPROXIMATE FAN LIMIT OF BURNING MATERIAL
- - - TARGET ZONE

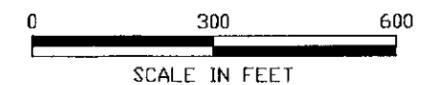


NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates Engineering and Environmental Services		Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California	Sampling Locations - Range 40A Site 39	PLATE: 4.22
1	9/94	DRAFT	23366577	23366 07171			DMC					
2	12/94	DRAFT FINAL	23366577	23366 041724	MEJ	11/19/94						



EXPLANATION

- SB-40-01 SOIL BORING LOCATION
- MW-40-01 MONITORING WELL
- TR-40-05 TRENCH LOCATION
- FULLY DEVELOPED/NOT SURVEYED
- UPLAND RUDERAL
- LANDSCAPED
- COAST LIVE OAK WOODLAND
- VALLEY NEEDLEGRASS GRASSLAND
- CENTRAL COASTAL SCRUB



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NO.	DATE	REVISIONS	HIA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates		Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California	Plant Communities and Sampling Locations Site 40 - FAAF Defueling Area	PLATE: 4.23
1	7/14/94	DRAFT	23366313	23366 041714			AED	Engineering and Environmental Services				
2	12/94	DRAFT FINAL	23366313	23366 041724	AED	11/17/94	PH					

EXPLANATION

SOIL BORING LOCATION

GRASSLAND OPENING IN CENTRAL MARITIME CHAPARRAL

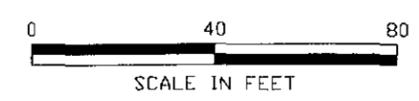
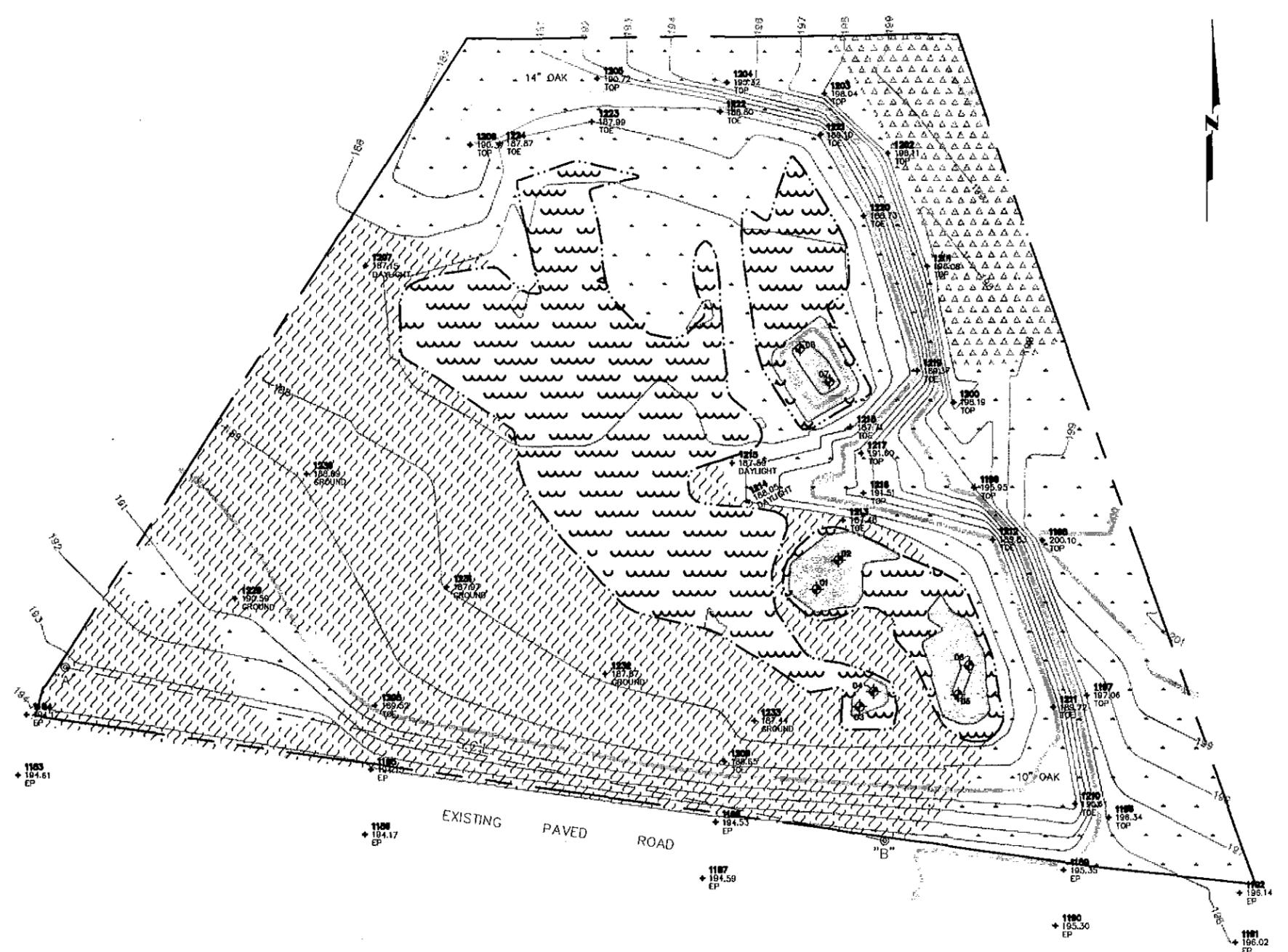
CENTRAL MARITIME CHAPARRAL

UPLAND RUDERAL

COAST LIVE OAK WOODLAND

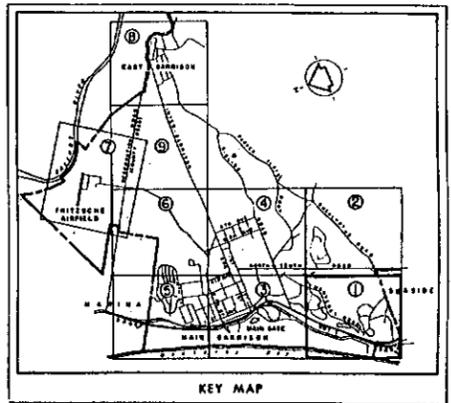
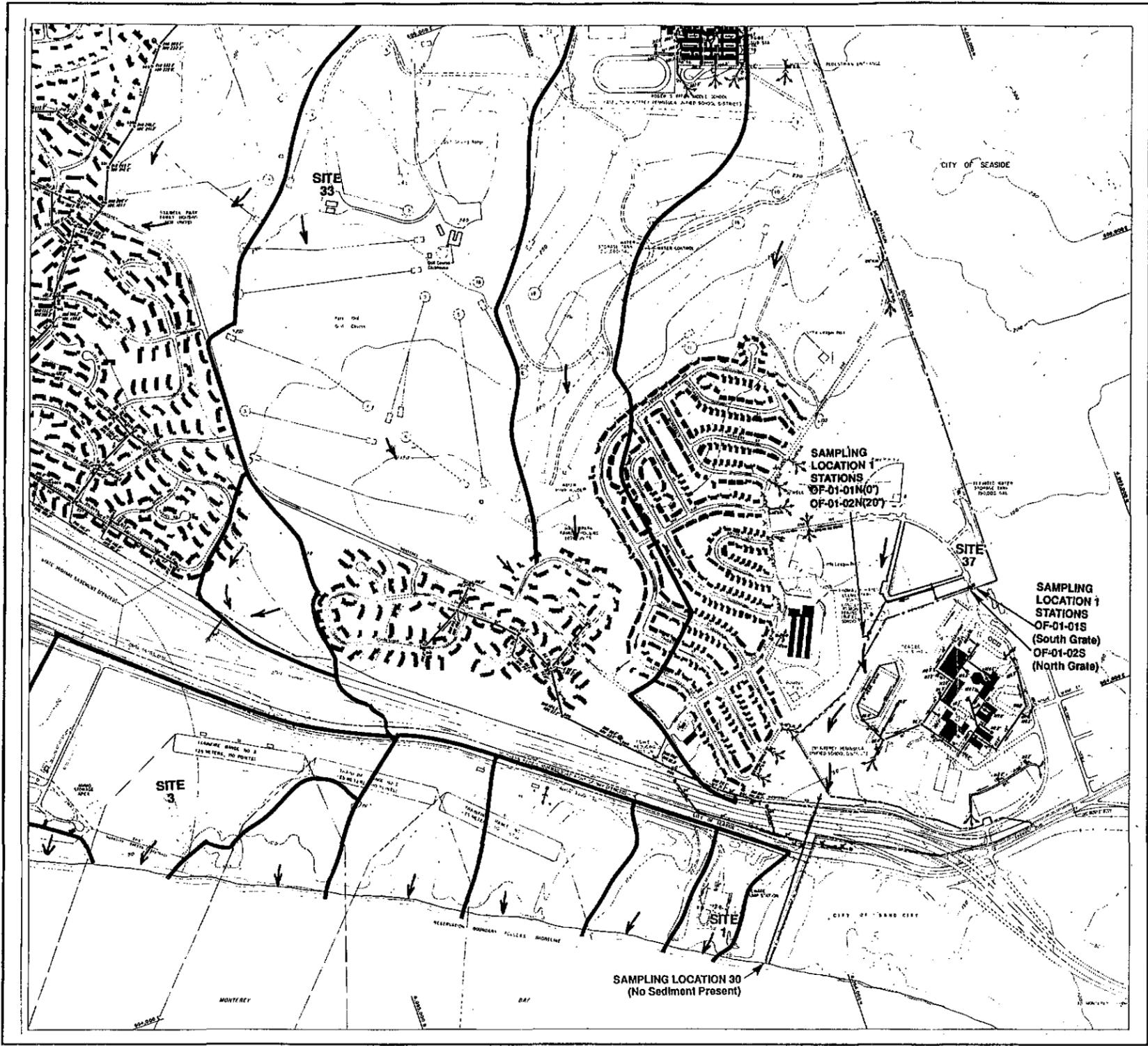
WET RUDERAL

POND



23366314 40.
1994110828

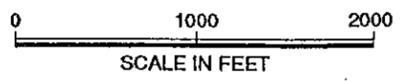
NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates Engineering and Environmental Services		Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California	Plant Communities and Sampling Locations Site 41 - Crescent Bluff Fire Drill Area	PLATE: 4.24
1	7/10/94	DRAFT	23366314	23366 041714			AED					
2	12/94	DRAFT FINAL	23366314	23366 041724	MES	11/17/94	PH					



- EXPLANATION**
- STORM SEWER MAIN
 - MANHOLES, WITH INV. ELEV.
 - AREA INLET, WITH INV. ELEV.
 - CURB INLET, WITH INV. ELEV.
 - PAVED DRAINAGE
 - SURFACE DRAINAGE
 - OUTFALL, WITH INV. ELEV.
 - CULVERT
 - DIRECTION OF FLOW
 - DRAINAGE AREA BOUNDARIES
 - DIRECTION OF SURFACE FLOW
 - HLA RIFS SITE
 - BUILDING NUMBERS, AS LISTED IN TABLE 3, OF REPORTED SEWAGE SPILLS
 - STATION NUMBER WITH DISTANCE FROM OUTFALL, IN PARENTHESES
- SITE 3** 1180.
- OF-01-02-02 (20')**

- NOTES:**
- STORM SEWER MAINS, CONCRETE UNLESS NOTED.
 - LOCATION UNVERIFIED.
- MATERIALS OF CONSTRUCTION:**
- AC - ASBESTOS CEMENT
 - C - CONCRETE
 - CI - CAST IRON
 - CM - CORRUGATED METAL PIPE
 - RC - REINFORCED CONCRETE
 - VC - VITRIFIED CLAY
 - WG - WOOD

Base map from: U.S. Army Engineer District Sacramento, Corps of Engineers, June 1984, "Master Plan, Basic Information Maps - General Storm Drainage Map," Drawing No. 18-02-27, Sheets 88 through 96 of 96.



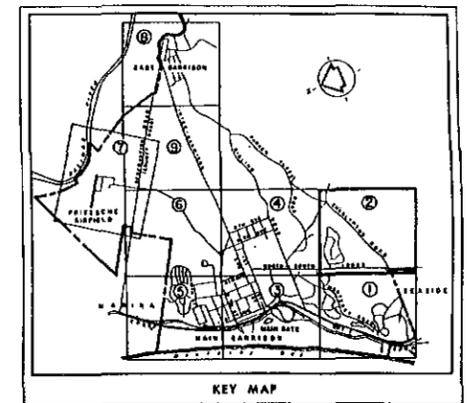
NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
1	8/94	DRAFT		23366 041714			DJP
2	12/94	DRAFT FINAL		23366 041724	HEJ	11/28/94	DJP

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Basewide RIFS
Fort Ord, California

STORM DRAINAGE AREA MAP AND SAMPLING LOCATIONS

DRAWING
5.1



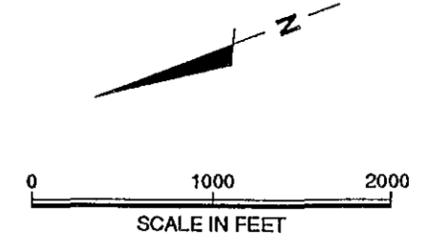
EXPLANATION

STORM SEWER MAIN	—●—
MANHOLES, WITH INV. ELEV.	—○—
AREA INLET, WITH INV. ELEV.	—□—
CURB INLET, WITH INV. ELEV.	—■—
PAVED DRAINAGE	—▨—
SURFACE DRAINAGE	—○—
OUTFALL, WITH INV. ELEV.	—○—
CULVERT	—○—
DIRECTION OF FLOW	→
DRAINAGE AREA BOUNDARIES	—
DIRECTION OF SURFACE FLOW	→
H/LA R/V/S SITE	SITE 3
BUILDING NUMBERS, AS LISTED IN TABLE 3, OF REPORTED SEWAGE SPILLS	1180
STATION NUMBER WITH DISTANCE FROM OUTFALL IN PARENTHESES	OF-01-02-02 (20')

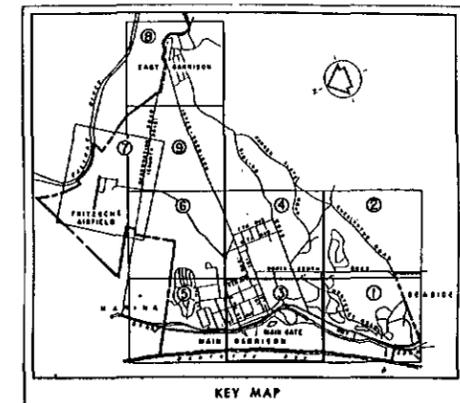
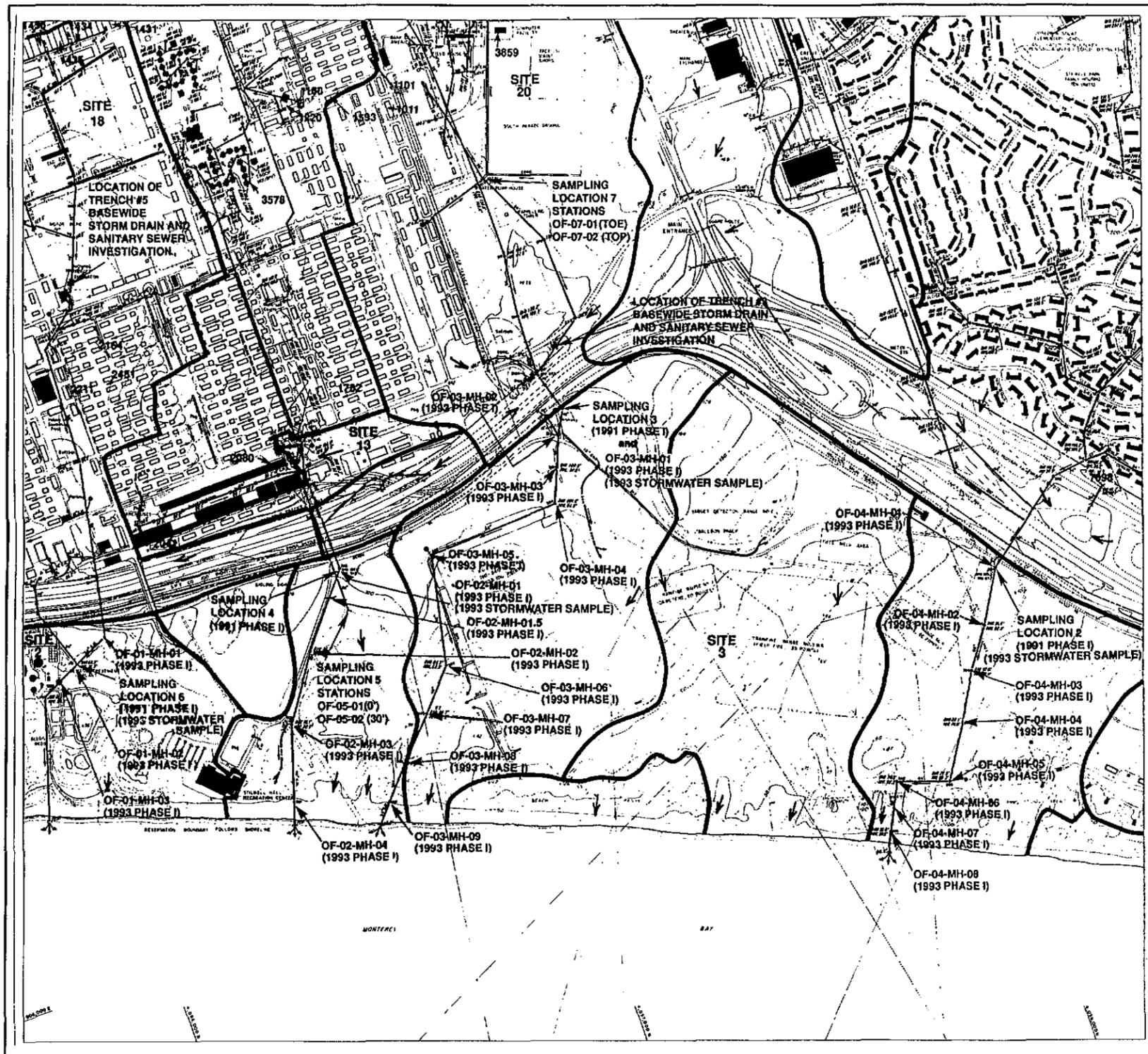
NOTES:
 STORM SEWER MAINS: CONCRETE UNLESS NOTED.
 ○ LOCATION UNVERIFIED.

MATERIALS OF CONSTRUCTION:
 AC - ASBESTOS CEMENT
 C - CONCRETE
 CI - CAST IRON
 CM - CORRUGATED METAL PIPE
 RC - REINFORCED CONCRETE
 VC - VITRIFIED CLAY
 WO - WOOD

Base map from: U.S. Army Engineer District Sacramento, Corps of Engineers, June 1984, "Master Plan, Basic Information Maps - General Storm Drainage Map," Drawing No. 18-02-27, Sheets 88 through 96 of 96.



NO.	DATE	REVISIONS	H/LA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates Engineering and Environmental Services		Volume IV - Ecological Risk Assessment Basewide R/V/S Fort Ord, California	STORM DRAINAGE AREA MAP AND SAMPLING LOCATIONS	DRAWING 5.2
1	8/94	DRAFT		23366 041714			DJP					
2	12/94	DRAFT FINAL		23366 041724	MES	11/27/94	DJP					



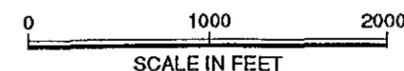
EXPLANATION

STORM SEWER MAIN	---
MANHOLES, WITH INV. ELEV.	○
AREA INLET, WITH INV. ELEV.	□
CURB INLET, WITH INV. ELEV.	▣
PAVED DRAINAGE	▬▬▬
SURFACE DRAINAGE	— — —
OUTFALL, WITH INV. ELEV.	⊥
CLAVERT	⊥
DIRECTION OF FLOW	→
DRAINAGE AREA BOUNDARIES	—
DIRECTION OF SURFACE FLOW	→
4-A RWFS SITE	SITE 3
BUILDING NUMBERS, AS LISTED IN TABLE 3, OF REPORTED SEWAGE SPILLS	1180
STATION NUMBER WITH DISTANCE FROM OUTFALL IN PARENTHESES	OF-01-02-02 (20')

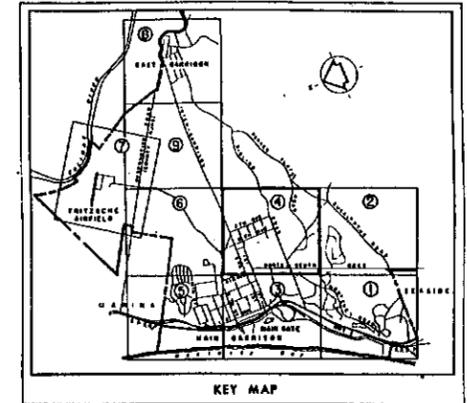
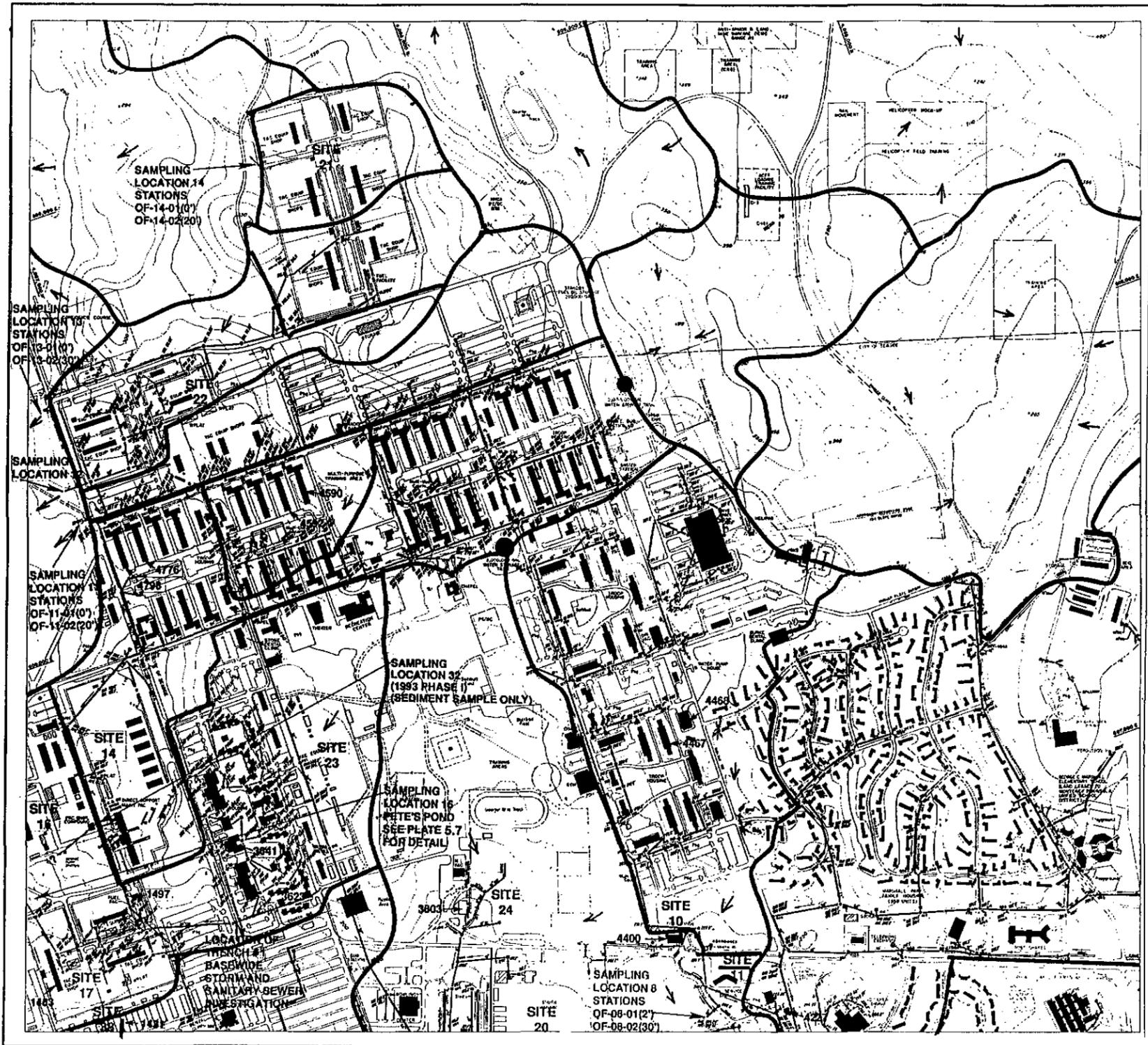
NOTES:

STORM SEWER MAPS, CONCRETE UNLESS NOTED.	AC - ASBESTOS CEMENT
○ LOCATION UNVERIFIED.	C - CONCRETE
	CI - CAST IRON
	CM - CORRUGATED METAL PIPE
	RC - REINFORCED CONCRETE
	VC - VITRIFIED CLAY
	WD - WOOD

Base map from: U.S. Army Engineer District Sacramento, Corps of Engineers, June 1984, "Master Plan, Basic Information Maps - General Storm Drainage Map," Drawing No. 18-02-27, Sheets 88 through 96 of 96.



NO.	DATE	REVISIONS	H/A FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates Engineering and Environmental Services	Volume IV - Ecological Risk Assessment Basewide R/VFS Fort Ord, California	STORM DRAINAGE AREA MAP AND SAMPLING LOCATIONS	DRAWING
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2	12/94	DRAFT FINAL	23366 041724	MES	11/28/99	DJP					5.3



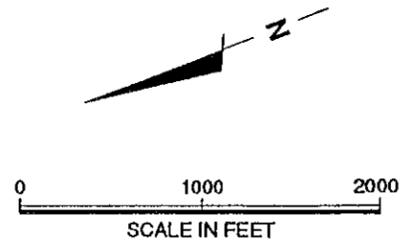
EXPLANATION

STORM SEWER MAIN	
MANHOLES, WITH INV. ELEV.	
AREA INLET, WITH INV. ELEV.	
CURB INLET, WITH INV. ELEV.	
PAVED DRAINAGE	
SURFACE DRAINAGE	
OUTFALL, WITH INV. ELEV.	
CULVERT	
DIRECTION OF FLOW	
DRAINAGE AREA BOUNDARIES	
DIRECTION OF SURFACE FLOW	
HLA RIFS SITE	SITE 3
BUILDING NUMBERS, AS LISTED IN TABLE 3, OF REPORTED SEWAGE SPILLS	1180
STATION NUMBER WITH DISTANCE FROM OUTFALL IN PARENTHESES	OF-01-02-02 (20')

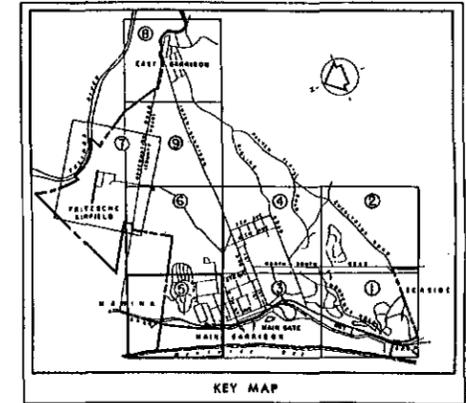
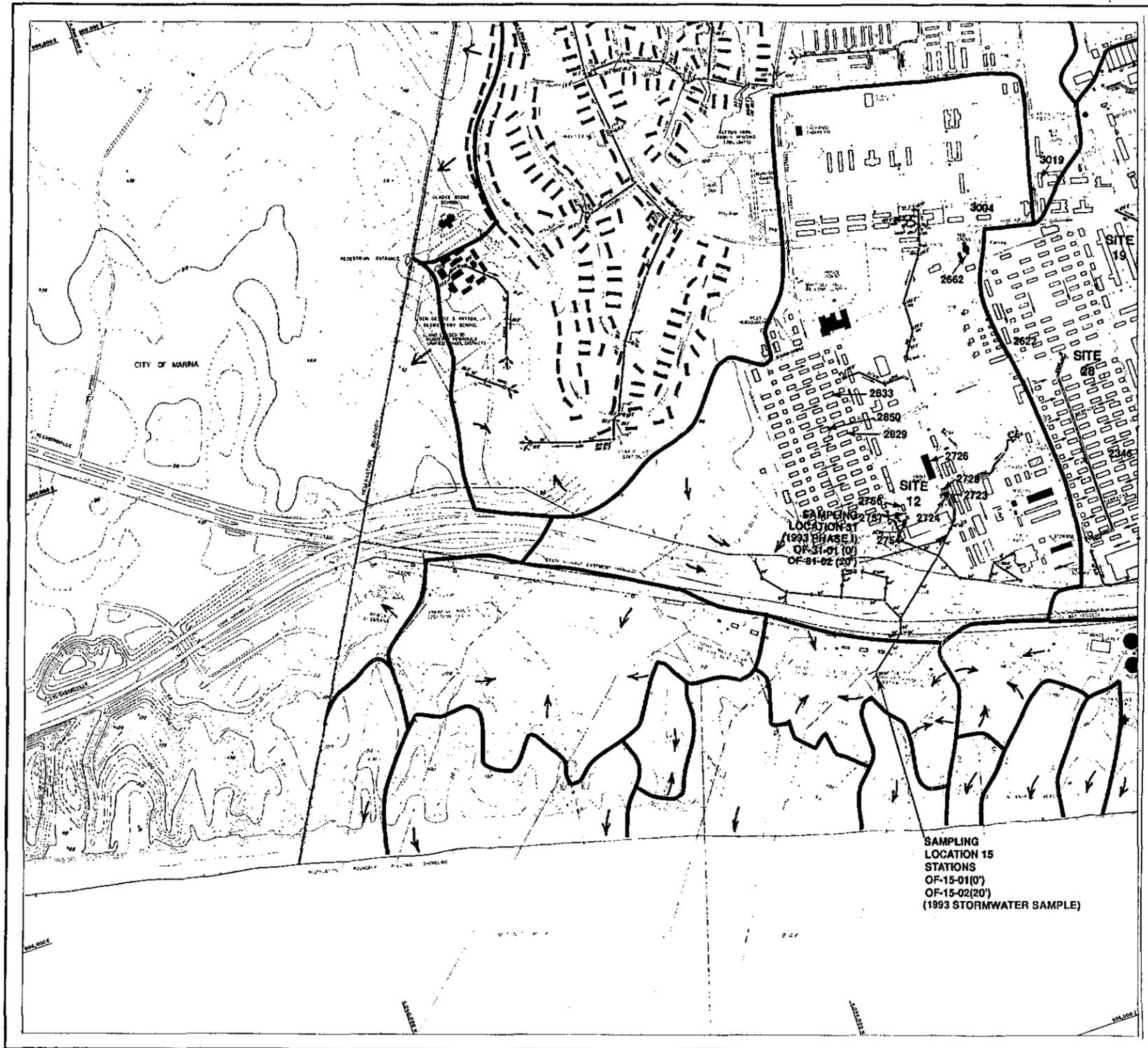
NOTES:
 STORM SEWER MAINS, CONCRETE UNLESS NOTED.
 (U) LOCATION UNVERIFIED.

MATERIALS OF CONSTRUCTION:
 AC - ASBESTOS CEMENT
 C - CONCRETE
 CI - CAST IRON
 CM - CORRUGATED METAL PIPE
 RC - REINFORCED CONCRETE
 VC - VITRIFIED CLAY
 WD - WOOD

Base map from: U.S. Army Engineer District Sacramento, Corps of Engineers, June 1984, "Master Plan, Basic Information Maps - General Storm Drainage Map," Drawing No. 18-02-27, Sheets 88 through 96 of 96.



NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates Engineering and Environmental Services	Volume IV - Ecological Risk Assessment Basewide RIFS Fort Ord, California	STORM DRAINAGE AREA MAP AND SAMPLING LOCATIONS	DRAWING 5.4
1	8/94	DRAFT		23366 041714			DJP				
2	12/94	DRAFT FINAL		23366 041724	MES	11/18/94	DJP				



EXPLANATION

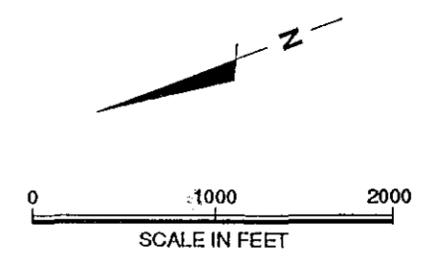
STORM SEWER MAIN	—
MANHOLES, WITH INV. ELEV.	⊕
AREA INLET, WITH INV. ELEV.	⊕
CURB INLET, WITH INV. ELEV.	⊕
PAVED DRAINAGE	—
SURFACE DRAINAGE	—
OUTFALL, WITH INV. ELEV.	⊕
CULVERT	—
DIRECTION OF FLOW	→
DRAINAGE AREA BOUNDARIES	—
DIRECTION OF SURFACE FLOW	→
H/A RVFS SITE	SITE 3
BUILDING NUMBERS, AS LISTED IN TABLES 3 AND 4, OF REPORTED SPILLS AND DISCHARGES	1180
STATION NUMBER WITH DISTANCE FROM OUTFALL IN PARENTHESES	OF-01-02-02 (20')

NOTES:
 STORM SEWER MAINS, CONCRETE UNLESS NOTED.
 ⊕ LOCATION UNVERIFIED.

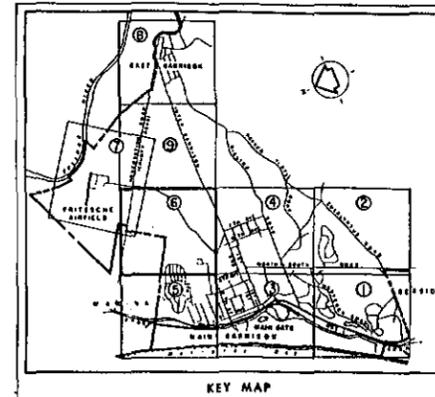
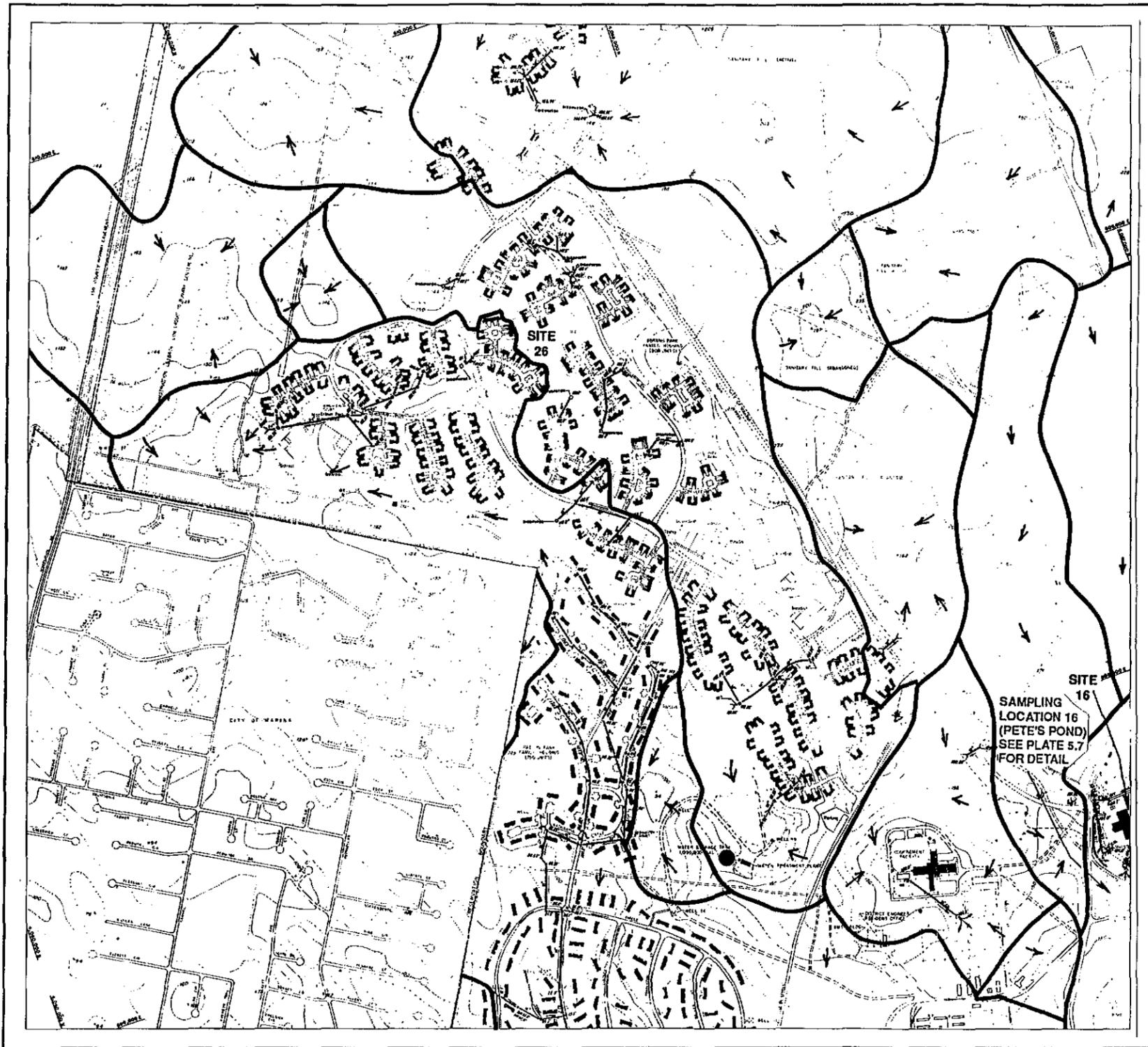
MATERIALS OF CONSTRUCTION:
 AC - ASBESTOS CEMENT
 C - CONCRETE
 CI - CAST IRON
 CM - CORRUGATED METAL PIPE
 RC - REINFORCED CONCRETE
 VC - VITRIFIED CLAY
 WD - WOOD

Base map from: U.S. Army Engineer District Sacramento, Corps of Engineers, June 1984, "Master Plan, Basic Information Maps - General Storm Drainage Map," Drawing No. 18-02-27, Sheets 88 through 96 of 96.

SAMPLING LOCATION 15 STATIONS
 OF-15-01(0')
 OF-15-02(20')
 (1993 STORMWATER SAMPLE)



NO.	DATE	REVISIONS	H/A FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates Engineering and Environmental Services	Volume IV - Ecological Risk Assessment Basewide RVFS Fort Ord, California	DRAWING 5.5
	1	8/94	DRAFT	23366 041714			DJP			
2	12/94	DRAFT FINAL	23366 041724	ME3	11/28/94	DJP				



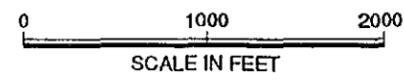
EXPLANATION

STORM SEWER MAIN	
MANHOLES, WITH INV. ELEV.	
AREA INLET, WITH INV. ELEV.	
CURB INLET, WITH INV. ELEV.	
PAVED DRAINAGE	
SURFACE DRAINAGE	
OUTFALL, WITH INV. ELEV.	
CULVERT	
DIRECTION OF FLOW	
DRAINAGE AREA BOUNDARIES	
DIRECTION OF SURFACE FLOW	
H.L.A./R/F/S SITE	
BUILDING NUMBERS, AS LISTED IN TABLES OF REPORTED SEWAGE SPILLS	
STATION NUMBER WITH DISTANCE FROM OUTFALL IN PARENTHESES	
	SITE 3
	1180
	OF-01-02-02 (20')

NOTES:
 STORM SEWER MAINS, CONCRETE UNLESS NOTED.
 (O) LOCATION UNVERIFIED.

MATERIALS OF CONSTRUCTION:
 AC - ASBESTOS CEMENT
 C - CONCRETE
 CI - CAST IRON
 CM - CORRUGATED METAL PIPE
 RC - REINFORCED CONCRETE
 VC - VITRIFIED CLAY
 WD - WOOD

Base map from: U.S. Army Engineer District Sacramento, Corps of Engineers, June 1984, "Master Plan, Basic Information Maps - General Storm Drainage Map," Drawing No. 18-02-27, Sheets 88 through 96 of 96.



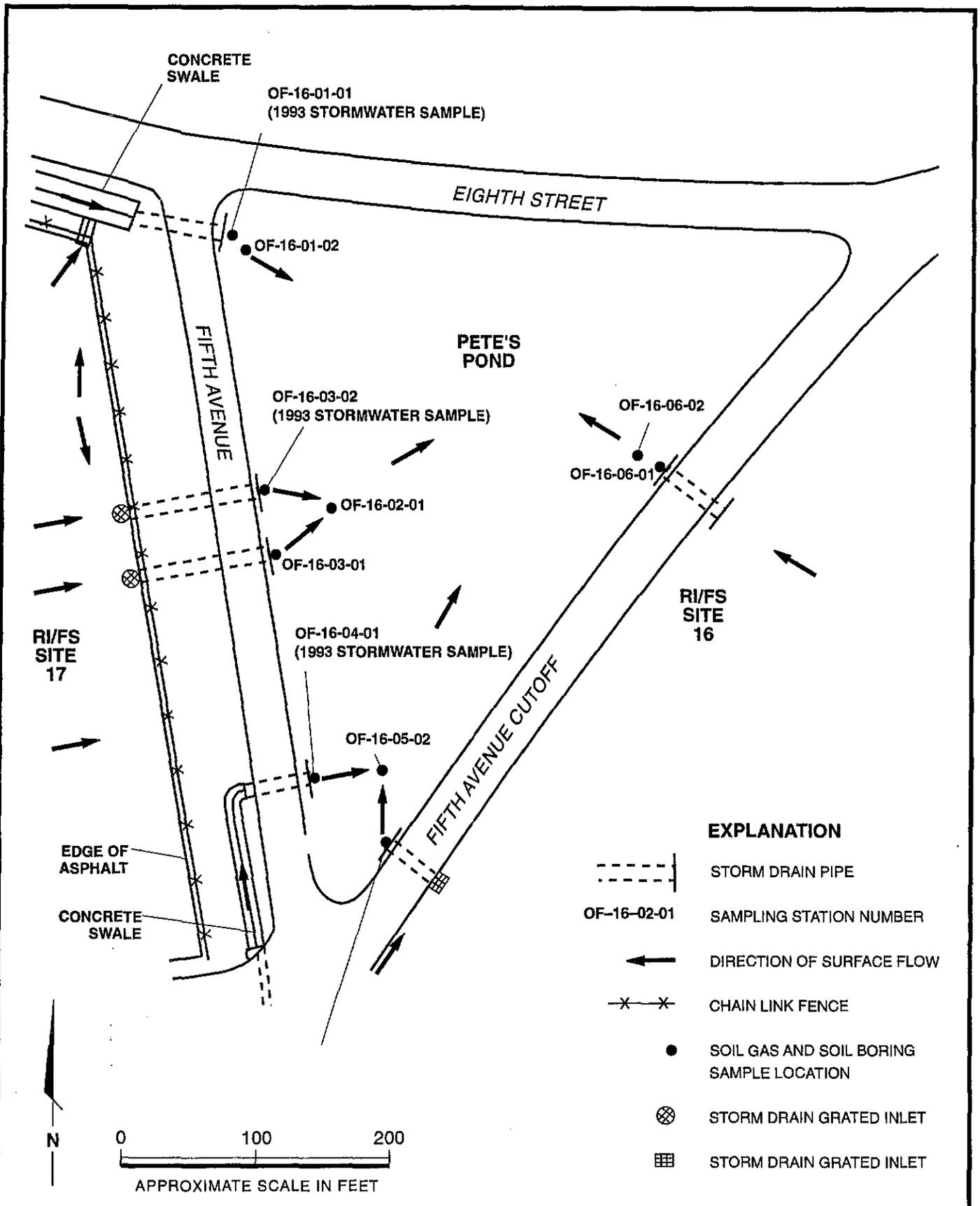
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2	12/94	DRAFT FINAL		23366 041724	MEJ	11/28/94	DJP

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 Basewide R/F/S
 Fort Ord, California

**STORM DRAINAGE AREA MAP
 AND SAMPLING LOCATIONS**

DRAWING
5.6



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 Engineering and Environmental Services

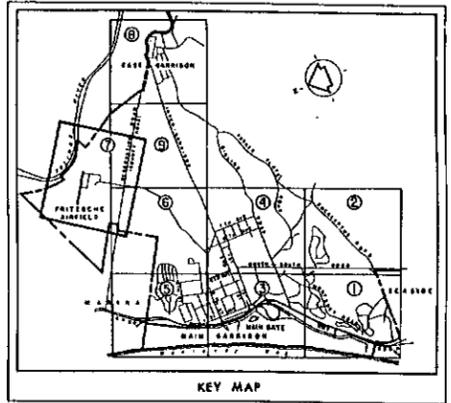
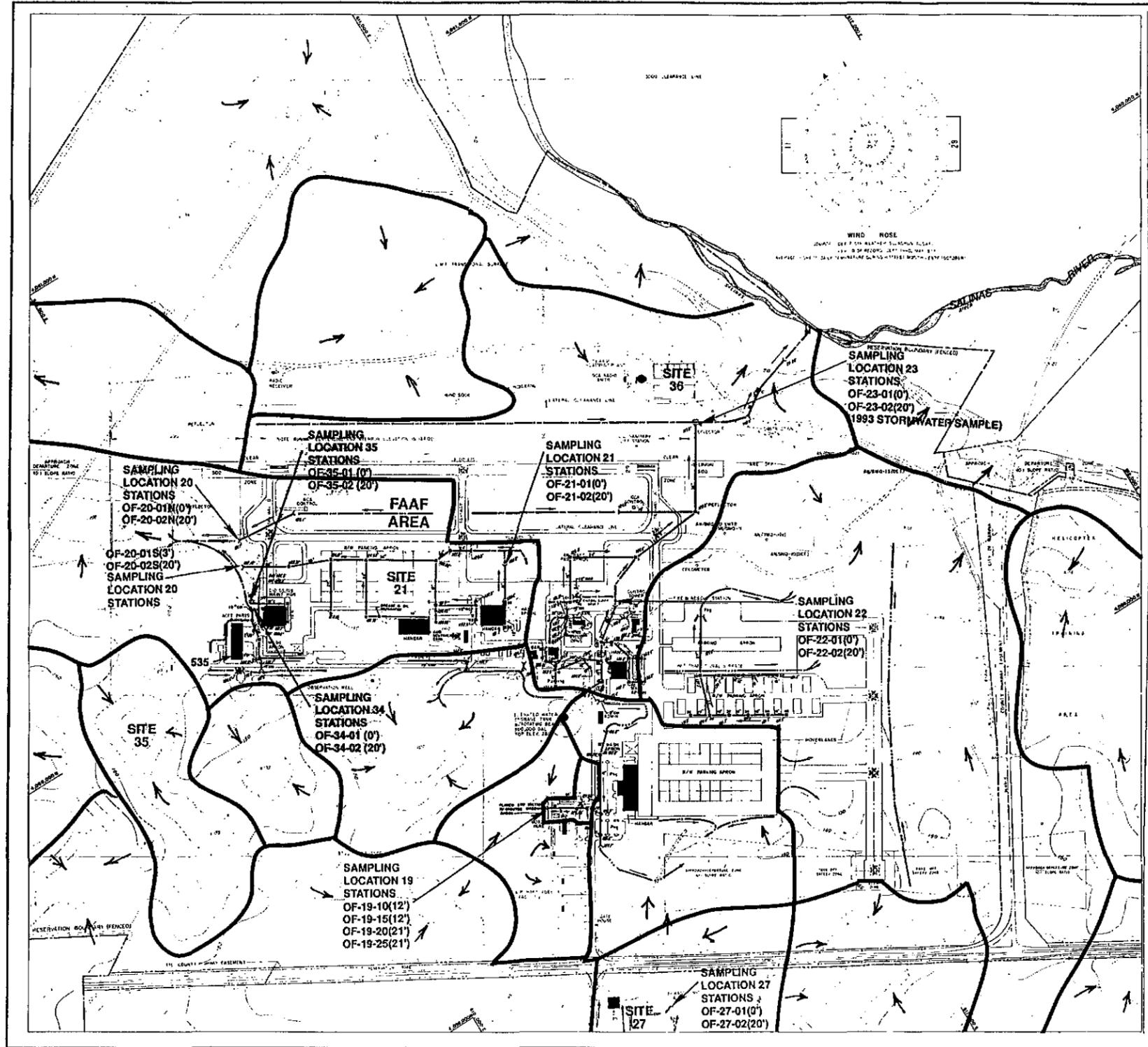
Volume IV - Ecological Risk Assessment - Basewide RI/FS Fort Ord, California

DETAIL OF PETE'S POND - SAMPLING LOCATION 16

PLATE
5.7

NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
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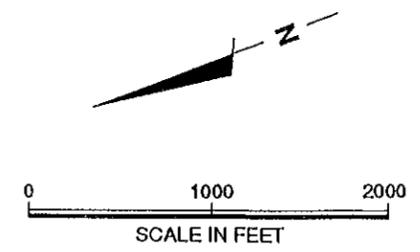
EXPLANATION

STORM SEWER MAIN	—
MANHOLES, WITH INV. ELEV.	—
AREA INLET, WITH INV. ELEV.	—
CURB INLET, WITH INV. ELEV.	—
PAVED DRAINAGE	—
SURFACE DRAINAGE	—
OUTFALL, WITH INV. ELEV.	—
CULVERT	—
DIRECTION OF FLOW	—
DRAINAGE AREA BOUNDARIES	—
DIRECTION OF SURFACE FLOW	—
H.A.R.I.F.S. SITE	SITE 3
BUILDING NUMBERS, AS LISTED IN TABLE 3 OF REPORTED SEWAGE SPILLS	1180
STATION NUMBER WITH DISTANCE FROM OUTFALL IN PARENTHESES	OF-01-02-02 (20')

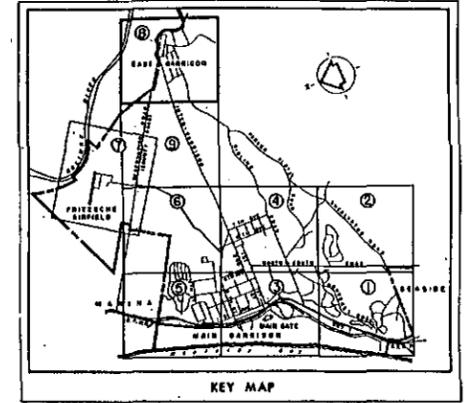
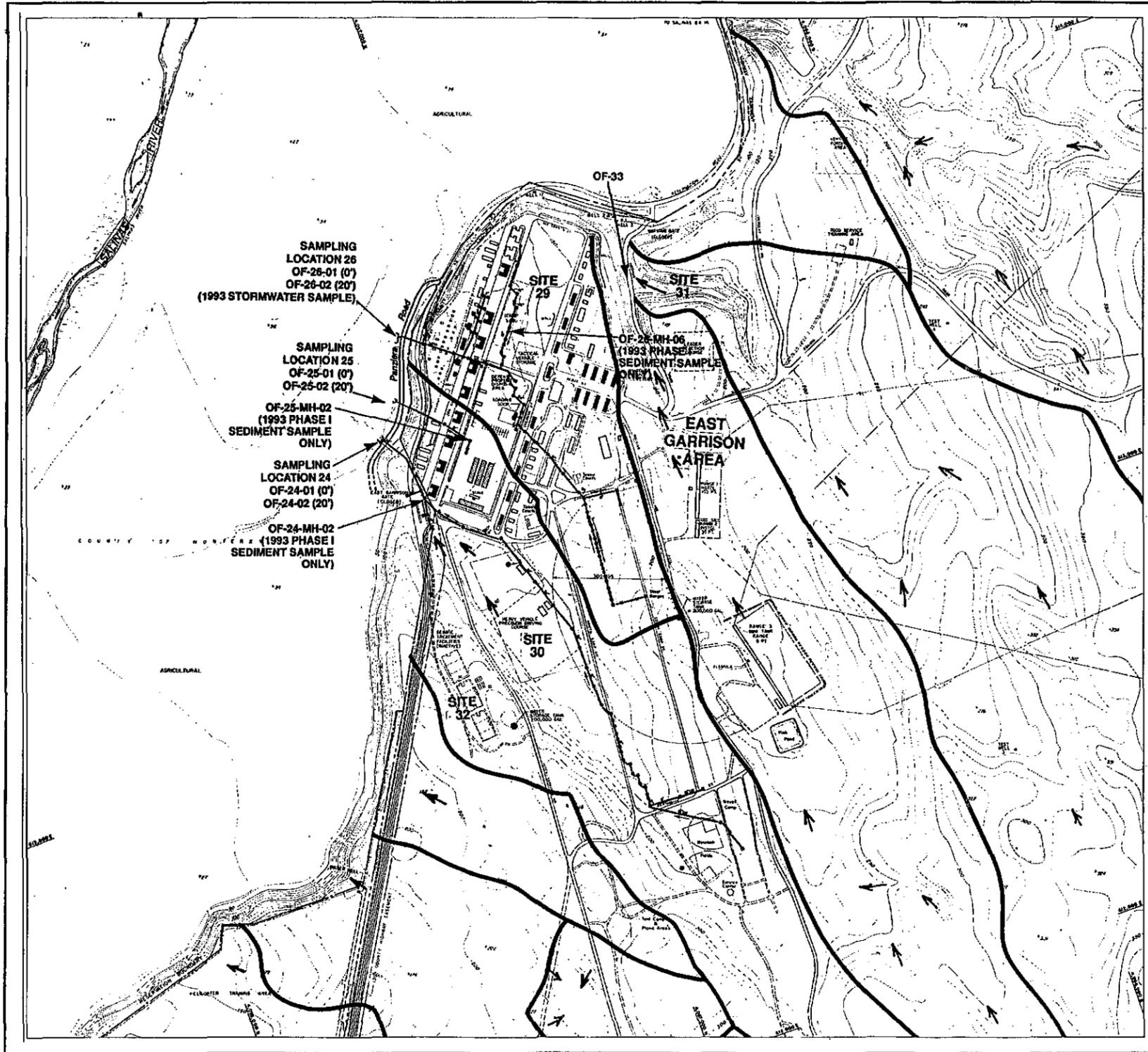
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 (U) LOCATION UNVERIFIED.

MATERIALS OF CONSTRUCTION:
 AC - ASBESTOS CEMENT
 C - CONCRETE
 CI - CAST IRON
 CM - CORRUGATED METAL PIPE
 RC - REINFORCED CONCRETE
 VC - VITRIFIED CLAY
 WD - WOOD

Base map from: U.S. Army Engineer District Sacramento, Corps of Engineers, June 1984, "Master Plan, Basic Information Maps - General Storm Drainage Map," Drawing No. 18-02-27, Sheets 88 through 96 of 96.



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2	12/94	DRAFT FINAL		23366 041724	MES	11/28/94	DJP				



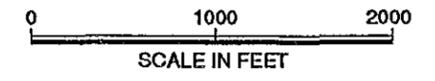
EXPLANATION

STORM SEWER MAIN	—
MANHOLES, WITH INV. ELEV.	—
AREA INLET, WITH INV. ELEV.	—
CURB INLET, WITH INV. ELEV.	—
PAVED DRAINAGE	—
SURFACE DRAINAGE	—
OUTFALL, WITH INV. ELEV.	—
CULVERT	—
DIRECTION OF FLOW	—
DRAINAGE AREA BOUNDARIES	—
DIRECTION OF SURFACE FLOW	—
HLA RIF'S SITE	SITE 3
BUILDING NUMBER OF REPORTED SEWAGE SPILL	1180
STATION NUMBER WITH DISTANCE FROM OUTFALL IN PARENTHESES	OF-01-02-02 (20')

NOTES:
 STORM SEWER MAINS, CONCRETE UNLESS NOTED.
 (O) LOCATION UNVERIFIED.

MATERIALS OF CONSTRUCTION:
 AG - ASBESTOS CEMENT
 C - CONCRETE
 CI - CAST IRON
 CM - CORRUGATED METAL PIPE
 RC - REINFORCED CONCRETE
 VC - VITRIFIED CLAY
 WD - WOOD

Base map from: U.S. Army Engineer District Sacramento, Corps of Engineers, June 1984, "Master Plan, Basic Information Maps - General Storm Drainage Map," Drawing No. 18-02-27, Sheets 88 through 96 of 96.



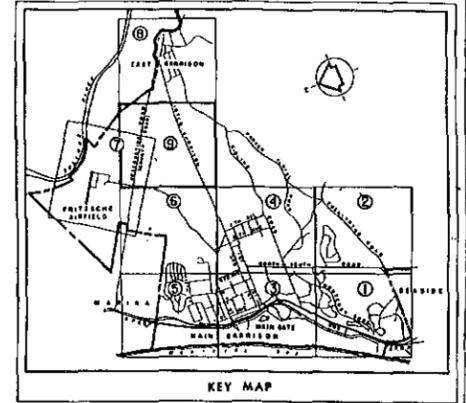
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2	12/94	DRAFT FINAL		23366 041724	MES	11/28/04	DJP

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 Basewide RVFS
 Fort Ord, California

STORM DRAINAGE AREA MAP AND SAMPLING LOCATIONS

DRAWING
5.9



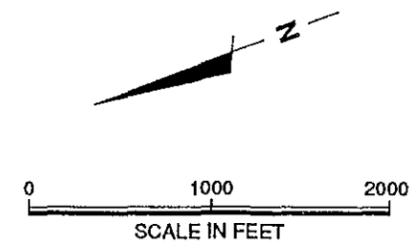
EXPLANATION

STORM SEWER MAIN	
MANHOLES, WITH INV. ELEV.	
AREA INLET, WITH INV. ELEV.	
CURB INLET, WITH INV. ELEV.	
PAVED DRAINAGE	
SURFACE DRAINAGE	
OUTFALL, WITH INV. ELEV.	
CULVERT	
DIRECTION OF FLOW	
DRAINAGE AREA BOUNDARIES	
DIRECTION OF SURFACE FLOW	
H/LA R/FS SITE	SITE 3
BUILDING NUMBERS, AS LISTED IN TABLE 3, OF REPORTED SEWAGE SPILLS	1180
STATION NUMBER WITH DISTANCE FROM OUTFALL IN PARENTHESES	OF-01-02-02 (20')

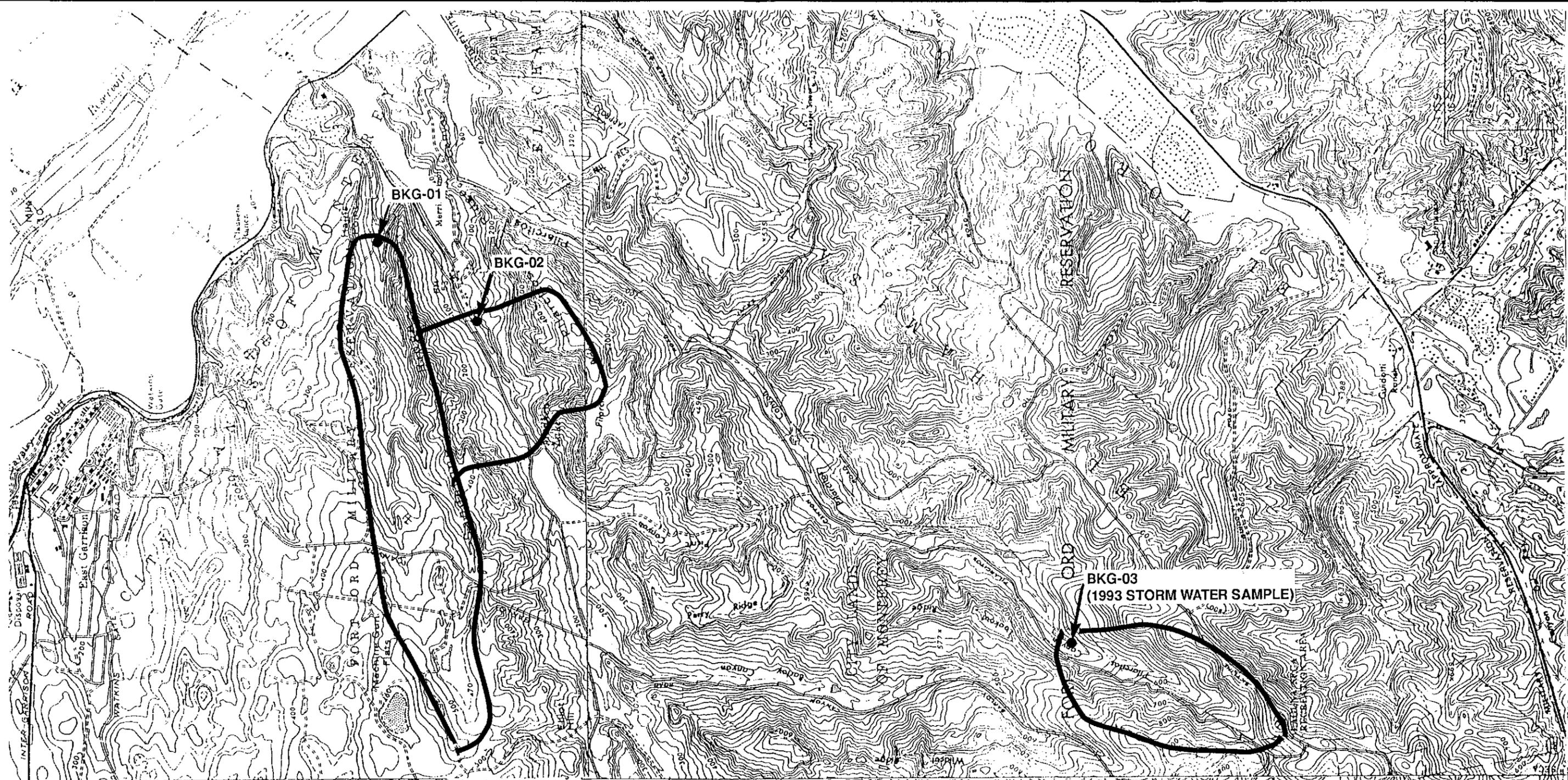
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Base map from: U.S. Army Engineer District Sacramento, Corps of Engineers, June 1984, "Master Plan, Basic Information Maps - General Storm Drainage Map," Drawing No. 18-02-27, Sheets 88 through 96 of 96.



NO.	DATE	REVISIONS	H/LA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates Engineering and Environmental Services		Volume IV - Ecological Risk Assessment Basewide RI/FS Fort Ord, California	STORM DRAINAGE AREA MAP AND SAMPLING LOCATIONS	DRAWING 5.10
1	8/94	DRAFT		23366 041714			DJP					
2	12/94	DRAFT FINAL		23366 041724	MCS	11/18/94	DJP					



EXPLANATION	
	Drainage Areas Boundaries
 BKG-01	Background Sampling Location Number and Location

Base Map
 USGS 7.5 minute quadrangles:
 Spreckles CA, Seaside CA, Salinas CA, Marina CA

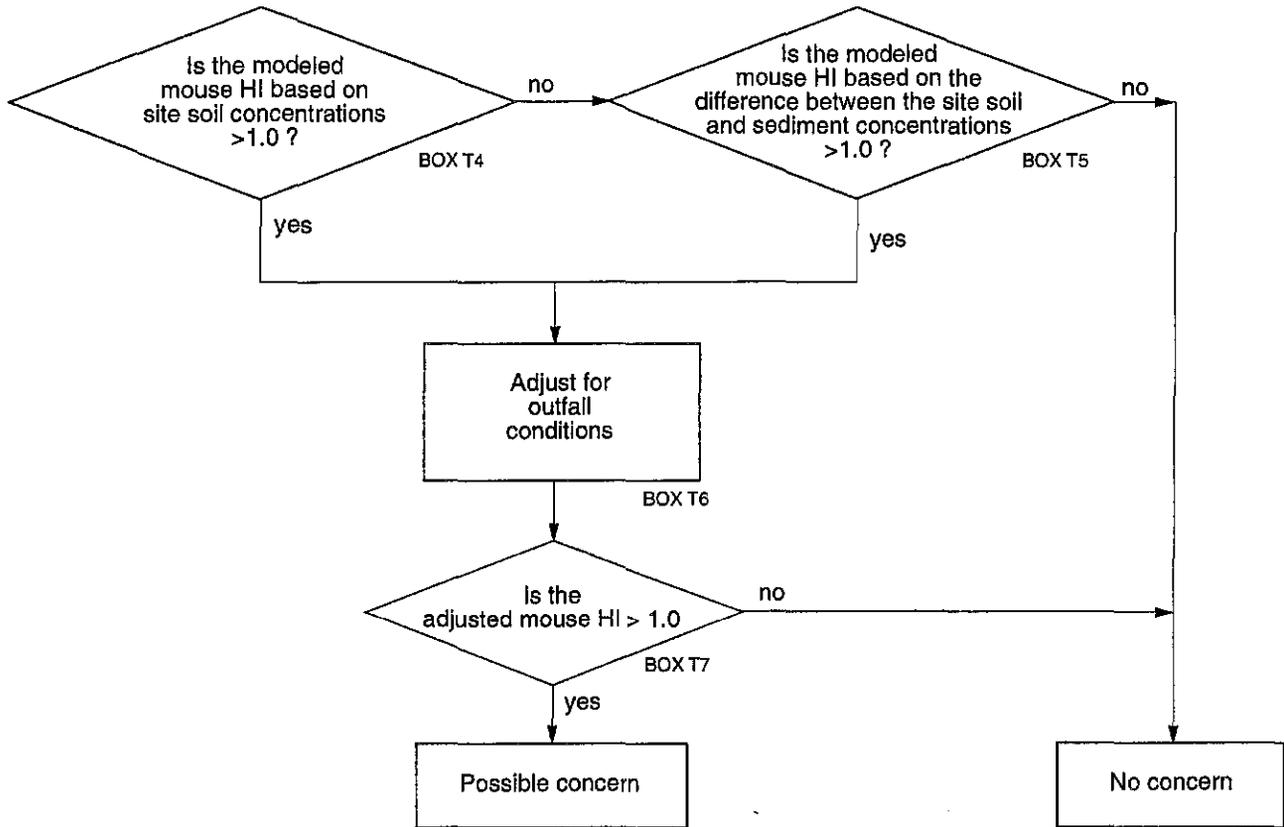
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2	12/94	DRAFT FINAL		23366 041724	MES	11/28/94	DJP

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 Fort Ord, California

BACKGROUND STORMWATER SAMPLING LOCATIONS
 VOLUME IV - ECOLOGICAL RISK ASSESSMENT

DRAWING
5.11



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Volume IV - Ecological Risk
Assessment - Basewide RI/FS
Fort Ord, California

FLOWCHART FOR
FURTHER TERRESTRIAL
ASSESSMENT
OF OUTFALLS

DRAWING

5.13

NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY
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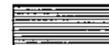


ERIGONIUM
PARVIFOLIUM

EXPLANATION

TRAINFIRE RANGE LINES DELINEATE TARGET AREAS;
THEY ARE NOT PHYSICAL LANDMARKS

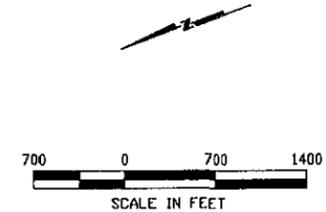
BUCKWHEAT POPULATIONS



ERIGONIUM LATIFOLIUM



ERIGONIUM PARVIFOLIUM



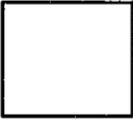
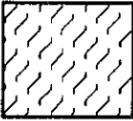
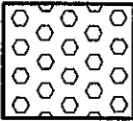
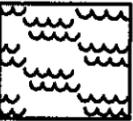
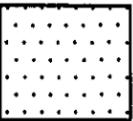
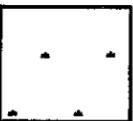
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Basewide RI/FS
Fort Ord, California

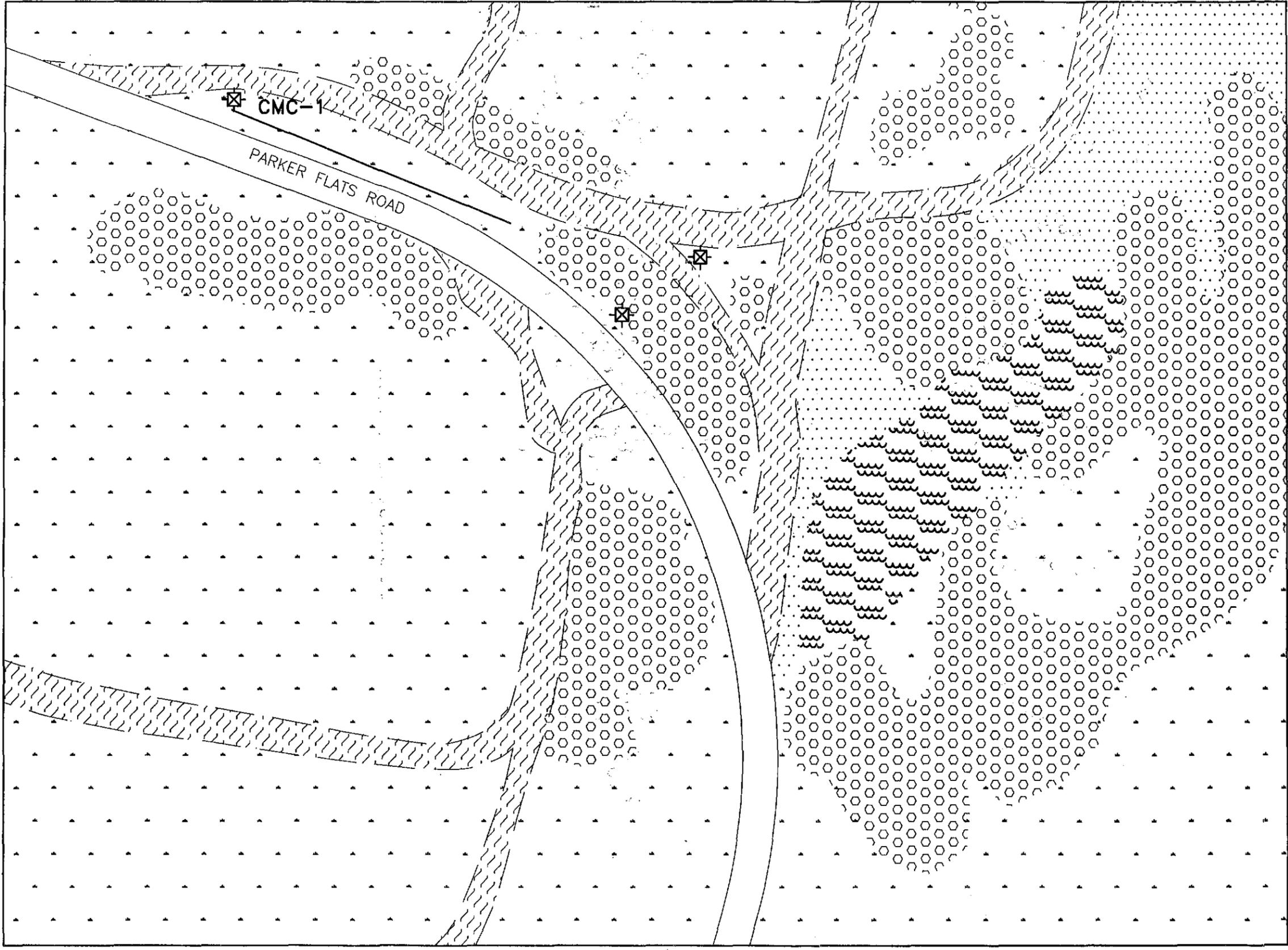
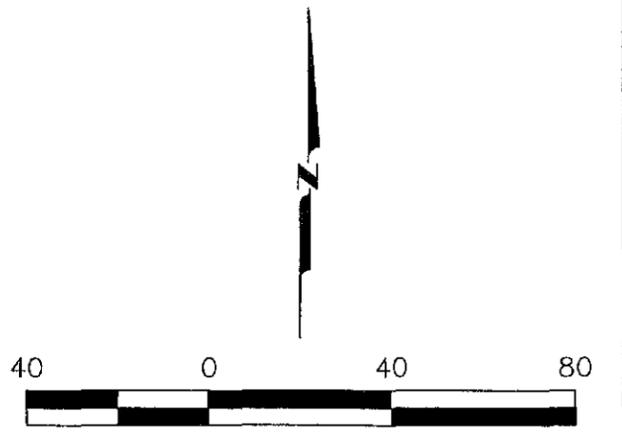
Site 3 - Beach Trainfire Ranges
Buckwheat Sampling and Observation Locations

EXPLANATION

-  FULLY DEVELOPED
-  UPLAND RUDERAL
-  COAST LIVE OAK WOODLAND
-  WET RUDERAL
-  SEASONALLY WET GRASSLAND
-  CENTRAL MARITIME CHAPARRAL

CMC-1 — CENTRAL MARITIME CHAPARRAL
TRANSECT (ICEPLANT,
LEAF LITTER, SOIL, RODENT)

 RODENT COLLECTION



23366601_21
19941211303

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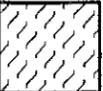
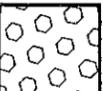
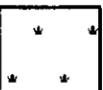
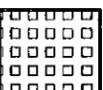
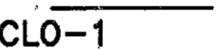
HLA **Harding Lawson Associates**
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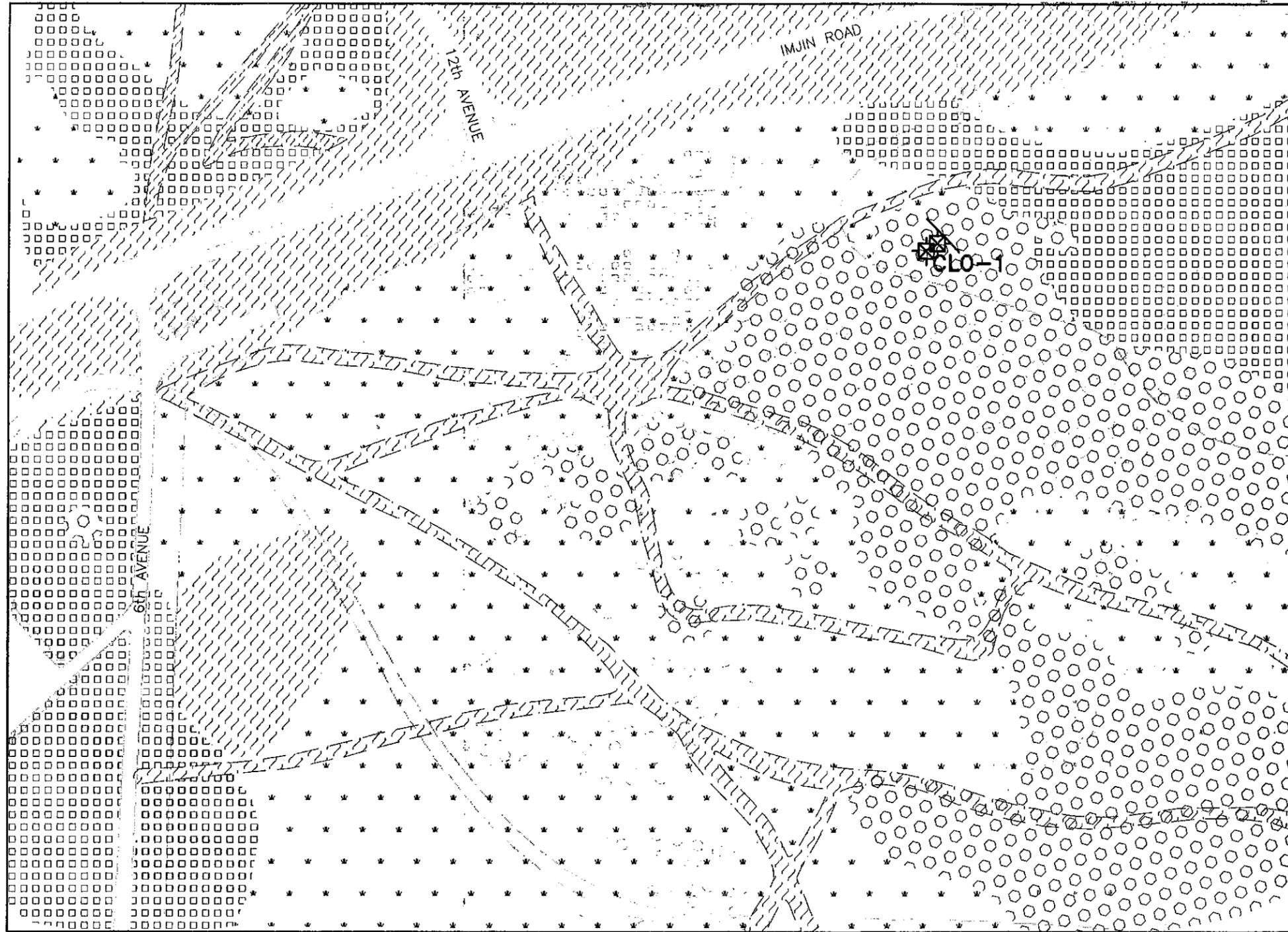
Volume IV - Ecological Risk Assessment
Basewide RI/FS
Fort Ord, California

Plant Communities and Sampling Locations
Central Maritime Chaparral
Reference Site

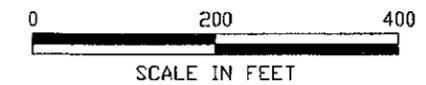
PLATE: **6.2**

EXPLANATION

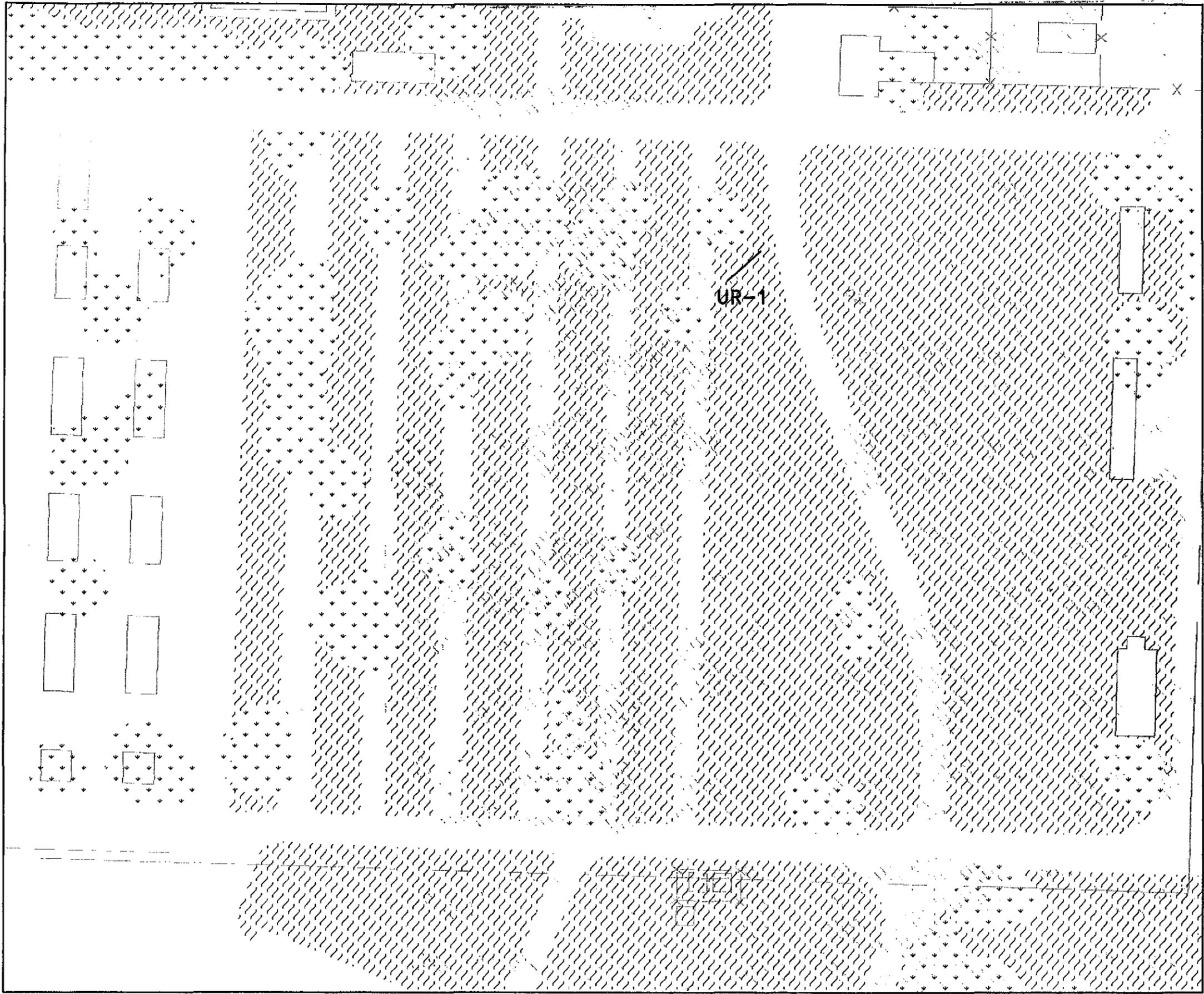
-  FULLY DEVELOPED
-  UPLAND RUDERAL
-  COAST LIVE OAK WOODLAND
-  CENTRAL MARITIME CHAPARRAL
-  CENTRAL COASTAL SCRUB
-  CLO-1
COAST LIVE OAK WOODLAND TRANSECT (ICEPLANT, LEAF LITTER, SOIL, RODENT)
-  RODENT COLLECTION



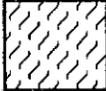
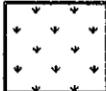
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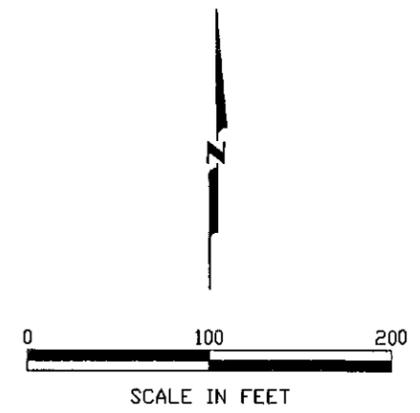
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1	12/94	DRAFT FINAL	23366802	23366-041724	MES	11/21/94	PH					



EXPLANATION

-  FULLY DEVELOPED
-  UPLAND RUDERAL
-  LANDSCAPED

UR-1 ——— UPLAND RUDERAL TRANSECT
(ICEPLANT, LEAF LITTER, SOIL)



NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT NO.	APPROVED	APPROVAL DATE	DRAWN BY	Harding Lawson Associates		Volume IV - Ecological Risk Assessment		Plant Communities and Sampling Locations		PLATE:
1	12/94	DRAFT FINAL	23366669	23366 0417240	ME S	11/21/94	PH	Engineering and Environmental Services	Fort Ord, California	Basewide RI/FS	Upland Ruderal Reference Site	6.4		



EXPLANATION

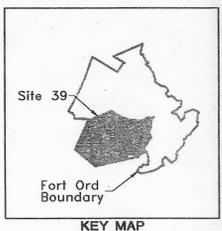
- SB-20-05 SOIL BORING LOCATION
- MW-05-02-A MONITORING WELL (HLA)
- MW-05-02-A MONITORING WELL (OTHERS)
- BUILDING

PLANT COMMUNITIES

- [Hatched pattern] UPLAND RUDERAL
- [Cross-hatched pattern] LANDSCAPED
- [Dotted pattern] COAST LIVE OAK WOODLAND
- [Stippled pattern] SEASONALLY WET GRASSLAND
- [Horizontal lines] CENTRAL MARITIME CHAPARRAL
- [Vertical lines] VALLEY NEEDLE GRASSLAND
- [Wavy lines] VERNAL POOL

AQUATIC COMMUNITIES

- [Solid black] LAKE OR POND



NO.	DATE	REVISIONS	HLA FILE NO.	PROJECT	APPROVED	APPROVAL DATE	DRAWN BY
1	9/94	DRAFT	23366564	23366 07171	PH		
2	12/94	DRAFT FINAL	23366564	23366 041724	MCJ	11/20/94	PH

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**Basewide Remedial Investigation/Feasibility Study
Fort Ord, California**

Volume IV - Baseline Ecological Risk Assessment

Appendixes

Prepared for

Department of the Army
Corps of Engineers
Sacramento District
1325 J Street
Sacramento, California 95814-2922

HLA Project No. 23366 041724

Draft: July 21, 1994

Draft Final: November 16, 1994



Harding Lawson Associates

Engineering and Environmental Services
105 Digital Drive, P.O. Box 6107
Novato, California 94948 - (415) 883-0112

Basewide Remedial Investigation/Feasibility Study Fort Ord, California

Volume IV - Baseline Ecological Risk Assessment Appendixes A through J

HLA Project No. 23366 041737

Summary of Text Changes

This final version of the Baseline Ecological Risk Assessment Appendixes A through J addresses comments received on the Draft Final version of the report dated December 1994. Responses to agency comments on the Draft Final report are included in Volume VI of this report. Text changes have been made to the following pages in response to agency comments. Replacement pages are indicated with an R.

Page H4
Appendix H Table 1

**Basewide Remedial Investigation/Feasibility Study
Fort Ord, California**

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Basewide Hydrogeologic Characterization Text, Tables and Plates
Binder 3 Basewide Hydrogeologic Characterization Appendixes
Binder 4 Basewide Surface Water Outfall Investigation
Binder 5 Basewide Background Soil Investigation
Basewide Storm Drain and Sanitary Sewer Investigation
Binder 6 Sites 2 and 12 Text, Tables, and Plates
Binder 7 Site 2 and 12 Appendixes
Binder 8 Site 16 and 17
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Volume III Baseline Human Health Risk Assessment

Binder 13 Baseline Human Health Risk Assessment

Volume IV Baseline Ecological Risk Assessment

Binder 14 Baseline Ecological Risk Assessment Text, Tables and Plates
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Sites 16 and 17 Feasibility Study
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- B PLANT AND ANIMAL SPECIES LISTS FOR INDIVIDUAL SITES
- C ESTIMATION OF CHEMICAL UPTAKE INTO OAT PLANTS
- D ECOTOXICITY LITERATURE INFORMATION SUMMARY
- E SCREENING ASSESSMENT EXPOSURE AND RISK TABLES
- F STANDARD OPERATING PROCEDURES
- G SUMMARY OF CHEMICALS DETECTED IN SOIL AND BIOTA USED IN THE QUANTITATIVE ECOLOGICAL RISK ASSESSMENT
- H QUANTITATIVE ECOLOGICAL RISK ASSESSMENT DATA ANALYSIS INFORMATION
- I BUCKWHEAT ASSAY RESULTS (SITE 3)
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APPENDIX A

**SUMMARY OF CHEMICALS DETECTED IN SOIL AND STORMWATER
USED IN THE SCREENING ASSESSMENT**

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A2	Deep Soil Analytical Results - Site 1
A3	Surficial Soil Analytical Results - Site 2
A4	Shallow Soil Analytical Results - Site 2
A5	Deep Soil Analytical Results - Site 2
A6	Surficial Soil Analytical Results - Site 3
A7	Shallow Soil Analytical Results - Site 3
A8	Deep Soil Analytical Results - Site 3
A9	Surficial Soil Analytical Results - Site 5
A10	Deep Soil Analytical Results - Site 5
A11	Surficial Soil Analytical Results - Site 6
A12	Deep Soil Analytical Results - Site 6
A13	Surficial Soil Analytical Results - Site 8
A14	Surficial Soil Analytical Results - Site 9
A15	Deep Soil Analytical Results - Site 9
A16	Surficial Soil Analytical Results - Site 10
A17	Shallow Soil Analytical Results - Site 10
A18	Deep Soil Analytical Results - Site 10
A19	Surficial Soil Analytical Results - Site 12
A20	Shallow Soil Analytical Results - Site 12
A21	Deep Soil Analytical Results - Site 12
A22	Shallow Soil Analytical Results - Site 13
A23	Deep Soil Analytical Results - Site 13
A24	Shallow Soil Analytical Results - Site 14
A25	Deep Soil Analytical Results - Site 14
A26	Surficial Soil Analytical Results - Site 15
A27	Shallow Soil Analytical Results - Site 15
A28	Deep Soil Analytical Results - Site 15
A29	Surficial Soil Analytical Results - Site 16
A30	Shallow Soil Analytical Results - Site 16
A31	Deep Soil Analytical Results - Site 16
A32	Surficial Soil Analytical Results - Site 17
A33	Shallow Soil Analytical Results - Site 17
A34	Deep Soil Analytical Results - Site 17
A35	Deep Soil Analytical Results - Site 18
A36	Surficial Soil Analytical Results - Site 19
A37	Deep Soil Analytical Results - Site 19
A38	Shallow Soil Analytical Results - Site 20
A39	Deep Soil Analytical Results - Site 20
A40	Surficial Soil Analytical Results - Site 21
A41	Deep Soil Analytical Results - Site 21
A42	Surficial Soil Analytical Results - Site 22
A43	Deep Soil Analytical Results - Site 22
A44	Shallow Soil Analytical Results - Site 23
A45	Deep Soil Analytical Results - Site 23
A46	Surficial Soil Analytical Results - Site 24

A47	Shallow Soil Analytical Results - Site 24
A48	Deep Soil Analytical Results - Site 24
A49	Surficial Soil Analytical Results - Site 25
A50	Deep Soil Analytical Results - Site 25
A51	Deep Soil Analytical Results - Site 27
A52	Surficial Soil Analytical Results - Site 28
A53	Deep Soil Analytical Results - Site 28
A54	Shallow Soil Analytical Results - Site 29
A55	Deep Soil Analytical Results - Site 29
A56	Surficial Soil Analytical Results - Site 30
A57	Deep Soil Analytical Results - Site 30
A58	Surficial Soil Analytical Results - Site 31
A59	Shallow Soil Analytical Results - Site 31
A60	Deep Soil Analytical Results - Site 31
A61	Shallow Soil Analytical Results - Site 32
A62	Deep Soil Analytical Results - Site 32
A63	Surficial Soil Analytical Results - Site 33
A64	Shallow Soil Analytical Results - Site 33
A65	Deep Soil Analytical Results - Site 33
A66	Shallow Soil Analytical Results - Site 34
A67	Deep Soil Analytical Results - Site 34
A68	Shallow Soil Analytical Results - Site 35
A69	Deep Soil Analytical Results - Site 35
A70	Surficial Soil Analytical Results - Site 36
A71	Shallow Soil Analytical Results - Site 36
A72	Deep Soil Analytical Results - Site 36
A73	Deep Soil Analytical Results - Site 37
A74	Surficial Soil Analytical Results - Site 39 Vegetated Areas
A75	Shallow Soil Analytical Results - Site 39 Vegetated Areas
A76	Deep Soil Analytical Results - Site 39 Vegetated Areas
A77	Surficial Soil Analytical Results - Site 39 Nonvegetated Areas
A78	Shallow Soil Analytical Results - Site 39 Nonvegetated Areas
A79	Deep Soil Analytical Results - Site 39 Nonvegetated Areas
A80	Surficial Soil Analytical Results - Site 40
A81	Shallow Soil Analytical Results - Site 40
A82	Deep Soil Analytical Results - Site 40
A83	Surficial Soil Analytical Results - Site 41
A84	Shallow Soil Analytical Results - Site 41
A85	Deep Soil Analytical Results - Site 41
A86	Analytical Results for Inorganic Compounds Detected in Stormwater Samples
A87	Analytical Results for Organic Compounds Detected in Stormwater Samples

SUMMARY OF CHEMICALS DETECTED IN SOIL AND STORMWATER USED IN THE SCREENING ASSESSMENT

The following tables present the analytical results for soil samples at each site and stormwater samples at several outfalls used in the screening assessment performed for the Basewide ERA portion of the Basewide RI/FS for Fort Ord, California. This includes all soil data collected through April 1994. The soil samples were taken at one or more depths at each site:

Surficial Soil = Soil taken from 0-0.5 feet.
Shallow Soil = Soil taken from 0.5-4.0 feet.
Deep Soil = Soil taken from 4.0-10.0 feet.

Sampling of stormwater is described in Section 5.6 of the ERA. Samples were analyzed for different classes of chemicals, including:

Dioxans/Furans
Explosives
Herbicides
Metals
Pesticides
PCBs (Polychlorinated biphenyls)
SOCs (Semi-volatile organic compounds)
TPH (Total petroleum hydrocarbons)
VOCs (Volatile organic compounds)

Abbreviations used in the following tables include:

FOD = frequency of detection
mg/kg = milligrams per kilogram (concentration)
A = The mean detected concentration of an analyte exceeded the mean background concentration.
M = The maximum detected concentration of an analyte exceeded the maximum background concentration.
N = No detected concentration of an analyte exceeded the background concentration.
 $\mu\text{g/l}$ = micrograms per liter (concentration)
mg/l = milligrams per liter

Qualifiers (qual) include:

V = Sample has undergone detailed data validation.
U = Compound was analyzed for but not detected.
A = Sample has undergone routine data validation.
W = Post-digestion spike for furnace AA analysis is outside of control limits.
J3 = Analytical results for this compound are qualified as estimated due to poor spike recoveries.
B = Reported value is less than the CRDL and greater than or equal to the instrument detection limit.
U1 = Compound is qualified as non-detected due to its occurrence in the laboratory blanks.
J4 = Analytical results for this compound are qualified as estimated due to ICP-serial dilution relative percent difference quality control criteria exceedances.

- E = The reported value is estimated because of the presence of interference.
- U2 = Compound is qualified as non-detected due to its occurrence in the field blanks.
- J5 = Analytical results for this compound are qualified as estimated due to holding time exceedances.
- b = Analytical results should not be considered reliable for this common lab contaminant, unless the sample result exceeds 5 times the reporting limit or 10 times the blank result.
- 1 = Hydrocarbons present in this sample represent an unknown mixture in the diesel range. Quantification based on diesel references.

**Table A1. Shallow Soil Analytical Results - Site 1
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
Metals											
Arsenic	1	1	100.0 %	2.20E+00	--	--	--	3.40E+00	1.33E+00	Y	N
Chromium	1	1	100.0 %	1.30E+01	--	--	--	4.61E+01	9.22E+00	Y	N
Copper	1	1	100.0 %	4.70E+00	--	--	--	1.82E+01	4.50E+00	Y	N
Lead	1	1	100.0 %	8.60E+00	--	--	--	5.18E+01	9.29E+00	Y	N
Mercury	1	1	100.0 %	2.40E-01	--	--	--	1.20E-01	--	Y	M
Nickel	1	1	100.0 %	7.90E+00	--	--	--	5.80E+01	7.81E+00	Y	N
Zinc	1	1	100.0 %	2.27E+01	--	--	--	7.58E+01	1.49E+01	Y	N

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A2. Deep Soil Analytical Results - Site 1
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FDD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FDD Exceed 5%?	
VOCs											
Acetone	5	11	45.5 %	1.70E-02	7.41E-03	3.82E-03	9.48E-03	--	--	Y	--
Chloromethane	1	11	9.1 %	1.60E-02	6.05E-03	3.31E-03	7.84E-03	--	--	Y	--
Methylene chloride	4	11	36.4 %	5.00E-03	2.96E-03	7.50E-04	3.37E-03	--	--	Y	--
SOCs											
Bis(2-ethylhexyl)phthalate	1	15	6.7 %	4.20E-01	1.89E-01	6.42E-02	2.18E-01	--	--	Y	--
Diethyl phthalate	6	15	40.0 %	2.70E-01	1.90E-01	3.21E-02	2.05E-01	--	--	Y	--
Metals											
Arsenic	14	15	93.3 %	2.10E+00	1.62E+00	3.80E-01	1.79E+00	4.50E+00	1.64E+00	Y	N
Beryllium	2	15	13.3 %	2.30E-01	1.20E-01	6.00E-02	1.50E-01	4.80E-01	--	Y	N
Chromium	13	15	86.7 %	2.09E+01	9.24E+00	4.90E+00	1.15E+01	2.27E+01	8.79E+00	Y	A
Copper	2	15	13.3 %	5.20E+00	1.58E+00	1.06E+00	2.06E+00	8.20E+00	2.36E+00	Y	N
Lead	12	15	80.0 %	3.10E+00	1.39E+00	8.00E-01	1.75E+00	3.70E+00	1.46E+00	Y	N
Nickel	9	15	60.0 %	1.33E+01	6.22E+00	3.64E+00	7.87E+00	1.95E+01	6.51E+00	Y	N
Silver	1	11	9.1 %	4.30E-01	2.00E-01	8.00E-02	2.40E-01	4.90E-01	--	Y	N
Zinc	15	15	100.0 %	2.00E+01	9.59E+00	4.27E+00	1.15E+01	1.39E+01	7.49E+00	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A3. Surficial Soil Analytical Results - Site 2
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
Metals											
Antimony	1	2	50.0 %	2.31E+01	1.31E+01	1.42E+01	4.24E+01	--	--	Y	--
Arsenic	2	2	100.0 %	3.70E+00	2.55E+00	1.63E+00	5.91E+00	3.40E+00	1.33E+00	Y	M/A
Beryllium	1	2	50.0 %	2.30E-01	1.70E-01	9.00E-02	3.50E-01	3.50E-01	--	Y	N
Cadmium	1	2	50.0 %	1.75E+01	8.91E+00	1.22E+01	3.40E+01	--	--	Y	--
Chromium	2	2	100.0 %	9.08E+01	5.16E+01	5.54E+01	1.66E+02	4.61E+01	9.22E+00	Y	M/A
Copper	2	2	100.0 %	1.16E+03	5.83E+02	8.16E+02	2.27E+03	1.82E+01	4.50E+00	Y	M/A
Lead	2	2	100.0 %	1.81E+02	9.33E+01	1.24E+02	3.49E+02	5.18E+01	9.29E+00	Y	M/A
Mercury	1	2	50.0 %	5.30E+00	2.68E+00	3.71E+00	1.03E+01	1.20E-01	--	Y	M
Nickel	1	2	50.0 %	3.13E+01	1.73E+01	1.98E+01	5.82E+01	5.80E+01	7.81E+00	Y	A
Selenium	1	2	50.0 %	8.40E+00	4.34E+00	5.74E+00	1.62E+01	--	--	Y	--
Silver	1	2	50.0 %	5.86E+01	2.94E+01	4.13E+01	1.15E+02	3.60E-01	--	Y	M
Thallium	1	2	50.0 %	6.00E-01	4.00E-01	2.80E-01	9.80E-01	4.50E-01	--	Y	M
Zinc	2	2	100.0 %	1.55E+03	7.79E+02	1.09E+03	3.03E+03	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A4. Shallow Soil Analytical Results - Site 2
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
Metals											
Chromium	1	1	100.0 %	2.29E+01	--	--	--	4.61E+01	9.22E+00	Y	N
Copper	1	1	100.0 %	3.70E+00	--	--	--	1.82E+01	4.50E+00	Y	N
Nickel	1	1	100.0 %	8.80E+00	--	--	--	5.80E+01	7.81E+00	Y	N
Zinc	1	1	100.0 %	2.04E+01	--	--	--	7.58E+01	1.49E+01	Y	N

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A5. Deep Soil Analytical Results - Site 2
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Does FOD Exceed 5%?	Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)			
Metals												
Arsenic	2	4	50.0 %	4.00E+00	2.11E+00	1.29E+00	3.48E+00	4.50E+00	1.64E+00	Y	A	
Chromium	4	4	100.0 %	3.02E+01	2.45E+01	5.72E+00	3.06E+01	2.27E+01	8.79E+00	Y	M/A	
Copper	4	4	100.0 %	4.60E+00	4.13E+00	5.60E-01	4.72E+00	8.20E+00	2.36E+00	Y	A	
Lead	2	4	50.0 %	1.40E+00	9.30E-01	6.00E-01	1.56E+00	3.70E+00	1.46E+00	Y	N	
Nickel	4	4	100.0 %	1.90E+01	1.44E+01	4.79E+00	1.95E+01	1.95E+01	6.51E+00	Y	A	
Zinc	4	4	100.0 %	3.16E+01	2.10E+01	7.10E+00	2.86E+01	1.39E+01	7.49E+00	Y	M/A	

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A6. Surficial Soil Analytical Results - Site 3
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
Metals											
Antimony	11	26	42.3 %	3.36E+03	3.96E+02	8.83E+02	6.92E+02	--	--	Y	--
Chromium	28	28	100.0 %	5.38E+01	1.99E+01	1.17E+01	2.36E+01	4.61E+01	9.22E+00	Y	M/A
Copper	28	28	100.0 %	1.99E+04	1.12E+03	3.78E+03	2.34E+03	1.82E+01	4.50E+00	Y	M/A
Lead	22	28	78.6 %	4.63E+04	8.00E+03	1.35E+04	1.24E+04	5.18E+01	9.29E+00	Y	M/A
Tin (total)	10	27	37.0 %	6.74E+01	5.75E+00	1.38E+01	1.03E+01	--	--	Y	--
Tin (total)	10	27	37.0 %	6.74E+01	5.75E+00	1.38E+01	1.03E+01	--	--	Y	--
Zinc	27	28	96.4 %	2.16E+03	1.45E+02	4.10E+02	2.77E+02	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A7. Shallow Soil Analytical Results - Site 3
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
Metals											
Antimony	7	34	20.6 %	8.27E+01	9.85E+00	1.90E+01	1.52E+01	--	--	Y	--
Chromium	40	40	100.0 %	4.69E+01	1.65E+01	9.16E+00	1.89E+01	4.61E+01	9.22E+00	Y	M/A
Copper	40	40	100.0 %	2.02E+03	1.73E+02	4.94E+02	3.01E+02	1.82E+01	4.50E+00	Y	M/A
Lead	17	40	42.5 %	1.49E+04	9.06E+02	2.71E+03	1.61E+03	5.18E+01	9.29E+00	Y	M/A
Tin (total)	3	40	7.5 %	3.70E+00	6.40E-01	5.60E-01	7.90E-01	--	--	Y	--
Tin (total)	3	40	7.5 %	3.70E+00	6.40E-01	5.60E-01	7.90E-01	--	--	Y	--
Zinc	38	40	95.0 %	2.40E+02	3.22E+01	5.73E+01	4.71E+01	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A8. Deep Soil Analytical Results - Site 3
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
Metals											
Chromium	1	1	100.0 %	2.31E+01	--	--	--	2.27E+01	8.79E+00	Y	M
Copper	1	1	100.0 %	1.13E+02	--	--	--	8.20E+00	2.36E+00	Y	M
Lead	1	1	100.0 %	1.64E+02	--	--	--	3.70E+00	1.46E+00	Y	M
Zinc	1	1	100.0 %	2.88E+01	--	--	--	1.39E+01	7.49E+00	Y	M

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A9. Surficial Soil Analytical Results - Site 5
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
SOCs											
HMX	5	23	21.7 %	1.84E-03	3.50E-04	3.80E-04	4.80E-04	--	--	Y	--
RDX	9	23	39.1 %	1.65E-02	1.47E-03	3.47E-03	2.71E-03	--	--	Y	--
Metals											
Arsenic	24	24	100.0 %	3.10E+00	1.45E+00	6.40E-01	1.67E+00	3.40E+00	1.33E+00	Y	A
Beryllium	11	24	45.8 %	8.10E-01	1.90E-01	1.50E-01	2.50E-01	3.50E-01	--	Y	M
Chromium	19	24	79.2 %	3.68E+01	8.94E+00	7.80E+00	1.17E+01	4.61E+01	9.22E+00	Y	N
Copper	14	24	58.3 %	1.51E+01	5.10E+00	4.47E+00	6.66E+00	1.82E+01	4.50E+00	Y	A
Lead	24	24	100.0 %	1.76E+02	1.63E+01	3.49E+01	2.85E+01	5.18E+01	9.29E+00	Y	M/A
Nickel	12	24	50.0 %	2.56E+01	6.50E+00	5.03E+00	8.26E+00	5.80E+01	7.81E+00	Y	N
Selenium	1	24	4.2 %	5.50E-01	2.80E-01	6.00E-02	3.00E-01	--	--	N	--
Silver	1	24	4.2 %	3.80E-01	1.90E-01	4.00E-02	2.10E-01	3.60E-01	--	N	M
Zinc	14	24	58.3 %	5.31E+01	1.30E+01	1.39E+01	1.78E+01	7.58E+01	1.49E+01	Y	N

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A10. Deep Soil Analytical Results - Site 5
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
Metals											
Arsenic	10	10	100.0 %	2.40E+00	1.64E+00	5.00E-01	1.92E+00	4.50E+00	1.64E+00	Y	A
Beryllium	9	10	90.0 %	6.40E-01	3.50E-01	1.30E-01	4.30E-01	4.80E-01	--	Y	M
Cadmium	1	10	10.0 %	6.50E-01	3.30E-01	1.10E-01	4.00E-01	1.90E+00	--	Y	N
Chromium	10	10	100.0 %	3.00E+01	1.78E+01	6.84E+00	2.18E+01	2.27E+01	8.79E+00	Y	M/A
Copper	8	10	80.0 %	1.02E+01	4.98E+00	2.51E+00	6.42E+00	8.20E+00	2.36E+00	Y	M/A
Lead	10	10	100.0 %	6.80E+00	3.17E+00	1.62E+00	4.10E+00	3.70E+00	1.46E+00	Y	M/A
Nickel	6	10	60.0 %	2.38E+01	1.00E+01	6.91E+00	1.40E+01	1.95E+01	6.51E+00	Y	M/A
Selenium	1	10	10.0 %	6.60E-01	3.20E-01	1.20E-01	3.90E-01	--	--	Y	--
Silver	1	10	10.0 %	5.50E-01	2.40E-01	1.40E-01	3.20E-01	4.90E-01	--	Y	M
Zinc	10	10	100.0 %	1.94E+01	1.16E+01	3.87E+00	1.38E+01	1.39E+01	7.49E+00	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A11. Surficial Soil Analytical Results - Site 6
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
TPH											
TPH-Diesel	1	22	4.6 %	2.30E+01	1.68E+01	4.89E+01	3.47E+01	--	--	N	--
Metals											
Antimony	1	22	4.6 %	1.28E+01	3.33E+00	2.12E+00	4.10E+00	--	--	N	--
Arsenic	17	22	77.3 %	6.80E+00	1.77E+00	1.58E+00	2.35E+00	3.40E+00	1.33E+00	Y	M/A
Beryllium	13	22	59.1 %	4.10E-01	2.10E-01	1.10E-01	2.50E-01	3.50E-01	--	Y	M
Cadmium	1	22	4.6 %	7.60E-01	3.30E-01	1.00E-01	3.70E-01	--	--	N	--
Chromium	22	22	100.0 %	4.85E+01	1.49E+01	8.29E+00	1.80E+01	4.61E+01	9.22E+00	Y	M/A
Copper	9	22	40.9 %	1.78E+01	5.10E+00	4.83E+00	6.87E+00	1.82E+01	4.50E+00	Y	A
Lead	19	22	86.4 %	9.87E+01	1.61E+01	2.67E+01	2.59E+01	5.18E+01	9.29E+00	Y	M/A
Nickel	19	22	86.4 %	3.01E+01	1.01E+01	5.76E+00	1.22E+01	5.80E+01	7.81E+00	Y	A
Silver	1	22	4.6 %	4.60E-01	2.00E-01	6.00E-02	2.30E-01	3.60E-01	--	N	M
Zinc	12	22	54.6 %	2.61E+01	9.98E+00	6.58E+00	1.24E+01	7.58E+01	1.49E+01	Y	N

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A12. Deep Soil Analytical Results - Site 6
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations		Does FOD Exceed 5%?	Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)		
Metals											
Arsenic	16	22	72.7 %	2.20E+00	1.36E+00	5.90E-01	1.58E+00	4.50E+00	1.64E+00	Y	N
Beryllium	9	22	40.9 %	3.90E-01	1.70E-01	1.00E-01	2.10E-01	4.80E-01	--	Y	N
Chromium	22	22	100.0 %	2.14E+01	1.17E+01	3.12E+00	1.28E+01	2.27E+01	8.79E+00	Y	A
Copper	3	22	13.6 %	7.20E+00	1.83E+00	1.51E+00	2.38E+00	8.20E+00	2.36E+00	Y	N
Lead	12	22	54.6 %	3.20E+00	2.97E+00	7.47E+00	5.71E+00	3.70E+00	1.46E+00	Y	A
Nickel	17	22	77.3 %	1.55E+01	8.71E+00	3.78E+00	1.01E+01	1.95E+01	6.51E+00	Y	A
Zinc	12	22	54.6 %	2.15E+01	6.20E+00	4.63E+00	7.90E+00	1.39E+01	7.49E+00	Y	M

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A13. Surficial Soil Analytical Results - Site 8
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
Metals											
Lead	1	1	100.0 %	3.94E+01	--	--	--	5.18E+01	9.29E+00	Y	N

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A14. Surficial Soil Analytical Results - Site 9
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
Metals											
Lead	6	6	100.0 %	7.14E+01	2.61E+01	3.00E+01	4.99E+01	5.18E+01	9.29E+00	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A15. Deep Soil Analytical Results - Site 9
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
Metals											
Lead	6	6	100.0 %	9.90E+00	4.77E+00	3.39E+00	7.46E+00	3.70E+00	1.46E+00	Y	N/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A16. Surficial Soil Analytical Results - Site 10
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
Dioxins/Furans											
1,2,3,4,6,7,8-HpCDD	3	3	100.0 %	6.30E-04	4.00E-04	3.30E-04	8.50E-04	--	--	Y	--
Total HpCDD	3	3	100.0 %	1.20E-03	7.50E-04	6.20E-04	1.59E-03	--	--	Y	--
1,2,3,4,6,7,8-HpCDF	2	3	66.7 %	2.50E-05	1.52E-05	1.22E-05	3.17E-05	--	--	Y	--
Total HpCDF	3	3	100.0 %	5.00E-05	3.69E-05	2.55E-05	7.00E-05	--	--	Y	--
Total HxCDD	2	3	66.7 %	2.30E-04	1.40E-04	1.20E-04	3.10E-04	--	--	Y	--
Total HxCDF	2	3	66.7 %	2.70E-05	1.79E-05	1.49E-05	3.82E-05	--	--	Y	--
1,2,3,4,7,8-HxCDD	2	3	66.7 %	7.40E-06	4.69E-06	3.94E-06	1.01E-05	--	--	Y	--
1,2,3,6,7,8-HxCDD	2	3	66.7 %	2.60E-05	1.65E-05	1.38E-05	3.54E-05	--	--	Y	--
1,2,3,7,8,9-HxCDD	2	3	66.7 %	2.70E-05	1.58E-05	1.38E-05	3.45E-05	--	--	Y	--
OCDD	3	3	100.0 %	4.80E-03	2.72E-03	2.35E-03	5.92E-03	--	--	Y	--
OCDF total	2	3	66.7 %	2.70E-05	1.63E-05	1.22E-05	3.29E-05	--	--	Y	--
Total PeCDD	1	3	33.3 %	1.20E-05	4.86E-06	6.28E-06	1.34E-05	--	--	Y	--
Total PeCDF	2	3	66.7 %	2.70E-05	1.46E-05	1.32E-05	3.25E-05	--	--	Y	--
2,3,7,8-TCDD	2	3	66.7 %	3.00E-06	2.03E-06	1.43E-06	3.97E-06	--	--	Y	--
Total TCDD	2	3	66.7 %	4.60E-06	3.17E-06	2.40E-06	6.42E-06	--	--	Y	--
Total TCDF	2	3	66.7 %	2.30E-05	9.49E-06	1.20E-05	2.57E-05	--	--	Y	--
Metals											
Antimony	1	2	50.0 %	4.20E-01	2.90E-01	1.80E-01	6.70E-01	--	--	Y	--
Arsenic	2	2	100.0 %	9.40E-01	7.90E-01	2.10E-01	1.23E+00	3.40E+00	1.33E+00	Y	N
Beryllium	2	2	100.0 %	2.30E-01	2.10E-01	3.00E-02	2.70E-01	3.50E-01	--	Y	N
Cadmium	1	2	50.0 %	3.40E+00	1.93E+00	2.08E+00	6.22E+00	--	--	Y	--
Chromium	2	2	100.0 %	4.45E+01	2.89E+01	2.21E+01	7.45E+01	4.61E+01	9.22E+00	Y	A
Copper	1	2	50.0 %	1.50E+02	7.57E+01	1.05E+02	2.93E+02	1.82E+01	4.50E+00	Y	M/A
Lead	2	2	100.0 %	4.12E+02	2.11E+02	2.84E+02	7.98E+02	5.18E+01	9.29E+00	Y	M/A
Nickel	2	2	100.0 %	1.33E+01	1.18E+01	2.12E+00	1.62E+01	5.80E+01	7.81E+00	Y	A
Zinc	1	2	50.0 %	2.20E+02	1.13E+02	1.51E+02	4.25E+02	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A17. Shallow Soil Analytical Results - Site 10
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Acetone	1	6	16.7 %	4.70E-01	8.63E-02	1.88E-01	2.36E-01	--	--	Y	--
Ethyl benzene	1	6	16.7 %	1.90E-01	3.57E-02	7.57E-02	9.58E-02	--	--	Y	--
Methyl ethyl ketone	1	6	16.7 %	1.50E-01	3.30E-02	5.79E-02	7.90E-02	--	--	Y	--
Tetrachloroethene	1	6	16.7 %	5.30E-02	1.28E-02	2.01E-02	2.88E-02	--	--	Y	--
Toluene	1	6	16.7 %	3.20E-01	5.74E-02	1.29E-01	1.60E-01	--	--	Y	--
Xylenes	1	6	16.7 %	1.60E+00	2.71E-01	6.51E-01	7.87E-01	--	--	Y	--
SOCs											
Bis(2-ethylhexyl)phthalate	6	6	100.0 %	1.70E+00	5.92E-01	7.84E-01	1.21E+00	--	--	Y	--
2-Methylnaphthalene	1	6	16.7 %	3.40E+00	9.78E-01	1.34E+00	2.04E+00	--	--	Y	--
4-Methylphenol	1	5	20.0 %	4.60E-01	2.35E-01	1.26E-01	3.49E-01	--	--	Y	--
Naphthalene	1	6	16.7 %	1.80E+00	7.11E-01	8.25E-01	1.36E+00	--	--	Y	--
Pentachlorophenol	1	1	100.0 %	3.60E-02	--	--	--	--	--	Y	--
Phenanthrene	1	5	20.0 %	4.80E-01	2.39E-01	1.35E-01	3.61E-01	--	--	Y	--
Pyrene	2	6	33.3 %	7.50E-01	3.19E-01	2.37E-01	5.08E-01	--	--	Y	--
TPH											
TPH-Extractable Unknown Hyd.	3	6	50.0 %	4.80E+03	1.61E+03	2.33E+03	3.45E+03	--	--	Y	--
TPH-Purgeable Unknown Hyd.	1	6	16.7 %	3.20E+02	5.38E+01	1.30E+02	1.57E+02	--	--	Y	--

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

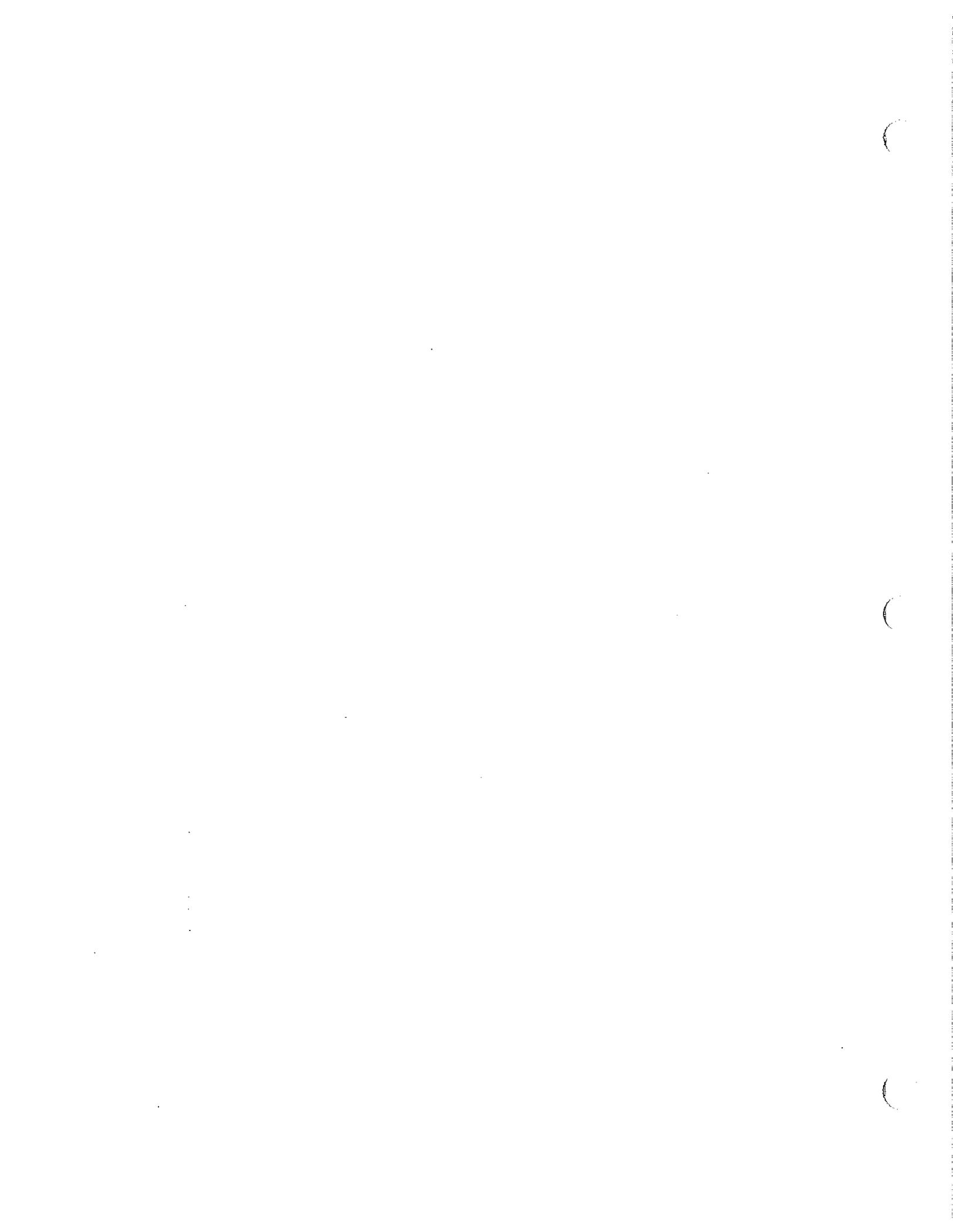
/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.



**Table A18. Deep Soil Analytical Results - Site 10
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/	
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?		
VOCs												
Xylenes	1	6	16.7 %	1.20E-02	4.18E-03	3.83E-03	7.22E-03	--	--	Y	--	
SOCs												
Bis(2-ethylhexyl)phthalate	3	5	60.0 %	2.90E-01	1.63E-01	8.05E-02	2.36E-01	--	--	Y	--	
Di-n-butylphthalate	1	1	100.0 %	3.60E-02	--	--	--	--	--	Y	--	
Dioxins/Furans												
1,2,3,4,6,7,8-HpCDD	2	2	100.0 %	4.80E-04	2.60E-04	3.10E-04	9.00E-04	--	--	Y	--	
Total HpCDD	2	2	100.0 %	9.20E-04	5.10E-04	5.90E-04	1.72E-03	--	--	Y	--	
1,2,3,4,6,7,8-HpCDF	1	2	50.0 %	1.30E-05	6.93E-06	8.59E-06	2.47E-05	--	--	Y	--	
Total HpCDF	1	2	50.0 %	4.10E-05	2.12E-05	2.80E-05	8.00E-05	--	--	Y	--	
Total HxCDD	2	2	100.0 %	2.80E-04	1.50E-04	1.80E-04	5.20E-04	--	--	Y	--	
Total HxCDF	1	2	50.0 %	9.30E-06	4.95E-06	6.15E-06	1.76E-05	--	--	Y	--	
1,2,3,6,7,8-HxCDD	1	2	50.0 %	4.10E-05	2.18E-05	2.72E-05	8.00E-05	--	--	Y	--	
1,2,3,7,8,9-HxCDD	1	2	50.0 %	2.20E-05	1.16E-05	1.47E-05	4.19E-05	--	--	Y	--	
OCDD	2	2	100.0 %	3.60E-03	1.98E-03	2.30E-03	6.72E-03	--	--	Y	--	
OCDF total	1	2	50.0 %	1.10E-05	5.85E-06	7.28E-06	2.09E-05	--	--	Y	--	
1,2,3,7,8-PeCDD	1	2	50.0 %	6.90E-06	3.64E-06	4.61E-06	1.32E-05	--	--	Y	--	
Total PeCDD	1	2	50.0 %	6.90E-06	3.64E-06	4.61E-06	1.32E-05	--	--	Y	--	
Total PeCDF	1	2	50.0 %	2.10E-05	1.08E-05	1.44E-05	4.05E-05	--	--	Y	--	
2,3,7,8-TCDD	1	2	50.0 %	1.60E-06	8.90E-07	1.01E-06	2.97E-06	--	--	Y	--	
Total TCDD	1	2	50.0 %	3.30E-06	1.74E-06	2.21E-06	6.30E-06	--	--	Y	--	
Total TCDF	1	2	50.0 %	6.40E-06	3.26E-06	4.44E-06	1.24E-05	--	--	Y	--	
TPH												
TPH-Extractable Unknown Hyd.	3	6	50.0 %	4.40E+03	7.58E+02	1.78E+03	2.17E+03	--	--	Y	--	
TPH-Purgeable Unknown Hyd.	1	6	16.7 %	1.40E+00	6.70E-01	3.60E-01	9.50E-01	--	--	Y	--	
Metals												
Arsenic	1	6	16.7 %	1.00E+00	6.90E-01	2.50E-01	8.80E-01	4.50E+00	1.64E+00	Y	N	
Beryllium	5	6	83.3 %	3.00E-01	2.00E-01	9.00E-02	2.70E-01	4.80E-01	--	Y	N	
Chromium	6	6	100.0 %	1.38E+01	1.21E+01	1.17E+00	1.31E+01	2.27E+01	8.79E+00	Y	A	
Lead	6	6	100.0 %	1.56E+01	4.92E+00	5.46E+00	9.25E+00	3.70E+00	1.46E+00	Y	M/A	
Nickel	6	6	100.0 %	1.12E+01	9.05E+00	1.58E+00	1.03E+01	1.95E+01	6.51E+00	Y	A	

Table A18. Deep Soil Analytical Results - Site 10
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

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- /a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.
 - /b/ 95 percent upper confidence limit of the arithmetic mean.
 - /c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.
 - /d/ N = No detected concentration exceeded background.
M = Maximum detected concentration exceeds maximum background concentration.
A = Mean detected concentration exceeds mean background concentration.

**Table A19. Surficial Soil Analytical Results - Site 12
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Tetrachloroethene	1	6	16.7 %	4.30E-02	9.30E-03	1.65E-02	2.24E-02	--	--	Y	--
Toluene	1	1	100.0 %	2.10E-03	--	--	--	--	--	Y	--
Trichloroethene	1	1	100.0 %	2.40E-03	--	--	--	--	--	Y	--
TPH											
TPH-Extractable Unknown Hyd.	5	6	83.3 %	4.70E+03	1.57E+03	1.88E+03	3.06E+03	--	--	Y	--
Metals											
Antimony	4	6	66.7 %	4.50E+00	1.84E+00	1.98E+00	3.41E+00	--	--	Y	--
Arsenic	5	6	83.3 %	5.70E+00	2.29E+00	1.72E+00	3.66E+00	3.40E+00	1.33E+00	Y	M/A
Cadmium	3	6	50.0 %	1.86E+01	4.05E+00	7.23E+00	9.78E+00	--	--	Y	--
Chromium	6	6	100.0 %	1.84E+02	4.66E+01	6.86E+01	1.01E+02	4.61E+01	9.22E+00	Y	M/A
Copper	6	6	100.0 %	1.25E+02	4.15E+01	4.57E+01	7.77E+01	1.82E+01	4.50E+00	Y	M/A
Lead	5	6	83.3 %	1.14E+03	3.11E+02	4.41E+02	6.61E+02	5.18E+01	9.29E+00	Y	M/A
Mercury	2	6	33.3 %	3.30E-01	8.00E-02	1.20E-01	1.80E-01	1.20E-01	--	Y	M
Nickel	6	6	100.0 %	1.51E+01	1.26E+01	2.42E+00	1.45E+01	5.80E+01	7.81E+00	Y	A
Zinc	6	6	100.0 %	4.99E+02	1.87E+02	1.88E+02	3.36E+02	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A20. Shallow Soil Analytical Results - Site 12
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Tetrachloroethene	2	16	12.5 %	1.00E-02	3.01E-03	1.89E-03	3.83E-03	--	--	Y	--
SOCs											
Bis(2-ethylhexyl)phthalate	3	12	25.0 %	2.20E-01	1.57E-01	3.94E-02	1.77E-01	--	--	Y	--
Di-n-butylphthalate	1	1	100.0 %	1.10E-01	--	--	--	--	--	Y	--
Diethyl phthalate	1	1	100.0 %	4.10E-02	--	--	--	--	--	Y	--
TPH											
TPH-Extractable Unknown Hyd.	1	16	6.3 %	5.80E+01	8.59E+00	1.32E+01	1.43E+01	--	--	Y	--
Metals											
Antimony	2	16	12.5 %	8.70E+00	7.40E-01	2.12E+00	1.66E+00	--	--	Y	--
Arsenic	15	16	93.8 %	2.80E+00	1.46E+00	4.70E-01	1.66E+00	3.40E+00	1.33E+00	Y	A
Beryllium	6	16	37.5 %	3.60E-01	1.40E-01	9.00E-02	1.80E-01	3.50E-01	--	Y	M
Cadmium	1	16	6.3 %	7.90E+00	9.20E-01	1.86E+00	1.73E+00	--	--	Y	--
Chromium	16	16	100.0 %	2.82E+01	1.26E+01	4.65E+00	1.46E+01	4.61E+01	9.22E+00	Y	A
Copper	10	16	62.5 %	7.54E+01	6.46E+00	1.84E+01	1.45E+01	1.82E+01	4.50E+00	Y	M/A
Lead	15	22	68.2 %	4.41E+02	2.13E+01	9.38E+01	5.56E+01	5.18E+01	9.29E+00	Y	M/A
Mercury	2	16	12.5 %	1.90E-01	4.00E-02	4.00E-02	6.00E-02	1.20E-01	--	Y	M
Nickel	15	16	93.8 %	1.33E+01	9.72E+00	1.96E+00	1.06E+01	5.80E+01	7.81E+00	Y	A
Selenium	1	15	6.7 %	7.70E-01	4.10E-01	1.00E-01	4.60E-01	--	--	Y	--
Zinc	14	16	87.5 %	2.49E+02	3.19E+01	6.48E+01	6.02E+01	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A21. Deep Soil Analytical Results - Site 12
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Acetone	7	40	17.5 %	3.70E-02	7.93E-03	6.34E-03	9.58E-03	--	--	Y	--
Methyl ethyl ketone	2	39	5.1 %	7.10E-03	5.34E-03	4.10E-04	5.45E-03	--	--	Y	--
Methylene chloride	3	38	7.9 %	3.20E-03	2.41E-03	6.40E-04	2.58E-03	--	--	Y	--
Tetrachloroethene	2	39	5.1 %	3.60E-03	2.64E-03	1.80E-04	2.69E-03	--	--	Y	--
Xylenes	3	40	7.5 %	2.80E-02	3.22E-03	4.03E-03	4.27E-03	--	--	Y	--
SOCs											
Bis(2-ethylhexyl)phthalate	9	25	36.0 %	3.60E+00	3.39E-01	6.92E-01	5.75E-01	--	--	Y	--
Di-n-butylphthalate	2	18	11.1 %	1.80E-01	1.67E-01	3.03E-02	1.79E-01	--	--	Y	--
Diethyl phthalate	3	24	12.5 %	3.20E-01	1.83E-01	3.01E-02	1.93E-01	--	--	Y	--
2-Methylnaphthalene	1	25	4.0 %	2.30E-01	1.77E-01	1.17E-02	1.81E-01	--	--	N	--
TPH											
TPH-Extractable Unknown Hyd.	4	22	18.2 %	1.40E+03	1.03E+02	3.15E+02	2.18E+02	--	--	Y	--
TPH-Purgeable Unknown Hyd.	2	22	9.1 %	1.60E+02	7.86E+00	3.40E+01	2.03E+01	--	--	Y	--
Metals											
Antimony	3	11	27.3 %	1.90E+00	3.80E-01	5.20E-01	6.60E-01	8.20E+00	--	Y	N
Arsenic	22	40	55.0 %	4.70E+00	1.19E+00	7.10E-01	1.37E+00	4.50E+00	1.64E+00	Y	M
Beryllium	9	40	22.5 %	2.90E-01	1.20E-01	6.00E-02	1.40E-01	4.80E-01	--	Y	N
Cadmium	5	40	12.5 %	2.00E+00	4.50E-01	3.80E-01	5.50E-01	1.90E+00	--	Y	M
Chromium	37	40	92.5 %	9.16E+01	1.57E+01	1.99E+01	2.08E+01	2.27E+01	8.79E+00	Y	M/A
Copper	32	40	80.0 %	2.80E+01	5.43E+00	5.97E+00	6.98E+00	8.20E+00	2.36E+00	Y	M/A
Lead	39	46	84.8 %	7.77E+02	6.73E+01	1.82E+02	1.12E+02	3.70E+00	1.46E+00	Y	M/A
Mercury	2	40	5.0 %	2.90E-01	6.00E-02	5.00E-02	7.00E-02	--	--	N	--
Nickel	35	40	87.5 %	1.46E+01	8.06E+00	2.93E+00	8.82E+00	1.95E+01	6.51E+00	Y	A
Selenium	3	40	7.5 %	7.40E-01	3.30E-01	1.10E-01	3.60E-01	--	--	Y	--
Zinc	36	40	90.0 %	2.23E+02	2.91E+01	5.19E+01	4.26E+01	1.39E+01	7.49E+00	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A22. Shallow Soil Analytical Results - Site 13
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Acetone	18	27	66.7 %	1.80E-02	8.96E-03	4.29E-03	1.04E-02	--	--	Y	--
Methylene chloride	1	19	5.3 %	5.00E-03	3.45E-03	1.01E-03	3.85E-03	--	--	Y	--
Tetrachloroethene	2	28	7.1 %	2.90E-01	1.30E-02	5.43E-02	3.05E-02	--	--	Y	--
TPH											
TPH-Diesel	1	28	3.6 %	5.40E+01	8.39E+00	1.18E+01	1.22E+01	--	--	N	--
TPH-Extractable Unknown Hyd.	3	28	10.7 %	4.90E+02	2.33E+01	9.15E+01	5.28E+01	--	--	Y	--
Metals											
Antimony	1	28	3.6 %	6.40E+00	3.02E+00	6.70E-01	3.23E+00	--	--	N	--
Arsenic	27	28	96.4 %	1.80E+00	1.12E+00	4.00E-01	1.25E+00	3.40E+00	1.33E+00	Y	N
Beryllium	6	27	22.2 %	3.70E-01	1.10E-01	8.00E-02	1.30E-01	3.50E-01	--	Y	M
Cadmium	1	28	3.6 %	4.90E-01	2.50E-01	5.00E-02	2.70E-01	--	--	N	--
Chromium	28	28	100.0 %	2.79E+01	1.26E+01	3.80E+00	1.38E+01	4.61E+01	9.22E+00	Y	A
Copper	19	28	67.9 %	1.28E+02	2.33E+01	3.54E+01	3.47E+01	1.82E+01	4.50E+00	Y	M/A
Lead	27	28	96.4 %	4.19E+01	4.99E+00	8.80E+00	7.82E+00	5.18E+01	9.29E+00	Y	N
Nickel	27	28	96.4 %	1.23E+01	7.68E+00	2.18E+00	8.38E+00	5.80E+01	7.81E+00	Y	N
Selenium	1	28	3.6 %	1.50E+00	3.10E-01	2.30E-01	3.80E-01	--	--	N	--
Zinc	27	28	96.4 %	5.01E+01	1.66E+01	1.39E+01	2.10E+01	7.58E+01	1.49E+01	Y	A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

Table A23. Deep Soil Analytical Results - Site 13
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Acetone	16	29	55.2 %	6.20E-02	1.12E-02	1.13E-02	1.47E-02	--	--	Y	--
Methylene chloride	3	20	15.0 %	5.00E-03	3.31E-03	1.07E-03	3.73E-03	--	--	Y	--
Tetrachloroethene	1	29	3.5 %	1.70E-02	3.01E-03	2.69E-03	3.86E-03	--	--	N	--
Pesticides											
4,4'-DDT	1	27	3.7 %	1.00E-02	8.48E-03	3.50E-04	8.60E-03	--	--	N	--
TPH											
TPH-Extractable Unknown Hyd.	3	29	10.3 %	1.60E+02	1.38E+01	3.12E+01	2.36E+01	--	--	Y	--
Metals											
Arsenic	29	29	100.0 %	2.30E+00	1.20E+00	4.00E-01	1.33E+00	4.50E+00	1.64E+00	Y	N
Beryllium	7	27	25.9 %	3.30E-01	1.10E-01	7.00E-02	1.40E-01	4.80E-01	--	Y	N
Chromium	29	29	100.0 %	1.84E+01	1.17E+01	2.69E+00	1.25E+01	2.27E+01	8.79E+00	Y	A
Copper	18	29	62.1 %	1.23E+02	9.61E+00	2.61E+01	1.78E+01	8.20E+00	2.36E+00	Y	M/A
Lead	28	29	96.6 %	2.22E+01	2.74E+00	4.36E+00	4.12E+00	3.70E+00	1.46E+00	Y	M/A
Nickel	28	29	96.6 %	1.46E+01	8.45E+00	2.97E+00	9.39E+00	1.95E+01	6.51E+00	Y	A
Selenium	1	29	3.5 %	1.90E+00	3.20E-01	3.00E-01	4.10E-01	--	--	N	--
Thallium	1	29	3.5 %	5.10E-01	2.20E-01	6.00E-02	2.40E-01	3.90E-01	--	N	M
Zinc	28	29	96.6 %	4.34E+01	1.09E+01	9.68E+00	1.39E+01	1.39E+01	7.49E+00	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A24. Shallow Soil Analytical Results - Site 14
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Acetone	1	12	8.3 %	1.00E-02	4.98E-03	2.18E-03	6.10E-03	--	--	Y	--
Methylene chloride	1	5	20.0 %	2.60E-03	1.71E-03	8.40E-04	2.47E-03	--	--	Y	--
SOCs											
Bis(2-ethylhexyl)phthalate	1	1	100.0 %	3.20E-01	--	--	--	--	--	Y	--
TPH											
Non-Polar Oil & Grease	2	10	20.0 %	8.60E+02	1.13E+02	2.63E+02	2.63E+02	--	--	Y	--
Non-Polar Oil & Grease	2	10	20.0 %	8.60E+02	1.13E+02	2.63E+02	2.63E+02	--	--	Y	--
Non-Polar Oil & Grease	2	10	20.0 %	8.60E+02	1.13E+02	2.63E+02	2.63E+02	--	--	Y	--
Non-Polar Oil & Grease	2	10	20.0 %	8.60E+02	1.13E+02	2.63E+02	2.63E+02	--	--	Y	--
TPH-Extractable Unknown Hyd.	3	10	30.0 %	5.70E+01	1.24E+01	1.64E+01	2.18E+01	--	--	Y	--
Metals											
Arsenic	12	12	100.0 %	1.80E+00	1.26E+00	2.30E-01	1.38E+00	3.40E+00	1.33E+00	Y	N
Beryllium	1	12	8.3 %	3.00E-01	1.20E-01	8.00E-02	1.60E-01	3.50E-01	--	Y	N
Chromium	11	12	91.7 %	1.95E+01	1.21E+01	4.76E+00	1.45E+01	4.61E+01	9.22E+00	Y	A
Copper	4	12	33.3 %	2.21E+01	3.04E+00	6.21E+00	6.24E+00	1.82E+01	4.50E+00	Y	M
Lead	12	12	100.0 %	6.10E+00	2.54E+00	1.61E+00	3.37E+00	5.18E+01	9.29E+00	Y	N
Nickel	11	12	91.7 %	1.26E+01	8.37E+00	2.81E+00	9.81E+00	5.80E+01	7.81E+00	Y	A
Silver	1	10	10.0 %	5.00E-01	2.70E-01	8.00E-02	3.20E-01	3.60E-01	--	Y	M
Zinc	11	12	91.7 %	5.88E+01	1.59E+01	1.44E+01	2.33E+01	7.58E+01	1.49E+01	Y	A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A25. Deep Soil Analytical Results - Site 14
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Acetone	3	14	21.4 %	2.70E-02	6.49E-03	6.04E-03	9.33E-03	--	--	Y	--
Tetrachloroethene	1	14	7.1 %	6.40E-03	2.93E-03	1.01E-03	3.41E-03	--	--	Y	--
SOCs											
Bis(2-ethylhexyl)phthalate	1	1	100.0 %	5.70E-01	--	--	--	--	--	Y	--
Chrysene	1	1	100.0 %	8.10E-02	--	--	--	--	--	Y	--
TPH											
Non-Polar Oil & Grease	1	10	10.0 %	5.00E+02	7.25E+01	1.50E+02	1.59E+02	--	--	Y	--
Non-Polar Oil & Grease	1	10	10.0 %	5.00E+02	7.25E+01	1.50E+02	1.59E+02	--	--	Y	--
Non-Polar Oil & Grease	1	10	10.0 %	5.00E+02	7.25E+01	1.50E+02	1.59E+02	--	--	Y	--
Non-Polar Oil & Grease	1	10	10.0 %	5.00E+02	7.25E+01	1.50E+02	1.59E+02	--	--	Y	--
TPH-Extractable Unknown Hyd.	1	10	10.0 %	1.40E+02	1.89E+01	4.25E+01	4.33E+01	--	--	Y	--
Metals											
Arsenic	26	26	100.0 %	2.00E+00	1.31E+00	2.80E-01	1.41E+00	4.50E+00	1.64E+00	Y	N
Beryllium	8	26	30.8 %	2.20E-01	1.30E-01	6.00E-02	1.50E-01	4.80E-01	--	Y	N
Chromium	26	26	100.0 %	1.98E+01	1.53E+01	3.14E+00	1.63E+01	2.27E+01	8.79E+00	Y	A
Copper	7	26	26.9 %	9.90E+00	1.77E+00	2.06E+00	2.45E+00	8.20E+00	2.36E+00	Y	M
Lead	26	26	100.0 %	2.62E+01	2.49E+00	4.85E+00	4.11E+00	3.70E+00	1.46E+00	Y	M/A
Nickel	23	26	88.5 %	1.47E+01	9.97E+00	2.99E+00	1.10E+01	1.95E+01	6.51E+00	Y	A
Selenium	1	24	4.2 %	6.80E-01	3.50E-01	1.10E-01	3.90E-01	--	--	N	--
Silver	1	26	3.9 %	5.60E-01	4.20E-01	1.30E-01	4.60E-01	4.90E-01	--	N	M
Zinc	24	26	92.3 %	1.90E+01	9.87E+00	3.71E+00	1.11E+01	1.39E+01	7.49E+00	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A26. Surficial Soil Analytical Results - Site 15
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
1,2-Dichloroethene (total)	2	2	100.0 %	1.80E-03	1.65E-03	2.10E-04	2.09E-03	--	--	Y	--
Ethyl benzene	4	23	17.4 %	7.80E-03	3.02E-03	1.25E-03	3.47E-03	--	--	Y	--
Toluene	4	23	17.4 %	4.10E-03	2.63E-03	5.40E-04	2.82E-03	--	--	Y	--
Xylenes	2	2	100.0 %	2.40E-03	2.30E-03	1.40E-04	2.59E-03	--	--	Y	--
Pesticides											
Chlordane	25	26	96.2 %	4.00E+03	1.95E+02	7.86E+02	4.58E+02	--	--	Y	--
4,4'-DDE	4	24	16.7 %	1.10E+00	1.16E-01	2.71E-01	2.11E-01	--	--	Y	--
4,4'-DDT	6	21	28.6 %	2.50E-01	7.06E-02	8.12E-02	1.01E-01	--	--	Y	--
Dieldrin	17	24	70.8 %	9.40E-01	1.73E-01	2.88E-01	2.73E-01	--	--	Y	--
Heptachlor	6	26	23.1 %	1.20E+02	4.87E+00	2.35E+01	1.27E+01	--	--	Y	--
Heptachlor epoxide	1	22	4.6 %	1.90E-01	3.62E-02	5.54E-02	5.65E-02	--	--	N	--

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A27. Shallow Soil Analytical Results - Site 15
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
Metals											
Cadmium	1	1	100.0 %	2.50E+00	--	--	--	--	--	Y	--
Chromium	1	1	100.0 %	1.81E+01	--	--	--	4.61E+01	9.22E+00	Y	N
Copper	1	1	100.0 %	5.69E+01	--	--	--	1.82E+01	4.50E+00	Y	M
Lead	1	1	100.0 %	1.50E+00	--	--	--	5.18E+01	9.29E+00	Y	N
Nickel	1	1	100.0 %	1.05E+01	--	--	--	5.80E+01	7.81E+00	Y	N
Zinc	1	1	100.0 %	1.47E+01	--	--	--	7.58E+01	1.49E+01	Y	N

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A28. Deep Soil Analytical Results - Site 15
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
Pesticides											
Chlordane	2	10	20.0 %	2.60E+00	3.12E-01	8.05E-01	7.73E-01	--	--	Y	--
Heptachlor	1	9	11.1 %	6.40E-03	4.46E-03	7.30E-04	4.91E-03	--	--	Y	--
Metals											
Chromium	2	2	100.0 %	1.44E+01	1.41E+01	5.00E-01	1.51E+01	2.27E+01	8.79E+00	Y	A
Lead	2	2	100.0 %	1.30E+00	1.30E+00	--	1.30E+00	3.70E+00	1.46E+00	Y	N
Nickel	2	2	100.0 %	1.31E+01	1.13E+01	2.47E+00	1.65E+01	1.95E+01	6.51E+00	Y	A
Zinc	2	2	100.0 %	7.40E+00	6.95E+00	6.40E-01	8.26E+00	1.39E+01	7.49E+00	Y	N

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A29. Surficial Soil Analytical Results - Site 16
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
TPH											
TPH-Extractable Unknown Hyd.	1	3	33.3 %	3.50E+01	1.50E+01	1.73E+01	3.85E+01	--	--	Y	--
Metals											
Antimony	1	3	33.3 %	4.10E+00	1.48E+00	2.27E+00	4.56E+00	--	--	Y	--
Arsenic	3	3	100.0 %	1.70E+00	1.37E+00	3.10E-01	1.78E+00	3.40E+00	1.33E+00	Y	A
Beryllium	1	3	33.3 %	1.70E-01	1.00E-01	6.00E-02	1.80E-01	3.50E-01	--	Y	N
Chromium	3	3	100.0 %	1.55E+01	1.31E+01	2.12E+00	1.60E+01	4.61E+01	9.22E+00	Y	A
Copper	2	3	66.7 %	1.38E+01	9.07E+00	7.51E+00	1.93E+01	1.82E+01	4.50E+00	Y	A
Lead	3	3	100.0 %	4.47E+01	3.01E+01	2.41E+01	6.28E+01	5.18E+01	9.29E+00	Y	A
Mercury	1	3	33.3 %	2.50E-01	1.00E-01	1.30E-01	2.80E-01	1.20E-01	--	Y	M
Nickel	3	3	100.0 %	1.66E+01	1.38E+01	2.67E+00	1.74E+01	5.80E+01	7.81E+00	Y	A
Zinc	3	3	100.0 %	6.49E+01	4.26E+01	2.83E+01	8.10E+01	7.58E+01	1.49E+01	Y	A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

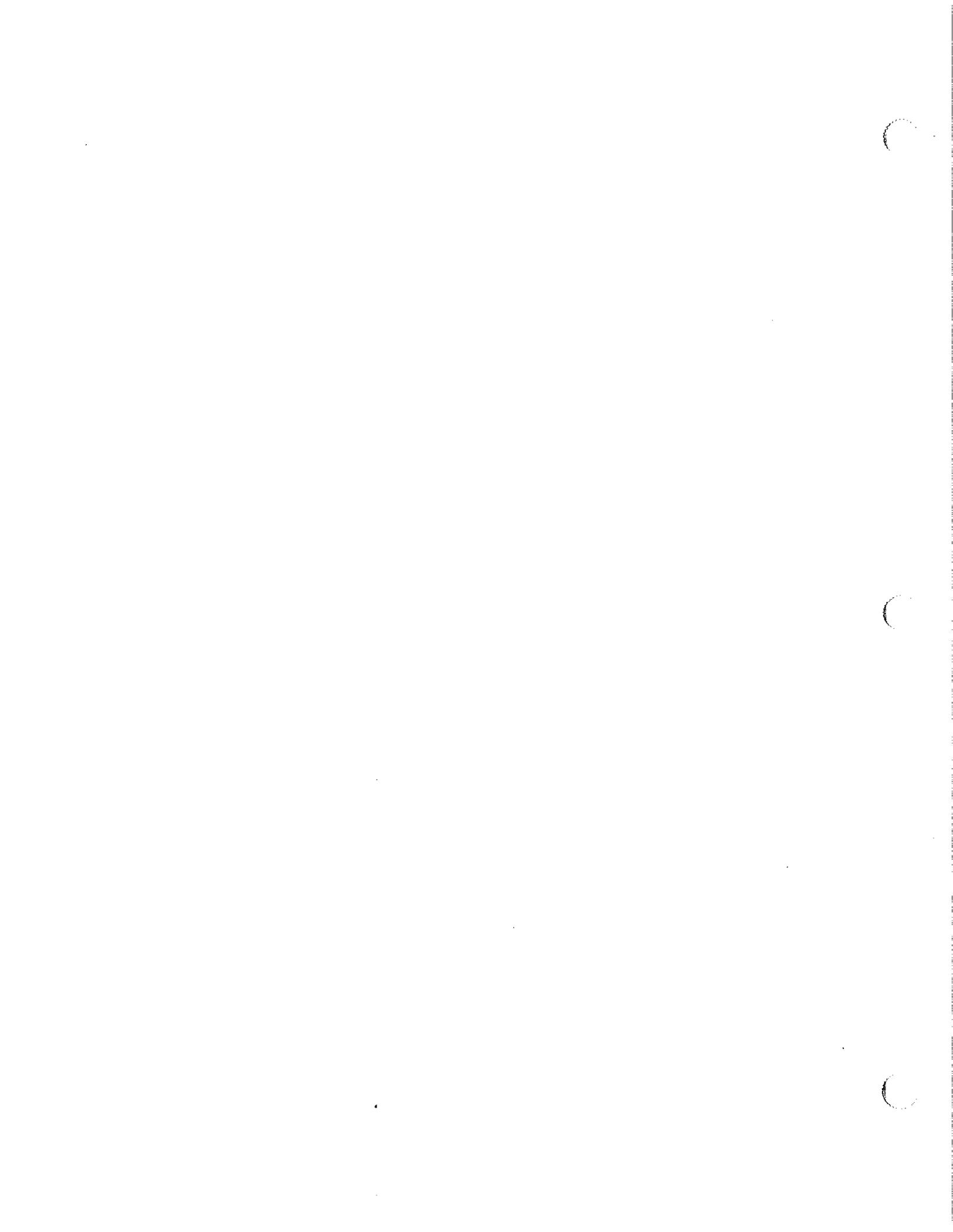
/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.



**Table A30. Shallow Soil Analytical Results - Site 16
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Acetone	2	16	12.5 %	2.80E-02	7.38E-03	6.26E-03	1.01E-02	--	--	Y	--
Trichloroethene	3	18	16.7 %	6.80E-02	6.76E-03	1.55E-02	1.31E-02	--	--	Y	--
SOCs											
Bis(2-ethylhexyl)phthalate	2	9	22.2 %	3.90E+00	7.37E-01	1.29E+00	1.52E+00	--	--	Y	--
Di-n-butylphthalate	1	1	100.0 %	9.50E-02	--	--	--	--	--	Y	--
Dibenzofuran	1	9	11.1 %	4.10E-01	1.99E-01	8.14E-02	2.49E-01	--	--	Y	--
Fluorene	1	9	11.1 %	1.10E+00	2.76E-01	3.10E-01	4.65E-01	--	--	Y	--
2-Methylnaphthalene	1	9	11.1 %	8.60E+00	1.11E+00	2.81E+00	2.83E+00	--	--	Y	--
Naphthalene	1	9	11.1 %	1.60E+00	3.32E-01	4.76E-01	6.23E-01	--	--	Y	--
Phenanthrene	1	9	11.1 %	1.80E+00	3.54E-01	5.43E-01	6.85E-01	--	--	Y	--
Dioxins/Furans											
1,2,3,4,6,7,8-HpCDD	1	2	50.0 %	3.30E-05	1.70E-05	2.27E-05	6.00E-05	--	--	Y	--
Total HpCDD	1	2	50.0 %	6.00E-05	3.15E-05	4.32E-05	1.20E-04	--	--	Y	--
1,2,3,4,6,7,8-HpCDF	1	2	50.0 %	3.30E-05	1.74E-05	2.21E-05	6.00E-05	--	--	Y	--
Total HpCDF	1	2	50.0 %	6.00E-05	2.94E-05	3.91E-05	1.10E-04	--	--	Y	--
Total HxCDD	1	2	50.0 %	7.60E-06	3.90E-06	5.23E-06	1.47E-05	--	--	Y	--
Total HxCDF	1	2	50.0 %	5.00E-05	2.70E-05	3.54E-05	1.00E-04	--	--	Y	--
1,2,3,6,7,8-HxCDF	1	2	50.0 %	1.00E-05	5.33E-06	6.61E-06	1.90E-05	--	--	Y	--
OCDD	1	2	50.0 %	1.80E-04	9.00E-05	1.20E-04	3.50E-04	--	--	Y	--
OCDF total	1	2	50.0 %	2.80E-05	1.44E-05	1.93E-05	5.00E-05	--	--	Y	--
Total PeCDF	1	2	50.0 %	1.20E-04	6.00E-05	8.00E-05	2.30E-04	--	--	Y	--
Total TCDD	1	2	50.0 %	2.10E-06	1.11E-06	1.40E-06	4.00E-06	--	--	Y	--
Total TCDF	1	2	50.0 %	4.60E-05	2.32E-05	3.23E-05	9.00E-05	--	--	Y	--
TPH											
TPH-Diesel	1	29	3.5 %	2.00E+03	7.39E+01	3.70E+02	1.91E+02	--	--	N	--
TPH-Extractable Unknown Hyd.	11	26	42.3 %	2.20E+01	9.98E+00	5.86E+00	1.19E+01	--	--	Y	--
Metals											
Antimony	5	17	29.4 %	6.90E+00	1.72E+00	2.01E+00	2.57E+00	--	--	Y	--
Arsenic	15	17	88.2 %	6.40E+00	1.69E+00	1.34E+00	2.26E+00	3.40E+00	1.33E+00	Y	M/A
Beryllium	6	17	35.3 %	4.20E-01	1.20E-01	9.00E-02	1.60E-01	3.50E-01	--	Y	M
Cadmium	4	17	23.5 %	3.40E+00	7.30E-01	7.60E-01	1.05E+00	--	--	Y	--
Chromium	17	17	100.0 %	2.51E+01	1.39E+01	3.91E+00	1.55E+01	4.61E+01	9.22E+00	Y	A
Copper	10	17	58.8 %	4.43E+02	5.94E+01	1.14E+02	1.08E+02	1.82E+01	4.50E+00	Y	M/A

**Table A30. Shallow Soil Analytical Results - Site 16
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
Metals											
Lead	17	17	100.0 %	7.41E+02	1.20E+02	2.09E+02	2.08E+02	5.18E+01	9.29E+00	Y	M/A
Mercury	2	17	11.8 %	6.30E-01	7.00E-02	1.50E-01	1.30E-01	1.20E-01	--	Y	M
Nickel	17	17	100.0 %	2.02E+01	1.20E+01	3.06E+00	1.33E+01	5.80E+01	7.81E+00	Y	A
Silver	3	17	17.7 %	1.20E+00	5.00E-01	2.30E-01	5.90E-01	3.60E-01	--	Y	M
Zinc	14	17	82.4 %	1.73E+03	3.02E+02	4.76E+02	5.03E+02	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

Table A31. Deep Soil Analytical Results - Site 16
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Acetone	6	40	15.0 %	7.70E-02	8.79E-03	1.25E-02	1.20E-02	--	--	Y	--
Methyl ethyl ketone	2	44	4.6 %	2.70E-02	5.99E-03	3.31E-03	6.81E-03	--	--	N	--
Methylene chloride	2	40	5.0 %	3.40E-03	2.49E-03	5.70E-04	2.63E-03	--	--	N	--
Tetrachloroethene	1	44	2.3 %	6.40E-03	2.76E-03	5.90E-04	2.90E-03	--	--	N	--
Toluene	1	9	11.1 %	1.20E-03	6.20E-04	2.20E-04	7.50E-04	--	--	Y	--
Trichloroethene	2	44	4.6 %	7.00E-03	2.75E-03	6.90E-04	2.92E-03	--	--	N	--
SOCs											
Bis(2-ethylhexyl)phthalate	2	2	100.0 %	7.70E-02	6.10E-02	2.26E-02	1.08E-01	--	--	Y	--
Fluorene	1	12	8.3 %	6.70E-01	2.19E-01	1.42E-01	2.92E-01	--	--	Y	--
2-Methylnaphthalene	3	14	21.4 %	8.50E+00	1.02E+00	2.24E+00	2.07E+00	--	--	Y	--
Naphthalene	3	14	21.4 %	3.70E+00	5.26E-01	9.47E-01	9.71E-01	--	--	Y	--
Pentachlorophenol	1	1	100.0 %	8.80E-02	--	--	--	--	--	Y	--
Phenanthrene	2	14	14.3 %	1.10E+00	2.96E-01	3.01E-01	4.38E-01	--	--	Y	--
Dioxins/Furans											
1,2,3,4,6,7,8-HpCDD	2	3	66.7 %	1.10E-04	4.01E-05	6.00E-05	1.20E-04	--	--	Y	--
Total HpCDD	2	3	66.7 %	2.10E-04	7.00E-05	1.20E-04	2.30E-04	--	--	Y	--
1,2,3,4,6,7,8-HpCDF	1	3	33.3 %	4.20E-05	1.48E-05	2.36E-05	4.68E-05	--	--	Y	--
Total HpCDF	1	3	33.3 %	5.00E-05	1.88E-05	3.05E-05	6.00E-05	--	--	Y	--
Total HxCDD	1	3	33.3 %	1.50E-04	5.00E-05	9.00E-05	1.70E-04	--	--	Y	--
Total HxCDF	1	3	33.3 %	1.00E-04	3.24E-05	5.00E-05	1.10E-04	--	--	Y	--
1,2,3,6,7,8-HxCDD	1	3	33.3 %	1.30E-05	4.49E-06	7.37E-06	1.45E-05	--	--	Y	--
1,2,3,7,8,9-HxCDD	1	3	33.3 %	1.50E-05	5.17E-06	8.52E-06	1.67E-05	--	--	Y	--
1,2,3,4,7,8-HxCDF	1	3	33.3 %	3.10E-05	1.10E-05	1.73E-05	3.46E-05	--	--	Y	--
1,2,3,6,7,8-HxCDF	1	3	33.3 %	1.20E-05	4.24E-06	6.72E-06	1.34E-05	--	--	Y	--
2,3,4,6,7,8-HxCDF	1	3	33.3 %	1.00E-05	3.42E-06	5.70E-06	1.12E-05	--	--	Y	--
OCDD	2	3	66.7 %	3.10E-04	1.30E-04	1.60E-04	3.50E-04	--	--	Y	--
OCDF total	1	3	33.3 %	1.30E-05	5.25E-06	6.76E-06	1.44E-05	--	--	Y	--
Total PeCDD	1	3	33.3 %	2.40E-05	9.02E-06	1.30E-05	2.66E-05	--	--	Y	--
1,2,3,7,8-PeCDF	1	3	33.3 %	9.90E-06	3.51E-06	5.54E-06	1.10E-05	--	--	Y	--
2,3,4,7,8-PeCDF	1	3	33.3 %	1.70E-05	5.84E-06	9.67E-06	1.90E-05	--	--	Y	--
Total PeCDF	1	3	33.3 %	1.90E-04	6.00E-05	1.10E-04	2.10E-04	--	--	Y	--
2,3,7,8-TCDF	1	3	33.3 %	1.30E-05	4.45E-06	7.40E-06	1.45E-05	--	--	Y	--
2,3,7,8-TCDD	1	3	33.3 %	1.60E-06	6.20E-07	8.50E-07	1.77E-06	--	--	Y	--
Total TCDD	1	3	33.3 %	7.00E-05	2.34E-05	4.03E-05	8.00E-05	--	--	Y	--
Total TCDF	1	3	33.3 %	3.10E-04	1.00E-04	1.80E-04	3.50E-04	--	--	Y	--

**Table A31. Deep Soil Analytical Results - Site 16
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
TPH											
TPH-Extractable Unknown Hyd.	7	34	20.6 %	4.30E+03	1.76E+02	7.72E+02	3.94E+02	--	--	Y	--
Oil & Grease	1	5	20.0 %	7.70E+01	3.66E+01	2.26E+01	5.70E+01	--	--	Y	--
Metals											
Antimony	2	17	11.8 %	2.70E+00	3.60E-01	6.10E-01	6.10E-01	8.20E+00	--	Y	N
Arsenic	29	44	65.9 %	3.30E+00	9.60E-01	6.40E-01	1.12E+00	4.50E+00	1.64E+00	Y	N
Beryllium	22	44	50.0 %	4.50E-01	1.80E-01	1.00E-01	2.00E-01	4.80E-01	--	Y	N
Cadmium	2	44	4.6 %	1.50E+00	3.90E-01	2.20E-01	4.40E-01	1.90E+00	--	N	N
Chromium	40	44	90.9 %	2.47E+01	1.16E+01	4.76E+00	1.27E+01	2.27E+01	8.79E+00	Y	M/A
Copper	16	44	36.4 %	1.22E+02	5.27E+00	1.88E+01	9.93E+00	8.20E+00	2.36E+00	Y	M/A
Lead	43	44	97.7 %	4.75E+02	1.34E+01	7.13E+01	3.11E+01	3.70E+00	1.46E+00	Y	M/A
Nickel	42	44	95.5 %	2.51E+01	1.02E+01	3.63E+00	1.11E+01	1.95E+01	6.51E+00	Y	M/A
Zinc	40	44	90.9 %	6.78E+02	2.84E+01	1.02E+02	5.38E+01	1.39E+01	7.49E+00	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A32. Surficial Soil Analytical Results - Site 17
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
TPH											
TPH-Extractable Unknown Hyd.	2	4	50.0 %	3.80E+01	1.50E+01	1.56E+01	3.16E+01	--	--	Y	--
Metals											
Antimony	1	4	25.0 %	3.80E-01	2.20E-01	1.10E-01	3.30E-01	--	--	Y	--
Arsenic	4	4	100.0 %	1.40E+00	1.20E+00	1.80E-01	1.39E+00	3.40E+00	1.33E+00	Y	N
Beryllium	1	4	25.0 %	1.50E-01	9.00E-02	4.00E-02	1.30E-01	3.50E-01	--	Y	N
Chromium	4	4	100.0 %	1.18E+01	1.08E+01	8.10E-01	1.17E+01	4.61E+01	9.22E+00	Y	A
Lead	4	4	100.0 %	1.29E+01	5.65E+00	4.92E+00	1.09E+01	5.18E+01	9.29E+00	Y	N
Nickel	4	4	100.0 %	1.16E+01	9.88E+00	1.89E+00	1.19E+01	5.80E+01	7.81E+00	Y	A
Zinc	2	4	50.0 %	2.42E+01	1.33E+01	9.04E+00	2.29E+01	7.58E+01	1.49E+01	Y	N

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A33. Shallow Soil Analytical Results - Site 17
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Acetone	2	7	28.6 %	2.20E-02	7.89E-03	6.45E-03	1.25E-02	--	--	Y	--
Methylene chloride	1	6	16.7 %	3.50E-03	2.25E-03	7.60E-04	2.86E-03	--	--	Y	--
Dioxins/furans											
1,2,3,4,6,7,8-HpCDD	3	4	75.0 %	1.00E-04	3.80E-05	4.41E-05	8.00E-05	--	--	Y	--
Total HpCDD	3	4	75.0 %	2.00E-04	8.00E-05	9.00E-05	1.80E-04	--	--	Y	--
1,2,3,4,6,7,8-HpCDF	2	4	50.0 %	1.70E-04	4.89E-05	8.00E-05	1.40E-04	--	--	Y	--
Total HpCDF	3	4	75.0 %	3.40E-04	1.00E-04	1.60E-04	2.70E-04	--	--	Y	--
Total HxCDD	2	4	50.0 %	1.30E-05	5.07E-06	6.06E-06	1.15E-05	--	--	Y	--
Total HxCDF	2	4	50.0 %	6.00E-05	2.44E-05	2.96E-05	6.00E-05	--	--	Y	--
OCDD	3	4	75.0 %	1.30E-03	4.40E-04	6.00E-04	1.07E-03	--	--	Y	--
OCDF total	2	4	50.0 %	9.00E-05	2.77E-05	4.04E-05	7.00E-05	--	--	Y	--
Total PeCDF	3	4	75.0 %	1.60E-04	4.95E-05	7.00E-05	1.30E-04	--	--	Y	--
Total TCDF	3	4	75.0 %	6.00E-05	2.00E-05	2.85E-05	5.00E-05	--	--	Y	--
Metals											
Antimony	1	3	33.3 %	7.20E-01	4.00E-01	2.80E-01	7.80E-01	--	--	Y	--
Arsenic	5	9	55.6 %	1.50E+00	8.00E-01	3.70E-01	1.03E+00	3.40E+00	1.33E+00	Y	N
Beryllium	3	9	33.3 %	2.50E-01	1.60E-01	7.00E-02	2.00E-01	3.50E-01	--	Y	N
Cadmium	1	9	11.1 %	6.10E-01	3.80E-01	1.10E-01	4.50E-01	--	--	Y	--
Chromium	9	9	100.0 %	1.52E+01	1.20E+01	1.66E+00	1.30E+01	4.61E+01	9.22E+00	Y	A
Copper	6	9	66.7 %	1.10E+01	5.66E+00	3.88E+00	8.03E+00	1.82E+01	4.50E+00	Y	A
Lead	9	9	100.0 %	2.90E+01	1.19E+01	9.08E+00	1.75E+01	5.18E+01	9.29E+00	Y	A
Mercury	3	9	33.3 %	1.30E-01	7.00E-02	4.00E-02	9.00E-02	1.20E-01	--	Y	M
Nickel	9	9	100.0 %	1.11E+01	9.68E+00	1.53E+00	1.06E+01	5.80E+01	7.81E+00	Y	A
Zinc	8	9	88.9 %	3.98E+01	2.03E+01	1.10E+01	2.70E+01	7.58E+01	1.49E+01	Y	A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A34. Deep Soil Analytical Results - Site 17
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Acetone	5	24	20.8 %	3.10E-02	6.12E-03	5.50E-03	8.04E-03	--	--	Y	--
SOCs											
Bis(2-ethylhexyl)phthalate	1	1	100.0 %	1.30E-01	--	--	--	--	--	Y	--
TPH											
TPH-Extractable Unknown Hyd.	7	15	46.7 %	1.00E+03	1.73E+02	3.22E+02	3.19E+02	--	--	Y	--
Metals											
Antimony	8	26	30.8 %	5.50E+00	1.86E+00	1.44E+00	2.35E+00	8.20E+00	--	Y	N
Arsenic	18	26	69.2 %	1.31E+01	1.89E+00	2.91E+00	2.86E+00	4.50E+00	1.64E+00	Y	M/A
Beryllium	2	25	8.0 %	2.50E-01	1.00E-01	5.00E-02	1.20E-01	4.80E-01	--	Y	N
Cadmium	3	26	11.5 %	3.20E+00	5.50E-01	6.00E-01	7.60E-01	1.90E+00	--	Y	M
Chromium	26	26	100.0 %	5.27E+01	1.42E+01	1.27E+01	1.85E+01	2.27E+01	8.79E+00	Y	M/A
Copper	6	26	23.1 %	2.31E+02	1.89E+01	4.96E+01	3.55E+01	8.20E+00	2.36E+00	Y	M/A
Lead	26	26	100.0 %	4.42E+02	6.60E+01	1.36E+02	1.11E+02	3.70E+00	1.46E+00	Y	M/A
Mercury	9	26	34.6 %	7.50E+00	6.60E-01	1.71E+00	1.23E+00	--	--	Y	--
Nickel	22	26	84.6 %	1.70E+02	1.65E+01	3.23E+01	2.73E+01	1.95E+01	6.51E+00	Y	M/A
Selenium	1	26	3.9 %	1.20E+00	3.80E-01	1.80E-01	4.40E-01	--	--	N	--
Silver	1	26	3.9 %	4.80E+00	4.90E-01	9.00E-01	7.90E-01	4.90E-01	--	N	M
Zinc	18	26	69.2 %	6.73E+02	8.28E+01	1.64E+02	1.38E+02	1.39E+01	7.49E+00	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A35. Deep Soil Analytical Results - Site 18
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Methylene chloride	2	8	25.0 %	4.00E-03	2.92E-03	4.80E-04	3.24E-03	--	--	Y	--
TPH											
TPH-Extractable Unknown Hyd.	1	5	20.0 %	4.40E+01	1.31E+01	1.73E+01	2.87E+01	--	--	Y	--
Metals											
Arsenic	4	8	50.0 %	1.40E+00	8.00E-01	3.00E-01	9.90E-01	4.50E+00	1.64E+00	Y	N
Chromium	8	8	100.0 %	1.35E+01	1.08E+01	2.09E+00	1.22E+01	2.27E+01	8.79E+00	Y	A
Copper	6	8	75.0 %	2.97E+01	6.34E+00	9.66E+00	1.27E+01	8.20E+00	2.36E+00	Y	M/A
Lead	8	8	100.0 %	4.10E+00	1.89E+00	1.03E+00	2.57E+00	3.70E+00	1.46E+00	Y	M/A
Nickel	7	8	87.5 %	1.09E+01	7.72E+00	2.38E+00	9.28E+00	1.95E+01	6.51E+00	Y	A
Zinc	8	8	100.0 %	1.86E+01	8.61E+00	4.20E+00	1.14E+01	1.39E+01	7.49E+00	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

Table A36. Surficial Soil Analytical Results - Site 19
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Methylene chloride	1	1	100.0 %	6.90E-03	--	--	--	--	--	Y	--
Pesticides											
Chlordane	1	1	100.0 %	3.00E+00	--	--	--	--	--	Y	--
Metals											
Arsenic	1	1	100.0 %	1.80E+00	--	--	--	3.40E+00	1.33E+00	Y	N
Beryllium	1	1	100.0 %	3.00E-01	--	--	--	3.50E-01	--	Y	N
Chromium	1	1	100.0 %	1.11E+01	--	--	--	4.61E+01	9.22E+00	Y	N
Copper	1	1	100.0 %	4.70E+00	--	--	--	1.82E+01	4.50E+00	Y	N
Lead	1	1	100.0 %	2.36E+01	--	--	--	5.18E+01	9.29E+00	Y	N
Nickel	1	1	100.0 %	9.50E+00	--	--	--	5.80E+01	7.81E+00	Y	N
Zinc	1	1	100.0 %	2.18E+01	--	--	--	7.58E+01	1.49E+01	Y	N

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A37. Deep Soil Analytical Results - Site 19
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FDD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FDD Exceed 5%?	
VOCs											
Acetone	1	1	100.0 %	5.00E-03	--	--	--	--	--	Y	--
Metals											
Chromium	3	3	100.0 %	9.00E+00	8.43E+00	5.50E-01	9.18E+00	2.27E+01	8.79E+00	Y	N
Lead	3	3	100.0 %	1.70E+00	1.32E+00	3.80E-01	1.83E+00	3.70E+00	1.46E+00	Y	N
Nickel	3	3	100.0 %	8.90E+00	8.37E+00	5.00E-01	9.05E+00	1.95E+01	6.51E+00	Y	A
Zinc	3	3	100.0 %	7.80E+00	6.83E+00	1.00E+00	8.19E+00	1.39E+01	7.49E+00	Y	N

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A38. Shallow Soil Analytical Results - Site 20
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Toluene	1	1	100.0 %	2.20E-03	--	--	--	--	--	Y	--
SOCs											
Bis(2-ethylhexyl)phthalate	1	1	100.0 %	2.20E-01	--	--	--	--	--	Y	--
Butylbenzylphthalate	1	1	100.0 %	3.30E-02	--	--	--	--	--	Y	--
Butylbenzylphthalate	1	1	100.0 %	3.30E-02	--	--	--	--	--	Y	--
Butylbenzylphthalate	1	1	100.0 %	3.30E-02	--	--	--	--	--	Y	--
Butylbenzylphthalate	1	1	100.0 %	3.30E-02	--	--	--	--	--	Y	--
2-Methylnaphthalene	1	1	100.0 %	9.30E-02	--	--	--	--	--	Y	--
TPH											
Non-Polar Oil & Grease	2	9	22.2 %	3.40E+03	4.23E+02	1.12E+03	1.11E+03	--	--	Y	--
Non-Polar Oil & Grease	2	9	22.2 %	3.40E+03	4.23E+02	1.12E+03	1.11E+03	--	--	Y	--
Non-Polar Oil & Grease	2	9	22.2 %	3.40E+03	4.23E+02	1.12E+03	1.11E+03	--	--	Y	--
Non-Polar Oil & Grease	2	9	22.2 %	3.40E+03	4.23E+02	1.12E+03	1.11E+03	--	--	Y	--
TPH-Extractable Unknown Hyd.	3	9	33.3 %	1.70E+02	2.69E+01	5.41E+01	6.00E+01	--	--	Y	--
Metals											
Arsenic	9	11	81.8 %	1.70E+00	1.20E+00	3.40E-01	1.39E+00	3.40E+00	1.33E+00	Y	N
Beryllium	2	11	18.2 %	1.90E-01	9.00E-02	4.00E-02	1.20E-01	3.50E-01	--	Y	N
Chromium	8	11	72.7 %	2.26E+01	1.06E+01	7.47E+00	1.47E+01	4.61E+01	9.22E+00	Y	A
Copper	3	11	27.3 %	1.33E+01	2.80E+00	4.10E+00	5.01E+00	1.82E+01	4.50E+00	Y	N
Lead	11	11	100.0 %	2.21E+01	3.56E+00	6.17E+00	6.89E+00	5.18E+01	9.29E+00	Y	N
Nickel	8	11	72.7 %	2.02E+01	8.44E+00	5.40E+00	1.14E+01	5.80E+01	7.81E+00	Y	A
Zinc	7	11	63.6 %	2.39E+01	9.93E+00	7.61E+00	1.41E+01	7.58E+01	1.49E+01	Y	N

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A39. Deep Soil Analytical Results - Site 20
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Acetone	3	39	7.7 %	1.30E-02	4.73E-03	1.93E-03	5.24E-03	--	--	Y	--
2-Hexanone	1	1	100.0 %	1.30E-03	--	--	--	--	--	Y	--
Methylene chloride	3	34	8.8 %	4.00E-03	2.45E-03	8.10E-04	2.68E-03	--	--	Y	--
Toluene	1	1	100.0 %	1.30E-03	--	--	--	--	--	Y	--
SOCs											
Bis(2-ethylhexyl)phthalate	2	19	10.5 %	4.00E-01	1.78E-01	6.04E-02	2.02E-01	--	--	Y	--
TPH											
Non-Polar Oil & Grease	2	9	22.2 %	7.00E+02	1.09E+02	2.23E+02	2.46E+02	--	--	Y	--
Non-Polar Oil & Grease	2	9	22.2 %	7.00E+02	1.09E+02	2.23E+02	2.46E+02	--	--	Y	--
Non-Polar Oil & Grease	2	9	22.2 %	7.00E+02	1.09E+02	2.23E+02	2.46E+02	--	--	Y	--
Non-Polar Oil & Grease	2	9	22.2 %	7.00E+02	1.09E+02	2.23E+02	2.46E+02	--	--	Y	--
TPH-Extractable Unknown Hyd.	3	32	9.4 %	1.60E+02	1.46E+01	3.30E+01	2.41E+01	--	--	Y	--
Metals											
Arsenic	21	42	50.0 %	2.00E+00	8.40E-01	4.00E-01	9.40E-01	4.50E+00	1.64E+00	Y	N
Beryllium	23	42	54.8 %	4.00E-01	1.80E-01	1.00E-01	2.10E-01	4.80E-01	--	Y	N
Chromium	37	42	88.1 %	1.91E+01	1.17E+01	4.81E+00	1.29E+01	2.27E+01	8.79E+00	Y	A
Chromium VI	1	15	6.7 %	1.50E-01	6.00E-02	3.00E-02	7.00E-02	--	--	Y	--
Copper	2	42	4.8 %	8.70E+00	1.30E+00	1.32E+00	1.63E+00	8.20E+00	2.36E+00	N	M
Lead	39	41	95.1 %	4.40E+00	1.70E+00	7.00E-01	1.88E+00	3.70E+00	1.46E+00	Y	M/A
Nickel	37	42	88.1 %	1.60E+01	9.62E+00	3.50E+00	1.05E+01	1.95E+01	6.51E+00	Y	A
Zinc	31	42	73.8 %	3.64E+01	1.14E+01	9.07E+00	1.37E+01	1.39E+01	7.49E+00	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A40. Surficial Soil Analytical Results - Site 21
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations		Does FOD Exceed 5%?	Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)		
VOCs											
Methylene chloride	2	2	100.0 %	7.50E-03	6.45E-03	1.48E-03	9.52E-03	--	--	Y	--
Xylenes	1	2	50.0 %	3.30E-03	3.03E-03	3.90E-04	3.83E-03	--	--	Y	--
SOCs											
Bis(2-ethylhexyl)phthalate	2	2	100.0 %	1.00E-01	1.00E-01	--	1.00E-01	--	--	Y	--
Chrysene	1	1	100.0 %	3.60E-02	--	--	--	--	--	Y	--
TPH											
TPH-Extractable Unknown Hyd. Oil & Grease	3	5	60.0 %	2.90E+01	1.64E+01	1.07E+01	2.60E+01	--	--	Y	--
	1	2	50.0 %	4.00E+02	2.13E+02	2.64E+02	7.59E+02	--	--	Y	--
Metals											
Antimony	9	12	75.0 %	5.24E+01	1.33E+01	1.78E+01	2.25E+01	--	--	Y	--
Arsenic	9	12	75.0 %	3.80E+00	1.24E+00	9.90E-01	1.75E+00	3.40E+00	1.33E+00	Y	M
Beryllium	6	12	50.0 %	6.70E-01	1.90E-01	1.70E-01	2.80E-01	3.50E-01	--	Y	M
Cadmium	9	12	75.0 %	2.28E+01	8.19E+00	7.82E+00	1.22E+01	--	--	Y	--
Chromium	12	12	100.0 %	1.41E+02	4.60E+01	4.11E+01	6.71E+01	4.61E+01	9.22E+00	Y	M/A
Copper	12	12	100.0 %	2.35E+02	8.00E+01	7.78E+01	1.20E+02	1.82E+01	4.50E+00	Y	M/A
Lead	12	12	100.0 %	6.89E+02	1.97E+02	2.37E+02	3.19E+02	5.18E+01	9.29E+00	Y	M/A
Mercury	6	12	50.0 %	3.20E-01	1.10E-01	9.00E-02	1.60E-01	1.20E-01	--	Y	M
Nickel	12	12	100.0 %	3.46E+01	1.58E+01	9.55E+00	2.07E+01	5.80E+01	7.81E+00	Y	A
Silver	1	5	20.0 %	4.30E-01	2.80E-01	9.00E-02	3.60E-01	3.60E-01	--	Y	M
Zinc	12	12	100.0 %	8.89E+02	2.91E+02	2.89E+02	4.40E+02	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

Table A41. Deep Soil Analytical Results - Site 21
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Acetone	2	9	22.2 %	2.40E-02	9.22E-03	6.41E-03	1.31E-02	--	--	Y	--
Methylene chloride	2	9	22.2 %	5.10E-03	3.07E-03	8.30E-04	3.57E-03	--	--	Y	--
Metals											
Arsenic	9	9	100.0 %	2.70E+00	1.44E+00	5.10E-01	1.76E+00	4.50E+00	1.64E+00	Y	N
Beryllium	2	9	22.2 %	2.80E-01	1.20E-01	1.00E-01	1.80E-01	4.80E-01	--	Y	N
Chromium	7	9	77.8 %	1.71E+01	9.37E+00	5.63E+00	1.28E+01	2.27E+01	8.79E+00	Y	A
Copper	3	9	33.3 %	5.80E+00	1.99E+00	1.96E+00	3.19E+00	8.20E+00	2.36E+00	Y	N
Lead	9	9	100.0 %	2.90E+00	2.22E+00	5.60E-01	2.57E+00	3.70E+00	1.46E+00	Y	A
Nickel	6	9	66.7 %	1.25E+01	7.39E+00	3.62E+00	9.61E+00	1.95E+01	6.51E+00	Y	A
Zinc	7	9	77.8 %	1.14E+01	7.16E+00	3.84E+00	9.50E+00	1.39E+01	7.49E+00	Y	N

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A42. Surficial Soil Analytical Results - Site 22
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
SOCs											
Bis(2-ethylhexyl)phthalate	1	1	100.0 %	9.50E+00	--	--	--	--	--	Y	--
Butylbenzylphthalate	1	1	100.0 %	1.20E+01	--	--	--	--	--	Y	--
Butylbenzylphthalate	1	1	100.0 %	1.20E+01	--	--	--	--	--	Y	--
Butylbenzylphthalate	1	1	100.0 %	1.20E+01	--	--	--	--	--	Y	--
Butylbenzylphthalate	1	1	100.0 %	1.20E+01	--	--	--	--	--	Y	--
TPH											
TPH-Extractable Unknown Hyd.	1	1	100.0 %	8.50E+03	--	--	--	--	--	Y	--

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

Table A43. Deep Soil Analytical Results - Site 22
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Acetone	1	2	50.0 %	7.60E-03	6.55E-03	1.48E-03	9.62E-03	--	--	Y	--
TPH											
Oil & Grease	2	2	100.0 %	1.20E+03	6.28E+02	8.10E+02	2.30E+03	--	--	Y	--
Metals											
Arsenic	3	5	60.0 %	3.00E+00	1.11E+00	1.10E+00	2.10E+00	4.50E+00	1.64E+00	Y	N
Beryllium	4	5	80.0 %	4.00E-01	2.30E-01	1.10E-01	3.30E-01	4.80E-01	--	Y	N
Cadmium	1	5	20.0 %	6.50E-01	3.70E-01	1.60E-01	5.10E-01	1.90E+00	--	Y	N
Chromium	5	5	100.0 %	2.72E+01	1.44E+01	7.72E+00	2.13E+01	2.27E+01	8.79E+00	Y	M/A
Copper	5	5	100.0 %	7.30E+00	4.24E+00	1.97E+00	6.02E+00	8.20E+00	2.36E+00	Y	A
Lead	3	5	60.0 %	1.35E+01	3.91E+00	5.41E+00	8.79E+00	3.70E+00	1.46E+00	Y	M/A
Nickel	3	5	60.0 %	2.51E+01	9.39E+00	9.10E+00	1.76E+01	1.95E+01	6.51E+00	Y	M/A
Zinc	5	5	100.0 %	3.17E+01	1.26E+01	1.10E+01	2.25E+01	1.39E+01	7.49E+00	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A44. Shallow Soil Analytical Results - Site 23
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Does FOD Exceed 5%?	Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)			
SOCs												
Bis(2-ethylhexyl)phthalate	1	1	100.0 %	2.40E-01	--	--	--	--	--	Y	--	
Pentachlorophenol	1	1	100.0 %	3.50E-02	--	--	--	--	--	Y	--	
TPH												
TPH-Extractable Unknown Hyd.	2	2	100.0 %	3.80E+01	2.45E+01	1.91E+01	6.39E+01	--	--	Y	--	
Metals												
Arsenic	2	2	100.0 %	1.40E+00	1.30E+00	1.40E-01	1.59E+00	3.40E+00	1.33E+00	Y	N	
Chromium	2	2	100.0 %	1.36E+01	1.27E+01	1.27E+00	1.53E+01	4.61E+01	9.22E+00	Y	A	
Copper	1	2	50.0 %	5.70E+00	3.35E+00	3.32E+00	1.02E+01	1.82E+01	4.50E+00	Y	N	
Lead	2	2	100.0 %	1.80E+01	1.22E+01	8.27E+00	2.92E+01	5.18E+01	9.29E+00	Y	A	
Nickel	2	2	100.0 %	8.10E+00	7.60E+00	7.10E-01	9.06E+00	5.80E+01	7.81E+00	Y	N	
Zinc	2	2	100.0 %	3.04E+01	2.19E+01	1.19E+01	4.66E+01	7.58E+01	1.49E+01	Y	A	

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

Table A45. Deep Soil Analytical Results - Site 23
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Methylene chloride	1	2	50.0 %	2.70E-03	2.33E-03	5.30E-04	3.42E-03	--	--	Y	--
TPH											
Oil & Grease	2	4	50.0 %	1.40E+02	6.94E+01	5.36E+01	1.26E+02	--	--	Y	--
Metals											
Arsenic	8	8	100.0 %	3.40E+00	1.56E+00	7.90E-01	2.08E+00	4.50E+00	1.64E+00	Y	N
Beryllium	6	8	75.0 %	3.10E-01	2.00E-01	9.00E-02	2.60E-01	4.80E-01	--	Y	N
Chromium	8	8	100.0 %	2.25E+01	1.58E+01	3.89E+00	1.84E+01	2.27E+01	8.79E+00	Y	A
Copper	6	8	75.0 %	4.90E+00	2.43E+00	1.44E+00	3.38E+00	8.20E+00	2.36E+00	Y	A
Lead	8	8	100.0 %	6.50E+00	3.30E+00	1.82E+00	4.50E+00	3.70E+00	1.46E+00	Y	M/A
Nickel	8	8	100.0 %	1.59E+01	1.11E+01	3.23E+00	1.32E+01	1.95E+01	6.51E+00	Y	A
Zinc	8	8	100.0 %	3.63E+01	1.28E+01	9.97E+00	1.94E+01	1.39E+01	7.49E+00	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A46. Surficial Soil Analytical Results - Site 24
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Does FOD Exceed 5%?	Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)			
VOCs												
Toluene	1	1	100.0 %	1.60E-03	--	--	--	--	--	Y	--	
Pesticides												
gamma-BHC	1	8	12.5 %	2.30E-02	6.54E-03	6.65E-03	1.09E-02	--	--	Y	--	
Chlordane	1	4	25.0 %	2.80E-01	1.03E-01	1.18E-01	2.29E-01	--	--	Y	--	
4,4'-DDD	4	8	50.0 %	1.60E-01	4.61E-02	5.74E-02	8.39E-02	--	--	Y	--	
4,4'-DDE	4	8	50.0 %	1.20E-01	2.35E-02	3.90E-02	4.92E-02	--	--	Y	--	
4,4'-DDT	5	8	62.5 %	2.50E+00	3.82E-01	8.60E-01	9.48E-01	--	--	Y	--	
Dieldrin	1	8	12.5 %	4.90E-02	1.34E-02	1.44E-02	2.28E-02	--	--	Y	--	
PCBs												
Aroclor-1260	3	4	75.0 %	5.80E-01	2.92E-01	2.10E-01	5.16E-01	--	--	Y	--	
TPH												
TPH-Extractable Unknown Hyd.	1	1	100.0 %	2.40E+01	--	--	--	--	--	Y	--	
Metals												
Arsenic	1	1	100.0 %	1.20E+00	--	--	--	3.40E+00	1.33E+00	Y	N	
Chromium	1	1	100.0 %	1.68E+01	--	--	--	4.61E+01	9.22E+00	Y	N	
Copper	1	1	100.0 %	4.20E+00	--	--	--	1.82E+01	4.50E+00	Y	N	
Lead	1	1	100.0 %	6.20E+00	--	--	--	5.18E+01	9.29E+00	Y	N	
Zinc	1	1	100.0 %	1.51E+01	--	--	--	7.58E+01	1.49E+01	Y	N	

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A47. Shallow Soil Analytical Results - Site 24
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
SOCs											
Bis(2-ethylhexyl)phthalate	3	3	100.0 %	1.30E-01	8.50E-02	3.94E-02	1.38E-01	--	--	Y	--
TPH											
Non-Polar Oil and Grease	2	3	66.7 %	5.90E+02	2.52E+02	2.98E+02	6.57E+02	--	--	Y	--
Non-Polar Oil and Grease	2	3	66.7 %	5.90E+02	2.52E+02	2.98E+02	6.57E+02	--	--	Y	--
Non-Polar Oil and Grease	2	3	66.7 %	5.90E+02	2.52E+02	2.98E+02	6.57E+02	--	--	Y	--
Non-Polar Oil and Grease	2	3	66.7 %	5.90E+02	2.52E+02	2.98E+02	6.57E+02	--	--	Y	--
TPH-Extractable Unknown Hyd.	4	23	17.4 %	1.60E+03	9.01E+01	3.34E+02	2.10E+02	--	--	Y	--
Metals											
Arsenic	18	24	75.0 %	2.30E+00	9.70E-01	4.80E-01	1.14E+00	3.40E+00	1.33E+00	Y	N
Beryllium	17	24	70.8 %	3.40E-01	2.00E-01	7.00E-02	2.30E-01	3.50E-01	--	Y	N
Chromium	24	24	100.0 %	2.23E+01	1.14E+01	3.18E+00	1.25E+01	4.61E+01	9.22E+00	Y	A
Copper	5	24	20.8 %	1.71E+01	2.93E+00	4.11E+00	4.37E+00	1.82E+01	4.50E+00	Y	N
Lead	24	24	100.0 %	1.52E+02	1.45E+01	3.30E+01	2.60E+01	5.18E+01	9.29E+00	Y	M/A
Mercury	3	24	12.5 %	2.30E-01	4.00E-02	5.00E-02	6.00E-02	1.20E-01	--	Y	M
Nickel	19	24	79.2 %	1.14E+01	6.98E+00	2.68E+00	7.92E+00	5.80E+01	7.81E+00	Y	N
Silver	2	24	8.3 %	5.70E-01	2.80E-01	9.00E-02	3.00E-01	3.60E-01	--	Y	M
Zinc	17	24	70.8 %	1.51E+02	2.03E+01	3.07E+01	3.11E+01	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A48. Deep Soil Analytical Results - Site 24
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Acetone	1	15	6.7 %	7.10E-01	8.75E-02	2.22E-01	1.88E-01	--	--	Y	--
1,1,2,2-Tetrachloroethane	3	15	20.0 %	8.90E+00	7.84E-01	2.36E+00	1.85E+00	--	--	Y	--
Tetrachloroethene	1	14	7.1 %	1.50E-01	1.32E-02	3.94E-02	3.17E-02	--	--	Y	--
Toluene	3	15	20.0 %	1.30E-01	1.88E-02	4.31E-02	3.84E-02	--	--	Y	--
Trichloroethene	2	15	13.3 %	2.40E+00	2.13E-01	6.36E-01	5.01E-01	--	--	Y	--
Xylenes	2	15	13.3 %	6.50E-01	7.23E-02	1.90E-01	1.58E-01	--	--	Y	--
TPH											
TPH-Extractable Unknown Hyd.	3	14	21.4 %	3.80E+03	4.85E+02	1.23E+03	1.06E+03	--	--	Y	--
Metals											
Arsenic	13	19	68.4 %	2.00E+00	1.02E+00	4.90E-01	1.22E+00	4.50E+00	1.64E+00	Y	N
Beryllium	12	19	63.2 %	3.60E-01	2.20E-01	6.00E-02	2.50E-01	4.80E-01	--	Y	N
Chromium	19	19	100.0 %	2.49E+01	1.41E+01	4.19E+00	1.57E+01	2.27E+01	8.79E+00	Y	M/A
Copper	6	19	31.6 %	4.20E+00	1.74E+00	1.06E+00	2.16E+00	8.20E+00	2.36E+00	Y	N
Lead	19	19	100.0 %	8.60E+00	2.15E+00	1.85E+00	2.88E+00	3.70E+00	1.46E+00	Y	M/A
Nickel	18	19	94.7 %	1.75E+01	1.03E+01	3.54E+00	1.17E+01	1.95E+01	6.51E+00	Y	A
Zinc	15	19	79.0 %	4.05E+01	1.25E+01	8.43E+00	1.58E+01	1.39E+01	7.49E+00	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A49. Surficial Soil Analytical Results - Site 25
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Acetone	1	5	20.0 %	3.00E-01	1.60E-01	8.00E-02	2.30E-01	--	--	Y	--
Pesticides											
4,4'-DDE	3	5	60.0 %	9.00E-03	4.80E-03	3.10E-03	7.60E-03	--	--	Y	--
4,4'-DDT	4	5	80.0 %	9.00E-02	4.00E-02	4.00E-02	8.00E-02	--	--	Y	--
Dieldrin	1	5	20.0 %	9.00E-03	3.40E-03	3.10E-03	6.20E-03	--	--	Y	--
PCBs											
PCB-1254	2	5	40.0 %	8.80E-01	2.10E-01	3.80E-01	5.50E-01	--	--	Y	--
TPH											
HBPHC	1	5	20.0 %	1.60E+01	7.20E+00	4.92E+00	1.16E+01	--	--	Y	--
Metals											
Barium	7	7	100.0 %	2.20E+01	1.41E+01	4.45E+00	1.73E+01	--	--	Y	--
Cadmium	1	7	14.3 %	2.10E+00	5.10E-01	7.00E-01	1.02E+00	--	--	Y	--
Chromium (total)	7	7	100.0 %	1.10E+01	9.04E+00	1.56E+00	1.02E+01	4.61E+01	9.22E+00	Y	N
Copper	3	7	42.9 %	8.20E+00	3.46E+00	3.73E+00	6.13E+00	1.82E+01	4.50E+00	Y	N
Lead	7	7	100.0 %	4.30E+01	1.05E+01	1.48E+01	2.11E+01	5.18E+01	9.29E+00	Y	A
Mercury	3	7	42.9 %	7.00E-02	2.00E-02	2.00E-02	4.00E-02	1.20E-01	--	Y	N
Nickel	7	7	100.0 %	8.50E+00	6.80E+00	1.59E+00	7.94E+00	5.80E+01	7.81E+00	Y	N
Vanadium	6	7	85.7 %	7.50E+00	5.79E+00	1.64E+00	6.96E+00	--	--	Y	--
Zinc	7	7	100.0 %	1.20E+02	2.54E+01	4.18E+01	5.53E+01	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A50. Deep Soil Analytical Results - Site 25
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
Metals											
Barium	5	7	71.4 %	2.20E+01	1.26E+01	6.75E+00	1.74E+01	--	--	Y	--
Chromium (total)	7	7	100.0 %	1.10E+01	7.39E+00	2.25E+00	9.00E+00	2.27E+01	8.79E+00	Y	N
Copper	2	7	28.6 %	4.00E+00	1.36E+00	1.49E+00	2.43E+00	8.20E+00	2.36E+00	Y	N
Lead	7	7	100.0 %	2.00E+00	1.29E+00	3.90E-01	1.57E+00	3.70E+00	1.46E+00	Y	N
Nickel	7	7	100.0 %	1.00E+01	6.47E+00	2.04E+00	7.93E+00	1.95E+01	6.51E+00	Y	N
Vanadium	3	7	42.9 %	8.70E+00	4.40E+00	2.57E+00	6.24E+00	--	--	Y	--
Zinc	7	7	100.0 %	1.00E+01	5.64E+00	2.06E+00	7.12E+00	1.39E+01	7.49E+00	Y	N

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A51. Deep Soil Analytical Results - Site 27
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOO)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOO Exceed 5%?	
VOCs											
Tetrachloroethene	1	1	100.0 %	2.00E-03	--	--	--	--	--	Y	--
Metals											
Arsenic	1	1	100.0 %	1.20E+00	--	--	--	4.50E+00	1.64E+00	Y	N
Beryllium	1	1	100.0 %	3.50E-01	--	--	--	4.80E-01	--	Y	N
Chromium	1	1	100.0 %	9.60E+00	--	--	--	2.27E+01	8.79E+00	Y	N
Copper	1	1	100.0 %	4.80E+00	--	--	--	8.20E+00	2.36E+00	Y	N
Lead	1	1	100.0 %	2.20E+00	--	--	--	3.70E+00	1.46E+00	Y	N
Nickel	1	1	100.0 %	6.60E+00	--	--	--	1.95E+01	6.51E+00	Y	N
Zinc	1	1	100.0 %	1.01E+01	--	--	--	1.39E+01	7.49E+00	Y	N

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A52. Surficial Soil Analytical Results - Site 28
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Chemical Concentrations							Background Concentrations			Do Site Concentrations Exceed Background? /d/
	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
Metals											
Beryllium	2	3	66.7 %	1.20E-01	1.00E-01	4.00E-02	1.50E-01	3.50E-01	--	Y	N
Cadmium	1	3	33.3 %	1.20E+00	6.10E-01	5.20E-01	1.31E+00	--	--	Y	--
Chromium	3	3	100.0 %	2.74E+01	1.70E+01	9.29E+00	2.96E+01	4.61E+01	9.22E+00	Y	A
Copper	2	3	66.7 %	4.24E+01	2.11E+01	1.92E+01	4.73E+01	1.82E+01	4.50E+00	Y	M/A
Lead	3	3	100.0 %	1.55E+02	8.12E+01	6.44E+01	1.69E+02	5.18E+01	9.29E+00	Y	M/A
Mercury	1	3	33.3 %	3.10E-01	1.20E-01	1.60E-01	3.40E-01	1.20E-01	--	Y	M
Nickel	3	3	100.0 %	1.00E+01	8.03E+00	1.70E+00	1.03E+01	5.80E+01	7.81E+00	Y	A
Silver	2	3	66.7 %	7.25E+01	2.53E+01	4.09E+01	8.08E+01	3.60E-01	--	Y	M
Zinc	3	3	100.0 %	9.35E+01	7.92E+01	1.76E+01	1.03E+02	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A53. Deep Soil Analytical Results - Site 28
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations			Background Concentrations			Do Site Concentrations Exceed Background? /d/	
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)		Does FOD Exceed 5%?
VOCs											
Acetone	2	6	33.3 %	8.00E-03	5.55E-03	1.21E-03	6.51E-03	--	--	Y	--
Methylene chloride	1	6	16.7 %	2.70E-03	2.59E-03	6.00E-05	2.64E-03	--	--	Y	--

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

Table A54. Shallow Soil Analytical Results - Site 29
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
TPH											
TPH-Extractable Unknown Hyd.	7	29	24.1 %	2.80E+02	1.71E+01	5.09E+01	3.32E+01	--	--	Y	--
Oil & Grease	19	29	65.5 %	6.10E+03	4.71E+02	1.18E+03	8.44E+02	--	--	Y	--
Metals											
Arsenic	29	29	100.0 %	1.20E+00	8.00E-01	2.00E-01	8.60E-01	3.40E+00	1.33E+00	Y	N
Cadmium	1	29	3.5 %	4.90E-01	2.50E-01	5.00E-02	2.60E-01	--	--	N	--
Chromium	29	29	100.0 %	1.79E+01	1.27E+01	2.81E+00	1.36E+01	4.61E+01	9.22E+00	Y	A
Copper	14	29	48.3 %	4.29E+01	5.15E+00	7.86E+00	7.63E+00	1.82E+01	4.50E+00	Y	M/A
Lead	29	29	100.0 %	3.93E+01	7.88E+00	8.78E+00	1.07E+01	5.18E+01	9.29E+00	Y	N
Mercury	3	29	10.3 %	3.10E-01	7.00E-02	5.00E-02	8.00E-02	1.20E-01	--	Y	M
Nickel	26	29	89.7 %	1.14E+01	7.29E+00	2.85E+00	8.19E+00	5.80E+01	7.81E+00	Y	N
Selenium	2	29	6.9 %	5.50E-01	2.80E-01	7.00E-02	3.00E-01	--	--	Y	--
Silver	1	29	3.5 %	2.31E+01	1.29E+00	4.20E+00	2.61E+00	3.60E-01	--	N	M
Zinc	29	29	100.0 %	6.38E+01	1.79E+01	1.53E+01	2.27E+01	7.58E+01	1.49E+01	Y	A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

Table A55. Deep Soil Analytical Results - Site 29
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
TPH											
TPH-Extractable Unknown Hyd.	1	29	3.5 %	3.30E+01	6.19E+00	5.16E+00	7.82E+00	--	--	N	--
Oil & Grease	6	29	20.7 %	3.10E+02	4.50E+01	5.58E+01	6.26E+01	--	--	Y	--
Metals											
Arsenic	29	29	100.0 %	1.70E+00	8.90E-01	3.10E-01	9.90E-01	4.50E+00	1.64E+00	Y	N
Cadmium	1	29	3.5 %	4.90E-01	2.50E-01	5.00E-02	2.60E-01	1.90E+00	--	N	N
Chromium	29	29	100.0 %	2.16E+01	1.28E+01	4.63E+00	1.42E+01	2.27E+01	8.79E+00	Y	A
Copper	5	29	17.2 %	4.50E+00	1.66E+00	7.60E-01	1.90E+00	8.20E+00	2.36E+00	Y	N
Lead	24	29	82.8 %	3.60E+00	1.83E+00	8.20E-01	2.09E+00	3.70E+00	1.46E+00	Y	A
Nickel	27	29	93.1 %	1.29E+01	7.14E+00	3.47E+00	8.24E+00	1.95E+01	6.51E+00	Y	A
Selenium	1	29	3.5 %	6.00E-01	2.70E-01	6.00E-02	2.90E-01	--	--	N	--
Zinc	29	29	100.0 %	2.94E+01	8.50E+00	5.02E+00	1.01E+01	1.39E+01	7.49E+00	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A56. Surficial Soil Analytical Results - Site 30
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations			Background Concentrations			Do Site Concentrations Exceed Background? /d/	
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)		Does FOD Exceed 5%?
SOCs											
Bis(2-ethylhexyl)phthalate	1	1	100.0 %	3.50E+01	--	--	--	--	--	Y	--
TPH											
TPH-Extractable Unknown Hyd.	1	1	100.0 %	3.30E+03	--	--	--	--	--	Y	--

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A57. Deep Soil Analytical Results - Site 30
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCS											
Methylene chloride	2	2	100.0 %	4.90E-03	3.90E-03	1.41E-03	6.82E-03	--	--	Y	--
Metals											
Arsenic	5	5	100.0 %	1.10E+00	9.70E-01	1.80E-01	1.13E+00	4.50E+00	1.64E+00	Y	N
Beryllium	3	5	60.0 %	2.20E-01	1.40E-01	9.00E-02	2.20E-01	4.80E-01	--	Y	N
Chromium	5	5	100.0 %	1.87E+01	1.53E+01	1.95E+00	1.70E+01	2.27E+01	8.79E+00	Y	A
Copper	4	5	80.0 %	4.10E+00	3.27E+00	1.00E+00	4.17E+00	8.20E+00	2.36E+00	Y	A
Lead	5	5	100.0 %	3.10E+00	2.42E+00	4.20E-01	2.80E+00	3.70E+00	1.46E+00	Y	A
Nickel	5	5	100.0 %	1.05E+01	7.86E+00	1.91E+00	9.58E+00	1.95E+01	6.51E+00	Y	A
Zinc	5	5	100.0 %	1.37E+01	1.10E+01	1.97E+00	1.27E+01	1.39E+01	7.49E+00	Y	A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

Table A58. Surficial Soil Analytical Results - Site 31
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
SOCs											
Benzo(a)anthracene	1	1	100.0 %	4.20E-02	--	--	--	--	--	Y	--
Benzo(a)pyrene	1	1	100.0 %	3.20E-02	--	--	--	--	--	Y	--
Benzo(b)fluoranthene	1	1	100.0 %	4.20E-02	--	--	--	--	--	Y	--
Chrysene	1	1	100.0 %	4.90E-02	--	--	--	--	--	Y	--
Dibenzo(a,h)anthracene	1	1	100.0 %	3.80E-02	--	--	--	--	--	Y	--
Dibenzofuran	1	1	100.0 %	3.40E-02	--	--	--	--	--	Y	--
Fluoranthene	1	1	100.0 %	3.50E-02	--	--	--	--	--	Y	--
2-Methylnaphthalene	3	8	37.5 %	1.70E-01	1.36E-01	5.62E-02	1.72E-01	--	--	Y	--
Naphthalene	2	2	100.0 %	1.30E-01	8.35E-02	6.58E-02	2.19E-01	--	--	Y	--
Phenanthrene	2	2	100.0 %	6.80E-02	5.20E-02	2.26E-02	9.87E-02	--	--	Y	--
Pyrene	1	1	100.0 %	4.70E-02	--	--	--	--	--	Y	--
Pesticides											
4,4'-DDE	3	10	30.0 %	1.20E+00	1.82E-01	3.87E-01	4.03E-01	--	--	Y	--
4,4'-DDT	3	10	30.0 %	1.70E+00	2.14E-01	5.31E-01	5.18E-01	--	--	Y	--
Dioxins/Furans											
1,2,3,4,6,7,8-HpCDD	12	18	66.7 %	5.00E-04	7.00E-05	1.20E-04	1.20E-04	--	--	Y	--
Total HpCDD	12	18	66.7 %	9.30E-04	1.20E-04	2.30E-04	2.20E-04	--	--	Y	--
1,2,3,4,6,7,8-HpCDF	10	18	55.6 %	1.30E-03	9.00E-05	3.00E-04	2.20E-04	--	--	Y	--
Total HpCDF	11	18	61.1 %	3.80E-03	2.50E-04	8.90E-04	6.10E-04	--	--	Y	--
Total HxCDD	9	18	50.0 %	1.80E-04	2.76E-05	5.00E-05	4.86E-05	--	--	Y	--
Total HxCDF	9	18	50.0 %	8.10E-04	7.00E-05	1.90E-04	1.50E-04	--	--	Y	--
1,2,3,4,7,8,9-HpCDF	3	18	16.7 %	1.40E-05	1.94E-06	3.65E-06	3.43E-06	--	--	Y	--
1,2,3,4,7,8-HxCDD	1	18	5.6 %	1.20E-05	1.15E-06	2.76E-06	2.28E-06	--	--	Y	--
1,2,3,6,7,8-HxCDD	4	18	22.2 %	2.40E-05	4.17E-06	7.32E-06	7.16E-06	--	--	Y	--
1,2,3,7,8,9-HxCDD	3	18	16.7 %	2.10E-05	2.35E-06	5.03E-06	4.41E-06	--	--	Y	--
1,2,3,4,7,8-HxCDF	4	17	23.5 %	1.10E-05	3.81E-06	4.43E-06	5.68E-06	--	--	Y	--
1,2,3,6,7,8-HxCDF	2	18	11.1 %	1.80E-05	3.15E-06	5.15E-06	5.26E-06	--	--	Y	--
2,3,4,6,7,8-HxCDF	3	18	16.7 %	1.20E-05	2.21E-06	3.56E-06	3.66E-06	--	--	Y	--
OCDD	17	18	94.4 %	3.10E-03	3.90E-04	7.20E-04	6.90E-04	--	--	Y	--
OCDF total	10	18	55.6 %	1.10E-03	1.00E-04	2.60E-04	2.00E-04	--	--	Y	--
1,2,3,7,8-PeCDD	2	18	11.1 %	5.70E-06	9.40E-07	1.73E-06	1.65E-06	--	--	Y	--
Total PeCDD	3	18	16.7 %	8.00E-05	7.77E-06	1.90E-05	1.56E-05	--	--	Y	--
1,2,3,7,8-PeCDF	2	18	11.1 %	1.50E-05	1.61E-06	3.62E-06	3.09E-06	--	--	Y	--
2,3,4,7,8-PeCDF	3	18	16.7 %	2.50E-05	2.99E-06	6.11E-06	5.48E-06	--	--	Y	--
Total PeCDF	9	18	50.0 %	2.80E-04	3.53E-05	7.00E-05	6.00E-05	--	--	Y	--
2,3,7,8-TCDF	4	18	22.2 %	1.50E-05	1.87E-06	3.82E-06	3.44E-06	--	--	Y	--
2,3,7,8-TCDD	3	18	16.7 %	3.20E-06	5.40E-07	8.40E-07	8.80E-07	--	--	Y	--

**Table A58. Surficial Soil Analytical Results - Site 31
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
Dioxins/Furans											
Total TCDD	6	18	33.3 %	9.00E-05	8.65E-06	2.25E-05	1.79E-05	--	--	Y	--
Total TCDF	10	18	55.6 %	4.80E-04	4.50E-05	1.10E-04	9.00E-05	--	--	Y	--
Metals											
Antimony	19	55	34.6 %	2.54E+01	1.71E+00	4.57E+00	2.72E+00	--	--	Y	--
Arsenic	35	55	63.6 %	5.80E+00	1.47E+00	1.26E+00	1.75E+00	3.40E+00	1.33E+00	Y	M/A
Beryllium	39	55	70.9 %	3.80E-01	1.80E-01	9.00E-02	2.00E-01	3.50E-01	--	Y	M
Cadmium	15	55	27.3 %	8.20E+00	1.05E+00	1.57E+00	1.40E+00	--	--	Y	--
Chromium	55	55	100.0 %	4.98E+01	1.61E+01	9.31E+00	1.81E+01	4.61E+01	9.22E+00	Y	M/A
Copper	52	58	89.7 %	6.99E+02	4.23E+01	1.18E+02	6.79E+01	1.82E+01	4.50E+00	Y	M/A
Lead	55	55	100.0 %	2.21E+04	6.52E+02	3.05E+03	1.33E+03	5.18E+01	9.29E+00	Y	M/A
Mercury	19	55	34.6 %	1.30E+00	8.00E-02	1.80E-01	1.20E-01	1.20E-01	--	Y	M
Nickel	31	55	56.4 %	3.38E+01	6.93E+00	6.03E+00	8.27E+00	5.80E+01	7.81E+00	Y	N
Silver	5	55	9.1 %	7.40E+00	9.40E-01	1.40E+00	1.25E+00	3.60E-01	--	Y	M
Zinc	55	55	100.0 %	3.09E+03	2.68E+02	6.51E+02	4.13E+02	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A59. Shallow Soil Analytical Results - Site 31
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
Pesticides											
4,4'-DDE	1	1	100.0 %	6.50E-02	--	--	--	--	--	Y	--
4,4'-DDT	1	1	100.0 %	1.20E-01	--	--	--	--	--	Y	--
Dioxins/Furans											
1,2,3,4,6,7,8-HpCDD	4	5	80.0 %	1.40E-04	5.00E-05	6.00E-05	1.00E-04	--	--	Y	--
Total HpCDD	4	5	80.0 %	2.40E-04	9.00E-05	1.00E-04	1.80E-04	--	--	Y	--
1,2,3,4,6,7,8-HxCDF	4	5	80.0 %	7.00E-05	3.40E-05	3.10E-05	6.00E-05	--	--	Y	--
Total HpCDF	4	5	80.0 %	1.00E-04	4.84E-05	4.30E-05	9.00E-05	--	--	Y	--
Total HxCDD	3	5	60.0 %	1.10E-04	4.61E-05	5.00E-05	1.00E-04	--	--	Y	--
Total HxCDF	4	5	80.0 %	1.50E-04	7.00E-05	7.00E-05	1.30E-04	--	--	Y	--
1,2,3,4,7,8,9-HpCDF	2	5	40.0 %	7.30E-06	3.41E-06	3.54E-06	6.60E-06	--	--	Y	--
1,2,3,6,7,8-HxCDD	2	5	40.0 %	1.10E-05	4.69E-06	5.34E-06	9.50E-06	--	--	Y	--
1,2,3,7,8,9-HxCDD	2	5	40.0 %	1.30E-05	5.27E-06	6.20E-06	1.09E-05	--	--	Y	--
1,2,3,4,7,8-HxCDF	3	5	60.0 %	4.60E-05	2.03E-05	2.14E-05	3.95E-05	--	--	Y	--
1,2,3,6,7,8-HxCDF	2	5	40.0 %	1.80E-05	7.59E-06	8.66E-06	1.54E-05	--	--	Y	--
1,2,3,7,8,9-HxCDF	1	5	20.0 %	7.80E-06	2.56E-06	3.11E-06	5.37E-06	--	--	Y	--
2,3,4,6,7,8-HxCDF	2	5	40.0 %	1.60E-05	6.61E-06	7.72E-06	1.36E-05	--	--	Y	--
OCDD	4	5	80.0 %	5.20E-04	2.00E-04	2.00E-04	3.70E-04	--	--	Y	--
OCDF total	4	5	80.0 %	5.00E-05	2.57E-05	1.90E-05	4.29E-05	--	--	Y	--
Total PeCDD	2	5	40.0 %	3.10E-05	9.59E-06	1.30E-05	2.13E-05	--	--	Y	--
1,2,3,7,8-PeCDF	2	5	40.0 %	1.80E-05	7.58E-06	9.08E-06	1.58E-05	--	--	Y	--
2,3,4,7,8-PeCDF	2	5	40.0 %	2.30E-05	9.72E-06	1.17E-05	2.03E-05	--	--	Y	--
Total PeCDF	4	5	80.0 %	3.30E-04	1.30E-04	1.60E-04	2.70E-04	--	--	Y	--
2,3,7,8-TCDF	3	5	60.0 %	2.10E-05	9.06E-06	1.09E-05	1.89E-05	--	--	Y	--
2,3,7,8-TCDD	2	5	40.0 %	2.30E-06	1.16E-06	1.04E-06	2.10E-06	--	--	Y	--
Total TCDD	3	5	60.0 %	7.00E-05	2.60E-05	3.17E-05	5.00E-05	--	--	Y	--
Total TCDF	4	5	80.0 %	4.60E-04	1.90E-04	2.30E-04	4.10E-04	--	--	Y	--
Metals											
Antimony	3	4	75.0 %	2.10E+01	5.89E+00	1.01E+01	1.66E+01	--	--	Y	--
Arsenic	3	4	75.0 %	1.65E+01	4.74E+00	7.86E+00	1.31E+01	3.40E+00	1.33E+00	Y	M/A
Beryllium	1	4	25.0 %	2.30E-01	1.40E-01	8.00E-02	2.20E-01	3.50E-01	--	Y	N
Cadmium	1	4	25.0 %	6.70E+00	2.03E+00	3.12E+00	5.35E+00	--	--	Y	--
Chromium	4	4	100.0 %	6.44E+01	2.72E+01	2.48E+01	5.37E+01	4.61E+01	9.22E+00	Y	M/A
Copper	3	8	37.5 %	3.06E+02	4.26E+01	1.07E+02	1.13E+02	1.82E+01	4.50E+00	Y	M/A
Lead	4	4	100.0 %	3.62E+03	9.84E+02	1.76E+03	2.86E+03	5.18E+01	9.29E+00	Y	M/A
Mercury	2	4	50.0 %	1.50E-01	7.00E-02	6.00E-02	1.30E-01	1.20E-01	--	Y	M
Nickel	2	4	50.0 %	3.43E+01	1.16E+01	1.53E+01	2.79E+01	5.80E+01	7.81E+00	Y	A
Thallium	1	4	25.0 %	5.10E-01	3.00E-01	1.40E-01	4.50E-01	4.50E-01	--	Y	M

**Table A59. Shallow Soil Analytical Results - Site 31
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
Metals											
Zinc	4	4	100.0 %	2.58E+03	7.20E+02	1.24E+03	2.04E+03	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

Table A60. Deep Soil Analytical Results - Site 31
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Acetone	9	18	50.0 %	1.00E-02	6.48E-03	1.62E-03	7.14E-03	--	--	Y	--
Methylene chloride	1	18	5.6 %	3.60E-03	2.70E-03	2.40E-04	2.80E-03	--	--	Y	--
Pesticides											
4,4'-DDE	1	3	33.3 %	1.80E-02	1.20E-02	5.29E-03	1.92E-02	--	--	Y	--
4,4'-DDT	1	3	33.3 %	4.20E-02	2.00E-02	1.91E-02	4.59E-02	--	--	Y	--
Dioxins/Furans											
1,2,3,4,6,7,8-HpCDD	4	11	36.4 %	7.00E-05	1.72E-05	2.65E-05	3.16E-05	--	--	Y	--
Total HpCDD	4	11	36.4 %	1.30E-04	3.16E-05	4.95E-05	6.00E-05	--	--	Y	--
1,2,3,4,6,7,8-HpCDF	3	11	27.3 %	1.40E-05	4.38E-06	5.02E-06	7.10E-06	--	--	Y	--
Total HpCDF	3	11	27.3 %	2.80E-05	6.42E-06	9.33E-06	1.15E-05	--	--	Y	--
Total HxCDD	2	11	18.2 %	3.40E-05	6.29E-06	1.23E-05	1.30E-05	--	--	Y	--
Total HxCDF	3	11	27.3 %	5.00E-05	7.91E-06	1.47E-05	1.59E-05	--	--	Y	--
1,2,3,6,7,8-HxCDD	1	11	9.1 %	5.90E-06	9.70E-07	1.74E-06	1.92E-06	--	--	Y	--
1,2,3,4,7,8-HxCDF	1	11	9.1 %	5.70E-06	2.43E-06	1.55E-06	3.27E-06	--	--	Y	--
OCDD	5	11	45.5 %	3.40E-04	8.00E-05	1.20E-04	1.40E-04	--	--	Y	--
Total PeCDD	1	11	9.1 %	1.50E-05	2.15E-06	4.31E-06	4.48E-06	--	--	Y	--
Total PeCDF	3	11	27.3 %	7.00E-05	9.78E-06	2.10E-05	2.12E-05	--	--	Y	--
2,3,7,8-TCDF	4	11	36.4 %	5.60E-06	1.21E-06	1.68E-06	2.12E-06	--	--	Y	--
Total TCDD	4	11	36.4 %	6.00E-05	6.58E-06	1.88E-05	1.67E-05	--	--	Y	--
Total TCDF	5	11	45.5 %	9.00E-05	1.38E-05	2.71E-05	2.84E-05	--	--	Y	--
TPH											
TPH-Diesel	1	18	5.6 %	1.20E+01	5.64E+00	1.62E+00	6.30E+00	--	--	Y	--
Metals											
Antimony	7	12	58.3 %	2.60E+00	9.50E-01	8.20E-01	1.37E+00	8.20E+00	--	Y	N
Arsenic	18	30	60.0 %	4.08E+01	3.45E+00	7.83E+00	5.81E+00	4.50E+00	1.64E+00	Y	M/A
Beryllium	17	30	56.7 %	5.90E-01	2.60E-01	1.40E-01	3.00E-01	4.80E-01	--	Y	M
Cadmium	3	30	10.0 %	4.40E+00	6.00E-01	7.90E-01	8.40E-01	1.90E+00	--	Y	M
Chromium	30	30	100.0 %	4.92E+01	1.67E+01	1.05E+01	1.99E+01	2.27E+01	8.79E+00	Y	M/A
Copper	18	30	60.0 %	1.18E+03	8.54E+01	2.70E+02	1.66E+02	8.20E+00	2.36E+00	Y	M/A
Lead	30	30	100.0 %	2.41E+03	2.22E+02	5.60E+02	3.90E+02	3.70E+00	1.46E+00	Y	M/A
Mercury	6	30	20.0 %	5.10E-01	7.00E-02	9.00E-02	1.00E-01	--	--	Y	--
Nickel	21	30	70.0 %	1.40E+02	1.55E+01	2.62E+01	2.34E+01	1.95E+01	6.51E+00	Y	M/A
Silver	2	30	6.7 %	3.00E+00	5.20E-01	7.00E-01	7.30E-01	4.90E-01	--	Y	M

**Table A60. Deep Soil Analytical Results - Site 31
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOO)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOO Exceed 5%?	
Metals											
Thallium	1	26	3.9 %	5.30E-01	2.20E-01	7.00E-02	2.40E-01	3.90E-01	--	N	M
Zinc	28	30	93.3 %	1.82E+03	2.24E+02	5.11E+02	3.77E+02	1.39E+01	7.49E+00	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

Table A61. Shallow Soil Analytical Results - Site 32
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
Metals											
Beryllium	2	3	66.7 %	5.50E-01	3.90E-01	2.60E-01	7.40E-01	3.50E-01	--	Y	M
Cadmium	1	3	33.3 %	6.20E-01	4.00E-01	1.90E-01	6.60E-01	--	--	Y	--
Chromium	3	3	100.0 %	1.11E+01	1.02E+01	1.37E+00	1.20E+01	4.61E+01	9.22E+00	Y	A
Copper	1	3	33.3 %	8.90E+00	3.82E+00	4.41E+00	9.81E+00	1.82E+01	4.50E+00	Y	N
Lead	3	3	100.0 %	1.70E+00	1.67E+00	6.00E-02	1.75E+00	5.18E+01	9.29E+00	Y	N
Nickel	2	3	66.7 %	8.80E+00	6.65E+00	3.14E+00	1.09E+01	5.80E+01	7.81E+00	Y	N
Zinc	3	3	100.0 %	1.26E+01	9.07E+00	3.07E+00	1.32E+01	7.58E+01	1.49E+01	Y	N

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A62. Deep Soil Analytical Results - Site 32
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
Metals											
Beryllium	1	1	100.0 %	2.70E-01	--	--	--	4.80E-01	--	Y	N
Chromium	1	1	100.0 %	8.00E+00	--	--	--	2.27E+01	8.79E+00	Y	N
Lead	1	1	100.0 %	8.80E-01	--	--	--	3.70E+00	1.46E+00	Y	N
Nickel	1	1	100.0 %	7.20E+00	--	--	--	1.95E+01	6.51E+00	Y	N
Zinc	1	1	100.0 %	6.60E+00	--	--	--	1.39E+01	7.49E+00	Y	N

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A63. Surficial Soil Analytical Results - Site 33
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
Pesticides											
Chlordane	3	8	37.5 %	5.90E+00	1.17E+00	2.01E+00	2.49E+00	--	--	Y	--
4,4'-DDD	2	8	25.0 %	9.30E-01	1.45E-01	3.21E-01	3.56E-01	--	--	Y	--
4,4'-DDT	3	8	37.5 %	4.90E+00	8.10E-01	1.73E+00	1.95E+00	--	--	Y	--
Dieldrin	6	8	75.0 %	7.40E-01	1.52E-01	2.64E-01	3.25E-01	--	--	Y	--
Endrin	2	8	25.0 %	2.10E-02	2.10E-02	2.63E-02	3.83E-02	--	--	Y	--
Herbicides											
Dicamba	1	8	12.5 %	1.30E-01	3.34E-02	4.16E-02	6.08E-02	--	--	Y	--
Metals											
Antimony	4	8	50.0 %	3.60E+00	8.70E-01	1.21E+00	1.67E+00	--	--	Y	--
Arsenic	7	8	87.5 %	4.50E+00	1.99E+00	1.16E+00	2.75E+00	3.40E+00	1.33E+00	Y	M/A
Beryllium	1	8	12.5 %	1.50E-01	8.00E-02	3.00E-02	1.00E-01	3.50E-01	--	Y	N
Cadmium	4	8	50.0 %	2.30E+00	9.50E-01	6.80E-01	1.39E+00	--	--	Y	--
Chromium	8	8	100.0 %	3.60E+01	1.45E+01	1.01E+01	2.11E+01	4.61E+01	9.22E+00	Y	A
Copper	7	8	87.5 %	5.29E+01	1.77E+01	1.63E+01	2.84E+01	1.82E+01	4.50E+00	Y	M/A
Lead	7	8	87.5 %	8.55E+01	3.99E+01	3.60E+01	6.35E+01	5.18E+01	9.29E+00	Y	M/A
Mercury	7	8	87.5 %	6.50E+01	1.19E+01	2.22E+01	2.65E+01	1.20E-01	--	Y	M
Nickel	1	8	12.5 %	6.50E+00	3.31E+00	1.30E+00	4.16E+00	5.80E+01	7.81E+00	Y	N
Thallium	1	8	12.5 %	5.00E-01	2.60E-01	1.00E-01	3.30E-01	4.50E-01	--	Y	M
Zinc	8	8	100.0 %	2.13E+02	1.08E+02	6.76E+01	1.52E+02	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A64. Shallow Soil Analytical Results - Site 33
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
Pesticides											
Chlordane	3	8	37.5 %	5.70E-01	2.24E-01	3.11E-01	4.29E-01	--	--	Y	--
4,4'-DDD	2	8	25.0 %	5.50E-01	7.99E-02	1.90E-01	2.05E-01	--	--	Y	--
4,4'-DDT	2	8	25.0 %	1.10E+01	1.41E+00	3.88E+00	3.96E+00	--	--	Y	--
Dieldrin	4	8	50.0 %	3.10E-01	7.60E-02	1.19E-01	1.54E-01	--	--	Y	--
Herbicides											
Dicamba	1	8	12.5 %	1.90E-02	1.47E-02	2.27E-03	1.62E-02	--	--	Y	--
Metals											
Antimony	1	8	12.5 %	7.20E-01	2.30E-01	2.00E-01	3.60E-01	--	--	Y	--
Arsenic	8	8	100.0 %	2.30E+00	1.78E+00	3.20E-01	1.99E+00	3.40E+00	1.33E+00	Y	A
Beryllium	1	8	12.5 %	1.30E-01	1.00E-01	4.00E-02	1.30E-01	3.50E-01	--	Y	N
Cadmium	1	8	12.5 %	1.90E+00	6.20E-01	5.20E-01	9.60E-01	--	--	Y	--
Chromium	8	8	100.0 %	1.43E+01	1.10E+01	3.29E+00	1.31E+01	4.61E+01	9.22E+00	Y	A
Copper	7	8	87.5 %	1.43E+01	4.98E+00	3.93E+00	7.56E+00	1.82E+01	4.50E+00	Y	A
Lead	8	8	100.0 %	1.97E+01	9.46E+00	6.00E+00	1.34E+01	5.18E+01	9.29E+00	Y	A
Mercury	6	8	75.0 %	2.40E+00	5.40E-01	8.00E-01	1.07E+00	1.20E-01	--	Y	M
Nickel	6	7	85.7 %	1.03E+01	7.41E+00	2.66E+00	9.31E+00	5.80E+01	7.81E+00	Y	N
Zinc	6	8	75.0 %	8.77E+01	4.01E+01	3.07E+01	6.03E+01	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A65. Deep Soil Analytical Results - Site 33
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
Pesticides											
Chlordane	3	9	33.3 %	6.30E-01	1.14E-01	1.94E-01	2.33E-01	--	--	Y	--
4,4'-DDD	2	9	22.2 %	1.10E-01	2.19E-02	3.35E-02	4.23E-02	--	--	Y	--
4,4'-DDT	2	9	22.2 %	1.20E+00	1.51E-01	3.94E-01	3.92E-01	--	--	Y	--
Dieldrin	3	9	33.3 %	5.30E-02	1.94E-02	1.90E-02	3.10E-02	--	--	Y	--
Herbicides											
Dicamba	2	9	22.2 %	2.10E-01	3.41E-02	6.60E-02	7.44E-02	--	--	Y	--
Metals											
Arsenic	8	9	88.9 %	2.60E+00	1.54E+00	6.70E-01	1.95E+00	4.50E+00	1.64E+00	Y	N
Beryllium	3	9	33.3 %	2.90E-01	1.10E-01	7.00E-02	1.60E-01	4.80E-01	--	Y	N
Cadmium	2	9	22.2 %	1.20E+00	5.80E-01	3.00E-01	7.60E-01	1.90E+00	--	Y	N
Chromium	9	9	100.0 %	1.41E+01	1.16E+01	2.03E+00	1.28E+01	2.27E+01	8.79E+00	Y	A
Copper	5	9	55.6 %	2.21E+01	4.27E+00	6.76E+00	8.39E+00	8.20E+00	2.36E+00	Y	M/A
Lead	8	9	88.9 %	8.00E+00	3.52E+00	2.43E+00	5.00E+00	3.70E+00	1.46E+00	Y	M/A
Mercury	6	9	66.7 %	5.60E-01	2.10E-01	1.90E-01	3.30E-01	--	--	Y	--
Nickel	6	9	66.7 %	1.17E+01	7.21E+00	3.71E+00	9.47E+00	1.95E+01	6.51E+00	Y	A
Zinc	5	9	55.6 %	4.70E+01	1.84E+01	1.59E+01	2.81E+01	1.39E+01	7.49E+00	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A66. Shallow Soil Analytical Results - Site 34
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
Metals											
Arsenic	1	1	100.0 %	7.00E-01	--	--	--	3.40E+00	1.33E+00	Y	N
Lead	1	1	100.0 %	2.80E+00	--	--	--	5.18E+01	9.29E+00	Y	N
Selenium	1	1	100.0 %	7.40E-01	--	--	--	--	--	Y	--

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A67. Deep Soil Analytical Results - Site 34
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Methylene chloride	2	5	40.0 %	3.80E-03	5.75E-02	1.22E-01	1.67E-01	--	--	Y	--
Xylenes	1	5	20.0 %	6.50E+00	1.30E+00	2.91E+00	3.92E+00	--	--	Y	--
Metals											
Arsenic	5	5	100.0 %	1.20E+00	8.80E-01	2.30E-01	1.08E+00	4.50E+00	1.64E+00	Y	N
Chromium	4	5	80.0 %	1.40E+01	6.97E+00	4.90E+00	1.14E+01	2.27E+01	8.79E+00	Y	N
Copper	1	5	20.0 %	4.00E+00	1.27E+00	1.54E+00	2.67E+00	8.20E+00	2.36E+00	Y	N
Lead	5	5	100.0 %	2.10E+00	1.45E+00	5.00E-01	1.90E+00	3.70E+00	1.46E+00	Y	N
Nickel	4	5	80.0 %	9.80E+00	6.23E+00	3.08E+00	9.00E+00	1.95E+01	6.51E+00	Y	N
Thallium	1	5	20.0 %	5.30E-01	2.80E-01	1.40E-01	4.10E-01	3.90E-01	--	Y	M
Zinc	4	5	80.0 %	7.20E+00	5.03E+00	2.59E+00	7.36E+00	1.39E+01	7.49E+00	Y	N

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A68. Shallow Soil Analytical Results - Site 35
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOO)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOO Exceed 5%?	
Metals											
Chromium	1	1	100.0 %	9.50E+00	--	--	--	4.61E+01	9.22E+00	Y	N
Lead	1	1	100.0 %	1.70E+00	--	--	--	5.18E+01	9.29E+00	Y	N
Mercury	1	1	100.0 %	3.90E-01	--	--	--	1.20E-01	--	Y	M
Nickel	1	1	100.0 %	9.00E+00	--	--	--	5.80E+01	7.81E+00	Y	N
Zinc	1	1	100.0 %	9.00E+00	--	--	--	7.58E+01	1.49E+01	Y	N

- /a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.
- /b/ 95 percent upper confidence limit of the arithmetic mean.
- /c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.
- /d/ N = No detected concentration exceeded background.
M = Maximum detected concentration exceeds maximum background concentration.
A = Mean detected concentration exceeds mean background concentration.

**Table A69. Deep Soil Analytical Results - Site 35
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Acetone	1	3	33.3 %	6.00E-03	5.50E-03	5.00E-04	6.18E-03	--	--	Y	--
Metals											
Beryllium	1	3	33.3 %	4.20E-01	2.00E-01	1.90E-01	4.60E-01	4.80E-01	--	Y	N
Chromium	3	3	100.0 %	1.01E+01	8.20E+00	2.71E+00	1.19E+01	2.27E+01	8.79E+00	Y	N
Lead	3	3	100.0 %	1.30E+00	1.11E+00	1.90E-01	1.37E+00	3.70E+00	1.46E+00	Y	N
Mercury	1	3	33.3 %	1.30E-01	8.00E-02	4.00E-02	1.40E-01	--	--	Y	--
Nickel	2	3	66.7 %	7.60E+00	5.88E+00	2.55E+00	9.35E+00	1.95E+01	6.51E+00	Y	N

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A70. Surficial Soil Analytical Results - Site 36
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Acetone	1	2	50.0 %	3.90E-03	4.45E-03	7.80E-04	6.06E-03	--	--	Y	--
SOCs											
Bis(2-ethylhexyl)phthalate	2	2	100.0 %	1.50E-01	1.35E-01	2.12E-02	1.79E-01	--	--	Y	--
Metals											
Antimony	1	2	50.0 %	1.00E+00	6.10E-01	5.50E-01	1.75E+00	--	--	Y	--
Arsenic	2	2	100.0 %	1.20E+00	1.09E+00	1.60E-01	1.42E+00	3.40E+00	1.33E+00	Y	N
Cadmium	2	2	100.0 %	4.30E+00	2.85E+00	2.05E+00	7.08E+00	--	--	Y	--
Chromium	2	2	100.0 %	2.42E+01	1.80E+01	8.77E+00	3.61E+01	4.61E+01	9.22E+00	Y	A
Copper	2	2	100.0 %	2.23E+01	1.60E+01	8.91E+00	3.44E+01	1.82E+01	4.50E+00	Y	M/A
Lead	2	2	100.0 %	5.40E+01	4.60E+01	1.14E+01	6.95E+01	5.18E+01	9.29E+00	Y	M/A
Mercury	2	2	100.0 %	7.00E-02	7.00E-02	7.10E-03	8.00E-02	1.20E-01	--	Y	N
Silver	1	2	50.0 %	8.80E-01	5.60E-01	4.60E-01	1.50E+00	3.60E-01	--	Y	M
Zinc	2	2	100.0 %	8.23E+01	5.93E+01	3.25E+01	1.26E+02	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A71. Shallow Soil Analytical Results - Site 36
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations		Does FOD Exceed 5%?	Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)		
SOCs											
Bis(2-ethylhexyl)phthalate	1	1	100.0 %	4.80E-02	--	--	--	--	--	Y	--
Di-n-octylphthalate	1	1	100.0 %	7.70E-02	--	--	--	--	--	Y	--
Metals											
Arsenic	1	2	50.0 %	1.20E+00	7.30E-01	6.60E-01	2.10E+00	3.40E+00	1.33E+00	Y	N
Beryllium	2	2	100.0 %	3.10E-01	2.70E-01	6.00E-02	3.90E-01	3.50E-01	--	Y	N
Chromium	2	2	100.0 %	1.17E+01	1.15E+01	2.80E-01	1.21E+01	4.61E+01	9.22E+00	Y	A
Copper	2	2	100.0 %	4.20E+00	3.80E+00	5.70E-01	4.97E+00	1.82E+01	4.50E+00	Y	N
Lead	2	2	100.0 %	1.80E+00	1.75E+00	7.00E-02	1.90E+00	5.18E+01	9.29E+00	Y	N
Nickel	2	2	100.0 %	1.34E+01	1.06E+01	3.96E+00	1.88E+01	5.80E+01	7.81E+00	Y	A
Zinc	1	2	50.0 %	7.50E+00	7.25E+00	3.50E-01	7.98E+00	7.58E+01	1.49E+01	Y	N

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A72. Deep Soil Analytical Results - Site 36
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations		Does FOD Exceed 5%?	Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)		
SOCs											
Bis(2-ethylhexyl)phthalate	3	3	100.0 %	7.70E-02	6.33E-02	1.23E-02	8.01E-02	--	--	Y	--
Metals											
Arsenic	3	5	60.0 %	6.60E-01	5.00E-01	2.20E-01	6.90E-01	4.50E+00	1.64E+00	Y	N
Beryllium	3	5	60.0 %	5.40E-01	2.10E-01	2.00E-01	3.90E-01	4.80E-01	--	Y	M
Chromium	5	5	100.0 %	1.81E+01	9.94E+00	5.13E+00	1.46E+01	2.27E+01	8.79E+00	Y	A
Copper	3	5	60.0 %	5.60E+00	2.27E+00	1.97E+00	4.05E+00	8.20E+00	2.36E+00	Y	N
Lead	5	5	100.0 %	2.90E+00	1.33E+00	8.80E-01	2.13E+00	3.70E+00	1.46E+00	Y	N
Nickel	4	5	80.0 %	1.49E+01	8.80E+00	5.03E+00	1.33E+01	1.95E+01	6.51E+00	Y	A
Zinc	3	5	60.0 %	1.73E+01	1.01E+01	6.23E+00	1.57E+01	1.39E+01	7.49E+00	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A73. Deep Soil Analytical Results - Site 37
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCS											
Acetone	1	3	33.3 %	5.20E-03	5.07E-03	1.20E-04	5.22E-03	--	--	Y	--
TPH											
Oil & Grease	1	1	100.0 %	6.30E+01	--	--	--	--	--	Y	--
Metals											
Arsenic	3	3	100.0 %	1.70E+00	1.47E+00	2.50E-01	1.81E+00	4.50E+00	1.64E+00	Y	N
Chromium	3	3	100.0 %	7.80E+00	6.30E+00	1.41E+00	8.22E+00	2.27E+01	8.79E+00	Y	N
Copper	3	3	100.0 %	2.50E+00	1.53E+00	8.50E-01	2.67E+00	8.20E+00	2.36E+00	Y	N
Nickel	1	3	33.3 %	7.50E+00	4.45E+00	2.64E+00	8.04E+00	1.95E+01	6.51E+00	Y	N
Zinc	3	3	100.0 %	8.40E+00	5.43E+00	2.58E+00	8.94E+00	1.39E+01	7.49E+00	Y	N

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

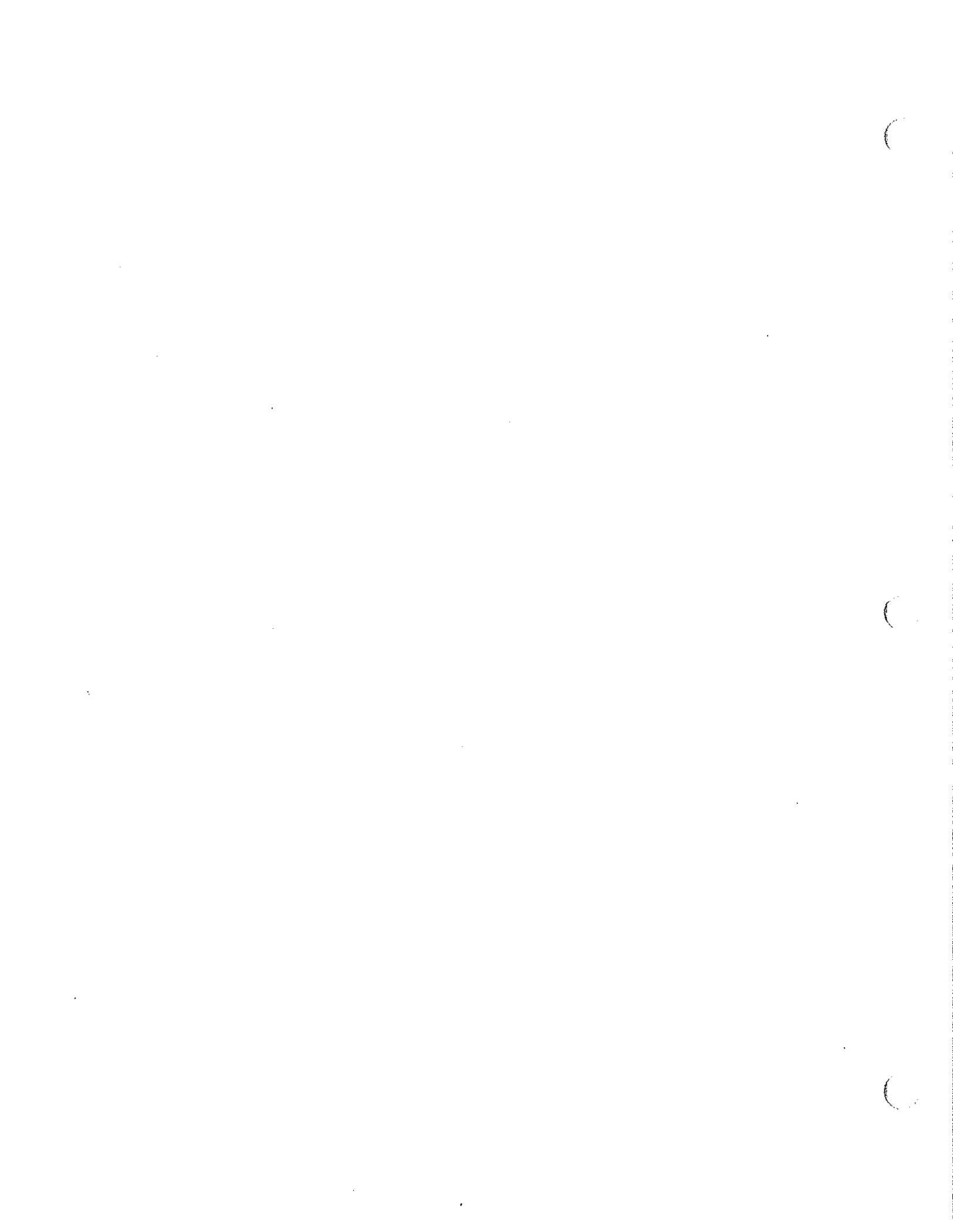
/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.



**Table A74. Surficial Soil Analytical Results - Site 39 Vegetated Areas
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
SOCs											
Bis(2-ethylhexyl)phthalate	2	2	100.0 %	2.00E-01	1.31E-01	9.76E-02	3.32E-01	--	--	Y	--
Pentachlorophenol	1	1	100.0 %	7.50E-02	--	--	--	--	--	Y	--
METALS											
Antimony	21	111	18.9 %	2.79E+01	1.16E+00	2.81E+00	1.60E+00	--	--	Y	--
Arsenic	77	111	69.4 %	6.80E+00	1.13E+00	8.20E-01	1.25E+00	3.40E+00	1.33E+00	Y	M
Beryllium	28	109	25.7 %	8.40E-01	1.50E-01	1.30E-01	1.70E-01	3.50E-01	--	Y	M
Cadmium	15	109	13.8 %	2.53E+01	8.80E-01	2.60E+00	1.29E+00	--	--	Y	--
Chromium	105	109	96.3 %	6.50E+01	1.21E+01	1.03E+01	1.37E+01	4.61E+01	9.22E+00	Y	M/A
Copper	44	109	40.4 %	1.64E+03	5.16E+01	2.17E+02	8.58E+01	1.82E+01	4.50E+00	Y	M/A
Lead	112	113	99.1 %	4.06E+03	7.96E+01	4.14E+02	1.44E+02	5.18E+01	9.29E+00	Y	M/A
Mercury	1	109	.9 %	7.00E-02	3.00E-02	1.00E-02	3.00E-02	1.20E-01	--	N	N
Nickel	62	109	56.9 %	4.57E+01	7.01E+00	7.29E+00	8.15E+00	5.80E+01	7.81E+00	Y	N
Selenium	3	110	2.7 %	1.00E+00	4.20E-01	1.00E-01	4.40E-01	--	--	N	--
Silver	3	109	2.8 %	6.60E-01	2.60E-01	1.10E-01	2.70E-01	3.60E-01	--	N	M
Zinc	67	109	61.5 %	8.91E+03	1.16E+02	8.58E+02	2.51E+02	7.58E+01	1.49E+01	Y	M/A
EXPLOSIVES											
2-Amino-dinitrotoluene	1	91	1.1 %	1.30E-01	1.30E-01	5.00E-04	1.30E-01	--	--	N	--
4-Amino-dinitrotoluene	1	91	1.1 %	1.30E-01	1.30E-01	5.00E-04	1.30E-01	--	--	N	--
HMX	7	103	6.8 %	1.20E+02	2.04E+00	1.39E+01	4.28E+00	--	--	Y	--
Tetryl	1	103	1.0 %	3.90E-01	1.40E-01	4.00E-02	1.40E-01	--	--	N	--
PETN	1	91	1.1 %	1.50E+00	2.60E-01	1.30E-01	2.90E-01	--	--	N	--
RDX	8	103	7.8 %	3.91E+00	1.90E-01	4.00E-01	2.60E-01	--	--	Y	--
INORGANICS											
Moisture Content	3	3	100.0 %	5.00E+00	4.67E+00	3.10E-01	5.08E+00	--	--	Y	--
Total Organic Carbon	6	6	100.0 %	1.62E+04	6.02E+03	5.50E+03	1.04E+04	--	--	Y	--
pH	2	2	100.0 %	7.00E+00	6.35E+00	9.20E-01	8.25E+00	--	--	Y	--

**Table A74. Surficial Soil Analytical Results - Site 39 Vegetated Areas
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

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- /a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.
 - /b/ 95 percent upper confidence limit of the arithmetic mean.
 - /c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.
 - /d/ N = No detected concentration exceeded background.
M = Maximum detected concentration exceeds maximum background concentration.
A = Mean detected concentration exceeds mean background concentration.

**Table A75. Shallow Soil Analytical Results - Site 39 Vegetated Areas
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
METALS											
Antimony	8	96	8.3 %	9.20E-01	2.90E-01	1.30E-01	3.10E-01	--	--	Y	--
Arsenic	68	93	73.1 %	7.90E+00	1.28E+00	9.10E-01	1.44E+00	3.40E+00	1.33E+00	Y	M
Beryllium	24	93	25.8 %	9.70E-01	1.60E-01	1.30E-01	1.80E-01	3.50E-01	--	Y	M
Cadmium	1	93	1.1 %	1.80E+00	4.80E-01	1.40E-01	5.00E-01	--	--	N	--
Chromium	93	94	98.9 %	4.76E+01	1.23E+01	7.46E+00	1.36E+01	4.61E+01	9.22E+00	Y	M/A
Copper	11	93	11.8 %	7.68E+01	3.65E+00	1.05E+01	5.44E+00	1.82E+01	4.50E+00	Y	M
Lead	95	95	100.0 %	5.40E+01	4.76E+00	1.01E+01	6.46E+00	5.18E+01	9.29E+00	Y	M
Mercury	6	93	6.5 %	1.10E-01	3.00E-02	1.00E-02	3.00E-02	1.20E-01	--	Y	N
Nickel	52	93	55.9 %	2.81E+01	6.64E+00	5.52E+00	7.58E+00	5.80E+01	7.81E+00	Y	N
Selenium	3	95	3.2 %	1.80E+00	4.60E-01	1.80E-01	4.90E-01	--	--	N	--
Zinc	39	94	41.5 %	4.02E+01	9.72E+00	1.02E+01	1.14E+01	7.58E+01	1.49E+01	Y	N
EXPLOSIVES											
HMX	3	90	3.3 %	1.30E+01	2.70E-01	1.36E+00	5.10E-01	--	--	N	--
RDX	1	90	1.1 %	2.20E-01	1.30E-01	1.00E-02	1.30E-01	--	--	N	--
INORGANICS											
Total Organic Carbon	6	6	100.0 %	7.10E+03	2.01E+03	2.53E+03	4.01E+03	--	--	Y	--

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A76. Deep Soil Analytical Results - Site 39 Vegetated Areas
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
METALS											
Arsenic	8	18	44.4 %	3.40E+00	1.15E+00	8.40E-01	1.49E+00	4.50E+00	1.64E+00	Y	N
Beryllium	9	18	50.0 %	7.50E-01	3.00E-01	2.50E-01	4.00E-01	4.80E-01	--	Y	M
Chromium	18	18	100.0 %	2.97E+01	1.45E+01	7.34E+00	1.75E+01	2.27E+01	8.79E+00	Y	M/A
Copper	6	18	33.3 %	1.02E+01	3.18E+00	3.41E+00	4.57E+00	8.20E+00	2.36E+00	Y	M/A
Lead	18	18	100.0 %	7.00E+00	3.08E+00	1.84E+00	3.83E+00	3.70E+00	1.46E+00	Y	M/A
Mercury	2	17	11.8 %	1.70E-01	4.00E-02	4.00E-02	6.00E-02	--	--	Y	--
Nickel	11	18	61.1 %	2.38E+01	9.09E+00	6.59E+00	1.18E+01	1.95E+01	6.51E+00	Y	M/A
Selenium	2	18	11.1 %	1.20E+00	4.70E-01	2.00E-01	5.50E-01	--	--	Y	--
Silver	1	18	5.6 %	5.50E-01	2.70E-01	9.00E-02	3.10E-01	4.90E-01	--	Y	M
Zinc	10	18	55.6 %	4.15E+01	9.93E+00	9.76E+00	1.39E+01	1.39E+01	7.49E+00	Y	M/A
INORGANICS											
Moisture Content	3	3	100.0 %	9.40E+00	7.20E+00	3.39E+00	1.18E+01	--	--	Y	--
Total Organic Carbon	4	4	100.0 %	4.61E+02	4.21E+02	4.52E+01	4.69E+02	--	--	Y	--
pH	1	1	100.0 %	6.80E+00	--	--	--	--	--	Y	--

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

Table A77. Surficial Soil Analytical Results - Site 39 Nonvegetated Areas
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
SOCs											
Bis(2-ethylhexyl)phthalate	8	16	50.0 %	4.20E-01	1.85E-01	9.52E-02	2.27E-01	--	--	Y	--
Di-n-octylphthalate	1	1	100.0 %	5.50E-02	--	--	--	--	--	Y	--
2-Methylnaphthalene	1	19	5.3 %	2.60E+00	4.46E-01	6.52E-01	7.04E-01	--	--	Y	--
Pentachlorophenol	2	2	100.0 %	5.80E-02	5.35E-02	6.36E-03	6.66E-02	--	--	Y	--
Phenanthrene	1	16	6.3 %	2.10E-01	1.79E-01	9.81E-03	1.84E-01	--	--	Y	--
Pyrene	1	16	6.3 %	1.90E-01	1.78E-01	6.29E-03	1.81E-01	--	--	Y	--
TPH											
TPH-Extractable Unknown Hyd.	9	34	26.5 %	1.40E+03	1.05E+02	3.24E+02	1.96E+02	--	--	Y	--
TPH-Purgeable Unknown Hyd.	1	8	12.5 %	1.00E+01	1.73E+00	3.34E+00	3.92E+00	--	--	Y	--
METALS											
Antimony	25	89	28.1 %	1.00E+02	3.16E+00	1.19E+01	5.24E+00	--	--	Y	--
Arsenic	73	87	83.9 %	1.05E+01	1.81E+00	1.43E+00	2.06E+00	3.40E+00	1.33E+00	Y	M/A
Beryllium	25	86	29.1 %	6.69E+01	9.60E-01	7.20E+00	2.24E+00	3.50E-01	--	Y	M
Cadmium	24	86	27.9 %	1.04E+02	6.51E+00	1.87E+01	9.82E+00	--	--	Y	--
Chromium	84	87	96.6 %	3.80E+02	2.01E+01	4.42E+01	2.79E+01	4.61E+01	9.22E+00	Y	M/A
Copper	54	88	61.4 %	1.29E+04	2.81E+02	1.46E+03	5.38E+02	1.82E+01	4.50E+00	Y	M/A
Lead	96	97	99.0 %	2.70E+03	1.17E+02	3.86E+02	1.82E+02	5.18E+01	9.29E+00	Y	M/A
Mercury	2	86	2.3 %	8.00E-02	3.00E-02	1.00E-02	3.00E-02	1.20E-01	--	N	N
Nickel	76	86	88.4 %	3.44E+02	1.64E+01	3.85E+01	2.32E+01	5.80E+01	7.81E+00	Y	M/A
Selenium	3	87	3.5 %	1.00E+00	4.20E-01	1.30E-01	4.40E-01	--	--	N	--
Silver	6	86	7.0 %	1.23E+01	5.40E-01	1.57E+00	8.20E-01	3.60E-01	--	Y	M
Zinc	60	86	69.8 %	3.08E+03	1.27E+02	4.70E+02	2.10E+02	7.58E+01	1.49E+01	Y	M/A
EXPLOSIVES											
2-Amino-dinitrotoluene	10	52	19.2 %	1.20E+00	1.80E-01	1.90E-01	2.20E-01	--	--	Y	--
4-Amino-dinitrotoluene	11	52	21.2 %	1.50E+00	1.90E-01	2.30E-01	2.40E-01	--	--	Y	--
HMX	23	63	36.5 %	1.10E+03	2.75E+01	1.41E+02	5.67E+01	--	--	Y	--
Nitroglycerin	3	52	5.8 %	8.10E+00	4.10E-01	1.09E+00	6.50E-01	--	--	Y	--
4-Nitrophenol	1	1	100.0 %	6.80E-02	--	--	--	--	--	Y	--
RDX	20	63	31.8 %	1.65E+01	1.00E+00	2.88E+00	1.60E+00	--	--	Y	--
1,3,5-Trinitrobenzene	1	63	1.6 %	1.40E-01	1.20E-01	1.00E-02	1.20E-01	--	--	N	--
2,4,6-Trinitrotoluene	2	63	3.2 %	4.00E+00	2.00E-01	4.90E-01	3.00E-01	--	--	N	--
INORGANICS											
Moisture Content	6	6	100.0 %	1.38E+01	5.67E+00	5.93E+00	1.04E+01	--	--	Y	--

**Table A77. Surficial Soil Analytical Results - Site 39 Nonvegetated Areas
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
INORGANICS											
Total Organic Carbon	2	2	100.0 %	6.90E+03	3.73E+03	4.49E+03	1.30E+04	--	--	Y	--
pH	8	8	100.0 %	6.60E+00	5.51E+00	5.50E-01	5.87E+00	--	--	Y	--

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A78. Shallow Soil Analytical Results - Site 39 Nonvegetated Areas
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
SOCs											
Bis(2-ethylhexyl)phthalate	1	2	50.0 %	1.40E-01	1.63E-01	3.18E-02	2.28E-01	--	--	Y	--
Pentachlorophenol	1	1	100.0 %	6.70E-02	--	--	--	--	--	Y	--
METALS											
Antimony	5	74	6.8 %	1.30E+00	3.00E-01	1.90E-01	3.40E-01	--	--	Y	--
Arsenic	54	74	73.0 %	3.90E+00	1.47E+00	8.10E-01	1.63E+00	3.40E+00	1.33E+00	Y	M/A
Beryllium	22	74	29.7 %	1.10E+00	2.20E-01	2.10E-01	2.60E-01	3.50E-01	--	Y	M
Cadmium	4	74	5.4 %	3.30E+00	6.00E-01	5.10E-01	7.00E-01	--	--	Y	--
Chromium	72	74	97.3 %	5.16E+01	1.46E+01	9.83E+00	1.65E+01	4.61E+01	9.22E+00	Y	M/A
Copper	24	74	32.4 %	1.22E+03	2.53E+01	1.44E+02	5.28E+01	1.82E+01	4.50E+00	Y	M/A
Lead	74	74	100.0 %	3.62E+02	1.52E+01	4.61E+01	2.40E+01	5.18E+01	9.29E+00	Y	M/A
Mercury	3	74	4.1 %	7.00E-02	3.00E-02	8.60E-03	3.00E-02	1.20E-01	--	N	N
Nickel	61	74	82.4 %	2.50E+01	9.12E+00	5.27E+00	1.01E+01	5.80E+01	7.81E+00	Y	A
Selenium	4	74	5.4 %	1.00E+00	4.60E-01	1.10E-01	4.80E-01	--	--	Y	--
Zinc	42	74	56.8 %	5.42E+02	2.33E+01	6.47E+01	3.57E+01	7.58E+01	1.49E+01	Y	M/A
EXPLOSIVES											
2-Amino-dinitrotoluene	1	54	1.9 %	1.00E-01	1.20E-01	3.40E-03	1.30E-01	--	--	N	--
HMX	11	54	20.4 %	5.60E+01	1.54E+00	7.73E+00	3.27E+00	--	--	Y	--
4-Nitrophenol	1	1	100.0 %	9.80E-02	--	--	--	--	--	Y	--
RDX	5	54	9.3 %	5.00E-01	1.40E-01	6.00E-02	1.50E-01	--	--	Y	--
INORGANICS											
Total Organic Carbon	2	2	100.0 %	1.70E+03	1.30E+03	5.64E+02	2.47E+03	--	--	Y	--

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

Table A79. Deep Soil Analytical Results - Site 39 Nonvegetated Areas
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
TPH											
TPH-Extractable Unknown Hyd.	1	59	1.7 %	2.80E+01	6.02E+00	2.93E+00	6.64E+00	--	--	N	--
METALS											
Antimony	2	63	3.2 %	5.50E-01	4.80E-01	7.10E-01	6.30E-01	8.20E+00	--	N	N
Arsenic	48	64	75.0 %	4.80E+00	1.70E+00	1.05E+00	1.92E+00	4.50E+00	1.64E+00	Y	M/A
Beryllium	38	64	59.4 %	1.30E+00	4.10E-01	3.00E-01	4.70E-01	4.80E-01	--	Y	M
Cadmium	1	64	1.6 %	6.50E-01	4.70E-01	6.00E-02	4.80E-01	1.90E+00	--	N	N
Chromium	59	64	92.2 %	6.92E+01	2.14E+01	1.44E+01	2.44E+01	2.27E+01	8.79E+00	Y	M/A
Copper	37	64	57.8 %	2.63E+01	5.47E+00	5.60E+00	6.62E+00	8.20E+00	2.36E+00	Y	M/A
Lead	71	71	100.0 %	2.38E+01	4.04E+00	3.49E+00	4.72E+00	3.70E+00	1.46E+00	Y	M/A
Mercury	7	62	11.3 %	1.90E-01	4.00E-02	3.00E-02	4.00E-02	--	--	Y	--
Nickel	50	64	78.1 %	4.31E+01	1.24E+01	8.28E+00	1.41E+01	1.95E+01	6.51E+00	Y	M/A
Selenium	1	64	1.6 %	1.10E+00	4.40E-01	1.00E-01	4.60E-01	--	--	N	--
Silver	1	64	1.6 %	9.10E-01	2.60E-01	9.00E-02	2.80E-01	4.90E-01	--	N	M
Zinc	43	64	67.2 %	1.47E+02	1.61E+01	1.89E+01	2.00E+01	1.39E+01	7.49E+00	Y	M/A
EXPLOSIVES											
HMX	2	15	13.3 %	1.00E+00	2.20E-01	2.20E-01	3.20E-01	--	--	Y	--
RDX	1	15	6.7 %	1.10E-01	1.30E-01	4.50E-03	1.30E-01	--	--	Y	--
INORGANICS											
Moisture Content	4	4	100.0 %	8.50E+00	7.85E+00	7.00E-01	8.59E+00	--	--	Y	--
pH	7	7	100.0 %	7.70E+00	6.09E+00	1.02E+00	6.82E+00	--	--	Y	--

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A80. Surficial Soil Analytical Results - Site 40
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Toluene	1	1	100.0 %	1.20E-03	--	--	--	--	--	Y	--
TPH											
TPH-Extractable Unknown Hyd.	1	2	50.0 %	9.50E+02	4.78E+02	6.68E+02	1.86E+03	--	--	Y	--
METALS											
Chromium	2	2	100.0 %	1.14E+01	1.13E+01	1.40E-01	1.16E+01	4.61E+01	9.22E+00	Y	A
Copper	2	2	100.0 %	2.00E+00	1.85E+00	2.10E-01	2.29E+00	1.82E+01	4.50E+00	Y	N
Lead	2	2	100.0 %	3.10E+00	2.75E+00	5.00E-01	3.77E+00	5.18E+01	9.29E+00	Y	N
Nickel	1	2	50.0 %	6.70E+00	4.60E+00	2.97E+00	1.07E+01	5.80E+01	7.81E+00	Y	N
Zinc	2	2	100.0 %	1.25E+01	1.10E+01	2.12E+00	1.54E+01	7.58E+01	1.49E+01	Y	N

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A81. Shallow Soil Analytical Results - Site 40
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Does FOD Exceed 5%?	Do Site Concentrations Exceed Background? /d/
				Maximum Concentration (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)			
VOCs												
Acetone	1	1	100.0 %	2.80E-03	--	--	--	--	--	Y	--	
SOCs												
Bis(2-ethylhexyl)phthalate	1	1	100.0 %	5.60E-02	--	--	--	--	--	Y	--	
METALS												
Arsenic	2	3	66.7 %	9.00E-01	7.10E-01	1.60E-01	9.30E-01	3.40E+00	1.33E+00	Y	N	
Chromium	3	3	100.0 %	7.60E+00	7.03E+00	8.10E-01	8.14E+00	4.61E+01	9.22E+00	Y	N	
Chromium VI	0	3	0.0 %	--	--	--	--	--	--	N	--	
Copper	3	3	100.0 %	2.00E+00	1.43E+00	5.20E-01	2.13E+00	1.82E+01	4.50E+00	Y	N	
Lead	3	3	100.0 %	1.60E+00	1.29E+00	3.80E-01	1.81E+00	5.18E+01	9.29E+00	Y	N	
Nickel	2	3	66.7 %	7.30E+00	5.35E+00	2.34E+00	8.53E+00	5.80E+01	7.81E+00	Y	N	
Zinc	3	3	100.0 %	1.06E+01	8.23E+00	2.35E+00	1.14E+01	7.58E+01	1.49E+01	Y	N	

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A82. Deep Soil Analytical Results - Site 40
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Acetone	2	14	14.3 %	2.20E-02	9.15E-03	6.36E-03	1.21E-02	--	--	Y	--
Methyl ethyl ketone	3	14	21.4 %	7.60E-03	5.49E-03	7.50E-04	5.84E-03	--	--	Y	--
Methylene chloride	1	14	7.1 %	1.50E-03	2.18E-03	6.10E-04	2.47E-03	--	--	Y	--
SOCs											
Bis(2-ethylhexyl)phthalate	2	2	100.0 %	7.50E-02	5.70E-02	2.55E-02	1.10E-01	--	--	Y	--
METALS											
Antimony	2	14	14.3 %	3.60E-01	1.90E-01	7.00E-02	2.20E-01	8.20E+00	--	Y	N
Arsenic	1	14	7.1 %	8.40E-01	5.20E-01	1.50E-01	5.90E-01	4.50E+00	1.64E+00	Y	N
Beryllium	2	14	14.3 %	2.20E-01	1.00E-01	5.00E-02	1.20E-01	4.80E-01	--	Y	N
Chromium	14	14	100.0 %	1.21E+01	8.97E+00	1.64E+00	9.75E+00	2.27E+01	8.79E+00	Y	A
Chromium VI	0	13	0.0 %	--	--	--	--	--	--	N	--
Copper	10	14	71.4 %	2.30E+00	1.70E+00	4.10E-01	1.90E+00	8.20E+00	2.36E+00	Y	N
Lead	14	14	100.0 %	2.70E+00	1.67E+00	4.70E-01	1.89E+00	3.70E+00	1.46E+00	Y	A
Nickel	8	14	57.1 %	9.10E+00	4.96E+00	2.21E+00	6.00E+00	1.95E+01	6.51E+00	Y	N
Zinc	14	14	100.0 %	2.30E+01	1.17E+01	3.80E+00	1.35E+01	1.39E+01	7.49E+00	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A83. Surficial Soil Analytical Results - Site 41
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Toluene	2	4	50.0 %	2.40E-03	2.63E-03	9.00E-04	3.58E-03	--	--	Y	--
TPH											
TPH-Extractable Unknown Hyd.	1	3	33.3 %	4.40E+02	1.51E+02	2.50E+02	4.91E+02	--	--	Y	--
METALS											
Arsenic	3	4	75.0 %	4.77E+01	1.43E+01	2.23E+01	3.81E+01	3.40E+00	1.33E+00	Y	M/A
Beryllium	4	4	100.0 %	2.20E+00	1.36E+00	6.20E-01	2.02E+00	3.50E-01	--	Y	M
Cadmium	1	4	25.0 %	2.00E+00	8.90E-01	7.40E-01	1.68E+00	--	--	Y	--
Chromium	4	4	100.0 %	7.38E+01	5.23E+01	1.74E+01	7.08E+01	4.61E+01	9.22E+00	Y	M/A
Copper	4	4	100.0 %	1.39E+02	4.88E+01	6.13E+01	1.14E+02	1.82E+01	4.50E+00	Y	M/A
Lead	4	4	100.0 %	1.12E+02	3.95E+01	4.85E+01	9.13E+01	5.18E+01	9.29E+00	Y	M/A
Nickel	4	4	100.0 %	1.02E+02	4.12E+01	4.14E+01	8.54E+01	5.80E+01	7.81E+00	Y	M/A
Selenium	1	4	25.0 %	2.50E+00	9.30E-01	1.04E+00	2.05E+00	--	--	Y	--
Silver	3	4	75.0 %	2.50E+00	1.11E+00	9.60E-01	2.13E+00	3.60E-01	--	Y	M
Thallium	1	4	25.0 %	5.70E-01	3.10E-01	1.80E-01	5.00E-01	4.50E-01	--	Y	M
Zinc	4	4	100.0 %	7.71E+02	2.50E+02	3.52E+02	6.25E+02	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A84. Shallow Soil Analytical Results - Site 41
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCS											
Methylene chloride	2	2	100.0 %	3.10E-03	2.25E-03	1.20E-03	4.73E-03	--	--	Y	--
TPH											
TPH-Extractable Unknown Hyd.	1	4	25.0 %	3.30E+01	2.51E+01	2.36E+01	5.03E+01	--	--	Y	--
METALS											
Arsenic	4	4	100.0 %	9.00E+00	4.48E+00	3.31E+00	8.01E+00	3.40E+00	1.33E+00	Y	M/A
Beryllium	2	4	50.0 %	1.50E+00	7.30E-01	5.90E-01	1.35E+00	3.50E-01	--	Y	M
Chromium	4	4	100.0 %	5.25E+01	3.36E+01	1.84E+01	5.32E+01	4.61E+01	9.22E+00	Y	M/A
Copper	3	3	100.0 %	1.33E+01	9.97E+00	4.61E+00	1.62E+01	1.82E+01	4.50E+00	Y	A
Lead	4	4	100.0 %	2.78E+01	1.61E+01	8.49E+00	2.51E+01	5.18E+01	9.29E+00	Y	A
Mercury	1	4	25.0 %	8.00E-02	4.00E-02	3.00E-02	7.00E-02	1.20E-01	--	Y	N
Nickel	4	4	100.0 %	2.69E+01	1.75E+01	8.98E+00	2.71E+01	5.80E+01	7.81E+00	Y	A
Silver	3	4	75.0 %	1.40E+00	8.20E-01	4.80E-01	1.33E+00	3.60E-01	--	Y	M
Zinc	4	4	100.0 %	9.19E+01	4.22E+01	3.35E+01	7.79E+01	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A85. Deep Soil Analytical Results - Site 41
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Methylene chloride	3	9	33.3 %	2.60E-03	3.18E-03	1.34E-03	4.00E-03	--	--	Y	--
Toluene	2	9	22.2 %	1.50E-03	2.46E-03	6.00E-04	2.82E-03	--	--	Y	--
TPH											
TPH-Extractable Unknown Hyd.	2	13	15.4 %	1.70E+01	6.96E+00	3.50E+00	8.68E+00	--	--	Y	--
METALS											
Arsenic	13	13	100.0 %	3.70E+00	2.28E+00	7.70E-01	2.66E+00	4.50E+00	1.64E+00	Y	A
Beryllium	9	13	69.2 %	8.70E-01	6.00E-01	2.70E-01	7.30E-01	4.80E-01	--	Y	M
Chromium	12	12	100.0 %	2.33E+01	1.64E+01	3.57E+00	1.83E+01	2.27E+01	8.79E+00	Y	M/A
Copper	9	13	69.2 %	4.28E+01	5.94E+00	1.12E+01	1.14E+01	8.20E+00	2.36E+00	Y	M/A
Lead	13	13	100.0 %	4.70E+00	3.01E+00	9.00E-01	3.45E+00	3.70E+00	1.46E+00	Y	M/A
Mercury	1	13	7.7 %	6.00E-02	3.00E-02	1.00E-02	4.00E-02	--	--	Y	--
Nickel	12	13	92.3 %	1.56E+01	9.77E+00	3.72E+00	1.16E+01	1.95E+01	6.51E+00	Y	A
Selenium	3	13	23.1 %	1.50E+00	5.90E-01	4.60E-01	8.20E-01	--	--	Y	--
Silver	6	13	46.2 %	6.20E-01	3.90E-01	1.50E-01	4.60E-01	4.90E-01	--	Y	M
Zinc	8	13	61.5 %	1.92E+01	9.22E+00	3.92E+00	1.11E+01	1.39E+01	7.49E+00	Y	M/A
INORGANICS											
Total Organic Carbon	2	2	100.0 %	4.20E+03	2.21E+03	2.82E+03	8.03E+03	--	--	Y	--

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table A86. Analytical Results for Inorganic Compounds Detected in Stormwater Samples
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Test Method/Analyte Name	Units	BKG-03	OF-01-MH-02	OF-01-MH-02	OF-02-MH-01
		01/23/94/a/ value qual/b/	01/23/94 value qual	03/24/94 value qual	01/23/94 value qual
COLD VAPOR AA					
Mercury	ug/l	0.4 V	ND(0.2) V/U	ND(0.2) A/U	ND(0.2) V/U
FUAA-EPA7060					
Arsenic	ug/l	53 V	ND(2.5) V/U	ND(2.5) A/WU	ND(2.5) V/U
FUAA-EPA7421					
Lead	ug/l	158 V	5.6 V	7.9 A	4.7 V
FUAA-EPA7841					
Thallium	ug/l	4.5 VJ3/WB	ND(2.1) V/U	ND(2.1) AJ3/NWU	ND(2.1) V/U
METALS BY ICP					
Beryllium	ug/l	29.5 V	ND(0.6) V/U	ND(0.6) A/U	ND(0.6) V/U
Cadmium	ug/l	21.6 V	ND(4.3) V/U	ND(4.3) A/U	ND(4.3) V/U
Calcium	ug/l	NA	NA	8990 A	NA
Chromium	ug/l	936 V	ND(3.6) V/U	8 A/B	28 V
Copper	ug/l	388 V	ND(27.9) VU1	47.8 A	ND(6.7) VU1/B
Magnesium	ug/l	NA	NA	2540 A/B	NA
Nickel	ug/l	602 V	ND(24) V/U	ND(24) A/U	ND(24) V/U
Silver	ug/l	24 V	ND(2.3) V/U	2.5 A/B	ND(2.3) V/U
Sodium	ug/l	NA	NA	15000 A	NA
Zinc	ug/l	1620 VJ4/E	270 VJ4/E	296 A	145 VJ4/E
EPA-300.0					
Nitrate as N	mg/l	NA	NA	0.64 A	NA
Orthophosphate as P	mg/l	NA	NA	ND(0.2) A	NA
EPA-7041					
Antimony	ug/l	ND(1.5) VJ3/WU	ND(4.3) VU1/WB	6.5 A/B	ND(4.5) VU1/B

/a/ Sample date

/b/ NA Not analyzed.
 ND() Not detected at a specific detection limit. Limit of detection is included in parentheses.
 qual Qualifiers are explained on Appendix A coversheet.

**Table A86. Analytical Results for Inorganic Compounds Detected in Stormwater Samples
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Test Method/Analyte Name	Units	OF-02-MH-01 03/24/94/a/ value qual/b/	OF-03-MH-01 01/23/94 value qual	OF-03-MH-01 03/24/94 value qual	OF-04-MH-01 01/23/94 value qual
COLD VAPOR AA					
Mercury	ug/l	ND(0.2) A/U	ND(0.2) V/U	ND(0.2) A/U	ND(0.2) V/U
FUAA-EPA7060					
Arsenic	ug/l	ND(2.5) A/U	ND(2.5) V/U	ND(2.5) A/U	ND(2.5) V/U
FUAA-EPA7421					
Lead	ug/l	8.9 A	23.5 V	5.6 A	ND(2.9) V/U
FUAA-EPA7841					
Thallium	ug/l	ND(2.1) AJ3/NWU	ND(2.1) VJ3/WU	ND(2.1) AJ3/NWU	ND(2.1) VJ3/WU
METALS BY ICP					
Beryllium	ug/l	ND(0.6) A/U	ND(0.6) V/U	ND(0.6) A/U	ND(0.6) V/U
Cadmium	ug/l	ND(4.3) A/U	ND(4.3) V/U	ND(4.3) A/U	ND(4.3) V/U
Calcium	ug/l	6640 A	NA	10400 A	NA
Chromium	ug/l	ND(3.6) A/U	5.8 V/B	ND(3.6) A/U	ND(3.6) V/U
Copper	ug/l	26.1 A	ND(10.3) VU1/B	29.4 A	ND(11) VU1/B
Magnesium	ug/l	1710 A/B	NA	2170 A/B	NA
Nickel	ug/l	ND(24) A/U	ND(24) V/U	ND(24) A/U	ND(24) V/U
Silver	ug/l	2.4 A/B	ND(2.3) V/U	ND(2.3) A/U	ND(2.3) V/U
Sodium	ug/l	9400 A	NA	10600 A	NA
Zinc	ug/l	185 A	126 VJ4/E	150 A	84.7 VJ4/E
EPA-300.0					
Nitrate as N	mg/l	0.35 A	NA	0.59 A	NA
Orthophosphate as P	mg/l	ND(0.2) A	NA	ND(0.2) A	NA
EPA-7041					
Antimony	ug/l	2.6 A/B	ND(9.9) VU1/WB	3.5 A/B	ND(1.8) VU1/B

/a/ Sample date

/b/ NA Not analyzed.
 ND() Not detected at a specific detection limit. Limit of detection is included in parentheses.
 qual Qualifiers are explained on Appendix A coversheet.

**Table A86. Analytical Results for Inorganic Compounds Detected In Stormwater Samples
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Test Method/Analyte Name	Units	OF-04-MH-01	OF-15	OF-15	OF-16-01
		03/24/94/a/ value qual/b/	01/23/94 value qual	03/24/94 value qual	01/23/94 value qual
COLD VAPOR AA					
Mercury	ug/l	ND(0.2) A/U	ND(0.2) V/U	0.26 A	ND(0.2) V/U
FUAA-EPA7060					
Arsenic	ug/l	ND(2.5) A/U	ND(2.5) V/U	ND(2.5) A/WU	ND(2.5) V/U
FUAA-EPA7421					
Lead	ug/l	9.9 A	54.5 V	88.5 A	12.5 V
FUAA-EPA7841					
Thallium	ug/l	ND(2.1) AJ3/NWU	ND(2.1) VJ3/WU	ND(21) AJ3/NU	ND(2.1) V/U
METALS BY ICP					
Beryllium	ug/l	ND(0.6) A/U	ND(0.6) V/U	ND(0.6) A/U	ND(0.6) V/U
Cadmium	ug/l	ND(4.3) A/U	ND(4.3) V/U	ND(4.3) A/U	ND(4.3) V/U
Calcium	ug/l	7790 A	NA	19200 A	NA
Chromium	ug/l	ND(3.6) A/U	5.7 V/B	11.3 A	ND(3.6) V/U
Copper	ug/l	ND(20.1) AU1/B	ND(19.8) VU1/B	96.9 A	ND(34) VU1
Magnesium	ug/l	1760 A/B	NA	5040 A	NA
Nickel	ug/l	ND(24) A/U	ND(24) V/U	34.2 A/B	ND(24) V/U
Silver	ug/l	ND(2.3) A/U	ND(2.3) V/U	ND(2.3) A/U	ND(2.3) V/U
Sodium	ug/l	7060 A	NA	23500 A	NA
Zinc	ug/l	103 A	130 VJ4/E	396 A	125 VJ4/E
EPA-300.0					
Nitrate as N	mg/l	0.31 A	NA	0.66 A	NA
Orthophosphate as P	mg/l	0.2 A	NA	ND(0.2) A	NA
EPA-7041					
Antimony	ug/l	ND(2.2) A/U	ND(2) VU1/B	2.7 A/B	ND(1.5) V/U

/a/ Sample date

/b/ NA Not analyzed.
 ND() Not detected at a specific detection limit. Limit of detection is included in parentheses.
 qual Qualifiers are explained on Appendix A coversheet.

**Table A86. Analytical Results for Inorganic Compounds Detected in Stormwater Samples
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Test Method/Analyte Name	Units	OF-16-01 03/24/94/a/ value qual/b/	OF-16-02 01/23/94 value qual	OF-16-04 01/23/94 value qual	OF-23 03/24/94 value qual
COLD VAPOR AA					
Mercury	ug/l	ND(0.2) A/U	ND(0.2) V/U	ND(0.2) V/U	ND(0.2) A/U
FUAA-EPA7060					
Arsenic	ug/l	ND(2.5) A/U	ND(2.5) V/U	ND(2.5) VU1/B	ND(2.5) A/U
FUAA-EPA7421					
Lead	ug/l	10 A	7.1 V	3.3 V	20.1 A
FUAA-EPA7841					
Thallium	ug/l	ND(2.1) AJ3/NU	ND(2.1) V/U	ND(2.1) V/U	ND(2.1) AJ3/NU
METALS BY ICP					
Beryllium	ug/l	ND(0.6) A/U	ND(0.6) V/U	ND(0.6) V/U	ND(0.9) AU1/B
Cadmium	ug/l	6.2 A	ND(4.3) V/U	ND(4.3) V/U	ND(4.3) A/U
Calcium	ug/l	6470 A	NA	NA	3630 A/B
Chromium	ug/l	7.1 A/B	ND(3.6) V/U	ND(3.6) V/U	ND(3.6) A/U
Copper	ug/l	32.8 A	ND(11.7) VU1/B	ND(10.7) VU1/B	ND(11.7) AU1/B
Magnesium	ug/l	1710 A/B	NA	NA	669 A/B
Nickel	ug/l	ND(24) A/U	ND(24) V/U	ND(24) V/U	ND(24) A/U
Silver	ug/l	ND(2.3) A/U	ND(2.3) V/U	ND(2.3) V/U	ND(2.3) A/U
Sodium	ug/l	8010 A	NA	NA	3370 A/B
Zinc	ug/l	87.4 A	ND(57.2) VU1/E	ND(34.2) VU1/E	42.1 A
EPA-300.0					
Nitrate as N	mg/l	0.58 A	NA	NA	ND(0.24) AU2
Orthophosphate as P	mg/l	ND(0.2) A	NA	NA	ND(0.2) A
EPA-7041					
Antimony	ug/l	11.3 A	ND(3.6) VU1/B	ND(1.9) VU1/WB	ND(2.2) A/U

/a/ Sample date

/b/ NA Not analyzed.
 ND() Not detected at a specific detection limit. Limit of detection is included in parentheses.
 qual Qualifiers are explained on Appendix A coversheet.

**Table A86. Analytical Results for Inorganic Compounds Detected in Stormwater Samples
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Test Method/Analyte Name	Units	OF-26 01/23/94/a/ value qual/b/
COLD VAPOR AA		
Mercury	ug/l	ND(0.2) V/U
FUAA-EPA7060		
Arsenic	ug/l	ND(8.2) VU1/B
FUAA-EPA7421		
Lead	ug/l	214 V
FUAA-EPA7841		
Thallium	ug/l	ND(2.1) VJ3/WU
METALS BY ICP		
Beryllium	ug/l	ND(1.5) VU1/B
Cadmium	ug/l	6 V
Calcium	ug/l	NA
Chromium	ug/l	105 V
Copper	ug/l	85.9 V
Magnesium	ug/l	NA
Nickel	ug/l	103 V
Silver	ug/l	ND(2.3) V/U
Sodium	ug/l	NA
Zinc	ug/l	725 VJ4/E
EPA-300.0		
Nitrate as N	mg/l	NA
Orthophosphate as P	mg/l	NA
EPA-7041		
Antimony	ug/l	ND(1.5) V/U

/a/ Sample date

/b/ NA Not analyzed.
 ND() Not detected at a specific detection limit. Limit of detection is included in parentheses.
 qual Qualifiers are explained on Appendix A coversheet.

**Table A87. Analytical Results for Organic Compounds Detected in Stormwater Samples
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Test Method/Analyte Name	Units	BKG-03 01/23/94/a/ value qual/b/	OF-01-MH-2 01/23/94 value qual	OF-01-MH-2 03/24/94 value qual	OF-02-MH-01 01/23/94 value qual
EPA-8240					
Acetone	ug/l	ND(10) V	ND(10) V	ND(10) A	ND(10) V
Benzene	ug/l	ND(5) V	ND(5) V	ND(5) A	ND(5) V
Toluene	ug/l	ND(5) V	ND(5) V	ND(5) A	ND(5) V
Ethylbenzene	ug/l	ND(5) V	ND(5) V	ND(5) A	ND(5) V
Xylenes	ug/l	ND(5) V	ND(5) V	ND(5) A	ND(5) V
EPA-8270					
Phenol	ug/l	ND(10) V	ND(10) VJ5	ND(10) A	ND(10) V
Di-n-butylphthalate	ug/l	ND(10) V	2 VJ5/J	ND(10) A	2.2 V/J
Bis(2-ethylhexyl)phthalate	ug/l	ND(10) V	3.1 VJ5/bJ	2.8 A/bJ	3.6 V/bJ
EPA-8080					
gamma-BHC	ug/l	ND(0.05) VJ3	ND(0.05) VJ3	ND(0.061) AJ3	ND(0.05) VJ3
TPH DIESEL					
TPH-Extractable Unknown Hydrocarbon	ug/l	81 VJ3/1	460 V/1	650 AJ3/1	310 V/1
TPH GAS					
TPH-Gasoline	mg/l	ND(0.05) V	ND(0.05) V	ND(50) A	ND(0.05) V

/a/ Sample date

/b/ NA Not analyzed.
 ND() Not detected at a specific detection limit. Limit of detection is included in parentheses.
 qual Qualifiers are explained on Appendix A coversheet.

**Table A87. Analytical Results for Organic Compounds Detected in Stormwater Samples
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Test Method/Analyte Name	Units	OF-02-MH-01 03/24/94/a/ value qual/b/	OF-03-MH-01 01/23/94 value qual	OF-03-MH-01 03/24/94 value qual	OF-04-MH-01 01/23/94 value qual
EPA-8240					
Acetone	ug/l	ND(10) A	ND(10) V	ND(10) A	ND(10) V
Benzene	ug/l	ND(5) A	ND(5) V	ND(5) A	ND(5) V
Toluene	ug/l	ND(5) A	ND(5) V	ND(5) A	ND(5) V
Ethylbenzene	ug/l	ND(5) A	ND(5) V	ND(5) A	ND(5) V
Xylenes	ug/l	ND(5) A	ND(5) V	ND(5) A	ND(5) V
EPA-8270					
Phenol	ug/l	ND(10) A	13 V	ND(10) A	ND(10) V
Di-n-butylphthalate	ug/l	ND(10) A	2.7 V/J	ND(10) A	2 V/J
Bis(2-ethylhexyl)phthalate	ug/l	ND(10) A	13 V/b	2.5 A/bJ	4.1 V/Jb
EPA-8080					
gamma-BHC	ug/l	ND(0.06) AJ3	ND(0.05) VJ3	ND(0.062) AJ3	ND(0.05) VJ3
TPH DIESEL					
TPH-Extractable Unknown Hydrocarbon	ug/l	ND(500) A	740 V/1	560 A/1	290 V/1
TPH GAS					
TPH-Gasoline	mg/l	ND(50) A	ND(0.05) V	ND(50) A	ND(0.05) V

/a/ Sample date

/b/ NA Not analyzed.
 ND() Not detected at a specific detection limit. Limit of detection is included in parentheses.
 qual Qualifiers are explained on Appendix A coversheet.

**Table A87. Analytical Results for Organic Compounds Detected in Stormwater Samples
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Test Method/Analyte Name	Units	OF-04-MH-01 03/24/94/a/ value qual/b/	OF-15 01/23/94 value qual	OF-051 03/24/94 value qual	OF-16-01 01/23/94 value qual
EPA-8240					
Acetone	ug/l	4.2 A/bJ	ND(10) V	ND(10) A	2.9 V/BJ
Benzene	ug/l	ND(5) A	ND(5) V	2.2 A/J	ND(5) V
Toluene	ug/l	ND(5) A	ND(5) V	29 A	ND(5) V
Ethylbenzene	ug/l	ND(5) A	ND(5) V	10 A	ND(5) V
Xylenes	ug/l	ND(5) A	ND(5) V	61 A	ND(5) V
EPA-8270					
Phenol	ug/l	ND(10) A	ND(10) V	ND(10) A	ND(10) V
Di-n-butylphthalate	ug/l	ND(10) A	2.7 V/J	ND(10) A	ND(10) V
Bis(2-ethylhexyl)phthalate	ug/l	3.3 A/bJ	4.6 V/Jb	26 A/b	3.2 V/Jb
EPA-8080					
gamma-BHC	ug/l	ND(0.061) AJ3	ND(0.05) VJ3	0.21 AJ3	ND(0.05) VJ3
TPH DIESEL					
TPH-Extractable Unknown Hydrocarbon	ug/l	690 AJ3/1	680 V/1	6500 AJ3/1	200 V/1
TPH GAS					
TPH-Gasoline	mg/l	ND(50) A	ND(0.05) V	580 A/1	ND(0.05) V

/a/ Sample date

/b/ NA Not analyzed.
 ND() Not detected at a specific detection limit. Limit of detection is included in parentheses.
 qual Qualifiers are explained on Appendix A coversheet.

**Table A87. Analytical Results for Organic Compounds Detected in Stormwater Samples
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Test Method/Analyte Name	Units	OF-16-01 03/24/94/a/ value qual/b/	OF-16-02 01/23/94 value qual	OF-16-04 01/23/94 value qual	OF-23 03/24/94 value qual
EPA-8240					
Acetone	ug/l	4.9 A/bJ	1.3 V/bJ	ND(10) V	ND(10) A
Benzene	ug/l	ND(5) A	ND(5) V	ND(5) V	ND(5) A
Toluene	ug/l	ND(5) A	ND(5) V	ND(5) V	ND(5) A
Ethylbenzene	ug/l	ND(5) A	ND(5) V	ND(5) V	ND(5) A
Xylenes	ug/l	ND(5) A	ND(5) V	ND(5) V	ND(5) A
EPA-8270					
Phenol	ug/l	ND(20) A	ND(10) V	ND(10) V	ND(10) A
Di-n-butylphthalate	ug/l	ND(20) A	ND(10) V	ND(10) V	ND(10) A
Bis(2-ethylhexyl)phthalate	ug/l	ND(20) A	3.1 V/Jb	2.7 V/Jb	ND(10) A
EPA-8080					
gamma-BHC	ug/l	ND(0.062) A	ND(0.05) VJ3	ND(0.05) VJ3	ND(0.06) A
TPH DIESEL					
TPH-Extractable Unknown Hydrocarbon	ug/l	520 A/1	240 V/1	210 V/1	ND(500) A
TPH GAS					
TPH-Gasoline	mg/l	ND(50) A	ND(0.05) V	ND(0.05) V	ND(50) A

/a/ Sample date

/b/ NA Not analyzed.
 ND() Not detected at a specific detection limit. Limit of detection is included in parentheses.
 qual Qualifiers are explained on Appendix A coversheet.

**Table A87. Analytical Results for Organic Compounds Detected in Stormwater Samples
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Test Method/Analyte Name	Units	OF-26	
		01/23/94/a/ value	qual/b/
EPA-8240			
Acetone	ug/l	ND(10)	V
Benzene	ug/l	ND(5)	V
Toluene	ug/l	ND(5)	V
Ethylbenzene	ug/l	ND(5)	V
Xylenes	ug/l	ND(5)	V
EPA-8270			
Phenol	ug/l	ND(10)	V
Di-n-butylphthalate	ug/l	2.3	V/J
Bis(2-ethylhexyl)phthalate	ug/l	3.6	V/Jb
EPA-8080			
gamma-BHC	ug/l	ND(0.05)	VJ3
TPH DIESEL			
TPH-Extractable Unknown Hydrocarbon	ug/l	250	V/1
TPH GAS			
TPH-Gasoline	mg/l	ND(0.05)	V

/a/ Sample date

/b/ NA Not analyzed.
 ND() Not detected at a specific detection limit. Limit of detection is included in parentheses.
 qual Qualifiers are explained on Appendix A coversheet.

APPENDIX B

PLANT AND ANIMAL SPECIES LISTS FOR INDIVIDUAL SITES

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B2-17	Animals Observed and Expected in the Vicinity of Site 31
B2-18	Animals Observed and Expected in the Vicinity of Site 32
B2-19	Animals Observed and Expected in the Vicinity of Site 33
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PLANT AND ANIMAL SPECIES LISTS AT INDIVIDUAL SITES

The following tables list the plant and animals species observed at each site.

Tables labeled B1- are plant species and tables labeled B2- are animal species observed at each site. For the purpose of these lists, a scientific name consists of: generic name, specific epithet (species name), and subspecies or variety.

The category "subspecies" or "variety" is applied to populations of species in various stages of differentiation.

This form of abbreviation is applicable in other circumstances (i.e., *Amsinaka s. spectabilis*, *A. menzeisii*).

Other abbreviations used in these tables include:

sp. = the identification of specimen to species level is not possible. For example *Malus sp.* means a plant was observed that is a member of the *Malus* genus, but the species has not been identified.

ssp. = subspecies

spp. = species (more than 1)

Specific abbreviations used for plants and animals are described in the following subsections:

PLANTS (OR FLORA)

Status (/a/)

Federal / State / CNPS

CNPS = California Native Plant Society

Federal Status

- FT = Listed as threatened by the federal government.
FE = Listed as endangered by the federal government.
C2 = Category 2 candidate for listing by the U.S. Fish and Wildlife Service.

State Status

- CT = Listed as threatened by the state of California.

CNPS Status

- IB = Plants designated by CNPS as rare, threatened, or endangered in California and elsewhere.
4 = Plants designated by CNPS of limited distribution - a watch list.

Other abbreviations:

x	=	hybrid
undt	=	undetermined
cf	=	conferred

ANIMALS (OR FAUNA)

CSC	=	California Department of Fish and Game designated "species of special concern".
F2	=	Category 2 candidate for listing by the U.S. Fish and Wildlife Service.
FE	=	Federally endangered.
*	=	California Department of Fish and Game designated "special animal".
CFP=FP	=	California Department of Fish and Game designated "fully protected".

Table B1-1. Plant Species Observed at Site 1
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

<u>AREA</u>	Scientific name	Common name	Native to Area	Status /a/
<u>LANDSCAPED</u>				
	Amsinckia s. spectabilis	seaside fiddleneck	yes	none
	Bromus diandrus	ripgut grass	no	none
	Cardionema ramosissimum	cardionema	yes	none
	Cryptantha leiocarpa	coast cryptantha	yes	none
	Cupressus macrocarpa	Monterey cypress	no	none
	Drosanthemum floribundum	rosea iceplant	no	none
	Erodium cicutarium	red-stemmed filaree	no	none
	Heterotheca grandiflora	telegraph weed	yes	none
	Hordeum murinum leporinum	fox-tail barley	no	none
	Hypochaeris glabra	smooth cat's-ear	no	none
	Plantago coronopus	cut-leaved plantain	no	none
	Vulpia bromoides	sixweeks fescue	no	none
	Vulpia m. myuros	rattail fescue	no	none
<u>UPLAND RUDERAL</u>				
	Amsinckia s. spectabilis	seaside fiddleneck	yes	none
	Bromus diandrus	ripgut grass	no	none
	Cakile maritima	sea rocket	no	none
	Camissonia c. cheiranthifolia	beach evening primrose	yes	none
	Camissonia micrantha	miniature evening primrose	yes	none
	Cardionema ramosissimum	cardionema	yes	none
	Carpobrotus chilensis	sea fig	no	none
	Carpobrotus edulis	hottentot fig	no	none
	Conyza bonariensis	little horseweed	no	none
	Croton californicus	California croton	yes	none
	Cryptantha leiocarpa	coast cryptantha	yes	none
	Erodium cicutarium	red-stemmed filaree	no	none
	Heterotheca grandiflora	telegraph weed	yes	none
	Hordeum murinum leporinum	fox-tail barley	no	none
	Hypochaeris glabra	smooth cat's-ear	no	none
	Lotus heermannii orbicularis	Heermann's lotus	yes	none
	Matthiola incana	stock	no	none
	Mesembryanthemum crystallinum	crystalline iceplant	no	none
	Plantago coronopus	cut-leaved plantain	no	none
	Sisymbrium officinale	hedge mustard	no	none
	Spergularia marina	marine sand spurry	yes	none
	Vulpia bromoides	sixweeks fescue	no	none
	Vulpia m. myuros	rattail fescue	no	none
<u>VEGETATIVELY STABILIZED DUNE</u>				
	Abronia u. umbellata	pink sand verbena	yes	none
	Achillea millefolium	yarrow	yes	none
	Amsinckia s. spectabilis	seaside fiddleneck	yes	none
	Artemisia pycnocephala	coastal sagewort	yes	none
	Atriplex leucophylla	beach saltbush	yes	none

Table B1-1. Plant Species Observed at Site 1
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

<u>AREA</u>		Native to Area	Status /a/
Scientific name	Common name		
<i>Camissonia c. cheiranthifolia</i>	beach evening primrose	yes	none
<i>Camissonia micrantha</i>	miniature evening primrose	yes	none
<i>Carpobrotus chilensis</i>	sea fig	no	none
<i>Carpobrotus edulis</i>	hottentot fig	no	none
<i>Castilleja latifolia</i>	Monterey Indian paintbrush	yes	//4
<i>Croton californicus</i>	California croton	yes	none
<i>Cryptantha leiocarpa</i>	coast cryptantha	yes	none
<i>Daucus pusillus</i>	rattlesnake weed	yes	none
<i>Dudleya caespitosa</i>	sea lettuce	yes	none
<i>Ericameria ericoides</i>	mock heather	yes	none
<i>Erigeron glaucus</i>	seaside daisy	yes	none
<i>Eriogonum latifolium</i>	coast buckwheat	yes	none
<i>Eriogonum parvifolium</i>	seacliff buckwheat	yes	none
<i>Eriophyllum staechadifolium</i>	seaside woolly sunflower	yes	none
<i>Gnaphalium luteo-album</i>	weedy cudweed	no	none
<i>Lessingia filaginifolia californica</i>	California aster	yes	none
<i>Lotus scoparius</i>	California broom	yes	none
<i>Lupinus chamissonis</i>	Chamisso's bush lupine	yes	none
<i>Mesembryanthemum crystallinum</i>	crystalline iceplant	no	none
<i>Parapholis incurva</i>	sickle grass	yes	none
<i>Poa douglasii</i>	sand-dune bluegrass	yes	none
<i>Rhamnus c. californica</i>	California coffeeberry	yes	none
<u>WET RUDERAL</u>			
<i>Scirpus californicus</i>	California bull rush	yes	none
<i>Solanum douglasii</i>	Douglas' nightshade	yes	none

/a/ Regulatory status. See cover sheet for explanation.

Table B1-2. Plant Species Observed at Site 2
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

<u>AREA</u>		Native to Area	Status /a/
Scientific name	Common name		
<u>LANDSCAPED</u>			
Acacia longifolia	golden wattle	no	none
Bromus diandrus	ripgut grass	no	none
Carpobrotus chilensis	sea fig	no	none
Cupressus macrocarpa	Monterey cypress	no	none
Drosanthemum floribundum	rosea iceplant	no	none
Gnaphalium luteo-album	weedy cudweed	no	none
Iris germanica	German iris	no	none
Leptospermum laevigatum	Australian tea tree	no	none
Ligustrum ovalifolium	California privet	no	none
Limonium sinuatum	statice	no	none
Lotus h. heermannii	Heermann's lotus	yes	none
Matthiola incana	stock	no	none
Medicago polymorpha	California burclover	no	none
Pelargonium domesticum	regal geranium	no	none
Pennisetum clandestinum	kikuyu grass	no	none
Pinus halepensis	Aleppo pine	no	none
Pitiosporum crassifolium	karo	no	none
Poa annua	annual blue grass	no	none
Raphanus sativus	wild radish	no	none
Vulpia m. myuros	rattail fescue	no	none
<u>UPLAND RUDERAL</u>			
Acacia dealbata	silver wattle	no	none
Ambrosia chamissonis	beach-bur	yes	none
Atriplex l. lentiformis	big saltbush	yes	none
Atriplex semibaccata	Austalian saltbush	no	none
Avena barbata	slender wild oat	no	none
Baccharis pilularis	coyote brush	yes	none
Bromus c. carinatus	California brome	yes	none
Bromus diandrus	ripgut grass	no	none
Cakile maritima	sea rocket	no	none
Camissonia c. cheiranthifolia	beach evening primrose	yes	none
Cardionema ramosissimum	cardionema	yes	none
Carpobrotus chilensis	sea fig	no	none
Carpobrotus edulis	hottentot fig	no	none
Centaurea melitensis	tocalote	no	none
Chenopodium album	lamb's quarters	no	none
Chenopodium multifidum	cut-leaf chenopodium	no	none
Cistus purpureus	purple rockrose	no	none
Conyza bonariensis	little horseweed	no	none
Cotula coronopifolia	brass buttons	no	none
Croton californicus	California croton	yes	none
Cryptantha leiocarpa	coast cryptantha	yes	none
Cynodon dactylon	Bermuda grass	no	none
Daucus pusillus	rattlesnake weed	yes	none
Dudleya caespitosa	sea lettuce	yes	none
Ehrharta calycina	veldtgrass	no	none

Table B1-2. Plant Species Observed at Site 2
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

<u>AREA</u>		Native to Area	Status /a/
Scientific name	Common name		
Ericameria ericoides	mock heather	yes	none
Erodium cicutarium	red-stemmed filaree	no	none
Erodium moschatum	white-stemmed filaree	no	none
Eschscholzia californica	California poppy	yes	none
Filago gallica	narrow-leaved filago	no	none
Gnaphalium canescens benolens	fragrant everlasting	yes	none
Gnaphalium luteo-album	weedy cudweed	no	none
Gnaphalium purpureum	purple cudweed	yes	none
Heterotheca grandiflora	telegraph weed	yes	none
Hordeum murinum leporinum	fox-tail barley	no	none
Hypochaeris glabra	smooth cat's-ear	no	none
Lamium amplexicaule	henbit	no	none
Lepidium nitidum	shinning peppergrass	yes	none
Lotus h. heermannii	Heermann's lotus	yes	none
Lotus scoparius	California broom	yes	none
Lupinus chamissonis	Chamisso's bush lupine	yes	none
Lupinus nanus	sky lupine	yes	none
Lythrum hyssopifolium	loosestrife	no	none
Matthiola incana	stock	no	none
Medicago polymorpha	California burclover	no	none
Pennisetum clandestinum	kikuyu grass	no	none
Plantago coronopus	cut-leaved plantain	no	none
Polycarpon tetraphyllum	four-leaved polycarp	no	none
Rumex acetosella	sheep sorrel	no	none
Senecio vulgaris	common groundsel	no	none
Sisymbrium officinale	hedge mustard	no	none
Solanum americanum	small-flowered nightshade	no	none
Sonchus asper	prickly sowthistle	no	none
Sonchus oleraceus	common sow thistle	no	none
Stellaria media	common chickweed	no	none
Tetragonia tetragonioides	New Zealand spinach	no	none
Toxicodendron diversilobum	western poison oak	yes	none
Typha angustifolia	narrow-leaved cattail	yes	none
Vulpia m. myuros	rattail fescue	no	none
<u>VEGETATIVELY STABILIZED DUNE</u>			
Artemisia pycnocephala	coastal sagewort	yes	none
Carpobrotus chilensis	sea fig	no	none
Carpobrotus edulis	hottentot fig	no	none
Ericameria ericoides	mock heather	yes	none
Lotus scoparius	California broom	yes	none
Lupinus chamissonis	Chamisso's bush lupine	yes	none

/a/ Regulatory status. See cover sheet for explanation.

Table B1-3. Plant Species Observed at Site 3
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

<u>AREA</u>		Native	
Scientific name	Common name	to	Status /a/
		Area	
<u>CENTRAL COASTAL SCRUB</u>			
Baccharis pilularis	coyote brush	yes	none
Bromus diandrus	ripgut grass	no	none
Carpobrotus chilensis	sea fig	no	none
Carpobrotus edulis	hottentot fig	no	none
Dichelostemma c. capitatum	blue dicks	yes	none
Ericameria ericoides	mock heather	yes	none
Eschscholzia californica	California poppy	yes	none
Heteromeles arbutifolia	toyon	yes	none
Hypochaeris radicata	rough cat's-ear	no	none
Lotus h. heermannii	Heermann's lotus	yes	none
Lotus scoparius	California broom	yes	none
Lupinus arboreus	yellow bush lupine	yes	none
Lupinus nanus	sky lupine	yes	none
Poa douglasii	sand-dune bluegrass	yes	none
Vulpia m. myuros	rattail fescue	no	none
<u>LANDSCAPED</u>			
Acacia longifolia	golden wattle	no	none
Carpobrotus chilensis	sea fig	no	none
Cupressus macrocarpa	Monterey cypress	no	none
Eucalyptus globulus	blue gum	no	none
Leptospermum laevigatum	Australian tea tree	no	none
Poa annua	annual blue grass	no	none
Raphanus sativus	wild radish	no	none
<u>NORTHERN FOREDUNE GRASSLAND</u>			
Carpobrotus chilensis	sea fig	no	none
Eriogonum parvifolium	seacliff buckwheat	yes	none
Poa douglasii	sand-dune bluegrass	yes	none
<u>UPLAND RUDERAL</u>			
Artemisia californica	California sagebrush	yes	none
Atriplex leucophylla	beach saltbush	yes	none
Atriplex semibaccata	Australian saltbush	no	none
Avena barbata	slender wild oat	no	none
Avena fatua	wild oat	no	none
Baccharis pilularis	coyote brush	yes	none
Brassica nigra	black mustard	no	none
Bromus diandrus	ripgut grass	no	none
Bromus hordeaceus	soft cheat	no	none
Bromus madritensis rubens	red brome	no	none
Calyptridium monandrum	pussypaws	yes	none
Camissonia c. cheiranthifolia	beach evening primrose	yes	none
Cardionema ramosissimum	cardionema	yes	none
Carpobrotus chilensis	sea fig	no	none

Table B1-3. Plant Species Observed at Site 3
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

<u>AREA</u>		Native	
Scientific name	Common name	to	Status /a/
		Area	
Carpobrotus edulis	hottentot fig	no	none
Chorizanthe p. pungens	Monterey spineflower	yes	FT/--/1B
Chorizanthe p. pungens	Monterey spineflower	yes	FT/--/1B
Cortaderia selloana	pampas grass	no	none
Cupressus macrocarpa	Monterey cypress	no	none
Ericameria ericoides	mock heather	yes	none
Erigeron glaucus	seaside daisy	yes	none
Eriophyllum staechadifolium	seaside woolly sunflower	yes	none
Erodium botrys	storksbill	no	none
Erodium cicutarium	red-stemmed filaree	no	none
Gnaphalium luteo-album	weedy cudweed	no	none
Hemizonia c. corymbosa	coast tarweed	yes	none
Heterotheca grandiflora	telegraph weed	yes	none
Hordeum murinum leporinum	fox-tail barley	no	none
Lotus h. heermannii	Heermann's lotus	yes	none
Lotus scoparius	California broom	yes	none
Lupinus arboreus	yellow bush lupine	yes	none
Methiola incana	stalk	no	none
Pennisetum clandestinum	kikuyu grass	no	none
Phalaris sp.	canary grass	no	none
Picris echioides	bristly ox-tongue	no	none
Piperia sp.	rein orchid	yes	undt
Plantago erecta	dwarf plantain	yes	none
Plantago maritima	maritime plantain	yes	none
Rhamnus c. californica	California coffeeberry	yes	none
Rumex acetosella	sheep sorrel	no	none
Rumex crispus	curly dock	no	none
Spergularia villosa	villous sand spurrey	no	none
Vulpia m. myuros	rattail fescue	no	none
<u>VEGETATIVELY STABILIZED DUNE</u>			
Abronia u. umbellata	pink sand verbenia	yes	none
Achillea millefolium	yarrow	yes	none
Ambrosia chamissonis	beach-bur	yes	none
Ammophila arenaria	European beachgrass	no	none
Armeria maritima californica	sea-pink	yes	none
Artemisia pycnocephala	coastal sagewort	yes	none
Arundo donax	giant reed	no	none
Astragalus n. nuttallii	Nuttall's locoweed	yes	none
Atriplex leucophylla	beach saltbush	yes	none
Bromus carinatus maritimus	seaside brome grass	yes	none
Cakile maritima	sea rocket	no	none
Camissonia c. cheiranthifolia	beach evening primrose	yes	none
Carpobrotus chilensis	sea fig	no	none
Carpobrotus edulis	hottentot fig	no	none
Castilleja latifolia	Monterey Indian paintbrush	yes	/ /4
Chorizanthe p. pungens	Monterey spineflower	yes	FT/--/1B

Table B1-3. Plant Species Observed at Site 3
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

<u>AREA</u>		Native to Area	Status /a/
Scientific name	Common name		
Chorizanthe p. pungens	Monterey spineflower	yes	FT/--/1B
Croton californicus	California croton	yes	none
Daucus pusillus	rattlesnake weed	yes	none
Dudleya caespitosa	sea lettuce	yes	none
Ericameria ericoides	mock heather	yes	none
Erigeron glaucus	seaside daisy	yes	none
Eriogonum latifolium	coast buckwheat	yes	none
Eriogonum parvifolium	seacliff buckwheat	yes	none
Eriophyllum staechadifolium	seaside woolly sunflower	yes	none
Eschscholzia californica	California poppy	yes	none
Gnaphalium luteo-album	weedy cudweed	no	none
Gnaphalium purpureum	purple cudweed	yes	none
Grindelia stricta platyphylla	coast gumplant	yes	none
Lessingia filaginifolia californica	California aster	yes	none
Lotus corniculatus	bird's-foot trefoil	no	none
Lotus scoparius	California broom	yes	none
Lupinus arboreus	yellow bush lupine	yes	none
Lupinus chamissonis	Chamisso's bush lupine	yes	none
Marah fabaceus	California man-root	yes	none
Melica imperfecta	coast onion grass	yes	none
Poa douglasii	sand-dune bluegrass	yes	none
Podium glycyrrhiza	licorice fern	yes	none
Polygonum paronychia	beach knotweed	yes	none
Rhamnus c. californica	California coffeeberry	yes	none
Toxicodendron diversilobum	western poison oak	yes	none
Vulpia m. myuros	rattail fescue	no	none

/a/ Regulatory status. See cover sheet for explanation.

Table B1-4. Plant Species Observed at Site 10
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

<u>AREA</u>		Native	
Scientific name	Common name	to Area	Status /a/
<u>COAST LIVE OAK WOODLAND</u>			
Bromus diandrus	ripgut grass	no	none
Lupinus arboreus	yellow bush lupine	yes	none
Quercus a. agrifolia	coast live oak	yes	none
<u>LANDSCAPED</u>			
Acacia longifolia	golden wattle	no	none
Echium fastuosum	pride of Madeira	no	none
Myoporum laetum	myoporum	no	none
Pennisetum clandestinum	kikuyu grass	no	none
<u>UPLAND RUDERAL</u>			
Arctostaphylos pumila	sandmat manzanita	yes	C2/--/1B
Avena fatua	wild oat	no	none
Baccharis pilularis	coyote brush	yes	none
Brassica nigra	black mustard	no	none
Bromus diandrus	ripgut grass	no	none
Carpobrotus edulis	hottentot fig	no	none
Cirsium vulgare	bull thistle	no	none
Conyza bonariensis	little horseweed	no	none
Cupressus macrocarpa	Monterey cypress	no	none
Ericameria ericoides	mock heather	yes	none
Festuca rubra	red fescue	no	none
Genista monspessulana	French broom	no	none
Gnaphalium luteo-album	weedy cudweed	no	none
Lotus scoparius	California broom	yes	none
Mimulus aurantiacus	orange bush monkeyflower	yes	none
Nassella pulchra	purple needlegrass	yes	none
Pennisetum clandestinum	kikuyu grass	no	none
Plantago maritima	maritime plantain	yes	none
Rumex crispus	curly dock	no	none
Solanum umbelliferum	blue witch	yes	none
Toxicodendron diversilobum	western poison oak	yes	none
Vulpia m. myuros	rattail fescue	no	none

/a/ Regulatory status. See cover sheet for explanation.

Table B1-5. Plant Species Observed at Site 11
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

<u>AREA</u>		Native	
Scientific name	Common name	to	Status /a/
		Area	
<u>COAST LIVE OAK WOODLAND</u>			
Achillea millefolium	yarrow	yes	none
Anagalis arvensis	scarlet pimpernel	no	none
Anthriscus caucalis	bur-chervil	no	none
Bromus c. carinatus	California brome	yes	none
Bromus diandrus	ripgut grass	no	none
Bromus pseudolaevipes	woodland brome	no	none
Carpobrotus edulis	hottentot fig	no	none
Claytonia perfoliata	miner's lettuce	yes	none
Galium aparine	bedstraw	yes	none
Galium c. californica	California bedstraw	yes	none
Gnaphalium purpureum	purple cudweed	yes	none
Heteromeles arbutifolia	toyon	yes	none
Hordeum murinum leporinum	fox-tail barley	no	none
Hypochaeris glabra	smooth cat's-ear	no	none
Lamium amplexicaule	henbit	no	none
Lathyrus v. vestitus	wild pea	yes	none
Luzula comosa	hairy wood rush	yes	none
Lythrum hyssopifolium	loosestrife	no	none
Malva neglecta	cheeseweed	no	none
Marah fabaceus	California man-root	yes	none
Phacelia malvifolia	stinging phacelia	yes	none
Pterostegia drymarioides	fairy mist	yes	none
Quercus a. agrifolia	coast live oak	yes	none
Rumex acetosella	sheep sorrel	no	none
Silene gallica	common catchfly	no	none
Silybum marianum	milk thistle	no	none
Stachys bullata	California hedge nettle	yes	none
Stellaria media	common chickweed	no	none
Toxicodendron diversilobum	western poison oak	yes	none
Vicia sativa	spring vetch	no	none
<u>LANDSCAPED</u>			
Acacia longifolia	golden wattle	no	none
Arctostaphylos densiflora	Vine Hill manzanita	no	none
Arctostaphylos uva-ursi	bearberry	no	none
Avena barbata	slender wild oat	no	none
Baccharis pilularis	coyote brush	yes	none
Bromus diandrus	ripgut grass	no	none
Callistemon citrinus	lemon bottlebrush	no	none
Ceanothus griseus	Carmel creeper	no	none
Ceanothus impressus	Santa Barbara ceanothus	no	none
Cistus hybridus	white rockrose	no	none
Hakea suaveolens	sweet hakea	no	none
Myoporum laetum	myoporum	no	none
Myoporum parvifolium	small-leaved myoporum	no	none

Table B1-5. Plant Species Observed at Site 11
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<u>AREA</u>		Native to Area	Status /a/
Scientific name	Common name		
Pennisetum clandestinum	kikuyu grass	no	none
Pinus radiata	Monterey pine	no	none
Platanus X acerifolia	London plane tree	no	none
Raphiolepis indica	Indian hawthorn	no	none
<u>UPLAND RUDERAL</u>			
Achillea millefolium	yarrow	yes	none
Aira caryophylla	silver hairgrass	no	none
Anagalis arvensis	scarlet pimpernel	no	none
Avena barbata	slender wild oat	no	none
Baccharis pilularis	coyote brush	yes	none
Brassica nigra	black mustard	no	none
Brassica rapa	field mustard	no	none
Bromus c. carinatus	California brome	yes	none
Bromus diandrus	ripgut grass	no	none
Bromus hordeaceus	soft cheat	no	none
Bromus pseudolaevipes	woodland brome	no	none
Bromus stamineus	brome grass	no	none
Capsella bursa-pastoris	shepherd's purse	no	none
Cardamine oligosperma	bitter-cress	yes	none
Cardionema ramosissimum	cardionema	yes	none
Carpobrotus edulis	hottentot fig	no	none
Centaurea melitensis	toçalote	no	none
Cerastium glomeratum	sticky mouse-ear	no	none
Chamomilla suaveolens	pineapple weed	no	none
Chenopodium album	lamb's quarters	no	none
Conyza bonariensis	little horseweed	no	none
Dichelostemma c. capitatum	blue dicks	yes	none
Erodium botrys	storksbill	no	none
Erodium cicutarium	red-stemmed filaree	no	none
Erodium moschatum	white-stemmed filaree	no	none
Filago gallica	narrow-leaved filago	no	none
Galium aparine	bedstraw	yes	none
Galium c. californica	California bedstraw	yes	none
Gastridium ventricosum	nut grass	no	none
Gazania linearis	gazania	no	none
Gnaphalium luteo-album	weedy cudweed	no	none
Gnaphalium purpureum	purple cudweed	yes	none
Hordeum murinum leporinum	fox-tail barley	no	none
Hypochaeris glabra	smooth cat's-ear	no	none
Lotus humistratus	Colchita	yes	none
Lotus scoparius	California broom	yes	none
Lupinus bicolor	minature lupine	yes	none
Malva neglecta	cheeseweed	no	none
Medicago polymorpha	California burclover	no	none
Melilotus indica	sour clover	no	none
Pennisetum clandestinum	kikuyu grass	no	none

Table B1-5. Plant Species Observed at Site 11
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<u>AREA</u>		Native to Area	Status <i>/a/</i>
Scientific name	Common name		
Plantago coronopus	cut-leaved plantain	no	none
Plantago erecta	dwarf plantain	yes	none
Poa annua	annual blue grass	no	none
Raphinus sativus	wild radish	no	none
Rumex acetosella	sheep sorrel	no	none
Sagina decumbens occidentalis	western pearlwort	yes	none
Senecio vulgaris	common groundsel	no	none
Sonchus oleraceus	common sow thistle	no	none
Stellaria media	common chickweed	no	none
Taraxacum officinale	dandelion	no	none
Toxicodendron diversilobum	western poison oak	yes	none
Vicia sativa	spring vetch	no	none
Vulpia bromoides	sixweeks fescue	no	none
Vulpia m. myuros	rattail fescue	no	none

/a/ Regulatory status. See cover sheet for explanation.

Table B1-6. Plant Species Observed at Site 12
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

<u>AREA</u>		Native to Area	Status /a/
Scientific name	Common name		
<u>LANDSCAPED</u>			
Acacia longifolia	golden wattle	no	none
Atriplex semibaccata	Australian saltbush	no	none
Avena fatua	wild oat	no	none
Baccharis pilularis	coyote brush	yes	none
Bellis perennis	English daisy	no	none
Bromus c. carinatus	California brome	yes	none
Bromus diandrus	ripgut grass	no	none
Callistemon citrinus	lemon bottlebrush	no	none
Capsella bursa-pastoris	shepherd's purse	no	none
Carpobrotus edulis	hottentot fig	no	none
Claytonia perfoliata	miner's lettuce	yes	none
Conyza canadensis	horseweed	no	none
Cotula australis	Australian brass-buttons	no	none
Crassula comata	pygmy weed	yes	none
Cupressus macrocarpa	Monterey cypress	no	none
Cynodon dactylon	Bermuda grass	no	none
Drosanthemum floribundum	rosea iceplant	no	none
Erodium botrys	storksbill	no	none
Erodium cicutarium	red-stemmed filaree	no	none
Erodium moschatum	white-stemmed filaree	no	none
Festuca rubra	red fescue	no	none
Fuchsia hybrida	fuchsia	no	none
Genista monspessulana	French broom	no	none
Geranium molle	dove's-foot geranium	no	none
Gnaphalium luteo-album	weedy cudweed	no	none
Heterotheca grandiflora	telegraph weed	yes	none
Holcus lanatus	common velvet grass	no	none
Hypochaeris radicata	rough cat's-ear	no	none
Juniperus sp.	cultivated juniper	no	none
Leptospermum laevigatum	Australian tea tree	no	none
Linaria genistifolia dalmatica	dalmation toadflax	no	none
Lobularia maritima	sweet alyssum	no	none
Lotus scoparius	California broom	yes	none
Marah fabaceus	California man-root	yes	none
Medicago polymorpha	California burclover	no	none
Oxalis pres-caprae	Bermuda buttercup	no	none
Pennisetum clandestinum	kikuyu grass	no	none
Pinus radiata	Monterey pine	no	none
Pittosporum undulatum	Victorian box	no	none
Plantago coronopus	cut-leaved plantain	yes	none
Poa annua	annual bluegrass	no	none
Polycarpon tetraphyllum	four-leaved polycarp	yes	none
Raphanus sativus	wild radish	no	none
Rumex acetosella	sheep sorrel	no	none
Senecio vulgaris	common groundsel	no	none

Table B1-6. Plant Species Observed at Site 12
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<u>AREA</u>		Native to Area	Status /a/
Scientific name	Common name		
Sonchus oleraceus	common sow thistle	no	none
Stellaria media	common chickweed	no	none
Taraxacum officinale	dandelion	no	none
<u>UPLAND RUDERAL</u>			
Acacia dealbata	silver wattle	no	none
Aira caryophyllea	silver hairgrass	no	none
Amsinckia menzeisii intermedia	common fiddleneck	yes	none
Arctostaphylos pumila	sandmat manzanita	yes	C2/-/1B
Artemisia californica	California sagebrush	yes	none
Avena barbata	slender wild oat	no	none
Briza maxima	rattlesnake grass	no	none
Briza minor	little quakegrass	no	none
Bromus diandrus	ripgut grass	no	none
Bromus hordeaceus	soft cheat	no	none
Bromus madritensis rubens	red brome	no	none
Camissonia c. cheiranthifolia	beach evening primrose	yes	none
Camissonia micrantha	miniature evening primrose	yes	none
Cardionema ramosissimum	cardionema	yes	none
Carpobrotus chilensis	sea fig	no	none
Chamomilla suaveolens	pineapple weed	no	none
Conyza canadensis	horseweed	no	none
Danthonia californica	California oatgrass	yes	none
Ericameria ericoides	mock heather	yes	none
Erodium botrys	storksbill	no	none
Erodium cicutarium	red-stemmed filaree	no	none
Erodium moschatum	white-stemmed filaree	no	none
Gnaphalium luteo-album	weedy cudweed	no	none
Gnaphalium purpureum	purple cudweed	yes	none
Helianthemum scoparium	peak rush-rose	yes	none
Holcus lanatus	common velvet grass	no	none
Hordeum murinum leporinum	fox-tail barley	no	none
Lessingia filaginifolia californica	California aster	yes	none
Linaria canadensis	toadflax	yes	none
Lolium perenne	perennial ryegrass	no	none
Lotus strigosus	strigose lotus	yes	none
Lupinus bicolor	minature lupine	yes	none
Lupinus nanus	sky lupine	yes	none
Lupinus truncatus	Nuttall's annual lupine	yes	none
Malva neglecta	cheeseweed	no	none
Medicago polymorpha	California burclover	no	none
Nassella pulchra	purple needlegrass	yes	none
Oxalis pres-caprae	Bermuda buttercup	no	none
Pennisetum clandestinum	kikuyu grass	no	none
Plantago coronopus	cut-leaved plantain	yes	none
Plantago erecta	dwarf plantain	yes	none
Poa annua	annual bluegrass	no	none

Table B1-6. Plant Species Observed at Site 12
Volume IV - Ecological Risk Assessment, Basewide RI/FS
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<u>AREA</u>		Native to Area	Status /a/
Scientific name	Common name		
Polygonum arenastrum	common knotweed	no	none
Salix laevigata	red willow	yes	none
Salvia mellifera	black sage	yes	none
Senecio vulgaris	common groundsel	no	none
Silene gallica	common catch fly	no	none
Sisymbrium officinale	hedge mustard	no	none
Sonchus oleraceus	common sow thistle	no	none
Spergularia marina	marine sand spurry	yes	none
Spergularia villosa	villous sand spurry	yes	none
Stellaria media	common chickweed	no	none
Toxicodendron diversilobum	western poison oak	yes	none
Trifolium dubium	little hop clover	no	none
Vulpia bromoides	sixweeks fescue	no	none
Vulpia m. myuros	rattail fescue	no	none

/a/ Regulatory status. See cover sheet for explanation.

Table B1-7. Plant Species Observed at Site 15
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

<u>AREA</u>		Native to Area	Status /a/
Scientific name	Common name		
<u>COAST LIVE OAK WOODLAND</u>			
<i>Anthriscus caucalis</i>	bur-chervil	no	none
<i>Bromus c. carinatus</i>	California brome	yes	none
<i>Bromus diandrus</i>	ripgut grass	no	none
<i>Hordeum murinum leporinum</i>	fox-tail barley	no	none
<i>Pterostegia drymarioides</i>	fairy mist	yes	none
<i>Quercus a. agrifolia</i>	coast live oak	yes	none
<i>Stachys bullata</i>	California hedge nettle	yes	none
<i>Stellaria media</i>	common chickweed	no	none
<i>Symphoricarpos mollis</i>	creeping snowberry	yes	none
<i>Toxicodendron diversilobum</i>	western poison oak	yes	none
<u>LANDSCAPED</u>			
<i>Acacia melanoxylon</i>	blackwood acacia	no	none
<i>Arctostaphylos pumila</i>	sandmat manzanita	yes	C2/--/1B
<i>Avena barbata</i>	slender wild oat	no	none
<i>Bromus diandrus</i>	ripgut grass	no	none
<i>Carpobrotus edulis</i>	hottentot fig	no	none
<i>Cupressus macrocarpa</i>	Monterey pine	no	none
<i>Eriogonum parvifolium</i>	seacliff buckwheat	yes	none
<i>Hypochaeris glabra</i>	smooth cat's-ear	no	none
<i>Lotus strigosus</i>	strigose lotus	yes	none
<i>Pinus radiata</i>	Monterey pine	no	none
<i>Taraxacum officinale</i>	dandelion	no	none
<i>Vulpia m. myuros</i>	rattail fescue	no	none
<u>UPLAND RUDERAL</u>			
<i>Amsinckia menzeisii intermedia</i>	common fiddleneck	yes	none
<i>Arctostaphylos t. tomentosa</i>	shaggy-barked manzanita	yes	none
<i>Artemisia californica</i>	California sagebrush	yes	none
<i>Avena barbata</i>	slender wild oat	no	none
<i>Baccharis pilularis</i>	coyote brush	yes	none
<i>Bromus c. carinatus</i>	California brome	yes	none
<i>Bromus diandrus</i>	ripgut grass	no	none
<i>Bromus hordeaceus</i>	soft cheat	no	none
<i>Bromus madritensis rubens</i>	red brome	no	none
<i>Cardionema ramosissimum</i>	cardionema	yes	none
<i>Carpobrotus edulis</i>	hottentot fig	no	none
<i>Cryptantha clevelandii</i>	Cleveland's cryptantha	yes	none
<i>Ericameria ericoides</i>	mock heather	yes	none
<i>Erodium botrys</i>	storksbill	no	none
<i>Erodium cicutarium</i>	red-stemmed filaree	no	none
<i>Erodium moschatum</i>	white-stemmed filaree	no	none
<i>Gnaphalium luteo-album</i>	weedy cudweed	no	none
<i>Gnaphalium purpureum</i>	purple cudweed	yes	none
<i>Gnaphalium ramosissimum</i>	pink everlasting	yes	none

Table B1-7. Plant Species Observed at Site 15
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

<u>AREA</u>			Native to Area	Status /a/
Scientific name	Common name			
Helianthemum scoparium	peak rush-rose		yes	none
Heterotheca grandiflora	telegraph weed		yes	none
Hordeum murinum leporinum	fox-tail barley		no	none
Lotus scoparius	California broom		yes	none
Lupinus arboreus	yellow bush lupine		yes	none
Lupinus bicolor	minature lupine		yes	none
Lupinus chamissonis	Chamisso's bush lupine		yes	none
Lupinus nanus	sky lupine		yes	none
Malva neglecta	cheeseweed		no	none
Medicago polymorpha	California burclover		no	none
Plantago coronopus	cut-leaved plantain		no	none
Plantago erecta	dwarf plantain		yes	none
Sonchus oleraceus	common sow thistle		no	none
Stellaria media	common chickweed		no	none

/a/ Regulatory status. See cover sheet for explanation.

Table B1-8. Plant Species Observed at Site 16
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

<u>AREA</u>		Native to Area	Status /a/
Scientific name	Common name		
<u>CENTRAL MARITIME CHAPARRAL</u>			
<i>Adenostoma fasciculatum</i>	chamise	yes	none
<i>Arctostaphylos pumila</i>	sandmat manzanita	yes	C2/--/1B
<i>Arctostaphylos tomentosa crustacea</i>	brittle-leaved manzanita	yes	none
<i>Avena fatua</i>	wild oat	no	none
<i>Baccharis pilularis</i>	coyote brush	yes	none
<i>Bromus diandrus</i>	ripgut grass	no	none
<i>Carpobrotus edulis</i>	hottentot fig	no	none
<i>Ceanothus cuneatus rigidus</i>	Monterey ceanothus	yes	C2/--/4
<i>Lupinus chamissonis</i>	Chamisso's bush lupine	yes	none
<u>UPLAND RUDERAL</u>			
<i>Acacia longifolia</i>	golden wattle	no	none
<i>Arctostaphylos pumila</i>	sandmat manzanita	yes	C2/--/1B
<i>Artemisia californica</i>	California sagebrush	yes	none
<i>Artemisia douglasiana</i>	mugwort	yes	none
<i>Avena fatua</i>	wild oat	no	none
<i>Baccharis pilularis</i>	coyote brush	yes	none
<i>Brachypodium distachyon</i>	purple falsebrome	no	none
<i>Brassica nigra</i>	black mustard	no	none
<i>Bromus c. carinatus</i>	California brome	yes	none
<i>Bromus diandrus</i>	ripgut grass	no	none
<i>Bromus hordeaceus</i>	soft cheat	no	none
<i>Cardionema ramosissimum</i>	cardionema	yes	none
<i>Carpobrotus chilensis</i>	sea fig	no	none
<i>Carpobrotus edulis</i>	hottentot fig	no	none
<i>Centaurea melitensis</i>	toçalote	no	none
<i>Conyza bonariensis</i>	little horseweed	no	none
<i>Croton californicus</i>	California croton	yes	none
<i>Cupressus macrocarpa</i>	Monterey cypress	no	none
<i>Dactylis glomerata</i>	orchard grass	no	none
<i>Erigeron glaucus</i>	seaside daisy	yes	none
<i>Erodium cicutarium</i>	red-stemmed filaree	no	none
<i>Erodium cygnorum</i>	large-leaved filaree	no	none
<i>Eschscholzia californica</i>	California poppy	yes	none
<i>Foeniculum vulgare</i>	fennel	no	none
<i>Genista monspessulana</i>	French broom	no	none
<i>Helianthemum scoparium</i>	peak rush-rose	yes	none
<i>Heterotheca grandiflora</i>	telegraph weed	yes	none
<i>Hordeum sp.</i>	barley	no	none
<i>Horkelia cuneata sericea</i>	Kellogg's horkelia	yes	C2/--/1B
<i>Lactuca serriola</i>	prickly lettuce	no	none
<i>Lessingia filaginifolia californica</i>	California aster	yes	none
<i>Lotus scoparius</i>	California broom	yes	none
<i>Lupinus arboreus</i>	yellow bush lupine	yes	none
<i>Lupinus chamissonis</i>	Chamisso's bush lupine	yes	none

Table B1-8. Plant Species Observed at Site 16
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Fort Ord, California

<u>AREA</u>		Native to Area	Status /a/
Scientific name	Common name		
Lupinus nanus	sky lupine	yes	none
Malva nicaeensis	bull mallow	no	none
Melilotus indica	sour clover	no	none
Nassella pulchra	purple needlegrass	yes	none
Pennisetum clandestinum	kikuyu grass	no	none
Phalaris aquatica	Harding grass	no	none
Pinus radiata	Monterey pine	no	none
Plantago erecta	dwarf plantain	yes	none
Plantago lanceolata	English plantain	no	none
Plantago maritima	maritime plantain	yes	none
Populus canadensis	Carolina poplar	no	none
Prunus sp.	plum	no	none
Quercus a. agrifolia	coast live oak	yes	none
Raphanus sativus	wild radish	no	none
Rhamnus c. californica	California coffeeberry	yes	none
Rumex acetosella	sheep sorrel	no	none
Salix lasiolepis	arroyo willow	yes	none
Salix sp.	willow	yes	none
Sonchus oleraceus	common sow thistle	no	none
Toxicodendron diversilobum	western poison oak	yes	none
Trifolium dubium	little hop clover	no	none
Vicia sativa	spring vetch	no	none
Vulpia m. myuros	rattail fescue	no	none
<u>WET RUDERAL</u>			
Hordeum marinum gussoneanum	Mediterranean barley	no	none
Juncus ensifolius	three-stamened rush	yes	none
Lolium perenne	perennial ryegrass	no	none
Plantago maritima	maritime plantain	yes	none
Rumex acetosella	sheep sorrel	no	none
Rumex crispus	curly dock	no	none

/a/ Regulatory status. See cover sheet for explanation.

Table B1-9. Plant Species Observed at Site 17
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

<u>AREA</u>		Native to Area	Status /a/
Scientific name	Common name		
<u>COAST LIVE OAK WOODLAND</u>			
<i>Achillea millefolium</i>	yarrow	yes	none
<i>Baccharis pilularis</i>	coyote brush	yes	none
<i>Bromus c. carinatus</i>	California brome	yes	none
<i>Bromus diandrus</i>	ripgut grass	no	none
<i>Carpobrotus edulis</i>	hottentot fig	no	none
<i>Claytonia perfoliata</i>	miner's lettuce	yes	none
<i>Galium aparine</i>	bedstraw	yes	none
<i>Hordeum murinum leporinum</i>	fox-tail barley	no	none
<i>Hypochaeris glabrata</i>	smooth cat's ear	no	none
<i>Lupinus arboreus</i>	yellow bush lupine	yes	none
<i>Marah fabaceus</i>	California man-root	yes	none
<i>Nassella pulchra</i>	purple needlegrass	yes	none
<i>Phacelia malvifolia</i>	stinging phacelia	yes	none
<i>Quercus a. agrifolia</i>	coast live oak	yes	none
<i>Rumex acetosella</i>	sheep sorrel	no	none
<i>Silene gallica</i>	common catchfly	no	none
<i>Silybum marianum</i>	milk thistle	no	none
<i>Stachys bullata</i>	California hedge nettle	yes	none
<i>Stellaria media</i>	common chickweed	no	none
<i>Toxicodendron diversilobum</i>	western poison oak	yes	none
<u>LANDSCAPED</u>			
<i>Acacia longifolia</i>	golden wattle	no	none
<i>Coronopus didymus</i>	wart cress	no	none
<i>Cupressus macrocarpa</i>	Monterey cypress	no	none
<i>Eucalyptus globulus</i>	blue gum	no	none
<i>Festuca rubra</i>	red fescue	no	none
<i>Myoporum laetum</i>	myoporum	no	none
<i>Pennisetum clandestinum</i>	kikuyu grass	no	none
<i>Pinus coulteri</i>	Coulter pine	no	none
<i>Poa p. pratensis</i>	Kentucky bluegrass	no	none
<i>Solvia sessilis</i>	devil weed	no	none
<u>UPLAND RUDERAL</u>			
<i>Achillea millefolium</i>	yarrow	yes	none
<i>Aira caryophylla</i>	silver hairgrass	no	none
<i>Avena barbata</i>	slender wild oat	no	none
<i>Baccharis pilularis</i>	coyote brush	yes	none
<i>Brassica nigra</i>	black mustard	no	none
<i>Bromus catharticus</i>	rescue grass	no	none
<i>Bromus diandrus</i>	ripgut grass	no	none
<i>Bromus hordeaceus</i>	soft cheat	no	none
<i>Capsella bursa-pastoris</i>	shepherd's purse	no	none
<i>Cardionema ramosissimum</i>	cardionema	yes	none
<i>Carpobrotus chilensis</i>	sea fig	no	none

Table B1-9. Plant Species Observed at Site 17
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

<u>AREA</u>		Native to Area	Status /a/
Scientific name	Common name		
Carpobrotus edulis	hottentot fig	no	none
Centaurea melitensis	tocalote	no	none
Cerastium glomeratum	sticky mouse-ear	no	none
Chamomilla suaveolens	pineapple weed	no	none
Chorizanthe p. pungens	Monterey spineflower	yes	FT/--/1B
Conyza bonariensis	little horseweed	no	none
Erodium botrys	storksbill	no	none
Erodium cicutarium	red-stemmed filaree	no	none
Erodium moschatum	white-stemmed filaree	no	none
Filago gallica	narrow-leaved filago	no	none
Galium aparine	bedstraw	yes	none
Gnaphalium luteo-album	weedy cudweed	no	none
Gnaphalium purpureum	purple cudweed	yes	none
Heterotheca grandiflora	telegraph weed	yes	none
Hordeum murinum leporinum	fox-tail barley	no	none
Hypochaeris glabrata	smooth cat's ear	no	none
Lotus humistratus	Colchita	yes	none
Lotus scoparius	California broom	yes	none
Lupinus bicolor	minature lupine	yes	none
Lupinus nanus	sky lupine	yes	none
Medicago polymorpha	California burclover	no	none
Oxalis corniculata	oxalis	no	none
Pectocarya lineraris ferocula	common pectocarya	yes	none
Pennisetum clandestinum	kikuyu grass	no	none
Plantago coronopus	cut-leaved plantain	no	none
Plantago erecta	dwarf plantain	yes	none
Poa annua	annual blue grass	no	none
Polygonum arenastrum	common knotweed	no	none
Raphanus sativus	wild radish	no	none
Rumex acetosella	sheep sorrel	no	none
Rumex crispus	curly dock	no	none
Sagina decumbens occidentalis	western pearlwort	yes	none
Senecio vulgaris	common groundsel	no	none
Sisymbrium irio	London rocket	no	none
Sonchus oleraceus	common sow thistle	no	none
Spergularia macrotheca	sand spurry	yes	none
Taraxacum officinale	dandelion	no	none
Toxicodendron diversilobum	western poison oak	yes	none
Trifolium dubium	little hop clover	no	none
Vulpia bromoides	sixweeks fescue	no	none
Vulpia m. myuros	rattail fescue	no	none

/a/ Regulatory status. See cover sheet for explanation.

Table B1-10. Plant Species Observed at Site 19
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

<u>AREA</u>		Native to Area	Status /a/
Scientific name	Common name		
<u>LANDSCAPED</u>			
Arbutus unedo	strawberry tree	no	none
Baccharis pitularis	coyote brush	yes	none
Bromus diandrus	ripgut grass	no	none
Bromus madritensis rubens	red brome	no	none
Callistemon citrinus	lemon bottlebrush	no	none
Carpobrotus edulis	hottentot fig	no	none
Ceanothus griseus	Carmel creeper	yes	none
Conyza canadensis	horseweed	yes	none
Cupressus macrocarpa	Monterey cypress	no	none
Erodium moschatum	white-stemmed filaree	no	none
Eucalyptus globulus	blue gum	no	none
Gnaphalium luteo-album	weedy cudweed	no	none
Heterotheca grandiflora	telegraph weed	yes	none
Holcus lanatus	common velvet grass	no	none
Hordeum murinum leporinum	fox-tail barley	no	none
Hypochaeris glabra	smooth cat's-ear	no	none
Hypochaeris radicata	rough cat's-ear	no	none
Leptospermum laevigatum	Australian tea tree	no	none
Pelargonium domesticum	regal geranium	no	none
Pennisetum clandestinum	kikuyu grass	no	none
Pinus radiata	Monterey pine	no	none
Plantago maritima	maritime plantain	yes	none
Polypogon monspeliensis	annual beard grass	no	none
Raphiolepis indica	Indian hawthorn	no	none
Rumex acetosella	sheep sorrel	no	none
Sonchus oleraceus	common sow thistle	no	none
Taraxacum officinale	dandelion	no	none
Viburnum tinus	Laurustinus	no	none
Vulpia m. myuros	rattail fescue	no	none

/a/ Regulatory status. See cover sheet for explanation.

Table B1-11. Plant Species Observed at Site 20
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

<u>AREA</u>		Native	
Scientific name	Common name	to	Status /a/
		Area	
<u>UPLAND RUDERAL</u>			
Arctostaphylos t. tomentosa	shaggy-barked manzanita	yes	none
Astragalus n. nuttallii	Nuttall's locoweed	yes	none
Baccharis pilularis	coyote brush	yes	none
Brassica nigra	black mustard	no	none
Cupressus macrocarpa	Monterey cypress	no	none
Erodium cicutarium	red-stemmed filaree	no	none
Eschscholzia californica	California poppy	yes	none
Gnaphalium luteo-album	weedy cudweed	no	none
Heterotheca grandiflora	telegraph weed	yes	none
Lotus scoparius	California broom	yes	none
Lupinus arboreus	yellow bush lupine	yes	none
Plantago maritima	maritime plantain	yes	none
Quercus a. agrifolia	coast live oak	yes	none
Quercus dumosa	scrub oak	yes	none
Raphanus sativus	wild radish	no	none
Rhamnus c. californica	California coffeeberry	yes	none
Toxicodendron diversilobum	western poison oak	yes	none

/a/ Regulatory status. See cover sheet for explanation.

Table B1-12. Plant Species Observed at Site 21
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Fort Ord, California

<u>AREA</u>			Native to Area	Status /a/
	Scientific name	Common name		
<u>COAST LIVE OAK WOODLAND</u>				
	Arctostaphylos t. tomentosa	shaggy-barked manzanita	yes	undt
	Cirsium o. occidentale	cobwebby thistle	yes	none
	Galium c. californica	California bedstraw	yes	none
	Mimulus aurantiacus	orange bush monkeyflower	yes	none
	Quercus a. agrifolia	coast live oak	yes	none
	Ribes speciosum	fuchsia-flowered gooseberry	yes	none
	Salvia mellifera	black sage	yes	none
	Toxicodendron diversilobum	western poison oak	yes	none
<u>UPLAND RUDERAL</u>				
	Avena barbata	slender wild oat	no	none
	Avena fatua	wild oat	no	none
	Baccharis pilularis	coyote brush	yes	none
	Bromus diandrus	ripgut grass	no	none
	Cardionema ramosissimum	cardionema	yes	none
	Carpobrotus edulis	hottentot fig	no	none
	Conyza bonariensis	little horseweed	no	none
	Cortaderia selloana	pampas grass	no	none
	Genista monspessulana	French broom	no	none
	Gnaphalium luteo-album	weedy cudweed	no	none
	Heterotheca grandiflora	telegraph weed	yes	none
	Lotus scoparius	California broom	yes	none
	Lupinus arboreus	yellow bush lupine	yes	none
	Lupinus chamissonis	Chamisso's bush lupine	yes	none
	Medicago polymorpha	California burclover	no	none
	Navarretia atractyloides	holly-leaved navarretia	yes	none
	Plantago maritima	maritime plantain	yes	none
	Poa douglasii	sand-dune bluegrass	yes	none
	Quercus a. agrifolia	coast live oak	yes	none
	Rumex crispus	curly dock	no	none
	Sisymbrium officinale	hedge mustard	no	none
	Vulpia m. myuros	rattail fescue	no	none
<u>WET RUDERAL</u>				
	Bromus hordeaceus	soft cheat	no	none
	Bromus madritensis rubens	red brome	no	none
	Carpobrotus edulis	hottentot fig	no	none
	Crassula connata	pigmy weed	yes	none
	Erodium botrys	storksbill	no	none
	Erodium moschatum	white-stemmed filaree	no	none
	Hypochaeris radicata	rough cat's-ear	no	none
	Plantago lanceolata	English plantain	no	none
	Plantago maritima	maritime plantain	yes	none
	Polypogon monspeliensis	annual beard grass	no	none
	Rumex acetosella	sheep sorrel	no	none

Table B1-12. Plant Species Observed at Site 21
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<u>AREA</u>		Native to Area	Status /a/
Scientific name	Common name		
Rumex crispus	curly dock	no	none

/a/ Regulatory status. See cover sheet for explanation.

Table B1-13. Plant Species Observed at Site 22
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

<u>AREA</u>		Native	
Scientific name	Common name	to	Status /a/
		Area	
<u>COAST LIVE OAK WOODLAND</u>			
Acaena pinnatifida californica	California acaena	yes	none
Achillea millefolium	yarrow	yes	none
Agrostis pallens	thingrass	yes	none
Aira caryophylla	silver hairgrass	no	none
Arctostaphylos t. tomentosa	shaggy-barked manzanita	yes	none
Armeria maritima californica	sea-pink	yes	none
Artemisia californica	California sagebrush	yes	none
Ceanothus thyrsoiflorus	blue blossom	yes	none
Chenopodium californicum	California chenopodium	yes	none
Chenopodium multifidum	cut-leaf chenopodium	no	none
Chorizanthe p. pungens	Monterey spineflower	yes	FT/--/1B
Cirsium o. occidentale	cobwebby thistle	yes	none
Clarkia purpurea	purple godetia	yes	none
Conium maculatum	poison hemlock	no	none
Croton californicus	California croton	yes	none
Dichelostemma congestum	ookow	yes	none
Ericameria ericoides	mock heather	yes	none
Eriogonum nudum	naked buckwheat	yes	none
Eriophyllum c. confertifolium	golden-yarrow	yes	none
Filago gallica	narrow-leaved filago	no	none
Galium c. californica	California bedstraw	yes	none
Galium p. porrigens	climbing bedstraw	yes	none
Heliathemum scoparium	peak rush-rose	yes	none
Hemizonia c. corymbosa	coast tarweed	yes	none
Horkelia cuneata sericea	Kellogg's horkelia	yes	C2/--/1B
Layia platyglossa	tidy tips	yes	none
Lepidium nitidum	shinning peppergrass	yes	none
Lessingia filaginifolia californica	California aster	yes	none
Leymus triticoides	beardless wild-rye	yes	none
Lotus strigosus	strigose lotus	yes	none
Lupinus arboreus	yellow bush lupine	yes	none
Lupinus chamissonis	Chamisso's bush lupine	yes	none
Luzula comosa	hairy wood rush	yes	none
Madia gracilis	slender tarweed	yes	none
Malus sp.	apple	no	none
Melica imperfecta	coast onion grass	yes	none
Mimulus aurantiacus	orange bush monkeyflower	yes	none
Nassella pulchra	purple needlegrass	yes	none
Pteridium aquilinum pubescens	bracken fern	yes	none
Rhamnus californica	California coffeeberry	yes	none
Ribes speciosum	fuchsia-flowered gooseberry	yes	none
Salvia mellifera	black sage	yes	none
Silene gallica	common catchfly	no	none
Solanum umbelliferum	blue witch	yes	none
Torilis arvensis	common torilis	no	none

Table B1-13. Plant Species Observed at Site 22
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<u>AREA</u>		Native	
Scientific name	Common name	to Area	Status /a/
Toxicodendron diversilobum	western poison oak	yes	none
<u>LANDSCAPED</u>			
Camissonia c. cheiranthifolia	beach evening primrose	yes	none
Camissonia micrantha	miniature evening primrose	yes	none
Conyza canadensis	horseweed	yes	none
Eschscholzia californica	California poppy	yes	none
Eucalyptus globulus	blue gum	no	none
Filago gallica	narrow-leaved filago	no	none
Lepidium nitidum	shinning peppergrass	yes	none
Pinus radiata	Monterey pine	no	none
Silene gallica	common catchfly	no	none
Trifolium hirtum	rose clover	no	none
Vulpia bromoides	sixweeks fescue	no	none
<u>UPLAND RUDERAL</u>			
Aira caryophyllea	silver hairgrass	no	none
Avena barbata	slender wild oat	no	none
Avena fatua	wild oat	no	none
Briza minor	little quakegrass	no	none
Bromus arenarius	Australian chess	no	none
Camissonia c. cheiranthifolia	beach evening primrose	yes	none
Camissonia micrantha	miniature evening primrose	yes	none
Carex globosa	round-fruited sedge	yes	none
Centaurea solstitialis	yellow star-thistle	no	none
Chorizanthe p. pungens	Monterey spineflower	yes	FT/--/1B
Conyza canadensis	horseweed	yes	none
Cortaderia jubata	jubata grass	no	none
Croton californicus	California croton	yes	none
Ericameria ericoides	mock heather	yes	none
Eschscholzia californica	California poppy	yes	none
Festuca rubra	red fescue	no	none
Filago gallica	narrow-leaved filago	no	none
Genista monspessulana	French broom	no	none
Helianthemum scoparium	peak rush-rose	yes	none
Lepidium nitidum	shinning peppergrass	yes	none
Lessingia filaginifolia californica	California aster	yes	none
Lolium perenne	perennial ryegrass	no	none
Lotus heermannii orbicularis	Heermann's lotus	yes	none
Lotus strigosus	strigose lotus	yes	none
Lupinus arboreus	yellow bush lupine	yes	none
Lupinus truncatus	Nuttall's annual lupine	yes	none
Luzula comosa	hairy wood rush	yes	none
Madia gracilis	slender tarweed	yes	none
Nassella pulchra	purple needlegrass	yes	none
Poa annua	annual bluegrass	no	none
Polygonum arenastrum	common knotweed	no	none

Table B1-13. Plant Species Observed at Site 22
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<u>AREA</u>		Native to Area	Status /a/
Scientific name	Common name		
Salix lasiolepis	arroyo willow	yes	none
Silene gallica	common catchfly	no	none
Toxicodendron diversilobum	western poison oak	yes	none
Trifolium dubium	little hop clover	no	none
Trifolium hirtum	rose clover	no	none
Vulpia bromoides	sixweeks fescue	no	none
<u>WET RUDERAL</u>			
Eleocharis macrostachya	pale spikerush	yes	none
Juncus b. bufonius	toadrush	yes	none
Lythrum hyssopifolium	loosestrife	no	none
Rumex crispus	curly dock	no	none
Typha latifolia	broad-leaved cattail	yes	none

/a/ Regulatory status. See cover sheet for explanation.

Table B1-14. Plant Species Observed at Site 24
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<u>AREA</u>		Native to Area	Status /a/
Scientific name	Common name		
<u>COAST LIVE OAK WOODLAND</u>			
Achillea millefolium	yarrow	yes	none
Aira caryophylla	silver hairgrass	no	none
Arctostaphylos t. tomentosa	shaggy-barked manzanita	yes	none
Artemisia californica	California sagebrush	yes	none
Avena barbata	slender wild oat	no	none
Baccharis pilularis	coyote brush	yes	none
Bromus c. carinatus	California brome	yes	none
Carex globosa	round-fruited sedge	yes	none
Chenopodium multifidum	cut-leaf chenopodium	no	none
Claytonia perfoliata	miner's lettuce	yes	none
Cryptantha leiocarpa	coast cryptantha	yes	none
Dryopteris arguta	wood fern	yes	none
Euphorbia crenulata	chinese caps	yes	none
Galium aparine	bedstraw	yes	none
Galium c. californica	California bedstraw	yes	none
Gnaphalium luteo-album	weedy cudweed	no	none
Gnaphalium ramosissimum	pink everlasting	yes	none
Helianthemum scoparium	peak rush-rose	yes	none
Hordeum murinum leporinum	fox-tail barley	no	none
Lathyrus v. vestitus	wild pea	yes	none
Leymus triticoides	beardless wild-rye	yes	none
Lupinus arboreus	yellow bush lupine	yes	none
Marah fabaceus	California man-root	yes	none
Mimulus aurantiacus	orange bush monkeyflower	yes	none
Pennisetum clandestinum	kikuyu grass	no	none
Phacelia malvifolia	stinging phacelia	yes	none
Quercus a. agrifolia	coast live oak	yes	none
Ribes speciosum	fuchsia-flowered gooseberry	yes	none
Salvia mellifera	black sage	yes	none
Silene gallica	common catchfly	no	none
Solanum americanum	small-flowered nightshade	no	none
Sonchus oleraceus	common sow thistle	no	none
Stellaria media	common chickweed	no	none
Toxicodendron diversilobum	western poison oak	yes	none
Vicia v. villosa	hairy spring vetch	yes	none
<u>LANDSCAPED</u>			
Agave americana	century plant	no	none
Carpobrotus chilensis	sea fig	no	none
Claytonia perfoliata	miner's lettuce	yes	none
Coreopsis grandiflora	coreopsis	no	none
Cotoneaster lacteus	parney cotoneaster	no	none
Cupressus macrocarpa	Monterey cypress	no	none
Erodium cicutarium	red-stemmed filaree	no	none
Eschscholzia californica	California poppy	yes	none

Table B1-14. Plant Species Observed at Site 24
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<u>AREA</u>	Scientific name	Common name	Native to Area	Status /a/
	<i>Eucalyptus globulus</i>	blue gum	no	none
	<i>Hordeum murinum leporinum</i>	fox-tail barley	no	none
	<i>Myoporum laetum</i>	myoporum	no	none
	<i>Osteospermum fruticosum</i>	African daisy	no	none
	<i>Pelargonium domesticum</i>	regal geranium	no	none
	<i>Pinus radiata</i>	Monterey pine	no	none
	<i>Quercus a. agrifolia</i>	coast live oak	yes	none
	<i>Spergula a. arvensis</i>	starwort	no	none
<u>UPLAND RUDERAL</u>				
	<i>Acacia melanoxylon</i>	blackwood acacia	no	none
	<i>Avena barbata</i>	slender wild oat	no	none
	<i>Baccharis pilularis</i>	coyote brush	yes	none
	<i>Bromus c. carinatus</i>	California brome	yes	none
	<i>Bromus diandrus</i>	ripgut grass	no	none
	<i>Bromus hordeaceus</i>	soft cheat	no	none
	<i>Bromus madritensis rubens</i>	red brome	no	none
	<i>Cardionema ramosissimum</i>	cardionema	yes	none
	<i>Carpobrotus chilensis</i>	sea fig	no	none
	<i>Carpobrotus edulis</i>	hottentot fig	no	none
	<i>Cedrus libani</i>	cedar of Lebanon	no	none
	<i>Centaurea melitensis</i>	toçalote	no	none
	<i>Chamomilla suaveolens</i>	pineapple weed	no	none
	<i>Chenopodium album</i>	lamb's quarters	no	none
	<i>Conyza bonariensis</i>	little horseweed	no	none
	<i>Conyza canadensis</i>	horseweed	no	none
	<i>Cortaderia selloana</i>	pampas grass	no	none
	<i>Cupressus macrocarpa</i>	Monterey cypress	no	none
	<i>Cynodon dactylon</i>	Bermuda grass	no	none
	<i>Epilobium sp.</i>	willow herb	undt.	none
	<i>Ericameria ericoides</i>	mock heather	yes	none
	<i>Erodium cicutarium</i>	red-stemmed filaree	no	none
	<i>Eschscholzia californica</i>	California poppy	yes	none
	<i>Eucalyptus globulus</i>	blue gum	no	none
	<i>Filago gallica</i>	narrow-leaved filago	no	none
	<i>Foeniculum vulgare</i>	fennel	no	none
	<i>Genista monspessulana</i>	French broom	no	none
	<i>Gnaphalium luteo-album</i>	weedy cudweed	no	none
	<i>Heterotheca grandiflora</i>	telegraph weed	yes	none
	<i>Hordeum murinum leporinum</i>	fox-tail barley	no	none
	<i>Hypochaeris radicata</i>	rough cat's-ear	no	none
	<i>Layia hieracioides</i>	tall layia	yes	none
	<i>Lobularia maritima</i>	sweet alyssum	no	none
	<i>Lolium perenne</i>	perennial ryegrass	no	none
	<i>Lotus p. purshianus</i>	Pursh's lotus	yes	none
	<i>Lotus scoparius</i>	California broom	yes	none
	<i>Lupinus arboreus</i>	yellow bush lupine	yes	none

Table B1-14. Plant Species Observed at Site 24
Volume IV - Ecological Risk Assessment, Basewide RI/FS
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<u>AREA</u>		Native	
Scientific name	Common name	to	Status /a/
		Area	
Lupinus nanus	sky lupine	yes	none
Malva nicaeensis	bull mallow	no	none
Medicago polymorpha	California burclover	no	none
Melilotus indica	sour clover	no	none
Nassella pulchra	purple needlegrass	yes	none
Nicotiana glauca	tree tobacco	no	none
Pennisetum clandestinum	kikuyu grass	no	none
Plantago coronopus	cut-leaved plantain	yes	none
Plantago erecta	dwarf plantain	yes	none
Plantago lanceolata	English plantain	no	none
Quercus a. agrifolia	coast live oak	yes	none
Raphanus sativus	wild radish	no	none
Rumex acetosella	sheep sorrel	no	none
Rumex crispus	curly dock	no	none
Salix lasiolepis	arroyo willow	yes	none
Salvia mellifera	black sage	yes	none
Silybum marianum	milk thistle	no	none
Solanum umbelliferum	blue witch	yes	none
Spergula a. arvensis	starwort	no	none
Stachys bullata	California hedge nettle	yes	none
Trifolium hirtum	rose clover	no	none
Vulpia m. myuros	rattail fescue	no	none

/a/ Regulatory status. See cover sheet for explanation.

Table B1-15. Plant Species Observed at Site 25
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

<u>AREA</u>			Native to Area	Status /a/
	Scientific name	Common name		
<u>CENTRAL MARITIME CHAPARRAL</u>				
	Arctostaphylos pumila	sandmat manzanita	yes	C2/-/1B
	Arctostaphylos t. tomentosa	shaggy-barked manzanita	yes	none
	Avena barbata	slender wild oat	no	none
	Baccharis pilularis	coyote brush	yes	none
	Bromus diandrus	ripgut grass	no	none
	Ericameria ericoides	mock heather	yes	none
	Lotus scoparius	California broom	yes	none
	Lupinus chamissonis	Chamisso's bush lupine	yes	none
	Mimulus aurantiacus	orange bush monkeyflower	yes	none
	Quercus a. agrifolia	coast live oak	yes	none
	Rumex acetosella	sheep sorrel	no	none
	Toxicodendron diversilobum	western poison oak	yes	none
<u>LANDSCAPED</u>				
	Cupressus macrocarpa	Monterey cypress	no	none
	Eucalyptus globulus	blue gum	no	none
	Eucalyptus viminalis	mann gum	no	none
	Leptospermum laevigatum	Australian tea tree	no	none
	Pinus radiata	Monterey pine	no	none
<u>UPLAND RUDERAL</u>				
	Adenostoma fasciculatum	chamise	yes	none
	Ambrosia chamissonis	beach-bur	yes	none
	Arctostaphylos pumila	sandmat manzanita	yes	C2/-/1B
	Artemisia californica	California sagebrush	yes	none
	Avena fatua	wild oat	no	none
	Baccharis pilularis	coyote brush	yes	none
	Brachypodium distachyon	purple falsebrome	no	none
	Brassica nigra	black mustard	no	none
	Briza maxima	rattlesnake grass	no	none
	Bromus diandrus	ripgut grass	no	none
	Bromus hordeaceus	soft cheat	no	none
	Camissonia c. cheiranthifolia	beach evening primrose	yes	none
	Cardionema ramosissimum	cardionema	yes	none
	Carpobrotus chilensis	sea fig	no	none
	Carpobrotus edulis	hottentot fig	no	none
	Centaurea solstitialis	yellow star-thistle	no	none
	Dichelostemma c. capitatum	blue dicks	yes	none
	Elymus e. elymoides	big squirreltail	yes	none
	Ericameria ericoides	mock heather	yes	none
	Erigeron glaucus	seaside daisy	yes	none
	Erodium cicutarium	red-stemmed filaree	no	none
	Erodium moschatum	white-stemmed filaree	no	none
	Filago gallica	narrow-leaved filago	no	none
	Gastridium ventricosum	nit grass	no	none

Table B1-15. Plant Species Observed at Site 25
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<u>AREA</u>		Native to Area	Status /a/
Scientific name	Common name		
Genista monspessulana	French broom	no	none
Helianthemum scoparium	peak rush-rose	yes	none
Heterotheca grandiflora	telegraph weed	yes	none
Hordeum marinum gussoneanum	Mediterranean barley	no	none
Hordeum murinum leporinum	fox-tail barley	no	none
Layia hieracioides	tall layia	yes	none
Lobularia maritima	sweet alyssum	no	none
Lolium perenne	perennial ryegrass	no	none
Lotus corniculatus	bird's-foot trefoil	no	none
Lotus scoparius	California broom	yes	none
Lupinus arboreus	yellow bush lupine	yes	none
Lupinus chamissonis	Chamisso's bush lupine	yes	none
Lupinus nanus	sky lupine	yes	none
Marah fabaceus	California man-root	yes	none
Oxalis pes-caprae	Bermuda buttercup	no	none
Pinus radiata	Monterey pine	no	none
Plantago coronopus	cut-leaved plantain	yes	none
Plantago erecta	dwarf plantain	yes	none
Quercus a. agrifolia	coast live oak	yes	none
Rumex acetosella	sheep sorrel	no	none
Rumex crispus	curly dock	no	none
Trifolium hirtum	rose clover	no	none
Vulpia m. myuros	rattail fescue	no	none

/a/ Regulatory status. See cover sheet for explanation.

Table B1-16. Plant Species Observed at Site 29
Volume IV - Ecological Risk Assessment, Basewide RI/FS
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<u>AREA</u>	Scientific name	Common name	Native to Area	Status /a/
<u>COAST LIVE OAK WOODLAND</u>				
	Bloomeria crocea	common goldenstar	yes	none
	Carpobrotus chilensis	sea fig	no	none
	Geranium molle	dove's-foot geranium	no	none
	Gnaphalium ramosissimum	pink everlasting	yes	none
	Lobularia maritima	sweet alyssum	no	none
	Lolium perenne	perennial ryegrass	no	none
	Malva parviflora	cheeseweed	no	none
	Mimulus aurantiacus	orange bush monkeyflower	yes	none
	Nassella pulchra	purple needlegrass	yes	none
	Phacelia malvifolia	stinging phacelia	yes	none
	Quercus a. agrifolia	coast live oak	yes	none
	Silybum marianum	milk thistle	no	none
	Symphoricarpus mollis	creeping snowberry	yes	none
	Toxicodendron diversilobum	western poison oak	yes	none
	Urtica urens	dwarf nettle	no	none
	Vicia benghalensis	purple vetch	no	none
	Vicia sativa	spring vetch	no	none
<u>FULLY DEVELOPED</u>				
	Anaphalis margaritacea	pearly everlasting	yes	none
	Avena fatua	wild oat	no	none
	Conyza bonariensis	little horseweed	no	none
	Holcus lanatus	common velvet grass	no	none
	Plantago coronopus	cut-leaved plantain	no	none
	Plantago lanceolata	English plantain	no	none
	Polycarpon tetraphyllum	four-leaved polycarp	no	none
	Sonchus oleraceus	common sow thistle	no	none
	Vulpia m. myuros	rattail fescue	no	none
<u>LANDSCAPED</u>				
	Pinus radiata	Monterey pine	no	none
	Stellaria media	common chickweed	no	none
	Viola pedunculata	Johnny-jump-up	yes	none
<u>UPLAND RUDERAL</u>				
	Aira caryophyllea	silver hairgrass	no	none
	Amsinckia s. spectabilis	seaside amsinckia	yes	none
	Anthemis cotula	mayweed	no	none
	Asclepias fascicularis	narrow-leaf milkweed	yes	none
	Avena barbata	slender wild oat	no	none
	Baccharis pilularis	coyote brush	yes	none
	Brachypodium distachyon	purple falsebrome	no	none
	Brassica nigra	black mustard	no	none
	Bromus c. carinatus	California brome	yes	none
	Bromus diandrus	ripgut grass	no	none

Table B1-16. Plant Species Observed at Site 29
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AREA		Native to Area	Status /a/
Scientific name	Common name		
Bromus hordeaceus	soft cheat	no	none
Bromus madritensis rubens	red brome	no	none
Cardionema ramosissimum	cardionema	yes	none
Carduus pycnocephalus	Italian thistle	no	none
Carpobrotus chilensis	sea fig	no	none
Carpobrotus edulis	hottentot fig	no	none
Clarkia purpurea quadrivulnera	four-spot	yes	none
Cupressus macrocarpa	Monterey cypress	no	none
Dudleya lanceolata	lance-leaved dudleya	yes	none
Erigeron glaucus	seaside daisy	yes	none
Eriogonum latifolium	coast buckwheat	yes	none
Erodium cicutarium	red-stemmed filaree	no	none
Erodium moschatum	white-stemmed filaree	no	none
Erysimum linifolium	cheiranthus	no	none
Eschscholzia californica	California poppy	yes	none
Filago gallica	narrow-leaved filago	no	none
Galium aparine	bedstraw	yes	none
Geranium molle	dove's-foot geranium	no	none
Gnaphalium luteo-album	weedy cudweed	no	none
Heterotheca grandiflora	telegraph weed	yes	none
Hordeum murinum leporinum	fox-tail barley	no	none
Horkelia cuneata sericea	Kellogg's horkelia	yes	C2/--/1B
Hypochaeris radicata	rough cat's-ear	no	none
Lactuca serriola	prickly lettuce	no	none
Layia hieracioides	tall layia	yes	none
Lotus scoparius	California broom	yes	none
Lupinus nanus	sky lupine	yes	none
Marah fabaceus	California man-root	yes	none
Medicago polymorpha	California burclover	no	none
Melilotus indica	sour clover	no	none
Nassella pulchra	purple needlegrass	yes	none
Pennisetum clandestinum	kikuyu grass	no	none
Plantago coronopus	cut-leaved plantain	no	none
Plantago coronopus	cut-leaved plantain	yes	none
Quercus a. agrifolia	coast live oak	yes	none
Raphanus sativus	wild radish	no	none
Rhamnus c. californica	California coffeeberry	yes	none
Rubus ursinus	California blackberry	yes	none
Rumex acetosella	sheep sorrel	no	none
Rumex pulcher	fiddle dock	no	none
Sambucus mexicana	blue elderberry	yes	none
Silybum marianum	milk thistle	no	none
Sonchus asper	prickly sow thistle	no	none
Sonchus oleraceus	common sow thistle	no	none
Toxicodendron diversilobum	western poison oak	yes	none
Trifolium hirtum	rose clover	no	none
Verbena l. lasiostachys	common vervain	yes	none

Table B1-16. Plant Species Observed at Site 29
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<u>AREA</u>		Native to Area	Status /a/
Scientific name	Common name		

/a/ Regulatory status. See cover sheet for explanation.

Table B1-17. Plant Species Observed at Site 31
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

<u>AREA</u>	Scientific name	Common name	Native to Area	Status /a/
<u>COAST LIVE OAK WOODLAND</u>				
	<i>Achillea millefolium</i>	yarrow	yes	none
	<i>Adenostoma fasciculatum</i>	chamise	yes	none
	<i>Anthriscus caucalis</i>	bur-chervil	no	none
	<i>Claytonia perfoliata</i>	miner's lettuce	yes	none
	<i>Collinsia heterophylla</i>	chinese houses	yes	none
	<i>Dryopteris arguta</i>	wood fern	yes	none
	<i>Eriogonum TBA</i>	buckwheat	yes	undt.
	<i>Galium c. californica</i>	California bedstraw	yes	none
	<i>Heteromeles arbutifolia</i>	toyon	yes	none
	<i>Holodiscus discolor</i>	oceanspray	yes	none
	<i>Lotus scoparius</i>	California broom	yes	none
	<i>Lupinus nanus</i>	sky lupine	yes	none
	<i>Melica californica</i>	California melic	yes	none
	<i>Mimulus aurantiacus</i>	orange bush monkeyflower	yes	none
	<i>Muhlenbergia rigens</i>	deergrass	yes	none
	<i>Nassella pulchra</i>	purple needlegrass	yes	none
	<i>Pentagramma t. triangularis</i>	gold-back fern	yes	none
	<i>Pholistoma a. auritum</i>	fiesta flower	yes	none
	<i>Quercus a. agrifolia</i>	coast live oak	yes	none
	<i>Ribes speciosum</i>	fuchsia-flowered gooseberry	yes	none
	<i>Stachys bullata</i>	California hedge nettle	yes	none
	<i>Symphoricarpos albus laevigatus</i>	snowberry	yes	none
	<i>Toxicodendron diversilobum</i>	western poison oak	yes	none
<u>UPLAND RUDERAL</u>				
	<i>Amsinckia menzeisii intermedia</i>	common fiddleneck	yes	none
	<i>Artemisia californica</i>	California sagebrush	yes	none
	<i>Avena fatua</i>	wild oat	no	none
	<i>Baccharis pilularis</i>	coyote brush	yes	none
	<i>Brachypodium distachyon</i>	purple falsebrome	no	none
	<i>Brassica nigra</i>	black mustard	no	none
	<i>Bromus diandrus</i>	ripgut grass	no	none
	<i>Bromus madritensis rubens</i>	red brome	no	none
	<i>Carpobrotus edulis</i>	hottentot fig	no	none
	<i>Cirsium o. occidentale</i>	cobwebby thistle	yes	none
	<i>Conyza canadensis</i>	horseweed	yes	none
	<i>Dactylis glomerata</i>	orchard grass	no	none
	<i>Ericameria ericoides</i>	mock heather	yes	none
	<i>Eriophyllum c. confertifolium</i>	golden-yarrow	yes	none
	<i>Erodium botrys</i>	storksbill	no	none
	<i>Foeniculum vulgare</i>	fennel	no	none
	<i>Gnaphalium californicum</i>	California cudweed	yes	none
	<i>Gnaphalium luteo-album</i>	weedy cudweed	no	none
	<i>Gnaphalium purpureum</i>	purple cudweed	yes	none
	<i>Heterotheca grandiflora</i>	telegraph weed	yes	none

Table B1-17. Plant Species Observed at Site 31
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<u>AREA</u>	Scientific name	Common name	Native to Area	Status /a/
	<i>Hypochaeris glabra</i>	smooth cat's-ear	no	none
	<i>Lupinus arboreus</i>	yellow bush lupine	yes	none
	<i>Lupinus nanus</i>	sky lupine	yes	none
	<i>Muhlenbergia rigens</i>	deerglass	yes	none
	<i>Phalaris sp.</i>	canary grass	no	none
	<i>Quercus a. agrifolia</i>	coast live oak	yes	none
	<i>Rubus ursinus</i>	California blackberry	yes	none
<u>VALLEY NEEDLEGRASS</u>				
	<i>Artemisia californica</i>	California sagebrush	yes	none
	<i>Bromus hordeaceus</i>	soft cheat	no	none
	<i>Bromus madritensis rubens</i>	red brome	no	none
	<i>Cardionema ramosissimum</i>	cardionema	yes	none
	<i>Elymus glaucus</i>	blue wildrye	yes	none
	<i>Erodium cicutarium</i>	red-stemmed filaree	no	none
	<i>Gnaphalium californicum</i>	California cudweed	yes	none
	<i>Hypochaeris radicata</i>	rough cat's-ear	no	none
	<i>Layia hieracioides</i>	tall layia	yes	none
	<i>Lotus scoparius</i>	California broom	yes	none
	<i>Mimulus aurantiacus</i>	orange bush monkeyflower	yes	none
	<i>Nassella pulchra</i>	purple needlegrass	yes	none
	<i>Plantago coronopus</i>	cut-leaved plantain	no	none
	<i>Vulpia m. myuros</i>	rattail fescue	no	none
<u>WET RUDERAL</u>				
	<i>Artemisia douglasiana</i>	mugwort	yes	none
	<i>Bromus c. carinatus</i>	California brome	yes	none
	<i>Bromus hordeaceus</i>	soft cheat	no	none
	<i>Carex barbarae</i>	Santa Barbara sedge	yes	none
	<i>Dichelostemma c. capitatum</i>	blue dicks	yes	none
	<i>Epilobium sp.</i>	willow herb	undt	none
	<i>Foeniculum vulgare</i>	fennel	no	none
	<i>Holodiscus discolor</i>	oceanspray	yes	none
	<i>Lupinus nanus</i>	sky lupine	yes	none
	<i>Phacelia malvifolia</i>	stinging phacelia	yes	none
	<i>Polypogon monspeliensis</i>	annual beard grass	no	none
	<i>Ribes speciosum</i>	fuchsia-flowered gooseberry	yes	none
	<i>Rubus ursinus</i>	California blackberry	yes	none
	<i>Rumex pulcher</i>	fiddle dock	no	none
	<i>Rumex sp.</i>	dock	no	none
	<i>Toxicodendron diversilobum</i>	western poison oak	yes	none
	<i>Vicia sativa</i>	spring vetch	no	none
	<i>Vinca major</i>	greater periwinkle	no	none

/a/ Regulatory status. See cover sheet for explanation.

Table B1-18. Plant Species Observed at Site 32
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Fort Ord, California

<u>AREA</u>	Scientific name	Common name	Native to Area	Status /a/
<u>CENTRAL COASTAL SCRUB</u>				
	Ericameria ericoides	mock heather	yes	none
	Lupinus chamissonis	Chamisso's bush lupine	yes	none
	Mimulus aurantiacus	sticky monkeyflower	yes	none
<u>COAST LIVE OAK WOODLAND</u>				
	Achillea millefolium	yarrow	yes	none
	Amsinckia menzeisii intermedia	common fiddleneck	yes	none
	Anthriscus caucalis	bur-chervil	no	none
	Bromus c. carinatus	California brome	yes	none
	Carduus pycnocephalus	Italian thistle	no	none
	Chenopodium californica	California chenopodium	yes	none
	Cirsium o. occidentale	cobwebby thistle	yes	none
	Claytonia perfoliata	miner's lettuce	yes	none
	Croton californicus	California croton	yes	none
	Galium aparine	bedstraw	yes	none
	Galium p. porrigens	climbing bedstraw	yes	none
	Gnaphalium ramosissimum	pink everlasting	yes	none
	Leymus triticoides	beardless wild-rye	yes	none
	Lithophragma affinis	woodland star	yes	none
	Luzula comosa	hairy wood rush	yes	none
	Marah fabaceus	California man-root	yes	none
	Melica imperfecta	coast onion grass	yes	none
	Mimulus aurantiacus	orange bush monkeyflower	yes	none
	Nassella pulchra	purple needlegrass	yes	none
	Pentagramma t. triangularis	gold-back fern	yes	none
	Phacelia malviflora	stinging phacelia	yes	none
	Piperia sp.	rein orchid	yes	undt.
	Poa s. secunda	one-sided bluegrass	yes	none
	Quercus a. agrifolia	coast live oak	yes	none
	Stellaria media	common chickweed	no	none
	Torilis arvensis	common torilis	no	none
	Toxicodendron diversilobum	western poison oak	yes	none
	Uropappus hindeyi	silver puffs	yes	none
	Vinca major	greater periwinkle	no	none
<u>LANDSCAPED</u>				
	Carpobrotus edulis	hottentot fig	no	none
	Cistus creticus	rockrose	no	none
	Eucalyptus globulus	blue gum	no	none
	Eucalyptus sideroxylon	red iron bark	no	none
	Pinus coulteri	Coulter pine	no	none
	Pinus halepensis	Aleppo pine	no	none
<u>UPLAND RUDERAL</u>				
	Achillea millefolium	yarrow	yes	none

Table B1-18. Plant Species Observed at Site 32
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<u>AREA</u>			Native to Area	Status /a/
	Scientific name	Common name		
	<i>Aira caryophylla</i>	silver hairgrass	no	none
	<i>Amsinckia menzeisii intermedia</i>	common fiddleneck	yes	none
	<i>Anagalis arvensis</i>	scarlet pimpernel	no	none
	<i>Artemisia californica</i>	California sagebrush	yes	none
	<i>Avena fatua</i>	wild oat	no	none
	<i>Baccharis pilularis</i>	coyote brush	yes	none
	<i>Brassica nigra</i>	black mustard	no	none
	<i>Briza maxima</i>	rattlesnake grass	no	none
	<i>Bromus arenarius</i>	Australian chess	no	none
	<i>Bromus c. carinatus</i>	California brome	yes	none
	<i>Bromus diandrus</i>	rippgut grass	no	none
	<i>Bromus hordeaceus</i>	soft cheat	no	none
	<i>Bromus madritensis rubens</i>	red brome	no	none
	<i>Camissonia c. cheiranthifolia</i>	beach evening primrose	yes	none
	<i>Camissonia micrantha</i>	miniature evening primrose	yes	none
	<i>Camissonia strigulosa</i>	strigose evening primrose	yes	none
	<i>Carduus pycnocephalus</i>	Italian thistle	no	none
	<i>Carpobrotus chilensis</i>	sea fig	no	none
	<i>Carpobrotus edulis</i>	hottentot fig	no	none
	<i>Centaurea melitensis</i>	toçalote	no	none
	<i>Cerastium glomeratum</i>	sticky mouse-ear	no	none
	<i>Chenopodium album</i>	lamb's quarters	no	none
	<i>Chenopodium californica</i>	California chenopodium	yes	none
	<i>Chenopodium multifidum</i>	cut-leaf chenopodium	no	none
	<i>Clarkia epiliboides</i>	willow-herb godetia	yes	none
	<i>Clarkia purpurea quadrivulnera</i>	four-spot	yes	none
	<i>Collinsia heterophylla</i>	chinese houses	yes	none
	<i>Conyza bonariensis</i>	little horseweed	no	none
	<i>Croton californicus</i>	California croton	yes	none
	<i>Dichelostemma c. capitatum</i>	blue dicks	yes	none
	<i>Elymus glaucus</i>	blue wildrye	yes	none
	<i>Ericameria ericoides</i>	mock heather	yes	none
	<i>Eriogonum nudum</i>	naked buckwheat	yes	none
	<i>Eriophyllum c. confertifolium</i>	golden-yarrow	yes	none
	<i>Erodium botrys</i>	storksbill	no	none
	<i>Erodium moschatum</i>	white-stemmed filaree	no	none
	<i>Eucalyptus ficifolia</i>	scarlet-flowering gum	no	none
	<i>Filago gallica</i>	narrow-leaved filago	no	none
	<i>Foeniculum vulgare</i>	fennel	no	none
	<i>Galium aparine</i>	bedstraw	yes	none
	<i>Gnaphalium luteo-album</i>	weedy cudweed	no	none
	<i>Gnaphalium purpureum</i>	purple cudweed	yes	none
	<i>Gnaphalium ramosissimum</i>	pink everlasting	yes	none
	<i>Heterotheca grandiflora</i>	telegraph weed	yes	none
	<i>Lotus scoparius</i>	California broom	yes	none
	<i>Lupinus arboreus</i>	yellow bush lupine	yes	none
	<i>Lupinus bicolor</i>	miniature lupine	yes	none

Table B1-18. Plant Species Observed at Site 32
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<u>AREA</u>		Native to Area	Status /a/
Scientific name	Common name		
Madia exigua	thread-stem madia	yes	none
Madia hieracioides	tall madia	yes	none
Marrubium vulgare	horehound	no	none
Melilotus indica	sour clover	no	none
Nassella pulchra	purple needlegrass	yes	none
Navarretia atractyloides	holly-leaved navarretia	yes	none
Nemophila menzeisii	baby-blue eyes	yes	none
Nicotiana glauca	tree tobacco	no	none
Pennisetum clandestinum	kikuyu grass	no	none
Plantago coronopus	cut-leaved plantain	no	none
Plantago lanceolata	English plantain	no	none
Quercus a. agrifolia	coast live oak	yes	none
Raphanus sativus	wild radish	no	none
Rhamnus c. californica	California coffeeberry	yes	none
Salvia mellifera	black sage	yes	none
Silybum marianum	milk thistle	no	none
Sisymbrium officinale	hedge mustard	no	none
Solanum americanum	small-flowered nightshade	no	none
Solanum umbelliferum	blue witch	yes	none
Sonchus oleraceus	common sow thistle	no	none
Toxicodendron diversilobum	western poison oak	yes	none
Uropappus lindleyi	silver puffs	yes	none
Vulpia bromoides	sixweeks fescue	no	none
Vulpia m. myuros	rattail fescue	no	none
<u>WET RUDERAL</u>			
Conium maculatum	poison hemlock	no	none
Rumex pulcher	fiddle dock	no	none
Salix laevigata	red willow	yes	none
Stachys bullata	California hedge nettle	yes	none
Trifolium willdenovii	tomcat clover	yes	none
Urtica dioica holoserica	nettle	yes	none
Xanthium strumarium	cocklebur	yes	none

/a/ Regulatory status. See cover sheet for explanation.

Table B1-19. Plant Species Observed at Site 33
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

<u>AREA</u>		Native	
	Scientific name	to	Status /a/
		Area	
<u>LANDSCAPED</u>			
	Amsinckia menzeisii intermedia	yes	none
	Avena fatua	no	none
	Bellis perennis	no	none
	Bromus diandrus	no	none
	Bromus hordeaceus	no	none
	Capsella bursa-pastoris	no	none
	Carpobrotus edulis	no	none
	Chamomilla suaveolens	no	none
	Claytonia perfoliata	yes	none
	Cupressus macrocarpa	no	none
	Erodium botrys	no	none
	Erodium moschatum	no	none
	Festuca rubra	no	none
	Gnaphalium luteo-album	no	none
	Heteromeles arbutifolia	yes	none
	Hordeum marinum gussonianum	no	none
	Hordeum murinum leporinum	no	none
	Lasthenia californica	yes	none
	Malva nicaeensis	no	none
	Marah fabaceus	yes	none
	Mentha s. spicata	no	none
	Pennisetum clandestinum	no	none
	Pinus radiata	no	none
	Plantago maritima	yes	none
	Poa annua	no	none
	Quercus a. agrifolia	yes	none
	Rhamnus c. californica	yes	none
	Rumex acetosella	no	none
	Senecio vulgaris	no	none
	Sonchus oleraceus	no	none
	Spergula a. arvensis	no	none
	Stachys a. ajugoides	yes	none
	Stellaria media	no	none
	Urtica urens	no	none
	Vicia faba	no	none
	Vulpia m. myuros	no	none
	Zantedeschia aethiopica	no	none

/a/ Regulatory status. See cover sheet for explanation.

Table B1-20. Plant Species Observed at Site 35
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

<u>AREA</u>		Native to Area	Status /a/
Scientific name	Common name		
<u>COAST LIVE OAK WOODLAND</u>			
Achillea millefolium	yarrow	yes	none
Aira caryophylla	silver hairgrass	no	none
Anthriscus caucalis	bur-chervil	no	none
Arctostaphylos pumila	sandmat manzanita	yes	C2/--/1B
Avena barbata	slender wild oat	no	none
Baccharis pilularis	coyote brush	yes	none
Bowlesia incana	bowlesia	yes	none
Bromus diandrus	ripgut grass	no	none
Bromus hordeaceus	soft cheat	no	none
Centaurea melitensis	toalote	no	none
Cirsium o. occidentale	cobwebby thistle	yes	none
Claytonia perfoliata	miner's lettuce	yes	none
Cryptantha clevelandii	Cleveland's cryptantha	yes	none
Cryptantha leiocarpa	coast cryptantha	yes	none
Eriophyllum c. confertifolium	golden-yarrow	yes	none
Erodium cicutarium	red-stemmed filaree	no	none
Galium aparine	bedstraw	yes	none
Galium c. californica	California bedstraw	yes	none
Galium p. porrigens	climbing bedstraw	yes	none
Horkelia c. cuneata	wedge-leaf horkelia	yes	none
Hypochaeris glabra	smooth cat's-ear	no	none
Marah fabaceus	California man-root	yes	none
Melica imperfecta	coast onion grass	yes	none
Mimulus aurantiacus	orange bush monkeyflower	yes	none
Phacelia distans	wild heliotrope	yes	none
Phacelia malvifolia	stinging phacelia	yes	none
Plantago erecta	dwarf plantain	yes	none
Quercus a. agrifolia	coast live oak	yes	none
Rubus ursinus	California blackberry	yes	none
Sanicula crassicaulis	golden sanicle	yes	none
Silene gallica	common catchfly	no	none
Sisyrinchium bellum	blue-eyed grass	yes	none
Solanum umbelliferum	blue witch	yes	none
Stachys bullata	California hedge nettle	yes	none
Symphoricarpos mollis	creeping snowberry	yes	none
Toxicodendron diversilobum	western poison oak	yes	none
Uropappus lindleyi	silver puffs	yes	none
<u>CENTRAL MARITIME CHAPARRAL</u>			
Achillea millefolium	yarrow	yes	none
Adenostoma fasciculatum	chamise	yes	none
Aira caryophylla	silver hairgrass	no	none
Arctostaphylos montereyensis	Monterey manzanita	yes	C2/--/1B
Arctostaphylos t. tomentosa	shaggy-barked manzanita	yes	none
Artemisia californica	California sagebrush	yes	none

Table B1-20. Plant Species Observed at Site 35
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<u>AREA</u>		Native	
Scientific name	Common name	to	Status /a/
		Area	
<i>Avena barbata</i>	slender wild oat	no	none
<i>Avena fatua</i>	wild oat	no	none
<i>Baccharis pilularis</i>	coyote brush	yes	none
<i>Bromus diandrus</i>	ripgut grass	no	none
<i>Bromus hordeaceus</i>	soft cheat	no	none
<i>Bromus madritensis rubens</i>	red brome	no	none
<i>Calyptridium monandrum</i>	pussypaws	yes	none
<i>Camissonia c. cheiranthifolia</i>	beach evening primrose	yes	none
<i>Camissonia micrantha</i>	miniature evening primrose	yes	none
<i>Cardionema ramosissimum</i>	cardionema	yes	none
<i>Carex globosa</i>	round-fruited sedge	yes	none
<i>Ceanothus cuneatus rigidus</i>	Monterey ceanothus	yes	C2/--/4
<i>Ceanothus dentatus</i>	cropleaf ceanothus	yes	none
<i>Chorizanthe p. pungens</i>	Monterey spineflower	yes	FT/--/1B
<i>Cirsium o. occidentale</i>	cobwebby thistle	yes	none
<i>Croton californicus</i>	California croton	yes	none
<i>Cryptantha clevelandii</i>	Cleveland's cryptantha	yes	none
<i>Cryptantha leiocarpa</i>	coast cryptantha	yes	none
<i>Cynodon dactylon</i>	Bermuda grass	no	none
<i>Eriastrum pluriflorum</i>	many-flowered eriastrum	yes	none
<i>Ericameria ericoides</i>	mock heather	yes	none
<i>Eriophyllum c. confertifolium</i>	golden-yarrow	yes	none
<i>Erodium botrys</i>	storksbill	no	none
<i>Erodium cicutarium</i>	red-stemmed filaree	no	none
<i>Erysimum ammophilum</i>	coast wallflower	yes	C2/--/1B
<i>Filago gallica</i>	narrow-leaved filago	no	none
<i>Galium c. californica</i>	California bedstraw	yes	none
<i>Gilia tenuiflora arenaria</i>	sand gilia	yes	FE/CT/1B
<i>Gnaphalium purpureum</i>	purple cudweed	yes	none
<i>Gnaphalium ramosissimum</i>	pink everlasting	yes	none
<i>Helianthemum scoparium</i>	peak rush-rose	yes	none
<i>Hordeum murinum leporinum</i>	fox-tail barley	no	none
<i>Horkelia c. cuneata</i>	wedge-leaf horkelia	yes	none
<i>Hypochaeris glabra</i>	smooth cat's-ear	no	none
<i>Koeleria macrantha</i>	junegrass	yes	none
<i>Layia hieracioides</i>	tall layia	yes	none
<i>Lessingia filaginifolia californica</i>	California aster	yes	none
<i>Lessingia glandulifera pectinata</i>	valley lessingia	yes	none
<i>Lotus scoparius</i>	California broom	yes	none
<i>Lupinus arboreus</i>	yellow bush lupine	yes	none
<i>Melica imperfecta</i>	coast onion grass	yes	none
<i>Mimulus aurantiacus</i>	orange bush monkeyflower	yes	none
<i>Plantago erecta</i>	dwarf plantain	yes	none
<i>Psilocarphus t. tenellus</i>	woolly marbles	yes	none
<i>Rhamnus c. californica</i>	California coffeeberry	yes	none
<i>Salvia mellifera</i>	black sage	yes	none
<i>Solanum umbelliferum</i>	blue witch	yes	none

Table B1-20. Plant Species Observed at Site 35
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<u>AREA</u>	Scientific name	Common name	Native to Area	Status /a/
	Toxicodendron diversilobum	western poison oak	yes	none
	Uropappus lindleyi	silver puffs	yes	none
<u>UPLAND RUDERAL</u>				
	Aira caryophyllea	silver hairgrass	no	none
	Amsinckia menzeisii intermedia	common fiddleneck	yes	none
	Anagalis arvensis	scarlet pimpernel	no	none
	Avena barbata	slender wild oat	no	none
	Briza minor	little quakegrass	no	none
	Bromus diandrus	ripgut grass	no	none
	Bromus hordeaceus	soft cheat	no	none
	Bromus madritensis rubens	red brome	no	none
	Camissonia c. cheiranthifolia	beach evening primrose	yes	none
	Camissonia micrantha	miniature evening primrose	yes	none
	Cardionema ramosissimum	cardionema	yes	none
	Carpobrotus chilensis	sea fig	no	none
	Carpobrotus edulis	hottentot fig	no	none
	Castilleja c. exserta	purple owl's clover	yes	none
	Centaurea melitensis	localote	no	none
	Chorizanthe p. pungens	Monterey spineflower	yes	FT/-/1B
	Cirsium o. occidentale	cobwebby thistle	yes	none
	Crassula connata	pigmy weed	yes	none
	Croton californicus	California croton	yes	none
	Cryptantha clevelandii	Cleveland's cryptantha	yes	none
	Cryptantha leiocarpa	coast cryptantha	yes	none
	Ericameria ericoides	mock heather	yes	none
	Erodium botrys	storksbill	no	none
	Erodium cicutarium	red-stemmed filaree	no	none
	Filago gallica	narrow-leaved filago	no	none
	Gilia tenuiflora arenaria	sand gilia	yes	FE/CT/1B
	Gnaphalium luteo-album	weedy cudweed	no	none
	Gnaphalium ramosissimum	pink everlasting	yes	none
	Heterotheca grandiflora	telegraph weed	yes	none
	Hordeum murinum leporinum	fox-tail barley	no	none
	Hypochoeris glabra	smooth cat's-ear	no	none
	Layia platyglossa	tidy tips	yes	none
	Lessingia filaginifolia californica	California aster	yes	none
	Lotus scoparius	California broom	yes	none
	Lupinus nanus	sky lupine	yes	none
	Plantago coronopus	cut-leaved plantain	yes	none
	Plantago erecta	dwarf plantain	yes	none
	Plantago lanceolata	English plantain	no	none
	Psilocarphus t. tenellus	woolly marbles	yes	none
	Rumex acetocella	sheep sorrel	no	none
	Silene gallica	common catchfly	no	none
	Sisymbrium officinale	hedge mustard	no	none
	Vulpia bromoides	sixweeks fescue	no	none

Table B1-20. Plant Species Observed at Site 35
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<u>AREA</u>		Native to Area	Status /a/
Scientific name	Common name		
Vulpia m. myuros	rattail fescue	no	none

/a/ Regulatory status. See cover sheet for explanation.

Table B1-21. Plant Species Observed at Site 36
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

<u>AREA</u>		Native to Area	Status /a/
Scientific name	Common name		
<u>CENTRAL COASTAL SCRUB</u>			
Artemisia californica	California sagebrush	yes	none
Avena barbata	slender wild oat	no	none
Baccharis pilularis	coyote brush	yes	none
Brassica nigra	black mustard	no	none
Bromus diandrus	ripgut grass	no	none
Bromus madritensis rubens	red brome	no	none
Calyptidium monandrum	pussypaws	yes	none
Carpobrotus edulis	hottentot fig	no	none
Ericameria ericoides	mock heather	yes	none
Erodium cicutarium	red-stemmed filaree	no	none
Eschscholzia californica	California poppy	yes	none
Heterotheca grandiflora	telegraph weed	yes	none
Lotus scoparius	California broom	yes	none
Picris echioides	bristly ox-tongue	no	none
Rubus ursinus	California blackberry	yes	none
Salix laevigata	red willow	yes	none
Salix sp.	willow	yes	none
<u>LANDSCAPED</u>			
Carpobrotus edulis	hottentot fig	no	none
<u>UPLAND RUDERAL</u>			
Brassica nigra	black mustard	no	none

/a/ Regulatory status. See cover sheet for explanation.

Table B1-22. Plant Species Observed at Site 39
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

<u>AREA</u>	Scientific name	Common name	Native to Area	Status /a/
<u>COAST LIVE OAK WOODLAND</u>				
	<i>Achillea millefolium</i>	yarrow	yes	none
	<i>Agrostis pallens</i>	thingrass	yes	none
	<i>Anthriscus caucalis</i>	bur-chervil	no	none
	<i>Arctostaphylos t. tomentosa</i>	shaggy-barked manzanita	yes	none
	<i>Baccharis pilularis</i>	coyote brush	yes	none
	<i>Bowlesia incana</i>	bowlesia	yes	none
	<i>Bromus c. carinatus</i>	California brome	yes	none
	<i>Bromus diandrus</i>	ripgut grass	no	none
	<i>Bromus hordeaceus</i>	soft cheat	no	none
	<i>Cardionema ramosissimum</i>	cardionema	yes	none
	<i>Carduus pycnocephalus</i>	Italian thistle	no	none
	<i>Centaurea melitensis</i>	toçalote	no	none
	<i>Cerastium glomeratum</i>	sticky mouse-ear	no	none
	<i>Chenopodium californicum</i>	California chenopodium	yes	none
	<i>Chorizanthe p. pungens</i>	Monterey spineflower	yes	FT/--/1B
	<i>Cirsium o. occidentale</i>	cobwebby thistle	yes	none
	<i>Clarkia epiliboides</i>	willow-herb godetia	yes	none
	<i>Clarkia purpurea</i>	purple godetia	yes	none
	<i>Claytonia perfoliata</i>	miner's lettuce	yes	none
	<i>Croton californicus</i>	California croton	yes	none
	<i>Dryopteris arguta</i>	wood fern	yes	none
	<i>Ericameria ericoides</i>	mock heather	yes	none
	<i>Eriophyllum c. confertifolium</i>	golden-yarrow	yes	none
	<i>Festuca californica</i>	California fescue	yes	none
	<i>Filago gallica</i>	narrow-leaved filago	no	none
	<i>Gala californica</i>	California milkwort	yes	none
	<i>Galium aparine</i>	bedstraw	yes	none
	<i>Galium c. californica</i>	California bedstraw	yes	none
	<i>Galium p. porrigens</i>	climbing bedstraw	yes	none
	<i>Geranium dissectum</i>	cut-leaf geranium	no	none
	<i>Helianthemum scoparium</i>	peak rush-rose	yes	none
	<i>Horkelia c. cuneata</i>	wedge-leaf horkelia	yes	none
	<i>Horkelia cuneata sericea</i>	Kellogg's horkelia	yes	C2/--/1B
	<i>Hypochaeris glabra</i>	smooth cat's-ear	no	none
	<i>Iris sp.</i>	iris	yes	none
	<i>Lathyrus v. vestitus</i>	wild pea	yes	none
	<i>Leymus condensatus</i>	giant wild rye	yes	none
	<i>Leymus triticoides</i>	beardless wild-rye	yes	none
	<i>Lithophragma affinis</i>	woodland star	yes	none
	<i>Lotus scoparius</i>	California broom	yes	none
	<i>Lupinus arboreus</i>	yellow bush lupine	yes	none
	<i>Luzula comosa</i>	hairy wood rush	yes	none
	<i>Marah fabaceus</i>	California man-root	yes	none
	<i>Mimulus aurantiacus</i>	orange bush monkeyflower	yes	none
	<i>Monardella villosa</i>	coyote mint	yes	none

**Table B1-22. Plant Species Observed at Site 39
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<u>AREA</u>	Scientific name	Common name	Native to Area	Status /a/
	<i>Pentagramma t. triangularis</i>	gold-back fern	yes	none
	<i>Phacelia distans</i>	wild heliotrope	yes	none
	<i>Phacelia malvifolia</i>	stinging phacelia	yes	none
	<i>Pteridium aquilinum pubescens</i>	bracken fern	yes	none
	<i>Pterostegia drymarioides</i>	fairy mist	yes	none
	<i>Rhamnus c. californica</i>	California coffeeberry	yes	none
	<i>Ribes speciosum</i>	fuchsia-flowered gooseberry	yes	none
	<i>Rubus ursinus</i>	California blackberry	yes	none
	<i>Sanicula crassicaulis</i>	golden sanicle	yes	none
	<i>Silene gallica</i>	common catchfly	no	none
	<i>Silybum marianum</i>	milk thistle	no	none
	<i>Solanum umbelliferum</i>	blue witch	yes	none
	<i>Sonchus oleraceus</i>	common sow thistle	no	none
	<i>Stachys bullata</i>	California hedge nettle	yes	none
	<i>Stellaria media</i>	common chickweed	no	none
	<i>Symphoricarpos mollis</i>	creeping snowberry	yes	none
	<i>Torilis arvensis</i>	common torilis	no	none
	<i>Toxicodendron diversilobum</i>	western poison oak	yes	none
	<i>Vicia sativa</i>	spring vetch	no	none
	<i>Vicia v. villosa</i>	hairy spring vetch	yes	none
<u>CENTRAL MARITIME CHAPARRAL</u>				
	<i>Achillea millefolium</i>	yarrow	yes	none
	<i>Adenostoma fasciculatum</i>	chamise	yes	none
	<i>Agrostis pallens</i>	thingrass	yes	none
	<i>Aira caryophyllea</i>	silver hairgrass	no	none
	<i>Amsinckia menzeisii intermedia</i>	common fiddleneck	yes	none
	<i>Anagallis arvensis</i>	scarlet pimpernel	no	none
	<i>Arctostaphylos h. hookeri</i>	Hooker's manzanita	yes	none
	<i>Arctostaphylos montereyensis</i>	Monterey manzanita	yes	C2/--/1B
	<i>Arctostaphylos pumila</i>	sandmat manzanita	yes	C2/--/1B
	<i>Arctostaphylos t. tomentosa</i>	shaggy-barked manzanita	yes	none
	<i>Arctostaphylos tomentosa crinita</i>	woolly-leaved manzanita	yes	none
	<i>Artemisia californica</i>	California sagebrush	yes	none
	<i>Artemisia pycnocephala</i>	coastal sagewort	yes	none
	<i>Avena barbata</i>	slender wild oat	no	none
	<i>Baccharis pilularis</i>	coyote brush	yes	none
	<i>Briza minor</i>	little quakegrass	no	none
	<i>Bromus arenarius</i>	Australian chess	no	none
	<i>Bromus c. carinatus</i>	California brome	yes	none
	<i>Bromus diandrus</i>	ripgut grass	no	none
	<i>Bromus hordeaceus</i>	soft cheat	no	none
	<i>Bromus m. madritensis</i>	Spanish brome	no	none
	<i>Bromus madritensis rubens</i>	red brome	no	none
	<i>Bromus pseudolaevipes</i>	woodland brome	no	none
	<i>Bromus stamineus</i>	brome grass	no	none
	<i>Calochortus albus</i>	fairy lantern	yes	none

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AREA		Native to Area	Status /a/
Scientific name	Common name		
Camissonia c. cheiranthifolia	beach evening primrose	yes	none
Camissonia micrantha	miniature evening primrose	yes	none
Camissonia strigulosa	strigose evening primrose	yes	none
Cardionema ramosissimum	cardionema	yes	none
Carduus pycnocephalus	Italian thistle	no	none
Carex globosa	round-fruited sedge	yes	none
Castilleja foliosa	thread-leaved Indian paintbrush	yes	none
Ceanothus cuneatus rigidus	Monterey ceanothus	yes	C2/--/4
Ceanothus dentatus	cropleaf ceanothus	yes	none
Ceanothus thyrsiflorus	blue blossom	yes	none
Centaurea melitensis	toçalote	no	none
Chlorogalum p. pomeridianum	soap plant	yes	none
Chorizanthe p. pungens	Monterey spineflower	yes	FT/--/1B
Cirsium o. occidentale	cobwebby thistle	yes	none
Claytonia perfoliata	miner's lettuce	yes	none
Cortaderia jubata	jubata grass	no	none
Cortaderia selloana	pampas grass	no	none
Crassula connata	pygmy weed	yes	none
Croton californicus	California croton	yes	none
Cryptantha clevelandii	Cleveland's cryptantha	yes	none
Cryptantha intermedia	common cryptantha	yes	none
Cryptantha leiocarpa	coast cryptantha	yes	none
Dichelostemma c. capitatum	blue dicks	yes	none
Dichelostemma congestum	ookow	yes	none
Dodecatheon hendersonii	shooting star	yes	none
Elymus glaucus	blue wildrye	yes	none
Erechtites glomerata	fireweed	no	none
Ericameria ericoides	mock heather	yes	none
Eriodictyon californicum	yerba santa	yes	none
Eriogonum nudum	naked buckwheat	yes	none
Eriophyllum c. confertifolium	golden-yarrow	yes	none
Erodium botrys	storksbill	no	none
Erodium cicutarium	red-stemmed filaree	no	none
Eschscholzia californica	California poppy	yes	none
Festuca californica	California fescue	yes	none
Filago gallica	narrow-leaved filago	no	none
Frittilaria lanceolata	mission bells	yes	none
Gala californica	California milkwort	yes	none
Galium c. californica	California bedstraw	yes	none
Garrya elliptica	silk tassel	yes	none
Gilia angelensis	angel gilia	yes	none
Gilia tenuiflora arenaria	sand gilia	yes	FE/CT/1B
Gnaphalium californicum	California cudweed	yes	none
Gnaphalium canescens benolens	fragrant everlasting	yes	none
Gnaphalium luteo-album	weedy cudweed	no	none
Gnaphalium purpureum	purple cudweed	yes	none
Gnaphalium ramosissimum	pink everlasting	yes	none

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<u>AREA</u>		Native to Area	Status /a/
Scientific name	Common name		
<i>Helianthemum scoparium</i>	peak rush-rose	yes	none
<i>Heteromeles arbutifolia</i>	toyon	yes	none
<i>Heterotheca grandiflora</i>	telegraph weed	yes	none
<i>Hordeum marinum gussoneanum</i>	Mediterranean barley	no	none
<i>Hordeum murinum leporinum</i>	fox-tail barley	no	none
<i>Horkelia c. cuneata</i>	wedge-leaf horkelia	yes	none
<i>Horkelia cuneata sericea</i>	Kellogg's horkelia	yes	C2/--/1B
<i>Hypochaeris glabra</i>	smooth cat's-ear	no	none
<i>Layia hieracioides</i>	tall layia	yes	none
<i>Lepechinia calycina</i>	pitcher sage	yes	none
<i>Lepidium nitidum</i>	shinning peppergrass	yes	none
<i>Lessingia filaginifolia californica</i>	California aster	yes	none
<i>Lessingia glandulifera pectinata</i>	valley lessingia	yes	none
<i>Leymus triticoides</i>	beardless wild-rye	yes	none
<i>Linaria canadensis</i>	toadflax	no	none
<i>Lotus heermannii orbicularis</i>	Heermann's lotus	yes	none
<i>Lotus humistratus</i>	Colchita	yes	none
<i>Lotus scoparius</i>	California broom	yes	none
<i>Lotus strigosus</i>	strigose lotus	yes	none
<i>Lupinus arboreus</i>	yellow bush lupine	yes	none
<i>Lupinus bicolor</i>	minature lupine	yes	none
<i>Lupinus chamissonis</i>	Chamisso's bush lupine	yes	none
<i>Lupinus nanus</i>	sky lupine	yes	none
<i>Lupinus truncatus</i>	Nuttall's annual lupine	yes	none
<i>Luzula comosa</i>	hairy wood rush	yes	none
<i>Marah fabaceus</i>	California man-root	yes	none
<i>Melica californica</i>	California melic	yes	none
<i>Melica imperfecta</i>	coast onion grass	yes	none
<i>Mimulus aurantiacus</i>	orange bush monkeyflower	yes	none
<i>Nassella pulchra</i>	purple needlegrass	yes	none
<i>Navarretia atractyloides</i>	holly-leaved navarretia	yes	none
<i>Nemophila menzeisii</i>	baby-blue eyes	yes	none
<i>Pedicularis densiflora</i>	Indian warrior	yes	none
<i>Pentagramma t. triangularis</i>	gold-back fern	yes	none
<i>Phacelia distans</i>	wild heliotrope	yes	none
<i>Piperia sp.</i>	rein orchid	yes	undt.
<i>Plagiobothrys canescens</i>	popcornflower	yes	none
<i>Plagiobothrys collinus fulvescens</i>	popcornflower	yes	none
<i>Plantago erecta</i>	dwarf plantain	yes	none
<i>Poa annua</i>	annual blue grass	no	none
<i>Poa s. secunda</i>	one-sided bluegrass	yes	none
<i>Psilocarphus t. tenellus</i>	woolly marbles	yes	none
<i>Pteridium aquilinum pubescens</i>	bracken fern	yes	none
<i>Quercus a. agrifolia</i>	coast live oak	yes	none
<i>Quercus dumosa</i>	scrub oak	yes	none
<i>Rhamnus c. californica</i>	California coffeeberry	yes	none
<i>Ribes speciosum</i>	fuchsia-flowered gooseberry	yes	none

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<u>AREA</u>	Scientific name	Common name	Native to Area	Status /a/
	<i>Rosa spithamea</i>	ground rose	yes	none
	<i>Rubus ursinus</i>	California blackberry	yes	none
	<i>Sagina decumbens occidentalis</i>	western pearlwort	yes	none
	<i>Salvia mellifera</i>	black sage	yes	none
	<i>Sanicula laciniata</i>	cut-leaf sanicle	yes	none
	<i>Sanicula tuberosa</i>	tuberous sanicle	yes	none
	<i>Scutellaria tuberosa</i>	Danny's skullcap	yes	none
	<i>Silene gallica</i>	common catchfly	no	none
	<i>Sisymbrium officinale</i>	hedge mustard	no	none
	<i>Sisyrinchium bellum</i>	blue-eyed grass	yes	none
	<i>Solanum umbelliferum</i>	blue witch	yes	none
	<i>Sonchus asper</i>	prickly sowthistle	no	none
	<i>Stylocline gnaphaloides</i>	neststraw	yes	none
	<i>Symphoricarpos mollis</i>	creeping snowberry	yes	none
	<i>Toxicodendron diversilobum</i>	western poison oak	yes	none
	<i>Uropappus lindleyi</i>	silver puffs	yes	none
	<i>Vaccinium ovatum</i>	huckleberry	yes	none
	<i>Vicia v. villosa</i>	hairy spring vetch	yes	none
	<i>Vulpia bromoides</i>	sixweeks fescue	no	none
	<i>Vulpia m. myuros</i>	rattail fescue	no	none
	<i>Vulpia octoflora hirtella</i>	slender fescue	no	none
	<i>Zigadenus fremontii</i>	Fremont's death camas	yes	none
<u>LANDSCAPED</u>				
	<i>Eucalyptus globulus</i>	blue gum	no	none
<u>SEASONALLY WET GRASSLAND</u>				
	<i>Achillea millefolium</i>	yarrow	yes	none
	<i>Aira caryophylla</i>	silver hairgrass	no	none
	<i>Artemisia douglasiana</i>	mugwort	yes	none
	<i>Athysanus pusillus</i>	dwarf athysanus	yes	none
	<i>Berberis cf. p. pinnata</i>	California barberry	yes	none
	<i>Bromus diandrus</i>	ripgut grass	no	none
	<i>Calandrinia ciliata</i>	red maids	yes	none
	<i>Camissonia ovata</i>	sun cup	yes	none
	<i>Capsella bursa-pastoris</i>	shepherd's purse	no	none
	<i>Castilleja e. exserta</i>	purple owl's clover	yes	none
	<i>Chorizanthe p. pungens</i>	Monterey spineflower	yes	FT/-/1B
	<i>Croton californicus</i>	California croton	yes	none
	<i>Dichelostemma c. capitatum</i>	blue dicks	yes	none
	<i>Erodium botrys</i>	storksbill	no	none
	<i>Erodium cicutarium</i>	red-stemmed filaree	no	none
	<i>Erodium moschatum</i>	white-stemmed filaree	no	none
	<i>Eschscholzia californica</i>	California poppy	yes	none
	<i>Filago gallica</i>	narrow-leaved filago	no	none
	<i>Holcus lanatus</i>	common velvet grass	no	none
	<i>Hordeum brachyantherum</i>	meadow barley	yes	none

Table B1-22. Plant Species Observed at Site 39
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<u>AREA</u>			Native to Area	Status <i>1a/</i>
	Scientific name	Common name		
	<i>Hypochaeris glabra</i>	smooth cat's-ear	no	none
	<i>Layia platyglossa</i>	tidy tips	yes	none
	<i>Lepidium nitidum</i>	shinning peppergrass	yes	none
	<i>Leymus triticoides</i>	beardless wild-rye	yes	none
	<i>Lolium perenne</i>	perennial ryegrass	no	none
	<i>Lotus humistratus</i>	Colchita	yes	none
	<i>Lupinus arboreus</i>	yellow bush lupine	yes	none
	<i>Lupinus bicolor</i>	minature lupine	yes	none
	<i>Lupinus nanus</i>	sky lupine	yes	none
	<i>Malvella leprosa</i>	alkali mallow	yes	none
	<i>Medicago polymorpha</i>	California burclover	no	none
	<i>Nassella pulchra</i>	purple needlegrass	yes	none
	<i>Nemophila menzeisii</i>	baby-blue eyes	yes	none
	<i>Plantago coronopus</i>	cut-leaved plantain	no	none
	<i>Platystemon californicus</i>	cream cups	yes	none
	<i>Poa annua</i>	annual blue grass	no	none
	<i>Polygomon speliensis</i>	annual beard grass	no	none
	<i>Pteridium aquilinum pubescens</i>	bracken fern	yes	none
	<i>Ranunculus californica</i>	California buttercup	yes	none
	<i>Rumex acetosella</i>	sheep sorrel	no	none
	<i>Solidago cf. californica</i>	California goldenrod	yes	none
	<i>Thysanocarpus curvipes</i>	lacepod	yes	none
	<i>Trifolium dubium</i>	little hop clover	no	none
	<i>Triphysaria pusilla</i>	dwarf owls-clover	yes	none
	<i>Uropappus lindleyi</i>	silver puffs	yes	none
	<i>Vicia sativa</i>	spring vetch	no	none
<u>UPLAND RUDERAL</u>				
	<i>Avena barbata</i>	slender wild oat	no	none
	<i>Baccharis pilularis</i>	coyote brush	yes	none
	<i>Bromus diandrus</i>	ripgut grass	no	none
	<i>Bromus hordeaceus</i>	soft cheat	no	none
	<i>Bromus m. madritensis</i>	Spanish brome	no	none
	<i>Bromus madritensis rubens</i>	red brome	no	none
	<i>Camissonia c. cheiranthifolia</i>	beach evening primrose	yes	none
	<i>Camissonia micrantha</i>	miniature evening primrose	yes	none
	<i>Camissonia strigulosa</i>	strigose evening primrose	yes	none
	<i>Capsella bursa-pastoris</i>	shepherd's purse	no	none
	<i>Cardionema ramosissimum</i>	cardionema	yes	none
	<i>Carpobrotus chilensis</i>	sea fig	no	none
	<i>Carpobrotus edulis</i>	hottentot fig	no	none
	<i>Cerastium glomeratum</i>	sticky mouse-ear	no	none
	<i>Chamomilla suaveolens</i>	pineapple weed	no	none
	<i>Cirsium vulgare</i>	bull thistle	no	none
	<i>Conyza bonariensis</i>	little horseweed	no	none
	<i>Conyza canadensis</i>	horseweed	no	none
	<i>Croton californicus</i>	California croton	yes	none

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<u>AREA</u>	Scientific name	Common name	Native to Area	Status /a/
	<i>Erodium botrys</i>	storksbill	no	none
	<i>Erodium cicutarium</i>	red-stemmed filaree	no	none
	<i>Erodium moschatum</i>	white-stemmed filaree	no	none
	<i>Filago gallica</i>	narrow-leaved filago	no	none
	<i>Gilia tenuiflora arenaria</i>	sand gilia	yes	FE/CT/1B
	<i>Gnaphalium luteo-album</i>	weedy cudweed	no	none
	<i>Gnaphalium purpureum</i>	purple cudweed	yes	none
	<i>Heterotheca grandiflora</i>	telegraph weed	yes	none
	<i>Horkelia c. cuneata</i>	wedge-leaf horkelia	yes	none
	<i>Horkelia cuneata sericea</i>	Kellogg's horkelia	yes	C2/-/1B
	<i>Hypochaeris glabra</i>	smooth cat's-ear	no	none
	<i>Lepidium nitidum</i>	shinning peppergrass	yes	none
	<i>Lessingia filaginifolia californica</i>	California aster	yes	none
	<i>Lotus scoparius</i>	California broom	yes	none
	<i>Medicago polymorpha</i>	California burclover	no	none
	<i>Melilotus indica</i>	sour clover	no	none
	<i>Pennisetum clandestinum</i>	kikuyu grass	no	none
	<i>Plantago coronopus</i>	cut-leaved plantain	no	none
	<i>Sisymbrium officinale</i>	hedge mustard	no	none
	<i>Vulpia m. myuros</i>	rattail fescue	no	none
	<i>Vulpia octoflora hirtella</i>	slender fescue	no	none
<u>VERNAL POOL</u>				
	<i>Alopecurus geniculatus</i>	water foxtail	yes	none
	<i>Eleocharis montevidensis</i>	Dombey's spikerush	yes	none
	<i>Hordeum brachyantherum</i>	meadow foxtail	yes	none
	<i>Juncus b. bufonius</i>	toadrush	yes	none
	<i>Lamium amplexicaule</i>	henbit	no	none
	<i>Lasthenia californica</i>	California goldfields	yes	none
	<i>Lasthenia glaberrima</i>	rayless goldfields	yes	none
	<i>Layia platyglossa</i>	tidy tips	yes	none
	<i>Malvella leprosa</i>	alkali mallow	yes	none
	<i>Plagiobothrys chorisianus hickmanii</i>	Hickmans popcornflower	yes	none
	<i>Polypogon monspeliensis</i>	annual beard grass	no	none
	<i>Psilocarpus tenellus globiferous</i>	round-woolly marbles	yes	none
	<i>Stachys a. ajugoides</i>	bugle hedge nettle	yes	none
	<i>Trifolium cyathiferum</i>	bowl clover	yes	none
	<i>Trifolium d. depauperatum</i>	balloon clover	yes	none
<u>WET RUDERAL</u>				
	<i>Baccharis douglasii</i>	marsh baccharis	yes	none
	<i>Carex barbarae</i>	Santa Barbara sedge	yes	none
	<i>Carex tumicola</i>	foot-hill sedge	yes	none
	<i>Conium maculatum</i>	poison hemlock	no	none
	<i>Distichlis spicata</i>	saltgrass	yes	none
	<i>Eleocharis macrostachya</i>	pale spikerush	yes	none
	<i>Eleocharis montevidensis</i>	Dombey's spikerush	yes	none

**Table B1-22. Plant Species Observed at Site 39
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<u>AREA</u>			Native to Area	Status /a/
Scientific name	Common name			
Eryngium cf. vaseyii	coyote-thistle		yes	none
Holcus lanatus	common velvet grass		no	none
Juncus b. bufonius	toadrush		yes	none
Juncus p. phaeocephalus	brown-headed rush		yes	none
Juncus patens	spreading rush		yes	none
Juncus rugulosus	wrinkled rush		yes	none
Lythrum hyssopifolium	loosestrife		no	none
Rumex crispus	curly dock		no	none
Rumex salicifolius crassus	willow-leaf dock		yes	none
Scirpus acutus occidentalis	tule		yes	none
Scirpus koilolepis	keeled clubrush		yes	none
Stachys a. ajugoides	bugle hedge nettle		yes	none
Typha latifolia	broad-leaved cattail		yes	none
Urtica dioica holoserica	nettle		yes	none

/a/ Regulatory status. See cover sheet for explanation.

Table B1-23. Plant Species Observed at Site 40
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<u>AREA</u>		Native	
Scientific name	Common name	to	Status /a/
		Area	
<u>CENTRAL COASTAL SCRUB</u>			
<i>Achillea millefolium</i>	yarrow	yes	none
<i>Aira caryophylla</i>	silver hairgrass	no	none
<i>Amsinckia menzeisii intermedia</i>	common fiddleneck	yes	none
<i>Arctostaphylos pumila</i>	sandmat manzanita	yes	C2/-/1B
<i>Arctostaphylos t. tomentosa</i>	shaggy-barked manzanita	yes	none
<i>Artemisia californica</i>	California sagebrush	yes	none
<i>Avena barbata</i>	slender wild oat	no	none
<i>Baccharis pilularis</i>	coyote brush	yes	none
<i>Bromus diandrus</i>	ripgut grass	no	none
<i>Bromus hordeaceus</i>	soft cheat	no	none
<i>Bromus madritensis rubens</i>	red brome	no	none
<i>Camissonia c. cheiranthifolia</i>	beach evening primrose	yes	none
<i>Camissonia micrantha</i>	miniature evening primrose	yes	none
<i>Cardionema ramosissimum</i>	cardionema	yes	none
<i>Carex globosa</i>	round-fruited sedge	yes	none
<i>Chorizanthe p. pungens</i>	Monterey spineflower	yes	FT/-/1B
<i>Cirsium o. occidentale</i>	cobwebby thistle	yes	none
<i>Croton californicus</i>	California croton	yes	none
<i>Cryptantha clevelandii</i>	Cleveland's cryptantha	yes	none
<i>Cryptantha leiocarpa</i>	coast cryptantha	yes	none
<i>Ericameria ericoides</i>	mock heather	yes	none
<i>Eriophyllum c. confertifolium</i>	golden-yarrow	yes	none
<i>Erodium botrys</i>	storks-bill	no	none
<i>Erodium cicutarium</i>	red-stemmed filaree	no	none
<i>Filago gallica</i>	narrow-leaved filago	no	none
<i>Gilia tenuiflora arenaria</i>	sand gilia	yes	FE/CT/1B
<i>Gnaphalium ramosissimum</i>	pink everlasting	yes	none
<i>Helianthemum scoparium</i>	peak rush-rose	yes	none
<i>Heterotheca grandiflora</i>	telegraph weed	yes	none
<i>Hordeum murinum leporinum</i>	fox-tail barley	no	none
<i>Horkelia c. cuneata</i>	wedge-leaf horkelia	yes	none
<i>Hypochaeris glabra</i>	smooth cat's-ear	no	none
<i>Layia hieracioides</i>	tall layia	yes	none
<i>Lessingia filaginifolia californica</i>	California aster	yes	none
<i>Lotus scoparius</i>	California broom	yes	none
<i>Marah fabaceus</i>	California man-root	yes	none
<i>Melica imperfecta</i>	coast onion grass	yes	none
<i>Monardella undulata</i>	curly-leaved coyotemint	yes	none
<i>Pectocarya linearis ferocula</i>	common pectocarya	yes	none
<i>Phacelia distans</i>	wild heliotrope	yes	none
<i>Plantago erecta</i>	dwarf plantain	yes	none
<i>Psilocarphus t. tenellus</i>	woolly marbles	yes	none
<i>Rhamnus c. californica</i>	California coffeeberry	yes	none
<i>Solanum umbelliferum</i>	blue witch	yes	none
<i>Toxicodendron diversilobum</i>	western poison oak	yes	none

Table B1-23. Plant Species Observed at Site 40
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<u>AREA</u>	Scientific name	Common name	Native to Area	Status /a/
	Uropappus lindleyi	silver puffs	yes	none
<u>COAST LIVE OAK WOODLAND</u>				
	Achillea millefolium	yarrow	yes	none
	Aira caryophylla	silver hairgrass	no	none
	Anthriscus caucalis	bur-chervil	no	none
	Avena barbata	slender wild oat	no	none
	Bowlesia incana	bowlesia	yes	none
	Bromus diandrus	ripgut grass	no	none
	Bromus hordeaceus	soft cheat	no	none
	Carpobrotus chilensis	sea fig	no	none
	Carpobrotus edulis	hottentot fig	no	none
	Centaurea melitensis	toçalote	no	none
	Cirsium o. occidentale	cobwebby thistle	yes	none
	Claytonia perfoliata	miner's lettuce	yes	none
	Cryptantha clevelandii	Cleveland's cryptantha	yes	none
	Cryptantha leiocarpa	coast cryptantha	yes	none
	Eriophyllum c. confertifolium	golden-yarrow	yes	none
	Erodium cicutarium	red-stemmed filaree	no	none
	Galium aparine	bedstraw	yes	none
	Galium c. californica	California bedstraw	yes	none
	Galium p. porrigens	climbing bedstraw	yes	none
	Horkelia c. cuneata	wedge-leaf horkelia	yes	none
	Hypochaeris glabra	smooth cat's-ear	no	none
	Marah fabaceus	California man-root	yes	none
	Melica imperfecta	coast onion grass	yes	none
	Mimulus aurantiacus	orange bush monkeyflower	yes	none
	Pectocarya lineraris ferocula	common pectocarya	yes	none
	Phacelia distans	wild heliotrope	yes	none
	Phacelia malvifolia	stinging phacelia	yes	none
	Pholistoma a. auritum	fiesta flower	yes	none
	Plantago erecta	dwarf plantain	yes	none
	Quercus a. agrifolia	coast live oak	yes	none
	Rubus ursinus	California blackberry	yes	none
	Sanicula crassicaulis	golden sanicle	yes	none
	Silene gallica	common catchfly	no	none
	Sisyrinchium bellum	blue-eyed grass	yes	none
	Solanum umbelliferum	blue witch	yes	none
	Stachys bullata	California hedge nettle	yes	none
	Symphoricarpos mollis	creeping snowberry	yes	none
	Toxicodendron diversilobum	western poison oak	yes	none
	Uropappus lindleyi	silver puffs	yes	none
<u>CENTRAL MARITIME CHAPARRAL</u>				
	Achillea millefolium	yarrow	yes	none
	Adenostoma fasciculatum	chamise	yes	none
	Aira caryophylla	silver hairgrass	no	none

Table B1-23. Plant Species Observed at Site 40
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<u>AREA</u>		Native	
Scientific name	Common name	to	Status /a/
		Area	
Arctostaphylos pumila	sandmat manzanita	yes	C2/--/1B
Arctostaphylos t. tomentosa	shaggy-barked manzanita	yes	none
Artemisia californica	California sagebrush	yes	none
Baccharis pilularis	coyote brush	yes	none
Bromus hordeaceus	soft cheat	no	none
Bromus madritensis rubens	red brome	no	none
Camissonia c. cheiranthifolia	beach evening primrose	yes	none
Camissonia micrantha	miniature evening primrose	yes	none
Cardionema ramosissimum	cardionema	yes	none
Carex globosa	round-fruited sedge	yes	none
Chorizanthe p. pungens	Monterey spineflower	yes	FT/--/1B
Cirsium o. occidentale	cobwebby thistle	yes	none
Croton californicus	California croton	yes	none
Cryptantha clevelandii	Cleveland's cryptantha	yes	none
Cryptantha leiocarpa	coast cryptantha	yes	none
Ericameria ericoides	mock heather	yes	none
Eriophyllum c. confertifolium	golden-yarrow	yes	none
Erodium botrys	storksbill	no	none
Erodium cicutarium	red-stemmed filaree	no	none
Filago gallica	narrow-leaved filago	no	none
Galium c. californica	California bedstraw	yes	none
Gilia tenuiflora arenaria	sand gilia	yes	FE/CT/1B
Gnaphalium purpureum	purple cudweed	yes	none
Gnaphalium ramosissimum	pink everlasting	yes	none
Helianthemum scoparium	peak rush-rose	yes	none
Heterotheca grandiflora	telegraph weed	yes	none
Hordeum murinum leporinum	fox-tail barley	no	none
Horkelia c. cuneata	wedge-leaf horkelia	yes	none
Hypochaeris glabra	smooth cat's-ear	no	none
Layia hieracioides	tall layia	yes	none
Lessingia filaginifolia californica	California aster	yes	none
Lessingia glandulifera pectinata	valley lessingia	yes	none
Lotus scoparius	California broom	yes	none
Melica imperfecta	coast onion grass	yes	none
Mimulus aurantiacus	orange bush monkeyflower	yes	none
Monardella undulata	curly-leaved coyotemint	yes	none
Pectocarya lineraris ferocula	common pectocarya	yes	none
Phacelia distans	wild heliotrope	yes	none
Plantago erecta	dwarf plantain	yes	none
Psilocarphus t. tenellus	woolly marbles	yes	none
Rhamnus c. californica	California coffeeberry	yes	none
Salvia mellifera	black sage	yes	none
Solanum umbelliferum	blue witch	yes	none
Toxicodendron diversilobum	western poison oak	yes	none
Uropappus lindleyi	silver puffs	yes	none

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Table B1-23. Plant Species Observed at Site 40
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<u>AREA</u>		Native to Area	Status /a/
Scientific name	Common name		
Abelia grandiflora	glossy abelia	no	none
Bromus diandrus	ripgut grass	no	none
Bromus hordeaceus	soft cheat	no	none
Bromus madritensis rubens	red brome	no	none
Carpobrotus chilensis	sea fig	no	none
Carpobrotus edulis	hottentot fig	no	none
Erodium botrys	storksbill	no	none
Erodium cicutarium	red-stemmed filaree	no	none
Eucalyptus lehmannii	bushy yate	no	none
Festuca rubra	red fescue	no	none
Heterotheca grandiflora	telegraph weed	yes	none
Hordeum murinum leporinum	fox-tail barley	no	none
Hypochaeris glabra	smooth cat's-ear	no	none
Lobularia maritima	sweet alyssum	no	none
Lyonothamnus floribundus	Catalina ironwood	no	none
Medicago polymorpha	California burclover	no	none
Oxalis pres-caprae	Bermuda buttercup	no	none
Pelargonium domesticum	regal geranium	no	none
Pennisetum clandestinum	kikuyu grass	no	none
Pitosporum tobira	tobira	no	none
Vulpia bromoides	sixweeks fescue	no	none
Vulpia m. myuros	rattail fescue	no	none
<u>UPLAND RUDERAL</u>			
Aira caryophyllea	silver hairgrass	no	none
Amsinckia menzeisii intermedia	common fiddleneck	yes	none
Anagalis arvensis	scarlet pimpernel	no	none
Avena barbata	slender wild oat	no	none
Briza minor	little quakegrass	no	none
Bromus arenarius	Australian chess	no	none
Bromus diandrus	ripgut grass	no	none
Bromus hordeaceus	soft cheat	no	none
Bromus madritensis rubens	red brome	no	none
Camissonia c. cheiranthifolia	beach evening primrose	yes	none
Camissonia micrantha	miniature evening primrose	yes	none
Cardionema ramosissimum	cardionema	yes	none
Carpobrotus chilensis	sea fig	no	none
Carpobrotus edulis	hottentot fig	no	none
Centaurea melitensis	toalote	no	none
Chorizanthe p. pungens	Monterey spineflower	yes	FT/-/1B
Cirsium o. occidentale	cobwebby thistle	yes	none
Crassula connata	pigmy weed	yes	none
Croton californicus	California croton	yes	none
Cryptantha clevelandii	Cleveland's cryptantha	yes	none
Cryptantha leiocarpa	coast cryptantha	yes	none
Ericameria ericoides	mock heather	yes	none
Erodium botrys	storksbill	no	none

Table B1-23. Plant Species Observed at Site 40
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<u>AREA</u>			Native to Area	Status /a/
	Scientific name	Common name		
	<i>Erodium cicutarium</i>	red-stemmed filaree	no	none
	<i>Filago gallica</i>	narrow-leaved filago	no	none
	<i>Gilia tenuiflora arenaria</i>	sand gilia	yes	FE/CT/1B
	<i>Gnaphalium luteo-album</i>	weedy cudweed	no	none
	<i>Gnaphalium ramosissimum</i>	pink everlasting	yes	none
	<i>Heterotheca grandiflora</i>	telegraph weed	yes	none
	<i>Hordeum murinum leporinum</i>	fox-tail barley	no	none
	<i>Hypochaeris glabra</i>	smooth cat's-ear	no	none
	<i>Lessingia filaginifolia californica</i>	California aster	yes	none
	<i>Lotus heermannii orbicularis</i>	Heermann's lotus	yes	none
	<i>Lotus humistratus</i>	Colchita	yes	none
	<i>Lotus scoparius</i>	California broom	yes	none
	<i>Lupinus arboreus</i>	yellow bush lupine	yes	none
	<i>Madia exigua</i>	thread-stem madia	yes	none
	<i>Pectocarya linearis ferocula</i>	common pectocarya	yes	none
	<i>Plantago coronopus</i>	cut-leaved plantain	yes	none
	<i>Plantago erecta</i>	dwarf plantain	yes	none
	<i>Plantago lanceolata</i>	English plantain	no	none
	<i>Psilocarphus t. tenellus</i>	woolly marbles	yes	none
	<i>Rumex acetocella</i>	sheep sorrel	no	none
	<i>Rumex crispus</i>	curly dock	no	none
	<i>Silene gallica</i>	common catchfly	no	none
	<i>Sisymbrium officinale</i>	hedge mustard	no	none
	<i>Sonchus asper</i>	prickly sow thistle	no	none
	<i>Sonchus oleraceus</i>	common sow thistle	no	none
	<i>Vulpia bromoides</i>	sixweeks fescue	no	none
	<i>Vulpia m. myuros</i>	rattail fescue	no	none
<u>VALLEY NEEDLEGRASS</u>				
	<i>Achillea millefolium</i>	yarrow	yes	none
	<i>Aira caryophyllea</i>	silver hairgrass	no	none
	<i>Amsinckia menzeisii intermedia</i>	common fiddleneck	yes	none
	<i>Armeria maritima californica</i>	sea-pink	yes	none
	<i>Avena barbata</i>	slender wild oat	no	none
	<i>Bromus diandrus</i>	ripgut grass	no	none
	<i>Bromus hordeaceus</i>	soft cheat	no	none
	<i>Bromus madritensis rubens</i>	red brome	no	none
	<i>Calystegia collina venusta</i>	South Coast Range morning glory	yes	none
	<i>Camissonia c. cheiranthifolia</i>	beach evening primrose	yes	none
	<i>Camissonia micrantha</i>	miniature evening primrose	yes	none
	<i>Cardionema ramosissimum</i>	cardionema	yes	none
	<i>Carpobrotus chilensis</i>	sea fig	no	none
	<i>Carpobrotus edulis</i>	hottentot fig	no	none
	<i>Castilleja e. exserta</i>	purple owl's clover	yes	none
	<i>Chorizanthe p. pungens</i>	Monterey spineflower	yes	FT/-/1B
	<i>Croton californicus</i>	California croton	yes	none
	<i>Cryptantha clevelandii</i>	Cleveland's cryptantha	yes	none

Table B1-23. Plant Species Observed at Site 40
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<u>AREA</u>		Native	
Scientific name	Common name	to	Status /a/
		Area	
<i>Cryptantha leiocarpa</i>	coast cryptantha	yes	none
<i>Ericameria ericoides</i>	mock heather	yes	none
<i>Eriophyllum c. confertifolium</i>	golden-yarrow	yes	none
<i>Erodium botrys</i>	storksbill	no	none
<i>Erodium cicutarium</i>	red-stemmed filaree	no	none
<i>Eschscholzia californica</i>	California poppy	yes	none
<i>Heterotheca grandiflora</i>	telegraph weed	yes	none
<i>Hypochaeris glabra</i>	smooth cat's-ear	no	none
<i>Layia hieracioides</i>	tall layia	yes	none
<i>Layia platyglossa</i>	tidy tips	yes	none
<i>Lessingia filaginifolia californica</i>	California aster	yes	none
<i>Lotus heermannii orbicularis</i>	Heermann's lotus	yes	none
<i>Lupinus nanus</i>	sky lupine	yes	none
<i>Plantago coronopus</i>	cut-leaved plantain	no	none
<i>Plantago erecta</i>	dwarf plantain	yes	none
<i>Polygonum paronychia</i>	beach knotweed	yes	none
<i>Rumex acetocella</i>	sheep sorrel	no	none
<i>Uropappus lindleyi</i>	silver puffs	yes	none
<i>Vulpia bromoides</i>	sixweeks fescue	no	none
<i>Vulpia m. myuros</i>	rattail fescue	no	none

/a/ Regulatory status. See cover sheet for explanation.

Table B1-24. Plant Species Observed at Site 41
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<u>AREA</u>	Scientific name	Common name	Native to Area	Status /a/
<u>COAST LIVE OAK WOODLAND</u>				
	Claytonia perfoliata	miner's lettuce	yes	none
	Dryopteris arguta	wood fern	yes	none
	Lotus p. purshianus	Pursh's lotus	yes	none
	Mimulus aurantiacus	orange bush monkeyflower	yes	none
	Navarretia atractyloides	holly-leaved navarretia	yes	none
	Pentagramma t. triangularis	gold-back fern	yes	none
	Pteridium aquilinum pubescens	bracken fern	yes	none
	Quercus a. agrifolia	coast live oak	yes	none
	Rubus ursinus	California blackberry	yes	none
	Sanicula crassicaulis	golden sanicle	yes	none
	Silene gallica	common catchfly	no	none
	Toxicodendron diversilobum	western poison oak	yes	none
<u>CENTRAL MARITIME CHAPARRAL</u>				
	Achillea millefolium	yarrow	yes	none
	Adenostoma fasciculatum	chamise	yes	none
	Arctostaphylos g. glandulosa	Eastwood manzanita	yes	none
	Arctostaphylos montereyensis	Monterey manzanita	yes	C2/--/1B
	Artemisia californica	California sagebrush	yes	none
	Avena barbata	slender wild oat	no	none
	Baccharis pilularis	coyote brush	yes	none
	Brassica nigra	black mustard	no	none
	Bromus madritensis rubens	red brome	no	none
	Carex globosa	round-fruited sedge	yes	none
	Castilleja brevistyla	short-styled paintbrush	yes	none
	Ceanothus cuneatus rigidus	Monterey ceanothus	yes	C2/--/4
	Chlorogalum p. pomeridianum	soap plant	yes	none
	Cortaderia seloana	pampus grass	no	none
	Danthonia californica	California oatgrass	yes	none
	Deschampsia danthonioides	annual hairgrass	yes	none
	Dodecatheon hendersonii	shooting star	yes	none
	Ericameria ericoides	mock heather	yes	none
	Erodium botrys	storksbill	no	none
	Festuca californica	California fescue	yes	none
	Filago gallica	narrow-leaved filago	no	none
	Galium p. porrigens	climbing bedstraw	yes	none
	Gnaphalium purpureum	purple cudweed	yes	none
	Gnaphalium ramosissimum	pink everlasting	yes	none
	Helianthemum scoparium	peak rush-rose	yes	none
	Heteromeles arbutifolia	toyon	yes	none
	Heterotheca grandiflora	telegraph weed	yes	none
	Hordeum marinum gussoneanum	Mediterranean barley	no	none
	Horkelia c. cuneata	wedge-leaf horkelia	yes	none
	Layia hieracioides	tall layia	yes	none
	Lessingia glandulifera pectinata	valley lessingia	yes	none

Table B1-24. Plant Species Observed at Site 41
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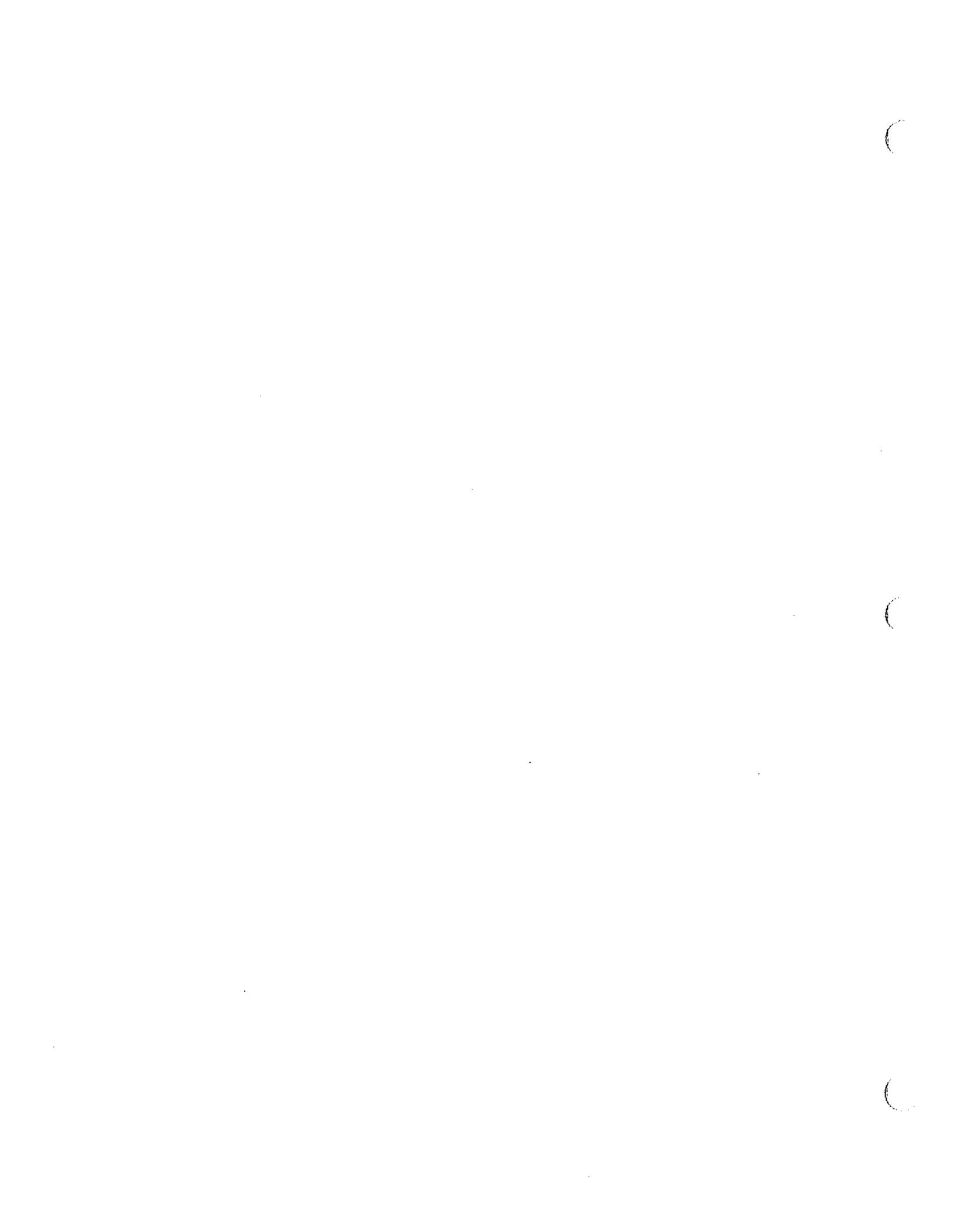
<u>AREA</u>	Scientific name	Common name	Native to Area	Status /a/
	Lotus scoparius	California broom	yes	none
	Mimulus aurantiacus	orange bush monkeyflower	yes	none
	Navarretia atractyloides	holly-leaved navarretia	yes	none
	Salvia mellifera	black sage	yes	none
	Satureja douglasii	yerba-buena	yes	none
	Stachys bullata	California hedge nettle	yes	none
<u>UPLAND RUDERAL</u>				
	Aira caryophylla	silver hairgrass	no	none
	Amsinckia menzeisii intermedia	common fiddleneck	yes	none
	Anagalis arvensis	scarlet pimpernel	no	none
	Briza minor	little quakegrass	no	none
	Bromus arenarius	Australian chess	no	none
	Bromus diandrus	ripgut grass	no	none
	Bromus hordeaceus	soft cheat	no	none
	Camissonia ovata	sun cup	yes	none
	Cardamine oligosperma	bitter-cress	yes	none
	Carpobrotus edulis	hottentot fig	no	none
	Centaurea melitensis	toçalote	no	none
	Clarkia purpurea quadrivulnera	four-spot	yes	none
	Cotula coronopifolia	brass buttons	no	none
	Filago gallica	narrow-leaved filago	no	none
	Gastridium ventricosum	nit grass	no	none
	Genista monspessulana	French broom	no	none
	Gnaphalium luteo-album	weedy cudweed	no	none
	Hypochaeris glabra	smooth cat's-ear	no	none
	Hypochaeris radicata	rough cat's-ear	no	none
	Leymus triticoides	beardless wild-rye	yes	none
	Lotus humistratus	Colchita	yes	none
	Lupinus arboreus	yellow bush lupine	yes	none
	Madia exigua	thread-stem madia	yes	none
	Nassella lepida	foothill needlegrass	yes	none
	Nassella pulchra	purple needlegrass	yes	none
	Navarretia atractyloides	holly-leaved navarretia	yes	none
	Poa s. secunda	one-sided bluegrass	yes	none
	Psilocarphus t. tenellus	woolly marbles	yes	none
	Rumex acetocella	sheep sorrel	no	none
	Silene gallica	common catchfly	no	none
	Sisymbrium officinale	hedge mustard	no	none
	Sisyrinchium bellum	blue-eyed grass	yes	none
	Sonchus asper	prickly sow thistle	no	none
	Sonchus oleraceus	common sow thistle	no	none
	Trifolium hirtum	rose clover	no	none
	Triphysaria pusilla	dwarf owls-clover	yes	none
	Vicia v. villosa	hairy spring vetch	no	none

WET RUDERAL

Table B1-24. Plant Species Observed at Site 41
Volume IV - Ecological Risk Assessment, Basewide RI/FS
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<u>AREA</u>			Native to Area	Status /a/
Scientific name	Common name			
<i>Cicendia quadrangularis</i>	common cicendia		yes	none
<i>Conium maculatum</i>	poison hemlock		no	none
<i>Deschampsia danthonioides</i>	annual hairgrass		yes	none
<i>Eleocharis montevidensis</i>	Dombey's spikerush		yes	none
<i>Hordeum marinum gussoneanum</i>	Mediterranean barley		no	none
<i>Juncus b. bufonius</i>	toadrush		yes	none
<i>Juncus bufonius occidentalis</i>	toad rush		yes	none
<i>Juncus p. phaeocephalus</i>	brown-headed rush		yes	none
<i>Lasthenia g. glabrata</i>	yellow-ray goldfields		yes	none
<i>Layia platyglossa</i>	tidy tips		yes	none
<i>Linanthus biglovii</i>	Bigelow's linanthus		yes	none
<i>Lythrum hyssopifolium</i>	loosestrife		no	none
<i>Medicago polymorpha</i>	California burclover		no	none
<i>Plagiobothrys chorisianus hickmanii</i>	Hickmans popcornflower		yes	none
<i>Plantago coronopus</i>	cut-leaved plantain		no	none
<i>Plantago maritima</i>	maritime plantain		yes	none
<i>Pogogyne serpylloides</i>	thyme-like mesamint		yes	none
<i>Polypogon monspeliensis</i>	annual beard grass		no	none
<i>Psilocarpus tenellus globiferous</i>	round-woolly marbles		yes	none
<i>Rumex crispus</i>	curly dock		no	none
<i>Rumex salicifolius crassus</i>	willow-leaf dock		yes	none
<i>Salix laevigata</i>	red willow		yes	none
<i>Salix lasiolepis</i>	arroyo willow		yes	none
<i>Stachys bullata</i>	California hedge nettle		yes	none
<i>Trifolium cyathiferum</i>	bowl clover		yes	none
<i>Trifolium d. depauperatum</i>	balloon clover		yes	none

/a/ Regulatory status. See cover sheet for explanation.



**Table B2-1. Animals Observed and Expected in the Vicinity of Site 1
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
<u>AVES</u>				
ACCIPITRIDAE				
Buteo jamaicensis	red-tailed hawk	X		
CATHARTIDAE				
Cathartes aura	turkey vulture	X		
CHARADRIIDAE				
Charadrius vociferus	killdeer		X	
COLUMBIDAE				
Columba livia	rock dove	X		
Zenaida macroura	mourning dove	X		
CORVIDAE				
Corvus brachyrhynchos	American crow		X	
EMBERIZIDAE				
Agelaius phoeniceus	red-winged blackbird	X		
Dendroica coronata	yellow-rumped warbler	X		
Euphagus cyanocephalus	Brewer's blackbird		X	
Melospiza melodia	song sparrow		X	
Zonotrichia leucophrys	white-crowned sparrow	X		
FALCONIDAE				
Falco columbarius	merlin		X	CSC
Falco sparverius	American kestrel		X	
FRINGILLIDAE				
Carpodacus mexicanus	house finch	X		
HIRUNDINIDAE				
Hirundo pyrrhonota	cliff swallow		X	
Hirundo rustica	barn swallow		X	
LANIIDAE				
Lanius ludovicianus	loggerhead shrike	X		CSC, F2
LARIDAE				
Larus argentatus	Herring gull		X	
Larus californicus	California gull		X	CSC
Larus delawarensis	ring-billed gull		X	
Larus glaucescens	glaucous-winged gull		X	
Larus heermanni	Heermann's gull		X	

**Table B2-1. Animals Observed and Expected in the Vicinity of Site 1
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
Larus occidentalis	western gull		X	
Larus thayeri	Thayer's gull		X	
MIMIDAE				
Mimus polyglottos	northern mockingbird		X	
STURNIDAE				
Sturnus vulgaris	European starling		X	
TROCHILIDAE				
Calypte anna	Anna's hummingbird	X		
TROGLODYTIDAE				
Thryomanes bewickii	Bewick's wren		X	
TYRANNIDAE				
Sayornis nigricans	black phoebe	X		
Sayornis saya	Say's phoebe	X		
<u>MAMMALIA</u>				
CANIDAE				
Canis domesticus	dog	X		
Vulpes vulpes	red fox	X		
CERVIDAE				
Odocoileus hemionus	mule deer	X		
CRICETIDAE				
Peromyscus maniculatus	deer mouse		X	
FELIDAE				
Felis catus	domestic cat	X		
GEOMYIDAE				
Thomomys bottae	Botta's pocket gopher		X	
LEPORIDAE				
Lepus californicus	black-tailed hare		X	
MUSTELIDAE				
Mephitis mephitis	striped skunk		X	
SCIURIDAE				
Spermophilus beecheyi	California ground squirrel	X		
<u>REPTILIA</u>				
ANNIPELLIDAE				

**Table B2-1. Animals Observed and Expected in the Vicinity of Site 1
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
Anniella pulchra nigra	black legless lizard		X	CSC, F2

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**Table B2-2. Animals Observed and Expected in the Vicinity of Site 2
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
<u>AVES</u>					
ACCIPITRIDAE					
Buteo jamaicensis	red-tailed hawk		X		
AEGITHALIDAE					
Psaltriparus minimus	bush tit		X		
CATHARTIDAE					
Cathartes aura	turkey vulture		X		
CHARADRIIDAE					
Charadrius vociferus	killdeer		X		
COLUMBIDAE					
Columba livia	rock dove	X			
CORVIDAE					
Aphelocoma coerulescens	scrub jay	X			
Corvus brachyrhynchos	American crow		X		
EMBERIZIDAE					
Agelaius phoeniceus	red-winged blackbird		X		
Dendroica coronata	yellow-rumped warbler	X			
Euphagus cyanocephalus	Brewer's blackbird		X		
Melospiza melodia	song sparrow		X		
Zonotrichia leucophrys	white-crowned sparrow		X		
FALCONIDAE					
Falco columbarius	merlin		X	CSC	
Falco sparverius	American kestrel		X		
FRINGILLIDAE					
Carpodacus mexicanus	house finch	X			
HIRUNDINIDAE					
Hirundo pyrrhonota	cliff swallow		X		
Hirundo rustica	barn swallow		X		
LANIIDAE					
Lanius ludovicianus	loggerhead shrike	X		CSC, F2	
LARIDAE					
Larus argentatus	Herring gull		X		
Larus californicus	California gull		X	CSC	
Larus delawarensis	ring-billed gull		X		

**Table B2-2. Animals Observed and Expected in the Vicinity of Site 2
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
Larus glaucescens	glaucous-winged gull		X		
Larus heermanni	Heermann's gull		X		
Larus occidentalis	western gull		X		
Larus thayeri	Thayer's gull		X		
MIMIDAE					
Mimus polyglottos	northern mockingbird		X		
STURNIDAE					
Sturnus vulgaris	European starling	X			
TROCHILIDAE					
Calypte anna	Anna's hummingbird		X		
TROGLODYTIDAE					
Thryomanes bewickii	Bewick's wren		X		
TYRANNIDAE					
Sayornis nigricans	black phoebe		X		
Sayornis saya	Say's phoebe	X			
<u>MAMMALIA</u>					
CANIDAE					
Vulpes vulpes	red fox		X		
CRICETIDAE					
Microtus californicus	California vole		X		
Peromyscus maniculatus	deer mouse		X		
GEOMYIDAE					
Thomomys bottae	Botta's pocket gopher		X		
LEPORIDAE					
Lepus californicus	black-tailed hare		X		
MUSTELIDAE					
Mephitis mephitis	striped skunk		X		
SCIURIDAE					
Spermophilus beecheyi	California ground squirrel	X			
<u>REPTILIA</u>					
ANNIELLIDAE					
Anniella pulchra nigra	black legless lizard		X	CSC, F2	

**Table B2-3. Animals Observed and Expected in the Vicinity of Site 3
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
<u>AVES</u>					
ACCIPITRIDAE					
Buteo jamaicensis	red-tailed hawk	X			
AEGITHALIDAE					
Psaltriparus minimus	bushtit		X		
CATHARTIDAE					
Cathartes aura	turkey vulture		X		
CHARADRIIDAE					
Charadrius vociferus	killdeer		X		
COLUMBIDAE					
Columba livia	rock dove		X		
Zenaida macroura	mourning dove		X		
CORVIDAE					
Aphelocoma coerulescens	scrub jay		X		
Corvus brachyrhynchos	American crow	X			
EMBERIZIDAE					
Agelaius phoeniceus	red-winged blackbird		X		
Dendroica coronata	yellow-rumped warbler	X			
Euphagus cyanocephalus	Brewer's blackbird		X		
Melospiza melodia	song sparrow		X		
Zonotrichia leucophrys	white-crowned sparrow		X		
FALCONIDAE					
Falco columbarius	merlin	X			CSC
Falco sparverius	American kestrel	X			
FRINGILLIDAE					
Carpodacus mexicanus	house finch	X			
HIRUNDINIDAE					
Hirundo pyrrhonota	cliff swallow		X		
Hirundo rustica	barn swallow		X		
LANIIDAE					
Lanius ludovicianus	loggerhead shrike	X			CSC, F2
LARIDAE					
Larus argentatus	Herring gull		X		
Larus californicus	California gull		X		CSC

**Table B2-3. Animals Observed and Expected in the Vicinity of Site 3
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
Larus delawarensis	ring-billed gull		X	
Larus glaucescens	glaucous-winged gull		X	
Larus heermanni	Heermann's gull		X	
Larus occidentalis	western gull		X	
Larus thayeri	Thayer's gull		X	
MIMIDAE				
Mimus polyglottos	northern mockingbird		X	
PICIDAE				
Picoides pubescens	downy woodpecker		X	
Picoides villosus	hairy woodpecker		X	
STURNIDAE				
Sturnus vulgaris	European starling		X	
TROCHILIDAE				
Calypte anna	Anna's hummingbird	X		
TROGLODYTIDAE				
Thryomanes bewickii	Bewick's wren	X		
TYRANNIDAE				
Sayornis nigricans	black phoebe	X		
Sayornis saya	Say's phoebe	X		
<u>INSECTA</u>				
LYCAENIDAE				
Euphilotes enoptes smithi	Smith's blue butterfly	X		FE
<u>MAMMALIA</u>				
CANIDAE				
Vulpes vulpes	red fox	X		
CRICETIDAE				
Microtus californicus	California vole		X	
Peromyscus maniculatus	deer mouse		X	
GEOMYIDAE				
Thomomys bottae	Botta's pocket gopher		X	
LEPORIDAE				
Lepus californicus	black-tailed hare		X	
MUSTELIDAE				

**Table B2-3. Animals Observed and Expected in the Vicinity of Site 3
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
Mephitis mephitis	striped skunk		X	
SCIURIDAE				
Spermophilus beecheyi	California ground squirrel	X		
<u>REPTILIA</u>				
ANNIELLIDAE				
Anniella pulchra nigra	black legless lizard	X		CSC, F2

Table B2-4. Animals Observed and Expected in the Vicinity of Site 10
 Volume IV - Ecological Risk Assessment, Basewide RI/FS
 Fort Ord, California

<u>CLASS</u>					
<u>FAMILY</u>					
Scientific name	Common name	Observed	Expected	Status /a/	
<u>AMPHIBIA</u>					
<u>HYLIDAE</u>					
Hyla regilla	Pacific treefrog		X		
<u>AVES</u>					
<u>ACCIPITRIDAE</u>					
Accipiter cooperii	Cooper's hawk		X	CSC	
Buteo jamaicensis	red-tailed hawk		X		
Buteo lineatus	red-shouldered hawk		X		
Elanus caeruleus	black-shouldered kite		X	*, CFP	
<u>AEGITHALIDAE</u>					
Psaltriparus minimus	bush tit		X		
<u>APODIDAE</u>					
Aeronautes saxatalis	white-throated swift		X		
<u>CATHARTIDAE</u>					
Cathartes aura	turkey vulture		X		
<u>CHARADRIIDAE</u>					
Charadrius vociferus	killdeer		X		
<u>COLUMBIDAE</u>					
Columba fasciata	band-tailed pigeon		X		
Columba livia	rock dove	X			
Zenaidura macroura	mourning dove		X		
<u>CORVIDAE</u>					
Aphelocoma coerulescens	scrub jay		X		
Corvus brachyrhynchos	American crow	X			
<u>EMBERIZIDAE</u>					
Agelaius phoeniceus	red-winged blackbird		X		
Dendroica coronata	yellow-rumped warbler	X			
Dendroica townsendi	Townsend's warbler		X		
Euphagus cyanocephalus	Brewer's blackbird	X			
Junco hyemalis	dark-eyed junco		X		
Melospiza melodia	song sparrow		X		
Molothrus ater	brown-headed cowbird		X		
Passerculus sandwichensis	savannah sparrow		X		
Pheucticus melanocephalus	black-headed grosbeak		X		
Pipilo crissalis	California towhee		X		

**Table B2-4. Animals Observed and Expected in the Vicinity of Site 10
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>					
<u>FAMILY</u>					
Scientific name	Common name	Observed	Expected	Status /a/	
Pipilo erythrophthalmus	rufous-sided towhee		X		
Sturnella neglecta	western meadowlark		X		
Vermivora celata	orange-crowned warbler		X		
Zonotrichia atricapilla	golden-crowned sparrow		X		
Zonotrichia leucophrys	white-crowned sparrow		X		
FALCONIDAE					
Falco sparverius	American kestrel		X		
FRINGILLIDAE					
Carduelis psaltria	lesser goldfinch		X		
Carpodacus mexicanus	house finch	X			
HIRUNDINIDAE					
Hirundo pyrrhonota	cliff swallow		X		
Hirundo rustica	barn swallow		X		
Stelgidopteryx serripennis	northern rough-winged swallow		X		
Tachycineta bicolor	tree swallow		X		
LANIIDAE					
Lanius ludovicianus	loggerhead shrike		X		CSC, F2
LARIDAE					
Larus argentatus	Herring gull		X		
Larus californicus	California gull	X			CSC
Larus delawarensis	ring-billed gull		X		
Larus glaucescens	glaucous-winged gull		X		
Larus heermanni	Heermann's gull		X		
Larus occidentalis	western gull		X		
Larus thayeri	Thayer's gull		X		
MIMIDAE					
Mimus polyglottos	northern mockingbird		X		
MUSCICAPIDAE					
Chamaea fasciata	wren tit		X		
Regulus calendula	ruby-crowned kinglet		X		
Sialia mexicana	western bluebird		X		
Turdus migratorius	American robin		X		
PARIDAE					
Parus inornatus	plain titmouse		X		
Parus rufescens	chestnut-backed chickadee		X		
PASSERIDAE					

**Table B2-4. Animals Observed and Expected in the Vicinity of Site 10
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
Passer domesticus	house sparrow		X		
PHASIANIDAE					
Callipepla californica	California quail		X		
PICIDAE					
Colaptes auratus	northern red-shafted flicker		X		
Melanerpes formicivorus	acorn woodpecker		X		
Picoides nuttallii	Nuttall's woodpecker		X		
Picoides pubescens	downy woodpecker		X		
Picoides villosus	hairy woodpecker		X		
SITTIDAE					
Sitta carolinensis	white-breasted nuthatch		X		
STRIGIDAE					
Bubo virginianus	great horned owl		X		
Otus kennicottii	western screech-owl		X		
STURNIDAE					
Sturnus vulgaris	European starling	X			
TROCHILIDAE					
Calypte anna	Anna's hummingbird		X		
Selasphorus sasin	Allen's hummingbird		X		
TROGLODYTIDAE					
Thryomanes bewickii	Bewick's wren		X		
Troglodytes aedon	house wren		X		
TYRANNIDAE					
Contopus sordidulus	western wood-pewee		X		
Myiarchus cinerascens	ash-throated flycatcher		X		
Sayornis nigricans	black phoebe		X		
Sayornis saya	Say's phoebe		X		
Tyrannus verticalis	western kingbird		X		
TYTONIDAE					
Tyto alba	barn owl		X		
VIREONIDAE					
Vireo huttoni	Hutton's vireo		X		
<u>MAMMALIA</u>					
CANIDAE					

**Table B2-4. Animals Observed and Expected in the Vicinity of Site 10
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
<i>Canis latrans</i>	coyote		X		
<i>Urocyon cinereoargenteus</i>	gray fox	X			
CERVIDAE					
<i>Odocoileus hemionus</i>	mule deer		X		
CRICETIDAE					
<i>Microtus californicus</i>	California vole		X		
<i>Peromyscus maniculatus</i>	deer mouse		X		
DIDELPHIDAE					
<i>Didelphis virginiana</i>	Virginia opossum		X		
GEMYIDAE					
<i>Thomomys bottae</i>	Botta's pocket gopher	X			
LEPORIDAE					
<i>Lepus californicus</i>	black-tailed hare		X		
<i>Sylvilagus audubonii</i>	desert cottontail		X		
MUSTELIDAE					
<i>Mephitis mephitis</i>	striped skunk		X		
PROCYONIDAE					
<i>Procyon lotor</i>	raccoon		X		
SCIURIDAE					
<i>Spermophilus beecheyi</i>	California ground squirrel	X			
TALPIDAE					
<i>Scapanus latimanus</i>	broad-footed mole		X		
<u>REPTILIA</u>					
ANGUIDAE					
<i>Gerrhonotus multicarinatus</i>	southern alligator lizard		X		
ANNIELLIDAE					
<i>Anniella pulchra pulchra</i>	silvery legless lizard		X	CSC	
COLUBRIDAE					
<i>Coluber constrictor</i>	racer		X		
<i>Pituophis melanoleucus</i>	gopher snake		X		
IGUANIDAE					
<i>Sceloporus occidentalis</i>	western fence lizard		X		
<i>Uta stansburiana</i>	side-blotched lizard		X		

Table B2-4. Animals Observed and Expected in the Vicinity of Site 10
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
<i>Eumeces skiltonianus</i>	western skink		X	

**Table B2-5. Animals Observed and Expected in the Vicinity of Site 11
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
<u>AMPHIBIA</u>				
HYLIDAE				
Hyla regilla	Pacific treefrog		X	
PLETHODONTIDAE				
Batrachoseps pacificus	Pacific slender salamander		X	
<u>AVES</u>				
ACCIPITRIDAE				
Accipiter cooperii	Cooper's hawk		X	CSC
Buteo jamaicensis	red-tailed hawk		X	
Buteo lineatus	red-shouldered hawk		X	
CATHARTIDAE				
Cathartes aura	turkey vulture		X	
COLUMBIDAE				
Columba fasciata	band-tailed pigeon		X	
Columba livia	rock dove		X	
Zenaida macroura	mourning dove		X	
CORVIDAE				
Aphelocoma coerulescens	scrub jay	X		
Corvus brachyrhynchos	American crow	X		
EMBERIZIDAE				
Euphagus cyanocephalus	Brewer's blackbird		X	
Junco hyemalis	dark-eyed junco		X	
FALCONIDAE				
Falco sparverius	American kestrel		X	
FRINGILLIDAE				
Carduelis psaltria	lesser goldfinch		X	
Carpodacus mexicanus	house finch	X		
MUSCICAPIDAE				
Chamaea fasciata	wrentit	X		
PASSERIDAE				
Passer domesticus	house sparrow		X	
PHASIANIDAE				
Callipepla californica	California quail	X		

**Table B2-5. Animals Observed and Expected in the Vicinity of Site 11
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
<i>Colaptes auratus</i>	northern red-shafted flicker		X		
<i>Melanerpes formicivorus</i>	acorn woodpecker		X		
<i>Picoides nuttallii</i>	Nuttall's woodpecker	X			
<i>Picoides pubescens</i>	downy woodpecker		X		
<i>Picoides villosus</i>	hairy woodpecker		X		
SITTIDAE					
<i>Sitta carolinensis</i>	white-breasted nuthatch		X		
STRIGIDAE					
<i>Bubo virginianus</i>	great horned owl		X		
<i>Otus kennicottii</i>	western screech-owl		X		
TROCHILIDAE					
<i>Calypte anna</i>	Anna's hummingbird	X			
<i>Selasphorus sasin</i>	Allen's hummingbird		X		
TYRANNIDAE					
<i>Sayornis nigricans</i>	black phoebe		X		
<i>Sayornis saya</i>	Say's phoebe		X		
TYTONIDAE					
<i>Tyto alba</i>	barn owl		X		
<u>MAMMALIA</u>					
CANIDAE					
<i>Urocyon cinereoargenteus</i>	gray fox		X		
CRICETIDAE					
<i>Peromyscus maniculatus</i>	deer mouse		X		
DIDELPHIDAE					
<i>Didelphis virginiana</i>	Virginia opossum		X		
GEOMYIDAE					
<i>Thomomys bottae</i>	Botta's pocket gopher	X			
LEPORIDAE					
<i>Lepus californicus</i>	black-tailed hare		X		
<i>Sylvilagus audubonii</i>	desert cottontail		X		
MUSTELIDAE					
<i>Mephitis mephitis</i>	striped skunk		X		
PROCYONIDAE					

**Table B2-5. Animals Observed and Expected in the Vicinity of Site 11
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
Procyon lotor	raccoon		X	
SCIURIDAE				
Spermophilus beecheyi	California ground squirrel	X		
TALPIDAE				
Scapanus latimanus	broad-footed mole		X	
<u>REPTILIA</u>				
COLUBRIDAE				
Pituophis melanoleucus	gopher snake		X	
Thamnophis sirtalis	common garter snake		X	
IGUANIDAE				
Sceloporus occidentalis	western fence lizard		X	

**Table B2-6. Animals Observed and Expected in the Vicinity of Site 12
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
<u>AVES</u>					
ACCIPITRIDAE					
Buteo jamaicensis	red-tailed hawk		X		
AEGITHALIDAE					
Psaltriparus minimus	bushtit		X		
CATHARTIDAE					
Cathartes aura	turkey vulture		X		
CERTHIDAE					
Certhia americana	brown creeper		X		
CHARADRIIDAE					
Charadrius vociferus	killdeer		X		
COLUMBIDAE					
Columba fasciata	band-tailed pigeon		X		
Columba livia	rock dove	X			
Zenaida macroura	mourning dove		X		
CORVIDAE					
Aphelocoma coerulescens	scrub jay	X			
Corvus brachyrhynchos	American crow	X			
Cyanocitta stelleri	Steller's jay		X		
EMBERIZIDAE					
Agelaius phoeniceus	red-winged blackbird		X		
Dendroica coronata	yellow-rumped warbler	X			
Euphagus cyanocephalus	Brewer's blackbird		X		
Junco hyemalis	dark-eyed junco		X		
Melospiza melodia	song sparrow		X		
Passerculus sandwichensis	savannah sparrow		X		
Pipilo crissalis	California towhee		X		
Pipilo erythrophthalmus	rufous-sided towhee		X		
Sturnella neglecta	western meadowlark		X		
Zonotrichia atricapilla	golden-crowned sparrow		X		
Zonotrichia leucophrys	white-crowned sparrow		X		
FALCONIDAE					
Falco sparverius	American kestrel	X			
FRINGILLIDAE					
Carduelis psaltria	lesser goldfinch		X		

**Table B2-6. Animals Observed and Expected in the Vicinity of Site 12
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
<i>Carpodacus mexicanus</i>	house finch		X		
HIRUNDINIDAE					
<i>Hirundo pyrrhonota</i>	cliff swallow		X		
<i>Hirundo rustica</i>	barn swallow	X			
LANIIDAE					
<i>Lanius ludovicianus</i>	loggerhead shrike		X	CSC, F2	
LARIDAE					
<i>Larus argentatus</i>	Herring gull		X		
<i>Larus californicus</i>	California gull	X		CSC	
<i>Larus delawarensis</i>	ring-billed gull		X		
<i>Larus glaucescens</i>	glaucous-winged gull		X		
<i>Larus heermanni</i>	Heermann's gull		X		
<i>Larus occidentalis</i>	western gull		X		
<i>Larus thayeri</i>	Thayer's gull		X		
MIMIDAE					
<i>Mimus polyglottos</i>	northern mockingbird		X		
MUSCICAPIDAE					
<i>Regulus calendula</i>	ruby-crowned kinglet		X		
<i>Sialia mexicana</i>	western bluebird		X		
<i>Turdus migratorius</i>	American robin		X		
PARIDAE					
<i>Parus inornatus</i>	plain titmouse		X		
<i>Parus rufescens</i>	chestnut-backed chickadee		X		
PASSERIDAE					
<i>Passer domesticus</i>	house sparrow		X		
PICIDAE					
<i>Picoides pubescens</i>	downy woodpecker		X		
<i>Picoides villosus</i>	hairy woodpecker		X		
SITTIDAE					
<i>Sitta carolinensis</i>	white-breasted nuthatch		X		
STRIGIDAE					
<i>Bubo virginianus</i>	great horned owl		X		
STURNIDAE					
<i>Sturnus vulgaris</i>	European starling	X			

**Table B2-6. Animals Observed and Expected in the Vicinity of Site 12
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Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
<i>Calypte anna</i>	Anna's hummingbird		X		
<i>Selasphorus sasin</i>	Allen's hummingbird		X		
TROGLODYTIDAE					
<i>Thryomanes bewickii</i>	Bewick's wren		X		
TYRANNIDAE					
<i>Sayornis nigricans</i>	black phoebe		X		
<i>Sayornis saya</i>	Say's phoebe		X		
<i>Tyrannus verticalis</i>	western kingbird		X		
TYTONIDAE					
<i>Tyto alba</i>	barn owl		X		
VIREONIDAE					
<i>Vireo huttoni</i>	Hutton's vireo		X		
<u>MAMMALIA</u>					
CANIDAE					
<i>Urocyon cinereoargenteus</i>	gray fox		X		
CRICETIDAE					
<i>Microtus californicus</i>	California vole		X		
<i>Peromyscus maniculatus</i>	deer mouse		X		
DIDELPHIDAE					
<i>Didelphis virginiana</i>	Virginia opossum		X		
GEOMYIDAE					
<i>Thomomys bottae</i>	Botta's pocket gopher		X		
LEPORIDAE					
<i>Sylvilagus audubonii</i>	desert cottontail		X		
MURIDAE					
<i>Mus musculus</i>	house mouse		X		
MUSTELIDAE					
<i>Mephitis mephitis</i>	striped skunk		X		
PROCYONIDAE					
<i>Procyon lotor</i>	raccoon		X		
SCIURIDAE					
<i>Spermophilus beecheyi</i>	California ground squirrel	X			
TALPIDAE					

Table B2-6. Animals Observed and Expected in the Vicinity of Site 12
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Fort Ord, California

<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
Scapanus latimanus	broad-footed mole		X	
<u>REPTILIA</u>				
ANGUIDAE				
Gerrhonotus coeruleus	northern alligator lizard		X	
Gerrhonotus multicarinatus	southern alligator lizard		X	
COLUBRIDAE				
Pituophis melanoleucus	gopher snake		X	
IGUANIDAE				
Sceloporus occidentalis	western fence lizard		X	

**Table B2-7. Animals Observed and Expected in the Vicinity of Site 15
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
<u>AMPHIBIA</u>					
HYLIDAE					
Hyla regilla	Pacific treefrog		X		
PLETHODONTIDAE					
Batrachoseps pacificus	Pacific slender salamander		X		
<u>AVES</u>					
ACCIPITRIDAE					
Accipiter cooperii	Cooper's hawk		X	CSC	
Buteo jamaicensis	red-tailed hawk		X		
Buteo lineatus	red-shouldered hawk		X		
CATHARTIDAE					
Cathartes aura	turkey vulture	X			
CHARADRIIDAE					
Charadrius vociferus	killdeer		X		
COLUMBIDAE					
Columba fasciata	band-tailed pigeon		X		
Columba livia	rock dove		X		
Zenaida macroura	mourning dove		X		
CORVIDAE					
Aphelocoma coerulescens	scrub jay	X			
Corvus brachyrhynchos	American crow		X		
EMBERIZIDAE					
Euphagus cyanocephalus	Brewer's blackbird	X			
Junco hyemalis	dark-eyed junco		X		
FALCONIDAE					
Falco sparverius	American kestrel		X		
FRINGILLIDAE					
Carduelis psaltria	lesser goldfinch		X		
Carpodacus mexicanus	house finch		X		
HIRUNDINIDAE					
Hirundo rustica	barn swallow	X			
PASSERIDAE					
Passer domesticus	house sparrow		X		

**Table B2-7. Animals Observed and Expected in the Vicinity of Site 15
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Fort Ord, California**

<u>CLASS</u>					
<u>FAMILY</u>					
Scientific name	Common name	Observed	Expected	Status /a/	
Callipepla californica	California quail		X		
<u>PICIDAE</u>					
Colaptes auratus	northern red-shafted flicker		X		
Melanerpes formicivorus	acorn woodpecker		X		
Picoides nuttallii	Nuttall's woodpecker		X		
Picoides pubescens	downy woodpecker		X		
Picoides villosus	hairy woodpecker		X		
<u>SITTIDAE</u>					
Sitta carolinensis	white-breasted nuthatch		X		
<u>STRIGIDAE</u>					
Bubo virginianus	great horned owl		X		
Otus kennicottii	western screech-owl		X		
<u>STURNIDAE</u>					
Sturnus vulgaris	European starling	X			
<u>TROCHILIDAE</u>					
Calypte anna	Anna's hummingbird		X		
Selasphorus sasin	Allen's hummingbird		X		
<u>TYRANNIDAE</u>					
Sayornis nigricans	black phoebe		X		
Sayornis saya	Say's phoebe		X		
<u>TYTONIDAE</u>					
Tyto alba	barn owl		X		
<u>MAMMALIA</u>					
<u>CANIDAE</u>					
Canis latrans	coyote		X		
Urocyon cinereoargenteus	gray fox		X		
<u>CERVIDAE</u>					
Odocoileus hemionus	mule deer		X		
<u>CRICETIDAE</u>					
Microtus californicus	California vole		X		
Peromyscus maniculatus	deer mouse		X		
<u>DIDELPHIDAE</u>					
Didelphis virginiana	Virginia opossum		X		

**Table B2-7. Animals Observed and Expected in the Vicinity of Site 15
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<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
Thomomys bottae	Botta's pocket gopher		X		
LEPORIDAE					
Lepus californicus	black-tailed hare		X		
Sylvilagus audubonii	desert cottontail		X		
MURIDAE					
Mus musculus	house mouse		X		
MUSTELIDAE					
Mephitis mephitis	striped skunk		X		
PROCYONIDAE					
Procyon lotor	raccoon		X		
SCIURIDAE					
Spermophilus beecheyi	California ground squirrel	X			
TALPIDAE					
Scapanus latimanus	broad-footed mole		X		
<u>REPTILIA</u>					
COLUBRIDAE					
Pituophis melanoleucus	gopher snake		X		
IGUANIDAE					
Sceloporus occidentalis	western fence lizard		X		

**Table B2-8. Animals Observed and Expected in the Vicinity of Site 16
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Fort Ord, California**

<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
<u>AMPHIBIA</u>				
HYLIDAE				
Hyla regilla	Pacific treefrog		X	
<u>AVES</u>				
ACCIPITRIDAE				
Buteo jamaicensis	red-tailed hawk	X		
Buteo lineatus	red-shouldered hawk		X	
AEGITHALIDAE				
Psaltriparus minimus	bushtit		X	
APODIDAE				
Aeronautes saxatalis	white-throated swift		X	
CATHARTIDAE				
Cathartes aura	turkey vulture	X		
CHARADRIIDAE				
Charadrius vociferus	killdeer	X		
COLUMBIDAE				
Columba fasciata	band-tailed pigeon		X	
Columba livia	rock dove		X	
Zenaida macroura	mourning dove		X	
CORVIDAE				
Aphelocoma coerulescens	scrub jay	X		
Corvus brachyrhynchos	American crow	X		
EMBERIZIDAE				
Agelaius phoeniceus	red-winged blackbird	X		
Dendroica coronata	yellow-rumped warbler	X		
Euphagus cyanocephalus	Brewer's blackbird		X	
Junco hyemalis	dark-eyed junco		X	
Melospiza melodia	song sparrow		X	
Molothrus ater	brown-headed cowbird		X	
Passerculus sandwichensis	savannah sparrow		X	
Pipilo crissalis	California towhee		X	
Pipilo erythrophthalmus	rufous-sided towhee		X	
Sturnella neglecta	western meadowlark		X	
Vermivora celata	orange-crowned warbler		X	
Zonotrichia atricapilla	golden-crowned sparrow		X	

**Table B2-8. Animals Observed and Expected in the Vicinity of Site 16
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Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
Zonotrichia leucophrys	white-crowned sparrow		X		
FALCONIDAE					
Falco sparverius	American kestrel		X		
FRINGILLIDAE					
Carduelis psaltria	lesser goldfinch		X		
Carduelis tristis	American goldfinch		X		
Carpodacus mexicanus	house finch	X			
Carpodacus purpureus	purple finch		X		
HIRUNDINIDAE					
Hirundo pyrrhonota	cliff swallow		X		
Hirundo rustica	barn swallow	X			
Stelgidopteryx serripennis	northern rough-winged swallow	X			
LANIIDAE					
Lanius ludovicianus	loggerhead shrike	X		CSC, F2	
LARIDAE					
Larus argentatus	Herring gull		X		
Larus californicus	California gull		X	CSC	
Larus delawarensis	ring-billed gull		X		
Larus glaucescens	glaucous-winged gull		X		
Larus heermanni	Heermann's gull		X		
Larus occidentalis	western gull		X		
Larus thayeri	Thayer's gull		X		
MIMIDAE					
Mimus polyglottos	northern mockingbird		X		
MUSCICAPIDAE					
Regulus calendula	ruby-crowned kinglet		X		
Sialia mexicana	western bluebird		X		
Turdus migratorius	American robin		X		
PARIDAE					
Parus inornatus	plain titmouse		X		
PASSERIDAE					
Passer domesticus	house sparrow	X			
PHASIANIDAE					
Callipepla californica	California quail		X		
PICIDAE					

**Table B2-8. Animals Observed and Expected in the Vicinity of Site 16
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Fort Ord, California**

<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
Colaptes auratus	northern red-shafted flicker		X	
Picoides pubescens	downy woodpecker		X	
STRIGIDAE				
Bubo virginianus	great horned owl		X	
Otus kennicottii	western screech-owl		X	
STURNIDAE				
Sturnus vulgaris	European starling	X		
TROCHILIDAE				
Calypte anna	Anna's hummingbird	X		
Selasphorus sasin	Allen's hummingbird		X	
TROGLODYTIDAE				
Thryomanes bewickii	Bewick's wren		X	
Troglodytes aedon	house wren		X	
TYRANNIDAE				
Myiarchus cinerascens	ash-throated flycatcher		X	
Sayornis saya	Say's phoebe		X	
Tyrannus verticalis	western kingbird		X	
TYTONIDAE				
Tyto alba	barn owl		X	
VIREONIDAE				
Vireo gilvus	warbling vireo		X	
Vireo huttoni	Hutton's vireo		X	
<u>MAMMALIA</u>				
CANIDAE				
Canis latrans	coyote		X	
Urocyon cinereoargenteus	gray fox	X		
CERVIDAE				
Odocoileus hemionus	mule deer	X		
CRICETIDAE				
Microtus californicus	California vole		X	
Peromyscus maniculatus	deer mouse		X	
Reithrodontomys megalotis	western harvest mouse		X	
DIDELPHIDAE				
Didelphis virginiana	Virginia opossum		X	

**Table B2-8. Animals Observed and Expected in the Vicinity of Site 16
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Fort Ord, California**

<u>CLASS</u>				
<u>FAMILY</u>				
Scientific name	Common name	Observed	Expected	Status /a/
<i>Felis catus</i>	domestic cat	X		
<u>GEOMYIDAE</u>				
<i>Thomomys bottae</i>	Botta's pocket gopher	X		
<u>LEPORIDAE</u>				
<i>Lepus californicus</i>	black-tailed hare		X	
<i>Sylvilagus audubonii</i>	desert cottontail		X	
<u>MUSTELIDAE</u>				
<i>Mephitis mephitis</i>	striped skunk		X	
<i>Mustela frenata</i>	long-tailed weasel		X	
<u>PROCYONIDAE</u>				
<i>Procyon lotor</i>	raccoon	X		
<u>SCIURIDAE</u>				
<i>Spermophilus beecheyi</i>	California ground squirrel	X		
<u>TALPIDAE</u>				
<i>Scapanus latimanus</i>	broad-footed mole		X	
<u>REPTILIA</u>				
<u>ANGUIDAE</u>				
<i>Gerrhonotus multicarinatus</i>	southern alligator lizard		X	
<u>COLUBRIDAE</u>				
<i>Pituophis melanoleucus</i>	gopher snake		X	
<u>IGUANIDAE</u>				
<i>Sceloporus occidentalis</i>	western fence lizard		X	
<i>Uta stansburiana</i>	side-blotched lizard		X	

**Table B2-9. Animals Observed and Expected in the Vicinity of Site 17
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Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
<u>AVES</u>					
ACCIPITRIDAE					
Buteo jamaicensis	red-tailed hawk	X			
Buteo lineatus	red-shouldered hawk		X		
AEGITHALIDAE					
Psaltriparus minimus	bushtit		X		
ALAUDIDAE					
Eremophila alpestris	horned lark		X		
CATHARTIDAE					
Cathartes aura	turkey vulture		X		
CHARADRIIDAE					
Charadrius vociferus	killdeer	X			
COLUMBIDAE					
Columba livia	rock dove		X		
Zenaida macroura	mourning dove		X		
CORVIDAE					
Aphelocoma coerulescens	scrub jay	X			
Corvus brachyrhynchos	American crow	X			
EMBERIZIDAE					
Agelaius phoeniceus	red-winged blackbird		X		
Dendroica coronata	yellow-rumped warbler	X			
Euphagus cyanocephalus	Brewer's blackbird	X			
Junco hyemalis	dark-eyed junco		X		
Melospiza melodia	song sparrow		X		
Passerculus sandwichensis	savannah sparrow		X		
Pipilo crissalis	California towhee		X		
Pipilo erythrophthalmus	rufous-sided towhee		X		
Sturnella neglecta	western meadowlark		X		
Zonotrichia leucophrys	white-crowned sparrow	X			
FALCONIDAE					
Falco sparverius	American kestrel		X		
FRINGILLIDAE					
Carduelis psaltria	lesser goldfinch		X		
Carpodacus mexicanus	house finch	X			
HIRUNDINIDAE					

**Table B2-9. Animals Observed and Expected in the Vicinity of Site 17
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Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
<i>Hirundo pyrrhonota</i>	cliff swallow		X		
<i>Hirundo rustica</i>	barn swallow		X		
<i>Stelgidopteryx serripennis</i>	northern rough-winged swallow		X		
LANIIDAE					
<i>Lanius ludovicianus</i>	loggerhead shrike		X	CSC, F2	
LARIDAE					
<i>Larus argentatus</i>	Herring gull		X		
<i>Larus californicus</i>	California gull	X		CSC	
<i>Larus delawarensis</i>	ring-billed gull		X		
<i>Larus glaucescens</i>	glaucous-winged gull		X		
<i>Larus heermanni</i>	Heermann's gull		X		
<i>Larus occidentalis</i>	western gull		X		
<i>Larus thayeri</i>	Thayer's gull		X		
MIMIDAE					
<i>Mimus polyglottos</i>	northern mockingbird		X		
MUSCICAPIDAE					
<i>Regulus calendula</i>	ruby-crowned kinglet		X		
<i>Sialia mexicana</i>	western bluebird		X		
<i>Turdus migratorius</i>	American robin		X		
PARIDAE					
<i>Parus inornatus</i>	plain titmouse	X			
PASSERIDAE					
<i>Passer domesticus</i>	house sparrow		X		
PHASIANIDAE					
<i>Callipepla californica</i>	California quail	X			
PICIDAE					
<i>Picoides nuttallii</i>	Nuttall's woodpecker		X		
<i>Picoides pubescens</i>	downy woodpecker		X		
<i>Picoides villosus</i>	hairy woodpecker		X		
STRIGIDAE					
<i>Bubo virginianus</i>	great horned owl		X		
STURNIDAE					
<i>Sturnus vulgaris</i>	European starling	X			
TROCHILIDAE					
<i>Calypte anna</i>	Anna's hummingbird	X			

**Table B2-9. Animals Observed and Expected in the Vicinity of Site 17
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
Selasphorus sasin	Allen's hummingbird		X		
TROGLODYTIDAE					
Thryomanes bewickii	Bewick's wren		X		
TYRANNIDAE					
Sayornis nigricans	black phoebe		X		
Sayornis saya	Say's phoebe		X		
Tyrannus verticalis	western kingbird		X		
TYTONIDAE					
Tyto alba	barn owl		X		
<u>MAMMALIA</u>					
CANIDAE					
Urocyon cinereoargenteus	gray fox	X			
CRICETIDAE					
Microtus californicus	California vole		X		
Peromyscus maniculatus	deer mouse		X		
DIDELPHIDAE					
Didelphis virginiana	Virginia opossum		X		
FELIDAE					
Felis catus	domestic cat	X			
GEOMYIDAE					
Thomomys bottae	Botta's pocket gopher	X			
LEPORIDAE					
Lepus californicus	black-tailed hare		X		
Sylvilagus audubonii	desert cottontail		X		
MURIDAE					
Mus musculus	house mouse		X		
MUSTELIDAE					
Mephitis mephitis	striped skunk		X		
PROCYONIDAE					
Procyon lotor	raccoon		X		
SCIURIDAE					
Spermophilus beecheyi	California ground squirrel	X			
TALPIDAE					

**Table B2-9. Animals Observed and Expected in the Vicinity of Site 17
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
Scapanus latimanus	broad-footed mole		X	
<u>REPTILIA</u>				
ANGUIDAE				
Gerrhonotus multicarinatus	southern alligator lizard		X	
COLUBRIDAE				
Pituophis melanoleucus	gopher snake		X	
IGUANIDAE				
Sceloporus occidentalis	western fence lizard		X	

**Table B2-10. Animals Observed and Expected in the Vicinity of Site 19
Volume IV - Ecological Risk Assessment, Basewide R/FS
Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
<u>AVES</u>					
ACCIPITRIDAE					
Buteo jamaicensis	red-tailed hawk		X		
AEGITHALIDAE					
Psaltriparus minimus	bush tit		X		
COLUMBIDAE					
Columba livia	rock dove		X		
Zenaida macroura	mourning dove		X		
CORVIDAE					
Aphelocoma coerulescens	scrub jay		X		
Corvus brachyrhynchos	American crow		X		
EMBERIZIDAE					
Agelaius phoeniceus	red-winged blackbird		X		
Dendroica coronata	yellow-rumped warbler	X			
Euphagus cyanocephalus	Brewer's blackbird		X		
Junco hyemalis	dark-eyed junco		X		
Melospiza melodia	song sparrow		X		
Pipilo crissalis	California towhee		X		
Zonotrichia leucophrys	white-crowned sparrow		X		
FALCONIDAE					
Falco sparverius	American kestrel		X		
FRINGILLIDAE					
Carduelis psaltria	lesser goldfinch		X		
Carpodacus mexicanus	house finch		X		
HIRUNDINIDAE					
Hirundo pyrrhonota	cliff swallow		X		
Hirundo rustica	barn swallow		X		
LARIDAE					
Larus californicus	California gull	X			CSC
MIMIDAE					
Mimus polyglottos	northern mockingbird		X		
MUSCICAPIDAE					
Turdus migratorius	American robin		X		
PARIDAE					

**Table B2-10. Animals Observed and Expected in the Vicinity of Site 19
Volume IV - Ecological Risk Assessment, Basewide R/FS
Fort Ord, California**

<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
Parus inornatus	plain titmouse		X	
PASSERIDAE				
Passer domesticus	house sparrow		X	
PICIDAE				
Picoides pubescens	downy woodpecker		X	
Picoides villosus	hairy woodpecker		X	
STRIGIDAE				
Bubo virginianus	great horned owl		X	
STURNIDAE				
Sturnus vulgaris	European starling		X	
TROCHILIDAE				
Calypte anna	Anna's hummingbird		X	
Selasphorus sasin	Allen's hummingbird		X	
TYRANNIDAE				
Sayornis nigricans	black phoebe		X	
Sayornis saya	Say's phoebe		X	
TYTONIDAE				
Tyto alba	barn owl		X	
<u>MAMMALIA</u>				
CANIDAE				
Urocyon cinereoargenteus	gray fox		X	
DIDELPHIDAE				
Didelphis virginiana	Virginia opossum		X	
GEOMYIDAE				
Thomomys bottae	Botta's pocket gopher		X	
MURIDAE				
Mus musculus	house mouse		X	
MUSTELIDAE				
Mephitis mephitis	striped skunk		X	
SCIURIDAE				
Spermophilus beecheyi	California ground squirrel		X	
<u>REPTILIA</u>				
IGUANIDAE				

**Table B2-11. Animals Observed and Expected in the Vicinity of Site 20
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
Falco sparverius	American kestrel		X		
FRINGILLIDAE					
Carduelis psaltria	lesser goldfinch		X		
Carpodacus mexicanus	house finch		X		
HIRUNDINIDAE					
Hirundo pyrrhonota	cliff swallow		X		
Hirundo rustica	barn swallow		X		
Stelgidopteryx serripennis	northern rough-winged swallow		X		
LANIIDAE					
Lanius ludovicianus	loggerhead shrike		X	CSC, F2	
LARIDAE					
Larus argentatus	Herring gull		X		
Larus californicus	California gull		X	CSC	
Larus delawarensis	ring-billed gull		X		
Larus glaucescens	glaucous-winged gull		X		
Larus heermanni	Heermann's gull		X		
Larus occidentalis	western gull		X		
Larus thayeri	Thayer's gull		X		
MIMIDAE					
Mimus polyglottos	northern mockingbird		X		
MUSCICAPIDAE					
Regulus calendula	ruby-crowned kinglet		X		
Sialia mexicana	western bluebird		X		
Turdus migratorius	American robin		X		
PARIDAE					
Parus inornatus	plain titmouse		X		
Parus rufescens	chestnut-backed chickadee		X		
PASSERIDAE					
Passer domesticus	house sparrow		X		
PHASIANIDAE					
Callipepla californica	California quail		X		
PICIDAE					
Colaptes auratus	northern red-shafted flicker				
Picoides nuttallii	Nuttall's woodpecker		X		
Picoides pubescens	downy woodpecker		X		

**Table B2-11. Animals Observed and Expected in the Vicinity of Site 20
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
Picoides villosus	hairy woodpecker	X			
SITTIDAE					
Sitta carolinensis	white-breasted nuthatch		X		
STRIGIDAE					
Bubo virginianus	great horned owl		X		
Otus kennicottii	western screech-owl		X		
STURNIDAE					
Sturnus vulgaris	European starling		X		
TROCHILIDAE					
Calypte anna	Anna's hummingbird	X			
Selasphorus sasin	Allen's hummingbird		X		
TROGLODYTIDAE					
Thryomanes bewickii	Bewick's wren		X		
TYRANNIDAE					
Sayornis nigricans	black phoebe		X		
Sayornis saya	Say's phoebe	X			
Tyrannus verticalis	western kingbird		X		
TYTONIDAE					
Tyto alba	barn owl		X		
VIREONIDAE					
Vireo huttoni	Hutton's vireo		X		
<u>MAMMALIA</u>					
CANIDAE					
Urocyon cinereoargenteus	gray fox	X			
CERVIDAE					
Odocoileus hemionus	mule deer		X		
CRICETIDAE					
Microtus californicus	California vole		X		
Peromyscus maniculatus	deer mouse		X		
DIDELPHIDAE					
Didelphis virginiana	Virginia opossum		X		
GEOMYIDAE					
Thomomys bottae	Botta's pocket gopher		X		

**Table B2-10. Animals Observed and Expected in the Vicinity of Site 19
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Fort Ord, California**

<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
Sceloporus occidentalis	western fence lizard		X	

**Table B2-11. Animals Observed and Expected in the Vicinity of Site 20
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Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
<u>AVES</u>					
ACCIPITRIDAE					
Accipiter cooperii	Cooper's hawk		X	CSC	
Buteo jamaicensis	red-tailed hawk		X		
Buteo lineatus	red-shouldered hawk		X		
Circus cyaneus	northern harrier		X	CSC	
Elanus caeruleus	black-shouldered kite		X	*, CFP	
AEGITHALIDAE					
Psaltriparus minimus	bushtit		X		
ALAUDIDAE					
Eremophila alpestris	horned lark		X		
CATHARTIDAE					
Cathartes aura	turkey vulture	X			
CHARADRIIDAE					
Charadrius vociferus	killdeer		X		
COLUMBIDAE					
Columba livia	rock dove	X			
Zenaida macroura	mourning dove		X		
CORVIDAE					
Aphelocoma coerulescens	scrub jay	X			
Corvus brachyrhynchos	American crow		X		
EMBERIZIDAE					
Agelaius phoeniceus	red-winged blackbird		X		
Dendroica coronata	yellow-rumped warbler	X			
Dendroica townsendi	Townsend's warbler		X		
Euphagus cyanocephalus	Brewer's blackbird		X		
Junco hyemalis	dark-eyed junco		X		
Melospiza melodia	song sparrow		X		
Molothrus ater	brown-headed cowbird		X		
Passerculus sandwichensis	savannah sparrow		X		
Pipilo crissalis	California towhee		X		
Pipilo erythrophthalmus	rufous-sided towhee		X		
Sturnella neglecta	western meadowlark	X			
Zonotrichia atricapilla	golden-crowned sparrow		X		
Zonotrichia leucophrys	white-crowned sparrow		X		
FALCONIDAE					

**Table B2-11. Animals Observed and Expected in the Vicinity of Site 20
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Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
Dipodomys heermanni	Heermann's kangaroo rat		X		
<u>LEPORIDAE</u>					
Lepus californicus	black-tailed hare		X		
Sylvilagus audubonii	desert cottontail		X		
<u>MURIDAE</u>					
Mus musculus	house mouse		X		
<u>MUSTELIDAE</u>					
Mephitis mephitis	striped skunk		X		
<u>PROCYONIDAE</u>					
Procyon lotor	raccoon		X		
<u>SCIURIDAE</u>					
Spermophilus beecheyi	California ground squirrel	X			
<u>TALPIDAE</u>					
Scapanus latimanus	broad-footed mole		X		
<u>REPTILIA</u>					
<u>ANGUIDAE</u>					
Gerrhonotus coeruleus	northern alligator lizard		X		
Gerrhonotus multicarinatus	southern alligator lizard		X		
<u>COLUBRIDAE</u>					
Pituophis melanoleucus	gopher snake		X		
<u>IGUANIDAE</u>					
Sceloporus occidentalis	western fence lizard		X		
<u>SCINCIDAE</u>					
Eumeces skiltonianus	western skink		X		

**Table B2-12. Animals Observed and Expected in the Vicinity of Site 21
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>					
<u>FAMILY</u>					
Scientific name	Common name	Observed	Expected	Status /a/	
<u>AMPHIBIA</u>					
<u>HYLIDAE</u>					
Hyla regilla	Pacific treefrog		X		
<u>PLETHODONTIDAE</u>					
Batrachoseps pacificus	Pacific slender salamander		X		
<u>AVES</u>					
<u>ACCIPITRIDAE</u>					
Accipiter cooperii	Cooper's hawk	X		CSC	
Accipiter striatus	sharp-shinned hawk		X	CSC	
Buteo jamaicensis	red-tailed hawk	X			
Buteo lineatus	red-shouldered hawk		X		
<u>AEGITHALIDAE</u>					
Psaltriparus minimus	bush tit	X			
<u>APODIDAE</u>					
Aeronautes saxatalis	white-throated swift		X		
<u>CATHARTIDAE</u>					
Cathartes aura	turkey vulture	X			
<u>CHARADRIIDAE</u>					
Charadrius vociferus	killdeer		X		
<u>COLUMBIDAE</u>					
Columba fasciata	band-tailed pigeon		X		
Columba livia	rock dove		X		
Zenaida macroura	mourning dove	X			
<u>CORVIDAE</u>					
Aphelocoma coerulescens	scrub jay	X			
Corvus brachyrhynchos	American crow	X			
<u>EMBERIZIDAE</u>					
Agelaius phoeniceus	red-winged blackbird		X		
Dendroica coronata	yellow-rumped warbler	X			
Dendroica townsendi	Townsend's warbler		X		
Euphagus cyanocephalus	Brewer's blackbird	X			
Junco hyemalis	dark-eyed junco	X			
Melospiza melodia	song sparrow		X		
Molothrus ater	brown-headed cowbird		X		

**Table B2-12. Animals Observed and Expected in the Vicinity of Site 21
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
<i>Passerculus iliaca</i>	fox sparrow		X	
<i>Passerculus sandwichensis</i>	savannah sparrow		X	
<i>Pipilo crissalis</i>	California towhee	X		
<i>Pipilo erythrophthalmus</i>	rufous-sided towhee	X		
<i>Zonotrichia atricapilla</i>	golden-crowned sparrow		X	
<i>Zonotrichia leucophrys</i>	white-crowned sparrow	X		
FALCONIDAE				
<i>Falco sparverius</i>	American kestrel		X	
FRINGILLIDAE				
<i>Carduelis psaltria</i>	lesser goldfinch		X	
<i>Carpodacus mexicanus</i>	house finch	X		
<i>Carpodacus purpureus</i>	purple finch		X	
HIRUNDINIDAE				
<i>Hirundo pyrrhonota</i>	cliff swallow		X	
<i>Hirundo rustica</i>	barn swallow		X	
<i>Stelgidopteryx serripennis</i>	northern rough-winged swallow		X	
<i>Tachycineta bicolor</i>	tree swallow		X	
<i>Tachycineta thalassina</i>	violet-green swallow		X	
LANIIDAE				
<i>Lanius ludovicianus</i>	loggerhead shrike		X	CSC, F2
MIMIDAE				
<i>Mimus polyglottos</i>	northern mockingbird		X	
MUSCICAPIDAE				
<i>Catharus guttatus</i>	hermit thrush		X	
<i>Chamaea fasciata</i>	wrentit	X		
<i>Regulus calendula</i>	ruby-crowned kinglet	X		
<i>Sialia mexicana</i>	western bluebird		X	
<i>Turdus migratorius</i>	American robin		X	
PARIDAE				
<i>Parus inornatus</i>	plain titmouse	X		
PASSERIDAE				
<i>Passer domesticus</i>	house sparrow		X	
PHASIANIDAE				
<i>Callipepla californica</i>	California quail		X	
PICIDAE				

**Table B2-12. Animals Observed and Expected in the Vicinity of Site 21
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Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
<i>Colaptes auratus</i>	northern red-shafted flicker	X			
<i>Picoides nuttallii</i>	Nuttall's woodpecker		X		
<i>Picoides pubescens</i>	downy woodpecker		X		
<i>Picoides villosus</i>	hairy woodpecker		X		
SITTIDAE					
<i>Sitta carolinensis</i>	white-breasted nuthatch		X		
STRIGIDAE					
<i>Aegolius acadicus</i>	northern saw-whet owl		X		
<i>Bubo virginianus</i>	great horned owl		X		
<i>Otus kennicottii</i>	western screech-owl		X		
STURNIDAE					
<i>Sturnus vulgaris</i>	European starling		X		
TROCHILIDAE					
<i>Calypte anna</i>	Anna's hummingbird	X			
<i>Selasphorus sasin</i>	Allen's hummingbird		X		
TROGLODYTIDAE					
<i>Thryomanes bewickii</i>	Bewick's wren	X			
<i>Troglodytes aedon</i>	house wren		X		
TYRANNIDAE					
<i>Contopus sordidulus</i>	western wood-pewee		X		
<i>Sayornis nigricans</i>	black phoebe	X			
<i>Sayornis saya</i>	Say's phoebe		X		
<i>Tyrannus verticalis</i>	western kingbird		X		
TYTONIDAE					
<i>Tyto alba</i>	barn owl		X		
VIREONIDAE					
<i>Vireo huttoni</i>	Hutton's vireo		X		
<u>MAMMALIA</u>					
CANIDAE					
<i>Canis latrans</i>	coyote	X			
<i>Urocyon cinereoargenteus</i>	gray fox	X			
CERVIDAE					
<i>Odocoileus hemionus</i>	mule deer	X			
CRICETIDAE					

**Table B2-12. Animals Observed and Expected in the Vicinity of Site 21
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Fort Ord, California**

<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
Microtus californicus	California vole	X		
Neotoma fuscipes luciana	Monterey dusky-footed woodrat	X		CSC, F2
Peromyscus maniculatus	deer mouse		X	
DIDELPHIDAE				
Didelphis virginiana	Virginia opossum		X	
EQUIDEA				
Equus caballus	horse	X		
FELIDAE				
Felis catus	domestic cat	X		
GEOMYIDAE				
Thomomys bottae	Botta's pocket gopher	X		
LEPORIDAE				
Lepus californicus	black-tailed hare		X	
Sylvilagus audubonii	desert cottontail	X		
MUSTELIDAE				
Mephitis mephitis	striped skunk		X	
PROCYONIDAE				
Procyon lotor	raccoon	X		
SCIURIDAE				
Spermophilus beecheyi	California ground squirrel	X		
TALPIDAE				
Scapanus latimanus	broad-footed mole		X	
<u>REPTILIA</u>				
ANGUIDAE				
Gerrhonotus coeruleus	northern alligator lizard		X	
Gerrhonotus multicarinatus	southern alligator lizard		X	
ANNIELLIDAE				
Anniella pulchra pulchra	silvery legless lizard		X	CSC
COLUBRIDAE				
Lampropeltis getulus	common kingsnake		X	
Masticophis lateralis	California whipsnake		X	
Pituophis melanoleucus	gopher snake		X	
IGUANIDAE				

**Table B2-12. Animals Observed and Expected in the Vicinity of Site 21
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<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
Sceloporus occidentalis	western fence lizard		X		
Uta stansburiana	side-blotched lizard		X		
SCINCIDAE					
Eumeces skiltonianus	western skink		X		
VIPERIDAE					
Crotalus viridis	western rattlesnake		X		

**Table B2-13. Animals Observed and Expected in the Vicinity of Site 22
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Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
<u>AMPHIBIA</u>					
HYLIDAE					
Hyla regilla	Pacific treefrog		X		
PLETHODONTIDAE					
Batrachoseps pacificus	Pacific slender salamander		X		
<u>AVES</u>					
ACCIPITRIDAE					
Buteo jamaicensis	red-tailed hawk	X			
Buteo lineatus	red-shouldered hawk		X		
AEGITHALIDAE					
Psaltriparus minimus	bushtit	X			
CATHARTIDAE					
Cathartes aura	turkey vulture		X		
CHARADRIIDAE					
Charadrius vociferus	killdeer		X		
COLUMBIDAE					
Columba fasciata	band-tailed pigeon		X		
Columba livia	rock dove		X		
Zenaida macroura	mourning dove		X		
CORVIDAE					
Aphelocoma coerulescens	scrub jay	X			
Corvus brachyrhynchos	American crow	X			
EMBERIZIDAE					
Euphagus cyanocephalus	Brewer's blackbird		X		
Junco hyemalis	dark-eyed junco		X		
FALCONIDAE					
Falco sparverius	American kestrel		X		
FRINGILLIDAE					
Carduelis psaltria	lesser goldfinch	X			
MUSCICAPIDAE					
Chamaea fasciata	wrentit	X			
PASSERIDAE					
Passer domesticus	house sparrow		X		

**Table B2-13. Animals Observed and Expected in the Vicinity of Site 22
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Fort Ord, California**

<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
PHASIANIDAE				
Callipepla californica	California quail		X	
PICIDAE				
Colaptes auratus	northern red-shafted flicker		X	
Melanerpes formicivorus	acorn woodpecker		X	
Picoides nuttallii	Nuttall's woodpecker		X	
Picoides pubescens	downy woodpecker		X	
Picoides villosus	hairy woodpecker		X	
STRIGIDAE				
Bubo virginianus	great horned owl		X	
Otus kennicottii	western screech-owl		X	
STURNIDAE				
Sturnus vulgaris	European starling	X		
TROCHILIDAE				
Calypte anna	Anna's hummingbird		X	
Selasphorus sasin	Allen's hummingbird		X	
TYRANNIDAE				
Sayornis nigricans	black phoebe		X	
Sayornis saya	Say's phoebe		X	
TYTONIDAE				
Tyto alba	barn owl		X	
<u>MAMMALIA</u>				
CANIDAE				
Canis latrans	coyote	X		
Urocyon cinereoargenteus	gray fox	X		
CERVIDAE				
Odocoileus hemionus	mule deer	X		
CRICETIDAE				
Microtus californicus	California vole		X	
Peromyscus maniculatus	deer mouse		X	
DIDELPHIDAE				
Didelphis virginiana	Virginia opossum		X	
GEOMYIDAE				
Thomomys bottae	Botta's pocket gopher	X		

**Table B2-13. Animals Observed and Expected in the Vicinity of Site 22
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<u>CLASS</u>				
<u>FAMILY</u>				
Scientific name	Common name	Observed	Expected	Status /a/
Lepus californicus	black-tailed hare		X	
Sylvilagus audubonii	desert cottontail		X	
<u>MURIDAE</u>				
Mus musculus	house mouse		X	
<u>MUSTELIDAE</u>				
Mephitis mephitis	striped skunk		X	
<u>PROCYONIDAE</u>				
Procyon lotor	raccoon		X	
<u>SCIURIDAE</u>				
Spermophilus beecheyi	California ground squirrel	X		
<u>REPTILIA</u>				
<u>COLUBRIDAE</u>				
Pituophis melanoleucus	gopher snake		X	
<u>IGUANIDAE</u>				
Sceloporus occidentalis	western fence lizard		X	

**Table B2-14. Animals Observed and Expected in the Vicinity of Site 24
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<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
<u>AMPHIBIA</u>					
HYLIDAE					
Hyla regilla	Pacific treefrog		X		
PLETHODONTIDAE					
Batrachoseps pacificus	Pacific slender salamander		X		
<u>AVES</u>					
ACCIPITRIDAE					
Buteo jamaicensis	red-tailed hawk	X			
Buteo lineatus	red-shouldered hawk	X			
AEGITHALIDAE					
Psaltriparus minimus	bushtit	X			
APODIDAE					
Aeronautes saxatalis	white-throated swift		X		
CATHARTIDAE					
Cathartes aura	turkey vulture	X			
CHARADRIIDAE					
Charadrius vociferus	killdeer		X		
COLUMBIDAE					
Columba fasciata	band-tailed pigeon		X		
Columba livia	rock dove		X		
Zenaida macroura	mourning dove	X			
CORVIDAE					
Aphelocoma coerulescens	scrub jay	X			
Corvus brachyrhynchos	American crow	X			
EMBERIZIDAE					
Agelaius phoeniceus	red-winged blackbird		X		
Dendroica coronata	yellow-rumped warbler	X			
Dendroica townsendi	Townsend's warbler	X			
Euphagus cyanocephalus	Brewer's blackbird	X			
Junco hyemalis	dark-eyed junco		X		
Melospiza melodia	song sparrow		X		
Molothrus ater	brown-headed cowbird		X		
Passerculus sandwichensis	savannah sparrow		X		
Pipilo crissalis	California towhee	X			

**Table B2-14. Animals Observed and Expected in the Vicinity of Site 24
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<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
Pipilo erythrophthalmus	rufous-sided towhee	X			
Sturnella neglecta	western meadowlark		X		
Zonotrichia atricapilla	golden-crowned sparrow		X		
Zonotrichia leucophrys	white-crowned sparrow	X			
FALCONIDAE					
Falco sparverius	American kestrel		X		
FRINGILLIDAE					
Carduelis psaltria	lesser goldfinch		X		
Carpodacus mexicanus	house finch	X			
HIRUNDINIDAE					
Hirundo pyrrhonota	cliff swallow		X		
Hirundo rustica	barn swallow	X			
Stelgidopteryx serripennis	northern rough-winged swallow		X		
LANIIDAE					
Lanius ludovicianus	loggerhead shrike		X	CSC, F2	
LARIDAE					
Larus argentatus	Herring gull		X		
Larus californicus	California gull		X	CSC	
Larus delawarensis	ring-billed gull		X		
Larus glaucescens	glaucous-winged gull		X		
Larus heermanni	Heermann's gull		X		
Larus occidentalis	western gull		X		
Larus thayeri	Thayer's gull		X		
MIMIDAE					
Mimus polyglottos	northern mockingbird		X		
MUSCICAPIDAE					
Regulus calendula	ruby-crowned kinglet	X			
Sialia mexicana	western bluebird		X		
Turdus migratorius	American robin		X		
PARIDAE					
Parus inornatus	plain titmouse	X			
Parus rufescens	chestnut-backed chickadee	X			
PASSERIDAE					
Passer domesticus	house sparrow		X		
PHASIANIDAE					

Table B2-14. Animals Observed and Expected in the Vicinity of Site 24
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<u>CLASS</u>					
<u>FAMILY</u>					
Scientific name	Common name	Observed	Expected	Status /a/	
Callipepla californica	California quail		X		
<u>PICIDAE</u>					
Colaptes auratus	northern red-shafted flicker	X			
Melanerpes formicivorus	acorn woodpecker		X		
Picoides nuttallii	Nuttall's woodpecker		X		
Picoides pubescens	downy woodpecker	X			
Picoides villosus	hairy woodpecker		X		
<u>SITTIDAE</u>					
Sitta carolinensis	white-breasted nuthatch		X		
<u>STRIGIDAE</u>					
Bubo virginianus	great horned owl		X		
Otus kennicottii	western screech-owl		X		
<u>STURNIDAE</u>					
Sturnus vulgaris	European starling		X		
<u>TROCHILIDAE</u>					
Calypte anna	Anna's hummingbird	X			
Selasphorus sasin	Allen's hummingbird		X		
<u>TROGLODYTIDAE</u>					
Thryomanes bewickii	Bewick's wren	X			
Troglodytes aedon	house wren	X			
<u>TYRANNIDAE</u>					
Myiarchus cinerascens	ash-throated flycatcher		X		
Sayornis nigricans	black phoebe		X		
Sayornis saya	Say's phoebe		X		
Tyrannus verticalis	western kingbird		X		
<u>TYTONIDAE</u>					
Tyto alba	barn owl		X		
<u>VIREONIDAE</u>					
Vireo huttoni	Hutton's vireo		X		
<u>MAMMALIA</u>					
<u>CANIDAE</u>					
Canis domesticus	dog	X			
Canis latrans	coyote	X			
Urocyon cinereoargenteus	gray fox	X			
<u>CERVIDAE</u>					

**Table B2-14. Animals Observed and Expected in the Vicinity of Site 24
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Fort Ord, California**

<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
<i>Odocoileus hemionus</i>	mule deer	X		
CRICETIDAE				
<i>Microtus californicus</i>	California vole		X	
<i>Neotoma fuscipes luciana</i>	Monterey dusky-footed woodrat		X	CSC, F2
<i>Peromyscus maniculatus</i>	deer mouse		X	
DIDELPHIDAE				
<i>Didelphis virginiana</i>	Virginia opossum	X		
FELIDAE				
<i>Felis catus</i>	domestic cat	X		
GEOMYIDAE				
<i>Thomomys bottae</i>	Botta's pocket gopher	X		
HETEROMYIDAE				
<i>Dipodomys heermanni</i>	Heermann's kangaroo rat		X	
LEPORIDAE				
<i>Lepus californicus</i>	black-tailed hare		X	
<i>Sylvilagus audubonii</i>	desert cottontail		X	
MUSTELIDAE				
<i>Mephitis mephitis</i>	striped skunk		X	
<i>Mustela frenata</i>	long-tailed weasel		X	
PROCYONIDAE				
<i>Procyon lotor</i>	raccoon	X		
SCIURIDAE				
<i>Spermophilus beecheyi</i>	California ground squirrel	X		
TALPIDAE				
<i>Scapanus latimanus</i>	broad-footed mole		X	
<u>REPTILIA</u>				
ANGUIDAE				
<i>Gerrhonotus multicarinatus</i>	southern alligator lizard		X	
ANNIELLIDAE				
<i>Anniella pulchra pulchra</i>	silvery legless lizard		X	CSC
COLUBRIDAE				
<i>Coluber constrictor</i>	racer		X	
<i>Lampropeltis getulus</i>	common kingsnake		X	

**Table B2-14. Animals Observed and Expected in the Vicinity of Site 24
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<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
Pituophis melanoleucus	gopher snake		X		
IGUANIDAE					
Sceloporus occidentalis	western fence lizard	X			
Uta stansburiana	side-blotched lizard		X		
SCINCIDAE					
Eumeces skiltonianus	western skink		X		

**Table B2-15. Animals Observed and Expected in the Vicinity of Site 25
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
<u>AVES</u>					
ACCIPITRIDAE					
Accipiter cooperii	Cooper's hawk		X	CSC	
Buteo jamaicensis	red-tailed hawk		X		
Buteo lineatus	red-shouldered hawk		X		
AEGITHALIDAE					
Psaltriparus minimus	bushitit		X		
ALAUDIDAE					
Eremophila alpestris	horned lark		X		
APODIDAE					
Aeronautes saxatalis	white-throated swift		X		
CATHARTIDAE					
Cathartes aura	turkey vulture		X		
CERTHIDAE					
Certhia americana	brown creeper		X		
CHARADRIIDAE					
Charadrius vociferus	killdeer		X		
COLUMBIDAE					
Columba fasciata	band-tailed pigeon		X		
Columba livia	rock dove		X		
Zenaida macroura	mourning dove		X		
CORVIDAE					
Aphelocoma coerulescens	scrub jay	X			
Corvus brachyrhynchos	American crow	X			
Cyanocitta stelleri	Steller's jay		X		
EMBERIZIDAE					
Dendroica coronata	yellow-rumped warbler	X			
Euphagus cyanocephalus	Brewer's blackbird		X		
Junco hyemalis	dark-eyed junco	X			
Melospiza melodia	song sparrow		X		
Passerculus sandwichensis	savannah sparrow		X		
Pipilo crissalis	California towhee	X			
Sturnella neglecta	western meadowlark		X		
Zonotrichia atricapilla	golden-crowned sparrow		X		
Zonotrichia leucophrys	white-crowned sparrow	X			

**Table B2-15. Animals Observed and Expected in the Vicinity of Site 25
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
FALCONIDAE				
Falco sparverius	American kestrel		X	
FRINGILLIDAE				
Carduelis psaltria	lesser goldfinch		X	
Carpodacus mexicanus	house finch		X	
HIRUNDINIDAE				
Hirundo pyrrhonota	cliff swallow	X		
Hirundo rustica	barn swallow	X		
Stelgidopteryx serripennis	northern rough-winged swallow		X	
LANIIDAE				
Lanius ludovicianus	loggerhead shrike		X	CSC, F2
LARIDAE				
Larus argentatus	Herring gull		X	
Larus californicus	California gull		X	CSC
Larus delawarensis	ring-billed gull		X	
Larus glaucescens	glaucous-winged gull		X	
Larus heermanni	Heermann's gull		X	
Larus occidentalis	western gull		X	
Larus thayeri	Thayer's gull		X	
MIMIDAE				
Mimus polyglottos	northern mockingbird		X	
MUSCICAPIDAE				
Chamaea fasciata	wren tit		X	
Regulus calendula	ruby-crowned kinglet		X	
Sialia mexicana	western bluebird		X	
Turdus migratorius	American robin		X	
PARIDAE				
Parus inornatus	plain titmouse		X	
Parus rufescens	chestnut-backed chickadee	X		
PASSERIDAE				
Passer domesticus	house sparrow		X	
PHASIANIDAE				
Callipepla californica	California quail	X		
PICIDAE				
Colaptes auratus	northern red-shafted flicker		X	

**Table B2-15. Animals Observed and Expected in the Vicinity of Site 25
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Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
Picoides pubescens	downy woodpecker		X		
Picoides villosus	hairy woodpecker		X		
SITTIDAE					
Sitta carolinensis	white-breasted nuthatch		X		
Sitta pygmaea	pygmy nuthatch		X		
STRIGIDAE					
Bubo virginianus	great horned owl		X		
Otus kennicottii	western screech-owl		X		
STURNIDAE					
Sturnus vulgaris	European starling	X			
TROCHILIDAE					
Calypte anna	Anna's hummingbird	X			
Selasphorus sasin	Allen's hummingbird		X		
TROGLODYTIDAE					
Thryomanes bewickii	Bewick's wren		X		
Troglodytes aedon	house wren		X		
TYRANNIDAE					
Sayornis saya	Say's phoebe		X		
TYTONIDAE					
Tyto alba	barn owl		X		
<u>MAMMALIA</u>					
CANIDAE					
Canis domesticus	dog	X			
Canis latrans	coyote		X		
Urocyon cinereoargenteus	gray fox	X			
CERVIDAE					
Odocoileus hemionus	mule deer		X		
CRICETIDAE					
Microtus californicus	California vole		X		
Peromyscus maniculatus	deer mouse		X		
DIDELPHIDAE					
Didelphis virginiana	Virginia opossum		X		
EQUIDEA					
Equus caballus	horse	X			

**Table B2-15. Animals Observed and Expected in the Vicinity of Site 25
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Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
FELIDAE					
<i>Felis catus</i>	domestic cat	X			
GEOMYIDAE					
<i>Thomomys bottae</i>	Botta's pocket gopher	X			
LEPORIDAE					
<i>Lepus californicus</i>	black-tailed hare		X		
<i>Sylvilagus audubonii</i>	desert cottontail	X			
MUSTELIDAE					
<i>Mephitis mephitis</i>	striped skunk		X		
PROCYONIDAE					
<i>Procyon lotor</i>	raccoon	X			
SCIURIDAE					
<i>Spermophilus beecheyi</i>	California ground squirrel	X			
TALPIDAE					
<i>Scapanus latimanus</i>	broad-footed mole		X		
<u>REPTILIA</u>					
ANGUIDAE					
<i>Gerrhonotus multicarinatus</i>	southern alligator lizard		X		
COLUBRIDAE					
<i>Pituophis melanoleucus</i>	gopher snake		X		
IGUANIDAE					
<i>Sceloporus occidentalis</i>	western fence lizard		X		
<i>Uta stansburiana</i>	side-blotched lizard		X		
SCINCIDAE					
<i>Eumeces skiltonianus</i>	western skink		X		

**Table B2-16. Animals Observed and Expected in the Vicinity of Site 29
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>					
<u>FAMILY</u>					
Scientific name	Common name	Observed	Expected	Status /a/	
<u>AMPHIBIA</u>					
<u>HYLIDAE</u>					
Hyla regilla	Pacific treefrog	X			
<u>AVES</u>					
<u>ACCIPITRIDAE</u>					
Buteo jamaicensis	red-tailed hawk	X			
Buteo lineatus	red-shouldered hawk		X		
Elanus caeruleus	black-shouldered kite		X	*, CFP	
<u>AEGITHALIDAE</u>					
Psaltriparus minimus	bushtit	X			
<u>APODIDAE</u>					
Aeronautes saxatalis	white-throated swift		X		
<u>CATHARTIDAE</u>					
Cathartes aura	turkey vulture	X			
<u>CHARADRIIDAE</u>					
Charadrius vociferus	killdeer		X		
<u>COLUMBIDAE</u>					
Columba fasciata	band-tailed pigeon		X		
Columba livia	rock dove		X		
Zenaida macroura	mourning dove	X			
<u>CORVIDAE</u>					
Aphelocoma coerulescens	scrub jay	X			
Corvus brachyrhynchos	American crow		X		
<u>EMBERIZIDAE</u>					
Agelaius phoeniceus	red-winged blackbird	X			
Dendroica coronata	yellow-rumped warbler	X			
Dendroica townsendi	Townsend's warbler		X		
Euphagus cyanocephalus	Brewer's blackbird		X		
Junco hyemalis	dark-eyed junco		X		
Melospiza melodia	song sparrow		X		
Passerculus sandwichensis	savannah sparrow		X		
Pipilo crissalis	California towhee	X			
Sturnella neglecta	western meadowlark		X		
Zonotrichia leucophrys	white-crowned sparrow		X		
<u>FALCONIDAE</u>					

**Table B2-16. Animals Observed and Expected in the Vicinity of Site 29
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
Falco sparverius	American kestrel		X		
FRINGILLIDAE					
Carduelis psaltria	lesser goldfinch		X		
Carpodacus mexicanus	house finch	X			
HIRUNDINIDAE					
Hirundo pyrrhonota	cliff swallow		X		
Hirundo rustica	barn swallow	X			
Stelgidopteryx serripennis	northern rough-winged swallow		X		
Tachycineta bicolor	tree swallow		X		
Tachycineta thalassina	violet-green swallow	X			
LANIIDAE					
Lanius ludovicianus	loggerhead shrike	X			CSC, F2
MIMIDAE					
Mimus polyglottos	northern mockingbird		X		
MUSCICAPIDAE					
Regulus calendula	ruby-crowned kinglet		X		
Sialia mexicana	western bluebird	X			
Turdus migratorius	American robin		X		
PARIDAE					
Parus inornatus	plain titmouse		X		
PASSERIDAE					
Passer domesticus	house sparrow	X			
PHASIANIDAE					
Callipepla californica	California quail	X			
PICIDAE					
Colaptes auratus	northern red-shafted flicker		X		
Melanerpes formicivorus	acorn woodpecker		X		
Picoides nuttallii	Nuttall's woodpecker	X			
Picoides pubescens	downy woodpecker		X		
Picoides villosus	hairy woodpecker		X		
SITTIDAE					
Sitta carolinensis	white-breasted nuthatch		X		
STRIGIDAE					
Bubo virginianus	great horned owl		X		
Otus kennicottii	western screech-owl		X		

**Table B2-16. Animals Observed and Expected in the Vicinity of Site 29
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
STURNIDAE				
<i>Sturnus vulgaris</i>	European starling	X		
TROCHILIDAE				
<i>Calypte anna</i>	Anna's hummingbird	X		
<i>Selasphorus sasin</i>	Allen's hummingbird		X	
TROGLODYTIDAE				
<i>Thryomanes bewickii</i>	Bewick's wren	X		
TYRANNIDAE				
<i>Myiarchus cinerascens</i>	ash-throated flycatcher	X		
<i>Sayornis nigricans</i>	black phoebe		X	
<i>Sayornis saya</i>	Say's phoebe	X		
<i>Tyrannus verticalis</i>	western kingbird		X	
TYTONIDAE				
<i>Tyto alba</i>	barn owl		X	
VIREONIDAE				
<i>Vireo huttoni</i>	Hutton's vireo		X	
<u>MAMMALIA</u>				
CANIDAE				
<i>Canis latrans</i>	coyote		X	
<i>Urocyon cinereoargenteus</i>	gray fox	X		
CRICETIDAE				
<i>Microtus californicus</i>	California vole		X	
<i>Peromyscus maniculatus</i>	deer mouse		X	
<i>Reithrodontomys megalotis</i>	western harvest mouse		X	
DIDELPHIDAE				
<i>Didelphis virginiana</i>	Virginia opossum		X	
GEOMYIDAE				
<i>Thomomys bottae</i>	Botta's pocket gopher	X		
LEPORIDAE				
<i>Lepus californicus</i>	black-tailed hare	X		
MUSTELIDAE				
<i>Mephitis mephitis</i>	striped skunk		X	
SCIURIDAE				
<i>Spermophilus beecheyi</i>	California ground squirrel	X		

**Table B2-16. Animals Observed and Expected in the Vicinity of Site 29
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Fort Ord, California**

<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
TALPIDAE				
Scapanus latimanus	broad-footed mole		X	
<u>REPTILIA</u>				
ANGUIDAE				
Gerrhonotus multicarinatus	southern alligator lizard		X	
COLUBRIDAE				
Pituophis melanoleucus	gopher snake		X	
IGUANIDAE				
Sceloporus occidentalis	western fence lizard		X	

**Table B2-17. Animals Observed and Expected in the Vicinity of Site 31
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>					
<u>FAMILY</u>					
Scientific name	Common name	Observed	Expected	Status /a/	
<u>AMPHIBIA</u>					
<u>HYLIDAE</u>					
Hyla regilla	Pacific treefrog	X			
<u>PLETHODONTIDAE</u>					
Batrachoseps pacificus	Pacific slender salamander		X		
<u>AVES</u>					
<u>ACCIPITRIDAE</u>					
Accipiter cooperii	Cooper's hawk		X	CSC	
Accipiter striatus	sharp-shinned hawk		X	CSC	
Buteo jamaicensis	red-tailed hawk		X		
Buteo lineatus	red-shouldered hawk		X		
<u>AEGITHALIDAE</u>					
Psaltriparus minimus	bushtit	X			
<u>APODIDAE</u>					
Aeronautes saxatalis	white-throated swift		X		
<u>CATHARTIDAE</u>					
Cathartes aura	turkey vulture		X		
<u>COLUMBIDAE</u>					
Columba fasciata	band-tailed pigeon		X		
Zenaida macroura	mourning dove		X		
<u>CORVIDAE</u>					
Aphelocoma coerulescens	scrub jay	X			
Corvus brachyrhynchos	American crow		X		
<u>EMBERIZIDAE</u>					
Dendroica coronata	yellow-rumped warbler		X		
Dendroica townsendi	Townsend's warbler		X		
Euphagus cyanocephalus	Brewer's blackbird		X		
Junco hyemalis	dark-eyed junco		X		
Molothrus ater	brown-headed cowbird		X		
Pipilo crissalis	California towhee		X		
Pipilo erythrophthalmus	rufous-sided towhee	X			
Sturnella neglecta	western meadowlark		X		
Zonotrichia atricapilla	golden-crowned sparrow		X		
Zonotrichia leucophrys	white-crowned sparrow		X		
<u>FALCONIDAE</u>					

**Table B2-17. Animals Observed and Expected in the Vicinity of Site 31
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
Falco sparverius	American kestrel		X		
FRINGILLIDAE					
Carpodacus mexicanus	house finch	X			
Carpodacus purpureus	purple finch		X		
HIRUNDINIDAE					
Hirundo pyrrhonota	cliff swallow		X		
Hirundo rustica	barn swallow		X		
Tachycineta bicolor	tree swallow		X		
Tachycineta thalassina	violet-green swallow		X		
LANIIDAE					
Lanius ludovicianus	loggerhead shrike		X	CSC, F2	
MUSCICAPIDAE					
Catharus guttatus	hermit thrush		X		
Catharus ustulatus	Swainson's thrush		X		
Chamaea fasciata	wrenit	X			
Regulus calendula	ruby-crowned kinglet		X		
Turdus migratorius	American robin		X		
PARIDAE					
Parus inornatus	plain titmouse	X			
PHASIANIDAE					
Callipepla californica	California quail	X			
Meleagris gallopavo	wild turkey		X		
PICIDAE					
Colaptes auratus	northern red-shafted flicker	X			
Melanerpes formicivorus	acorn woodpecker		X		
Picoides nuttallii	Nuttall's woodpecker		X		
Picoides pubescens	downy woodpecker		X		
Picoides villosus	hairy woodpecker		X		
SITTIDAE					
Sitta carolinensis	white-breasted nuthatch		X		
STRIGIDAE					
Aegolius acadicus	northern saw-whet owl		X		
Bubo virginianus	great horned owl		X		
Otus kennicottii	western screech-owl		X		
STURNIDAE					

**Table B2-17. Animals Observed and Expected in the Vicinity of Site 31
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
<i>Sturnus vulgaris</i>	European starling		X	
TROCHILIDAE				
<i>Calypte anna</i>	Anna's hummingbird	X		
<i>Selasphorus sasin</i>	Allen's hummingbird		X	
TROGLODYTIDAE				
<i>Thryomanes bewickii</i>	Bewick's wren	X		
TYRANNIDAE				
<i>Contopus sordidulus</i>	western wood-pewee		X	
<i>Empidonax difficilis</i>	Pacific-slope flycatcher		X	
TYTONIDAE				
<i>Tyto alba</i>	barn owl		X	
VIREONIDAE				
<i>Vireo huttoni</i>	Hutton's vireo		X	
<u>MAMMALIA</u>				
CANIDAE				
<i>Canis latrans</i>	coyote	X		
<i>Urocyon cinereoargenteus</i>	gray fox	X		
CERVIDAE				
<i>Odocoileus hemionus</i>	mule deer	X		
CRICETIDAE				
<i>Microtus californicus</i>	California vole		X	
<i>Neotoma fuscipes luciana</i>	Monterey dusky-footed woodrat	X		CSC, F2
<i>Peromyscus maniculatus</i>	deer mouse		X	
DIDELPHIDAE				
<i>Didelphis virginiana</i>	Virginia opossum		X	
FELIDAE				
<i>Lynx rufus</i>	bobcat		X	
GEOMYIDAE				
<i>Thomomys bottae</i>	Botta's pocket gopher	X		
LEPORIDAE				
<i>Lepus californicus</i>	black-tailed hare		X	
<i>Sylvilagus audubonii</i>	desert cottontail		X	
MUSTELIDAE				

**Table B2-17. Animals Observed and Expected in the Vicinity of Site 31
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Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
Mephitis mephitis	striped skunk		X		
PROCYONIDAE					
Procyon lotor	raccoon		X		
SCIURIDAE					
Spermophilus beecheyi	California ground squirrel	X			
TALPIDAE					
Scapanus latimanus	broad-footed mole	X			
<u>REPTILIA</u>					
ANGUIDAE					
Gerrhonotus multicarinatus	southern alligator lizard		X		
ANNIELLIDAE					
Anniella pulchra pulchra	silvery legless lizard		X	CSC	
COLUBRIDAE					
Lampropeltis getulus	common kingsnake		X		
Pituophis melanoleucus	gopher snake		X		
IGUANIDAE					
Sceloporus occidentalis	western fence lizard		X		
Uta stansburiana	side-blotched lizard		X		
SCINCIDAE					
Eumeces skiltonianus	western skink		X		
VIPERIDAE					
Crotalus viridis	western rattlesnake		X		

**Table B2-18. Animals Observed and Expected in the Vicinity of Site 32
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>					
<u>FAMILY</u>					
Scientific name	Common name	Observed	Expected	Status /a/	
<u>AMPHIBIA</u>					
<u>HYLIDAE</u>					
Hyla regilla	Pacific treefrog		X		
<u>PLETHODONTIDAE</u>					
Batrachoseps pacificus	Pacific slender salamander		X		
<u>AVES</u>					
<u>ACCIPITRIDAE</u>					
Accipiter cooperii	Cooper's hawk		X	CSC	
Buteo jamaicensis	red-tailed hawk	X			
Buteo lineatus	red-shouldered hawk		X		
Circus cyaneus	northern harrier		X	CSC	
<u>AEGITHALIDAE</u>					
Psaltriparus minimus	bush tit	X			
<u>APODIDAE</u>					
Aeronautes saxatalis	white-throated swift		X		
<u>CATHARTIDAE</u>					
Cathartes aura	turkey vulture		X		
<u>CHARADRIIDAE</u>					
Charadrius vociferus	killdeer	X			
<u>COLUMBIDAE</u>					
Columba fasciata	band-tailed pigeon		X		
Columba livia	rock dove		X		
Zenaida macroura	mourning dove	X			
<u>CORVIDAE</u>					
Aphelocoma coerulescens	scrub jay	X			
Corvus brachyrhynchos	American crow	X			
<u>EMBERIZIDAE</u>					
Agelaius phoeniceus	red-winged blackbird		X		
Dendroica coronata	yellow-rumped warbler	X			
Dendroica townsendi	Townsend's warbler		X		
Dendroica townsendi	Townsend's warbler		X		
Euphagus cyanocephalus	Brewer's blackbird		X		
Junco hyemalis	dark-eyed junco		X		
Melospiza melodia	song sparrow		X		

**Table B2-18. Animals Observed and Expected in the Vicinity of Site 32
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
Molothrus ater	brown-headed cowbird		X	
Pheucticus melanocephalus	black-headed grosbeak		X	
Pipilo crissalis	California towhee	X		
Pipilo erythrophthalmus	rufous-sided towhee	X		
Sturnella neglecta	western meadowlark		X	
Zonotrichia atricapilla	golden-crowned sparrow		X	
Zonotrichia leucophrys	white-crowned sparrow	X		
FALCONIDAE				
Falco sparverius	American kestrel		X	
FRINGILLIDAE				
Carduelis psaltria	lesser goldfinch	X		
Carpodacus mexicanus	house finch	X		
HIRUNDINIDAE				
Hirundo pyrrhonota	cliff swallow		X	
Hirundo rustica	barn swallow	X		
Stelgidopteryx serripennis	northern rough-winged swallow		X	
Tachycineta bicolor	tree swallow		X	
Tachycineta thalassina	violet-green swallow		X	
LANIIDAE				
Lanius ludovicianus	loggerhead shrike		X	CSC, F2
MIMIDAE				
Mimus polyglottos	northern mockingbird		X	
MUSCICAPIDAE				
Chamaea fasciata	wrentit	X		
Regulus calendula	ruby-crowned kinglet		X	
Sialia mexicana	western bluebird		X	
Turdus migratorius	American robin		X	
PARIDAE				
Parus inornatus	plain titmouse	X		
PHASIANIDAE				
Callipepla californica	California quail	X		
PICIDAE				
Picoides nuttallii	Nuttall's woodpecker	X		
Picoides pubescens	downy woodpecker		X	
Picoides villosus	hairy woodpecker		X	

**Table B2-18. Animals Observed and Expected in the Vicinity of Site 32
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<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
<i>Sitta carolinensis</i>	white-breasted nuthatch		X	
STRIGIDAE				
<i>Bubo virginianus</i>	great horned owl		X	
<i>Otus kennicottii</i>	western screech-owl		X	
STURNIDAE				
<i>Sturnus vulgaris</i>	European starling	X		
TROCHILIDAE				
<i>Calypte anna</i>	Anna's hummingbird	X		
<i>Selasphorus rufus</i>	rufous hummingbird	X		
<i>Selasphorus sasin</i>	Allen's hummingbird	X		
TROGLODYTIDAE				
<i>Thryomanes bewickii</i>	Bewick's wren	X		
<i>Troglodytes aedon</i>	house wren		X	
TYRANNIDAE				
<i>Contopus sordidulus</i>	western wood-pewee		X	
<i>Myiarchus cinerascens</i>	ash-throated flycatcher		X	
<i>Sayornis nigricans</i>	black phoebe		X	
<i>Sayornis saya</i>	Say's phoebe		X	
<i>Tyrannus verticalis</i>	western kingbird		X	
TYTONIDAE				
<i>Tyto alba</i>	barn owl		X	
VIREONIDAE				
<i>Vireo huttoni</i>	Hutton's vireo		X	
<u>MAMMALIA</u>				
CANIDAE				
<i>Canis domesticus</i>	dog	X		
<i>Canis latrans</i>	coyote	X		
<i>Urocyon cinereoargenteus</i>	gray fox	X		
CERVIDAE				
<i>Odocoileus hemionus</i>	mule deer	X		
CRICETIDAE				
<i>Microtus californicus</i>	California vole		X	
<i>Neotoma fuscipes luciana</i>	Monterey dusky-footed woodrat		X	CSC, F2
<i>Peromyscus maniculatus</i>	deer mouse		X	

**Table B2-18. Animals Observed and Expected in the Vicinity of Site 32
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<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
<i>Didelphis virginiana</i>	Virginia opossum		X	
EQUIDEA				
<i>Equus caballus</i>	horse	X		
FELIDAE				
<i>Lynx rufus</i>	bobcat		X	
GEOMYIDAE				
<i>Thomomys bottae</i>	Botta's pocket gopher	X		
HETEROMYIDAE				
<i>Dipodomys heermanni</i>	Heermann's kangaroo rat		X	
LEPORIDAE				
<i>Lepus californicus</i>	black-tailed hare		X	
<i>Sylvilagus audubonii</i>	desert cottontail		X	
MUSTELIDAE				
<i>Mephitis mephitis</i>	striped skunk		X	
<i>Mustela frenata</i>	long-tailed weasel		X	
PROCYONIDAE				
<i>Procyon lotor</i>	raccoon		X	
SCIURIDAE				
<i>Spermophilus beecheyi</i>	California ground squirrel	X		
TALPIDAE				
<i>Scapanus latimanus</i>	broad-footed mole		X	
<u>REPTILIA</u>				
ANGUIDAE				
<i>Gerrhonotus coeruleus</i>	northern alligator lizard		X	
<i>Gerrhonotus multicarinatus</i>	southern alligator lizard		X	
ANNIELLIDAE				
<i>Anniella pulchra pulchra</i>	silvery legless lizard		X	CSC
COLUBRIDAE				
<i>Coluber constrictor</i>	racer		X	
<i>Lampropeltis getulus</i>	common kingsnake		X	
<i>Pituophis melanoleucus</i>	gopher snake		X	
IGUANIDAE				
<i>Phrynosoma coronatum frontale</i>	California horned lizard		X	CSC

**Table B2-18. Animals Observed and Expected in the Vicinity of Site 32
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<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
Sceloporus occidentalis	western fence lizard	X		
SCINCIDAE				
Eumeces skiltonianus	western skink		X	
VIPERIDAE				
Crotalus viridis	western rattlesnake		X	

**Table B2-19. Animals Observed and Expected in the Vicinity of Site 33
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<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
<u>AMPHIBIA</u>				
HYLIDAE				
Hyla regilla	Pacific treefrog		X	
PLETHODONTIDAE				
Batrachoseps pacificus	Pacific slender salamander		X	
<u>AVES</u>				
ACCIPITRIDAE				
Accipiter cooperii	Cooper's hawk		X	CSC
Buteo jamaicensis	red-tailed hawk		X	
Buteo lineatus	red-shouldered hawk		X	
Circus cyaneus	northern harrier		X	CSC
AEGITHALIDAE				
Psaltriparus minimus	bush-tit	X		
APODIDAE				
Aeronautes saxatalis	white-throated swift		X	
CATHARTIDAE				
Cathartes aura	turkey vulture		X	
CERTHIDAE				
Certhia americana	brown creeper		X	
CHARADRIIDAE				
Charadrius vociferus	killdeer		X	
COLUMBIDAE				
Columba fasciata	band-tailed pigeon		X	
Columba livia	rock dove		X	
Zenaidura macroura	mourning dove	X		
CORVIDAE				
Aphelocoma coerulescens	scrub jay	X		
Corvus brachyrhynchos	American crow	X		
Cyanocitta stelleri	Steller's jay		X	
EMBERIZIDAE				
Agelaius phoeniceus	red-winged blackbird		X	
Dendroica coronata	yellow-rumped warbler	X		
Euphagus cyanocephalus	Brewer's blackbird		X	
Junco hyemalis	dark-eyed junco		X	

**Table B2-19. Animals Observed and Expected in the Vicinity of Site 33
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<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
Melospiza melodia	song sparrow		X		
Molothrus ater	brown-headed cowbird		X		
Passerculus sandwichensis	savannah sparrow		X		
Pipilo crissalis	California towhee	X			
Pipilo erythrophthalmus	rufous-sided towhee		X		
Sturnella neglecta	western meadowlark		X		
Zonotrichia leucophrys	white-crowned sparrow		X		
FALCONIDAE					
Falco sparverius	American kestrel		X		
FRINGILLIDAE					
Carduelis psaltria	lesser goldfinch		X		
Carpodacus mexicanus	house finch	X			
HIRUNDINIDAE					
Hirundo pyrrhonota	cliff swallow		X		
Hirundo rustica	barn swallow		X		
Stelgidopteryx serripennis	northern rough-winged swallow		X		
Tachycineta bicolor	tree swallow		X		
Tachycineta thalassina	violet-green swallow		X		
LANIIDAE					
Lanius ludovicianus	loggerhead shrike		X		CSC, F2
LARIDAE					
Larus glaucescens	glaucous-winged gull		X		
MIMIDAE					
Mimus polyglottos	northern mockingbird		X		
MUSCICAPIDAE					
Regulus calendula	ruby-crowned kinglet		X		
Sialia mexicana	western bluebird		X		
Turdus migratorius	American robin		X		
PARIDAE					
Parus inornatus	plain titmouse	X			
Parus rufescens	chestnut-backed chickadee		X		
PASSERIDAE					
Passer domesticus	house sparrow		X		
PHASIANIDAE					
Callipepla californica	California quail		X		

**Table B2-19. Animals Observed and Expected in the Vicinity of Site 33
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<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
Colaptes auratus	northern red-shafted flicker		X	
Melanerpes formicivorus	acorn woodpecker	X		
Picoides nuttallii	Nuttall's woodpecker		X	
Picoides pubescens	downy woodpecker		X	
Picoides villosus	hairy woodpecker	X		
SITTIDAE				
Sitta carolinensis	white-breasted nuthatch		X	
STRIGIDAE				
Bubo virginianus	great horned owl		X	
Otus kennicottii	western screech-owl		X	
STURNIDAE				
Sturnus vulgaris	European starling		X	
TROCHILIDAE				
Calypte anna	Anna's hummingbird	X		
Selasphorus sasin	Allen's hummingbird		X	
TROGLODYTIDAE				
Thryomanes bewickii	Bewick's wren		X	
Troglodytes aedon	house wren		X	
TYRANNIDAE				
Contopus sordidulus	western wood-pewee		X	
Myiarchus cinerascens	ash-throated flycatcher		X	
Sayornis nigricans	black phoebe		X	
Sayornis saya	Say's phoebe		X	
Tyrannus verticalis	western kingbird		X	
TYTONIDAE				
Tyto alba	barn owl		X	
VIREONIDAE				
Vireo huttoni	Hutton's vireo		X	
<u>MAMMALIA</u>				
CANIDAE				
Canis domesticus	dog	X		
Canis latrans	coyote		X	
Urocyon cinereoargenteus	gray fox		X	
CERVIDAE				

**Table B2-19. Animals Observed and Expected in the Vicinity of Site 33
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<u>CLASS</u>					
<u>FAMILY</u>					
Scientific name	Common name	Observed	Expected	Status /a/	
Odocoileus hemionus	mule deer		X		
<u>CRICETIDAE</u>					
Microtus californicus	California vole		X		
Peromyscus maniculatus	deer mouse		X		
<u>DIDELPHIDAE</u>					
Didelphis virginiana	Virginia opossum		X		
<u>FELIDAE</u>					
Felis catus	domestic cat	X			
<u>GEOMYIDAE</u>					
Thomomys bottae	Botta's pocket gopher	X			
<u>LEPORIDAE</u>					
Lepus californicus	black-tailed hare		X		
Sylvilagus audubonii	desert cottontail		X		
<u>MURIDAE</u>					
Mus musculus	house mouse		X		
<u>MUSTELIDAE</u>					
Mephitis mephitis	striped skunk		X		
<u>PROCYONIDAE</u>					
Procyon lotor	raccoon		X		
<u>SCIURIDAE</u>					
Spermophilus beecheyi	California ground squirrel		X		
<u>TALPIDAE</u>					
Scapanus latimanus	broad-footed mole		X		
<u>REPTILIA</u>					
<u>ANGUIDAE</u>					
Gerrhonotus coeruleus	northern alligator lizard		X		
Gerrhonotus multicarinatus	southern alligator lizard		X		
<u>COLUBRIDAE</u>					
Pituophis melanoieucus	gopher snake		X		
<u>IGUANIDAE</u>					
Sceloporus occidentalis	western fence lizard		X		

**Table B2-20. Animals Observed and Expected in the Vicinity of Site 35
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Fort Ord, California**

<u>CLASS</u>					
<u>FAMILY</u>					
Scientific name	Common name	Observed	Expected	Status /a/	
<u>AVES</u>					
ACCIPITRIDAE					
Aquila chrysaetos	golden eagle		X	CSC, FP	
Buteo jamaicensis	red-tailed hawk		X		
Elanus caeruleus	black-shouldered kite		X	*, CFP	
AEGITHALIDAE					
Psaltriparus minimus	bushtit	X			
APODIDAE					
Aeronautes saxatalis	white-throated swift		X		
CAPRIMULGIDAE					
Phalaenoptilus nuttallii	common poorwill		X		
CATHARTIDAE					
Cathartes aura	turkey vulture	X			
COLUMBIDAE					
Columba fasciata	band-tailed pigeon	X			
Columba livia	rock dove		X		
Zenaida macroura	mourning dove	X			
CORVIDAE					
Aphelocoma coerulescens	scrub jay	X			
Corvus brachyrhynchos	American crow		X		
EMBERIZIDAE					
Dendroica coronata	yellow-rumped warbler	X			
Euphagus cyanocephalus	Brewer's blackbird	X			
Junco hyemalis	dark-eyed junco		X		
Passerculus iliaca	fox sparrow		X		
Pipilo crissalis	California towhee	X			
Pipilo erythrophthalmus	rufous-sided towhee	X			
Sturnella neglecta	western meadowlark		X		
Vermivora celata	orange-crowned warbler		X		
Zonotrichia atricapilla	golden-crowned sparrow	X			
Zonotrichia leucophrys	white-crowned sparrow		X		
FALCONIDAE					
Falco sparverius	American kestrel		X		
FRINGILLIDAE					
Carduelis tristis	American goldfinch		X		

**Table B2-20. Animals Observed and Expected in the Vicinity of Site 35
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Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
<i>Carpodacus mexicanus</i>	house finch	X			
HIRUNDINIDAE					
<i>Hirundo pyrrhonota</i>	cliff swallow		X		
<i>Hirundo rustica</i>	barn swallow		X		
LANIIDAE					
<i>Lanius ludovicianus</i>	loggerhead shrike		X	CSC, F2	
MIMIDAE					
<i>Mimus polyglottos</i>	northern mockingbird		X		
<i>Toxostoma redivivum</i>	California thrasher		X		
MUSCICAPIDAE					
<i>Chamaea fasciata</i>	wrenit	X			
<i>Regulus calendula</i>	ruby-crowned kinglet		X		
<i>Sialia mexicana</i>	western bluebird		X		
PARIDAE					
<i>Parus inornatus</i>	plain titmouse	X			
PHASIANIDAE					
<i>Callipepla californica</i>	California quail	X			
PICIDAE					
<i>Melanerpes formicivorus</i>	acorn woodpecker		X		
<i>Picoides nuttallii</i>	Nuttall's woodpecker		X		
<i>Picoides pubescens</i>	downy woodpecker		X		
<i>Picoides villosus</i>	hairy woodpecker		X		
STRIGIDAE					
<i>Bubo virginianus</i>	great horned owl		X		
STURNIDAE					
<i>Sturnus vulgaris</i>	European starling	X			
TROCHILIDAE					
<i>Calypte anna</i>	Anna's hummingbird	X			
<i>Selasphorus sasin</i>	Allen's hummingbird	X			
TROGLODYTIDAE					
<i>Thryomanes bewickii</i>	Bewick's wren		X		
<i>Troglodytes aedon</i>	house wren		X		
TYRANNIDAE					
<i>Myiarchus cinerascens</i>	ash-throated flycatcher		X		

**Table B2-20. Animals Observed and Expected in the Vicinity of Site 35
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Fort Ord, California**

<u>CLASS</u>					
<u>FAMILY</u>					
Scientific name	Common name	Observed	Expected	Status /a/	
Sayornis nigricans	black phoebe		X		
Sayornis saya	Say's phoebe	X			
Tyrannus verticalis	western kingbird		X		
<u>TYTONIDAE</u>					
Tyto alba	barn owl		X		
<u>MAMMALIA</u>					
<u>CANIDAE</u>					
Canis domesticus	dog	X			
Canis latrans	coyote	X			
Urocyon cinereoargenteus	gray fox	X			
<u>CERVIDAE</u>					
Odocoileus hemionus	mule deer	X			
<u>CRICETIDAE</u>					
Microtus californicus	California vole		X		
Neotoma fuscipes luciana	Monterey dusky-footed woodrat	X		CSC, F2	
Peromyscus maniculatus	deer mouse		X		
<u>DIDELPHIDAE</u>					
Didelphis virginiana	Virginia opossum		X		
<u>FELIDAE</u>					
Lynx rufus	bobcat		X		
<u>GEOMYIDAE</u>					
Thomomys bottae	Botta's pocket gopher	X			
<u>HETEROMYIDAE</u>					
Dipodomys heermanni	Heermann's kangaroo rat		X		
<u>LEPORIDAE</u>					
Lepus californicus	black-tailed hare		X		
Sylvilagus audubonii	desert cottontail		X		
<u>MUSTELIDAE</u>					
Mephitis mephitis	striped skunk		X		
Mustela frenata	long-tailed weasel		X		
Taxidea taxus	American badger		X	CSC	
<u>PROCYONIDAE</u>					
Procyon lotor	raccoon	X			
<u>SCIURIDAE</u>					

**Table B2-20. Animals Observed and Expected in the Vicinity of Site 35
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<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
Spermophilus beecheyi	California ground squirrel	X			
<u>REPTILIA</u>					
ANGUIDAE					
Gerrhonotus multicarinatus	southern alligator lizard		X		
ANNIELLIDAE					
Anniella pulchra pulchra	silvery legless lizard		X	CSC	
COLUBRIDAE					
Coluber constrictor	racer		X		
Masticophis lateralis	California whipsnake		X		
Pituophis melanoleucus	gopher snake		X		
IGUANIDAE					
Phrynosoma coronatum frontale	California horned lizard		X	CSC	
Sceloporus occidentalis	western fence lizard	X			
Uta stansburiana	side-blotched lizard		X		
VIPERIDAE					
Crotalus viridis	western rattlesnake		X		

**Table B2-21. Animals Observed and Expected in the Vicinity of Site 36
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Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
<u>AVES</u>					
ACCIPITRIDAE					
Aquila chrysaetos	golden eagle		X	CSC, FP	
Buteo jamaicensis	red-tailed hawk		X		
Circus cyaneus	northern harrier		X	CSC	
AEGITHALIDAE					
Psaltriparus minimus	bush tit	X			
ALAUDIDAE					
Eremophila alpestris	horned lark		X		
APODIDAE					
Aeronautes saxatalis	white-throated swift		X		
CATHARTIDAE					
Cathartes aura	turkey vulture		X		
CHARADRIIDAE					
Charadrius vociferus	killdeer		X		
COLUMBIDAE					
Zenaida macroura	mourning dove		X		
CORVIDAE					
Aphelocoma coerulescens	scrub jay		X		
Corvus brachyrhynchos	American crow		X		
EMBERIZIDAE					
Dendroica coronata	yellow-rumped warbler	X			
Euphagus cyanocephalus	Brewer's blackbird		X		
Junco hyemalis	dark-eyed junco		X		
Melospiza melodia	song sparrow		X		
Pipilo crissalis	California towhee	X			
Pipilo erythrophthalmus	rufous-sided towhee		X		
Sturnella neglecta	western meadowlark	X			
Zonotrichia atricapilla	golden-crowned sparrow	X			
Zonotrichia leucophrys	white-crowned sparrow	X			
FALCONIDAE					
Falco sparverius	American kestrel		X		
FRINGILLIDAE					
Carduelis psaltria	lesser goldfinch		X		

**Table B2-21. Animals Observed and Expected in the Vicinity of Site 36
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Fort Ord, California**

<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
<i>Carpodacus mexicanus</i>	house finch	X			
HIRUNDINIDAE					
<i>Hirundo pyrrhonota</i>	cliff swallow		X		
<i>Hirundo rustica</i>	barn swallow		X		
LANIIDAE					
<i>Lanius ludovicianus</i>	loggerhead shrike		X		CSC, F2
MIMIDAE					
<i>Mimus polyglottos</i>	northern mockingbird		X		
MUSCICAPIDAE					
<i>Regulus calendula</i>	ruby-crowned kinglet		X		
<i>Sialia mexicana</i>	western bluebird		X		
<i>Turdus migratorius</i>	American robin		X		
PARIDAE					
<i>Parus inornatus</i>	plain titmouse		X		
PICIDAE					
<i>Picoides pubescens</i>	downy woodpecker	X			
<i>Picoides villosus</i>	hairy woodpecker		X		
STRIGIDAE					
<i>Bubo virginianus</i>	great horned owl		X		
<i>Otus kennicottii</i>	western screech-owl		X		
STURNIDAE					
<i>Sturnus vulgaris</i>	European starling		X		
TROCHILIDAE					
<i>Calypte anna</i>	Anna's hummingbird		X		
<i>Selasphorus sasin</i>	Allen's hummingbird		X		
TROGLODYTIDAE					
<i>Thryomanes bewickii</i>	Bewick's wren	X			
<i>Troglodytes aedon</i>	house wren		X		
TYRANNIDAE					
<i>Sayornis nigricans</i>	black phoebe	X			
<i>Sayornis saya</i>	Say's phoebe		X		
<i>Tyrannus verticalis</i>	western kingbird		X		
TYTONIDAE					
<i>Tyto alba</i>	barn owl		X		

Table B2-21. Animals Observed and Expected in the Vicinity of Site 36
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<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
CANIDAE				
<i>Canis latrans</i>	coyote		X	
<i>Urocyon cinereoargenteus</i>	gray fox	X		
CERVIDAE				
<i>Odocoileus hemionus</i>	mule deer	X		
CRICETIDAE				
<i>Microtus californicus</i>	California vole		X	
<i>Neotoma fuscipes luciana</i>	Monterey dusky-footed woodrat		X	CSC, F2
<i>Peromyscus maniculatus</i>	deer mouse		X	
<i>Reithrodontomys megalotis</i>	western harvest mouse		X	
DIDELPHIDAE				
<i>Didelphis virginiana</i>	Virginia opossum		X	
GEOMYIDAE				
<i>Thomomys bottae</i>	Botta's pocket gopher		X	
HETEROMYIDAE				
<i>Dipodomys heermanni</i>	Heermann's kangaroo rat		X	
<i>Perognathus californicus</i>	California pocket mouse		X	
LEPORIDAE				
<i>Lepus californicus</i>	black-tailed hare	X		
MUSTELIDAE				
<i>Mephitis mephitis</i>	striped skunk		X	
PROCYONIDAE				
<i>Procyon lotor</i>	raccoon		X	
SCIURIDAE				
<i>Spermophilus beecheyi</i>	California ground squirrel		X	
<u>REPTILIA</u>				
COLUBRIDAE				
<i>Coluber constrictor</i>	racer		X	
<i>Pituophis melanoleucus</i>	gopher snake		X	
IGUANIDAE				
<i>Sceloporus occidentalis</i>	western fence lizard		X	
VIPERIDAE				
<i>Crotalus viridis</i>	western rattlesnake		X	

**Table B2-22. Animals Observed and Expected in the Vicinity of Site 39
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<u>CLASS</u>				
<u>FAMILY</u>				
Scientific name	Common name	Observed	Expected	Status /a/
<u>AMPHIBIA</u>				
AMBYSTOMATIDAE				
Ambystoma tigrinum	California tiger salamander		X	CSC, F2
BUFONIDAE				
Bufo boreas	western toad		X	
HYLIDAE				
Hyla regilla	Pacific treefrog	X		
PLETHODONTIDAE				
Batrachoseps pacificus	Pacific slender salamander		X	
RANIDAE				
Rana catesbeiana	bullfrog		X	
<u>AVES</u>				
ACCIPITRIDAE				
Accipiter cooperii	Cooper's hawk		X	CSC
Accipiter striatus	sharp-shinned hawk		X	CSC
Aquila chrysaetos	golden eagle	X		CSC, FP
Buteo jamaicensis	red-tailed hawk	X		
Buteo lineatus	red-shouldered hawk		X	
Circus cyaneus	northern harrier	X		CSC
Elanus caeruleus	black-shouldered kite		X	*. CFP
AEGITHALIDAE				
Psaltriparus minimus	bushtit	X		
ALCEDINIDAE				
Ceryle alcyon	belted kingfisher		X	
ANATIDAE				
Aix sponsa	wood duck		X	
Anas acuta	northern pintail		X	
Anas americana	American wigeon		X	
Anas crecca	green-winged teal		X	
Anas cyanoptera	cinnamon teal		X	
Anas platyrhynchos	mallard	X		
Anas strepera	gadwall		X	
Aythya affinis	lesser scaup		X	
Aythya valisineria	canvasback		X	
Branta canadensis	Canada goose	X		

**Table B2-22. Animals Observed and Expected in the Vicinity of Site 39
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<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
<i>Bucephala albeola</i>	bufflehead		X	
<i>Bucephala clangula</i>	common goldeneye		X	
<i>Mergus merganser</i>	common merganser		X	
<i>Oxyura jamaicensis</i>	ruddy duck		X	
APODIDAE				
<i>Aeronautes saxatalis</i>	white-throated swift		X	
ARDEIDAE				
<i>Ardea herodias</i>	great blue heron		X	
<i>Butorides striatus</i>	green-backed heron		X	
<i>Casmerodius albus</i>	great egret		X	
<i>Egretta thula</i>	snowy egret		X	
<i>Nycticorax nycticorax</i>	black-crowned night-heron		X	
CAPRIMULGIDAE				
<i>Phalaenoptilus nuttallii</i>	common poorwill		X	
CATHARTIDAE				
<i>Cathartes aura</i>	turkey vulture	X		
CHARADRIIDAE				
<i>Charadrius vociferus</i>	killdeer	X		
COLUMBIDAE				
<i>Columba fasciata</i>	band-tailed pigeon		X	
<i>Columba livia</i>	rock dove		X	
<i>Zenaida macroura</i>	mourning dove	X		
CORVIDAE				
<i>Aphelocoma coerulescens</i>	scrub jay	X		
<i>Corvus brachyrhynchos</i>	American crow	X		
EMBERIZIDAE				
<i>Agelaius phoeniceus</i>	red-winged blackbird	X		
<i>Amphispiza bilineata</i>	black-throated sparrow	X		
<i>Euphagus cyanocephalus</i>	Brewer's blackbird		X	
<i>Junco hyemalis</i>	dark-eyed junco	X		
<i>Molothrus ater</i>	brown-headed cowbird		X	
<i>Pipilo crissalis</i>	California towhee	X		
<i>Pipilo erythrophthalmus</i>	rufous-sided towhee	X		
<i>Sturnella neglecta</i>	western meadowlark		X	
<i>Zonotrichia atricapilla</i>	golden-crowned sparrow	X		
<i>Zonotrichia leucophrys</i>	white-crowned sparrow	X		

**Table B2-22. Animals Observed and Expected in the Vicinity of Site 39
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<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
<i>Falco sparverius</i>	American kestrel	X		
FRINGILLIDAE				
<i>Carduelis psaltria</i>	lesser goldfinch		X	
<i>Carduelis tristis</i>	American goldfinch		X	
<i>Carpodacus mexicanus</i>	house finch	X		
<i>Carpodacus purpureus</i>	purple finch		X	
HIRUNDINIDAE				
<i>Hirundo rustica</i>	barn swallow	X		
<i>Stelgidopteryx serripennis</i>	northern rough-winged swallow	X		
<i>Tachycineta bicolor</i>	tree swallow		X	
<i>Tachycineta thalassina</i>	violet-green swallow		X	
MIMIDAE				
<i>Mimus polyglottos</i>	northern mockingbird	X		
<i>Toxostoma redivivum</i>	California thrasher	X		
MUSCICAPIDAE				
<i>Chamaea fasciata</i>	wrenit	X		
<i>Polioptila caerulea</i>	blue-gray gnatcatcher	X		
PASSERIDAE				
<i>Passer domesticus</i>	house sparrow		X	
PHASIANIDAE				
<i>Callipepla californica</i>	California quail	X		
<i>Meleagris gallopavo</i>	wild turkey		X	
PICIDAE				
<i>Colaptes auratus</i>	northern red-shafted flicker	X		
<i>Melanerpes formicivorus</i>	acorn woodpecker	X		
<i>Picoides nuttallii</i>	Nuttall's woodpecker		X	
<i>Picoides pubescens</i>	downy woodpecker		X	
<i>Picoides villosus</i>	hairy woodpecker		X	
SCOLOPACIDAE				
<i>Gallinago gallinago</i>	common snipe	X		
SITTIDAE				
<i>Sitta carolinensis</i>	white-breasted nuthatch		X	
STRIGIDAE				
<i>Aegolius acadicus</i>	northern saw-whet owl		X	
<i>Bubo virginianus</i>	great horned owl		X	

**Table B2-22. Animals Observed and Expected in the Vicinity of Site 39
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<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
<i>Otus kennicottii</i>	western screech-owl		X	
<i>Speotyto (=Athene) cunicularia</i>	burrowing owl		X	CSC
STURNIDAE				
<i>Sturnus vulgaris</i>	European starling	X		
TROCHILIDAE				
<i>Calypte anna</i>	Anna's hummingbird	X		
<i>Selasphorus sasin</i>	Allen's hummingbird		X	
TROGLODYTIDAE				
<i>Thryomanes bewickii</i>	Bewick's wren	X		
TYRANNIDAE				
<i>Contopus borealis</i>	olive-sided flycatcher		X	
<i>Contopus sordidulus</i>	western wood-pewee		X	
<i>Myiarchus cinerascens</i>	ash-throated flycatcher		X	
<i>Sayornis nigricans</i>	black phoebe	X		
<i>Sayornis saya</i>	Say's phoebe		X	
<i>Tyrannus verticalis</i>	western kingbird		X	
TYTONIDAE				
<i>Tyto alba</i>	barn owl		X	
<u>MAMMALIA</u>				
CANIDAE				
<i>Canis latrans</i>	coyote	X		
<i>Urocyon cinereoargenteus</i>	gray fox	X		
CERVIDAE				
<i>Odocoileus hemionus</i>	mule deer	X		
CRICETIDAE				
<i>Neotoma fuscipes luciana</i>	Monterey dusky-footed woodrat	X		CSC, F2
<i>Perognathus californicus</i>	California pocket mouse		X	
<i>Peromyscus maniculatus</i>	deer mouse		X	
<i>Reithrodontomys megalotis</i>	western harvest mouse		X	
DIDELPHIDAE				
<i>Didelphis virginiana</i>	Virginia opossum		X	
FELIDAE				
<i>Lynx rufus</i>	bobcat		X	
GEOMYIDAE				

**Table B2-22. Animals Observed and Expected in the Vicinity of Site 39
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<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
Thomomys bottae	Botta's pocket gopher	X			
HETEROMYIDAE					
Dipodomys heermanni	Heermann's kangaroo rat		X		
LEPORIDAE					
Lepus californicus	black-tailed hare	X			
Sylvilagus audubonii	desert cottontail	X			
Sylvilagus bachmani	brush rabbit		X		
MURIDAE					
Mus musculus	house mouse		X		
MUSTELIDAE					
Mephitis mephitis	striped skunk	X			
Taxidea taxus	American badger		X	CSC	
PROCYONIDAE					
Procyon lotor	raccoon	X			
SCIURIDAE					
Spermophilus beecheyi	California ground squirrel	X			
TALPIDAE					
Scapanus latimanus	broad-footed mole		X		
<u>REPTILIA</u>					
BOIDAE					
Charina bottae bottae	rubber boa	X			
COLUBRIDAE					
Coluber constrictor	racer		X		
Lampropeltis getulus	common kingsnake		X		
Lampropeltis zonata	California mountain kingsnake		X		
Masticophis lateralis	California whipsnake		X		
Pituophis melanoleucus	gopher snake	X			
Thamnophis sirtalis	common garter snake		X		
EMYDIDAE					
Clemmys marmorata pallida	southwestern pond turtle		X	CSC, F2	
IGUANIDAE					
Phrynosoma coronatum frontale	California horned lizard	X		CSC	
Sceloporus occidentalis	western fence lizard	X			
Uta stansburiana	side-blotched lizard		X		

Table B2-22. Animals Observed and Expected in the Vicinity of Site 39
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<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
Crotalus viridis	western rattlesnake		X	

**Table B2-23. Animals Observed and Expected in the Vicinity of Site 40
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<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
<u>AMPHIBIA</u>				
HYLIDAE				
Hyla regilla	Pacific treefrog		X	
<u>AVES</u>				
ACCIPITRIDAE				
Accipiter cooperii	Cooper's hawk		X	CSC
Accipiter striatus	sharp-shinned hawk		X	CSC
Aquila chrysaetos	golden eagle	X		CSC, FP
Buteo jamaicensis	red-tailed hawk		X	
Buteo lineatus	red-shouldered hawk		X	
Circus cyaneus	northern harrier		X	CSC
Elanus caeruleus	black-shouldered kite		X	*, CFP
ALAUDIDAE				
Eremophila alpestris	horned lark	X		
CAPRIMULGIDAE				
Phalaenoptilus nuttallii	common poorwill		X	
CATHARTIDAE				
Cathartes aura	turkey vulture	X		
CHARADRIIDAE				
Charadrius vociferus	killdeer	X		
COLUMBIDAE				
Columba livia	rock dove		X	
Zenaida macroura	mourning dove	X		
CORVIDAE				
Aphelocoma coerulescens	scrub jay	X		
EMBERIZIDAE				
Euphagus cyanocephalus	Brewer's blackbird	X		
Junco hyemalis	dark-eyed junco		X	
Molothrus ater	brown-headed cowbird		X	
Sturnella neglecta	western meadowlark		X	
FALCONIDAE				
Falco sparverius	American kestrel	X		
FRINGILLIDAE				
Carduelis psaltria	lesser goldfinch	X		

**Table B2-23. Animals Observed and Expected in the Vicinity of Site 40
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<u>CLASS</u>					
FAMILY					
Scientific name	Common name	Observed	Expected	Status /a/	
<i>Carpodacus mexicanus</i>	house finch		X		
HIRUNDINIDAE					
<i>Hirundo rustica</i>	barn swallow	X			
<i>Stelgidopteryx serripennis</i>	northern rough-winged swallow		X		
<i>Tachycineta thalassina</i>	violet-green swallow		X		
PASSERIDAE					
<i>Passer domesticus</i>	house sparrow		X		
PHASIANIDAE					
<i>Callipepla californica</i>	California quail	X			
PICIDAE					
<i>Colaptes auratus</i>	northern red-shafted flicker		X		
<i>Melanerpes formicivorus</i>	acorn woodpecker		X		
<i>Picoides nuttallii</i>	Nuttall's woodpecker		X		
<i>Picoides pubescens</i>	downy woodpecker		X		
<i>Picoides villosus</i>	hairy woodpecker		X		
SITTIDAE					
<i>Sitta carolinensis</i>	white-breasted nuthatch		X		
STRIGIDAE					
<i>Bubo virginianus</i>	great horned owl	X			
<i>Otus kennicottii</i>	western screech-owl		X		
STURNIDAE					
<i>Sturnus vulgaris</i>	European starling	X			
TROCHILIDAE					
<i>Calypte anna</i>	Anna's hummingbird		X		
<i>Selasphorus sasin</i>	Allen's hummingbird		X		
TYRANNIDAE					
<i>Sayornis nigricans</i>	black phoebe		X		
<i>Sayornis saya</i>	Say's phoebe		X		
<i>Tyrannus verticalis</i>	western kingbird		X		
TYTONIDAE					
<i>Tyto alba</i>	barn owl		X		
<u>MAMMALIA</u>					
CANIDAE					
<i>Canis latrans</i>	coyote	X			

**Table B2-23. Animals Observed and Expected in the Vicinity of Site 40
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<u>CLASS</u>					
<u>FAMILY</u>					
Scientific name	Common name	Observed	Expected	Status /a/	
<i>Urocyon cinereoargenteus</i>	gray fox	X			
CERVIDAE					
<i>Odocoileus hemionus</i>	mule deer	X			
CRICETIDAE					
<i>Microtus californicus</i>	California vole		X		
<i>Neotoma fuscipes luciana</i>	Monterey dusky-footed woodrat	X			CSC, F2
<i>Peromyscus maniculatus</i>	deer mouse		X		
DIDELPHIDAE					
<i>Didelphis virginiana</i>	Virginia opossum		X		
GEOMYIDAE					
<i>Thomomys bottae</i>	Botta's pocket gopher	X			
HETEROMYIDAE					
<i>Dipodomys heermanni</i>	Heermann's kangaroo rat		X		
LEPORIDAE					
<i>Lepus californicus</i>	black-tailed hare		X		
<i>Sylvilagus audubonii</i>	desert cottontail	X			
MURIDAE					
<i>Mus musculus</i>	house mouse		X		
MUSTELIDAE					
<i>Mephitis mephitis</i>	striped skunk		X		
PROCYONIDAE					
<i>Procyon lotor</i>	raccoon	X			
SCIURIDAE					
<i>Spermophilus beecheyi</i>	California ground squirrel	X			
TALPIDAE					
<i>Scapanus latimanus</i>	broad-footed mole		X		
<u>REPTILIA</u>					
COLUBRIDAE					
<i>Pituophis melanoleucus</i>	gopher snake		X		
IGUANIDAE					
<i>Phrynosoma coronatum frontale</i>	California horned lizard	X			CSC
<i>Sceloporus occidentalis</i>	western fence lizard		X		
VIPERIDAE					

Table B2-23. Animals Observed and Expected in the Vicinity of Site 40
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<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
Crotalus viridis	western rattlesnake		X	

**Table B2-24. Animals Observed and Expected in the Vicinity of Site 41
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<u>CLASS</u>					
<u>FAMILY</u>					
Scientific name	Common name	Observed	Expected	Status /a/	
<u>AMPHIBIA</u>					
<u>HYLIDAE</u>					
Hyla regilla	Pacific treefrog	X			
<u>PLETHODONTIDAE</u>					
Batrachoseps pacificus	Pacific slender salamander		X		
<u>AVES</u>					
<u>ACCIPITRIDAE</u>					
Accipiter cooperii	Cooper's hawk		X	CSC	
Accipiter striatus	sharp-shinned hawk		X	CSC	
Buteo jamaicensis	red-tailed hawk		X		
Buteo lineatus	red-shouldered hawk		X		
<u>AEGITHALIDAE</u>					
Psaltriparus minimus	bushtit	X			
<u>ANATIDAE</u>					
Anas platyrhynchos	mallard	X			
<u>APODIDAE</u>					
Aeronautes saxatalis	white-throated swift		X		
<u>CATHARTIDAE</u>					
Cathartes aura	turkey vulture	X			
<u>COLUMBIDAE</u>					
Columba fasciata	band-tailed pigeon		X		
Zenaida macroura	mourning dove	X			
<u>CORVIDAE</u>					
Aphelocoma coerulescens	scrub jay	X			
Corvus brachyrhynchos	American crow		X		
Cyanocitta stelleri	Steller's jay		X		
<u>EMBERIZIDAE</u>					
Agelaius phoeniceus	red-winged blackbird	X			
Dendroica coronata	yellow-rumped warbler	X			
Dendroica townsendi	Townsend's warbler		X		
Euphagus cyanocephalus	Brewer's blackbird	X			
Junco hyemalis	dark-eyed junco		X		
Melospiza melodia	song sparrow		X		
Molothrus ater	brown-headed cowbird		X		

**Table B2-24. Animals Observed and Expected in the Vicinity of Site 41
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<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
<i>Pipilo crissalis</i>	California towhee	X		
<i>Pipilo erythrophthalmus</i>	rufous-sided towhee	X		
<i>Sturnella neglecta</i>	western meadowlark	X		
<i>Vermivora celata</i>	orange-crowned warbler		X	
<i>Zonotrichia atricapilla</i>	golden-crowned sparrow		X	
<i>Zonotrichia leucophrys</i>	white-crowned sparrow	X		
FALCONIDAE				
<i>Falco sparverius</i>	American kestrel		X	
FRINGILLIDAE				
<i>Carduelis psaltria</i>	lesser goldfinch		X	
<i>Carpodacus mexicanus</i>	house finch		X	
<i>Carpodacus purpureus</i>	purple finch		X	
HIRUNDINIDAE				
<i>Hirundo pyrrhonota</i>	cliff swallow		X	
<i>Hirundo rustica</i>	barn swallow	X		
<i>Tachycineta bicolor</i>	tree swallow		X	
<i>Tachycineta thalassina</i>	violet-green swallow		X	
LANIIDAE				
<i>Lanius ludovicianus</i>	loggerhead shrike		X	CSC, F2
MIMIDAE				
<i>Mimus polyglottos</i>	northern mockingbird		X	
<i>Toxostoma redivivum</i>	California thrasher	X		
MUSCICAPIDAE				
<i>Catharus guttatus</i>	hermit thrush		X	
<i>Catharus ustulatus</i>	Swainson's thrush		X	
<i>Chamaea fasciata</i>	wrentit	X		
<i>Polioptila caerulea</i>	blue-gray gnatcatcher	X		
<i>Regulus calendula</i>	ruby-crowned kinglet		X	
<i>Sialia mexicana</i>	western bluebird		X	
<i>Turdus migratorius</i>	American robin		X	
PARIDAE				
<i>Parus inornatus</i>	plain titmouse	X		
PHASIANIDAE				
<i>Callipepla californica</i>	California quail	X		
PICIDAE				
<i>Colaptes auratus</i>	northern red-shafted flicker		X	

**Table B2-24. Animals Observed and Expected in the Vicinity of Site 41
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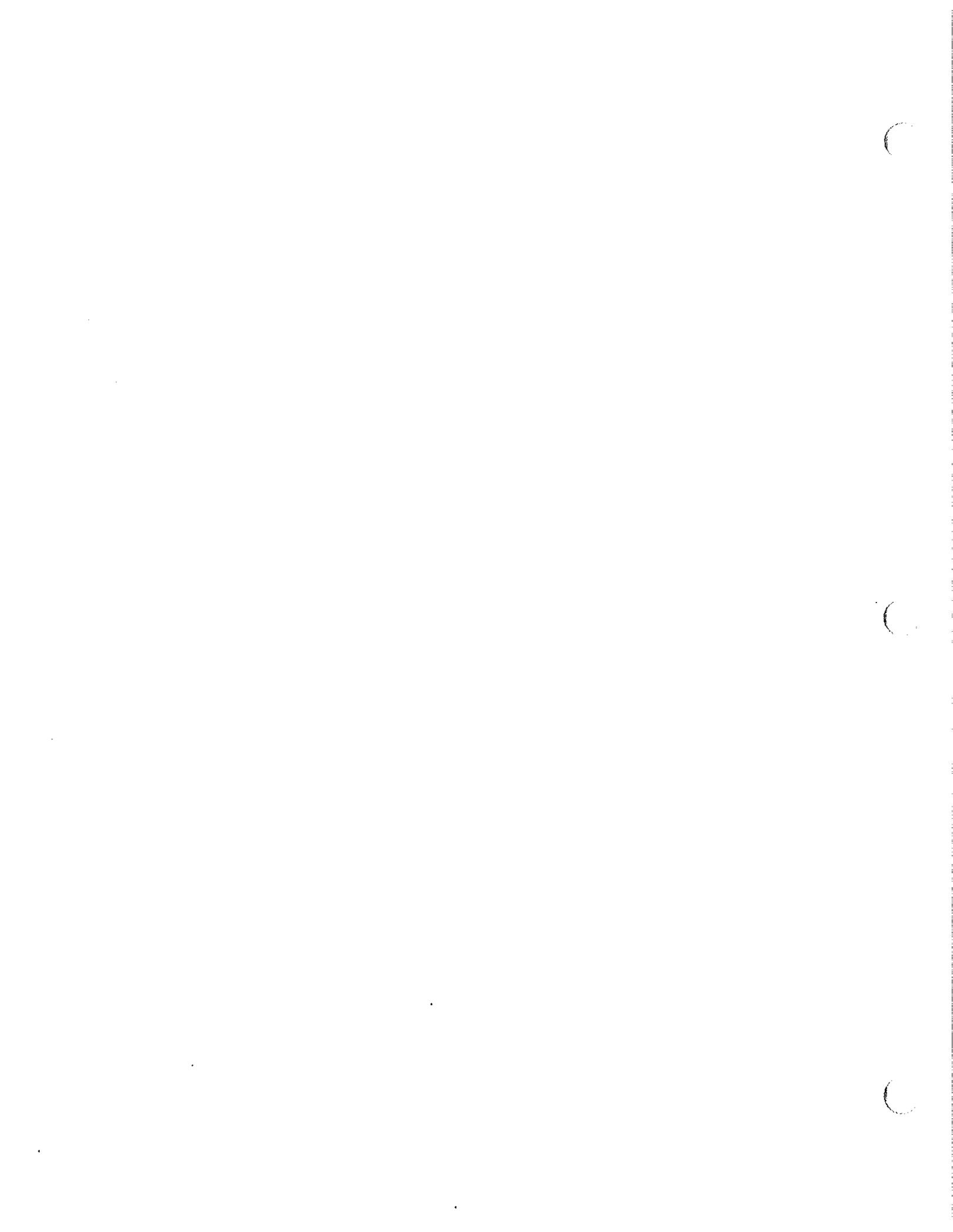
<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
Picoides nuttallii	Nuttall's woodpecker		X	
Picoides pubescens	downy woodpecker		X	
Picoides villosus	hairy woodpecker		X	
SITTIDAE				
Sitta carolinensis	white-breasted nuthatch		X	
STRIGIDAE				
Aegolius acadicus	northern saw-whet owl		X	
Bubo virginianus	great horned owl		X	
Otus kennicottii	western screech-owl		X	
STURNIDAE				
Sturnus vulgaris	European starling		X	
TROCHILIDAE				
Calypte anna	Anna's hummingbird	X		
Selasphorus sasin	Allen's hummingbird		X	
TROGLODYTIDAE				
Thryomanes bewickii	Bewick's wren		X	
TYRANNIDAE				
Contopus borealis	olive-sided flycatcher	X		
Myiarchus cinerascens	ash-throated flycatcher		X	
Sayornis nigricans	black phoebe		X	
Sayornis saya	Say's phoebe		X	
TYTONIDAE				
Tyto alba	barn owl		X	
VIREONIDAE				
Vireo huttoni	Hutton's vireo		X	
<u>MAMMALIA</u>				
CANIDAE				
Canis latrans	coyote		X	
Urocyon cinereoargenteus	gray fox	X		
CERVIDAE				
Odocoileus hemionus	mule deer	X		
CRICETIDAE				
Microtus californicus	California vole		X	
Neotoma fuscipes luciana	Monterey dusky-footed woodrat	X		CSC, F2

**Table B2-24. Animals Observed and Expected in the Vicinity of Site 41
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<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
Peromyscus maniculatus	deer mouse	X		
DIDELPHIDAE				
Didelphis virginiana	Virginia opossum		X	
FELIDAE				
Lynx rufus	bobcat		X	
GEOMYIDAE				
Thomomys bottae	Botta's pocket gopher	X		
HETEROMYIDAE				
Perognathus californicus	California pocket mouse		X	
LEPORIDAE				
Lepus californicus	black-tailed hare		X	
Sylvilagus bachmani	brush rabbit	X		
MUSTELIDAE				
Mephitis mephitis	striped skunk		X	
PROCYONIDAE				
Procyon lotor	raccoon	X		
SCIURIDAE				
Spermophilus beecheyi	California ground squirrel	X		
TALPIDAE				
Scapanus latimanus	broad-footed mole		X	
<u>REPTILIA</u>				
ANGUIDAE				
Gerrhonotus coeruleus	northern alligator lizard		X	
Gerrhonotus multicarinatus	southern alligator lizard		X	
COLUBRIDAE				
Lampropeltis getulus	common kingsnake		X	
Masticophis lateralis	California whipsnake		X	
Pituophis melanoleucus	gopher snake	X		
IGUANIDAE				
Sceloporus occidentalis	western fence lizard	X		
SCINCIDAE				
Eumeces skiltonianus	western skink		X	
VIPERIDAE				

**Table B2-24. Animals Observed and Expected in the Vicinity of Site 41
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>CLASS</u>				
FAMILY				
Scientific name	Common name	Observed	Expected	Status /a/
Crotalus viridis	western rattlesnake		X	



APPENDIX C

ESTIMATION OF CHEMICAL UPTAKE INTO OAT PLANTS

CONTENTS

TABLES

- C1 Soil-to-Plant Transfer and Plant Uptake Factors for Inorganic COPCs
- C2 Octanol-Water Partition Coefficients (K_{ow}s) and Plant Uptake Factors for Organic Chemicals

ESTIMATION OF CHEMICAL UPTAKE INTO OAT PLANTS

Baes et al. (1984) developed soil-to-plant transfer factors (B-factors) for inorganic elements by using published data on chemical concentrations in soil at the root zone depth and the corresponding concentrations in various plants, and statistically analyzing these data. The authors described element-specific linear relationships between soil concentrations and corresponding plant concentrations, as follows:

$$C_{pd} = (B_d)(C_{sd}) \quad (\text{Equation C1-1})$$

where:

C_{pd} = steady-state chemical concentration in the plant (mg/kg; dry-weight basis)

B_d = soil-to-plant transfer factor (unitless; dry-weight basis).

C_{sd} = chemical concentration in the soil (mg/kg; dry-weight basis).

Baes et al. (1984) further observed that different transfer factors describe chemical concentrations in vegetative (structural) and reproductive (seed and flower) tissues as follows:

$$C_{pdv} = (B_{dv})(C_{sd}) \quad (\text{Equation C1-2})$$

$$C_{pdr} = (B_{dr})(C_{sd}) \quad (\text{Equation C1-3})$$

where:

C_{pdv} = concentration of chemical in vegetative tissues of plant (mg/kg; dry-weight basis)

B_{dv} = soil-to-plant transfer factor for vegetative tissues of plant (unitless; dry-weight basis; dimensionless)

C_{pdr} = concentration of chemical in reproductive tissues of plant (mg/kg; dry-weight basis)

B_{dr} = soil-to-plant transfer factor for reproductive tissues of plant (unitless; dry-weight basis)

Baes et al. (1984) developed both B_{dv} and B_{dr} values for inorganic elements only; these values were used in this analysis (Table C1). Published, experimentally-measured values of soil chemical concentrations and corresponding plant chemical concentrations are not readily available for most organic chemicals. The method of Travis and Arms (1988) was used to estimate B-factors for organic chemicals. Travis and Arms (1988) described a relationship between soil-to-plant transfer factors for vegetative tissues and the octanol-water partition coefficients (K_{ow}), used here to estimate chemical-specific B_{dv} -factors for organic chemicals:

$$\log B_{dv} = 1.588 - 0.578 \log K_{ow} \quad (\text{Equation C1-4})$$

Log Kow values (Table C2) for organic chemicals were obtained from the following sources:

- EPA, 1986b
- EPA, 1982b
- Howard, 1989
- Mackay et al., 1992
- Howard, 1991 (Fate and Exposure Data for Organic Chemicals, Vol. III)
- EPA, 1990k

Bdr-factors were then developed for organic chemicals for this assessment using the equation:

$$Bdr = (Bdv)(Frv) \quad \text{(Equation C1-5)}$$

where:

$$Frv = \text{ratio of chemical uptake into reproductive tissues to uptake into vegetative tissues of plants (dimensionless).}$$

A value of 0.1 was assumed for Frv based on information presented in Baes et al. (1984).

Dry-weight B-factors were converted to fresh- or wet-weight values to estimate relevant chemical concentrations in food plants. Wet-weight transfer factors were estimated using the following equations:

$$Bwv = Bdv (Rv/Rs) \quad \text{(Equation C1-6)}$$

$$Bwr = Bdr (Rr/Rs) \quad \text{(Equation C1-7)}$$

where:

$$\begin{aligned} Bwv &= \text{wet-weight transfer factor for vegetative tissues (dimensionless)} \\ Rv &= \text{dry-to-wet weight conversion factor for vegetative tissues (dimensionless)} \\ Rs &= \text{correction for soil moisture content (dimensionless)} \\ Rr &= \text{dry-to-wet conversion factor for reproductive tissues (dimensionless)} \\ Bwr &= \text{wet-weight transfer factor for reproductive tissues (dimensionless)} \end{aligned}$$

where:

$$Rs = 1 - SM \quad \text{(Equation C1-8)}$$

and

$$SM = \text{fractional soil moisture.}$$

A value of 0.917 was used for both R_v and R_r ; this value was obtained from Baes et al. (1984) for oats. A value of 0.074 (7.4 percent) was used for SM (USDA, 1978).

Because both vegetative and reproductive portions of oat plants are eaten, a composite (or weighted average) transfer factor was developed to estimate chemical concentrations in oat plants as follows:

$$Bwt = (LVF) (Bwv) + (RF) (Bwr) \quad (\text{Equation C1-9})$$

where:

Bwt = Composite transfer factor (kg soil/kg plant)

LVF = Fraction of leafy tissues ingested (dimensionless)

RF = Fraction of reproductive tissues ingested (dimensionless)

and where:

$$RF = 1 - LVF \quad (\text{Equation C1-10})$$

LVF was assumed to be 0.25, since the major portion of oat plants consumed by animals is expected to consist of seeds (i.e., reproductive tissues). As a result, RF was calculated as 0.75. The composite transfer factors (plant uptake factors) calculated for COPCs are presented in Tables C1 and C2 and used in the dose estimation spreadsheets presented in Appendix E.

**Table C1. Soil-to-Plant Transfer and Plant Uptake Factors for Inorganic COPCs
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Bdv /a/	Bdr /a/	Plant Uptake Factor (kg soil/kg plant) /b/
Antimony	2.00E-01	3.00E-02	7.18E-02
Arsenic	4.00E-02	6.00E-03	1.44E-02
Barium	1.50E-01	1.50E-02	4.83E-02
Beryllium	1.00E-02	1.50E-03	3.59E-03
Cadmium	5.50E-01	1.50E-01	2.48E-01
Chromium	7.50E-03	4.50E-03	5.20E-03
Copper	4.00E-01	2.50E-01	2.85E-01
Lead	4.50E-02	9.00E-03	1.78E-02
Mercury	9.00E-01	2.00E-01	3.71E-01
Nickel	6.00E-02	6.00E-02	5.94E-02
Selenium	2.50E-02	2.50E-02	2.48E-02
Silver	4.00E-01	1.00E-01	1.73E-01
Thallium	4.00E-03	4.00E-04	1.29E-03
Tin	3.00E-02	6.00E-03	1.19E-02
Vanadium	5.50E-03	3.00E-03	3.59E-03
Zinc	1.50E+00	9.00E-01	1.04E+00

COPC Chemical of potential concern.

Bdv Soil-to-plant transfer factor for vegetative tissues of plant (unitless; dry-weight basis)

Bdr Soil-to-plant transfer factor for reproductive tissues of plant (unitless; dry-weight basis)

/a/ Source: Baes, 1984.

/b/ Calculated as described in Appendix C text.

**Table C2. Octanol-Water Partition Coefficients (K_{ow}) and Plant Uptake
Factors for Organic Chemicals
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Log K _{ow} /a/	Plant Uptake Factor (kg soil/kg plant) /b/
Acetone	-0.24	1.72E+01
1,2-Dichloroethene (total)	0.59	5.68E+00
Ethylbenzene	3.15	1.88E-01
Methylene chloride	1.30	2.21E+00
Methyl ethyl ketone	0.26	8.82E+00
Tetrachloroethene	2.60	3.92E-01
Toluene	2.73	3.29E-01
Trichloroethene	2.38	5.25E-01
Xylenes	3.26	1.63E-01
Benzo(a)anthracene	5.60	7.23E-03
Benzo(a)pyrene	6.06	3.92E-03
Benzo(b)fluoranthene	6.06	3.92E-03
Bis(2-ethylhexyl)phthalate	5.11	1.39E-02
Butylbenzylphthalate	4.91	1.81E-02
Chrysene	5.61	7.13E-03
Dibenzo(a,h)anthracene	6.80	1.46E-03
Dibenzofuran	4.12	5.18E-02
Di-n-butylphthalate	5.60	7.23E-03
Diethylphthalate	2.50	4.47E-01
Fluoranthene	4.90	1.83E-02
Fluorene	4.20	4.66E-02
2-Methylnaphthalene	3.86	7.32E-02
Naphthalene	3.29	1.56E-01
Pentachlorophenol	5.00	1.61E-02
Phenanthrene	4.46	3.29E-02
Pyrene	4.88	1.88E-02
PCBs (aroclor-1254)	6.00	4.24E-03
PCBs (aroclor-1260)	7.15	1.18E-01
2-Amino-dinitrotoluene	1.98	8.94E-01
4-Amino-dinitrotoluene	1.98	8.94E-01
HMX	0.13	1.05E+01
PETN	2.60	1.44E+00
RDX	0.90	3.76E+00
Tetryl	1.65	1.39E+00

Table C2. Octanol-Water Partition Coefficients (K_{ow}) and Plant Uptake Factors for Organic Chemicals
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

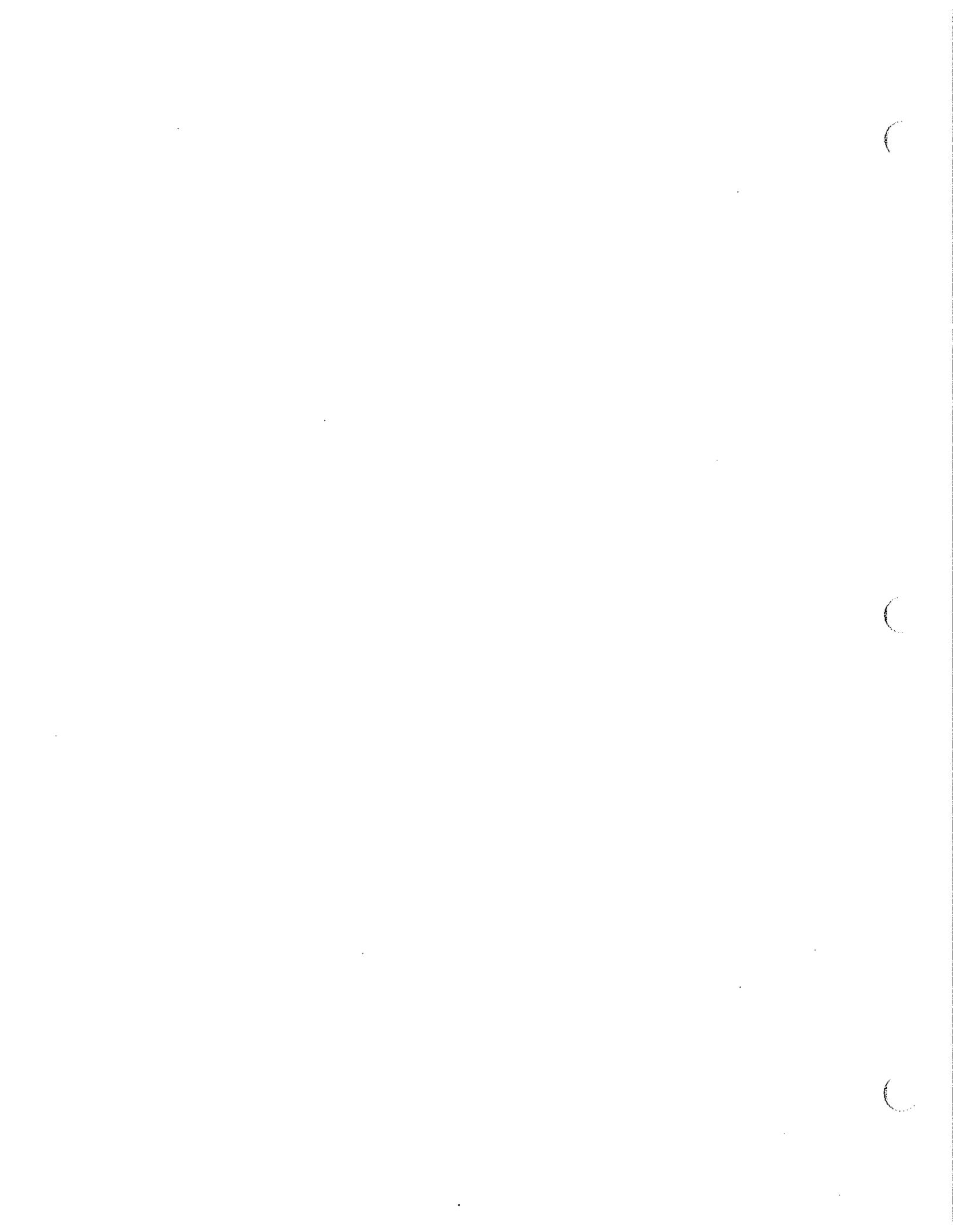
Chemical	Log K _{ow} /a/	Plant Uptake Factor (kg soil/kg plant) /b/
Chlordane	3.32	1.50E-01
4,4'-DDD	6.20	3.25E-03
4,4'-DDE	7.00	1.12E-03
4,4'-DDT	6.19	3.29E-03
Dicamba	2.21	6.58E-01
Dieldrin	3.50	1.18E-01
Endrin	4.56	2.88E-02
Gamma-BHC	3.90	6.94E-02
Heptachlor	4.40	3.57E-02
Heptachlor epoxide	2.70	3.43E-01
1,2,3,4,6,7,8-HpCDD	8.00	2.96E-04
1,2,3,4,6,7,8-HpCDF	7.97	3.08E-04
1,2,3,4,7,8,9-HpCDF	6.90	1.28E-03
1,2,3,4,7,8-HxCDF	7.70	4.42E-04
1,2,3,6,7,8-HxCDF	7.70	4.42E-04
1,2,3,7,8,9-HxCDF	7.70	4.42E-04
2,3,4,6,7,8-HxCDF	7.70	4.42E-04
1,2,3,4,7,8-HxCDD	7.30	7.52E-04
1,2,3,6,7,8-HxCDD	7.30	7.52E-04
1,2,3,7,8,9-HxCDD	7.30	7.52E-04
1,2,3,7,8-PeCDD	7.40	6.58E-04
1,2,3,7,8-PeCDF	6.92	1.25E-03
2,3,4,7,8-PeCDF	7.45	6.16E-04
OCDD	8.20	2.27E-04
OCDF	7.97	3.08E-04
2,3,7,8-TCDD	6.72	1.63E-03
2,3,7,8-TCDF	5.82	5.39E-03

COPC Chemical of potential concern.

/a/ Source: EPA 1982b, 1986b, and 1990k; Howard 1989 and 1991; Mackay et al. 1992.

/b/ Calculated as described in Appendix C text.

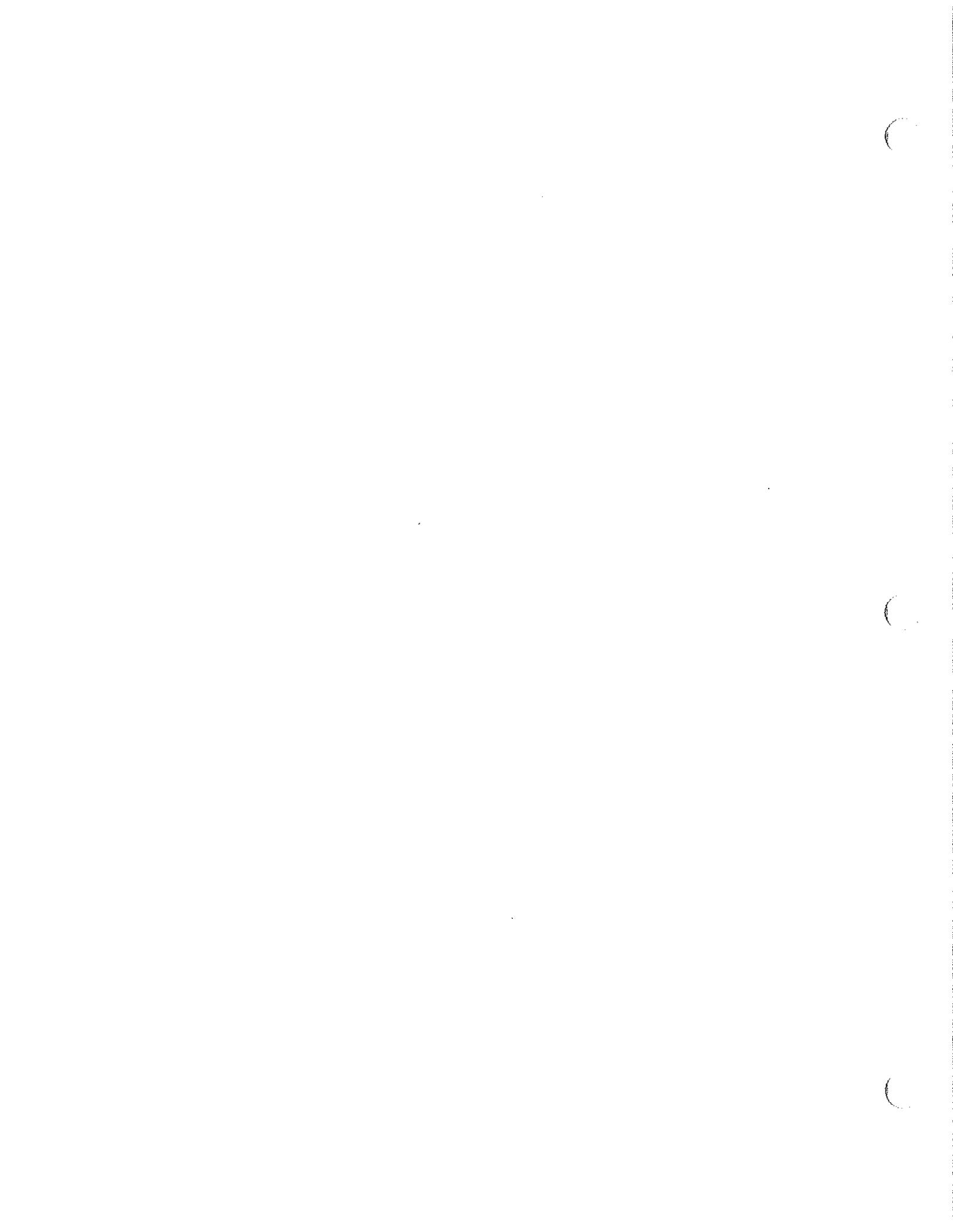
APPENDIX D
ECOTOXICITY LITERATURE INFORMATION SUMMARY



CONTENTS

TABLES

D1 Toxicity Reference Values



ECOTOXICITY LITERATURE INFORMATION SUMMARY

This appendix presents the toxicity information used to estimate toxicity reference values (TRVs) for the Baseline Ecological Risk Assessment. These TRVs are based on toxicity data obtained from the scientific literature for the two indicator species selected for this assessment: the deer mouse and the gray fox. COPC-specific TRVs for both indicator species are presented in Table 5.5. Table D1 presents relevant toxicity information for the mouse, rat, and dog used to develop the TRVs. The following hierarchy was used to select appropriate studies. To develop mouse TRVs, data for a rodent were used. Data on lab mice were preferentially used; in the absence of mouse data, rat data were used. To develop fox TRVs, data for a carnivore, the dog, were preferentially used; in the absence of dog data, the data used for the mouse TRV was extrapolated to the fox.

Toxicity values were obtained from the following sources:

- Hazardous Substances Database (HSDB)
- Health Advisory Documents
- Health Effects Assessment Documents
- Integrated Risk Information System (IRIS)
- Registry of Toxic Effects and Chemical Substances (RTECS)
- Toxicological profiles - Agency of Toxic Substances and Disease Registry (ATSDR)
- Biological Reports on Hazards to Fish, Wildlife, and Invertebrates - U.S. Fish and Wildlife Service

The NOAEL or LOAEL for the most conservative endpoint was selected. Data from chronic studies were preferred over those from acute studies. It was assumed that these highly conservative values would be protective of all endpoints of concern.

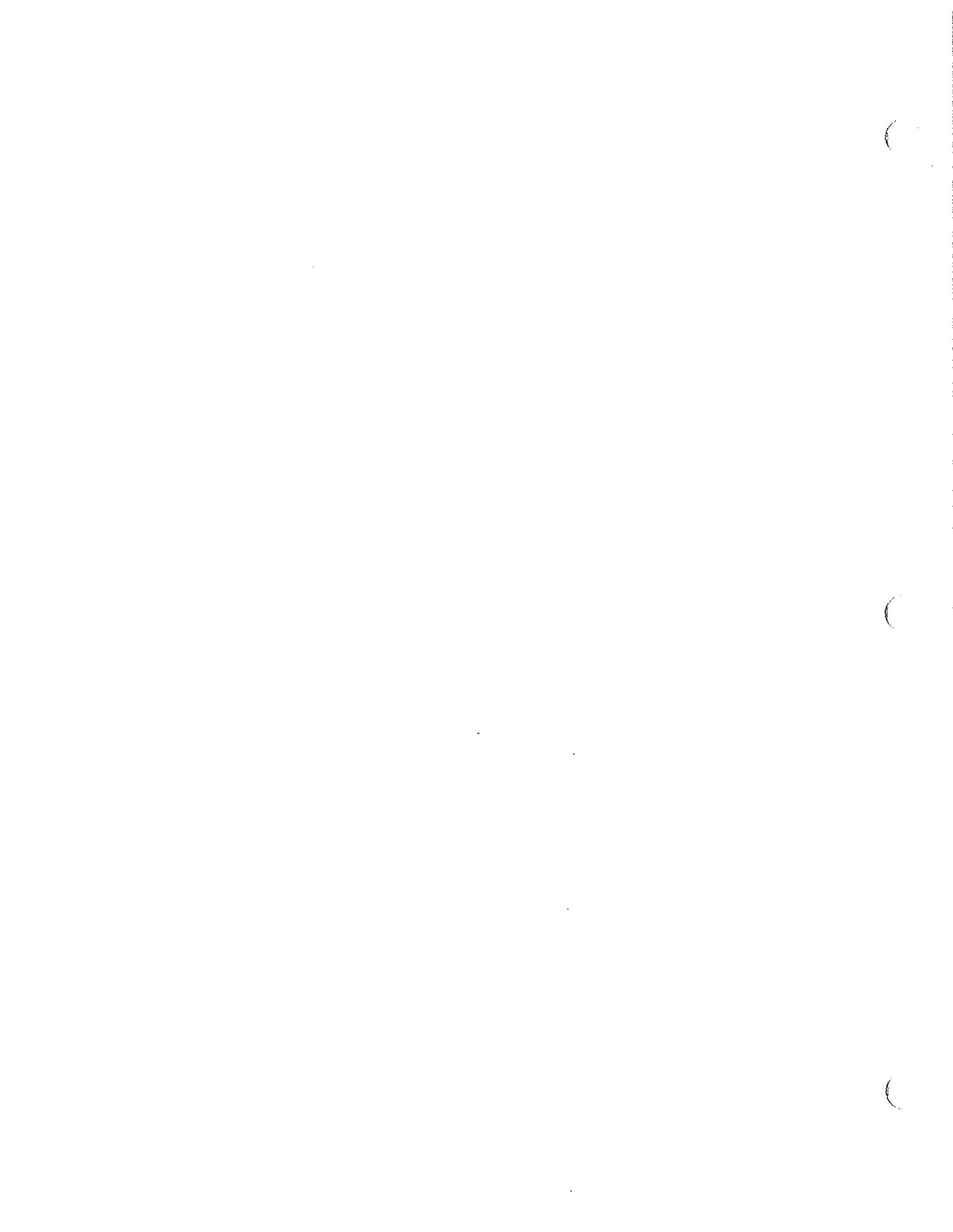
A summary of the studies used is presented in Table D1. As discussed in Section 5.5, the toxicity value may be modified by an uncertainty factor to account for various species extrapolation or for study duration, endpoint, etc. In most cases, a single toxicity value was used to estimate a TRV. In some situations, however, more than one toxicity value was considered valid; in these cases, multiple toxicity values were combined to estimate a geometric mean using the following equation:

$$GM = (TV_a \times TV_b \times TV_c \dots TV_n)^{1/n} \quad \text{(Equation D-1)}$$

Where:

- GM = Geometric mean (mg/kg/day)
- TV = Toxicity value (mg/kg/day)
- n = Number of relevant toxicity values.

The GM was then used as a single representative toxicity value for the chemical and/or indicator species being evaluated. These values were then multiplied by appropriate uncertainty factors (Section 5.3) to estimate a chemical- and indicator species-specific TRV (Table 5.5).



**Table D1. Toxicity Reference Values
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Species	Endpoint	Duration	Effect	Oral Dose (mg/ kg/day)	Geometric Mean (mg/kg/day)	Mouse UF	Mouse TRV (mg/ kg/day)	Fox UF	Fox TRV (mg/ kg/day)	References
2-Aminodinitrotoluene /a/	Mouse	LD50	Acute	Mortality	1522	--	30	50.73	600	2.54	Roberts and Hartley, 1992
4-Aminodinitrotoluene /a/	Mouse	LD50	Acute	Mortality	1342	--	30	44.73	600	2.24	Roberts and Hartley, 1992
Acetone /a/	Rat	NOAEL	Subchronic	Hepatic and Renal	100	--	50	2.00	100	1.00	EPA, 1994
Antimony	Mouse	NOAEL	Chronic	Liver and Mortality	0.35	--	1	0.35	--	--	ATSDR, 1990c
	Dog	LOAEL	Subchronic	Weight loss and neurologic	6644	--	--	--	--	--	ATSDR, 1990c
	Dog	LOAEL	Subchronic	Gastrointestinal	84	--	--	--	--	--	ATSDR, 1990c
						747	--	--	250	2.99	
Arsenic	Mouse	NOAEL	Chronic	Reproductive	0.7	--	1	0.70	--	--	ATSDR, 1992a
	Dog	NOAEL	Chronic	Neurologic or Hematologic	3.7	--	--	--	10	0.37	ATSDR, 1990f
Barium /a/	Mouse	NOAEL	Chronic	Systemic	0.83	--	1	0.83	20	0.04	EPA, 1994
Benzo(a)anthracene /b/	--	--	--	--	--	--	--	0.40	--	0.02	--
Benzo(a)pyrene /a/	Mouse	LOAEL	Subchronic	Reproductive and	10	--	25	0.40	500	0.02	ATSDR, 1990d
Benzo(b)flouranthene /c/	--	--	--	--	--	--	--	25.00	--	1.25	--
gamma-BHC	Mouse	NOAEL	Chronic	Hepatic	32.5	--	1	32.50	--	--	ATSDR, 1992d
	Dog	NOAEL	Subchronic	Hepatic and Hematologic	12.5	--	--	--	50	0.25	ATSDR, 1992d
Beryllium /a/	Mouse	NOAEL	Chronic	Body Weight and Systemic	0.95	--	1	0.95	20	0.05	EPA, 1994

**Table D1. Toxicity Reference Values
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Species	Endpoint	Duration	Effect	Oral Dose (mg/kg/day)	Geometric Mean (mg/kg/day)	Mouse UF	Mouse TRV (mg/kg/day)	Fox UF	Fox TRV (mg/kg/day)	References
Bis(2-ethylhexyl) phthalate /a/	Mouse	NOAEL	Subchronic	Reproductive	13	--	5	2.60	100	0.13	ATSDR, 1989d
Butylbenzyl-phthalate /a/	Rat	NOAEL	Chronic	Systemic	159	--	10	15.90	20	7.95	EPA, 1994
Cadmium /a/	Mouse	LOAEL	Chronic	Renal and Mortality	0.85	--	5	0.17	100	0.0085	EPA, 1987i; ATSDR, 1987
Chlordane /a/	Mouse	NOAEL	Chronic	Hepatic	0.1	--	--	--	--	--	EPA, 1994; ATSDR, 1992b
	Mouse	NOAEL	Chronic	NA	1.21	--	--	--	--	--	EPA, 1994; ATSDR, 1992b
	Mouse	NOAEL	Chronic	Systemic	8.3	--	--	--	--	--	ATSDR, 1992b
	Mouse	NOAEL	Chronic	Hepatic	0.2	--	--	--	--	--	EPA, 1994
	Mouse	NOAEL	Chronic	Neurologic	3.90	--	--	--	--	--	ATSDR, 1992b
						0.9	1	0.90	20	0.04	--
Chromium (as Cr VI)	Rat	NOAEL	Chronic	Systemic	2.4	--	10	0.24	--	--	EPA, 1994
	Dog	NOAEL	Chronic	Systemic	0.3	--	--	--	10	0.03	EPA, 1994
Chrysene /b/	--	--	--	--	--	--	--	0.40	--	0.02	--
Copper /a/	Mouse	NOAEL	Subchronic	Hepatic, Renal, and Mortality	1734	--	5	346.80	100	17.34	ATSDR, 1990j
t1,2-DCE /a/	Mouse	NOAEL	Subchronic	Humoral	17	--	5	3.40	100	0.17	ATSDR, 1990f
DDD /a/	Mouse	NOAEL	Chronic	Systemic	107	--	1	107	20	5.35	ATSDR, 1992c
4,4'-DDE /a/	Mouse	NOAEL	Chronic	Systemic	34	--	1	34.00	20	1.70	ATSDR, 1992c

Table D1. Toxicity Reference Values
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Chemical	Species	Endpoint	Duration	Effect	Oral Dose (mg/ kg/day)	Geometric Mean (mg/kg/day)	Mouse UF	Mouse TRV (mg/ kg/day)	Fox UF	Fox TRV (mg/ kg/day)	References
4,4'-DDT	Mouse	NOAEL	Chronic	Systemic	6	--	--	--	--	--	ATSDR, 1992c
	Mouse	NOAEL	Chronic	Developmental	1	--	--	--	--	--	ATSDR, 1992c
	Mouse	NOAEL	Chronic	Reproductive	2.4	--	--	--	--	--	ATSDR, 1992c
	Mouse	NOAEL	Chronic	Reproductive	6.5	--	--	--	--	--	ATSDR, 1992c
	Dog	NOAEL	Chronic	Hepatic	16	3	1	3.11	--	--	ATSDR, 1992c
Dibenzo(a,h) anthracene /b/	--	--	--	--	--	--	--	0.40	--	0.02	--
Dibenzofuran /d/	--	--	--	--	--	--	--	25.00	--	1.25	--
Dicamba	Rat	NOAEL	Chronic	Reproductive	25	--	10	2.5	--	--	EPA, 1988k
	Dog	NOAEL	Chronic	Systemic	52	--	--	--	5	10.40	EPA, 1988k
Dieldrin	Mouse	LOAEL	Chronic	Hepatic	0.015	--	5	0.003	--	--	EPA, 1994
	Dog	NOAEL	Chronic	Weight and Neurologic	0.2	--	--	--	10	0.02	EPA, 1994
Di-n-butyl-phthalate /a/	Rat	NOAEL	Chronic	Mortality	125	--	10	12.50	20	6.25	EPA, 1994
Di-n-octyl-phthalate /e/	--	--	--	--	--	--	--	12.50	--	6.25	--
Diethylphthalate /a/	Rat	NOAEL	Chronic	Histopathologic	770	--	10	77.00	20	38.50	EPA, 1994
Endrin	Rat	LOAEL	Chronic	Hepatic and Renal	0.125	--	50	0.003	--	--	EPA, 1994
	Dog	NOAEL	Chronic	Hepatic and Neurological	0.025	--	--	--	10	0.0025	Velsicol Chem. Corp., 1969
Ethylbenzene /a/	Rat	NOAEL	Chronic	Hepatic and Renal	97.1	--	10	9.71	20	4.86	EPA, 1994

Table D1. Toxicity Reference Values
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Chemical	Species	Endpoint	Duration	Effect	Oral Dose (mg/kg/day)	Geometric Mean (mg/kg/day)	Mouse UF	Mouse TRV (mg/kg/day)	Fox UF	Fox TRV (mg/kg/day)	References
Fluoranthene /a/	Mouse	NOAEL	Subchronic	Systemic	125	--	5	25.00	100	1.25	EPA, 1993e
Fluorene /a/	Mouse	NOAEL	Subchronic	Hematological	125	--	5	25.00	100	1.25	EPA, 1994
Heptachlor	Mouse	NOAEL /f/	Chronic	Hepatic Lesions	0.25	--	1	0.25	--	--	EPA, 1994
	Dog /g/	LOAEL /h/	Chronic	Hepatic and Reproductive	0.0125	--	--	--	50	0.0003	EPA, 1994
Heptachlor epoxide	Mouse /i/	NOAEL /f/	Chronic	Hepatic Lesions	0.25	--	1	0.25	--	--	EPA, 1994
HMX /a/	Rat	NOAEL	Subchronic	Hepatic	50	--	50	1.0	100	0.5	EPA, 1994
Lead	Rat	NOAEL	Chronic	Hematological	0.9	--	10	0.09	--	--	ATSDR, 1991a
	Dog	NOAEL	Chronic	Hematological	1.25	--	--	--	10	0.13	ATSDR, 1991a
Mercury /a/	Mouse	NOAEL	Chronic	Renal	1.9	--	1	1.90	20	0.10	ATSDR, 1992e
Methylene chloride /a/	Rat	NOAEL	Chronic	Hepatic	6.47	--	--	--	--	--	EPA, 1994
	Rat	NOAEL	Chronic	Hepatic	5.85	--	--	--	--	--	EPA, 1994
						6.15	10	0.62	20	0.31	--
Methyl ethyl ketone	Rat	NOAEL	Acute	Neurologic	173	--	50	3.46	100	1.76	ATSDR, 1991c
2-Methylnaphthalene /j/	--	--	--	--	--	--	--	16.79	--	0.84	--
Naphthalene /a/	Mouse	NOAEL	Subchronic	Systemic	133	--	--	--	--	--	ATSDR, 1990g
	Mouse	NOAEL	Subchronic	NA	53	--	--	--	--	--	ATSDR, 1990g
						84	5	16.79	100	0.84	

Table D1. Toxicity Reference Values
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Chemical	Species	Endpoint	Duration	Effect	Oral Dose (mg/ kg/day)	Geometric Mean (mg/kg/day)	Mouse UF	Mouse TRV (mg/ kg/day)	Fox UF	Fox TRV (mg/ kg/day)	References
Nickel	Mouse	NOAEL	Chronic	Systemic	0.85	--	1	0.85	--	--	EPA, 1987i
	Dog	NOAEL	Chronic	Histologic	25	--	--	--	--	--	ATSDR, 1988
	Dog	NOAEL	Chronic	Body Weight and Hematologic	29	--	--	--	--	--	ATSDR, 1988
						27	--	--	10	2.69	--
Nitroglycerin /a/	Mouse	LD50	Acute	Mortality	115	--	25	4.6	500	0.23	29 CFR Part 1910
4-Nitrophenol /a/	Mouse	LD50	Acute	Mortality	470	--	--	--	--	--	EPA, 1987k
	Mouse	LD50	Acute	Mortality	625.7	--	--	--	--	--	EPA, 1987k
						542.3	25	21.7	500	1.08	
PCB-1254 /a/	Mouse	NOAEL	Chronic	Hepatic	0.49	--	1	0.49	20	0.02	ATSDR, 1991b
PCB-1260 /a/	Rat	NOAEL	Chronic	Hepatic	1.4	--	--	--	--	--	ATSDR, 1991b
	Rat	NOAEL	Chronic	Hepatic and Reproductive	0.39	--	--	--	--	--	EPA, 1991b
	Rat	NOAEL	Chronic	Body Weight	5	--	--	--	--	--	ATSDR, 1991b
						1.40	10	0.14	20	0.07	
PETN /k/	--	--	--	--	--	--	--	4.6	--	0.23	--
Pentachlorophenol /a/	Rat	NOAEL	Chronic	Systemic	3	--	--	--	--	--	ATSDR, 1992g
	Rat	NOAEL	Chronic	Developmental	4	--	--	--	--	--	ATSDR, 1992g
						3.5	10	0.3	20	0.17	
Phenanthrene /l/	--	--	--	--	--	--	--	15.00	--	0.75	--

**Table D1. Toxicity Reference Values
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Species	Endpoint	Duration	Effect	Oral Dose (mg/ kg/day)	Geometric Mean (mg/kg/day)	Mouse UF	Mouse TRV (mg/ kg/day)	Fox UF	Fox TRV (mg/ kg/day)	References
Pyrene /a/	Mouse	NOAEL	Subchronic	Renal	75	--	5	15.00	100	0.75	EPA, 1994
RDX	Mouse	NOAEL	Chronic	Reproductive, Systemic	7.0	--	1	7.00	--	--	ATSDR, 1993b
	Dog	NOAEL	Subchronic	Neurological	15	--	--	--	50	0.30	ATSDR, 1993b
Selenium /a/	Mouse	LOAEL	Chronic	Systemic	0.31	--	5	0.06	100	0.0031	ATSDR, 1989e
Silver /a/	Rat	LOAEL	Chronic	Cardiovascular	89	--	50	1.78	100	0.89	EPA, 1994
TCDD-Equiv /a/	Rat	NOAEL	Chronic	Reproductive	0.000001	--	10	1.00E-07	20	5.00E-08	EPA, 1987h
PCE /m/	Mouse	NOAEL	Subchronic	Hepatic	14.00	--	5	2.80	100	0.14	EPA, 1994
Tetryl /m/	Rabbit	LOAEL	Chronic	Hematologic	125	--	--	--	--	--	ATSDR, 1993c
	Rabbit	LOAEL	Chronic	Systemic	125	--	--	--	--	--	ATSDR, 1993c
						125.0	100	1.25	100	1.25	
Thallium /a/	Rat	NOAEL	Subchronic	Systemic	0.2	--	--	--	--	--	ATSDR, 1990h
	Rat	NOAEL	Subchronic	Dermal and Ocular	0.4	--	--	--	--	--	ATSDR, 1990h
						0.3	50	0.01	100	0.003	--
Tin /a/	Mouse	NOAEL	Chronic	Systemic	0.7	--	1	0.70	20	0.04	ATSDR, 1990j; 1990i
Toluene /a/	Mouse	NOAEL	Subchronic	Neurologic	1250	--	5	250.00	100	12.50	EPA, 1994
TCE /m/	Mouse	TDLo	Chronic	Liver and Kidney Weight	1000	--	--	--	--	--	RTECS, 1992
	Mouse	TDLo	Chronic	Immune	412	--	--	--	--	--	NTIS (AD-A080-636)
						642	5	128	100	1	--

**Table D1. Toxicity Reference Values
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Species	Endpoint	Duration	Effect	Oral Dose (mg/ kg/day)	Geometric Mean (mg/kg/day)	Mouse UF	Mouse TRV (mg/ kg/day)	Fox UF	Fox TRV (mg/ kg/day)	References
1,3,5-Trinitrobenzene /o/	Rat	NOAEL	Subchronic	Splenic weight	0.51		50	0.010	100	0.005	EPA, 1994
2,4,6-Trinitrotoluene	Dog	LOAEL	Chronic	Hepatic	0.5	--	--	--	50	0.01	EPA, 1994
	Mouse	NOAEL	Chronic	Hepatic	1.5	--	1	1.5	--	--	EPA, 1994
Vanadium /a/	Mouse	NOAEL	Chronic	Systemic	4.1	--	1	4.10	20	0.21	ATSDR, 1990j; 1990i
Xylenes /a/	Mouse	NOAEL	Chronic	Central Nervous System	179	--	1	179.00	20	8.95	EPA, 1994
Zinc	Mouse	LOAEL	Chronic	Pancreas and Adrenals	70	--	5	14.00	--	--	ATSDR, 1992f
	Dog	NOAEL	Chronic	Musculoskeletal	4.0	--	--	--	--	--	ATSDR, 1992f
	Dog	NOAEL	Chronic	Hematologic	76.5	--	--	--	--	--	ATSDR, 1992f
					--	17	--	--	10	1.75	--

mg/kg/day Milligrams per kilogram per day
 UF Uncertainty factor
 TRV Toxicity reference value
 LD50 Lethal dose, 50% kill
 -- Indicate that no data was available and/or used for this category.
 NOAEL No observed adverse effect level
 LOAEL Lowest observed adverse effect level
 gamma BHC Gamma benzene hexachloride
 NA Not available
 tDCE Trans dichloroethene
 DDD Tetrachlorodiphenylethane

**Table D1. Toxicity Reference Values
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Species	Endpoint	Duration	Effect	Oral Dose (mg/ kg/day)	Geometric Mean (mg/kg/day)	Mouse UF	Mouse TRV (mg/ kg/day)	Fox UF	Fox TRV (mg/ kg/day)	References
DDE		Dichlorodiphenyldichloroethylene									
DDT		Dichlorodiphenyltrichloroethane									
HMX		Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine									
PCB		Polychlorinated Biphenyl 1254									
PCB 1260		Polychlorinated Biphenyl 1260									
PETN		Pentaerythritol tetranitrate									
RDX		Hexahydro-1,3,5-trinitro-1,3,5-triazine									
TCDD Equiv		Tetrachlorodibenzo-p-dioxin equivalents									
PCE		Tetrachloroethene									
TCE		Trichloroethene									
TDL _o		Toxic dose low									
NOEL		No observed effect level									

/a/ No canidae information available.

/b/ Insufficient information for noncancer endpoints. Because, it is metabolized in the same manner as B(a)P, the TRV developed for B(a)P was used to represent the toxicity of this chemical.

/c/ Insufficient information for noncancer endpoints. Due to structural similarities, the TRV for fluoranthene was used to represent the toxicity of this chemical.

This chemical is not metabolized to epoxides it is considered less toxic than other PAHs.

/d/ Insufficient information for any endpoint. Based on structural and metabolic similarities to benzo(b)fluoranthene, the TRV developed for fluoranthene was used to represent the toxicity of this chemical.

/e/ Insufficient information available. Based on structural similarities, the TRV developed for di-n-butylphthalate was used to represent the toxicity of this chemical.

/f/ Listed as a NOEL in IRIS.

/g/ Dog toxicity data obtained from studies using heptachlor epoxide-not heptachlor.

/h/ Listed as an LEL by EPA (1994)

/i/ Mouse data from studies using heptachlor-not heptachlor epoxide.

/j/ Insufficient information available. Based on structural similarities, the TRV developed for naphthalene was used to represent the toxicity of this chemical.

/k/ Insufficient information available. Based on structural similarities, the TRV developed for nitroglycerin was used to represent the toxicity of this chemical.

/l/ Insufficient information available. Based on structural similarities, the TRV developed for pyrene was used to represent the toxicity of this chemical.

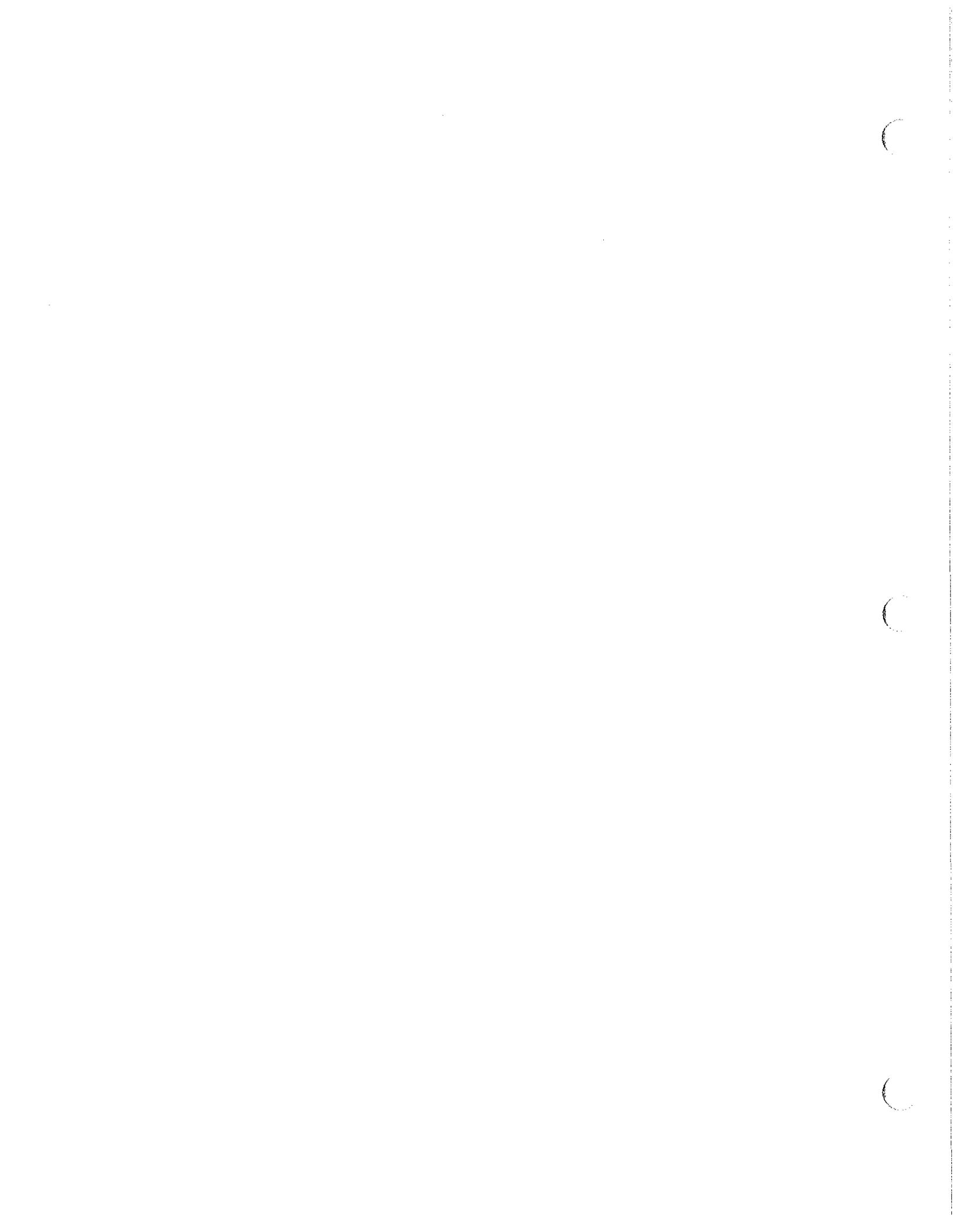
/m/ No sublethal canidae information

**Table D1. Toxicity Reference Values
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Species	Endpoint	Duration	Effect	Oral Dose (mg/ kg/day)	Geometric Mean (mg/kg/day)	Mouse UF	Mouse TRV (mg/ kg/day)	Fox UF	Fox TRV (mg/ kg/day)	References
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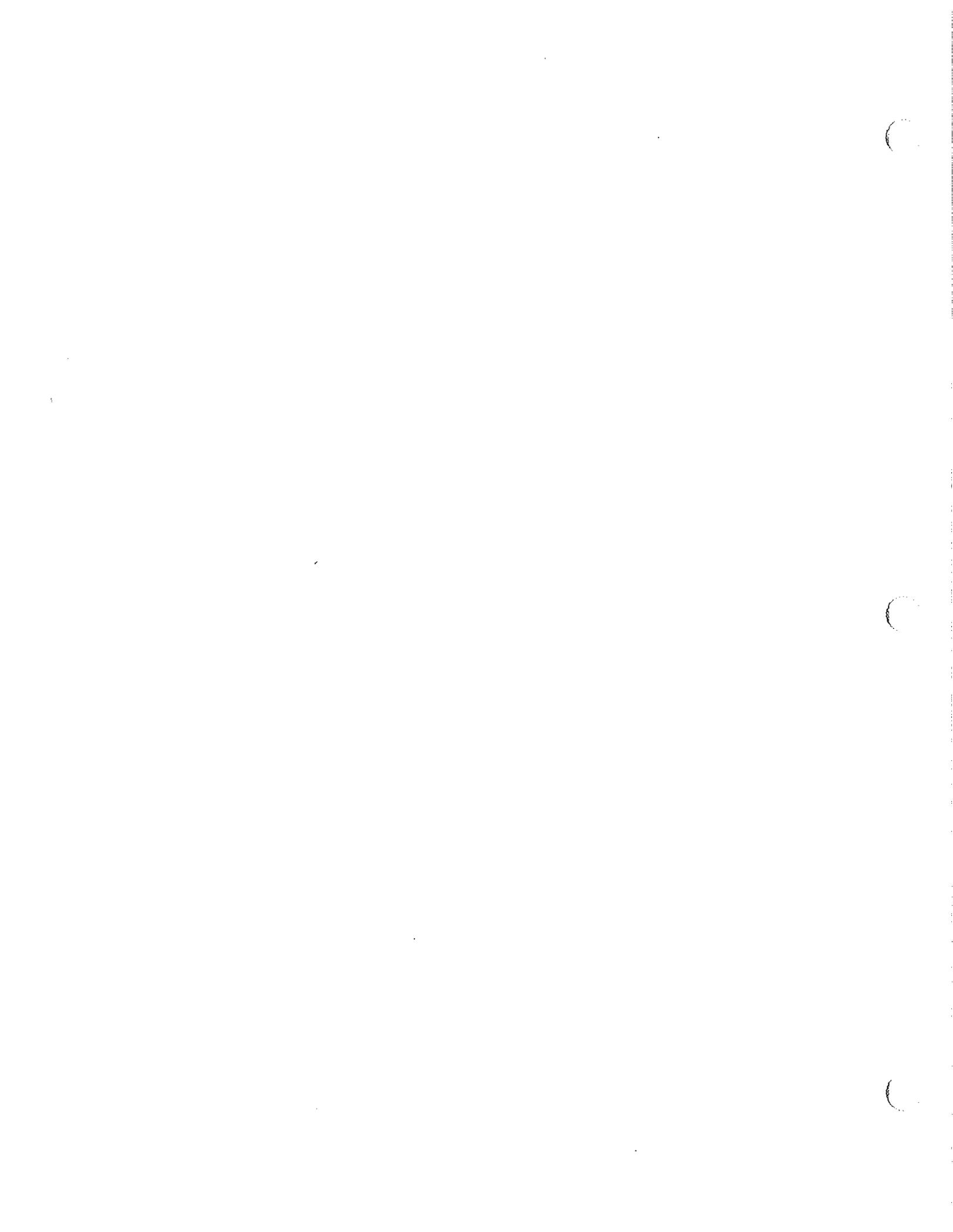
/n/ No data from mouse or dog studies was available. Data from rabbit studies was located and used to develop the TRV.

/o/ Insufficient information available. Based on structural similarities, the NOAEL for 1,3-(m-)dinitrobenzene was used and adjusted for differences in molecular weight.



APPENDIX E

SCREENING ASSESSMENT EXPOSURE AND RISK TABLES



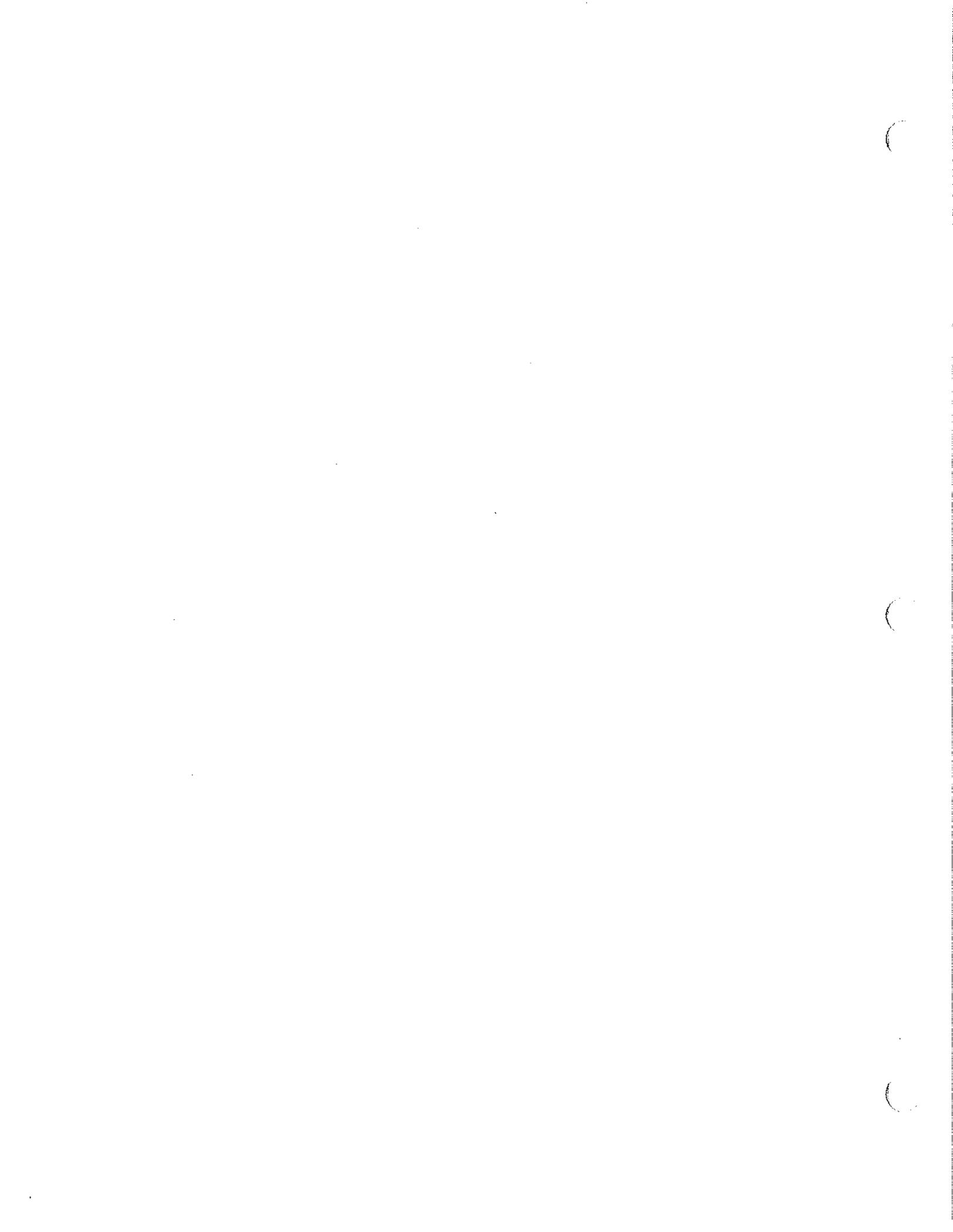
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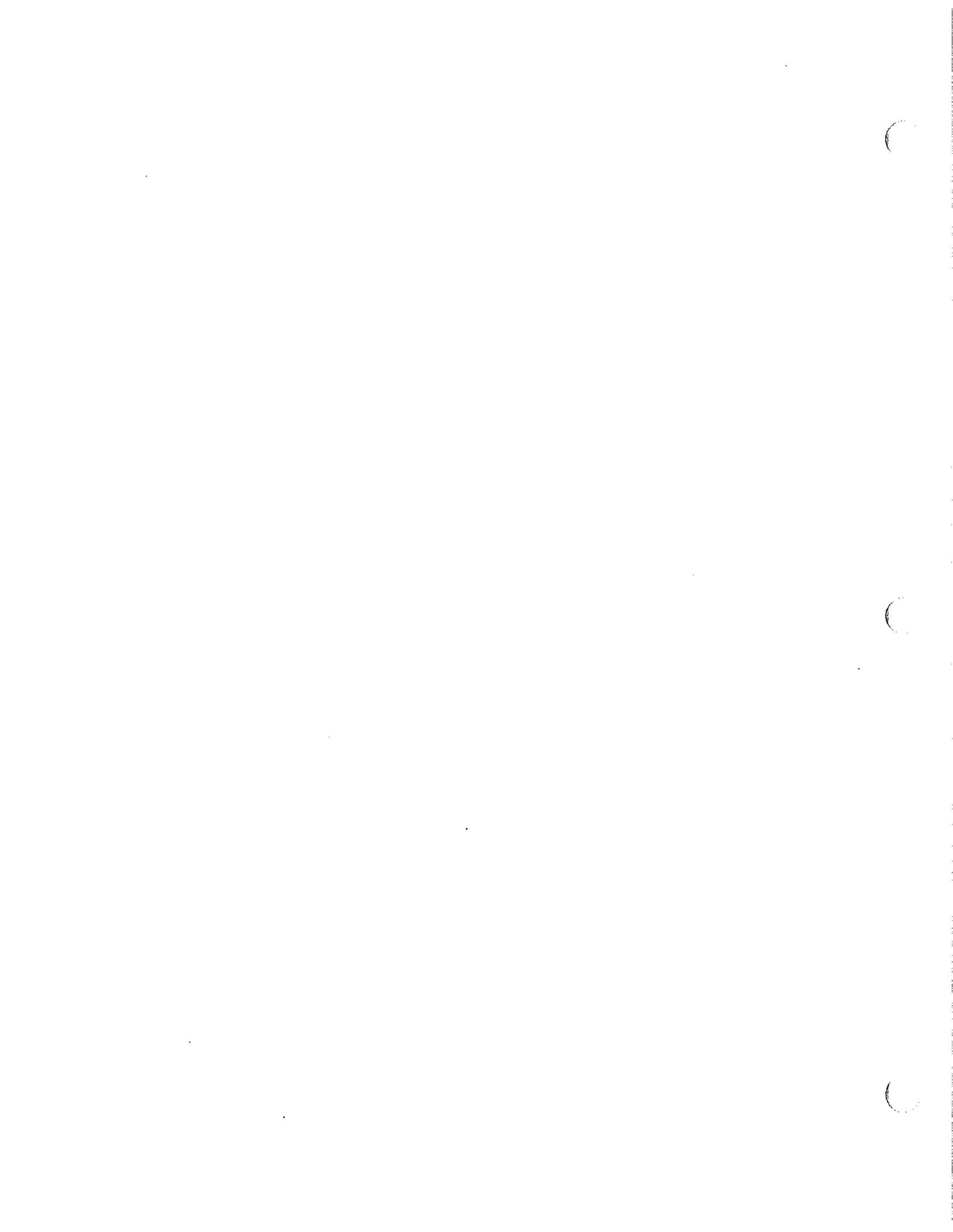
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EXPOSURE AND RISK TABLES

The following tables are the spreadsheets used in the screening mammalian terrestrial assessment. The spreadsheets are arranged by site with separate tables for mice and foxes. The hazard quotients can be found on the last page of each spreadsheet. The abbreviations are defined as follows:

Conc	Concentration
BCF	Bioconcentration factor
Kp	Dermal permeability
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
mg/kg/day	milligrams per kilogram per day
L/kg	Liters per kilogram
Cm/hr	centimeters per hour
kgsoil/kgplant	kilogram of soil per kilogram of plant
kg	kilograms
kg/day	kilograms per day
L/day	liters per day
cm ²	square centimeters
cm ² /day	square centimeters/day
kg/cm ²	kilograms per square centimeter
AAF	Absorption adjustment factor
hr/24hrs	hours per 24 hours
L/cm ³	Liters per cubic centimeter
yr/yr	years per year
Aq. Org. Ing.	Aquatic organism ingestion
hr/day	hours per day
Org. Ing.	Organism ingestion



**Table E1. Site 1 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose-Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Mercury	2.40E-01	0.00E+00	0.00E+00	1.90E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.71E-01

EXPOSURE PARAMETERS:

Table E1. Site 1 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:

Table E1. Site 1 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Mercury	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION

Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Mercury	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table E1. Site 1 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Mercury	2.40E-01	3.71E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.78E-02

SOIL INGESTION:

Table E1. Site 1 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
Mercury	2.40E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.44E-03

SEDIMENT INGESTION:

Table E1. Site 1 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E1. Site 1 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm ²)	Sediment Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Mercury	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table E1. Site 1 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm ²)	Surface Soil Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Mercury	2.40E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.21E-05

SURFACE WATER DERMAL EXPOSURE:

Table E1. Site 1 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water	Surface Water	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Lifetime Average	
	Concentration (mg/L)	Dermal Exposure (Skin Exposed) (cm ²)						Body Weight (kg)	Daily Dose From Water - Dermal (mg/kg/day)
Mercury	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table E1. Site 1 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
	Mercury	0.00E+00	0.00E+00	1.78E-02	1.44E-03	0.00E+00	0.00E+00	8.21E-05	0.00E+00	1.93E-02
TOTAL										1.02E-02

**Table E2. Site 1 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose-Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Mercury	2.40E-01	1.93E-02	0.00E+00	1.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.71E-01

EXPOSURE PARAMETERS:

Table E2. Site 1 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION

Table E2. Site 1 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Aquatic BCF (L/kg)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Organism Consumption (mg/kg/day)
Mercury	1.93E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	7.10E-04

WATER CONSUMPTION

Quantitative Ecological Screening Assessment

Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Site-Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From
						Water Consumption (mg/kg/day)
Mercury	1.93E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table E2. Site 1 Risk Characterization for the Gray Fox

Quantitative Ecological Screening Assessment

Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From
							Plant Consumption (mg/kg/day)
Mercury	2.40E-01	3.71E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.18E-03

SOIL INGESTION:

Table E2. Site 1 Risk Characterization for the Gray Fox

Quantitative Ecological Screening Assessment

Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From
						Ingestion (mg/kg/day)
Mercury	2.40E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.76E-04

SEDIMENT INGESTION:

Table E2. Site 1 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E2. Site 1 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Mercury	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table E2. Site 1 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Mercury	2.40E-01	1.00E-06	3.02E+02	1.00E+00	1.00E-00	1.00E+00	1.00E+00	5.25E+00	1.38E-05

SURFACE WATER DERMAL EXPOSURE:
Table E2. Site 1 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Mercury	1.93E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION
Table E2. Site 1 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Mercury	7.10E-04	0.00E+00	2.18E-03	1.76E-04	0.00E+00	0.00E+00	1.38E-05	0.00E+00	3.08E-03	3.08E-02
TOTAL										3.08E-02

**Table E3. Site 2 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose- Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Antimony	2.31E+01	0.00E+00	0.00E+00	3.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	7.18E-02
Arsenic	3.70E+00	0.00E+00	0.00E+00	7.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	1.44E-02
Cadmium	1.75E+01	0.00E+00	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-01
Chromium	9.08E+01	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	5.20E-03
Copper	1.16E+03	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.85E-01
Lead	1.81E+02	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	4.00E-06	1.78E-02
Mercury	5.30E+00	0.00E+00	0.00E+00	1.90E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.71E-01
Nickel	3.13E+01	0.00E+00	0.00E+00	8.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-04	5.94E-02
Selenium	8.40E+00	0.00E+00	0.00E+00	6.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-02
Silver	5.86E+01	0.00E+00	0.00E+00	1.78E+00	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.73E-01
Thallium	6.00E-01	0.00E+00	0.00E+00	1.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	1.29E-03
Zinc	1.55E+03	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.04E+00

EXPOSURE PARAMETERS:

Table E3. Site 2 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:
Table E3. Site 2 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Antimony	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Antimony	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

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PLANT CONSUMPTION:

Table E3. Site 2 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
						Body Weight (kg)	Plant Consumption (mg/kg/day)
Antimony	2.31E+01	7.18E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.32E-01
Arsenic	3.70E+00	1.44E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.07E-02
Cadmium	1.75E+01	2.48E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	8.68E-01
Chromium	9.08E+01	5.20E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	9.44E-02
Copper	1.16E+03	2.85E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	6.61E+01
Lead	1.81E+02	1.78E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	6.44E-01
Mercury	5.30E+00	3.71E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.93E-01
Nickel	3.13E+01	5.94E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.72E-01
Selenium	8.40E+00	2.48E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	4.17E-02
Silver	5.86E+01	1.73E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.03E+00
Thallium	6.00E-01	1.29E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.55E-04
Zinc	1.55E+03	1.04E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.22E+02

SOIL INGESTION:

Table E3. Site 2 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose	
					Body Weight (kg)	From Soil Ingestion (mg/kg/day)
Antimony	2.31E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.39E-01
Arsenic	3.70E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.22E-02
Cadmium	1.75E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.05E-01
Chromium	9.08E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.45E-01
Copper	1.16E+03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.96E+00
Lead	1.81E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.09E+00
Mercury	5.30E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.18E-02
Nickel	3.13E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.88E-01
Selenium	8.40E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.04E-02
Silver	5.86E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.52E-01
Thallium	6.00E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.60E-03
Zinc	1.55E+03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.30E+00

SEDIMENT INGESTION:

Table E3. Site 2 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average	
					Body Weight (kg)	Daily Dose From Sediment Ingestion (mg/kg/day)
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E3. Site 2 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Lifetime Average	
								Body Weight (kg)	Daily Dose From Sediment - Dermal (mg/kg/day)
Antimony	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table E3. Site 2 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil	Surface Soil	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Lifetime Average	
		Dermal Exposure (Soil on Skin) (kg/cm2)	Dermal Exposure (Skin Exposed) (cm2/day)					Body Weight (kg)	Daily Dose From Soil - Dermal (mg/kg/day)
Antimony	2.31E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.90E-03
Arsenic	3.70E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.27E-03
Cadmium	1.75E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.99E-03
Chromium	9.08E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.11E-02
Copper	1.16E+03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.97E-01
Lead	1.81E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.19E-02
Mercury	5.30E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.81E-03
Nickel	3.13E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.07E-02
Selenium	8.40E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.87E-03
Silver	5.86E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.00E-02
Thallium	6.00E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.05E-04
Zinc	1.55E+03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.30E-01

SURFACE WATER DERMAL EXPOSURE:

Table E3. Site 2 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Lifetime Average	
		Dermal Exposure (Skin Exposed) (cm2)						Body Weight (kg)	Daily Dose From Water - Dermal (mg/kg/day)
Antimony	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	4.00E-06	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	8.55E+00	1.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	8.55E+00	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table E3. Site 2 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Antimony	0.00E+00	0.00E+00	3.32E-01	1.39E-01	0.00E+00	0.00E+00	7.90E-03	0.00E+00	4.78E-01	1.37E+00
Arsenic	0.00E+00	0.00E+00	1.07E-02	2.22E-02	0.00E+00	0.00E+00	1.27E-03	0.00E+00	3.41E-02	4.87E-02
Cadmium	0.00E+00	0.00E+00	8.68E-01	1.05E-01	0.00E+00	0.00E+00	5.99E-03	0.00E+00	9.79E-01	5.76E+00
Chromium	0.00E+00	0.00E+00	9.44E-02	5.45E-01	0.00E+00	0.00E+00	3.11E-02	0.00E+00	6.70E-01	2.79E+00
Copper	0.00E+00	0.00E+00	6.61E+01	6.96E+00	0.00E+00	0.00E+00	3.97E-01	0.00E+00	7.35E+01	2.12E-01
Lead	0.00E+00	0.00E+00	6.44E-01	1.09E+00	0.00E+00	0.00E+00	6.19E-02	0.00E+00	1.79E+00	1.99E+01
Mercury	0.00E+00	0.00E+00	3.93E-01	3.18E-02	0.00E+00	0.00E+00	1.81E-03	0.00E+00	4.27E-01	2.25E-01
Nickel	0.00E+00	0.00E+00	3.72E-01	1.88E-01	0.00E+00	0.00E+00	1.07E-02	0.00E+00	5.70E-01	6.71E-01
Selenium	0.00E+00	0.00E+00	4.17E-02	5.04E-02	0.00E+00	0.00E+00	2.87E-03	0.00E+00	9.49E-02	1.58E+00
Silver	0.00E+00	0.00E+00	2.03E+00	3.52E-01	0.00E+00	0.00E+00	2.00E-02	0.00E+00	2.40E+00	1.35E+00
Thallium	0.00E+00	0.00E+00	1.55E-04	3.60E-03	0.00E+00	0.00E+00	2.05E-04	0.00E+00	3.96E-03	3.96E-01
Zinc	0.00E+00	0.00E+00	3.22E+02	9.30E+00	0.00E+00	0.00E+00	5.30E-01	0.00E+00	3.32E+02	2.37E+01
TOTAL										5.80E+01

**Table E4. Site 2 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose- Response Value (mg/kg/day)	Auquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Antimony	2.31E+01	4.78E-01	0.00E+00	2.99E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-03	7.18E-02
Arsenic	3.70E+00	3.41E-02	0.00E+00	3.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	1.44E-02
Cadmium	1.75E+01	9.79E-01	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-01
Chromium	9.08E+01	6.70E-01	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	5.20E-03
Copper	1.16E+03	7.35E+01	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.85E-01
Lead	1.81E+02	1.79E+00	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	4.00E-06	1.78E-02
Mercury	5.30E+00	4.27E-01	0.00E+00	1.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.71E-01
Nickel	3.13E+01	5.70E-01	0.00E+00	2.69E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-04	5.94E-02
Selenium	8.40E+00	9.49E-02	0.00E+00	3.10E-03	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-02
Silver	5.86E+01	2.40E+00	0.00E+00	8.90E-01	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.73E-01
Thallium	6.00E-01	3.96E-03	0.00E+00	3.00E-03	1.00E+00	1.00E+00	1.00E+00	1.00E-03	1.29E-03
Zinc	1.55E+03	3.32E+02	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.04E+00

EXPOSURE PARAMETERS:

Table E4. Site 2 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day)	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm2)	3.02E+02
Skin exposed - Soil/Sediment (cm2/day)	3.02E+02
Soil on Skin (kg/cm2)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table E4. Site 2 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Aquatic BCF (L/kg)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
						Body Weight (kg)	Organism Consumption (mg/kg/day)
Antimony	4.78E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.76E-02
Arsenic	3.41E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.25E-03
Cadmium	9.79E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.60E-02
Chromium	6.70E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.46E-02
Copper	7.35E+01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.70E+00
Lead	1.79E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	6.58E-02
Mercury	4.27E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.57E-02
Nickel	5.70E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.10E-02
Selenium	9.49E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.49E-03
Silver	2.40E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	8.81E-02
Thallium	3.96E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.45E-04
Zinc	3.32E+02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.22E+01

WATER CONSUMPTION

Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Site-Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
					Body Weight (kg)	Water Consumption (mg/kg/day)
Antimony	4.78E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	3.41E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	9.79E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	6.70E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	7.35E+01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	1.79E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	4.27E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	5.70E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	9.49E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	2.40E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	3.96E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	3.32E+02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table E4. Site 2 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
						Body Weight (kg)	Plant Consumption (mg/kg/day)
Antimony	2.31E+01	7.18E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.06E-02
Arsenic	3.70E+00	1.44E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.30E-03
Cadmium	1.75E+01	2.48E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.06E-01
Chromium	9.08E+01	5.20E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.16E-02
Copper	1.16E+03	2.85E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	8.10E+00
Lead	1.81E+02	1.78E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	7.89E-02
Mercury	5.30E+00	3.71E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.82E-02
Nickel	3.13E+01	5.94E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.55E-02
Selenium	8.40E+00	2.48E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	5.10E-03
Silver	5.86E+01	1.73E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.48E-01
Thallium	6.00E-01	1.29E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.90E-05
Zinc	1.55E+03	1.04E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.95E+01

SOIL INGESTION:

Table E4. Site 2 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose	
					Body Weight (kg)	From Soil Ingestion (mg/kg/day)
Antimony	2.31E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.70E-02
Arsenic	3.70E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.72E-03
Cadmium	1.75E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.29E-02
Chromium	9.08E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.67E-02
Copper	1.16E+03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.52E-01
Lead	1.81E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.33E-01
Mercury	5.30E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.89E-03
Nickel	3.13E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.30E-02
Selenium	8.40E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.17E-03
Silver	5.86E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.31E-02
Thallium	6.00E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.41E-04
Zinc	1.55E+03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.14E+00

SEDIMENT INGESTION:

Table E4. Site 2 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E4. Site 2 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Antimony	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table E4. Site 2 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil	Surface Soil	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Lifetime Average	
		Dermal Exposure (Soil on Skin) (kg/cm2)	Dermal Exposure (Skin Exposed) (cm2/day)					Body Weight (kg)	Daily Dose From Soil - Dermal (mg/kg/day)
Antimony	2.31E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.33E-03
Arsenic	3.70E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.13E-04
Cadmium	1.75E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.01E-03
Chromium	9.08E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.22E-03
Copper	1.16E+03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.67E-02
Lead	1.81E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.04E-02
Mercury	5.30E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.05E-04
Nickel	3.13E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.80E-03
Selenium	8.40E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.83E-04
Silver	5.86E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.37E-03
Thallium	6.00E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.45E-05
Zinc	1.55E+03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	8.91E-02

SURFACE WATER DERMAL EXPOSURE:

Table E4. Site 2 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Lifetime Average	
		Dermal Exposure (Skin Exposed) (cm2)						Body Weight (kg)	Daily Dose From Water - Dermal (mg/kg/day)
Antimony	4.78E-01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	3.41E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	9.79E-01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	6.70E-01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	7.35E+01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	1.79E+00	3.02E+02	4.00E-06	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	4.27E-01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	5.70E-01	3.02E+02	1.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	9.49E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	2.40E+00	3.02E+02	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	3.96E-03	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	3.32E+02	3.02E+02	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table E4. Site 2 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Antimony	1.76E-02	0.00E+00	4.06E-02	1.70E-02	0.00E+00	0.00E+00	1.33E-03	0.00E+00	7.65E-02	2.56E-02
Arsenic	1.25E-03	0.00E+00	1.30E-03	2.72E-03	0.00E+00	0.00E+00	2.13E-04	0.00E+00	5.49E-03	1.48E-02
Cadmium	3.60E-02	0.00E+00	1.06E-01	1.29E-02	0.00E+00	0.00E+00	1.01E-03	0.00E+00	1.56E-01	1.84E+01
Chromium	2.46E-02	0.00E+00	1.16E-02	6.67E-02	0.00E+00	0.00E+00	5.22E-03	0.00E+00	1.08E-01	3.60E+00
Copper	2.70E+00	0.00E+00	8.10E+00	8.52E-01	0.00E+00	0.00E+00	6.67E-02	0.00E+00	1.17E+01	6.76E-01
Lead	6.58E-02	0.00E+00	7.89E-02	1.33E-01	0.00E+00	0.00E+00	1.04E-02	0.00E+00	2.88E-01	2.22E+00
Mercury	1.57E-02	0.00E+00	4.82E-02	3.89E-03	0.00E+00	0.00E+00	3.05E-04	0.00E+00	6.80E-02	6.80E-01
Nickel	2.10E-02	0.00E+00	4.55E-02	2.30E-02	0.00E+00	0.00E+00	1.80E-03	0.00E+00	9.13E-02	3.39E-02
Selenium	3.49E-03	0.00E+00	5.10E-03	6.17E-03	0.00E+00	0.00E+00	4.83E-04	0.00E+00	1.52E-02	4.92E+00
Silver	8.81E-02	0.00E+00	2.48E-01	4.31E-02	0.00E+00	0.00E+00	3.37E-03	0.00E+00	3.83E-01	4.30E-01
Thallium	1.45E-04	0.00E+00	1.90E-05	4.41E-04	0.00E+00	0.00E+00	3.45E-05	0.00E+00	6.40E-04	2.13E-01
Zinc	1.22E+01	0.00E+00	3.95E+01	1.14E+00	0.00E+00	0.00E+00	8.91E-02	0.00E+00	5.29E+01	3.02E+01
TOTAL										6.14E+01

**Table E5. Site 3 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose- Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Antimony	3.36E+03	0.00E+00	0.00E+00	3.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	7.18E-02
Chromium	5.38E+01	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	5.20E-03
Copper	1.99E+04	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.85E-01
Lead	4.63E+04	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	4.00E-06	1.78E-02
Tin	6.74E+01	0.00E+00	0.00E+00	7.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	1.19E-02
Zinc	2.16E+03	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.04E+00

EXPOSURE PARAMETERS:

Table E5. Site 3 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day)	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:

Table E5. Site 3 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Antimony	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Tin	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION

Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Antimony	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Tin	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table E5. Site 3 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
						Body Weight (kg)	Plant Consumption (mg/kg/day)
Antimony	3.36E+03	7.18E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	4.82E+01
Chromium	5.38E+01	5.20E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	5.60E-02
Copper	1.99E+04	2.85E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.13E+03
Lead	4.63E+04	1.78E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.65E+02
Tin	6.74E+01	1.19E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.60E-01
Zinc	2.16E+03	1.04E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	4.49E+02

SOIL INGESTION:

Table E5. Site 3 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose	
					Body Weight (kg)	From Soil Ingestion (mg/kg/day)
Antimony	3.36E+03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.02E+01
Chromium	5.38E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.23E-01
Copper	1.99E+04	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.19E+02
Lead	4.63E+04	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.78E+02
Tin	6.74E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.04E-01
Zinc	2.16E+03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.30E+01

SEDIMENT INGESTION:

Table E5. Site 3 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
					Body Weight (kg)	Sediment Ingestion (mg/kg/day)
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Tin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

Zinc 0.00E+00 0.00E+00 1.00E+00 1.00E+00 1.00E+00 2.50E-02 0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E5. Site 3 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment	Sediment	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Lifetime Average	
		Dermal Exposure (Sediment on Skin) (kg/cm2)	Dermal Exposure (Skin Exposed) (cm2/day)					Body Weight (kg)	Daily Dose From sediment - Dermal (mg/kg/day)
Antimony	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Tin	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table E5. Site 3 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil	Surface Soil	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Lifetime Average	
		Dermal Exposure (Soil on Skin) (kg/cm2)	Dermal Exposure (Skin Exposed) (cm2/day)					Body Weight (kg)	Daily Dose From Soil - Dermal (mg/kg/day)
Antimony	3.36E+03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.15E+00
Chromium	5.38E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.84E-02
Copper	1.99E+04	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.81E+01
Lead	4.63E+04	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.58E+01
Tin	6.74E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.31E-02
Zinc	2.16E+03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.39E-01

SURFACE WATER DERMAL EXPOSURE:
Table E5. Site 3 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Lifetime Average	
								Body Weight (kg)	Daily Dose From Water - Dermal (mg/kg/day)
Antimony	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	4.00E-06	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Tin	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION
Table E5. Site 3 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
	Antimony	0.00E+00	0.00E+00	4.82E+01	2.02E+01	0.00E+00	0.00E+00	1.15E+00	0.00E+00	6.96E+01
Chromium	0.00E+00	0.00E+00	5.60E-02	3.23E-01	0.00E+00	0.00E+00	1.84E-02	0.00E+00	3.97E-01	1.65E+00
Copper	0.00E+00	0.00E+00	1.13E+03	1.19E+02	0.00E+00	0.00E+00	6.81E+00	0.00E+00	1.26E+03	3.63E+00
Lead	0.00E+00	0.00E+00	1.65E+02	2.78E+02	0.00E+00	0.00E+00	1.58E+01	0.00E+00	4.58E+02	5.09E+03
Tin	0.00E+00	0.00E+00	1.60E-01	4.04E-01	0.00E+00	0.00E+00	2.31E-02	0.00E+00	5.88E-01	8.40E-01
Zinc	0.00E+00	0.00E+00	4.49E+02	1.30E+01	0.00E+00	0.00E+00	7.39E-01	0.00E+00	4.63E+02	3.31E+01
TOTAL										5.33E+03

**Table E6. Site 3 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose- Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Antimony	3.36E+03	6.96E+01	0.00E+00	2.99E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-03	7.18E-02
Chromium	5.38E+01	3.97E-01	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	5.20E-03
Copper	1.99E+04	1.26E+03	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.85E-01
Lead	4.63E+04	4.58E+02	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	4.00E-06	1.78E-02
Tin	6.74E+01	5.88E-01	0.00E+00	4.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	1.19E-02
Zinc	2.16E+03	4.63E+02	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.04E+00

EXPOSURE PARAMETERS:

Table E6. Site 3 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table E6. Site 3 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Aquatic BCF (L/kg)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
						Body Weight (kg)	Organism Consumption (mg/kg/day)
Antimony	6.96E+01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.56E+00
Chromium	3.97E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.46E-02
Copper	1.26E+03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	4.63E+01
Lead	4.58E+02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.68E+01
Tin	5.88E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.16E-02
Zinc	4.63E+02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.70E+01

WATER CONSUMPTION

Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Site-Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
					Body Weight (kg)	Water Consumption (mg/kg/day)
Antimony	6.96E+01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	3.97E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	1.26E+03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	4.58E+02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Tin	5.88E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	4.63E+02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table E6. Site 3 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface	Plant/Root	Plant	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Uptake Factor (kg soil/kg plant)	Consumption Rate (kg/day)				Daily Dose From Plant Consumption (mg/kg/day)
Antimony	3.36E+03	7.18E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	5.91E+00
Chromium	5.38E+01	5.20E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	6.85E-03
Copper	1.99E+04	2.85E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.39E+02
Lead	4.63E+04	1.78E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.02E+01
Tin	6.74E+01	1.19E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.96E-02
Zinc	2.16E+03	1.04E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	5.50E+01

SOIL INGESTION:

Table E6. Site 3 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface	Soil	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Ingestion Rate (kg/day)				Daily Dose From Soil Ingestion (mg/kg/day)
Antimony	3.36E+03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.47E+00
Chromium	5.38E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.95E-02
Copper	1.99E+04	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.46E+01
Lead	4.63E+04	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.40E+01
Tin	6.74E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.95E-02
Zinc	2.16E+03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.59E+00

SEDIMENT INGESTION:

Table E6. Site 3 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Tin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E6. Site 3 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Antimony	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Tin	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table E6. Site 3 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil	Surface Soil	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Lifetime Average Body Weight (kg)	Lifetime Average
		Dermal Exposure (Soil on Skin) (kg/cm2)	Dermal Exposure (Skin Exposed) (cm2/day)						Daily Dose From Soil - Dermal (mg/kg/day)
Antimony	3.36E+03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.93E-01
Chromium	5.38E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.09E-03
Copper	1.99E+04	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.14E+00
Lead	4.63E+04	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.66E+00
Tin	6.74E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.88E-03
Zinc	2.16E+03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.24E-01

SURFACE WATER DERMAL EXPOSURE:

Table E6. Site 3 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Lifetime Average Body Weight (kg)	Lifetime Average
		Dermal Exposure (Skin Exposed) (cm2)							Daily Dose From Water - Dermal (mg/kg/day)
Antimony	6.96E+01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	3.97E-01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	1.26E+03	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	4.58E+02	3.02E+02	4.00E-06	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Tin	5.88E-01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	4.63E+02	3.02E+02	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table E6. Site 3 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Antimony	2.56E+00	0.00E+00	5.91E+00	2.47E+00	0.00E+00	0.00E+00	1.93E-01	0.00E+00	1.11E+01	3.72E+00
Chromium	1.46E-02	0.00E+00	6.85E-03	3.95E-02	0.00E+00	0.00E+00	3.09E-03	0.00E+00	6.41E-02	2.14E+00
Copper	4.63E+01	0.00E+00	1.39E+02	1.46E+01	0.00E+00	0.00E+00	1.14E+00	0.00E+00	2.01E+02	1.16E+01
Lead	1.68E+01	0.00E+00	2.02E+01	3.40E+01	0.00E+00	0.00E+00	2.66E+00	0.00E+00	7.37E+01	5.67E+02
Tin	2.16E-02	0.00E+00	1.96E-02	4.95E-02	0.00E+00	0.00E+00	3.88E-03	0.00E+00	9.46E-02	2.37E+00
Zinc	1.70E+01	0.00E+00	5.50E+01	1.59E+00	0.00E+00	0.00E+00	1.24E-01	0.00E+00	7.37E+01	4.21E+01
TOTAL										6.29E+02

**Table E7. Site 11 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose-Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Lead	2.30E+02	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	4.00E-06	1.78E-02

EXPOSURE PARAMETERS:

Table E7. Site 11 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:

Table E7. Site 11 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:
 Table E7. Site 11 Risk Characterization for the Deer Mouse
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Soil Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Lead	2.30E+02	1.78E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	8.19E-01

SOIL INGESTION:
 Table E7. Site 11 Risk Characterization for the Deer Mouse
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
Lead	2.30E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.38E+00

SEDIMENT INGESTION:

Table E7. Site 11 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E7. Site 11 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table E7. Site 11 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Lead	2.30E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.87E-02

SURFACE WATER DERMAL EXPOSURE:

Table E7. Site 11 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Lead	0.00E+00	8.55E+00	4.00E-06	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table E7. Site 11 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Lead	0.00E+00	0.00E+00	8.19E-01	1.38E+00	0.00E+00	0.00E+00	7.87E-02	0.00E+00	2.28E+00	2.53E+01
TOTAL										2.53E+01

**Table E8. Site 11 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose-Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Lead	2.30E+02	2.28E+00	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	4.00E-06	1.78E-02

EXPOSURE PARAMETERS:

Table E8. Site 11 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table E8. Site 11 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Aquatic BCF (L/kg)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Organism Consumption (mg/kg/day)
Lead	2.28E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	8.37E-02

WATER CONSUMPTION

Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Site-Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Lead	2.28E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table EB. Site 11 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Lead	2.30E+02	1.78E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.00E-01

SOIL INGESTION:

Table EB. Site 11 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
Lead	2.30E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.69E-01

SEDIMENT INGESTION:

Table E8. Site 11 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E8. Site 11 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm ²)	Sediment Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table E8. Site 11 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm ²)	Surface Soil Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Lead	2.30E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.32E-02

SURFACE WATER DERMAL EXPOSURE:

Table E8. Site 11 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Lead	2.28E+00	3.02E+02	4.00E-06	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table E8. Site 11 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Lead	8.37E-02	0.00E+00	1.00E-01	1.69E-01	0.00E+00	0.00E+00	1.32E-02	0.00E+00	3.66E-01	2.82E+00
TOTAL										2.82E+00

**Table E9. Site 12 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose- Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Tetrachloroethene	4.30E-02	0.00E+00	0.00E+00	2.80E+00	1.00E+00	1.00E+00	1.00E+00	4.00E-01	3.92E-01
Toluene	2.10E-03	0.00E+00	0.00E+00	2.50E+02	1.00E+00	1.00E+00	1.00E+00	4.50E-02	3.29E-01
Trichloroethene	2.40E-03	0.00E+00	0.00E+00	1.28E+02	1.00E+00	1.00E+00	1.00E+00	2.00E-01	5.25E-01
Bis(2-ethylhexyl)phth	2.20E-01	0.00E+00	0.00E+00	2.60E+00	2.17E+02	1.00E+00	1.00E+00	3.36E-02	1.39E-02
Di-n-butylphthalate	1.10E-01	0.00E+00	0.00E+00	1.25E+01	1.00E+00	1.00E+00	1.00E+00	3.60E-01	7.23E-03
Diethylphthalate	4.10E-02	0.00E+00	0.00E+00	7.70E+01	1.00E+00	1.00E+00	1.00E+00	4.80E-03	4.47E-01
Antimony	4.50E+00	0.00E+00	0.00E+00	3.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	7.18E-02
Arsenic	5.70E+00	0.00E+00	0.00E+00	7.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	1.44E-02
Beryllium	3.60E-01	0.00E+00	0.00E+00	9.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.59E-03
Cadmium	1.86E+01	0.00E+00	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-01
Chromium	1.84E+02	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	5.20E-03
Copper	1.25E+02	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.85E-01
Lead	1.14E+03	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	4.00E-06	1.78E-02
Mercury	3.30E-01	0.00E+00	0.00E+00	1.90E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.71E-01
Nickel	1.51E+01	0.00E+00	0.00E+00	8.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-04	5.94E-02
Selenium	7.70E-01	0.00E+00	0.00E+00	6.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-02
Zinc	4.99E+02	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.04E+00

EXPOSURE PARAMETERS:

Table E9. Site 12 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:

Table E9. Site 12 Risk Characterization for the Deer Mouse
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From Body Aquatic Organism	
			Rate (kg/day)			Weight (kg)	Consumption (mg/kg/day)
Tetrachloroethene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Toluene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Trichloroethene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	2.17E+02	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Di-n-butylphthalate	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Diethylphthalate	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
					Body Weight (kg)	Water Consumption (mg/kg/day)
Tetrachloroethene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Toluene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Trichloroethene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Di-n-butylphthalate	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Diethylphthalate	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table E9. Site 12 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface	Plant/Root	Plant	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Uptake Factor (kg soil/kg plant)	Consumption Rate (kg/day)				Daily Dose From Plant Consumption (mg/kg/day)
Tetrachloroethene	4.30E-02	3.92E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.37E-03
Toluene	2.10E-03	3.29E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.38E-04
Trichloroethene	2.40E-03	5.25E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.52E-04
Bis(2-ethylhexyl)phth	2.20E-01	1.39E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	6.12E-04
Di-n-butylphthalate	1.10E-01	7.23E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.59E-04
Diethylphthalate	4.10E-02	4.47E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.67E-03
Antimony	4.50E+00	7.18E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	6.46E-02
Arsenic	5.70E+00	1.44E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.64E-02
Beryllium	3.60E-01	3.59E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.58E-04
Cadmium	1.86E+01	2.48E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	9.23E-01
Chromium	1.84E+02	5.20E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.91E-01
Copper	1.25E+02	2.85E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	7.13E+00
Lead	1.14E+03	1.78E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	4.06E+00
Mercury	3.30E-01	3.71E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.45E-02
Nickel	1.51E+01	5.94E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.79E-01
Selenium	7.70E-01	2.48E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.82E-03
Zinc	4.99E+02	1.04E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.04E+02

SOIL INGESTION:

Table E9. Site 12 Risk Characterization for the Deer Mouse
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
						Daily Dose From Soil Ingestion (mg/kg/day)
Tetrachloroethene	4.30E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.58E-04
Toluene	2.10E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.26E-05
Trichloroethene	2.40E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.44E-05
Bis(2-ethylhexyl)phth	2.20E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.32E-03
Di-n-butylphthalate	1.10E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.60E-04
Diethylphthalate	4.10E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.46E-04
Antimony	4.50E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.70E-02
Arsenic	5.70E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.42E-02
Beryllium	3.60E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.16E-03
Cadmium	1.86E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.12E-01
Chromium	1.84E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.10E+00
Copper	1.25E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.50E-01
Lead	1.14E+03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.84E+00
Mercury	3.30E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.98E-03
Nickel	1.51E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.06E-02
Selenium	7.70E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.62E-03
Zinc	4.99E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.99E+00

SEDIMENT INGESTION:

Table E9. Site 12 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Tetrachloroethene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Toluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Trichloroethene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Di-n-butylphthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Diethylphthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E9. Site 12 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Lifetime Average	
								Body Weight (kg)	Daily Dose From sediment - Dermal (mg/kg/day)
Tetrachloroethene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Toluene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Trichloroethene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Di-n-butylphthalate	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Diethylphthalate	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table E9. Site 12 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Lifetime Average	
								Body Weight (kg)	Daily Dose From Soil - Dermal (mg/kg/day)
Tetrachloroethene	4.30E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.47E-05
Toluene	2.10E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.18E-07
Trichloroethene	2.40E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.21E-07
Bis(2-ethylhexyl)phth	2.20E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.52E-05
Di-n-butylphthalate	1.10E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.76E-05
Diethylphthalate	4.10E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.40E-05
Antimony	4.50E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.54E-03
Arsenic	5.70E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.95E-03
Beryllium	3.60E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.23E-04
Cadmium	1.86E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.36E-03
Chromium	1.84E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.29E-02
Copper	1.25E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.28E-02
Lead	1.14E+03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.90E-01
Mercury	3.30E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.13E-04
Nickel	1.51E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.16E-03
Selenium	7.70E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.63E-04
Zinc	4.99E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.71E-01

SURFACE WATER DERMAL EXPOSURE:

Table E9. Site 12 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water		Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Lifetime Average	
		Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)					Body Weight (kg)	Daily Dose From Water - Dermal (mg/kg/day)
Tetrachloroethene	0.00E+00	8.55E+00	4.00E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Toluene	0.00E+00	8.55E+00	4.50E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Trichloroethene	0.00E+00	8.55E+00	2.00E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	8.55E+00	3.36E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Di-n-butylphthalate	0.00E+00	8.55E+00	3.60E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Diethylphthalate	0.00E+00	8.55E+00	4.80E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	4.00E-06	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	8.55E+00	1.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table E9. Site 12 Risk Characterization for the Deer Mouse

Quantitative Ecological Screening Assessment

Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Tetrachloroethene	0.00E+00	0.00E+00	3.37E-03	2.58E-04	0.00E+00	0.00E+00	1.47E-05	0.00E+00	3.64E-03	1.30E-03
Toluene	0.00E+00	0.00E+00	1.38E-04	1.26E-05	0.00E+00	0.00E+00	7.18E-07	0.00E+00	1.51E-04	6.06E-07
Trichloroethene	0.00E+00	0.00E+00	2.52E-04	1.44E-05	0.00E+00	0.00E+00	8.21E-07	0.00E+00	2.67E-04	2.09E-06
Bis(2-ethylhexyl)phth	0.00E+00	0.00E+00	6.12E-04	1.32E-03	0.00E+00	0.00E+00	7.52E-05	0.00E+00	2.01E-03	7.72E-04
Di-n-butylphthalate	0.00E+00	0.00E+00	1.59E-04	6.60E-04	0.00E+00	0.00E+00	3.76E-05	0.00E+00	8.57E-04	6.85E-05
Diethylphthalate	0.00E+00	0.00E+00	3.67E-03	2.46E-04	0.00E+00	0.00E+00	1.40E-05	0.00E+00	3.93E-03	5.10E-05
Antimony	0.00E+00	0.00E+00	6.46E-02	2.70E-02	0.00E+00	0.00E+00	1.54E-03	0.00E+00	9.32E-02	2.66E-01
Arsenic	0.00E+00	0.00E+00	1.64E-02	3.42E-02	0.00E+00	0.00E+00	1.95E-03	0.00E+00	5.26E-02	7.51E-02
Beryllium	0.00E+00	0.00E+00	2.58E-04	2.16E-03	0.00E+00	0.00E+00	1.23E-04	0.00E+00	2.54E-03	2.68E-03
Cadmium	0.00E+00	0.00E+00	9.23E-01	1.12E-01	0.00E+00	0.00E+00	6.36E-03	0.00E+00	1.04E+00	6.12E+00
Chromium	0.00E+00	0.00E+00	1.91E-01	1.10E+00	0.00E+00	0.00E+00	6.29E-02	0.00E+00	1.36E+00	5.66E+00
Copper	0.00E+00	0.00E+00	7.13E+00	7.50E-01	0.00E+00	0.00E+00	4.28E-02	0.00E+00	7.92E+00	2.28E-02
Lead	0.00E+00	0.00E+00	4.06E+00	6.84E+00	0.00E+00	0.00E+00	3.90E-01	0.00E+00	1.13E+01	1.25E+02
Mercury	0.00E+00	0.00E+00	2.45E-02	1.98E-03	0.00E+00	0.00E+00	1.13E-04	0.00E+00	2.66E-02	1.40E-02
Nickel	0.00E+00	0.00E+00	1.79E-01	9.06E-02	0.00E+00	0.00E+00	5.16E-03	0.00E+00	2.75E-01	3.24E-01
Selenium	0.00E+00	0.00E+00	3.82E-03	4.62E-03	0.00E+00	0.00E+00	2.63E-04	0.00E+00	8.70E-03	1.45E-01
Zinc	0.00E+00	0.00E+00	1.04E+02	2.99E+00	0.00E+00	0.00E+00	1.71E-01	0.00E+00	1.07E+02	7.64E+00
TOTAL										1.46E+02

**Table E10. Site 12 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose- Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Tetrachloroethene	4.30E-02	3.64E-03	0.00E+00	1.40E-01	1.00E+00	1.00E+00	1.00E+00	4.00E-01	3.92E-01
Toluene	2.10E-03	1.51E-04	0.00E+00	1.25E+01	1.00E+00	1.00E+00	1.00E+00	4.50E-02	3.29E-01
Trichloroethene	2.40E-03	2.67E-04	0.00E+00	6.40E+00	1.00E+00	1.00E+00	1.00E+00	2.00E-01	5.25E-01
Bis(2-ethylhexyl)phth	2.20E-01	2.01E-03	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	3.36E-02	1.39E-02
Di-n-butylphthalate	1.10E-01	8.57E-04	0.00E+00	6.25E+00	1.00E+00	1.00E+00	1.00E+00	3.60E-01	7.23E-03
Dlethylphthalate	4.10E-02	3.93E-03	0.00E+00	3.85E+01	1.00E+00	1.00E+00	1.00E+00	4.80E-03	4.47E-01
Antimony	4.50E+00	9.32E-02	0.00E+00	2.99E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-03	7.18E-02
Arsenic	5.70E+00	5.26E-02	0.00E+00	3.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	1.44E-02
Beryllium	3.60E-01	2.54E-03	0.00E+00	5.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.59E-03
Cadmium	1.86E+01	1.04E+00	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-01
Chromium	1.84E+02	1.36E+00	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	5.20E-03
Copper	1.25E+02	7.92E+00	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.85E-01
Lead	1.14E+03	1.13E+01	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	4.00E-03	1.78E-02
Mercury	3.30E-01	2.66E-02	0.00E+00	1.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.71E-01
Nickel	1.51E+01	2.75E-01	0.00E+00	2.69E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-04	5.94E-02
Selenium	7.70E-01	8.70E-03	0.00E+00	3.10E-03	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-02
Zinc	4.99E+02	1.07E+02	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.04E+00

EXPOSURE PARAMETERS:

Table E10. Site 12 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day)	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm2)	3.02E+02
Skin exposed - Soil/Sediment (cm2/day)	3.02E+02
Soil on Skin (kg/cm2)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table E10. Site 12 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Aquatic BCF (L/kg)	Organism	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
			Consumption Rate (kg/day)				Daily Dose From Organism Consumption (mg/kg/day)
Tetrachloroethene	3.64E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.34E-04
Toluene	1.51E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	5.57E-06
Trichloroethene	2.67E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	9.82E-06
Bis(2-ethylhexyl)phth	2.01E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	7.37E-05
Di-n-butylphthalate	8.57E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.15E-05
Diethylphthalate	3.93E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.44E-04
Antimony	9.32E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.42E-03
Arsenic	5.26E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.93E-03
Beryllium	2.54E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	9.34E-05
Cadmium	1.04E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.82E-02
Chromium	1.36E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	4.99E-02
Copper	7.92E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.91E-01
Lead	1.13E+01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	4.15E-01
Mercury	2.66E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	9.76E-04
Nickel	2.75E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.01E-02
Selenium	8.70E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.20E-04
Zinc	1.07E+02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.93E+00

WATER CONSUMPTION
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Site-Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
					Body Weight (kg)	Water Consumption (mg/kg/day)
Tetrachloroethene	3.64E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Toluene	1.51E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Trichloroethene	2.67E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phth	2.01E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Di-n-butylphthalate	8.57E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Diethylphthalate	3.93E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	9.32E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	5.26E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	2.54E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.04E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	1.36E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	7.92E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	1.13E+01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	2.66E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	2.75E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	8.70E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	1.07E+02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table E10. Site 12 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
						Body Weight (kg)	Plant Consumption (mg/kg/day)
Tetrachloroethene	4.30E-02	3.92E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.13E-04
Toluene	2.10E-03	3.29E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.69E-05
Trichloroethene	2.40E-03	5.25E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.09E-05
Bis(2-ethylhexyl)phth	2.20E-01	1.39E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	7.49E-05
Di-n-butylphthalate	1.10E-01	7.23E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.95E-05
Diethylphthalate	4.10E-02	4.47E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.49E-04
Antimony	4.50E+00	7.18E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	7.91E-03
Arsenic	5.70E+00	1.44E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.01E-03
Beryllium	3.60E-01	3.59E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.17E-05
Cadmium	1.86E+01	2.48E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.13E-01
Chromium	1.84E+02	5.20E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.34E-02
Copper	1.25E+02	2.85E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	8.72E-01
Lead	1.14E+03	1.78E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.97E-01
Mercury	3.30E-01	3.71E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.00E-03
Nickel	1.51E+01	5.94E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.20E-02
Selenium	7.70E-01	2.48E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.68E-04
Zinc	4.99E+02	1.04E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.27E+01

SOIL INGESTION:

Table E10. Site 12 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
						Daily Dose From Soil Ingestion (mg/kg/day)
Tetrachloroethene	4.30E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.16E-05
Toluene	2.10E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.54E-06
Trichloroethene	2.40E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.76E-06
Bis(2-ethylhexyl)phth	2.20E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.62E-04
Di-n-butylphthalate	1.10E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.08E-05
Diethylphthalate	4.10E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.01E-05
Antimony	4.50E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.31E-03
Arsenic	5.70E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.19E-03
Beryllium	3.60E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.64E-04
Cadmium	1.86E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.37E-02
Chromium	1.84E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.35E-01
Copper	1.25E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.18E-02
Lead	1.14E+03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.38E-01
Mercury	3.30E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.42E-04
Nickel	1.51E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.11E-02
Selenium	7.70E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.66E-04
Zinc	4.99E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.67E-01

SEDIMENT INGESTION:

Table E10. Site 12 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Tetrachloroethene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Toluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Trichloroethene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Di-n-butylphthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Diethylphthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E10. Site 12 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Lifetime Average	
								Body Weight (kg)	Daily Dose From sediment - Dermal (mg/kg/day)
Tetrachloroethene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Toluene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Trichloroethene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Di-n-butylphthalate	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Diethylphthalate	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table E10. Site 12 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil	Surface Soil	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Lifetime Average	
		Dermal Exposure (Soil on Skin) (kg/cm2)	Dermal Exposure (Skin Exposed) (cm2/day)					Body Weight (kg)	Daily Dose From Soil - Dermal (mg/kg/day)
Tetrachloroethene	4.30E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.47E-06
Toluene	2.10E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.21E-07
Trichloroethene	2.40E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.38E-07
Bis(2-ethylhexyl)phth	2.20E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.27E-05
Di-n-butylphthalate	1.10E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.33E-06
Diethylphthalate	4.10E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.36E-06
Antimony	4.50E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.59E-04
Arsenic	5.70E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.28E-04
Beryllium	3.60E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.07E-05
Cadmium	1.86E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.07E-03
Chromium	1.84E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.06E-02
Copper	1.25E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.19E-03
Lead	1.14E+03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.56E-02
Mercury	3.30E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.90E-05
Nickel	1.51E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	8.68E-04
Selenium	7.70E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.43E-05
Zinc	4.99E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.87E-02

SURFACE WATER DERMAL EXPOSURE:
 Table E10. Site 12 Risk Characterization for the Gray Fox
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water			Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Lifetime Average	
		Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)				Body Weight (kg)	Daily Dose From Water - Dermal (mg/kg/day)
Tetrachloroethene	3.64E-03	3.02E+02	4.00E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Toluene	1.51E-04	3.02E+02	4.50E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Trichloroethene	2.67E-04	3.02E+02	2.00E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phth	2.01E-03	3.02E+02	3.36E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Di-n-butylphthalate	8.57E-04	3.02E+02	3.60E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Diethylphthalate	3.93E-03	3.02E+02	4.80E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	9.32E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	5.26E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	2.54E-03	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.04E+00	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	1.36E+00	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	7.92E+00	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	1.13E+01	3.02E+02	4.00E-06	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	2.66E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	2.75E-01	3.02E+02	1.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	8.70E-03	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	1.07E+02	3.02E+02	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table E10. Site 12 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Tetrachloroethene	1.34E-04	0.00E+00	4.13E-04	3.16E-05	0.00E+00	0.00E+00	2.47E-06	0.00E+00	5.81E-04	4.15E-03
Toluene	5.57E-06	0.00E+00	1.69E-05	1.54E-06	0.00E+00	0.00E+00	1.21E-07	0.00E+00	2.41E-05	1.93E-06
Trichloroethene	9.82E-06	0.00E+00	3.09E-05	1.76E-06	0.00E+00	0.00E+00	1.38E-07	0.00E+00	4.26E-05	6.65E-06
Bis(2-ethylhexyl)phth	7.37E-05	0.00E+00	7.49E-05	1.62E-04	0.00E+00	0.00E+00	1.27E-05	0.00E+00	3.23E-04	2.48E-03
Di-n-butylphthalate	3.15E-05	0.00E+00	1.95E-05	8.08E-05	0.00E+00	0.00E+00	6.33E-06	0.00E+00	1.38E-04	2.21E-05
Diethylphthalate	1.44E-04	0.00E+00	4.49E-04	3.01E-05	0.00E+00	0.00E+00	2.36E-06	0.00E+00	6.26E-04	1.62E-05
Antimony	3.42E-03	0.00E+00	7.91E-03	3.31E-03	0.00E+00	0.00E+00	2.59E-04	0.00E+00	1.49E-02	4.98E-03
Arsenic	1.93E-03	0.00E+00	2.01E-03	4.19E-03	0.00E+00	0.00E+00	3.28E-04	0.00E+00	8.46E-03	2.29E-02
Beryllium	9.34E-05	0.00E+00	3.17E-05	2.64E-04	0.00E+00	0.00E+00	2.07E-05	0.00E+00	4.10E-04	8.20E-03
Cadmium	3.82E-02	0.00E+00	1.13E-01	1.37E-02	0.00E+00	0.00E+00	1.07E-03	0.00E+00	1.66E-01	1.95E+01
Chromium	4.99E-02	0.00E+00	2.34E-02	1.35E-01	0.00E+00	0.00E+00	1.06E-02	0.00E+00	2.19E-01	7.30E+00
Copper	2.91E-01	0.00E+00	8.72E-01	9.18E-02	0.00E+00	0.00E+00	7.19E-03	0.00E+00	1.26E+00	7.28E-02
Lead	4.15E-01	0.00E+00	4.97E-01	8.38E-01	0.00E+00	0.00E+00	6.56E-02	0.00E+00	1.81E+00	1.40E+01
Mercury	9.76E-04	0.00E+00	3.00E-03	2.42E-04	0.00E+00	0.00E+00	1.90E-05	0.00E+00	4.24E-03	4.24E-02
Nickel	1.01E-02	0.00E+00	2.20E-02	1.11E-02	0.00E+00	0.00E+00	8.68E-04	0.00E+00	4.40E-02	1.64E-02
Selenium	3.20E-04	0.00E+00	4.68E-04	5.66E-04	0.00E+00	0.00E+00	4.43E-05	0.00E+00	1.40E-03	4.51E-01
Zinc	3.93E+00	0.00E+00	1.27E+01	3.67E-01	0.00E+00	0.00E+00	2.87E-02	0.00E+00	1.70E+01	9.73E+00
TOTAL										5.11E+01

**Table E11. Site 15 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose-Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Sol/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
1,2-Dichloroethene (t)	1.80E-03	0.00E+00	0.00E+00	3.40E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-02	5.68E+00
Ethylbenzene	7.80E-03	0.00E+00	0.00E+00	9.71E+00	1.00E+00	1.00E+00	1.00E+00	7.40E-02	1.88E-01
Toluene	4.10E-03	0.00E+00	0.00E+00	2.50E+02	1.00E+00	1.00E+00	1.00E+00	4.50E-02	3.29E-01
Xylenes	2.40E-03	0.00E+00	0.00E+00	1.79E+02	1.00E+00	1.00E+00	1.00E+00	8.00E-02	1.63E-01
Chlordane	4.00E+03	0.00E+00	0.00E+00	9.00E-01	2.37E+04	1.00E+00	1.00E+00	5.20E-02	1.50E-01
4,4'-DDE	1.10E+00	0.00E+00	0.00E+00	3.40E+01	1.00E+00	1.00E+00	1.00E+00	2.40E-01	1.12E-03
4,4'-DDT	2.50E-01	0.00E+00	0.00E+00	3.11E+00	3.58E+03	1.00E+00	1.00E+00	4.30E-01	3.29E-03
Dieldrin	9.40E-01	0.00E+00	0.00E+00	3.00E-03	1.00E+00	1.00E+00	1.00E+00	1.60E-02	1.18E-01
Heptachlor	1.20E+02	0.00E+00	0.00E+00	2.50E-01	1.00E+00	1.00E+00	1.00E+00	1.60E-02	3.57E-02
Heptachlor epoxide	1.90E-01	0.00E+00	0.00E+00	2.50E-01	1.00E+00	1.00E+00	1.00E+00	2.32E+00	3.43E-01
Cadmium	2.50E+00	0.00E+00	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-01
Copper	5.69E+01	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.85E-01

EXPOSURE PARAMETERS:

Table E11. Site 15 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:

Table E11. Site 15 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
						Body Weight (kg)	Aquatic Organism Consumption (mg/kg/day)
1,2-Dichloroethene (t	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Ethylbenzene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Toluene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Xylenes	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	2.37E+04	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	3.58E+03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Heptachlor	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Heptachlor epoxide	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION

Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
					Body Weight (kg)	Water Consumption (mg/kg/day)
1,2-Dichloroethene (t	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Ethylbenzene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Toluene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Xylenes	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Heptachlor	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Heptachlor epoxide	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table E11. Site 15 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface	Plant/Root	Plant	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Uptake Factor (kg soil/kg plant)	Consumption Rate (kg/day)				Daily Dose From Plant Consumption (mg/kg/day)
1,2-Dichloroethene (t)	1.80E-03	5.68E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.04E-03
Ethylbenzene	7.80E-03	1.88E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.93E-04
Toluene	4.10E-03	3.29E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.70E-04
Xylenes	2.40E-03	1.63E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	7.82E-05
Chlordane	4.00E+03	1.50E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.20E+02
4,4'-DDE	1.10E+00	1.12E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.46E-04
4,4'-DDT	2.50E-01	3.29E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.65E-04
Dieldrin	9.40E-01	1.18E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.22E-02
Heptachlor	1.20E+02	3.57E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	8.57E-01
Heptachlor epoxide	1.90E-01	3.43E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.30E-02
Cadmium	2.50E+00	2.48E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.24E-01
Copper	5.69E+01	2.85E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.24E+00

SOIL INGESTION:

Table E11. Site 15 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface	Soil	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Ingestion Rate (kg/day)				Daily Dose From Soil Ingestion (mg/kg/day)
1,2-Dichloroethene (t)	1.80E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.08E-05
Ethylbenzene	7.80E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.68E-05
Toluene	4.10E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.46E-05
Xylenes	2.40E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.44E-05
Chlordane	4.00E+03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.40E+01
4,4'-DDE	1.10E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.60E-03
4,4'-DDT	2.50E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.50E-03
Dieldrin	9.40E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.64E-03
Heptachlor	1.20E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.20E-01
Heptachlor epoxide	1.90E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.14E-03
Cadmium	2.50E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.50E-02
Copper	5.69E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.41E-01

SEDIMENT INGESTION:

Table E11. Site 15 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
1,2-Dichloroethene (t	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Ethylbenzene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Toluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Xylenes	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Heptachlor	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Heptachlor epoxide	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E11. Site 15 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
1,2-Dichloroethene (t	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Ethylbenzene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Toluene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Xylenes	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Heptachlor	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Heptachlor epoxide	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table E11. Site 15 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil	Surface Soil	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Lifetime Average	
		Dermal Exposure (Soil on Skin) (kg/cm2)	Dermal Exposure (Skin Exposed) (cm2/day)					Body Weight (kg)	Daily Dose From Soil - Dermal (mg/kg/day)
1,2-Dichloroethene (t	1.80E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.16E-07
Ethylbenzene	7.80E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.67E-06
Toluene	4.10E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.40E-06
Xylenes	2.40E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.21E-07
Chlordane	4.00E+03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.37E+00
4,4'-DDE	1.10E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.76E-04
4,4'-DDT	2.50E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.55E-05
Dieldrin	9.40E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.21E-04
Heptachlor	1.20E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.10E-02
Heptachlor epoxide	1.90E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.50E-05
Cadmium	2.50E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.55E-04
Copper	5.69E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.95E-02

SURFACE WATER DERMAL EXPOSURE:

Table E11. Site 15 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Lifetime Average	
		Dermal Exposure (Skin Exposed) (cm2)						Body Weight (kg)	Daily Dose From Water - Dermal (mg/kg/day)
1,2-Dichloroethene (t	0.00E+00	8.55E+00	1.00E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Ethylbenzene	0.00E+00	8.55E+00	7.40E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Toluene	0.00E+00	8.55E+00	4.50E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Xylenes	0.00E+00	8.55E+00	8.00E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	8.55E+00	5.20E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	8.55E+00	2.40E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	8.55E+00	4.30E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	8.55E+00	1.60E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Heptachlor	0.00E+00	8.55E+00	1.60E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Heptachlor epoxide	0.00E+00	8.55E+00	2.32E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table E11. Site 15 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
1,2-Dichloroethene (t	0.00E+00	0.00E+00	2.04E-03	1.08E-05	0.00E+00	0.00E+00	6.16E-07	0.00E+00	2.06E-03	6.05E-04
Ethylbenzene	0.00E+00	0.00E+00	2.93E-04	4.68E-05	0.00E+00	0.00E+00	2.67E-06	0.00E+00	3.43E-04	3.53E-05
Toluene	0.00E+00	0.00E+00	2.70E-04	2.46E-05	0.00E+00	0.00E+00	1.40E-06	0.00E+00	2.96E-04	1.18E-06
Xylenes	0.00E+00	0.00E+00	7.82E-05	1.44E-05	0.00E+00	0.00E+00	8.21E-07	0.00E+00	9.35E-05	5.22E-07
Chlordane	0.00E+00	0.00E+00	1.20E+02	2.40E+01	0.00E+00	0.00E+00	1.37E+00	0.00E+00	1.45E+02	1.62E+02
4,4'-DDE	0.00E+00	0.00E+00	2.46E-04	6.60E-03	0.00E+00	0.00E+00	3.76E-04	0.00E+00	7.22E-03	2.12E-04
4,4'-DDT	0.00E+00	0.00E+00	1.65E-04	1.50E-03	0.00E+00	0.00E+00	8.55E-05	0.00E+00	1.75E-03	5.63E-04
Dieldrin	0.00E+00	0.00E+00	2.22E-02	5.64E-03	0.00E+00	0.00E+00	3.21E-04	0.00E+00	2.81E-02	9.38E+00
Heptachlor	0.00E+00	0.00E+00	8.57E-01	7.20E-01	0.00E+00	0.00E+00	4.10E-02	0.00E+00	1.62E+00	6.47E+00
Heptachlor epoxide	0.00E+00	0.00E+00	1.30E-02	1.14E-03	0.00E+00	0.00E+00	6.50E-05	0.00E+00	1.42E-02	5.70E-02
Cadmium	0.00E+00	0.00E+00	1.24E-01	1.50E-02	0.00E+00	0.00E+00	8.55E-04	0.00E+00	1.40E-01	8.23E-01
Copper	0.00E+00	0.00E+00	3.24E+00	3.41E-01	0.00E+00	0.00E+00	1.95E-02	0.00E+00	3.60E+00	1.04E-02
TOTAL										1.78E+02

**Table E12. Site 15 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose- Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
1,2-Dichloroethene (t	1.80E-03	2.06E-03	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-02	5.68E+00
Ethylbenzene	7.80E-03	3.43E-04	0.00E+00	4.86E+00	1.00E+00	1.00E+00	1.00E+00	7.40E-02	1.88E-01
Toluene	4.10E-03	2.96E-04	0.00E+00	1.25E+01	1.00E+00	1.00E+00	1.00E+00	4.50E-02	3.29E-01
Xylenes	2.40E-03	9.35E-05	0.00E+00	8.95E+00	1.00E+00	1.00E+00	1.00E+00	8.00E-02	1.63E-01
Chlordane	4.00E+03	1.45E+02	0.00E+00	4.00E-02	1.00E+02	1.00E+00	1.00E+00	5.20E-02	1.50E-01
4,4'-DDE	1.10E+00	7.22E-03	0.00E+00	1.70E+00	1.00E+00	1.00E+00	1.00E+00	2.40E-01	1.12E-03
4,4'-DDT	2.50E-01	1.75E-03	0.00E+00	1.60E+00	1.00E+00	1.00E+00	1.00E+00	4.30E-01	3.29E-03
Dieldrin	9.40E-01	2.81E-02	0.00E+00	2.00E-02	1.00E+00	1.00E+00	1.00E+00	1.60E-02	1.18E-01
Heptachlor	1.20E+02	1.62E+00	0.00E+00	3.00E-04	1.00E+00	1.00E+00	1.00E+00	1.60E-02	3.57E-02
Heptachlor epoxide	1.90E-01	1.42E-02	0.00E+00	3.00E-04	1.00E+00	1.00E+00	1.00E+00	2.32E+00	3.43E-01
Cadmium	2.50E+00	1.40E-01	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-01
Copper	5.69E+01	3.60E+00	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.85E-01

EXPOSURE PARAMETERS:

Table E12. Site 15 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate (L/day)	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table E12. Site 15 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Aquatic BCF (L/kg)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
						Body Weight (kg)	Organism Consumption (mg/kg/day)
1,2-Dichloroethene (t)	2.06E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	7.55E-05
Ethylbenzene	3.43E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.26E-05
Toluene	2.96E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.09E-05
Xylenes	9.35E-05	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.43E-06
Chlordane	1.45E+02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	5.34E+00
4,4'-DDE	7.22E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.65E-04
4,4'-DDT	1.75E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	6.43E-05
Dieldrin	2.81E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.03E-03
Heptachlor	1.62E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	5.94E-02
Heptachlor epoxide	1.42E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	5.23E-04
Cadmium	1.40E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	5.14E-03
Copper	3.60E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.32E-01

WATER CONSUMPTION

Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Site-Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
					Body Weight (kg)	Water Consumption (mg/kg/day)
1,2-Dichloroethene (t)	2.06E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Ethylbenzene	3.43E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Toluene	2.96E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Xylenes	9.35E-05	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	1.45E+02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	7.22E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	1.75E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	2.81E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Heptachlor	1.62E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Heptachlor epoxide	1.42E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.40E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	3.60E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table E12. Site 15 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
						Body Weight (kg)	Plant Consumption (mg/kg/day)
1,2-Dichloroethene (t	1.80E-03	5.68E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.50E-04
Ethylbenzene	7.80E-03	1.88E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.59E-05
Toluene	4.10E-03	3.29E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.30E-05
Xylenes	2.40E-03	1.63E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	9.58E-06
Chlordane	4.00E+03	1.50E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.47E+01
4,4'-DDE	1.10E+00	1.12E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.02E-05
4,4'-DDT	2.50E-01	3.29E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.01E-05
Dieldrin	9.40E-01	1.18E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.72E-03
Heptachlor	1.20E+02	3.57E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.05E-01
Heptachlor epoxide	1.90E-01	3.43E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.60E-03
Cadmium	2.50E+00	2.48E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.52E-02
Copper	5.69E+01	2.85E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.97E-01

SOIL INGESTION:

Table E12. Site 15 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose
						From Soil Ingestion (mg/kg/day)
1,2-Dichloroethene (t	1.80E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.32E-06
Ethylbenzene	7.80E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.73E-06
Toluene	4.10E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.01E-06
Xylenes	2.40E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.76E-06
Chlordane	4.00E+03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.94E+00
4,4'-DDE	1.10E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.08E-04
4,4'-DDT	2.50E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.84E-04
Dieldrin	9.40E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.91E-04
Heptachlor	1.20E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.82E-02
Heptachlor epoxide	1.90E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.40E-04
Cadmium	2.50E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.84E-03
Copper	5.69E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.18E-02

SEDIMENT INGESTION:

Table E12. Site 15 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
1,2-Dichloroethene (t	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Ethylbenzene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Toluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Xylenes	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Heptachlor	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Heptachlor epoxide	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E12. Site 15 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
1,2-Dichloroethene (t	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Ethylbenzene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Toluene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Xylenes	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Heptachlor	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Heptachlor epoxide	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table E12. Site 15 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil	Surface Soil	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Lifetime Average	
		Dermal Exposure (Soil on Skin) (kg/cm2)	Dermal Exposure (Skin Exposed) (cm2/day)					Body Weight (kg)	Daily Dose From Soil - Dermal (mg/kg/day)
1,2-Dichloroethene (t	1.80E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.04E-07
Ethylbenzene	7.80E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.49E-07
Toluene	4.10E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.36E-07
Xylenes	2.40E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.38E-07
Chlordane	4.00E+03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.30E-01
4,4'-DDE	1.10E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.33E-05
4,4'-DDT	2.50E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.44E-05
Dieldrin	9.40E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.41E-05
Heptachlor	1.20E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.90E-03
Heptachlor epoxide	1.90E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.09E-05
Cadmium	2.50E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.44E-04
Copper	5.69E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.27E-03

SURFACE WATER DERMAL EXPOSURE:

Table E12. Site 15 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Lifetime Average	
		Dermal Exposure (Skin Exposed) (cm2)						Body Weight (kg)	Daily Dose From Water - Dermal (mg/kg/day)
1,2-Dichloroethene (t	2.06E-03	3.02E+02	1.00E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Ethylbenzene	3.43E-04	3.02E+02	7.40E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Toluene	2.96E-04	3.02E+02	4.50E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Xylenes	9.35E-05	3.02E+02	8.00E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	1.45E+02	3.02E+02	5.20E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	7.22E-03	3.02E+02	2.40E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	1.75E-03	3.02E+02	4.30E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	2.81E-02	3.02E+02	1.60E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Heptachlor	1.62E+00	3.02E+02	1.60E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Heptachlor epoxide	1.42E-02	3.02E+02	2.32E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.40E-01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	3.60E+00	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table E12. Site 15 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
1,2-Dichloroethene (t	7.55E-05	0.00E+00	2.50E-04	1.32E-06	0.00E+00	0.00E+00	1.04E-07	0.00E+00	3.27E-04	1.93E-03
Ethylbenzene	1.26E-05	0.00E+00	3.59E-05	5.73E-06	0.00E+00	0.00E+00	4.49E-07	0.00E+00	5.47E-05	1.13E-05
Toluene	1.09E-05	0.00E+00	3.30E-05	3.01E-06	0.00E+00	0.00E+00	2.36E-07	0.00E+00	4.71E-05	3.77E-06
Xylenes	3.43E-06	0.00E+00	9.58E-06	1.76E-06	0.00E+00	0.00E+00	1.38E-07	0.00E+00	1.49E-05	1.67E-06
Chlordane	5.34E+00	0.00E+00	1.47E+01	2.94E+00	0.00E+00	0.00E+00	2.30E-01	0.00E+00	2.32E+01	5.80E+02
4,4'-DDE	2.65E-04	0.00E+00	3.02E-05	8.08E-04	0.00E+00	0.00E+00	6.33E-05	0.00E+00	1.17E-03	6.86E-04
4,4'-DDT	6.43E-05	0.00E+00	2.01E-05	1.84E-04	0.00E+00	0.00E+00	1.44E-05	0.00E+00	2.82E-04	1.77E-04
Dieldrin	1.03E-03	0.00E+00	2.72E-03	6.91E-04	0.00E+00	0.00E+00	5.41E-05	0.00E+00	4.49E-03	2.25E-01
Heptachlor	5.94E-02	0.00E+00	1.05E-01	8.82E-02	0.00E+00	0.00E+00	6.90E-03	0.00E+00	2.59E-01	8.65E+02
Heptachlor epoxide	5.23E-04	0.00E+00	1.60E-03	1.40E-04	0.00E+00	0.00E+00	1.09E-05	0.00E+00	2.27E-03	7.57E+00
Cadmium	5.14E-03	0.00E+00	1.52E-02	1.84E-03	0.00E+00	0.00E+00	1.44E-04	0.00E+00	2.23E-02	2.62E+00
Copper	1.32E-01	0.00E+00	3.97E-01	4.18E-02	0.00E+00	0.00E+00	3.27E-03	0.00E+00	5.75E-01	3.31E-02
TOTAL										1.46E+03

**Table E13. Site 16 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose- Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Acetone	2.80E-02	0.00E+00	0.00E+00	2.00E+00	1.00E+00	1.00E+00	1.00E+00	3.70E-04	1.72E+01
Trichloroethene	6.80E-02	0.00E+00	0.00E+00	1.28E+02	1.00E+00	1.00E+00	1.00E+00	2.00E-01	5.25E-01
Bis(2-ethylhexyl)phth	3.90E+00	0.00E+00	0.00E+00	2.60E+00	2.17E+02	1.00E+00	1.00E+00	3.36E-02	1.39E-02
Dibenzofuran	4.10E-01	0.00E+00	0.00E+00	2.50E+01	7.16E+02	1.00E+00	1.00E+00	1.50E-01	5.18E-02
Di-n-butylphthalate	9.50E-02	0.00E+00	0.00E+00	1.25E+01	1.00E+00	1.00E+00	1.00E+00	3.60E-01	7.23E-03
Fluorene	1.10E+00	0.00E+00	0.00E+00	2.50E+01	6.00E+02	1.00E+00	1.00E+00	1.77E-01	4.66E-02
2-Methylnaphthalene	8.60E+00	0.00E+00	0.00E+00	1.68E+01	3.10E+02	1.00E+00	1.00E+00	2.10E-01	7.32E-02
Naphthalene	1.60E+00	0.00E+00	0.00E+00	1.68E+01	3.10E+02	1.00E+00	1.00E+00	6.90E-02	1.56E-01
Phenanthrene	1.80E+00	0.00E+00	0.00E+00	1.50E+01	2.05E+03	1.00E+00	1.00E+00	2.70E-01	3.29E-02
1,2,3,4,6,7,8-HpCDD	3.30E-05	0.00E+00	0.00E+00	1.00E-05	1.00E+00	1.00E+00	1.00E+00	2.32E+00	2.96E-04
1,2,3,4,6,7,8-HpCDF	3.30E-05	0.00E+00	0.00E+00	1.00E-05	1.00E+00	1.00E+00	1.00E+00	2.32E+00	3.08E-04
1,2,3,6,7,8 HxCDF	1.00E-05	0.00E+00	0.00E+00	1.00E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00	4.42E-04
OCDD	1.80E-04	0.00E+00	0.00E+00	1.00E-04	1.00E+00	1.00E+00	1.00E+00	1.36E+00	2.27E-04
OCDF	2.80E-05	0.00E+00	0.00E+00	1.00E-04	1.00E+00	1.00E+00	1.00E+00	7.30E-01	3.08E-04
Antimony	4.10E+00	0.00E+00	0.00E+00	3.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	7.18E-02
Arsenic	1.70E+00	0.00E+00	0.00E+00	7.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	1.44E-02
Beryllium	4.20E-01	0.00E+00	0.00E+00	9.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.59E-03
Cadmium	3.40E+00	0.00E+00	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-01
Chromium	1.55E+01	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	5.20E-03
Copper	1.38E+01	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.85E-01
Lead	4.47E+01	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	4.00E-06	1.78E-02
Mercury	2.50E-01	0.00E+00	0.00E+00	1.90E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.71E-01
Nickel	1.66E+01	0.00E+00	0.00E+00	8.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-04	5.94E-02
Silver	1.20E+00	0.00E+00	0.00E+00	1.78E+00	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.73E-01
Zinc	6.49E+01	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.04E+00

EXPOSURE PARAMETERS:

Table E13. Site 16 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:
 Table E13. Site 16 Risk Characterization for the Deer Mouse
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
						Body Weight (kg)	Aquatic Organism Consumption (mg/kg/day)
Acetone	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Trichloroethene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	2.17E+02	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzofuran	0.00E+00	7.16E+02	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Di-n-butylphthalate	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Fluorene	0.00E+00	6.00E+02	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-Methylnaphthalene	0.00E+00	3.10E+02	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Naphthalene	0.00E+00	3.10E+02	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Phenanthrene	0.00E+00	2.05E+03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDF	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,6,7,8 HxCDF	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDF	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
						Daily Dose From Water Consumption (mg/kg/day)
Acetone	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Trichloroethene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzofuran	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Di-n-butylphthalate	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Fluorene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-Methylnaphthalene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Naphthalene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Phenanthrene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDF	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,6,7,8 HxCDF	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDF	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table E13. Site 16 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface	Plant/Root	Plant	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
	Soil Concentration (mg/kg)	Uptake Factor (kg soil/kg plant)	Consumption Rate (kg/day)			Body Weight (kg)	Plant Consumption (mg/kg/day)
Acetone	2.80E-02	1.72E+01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	9.63E-02
Trichloroethene	6.80E-02	5.25E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	7.14E-03
Bis(2-ethylhexyl)phth	3.90E+00	1.39E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.08E-02
Dibenzofuran	4.10E-01	5.18E-02	5.00E-03	1.00E+00	1.00E-02	2.50E-02	4.25E-03
Di-n-butylphthalate	9.50E-02	7.23E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.37E-04
Fluorene	1.10E+00	4.66E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.03E-02
2-Methylnaphthalene	8.60E+00	7.32E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.26E-01
Naphthalene	1.60E+00	1.56E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	4.99E-02
Phenanthrene	1.80E+00	3.29E-02	5.00E-03	1.00E+00	1.00E-02	2.50E-02	1.18E-02
1,2,3,4,6,7,8-HpCDD	3.30E-05	2.96E-04	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.95E-09
1,2,3,4,6,7,8-HpCDF	3.30E-05	3.08E-04	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.03E-09
1,2,3,6,7,8 HxCDF	1.00E-05	4.42E-04	5.00E-03	1.00E+00	1.00E+00	2.50E-02	8.84E-10
OCDD	1.80E-04	2.27E-04	5.00E-03	1.00E+00	1.00E+00	2.50E-02	8.17E-09
OCDF	2.80E-05	3.08E-04	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.72E-09
Antimony	4.10E+00	7.18E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	5.89E-02
Arsenic	1.70E+00	1.44E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	4.90E-03
Beryllium	4.20E-01	3.59E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.02E-04
Cadmium	3.40E+00	2.48E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.69E-01
Chromium	1.55E+01	5.20E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.61E-02
Copper	1.38E+01	2.85E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	7.87E-01
Lead	4.47E+01	1.78E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.59E-01
Mercury	2.50E-01	3.71E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.86E-02
Nickel	1.66E+01	5.94E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.97E-01
Silver	1.20E+00	1.73E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	4.15E-02
Zinc	6.49E+01	1.04E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.35E+01

SOIL INGESTION:

Table E13. Site 16 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface	Soil	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Ingestion Rate (kg/day)				Daily Dose From Soil Ingestion (mg/kg/day)
Acetone	2.80E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.68E-04
Trichloroethene	6.80E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.08E-04
Bis(2-ethylhexyl)phth	3.90E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.34E-02
Dibenzofuran	4.10E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.46E-03
Di-n-butylphthalate	9.50E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.70E-04
Fluorene	1.10E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.60E-03
2-Methylnaphthalene	8.60E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.16E-02
Naphthalene	1.60E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.60E-03
Phenanthrene	1.80E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.08E-02
1,2,3,4,6,7,8-HpCDD	3.30E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.98E-07
1,2,3,4,6,7,8-HpCDF	3.30E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.98E-07
1,2,3,6,7,8 HxCDF	1.00E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.00E-08
OCDD	1.80E-04	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.08E-06
OCDF	2.80E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.68E-07
Antimony	4.10E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.46E-02
Arsenic	1.70E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.02E-02
Beryllium	4.20E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.52E-03
Cadmium	3.40E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.04E-02
Chromium	1.55E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.30E-02
Copper	1.38E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	8.28E-02
Lead	4.47E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.68E-01
Mercury	2.50E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.50E-03
Nickel	1.66E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.96E-02
Silver	1.20E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.20E-03
Zinc	6.49E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.89E-01

SEDIMENT INGESTION:

Table E13. Site 16 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Acetone	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Trichloroethene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzofuran	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Di-n-butylphthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Fluorene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-Methylnaphthalene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Naphthalene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Phenanthrene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,6,7,8 HxCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E13. Site 16 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From sediment - Dermal (mg/kg/day)
Acetone	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Trichloroethene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzofuran	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Di-n-butylphthalate	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Fluorene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-Methylnaphthalene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Naphthalene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Phenanthrene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDF	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,6,7,8 HxCDF	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDF	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table E13. Site 16 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil	Surface Soil	Surface Soil	Dermal AAF Soil	Exposure	Exposure Frequency	Exposure Duration	Lifetime Average	
	Concentration (mg/kg)	Dermal Exposure (Soil on Skin) (kg/cm2)	Dermal Exposure (Skin Exposed) (cm2/day)		Time (hr/day)			Body Weight (kg)	Daily Dose From Soil - Dermal (mg/kg/day)
Acetone	2.80E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	9.58E-06
Trichloroethene	6.80E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.33E-05
Bis(2-ethylhexyl)phth	3.90E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.33E-03
Dibenzofuran	4.10E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.40E-04
Di-n-butylphthalate	9.50E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.25E-05
Fluorene	1.10E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.76E-04
2-Methylnaphthalene	8.60E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.94E-03
Naphthalene	1.60E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.47E-04
Phenanthrene	1.80E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.16E-04
1,2,3,4,6,7,8-HpCDD	3.30E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.13E-08
1,2,3,4,6,7,8-HpCDF	3.30E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.13E-08
1,2,3,6,7,8 HxCDF	1.00E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.42E-09
OCDD	1.80E-04	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.16E-08
OCDF	2.80E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	9.58E-09
Antimony	4.10E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.40E-03
Arsenic	1.70E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.81E-04
Beryllium	4.20E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.44E-04
Cadmium	3.40E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.16E-03
Chromium	1.55E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.30E-03
Copper	1.38E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.72E-03
Lead	4.47E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.53E-02
Mercury	2.50E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.55E-05
Nickel	1.66E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.68E-03
Silver	1.20E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.10E-04
Zinc	6.49E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.22E-02

SURFACE WATER DERMAL EXPOSURE:

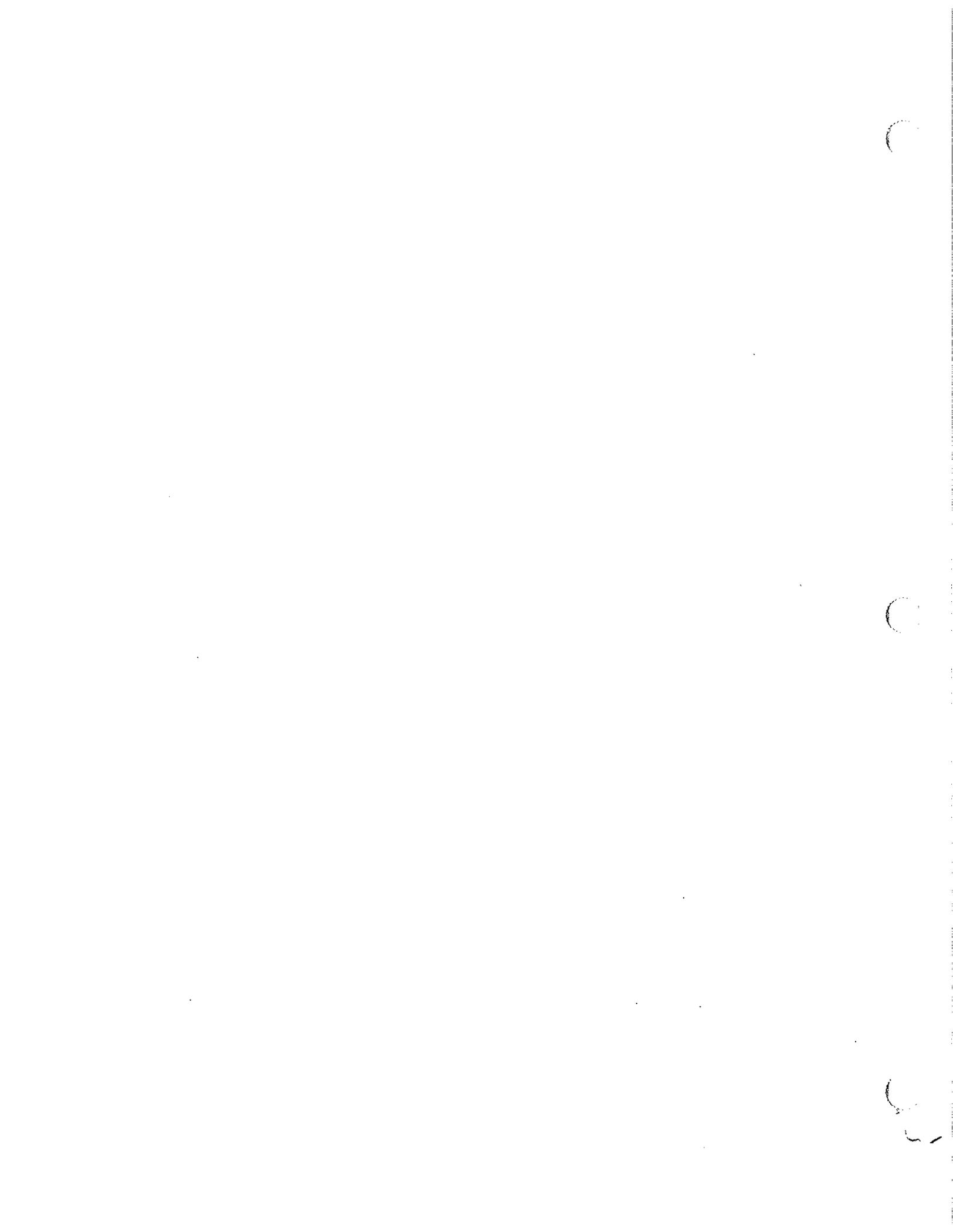
Table E13. Site 16 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California.

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Acetone	0.00E+00	8.55E+00	3.70E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Trichloroethene	0.00E+00	8.55E+00	2.00E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	8.55E+00	3.36E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzofuran	0.00E+00	8.55E+00	1.50E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Di-n-butylphthalate	0.00E+00	8.55E+00	3.60E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Fluorene	0.00E+00	8.55E+00	1.77E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-Methylnaphthalene	0.00E+00	8.55E+00	2.10E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Naphthalene	0.00E+00	8.55E+00	6.90E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Phenanthrene	0.00E+00	8.55E+00	2.70E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDD	0.00E+00	8.55E+00	2.32E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDF	0.00E+00	8.55E+00	2.32E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,6,7,8 HxCDF	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDD	0.00E+00	8.55E+00	1.36E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDF	0.00E+00	8.55E+00	7.30E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	4.00E-06	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	8.55E+00	1.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	8.55E+00	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table E13. Site 16 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Acetone	0.00E+00	0.00E+00	9.63E-02	1.68E-04	0.00E+00	0.00E+00	9.58E-06	0.00E+00	9.65E-02	4.82E-02
Trichloroethene	0.00E+00	0.00E+00	7.14E-03	4.08E-04	0.00E+00	0.00E+00	2.33E-05	0.00E+00	7.57E-03	5.92E-05
Bis(2-ethylhexyl)phth	0.00E+00	0.00E+00	1.08E-02	2.34E-02	0.00E+00	0.00E+00	1.33E-03	0.00E+00	3.56E-02	1.37E-02
Dibenzofuran	0.00E+00	0.00E+00	4.25E-03	2.46E-03	0.00E+00	0.00E+00	1.40E-04	0.00E+00	6.85E-03	2.74E-04
Di-n-butylphthalate	0.00E+00	0.00E+00	1.37E-04	5.70E-04	0.00E+00	0.00E+00	3.25E-05	0.00E+00	7.40E-04	5.92E-05
Fluorene	0.00E+00	0.00E+00	1.03E-02	6.60E-03	0.00E+00	0.00E+00	3.76E-04	0.00E+00	1.72E-02	6.89E-04
2-Methylnaphthalene	0.00E+00	0.00E+00	1.26E-01	5.16E-02	0.00E+00	0.00E+00	2.94E-03	0.00E+00	1.80E-01	1.07E-02
Naphthalene	0.00E+00	0.00E+00	4.99E-02	9.60E-03	0.00E+00	0.00E+00	5.47E-04	0.00E+00	6.01E-02	3.58E-03
Phenanthrene	0.00E+00	0.00E+00	1.18E-02	1.08E-02	0.00E+00	0.00E+00	6.16E-04	0.00E+00	2.33E-02	1.55E-03
1,2,3,4,6,7,8-HpCDD	0.00E+00	0.00E+00	1.95E-09	1.98E-07	0.00E+00	0.00E+00	1.13E-08	0.00E+00	2.11E-07	2.11E-02
1,2,3,4,6,7,8-HpCDF	0.00E+00	0.00E+00	2.03E-09	1.98E-07	0.00E+00	0.00E+00	1.13E-08	0.00E+00	2.11E-07	2.11E-02
1,2,3,6,7,8 HxCDF	0.00E+00	0.00E+00	8.84E-10	6.00E-08	0.00E+00	0.00E+00	3.42E-09	0.00E+00	6.43E-08	6.43E-02
OCDD	0.00E+00	0.00E+00	8.17E-09	1.08E-06	0.00E+00	0.00E+00	6.16E-08	0.00E+00	1.15E-06	1.15E-02
OCDF	0.00E+00	0.00E+00	1.72E-09	1.68E-07	0.00E+00	0.00E+00	9.58E-09	0.00E+00	1.79E-07	1.79E-03
Antimony	0.00E+00	0.00E+00	5.89E-02	2.46E-02	0.00E+00	0.00E+00	1.40E-03	0.00E+00	8.49E-02	2.43E-01
Arsenic	0.00E+00	0.00E+00	4.90E-03	1.02E-02	0.00E+00	0.00E+00	5.81E-04	0.00E+00	1.57E-02	2.24E-02
Beryllium	0.00E+00	0.00E+00	3.02E-04	2.52E-03	0.00E+00	0.00E+00	1.44E-04	0.00E+00	2.97E-03	3.12E-03
Cadmium	0.00E+00	0.00E+00	1.69E-01	2.04E-02	0.00E+00	0.00E+00	1.16E-03	0.00E+00	1.90E-01	1.12E+00
Chromium	0.00E+00	0.00E+00	1.61E-02	9.30E-02	0.00E+00	0.00E+00	5.30E-03	0.00E+00	1.14E-01	4.77E-01
Copper	0.00E+00	0.00E+00	7.87E-01	8.28E-02	0.00E+00	0.00E+00	4.72E-03	0.00E+00	8.74E-01	2.52E-03
Lead	0.00E+00	0.00E+00	1.59E-01	2.68E-01	0.00E+00	0.00E+00	1.53E-02	0.00E+00	4.43E-01	4.92E+00
Mercury	0.00E+00	0.00E+00	1.86E-02	1.50E-03	0.00E+00	0.00E+00	8.55E-05	0.00E+00	2.01E-02	1.06E-02
Nickel	0.00E+00	0.00E+00	1.97E-01	9.96E-02	0.00E+00	0.00E+00	5.68E-03	0.00E+00	3.02E-01	3.56E-01
Silver	0.00E+00	0.00E+00	4.15E-02	7.20E-03	0.00E+00	0.00E+00	4.10E-04	0.00E+00	4.91E-02	2.76E-02
Zinc	0.00E+00	0.00E+00	1.35E+01	3.89E-01	0.00E+00	0.00E+00	2.22E-02	0.00E+00	1.39E+01	9.94E-01
TOTAL										8.37E+00



**Table E14. Site 16 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose- Response Value (mg/kg/day)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Acetone	2.80E-02	9.65E-02	0.00E+00	1.00E+00	1.00E+00	1.00E+00	3.70E-04	1.72E+01
Trichloroethene	6.80E-02	7.57E-03	0.00E+00	6.40E+00	1.00E+00	1.00E+00	2.00E-01	5.25E-01
Bis(2-ethylhexyl)phtha	3.90E+00	3.56E-02	0.00E+00	1.30E-01	1.00E+00	1.00E+00	3.36E-02	1.39E-02
Dibenzofuran	4.10E-01	6.85E-03	0.00E+00	1.25E+00	1.00E+00	1.00E+00	1.50E-01	5.18E-02
Di-n-butylphthalate	9.50E-02	7.40E-04	0.00E+00	6.25E+00	1.00E+00	1.00E+00	3.60E-01	7.23E-03
Fluorene	1.10E+00	1.72E-02	0.00E+00	1.25E+00	1.00E+00	1.00E+00	1.77E-01	4.66E-02
2-Methylnaphthalene	8.60E+00	1.80E-01	0.00E+00	8.40E-01	1.00E+00	1.00E+00	2.10E-01	7.32E-02
Naphthalene	1.60E+00	6.01E-02	0.00E+00	8.40E-01	1.00E+00	1.00E+00	6.90E-02	1.58E-01
Phenanthrene	1.80E+00	2.33E-02	0.00E+00	7.50E-01	1.00E+00	1.00E+00	2.70E-01	3.29E-02
1,2,3,4,6,7,8-HpCDD	3.30E-05	2.11E-07	0.00E+00	5.00E-06	1.00E+00	1.00E+00	2.32E+00	2.96E-04
1,2,3,4,6,7,8-HpCDF	3.30E-05	2.11E-07	0.00E+00	5.00E-06	1.00E+00	1.00E+00	2.32E+00	3.08E-04
1,2,3,6,7,8 HxCDF	1.00E-05	6.43E-08	0.00E+00	5.00E-07	1.00E+00	1.00E+00	1.00E+00	4.42E-04
OCDD	1.80E-04	1.15E-06	0.00E+00	5.00E-05	1.00E+00	1.00E+00	1.36E+00	2.27E-04
OCDF	2.80E-05	1.79E-07	0.00E+00	5.00E-05	1.00E+00	1.00E+00	7.30E-01	3.08E-04
Antimony	4.10E+00	8.49E-02	0.00E+00	2.99E+00	1.00E+00	1.00E+00	1.00E-03	7.18E-02
Arsenic	1.70E+00	1.57E-02	0.00E+00	3.70E-01	1.00E+00	1.00E+00	1.00E-03	1.44E-02
Beryllium	4.20E-01	2.97E-03	0.00E+00	5.00E-02	1.00E+00	1.00E+00	1.00E-03	3.59E-03
Cadmium	3.40E+00	1.90E-01	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E-03	2.48E-01
Chromium	1.55E+01	1.14E-01	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E-03	5.20E-03
Copper	1.38E+01	8.74E-01	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E-03	2.85E-01
Lead	4.47E+01	4.43E-01	0.00E+00	1.30E-01	1.00E+00	1.00E+00	4.00E-06	1.78E-02
Mercury	2.50E-01	2.01E-02	0.00E+00	1.00E-01	1.00E+00	1.00E+00	1.00E-03	3.71E-01
Nickel	1.66E+01	3.02E-01	0.00E+00	2.69E+00	1.00E+00	1.00E+00	1.00E-04	5.94E-02
Silver	1.20E+00	4.91E-02	0.00E+00	8.90E-01	1.00E+00	1.00E+00	6.00E-04	1.73E-01
Zinc	6.49E+01	1.39E+01	0.00E+00	1.75E+00	1.00E+00	1.00E+00	6.00E-04	1.04E+00

EXPOSURE PARAMETERS:

Table E14. Site 16 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table E14. Site 16 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From		
					Body Weight (kg)	Organism Consumption (mg/kg/day)	
Acetone	9.65E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.54E-03
Trichloroethene	7.57E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.78E-04
Bis(2-ethylhexyl)phtha	3.56E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.31E-03
Dibenzofuran	6.85E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.52E-04
Di-n-butylphthalate	7.40E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.72E-05
Fluorene	1.72E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	6.33E-04
2-Methylnaphthalene	1.80E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	6.63E-03
Naphthalene	6.01E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.21E-03
Phenanthrene	2.33E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	8.54E-04
1,2,3,4,6,7,8-HpCDD	2.11E-07	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	7.76E-09
1,2,3,4,6,7,8-HpCDF	2.11E-07	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	7.76E-09
1,2,3,6,7,8 HxCDF	6.43E-08	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.36E-09
OCDD	1.15E-06	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	4.22E-08
OCDF	1.79E-07	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	6.59E-09
Antimony	8.49E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.12E-03
Arsenic	1.57E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	5.76E-04
Beryllium	2.97E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.09E-04
Cadmium	1.90E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	6.99E-03
Chromium	1.14E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	4.20E-03
Copper	8.74E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.21E-02
Lead	4.43E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.63E-02
Mercury	2.01E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	7.40E-04
Nickel	3.02E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.11E-02
Silver	4.91E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.80E-03
Zinc	1.39E+01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	5.11E-01

WATER CONSUMPTION
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Site-Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
					Body Weight (kg)	Water Consumption (mg/kg/day)
Acetone	9.65E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Trichloroethene	7.57E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phtha	3.56E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzofuran	6.85E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Di-n-butylphthalate	7.40E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Fluorene	1.72E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-Methylnaphthalene	1.80E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Naphthalene	6.01E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Phenanthrene	2.33E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,6,7,8-HpCDD	2.11E-07	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,6,7,8-HpCDF	2.11E-07	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,6,7,8 HxCDF	6.43E-08	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
OCDD	1.15E-06	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
OCDF	1.79E-07	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	8.49E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	1.57E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	2.97E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.90E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	1.14E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	8.74E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	4.43E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	2.01E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	3.02E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	4.91E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	1.39E+01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table E14. Site 16 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface	Plant/Root	Plant	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Uptake Factor (kg soil/kg plant)	Consumption Rate (kg/day)				Daily Dose From Plant Consumption (mg/kg/day)
Acetone	2.80E-02	1.72E+01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.18E-02
Trichloroethene	6.80E-02	5.25E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	8.74E-04
Bis(2-ethylhexyl)phtha	3.90E+00	1.39E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.33E-03
Dibenzofuran	4.10E-01	5.18E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	5.20E-04
Di-n-butylphthalate	9.50E-02	7.23E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.68E-05
Fluorene	1.10E+00	4.66E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.26E-03
2-Methylnaphthalene	8.60E+00	7.32E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.54E-02
Naphthalene	1.60E+00	1.56E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	6.11E-03
Phenanthrene	1.80E+00	3.29E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.45E-03
1,2,3,4,6,7,8-HpCDD	3.30E-05	2.96E-04	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.39E-10
1,2,3,4,6,7,8-HpCDF	3.30E-05	3.08E-04	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.49E-10
1,2,3,6,7,8 HxCDF	1.00E-05	4.42E-04	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.08E-10
OCDD	1.80E-04	2.27E-04	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.00E-09
OCDF	2.80E-05	3.08E-04	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.11E-10
Antimony	4.10E+00	7.18E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	7.21E-03
Arsenic	1.70E+00	1.44E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	6.00E-04
Beryllium	4.20E-01	3.59E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.69E-05
Cadmium	3.40E+00	2.48E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.06E-02
Chromium	1.55E+01	5.20E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.97E-03
Copper	1.38E+01	2.85E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	9.63E-02
Lead	4.47E+01	1.78E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.95E-02
Mercury	2.50E-01	3.71E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.27E-03
Nickel	1.66E+01	5.94E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.41E-02
Silver	1.20E+00	1.73E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	5.08E-03
Zinc	6.49E+01	1.04E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.65E+00

SOIL INGESTION:

Table E14. Site 16 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface	Soil	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Ingestion Rate (kg/day)				Daily Dose From Soil Ingestion (mg/kg/day)
Acetone	2.80E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.06E-05
Trichloroethene	6.80E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.00E-05
Bis(2-ethylhexyl)phtha	3.90E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.87E-03
Dibenzofuran	4.10E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.01E-04
Di-n-butylphthalate	9.50E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.98E-05
Fluorene	1.10E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.08E-04
2-Methylnaphthalene	8.60E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.32E-03
Naphthalene	1.60E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.18E-03
Phenanthrene	1.80E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.32E-03
1,2,3,4,6,7,8-HpCDD	3.30E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.42E-08
1,2,3,4,6,7,8-HpCDF	3.30E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.42E-08
1,2,3,6,7,8 HxCDF	1.00E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	7.35E-09
OCDD	1.80E-04	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.32E-07
OCDF	2.80E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.06E-08
Antimony	4.10E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.01E-03
Arsenic	1.70E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.25E-03
Beryllium	4.20E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.09E-04
Cadmium	3.40E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.50E-03
Chromium	1.55E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.14E-02
Copper	1.38E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.01E-02
Lead	4.47E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.28E-02
Mercury	2.50E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.84E-04
Nickel	1.66E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.22E-02
Silver	1.20E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.82E-04
Zinc	6.49E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.77E-02

SEDIMENT INGESTION:

Table E14. Site 16 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Acetone	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Trichloroethene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phtha	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzofuran	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Di-n-butylphthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Fluorene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-Methylnaphthalene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Naphthalene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Phenanthrene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,6,7,8-HpCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,6,7,8-HpCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,6,7,8 HxCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
OCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
OCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E14. Site 16 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Lifetime Average	
								Body Weight (kg)	Daily Dose From sediment - Dermal (mg/kg/day)
Acetone	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Trichloroethene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phtha	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzofuran	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Di-n-butylphthalate	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzofuran	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Di-n-butylphthalate	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Fluorene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-Methylnaphthalene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Naphthalene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Phenanthrene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,6,7,8-HpCDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,6,7,8-HpCDF	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,6,7,8 HxCDF	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
OCDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
OCDF	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE

Table E14. Site 16 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm ²)	Surface Soil Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Lifetime Average	
								Body Weight (kg)	Daily Dose From Soil - Dermal (mg/kg/day)
Acetone	2.80E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.61E-06
Trichloroethene	6.80E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.91E-06
Bis(2-ethylhexyl)phtha	3.90E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.24E-04
Dibenzofuran	4.10E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.36E-05
Di-n-butylphthalate	9.50E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.46E-06
Fluorene	1.10E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.33E-05
2-Methylnaphthalene	8.60E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.95E-04
Naphthalene	1.60E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	9.20E-05
Phenanthrene	1.80E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.04E-04
1,2,3,4,6,7,8-HpCDD	3.30E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.90E-09
1,2,3,4,6,7,8-HpCDF	3.30E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.90E-09
1,2,3,6,7,8 HxCDF	1.00E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.75E-10
OCDD	1.80E-04	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.04E-08
OCDF	2.80E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.61E-09
Antimony	4.10E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.36E-04
Arsenic	1.70E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	9.78E-05
Beryllium	4.20E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.42E-05
Cadmium	3.40E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.96E-04
Chromium	1.55E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	8.91E-04
Copper	1.38E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.94E-04
Lead	4.47E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.57E-03
Mercury	2.50E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.44E-05
Nickel	1.66E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	9.55E-04
Silver	1.20E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.90E-05
Zinc	6.49E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.73E-03

SURFACE WATER DERMAL EXPOSURE:

Table E14. Site 16 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Acetone	9.65E-02	3.02E+02	3.70E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Trichloroethene	7.57E-03	3.02E+02	2.00E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phtha	3.56E-02	3.02E+02	3.36E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzofuran	6.85E-03	3.02E+02	1.50E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Di-n-butylphthalate	7.40E-04	3.02E+02	3.60E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Fluorene	1.72E-02	3.02E+02	1.77E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-Methylnaphthalene	1.80E-01	3.02E+02	2.10E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Naphthalene	6.01E-02	3.02E+02	6.90E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Phenanthrene	2.33E-02	3.02E+02	2.70E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,6,7,8-HpCDD	2.11E-07	3.02E+02	2.32E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,6,7,8-HpCDF	2.11E-07	3.02E+02	2.32E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,6,7,8 HxCDF	6.43E-08	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
OCDD	1.15E-06	3.02E+02	1.36E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
OCDF	1.79E-07	3.02E+02	7.30E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	8.49E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	1.57E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	2.97E-03	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.90E-01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	1.14E-01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	8.74E-01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	4.43E-01	3.02E+02	4.00E-06	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	2.01E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	3.02E-01	3.02E+02	1.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	4.91E-02	3.02E+02	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	1.39E+01	3.02E+02	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

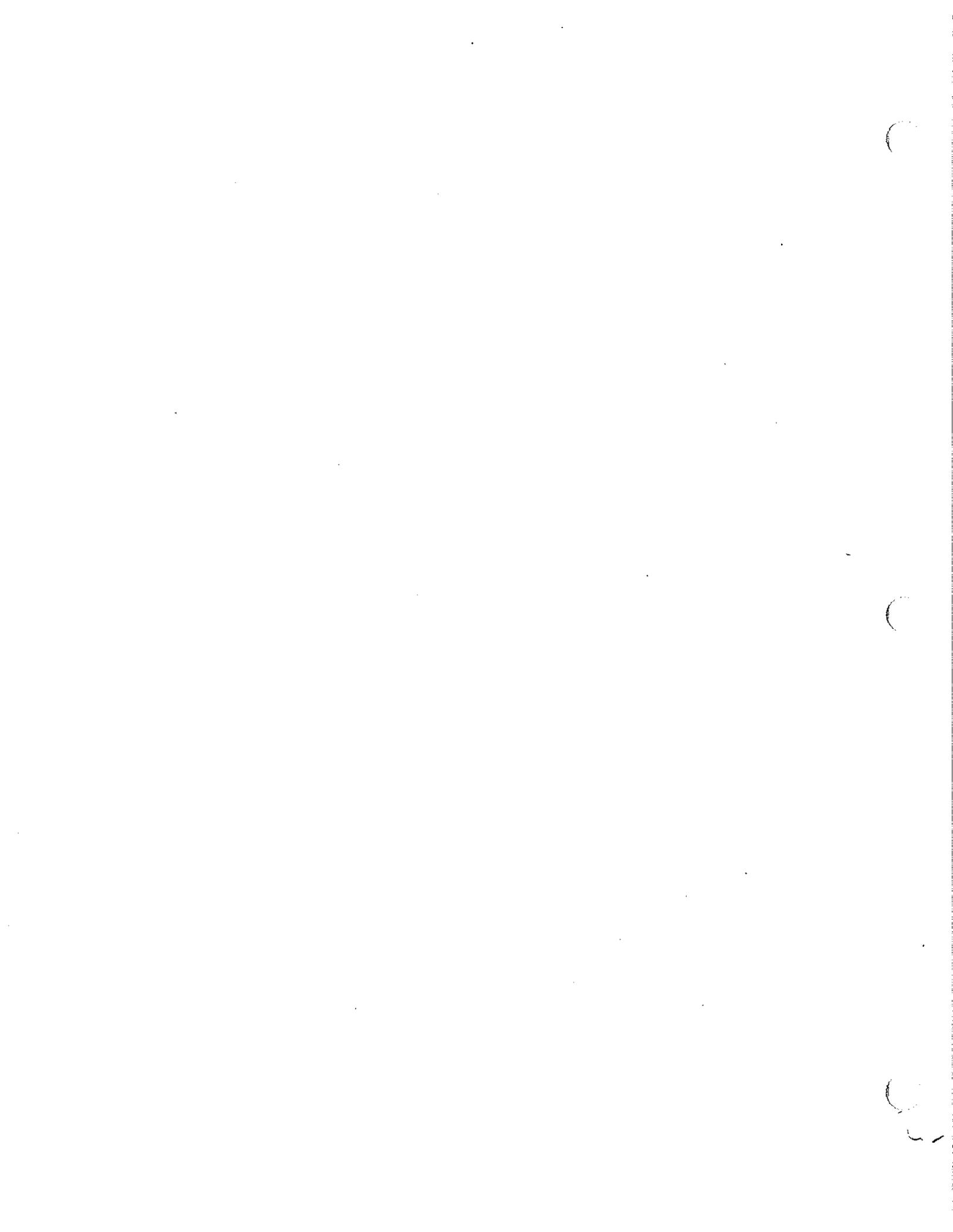
RISK CHARACTERIZATION

Table E14. Site 16 Risk Characterization for the Gray Fox

Quantitative Ecological Screening Assessment

Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Acetone	3.54E-03	0.00E+00	1.18E-02	2.06E-05	0.00E+00	0.00E+00	1.61E-06	0.00E+00	1.54E-02	1.54E-02
Trichloroethene	2.78E-04	0.00E+00	8.74E-04	5.00E-05	0.00E+00	0.00E+00	3.91E-06	0.00E+00	1.21E-03	1.88E-04
Bis(2-ethylhexyl)phtha	1.31E-03	0.00E+00	1.33E-03	2.87E-03	0.00E+00	0.00E+00	2.24E-04	0.00E+00	5.72E-03	4.40E-02
Dibenzofuran	2.52E-04	0.00E+00	5.20E-04	3.01E-04	0.00E+00	0.00E+00	2.36E-05	0.00E+00	1.10E-03	8.77E-04
Di-n-butylphthalate	2.72E-05	0.00E+00	1.68E-05	6.98E-05	0.00E+00	0.00E+00	5.46E-06	0.00E+00	1.19E-04	1.91E-05
Fluorene	6.33E-04	0.00E+00	1.26E-03	8.08E-04	0.00E+00	0.00E+00	6.33E-05	0.00E+00	2.76E-03	2.21E-03
2-Methylnaphthalene	6.63E-03	0.00E+00	1.54E-02	6.32E-03	0.00E+00	0.00E+00	4.95E-04	0.00E+00	2.89E-02	3.44E-02
Naphthalene	2.21E-03	0.00E+00	6.11E-03	1.18E-03	0.00E+00	0.00E+00	9.20E-05	0.00E+00	9.59E-03	1.14E-02
Phenanthrene	8.54E-04	0.00E+00	1.45E-03	1.32E-03	0.00E+00	0.00E+00	1.04E-04	0.00E+00	3.73E-03	4.97E-03
1,2,3,4,6,7,8-HpCDD	7.76E-09	0.00E+00	2.39E-10	2.42E-08	0.00E+00	0.00E+00	1.90E-09	0.00E+00	3.41E-08	6.83E-03
1,2,3,4,6,7,8-HpCDF	7.76E-09	0.00E+00	2.49E-10	2.42E-08	0.00E+00	0.00E+00	1.90E-09	0.00E+00	3.42E-08	6.83E-03
1,2,3,6,7,8 HxCDF	2.36E-09	0.00E+00	1.08E-10	7.35E-09	0.00E+00	0.00E+00	5.75E-10	0.00E+00	1.04E-08	2.08E-02
OCDD	4.22E-08	0.00E+00	1.00E-09	1.32E-07	0.00E+00	0.00E+00	1.04E-08	0.00E+00	1.86E-07	3.72E-03
OCDF	6.59E-09	0.00E+00	2.11E-10	2.06E-08	0.00E+00	0.00E+00	1.61E-09	0.00E+00	2.90E-08	5.80E-04
Antimony	3.12E-03	0.00E+00	7.21E-03	3.01E-03	0.00E+00	0.00E+00	2.36E-04	0.00E+00	1.36E-02	4.54E-03
Arsenic	5.76E-04	0.00E+00	6.00E-04	1.25E-03	0.00E+00	0.00E+00	9.78E-05	0.00E+00	2.52E-03	6.82E-03
Beryllium	1.09E-04	0.00E+00	3.69E-05	3.09E-04	0.00E+00	0.00E+00	2.42E-05	0.00E+00	4.79E-04	9.57E-03
Cadmium	6.99E-03	0.00E+00	2.06E-02	2.50E-03	0.00E+00	0.00E+00	1.96E-04	0.00E+00	3.03E-02	3.57E+00
Chromium	4.20E-03	0.00E+00	1.97E-03	1.14E-02	0.00E+00	0.00E+00	8.91E-04	0.00E+00	1.85E-02	6.15E-01
Copper	3.21E-02	0.00E+00	9.63E-02	1.01E-02	0.00E+00	0.00E+00	7.94E-04	0.00E+00	1.39E-01	8.04E-03
Lead	1.63E-02	0.00E+00	1.95E-02	3.28E-02	0.00E+00	0.00E+00	2.57E-03	0.00E+00	7.12E-02	5.47E-01
Mercury	7.40E-04	0.00E+00	2.27E-03	1.84E-04	0.00E+00	0.00E+00	1.44E-05	0.00E+00	3.21E-03	3.21E-02
Nickel	1.11E-02	0.00E+00	2.41E-02	1.22E-02	0.00E+00	0.00E+00	9.55E-04	0.00E+00	4.84E-02	1.80E-02
Silver	1.80E-03	0.00E+00	5.08E-03	8.82E-04	0.00E+00	0.00E+00	6.90E-05	0.00E+00	7.84E-03	8.81E-03
Zinc	5.11E-01	0.00E+00	1.65E+00	4.77E-02	0.00E+00	0.00E+00	3.73E-03	0.00E+00	2.22E+00	1.27E+00
TOTAL										6.24E+00



**Table E15. Site 17 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose- Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr) (kg soil/kg plant)	Plant/Root Uptake Factor
Acetone	2.20E-02	0.00E+00	0.00E+00	2.00E+00	1.00E+00	1.00E+00	1.00E+00	3.70E-04	1.72E+01
Methylene chloride	3.50E-03	0.00E+00	0.00E+00	6.20E-01	1.00E+00	1.00E+00	1.00E+00	4.50E-03	2.21E+00
1,2,3,4,6,7,8-HpCDD	1.00E-04	0.00E+00	0.00E+00	1.00E-05	1.00E+00	1.00E+00	1.00E+00	2.32E+00	2.96E-04
1,2,3,4,6,7,8-HpCDF	1.70E-04	0.00E+00	0.00E+00	1.00E-05	1.00E+00	1.00E+00	1.00E+00	2.32E+00	3.08E-04
OCDD	1.30E-03	0.00E+00	0.00E+00	1.00E-04	1.00E+00	1.00E+00	1.00E+00	1.36E+00	2.27E-04
OCDF	9.00E-05	0.00E+00	0.00E+00	1.00E-04	1.00E+00	1.00E+00	1.00E+00	7.30E-01	3.08E-04
Antimony	3.80E-01	0.00E+00	0.00E+00	3.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	7.18E-02
Cadmium	6.10E-01	0.00E+00	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-01
Chromium	1.18E+01	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	5.20E-03
Mercury	1.30E-01	0.00E+00	0.00E+00	1.90E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.71E-01
Nickel	1.16E+01	0.00E+00	0.00E+00	8.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-04	5.94E-02

EXPOSURE PARAMETERS:

Table E15. Site 17 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:

Table E15. Site 17 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
			Rate (kg/day)			Body Weight (kg)	Aquatic Organism Consumption (mg/kg/day)
Acetone	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Methylene chloride	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDF	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDF	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION

Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
					Body Weight (kg)	Water Consumption (mg/kg/day)
Acetone	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Methylene chloride	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDF	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDF	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table E15. Site 17 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface	Plant/Root	Plant	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Uptake Factor (kg soil/kg plant)	Consumption Rate (kg/day)				Daily Dose From Plant Consumption (mg/kg/day)
Acetone	2.20E-02	1.72E+01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	7.57E-02
Methylene chloride	3.50E-03	2.21E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.55E-03
1,2,3,4,6,7,8-HpCDD	1.00E-04	2.96E-04	5.00E-03	1.00E+00	1.00E+00	2.50E-02	5.92E-09
1,2,3,4,6,7,8-HpCDF	1.70E-04	3.08E-04	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.05E-08
OCDD	1.30E-03	2.27E-04	5.00E-03	1.00E+00	1.00E+00	2.50E-02	5.90E-08
OCDF	9.00E-05	3.08E-04	5.00E-03	1.00E+00	1.00E+00	2.50E-02	5.54E-09
Antimony	3.80E-01	7.18E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	5.46E-03
Cadmium	6.10E-01	2.48E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.03E-02
Chromium	1.18E+01	5.20E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.23E-02
Mercury	1.30E-01	3.71E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	9.65E-03
Nickel	1.16E+01	5.94E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.38E-01

SOIL INGESTION:

Table E15. Site 17 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface	Soil	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Ingestion Rate (kg/day)				Daily Dose From Soil Ingestion (mg/kg/day)
Acetone	2.20E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.32E-04
Methylene chloride	3.50E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.10E-05
1,2,3,4,6,7,8-HpCDD	1.00E-04	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.00E-07
1,2,3,4,6,7,8-HpCDF	1.70E-04	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.02E-06
OCDD	1.30E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.80E-06
OCDF	9.00E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.40E-07
Antimony	3.80E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.28E-03
Cadmium	6.10E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.66E-03
Chromium	1.18E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.08E-02
Mercury	1.30E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.80E-04
Nickel	1.16E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.96E-02

SEDIMENT INGESTION:

Table E15. Site 17 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Acetone	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Methylene chloride	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E15. Site 17 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm ²)	Sediment Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Acetone	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Methylene chloride	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDF	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDF	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table E15. Site 17 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil	Surface Soil	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Lifetime Average	
		Dermal Exposure (Soil on Skin) (kg/cm2)	Dermal Exposure (Skin Exposed) (cm2/day)					Body Weight (kg)	Daily Dose From Soil - Dermal (mg/kg/day)
Acetone	2.20E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.52E-06
Methylene chloride	3.50E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.20E-06
1,2,3,4,6,7,8-HpCDD	1.00E-04	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.42E-08
1,2,3,4,6,7,8-HpCDF	1.70E-04	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.81E-08
OCDD	1.30E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.45E-07
OCDF	9.00E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.08E-08
Antimony	3.80E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.30E-04
Cadmium	6.10E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.09E-04
Chromium	1.18E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.04E-03
Mercury	1.30E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.45E-05
Nickel	1.16E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.97E-03

SURFACE WATER DERMAL EXPOSURE:

Table E15. Site 17 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Lifetime Average	
		Dermal Exposure (Skin Exposed) (cm2)						Body Weight (kg)	Daily Dose From Water - Dermal (mg/kg/day)
Acetone	0.00E+00	8.55E+00	3.70E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Methylene chloride	0.00E+00	8.55E+00	4.50E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDD	0.00E+00	8.55E+00	2.32E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDF	0.00E+00	8.55E+00	2.32E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDD	0.00E+00	8.55E+00	1.36E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDF	0.00E+00	8.55E+00	7.30E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	8.55E+00	1.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table E15. Site 17 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Acetone	0.00E+00	0.00E+00	7.57E-02	1.32E-04	0.00E+00	0.00E+00	7.52E-06	0.00E+00	7.58E-02	3.79E-02
Methylene chloride	0.00E+00	0.00E+00	1.55E-03	2.10E-05	0.00E+00	0.00E+00	1.20E-06	0.00E+00	1.57E-03	2.53E-03
1,2,3,4,6,7,8-HpCDD	0.00E+00	0.00E+00	5.92E-09	6.00E-07	0.00E+00	0.00E+00	3.42E-08	0.00E+00	6.40E-07	6.40E-02
1,2,3,4,6,7,8-HpCDF	0.00E+00	0.00E+00	1.05E-08	1.02E-06	0.00E+00	0.00E+00	5.81E-08	0.00E+00	1.09E-06	1.09E-01
OCDD	0.00E+00	0.00E+00	5.90E-08	7.80E-06	0.00E+00	0.00E+00	4.45E-07	0.00E+00	8.30E-06	8.30E-02
OCDF	0.00E+00	0.00E+00	5.54E-09	5.40E-07	0.00E+00	0.00E+00	3.08E-08	0.00E+00	5.76E-07	5.76E-03
Antimony	0.00E+00	0.00E+00	5.46E-03	2.28E-03	0.00E+00	0.00E+00	1.30E-04	0.00E+00	7.87E-03	2.25E-02
Cadmium	0.00E+00	0.00E+00	3.03E-02	3.66E-03	0.00E+00	0.00E+00	2.09E-04	0.00E+00	3.41E-02	2.01E-01
Chromium	0.00E+00	0.00E+00	1.23E-02	7.08E-02	0.00E+00	0.00E+00	4.04E-03	0.00E+00	8.71E-02	3.63E-01
Mercury	0.00E+00	0.00E+00	9.65E-03	7.80E-04	0.00E+00	0.00E+00	4.45E-05	0.00E+00	1.05E-02	5.51E-03
Nickel	0.00E+00	0.00E+00	1.38E-01	6.96E-02	0.00E+00	0.00E+00	3.97E-03	0.00E+00	2.11E-01	2.49E-01
TOTAL										1.14E+00

**Table E16. Site 17 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose- Response Value (mg/kg/day)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Acetone	2.20E-02	7.58E-02	0.00E+00	1.00E+00	1.00E+00	1.00E+00	3.70E-04	1.72E+01
Methylene chloride	3.50E-03	1.57E-03	0.00E+00	3.10E-01	1.00E+00	1.00E+00	4.50E-03	2.21E+00
1,2,3,4,6,7,8-HpCDD	1.00E-04	6.40E-07	0.00E+00	5.00E-06	1.00E+00	1.00E+00	2.32E+00	2.96E-04
1,2,3,4,6,7,8-HpCDF	1.70E-04	1.09E-06	0.00E+00	5.00E-06	1.00E+00	1.00E+00	2.32E+00	3.08E-04
OCDD	1.30E-03	8.30E-06	0.00E+00	5.00E-05	1.00E+00	1.00E+00	1.36E+00	2.27E-04
OCDF	9.00E-05	5.76E-07	0.00E+00	5.00E-05	1.00E+00	1.00E+00	7.30E-01	3.08E-04
Antimony	3.80E-01	7.87E-03	0.00E+00	2.99E+00	1.00E+00	1.00E+00	1.00E-03	7.18E-02
Cadmium	6.10E-01	3.41E-02	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E-03	2.48E-01
Chromium	1.18E+01	8.71E-02	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E-03	5.20E-03
Mercury	1.30E-01	1.05E-02	0.00E+00	1.00E-01	1.00E+00	1.00E+00	1.00E-03	3.71E-01
Nickel	1.16E+01	2.11E-01	0.00E+00	2.69E+00	1.00E+00	1.00E+00	1.00E-04	5.94E-02

EXPOSURE PARAMETERS:

Table E16. Site 17 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day)	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table E16. Site 17 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From		
					Body Weight (kg)	Plant Consumption (mg/kg/day)	
Acetone	7.58E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.79E-03
Methylene chloride	1.57E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	5.76E-05
1,2,3,4,6,7,8-HpCDD	6.40E-07	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.35E-08
1,2,3,4,6,7,8-HpCDF	1.09E-06	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	4.00E-08
OCDD	8.30E-06	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.05E-07
OCDF	5.76E-07	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.12E-08
Antimony	7.87E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.89E-04
Cadmium	3.41E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.25E-03
Chromium	8.71E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.20E-03
Mercury	1.05E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.85E-04
Nickel	2.11E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	7.76E-03

WATER CONSUMPTION

Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Site-Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
					Body Weight (kg)	Water Consumption (mg/kg/day)
Acetone	7.58E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Methylene chloride	1.57E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,6,7,8-HpCDD	6.40E-07	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,6,7,8-HpCDF	1.09E-06	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
OCDD	8.30E-06	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
OCDF	5.76E-07	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	7.87E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	3.41E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	8.71E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	1.05E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	2.11E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table E16. Site 17 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface	Plant/Root	Plant	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Uptake Factor (kg soil/kg plant)	Consumption Rate (kg/day)				Daily Dose From Plant Consumption (mg/kg/day)
Acetone	2.20E-02	1.72E+01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	9.27E-03
Methylene chloride	3.50E-03	2.21E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.89E-04
1,2,3,4,6,7,8-HpCDD	1.00E-04	2.96E-04	1.29E-01	1.00E+00	1.00E+00	5.25E+00	7.25E-10
1,2,3,4,6,7,8-HpCDF	1.70E-04	3.08E-04	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.28E-09
OCDD	1.30E-03	2.27E-04	1.29E-01	1.00E+00	1.00E+00	5.25E+00	7.23E-09
OCDF	9.00E-05	3.08E-04	1.29E-01	1.00E+00	1.00E+00	5.25E+00	6.79E-10
Antimony	3.80E-01	7.18E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	6.68E-04
Cadmium	6.10E-01	2.48E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.70E-03
Chromium	1.18E+01	5.20E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.50E-03
Mercury	1.30E-01	3.71E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.18E-03
Nickel	1.16E+01	5.94E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.69E-02

SOIL INGESTION:

Table E16. Site 17 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface	Soil	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Ingestion Rate (kg/day)				Daily Dose From Soil Ingestion (mg/kg/day)
Acetone	2.20E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.62E-05
Methylene chloride	3.50E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.57E-06
1,2,3,4,6,7,8-HpCDD	1.00E-04	3.86E-03	1.00E+00	1.00E+00	5.25E+00	7.35E-08
1,2,3,4,6,7,8-HpCDF	1.70E-04	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.25E-07
OCDD	1.30E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.55E-07
OCDF	9.00E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.61E-08
Antimony	3.80E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.79E-04
Cadmium	6.10E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.48E-04
Chromium	1.18E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.67E-03
Mercury	1.30E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.55E-05
Nickel	1.16E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.52E-03

SEDIMENT INGESTION:

Table E16. Site 17 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Acetone	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Methylene chloride	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,6,7,8-HpCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,6,7,8-HpCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
OCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
OCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E16. Site 17 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Acetone	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Methylene chloride	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,6,7,8-HpCDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,6,7,8-HpCDF	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
OCDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
OCDF	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table E16. Site 17 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil	Surface Soil	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Lifetime Average	
		Dermal Exposure (Soil on Skin) (kg/cm2)	Dermal Exposure (Skin Exposed) (cm2/day)					Body Weight (kg)	Daily Dose From Soil - Dermal (mg/kg/day)
Acetone	2.20E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.27E-06
Methylene chloride	3.50E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.01E-07
1,2,3,4,6,7,8-HpCDD	1.00E-04	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.75E-09
1,2,3,4,6,7,8-HpCDF	1.70E-04	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	9.78E-09
OCDD	1.30E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.48E-08
OCDF	9.00E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.18E-09
Antimony	3.80E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.19E-05
Cadmium	6.10E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.51E-05
Chromium	1.18E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.79E-04
Mercury	1.30E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.48E-06
Nickel	1.16E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.67E-04

SURFACE WATER DERMAL EXPOSURE:

Table E16. Site 17 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Lifetime Average	
		Dermal Exposure (Skin Exposed) (cm2)						Body Weight (kg)	Daily Dose From Water - Dermal (mg/kg/day)
Acetone	7.58E-02	3.02E+02	3.70E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Methylene chloride	1.57E-03	3.02E+02	4.50E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,6,7,8-HpCDD	6.40E-07	3.02E+02	2.32E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,6,7,8-HpCDF	1.09E-06	3.02E+02	2.32E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
OCDD	8.30E-06	3.02E+02	1.36E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
OCDF	5.76E-07	3.02E+02	7.30E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	7.87E-03	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	3.41E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	8.71E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	1.05E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	2.11E-01	3.02E+02	1.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table E16. Site 17 Risk Characterization for the Gray Fox

Quantitative Ecological Screening Assessment

Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Acetone	2.79E-03	0.00E+00	9.27E-03	1.62E-05	0.00E+00	0.00E+00	1.27E-06	0.00E+00	1.21E-02	1.21E-02
Methylene chloride	5.76E-05	0.00E+00	1.89E-04	2.57E-06	0.00E+00	0.00E+00	2.01E-07	0.00E+00	2.50E-04	8.06E-04
1,2,3,4,6,7,8-HpCDD	2.35E-08	0.00E+00	7.25E-10	7.35E-08	0.00E+00	0.00E+00	5.75E-09	0.00E+00	1.03E-07	2.07E-02
1,2,3,4,6,7,8-HpCDF	4.00E-08	0.00E+00	1.28E-09	1.25E-07	0.00E+00	0.00E+00	9.78E-09	0.00E+00	1.76E-07	3.52E-02
OCDD	3.05E-07	0.00E+00	7.23E-09	9.55E-07	0.00E+00	0.00E+00	7.48E-08	0.00E+00	1.34E-06	2.68E-02
OCDF	2.12E-08	0.00E+00	6.79E-10	6.61E-08	0.00E+00	0.00E+00	5.18E-09	0.00E+00	9.31E-08	1.86E-03
Antimony	2.89E-04	0.00E+00	6.68E-04	2.79E-04	0.00E+00	0.00E+00	2.19E-05	0.00E+00	1.26E-03	4.21E-04
Cadmium	1.25E-03	0.00E+00	3.70E-03	4.48E-04	0.00E+00	0.00E+00	3.51E-05	0.00E+00	5.44E-03	6.40E-01
Chromium	3.20E-03	0.00E+00	1.50E-03	8.67E-03	0.00E+00	0.00E+00	6.79E-04	0.00E+00	1.41E-02	4.68E-01
Mercury	3.85E-04	0.00E+00	1.18E-03	9.55E-05	0.00E+00	0.00E+00	7.48E-06	0.00E+00	1.67E-03	1.67E-02
Nickel	7.76E-03	0.00E+00	1.69E-02	8.52E-03	0.00E+00	0.00E+00	6.67E-04	0.00E+00	3.38E-02	1.26E-02
TOTAL										1.24E+00

**Table E17. Site 21 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose- Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Methylene chloride	7.50E-03	0.00E+00	0.00E+00	6.20E-01	1.00E+00	1.00E+00	1.00E+00	4.50E-03	2.21E+00
Xylenes	3.30E-03	0.00E+00	0.00E+00	1.79E+02	1.00E+00	1.00E+00	1.00E+00	8.00E-02	1.63E-01
Bis(2-ethylhexyl)phtha	1.00E-01	0.00E+00	0.00E+00	2.60E+00	2.17E+02	1.00E+00	1.00E+00	3.36E-02	1.39E-02
Chrysene	3.60E-02	0.00E+00	0.00E+00	4.00E-01	1.08E+04	1.00E+00	1.00E+00	8.10E-01	7.13E-03
Antimony	5.24E+01	0.00E+00	0.00E+00	3.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	7.18E-02
Arsenic	3.80E+00	0.00E+00	0.00E+00	7.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	1.44E-02
Beryllium	6.70E-01	0.00E+00	0.00E+00	9.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.59E-03
Cadmium	2.28E+01	0.00E+00	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-01
Chromium	1.41E+02	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	5.20E-03
Copper	2.35E+02	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.85E-01
Lead	6.89E+02	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	4.00E-06	1.78E-02
Mercury	3.20E-01	0.00E+00	0.00E+00	1.90E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.71E-01
Nickel	3.46E+01	0.00E+00	0.00E+00	8.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-04	5.94E-02
Silver	4.30E-01	0.00E+00	0.00E+00	1.78E+00	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.73E-01
Zinc	8.89E+02	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.04E+00

EXPOSURE PARAMETERS:

Table E17. Site 21 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day)	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm2)	8.55E+00
Skin exposed - Soil/Sediment (cm2/day)	8.55E+00
Soil on Skin (kg/cm2)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:
 Table E17. Site 21 Risk Characterization for the Deer Mouse
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Methylene chloride	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Xylenes	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phtha	0.00E+00	2.17E+02	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chrysene	0.00E+00	1.08E+04	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface	Water	Exposure	Exposure	Body	Lifetime Average
	Water	Consumption				Weight
	Concentration	Rate	Frequency	Duration	(kg)	Water
	(mg/L)	(L/day)				Consumption
						(mg/kg/day)
Methylene chloride	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Xylenes	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phtha	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chrysene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table E17. Site 21 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface	Plant/Root	Plant	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Uptake Factor (kg soil/kg plant)	Consumption Rate (kg/day)				Daily Dose From Plant Consumption (mg/kg/day)
Methylene chloride	7.50E-03	2.21E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.32E-03
Xylenes	3.30E-03	1.63E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.08E-04
Bis(2-ethylhexyl)phtha	1.00E-01	1.39E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.78E-04
Chrysene	3.60E-02	7.13E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	5.13E-05
Antimony	5.24E+01	7.18E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	7.52E-01
Arsenic	3.80E+00	1.44E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.09E-02
Beryllium	6.70E-01	3.59E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	4.81E-04
Cadmium	2.28E+01	2.48E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.13E+00
Chromium	1.41E+02	5.20E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.47E-01
Copper	2.35E+02	2.85E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.34E+01
Lead	6.89E+02	1.78E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.45E+00
Mercury	3.20E-01	3.71E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.37E-02
Nickel	3.46E+01	5.94E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	4.11E-01
Silver	4.30E-01	1.73E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.49E-02
Zinc	8.89E+02	1.04E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.85E+02

SOIL INGESTION:

Table E17. Site 21 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose	
					Body Weight (kg)	From Soil Ingestion (mg/kg/day)
Methylene chloride	7.50E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.50E-05
Xylenes	3.30E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.98E-05
Bis(2-ethylhexyl)phtha	1.00E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.00E-04
Chrysene	3.60E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.16E-04
Antimony	5.24E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.14E-01
Arsenic	3.80E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.28E-02
Beryllium	6.70E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.02E-03
Cadmium	2.28E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.37E-01
Chromium	1.41E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	8.46E-01
Copper	2.35E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.41E+00
Lead	6.89E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.13E+00
Mercury	3.20E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.92E-03
Nickel	3.46E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.08E-01
Silver	4.30E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.58E-03
Zinc	8.89E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.33E+00

SEDIMENT INGESTION:

Table E17. Site 21 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Methylene chloride	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Xylenes	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phtha	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chrysene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E17. Site 21 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Methylene chloride	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Xylenes	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phtha	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chrysene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table E17. Site 21 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil	Surface Soil	Surface Soil	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Lifetime Average	
	Concentration (mg/kg)	Dermal Exposure (Soil on Skin) (kg/cm2)	Dermal Exposure (Skin Exposed) (cm2/day)					Body Weight (kg)	Daily Dose From Soil - Dermal (mg/kg/day)
Methylene chloride	7.50E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.57E-06
Xylenes	3.30E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.13E-06
Bis(2-ethylhexyl)phtha	1.00E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.42E-05
Chrysene	3.60E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.23E-05
Antimony	5.24E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.79E-02
Arsenic	3.80E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.30E-03
Beryllium	6.70E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.29E-04
Cadmium	2.28E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.80E-03
Chromium	1.41E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.82E-02
Copper	2.35E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.04E-02
Lead	6.89E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.36E-01
Mercury	3.20E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.09E-04
Nickel	3.46E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.18E-02
Silver	4.30E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.47E-04
Zinc	8.89E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.04E-01

SURFACE WATER DERMAL EXPOSURE:
 Table E17. Site 21 Risk Characterization for the Deer Mouse
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Lifetime Average	
								Body Weight (kg)	Daily Dose From Water - Dermal (mg/kg/day)
Methylene chloride	0.00E+00	8.55E+00	4.50E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Xylenes	0.00E+00	8.55E+00	8.00E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phtha	0.00E+00	8.55E+00	3.36E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chrysene	0.00E+00	8.55E+00	8.10E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	4.00E-06	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	8.55E+00	1.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	8.55E+00	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table E17. Site 21 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Methylene chloride	0.00E+00	0.00E+00	3.32E-03	4.50E-05	0.00E+00	0.00E+00	2.57E-06	0.00E+00	3.36E-03	5.42E-03
Xylenes	0.00E+00	0.00E+00	1.08E-04	1.98E-05	0.00E+00	0.00E+00	1.13E-06	0.00E+00	1.29E-04	7.18E-07
Bis(2-ethylhexyl)phtha	0.00E+00	0.00E+00	2.78E-04	6.00E-04	0.00E+00	0.00E+00	3.42E-05	0.00E+00	9.12E-04	3.51E-04
Chrysene	0.00E+00	0.00E+00	5.13E-05	2.16E-04	0.00E+00	0.00E+00	1.23E-05	0.00E+00	2.80E-04	6.99E-04
Antimony	0.00E+00	0.00E+00	7.52E-01	3.14E-01	0.00E+00	0.00E+00	1.79E-02	0.00E+00	1.08E+00	3.10E+00
Arsenic	0.00E+00	0.00E+00	1.09E-02	2.28E-02	0.00E+00	0.00E+00	1.30E-03	0.00E+00	3.50E-02	5.01E-02
Beryllium	0.00E+00	0.00E+00	4.81E-04	4.02E-03	0.00E+00	0.00E+00	2.29E-04	0.00E+00	4.73E-03	4.98E-03
Cadmium	0.00E+00	0.00E+00	1.13E+00	1.37E-01	0.00E+00	0.00E+00	7.80E-03	0.00E+00	1.28E+00	7.50E+00
Chromium	0.00E+00	0.00E+00	1.47E-01	8.46E-01	0.00E+00	0.00E+00	4.82E-02	0.00E+00	1.04E+00	4.34E+00
Copper	0.00E+00	0.00E+00	1.34E+01	1.41E+00	0.00E+00	0.00E+00	8.04E-02	0.00E+00	1.49E+01	4.29E-02
Lead	0.00E+00	0.00E+00	2.45E+00	4.13E+00	0.00E+00	0.00E+00	2.36E-01	0.00E+00	6.82E+00	7.58E+01
Mercury	0.00E+00	0.00E+00	2.37E-02	1.92E-03	0.00E+00	0.00E+00	1.09E-04	0.00E+00	2.58E-02	1.36E-02
Nickel	0.00E+00	0.00E+00	4.11E-01	2.08E-01	0.00E+00	0.00E+00	1.18E-02	0.00E+00	6.30E-01	7.42E-01
Silver	0.00E+00	0.00E+00	1.49E-02	2.58E-03	0.00E+00	0.00E+00	1.47E-04	0.00E+00	1.76E-02	9.89E-03
Zinc	0.00E+00	0.00E+00	1.85E+02	5.33E+00	0.00E+00	0.00E+00	3.04E-01	0.00E+00	1.91E+02	1.36E+01
TOTAL										1.05E+02

**Table E18. Site 21 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose- Response Value (mg/kg/day)		Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Methylene chloride	7.50E-03	3.36E-03	0.00E+00	3.10E-01	1.00E+00	1.00E+00	1.00E+00	4.50E-03	2.21E+00
Xylenes	3.30E-03	1.29E-04	0.00E+00	8.95E+00	1.00E+00	1.00E+00	1.00E+00	8.00E-02	1.63E-01
Bis(2-ethylhexyl)phtha	1.00E-01	9.12E-04	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	3.36E-02	1.39E-02
Chrysene	3.60E-02	2.80E-04	0.00E+00	2.00E-02	1.00E+00	1.00E+00	1.00E+00	8.10E-01	7.13E-03
Antimony	5.24E+01	1.08E+00	0.00E+00	2.99E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-03	7.18E-02
Arsenic	3.80E+00	3.50E-02	0.00E+00	3.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	1.44E-02
Beryllium	6.70E-01	4.73E-03	0.00E+00	5.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.59E-03
Cadmium	2.28E+01	1.28E+00	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-01
Chromium	1.41E+02	1.04E+00	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	5.20E-03
Copper	2.35E+02	1.49E+01	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.85E-01
Lead	6.89E+02	6.82E+00	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	4.00E-06	1.78E-02
Mercury	3.20E-01	2.58E-02	0.00E+00	1.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.71E-01
Nickel	3.46E+01	6.30E-01	0.00E+00	2.69E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-04	5.94E-02
Silver	4.30E-01	1.76E-02	0.00E+00	8.90E-01	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.73E-01
Zinc	8.89E+02	1.91E+02	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.04E+00

EXPOSURE PARAMETERS:

Table E18. Site 21 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table E18. Site 21 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Organism Consumption	
						(mg/kg/day)	(mg/kg/day)
Methylene chloride	3.36E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.24E-04	
Xylenes	1.29E-04	1.00E+00	1.93E-01	1.00E+00	5.25E+00	4.72E-06	
Bis(2-ethylhexyl)phtha	9.12E-04	1.00E+00	1.93E-01	1.00E+00	5.25E+00	3.35E-05	
Chrysene	2.80E-04	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.03E-05	
Antimony	1.08E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	3.98E-02	
Arsenic	3.50E-02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.29E-03	
Beryllium	4.73E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.74E-04	
Cadmium	1.28E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	4.69E-02	
Chromium	1.04E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	3.82E-02	
Copper	1.49E+01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	5.47E-01	
Lead	6.82E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	2.51E-01	
Mercury	2.58E-02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	9.47E-04	
Nickel	6.30E-01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	2.32E-02	
Silver	1.76E-02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	6.47E-04	
Zinc	1.91E+02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	7.00E+00	

WATER CONSUMPTION
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Site-Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
					Body Weight (kg)	Water Consumption (mg/kg/day)
Methylene chloride	3.36E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Xylenes	1.29E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phtha	9.12E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chrysene	2.80E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	1.08E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	3.50E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	4.73E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.28E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	1.04E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	1.49E+01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	6.82E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	2.58E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	6.30E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	1.76E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	1.91E+02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table E18. Site 21 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface	Plant/Root	Plant	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Uptake Factor (kg soil/kg plant)	Consumption Rate (kg/day)				Daily Dose From Plant Consumption (mg/kg/day)
Methylene chloride	7.50E-03	2.21E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.06E-04
Xylenes	3.30E-03	1.63E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.32E-05
Bis(2-ethylhexyl)phtha	1.00E-01	1.39E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.40E-05
Chrysene	3.60E-02	7.13E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	6.29E-06
Antimony	5.24E+01	7.18E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	9.21E-02
Arsenic	3.80E+00	1.44E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.34E-03
Beryllium	6.70E-01	3.59E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	5.89E-05
Cadmium	2.28E+01	2.48E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.38E-01
Chromium	1.41E+02	5.20E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.80E-02
Copper	2.35E+02	2.85E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.64E+00
Lead	6.89E+02	1.78E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.00E-01
Mercury	3.20E-01	3.71E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.91E-03
Nickel	3.46E+01	5.94E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	5.03E-02
Silver	4.30E-01	1.73E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.82E-03
Zinc	8.89E+02	1.04E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.26E+01

SOIL INGESTION:

Table E18. Site 21 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface	Soil	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Ingestion Rate (kg/day)				Daily Dose From Soil Ingestion (mg/kg/day)
Methylene chloride	7.50E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.51E-06
Xylenes	3.30E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.42E-06
Bis(2-ethylhexyl)phtha	1.00E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	7.35E-05
Chrysene	3.60E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.64E-05
Antimony	5.24E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.85E-02
Arsenic	3.80E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.79E-03
Beryllium	6.70E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.92E-04
Cadmium	2.28E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.68E-02
Chromium	1.41E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.04E-01
Copper	2.35E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.73E-01
Lead	6.89E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.06E-01
Mercury	3.20E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.35E-04
Nickel	3.46E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.54E-02
Silver	4.30E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.16E-04
Zinc	8.89E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.53E-01

SEDIMENT INGESTION:

Table E18. Site 21 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Methylene chloride	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Xylenes	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phtha	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chrysene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E18. Site 21 Risk Characterization for the Gray Fox
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm ²)	Sediment Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Lifetime Average	
								Body Weight (kg)	Daily Dose From sediment - Dermal (mg/kg/day)
Methylene chloride	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Xylenes	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phtha	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chrysene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table E18. Site 21 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil	Surface Soil	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Lifetime Average	
		Dermal Exposure (Soil on Skin) (kg/cm2)	Dermal Exposure (Skin Exposed) (cm2/day)					Body Weight (kg)	Daily Dose From Soil - Dermal (mg/kg/day)
Methylene chloride	7.50E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.31E-07
Xylenes	3.30E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.90E-07
Bis(2-ethylhexyl)phtha	1.00E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.75E-06
Chrysene	3.60E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.07E-06
Antimony	5.24E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.01E-03
Arsenic	3.80E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.19E-04
Beryllium	6.70E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.85E-05
Cadmium	2.28E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.31E-03
Chromium	1.41E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	8.11E-03
Copper	2.35E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.35E-02
Lead	6.89E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.96E-02
Mercury	3.20E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.84E-05
Nickel	3.46E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.99E-03
Silver	4.30E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.47E-05
Zinc	8.89E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.11E-02

SURFACE WATER DERMAL EXPOSURE:
 Table E18. Site 21 Risk Characterization for the Gray Fox
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Methylene chloride	3.36E-03	3.02E+02	4.50E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Xylenes	1.29E-04	3.02E+02	8.00E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phtha	9.12E-04	3.02E+02	3.36E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chrysene	2.80E-04	3.02E+02	8.10E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	1.08E+00	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	3.50E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	4.73E-03	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.28E+00	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	1.04E+00	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	1.49E+01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	6.82E+00	3.02E+02	4.00E-06	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	2.58E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	6.30E-01	3.02E+02	1.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	1.76E-02	3.02E+02	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	1.91E+02	3.02E+02	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table E18. Site 21 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Methylene chloride	1.24E-04	0.00E+00	4.06E-04	5.51E-06	0.00E+00	0.00E+00	4.31E-07	0.00E+00	5.35E-04	1.73E-03
Xylenes	4.72E-06	0.00E+00	1.32E-05	2.42E-06	0.00E+00	0.00E+00	1.90E-07	0.00E+00	2.05E-05	2.29E-06
Bis(2-ethylhexyl)phtha	3.35E-05	0.00E+00	3.40E-05	7.35E-05	0.00E+00	0.00E+00	5.75E-06	0.00E+00	1.47E-04	1.13E-03
Chrysene	1.03E-05	0.00E+00	6.29E-06	2.64E-05	0.00E+00	0.00E+00	2.07E-06	0.00E+00	4.51E-05	2.25E-03
Antimony	3.98E-02	0.00E+00	9.21E-02	3.85E-02	0.00E+00	0.00E+00	3.01E-03	0.00E+00	1.73E-01	5.80E-02
Arsenic	1.29E-03	0.00E+00	1.34E-03	2.79E-03	0.00E+00	0.00E+00	2.19E-04	0.00E+00	5.64E-03	1.52E-02
Beryllium	1.74E-04	0.00E+00	5.89E-05	4.92E-04	0.00E+00	0.00E+00	3.85E-05	0.00E+00	7.63E-04	1.53E-02
Cadmium	4.69E-02	0.00E+00	1.38E-01	1.68E-02	0.00E+00	0.00E+00	1.31E-03	0.00E+00	2.03E-01	2.39E+01
Chromium	3.82E-02	0.00E+00	1.80E-02	1.04E-01	0.00E+00	0.00E+00	8.11E-03	0.00E+00	1.68E-01	5.60E+00
Copper	5.47E-01	0.00E+00	1.64E+00	1.73E-01	0.00E+00	0.00E+00	1.35E-02	0.00E+00	2.37E+00	1.37E-01
Lead	2.51E-01	0.00E+00	3.00E-01	5.06E-01	0.00E+00	0.00E+00	3.96E-02	0.00E+00	1.10E+00	8.44E+00
Mercury	9.47E-04	0.00E+00	2.91E-03	2.35E-04	0.00E+00	0.00E+00	1.84E-05	0.00E+00	4.11E-03	4.11E-02
Nickel	2.32E-02	0.00E+00	5.03E-02	2.54E-02	0.00E+00	0.00E+00	1.99E-03	0.00E+00	1.01E-01	3.75E-02
Silver	6.47E-04	0.00E+00	1.82E-03	3.16E-04	0.00E+00	0.00E+00	2.47E-05	0.00E+00	2.81E-03	3.16E-03
Zinc	7.00E+00	0.00E+00	2.26E+01	6.53E-01	0.00E+00	0.00E+00	5.11E-02	0.00E+00	3.03E+01	1.73E+01
TOTAL										5.56E+01

**Table E19. Site 22 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose- Response Value	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Bis(2-ethyhexyl)phthalate	9.50E+00	0.00E+00	0.00E+00	2.60E+00	2.17E+02	1.00E+00	1.00E+00	3.36E-02	1.39E-02
Butylbenzylphthalate	1.20E+01	0.00E+00	0.00E+00	1.59E+01	1.08E+04	1.00E+00	1.00E+00	8.10E-01	1.81E-02

EXPOSURE PARAMETERS:

Table E19. Site 22 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day)	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:

Table E19. Site 22 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	2.17E+02	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Butylbenzylphthalate	0.00E+00	1.08E+04	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION

Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Butylbenzylphthalate	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table E19. Site 22 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Bis(2-ethylhexyl)phthalate	9.50E+00	1.39E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.64E-02
Butylbenzylphthalate	1.20E+01	1.81E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	4.34E-02

SOIL INGESTION:

Table E19. Site 22 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface	Soil	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Ingestion Rate (kg/day)				Daily Dose From Soil Ingestion (mg/kg/day)
Bis(2-ethylhexyl)phthalate	9.50E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.70E-02
Butylbenzylphthalate	1.20E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.20E-02

SEDIMENT INGESTION:

Table E19. Site 22 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment	Sediment	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Concentration (mg/kg)	Ingestion Rate (kg/day)				Daily Dose From Sediment Ingestion (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Butylbenzylphthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E19. Site 22 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment	Sediment	Sediment	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Concentration (mg/kg)	Dermal Exposure (Sediment on Skin) (kg/cm2)	Dermal Exposure (Skin Exposed) (cm2/day)						Daily Dose From Sediment - Dermal (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Butylbenzylphthalate	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

**Table E20. Site 22 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose- Response Value		Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Bis(2-ethyhexyl)phthalate	9.50E+00	8.67E-02	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	3.36E-02	1.39E-02
Butylbenzylphthalate	1.20E+01	1.20E-01	0.00E+00	7.95E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.81E-02

EXPOSURE PARAMETERS:

Table E20. Site 22 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table E20. Site 22 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Organism Consumption (mg/kg/day)
Bis(2-ethylhexyl)phthalate	8.67E-02	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.18E-03
Butylbenzylphthalate	1.20E-01	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.39E-03

WATER CONSUMPTION

Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Site-Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Bis(2-ethylhexyl)phthalate	8.67E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Butylbenzylphthalate	1.20E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table E20. Site 22 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Bis(2-ethylhexyl)phthalate	9.50E+00	1.39E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.23E-03
Butylbenzylphthalate	1.20E+01	1.81E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	5.32E-03

SOIL INGESTION:

Table E20. Site 22 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface	Soil	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Ingestion Rate (kg/day)				Daily Dose From Soil Ingestion (mg/kg/day)
Bis(2-ethylhexyl)phthalate	9.50E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.98E-03
Butylbenzylphthalate	1.20E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.82E-03

SEDIMENT INGESTION:

Table E20. Site 22 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment	Sediment	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Concentration (mg/kg)	Ingestion Rate (kg/day)				Daily Dose From Sediment Ingestion (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Butylbenzylphthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E20. Site 22 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment	Sediment	Sediment	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Concentration (mg/kg)	Dermal Exposure (Sediment on Skin) (kg/cm2)	Dermal Exposure (Skin Exposed) (cm2/day)						From Sediment - Dermal (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Butylbenzylphthalate	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table E20. Site 22 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal
									(mg/kg/day)
Bis(2-ethyhexyl)phthalate	9.50E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.46E-04
Butylbenzylphthalate	1.20E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.90E-04

SURFACE WATER DERMAL EXPOSURE:

Table E20. Site 22 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm2)	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal
									(mg/kg/day)
Bis(2-ethyhexyl)phthalate	8.67E-02	3.02E+02	3.36E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Butylbenzylphthalate	1.20E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table E20. Site 22 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
										(mg/kg/day)
Bis(2-ethyhexyl)phthalate	3.18E-03	0.00E+00	3.23E-03	6.98E-03	0.00E+00	0.00E+00	5.46E-04	0.00E+00	1.39E-02	1.07E-01
Butylbenzylphthalate	4.39E-03	0.00E+00	5.32E-03	8.82E-03	0.00E+00	0.00E+00	6.90E-04	0.00E+00	1.92E-02	2.42E-03
TOTAL										1.10E-01

Table E21. Site 24 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose- Response Value		Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Toluene	1.60E-03	0.00E+00	0.00E+00	2.50E+02	1.00E+00	1.00E+00	1.00E+00	4.50E-02	3.29E-01
Bis(2-ethylhexyl)phthalate	1.30E-01	0.00E+00	0.00E+00	2.60E+00	1.00E+00	1.00E+00	1.00E+00	3.36E-02	1.39E-02
PCBs (aroclor-1260)	5.80E-01	0.00E+00	0.00E+00	1.40E-01	1.00E+00	1.00E+00	1.00E+00	1.30E+00	9.18E-04
Chlordane	2.80E-01	0.00E+00	0.00E+00	9.00E-01	1.00E+00	1.00E+00	1.00E+00	5.20E-02	1.50E-01
4,4'-DDD	1.60E-01	0.00E+00	0.00E+00	1.07E+02	1.00E+00	1.00E+00	1.00E+00	2.80E-01	3.25E-03
4,4'-DDE	1.20E-01	0.00E+00	0.00E+00	3.40E+01	1.00E+00	1.00E+00	1.00E+00	2.40E-01	1.12E-03
4,4'-DDT	2.50E+00	0.00E+00	0.00E+00	3.11E+00	1.00E+00	1.00E+00	1.00E+00	4.30E-01	3.29E-03
Dieldrin	4.90E-02	0.00E+00	0.00E+00	3.00E-03	1.00E+00	1.00E+00	1.00E+00	1.60E-02	1.18E-01
Gamma-BHC	2.30E-02	0.00E+00	0.00E+00	3.25E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	6.94E-02
Lead	1.52E+02	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	4.00E-06	1.78E-02
Mercury	2.30E-01	0.00E+00	0.00E+00	1.90E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.71E-01
Silver	5.70E-01	0.00E+00	0.00E+00	1.78E+00	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.73E-01
Zinc	1.51E+02	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.04E+00

EXPOSURE PARAMETERS:

Table E21. Site 24 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day)	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:
 Table E21. Site 24 Risk Characterization for the Deer Mouse
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface	Aquatic BCF (L/kg)	Aquatic	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From Body Weight (kg)	Aquatic Organism Consumption (mg/kg/day)
	Water Concentration (mg/L)		Consumption Rate (kg/day)				
Toluene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phthalate	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PCBs (aroclor-1260)	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Gamma-BHC	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface	Site - Water	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From Body Weight (kg)	Aquatic Organism Consumption (mg/kg/day)
	Water Concentration (mg/L)	Consumption Rate (L/day)				
Toluene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phthalate	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PCBs (aroclor-1260)	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Gamma-BHC	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table E21. Site 24 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
						Body Weight (kg)	Plant Consumption (mg/kg/day)
Toluene	1.60E-03	3.29E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.05E-04
Bis(2-ethylhexyl)phthalate	1.30E-01	1.39E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.61E-04
PCBs (aroclor-1260)	5.80E-01	9.18E-04	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.06E-04
Chlordane	2.80E-01	1.50E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	8.40E-03
4,4'-DDD	1.60E-01	3.25E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.04E-04
4,4'-DDE	1.20E-01	1.12E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.69E-05
4,4'-DDT	2.50E+00	3.29E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.65E-03
Dieldrin	4.90E-02	1.18E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.16E-03
Gamma-BHC	2.30E-02	6.94E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.19E-04
Lead	1.52E+02	1.78E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	5.41E-01
Mercury	2.30E-01	3.71E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.71E-02
Silver	5.70E-01	1.73E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.97E-02
Zinc	1.51E+02	1.04E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.14E+01

SOIL INGESTION:

Table E21. Site 24 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose	
					Body Weight (kg)	From Soil Ingestion (mg/kg/day)
Toluene	1.60E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.60E-06
Bis(2-ethylhexyl)phthalate	1.30E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.80E-04
PCBs (aroclor-1260)	5.80E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.48E-03
Chlordane	2.80E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.68E-03
4,4'-DDD	1.60E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.60E-04
4,4'-DDE	1.20E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.20E-04
4,4'-DDT	2.50E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.50E-02
Dieldrin	4.90E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.94E-04
Gamma-BHC	2.30E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.38E-04
Lead	1.52E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.12E-01
Mercury	2.30E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.38E-03
Silver	5.70E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.42E-03
Zinc	1.51E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.06E-01

Volume IV

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SEDIMENT INGESTION:

Table E21. Site 24 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
						Daily Dose From Sediment Ingestion (mg/kg/day)
Toluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PCBs (aroclor-1260)	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Gamma-BHC	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E21. Site 24 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure Sediment on Skin (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
									Daily Dose Sediment - Dermal (mg/kg/day)
Toluene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phthalate	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PCBs (aroclor-1260)	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Gamma-BHC	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table E21. Site 24 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil	Surface Soil	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
		Dermal Exposure (Soil on Skin) (kg/cm2)	Dermal Exposure (Skin Exposed) (cm2/day)						Daily Dose From Soil - Dermal (mg/kg/day)
Toluene	1.60E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.47E-07
Bis(2-ethylhexyl)phthalate	1.30E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.45E-05
PCBs (aroclor-1260)	5.80E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.98E-04
Chlordane	2.80E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	9.58E-05
4,4'-DDD	1.60E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.47E-05
4,4'-DDE	1.20E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.10E-05
4,4'-DDT	2.50E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.55E-04
Dieldrin	4.90E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.68E-05
Gamma-BHC	2.30E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.87E-06
Lead	1.52E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.20E-02
Mercury	2.30E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.87E-05
Silver	5.70E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.95E-04
Zinc	1.51E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.16E-02

SURFACE WATER DERMAL EXPOSURE:

Table E21. Site 24 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average
		Dermal Exposure (Skin Exposed) (cm2)							Daily Dose From Water - Dermal (mg/kg/day)
Toluene	0.00E+00	8.55E+00	4.50E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phthalate	0.00E+00	8.55E+00	3.36E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PCBs (aroclor-1260)	0.00E+00	8.55E+00	1.30E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	8.55E+00	5.20E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	8.55E+00	2.80E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	8.55E+00	2.40E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	8.55E+00	4.30E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	8.55E+00	1.60E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Gamma-BHC	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	4.00E-06	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	8.55E+00	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table E21. Site 24 Risk Characterization for the Deer Mouse

Quantitative Ecological Screening Assessment

Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Toluene	0.00E+00	0.00E+00	1.05E-04	9.60E-06	0.00E+00	0.00E+00	5.47E-07	0.00E+00	1.15E-04	4.62E-07
Bis(2-ethylhexyl)phthalate	0.00E+00	0.00E+00	3.61E-04	7.80E-04	0.00E+00	0.00E+00	4.45E-05	0.00E+00	1.19E-03	4.56E-04
PCBs (aroclor-1260)	0.00E+00	0.00E+00	1.06E-04	3.48E-03	0.00E+00	0.00E+00	1.98E-04	0.00E+00	3.78E-03	2.70E-02
Chlordane	0.00E+00	0.00E+00	8.40E-03	1.68E-03	0.00E+00	0.00E+00	9.58E-05	0.00E+00	1.02E-02	1.13E-02
4,4'-DDD	0.00E+00	0.00E+00	1.04E-04	9.60E-04	0.00E+00	0.00E+00	5.47E-05	0.00E+00	1.12E-03	1.05E-05
4,4'-DDE	0.00E+00	0.00E+00	2.69E-05	7.20E-04	0.00E+00	0.00E+00	4.10E-05	0.00E+00	7.88E-04	2.32E-05
4,4'-DDT	0.00E+00	0.00E+00	1.65E-03	1.50E-02	0.00E+00	0.00E+00	8.55E-04	0.00E+00	1.75E-02	5.63E-03
Dieldrin	0.00E+00	0.00E+00	1.16E-03	2.94E-04	0.00E+00	0.00E+00	1.68E-05	0.00E+00	1.47E-03	4.89E-01
Gamma-BHC	0.00E+00	0.00E+00	3.19E-04	1.38E-04	0.00E+00	0.00E+00	7.87E-06	0.00E+00	4.65E-04	1.43E-04
Lead	0.00E+00	0.00E+00	5.41E-01	9.12E-01	0.00E+00	0.00E+00	5.20E-02	0.00E+00	1.51E+00	1.67E+01
Mercury	0.00E+00	0.00E+00	1.71E-02	1.38E-03	0.00E+00	0.00E+00	7.87E-05	0.00E+00	1.85E-02	9.75E-03
Silver	0.00E+00	0.00E+00	1.97E-02	3.42E-03	0.00E+00	0.00E+00	1.95E-04	0.00E+00	2.33E-02	1.31E-02
Zinc	0.00E+00	0.00E+00	3.14E+01	9.06E-01	0.00E+00	0.00E+00	5.16E-02	0.00E+00	3.24E+01	2.31E+00
TOTAL										1.96E+01

**Table E22. Site 24 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Field Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose- Response Value		Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Toluene	1.60E-03	1.15E-04	0.00E+00	1.25E+01	1.00E+00	1.00E+00	1.00E+00	4.50E-02	3.29E-01
Bis(2-ethylhexyl)phthalate	1.30E-01	1.19E-03	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	3.36E-02	1.39E-02
PCBs (aroclor-1260)	5.80E-01	3.78E-03	0.00E+00	7.00E-02	1.00E+00	1.00E+00	1.00E+00	1.30E+00	9.18E-04
Chlordane	2.80E-01	1.02E-02	0.00E+00	4.00E-02	1.00E+00	1.00E+00	1.00E+00	5.20E-02	1.50E-01
4,4'-DDD	1.60E-01	1.12E-03	0.00E+00	5.35E+00	1.00E+00	1.00E+00	1.00E+00	2.80E-01	3.25E-03
4,4'-DDE	1.20E-01	7.88E-04	0.00E+00	1.70E+00	1.00E+00	1.00E+00	1.00E+00	2.40E-01	1.12E-03
4,4'-DDT	2.50E+00	1.75E-02	0.00E+00	1.60E+00	1.00E+00	1.00E+00	1.00E+00	4.30E-01	3.29E-03
Dieldrin	4.90E-02	1.47E-03	0.00E+00	2.00E-02	1.00E+00	1.00E+00	1.00E+00	1.60E-02	1.18E-01
Gamma-BHC	2.30E-02	4.65E-04	0.00E+00	2.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	6.94E-02
Lead	1.52E+02	1.51E+00	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	4.00E-06	1.78E-02
Mercury	2.30E-01	1.85E-02	0.00E+00	1.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.71E-01
Silver	5.70E-01	2.33E-02	0.00E+00	8.90E-01	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.73E-01
Zinc	1.51E+02	3.24E+01	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.04E+00

EXPOSURE PARAMETERS:

Table E22. Site 24 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day)	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

FIELD MOUSE CONSUMPTION:

Table E22. Site 24 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Field Mouse Conc. (mg/kg/day)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average	
						Daily Dose From Organism Consumption (mg/kg/day)	
Toluene	1.15E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	4.24E-06
Bis(2-ethylhexyl)phthalate	1.19E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	4.36E-05
PCBs (aroclor-1260)	3.78E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.39E-04
Chlordane	1.02E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.74E-04
4,4'-DDD	1.12E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	4.11E-05
4,4'-DDE	7.88E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.89E-05
4,4'-DDT	1.75E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	6.43E-04
Dieldrin	1.47E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	5.39E-05
Gamma-BHC	4.65E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.71E-05
Lead	1.51E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	5.53E-02
Mercury	1.85E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	6.80E-04
Silver	2.33E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	8.57E-04
Zinc	3.24E+01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.19E+00

WATER CONSUMPTION

Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Site-Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
						Daily Dose From Water Consumption (mg/kg/day)
Toluene	1.15E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phthalate	1.19E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PCBs (aroclor-1260)	3.78E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	1.02E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	1.12E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	7.88E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	1.75E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	1.47E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Gamma-BHC	4.65E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	1.51E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	1.85E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	2.33E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	3.24E+01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table E22. Site 24 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface	Plant/Root	Plant	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Uptake Factor (kg soil/kg plant)	Consumption Rate (kg/day)				Daily Dose From Plant Consumption (mg/kg/day)
Toluene	1.60E-03	3.29E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.29E-05
Bis(2-ethylhexyl)phthalate	1.30E-01	1.39E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.43E-05
PCBs (aroclor-1260)	5.80E-01	9.18E-04	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.30E-05
Chlordane	2.80E-01	1.50E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.03E-03
4,4'-DDD	1.60E-01	3.25E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.27E-05
4,4'-DDE	1.20E-01	1.12E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.29E-06
4,4'-DDT	2.50E+00	3.29E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.01E-04
Dieldrin	4.90E-02	1.18E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.42E-04
Gamma-BHC	2.30E-02	6.94E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.91E-05
Lead	1.52E+02	1.78E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	6.63E-02
Mercury	2.30E-01	3.71E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.09E-03
Silver	5.70E-01	1.73E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.41E-03
Zinc	1.51E+02	1.04E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.85E+00

SOIL INGESTION:

Table E22. Site 24 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface	Soil	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Ingestion Rate (kg/day)				Daily Dose From Soil Ingestion (mg/kg/day)
Toluene	1.60E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.18E-06
Bis(2-ethylhexyl)phthalate	1.30E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.55E-05
PCBs (aroclor-1260)	5.80E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.26E-04
Chlordane	2.80E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.06E-04
4,4'-DDD	1.60E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.18E-04
4,4'-DDE	1.20E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.82E-05
4,4'-DDT	2.50E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.84E-03
Dieldrin	4.90E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.60E-05
Gamma-BHC	2.30E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.69E-05
Lead	1.52E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.12E-01
Mercury	2.30E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.69E-04
Silver	5.70E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.19E-04
Zinc	1.51E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.11E-01

SEDIMENT INGESTION:

Table E22. Site 24 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
						Daily Dose From Sediment Ingestion (mg/kg/day)
Toluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PCBs (aroclor-1260)	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Gamma-BHC	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E22. Site 24 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
									Daily Dose From Sediment - Dermal (mg/kg/day)
Toluene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phthalate	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PCBs (aroclor-1260)	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Gamma-BHC	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table E22. Site 24 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil	Surface Soil	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
		Dermal Exposure (Soil on Skin) (kg/cm2)	Dermal Exposure (Skin Exposed) (cm2/day)						Daily Dose From
									From Soil - Dermal (mg/kg/day)
Toluene	1.60E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	9.20E-08
Bis(2-ethylhexyl)phthalate	1.30E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.48E-06
PCBs (aroclor-1260)	5.80E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.34E-05
Chlordane	2.80E-04	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.61E-05
4,4'-DDD	1.60E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	9.20E-06
4,4'-DDE	1.20E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.90E-06
4,4'-DDT	2.50E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.44E-04
Dieldrin	4.90E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.82E-06
Gamma-BHC	2.30E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.32E-06
Lead	1.52E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	8.74E-03
Mercury	2.30E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.32E-05
Silver	5.70E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.28E-05
Zinc	1.51E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	8.68E-03

SURFACE WATER DERMAL EXPOSURE:

Table E22. Site 24 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average
		Dermal Exposure (Skin Exposed) (cm2)							Daily Dose From
									From Water - Dermal (mg/kg/day)
Toluene	1.15E-04	3.02E+02	4.50E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phthalate	1.19E-03	3.02E+02	3.36E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PCBs (aroclor-1260)	3.78E-03	3.02E+02	1.30E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	1.02E-02	3.02E+02	5.20E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	1.12E-03	3.02E+02	2.80E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	7.88E-04	3.02E+02	2.40E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	1.75E-02	3.02E+02	4.30E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	1.47E-03	3.02E+02	1.60E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Gamma-BHC	4.65E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	1.51E+00	3.02E+02	4.00E-06	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	1.85E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	2.33E-02	3.02E+02	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	3.24E+01	3.02E+02	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table E22. Site 24 Risk Characterization for the Gray Fox

Quantitative Ecological Screening Assessment

Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Toluene	4.24E-06	0.00E+00	1.29E-05	1.18E-06	0.00E+00	0.00E+00	9.20E-08	0.00E+00	1.84E-05	1.47E-06
Bis(2-ethylhexyl)phthalate	4.36E-05	0.00E+00	4.43E-05	9.55E-05	0.00E+00	0.00E+00	7.48E-06	0.00E+00	1.91E-04	1.47E-03
PCBs (aroclor-1260)	1.39E-04	0.00E+00	1.30E-05	4.26E-04	0.00E+00	0.00E+00	3.34E-05	0.00E+00	6.12E-04	8.74E-03
Chlordane	3.74E-04	0.00E+00	1.03E-03	2.06E-04	0.00E+00	0.00E+00	1.61E-05	0.00E+00	1.62E-03	4.06E-02
4,4'-DDD	4.11E-05	0.00E+00	1.27E-05	1.18E-04	0.00E+00	0.00E+00	9.20E-06	0.00E+00	1.81E-04	3.38E-05
4,4'-DDE	2.89E-05	0.00E+00	3.29E-06	8.82E-05	0.00E+00	0.00E+00	6.90E-06	0.00E+00	1.27E-04	7.49E-05
4,4'-DDT	6.43E-04	0.00E+00	2.01E-04	1.84E-03	0.00E+00	0.00E+00	1.44E-04	0.00E+00	2.82E-03	1.77E-03
Dieldrin	5.39E-05	0.00E+00	1.42E-04	3.60E-05	0.00E+00	0.00E+00	2.82E-06	0.00E+00	2.34E-04	1.17E-02
Gamma-BHC	1.71E-05	0.00E+00	3.91E-05	1.69E-05	0.00E+00	0.00E+00	1.32E-06	0.00E+00	7.44E-05	2.98E-04
Lead	5.53E-02	0.00E+00	6.63E-02	1.12E-01	0.00E+00	0.00E+00	8.74E-03	0.00E+00	2.42E-01	1.86E+00
Mercury	6.80E-04	0.00E+00	2.09E-03	1.69E-04	0.00E+00	0.00E+00	1.32E-05	0.00E+00	2.95E-03	2.95E-02
Silver	8.57E-04	0.00E+00	2.41E-03	4.19E-04	0.00E+00	0.00E+00	3.28E-05	0.00E+00	3.72E-03	4.18E-03
Zinc	1.19E+00	0.00E+00	3.85E+00	1.11E-01	0.00E+00	0.00E+00	8.68E-03	0.00E+00	5.15E+00	2.95E+00
TOTAL										4.91E+00

**Table E23. Site 25 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose- Response Value	Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Acetone	3.00E-01	0.00E+00	0.00E+00	2.00E+00	1.00E+00	1.00E+00	3.70E-04	1.72E+01
PCBs (aroclor-1254)	8.80E-01	0.00E+00	0.00E+00	4.90E-01	1.00E+00	1.00E+00	1.00E+00	4.24E-03
4,4'-DDE	9.00E-03	0.00E+00	0.00E+00	3.40E+01	1.00E+00	1.00E+00	2.40E-01	1.12E-03
4,4'-DDT	9.00E-02	0.00E+00	0.00E+00	3.11E+00	1.00E+00	1.00E+00	4.30E-01	3.29E-03
Dieldrin	9.00E-03	0.00E+00	0.00E+00	3.00E-03	1.00E+00	1.00E+00	1.60E-02	1.18E-01
Barium	2.20E+01	0.00E+00	0.00E+00	8.30E-01	1.00E+00	1.00E+00	1.00E+00	4.83E-02
Cadmium	2.10E+00	0.00E+00	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E-03	2.48E-01
Lead	4.30E+01	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	4.00E-06	1.78E-02
Vanadium	7.50E+00	0.00E+00	0.00E+00	4.10E+00	1.00E+00	1.00E+00	1.00E-03	3.59E-03
Zinc	1.20E+02	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	6.00E-04	1.04E+00

EXPOSURE PARAMETERS:

Table E23. Site 25 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day)	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:

Table E23. Site 25 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)		Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Acetone	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PCBs (aroclor-1254)	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Barium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Vanadium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION

Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Site - Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Acetone	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PCBs (aroclor-1254)	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Barium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Vanadium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table E23. Site 25 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
						Body Weight (kg)	Plant Consumption (mg/kg/day)
Acetone	3.00E-01	1.72E+01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.03E+00
PCBs (aroclor-1254)	8.80E-01	4.24E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	7.46E-04
4,4'-DDE	9.00E-03	1.12E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.02E-06
4,4'-DDT	9.00E-02	3.29E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	5.92E-05
Dieldrin	9.00E-03	1.18E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.12E-04
Barium	2.20E+01	4.83E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.13E-01
Cadmium	2.10E+00	2.48E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.04E-01
Lead	4.30E+01	1.78E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.53E-01
Vanadium	7.50E+00	3.59E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	5.39E-03
Zinc	1.20E+02	1.04E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.50E+01

SOIL INGESTION:

Table E23. Site 25 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
					Body Weight (kg)	Soil Ingestion (mg/kg/day)
Acetone	3.00E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.80E-03
PCBs (aroclor-1254)	8.80E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.28E-03
4,4'-DDE	9.00E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.40E-05
4,4'-DDT	9.00E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.40E-04
Dieldrin	9.00E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.40E-05
Barium	2.20E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.32E-01
Cadmium	2.10E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.26E-02
Lead	4.30E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.58E-01
Vanadium	7.50E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.50E-02
Zinc	1.20E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.20E-01

SEDIMENT INGESTION:

Table E23. Site 25 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
						Daily Dose From Sediment Ingestion (mg/kg/day)
Acetone	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PCBs (aroclor-1254)	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Barium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Vanadium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E23. Site 25 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm ²)	Sediment Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
									Daily Dose From Sediment - Dermal (mg/kg/day)
Acetone	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PCBs (aroclor-1254)	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Barium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Vanadium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table E23. Site 25 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose	
								Body Weight (kg)	From Soil - Dermal (mg/kg/day)
Acetone	3.00E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.03E-04
PCBs (aroclor-1254)	8.80E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.01E-04
4,4'-DDE	9.00E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.08E-06
4,4'-DDT	9.00E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.08E-05
Dieldrin	9.00E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.08E-06
Barium	2.20E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.52E-03
Cadmium	2.10E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.18E-04
Lead	4.30E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.47E-02
Vanadium	7.50E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.57E-03
Zinc	1.20E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.10E-02

SURFACE WATER DERMAL EXPOSURE:

Table E23. Site 25 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm2)	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Lifetime Average Daily Dose	
								Body Weight (kg)	From Water - Dermal (mg/kg/day)
Acetone	0.00E+00	8.55E+00	3.70E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PCBs (aroclor-1254)	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	8.55E+00	2.40E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	8.55E+00	4.30E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	8.55E+00	1.60E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Barium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	4.00E-06	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Vanadium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table E23. Site 25 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Acetone	0.00E+00	0.00E+00	1.03E+00	1.80E-03	0.00E+00	0.00E+00	1.03E-04	0.00E+00	1.03E+00	5.17E-01
PCBs (aroclor-1254)	0.00E+00	0.00E+00	7.46E-04	5.28E-03	0.00E+00	0.00E+00	3.01E-04	0.00E+00	6.33E-03	1.29E-02
4,4'-DDE	0.00E+00	0.00E+00	2.02E-06	5.40E-05	0.00E+00	0.00E+00	3.08E-06	0.00E+00	5.91E-05	1.74E-06
4,4'-DDT	0.00E+00	0.00E+00	5.92E-05	5.40E-04	0.00E+00	0.00E+00	3.08E-05	0.00E+00	6.30E-04	2.03E-04
Dieldrin	0.00E+00	0.00E+00	2.12E-04	5.40E-05	0.00E+00	0.00E+00	3.08E-06	0.00E+00	2.69E-04	8.98E-02
Barium	0.00E+00	0.00E+00	2.13E-01	1.32E-01	0.00E+00	0.00E+00	7.52E-03	0.00E+00	3.52E-01	4.24E-01
Cadmium	0.00E+00	0.00E+00	1.04E-01	1.26E-02	0.00E+00	0.00E+00	7.18E-04	0.00E+00	1.17E-01	6.91E-01
Lead	0.00E+00	0.00E+00	1.53E-01	2.58E-01	0.00E+00	0.00E+00	1.47E-02	0.00E+00	4.26E-01	4.73E+00
Vanadium	0.00E+00	0.00E+00	5.39E-03	4.50E-02	0.00E+00	0.00E+00	2.57E-03	0.00E+00	5.30E-02	1.29E-02
Zinc	0.00E+00	0.00E+00	2.50E+01	7.20E-01	0.00E+00	0.00E+00	4.10E-02	0.00E+00	2.57E+01	1.84E+00
TOTAL										8.32E+00

Table E24. Site 25 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose- Response Value		Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Acetone	3.00E-01	1.03E+00	0.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.70E-04	1.72E+01
PCBs (aroclor-1254)	8.80E-01	6.33E-03	0.00E+00	2.00E-02	1.00E+00	1.00E+00	1.00E+00	1.30E+00	4.24E-03
4,4'-DDE	9.00E-03	5.91E-05	0.00E+00	1.70E+00	1.00E+00	1.00E+00	1.00E+00	2.40E-01	1.12E-03
4,4'-DDT	9.00E-02	6.30E-04	0.00E+00	1.60E+00	1.00E+00	1.00E+00	1.00E+00	4.30E-01	3.29E-03
Dieldrin	9.00E-03	2.69E-04	0.00E+00	2.00E-02	1.00E+00	1.00E+00	1.00E+00	1.60E-02	1.18E-01
Barium	2.20E+01	3.52E-01	0.00E+00	4.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	4.83E-02
Cadmium	2.10E+00	1.17E-01	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-01
Lead	4.30E+01	4.26E-01	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	4.00E-06	1.78E-02
Vanadium	7.50E+00	5.30E-02	0.00E+00	2.10E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.59E-03
Zinc	1.20E+02	2.57E+01	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.04E+00

EXPOSURE PARAMETERS:

Table E24. Site 25 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day)	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table E24. Site 25 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
						Daily Dose From Organism Consumption (mg/kg/day)
Acetone	1.03E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00 3.80E-02
PCBs (aroclor-1254)	6.33E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00 2.32E-04
4,4'-DDE	5.91E-05	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00 2.17E-06
4,4'-DDT	6.30E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00 2.31E-05
Dieldrin	2.69E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00 9.90E-06
Barium	3.52E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00 1.29E-02
Cadmium	1.17E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00 4.32E-03
Lead	4.26E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00 1.56E-02
Vanadium	5.30E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00 1.95E-03
Zinc	2.57E+01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00 9.45E-01

WATER CONSUMPTION

Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Site - Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
						Daily Dose From Water Consumption (mg/kg/day)
Acetone	1.03E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PCBs (aroclor-1254)	6.33E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	5.91E-05	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	6.30E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	2.69E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	3.52E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.17E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	4.26E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	5.30E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	2.57E+01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table E24. Site 25 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface	Plant/Root	Plant	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Uptake Factor (kg soil/kg plant)	Consumption Rate (kg/day)				Daily Dose From Plant Consumption (mg/kg/day)
Acetone	3.00E-01	1.72E+01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.26E-01
PCBs (aroclor-1254)	8.80E-01	4.24E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	9.14E-05
4,4'-DDE	9.00E-03	1.12E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.47E-07
4,4'-DDT	9.00E-02	3.29E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	7.25E-06
Dieldrin	9.00E-03	1.18E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.60E-05
Barium	2.20E+01	4.83E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.60E-02
Cadmium	2.10E+00	2.48E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.28E-02
Lead	4.30E+01	1.78E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.87E-02
Vanadium	7.50E+00	3.59E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	6.59E-04
Zinc	1.20E+02	1.04E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.06E+00

SOIL INGESTION:

Table E24. Site 25 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface	Soil	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Ingestion Rate (kg/day)				Daily Dose From Soil Ingestion (mg/kg/day)
Acetone	3.00E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.20E-04
PCBs (aroclor-1254)	8.80E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.47E-04
4,4'-DDE	9.00E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.61E-06
4,4'-DDT	9.00E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.61E-05
Dieldrin	9.00E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.61E-06
Barium	2.20E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.62E-02
Cadmium	2.10E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.54E-03
Lead	4.30E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.16E-02
Vanadium	7.50E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.51E-03
Zinc	1.20E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.82E-02

SEDIMENT INGESTION:

Table E24. Site 25 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Acetone	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PCBs (aroclor-1254)	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E24. Site 25 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm ²)	Sediment Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Acetone	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PCBs (aroclor-1254)	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table E24. Site 25 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil	Surface Soil	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose	
		Dermal Exposure (Soil on Skin) (kg/cm2)	Dermal Exposure (Skin Exposed) (cm2/day)					Body Weight (kg)	From Soil - Dermal (mg/kg/day)
Acetone	3.00E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.73E-05
PCBs (aroclor-1254)	8.80E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.06E-05
4,4'-DDE	9.00E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.18E-07
4,4'-DDT	9.00E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.18E-06
Dieldrin	9.00E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.18E-07
Barium	2.20E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.27E-03
Cadmium	2.10E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.21E-04
Lead	4.30E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.47E-03
Vanadium	7.50E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.31E-04
Zinc	1.20E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.90E-03

SURFACE WATER DERMAL EXPOSURE:

Table E24. Site 25 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Lifetime Average Daily Dose	
		Dermal Exposure (Skin Exposed) (cm2)						Body Weight (kg)	From Water - Dermal (mg/kg/day)
Acetone	1.03E+00	3.02E+02	3.70E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PCBs (aroclor-1254)	6.33E-03	3.02E+02	1.30E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	5.91E-05	3.02E+02	2.40E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	6.30E-04	3.02E+02	4.30E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	2.69E-04	3.02E+02	1.60E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	3.52E-01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.17E-01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	4.26E-01	3.02E+02	4.00E-06	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	5.30E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	2.57E+01	3.02E+02	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table E24. Site 25 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment

Fort Ord, California	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Acetone	3.80E-02	0.00E+00	1.26E-01	2.20E-04	0.00E+00	0.00E+00	1.73E-05	0.00E+00	1.65E-01	1.65E-01
PCBs (aroclor-1254)	2.32E-04	0.00E+00	9.14E-05	6.47E-04	0.00E+00	0.00E+00	5.06E-05	0.00E+00	1.02E-03	5.10E-02
4,4'-DDE	2.17E-06	0.00E+00	2.47E-07	6.61E-06	0.00E+00	0.00E+00	5.18E-07	0.00E+00	9.55E-06	5.62E-06
4,4'-DDT	2.31E-05	0.00E+00	7.25E-06	6.61E-05	0.00E+00	0.00E+00	5.18E-06	0.00E+00	1.02E-04	6.36E-05
Dieldrin	9.90E-06	0.00E+00	2.60E-05	6.61E-06	0.00E+00	0.00E+00	5.18E-07	0.00E+00	4.30E-05	2.15E-03
Barium	1.29E-02	0.00E+00	2.60E-02	1.62E-02	0.00E+00	0.00E+00	1.27E-03	0.00E+00	5.64E-02	1.41E+00
Cadmium	4.32E-03	0.00E+00	1.28E-02	1.54E-03	0.00E+00	0.00E+00	1.21E-04	0.00E+00	1.87E-02	2.20E+00
Lead	1.56E-02	0.00E+00	1.87E-02	3.16E-02	0.00E+00	0.00E+00	2.47E-03	0.00E+00	6.84E-02	5.27E-01
Vanadium	1.95E-03	0.00E+00	6.59E-04	5.51E-03	0.00E+00	0.00E+00	4.31E-04	0.00E+00	8.55E-03	4.07E-02
Zinc	9.45E-01	0.00E+00	3.06E+00	8.82E-02	0.00E+00	0.00E+00	6.90E-03	0.00E+00	4.10E+00	2.34E+00
TOTAL										6.74E+00

**Table E25. Site 29 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose- Response Value		Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Cadmium	4.90E-01	0.00E+00	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-01
Copper	4.29E+01	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.85E-01
Mercury	3.10E-01	0.00E+00	0.00E+00	1.90E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.71E-01
Selenium	5.50E-01	0.00E+00	0.00E+00	6.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-02
Silver	2.31E+01	0.00E+00	0.00E+00	1.78E+00	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.73E-01

EXPOSURE PARAMETERS:

Table E25. Site 29 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day)	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:

Table E25. Site 29 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Cadmium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION

Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Site - Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Cadmium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table E25. Site 29 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
						Body Weight (kg)	Plant Consumption (mg/kg/day)
Cadmium	4.90E-01	2.48E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.43E-02
Copper	4.29E+01	2.85E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.45E+00
Mercury	3.10E-01	3.71E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.30E-02
Selenium	5.50E-01	2.48E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.73E-03
Silver	2.31E+01	1.73E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	7.99E-01

SOIL INGESTION:

Table E25. Site 29 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose	
					Body Weight (kg)	From Soil Ingestion (mg/kg/day)
Cadmium	4.90E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.94E-03
Copper	4.29E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.57E-01
Mercury	3.10E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.86E-03
Selenium	5.50E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.30E-03
Silver	2.31E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.39E-01

SEDIMENT INGESTION:

Table E25. Site 29 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose
						From Sediment Ingestion (mg/kg/day)
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E25. Site 29 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm ²)	Sediment Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose
								Body Weight (kg) From Sediment - Dermal (mg/kg/day)
Cadmium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02 0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02 0.00E+00
Mercury	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02 0.00E+00
Selenium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02 0.00E+00
Silver	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02 0.00E+00

SOIL DERMAL EXPOSURE:

Table E25. Site 29 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose
									From Soil - Dermal (mg/kg/day)
Cadmium	4.90E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.68E-04
Copper	4.29E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.47E-02
Mercury	3.10E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.06E-04
Selenium	5.50E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.88E-04
Silver	2.31E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.90E-03

SURFACE WATER DERMAL EXPOSURE:

Table E25. Site 29 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm2)	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose
									From Water - Dermal (mg/kg/day)
Cadmium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	8.55E+00	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table E25. Site 29 Risk Characterization for the Deer Mouse
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Cadmium	0.00E+00	0.00E+00	2.43E-02	2.94E-03	0.00E+00	0.00E+00	1.68E-04	0.00E+00	2.74E-02	1.61E-01
Copper	0.00E+00	0.00E+00	2.45E+00	2.57E-01	0.00E+00	0.00E+00	1.47E-02	0.00E+00	2.72E+00	7.84E-03
Mercury	0.00E+00	0.00E+00	2.30E-02	1.86E-03	0.00E+00	0.00E+00	1.06E-04	0.00E+00	2.50E-02	1.31E-02
Selenium	0.00E+00	0.00E+00	2.73E-03	3.30E-03	0.00E+00	0.00E+00	1.88E-04	0.00E+00	6.22E-03	1.04E-01
Silver	0.00E+00	0.00E+00	7.99E-01	1.39E-01	0.00E+00	0.00E+00	7.90E-03	0.00E+00	9.46E-01	5.31E-01
TOTAL										8.17E-01

**Table E26. Site 29 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose- Response Value		Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Cadmium	4.90E-01	2.74E-02	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-01
Copper	4.29E+01	2.72E+00	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.85E-01
Mercury	3.10E-01	2.50E-02	0.00E+00	1.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.71E-01
Selenium	5.50E-01	6.22E-03	0.00E+00	3.10E-03	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-02
Silver	2.31E+01	9.46E-01	0.00E+00	8.90E-01	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.73E-01

EXPOSURE PARAMETERS:

Table E26. Site 29 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table E26. Site 29 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Organism Consumption (mg/kg/day)
Cadmium	2.74E-02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.01E-03
Copper	2.72E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	9.98E-02
Mercury	2.50E-02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	9.17E-04
Selenium	6.22E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	2.28E-04
Silver	9.46E-01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	3.47E-02

WATER CONSUMPTION

Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Site - Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Cadmium	2.74E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	2.72E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	2.50E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	6.22E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	9.46E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table E26. Site 29 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Cadmium	4.90E-01	2.48E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.96E-03
Copper	4.29E+01	2.85E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.99E-01
Mercury	3.10E-01	3.71E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.82E-03
Selenium	5.50E-01	2.48E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.34E-04
Silver	2.31E+01	1.73E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	9.79E-02

SOIL INGESTION:

Table E26. Site 29 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
Cadmium	4.90E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.60E-04
Copper	4.29E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.15E-02
Mercury	3.10E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.28E-04
Selenium	5.50E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.04E-04
Silver	2.31E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.70E-02

SEDIMENT INGESTION:

Table E26. Site 29 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose
						From Sediment Ingestion (mg/kg/day)
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E26. Site 29 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose
									From Sediment - Dermal (mg/kg/day)
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table E26. Site 29 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose	
								Body Weight (kg)	From Soil - Dermal (mg/kg/day)
Cadmium	4.90E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.82E-05
Copper	4.29E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.47E-03
Mercury	3.10E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.78E-05
Selenium	5.50E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.16E-05
Silver	2.31E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.33E-03

SURFACE WATER DERMAL EXPOSURE:

Table E26. Site 29 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm2)	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Lifetime Average Daily Dose	
								Body Weight (kg)	From Water Dermal (mg/kg/day)
Cadmium	2.74E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	2.72E+00	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	2.50E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	6.22E-03	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	9.46E-01	3.02E+02	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table E26. Site 29 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Cadmium	1.01E-03	0.00E+00	2.98E-03	3.60E-04	0.00E+00	0.00E+00	2.82E-05	0.00E+00	4.37E-03	5.14E-01
Copper	9.98E-02	0.00E+00	2.99E-01	3.15E-02	0.00E+00	0.00E+00	2.47E-03	0.00E+00	4.33E-01	2.50E-02
Mercury	9.17E-04	0.00E+00	2.82E-03	2.28E-04	0.00E+00	0.00E+00	1.78E-05	0.00E+00	3.98E-03	3.98E-02
Selenium	2.28E-04	0.00E+00	3.34E-04	4.04E-04	0.00E+00	0.00E+00	3.16E-05	0.00E+00	9.98E-04	3.22E-01
Silver	3.47E-02	0.00E+00	9.79E-02	1.70E-02	0.00E+00	0.00E+00	1.33E-03	0.00E+00	1.51E-01	1.70E-01
TOTAL										1.07E+00

Table E27. Site 31 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose- Response Value	Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
1,2,3,7,8,9-HxCDF	7.80E-06	0.00E+00	0.00E+00	1.00E-06	1.00E+00	1.00E+00	8.00E-02	4.42E-04
Benzo(a)anthracene	4.20E-02	0.00E+00	0.00E+00	4.00E-01	1.00E+00	1.00E+00	8.10E-01	7.23E-03
Benzo(a)pyrene	3.20E-02	0.00E+00	0.00E+00	4.00E-01	1.00E+00	1.00E+00	1.20E+00	3.92E-03
Benzo(b)fluoranthene	4.20E-02	0.00E+00	0.00E+00	2.50E+01	1.00E+00	1.00E+00	1.11E+00	3.92E-03
1,2,3,4,7,8,9-HpCDF	1.40E-05	0.00E+00	0.00E+00	1.00E-05	1.00E+00	1.00E+00	1.00E+00	1.28E-03
Chrysene	4.90E-02	0.00E+00	0.00E+00	4.00E-01	1.00E+00	1.00E+00	8.10E-01	7.13E-03
Dibenzo(a,h)anthracene	3.80E-02	0.00E+00	0.00E+00	4.00E-01	1.00E+00	1.00E+00	2.70E+00	1.46E-03
Dibenzofuran	3.40E-02	0.00E+00	0.00E+00	2.50E+01	1.00E+00	1.00E+00	1.50E-01	5.18E-02
1,2,3,4,7,8-HxCDD	1.20E-05	0.00E+00	0.00E+00	1.00E-06	1.00E+00	1.00E+00	1.00E+00	7.52E-04
1,2,3,6,7,8-HxCDD	2.40E-05	0.00E+00	0.00E+00	1.00E-06	1.00E+00	1.00E+00	1.00E+00	7.52E-04
Fluoranthene	3.50E-02	0.00E+00	0.00E+00	2.50E+01	1.00E+00	1.00E+00	3.60E-01	1.83E-02
1,2,3,7,8,9-HxCDD	2.10E-05	0.00E+00	0.00E+00	1.00E-06	1.00E+00	1.00E+00	1.00E+00	7.52E-04
2-Methylnaphthalene	1.70E-01	0.00E+00	0.00E+00	1.68E+01	1.00E+00	1.00E+00	2.10E-01	7.32E-02
Naphthalene	1.30E-01	0.00E+00	0.00E+00	1.68E+01	1.00E+00	1.00E+00	6.90E-02	1.56E-01
Phenanthrene	6.80E-02	0.00E+00	0.00E+00	1.50E+01	1.00E+00	1.00E+00	2.70E-01	3.29E-02
Pyrene	4.70E-02	0.00E+00	0.00E+00	1.50E+01	1.00E+00	1.00E+00	3.20E-01	1.88E-02
1,2,3,4,7,8-HxCDF	1.10E-05	0.00E+00	0.00E+00	1.00E-06	1.00E+00	1.00E+00	1.00E+00	4.42E-04
1,2,3,6,7,8-HxCDF	1.80E-05	0.00E+00	0.00E+00	1.00E-06	1.00E+00	1.00E+00	1.00E+00	4.42E-04
2,3,4,6,7,8-HxCDF	1.20E-05	0.00E+00	0.00E+00	1.00E-06	1.00E+00	1.00E+00	1.00E+00	4.42E-04
4,4'-DDE	1.20E+00	0.00E+00	0.00E+00	3.40E+01	1.00E+00	1.00E+00	2.40E-01	1.12E-03
4,4'-DDT	1.70E+00	0.00E+00	0.00E+00	3.11E+00	1.00E+00	1.00E+00	4.30E-01	3.29E-03
1,2,3,7,8-PeCDD	5.70E-06	0.00E+00	0.00E+00	2.00E-07	1.00E+00	1.00E+00	1.00E+00	6.58E-04
1,2,3,7,8-PeCDF	1.50E-05	0.00E+00	0.00E+00	2.00E-06	1.00E+00	1.00E+00	1.00E+00	1.25E-03
2,3,7,8-TCDF	1.50E-05	0.00E+00	0.00E+00	1.00E-06	1.00E+00	1.00E+00	1.00E+00	5.99E-03
1,2,3,4,6,7,8-HpCDD	5.00E-04	0.00E+00	0.00E+00	1.00E-05	1.00E+00	1.00E+00	2.32E+00	2.96E-04
1,2,3,4,6,7,8-HpCDF	1.30E-03	0.00E+00	0.00E+00	1.00E-05	1.00E+00	1.00E+00	2.32E+00	3.08E-04
2,3,4,7,8-PeCDF	2.50E-05	0.00E+00	0.00E+00	2.00E-07	1.00E+00	1.00E+00	1.06E+01	6.16E-04
OCDD	3.10E-03	0.00E+00	0.00E+00	1.00E-04	1.00E+00	1.00E+00	1.36E+00	2.27E-04
OCDF	1.10E-03	0.00E+00	0.00E+00	1.00E-04	1.00E+00	1.00E+00	7.30E-01	3.08E-04
2,3,7,8-TCDD	3.00E-06	0.00E+00	0.00E+00	1.00E-07	1.00E+00	1.00E+00	1.22E+00	1.63E-03
Antimony	2.54E+01	0.00E+00	0.00E+00	3.50E-01	1.00E+00	1.00E+00	1.00E-03	7.18E-02
Arsenic	5.80E+00	0.00E+00	0.00E+00	7.00E-01	1.00E+00	1.00E+00	1.00E-03	1.44E-02
Beryllium	3.80E-01	0.00E+00	0.00E+00	9.50E-01	1.00E+00	1.00E+00	1.00E-03	3.59E-03
Cadmium	8.20E+00	0.00E+00	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E-03	2.48E-01
Chromium	4.98E+01	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E-03	5.20E-03
Copper	6.99E+02	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E-03	2.85E-01
Lead	2.21E+04	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	4.00E-06	1.78E-02
Mercury	1.30E+00	0.00E+00	0.00E+00	1.90E+00	1.00E+00	1.00E+00	1.00E-03	3.71E-01
Silver	7.40E+00	0.00E+00	0.00E+00	1.78E+00	1.00E+00	1.00E+00	6.00E-04	1.73E-01
Thallium	5.10E-01	0.00E+00	0.00E+00	1.00E-02	1.00E+00	1.00E+00	1.00E-03	1.29E-03
Zinc	3.09E+03	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	6.00E-04	1.04E+00

EXPOSURE PARAMETERS:

Table E27. Site 31 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:
 Table E27. Site 31 Risk Characterization for the Deer Mouse
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From Aquatic Organism	
						Body Weight (kg)	Consumption (mg/kg/day)
1,2,3,7,8,9-HxCDF	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(a)anthracene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(a)pyrene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(b)fluoranthene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,7,8,9-HpCDF	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chrysene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzo(a,h)anthracene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzofuran	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,7,8-HxCDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,6,7,8-HxCDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Fluoranthene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,7,8,9-HxCDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-Methylnaphthalene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Naphthalene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Phenanthrene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Pyrene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,7,8-HxCDF	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,6,7,8-HxCDF	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2,3,4,6,7,8-HxCDF	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,7,8-PeCDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,7,8-PeCDF	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2,3,7,8-TCDF	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDF	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2,3,4,7,8-PeCDF	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDF	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2,3,7,8-TCDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Site - Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
					Body Weight (kg)	Water Consumption (mg/kg/day)
1,2,3,7,8,9-HxCDF	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(a)anthracene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(a)pyrene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(b)fluoranthene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,7,8,9-HpCDF	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chrysene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzo(a,h)anthracene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzofuran	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,7,8-HxCDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,6,7,8-HxCDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Fluoranthene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,7,8,9-HxCDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-Methylnaphthalene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Naphthalene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Phenanthrene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Pyrene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,7,8-HxCDF	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,6,7,8-HxCDF	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2,3,4,6,7,8-HxCDF	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,7,8-PeCDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,7,8-PeCDF	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2,3,7,8-TCDF	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDF	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2,3,4,7,8-PeCDF	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDF	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2,3,7,8-TCDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table E27. Site 31 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
						Body Weight (kg)	Plant Consumption (mg/kg/day)
1,2,3,7,8,9-HxCDF	7.80E-06	4.42E-04	5.00E-03	1.00E+00	1.00E+00	2.50E-02	6.90E-10
Benzo(a)anthracene	4.20E-02	7.23E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	6.07E-05
Benzo(a)pyrene	3.20E-02	3.92E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.51E-05
Benzo(b)fluoranthene	4.20E-02	3.92E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.29E-05
1,2,3,4,7,8,9-HpCDF	1.40E-05	1.28E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.58E-09
Chrysene	4.90E-02	7.13E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	6.99E-05
Dibenzo(a,h)anthracene	3.80E-02	1.46E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.11E-05
Dibenzofuran	3.40E-02	5.18E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.52E-04
1,2,3,4,7,8-HxCDD	1.20E-05	7.52E-04	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.80E-09
1,2,3,6,7,8-HxCDD	2.40E-05	7.52E-04	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.61E-09
Fluoranthene	3.50E-02	1.83E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.28E-04
1,2,3,7,8,9-HxCDD	2.10E-05	7.52E-04	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.16E-09
2-Methylnaphthalene	1.70E-01	7.32E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.49E-03
Naphthalene	1.30E-01	1.56E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	4.06E-03
Phenanthrene	6.80E-02	3.29E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	4.47E-04
Pyrene	4.70E-02	1.88E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.77E-04
1,2,3,4,7,8-HxCDF	1.10E-05	4.42E-04	5.00E-03	1.00E+00	1.00E+00	2.50E-02	9.72E-10
1,2,3,6,7,8-HxCDF	1.80E-05	4.42E-04	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.59E-09
2,3,4,6,7,8-HxCDF	1.20E-05	4.42E-04	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.06E-09
4,4'-DDE	1.20E+00	1.12E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.69E-04
4,4'-DDT	1.70E+00	3.29E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.12E-03
1,2,3,7,8-PeCDD	5.70E-06	6.58E-04	5.00E-03	1.00E+00	1.00E+00	2.50E-02	7.50E-10
1,2,3,7,8-PeCDF	1.50E-05	1.25E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.75E-09
2,3,7,8-TCDF	1.50E-05	5.39E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.62E-08
1,2,3,4,6,7,8-HpCDD	5.00E-04	2.96E-04	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.96E-08
1,2,3,4,6,7,8-HpCDF	1.30E-03	3.08E-04	5.00E-03	1.00E+00	1.00E+00	2.50E-02	8.01E-08
2,3,4,7,8-PeCDF	2.50E-05	6.16E-04	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.08E-09
OCDD	3.10E-03	2.27E-04	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.41E-07
OCDF	1.10E-03	3.08E-04	5.00E-03	1.00E+00	1.00E+00	2.50E-02	6.78E-08
2,3,7,8-TCDD	3.00E-06	1.63E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	9.78E-10
Antimony	2.54E+01	7.18E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.65E-01
Arsenic	5.80E+00	1.44E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.67E-02
Beryllium	3.80E-01	3.59E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.73E-04
Cadmium	8.20E+00	2.48E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	4.07E-01
Chromium	4.98E+01	5.20E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	5.18E-02
Copper	6.99E+02	2.85E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.98E+01
Lead	2.21E+04	1.78E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	7.87E+01
Mercury	1.30E+00	3.71E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	9.65E-02
Silver	7.40E+00	1.73E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.56E-01
Thallium	5.10E-01	1.29E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.32E-04
Zinc	3.09E+03	1.04E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	6.43E+02

SOIL INGESTION:

Table E27. Site 31 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose	
					Body Weight (kg)	From Soil Ingestion (mg/kg/day)
1,2,3,7,8,9-HxCDF	7.80E-06	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.68E-08
Benzo(a)anthracene	4.20E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.52E-04
Benzo(a)pyrene	3.20E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.92E-04
Benzo(b)fluoranthene	4.20E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.52E-04
1,2,3,4,7,8,9-HpCDF	1.40E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	8.40E-08
Chrysene	4.90E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.94E-04
Dibenzo(a,h)anthracene	3.80E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.28E-04
Dibenzofuran	3.40E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.04E-04
1,2,3,4,7,8-HxCDD	1.20E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.20E-08
1,2,3,6,7,8-HxCDD	2.40E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.44E-07
Fluoranthene	3.50E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.10E-04
1,2,3,7,8,9-HxCDD	2.10E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.26E-07
2-Methylnaphthalene	1.70E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.02E-03
Naphthalene	1.30E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.80E-04
Phenanthrene	6.80E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.08E-04
Pyrene	4.70E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.82E-04
1,2,3,4,7,8-HxCDF	1.10E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.60E-08
1,2,3,6,7,8-HxCDF	1.80E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.08E-07
2,3,4,6,7,8-HxCDF	1.20E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.20E-08
4,4'-DDE	1.20E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.20E-03
4,4'-DDT	1.70E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.02E-02
1,2,3,7,8-PeCDD	5.70E-06	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.42E-08
1,2,3,7,8-PeCDF	1.50E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.00E-08
2,3,7,8-TCDF	1.50E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.00E-08
1,2,3,4,6,7,8-HpCDD	5.00E-04	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.00E-06
1,2,3,4,6,7,8-HpCDF	1.30E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.80E-06
2,3,4,7,8-PeCDF	2.50E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.50E-07
OCDD	3.10E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.86E-05
OCDF	1.10E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.60E-06
2,3,7,8-TCDD	3.00E-06	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.80E-08
Antimony	2.54E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.52E-01
Arsenic	5.80E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.48E-02
Beryllium	3.80E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.28E-03
Cadmium	8.20E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.92E-02
Chromium	4.98E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.99E-01
Copper	6.99E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.19E+00
Lead	2.21E+04	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.33E+02
Mercury	1.30E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.80E-03
Silver	7.40E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.44E-02
Thallium	5.10E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.06E-03
Zinc	3.09E+03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.85E+01

SEDIMENT INGESTION:

Table E27. Site 31 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
						Daily Dose From Sediment Ingestion (mg/kg/day)
1,2,3,7,8,9-HxCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(a)anthracene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(a)pyrene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(b)fluoranthene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,7,8,9-HpCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chrysene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzo(a,h)anthracene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzofuran	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,7,8-HxCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,6,7,8-HxCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Fluoranthene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,7,8,9-HxCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-Methylnaphthalene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Naphthalene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Phenanthrene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Pyrene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,7,8-HxCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,6,7,8-HxCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2,3,4,6,7,8-HxCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,7,8-PeCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,7,8-PeCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2,3,7,8-TCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2,3,4,7,8-PeCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2,3,7,8-TCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:
 Table E27. Site 31 Risk Characterization for the Deer Mouse
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose	
								Body Weight (kg)	From Sediment - Dermal (mg/kg/day)
1,2,3,7,8,9-HxCDF	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(a)anthracene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(a)pyrene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(b)fluoranthene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,7,8,9-HpCDF	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chrysene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzo(a,h)anthracene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzofuran	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,7,8-HxCDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,6,7,8-HxCDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Fluoranthene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,7,8,9-HxCDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-Methylnaphthalene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Naphthalene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Phenanthrene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Pyrene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,7,8-HxCDF	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,6,7,8-HxCDF	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2,3,4,6,7,8-HxCDF	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,7,8-PeCDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,7,8-PeCDF	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2,3,7,8-TCDF	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDF	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2,3,4,7,8-PeCDF	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDF	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2,3,7,8-TCDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table E27. Site 31 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm ²)	Surface Soil Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
									Daily Dose From Soil - Dermal (mg/kg/day)
1,2,3,7,8,9-HxCDF	7.80E-06	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.67E-09
Benzo(a)anthracene	4.20E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.44E-05
Benzo(a)pyrene	3.20E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.09E-05
Benzo(b)fluoranthene	4.20E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.44E-05
1,2,3,4,7,8,9-HpCDF	1.40E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.79E-09
Chrysene	4.90E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.68E-05
Dibenzo(a,h)anthracene	3.80E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.30E-05
Dibenzofuran	3.40E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.16E-05
1,2,3,4,7,8-HxCDD	1.20E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.10E-09
1,2,3,6,7,8-HxCDD	2.40E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.21E-09
Fluoranthene	3.50E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.20E-05
1,2,3,7,8,9-HxCDD	2.10E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.18E-09
2-Methylnaphthalene	1.70E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.81E-05
Naphthalene	1.30E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.45E-05
Phenanthrene	6.80E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.33E-05
Pyrene	4.70E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.61E-05
1,2,3,4,7,8-HxCDF	1.10E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.76E-09
1,2,3,6,7,8-HxCDF	1.80E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.16E-09
2,3,4,6,7,8-HxCDF	1.20E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.10E-09
4,4'-DDE	1.20E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.10E-04
4,4'-DDT	1.70E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.81E-04
1,2,3,7,8-PeCDD	5.70E-06	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.95E-09
1,2,3,7,8-PeCDF	1.50E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.13E-09
2,3,7,8-TCDF	1.50E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.13E-09
1,2,3,4,6,7,8-HpCDD	5.00E-04	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.71E-07
1,2,3,4,6,7,8-HpCDF	1.30E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.45E-07
2,3,4,7,8-PeCDF	2.50E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.55E-09
OCDD	3.10E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.06E-06
OCDF	1.10E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.76E-07
2,3,7,8-TCDD	3.00E-06	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.03E-09
Antimony	2.54E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.69E-03
Arsenic	5.80E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.98E-03
Beryllium	3.80E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.30E-04
Cadmium	8.20E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.80E-03
Chromium	4.98E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.70E-02
Copper	6.99E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.39E-01
Lead	2.21E+04	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.56E+00
Mercury	1.30E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.45E-04
Silver	7.40E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.53E-03
Thallium	5.10E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.74E-04
Zinc	3.09E+03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.06E+00

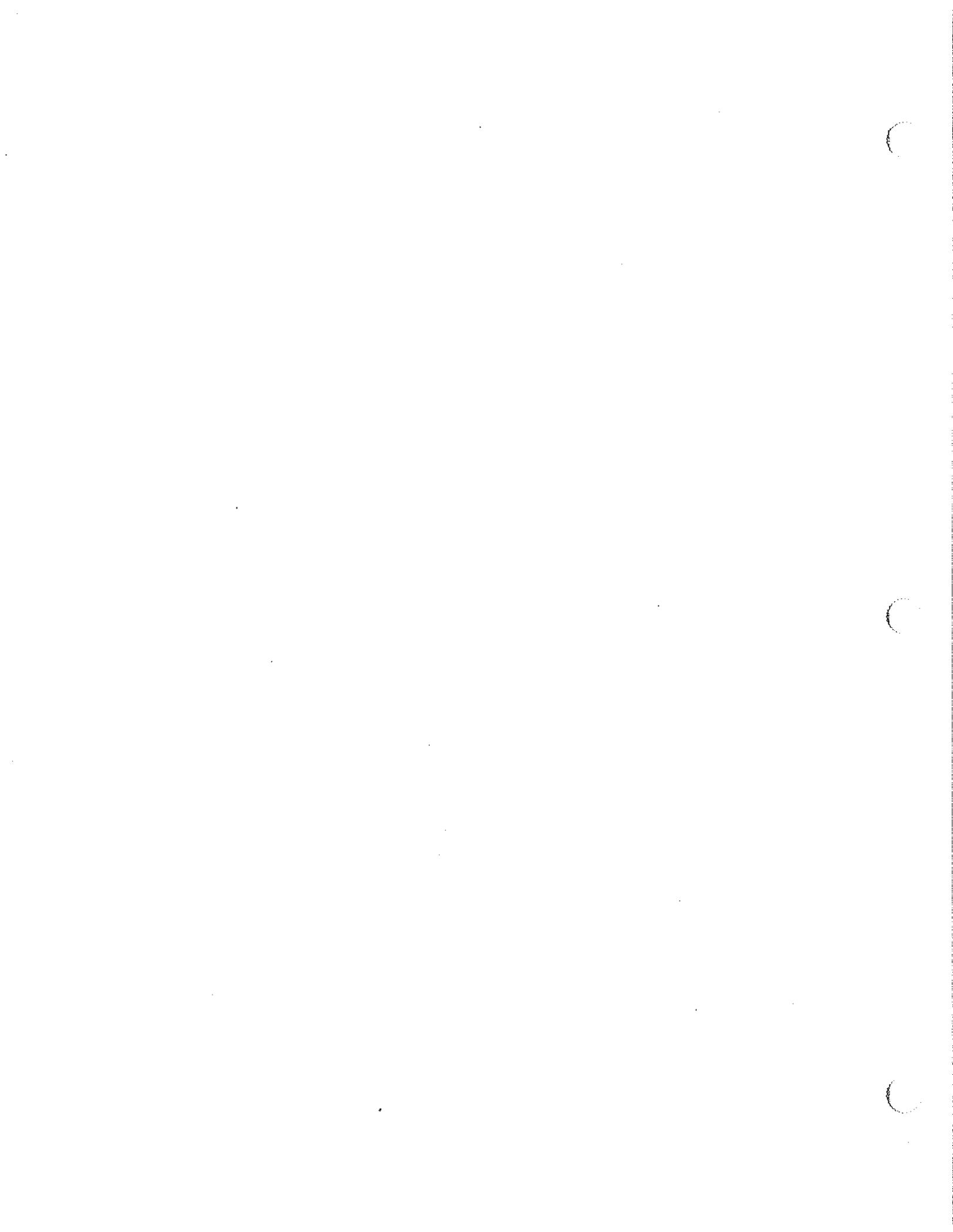
SURFACE WATER DERMAL EXPOSURE:
 Table E27. Site 31 Risk Characterization for the Deer Mouse
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Lifetime Average Daily Dose	
								Body Weight (kg)	From Water - Dermal (mg/kg/day)
1,2,3,7,8,9-HxCDF	0.00E+00	8.55E+00	8.00E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(a)anthracene	0.00E+00	8.55E+00	8.10E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(a)pyrene	0.00E+00	8.55E+00	1.20E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(b)fluoranthene	0.00E+00	8.55E+00	1.11E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,7,8,9-HpCDF	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chrysene	0.00E+00	8.55E+00	8.10E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzo(a,h)anthracene	0.00E+00	8.55E+00	2.70E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzofuran	0.00E+00	8.55E+00	1.50E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,7,8-HxCDD	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,6,7,8-HxCDD	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Fluoranthene	0.00E+00	8.55E+00	3.60E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,7,8,9-HxCDD	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-Methylnaphthalene	0.00E+00	8.55E+00	2.10E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Naphthalene	0.00E+00	8.55E+00	6.90E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Phenanthrene	0.00E+00	8.55E+00	2.70E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Pyrene	0.00E+00	8.55E+00	3.20E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,7,8-HxCDF	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,6,7,8-HxCDF	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2,3,4,6,7,8-HxCDF	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	8.55E+00	2.40E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	8.55E+00	4.30E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,7,8-PeCDD	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,7,8-PeCDF	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2,3,7,8-TCDF	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDD	0.00E+00	8.55E+00	2.32E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
1,2,3,4,6,7,8-HpCDF	0.00E+00	8.55E+00	2.32E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2,3,4,7,8-PeCDF	0.00E+00	8.55E+00	1.06E+01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDD	0.00E+00	8.55E+00	1.36E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
OCDF	0.00E+00	8.55E+00	7.30E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2,3,7,8-TCDD	0.00E+00	8.55E+00	1.22E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	4.00E-06	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	8.55E+00	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table E27. Site 31 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
1,2,3,7,8,9-HxCDF	0.00E+00	0.00E+00	6.90E-10	4.68E-08	0.00E+00	0.00E+00	2.67E-09	0.00E+00	5.02E-08	5.02E-02
Benzo(a)anthracene	0.00E+00	0.00E+00	6.07E-05	2.52E-04	0.00E+00	0.00E+00	1.44E-05	0.00E+00	3.27E-04	8.18E-04
Benzo(a)pyrene	0.00E+00	0.00E+00	2.51E-05	1.92E-04	0.00E+00	0.00E+00	1.09E-05	0.00E+00	2.28E-04	5.70E-04
Benzo(b)fluoranthene	0.00E+00	0.00E+00	3.29E-05	2.52E-04	0.00E+00	0.00E+00	1.44E-05	0.00E+00	2.99E-04	1.20E-05
1,2,3,4,7,8,9-HpCDF	0.00E+00	0.00E+00	3.58E-09	8.40E-08	0.00E+00	0.00E+00	4.79E-09	0.00E+00	9.24E-08	9.24E-03
Chrysene	0.00E+00	0.00E+00	6.99E-05	2.94E-04	0.00E+00	0.00E+00	1.68E-05	0.00E+00	3.81E-04	9.52E-04
Dibenzo(a,h)anthracene	0.00E+00	0.00E+00	1.11E-05	2.28E-04	0.00E+00	0.00E+00	1.30E-05	0.00E+00	2.52E-04	6.30E-04
Dibenzofuran	0.00E+00	0.00E+00	3.52E-04	2.04E-04	0.00E+00	0.00E+00	1.16E-05	0.00E+00	5.68E-04	2.27E-05
1,2,3,4,7,8-HxCDD	0.00E+00	0.00E+00	1.80E-09	7.20E-08	0.00E+00	0.00E+00	4.10E-09	0.00E+00	7.79E-08	7.79E-02
1,2,3,6,7,8-HxCDD	0.00E+00	0.00E+00	3.61E-09	1.44E-07	0.00E+00	0.00E+00	8.21E-09	0.00E+00	1.56E-07	1.56E-01
Fluoranthene	0.00E+00	0.00E+00	1.28E-04	2.10E-04	0.00E+00	0.00E+00	1.20E-05	0.00E+00	3.50E-04	1.40E-05
1,2,3,7,8,9-HxCDD	0.00E+00	0.00E+00	3.16E-09	1.26E-07	0.00E+00	0.00E+00	7.18E-09	0.00E+00	1.36E-07	1.36E-01
2-Methylnaphthalene	0.00E+00	0.00E+00	2.49E-03	1.02E-03	0.00E+00	0.00E+00	5.81E-05	0.00E+00	3.57E-03	2.12E-04
Naphthalene	0.00E+00	0.00E+00	4.06E-03	7.80E-04	0.00E+00	0.00E+00	4.45E-05	0.00E+00	4.88E-03	2.91E-04
Phenanthrene	0.00E+00	0.00E+00	4.47E-04	4.08E-04	0.00E+00	0.00E+00	2.33E-05	0.00E+00	8.79E-04	5.88E-05
Pyrene	0.00E+00	0.00E+00	1.77E-04	2.82E-04	0.00E+00	0.00E+00	1.61E-05	0.00E+00	4.75E-04	3.17E-05
1,2,3,4,7,8-HxCDF	0.00E+00	0.00E+00	9.72E-10	6.60E-08	0.00E+00	0.00E+00	3.76E-09	0.00E+00	7.07E-08	7.07E-02
1,2,3,6,7,8-HxCDF	0.00E+00	0.00E+00	1.59E-09	1.08E-07	0.00E+00	0.00E+00	6.16E-09	0.00E+00	1.16E-07	1.16E-01
2,3,4,6,7,8-HxCDF	0.00E+00	0.00E+00	1.06E-09	7.20E-08	0.00E+00	0.00E+00	4.10E-09	0.00E+00	7.72E-08	7.72E-02
4,4'-DDE	0.00E+00	0.00E+00	2.89E-04	7.20E-03	0.00E+00	0.00E+00	4.10E-04	0.00E+00	7.88E-03	2.32E-04
4,4'-DDT	0.00E+00	0.00E+00	1.12E-03	1.02E-02	0.00E+00	0.00E+00	5.81E-04	0.00E+00	1.19E-02	3.83E-03
1,2,3,7,8-PeCDD	0.00E+00	0.00E+00	7.50E-10	3.42E-08	0.00E+00	0.00E+00	1.95E-09	0.00E+00	3.69E-08	1.84E-01
1,2,3,7,8-PeCDF	0.00E+00	0.00E+00	3.75E-09	9.00E-08	0.00E+00	0.00E+00	5.13E-09	0.00E+00	9.89E-08	4.94E-02
2,3,7,8-TCDF	0.00E+00	0.00E+00	1.62E-08	9.00E-08	0.00E+00	0.00E+00	5.13E-09	0.00E+00	1.11E-07	1.11E-01
1,2,3,4,6,7,8-HpCDD	0.00E+00	0.00E+00	2.96E-08	3.00E-06	0.00E+00	0.00E+00	1.71E-07	0.00E+00	3.20E-06	3.20E-01
1,2,3,4,6,7,8-HpCDF	0.00E+00	0.00E+00	8.01E-08	7.80E-06	0.00E+00	0.00E+00	4.45E-07	0.00E+00	8.32E-06	8.32E-01
2,3,4,7,8-PeCDF	0.00E+00	0.00E+00	3.08E-09	1.50E-07	0.00E+00	0.00E+00	8.55E-09	0.00E+00	1.62E-07	8.08E-01
OCDD	0.00E+00	0.00E+00	1.41E-07	1.86E-05	0.00E+00	0.00E+00	1.06E-06	0.00E+00	1.98E-05	1.98E-01
OCDF	0.00E+00	0.00E+00	6.78E-08	6.60E-06	0.00E+00	0.00E+00	3.76E-07	0.00E+00	7.04E-06	7.04E-02
2,3,7,8-TCDD	0.00E+00	0.00E+00	9.78E-10	1.80E-08	0.00E+00	0.00E+00	1.03E-09	0.00E+00	2.00E-08	2.00E-01
Antimony	0.00E+00	0.00E+00	3.65E-01	1.52E-01	0.00E+00	0.00E+00	8.69E-03	0.00E+00	5.26E-01	1.50E+00
Arsenic	0.00E+00	0.00E+00	1.67E-02	3.48E-02	0.00E+00	0.00E+00	1.98E-03	0.00E+00	5.35E-02	7.64E-02
Beryllium	0.00E+00	0.00E+00	2.73E-04	2.28E-03	0.00E+00	0.00E+00	1.30E-04	0.00E+00	2.68E-03	2.82E-03
Cadmium	0.00E+00	0.00E+00	4.07E-01	4.92E-02	0.00E+00	0.00E+00	2.80E-03	0.00E+00	4.59E-01	2.70E+00
Chromium	0.00E+00	0.00E+00	5.18E-02	2.99E-01	0.00E+00	0.00E+00	1.70E-02	0.00E+00	3.68E-01	1.53E+00
Copper	0.00E+00	0.00E+00	3.98E+01	4.19E+00	0.00E+00	0.00E+00	2.39E-01	0.00E+00	4.43E+01	1.28E-01
Lead	0.00E+00	0.00E+00	7.87E+01	1.33E+02	0.00E+00	0.00E+00	7.58E+00	0.00E+00	2.19E+02	2.43E+03
Mercury	0.00E+00	0.00E+00	9.65E-02	7.80E-03	0.00E+00	0.00E+00	4.45E-04	0.00E+00	1.05E-01	5.51E-02
Silver	0.00E+00	0.00E+00	2.56E-01	4.44E-02	0.00E+00	0.00E+00	2.53E-03	0.00E+00	3.03E-01	1.70E-01
Thallium	0.00E+00	0.00E+00	1.32E-04	3.06E-03	0.00E+00	0.00E+00	1.74E-04	0.00E+00	3.37E-03	3.37E-01
Zinc	0.00E+00	0.00E+00	6.43E+02	1.85E+01	0.00E+00	0.00E+00	1.06E+00	0.00E+00	6.62E+02	4.73E+01
TOTAL										2.49E+03



**Table E28. Site 31 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose- Response Value		Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
1,2,3,7,8-HxCDF	7.80E-06	5.02E-08	0.00E+00	5.00E-07	1.00E+00	1.00E+00	1.00E+00	8.00E-02	4.42E-04
Benzo(a)anthracene	4.20E-02	3.27E-04	0.00E+00	2.00E-02	1.00E+00	2.00E-02	1.20E+00	8.10E-01	7.23E-03
Benzo(a)pyrene	3.20E-02	2.28E-04	0.00E+00	2.00E-02	1.00E+00	2.00E-02	1.20E+00	1.20E+00	3.92E-03
Benzo(b)fluoranthene	4.20E-02	2.99E-04	0.00E+00	1.25E+00	1.00E+00	2.00E-02	1.20E+00	1.11E+00	3.92E-03
1,2,3,4,7,8,9-HpCDF	1.40E-05	9.24E-08	0.00E+00	5.00E-06	1.00E+00	1.00E+00	1.00E+00	3.36E-02	1.28E-03
Chrysene	4.90E-02	3.81E-04	0.00E+00	2.00E-02	1.00E+00	1.00E+00	1.00E+00	8.10E-01	7.13E-03
Dibenzo(a,h)anthracene	3.80E-02	2.52E-04	0.00E+00	2.00E-02	1.00E+00	1.00E+00	1.00E+00	2.70E+00	1.46E-03
Dibenzofuran	3.40E-02	5.68E-04	0.00E+00	1.25E+00	1.00E+00	1.00E+00	1.00E+00	1.50E+01	5.18E-02
1,2,3,4,7,8-HxCDD	1.20E-05	7.79E-08	0.00E+00	5.00E-07	1.00E+00	1.00E+00	1.00E+00	3.60E-01	7.52E-04
1,2,3,6,7,8-HxCDD	2.40E-05	1.56E-07	0.00E+00	5.00E-07	1.00E+00	1.00E+00	1.00E+00	4.80E-03	7.52E-04
Fluoranthene	3.50E-02	3.50E-04	0.00E+00	1.25E+00	1.00E+00	1.00E+00	1.00E+00	3.60E+01	1.83E-02
1,2,3,7,8,9-HxCDD	2.10E-05	1.36E-07	0.00E+00	5.00E-07	1.00E+00	1.00E+00	1.00E+00	1.77E-01	7.52E-04
2-Methylnaphthalene	1.70E-01	3.57E-03	0.00E+00	8.40E-01	1.00E+00	1.00E+00	1.00E+00	2.10E-01	7.32E-02
Naphthalene	1.30E-01	4.88E-03	0.00E+00	8.40E-01	1.00E+00	1.00E+00	1.00E+00	6.80E-02	1.56E-01
Phenanthrene	6.80E-02	8.79E-04	0.00E+00	7.50E-01	1.00E+00	1.00E+00	1.00E+00	2.70E+01	3.29E-02
Pyrene	4.70E-02	4.75E-04	0.00E+00	7.50E-01	1.00E+00	1.00E+00	1.00E+00	3.20E-01	1.88E-02
1,2,3,4,7,8-HxCDF	1.10E-05	7.07E-08	0.00E+00	5.00E-07	1.00E+00	1.00E+00	1.00E+00	1.30E+00	4.42E-04
1,2,3,6,7,8-HxCDF	1.80E-05	1.16E-07	0.00E+00	5.00E-07	1.00E+00	1.00E+00	1.00E+00	5.20E-02	4.42E-04
2,3,4,6,7,8-HxCDF	1.20E-05	7.72E-08	0.00E+00	5.00E-07	1.00E+00	1.00E+00	1.00E+00	2.80E-01	4.42E-04
4,4'-DDE	1.20E+00	7.88E-03	0.00E+00	1.70E+00	1.00E+00	1.00E+00	1.00E+00	2.40E-01	1.12E-03
4,4'-DDT	1.70E+00	1.19E-02	0.00E+00	1.60E+00	1.00E+00	1.00E+00	1.00E+00	4.30E-01	3.29E-03
1,2,3,7,8-PeCDD	5.70E-06	3.69E-08	0.00E+00	1.00E-07	1.00E+00	1.00E+00	1.00E+00	3.17E-03	6.58E-04
1,2,3,7,8-PeCDF	1.50E-05	9.89E-08	0.00E+00	1.00E-06	1.00E+00	1.00E+00	1.00E+00	1.60E-02	1.25E-03
2,3,7,8-TCDF	1.50E-05	1.11E-07	0.00E+00	5.00E-07	1.00E+00	1.00E+00	1.00E+00	1.60E-02	5.39E-03
1,2,3,4,6,7,8-HpCDD	5.00E-04	3.20E-06	0.00E+00	5.00E-06	1.00E+00	1.00E+00	1.00E+00	2.32E+00	2.96E-04
1,2,3,4,6,7,8-HpCDF	1.30E-03	8.32E-06	0.00E+00	5.00E-06	1.00E+00	1.00E+00	1.00E+00	2.32E+00	3.08E-04
2,3,4,7,8-PeCDF	2.50E-05	1.62E-07	0.00E+00	1.00E-07	1.00E+00	1.00E+00	1.00E+00	1.06E+01	6.16E-04
OCDD	3.10E-03	1.98E-05	0.00E+00	5.00E-05	1.00E+00	1.00E+00	1.00E+00	1.36E+00	2.27E-04
OCDF	1.10E-03	7.04E-06	0.00E+00	5.00E-05	1.00E+00	1.00E+00	1.00E+00	7.30E-01	3.08E-04
2,3,7,8-TCDD	3.00E-06	2.00E-08	0.00E+00	5.00E-08	1.00E+00	1.00E+00	1.00E+00	1.22E+00	1.63E-03
Antimony	2.54E+01	5.26E-01	0.00E+00	2.99E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-03	7.18E-02
Arsenic	5.80E+00	5.35E-02	0.00E+00	3.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	1.44E-02
Beryllium	3.80E-01	2.68E-03	0.00E+00	5.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.59E-03
Cadmium	8.20E+00	4.59E-01	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-01
Chromium	4.98E+01	3.68E-01	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	5.20E-03
Copper	6.99E+02	4.43E+01	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.85E-01
Lead	2.21E+04	2.19E+02	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	4.00E-06	1.78E-02
Mercury	1.30E+00	1.05E-01	0.00E+00	1.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.71E-01
Silver	7.40E+00	3.03E-01	0.00E+00	8.90E-01	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.73E-01
Thallium	5.10E-01	3.37E-03	0.00E+00	3.00E-03	1.00E+00	1.00E+00	1.00E+00	1.00E-03	1.29E-03
Zinc	3.09E+03	6.62E+02	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.04E+00

EXPOSURE PARAMETERS:

Table E28. Site 31 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

FIELD MOUSE CONSUMPTION:

Table E28. Site 31 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)		Aquatic	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
			Organism Consumption Rate (kg/day)				Daily Dose From Organism Consumption (mg/kg/day)
1,2,3,7,8,9-HxCDF	5.02E-08	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.84E-09
Benzo(a)anthracene	3.27E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.20E-05
Benzo(a)pyrene	2.28E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	8.38E-06
Benzo(b)fluoranthene	2.99E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.10E-05
1,2,3,4,7,8,9-HpCDF	9.24E-08	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.39E-09
Chrysene	3.81E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.40E-05
Dibenzo(a,h)anthracene	2.52E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	9.26E-06
Dibenzofuran	5.68E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.09E-05
1,2,3,4,7,8-HxCDD	7.79E-08	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.86E-09
1,2,3,6,7,8-HxCDD	1.56E-07	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	5.72E-09
Fluoranthene	3.50E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.29E-05
1,2,3,7,8,9-HxCDD	1.36E-07	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	5.01E-09
2-Methylnaphthalene	3.57E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.31E-04
Naphthalene	4.88E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.79E-04
Phenanthrene	8.79E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.23E-05
Pyrene	4.75E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.74E-05
1,2,3,4,7,8-HxCDF	7.07E-08	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.60E-09
1,2,3,6,7,8-HxCDF	1.16E-07	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	4.25E-09
2,3,4,6,7,8-HxCDF	7.72E-08	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.83E-09
4,4'-DDE	7.88E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.89E-04
4,4'-DDT	1.19E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	4.37E-04
1,2,3,7,8-PeCDD	3.69E-08	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.36E-09
1,2,3,7,8-PeCDF	9.89E-08	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.63E-09
2,3,7,8-TCDF	1.11E-07	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	4.09E-09
1,2,3,4,6,7,8-HpCDD	3.20E-06	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.18E-07
1,2,3,4,6,7,8-HpCDF	8.32E-06	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.06E-07
2,3,4,7,8-PeCDF	1.62E-07	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	5.94E-09
OCDD	1.98E-05	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	7.27E-07
OCDF	7.04E-06	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.59E-07
2,3,7,8-TCDD	2.00E-08	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	7.35E-10
Antimony	5.26E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.93E-02
Arsenic	5.35E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.96E-03
Beryllium	2.68E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	9.86E-05
Cadmium	4.59E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.69E-02
Chromium	3.68E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.35E-02
Copper	4.43E+01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.63E+00
Lead	2.19E+02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	8.04E+00
Mercury	1.05E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.85E-03
Silver	3.03E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.11E-02
Thallium	3.37E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.24E-04
Zinc	6.62E+02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.43E+01

WATER CONSUMPTION
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Site - Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
					Body Weight (kg)	Water Consumption (mg/kg/day)
1,2,3,7,8,9-HxCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(a)anthracene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(a)pyrene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(b)fluoranthene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,7,8,9-HpCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chrysene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzo(a,h)anthracene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzofuran	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,7,8-HxCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,6,7,8-HxCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Fluoranthene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,7,8,9-HxCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-Methylnaphthalene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Naphthalene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Phenanthrene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Pyrene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,7,8-HxCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,6,7,8-HxCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2,3,4,6,7,8-HxCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,7,8-PeCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,7,8-PeCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2,3,7,8-TCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,6,7,8-HpCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,6,7,8-HpCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2,3,4,7,8-PeCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
OCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
OCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2,3,7,8-TCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table E28. Site 31 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
						Body Weight (kg)	Plant Consumption (mg/kg/day)
1,2,3,7,8,9-HxCDF	7.80E-06	4.42E-04	1.29E-01	1.00E+00	1.00E+00	5.25E+00	8.44E-11
Benzo(a)anthracene	4.20E-02	7.23E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	7.44E-06
Benzo(a)pyrene	3.20E-02	3.92E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.07E-06
Benzo(b)fluoranthene	4.20E-02	3.92E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.03E-06
1,2,3,4,7,8,9-HpCDF	1.40E-05	1.28E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.39E-10
Chrysene	4.90E-02	7.13E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	8.56E-06
Dibenzo(a,h)anthracene	3.80E-02	1.46E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.36E-06
Dibenzofuran	3.40E-02	5.18E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.31E-05
1,2,3,4,7,8-HxCDD	1.20E-05	7.52E-04	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.21E-10
1,2,3,6,7,8-HxCDD	2.40E-05	7.52E-04	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.42E-10
Fluoranthene	3.50E-02	1.83E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.57E-05
1,2,3,7,8,9-HxCDD	2.10E-05	7.52E-04	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.87E-10
2-Methylnaphthalene	1.70E-01	7.32E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.05E-04
Naphthalene	1.30E-01	1.56E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.97E-04
Phenanthrene	6.80E-02	3.29E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	5.48E-05
Pyrene	4.70E-02	1.88E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.16E-05
1,2,3,4,7,8-HxCDF	1.10E-05	4.42E-04	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.19E-10
1,2,3,6,7,8-HxCDF	1.80E-05	4.42E-04	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.95E-10
2,3,4,6,7,8-HxCDF	1.20E-05	4.42E-04	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.30E-10
4,4'-DDE	1.20E+00	1.12E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.29E-05
4,4'-DDT	1.70E+00	3.29E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.37E-04
1,2,3,7,8-PeCDD	5.70E-06	6.58E-04	1.29E-01	1.00E+00	1.00E+00	5.25E+00	9.19E-11
1,2,3,7,8-PeCDF	1.50E-05	1.25E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.59E-10
2,3,7,8-TCDF	1.50E-05	5.39E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.98E-09
1,2,3,4,6,7,8-HpCDD	5.00E-04	2.96E-04	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.62E-09
1,2,3,4,6,7,8-HpCDF	1.30E-03	3.08E-04	1.29E-01	1.00E+00	1.00E+00	5.25E+00	9.81E-09
2,3,4,7,8-PeCDF	2.50E-05	6.16E-04	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.77E-10
OCDD	3.10E-03	2.27E-04	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.72E-08
OCDF	1.10E-03	3.08E-04	1.29E-01	1.00E+00	1.00E+00	5.25E+00	8.30E-09
2,3,7,8-TCDD	3.00E-06	1.63E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.20E-10
Antimony	2.54E+01	7.18E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.47E-02
Arsenic	5.80E+00	1.44E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.05E-03
Beryllium	3.80E-01	3.59E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.34E-05
Cadmium	8.20E+00	2.48E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.98E-02
Chromium	4.98E+01	5.20E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	6.34E-03
Copper	6.99E+02	2.85E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.88E+00
Lead	2.21E+04	1.78E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	9.63E+00
Mercury	1.30E+00	3.71E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.18E-02
Silver	7.40E+00	1.73E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.14E-02
Thallium	5.10E-01	1.29E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.61E-05
Zinc	3.09E+03	1.04E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	7.87E+01

SOIL INGESTION:

Table E26. Site 31 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average	
					Body Weight (kg)	Daily Dose From Soil Ingestion (mg/kg/day)
1,2,3,7,8,9-HxCDF	7.80E-06	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.73E-09
Benzo(a)anthracene	4.20E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.09E-05
Benzo(a)pyrene	3.20E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.35E-05
Benzo(b)fluoranthene	4.20E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.09E-05
1,2,3,4,7,8,9-HpCDF	1.40E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.03E-08
Chrysene	4.90E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.60E-05
Dibenzo(a,h)anthracene	3.80E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.79E-05
Dibenzofuran	3.40E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.50E-05
1,2,3,4,7,8-HxCDD	1.20E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.82E-09
1,2,3,6,7,8-HxCDD	2.40E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.76E-08
Fluoranthene	3.50E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.57E-05
1,2,3,7,8,9-HxCDD	2.10E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.54E-08
2-Methylnaphthalene	1.70E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.25E-04
Naphthalene	1.30E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.55E-05
Phenanthrene	6.80E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.00E-05
Pyrene	4.70E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.45E-05
1,2,3,4,7,8-HxCDF	1.10E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.08E-09
1,2,3,6,7,8-HxCDF	1.80E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.32E-08
2,3,4,6,7,8-HxCDF	1.20E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.82E-09
4,4'-DDE	1.20E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.82E-04
4,4'-DDT	1.70E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.25E-03
1,2,3,7,8-PeCDD	5.70E-06	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.19E-09
1,2,3,7,8-PeCDF	1.50E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.10E-08
2,3,7,8-TCDF	1.50E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.10E-08
1,2,3,4,6,7,8-HpCDD	5.00E-04	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.67E-07
1,2,3,4,6,7,8-HpCDF	1.30E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.55E-07
2,3,4,7,8-PeCDF	2.50E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.84E-08
OCDD	3.10E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.28E-06
OCDF	1.10E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.08E-07
2,3,7,8-TCDD	3.00E-06	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.20E-09
Antimony	2.54E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.87E-02
Arsenic	5.80E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.26E-03
Beryllium	3.80E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.79E-04
Cadmium	8.20E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.02E-03
Chromium	4.98E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.66E-02
Copper	6.99E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.14E-01
Lead	2.21E+04	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.62E+01
Mercury	1.30E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.55E-04
Silver	7.40E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.44E-03
Thallium	5.10E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.75E-04
Zinc	3.09E+03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.27E+00

SEDIMENT INGESTION:

Table E28. Site 31 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
						Daily Dose From Sediment Ingestion (mg/kg/day)
1,2,3,7,8,9-HxCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(a)anthracene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(a)pyrene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(b)fluoranthene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,7,8,9-HpCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chrysene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzo(a,h)anthracene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzofuran	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,7,8-HxCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,6,7,8-HxCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Fluoranthene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,7,8,9-HxCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-Methylnaphthalene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Naphthalene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Phenanthrene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Pyrene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,7,8-HxCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,6,7,8-HxCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2,3,4,6,7,8-HxCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,7,8-PeCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,7,8-PeCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2,3,7,8-TCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,6,7,8-HpCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,6,7,8-HpCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2,3,4,7,8-PeCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
OCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
OCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2,3,7,8-TCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E28. Site 31 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm ²)	Sediment Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose	
								Body Weight (kg)	From Sediment - Dermal (mg/kg/day)
1,2,3,7,8,9-HxCDF	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(a)anthracene	0.00E+00	1.00E-06	3.02E+02	2.00E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(a)pyrene	0.00E+00	1.00E-06	3.02E+02	2.00E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(b)fluoranthene	0.00E+00	1.00E-06	3.02E+02	2.00E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,7,8,9-HpCDF	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chrysene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzo(a,h)anthracene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzofuran	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,7,8-HxCDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,6,7,8-HxCDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Fluoranthene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,7,8,9-HxCDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-Methylnaphthalene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Naphthalene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Phenanthrene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Pyrene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,7,8-HxCDF	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,6,7,8-HxCDF	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2,3,4,6,7,8-HxCDF	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,7,8-PeCDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,7,8-PeCDF	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2,3,7,8-TCDF	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,6,7,8-HpCDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,6,7,8-HpCDF	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2,3,4,7,8-PeCDF	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
OCDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
OCDF	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2,3,7,8-TCDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table E28. Site 31 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Lifetime Average	
								Body Weight (kg)	Daily Dose From Soil - Dermal (mg/kg/day)
1,2,3,7,8,9-HxCDF	7.80E-06	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.49E-10
Benzo(a)anthracene	4.20E-02	1.00E-06	3.02E+02	2.00E-02	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.83E-08
Benzo(a)pyrene	3.20E-02	1.00E-06	3.02E+02	2.00E-02	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.68E-08
Benzo(b)fluoranthene	4.20E-02	1.00E-06	3.02E+02	2.00E-02	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.83E-08
1,2,3,4,7,8,9-HpCDF	1.40E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	8.05E-10
Chrysene	4.90E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.82E-06
Dibenzo(a,h)anthracene	3.80E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.19E-06
Dibenzofuran	3.40E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.96E-06
1,2,3,4,7,8-HxCDD	1.20E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.90E-10
1,2,3,6,7,8-HxCDD	2.40E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.38E-09
Fluoranthene	3.50E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.01E-06
1,2,3,7,8,9-HxCDD	2.10E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.21E-09
2-Methylnaphthalene	1.70E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	9.78E-06
Naphthalene	1.30E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.48E-06
Phenanthrene	6.80E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.91E-06
Pyrene	4.70E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.70E-06
1,2,3,4,7,8-HxCDF	1.10E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.33E-10
1,2,3,6,7,8-HxCDF	1.80E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.04E-09
2,3,4,6,7,8-HxCDF	1.20E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.90E-10
4,4'-DDE	1.20E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.90E-05
4,4'-DDT	1.70E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	9.78E-05
1,2,3,7,8-PeCDD	5.70E-06	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.28E-10
1,2,3,7,8-PeCDF	1.50E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	8.63E-10
2,3,7,8-TCDF	1.50E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	8.63E-10
1,2,3,4,6,7,8-HpCDD	5.00E-04	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.88E-08
1,2,3,4,6,7,8-HpCDF	1.30E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.48E-08
2,3,4,7,8-PeCDF	2.50E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.44E-09
OCDD	3.10E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.78E-07
OCDF	1.10E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.33E-08
2,3,7,8-TCDD	3.00E-06	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.73E-10
Antimony	2.54E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.48E-03
Arsenic	5.80E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.34E-04
Beryllium	3.80E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.19E-05
Cadmium	8.20E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.72E-04
Chromium	4.98E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.86E-03
Copper	6.99E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.02E-02
Lead	2.21E+04	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.27E+00
Mercury	1.30E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.48E-05
Silver	7.40E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.26E-04
Thallium	5.10E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.93E-05
Zinc	3.09E+03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.78E-01

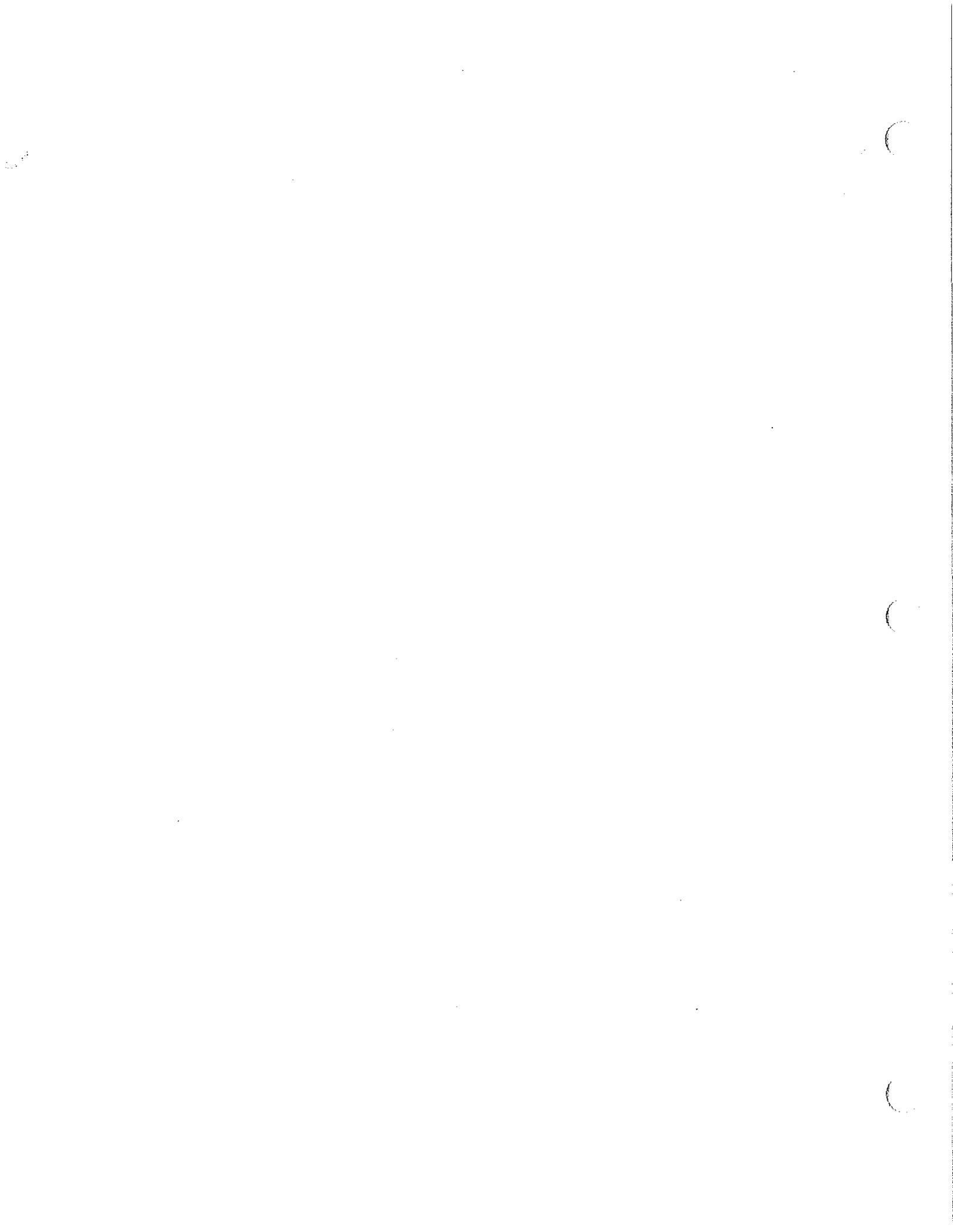
SURFACE WATER DERMAL EXPOSURE:
 Table E28. Site 31 Risk Characterization for the Gray Fox
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Lifetime Average Daily Dose	
								Body Weight (kg)	From Water - Dermal (mg/kg/day)
1,2,3,7,8,9-HxCDF	5.02E-08	3.02E+02	8.00E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(a)anthracene	3.27E-04	3.02E+02	8.10E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(a)pyrene	2.28E-04	3.02E+02	1.20E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(b)fluoranthene	2.99E-04	3.02E+02	1.11E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,7,8,9-HpCDF	9.24E-08	3.02E+02	3.36E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chrysene	3.81E-04	3.02E+02	8.10E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzo(a,h)anthracene	2.52E-04	3.02E+02	2.70E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzofuran	5.68E-04	3.02E+02	1.50E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,7,8-HxCDD	7.79E-08	3.02E+02	3.60E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,6,7,8-HxCDD	1.56E-07	3.02E+02	4.80E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Fluoranthene	3.50E-04	3.02E+02	3.60E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,7,8,9-HxCDD	1.36E-07	3.02E+02	1.77E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-Methylnaphthalene	3.57E-03	3.02E+02	2.10E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Naphthalene	4.88E-03	3.02E+02	6.90E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Phenanthrene	8.79E-04	3.02E+02	2.70E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Pyrene	4.75E-04	3.02E+02	3.20E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,7,8-HxCDF	7.07E-08	3.02E+02	1.30E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,6,7,8-HxCDF	1.16E-07	3.02E+02	5.20E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2,3,4,6,7,8-HxCDF	7.72E-08	3.02E+02	2.80E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	7.88E-03	3.02E+02	2.40E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	1.19E-02	3.02E+02	4.30E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,7,8-PeCDD	3.69E-08	3.02E+02	3.17E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,7,8-PeCDF	9.89E-08	3.02E+02	1.60E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2,3,7,8-TCDF	1.11E-07	3.02E+02	1.60E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,6,7,8-HpCDD	3.20E-06	3.02E+02	2.32E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
1,2,3,4,6,7,8-HpCDF	8.32E-06	3.02E+02	2.32E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2,3,4,7,8-PeCDF	1.62E-07	3.02E+02	1.06E+01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
OCDD	1.98E-05	3.02E+02	1.36E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
OCDF	7.04E-06	3.02E+02	7.30E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2,3,7,8-TCDD	2.00E-08	3.02E+02	1.22E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	5.26E-01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	5.35E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	2.68E-03	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	4.59E-01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	3.68E-01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	4.43E+01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	2.19E+02	3.02E+02	4.00E-06	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	1.05E-01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	3.03E-01	3.02E+02	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	3.37E-03	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	6.62E+02	3.02E+02	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table E28. Site 31 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
1,2,3,7,8,9-HxCDF	1.84E-09	0.00E+00	8.44E-11	5.73E-09	0.00E+00	0.00E+00	4.49E-10	0.00E+00	8.11E-09	1.62E-02
Benzo(a)anthracene	1.20E-05	0.00E+00	7.44E-06	3.09E-05	0.00E+00	0.00E+00	4.83E-08	0.00E+00	5.04E-05	2.52E-03
Benzo(a)pyrene	8.38E-06	0.00E+00	3.07E-06	2.35E-05	0.00E+00	0.00E+00	3.68E-08	0.00E+00	3.50E-05	1.75E-03
Benzo(b)fluoranthene	1.10E-05	0.00E+00	4.03E-06	3.09E-05	0.00E+00	0.00E+00	4.83E-08	0.00E+00	4.59E-05	3.67E-05
1,2,3,4,7,8,9-HpCDF	3.39E-09	0.00E+00	4.39E-10	1.03E-08	0.00E+00	0.00E+00	8.05E-10	0.00E+00	1.49E-08	2.98E-03
Chrysene	1.40E-05	0.00E+00	8.58E-06	3.60E-05	0.00E+00	0.00E+00	2.82E-06	0.00E+00	6.14E-05	3.07E-03
Dibenzo(a,h)anthracene	9.26E-06	0.00E+00	1.36E-06	2.79E-05	0.00E+00	0.00E+00	2.19E-06	0.00E+00	4.07E-05	2.04E-03
Dibenzofuran	2.09E-05	0.00E+00	4.31E-05	2.50E-05	0.00E+00	0.00E+00	1.96E-06	0.00E+00	9.09E-05	7.27E-05
1,2,3,4,7,8-HxCDD	2.86E-09	0.00E+00	2.21E-10	8.82E-09	0.00E+00	0.00E+00	6.90E-10	0.00E+00	1.26E-08	2.52E-02
1,2,3,6,7,8-HxCDD	5.72E-09	0.00E+00	4.42E-10	1.76E-08	0.00E+00	0.00E+00	1.38E-09	0.00E+00	2.52E-08	5.04E-02
Fluoranthene	1.29E-05	0.00E+00	1.57E-05	2.57E-05	0.00E+00	0.00E+00	2.01E-06	0.00E+00	5.63E-05	4.50E-05
1,2,3,7,8,9-HxCDD	5.01E-09	0.00E+00	3.87E-10	1.54E-08	0.00E+00	0.00E+00	1.21E-09	0.00E+00	2.20E-08	4.41E-02
2-Methylnaphthalene	1.31E-04	0.00E+00	3.05E-04	1.25E-04	0.00E+00	0.00E+00	9.78E-06	0.00E+00	5.70E-04	6.79E-04
Naphthalene	1.79E-04	0.00E+00	4.97E-04	9.55E-05	0.00E+00	0.00E+00	7.48E-06	0.00E+00	7.79E-04	9.27E-04
Phenanthrene	3.23E-05	0.00E+00	5.48E-05	5.00E-05	0.00E+00	0.00E+00	3.91E-06	0.00E+00	1.41E-04	1.88E-04
Pyrene	1.74E-05	0.00E+00	2.16E-05	3.45E-05	0.00E+00	0.00E+00	2.70E-06	0.00E+00	7.63E-05	1.02E-04
1,2,3,4,7,8-HxCDF	2.60E-09	0.00E+00	1.19E-10	8.08E-09	0.00E+00	0.00E+00	6.33E-10	0.00E+00	1.14E-08	2.29E-02
1,2,3,6,7,8-HxCDF	4.25E-09	0.00E+00	1.95E-10	1.32E-08	0.00E+00	0.00E+00	1.04E-09	0.00E+00	1.87E-08	3.74E-02
2,3,4,6,7,8-HxCDF	2.83E-09	0.00E+00	1.30E-10	8.82E-09	0.00E+00	0.00E+00	6.90E-10	0.00E+00	1.25E-08	2.49E-02
4,4'-DDE	2.89E-04	0.00E+00	3.29E-05	8.82E-04	0.00E+00	0.00E+00	6.90E-05	0.00E+00	1.27E-03	7.49E-04
4,4'-DDT	4.37E-04	0.00E+00	1.37E-04	1.25E-03	0.00E+00	0.00E+00	9.78E-05	0.00E+00	1.92E-03	1.20E-03
1,2,3,7,8-PeCDD	1.36E-09	0.00E+00	9.19E-11	4.19E-09	0.00E+00	0.00E+00	3.28E-10	0.00E+00	5.96E-09	5.96E-02
1,2,3,7,8-PeCDF	3.63E-09	0.00E+00	4.59E-10	1.10E-08	0.00E+00	0.00E+00	8.63E-10	0.00E+00	1.60E-08	1.60E-02
2,3,7,8-TCDF	4.09E-09	0.00E+00	1.98E-09	1.10E-08	0.00E+00	0.00E+00	8.63E-10	0.00E+00	1.80E-08	3.59E-02
1,2,3,4,6,7,8-HpCDD	1.18E-07	0.00E+00	3.62E-09	3.67E-07	0.00E+00	0.00E+00	2.88E-08	0.00E+00	5.17E-07	1.03E-01
1,2,3,4,6,7,8-HpCDF	3.06E-07	0.00E+00	9.81E-09	9.55E-07	0.00E+00	0.00E+00	7.48E-08	0.00E+00	1.35E-06	2.69E-01
2,3,4,7,8-PeCDF	5.94E-09	0.00E+00	3.77E-10	1.84E-08	0.00E+00	0.00E+00	1.44E-09	0.00E+00	2.61E-08	2.61E-01
OCDD	7.27E-07	0.00E+00	1.72E-08	2.28E-06	0.00E+00	0.00E+00	1.78E-07	0.00E+00	3.20E-06	6.40E-02
OCDF	2.59E-07	0.00E+00	8.30E-09	8.08E-07	0.00E+00	0.00E+00	6.33E-08	0.00E+00	1.14E-06	2.28E-02
2,3,7,8-TCDD	7.35E-10	0.00E+00	1.20E-10	2.20E-09	0.00E+00	0.00E+00	1.73E-10	0.00E+00	3.23E-09	6.46E-02
Antimony	1.93E-02	0.00E+00	4.47E-02	1.87E-02	0.00E+00	0.00E+00	1.46E-03	0.00E+00	8.41E-02	2.81E-02
Arsenic	1.96E-03	0.00E+00	2.05E-03	4.26E-03	0.00E+00	0.00E+00	3.34E-04	0.00E+00	8.60E-03	2.33E-02
Beryllium	9.86E-05	0.00E+00	3.34E-05	2.79E-04	0.00E+00	0.00E+00	2.19E-05	0.00E+00	4.33E-04	8.66E-03
Cadmium	1.69E-02	0.00E+00	4.98E-02	6.02E-03	0.00E+00	0.00E+00	4.72E-04	0.00E+00	7.31E-02	8.61E+00
Chromium	1.35E-02	0.00E+00	6.34E-03	3.66E-02	0.00E+00	0.00E+00	2.86E-03	0.00E+00	5.93E-02	1.98E+00
Copper	1.63E+00	0.00E+00	4.88E+00	5.14E-01	0.00E+00	0.00E+00	4.02E-02	0.00E+00	7.06E+00	4.07E-01
Lead	8.04E+00	0.00E+00	9.63E+00	1.62E+01	0.00E+00	0.00E+00	1.27E+00	0.00E+00	3.52E+01	2.71E+02
Mercury	3.85E-03	0.00E+00	1.18E-02	9.55E-04	0.00E+00	0.00E+00	7.48E-05	0.00E+00	1.67E-02	1.67E-01
Silver	1.11E-02	0.00E+00	3.14E-02	5.44E-03	0.00E+00	0.00E+00	4.26E-04	0.00E+00	4.83E-02	5.43E-02
Thallium	1.24E-04	0.00E+00	1.61E-05	3.75E-04	0.00E+00	0.00E+00	2.93E-05	0.00E+00	5.44E-04	1.81E-01
Zinc	2.43E+01	0.00E+00	7.87E+01	2.27E+00	0.00E+00	0.00E+00	1.78E-01	0.00E+00	1.05E+02	6.03E+01
TOTAL										3.43E+02



**Table E29. Site 32 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose-Response Value	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Beryllium	5.50E-01	0.00E+00	0.00E+00	9.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.59E-03
Cadmium	6.20E-01	0.00E+00	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-01

EXPOSURE PARAMETERS:

Table E29. Site 32 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate (L/day)	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:

Table E29. Site 32 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From Body Aquatic Organism Weight (kg)	Aquatic Organism Consumption (mg/kg/day)
Beryllium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
					Body Weight (kg)	Water Consumption (mg/kg/day)
Beryllium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:
 Table E29. Site 32 Risk Characterization for the Deer Mouse
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
						Body Weight (kg)	Plant Consumption (mg/kg/day)
Beryllium	5.50E-01	3.59E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.95E-04
Cadmium	6.20E-01	2.48E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.08E-02

SOIL INGESTION:
 Table E29. Site 32 Risk Characterization for the Deer Mouse
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
					Body Weight (kg)	Ingestion From Soil (mg/kg/day)
Beryllium	5.50E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.30E-03
Cadmium	6.20E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.72E-03

SEDIMENT INGESTION:

Table E29. Site 32 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
						Daily Dose From Sediment Ingestion (mg/kg/day)
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E29. Site 32 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
									Daily Dose From Sediment Dermal (mg/kg/day)
Beryllium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table E29. Site 32 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
									Daily Dose From Soil - Dermal (mg/kg/day)
Beryllium	5.50E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.88E-04
Cadmium	6.20E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.12E-04

SURFACE WATER DERMAL EXPOSURE:

Table E29. Site 32 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose
									From Water - Dermal (mg/kg/day)
Beryllium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table E29. Site 32 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Beryllium	0.00E+00	0.00E+00	3.95E-04	3.30E-03	0.00E+00	0.00E+00	1.88E-04	0.00E+00	3.88E-03	4.09E-03
Cadmium	0.00E+00	0.00E+00	3.08E-02	3.72E-03	0.00E+00	0.00E+00	2.12E-04	0.00E+00	3.47E-02	2.04E-01
TOTAL										2.08E-01

**Table E30. Site 32 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose-Response Value		Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Beryllium	5.50E-01	3.88E-03	0.00E+00	5.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.59E-03
Cadmium	6.20E-01	3.47E-02	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-01

EXPOSURE PARAMETERS:

Table E30. Site 32 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day)	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm2)	3.02E+02
Skin exposed - Soil/Sediment (cm2/day)	3.02E+02
Soil on Skin (kg/cm2)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table E30. Site 32 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From	
						Organism Consumption (mg/kg/day)	
Beryllium	3.88E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.43E-04
Cadmium	3.47E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.27E-03

Volume IV

Harding Lawson Associates

WATER CONSUMPTION
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Site-Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From
						Water Consumption (mg/kg/day)
Beryllium	3.88E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	3.47E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:
 Table E30. Site 32 Risk Characterization for the Gray Fox
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From
							Plant Consumption (mg/kg/day)
Beryllium	5.50E-01	3.59E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.84E-05
Cadmium	6.20E-01	2.48E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.77E-03

SOIL INGESTION:
 Table E30. Site 32 Risk Characterization for the Gray Fox
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose
						From Soil Ingestion (mg/kg/day)
Beryllium	5.50E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.04E-04
Cadmium	6.20E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.55E-04

SEDIMENT INGESTION:

Table E30. Site 32 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion
						(mg/kg/day)
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E30. Site 32 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal
									(mg/kg/day)
Beryllium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table E30. Site 32 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal
									(mg/kg/day)
Beryllium	5.50E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.16E-05
Cadmium	6.20E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.57E-05

SURFACE WATER DERMAL EXPOSURE:

Table E30. Site 32 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose
									From Water - Dermal (mg/kg/day)
Beryllium	3.88E-03	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	3.47E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table E30. Site 32 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
	Beryllium	1.43E-04	0.00E+00	4.84E-05	4.04E-04	0.00E+00	0.00E+00	3.16E-05	0.00E+00	6.27E-04
Cadmium	1.27E-03	0.00E+00	3.77E-03	4.55E-04	0.00E+00	0.00E+00	3.57E-05	0.00E+00	5.53E-03	6.51E-01
TOTAL										6.63E-01

**Table E31. Site 33 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose- Response Value	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Chlordane	5.90E+00	0.00E+00	0.00E+00	9.00E-01	2.37E+04	1.00E+00	1.00E+00	5.20E-02	1.50E-01
4,4'-DDD	9.30E-01	0.00E+00	0.00E+00	1.07E+02	2.71E+03	1.00E+00	1.00E+00	2.80E-01	3.25E-03
4,4'-DDT	4.90E+00	0.00E+00	0.00E+00	3.11E+00	3.58E+03	1.00E+00	1.00E+00	4.30E-01	3.29E-03
Dicamba	1.30E-01	0.00E+00	0.00E+00	2.50E+00	1.00E+00	1.00E+00	1.00E+00	3.17E-03	6.58E-01
Dieldrin	7.40E-01	0.00E+00	0.00E+00	3.00E-03	1.00E+00	1.00E+00	1.00E+00	1.60E-02	1.18E-01
Endrin	2.10E-02	0.00E+00	0.00E+00	3.00E-03	1.00E+00	1.00E+00	1.00E+00	1.60E-02	2.88E-02
Antimony	3.60E+00	0.00E+00	0.00E+00	3.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	7.18E-02
Arsenic	4.50E+00	0.00E+00	0.00E+00	7.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	1.44E-02
Cadmium	2.30E+00	0.00E+00	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-01
Chromium	3.60E+01	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	5.20E-03
Copper	5.29E+01	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.85E-01
Lead	8.55E+01	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	4.00E-06	1.78E-02
Mercury	6.50E+01	0.00E+00	0.00E+00	1.90E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.71E-01
Thallium	5.00E-01	0.00E+00	0.00E+00	1.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	1.29E-03
Zinc	2.13E+02	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.04E+00

EXPOSURE PARAMETERS:

Table E31. Site 33 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:

Table E31. Site 33 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Chlordane	0.00E+00	2.37E+04	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	2.71E+03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	3.58E+03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dicamba	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Endrin	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
						Daily Dose From Water Consumption (mg/kg/day)
Chlordane	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dicamba	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Endrin	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table E31. Site 33 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Chlordane	5.90E+00	1.50E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.77E-01
4,4'-DDD	9.30E-01	3.25E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	6.05E-04
4,4'-DDT	4.90E+00	3.29E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.22E-03
Dicamba	1.30E-01	6.58E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.71E-02
Dieldrin	7.40E-01	1.18E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.75E-02
Endrin	2.10E-02	2.88E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.21E-04
Antimony	3.60E+00	7.18E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	5.17E-02
Arsenic	4.50E+00	1.44E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.30E-02
Cadmium	2.30E+00	2.48E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.14E-01
Chromium	3.60E+01	5.20E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.74E-02
Copper	5.29E+01	2.85E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.02E+00
Lead	8.55E+01	1.78E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.04E-01
Mercury	6.50E+01	3.71E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	4.82E+00
Thallium	5.00E-01	1.29E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.29E-04
Zinc	2.13E+02	1.04E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	4.43E+01

SOIL INGESTION:

Table E31. Site 33 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average	
					Body Weight (kg)	Daily Dose From Soil Ingestion (mg/kg/day)
Chlordane	5.90E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.54E-02
4,4'-DDD	9.30E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.58E-03
4,4'-DDT	4.90E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.94E-02
Dicamba	1.30E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.80E-04
Dieldrin	7.40E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.44E-03
Endrin	2.10E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.26E-04
Antimony	3.60E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.16E-02
Arsenic	4.50E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.70E-02
Cadmium	2.30E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.38E-02
Chromium	3.60E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.16E-01
Copper	5.29E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.17E-01
Lead	8.55E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.13E-01
Mercury	6.50E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.90E-01
Thallium	5.00E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.00E-03
Zinc	2.13E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.28E+00

SEDIMENT INGESTION:

Table E31. Site 33 Risk Characterization for the Deer Mouse
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose
						From Sediment Ingestion (mg/kg/day)
Chlordane	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dicamba	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Endrin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E31. Site 33 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose	
								Body Weight (kg)	From Sediment Dermal (mg/kg/day)
Chlordane	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dicamba	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Endrin	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table E31. Site 33 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm ²)	Surface Soil Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Lifetime Average	
								Body Weight (kg)	Daily Dose From Soil - Dermal (mg/kg/day)
Chlordane	5.90E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.02E-03
4,4'-DDD	9.30E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.18E-04
4,4'-DDT	4.90E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.68E-03
Dicamba	1.30E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.45E-05
Dieldrin	7.40E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.53E-04
Endrin	2.10E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.18E-06
Antimony	3.60E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.23E-03
Arsenic	4.50E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.54E-03
Cadmium	2.30E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.87E-04
Chromium	3.60E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.23E-02
Copper	5.29E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.81E-02
Lead	8.55E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.92E-02
Mercury	6.50E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.22E-02
Thallium	5.00E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.71E-04
Zinc	2.13E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.28E-02

SURFACE WATER DERMAL EXPOSURE:

Table E31. Site 33 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water		Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Lifetime Average Daily Dose	
	Surface Water Concentration (mg/L)	Dermal Exposure (Skin Exposed) (cm2)						Body Weight (kg)	From Water - Dermal (mg/kg/day)
Chlordane	0.00E+00	8.55E+00	5.20E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	8.55E+00	2.80E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	8.55E+00	4.30E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dicamba	0.00E+00	8.55E+00	3.17E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	8.55E+00	1.60E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Endrin	0.00E+00	8.55E+00	1.60E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	4.00E-06	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table E31. Site 33 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Chlordane	0.00E+00	0.00E+00	1.77E-01	3.54E-02	0.00E+00	0.00E+00	2.02E-03	0.00E+00	2.14E-01	2.38E-01
4,4'-DDD	0.00E+00	0.00E+00	6.05E-04	5.58E-03	0.00E+00	0.00E+00	3.18E-04	0.00E+00	6.50E-03	6.08E-05
4,4'-DDT	0.00E+00	0.00E+00	3.22E-03	2.94E-02	0.00E+00	0.00E+00	1.68E-03	0.00E+00	3.43E-02	1.10E-02
Dicamba	0.00E+00	0.00E+00	1.71E-02	7.80E-04	0.00E+00	0.00E+00	4.45E-05	0.00E+00	1.79E-02	7.17E-03
Dieldrin	0.00E+00	0.00E+00	1.75E-02	4.44E-03	0.00E+00	0.00E+00	2.53E-04	0.00E+00	2.22E-02	7.39E+00
Endrin	0.00E+00	0.00E+00	1.21E-04	1.26E-04	0.00E+00	0.00E+00	7.18E-06	0.00E+00	2.54E-04	8.47E-02
Antimony	0.00E+00	0.00E+00	5.17E-02	2.16E-02	0.00E+00	0.00E+00	1.23E-03	0.00E+00	7.45E-02	2.13E-01
Arsenic	0.00E+00	0.00E+00	1.30E-02	2.70E-02	0.00E+00	0.00E+00	1.54E-03	0.00E+00	4.15E-02	5.93E-02
Cadmium	0.00E+00	0.00E+00	1.14E-01	1.38E-02	0.00E+00	0.00E+00	7.87E-04	0.00E+00	1.29E-01	7.57E-01
Chromium	0.00E+00	0.00E+00	3.74E-02	2.16E-01	0.00E+00	0.00E+00	1.23E-02	0.00E+00	2.66E-01	1.11E+00
Copper	0.00E+00	0.00E+00	3.02E+00	3.17E-01	0.00E+00	0.00E+00	1.81E-02	0.00E+00	3.35E+00	9.66E-03
Lead	0.00E+00	0.00E+00	3.04E-01	5.13E-01	0.00E+00	0.00E+00	2.92E-02	0.00E+00	8.47E-01	9.41E+00
Mercury	0.00E+00	0.00E+00	4.82E+00	3.90E-01	0.00E+00	0.00E+00	2.22E-02	0.00E+00	5.24E+00	2.76E+00
Thallium	0.00E+00	0.00E+00	1.29E-04	3.00E-03	0.00E+00	0.00E+00	1.71E-04	0.00E+00	3.30E-03	3.30E-01
Zinc	0.00E+00	0.00E+00	4.43E+01	1.28E+00	0.00E+00	0.00E+00	7.28E-02	0.00E+00	4.57E+01	3.26E+00
TOTAL										2.56E+01

**Table E32. Site 33 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose- Response Value		Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Chlordane	5.90E+00	2.14E-01	0.00E+00	4.00E-02	1.00E+00	1.00E+00	1.00E+00	5.20E-02	1.50E-01
4,4'-DDD	9.30E-01	6.50E-03	0.00E+00	5.35E+00	1.00E+00	1.00E+00	1.00E+00	2.80E-01	3.25E-03
4,4'-DDT	4.90E+00	3.43E-02	0.00E+00	1.60E+00	1.00E+00	1.00E+00	1.00E+00	4.30E-01	3.29E-03
Dicamba	1.30E-01	1.79E-02	0.00E+00	1.04E+01	1.00E+00	1.00E+00	1.00E+00	3.17E-03	6.58E-01
Dieldrin	7.40E-01	2.22E-02	0.00E+00	2.00E-02	1.00E+00	1.00E+00	1.00E+00	1.60E-02	1.18E-01
Endrin	2.10E-02	2.54E-04	0.00E+00	2.50E-03	1.00E+00	1.00E+00	1.00E+00	1.60E-02	2.88E-02
Antimony	3.60E+00	7.45E-02	0.00E+00	2.99E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-03	7.18E-02
Arsenic	4.50E+00	4.15E-02	0.00E+00	3.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	1.44E-02
Cadmium	2.30E+00	1.29E-01	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-01
Chromium	3.60E+01	2.66E-01	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	5.20E-03
Copper	5.29E+01	3.35E+00	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.85E-01
Lead	8.55E+01	8.47E-01	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	4.00E-06	1.78E-02
Mercury	6.50E+01	5.24E+00	0.00E+00	1.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.71E-01
Thallium	5.00E-01	3.30E-03	0.00E+00	3.00E-03	1.00E+00	1.00E+00	1.00E+00	1.00E-03	1.29E-03
Zinc	2.13E+02	4.57E+01	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.04E+00

EXPOSURE PARAMETERS:

Table E32. Site 33 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day)	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm2)	3.02E+02
Skin exposed - Soil/Sediment (cm2/day)	3.02E+02
Soil on Skin (kg/cm2)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table E32. Site 33 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)		Organism	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
			Consumption Rate (kg/day)				Daily Dose From Organism Consumption (mg/kg/day)
Chlordane	2.14E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	7.88E-03
4,4'-DDD	6.50E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.39E-04
4,4'-DDT	3.43E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.26E-03
Dicamba	1.79E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	6.59E-04
Dieldrin	2.22E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	8.14E-04
Endrin	2.54E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	9.34E-06
Antimony	7.45E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.74E-03
Arsenic	4.15E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.52E-03
Cadmium	1.29E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	4.73E-03
Chromium	2.66E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	9.76E-03
Copper	3.35E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.23E-01
Lead	8.47E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.11E-02
Mercury	5.24E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.92E-01
Thallium	3.30E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.21E-04
Zinc	4.57E+01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.68E+00

WATER CONSUMPTION

Quantitative Ecological Screening Assessment

Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Site-Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
						Daily Dose From Water Consumption (mg/kg/day)
Chlordane	2.14E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	6.50E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	3.43E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dicamba	1.79E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	2.22E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Endrin	2.54E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	7.45E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	4.15E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.29E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	2.66E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	3.35E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	8.47E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	5.24E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	3.30E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	4.57E+01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table E32. Site 33 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Daily Dose From Plant Consumption (mg/kg/day)
Chlordane	5.90E+00	1.50E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.17E-02
4,4'-DDD	9.30E-01	3.25E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	7.40E-05
4,4'-DDT	4.90E+00	3.29E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.95E-04
Dicamba	1.30E-01	6.58E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.09E-03
Dieldrin	7.40E-01	1.18E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.14E-03
Endrin	2.10E-02	2.88E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.48E-05
Antimony	3.60E+00	7.18E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	6.33E-03
Arsenic	4.50E+00	1.44E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.59E-03
Cadmium	2.30E+00	2.48E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.40E-02
Chromium	3.60E+01	5.20E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.58E-03
Copper	5.29E+01	2.85E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.69E-01
Lead	8.55E+01	1.78E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.73E-02
Mercury	6.50E+01	3.71E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	5.91E-01
Thallium	5.00E-01	1.29E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.58E-05
Zinc	2.13E+02	1.04E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	5.42E+00

SOIL INGESTION:

Table E32. Site 33 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average	
					Body Weight (kg)	Daily Dose From Soil Ingestion (mg/kg/day)
Chlordane	5.90E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.33E-03
4,4'-DDD	9.30E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.83E-04
4,4'-DDT	4.90E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.60E-03
Dicamba	1.30E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.55E-05
Dieldrin	7.40E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.44E-04
Endrin	2.10E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.54E-05
Antimony	3.60E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.64E-03
Arsenic	4.50E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.31E-03
Cadmium	2.30E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.69E-03
Chromium	3.60E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.64E-02
Copper	5.29E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.89E-02
Lead	8.55E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.28E-02
Mercury	6.50E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.78E-02
Thallium	5.00E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.67E-04
Zinc	2.13E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.56E-01

SEDIMENT INGESTION:

Table E32. Site 33 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose
						From Sediment Ingestion (mg/kg/day)
Chlordane	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dicamba	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Endrin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E32. Site 33 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose	
								Body Weight (kg)	From Sediment Dermal (mg/kg/day)
Chlordane	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dicamba	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Endrin	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table E32. Site 33 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm ²)	Surface Soil Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose	
								Body Weight (kg)	From Soil Dermal (mg/kg/day)
Chlordane	5.90E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.39E-04
4,4'-DDD	9.30E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.35E-05
4,4'-DDT	4.90E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.82E-04
Dicamba	1.30E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.48E-06
Dieldrin	7.40E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.26E-05
Endrin	2.10E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.21E-06
Antimony	3.60E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.07E-04
Arsenic	4.50E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.59E-04
Cadmium	2.30E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.32E-04
Chromium	3.60E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.07E-03
Copper	5.29E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.04E-03
Lead	8.55E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.92E-03
Mercury	6.50E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.74E-03
Thallium	5.00E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.88E-05
Zinc	2.13E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.22E-02

SURFACE WATER DERMAL EXPOSURE:

**Table E32. Site 33 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California**

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Chlordane	2.14E-01	3.02E+02	5.20E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	6.50E-03	3.02E+02	2.80E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	3.43E-02	3.02E+02	4.30E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dicamba	1.79E-02	3.02E+02	3.17E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	2.22E-02	3.02E+02	1.60E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Endrin	2.54E-04	3.02E+02	1.60E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	7.45E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	4.15E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.29E-01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	2.66E-01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	3.35E+00	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	8.47E-01	3.02E+02	4.00E-06	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	5.24E+00	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	3.30E-03	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	4.57E+01	3.02E+02	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table E32. Site 33 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Chlordane	7.88E-03	0.00E+00	2.17E-02	4.33E-03	0.00E+00	0.00E+00	3.39E-04	0.00E+00	3.42E-02	8.56E-01
4,4'-DDD	2.39E-04	0.00E+00	7.40E-05	6.83E-04	0.00E+00	0.00E+00	5.35E-05	0.00E+00	1.05E-03	1.96E-04
4,4'-DDT	1.26E-03	0.00E+00	3.95E-04	3.60E-03	0.00E+00	0.00E+00	2.82E-04	0.00E+00	5.54E-03	3.46E-03
Dicamba	6.59E-04	0.00E+00	2.09E-03	9.55E-05	0.00E+00	0.00E+00	7.48E-06	0.00E+00	2.86E-03	2.75E-04
Dieldrin	8.14E-04	0.00E+00	2.14E-03	5.44E-04	0.00E+00	0.00E+00	4.26E-05	0.00E+00	3.54E-03	1.77E-01
Endrin	9.34E-06	0.00E+00	1.48E-05	1.54E-05	0.00E+00	0.00E+00	1.21E-06	0.00E+00	4.08E-05	1.63E-02
Antimony	2.74E-03	0.00E+00	6.33E-03	2.64E-03	0.00E+00	0.00E+00	2.07E-04	0.00E+00	1.19E-02	3.99E-03
Arsenic	1.52E-03	0.00E+00	1.59E-03	3.31E-03	0.00E+00	0.00E+00	2.59E-04	0.00E+00	6.68E-03	1.80E-02
Cadmium	4.73E-03	0.00E+00	1.40E-02	1.69E-03	0.00E+00	0.00E+00	1.32E-04	0.00E+00	2.05E-02	2.41E+00
Chromium	9.76E-03	0.00E+00	4.58E-03	2.64E-02	0.00E+00	0.00E+00	2.07E-03	0.00E+00	4.29E-02	1.43E+00
Copper	1.23E-01	0.00E+00	3.69E-01	3.89E-02	0.00E+00	0.00E+00	3.04E-03	0.00E+00	5.34E-01	3.08E-02
Lead	3.11E-02	0.00E+00	3.73E-02	6.28E-02	0.00E+00	0.00E+00	4.92E-03	0.00E+00	1.36E-01	1.05E+00
Mercury	1.92E-01	0.00E+00	5.91E-01	4.78E-02	0.00E+00	0.00E+00	3.74E-03	0.00E+00	8.34E-01	8.34E+00
Thallium	1.21E-04	0.00E+00	1.58E-05	3.67E-04	0.00E+00	0.00E+00	2.88E-05	0.00E+00	5.33E-04	1.78E-01
Zinc	1.68E+00	0.00E+00	5.42E+00	1.56E-01	0.00E+00	0.00E+00	1.22E-02	0.00E+00	7.27E+00	4.15E+00
TOTAL										1.87E+01

**Table E33. Site 35 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose-Response Value		Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Mercury	3.90E-01	0.00E+00	0.00E+00	1.90E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.71E-01

EXPOSURE PARAMETERS:

Table E33. Site 35 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:

Table E33. Site 35 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Mercury	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Site - Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Mercury	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:
 Table E33. Site 35 Risk Characterization for the Deer Mouse
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Mercury	3.90E-01	3.71E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.89E-02

SOIL INGESTION:
 Table E33. Site 35 Risk Characterization for the Deer Mouse
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
Mercury	3.90E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.34E-03

SEDIMENT INGESTION:
 Table E33. Site 35 Risk Characterization for the Deer Mouse
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E33. Site 35 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Mercury	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table E33. Site 35 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Mercury	3.90E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.33E-04

SURFACE WATER DERMAL EXPOSURE:

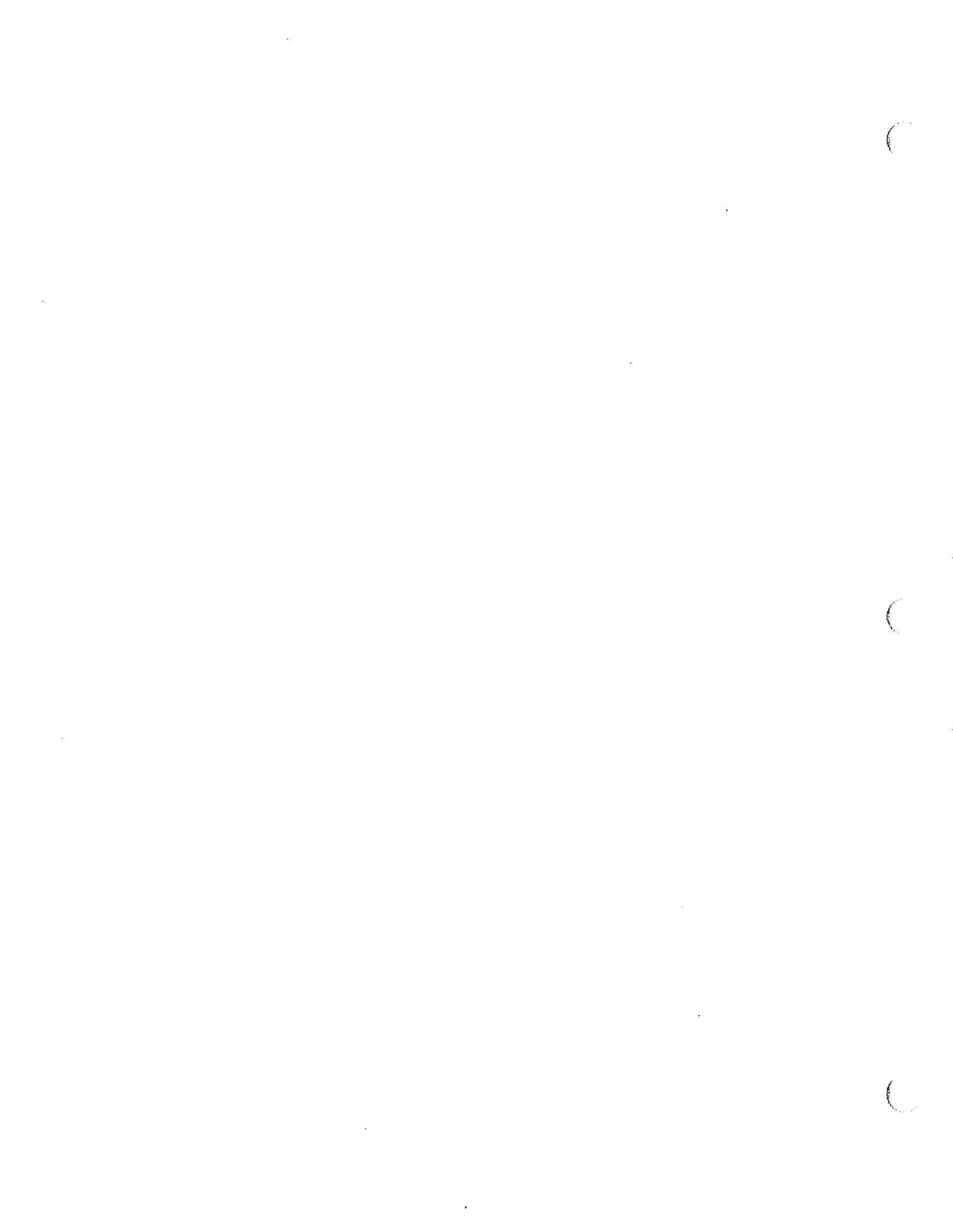
Table E33. Site 35 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm2)	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Mercury	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table E33. Site 35 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Mercury	0.00E+00	0.00E+00	2.89E-02	2.34E-03	0.00E+00	0.00E+00	1.33E-04	0.00E+00	3.14E-02	1.65E-02



**Table E34. Site 35 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose-Response Value	Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Mercury	3.90E-01	3.14E-02	0.00E+00	1.00E-01	1.00E+00	1.00E+00	1.00E-03	3.71E-01

EXPOSURE PARAMETERS:

Table E34. Site 35 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table E34. Site 35 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Organism Consumption (mg/kg/day)
Mercury	3.14E-02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.15E-03

WATER CONSUMPTION
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Site - Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
					Body Weight (kg)	Water Consumption (mg/kg/day)
Mercury	3.14E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:
 Table E34. Site 35 Risk Characterization for the Gray Fox
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
						Body Weight (kg)	Plant Consumption (mg/kg/day)
Mercury	3.90E-01	3.71E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.54E-03

SOIL INGESTION:
 Table E34. Site 35 Risk Characterization for the Gray Fox
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
					Body Weight (kg)	Soil Ingestion (mg/kg/day)
Mercury	3.90E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.87E-04

SEDIMENT INGESTION:
 Table E34. Site 35 Risk Characterization for the Gray Fox
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
					Body Weight (kg)	Sediment Ingestion (mg/kg/day)
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E34. Site 35 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Mercury	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table E34. Site 35 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Mercury	3.90E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.24E-05

SURFACE WATER DERMAL EXPOSURE:

Table E34. Site 35 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm2)	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Mercury	3.14E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table E34. Site 35 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Mercury	1.15E-03	0.00E+00	3.54E-03	2.87E-04	0.00E+00	0.00E+00	2.24E-05	0.00E+00	5.01E-03	5.01E-02

TOTAL Volume IV

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Harding Lawson Associates

5.01E-02

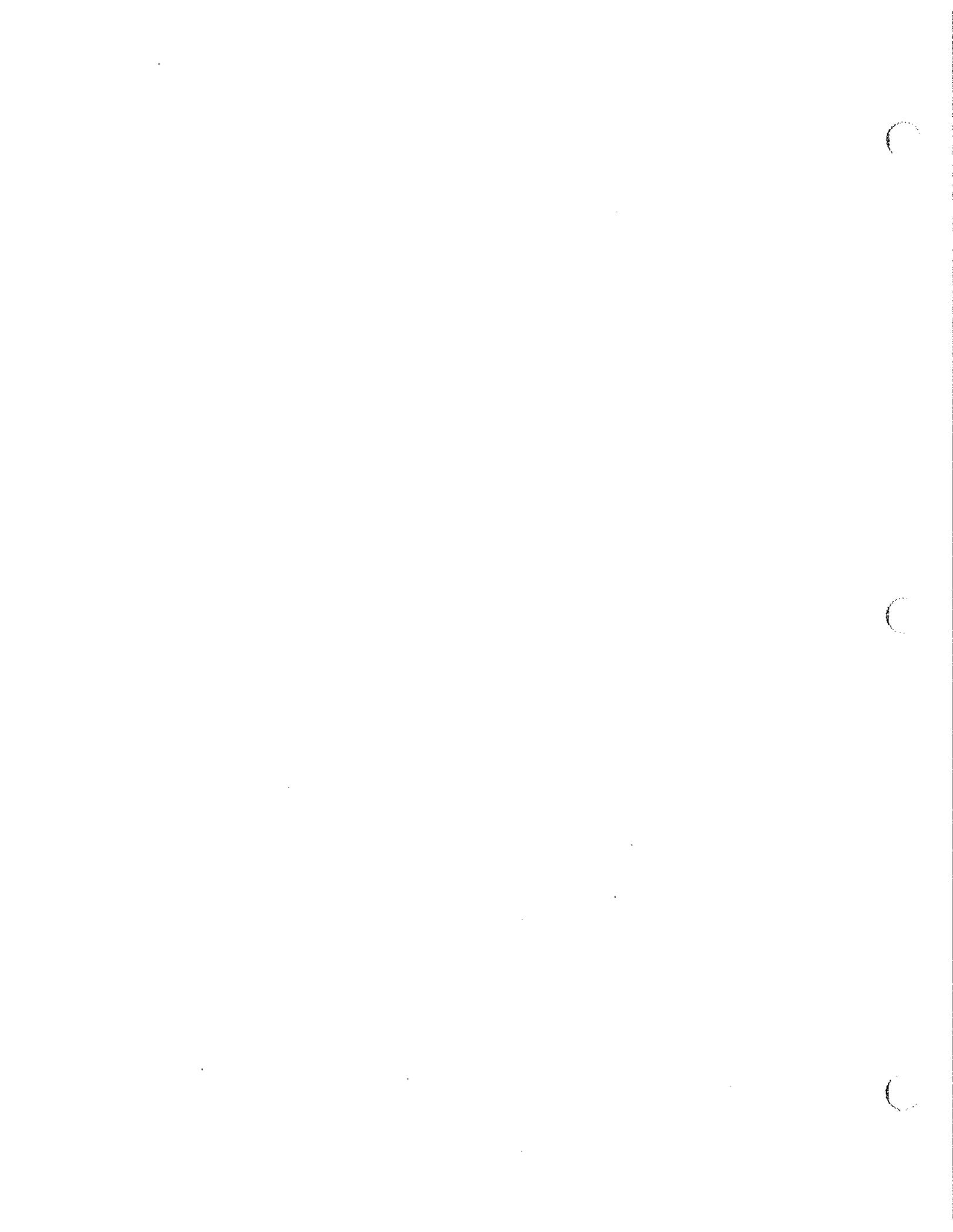


Table E35. Site 39 Risk Characterization for the Deer Mouse (Vegetated Areas)
Quantitative Ecological Screening Assessment
Fort Ord, California
Vegetated

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose- Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Bis(2-ethylhexyl)phthalate	2.00E-01	0.00E+00	0.00E+00	2.60E+00	1.00E+00	1.00E+00	1.00E+00	3.36E-02	1.39E-02
2-amino Dinitrotoluene	1.30E-01	0.00E+00	0.00E+00	5.07E+01	1.00E+00	1.00E+00	1.00E+00	3.05E-03	8.94E-01
4-amino Dinitrotoluene	1.30E-01	0.00E+00	0.00E+00	4.47E+01	1.00E+00	1.00E+00	1.00E+00	3.05E-03	8.94E-01
HMX	1.20E+02	0.00E+00	0.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.69E-05	1.05E+01
PETN	1.50E+00	0.00E+00	0.00E+00	4.60E+00	1.00E+00	1.00E+00	1.00E+00	3.18E-04	1.44E+00
Pentachlorophenol	7.50E-02	0.00E+00	0.00E+00	3.00E-01	1.00E+00	1.00E+00	1.00E+00	1.61E-01	1.61E-02
RDX	3.91E+00	0.00E+00	0.00E+00	7.00E+00	1.00E+00	1.00E+00	1.00E+00	3.67E-04	3.76E+00
Tetryl	3.90E-01	0.00E+00	0.00E+00	1.25E+00	1.00E+00	1.00E+00	1.00E+00	5.02E-04	1.39E+00
Antimony	2.79E+01	0.00E+00	0.00E+00	3.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	7.18E-02
Arsenic	6.80E+00	0.00E+00	0.00E+00	7.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	1.44E-02
Beryllium	8.40E-01	0.00E+00	0.00E+00	9.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.59E-03
Cadmium	2.53E+01	0.00E+00	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-01
Chromium	6.50E+01	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	5.20E-03
Copper	1.64E+03	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.85E-01
Lead	4.06E+03	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	4.00E-06	1.78E-02
Nickel	2.38E+01	0.00E+00	0.00E+00	8.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-04	5.94E-02
Selenium	1.00E+00	0.00E+00	0.00E+00	6.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-02
Silver	6.60E-01	0.00E+00	0.00E+00	1.78E+00	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.73E-01
Zinc	8.91E+03	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.04E+00

EXPOSURE PARAMETERS:

Table E35. Site 39 Risk Characterization for the Deer Mouse (Vegetated Areas)
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day)	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm2)	8.55E+00
Skin exposed - Soil/Sediment (cm2/day)	8.55E+00
Soil on Skin (kg/cm2)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:

Table E35. Site 39 Risk Characterization for the Deer Mouse (Vegetated Areas)
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-amino Dinitrotoluene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4-amino Dinitrotoluene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
HMX	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PETN	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Pentachlorophenol	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
RDX	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Tetryl	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface	Water	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Water Concentration (mg/L)	Consumption Rate (L/day)				Daily Dose From Water Consumption (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-amino Dinitrotoluene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4-amino Dinitrotoluene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
HMX	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PETN	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Pentachlorophenol	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
RDX	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Tetryl	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table E35. Site 39 Risk Characterization for the Deer Mouse (Vegetated Areas)

Quantitative Ecological Screening Assessment

Fort Ord, California

Compound	Surface	Plant/Root	Plant	Exposure	Exposure	Body	Lifetime Average
	Soil	Uptake	Consumption				Daily Dose From
	Concentration	Factor	Rate	Frequency	Duration	Weight	Plant
	(mg/kg)	(kg soil/kg plant)	(kg/day)			(kg)	Consumption
							(mg/kg/day)
Bis(2-ethylhexyl)phthalate	2.00E-01	1.39E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	5.56E-04
2-amino Dinitrotoluene	1.30E-01	8.94E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.32E-02
4-amino Dinitrotoluene	1.30E-01	8.94E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.32E-02
HMX	1.20E+02	1.05E+01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.52E+02
PETN	1.50E+00	1.44E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	4.32E-01
Pentachlorophenol	7.50E-02	1.61E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.42E-04
RDX	3.91E+00	3.76E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.94E+00
Tetryl	3.90E-01	1.39E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.08E-01
Antimony	2.79E+01	7.18E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	4.01E-01
Arsenic	6.80E+00	1.44E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.96E-02
Beryllium	8.40E-01	3.59E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	6.03E-04
Cadmium	2.53E+01	2.48E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.25E+00
Chromium	6.50E+01	5.20E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	6.76E-02
Copper	1.64E+03	2.85E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	9.35E+01
Lead	4.06E+03	1.78E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.45E+01
Nickel	2.38E+01	5.94E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.83E-01
Selenium	1.00E+00	2.48E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	4.96E-03
Silver	6.60E-01	1.73E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.28E-02
Zinc	8.91E+03	1.04E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.85E+03

SOIL INGESTION:

Table E35. Site 39 Risk Characterization for the Deer Mouse (Vegetated Areas)

Quantitative Ecological Screening Assessment

Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
						Daily Dose From Soil Ingestion (mg/kg/day)
Bis(2-ethylhexyl)phthalate	2.00E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.20E-03
2-amino Dinitrotoluene	1.30E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.80E-04
4-amino Dinitrotoluene	1.30E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.80E-04
HMX	1.20E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.20E-01
PETN	1.50E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.00E-03
Pentachlorophenol	7.50E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.50E-04
RDX	3.91E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.35E-02
Tetryl	3.90E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.34E-03
Antimony	2.79E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.67E-01
Arsenic	6.80E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.08E-02
Beryllium	8.40E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.04E-03
Cadmium	2.53E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.52E-01
Chromium	6.50E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.90E-01
Copper	1.64E+03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.84E+00
Lead	4.06E+03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.44E+01
Nickel	2.38E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.43E-01
Selenium	1.00E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.00E-03
Silver	6.60E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.96E-03
Zinc	8.91E+03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.35E+01

SEDIMENT INGESTION:

Table E35. Site 39 Risk Characterization for the Deer Mouse (Vegetated Areas)

Quantitative Ecological Screening Assessment

Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-amino Dinitrotoluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4-amino Dinitrotoluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
HMX	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PETN	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Pentachlorophenol	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
RDX	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Tetryl	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E35. Site 39 Risk Characterization for the Deer Mouse (Vegetated Areas)

Quantitative Ecological Screening Assessment

Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Lifetime Average	
								Body Weight (kg)	Daily Dose From Sediment - Dermal (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-amino Dinitrotoluene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4-amino Dinitrotoluene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
HMX	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PETN	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Pentachlorophenol	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
RDX	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Tetryl	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table E35. Site 39 Risk Characterization for the Deer Mouse (Vegetated Areas)
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm ²)	Surface Soil Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Bis(2-ethylhexyl)phthalate	2.00E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.84E-05
2-amino Dinitrotoluene	1.30E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.45E-05
4-amino Dinitrotoluene	1.30E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.45E-05
HMX	1.20E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.10E-02
PETN	1.50E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.13E-04
Pentachlorophenol	7.50E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.57E-05
RDX	3.91E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.34E-03
Tetryl	3.90E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.33E-04
Antimony	2.79E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	9.54E-03
Arsenic	6.80E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.33E-03
Beryllium	8.40E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.87E-04
Cadmium	2.53E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.65E-03
Chromium	6.50E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.22E-02
Copper	1.64E+03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.61E-01
Lead	4.06E+03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.39E+00
Nickel	2.38E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.14E-03
Selenium	1.00E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.42E-04
Silver	6.60E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.26E-04
Zinc	8.91E+03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.05E+00

SURFACE WATER DERMAL EXPOSURE:

Table E35. Site 39 Risk Characterization for the Deer Mouse (Vegetated Areas)

Quantitative Ecological Screening Assessment

Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	8.55E+00	3.36E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-amino Dinitrotoluene	0.00E+00	8.55E+00	3.05E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4-amino Dinitrotoluene	0.00E+00	8.55E+00	3.05E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
HMX	0.00E+00	8.55E+00	3.69E-05	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PETN	0.00E+00	8.55E+00	3.18E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Pentachlorophenol	0.00E+00	8.55E+00	1.61E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
RDX	0.00E+00	8.55E+00	3.67E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Tetryl	0.00E+00	8.55E+00	5.02E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	4.00E-06	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	8.55E+00	1.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	8.55E+00	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table E35. Site 39 Risk Characterization for the Deer Mouse (Vegetated Areas)
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Bis(2-ethylhexyl)phthalate	0.00E+00	0.00E+00	5.56E-04	1.20E-03	0.00E+00	0.00E+00	6.84E-05	0.00E+00	1.82E-03	7.02E-04
2-amino Dinitrotoluene	0.00E+00	0.00E+00	2.32E-02	7.80E-04	0.00E+00	0.00E+00	4.45E-05	0.00E+00	2.41E-02	4.74E-04
4-amino Dinitrotoluene	0.00E+00	0.00E+00	2.32E-02	7.80E-04	0.00E+00	0.00E+00	4.45E-05	0.00E+00	2.41E-02	5.38E-04
HMX	0.00E+00	0.00E+00	2.52E+02	7.20E-01	0.00E+00	0.00E+00	4.10E-02	0.00E+00	2.53E+02	2.53E+02
PETN	0.00E+00	0.00E+00	4.32E-01	9.00E-03	0.00E+00	0.00E+00	5.13E-04	0.00E+00	4.42E-01	9.60E-02
Pentachlorophenol	0.00E+00	0.00E+00	2.42E-04	4.50E-04	0.00E+00	0.00E+00	2.57E-05	0.00E+00	7.17E-04	2.39E-03
RDX	0.00E+00	0.00E+00	2.94E+00	2.35E-02	0.00E+00	0.00E+00	1.34E-03	0.00E+00	2.97E+00	4.24E-01
Tetryl	0.00E+00	0.00E+00	1.08E-01	2.34E-03	0.00E+00	0.00E+00	1.33E-04	0.00E+00	1.11E-01	8.87E-02
Antimony	0.00E+00	0.00E+00	4.01E-01	1.67E-01	0.00E+00	0.00E+00	9.54E-03	0.00E+00	5.78E-01	1.65E+00
Arsenic	0.00E+00	0.00E+00	1.96E-02	4.08E-02	0.00E+00	0.00E+00	2.33E-03	0.00E+00	6.27E-02	8.96E-02
Beryllium	0.00E+00	0.00E+00	6.03E-04	5.04E-03	0.00E+00	0.00E+00	2.87E-04	0.00E+00	5.93E-03	6.24E-03
Cadmium	0.00E+00	0.00E+00	1.25E+00	1.52E-01	0.00E+00	0.00E+00	8.65E-03	0.00E+00	1.42E+00	8.33E+00
Chromium	0.00E+00	0.00E+00	6.76E-02	3.90E-01	0.00E+00	0.00E+00	2.22E-02	0.00E+00	4.80E-01	2.00E+00
Copper	0.00E+00	0.00E+00	9.35E+01	9.84E+00	0.00E+00	0.00E+00	5.61E-01	0.00E+00	1.04E+02	3.00E-01
Lead	0.00E+00	0.00E+00	1.45E+01	2.44E+01	0.00E+00	0.00E+00	1.39E+00	0.00E+00	4.02E+01	4.47E+02
Nickel	0.00E+00	0.00E+00	2.83E-01	1.43E-01	0.00E+00	0.00E+00	8.14E-03	0.00E+00	4.34E-01	5.10E-01
Selenium	0.00E+00	0.00E+00	4.96E-03	6.00E-03	0.00E+00	0.00E+00	3.42E-04	0.00E+00	1.13E-02	1.88E-01
Silver	0.00E+00	0.00E+00	2.28E-02	3.96E-03	0.00E+00	0.00E+00	2.26E-04	0.00E+00	2.70E-02	1.52E-02
Zinc	0.00E+00	0.00E+00	1.85E+03	5.35E+01	0.00E+00	0.00E+00	3.05E+00	0.00E+00	1.91E+03	1.36E+02
TOTAL										8.50E+02

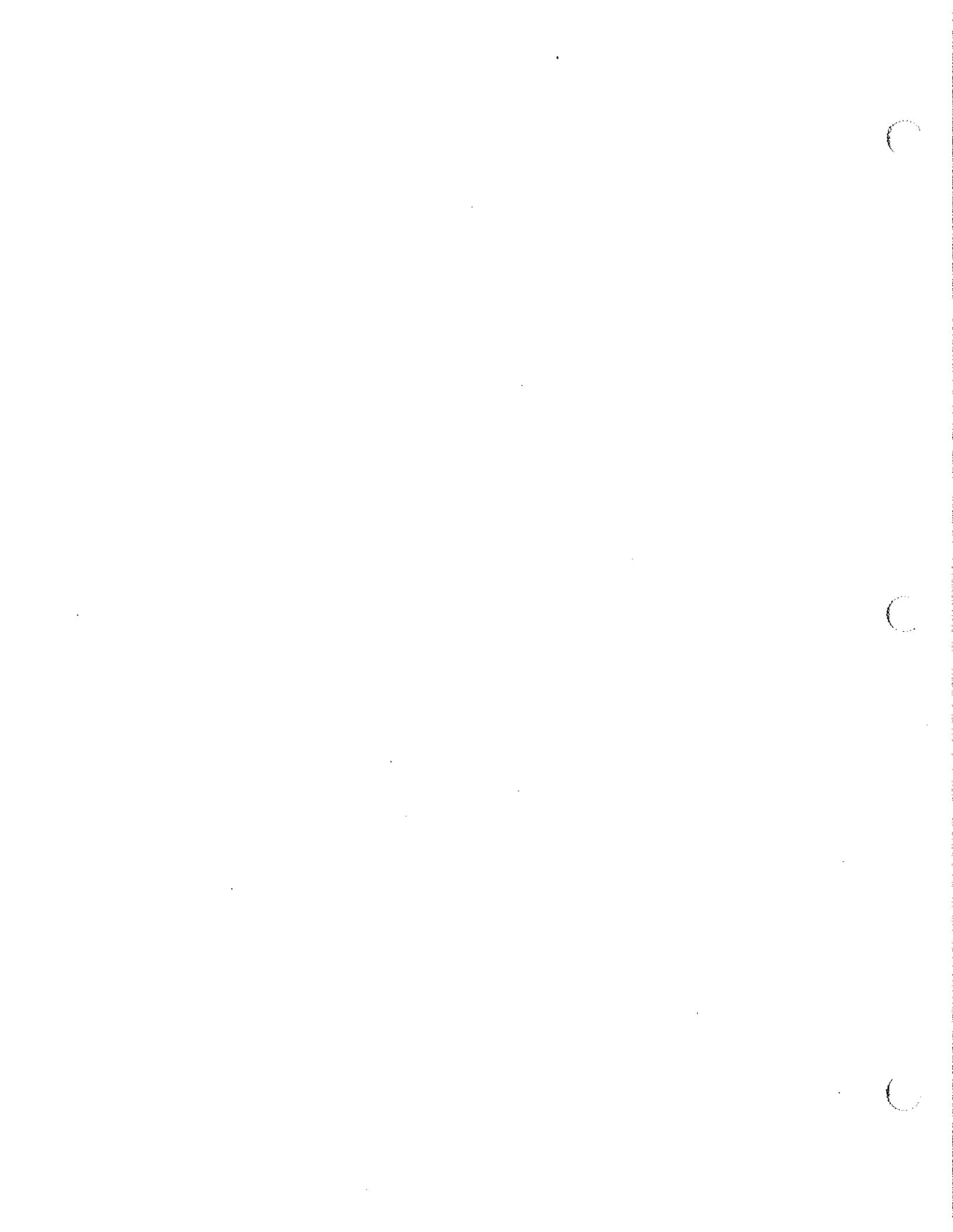


Table E36. Site 39 Risk Characterization for the Gray Fox (Vegetated Areas)
Quantitative Ecological Screening Assessment
Fort Ord, California
Vegetated

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Mouse Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose- Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Bis(2-ethylhexyl)phthalate	2.00E-01	1.82E-03	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	3.36E-02	1.39E-02
2-amino Dinitrotoluene	1.30E-01	2.41E-02	0.00E+00	2.54E+00	1.00E+00	1.00E+00	1.00E+00	3.05E-03	8.94E-01
4-amino Dinitrotoluene	1.30E-01	2.41E-02	0.00E+00	2.24E+00	1.00E+00	1.00E+00	1.00E+00	3.05E-03	8.94E-01
HMX	1.20E+02	2.53E+02	0.00E+00	5.00E-01	1.00E+00	1.00E+00	1.00E+00	3.69E-05	1.05E+01
PETN	1.50E+00	4.42E-01	0.00E+00	2.30E-01	1.00E+00	1.00E+00	1.00E+00	3.18E-04	1.44E+00
Pentachlorophenol	7.50E-02	7.17E-04	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	1.61E-01	1.61E-02
RDX	3.91E+00	2.97E+00	0.00E+00	3.00E-01	1.00E+00	1.00E+00	1.00E+00	3.67E-04	3.76E+00
Tetryl	3.90E-01	1.11E-01	0.00E+00	1.25E+00	1.00E+00	1.00E+00	1.00E+00	5.02E-04	1.39E+00
Antimony	2.79E+01	5.78E-01	0.00E+00	2.99E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-03	7.18E-02
Arsenic	6.80E+00	6.27E-02	0.00E+00	3.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	1.44E-02
Beryllium	8.40E-01	5.93E-03	0.00E+00	5.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.59E-03
Cadmium	2.53E+01	1.42E+00	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-01
Chromium	6.50E+01	4.80E-01	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	5.20E-03
Copper	1.64E+03	1.04E+02	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.85E-01
Lead	4.06E+03	4.02E+01	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	4.00E-06	1.78E-02
Nickel	2.38E+01	4.34E-01	0.00E+00	2.69E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-04	5.94E-02
Selenium	1.00E+00	1.13E-02	0.00E+00	3.10E-03	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-02
Silver	6.60E-01	2.70E-02	0.00E+00	8.90E-01	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.73E-01
Zinc	8.91E+03	1.91E+03	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.04E+00

EXPOSURE PARAMETERS:

Table E36. Site 39 Risk Characterization for the Gray Fox (Vegetated Areas)
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table E36. Site 39 Risk Characterization for the Gray Fox (Vegetated Areas)
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Concentration (mg/L)	Organism Consumption Rate (L/kg)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Organism Consumption	
						(mg/kg/day)	(mg/kg/day)
Bis(2-ethylhexyl)phthalate	1.82E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	6.70E-05	
2-amino Dinitrotoluene	2.41E-02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	8.84E-04	
4-amino Dinitrotoluene	2.41E-02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	8.84E-04	
HMX	2.53E+02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	9.29E+00	
PETN	4.42E-01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.62E-02	
Pentachlorophenol	7.17E-04	1.00E+00	1.93E-01	1.00E+00	5.25E+00	2.63E-05	
RDX	2.97E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.09E-01	
Tetryl	1.11E-01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	4.07E-03	
Antimony	5.78E-01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	2.12E-02	
Arsenic	6.27E-02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	2.30E-03	
Beryllium	5.93E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	2.18E-04	
Cadmium	1.42E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	5.20E-02	
Chromium	4.80E-01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.76E-02	
Copper	1.04E+02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	3.82E+00	
Lead	4.02E+01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.48E+00	
Nickel	4.34E-01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.59E-02	
Selenium	1.13E-02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	4.15E-04	
Silver	2.70E-02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	9.93E-04	
Zinc	1.91E+03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	7.02E+01	

WATER CONSUMPTION
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From
						Water Consumption (mg/kg/day)
Bis(2-ethylhexyl)phthalate	1.82E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-amino Dinitrotoluene	2.41E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4-amino Dinitrotoluene	2.41E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
HMX	2.53E+02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PETN	4.42E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Pentachlorophenol	7.17E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
RDX	2.97E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Tetryl	1.11E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	5.78E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	6.27E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	5.93E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.42E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	4.80E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	1.04E+02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	4.02E+01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	4.34E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	1.13E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	2.70E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	1.91E+03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table E36. Site 39 Risk Characterization for the Gray Fox (Vegetated Areas)
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
						Body Weight (kg)	Plant Consumption (mg/kg/day)
Bis(2-ethylhexyl)phthalate	2.00E-01	1.39E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	6.81E-05
2-amino Dinitrotoluene	1.30E-01	8.94E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.85E-03
4-amino Dinitrotoluene	1.30E-01	8.94E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.85E-03
HMX	1.20E+02	1.05E+01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.09E+01
PETN	1.50E+00	1.44E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	5.29E-02
Pentachlorophenol	7.50E-02	1.61E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.96E-05
RDX	3.91E+00	3.76E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.60E-01
Tetryl	3.90E-01	1.39E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.33E-02
Antimony	2.79E+01	7.18E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.91E-02
Arsenic	6.80E+00	1.44E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.40E-03
Beryllium	8.40E-01	3.59E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	7.39E-05
Cadmium	2.53E+01	2.48E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.54E-01
Chromium	6.50E+01	5.20E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	8.28E-03
Copper	1.64E+03	2.85E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.14E+01
Lead	4.06E+03	1.78E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.77E+00
Nickel	2.38E+01	5.94E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.46E-02
Selenium	1.00E+00	2.48E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	6.07E-04
Silver	6.60E-01	1.73E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.80E-03
Zinc	8.91E+03	1.04E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.27E+02

SOIL INGESTION:

Table E36. Site 39 Risk Characterization for the Gray Fox (Vegetated Areas)
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Surface	Soil	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Ingestion Rate (kg/day)				Daily Dose From Soil Ingestion (mg/kg/day)
Bis(2-ethylhexyl)phthalate	2.00E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.47E-04
2-amino Dinitrotoluene	1.30E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.55E-05
4-amino Dinitrotoluene	1.30E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.55E-05
HMX	1.20E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.82E-02
PETN	1.50E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.10E-03
Pentachlorophenol	7.50E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.51E-05
RDX	3.91E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.87E-03
Tetryl	3.90E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.87E-04
Antimony	2.79E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.05E-02
Arsenic	6.80E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.00E-03
Beryllium	8.40E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.17E-04
Cadmium	2.53E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.86E-02
Chromium	6.50E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.78E-02
Copper	1.64E+03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.20E+00
Lead	4.06E+03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.98E+00
Nickel	2.38E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.75E-02
Selenium	1.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	7.35E-04
Silver	6.60E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.85E-04
Zinc	8.91E+03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.55E+00

SEDIMENT DERMAL EXPOSURE:

Table E36. Site 39 Risk Characterization for the Gray Fox (Vegetated Areas)
 Quantitative Ecological Screening Assessment
 Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-amino Dinitrotoluene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4-amino Dinitrotoluene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
HMX	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PETN	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Pentachlorophenol	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
RDX	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Tetryl	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT INGESTION:

Table E36. Site 39 Risk Characterization for the Gray Fox (Vegetated Areas)
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average	
					Body Weight (kg)	Daily Dose From Sediment Ingestion (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-amino Dinitrotoluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4-amino Dinitrotoluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
HMX	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PETN	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Pentachlorophenol	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
RDX	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Tetryl	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table E36. Site 39 Risk Characterization for the Gray Fox (Vegetated Areas)

Quantitative Ecological Screening Assessment

Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil	Surface Soil	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
		Dermal Exposure (Soil on Skin) (kg/cm ²)	Dermal Exposure (Skin Exposed) (cm ² /day)						Daily Dose From Soil - Dermal (mg/kg/day)
Bis(2-ethylhexyl)phthalate	2.00E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.15E-05
2-amino Dinitrotoluene	1.30E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.48E-06
4-amino Dinitrotoluene	1.30E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.48E-06
HMX	1.20E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.90E-03
PETN	1.50E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	8.63E-05
Pentachlorophenol	7.50E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.31E-06
RDX	3.91E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.25E-04
Tetryl	3.90E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.24E-05
Antimony	2.79E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.60E-03
Arsenic	6.80E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.91E-04
Beryllium	8.40E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.83E-05
Cadmium	2.53E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.45E-03
Chromium	6.50E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.74E-03
Copper	1.64E+03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	9.43E-02
Lead	4.06E+03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.33E-01
Nickel	2.38E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.37E-03
Selenium	1.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.75E-05
Silver	6.60E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.80E-05
Zinc	8.91E+03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.12E-01

SURFACE WATER DERMAL EXPOSURE:

Table E36. Site 39 Risk Characterization for the Gray Fox (Vegetated Areas)

Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Bis(2-ethylhexyl)phthalate	1.82E-03	3.02E+02	3.36E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-amino Dinitrotoluene	2.41E-02	3.02E+02	3.05E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4-amino Dinitrotoluene	2.41E-02	3.02E+02	3.05E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
HMX	2.53E+02	3.02E+02	3.69E-05	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PETN	4.42E-01	3.02E+02	3.18E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Pentachlorophenol	7.17E-04	3.02E+02	1.61E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
RDX	2.97E+00	3.02E+02	3.67E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Tetryl	1.11E-01	3.02E+02	5.02E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	5.78E-01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	6.27E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	5.93E-03	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.42E+00	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	4.80E-01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	1.04E+02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	4.02E+01	3.02E+02	4.00E-06	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	4.34E-01	3.02E+02	1.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	1.13E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	2.70E-02	3.02E+02	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	1.91E+03	3.02E+02	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

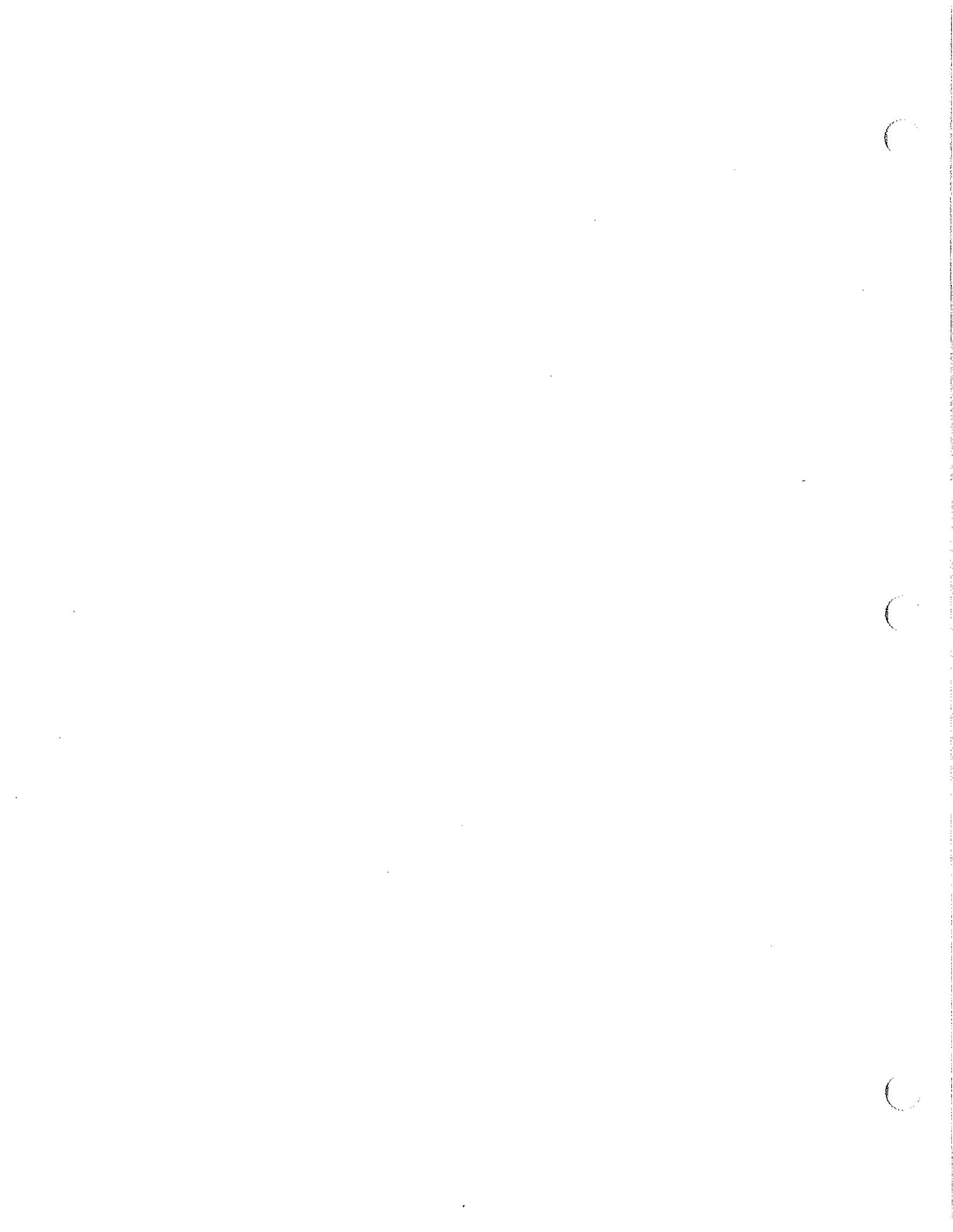
RISK CHARACTERIZATION

Table E36. Site 39 Risk Characterization for the Gray Fox (Vegetated Areas)

Quantitative Ecological Screening Assessment

Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Bis(2-ethylhexyl)phthalate	6.70E-05	0.00E+00	6.81E-05	1.47E-04	0.00E+00	0.00E+00	1.15E-05	0.00E+00	2.94E-04	2.26E-03
2-amino Dinitrotoluene	8.84E-04	0.00E+00	2.85E-03	9.55E-05	0.00E+00	0.00E+00	7.48E-06	0.00E+00	3.83E-03	1.51E-03
4-amino Dinitrotoluene	8.84E-04	0.00E+00	2.85E-03	9.55E-05	0.00E+00	0.00E+00	7.48E-06	0.00E+00	3.83E-03	1.71E-03
HMX	9.29E+00	0.00E+00	3.09E+01	8.82E-02	0.00E+00	0.00E+00	6.90E-03	0.00E+00	4.02E+01	8.05E+01
PETN	1.62E-02	0.00E+00	5.29E-02	1.10E-03	0.00E+00	0.00E+00	8.63E-05	0.00E+00	7.03E-02	3.06E-01
Pentachlorophenol	2.63E-05	0.00E+00	2.96E-05	5.51E-05	0.00E+00	0.00E+00	4.31E-06	0.00E+00	1.15E-04	6.78E-04
RDX	1.09E-01	0.00E+00	3.60E-01	2.87E-03	0.00E+00	0.00E+00	2.25E-04	0.00E+00	4.72E-01	1.57E+00
Tetryl	4.07E-03	0.00E+00	1.33E-02	2.87E-04	0.00E+00	0.00E+00	2.24E-05	0.00E+00	1.77E-02	1.41E-02
Antimony	2.12E-02	0.00E+00	4.91E-02	2.05E-02	0.00E+00	0.00E+00	1.60E-03	0.00E+00	9.24E-02	3.09E-02
Arsenic	2.30E-03	0.00E+00	2.40E-03	5.00E-03	0.00E+00	0.00E+00	3.91E-04	0.00E+00	1.01E-02	2.73E-02
Beryllium	2.18E-04	0.00E+00	7.39E-05	6.17E-04	0.00E+00	0.00E+00	4.83E-05	0.00E+00	9.57E-04	1.91E-02
Cadmium	5.20E-02	0.00E+00	1.54E-01	1.86E-02	0.00E+00	0.00E+00	1.45E-03	0.00E+00	2.26E-01	2.66E+01
Chromium	1.76E-02	0.00E+00	8.28E-03	4.78E-02	0.00E+00	0.00E+00	3.74E-03	0.00E+00	7.74E-02	2.50E+00
Copper	3.82E+00	0.00E+00	1.14E+01	1.20E+00	0.00E+00	0.00E+00	9.43E-02	0.00E+00	1.66E+01	9.55E-01
Lead	1.48E+00	0.00E+00	1.77E+00	2.98E+00	0.00E+00	0.00E+00	2.33E-01	0.00E+00	6.46E+00	4.97E+01
Nickel	1.59E-02	0.00E+00	3.46E-02	1.75E-02	0.00E+00	0.00E+00	1.37E-03	0.00E+00	6.94E-02	2.58E-02
Selenium	4.15E-04	0.00E+00	6.07E-04	7.35E-04	0.00E+00	0.00E+00	5.75E-05	0.00E+00	1.81E-03	5.85E-01
Silver	9.93E-04	0.00E+00	2.80E-03	4.85E-04	0.00E+00	0.00E+00	3.80E-05	0.00E+00	4.31E-03	4.84E-03
Zinc	7.02E+01	0.00E+00	2.27E+02	6.55E+00	0.00E+00	0.00E+00	5.12E-01	0.00E+00	3.04E+02	1.74E+02
TOTAL										3.37E+02



**Table E37. Site 40 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose- Response Value		Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Acetone	2.80E-03	0.00E+00	0.00E+00	2.00E+00	1.00E+00	1.00E+00	1.00E+00	3.70E-04	1.72E+01
Toluene	1.20E-03	0.00E+00	0.00E+00	2.50E+02	1.00E+00	1.00E+00	1.00E+00	4.50E-02	3.29E-01
Bis(2-ethylhexyl)phthalate	5.60E-02	0.00E+00	0.00E+00	2.60E+00	1.00E+00	1.00E+00	1.00E+00	3.36E-02	1.39E-02
Chromium	1.14E+01	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	5.20E-03

EXPOSURE PARAMETERS:

Table E37. Site 40 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate (L/day)	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:

Table E37. Site 40 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From Body Aquatic Organism Weight (kg)	Consumption (mg/kg/day)
Acetone	0.00E+00	1.00E+00	0.00E+00	1.00E+00	2.50E-02	0.00E+00
Toluene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phthalate	0.00E+00	1.00E+00	0.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	2.50E-02	0.00E+00

SURFACE WATER DERMAL EXPOSURE:

Table E37. Site 40 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose
									From Water - Dermal (mg/kg/day)
Acetone	0.00E+00	8.55E+00	3.70E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Toluene	0.00E+00	8.55E+00	4.50E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phthalate	0.00E+00	8.55E+00	3.36E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table E37. Site 40 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Acetone	0.00E+00	0.00E+00	9.63E-03	1.68E-05	0.00E+00	0.00E+00	9.58E-07	0.00E+00	9.65E-03	4.82E-03
Toluene	0.00E+00	0.00E+00	7.90E-05	7.20E-06	0.00E+00	0.00E+00	4.10E-07	0.00E+00	8.66E-05	3.46E-07
Bis(2-ethylhexyl)phthalate	0.00E+00	0.00E+00	1.56E-04	3.36E-04	0.00E+00	0.00E+00	1.92E-05	0.00E+00	5.11E-04	1.96E-04
Chromium	0.00E+00	0.00E+00	1.19E-02	6.84E-02	0.00E+00	0.00E+00	3.90E-03	0.00E+00	8.42E-02	3.51E-01
TOTAL										3.56E-01

**Table E38. Site 40 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose- Response Value		Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Acetone	2.80E-03	9.65E-03	0.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.70E-04	1.72E+01
Toluene	1.20E-03	8.66E-05	0.00E+00	1.25E+01	1.00E+00	1.00E+00	1.00E+00	4.50E-02	3.29E-01
Bis(2-ethylhexyl)phthalate	5.60E-02	5.11E-04	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	3.36E-02	1.39E-02
Chromium	1.14E+01	8.42E-02	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	5.20E-03

EXPOSURE PARAMETERS:

Table E38. Site 40 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table E38. Site 40 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From	
						Organism Consumption (mg/kg/day)	
Acetone	9.65E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.54E-04
Toluene	8.66E-05	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.18E-06
Bis(2-ethylhexyl)phthalate	5.11E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.88E-05
Chromium	8.42E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.09E-03

WATER CONSUMPTION

Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Site - Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From	
						Water Consumption (mg/kg/day)	
Acetone	9.65E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00	
Toluene	8.66E-05	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00	
Bis(2-ethylhexyl)phthalate	5.11E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00	
Chromium	8.42E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00	

PLANT CONSUMPTION:

Table E38. Site 40 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From	
							Plant Consumption (mg/kg/day)	
Acetone	2.80E-03	1.72E+01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.18E-03	
Toluene	1.20E-03	3.29E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	9.67E-06	
Bis(2-ethylhexyl)phthalate	5.60E-02	1.39E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.91E-05	
Chromium	1.14E+01	5.20E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.45E-03	

SOIL INGESTION:

Table E38. Site 40 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface	Soil	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Ingestion Rate (kg/day)				Daily Dose From Soil Ingestion (mg/kg/day)
Acetone	2.80E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.06E-06
Toluene	1.20E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.82E-07
Bis(2-ethylhexyl)phthalate	5.60E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.11E-05
Chromium	1.14E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.38E-03

SEDIMENT INGESTION:

Table E38. Site 40 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
						Daily Dose From Sediment Ingestion (mg/kg/day)
Acetone	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Toluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E38. Site 40 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Lifetime Average	
								Body Weight (kg)	Daily Dose From Sediment - Dermal (mg/kg/day)
Acetone	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Toluene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phthalate	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table E38. Site 40 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Acetone	2.80E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.61E-07
Toluene	1.20E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.90E-08
Bis(2-ethylhexyl)phthalate	5.60E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.22E-06
Chromium	1.14E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.56E-04

SURFACE WATER DERMAL EXPOSURE:

Table E38. Site 40 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm2)	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Acetone	9.65E-03	3.02E+02	3.70E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Toluene	8.66E-05	3.02E+02	4.50E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phthalate	5.11E-04	3.02E+02	3.36E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	8.42E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table E38. Site 40 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Acetone	3.54E-04	0.00E+00	1.18E-03	2.06E-06	0.00E+00	0.00E+00	1.61E-07	0.00E+00	1.54E-03	1.54E-03
Toluene	3.18E-06	0.00E+00	9.67E-06	8.82E-07	0.00E+00	0.00E+00	6.90E-08	0.00E+00	1.38E-05	1.10E-06
Bis(2-ethylhexyl)phthalate	1.88E-05	0.00E+00	1.91E-05	4.11E-05	0.00E+00	0.00E+00	3.22E-06	0.00E+00	8.22E-05	6.32E-04
Chromium	3.09E-03	0.00E+00	1.45E-03	8.38E-03	0.00E+00	0.00E+00	6.56E-04	0.00E+00	1.36E-02	4.52E-01
TOTAL										4.55E-01

**Table E39. Site 41 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose- Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Toluene	2.40E-03	0.00E+00	0.00E+00	2.50E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.29E-01
Arsenic	4.77E+01	0.00E+00	0.00E+00	7.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.44E-02
Beryllium	2.20E+00	0.00E+00	0.00E+00	9.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.59E-03
Cadmium	2.00E+00	0.00E+00	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.48E-01
Chromium	7.38E+01	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.20E-03
Copper	1.39E+02	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.85E-01
Lead	1.12E+02	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.78E-02
Nickel	1.02E+02	0.00E+00	0.00E+00	8.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.94E-02
Selenium	2.50E+00	0.00E+00	0.00E+00	6.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.48E-02
Silver	2.50E+00	0.00E+00	0.00E+00	1.78E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.73E-01
Thallium	5.70E-01	0.00E+00	0.00E+00	1.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.29E-03
Zinc	7.71E+02	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.04E+00

EXPOSURE PARAMETERS:

Table E39. Site 41 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate (L/day)	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:

Table E39. Site 41 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Toluene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION

Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Toluene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table E39. Site 41 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Soil Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Toluene	2.40E-03	3.29E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.58E-04
Arsenic	4.77E+01	1.44E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.37E-01
Beryllium	2.20E+00	3.59E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.58E-03
Cadmium	2.00E+00	2.48E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	9.92E-02
Chromium	7.38E+01	5.20E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	7.68E-02
Copper	1.39E+02	2.85E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	7.92E+00
Lead	1.12E+02	1.78E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.99E-01
Nickel	1.02E+02	5.94E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.21E+00
Selenium	2.50E+00	2.48E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.24E-02
Silver	2.50E+00	1.73E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	8.65E-02
Thallium	5.70E-01	1.29E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.47E-04
Zinc	7.71E+02	1.04E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.60E+02

SOIL INGESTION:

Table E39. Site 41 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
Toluene	2.40E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.44E-05
Arsenic	4.77E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.86E-01
Beryllium	2.20E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.32E-02
Cadmium	2.00E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.20E-02
Chromium	7.38E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.43E-01
Copper	1.39E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	8.34E-01
Lead	1.12E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.72E-01
Nickel	1.02E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.12E-01
Selenium	2.50E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.50E-02
Silver	2.50E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.50E-02
Thallium	5.70E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.42E-03
Zinc	7.71E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.63E+00

SEDIMENT INGESTION:

Table E39. Site 41 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Toluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E39. Site 41 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Toluene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table E39. Site 41 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Toluene	2.40E-03	1.00E-08	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.21E-07
Arsenic	4.77E+01	1.00E-08	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.63E-02
Beryllium	2.20E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.52E-04
Cadmium	2.00E+00	1.00E-08	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.84E-04
Chromium	7.38E+01	1.00E-08	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.52E-02
Copper	1.39E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.75E-02
Lead	1.12E+02	1.00E-08	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.83E-02
Nickel	1.02E+02	1.00E-08	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.49E-02
Selenium	2.50E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.55E-04
Silver	2.50E+00	1.00E-08	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.55E-04
Thallium	5.70E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.95E-04
Zinc	7.71E+02	1.00E-08	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.64E-01

SURFACE WATER DERMAL EXPOSURE:

Table E39. Site 41 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm2)	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Toluene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table E39. Site 41 Risk Characterization for the Deer Mouse
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Toluene	0.00E+00	0.00E+00	1.58E-04	1.44E-05	0.00E+00	0.00E+00	8.21E-07	0.00E+00	1.73E-04	6.93E-07
Arsenic	0.00E+00	0.00E+00	1.37E-01	2.86E-01	0.00E+00	0.00E+00	1.63E-02	0.00E+00	4.40E-01	1.62E-01
Beryllium	0.00E+00	0.00E+00	1.58E-03	1.32E-02	0.00E+00	0.00E+00	7.52E-04	0.00E+00	1.55E-02	1.63E-02
Cadmium	0.00E+00	0.00E+00	9.92E-02	1.20E-02	0.00E+00	0.00E+00	6.84E-04	0.00E+00	1.12E-01	6.58E-01
Chromium	0.00E+00	0.00E+00	7.68E-02	4.43E-01	0.00E+00	0.00E+00	2.52E-02	0.00E+00	5.45E-01	2.27E+00
Copper	0.00E+00	0.00E+00	7.92E+00	8.34E-01	0.00E+00	0.00E+00	4.75E-02	0.00E+00	8.80E+00	2.54E-02
Lead	0.00E+00	0.00E+00	3.89E-01	6.72E-01	0.00E+00	0.00E+00	3.83E-02	0.00E+00	1.11E+00	1.23E+01
Nickel	0.00E+00	0.00E+00	1.21E+00	6.12E-01	0.00E+00	0.00E+00	3.49E-02	0.00E+00	1.86E+00	2.19E+00
Selenium	0.00E+00	0.00E+00	1.24E-02	1.50E-02	0.00E+00	0.00E+00	8.55E-04	0.00E+00	2.83E-02	4.71E-01
Silver	0.00E+00	0.00E+00	8.65E-02	1.50E-02	0.00E+00	0.00E+00	8.55E-04	0.00E+00	1.02E-01	5.75E-02
Thallium	0.00E+00	0.00E+00	1.47E-04	3.42E-03	0.00E+00	0.00E+00	1.95E-04	0.00E+00	3.76E-03	3.76E-01
Zinc	0.00E+00	0.00E+00	1.60E+02	4.63E+00	0.00E+00	0.00E+00	2.64E-01	0.00E+00	1.65E+02	1.18E+01
TOTAL										3.08E+01

**Table E40. Site 41 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose- Response Value	Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Toluene	2.40E-03	1.73E-04	0.00E+00	1.25E+01	1.00E+00	1.00E+00	1.00E+00	3.29E-01
Arsenic	4.77E+01	4.40E-01	0.00E+00	3.70E-01	1.00E+00	2.00E-02	1.20E+00	1.44E-02
Beryllium	2.20E+00	1.55E-02	0.00E+00	5.00E-02	1.00E+00	2.00E-02	1.20E+00	3.59E-03
Cadmium	2.00E+00	1.12E-01	0.00E+00	8.50E-03	1.00E+00	2.00E-02	1.20E+00	2.48E-01
Chromium	7.38E+01	5.45E-01	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	5.20E-03
Copper	1.39E+02	8.80E+00	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	2.85E-01
Lead	1.12E+02	1.11E+00	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	1.78E-02
Nickel	1.02E+02	1.86E+00	0.00E+00	2.69E+00	1.00E+00	1.00E+00	1.00E+00	5.94E-02
Selenium	2.50E+00	2.83E-02	0.00E+00	3.10E-03	1.00E+00	1.00E+00	1.00E+00	2.48E-02
Silver	2.50E+00	1.02E-01	0.00E+00	8.90E-01	1.00E+00	1.00E+00	1.00E+00	1.73E-01
Thallium	5.70E-01	3.76E-03	0.00E+00	3.00E-03	1.00E+00	1.00E+00	1.00E+00	1.29E-03
Zinc	7.71E+02	1.65E+02	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	1.04E+00

EXPOSURE PARAMETERS:

Table E40. Site 41 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day)	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm2)	3.02E+02
Skin exposed - Soil/Sediment (cm2/day)	3.02E+02
Soil on Skin (kg/cm2)	1.00E-06

Note: See text for source of parameters

FIELD MOUSE CONSUMPTION:

Table E40. Site 41 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)		Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Organism Consumption (mg/kg/day)
Toluene	1.73E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	8.36E-08
Arsenic	4.40E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.62E-02
Beryllium	1.55E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	5.71E-04
Cadmium	1.12E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	4.11E-03
Chromium	5.45E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.00E-02
Copper	8.80E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.23E-01
Lead	1.11E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	4.07E-02
Nickel	1.88E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	6.83E-02
Selenium	2.83E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.04E-03
Silver	1.02E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.76E-03
Thallium	3.76E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.38E-04
Zinc	1.65E+02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	6.07E+00

WATER CONSUMPTION

Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Site - Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Toluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table E40. Site 41 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Toluene	2.40E-03	3.29E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.93E-05
Arsenic	4.77E+01	1.44E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.68E-02
Beryllium	2.20E+00	3.59E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.93E-04
Cadmium	2.00E+00	2.48E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.21E-02
Chromium	7.38E+01	5.20E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	9.40E-03
Copper	1.39E+02	2.85E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	9.70E-01
Lead	1.12E+02	1.78E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.88E-02
Nickel	1.02E+02	5.94E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.48E-01
Selenium	2.50E+00	2.48E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.52E-03
Silver	2.50E+00	1.73E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.06E-02
Thallium	5.70E-01	1.29E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.80E-05
Zinc	7.71E+02	1.04E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.96E+01

SOIL INGESTION:

Table E40. Site 41 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
Toluene	2.40E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.76E-06
Arsenic	4.77E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.50E-02
Beryllium	2.20E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.62E-03
Cadmium	2.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.47E-03
Chromium	7.38E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.42E-02
Copper	1.39E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.02E-01
Lead	1.12E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.23E-02
Nickel	1.02E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	7.49E-02
Selenium	2.50E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.84E-03
Silver	2.50E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.84E-03
Thallium	5.70E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.19E-04
Zinc	7.71E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.66E-01

SEDIMENT INGESTION:

Table E40. Site 41 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Toluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table E40. Site 41 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Toluene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E-06	3.02E+02	2.00E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	1.00E-06	3.02E+02	2.00E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	2.00E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table E40. Site 41 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm ²)	Surface Soil Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Toluene	2.40E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.38E-07
Arsenic	4.77E+01	1.00E-06	3.02E+02	2.00E-02	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.49E-05
Beryllium	2.20E+00	1.00E-06	3.02E+02	2.00E-02	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.53E-06
Cadmium	2.00E+00	1.00E-06	3.02E+02	2.00E-02	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.30E-06
Chromium	7.38E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.24E-03
Copper	1.39E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.99E-03
Lead	1.12E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.44E-03
Nickel	1.02E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.87E-03
Selenium	2.50E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.44E-04
Silver	2.50E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.44E-04
Thallium	5.70E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.28E-05
Zinc	7.71E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.43E-02

SURFACE WATER DERMAL EXPOSURE:

Table E40. Site 41 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

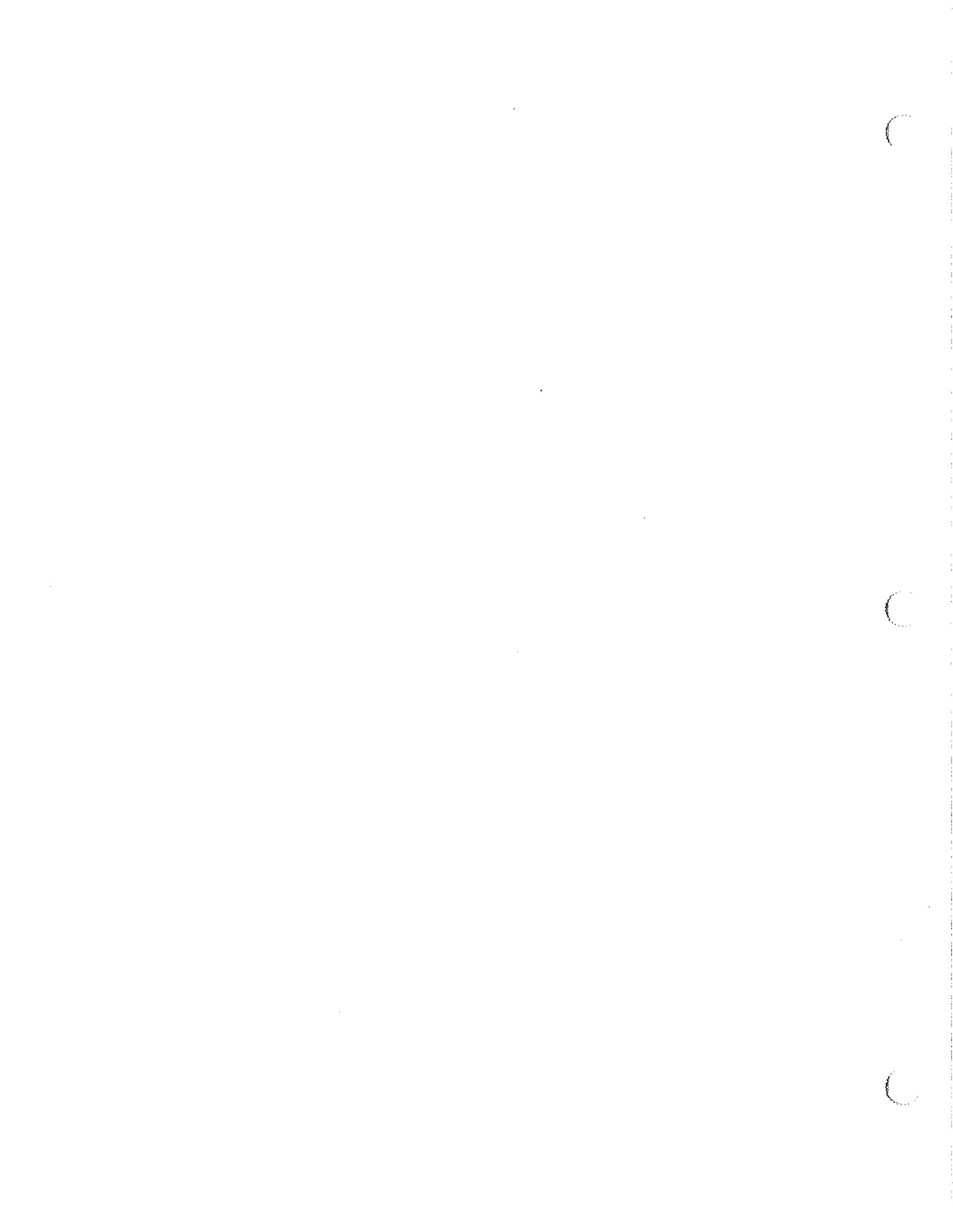
Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Toluene	1.73E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	4.40E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	1.55E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.12E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	5.45E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	8.80E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	1.11E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	1.86E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	2.83E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	1.02E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	3.76E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	1.65E+02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table E40. Site 41 Risk Characterization for the Gray Fox
Quantitative Ecological Screening Assessment
Fort Ord, California

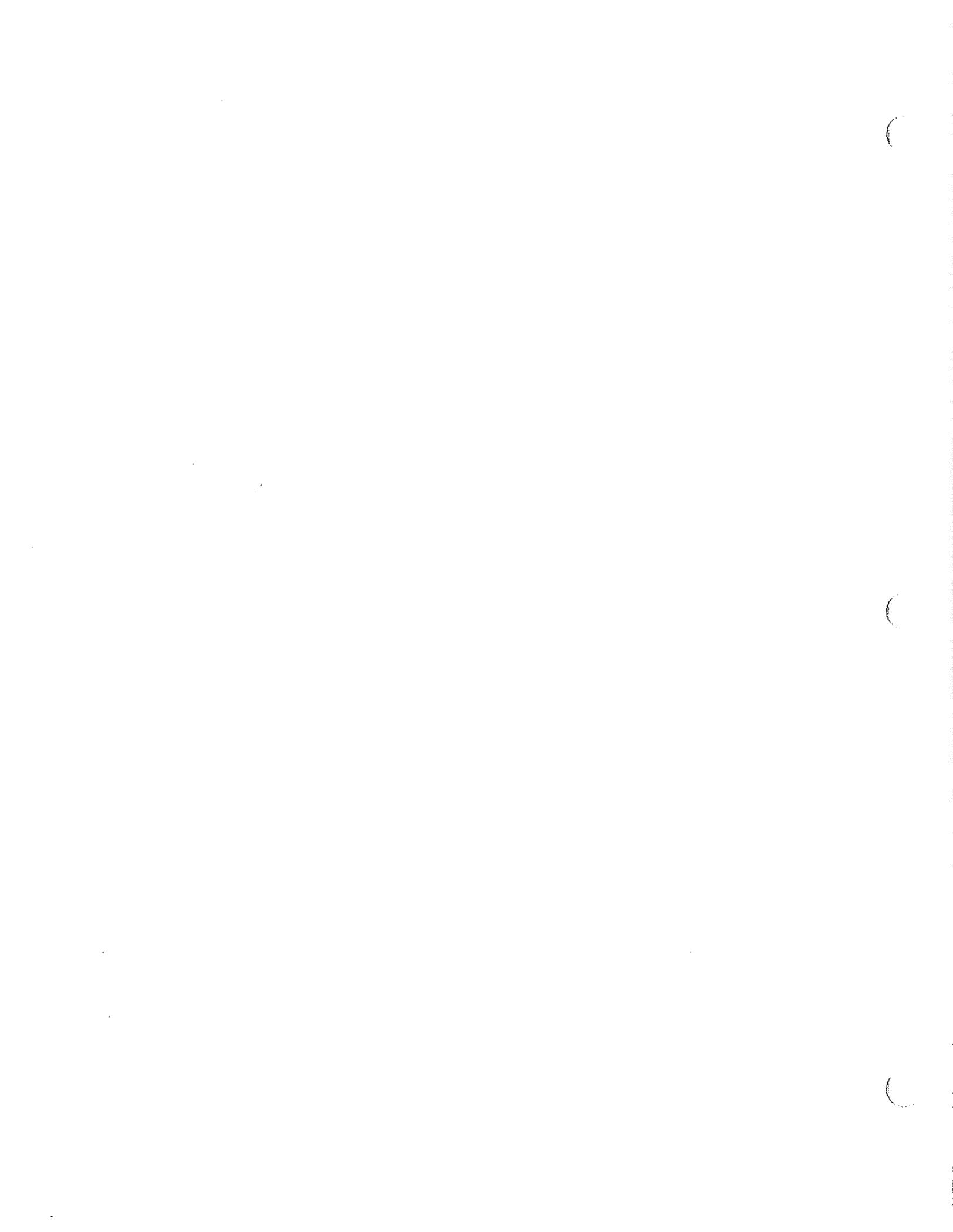
Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Toluene	6.36E-06	0.00E+00	1.93E-05	1.76E-06	0.00E+00	0.00E+00	1.38E-07	0.00E+00	2.76E-05	2.21E-06
Arsenic	1.62E-02	0.00E+00	1.68E-02	3.50E-02	0.00E+00	0.00E+00	5.49E-05	0.00E+00	6.81E-02	1.84E-01
Beryllium	5.71E-04	0.00E+00	1.93E-04	1.62E-03	0.00E+00	0.00E+00	2.53E-06	0.00E+00	2.38E-03	4.77E-02
Cadmium	4.11E-03	0.00E+00	1.21E-02	1.47E-03	0.00E+00	0.00E+00	2.30E-06	0.00E+00	1.77E-02	2.09E+00
Chromium	2.00E-02	0.00E+00	9.40E-03	5.42E-02	0.00E+00	0.00E+00	4.24E-03	0.00E+00	8.79E-02	2.93E+00
Copper	3.23E-01	0.00E+00	9.70E-01	1.02E-01	0.00E+00	0.00E+00	7.99E-03	0.00E+00	1.40E+00	8.11E-02
Lead	4.07E-02	0.00E+00	4.88E-02	8.23E-02	0.00E+00	0.00E+00	6.44E-03	0.00E+00	1.78E-01	1.37E+00
Nickel	6.83E-02	0.00E+00	1.48E-01	7.49E-02	0.00E+00	0.00E+00	5.87E-03	0.00E+00	2.97E-01	1.11E-01
Selenium	1.04E-03	0.00E+00	1.52E-03	1.84E-03	0.00E+00	0.00E+00	1.44E-04	0.00E+00	4.54E-03	1.46E+00
Silver	3.76E-03	0.00E+00	1.06E-02	1.84E-03	0.00E+00	0.00E+00	1.44E-04	0.00E+00	1.63E-02	1.84E-02
Thallium	1.38E-04	0.00E+00	1.80E-05	4.19E-04	0.00E+00	0.00E+00	3.28E-05	0.00E+00	6.08E-04	2.03E-01
Zinc	6.07E+00	0.00E+00	1.96E+01	5.66E-01	0.00E+00	0.00E+00	4.43E-02	0.00E+00	2.63E+01	1.50E+01
TOTAL										2.35E+01

APPENDIX F
STANDARD OPERATING PROCEDURES

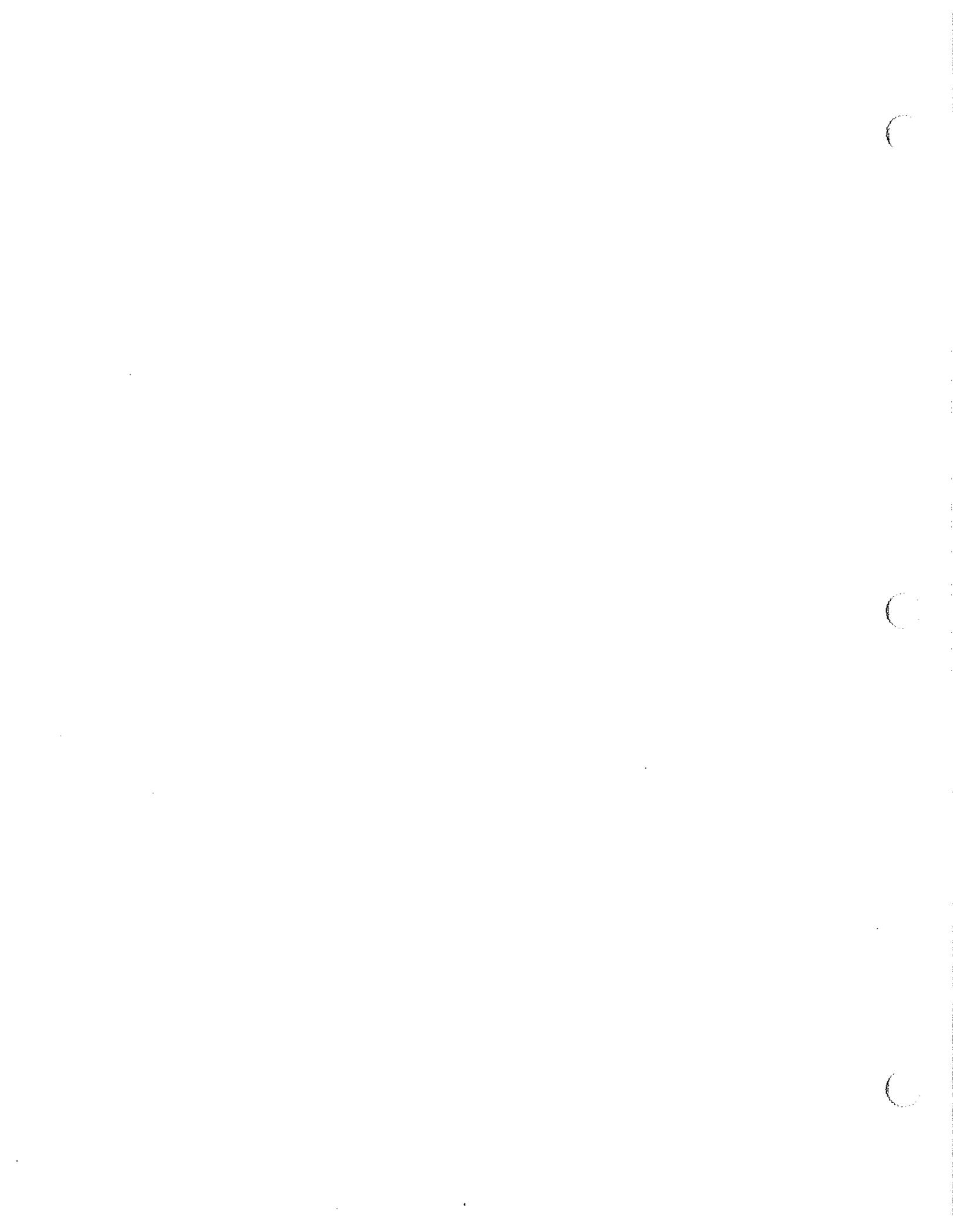


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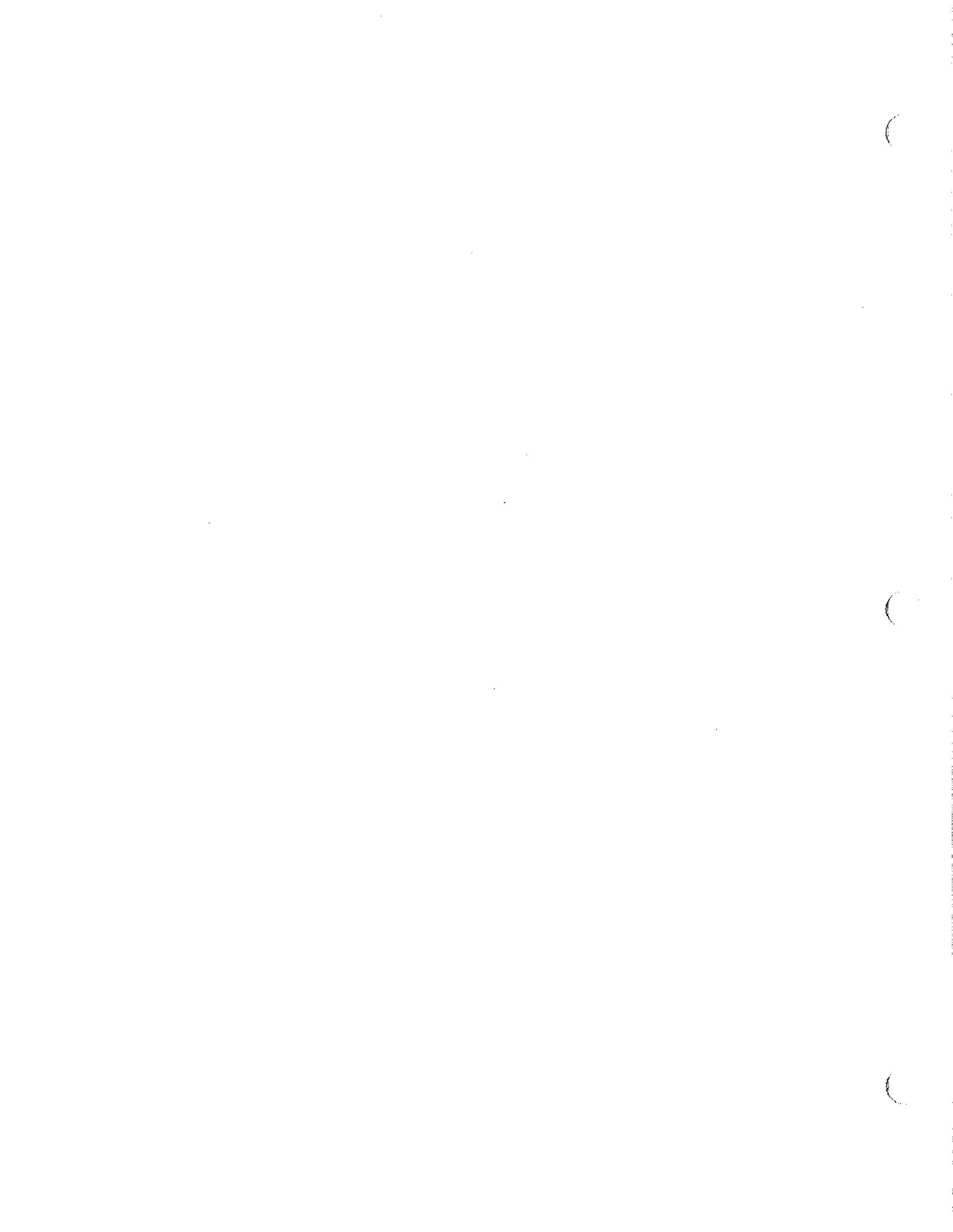
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TABLES

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ATTACHMENT 1

Letter, U.S. Fish and Wildlife Service dated July 20, 1994



F1.0 STORMWATER SAMPLING

This section describes field activities associated with stormwater sampling and analysis for the Basewide Ecological Risk Assessment (ERA). These activities are not described in Section 4.0 of Part I - Field Sampling Plan, Remedial Investigation/Feasibility Study, Fort Ord, California, December 1991 as revised June 19, 1992.

The objective of the Basewide Ecological Risk Assessment (ERA) is to assess whether chemicals associated with Army activities at Fort Ord may currently or in the future adversely affect flora and fauna.

F1.1 Outfall Prioritization And Sampling Preparation

The habitat, soil, and drainage characteristics of surface water drainage areas at Fort Ord were evaluated to identify surface water drainage sampling locations representative of each plant community type. Locations were chosen in both undisturbed (i.e., background) areas and areas downgradient of potential chemical source areas that could contribute chemicals to the outfall environment via stormwater runoff.

Two site visits were conducted to determine the feasibility of sampling at each proposed sampling location and to mark the outfall locations for easy identification during storm events. Sampling locations were staked with lath and orange flagging, and the adjacent pavement was painted wherever possible. The lath and the pavement are labeled with the sampling station number.

Fourteen of the proposed stormwater sampling locations were determined to be suitable for sampling. Four of these locations are in background (or undisturbed) areas; the rest are downgradient of sites. The locations chosen for sampling include the following:

- A storm drain manhole along each of the four Monterey Bay outfalls
- A storm drain dune outfall
- Three storm drain outfalls at Pete's Pond (Site 16)
- A storm drain outfall that discharges from the Fritzsche Army Airfield
- A storm drain outfall that discharges offbase in the Salinas Valley from the East Garrison
- A natural drainage downstream of Site 31
- A background location in a natural drainage on Crescent Bluffs Road that drains a mixture of coastal maritime chaparral and central coast scrub oak habitats
- A background location in a natural drainage on Crescent Bluff Road that drains a mixture of central maritime chaparral and valley needlegrass habitats
- A background location in a natural drainage on Pilarcitos Road that drains valley needlegrass habitat.

Depending upon the magnitude of the storm event, some of the sampling locations may not produce sufficient runoff to conduct a full suite of analyses.

F1.2 Sampling

Stormwater samples will be collected from the previously identified sampling locations during two 1993-1994 storm events. Four teams of two sampling personnel will respond within 1 hour after discharge begins. It is anticipated that some standby and mobilization/demobilization time will be incurred, particularly if a storm occurs during non-working hours (at night or during the weekend) and only non-local personnel are available. If the storm occurs during weekday working hours, sampling personnel will be pulled from field crews working that day. These field crews will also be on standby for storms that might occur at night during the week.

Samples will be collected for bioassay analysis and chemical analysis. Three 5-gallon collapsible containers will be filled at each outfall for bioassay analysis.

Samples collected for chemical analysis will be analyzed for priority pollutant metals (EPA Method 6010), VOCs (EPA Method 8240), pesticides and PCBs (EPA Method 8080), SOCs (EPA Method 8270), TPH as diesel (EPA Method 8015 D), and TPH as gasoline (EPA Method 8015 G). The sampling location draining Site 31 will also be analyzed for dioxins and furans (EPA Method 8290). Table F1 lists the field sampling plan for this investigation and identifies the analyses to be performed. In addition to the sample quantities listed in the table, eight quality control samples will be collected in accordance with Section 15.0 of the QAPP.

If sampling takes place at night, each team will carry a lighted barricade, reflective safety vests, and two lights. Each team will also have a mobile phone.

F1.3 Quality Assurance

This section presents additions to Section 8.4 (Stormwater Sampling) of Part 2 - Quality Assurance Project Plan, Remedial Investigation/Feasibility Study, Fort Ord, California, Draft Final: August 20, 1991; Final: December 12, 1991.

Sample bottles with preservatives and coolers will be organized for each outfall location and grouped by sampling team in a staging area on the base to minimize sampling team response time to storm events. Portions of the sample bottle labels and chain of custody records will be prepared in advance and placed with the coolers and bottles for each sampling team.

Sampling at each storm drain outfall will be completed by placing the sampling container directly into the stormwater discharge or by placing a decontaminated stainless steel bucket into the discharge and pouring samples from the bucket into the containers. At the storm drain system manhole sampling locations (for the four ocean outfalls), a rope will be attached to the buckets and the bucket lowered into the stormwater discharge in each manhole. The stainless steel buckets will be decontaminated between outfall sampling locations in conformance with decontamination procedures in Section 10.0 of the QAPP.

F2.0 STORMWATER BIOASSAYS

This section describes the bioassay testing procedures associated with stormwater sampling and analysis for the Basewide Ecological Risk Assessment (ERA). These activities are not described in Part 1 or Part 2 of the Sampling and Analysis Plan, Remedial Investigation/Feasibility Study, Fort Ord, California, December 1991 as revised June 19, 1992.

This section describes the activities and tests that are to be performed by the contract laboratory. The contract laboratory will perform a triad of bioassays on stormwater samples obtained by HLA from various locations at Fort Ord, California.

F2.1 Description of Laboratory Services

Under the direction of an HLA field geologist, stormwater samples will be obtained and given to contract laboratory personnel to transport under chain of custody to the laboratory for testing and analysis. The contract laboratory shall perform the following bioassays on the stormwater samples plus appropriate laboratory control samples:

- Water flea (*Ceriodaphnia dubia*) three-brood chronic test
- Fathead minnow (*Pimephales promelas*) seven-day subchronic test
- Algal growth test (*Selenastrum capricornutum*) four-day chronic test.

Bioassay procedures will follow the EPA-approved protocols and meet the QA/QC requirements detailed in the bioassay protocol (Section F2.4). The contract laboratory shall provide five-gallon collapsible containers for use in collecting the stormwater samples. Three five-gallon containers of water from each sampling location will be collected by HLA and transferred to the contract laboratory.

F2.2 Schedule

Significant stormwater flows are necessary for this work, therefore the actual sampling event shall be dictated by the weather. Thus, lead time may be minimal for notification to the contract laboratory. HLA will attempt to provide at least two days notice, however, false alarms can be expected depending on the accuracy of the local weather forecasts. Notification shall be made via telephone by the HLA project manager to the contact personnel at the laboratory. This notification will be followed by a letter confirming HLA's direction.

F2.3 Bioassay Protocol

Except where noted in the document, bioassay protocols should be consistent with *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, EPA/600/4-89/001, March 1989 for the following three tests:

1. Seven day, subchronic, fathead minnow (*Pimephales promelas*), static renewal, larval survival and reproduction test.
2. Three-brood, 7-day, chronic, cladoceran (*Ceriodaphnia dubia*), static renewal, survival and reproduction test.
3. Four-day, chronic, algal (*Selenastrum capricornutum*), static, growth test.

F2.3.1 Deviations From Protocol

Deviations from approved test protocols may be requested by the contract laboratory for issues which could affect the outcome of the bioassay results. These requests for changes in protocol could be based upon problems with the water quality of the samples (e.g., hardness, pH, alkalinity, turbidity), availability of selected test organisms or substitution of life history stages. Requests for deviations

from protocol must be approved by HLA before the changes are initiated. These requests can be made in writing or by phone (with a follow-up in writing) to the HLA project manager.

F2.3.2 Dilution Water

Toxicity-free synthetic fresh water will be used following the EPA guidelines cited in Section F2.3 matching hardness, alkalinity and pH to test water (as close as possible). Note that each sample will need to be tested before dilution since samples drain different surface water areas.

F2.3.3 Reference Toxicant

A reference toxicant test shall be used with each bioassay conducted for all samples. The laboratory will provide the prescribed limits as established using Section 4.14.2 of the EPA guidelines cited in Section F2.3 for each test organism. These limits are to be based upon data obtained from using reference toxicant tests in the laboratory. If the reference toxicity results fall outside of the prescribed limits, the test must be repeated.

F2.3.4 Static Renewal Frequency

Test concentrations shall be renewed daily.

F2.3.5 Test Concentrations

Test dilution concentrations shall be performed following the test standard operating procedures (SOPs) attached to this addendum in a serial dilution series of 0, 6.25, 12.5, 25, 50, 100 percent of the sample. These dilutions are the same as those recommended in the EPA guidelines cited in Section F2.3 protocol for effluent testing.

F2.3.6 Test Methods

Page and section numbers referred to in parentheses in the following sections can be found in the EPA guidelines cited in Section F2.3.

F2.3.6.1 Method 1000.0 Fathead Minnow (*Pimephales promelas*) Larval Survival and Growth Test

All EPA protocols shall be followed (Section 10; Page 33).

Deviations from EPA protocol (Page 41):

21. Test acceptability (as in Table 1, Page 42) with the addition that the reference toxicant test results must fall within the established limits or the test must be redone.

F2.3.6.2 Method 1002.0 *Ceriodaphnia dubia* Survival and Reproduction Test

All EPA protocols shall be followed (Section 12; Page 105).

Deviations from EPA protocol (Pages 123 - 124):

20. Test acceptability (as in Table 3, Page 124) with the addition that the reference toxicant tests results must fall within the established limits or the test must be redone.

F2.3.6.3 Method 1003.0 Algal Selenastrum capricornutum Growth Test

All EPA protocols shall be followed (Section 13; Page 147).

Deviations from EPA protocols (Page 161):

17. Test acceptability (as in Table 3, Page 161) with the addition that the reference toxicant test results must fall within the established limits or the test must be redone.

F2.4 Quality Assurance

This section presents additions to the Quality Assurance Project Plan, Remedial Investigation/Feasibility Study, Fort Ord, California, Draft Final: August 20, 1991; Final: December 12, 1991.

The contract laboratory shall have a QA/QC program in place and fully operational. Internal QA/QC procedures and inspections shall be documented and a Project Quality Assurance Report shall be provided for each series of bioassays submitted by HLA.

During the course of the bioassay testing, HLA Quality Assurance staff shall visit the laboratory to ensure that the testing facilities are adequate and meet all the study requirements. In general, these inspections will help to determine whether the testing laboratory is conducting the testing in a manner designed to ensure the quality and integrity of the data. Specifically, these site visits will ensure:

- that the specific protocols and amendments are followed
- that the SOPs are in place and adhered to
- that the recordkeeping is accurate
- that the Quality Assurance Procedures are followed.

F3.0 COLLECTION OF PLANT SAMPLES FOR TISSUE ANALYSIS

This procedure describes the methods that will be used in the field for the collection and storage of plant samples for later laboratory analysis. COPCs for analysis include chemicals that vary widely in persistence and degradation behaviors: nondegrading (metals), slowly degrading (PCBs, organochlorine pesticides), intermediate to rapidly degrading (PAHs, aliphatic compounds), and volatile organics (ketones, solvents). These methods are intended to integrate analysis needs with practical sample collection protocols.

F3.1 Equipment

Latex or Neoprene gloves

Stainless steel scissors

Glass bottles - wide mouthed (supplied by analytical lab)

Brown paper bags

Ziploc bags

Ice

Dry ice

Packing containers

F3.2 Collection

The sample collection team will be comprised of two or more members, including a botanist or qualified biologist. At each sampling location, a patch of the plant species of interest will be identified by the team (e.g., *Carpobrotus edulis*, *Avena fatua*). Each species will be collected and bagged separately.

Clean stainless steel scissors will be used to cut the plant material. Only herbaceous overground plant biomass will be collected. The plant materials will be clipped at least 1 inch above the soil surface to minimize the inclusion of soil particles.

Based on prior species-specific fresh weight/dry weight estimates, the fresh weight of collected sample will be sufficient to furnish at least 80 grams dry weight of material. More may be collected for replication, if necessary and practical.

The clipped material will be transferred into precleaned, wide-mouthed glass bottles and capped. If glass bottles are impractical to use (based on volume or logistics), paper bags inserted into sealed plastic ziploc bags may be used. The sample containers will be labelled (including species name), as per EPA sample-handling guidelines and immediately placed on ice at 4° C in an ice chest or in a cooler. The sampling location will be permanently flagged in the field.

As soon as possible or upon arrival back at the base, the samples will be packed in dry ice and shipped to the laboratory for analysis.

F3.3 Storage

If the laboratory cannot analyze the samples immediately, storage in a deep freeze (-20°C) is recommended for long-term holding.

The scissors will be decontaminated in accordance with the QAPP prior to the collection of each sample.

Upon retrieval of samples for analysis, the laboratory will be instructed to handle the samples (prior to extraction) under low-light, reduced ultraviolet conditions in order to minimize degradation of light-sensitive COPCs such as PAHs.

F3.4 Quality Control and Assurance

- Labeling and chain-of-custody records for the samples will conform with the QAPP for this project. Field logs and data sheets will follow similar protocols.
- Field identification of plant species collected in the field will be performed by qualified and trained personnel.

- Field replicates of samples will consist of at least one replicate per 10 samples.
- Field blanks to confirm equipment decontamination and absence of extraneous contamination will be collected per the QAPP guidelines.
- QA/QC for laboratory analytical procedures will be the responsibility of the analytical laboratory.
- If ziploc bags are used for sample storage and holding, laboratory results for phthalate esters will be asterisked or marked to indicate the use of plastic bags.

F4.0 COLLECTION, STORAGE AND ANALYSIS OF TERRESTRIAL BIOTA SAMPLES AT FORT ORD

Biotic sampling at Fort Ord for the first phase of the draft ecological risk assessment will focus on terrestrial habitats. This task will be comprised of the collection of onsite litter, plants, reptiles, and small mammals and subsequent analyses of the collected materials for COPCs. The plants, reptiles, and small mammals will be limited to selected species on the basis of occurrence and suitability criteria. Plant species will include annual grasses and iceplant. Reptiles collected will include lizards. The small mammals will consist of mice, voles, and rats. The litter samples will be separated into animal and nonanimal matter and each fraction analyzed separately. Plant analyses will consist of aboveground vegetative and reproductive tissues, analyzed separately. Animal analyses will consist of whole body analyses. The COPCs for analysis include VOCs, SOCs, pesticides, PCBs, dioxins and furans, and metals.

Field collection of biota will be performed by HLA personnel and field crew. The samples will be delivered for analysis to Enseco Laboratories whose SOPs are on file and can be submitted upon request. The litter samples will be treated as 'soil' matrix while the plant, reptile, and mammal samples will be treated as 'tissue' matrix. The extraction and analytical methods on file with Enseco for fish tissues are applicable to other biota tissues and are proposed to be used for the plant, reptile, and animal samples for this project. All activities described in this appendix will be performed in accordance with the approved methods and procedures outlined in the Draft Workplan and the QAPP. Table F2 presents a summary of sample preservation methods, holding times, extraction and analytical methods.

F4.1 Biota Collection and Storage

This section describes the procedures for field activities. It includes collection and storage of samples for delivery to the laboratory. Minimum sample sizes and preservation methods are listed in Table F2. In general, the procedures for handling biota samples are identical to EPA's approved methods for soils, sludges, and other solid phase matrices. The only exception is in recommended storage temperatures. Due to the greater potential for degradation, biotic samples are usually stored at -20°C instead of the 4°C used for soil samples.

F4.2 Sample Preparation

This section summarizes matrix-based procedures for preparation of the biotic samples prior to analysis. Table F2 provides an analyte-based summary of extraction and analytical procedures. Step-by-step, comprehensive sample preparation and analysis procedures are described in the analytical SOPs.

F4.2.1 Litter Samples and Analytical Methods

Litter samples collected from the field will undergo separation into animal and nonanimal fractions by the use of Berlese funnels. The two fractions will then be analyzed individually for target analytes. Sample preparation and analytical procedures for the litter fractions will follow the approved protocols for "soil" matrix analyses in all aspects except temperature. Storage temperature (from receipt by the laboratory to time of analysis) for the litter fractions will be -20°C.

For complete details of analytical methods, refer to the QAPP for Fort Ord (*HLA, 1992k*).

Conventional Analyses: The conventional parameters for litter samples will include percent moisture, total organic carbon, pH, N (as nitrate), and P (as total phosphate). In addition, qualitative descriptions of litter composition, size fraction, and degree of decomposition will be noted.

Volatile Organics: Volatile organics will be extracted and analyzed in accordance with Enseco SOP LM-CAL 3021, which is consistent with EPA Test Method 8240 (*EPA, 1986c*). Volatile organics will be extracted and analyzed by purge and trap Gas Chromatography/Mass Spectrometry (GC/MS). Depending on the analyte concentrations samples may require methanol extraction prior to GC/MS analysis. Holding time shall not exceed 14 days from date of sample collection.

Semi-Volatile Organics: Semi-volatile organics will be extracted using the methylene chloride Soxhlet extraction procedure specified in Enseco SOP LM-CAL 3052. Following extraction, samples will be analyzed using the GC/MS protocols of Enseco SOP LM-CAL 3004, which are consistent with protocols contained in EPA Test Method 8270 (*EPA, 1986c*). Samples shall be extracted within 14 days of collection and the extracts shall be analyzed within 40 days of extraction.

Organochlorine pesticides and PCBs: These compounds are co-extracted with semi-volatile organics, using Enseco SOP LM-CAL 3052. A portion of the extracted sample will be analyzed for pesticides and PCBs by Gas Chromatography/Electron Capture Detection (GC/ECD). Samples are analyzed in accordance with Enseco SOP LM-CAL 4005 which corresponds to a modified EPA Test Method 8080 (*EPA, 1986c*). Samples shall be extracted within 14 days of collection and the extracts shall be analyzed within 40 days of extraction.

Dioxins and Furans: Samples are extracted with cyclohexane and methylene chloride following Enseco SOP LM-CAL 3001, which is consistent with the extraction procedure specified in EPA Test Method 8290 (*EPA, 1986c*). The extracted samples are analyzed by High Resolution GC and High Resolution MS (HRGC/HRMS), in a manner consistent with analytical procedure specified in EPA Test Method 8290. The samples shall be extracted within 30 days of collection and analyzed within 45 days of collection.

Metals: Samples will be digested with nitric acid and hydrogen peroxide, as per Enseco SOP LM-CAL 2109. Analysis will be performed either by ICP or Graphite Furnace Atomic Absorption (GFAA), as outlined in the QAPP. The extraction and analysis shall be completed within 180 days of collection.

F4.2.2 Plant Samples and Analyses

Plant samples will also be stored at -20°C. Prior to extraction, plant samples will be handled under low light, reduced-ultraviolet conditions in the laboratory to minimize degradation and loss of light-sensitive compounds such as PAHs. The plant samples will be separated into vegetative tissue (leaves) and reproductive tissues (flowers, fruits, seeds). Each tissue type will be analyzed separately. All plant sample materials will be handled in the same fashion as 'tissue' matrix, as specified in the QAPP and Enseco SOPs.

Conventional Analyses: Conventional parameters will include moisture content, N and P. In addition, species, plant parts present, and condition will be noted.

All other analyses for plant materials will be identical to the methods described previously.

F4.2.3 Reptile Samples and Analyses

Collected reptiles will be stored at -20°C. The entire animal will be ground up for whole body analysis for target analytes. No tissue or organ separation is proposed. Reptile samples will be handled in the same fashion as 'tissue' matrix, as specified in the QAPP and Enseco SOPs.

Conventional Analyses: Conventional parameters for reptile samples will include percent moisture and percent lipids. In addition, whole organism body weight, length and condition will be noted.

Analyses for reptile samples are identical to the methods described previously.

F4.2.4 Small Mammal Samples and Analyses

Collected small mammals will be stored at -20°C. The entire animal will be ground up for whole body analyses for target analytes. No tissue or organ separation is proposed. Mammal samples will be handled in the same fashion as 'tissue' matrix, as specified in the QAPP and Enseco SOPs.

Analyses for mammal samples will be identical to the methods described previously.

F4.3 Summary of Analytical Methods

This section summarizes the SOPs from Enseco Laboratories. The following SOPs will be followed:

LM-CAL-2109 Fish Tissue Metals Digestion, Revision 0.

LM-CAL-3001 Method 8290-Polychlorinated Dioxins and Furans by HRGC/HRMS, Revision 1.0

LM-CAL-3004 GC/MS Analysis of Semi-Volatile Organics (EPA Test Method 8270), Revision 4.0

LM-CAL-3021 Volatile Organics by GC/MS (EPA Test Method 8240), Revision 2.-

LM-CAL-3052 Sample Preparation for the Analysis of Polychlorinated Biphenyls and Semi-Volatiles in Fish Tissue, Revision 2.0

LM-CAL-4005 Analysis of Polychlorinated Biphenyls, Revision 5.0.

These SOPs are available upon request to both HLA and Enseco.

F5.0 SMALL MAMMAL TRAPPING

This section describes the protocol for small mammal trapping, and handling of specimens and equipment. The intent of the protocol is to provide guidance for trapping and to prevent possible exposure to Pulmonary Syndrome Hantavirus (Hantavirus), while conducting small mammal trapping at Fort Ord.

The objective of the Basewide Ecological Risk Assessment (ERA) is to assess whether chemicals associated with Army activities at Fort Ord may currently or in the future adversely affect flora and fauna.

F5.1 Sampling Preparation

Persons conducting trapping studies shall have completed the following health and safety requirements: 40 hour Hazardous materials training, current respirator fit test, baseline blood serum sample; and possess a valid scientific collector's permit issued by the California Department of Fish and Game.

F5.2 Small Mammal Trapping

Personal protective equipment (PPE) shall be worn at all times when handling small mammals or contaminated traps. PPE shall consist of a full-face air purifying (or negative pressure) respirator or PAPR equipped with HEPA filters and leather gloves worn under plastic gloves.

Small mammal trapping will be conducted along transects established for plant sampling. One hundred traps will be spaced evenly along the established transects. The number of animals to be collected at each site is presented in Table F3.

Traps will be placed in the field, baited, and opened at dusk. Bait will consist of one or more of the following: rolled oats, bird seed, and peanut butter. Traps will be checked the following morning according to the procedure outlined below:

- Check traps. If trap was unsuccessful, close trap but leave in place and continue to next trap. If trap was successful, empty small mammal from trap into a small clear plastic bag and identify. If species is a deer mouse (*Peromyscus maniculatus*) or house mouse (*Mus musculus*), return specimen to trap, record location, return trap to transect, and continue to the next trap. Release specimen if it is a different species.
- After all traps have been checked, the required number of specimens should be taken and processed. In order of preference, the specimens should be either all deer mice or all house mice. If neither species is available in the required numbers, then the more abundant species shall be taken and processed. The remaining trapped mice shall be released and the traps shall be closed and left in place for a second night of trapping. If during the second night of trapping the remaining required number of rodent specimens of the dominant taxon are not captured (i.e., 12 deer mice at site 3), then the total will be made up with the second most dominant taxon and trapping may be extended to the next day. In any case, trapping will not continue beyond 3 days or 300 trap nights for any site or reference location.
- If traps are to be set at the same site, place and bait traps, return at dusk to open traps.

F5.3 Handling and Transportation of Specimens and Equipment

After all traps have been checked and specimens to be collected identified, transfer specimens from trap into the CO₂ asphyxiation chamber for 10 minutes or until death is certain. Place the carcass into ashed foil and then into a sealable polyethylene bag, taking care not to contaminate the outside of the bag. Put this bag into another sealable polyethylene bag and place a completed sample label into the second bag. The sample label should contain the sample designation number, date, time, and recorder's initials. Place the bagged sample in a cooler with dry ice immediately and into a -4°C freezer as soon as possible. Fill out a chain-of-custody form for each sample, as it is being bagged.

Traps shall be kept in airtight bags or containers while in transit between trapping locations.

Upon completion of site trapping studies, traps shall be decontaminated by dipping each trap into a bleach solution, rinsing with water until clean, and placed on the ground to dry. Plastic containers or bags shall be decontaminated in the same manner.

F6.0 LIZARD TRAPPING

This section describes the protocol for reptile trapping, and handling of specimens and equipment.

F6.1 Sampling Preparation

Persons conducting trapping studies shall have completed 40-hour hazardous materials safety training and possess a valid scientific collector's permit issued by the California Department of Fish and Game.

F6.2 Lizard Trapping

Lizard trapping will be conducted using passive "pitfall" traps along transects established for surface soil and plant sampling. If suitable habitat for lizards is not present along the established plant transects, trapping will be conducted as close as is reasonably possible to established plant transects (with 25 feet) in habitat that is suitable for lizards. A total number of pitfall traps (1-quart standard mason canning jars) equal to the desired number of individuals planned for collection will be set up at each site (e.g., if 12 lizards are planned for collection, a total of 12 traps would be set up), divided evenly between transects with the limitations noted above. The number of lizards targeted for collection at each site is presented in Table F3.

One-quart mason jars will be placed in holes dug in the soil at each location so that the top of the mason jar is just below ground level. Soil will be backfilled around each jar so that the angle of the soil to the lip of the mason jar will be as steep as possible for the soil type. Animals venturing to the lip of the jar will be assisted into traps by the loose, steeply sloping soil. Traps will be opened by removing jar lids early in the morning, and checked in the late afternoon. Traps will be closed at the end of each day by replacing jar lids to prevent capturing other animals such as shrews and insects. Traps will be checked according to the procedure outlined below:

- Check traps. If trap was successful, record species. If species is a western fence lizard (*Sceloporus occidentalis*), northern or southern alligator lizard (*Gerrhonotus multicarinatus*), or a side-blotched lizard (*Uta stansburiana*), collect the animal as described in Section F6.3. Release specimen if it is not one of these species.
- If trap was unsuccessful, move trap location to another predefined area of the site, and set up trap for a second day. If trap was still unsuccessful, this step will be repeated for a third day. Trapping will not continue beyond 3 days for any site or reference location. If lizard tracks are evident on the site, but trapping was unsuccessful on days 1 and 2, active trapping with noose poles will also be conducted on day 3 in addition to passive pitfall traps. Noose traps will be used by the sampler to actively capture lizards. This method is less desirable than the pitfall trap because the lizard may not be trapped in an area of interest; however, use of the noose method will be restricted to the final day of sampling to increase the likelihood of obtaining sufficient sample sizes.

F6.3 Handling and Transportation of Specimens and Equipment

Transfer each identified specimen from the trap into a CO₂ asphyxiation chamber for 10 minutes or until death is certain. Place the specimen into a sealable polyethylene bag and place a completed sample label into the bag. The sample label should contain the sample designation number, date, time, and recorder's initials. Place the bagged sample in a cooler with dry ice and into a -4°C freezer as soon as possible. Complete the chain-of-custody form for each sample as it is being bagged. Samples will remain frozen during transport to the lab and at the lab until analysis begins.

Upon completion of reptile trapping studies at each identified site, traps will be cleaned with mild detergent solution, rinsed with water until clean and dried prior to installation at the next collection site.

F7.0 BUCKWHEAT SAMPLING PROGRAM

F7.1 Purpose

To assess if buckwheat plants present in the beach trainfire ranges at Fort Ord have accumulated metals at concentrations potentially detrimental to the Smith's blue butterfly.

F7.2 Scope

Collection of reproductive portions of four plants (*Erigeron latifolium* and/or *Erigeron parvifolium*, depending on availability) from each of three areas (high bullet density, low bullet density, and control) at Site 3, the beach trainfire ranges. Inflorescences will be chemically analyzed for the presence of chromium, copper, lead, vanadium, and zinc; additional seeds and seed heads will be sent to Plant Research Technologies in San Jose for use in root elongation and biomass assays with collocated soils from Site 3.

F7.3 Biomass Needs

A minimum of 6 grams of inflorescences (dry-weight) is needed from each plant for chemical analysis. Therefore, a total of no less than 24 grams (dry-weight) of inflorescences of each species will be collected from each of the three areas at Site 3. Less than 100 grams total dry-weight of inflorescences will be collected per species for chemical analysis. For the bioassays, a total of approximately 60 seeds per plant will be needed (depending on germination success in the laboratory); the laboratory standard operating procedures call for three replicates of 20 seeds each.

F7.4 Field Methods

These field methods have been amended by the U.S. Fish and Wildlife Service in a letter dated July 20, 1994 that is included as Attachment 1. Where these amendments differ from the protocol presented below, the amendments will supersede this protocol. An HLA biologist, accompanied by Bill Collins of Fort Ord and Dr. Richard Arnold, president of Entomological Consulting Services, Ltd., an expert on the Smith's blue butterfly and its habitat, will conduct the field collections of buckwheat plants. Within each of the three areas of interest at Site 3, isolated stands of buckwheat plants, preferably no larger than 10 feet by 10 feet and at least 100 yards from any other stands, will be identified. Once appropriate stands are identified, each stand will be observed for 10 minutes on each of 3 days over the course of 1 week to see if Smith's blue butterflies are utilizing the stand. The observation period will correspond with the maximum flight season of the butterfly on that species of buckwheat, as recommended by Dr. Arnold. If a given stand does not appear to be utilized either by flying or perching butterflies over this observation period, individual plants within the stand will be

examined for the presence of Smith's blue butterfly larvae. If present, another stand with no evidence of use or presence by the blue butterfly will be selected.

After the appropriate stands are selected for sampling, the Fish and Wildlife Service will be contacted for sampling approval. Once approval is received, inflorescences and seeds will be collected in the amounts listed above. Ten percent of inflorescences to be collected will be examined for the presence of larvae prior to collection. In no instance will any portions of a plant be collected with larvae on it. If the larvae are not sufficiently developed to readily identify (based on evaluation by Dr. Arnold), sample collection will be deferred to a later date to ensure that larvae are not harvested. Environmental conditions at time of observations and collections will be recorded in a field notebook. Professional judgment will be used to avoid periods of observations when the butterflies would not likely be present (e.g., gale force winds or rains). All field collections must be completed by August 15 to ensure that the plants are still in flower.

F7.5 Laboratory Methods:

See Standard Operating Procedures for Root Elongation Test and Plant Uptake and Bioaccumulation Test (Section F8).

F8.0 PLANT RESEARCH TECHNOLOGIES (PRT) STANDARD OPERATING PROCEDURES

SOP# HHL-01-01

Effective Date: November 16, 1994

**SHORT TERM TOXICITY SCREENING OF AQUEOUS WASTES
AND ELUTRIATES OF SOIL AND SOLID WASTE TO THE
SEEDLINGS OF TERRESTRIAL PLANTS;
ROOT ELONGATION TEST**

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Approved by:

	NAME	PRT TITLE	SIGNATURE	DATE
Validator:	Scott Korney	VP/Dir. Ag. Resources	_____	_____
QAU:	Earl Smart	Quality Assurance	_____	_____
Management:	Basil A. Burke	President	_____	_____

PRT STANDARD OPERATING PROCEDURES
SOP #HHL-01-01

F8.1 **Title:** Short-Term Toxicity Screening of Aqueous Wastes and Elutriates of Soil and Solid Waste to the Seedlings of Terrestrial Plants; Root Elongation Test

F8.1.1 **Scope/Purpose**

The objective of this procedure is to examine the acute toxicity effects of aqueous wastes and soil and solid waste elutriates on seedlings of terrestrial plants. Seeds are exposed to different concentrations of aqueous extracts of hazardous waste on wet filter paper for 7 days in the dark. Test results are based on the percent inhibition of seedling root elongation compared to controls.

Seeds of the coast buckwheat (*Erigonium latifolium*) and the dune buckwheat (*Erigonium parvifolium*) collected from Fort Ord will be used in these tests as well as a domestic cultivar of each species as an extra control.

F8.1.2 **Definitions**

Test Matrix - is generally either a soil or solid waste material provided by the Sponsor for evaluation. These samples generally contain one or more known (hazardous) contaminants. The nature of "suspected" contaminants shall be provided by the Sponsor.

F8.1.3 **Materials**

The following materials, or equivalent, may be used with this SOP.

- Collected seeds of *Erigonium latifolium* and *Erigonium parvifolium* as well as untreated seeds, of defined lot and germination for the same species
- Wire mesh screens: requirements and size to be determined by condition of seed lot and test matrix
- Balance, top loading (0.1 g accuracy)
- 1,000 mL and 500 mL HDPE screw-cap bottles
- Screw-cap centrifuge bottles
- 250 mL borosilicate glass breakers
- 5 mL, 10 mL, and 25 mL disposable pipets
- Filter paper - Whatman® grade 3, 9 cm (100 mm qualitative cellulose)
- 100 mm by 15 mm plastic petri dishes with covers
- Forceps
- Environmental chamber (incubator)
- Calibrated thermometer

**PRT STANDARD OPERATING PROCEDURES
SOP #HHL-01-01**

- pH meter
- Metric ruler
- Caliper
- Purified water - Milli-Q water
- 33-gallon black plastic garbage bags
- Incubator/shaker unit.

F8.1.4 Procedure**F8.1.4.1 Preparation**

- Following arrival of the test matrix at PRT, receipt will be documented and samples processed according to SOP #AR-002. Store matrix samples at approximately 20° C prior to use.
- Test procedures shall be initiated within 24 hours following receipt.
- Subsamples (approximately 100 g) of each sample shall be prepared for laboratory analysis according to Sponsor's instructions.
- Prewash required glassware using acid wash method (see SOP #AN-004).
- Calibrate the balance (as per relevant SOPs).
- Carefully inspect the lot of seeds and remove any trash, empty seed hulls and damaged seeds.
- Grade the seeds by size (use wire mesh screens if determined to be beneficial) as follows:
 - Nest the wire mesh screens, in descending mesh size order from top to bottom, with a bottom pan beneath.
 - Pour the seeds onto the top screen and gently agitate the set of screens until all seeds have been completely distributed according to size, remaining on one of the screens or having passed through to the bottom pan.
 - Collect for testing that size class containing the greatest quantity of seed. Note the size class selected.
- Label and store the remaining seed fractions in packets according to size, in airtight, waterproof containers at approximately 20°C.
- Determine the moisture content (MC) of the test matrix.

PRT STANDARD OPERATING PROCEDURES
SOP #HHL-01-01

- Matrices will be sieved to separate soil from irregular solids as follows:
 - Accurately weigh approximately 100 g test matrix.
 - Sieve sample through 9 mesh (2.00 mm) sieve.
 - Weigh and record the weights of the separate fractions.
 - Determine MC on that fraction of the test matrix portion which passed through the sieve (SOP #AN-031).
- Prepare the sample elutriate as follows:
 - From the moisture content (MC) determination, calculate the total wet weight of sample equivalent to 120 g dry weight:
 - Wet Wt. Equivalent (g) = [120 g dry sample] + [MC x 120 g dry sample]
 - Weigh the wet weight equivalent of 120 g dry weight of test sample into a 1,000 mL HDPE bottle.
 - Measure the volume of purified water required into the 1,000 mL bottle. Refer to F8.1.5 calculations.
- Secure the bottle to a mechanical shaker and set to agitate vigorously. Agitate the hydrated sample for 24 hours at $20 \pm 2^{\circ}\text{C}$ in total darkness.
- After agitation is complete, pour the suspension into a centrifuge bottle and centrifuge at approximately 2,500 rpm for 13 minutes. Carefully decant the elutriate fraction into a 500 mL bottle.
- Retain the elutriate for the following tests and for chemical analyses (if necessary refrigerate until ready for use).
- Calibrate the pH meter (as per relevant SOP).
- Prior to use, record the elutriate temperature.
- Monitor and record the pH and conductivity for elutriate dilution and the control (as per relevant SOPs). This aliquot may be discarded once values are recorded.
- Prepare and label three replicate petri dishes with covers for each test treatment and the control.
- Place a sheet of filter paper in each replicate petri dish. Working from the control to the elutriate using a 5 mL pipet, dispense 3 mL of test solution to each replicate so as to thoroughly wet the entire filter paper.
- Remaining solutions shall be sealed and refrigerated. Some samples may be designated for analysis (100 mL minimum requirement). The requirement for sample archiving and disposal shall be approved by the Agricultural Task Leader.

PRT STANDARD OPERATING PROCEDURES
SOP #HHL-01-01**F8.1.4.2 Test Initiation**

- Choose at least **10** scarified seeds (number of seeds pre-determined by a germination test) at random from the test lot and place them in a replicate petri dish, spacing the seeds equally in a circle on the filter paper, equidistant from the edge to the center. Repeat for each replicate.
- Place a petri dish cover over each replicate, and set the petri dishes in layers in a container in the dark, e.g., in a black 33-gallon plastic garbage bag lining a cardboard box (randomize the position of the replicates at the beginning of the test). Place moist paper towels between layers of petri dishes to keep humidity level elevated and prevent drying of filter paper. Close the container to seal the system.

F8.1.4.3 Monitoring and Maintenance

- Incubate the test replicates at $24 \pm 2^{\circ}\text{C}$ in total darkness for a time period predetermined by a germination test (approximately 7 days) during method evaluation.
- Monitor and record the temperature of the incubation chamber at test initiation and at each 24 hour interval thereafter.

F8.1.4.4 Test Termination

- The test is terminated after a duration of seven (7) days.
- Remove the petri dishes from the incubation chamber.
- Determine the root length for each replicate.
 - Remove the seeds from the filter paper to a clean work surface and measure (using either calipers or metric ruler) and record the root length, to the nearest millimeter, for each germinated seed.
 - Measurements are made from the transition point between the hypocotyl and the primary root to the apex of the root.
 - At the transition point, the axis may exhibit a slight swelling, a slight crook, or a noticeable change in size.

F8.1.4.5 Definitive Test

- Initial test evaluations showing significant effects may be reevaluated in a definitive test using a geometric series of elutriate concentrations. Using pipettes, volumetric flasks, or syringes, the elutriate dilutions by volume may be prepared, using deionized water, to result in aliquots (100 mL each) of a geometric series of sample concentrations (e.g., 6.25, 12.5, 25, 50, and 100 percent elutriate, i.e., mL elutriate per 100 mL solution). A purified water control is also added. The procedures of this definitive test follow the method F8.1.4.2 through F8.1.4.4 above for each concentration.

PRT STANDARD OPERATING PROCEDURES
SOP #HHL-01-01**F8.1.4.6 Reporting**

Report the LC50 and its 95 percent confidence limits. The LC50 is an estimate of the median lethal concentration. Methods will be equivalent to those of Peltier and Weber (1985).

- LC50 is the concentration that is estimated to be lethal to 50 percent of the organisms within the test period.
- Confidence interval (or range of values) expresses the values within which the "true" LC50 could occur.
- The effect is also measured as a percent inhibition of buckwheat root elongation as compared to controls.

F8.1.5 Calculations

The volume of purified water added to the sample is determined using the following calculation:

$$\text{Volume Water (mL)} = [480 \text{ mL}] - [\text{MC} \times 120 \text{ g dry sample}]$$

F8.1.6 Reporting and Documentation

Reporting and documentation of data will be recorded in the study notebook and/or appropriate data forms.

F8.1.7 Responsible Individual

The Agricultural Task Leader is responsible for the review and implementation of this SOP.

F8.1.8 Contingencies

The Agricultural Task Leader shall be informed immediately of any problems with or any deviations from this SOP.

F8.1.9 Review and Update

This SOP is a study specific SOP which will be reviewed prior to each new test application and revised according to the procedures outlined in SOP #MN-003.

PRT STANDARD OPERATING PROCEDURE

SOP# HHL-02-01

Effective Date: November 16, 1994

PLANT UPTAKE AND BIOACCUMULATION TEST

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Approved by:

	NAME	PRT TITLE	SIGNATURE	DATE
Validator:	Scott Korney	VP/Dir. Ag. Resources	_____	_____
QAU:	Earl Smart	Quality Assurance	_____	_____
Management:	Basil A. Burke	President	_____	_____

PRT STANDARD OPERATING PROCEDURE
SOP# HHL-02-01

F8.2 Title: Plant Uptake and Bioaccumulation Test

F8.2.1 Scope/Purpose

The objective of this Plant Bioaccumulation Test is to quantitatively determine the uptake and accumulation of test compound(s) in the respective plant tissues of plants exposed to test matrix (i.e., soil containing the target compounds). The plant species will be specified in the study protocol. Seeds of species, from both domestic and wild sources may be utilized with equal effect. Effects on plant growth will be measured as well.

Seeds of the coast buckwheat (*Erigonium latifolium*) and the dune buckwheat (*Erigonium parvifolium*) collected from Fort Ord will be used in these tests as well as a domestic cultivar of each species (surrogate sample) as an extra control.

F8.2.2 Definitions

Test Matrix - The test system is generally a soil or solid waste material provided by the Sponsor for evaluation on an elutriate in contact with an artificial soil. These samples will contain one or more target (hazardous) substances. The nature of target substances or contaminants shall be indicated by the Sponsor.

Test Substances - Target or hazardous metals or metal ions contained in the test matrix.

F8.2.3 Materials

The following materials, or equivalent, may be used with this SOP.

- Collected seeds of *Erigonium latifolium* and *Erigonium parvifolium* as well as untreated seeds, of defined lot and germination for the same species.
- Balance, top loading (0.1 g accuracy)
- pH meter
- Light meter
- Purified water - Milli-Q
- Sieves - 8, 20, and 30 mesh screens
- Packs and Trays - plastic V-line, V-8 packs and V-1 trays (The Vaughn-Jacklin Corporation)
- Chromatography paper - 1" wide

F8.2.4 Procedure

F8.2.4.1 Preparation

- Following arrival of the test matrix at PRT, receipt will be documented and samples processed according to SOP #AR-002. Store samples at approximately 20° C prior to use.

**PRT STANDARD OPERATING PROCEDURE
SOP# HHL-02-01**

- Test procedures shall be initiated within 24 hours following receipt.
- Subsamples (approximately 100 g) of each sample shall be prepared for laboratory analysis according to Sponsor's instructions.
- Prewash required glassware using acid wash method (see SOP #AN-004).
- Calibrate pH meter (as per relevant SOP).
- Calibrate the balance (as per relevant SOP).
- Prepare and label three replicate containers (Plastic V-Line, V-8 packs) for each test matrix and corresponding soil control.
- Monitor and record the pH of the test matrices and the control(s) at the beginning and end of the test (SOP# SG-002).

F8.2.4.2 Test Initiation

- Seeds are pregerminated in an incubator ($24 \pm 2^{\circ}\text{C}$) for a prescribed period (approximately 5 to 7 days) and then conditioned (hardened) prior to transplanting into the assigned test matrix.
 - Seeding methods shall follow procedures outlined in SOP #SG-001.
 - Label each seed germination roll to indicate the seeding date, species or code, and sample and study number.
 - The seeds are scarified prior to placement on the germination paper (paper towels).
 - Sixteen to twenty-four hours prior to transplanting, the seedlings are conditioned (hardened) by placing the open-faced seed rolls in an incubator or location similar to room temperature (at approximately 20°C) at a light level of 19 to $39 \mu \text{ Einstein's m}^{-2}\text{s}^{-1}$ (see SOP #SG-004, Section 5.2).
- Use three replicates for each test matrix (including control) in this study.
- Label each pack to indicate the treatment date, plant species or code, sample and/or treatment number, and replicate code.
- Line each container (pack) with strips of pre-moistened chromatography paper to cover the holes in the bottom of the pack, before the test matrix is added. Weigh equal amounts (about 350 mL by volume) of test matrix and place each into a pack.
- Place a minimum of fifteen (15) seedlings evenly spaced (3 x 5) onto the prescribed treatment matrix. As required, a sufficient amount of sieved matrix should be withheld from the pack to ensure that roots of seedlings are adequately covered without causing undue physical damage.
- Seedlings shall be selected in a random fashion and planted to uniform depths. Seedlings shall be placed at least 1 cm away from the sides of the packs.

**PRT STANDARD OPERATING PROCEDURE
SOP# HHL-02-01**

- Begin sub-irrigations soon after planting and continue daily, as needed, with nutrient solution prepared according to procedures outlined in SOP# SG-003. Amount of irrigation solution added to each replicate will be documented. (See SOP# SG-007).

Note: Check with Study Director to verify that the nutrient formulation does not conflict with the chemicals (e.g., metals) under evaluation. Such situations may require irrigations with modified nutrient solutions or deionized water.

- Replicate packs will be arranged in a randomized block design. The method used to randomize the packs within trays and on the tables will be recorded. The position of each pack within a tray will not be changed during the test period. A diagram of the placement of packs and trays will be made to record study set-up, location within greenhouse and orientation.
- Five to 7 days following seeding, each pack is thinned to a uniform number of seedlings. Record observations on packs that do not have sufficient germination and/or uniform plant growth.

F8.2.4.3 Test Endpoints

During the Plant Uptake and Bioaccumulation Test, test matrix and related plants from each species are sampled at scheduled intervals. Reserve aliquots for analysis to develop a profile of the movement of chemicals from test matrix to plants. At the end of the Bioaccumulation Test, harvest each of the plant species and archive samples of each for possible analytical procedures to demonstrate: (a) material remaining in the test matrix and (b) material in the shoots and the roots, respectively.

- On the first designated harvest date approximately 65 percent of randomly selected representative seedlings are harvested from each pack (three replicate-packs per test matrix). Cut seedlings level with the test matrix surface.
- Combine the respective shoots from each replicate and retain samples for possible analysis.
- On the final harvest date, the remaining plants from each pack are harvested and segregated into roots and shoots as required, by gently separating the seedling from the test matrix, washing off all clinging particles, and cutting and separating the plant into root (all biomass below ground level) and shoot (all biomass above ground level) portions.
- Following the final harvest, sample aliquots of test matrix shall be collected from each of the harvested replicate packs and kept for possible analyses.
- Measure the dry weights of the shoots and roots of a representative plant within each replicate of the final harvest by placing each plant sample into a previously tared and labeled vessel, and then oven dry at 70°C to constant weight. Weigh the vessels with their dried contents and determine and record the yield (dry weight) for each sample. Determine the final dry weight once a constant weight is maintained for two consecutive weighings (see SOP# SG-012).
- Immediately prior to each harvest, plants will be observed, and differences in plant morphologies, health, etc. will be documented according to procedures outlined in SOP# SG-009.

**PRT STANDARD OPERATING PROCEDURE
SOP# HHL-02-01**

- The greenhouse environment will be climatically controlled and conditions (i.e., air temperature and relative humidity, test matrix temperature, CO₂, light levels [PAR]), will be monitored and summarized throughout the study. Optimal conditions are temperature (25± 5°C), relative humidity (at least 60%), lighting (350± 100μEM⁻²S⁻¹), photoperiod (16 hours light/8 hours dark) and carbon dioxide (350± 50 ppm).

F8.2.5 Calculations

N/A

F8.2.6 Reporting and Documentation

Reporting and documentation of data will be recorded in the study notebook and/or appropriate data forms.

F8.2.7 Responsible Individual

The Agricultural Task Leader is responsible for the review and implementation of this SOP.

F8.2.8 Contingencies

The Agricultural Task Leader shall be informed immediately of any problems with or any deviations from this SOP.

F8.2.9 Review and Update

This SOP is a study specific SOP which will be reviewed prior to each new test application and revised according to the procedures outlined in SOP #MN-003.

F9.0 COLLECTION AND ANALYSIS OF LEAF LITTER

This Standard Operating Procedure summarizes the methods to be used for collecting soil litter, extracting soil animals from the litter, and analysis of the soil and animal samples.

F9.1 Field Collection

Soil litter samples will be collected at appropriate sites along transects defined for plant collections. Along each transect designated for litter sampling, the litter layer and surface soil will be collected; a minimum of 100 g wet weight should be collected per transect. Each sample will be placed in a prelabeled cloth sack to allow for air exchange during storage, and to decrease condensation. Samples will be placed in an ice chest with blue ice (approximately 4 degrees C) for transport and storage prior to extraction. Samples may be stored up to 7 days at this temperature without expectation of deleterious effects (*Martin, 1977; Murphy, 1962*). Samples will be transported to HLA-Novato for storage and extraction.

Containers will be organized for each site in advance; portions of the chain of custody records will be prepared in advance and placed with the coolers and containers.

F9.2 Sample Extraction

Animals will be separated from the litter material through the use of a Berlese funnel, as described by Martin (1977) and Murphy (1962). According to Dindall (1990), Berlese funnel extraction method is suitable for a broad range of soil/litter invertebrates. The Berlese funnel extraction works primarily by applying light and heat to the upper, broad end of a litter-containing funnel and capturing invertebrates that crawl through the litter and out through the narrow end of the funnel.

Species abundance and diversity vary seasonally and with respect to plant community type. No rigorous taxonomic/systematic study is planned. Invertebrates captured will be identified to order and family where possible (adults) and characterized according to relative abundance (estimated) on a per sample/by plant community basis. Analysis will be based upon combined biomass. No vertebrates will be included in samples submitted for laboratory analysis.

F9.2.1 Equipment

- Stainless steel funnel, 10 cm diameter (steep-sloped)
- Forty-watt light bulb
- Sieve (size to be determined; should retain sandy soils)
- Analytical balance
- Screw-top vials for collection of animals
- Ethyl alcohol:glycerol:water (70:5:25) animal preservation solution.

F9.2.2 Method

Set up funnel apparatus at room temperature with mason jar below funnel, and sieve within the funnel. Weigh up to 20 g soil (wet weight) from a sample, invert the soil if possible so that the upper layer is at the bottom, and place in a funnel to a thickness of 2-5 cm; turn on the 40-watt light bulb so that it shines on the soil sample in the funnel. The bulb should be no more than 25 cm above the sample. Place a cover over the entire apparatus to avoid escape of flying insects. Weigh a screw-top vial, and place it below the funnel. The soil animals will move away from the light and heat of the bulb, and will pass downward through the soil and pass through the sieve, falling into the vial with the preservation solution in it. Continue the extraction for a period of 3-6 days (actual number of days will be based on optimization tests on preliminary samples).

At the end of the extraction period, reweigh the soil sample and vial (the solution in the vial will have mostly evaporated; dry the remaining contents of the vial and then weigh it; the difference between the two vial weights will provide an estimate of the biomass of animal material collected).

Conduct three extractions on each soil sample (i.e., three replicates of 20 g wet weight each from the original sample of 100 g).

Decontamination of the funnel apparatus will be conducted in accordance with Section 10.0 of the QAPP.

F9.3 Sample Analysis

Vials and remaining soil samples will be sent to ENSECO (now Quantara) for chemical analysis. ENSECO will conduct all analyses in accordance with the QAPP. Samples will be analyzed for some or all of the following, as outlined in the main text:

- Priority pollutant metals (EPA Method 6010)
- Pesticides and PCBs (EPA Method 8080)
- Dioxins/furans (EPA Method 8290)
- PAHs (EPA Method 8310).

F9.4 References

Dindall, D.L., 1990. *Soil Biology Guide*. John Wiley and Sons, New York.

Martin, J.E.H., 1977. *The Insects and Arachnids of Canada, Part 1, Collecting, Preparing, and Preserving Insects, Mites, and Spiders*. Minister of Supply and Services Canada. Publication 1643.

Murphy, P.W., 1962. *Progress in Soil Zoology*. Butterworth and Co., London.

TABLES

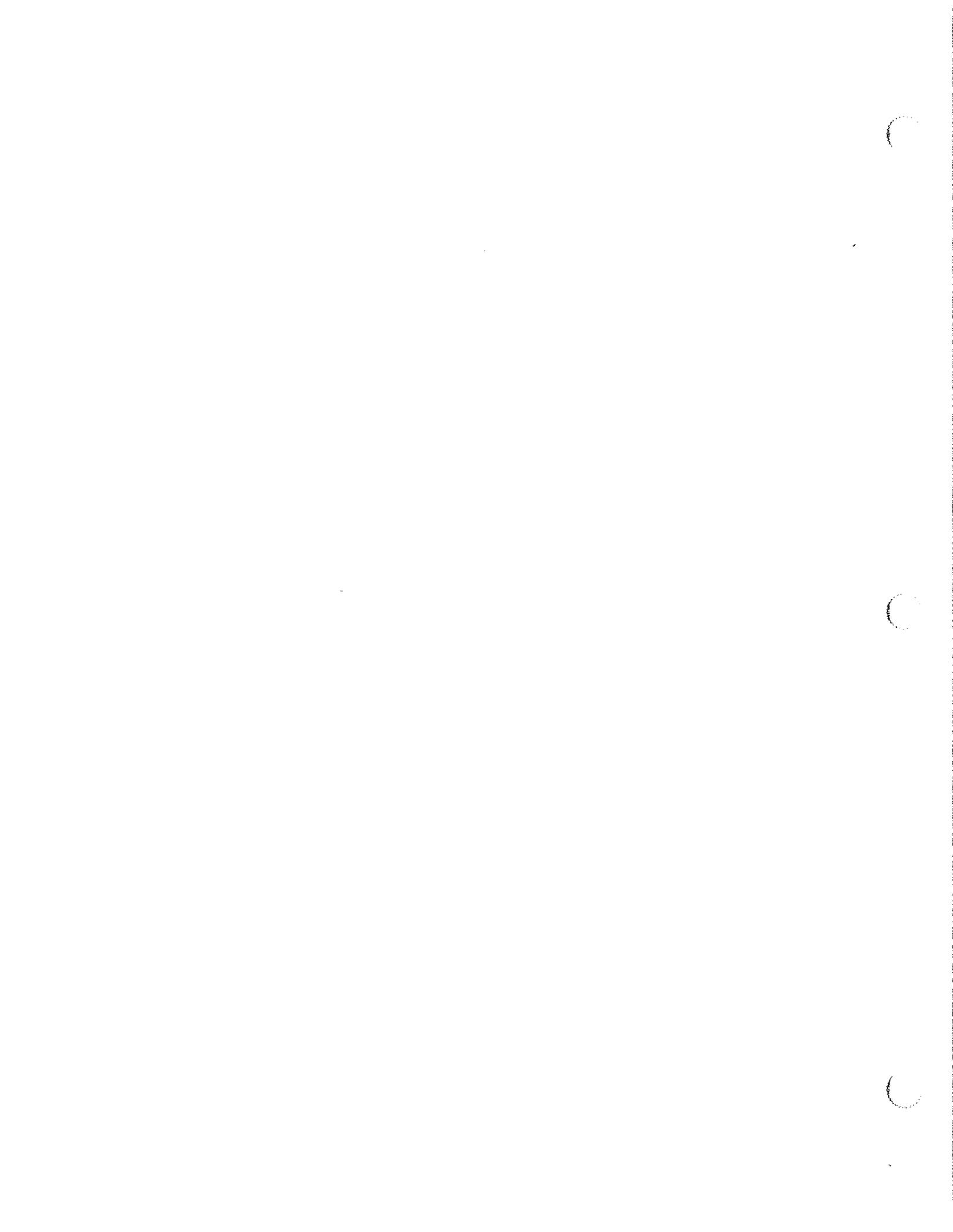


Table F1. Field Sampling Plan
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Analysis	Number of Samples Per Surface Water Analysis
TPH as Gasoline	14
TPH as Diesel	14
BTEX	
Halogenated VOCs (8010)	
Aromatic VOCs (8020)	
VOCs (8240)	14
SOCs	14
Priority Pollutant Metals	14
Pesticides and PCBs	14
Oil and Grease	
Hg, As, Pb, Sc	
Fecal Coliform Bacteria	
Explosives	
Total Lead, Zinc, Copper	
TCLP Lead	
PNAs	14
Nitrogen and Phosphorus	
Methylene Blue	
Herbicides and Fungicides	
Major Cations and Anions	
Total Dissolved Solids	
Total Organic Carbon	14
Dioxins and Furans	1
Soil Gas Constituents 1**	
Soil Gas Constituents 2***	

* Does not include QC Samples

** Soil Gas Constituents 1 = Total VOCs, Methane, VC, PCE, TCE, TCA, CIS, and Trans 1,2-DCE

*** Soil Gas Constituents 2 - BTEX

**Table F2. Summary of Analyses for Biological Samples
Volume-IV Ecological Risk Assessment
Basewide RI/FS
Fort Ord, California**

PARAMETER	Extraction Method and Type	Analytical Method and Type	Container Size	Minimum Sample Size ^a	Preservative/Storage	Holding Time
Volatile Organics	LM-CAL 3021 None or methanol extn.	LM-CAL 3021 SW846-8240 Purge-and-trap GC/MS	Wide-mouthed glass jar with teflon liner or teflon cap	10g	-20C, if possible or else 4C	14 days
Semi-Volatile Organics	LM-CAL 3052 Soxhlet with meth. chloride	LM-CAL 3004 SW846-8270 GC/MS	Glass jar (with or without teflon)	plants: 30g animals: 50g	-20C, if possible or else 4C	Extract within 14 days, analyze within 40 days of extraction
Organochlorine pesticides, PCBs	LM-CAL 3052 Soxhlet with meth. chloride	LM-CAL 4005 SW846-8080 (GC only)	Glass jar (with or without teflon)	plants: 30g animals: 50g	-20C, if possible, or else 4C.	Extract within 14 days, analyze within 40 days of extraction
Dioxins, furans	LM-CAL 3001 SW846-8290 Cyclohexane/ meth. chloride	LM-CAL 3001 SW846-8290 HRGC/HRMS	Glass jar (with or without teflon)	plants: 10g animals: 50g	-20C, if possible or else 4C	Extract within 30 days, analyze within 45 days or collection
Metals	LM-CAL 2109 Acid digestion	Not specified ICP or GFAA	Glass jar (with or without teflon)	plants: 6g animals: 10g	4C	Extract and analyze within 180 days

Fort Ord WB1

Sources: Fort Ord QAPP
SOPs, Enseco Laboratories

^a Animals planned for analysis include small mammals, lizards, and soil invertebrates (pooled).

**Table F3. Number of Small Mammal, Lizard, and Litter Samples
Planned for Collection at Individual Sites
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

<u>Site No.</u>	<u>Number of:</u>		
	<u>Small-mammal Samples</u>	<u>Lizard Samples</u>	<u>Litter Samples</u>
2	0	4	0
3	12	12	0
11	4	4	0
12	4	0	0
16	8	0	8
24	6	0	6
25	4	0	4
29	0	0	4
31	8	4	4
33	4	0	0
35	10	0	10

ATTACHMENT 1



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
Ventura Field Office
2140 Eastman Avenue, Suite 100
Ventura, California 93003

July 20, 1994

Bill Collins
Environmental and Natural Resources Management Division
Fort Ord
Fort Ord, California 93941-5777

Subject: Amendment to Field Methodology for Buckwheat Sampling Program, Ecological Risk Assessment, Fort Ord, California

Dear Bill:

As we discussed in our telephone conversation on July 20, 1994, the following amendments are to be made to the Field Methods described in the protocol for the buckwheat sampling program. The Field Methods section of the Protocol should now read, and be executed as follows:

An HLA biologist, accompanied by Bill Collins of Fort Ord and Dr. Richard Arnold, president of Entomological Consulting Services, Ltd., an expert on the Smith's blue butterfly (SBB) and its habitat, will conduct the field collection of buckwheat plants. Within each of the three areas of interest at Site 3, isolated stands or individuals of buckwheat will be identified as potential sampling sites based on considerations of proximity to larger, denser stands of buckwheat, proximity to known populations of SBB, and suitability of microclimatic conditions for SBB activity (e.g. exposure to winds). To the maximum extent possible, selected sites will be isolated from larger, denser stands of buckwheat, distant from known populations of SBB, and have less favorable microclimatic conditions (e.g. direct exposure to prevailing winds).

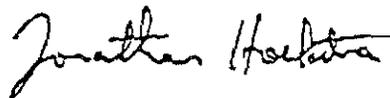
Once appropriate sites are identified, each site will be observed for 10 minutes on each of two days to see if SBB are present on the site. The two observation days will be separated by 3 or 4 days. Observations will be conducted during weather conditions appropriate for SBB activity. The observation period will correspond with the maximum flight season of SBB on the particular buckwheat species, as recommended by Dr. Arnold. If SBB is found on a site, that site will not be used for buckwheat sampling.

During the latter part of the flight season (first or second weeks of August) the sampling sites on which no SBB were seen during the two observation periods will be observed a third time for 10 minutes. If no SBB are seen, the site will be considered unused, and hence suitable for sampling of inflorescences. Before sampling an inflorescence, the inflorescence will be visually inspected to verify no larvae to be present. Any larvae potentially present would be expected to be large and readily detected; if any larvae are seen, the site will not be sampled. If no larvae are seen upon visual inspection, the inflorescence will be sampled.

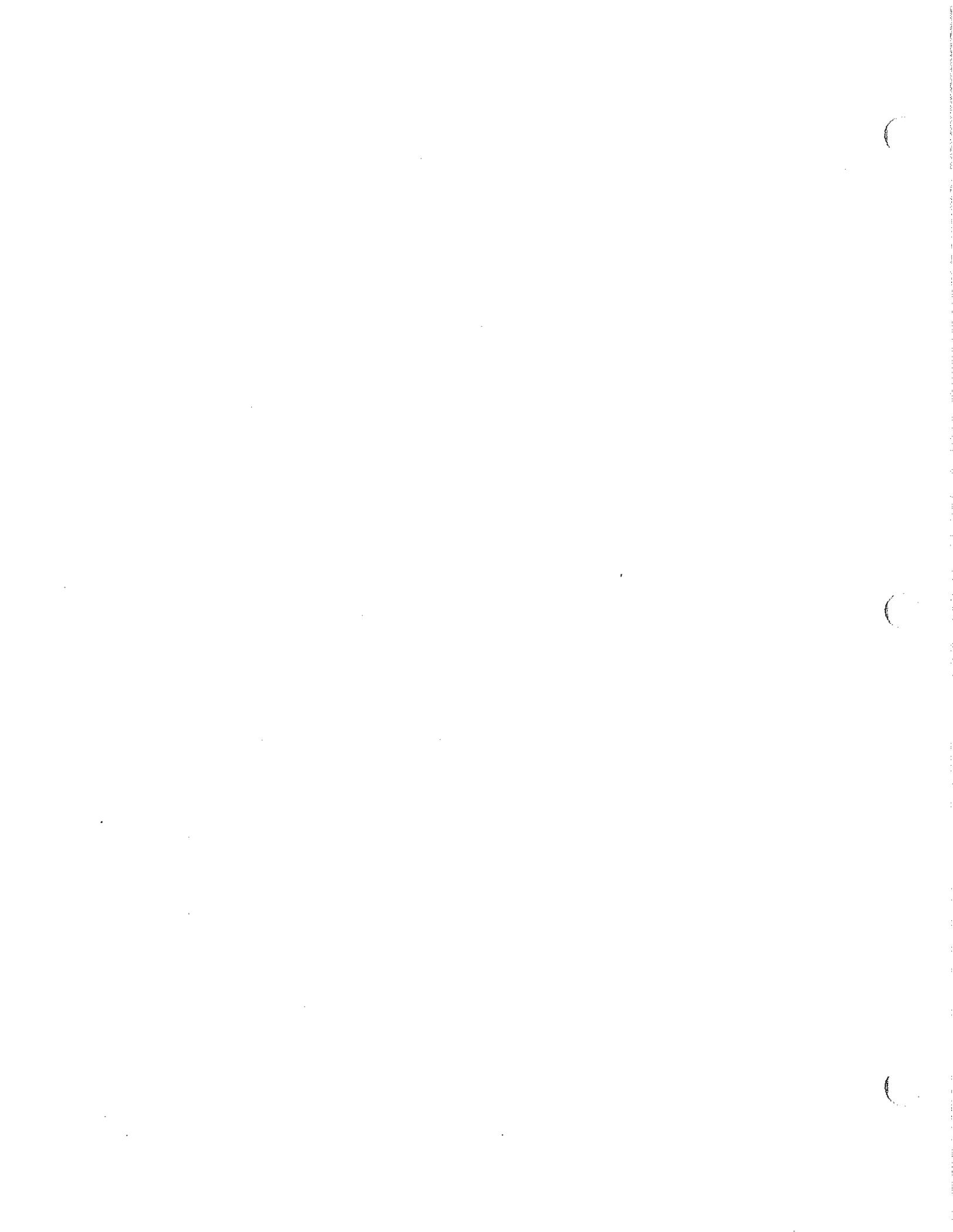
If, during laboratory preparations of sampled inflorescences for analysis, any SBB eggs or larvae are found, work will stop and the U.S. Fish and Wildlife Service be immediately contacted.

If you have any questions, or if we need to further discuss the methodology, please call me at (805) 644-1766. Good luck.

Sincerely,



Jonathan Hoekstra
Fish and Wildlife Biologist



APPENDIX G

**SUMMARY OF CHEMICALS DETECTED IN SOIL AND BIOTA USED
IN THE QUANTITATIVE ECOLOGICAL RISK ASSESSMENT**

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SUMMARY OF CHEMICALS DETECTED IN SOIL AND BIOTA USED IN THE QUANTITATIVE ECOLOGICAL RISK ASSESSMENT

The following tables present the analytical results for soil and biota samples from sites and reference locations used in the quantitative ecological risk assessment portion of the ERA for the Basewide RI/FS for Fort Ord, California. All soil samples were surficial soil (soil taken from 0-0.5 feet). Plant, mammal, and litter samples were taken along transects as described in Section 6.1 of Volume IV of the RI/FS.

Samples were analyzed for different classes of chemicals, including:

Dioxans/Furans

Metals

Pesticides

PCBs (Polychlorinated biphenyls)

PAHs (Polycyclic aromatic hydrocarbons)

Abbreviations used in the following tables include:

FOD	=	frequency of detection
mg/kg	=	milligrams per kilogram (concentration)
A	=	The mean detected concentration of an analyte exceeded the mean background concentration.
M	=	The maximum detected concentration of an analyte exceeded the maximum background concentration.
N	=	No detected concentration of an analyte exceeded the background concentration.
µg/l	=	micrograms per liter (concentration)
mg/l	=	milligrams per liter

Qualifiers (qual) include:

V	=	Sample has undergone detailed data validation.
U	=	Compound was analyzed for but not detected.
A	=	Sample has undergone routine data validation.
W	=	Post-digestion spike for furnace AA analysis is outside of control limits.
J3	=	Analytical results for this compound are qualified as estimated due to poor spike recoveries.
B	=	Reported value is less than the CRDL and greater than or equal to the instrument detection limit.
U1	=	Compound is qualified as non-detected due to its occurrence in the laboratory blanks.
J4	=	Analytical results for this compound are qualified as estimated due to ICP-serial dilution relative percent difference quality control criteria exceedances.
E	=	The reported value is estimated because of the presence of interference.
U2	=	Compound is qualified as non-detected due to its occurrence in the field blanks.
J5	=	Analytical results for this compound are qualified as estimated due to holding time exceedances.
b	=	Analytical results should not be considered reliable for this common lab contaminant, unless the sample result exceeds 5 times the reporting limit or 10 times the blank result.
1	=	Hydrocarbons present in this sample represent an unknown mixture in the diesel range. Quantification based on diesel references.

**Table G1. Surficial Soil Analytical Results - Site 1
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
METALS											
Arsenic	3	3	100.0 %	1.70E+00	1.27E+00	3.80E-01	1.78E+00	3.40E+00	1.33E+00	Y	N
Chromium	3	3	100.0 %	1.04E+01	1.00E+01	6.90E-01	1.09E+01	4.61E+01	9.22E+00	Y	A
Copper	3	3	100.0 %	1.03E+01	6.77E+00	3.83E+00	1.20E+01	1.82E+01	4.50E+00	Y	A
Lead	3	3	100.0 %	6.40E+00	5.53E+00	1.33E+00	7.34E+00	5.18E+01	9.29E+00	Y	N
Mercury	2	3	66.7 %	8.00E-02	6.00E-02	3.00E-02	9.00E-02	1.20E-01	--	Y	N
Nickel	3	3	100.0 %	9.80E+00	8.17E+00	1.60E+00	1.03E+01	5.80E+01	7.81E+00	Y	A
Silver	1	3	33.3 %	9.20E-01	4.70E-01	3.90E-01	1.00E+00	3.60E-01	--	Y	M
Zinc	3	3	100.0 %	2.77E+01	2.63E+01	1.35E+00	2.82E+01	7.58E+01	1.49E+01	Y	A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table G2. Surficial Soil Analytical Results - Site 2
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
METALS											
Antimony	2	7	28.6 %	2.31E+01	4.04E+00	8.47E+00	1.01E+01	--	--	Y	--
Arsenic	7	7	100.0 %	3.70E+00	2.41E+00	8.00E-01	2.99E+00	3.40E+00	1.33E+00	Y	M/A
Beryllium	1	7	14.3 %	2.30E-01	1.20E-01	5.00E-02	1.50E-01	3.50E-01	--	Y	N
Cadmium	2	7	28.6 %	1.75E+01	2.92E+00	6.43E+00	7.53E+00	--	--	Y	--
Chromium	7	7	100.0 %	9.08E+01	2.63E+01	2.88E+01	4.69E+01	4.61E+01	9.22E+00	Y	M/A
Chromium VI	0	1	0.0 %	--	--	--	--	--	--	N	--
Copper	3	7	42.9 %	1.16E+03	1.78E+02	4.34E+02	4.89E+02	1.82E+01	4.50E+00	Y	M/A
Lead	7	7	100.0 %	1.81E+02	3.55E+01	6.47E+01	8.19E+01	5.18E+01	9.29E+00	Y	M/A
Mercury	6	7	85.7 %	5.30E+00	1.22E+00	1.86E+00	2.55E+00	1.20E-01	--	Y	M
Nickel	5	7	71.4 %	3.13E+01	1.03E+01	9.81E+00	1.73E+01	5.80E+01	7.81E+00	Y	A
Selenium	1	7	14.3 %	8.40E+00	1.53E+00	3.03E+00	3.70E+00	--	--	Y	--
Silver	4	7	57.1 %	5.86E+01	1.01E+01	2.16E+01	2.56E+01	3.60E-01	--	Y	M
Thallium	1	7	14.3 %	6.00E-01	2.70E-01	1.50E-01	3.70E-01	4.50E-01	--	Y	M
Zinc	3	7	42.9 %	1.55E+03	2.59E+02	5.72E+02	6.69E+02	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table G3. Surficial Soil Analytical Results - Site 3
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations		Does FOD Exceed 5%?	Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)		
METALS											
Antimony	15	39	38.5 %	3.36E+03	2.87E+02	7.42E+02	4.82E+02	--	--	Y	--
Arsenic	13	13	100.0 %	1.07E+01	2.33E+00	2.64E+00	3.63E+00	3.40E+00	1.33E+00	Y	M/A
Chromium	41	41	100.0 %	5.38E+01	1.78E+01	1.04E+01	2.05E+01	4.61E+01	9.22E+00	Y	M/A
Chromium VI	0	28	0.0 %	--	--	--	--	--	--	N	--
Copper	41	41	100.0 %	1.99E+04	8.08E+02	3.15E+03	1.62E+03	1.82E+01	4.50E+00	Y	M/A
Lead	35	41	85.4 %	4.75E+04	6.72E+03	1.34E+04	1.02E+04	5.18E+01	9.29E+00	Y	M/A
Mercury	1	13	7.7 %	5.00E-02	3.00E-02	6.90E-03	3.00E-02	1.20E-01	--	Y	N
Nickel	12	13	92.3 %	1.54E+01	9.75E+00	3.66E+00	1.16E+01	5.80E+01	7.81E+00	Y	A
Silver	1	13	7.7 %	8.90E-01	2.80E-01	1.80E-01	3.70E-01	3.60E-01	--	Y	M
Tin (total)	10	27	37.0 %	6.74E+01	5.75E+00	1.38E+01	1.03E+01	--	--	Y	--
Tin (total)	10	27	37.0 %	6.74E+01	5.75E+00	1.38E+01	1.03E+01	--	--	Y	--
Zinc	40	41	97.6 %	2.16E+03	1.11E+02	3.42E+02	1.99E+02	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table G4. Surficial Soil Analytical Results - Site 11
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FDD)	Chemical Concentrations				Background Concentrations		Does FDD Exceed 5%?	Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)		
METALS											
Arsenic	4	4	100.0 %	1.30E+00	1.11E+00	1.70E-01	1.29E+00	3.40E+00	1.33E+00	Y	N
Beryllium	4	4	100.0 %	2.60E-01	2.30E-01	3.00E-02	2.60E-01	3.50E-01	--	Y	N
Chromium	4	4	100.0 %	1.28E+01	1.23E+01	3.30E-01	1.27E+01	4.61E+01	9.22E+00	Y	A
Copper	3	4	75.0 %	2.41E+01	7.83E+00	1.09E+01	1.95E+01	1.82E+01	4.50E+00	Y	M/A
Lead	17	18	94.4 %	2.30E+02	6.45E+01	8.47E+01	9.91E+01	5.18E+01	9.29E+00	Y	M/A
Mercury	1	4	25.0 %	6.00E-02	3.00E-02	2.00E-02	5.00E-02	1.20E-01	--	Y	N
Nickel	4	4	100.0 %	1.03E+01	8.35E+00	1.83E+00	1.03E+01	5.80E+01	7.81E+00	Y	A
Zinc	4	4	100.0 %	2.80E+02	8.42E+01	1.31E+02	2.23E+02	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table G5. Surficial Soil Analytical Results - Site 12
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCS											
Tetrachloroethene	1	6	16.7 %	4.30E-02	9.30E-03	1.65E-02	2.24E-02	--	--	Y	--
Toluene	1	1	100.0 %	2.10E-03	--	--	--	--	--	Y	--
Trichloroethene	1	1	100.0 %	2.40E-03	--	--	--	--	--	Y	--
TPH											
TPH-Extractable Unknown Hyd.	5	6	83.3 %	4.70E+03	1.57E+03	1.88E+03	3.06E+03	--	--	Y	--
METALS											
Antimony	5	10	50.0 %	4.50E+00	1.25E+00	1.67E+00	2.20E+00	--	--	Y	--
Arsenic	9	10	90.0 %	5.70E+00	1.97E+00	1.35E+00	2.74E+00	3.40E+00	1.33E+00	Y	M/A
Beryllium	4	10	40.0 %	2.50E-01	1.40E-01	6.00E-02	1.80E-01	3.50E-01	--	Y	N
Cadmium	4	10	40.0 %	1.86E+01	2.71E+00	5.67E+00	5.95E+00	--	--	Y	--
Chromium	10	10	100.0 %	1.84E+02	3.25E+01	5.44E+01	6.36E+01	4.61E+01	9.22E+00	Y	M/A
Chromium VI	0	5	0.0 %	--	--	--	--	--	--	N	--
Copper	8	10	80.0 %	1.25E+02	2.74E+01	3.89E+01	4.97E+01	1.82E+01	4.50E+00	Y	M/A
Lead	9	10	90.0 %	1.14E+03	1.99E+02	3.60E+02	4.05E+02	5.18E+01	9.29E+00	Y	M/A
Mercury	2	10	20.0 %	3.30E-01	6.00E-02	1.00E-01	1.10E-01	1.20E-01	--	Y	M
Nickel	10	10	100.0 %	1.51E+01	1.08E+01	2.99E+00	1.26E+01	5.80E+01	7.81E+00	Y	A
Zinc	10	10	100.0 %	4.99E+02	1.25E+02	1.62E+02	2.18E+02	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table G6. Surficial Soil Analytical Results - Site 15
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
1,2-Dichloroethene (total)	2	2	100.0 %	1.80E-03	1.65E-03	2.10E-04	2.09E-03	--	--	Y	--
Ethyl benzene	4	23	17.4 %	7.80E-03	3.02E-03	1.25E-03	3.47E-03	--	--	Y	--
Toluene	4	23	17.4 %	4.10E-03	2.63E-03	5.40E-04	2.82E-03	--	--	Y	--
Xylenes	2	2	100.0 %	2.40E-03	2.30E-03	1.40E-04	2.59E-03	--	--	Y	--
PESTICIDES											
Chlordane	25	30	83.3 %	4.00E+03	1.69E+02	7.32E+02	3.89E+02	--	--	Y	--
4,4'-DDE	4	28	14.3 %	1.10E+00	1.01E-01	2.53E-01	1.82E-01	--	--	Y	--
4,4'-DDT	6	25	24.0 %	2.50E-01	6.06E-02	7.77E-02	8.71E-02	--	--	Y	--
Dieldrin	17	28	60.7 %	9.40E-01	1.49E-01	2.72E-01	2.37E-01	--	--	Y	--
Heptachlor	6	30	20.0 %	1.20E+02	4.22E+00	2.19E+01	1.08E+01	--	--	Y	--
Heptachlor epoxide	1	26	3.9 %	1.90E-01	3.12E-02	5.21E-02	4.87E-02	--	--	N	--
METALS											
Arsenic	4	4	100.0 %	1.10E+00	1.08E+00	5.00E-02	1.13E+00	3.40E+00	1.33E+00	Y	N
Beryllium	4	4	100.0 %	2.90E-01	2.50E-01	4.00E-02	2.90E-01	3.50E-01	--	Y	N
Chromium	4	4	100.0 %	1.81E+01	1.36E+01	3.53E+00	1.73E+01	4.61E+01	9.22E+00	Y	A
Copper	2	4	50.0 %	8.30E+00	5.50E+00	2.54E+00	8.21E+00	1.82E+01	4.50E+00	Y	A
Lead	4	4	100.0 %	3.36E+01	2.71E+01	4.37E+00	3.18E+01	5.18E+01	9.29E+00	Y	A
Mercury	1	4	25.0 %	2.40E-01	8.00E-02	1.10E-01	1.90E-01	1.20E-01	--	Y	M
Nickel	4	4	100.0 %	1.05E+01	7.78E+00	2.31E+00	1.02E+01	5.80E+01	7.81E+00	Y	N
Zinc	4	4	100.0 %	5.44E+01	4.22E+01	9.45E+00	5.23E+01	7.58E+01	1.49E+01	Y	A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

Table G7. Surficial Soil Analytical Results - Site 16
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
SOCs											
Benzo(b)fluoranthene	1	11	9.1 %	3.30E-03	1.70E-02	4.91E-02	4.36E-02	--	--	Y	--
PESTICIDES											
Chlordane	2	10	20.0 %	8.40E-02	4.83E-02	1.42E-02	5.64E-02	--	--	Y	--
4,4'-DDD	1	10	10.0 %	2.00E-02	9.60E-03	3.67E-03	1.17E-02	--	--	Y	--
4,4'-DDT	3	10	30.0 %	7.60E-02	1.60E-02	2.12E-02	2.81E-02	--	--	Y	--
DIOXINS/FURANS											
1,2,3,4,6,7,8-HpCDD	8	10	80.0 %	1.70E-04	4.09E-05	5.00E-05	7.00E-05	--	--	Y	--
Total HpCDD	8	10	80.0 %	3.70E-04	8.00E-05	1.10E-04	1.40E-04	--	--	Y	--
1,2,3,4,6,7,8-HpCDF	7	10	70.0 %	6.00E-05	1.76E-05	1.95E-05	2.88E-05	--	--	Y	--
Total HpCDF	7	10	70.0 %	1.50E-04	4.87E-05	5.00E-05	8.00E-05	--	--	Y	--
Total HxCDD	4	10	40.0 %	6.00E-05	1.21E-05	2.12E-05	2.43E-05	--	--	Y	--
Total HxCDF	7	10	70.0 %	1.10E-04	3.55E-05	4.06E-05	6.00E-05	--	--	Y	--
1,2,3,6,7,8-HxCDD	2	10	20.0 %	8.10E-06	2.07E-06	2.72E-06	3.62E-06	--	--	Y	--
1,2,3,7,8,9-HxCDD	1	10	10.0 %	7.20E-06	1.63E-06	2.14E-06	2.85E-06	--	--	Y	--
1,2,3,4,7,8-HxCDF	1	10	10.0 %	5.50E-06	1.45E-06	1.84E-06	2.51E-06	--	--	Y	--
2,3,4,6,7,8-HxCDF	3	10	30.0 %	6.70E-06	2.34E-06	2.72E-06	3.90E-06	--	--	Y	--
OCDD	10	10	100.0 %	1.20E-03	3.00E-04	3.60E-04	5.10E-04	--	--	Y	--
OCDF total	6	10	60.0 %	8.00E-05	2.01E-05	2.46E-05	3.42E-05	--	--	Y	--
Total PeCDF	7	10	70.0 %	7.50E-04	1.30E-04	2.30E-04	2.70E-04	--	--	Y	--
2,3,7,8-TCDF	1	10	10.0 %	2.70E-06	4.80E-07	7.90E-07	9.30E-07	--	--	Y	--
Total TCDD	2	10	20.0 %	4.60E-06	7.10E-07	1.40E-06	1.51E-06	--	--	Y	--
Total TCDF	8	10	80.0 %	5.00E-05	1.75E-05	1.96E-05	2.88E-05	--	--	Y	--
TPH											
TPH-Extractable Unknown Hyd.	1	3	33.3 %	3.50E+01	1.50E+01	1.73E+01	3.85E+01	--	--	Y	--
METALS											
Antimony	5	13	38.5 %	4.10E+00	6.80E-01	1.07E+00	1.20E+00	--	--	Y	--
Arsenic	13	13	100.0 %	2.23E+01	3.65E+00	5.66E+00	6.43E+00	3.40E+00	1.33E+00	Y	M/A
Beryllium	1	13	7.7 %	1.70E-01	1.10E-01	4.00E-02	1.30E-01	3.50E-01	--	Y	N
Cadmium	2	13	15.4 %	2.40E+00	6.50E-01	5.60E-01	9.20E-01	--	--	Y	--
Chromium	12	13	92.3 %	3.17E+01	1.28E+01	6.44E+00	1.59E+01	4.61E+01	9.22E+00	Y	A
Chromium VI	0	1	0.0 %	--	--	--	--	--	--	N	--
Copper	9	13	69.2 %	5.39E+01	1.82E+01	1.92E+01	2.77E+01	1.82E+01	4.50E+00	Y	M/A
Lead	13	13	100.0 %	9.84E+01	3.19E+01	2.90E+01	4.62E+01	5.18E+01	9.29E+00	Y	M/A

**Table G7. Surficial Soil Analytical Results - Site 16
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
METALS											
Mercury	2	13	15.4 %	3.40E-01	7.00E-02	1.00E-01	1.20E-01	1.20E-01	--	Y	M
Nickel	11	13	84.6 %	1.66E+01	8.48E+00	4.33E+00	1.06E+01	5.80E+01	7.81E+00	Y	A
Zinc	4	13	30.8 %	1.33E+02	3.60E+01	3.54E+01	5.34E+01	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table G8. Surficial Soil Analytical Results - Site 21
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Methylene chloride	2	2	100.0 %	7.50E-03	6.45E-03	1.48E-03	9.52E-03	--	--	Y	--
Xylenes	1	2	50.0 %	3.30E-03	3.03E-03	3.90E-04	3.83E-03	--	--	Y	--
SOCs											
Bis(2-ethylhexyl)phthalate	2	2	100.0 %	1.00E-01	1.00E-01	--	1.00E-01	--	--	Y	--
Chrysene	1	5	20.0 %	3.60E-02	2.40E-02	6.73E-03	3.01E-02	--	--	Y	--
TPH											
TPH-Extractable Unknown Hyd.	3	5	60.0 %	2.90E+01	1.64E+01	1.07E+01	2.60E+01	--	--	Y	--
Oil & Grease	1	2	50.0 %	4.00E+02	2.13E+02	2.64E+02	7.59E+02	--	--	Y	--
METALS											
Antimony	11	16	68.8 %	5.24E+01	1.01E+01	1.63E+01	1.72E+01	--	--	Y	--
Arsenic	10	16	62.5 %	3.80E+00	1.09E+00	8.90E-01	1.48E+00	3.40E+00	1.33E+00	Y	M
Beryllium	10	16	62.5 %	6.70E-01	2.00E-01	1.50E-01	2.70E-01	3.50E-01	--	Y	M
Cadmium	9	16	56.3 %	2.28E+01	6.25E+00	7.53E+00	9.54E+00	--	--	Y	--
Chromium	16	16	100.0 %	1.41E+02	3.71E+01	3.87E+01	5.39E+01	4.61E+01	9.22E+00	Y	M/A
Chromium VI	0	2	0.0 %	--	--	--	--	--	--	N	--
Copper	13	16	81.3 %	2.35E+02	6.10E+01	7.47E+01	9.37E+01	1.82E+01	4.50E+00	Y	M/A
Lead	16	16	100.0 %	6.89E+02	1.69E+02	2.20E+02	2.65E+02	5.18E+01	9.29E+00	Y	M/A
Mercury	6	16	37.5 %	3.20E-01	9.00E-02	9.00E-02	1.30E-01	1.20E-01	--	Y	M
Nickel	14	16	87.5 %	3.46E+01	1.30E+01	9.68E+00	1.72E+01	5.80E+01	7.81E+00	Y	A
Silver	1	9	11.1 %	4.30E-01	2.60E-01	7.00E-02	3.00E-01	3.60E-01	--	Y	M
Zinc	15	16	93.8 %	8.89E+02	2.25E+02	2.74E+02	3.45E+02	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

Table G9. Surficial Soil Analytical Results - Site 22
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
SOCs											
Benzo(b)fluoranthene	1	5	20.0 %	7.80E-03	4.30E+00	9.61E+00	1.30E+01	--	--	Y	--
Bis(2-ethylhexyl)phthalate	1	1	100.0 %	9.50E+00	--	--	--	--	--	Y	--
Butylbenzylphthalate	1	1	100.0 %	1.20E+01	--	--	--	--	--	Y	--
PESTICIDES											
4,4'-DDE	1	4	25.0 %	1.40E-02	9.63E-03	2.93E-03	1.27E-02	--	--	Y	--
4,4'-DDT	1	4	25.0 %	2.30E-02	1.19E-02	7.42E-03	1.98E-02	--	--	Y	--
TPH											
TPH-Extractable Unknown Hyd.	1	1	100.0 %	8.50E+03	--	--	--	--	--	Y	--
METALS											
Arsenic	4	4	100.0 %	1.70E+00	1.45E+00	2.10E-01	1.67E+00	3.40E+00	1.33E+00	Y	A
Chromium	2	4	50.0 %	1.18E+01	6.78E+00	4.98E+00	1.21E+01	4.61E+01	9.22E+00	Y	N
Copper	1	4	25.0 %	7.10E+00	2.43E+00	3.13E+00	5.76E+00	1.82E+01	4.50E+00	Y	N
Lead	4	4	100.0 %	6.72E+01	2.38E+01	2.97E+01	5.55E+01	5.18E+01	9.29E+00	Y	M/A
Mercury	1	4	25.0 %	6.00E-02	3.00E-02	2.00E-02	5.00E-02	1.20E-01	--	Y	N
Nickel	1	4	25.0 %	6.30E+00	3.43E+00	1.92E+00	5.47E+00	5.80E+01	7.81E+00	Y	N

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table G10. Surficial Soil Analytical Results - Site 24
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCs											
Toluene	1	1	100.0 %	1.60E-03	--	--	--	--	--	Y	--
PESTICIDES											
gamma-BHC	1	14	7.1 %	2.30E-02	5.51E-03	5.03E-03	7.88E-03	--	--	Y	--
Chlordane	2	10	20.0 %	2.80E-01	6.64E-02	7.51E-02	1.09E-01	--	--	Y	--
4,4'-DDD	4	14	28.6 %	1.60E-01	2.99E-02	4.64E-02	5.17E-02	--	--	Y	--
4,4'-DDE	4	14	28.6 %	1.20E-01	1.70E-02	2.97E-02	3.09E-02	--	--	Y	--
4,4'-DDT	5	14	35.7 %	2.50E+00	2.22E-01	6.60E-01	5.32E-01	--	--	Y	--
Dieldrin	1	14	7.1 %	4.90E-02	1.12E-02	1.09E-02	1.63E-02	--	--	Y	--
PCBs											
Aroclor-1260	3	4	75.0 %	5.80E-01	2.92E-01	2.10E-01	5.16E-01	--	--	Y	--
TPH											
TPH-Extractable Unknown Hyd.	1	1	100.0 %	2.40E+01	--	--	--	--	--	Y	--
METALS											
Antimony	1	7	14.3 %	5.00E-01	2.70E-01	1.00E-01	3.40E-01	--	--	Y	--
Arsenic	7	7	100.0 %	1.20E+00	9.20E-01	2.10E-01	1.08E+00	3.40E+00	1.33E+00	Y	N
Beryllium	6	7	85.7 %	3.50E-01	2.50E-01	8.00E-02	3.10E-01	3.50E-01	--	Y	N
Chromium	7	7	100.0 %	1.68E+01	1.15E+01	2.67E+00	1.34E+01	4.61E+01	9.22E+00	Y	A
Copper	6	7	85.7 %	4.20E+00	2.64E+00	1.07E+00	3.40E+00	1.82E+01	4.50E+00	Y	N
Lead	6	7	85.7 %	1.43E+01	5.46E+00	4.56E+00	8.72E+00	5.18E+01	9.29E+00	Y	N
Nickel	6	7	85.7 %	9.30E+00	6.66E+00	2.20E+00	8.24E+00	5.80E+01	7.81E+00	Y	N
Zinc	7	7	100.0 %	2.08E+01	1.43E+01	3.89E+00	1.71E+01	7.58E+01	1.49E+01	Y	N

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

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**Table G11. Surficial Soil Analytical Results - Site 25
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
VOCS											
Acetone	1	5	20.0 %	3.00E-01	1.60E-01	8.00E-02	2.30E-01	--	--	Y	--
PESTICIDES											
4,4'-DDE	3	9	33.3 %	9.00E-06	6.44E-03	2.94E-03	8.24E-03	--	--	Y	--
4,4'-DDT	6	9	66.7 %	2.40E-02	2.70E-02	3.43E-02	4.80E-02	--	--	Y	--
Dieldrin	1	9	11.1 %	9.00E-06	5.67E-03	3.48E-03	7.79E-03	--	--	Y	--
PCBs											
PCB-1254	2	5	40.0 %	8.80E-01	2.10E-01	3.80E-01	5.50E-01	--	--	Y	--
TPH											
HBPHC	1	5	20.0 %	1.60E+01	7.20E+00	4.92E+00	1.16E+01	--	--	Y	--
METALS											
Antimony	2	11	18.2 %	1.00E+00	1.78E+00	1.02E+00	2.33E+00	--	--	Y	--
Arsenic	4	11	36.4 %	1.90E+00	1.36E+00	2.30E-01	1.48E+00	3.40E+00	1.33E+00	Y	A
Barium	7	7	100.0 %	2.20E+01	1.41E+01	4.45E+00	1.73E+01	--	--	Y	--
Beryllium	4	11	36.4 %	3.20E-01	2.50E-01	4.00E-02	2.70E-01	3.50E-01	--	Y	N
Cadmium	3	11	27.3 %	1.06E+01	1.65E+00	3.11E+00	3.33E+00	--	--	Y	--
Chromium	4	4	100.0 %	2.23E+01	1.41E+01	5.48E+00	1.99E+01	4.61E+01	9.22E+00	Y	A
Chromium (total)	7	7	100.0 %	1.10E+01	9.04E+00	1.56E+00	1.02E+01	4.61E+01	9.22E+00	Y	N
Copper	7	11	63.6 %	2.06E+01	5.58E+00	5.85E+00	8.75E+00	1.82E+01	4.50E+00	Y	M/A
Lead	11	11	100.0 %	6.99E+01	1.91E+01	2.12E+01	3.06E+01	5.18E+01	9.29E+00	Y	M/A
Mercury	4	11	36.4 %	8.00E-02	3.00E-02	2.00E-02	4.00E-02	1.20E-01	--	Y	N
Nickel	11	11	100.0 %	1.03E+01	7.52E+00	1.70E+00	8.44E+00	5.80E+01	7.81E+00	Y	N
Silver	1	11	9.1 %	6.50E-01	4.40E-01	1.40E-01	5.20E-01	3.60E-01	--	Y	M
Vanadium	6	7	85.7 %	7.50E+00	5.79E+00	1.64E+00	6.96E+00	--	--	Y	--
Zinc	11	11	100.0 %	3.86E+02	6.40E+01	1.13E+02	1.25E+02	7.58E+01	1.49E+01	Y	M/A

**Table G11. Surficial Soil Analytical Results - Site 25
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

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- /a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.
 - /b/ 95 percent upper confidence limit of the arithmetic mean.
 - /c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.
 - /d/ N = No detected concentration exceeded background.
M = Maximum detected concentration exceeds maximum background concentration.
A = Mean detected concentration exceeds mean background concentration.

**Table G12. Surficial Soil Analytical Results - Site 29
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
PESTICIDES											
Chlordane	1	4	25.0 %	3.50E-01	1.18E-01	1.55E-01	2.83E-01	--	--	Y	--
4,4'-DDD	1	4	25.0 %	6.90E-02	2.34E-02	3.04E-02	5.58E-02	--	--	Y	--
4,4'-DDE	1	4	25.0 %	5.50E-01	1.44E-01	2.71E-01	4.32E-01	--	--	Y	--
4,4'-DDT	3	4	75.0 %	1.00E+00	2.65E-01	4.90E-01	7.87E-01	--	--	Y	--
METALS											
Antimony	1	4	25.0 %	7.30E-01	3.50E-01	2.50E-01	6.20E-01	--	--	Y	--
Arsenic	2	4	50.0 %	6.70E-01	4.60E-01	2.30E-01	7.00E-01	3.40E+00	1.33E+00	Y	N
Beryllium	4	4	100.0 %	2.40E-01	2.00E-01	3.00E-02	2.30E-01	3.50E-01	--	Y	N
Chromium	4	4	100.0 %	1.24E+01	1.15E+01	7.50E-01	1.23E+01	4.61E+01	9.22E+00	Y	A
Copper	4	4	100.0 %	1.42E+01	8.33E+00	3.98E+00	1.26E+01	1.82E+01	4.50E+00	Y	A
Lead	4	4	100.0 %	7.01E+01	2.86E+01	2.78E+01	5.82E+01	5.18E+01	9.29E+00	Y	M/A
Mercury	1	4	25.0 %	6.00E-02	3.00E-02	2.00E-02	5.00E-02	1.20E-01	--	Y	N
Nickel	1	4	25.0 %	7.40E+00	3.70E+00	2.47E+00	6.33E+00	5.80E+01	7.81E+00	Y	N
Zinc	4	4	100.0 %	5.87E+01	3.09E+01	1.86E+01	5.08E+01	7.58E+01	1.49E+01	Y	A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

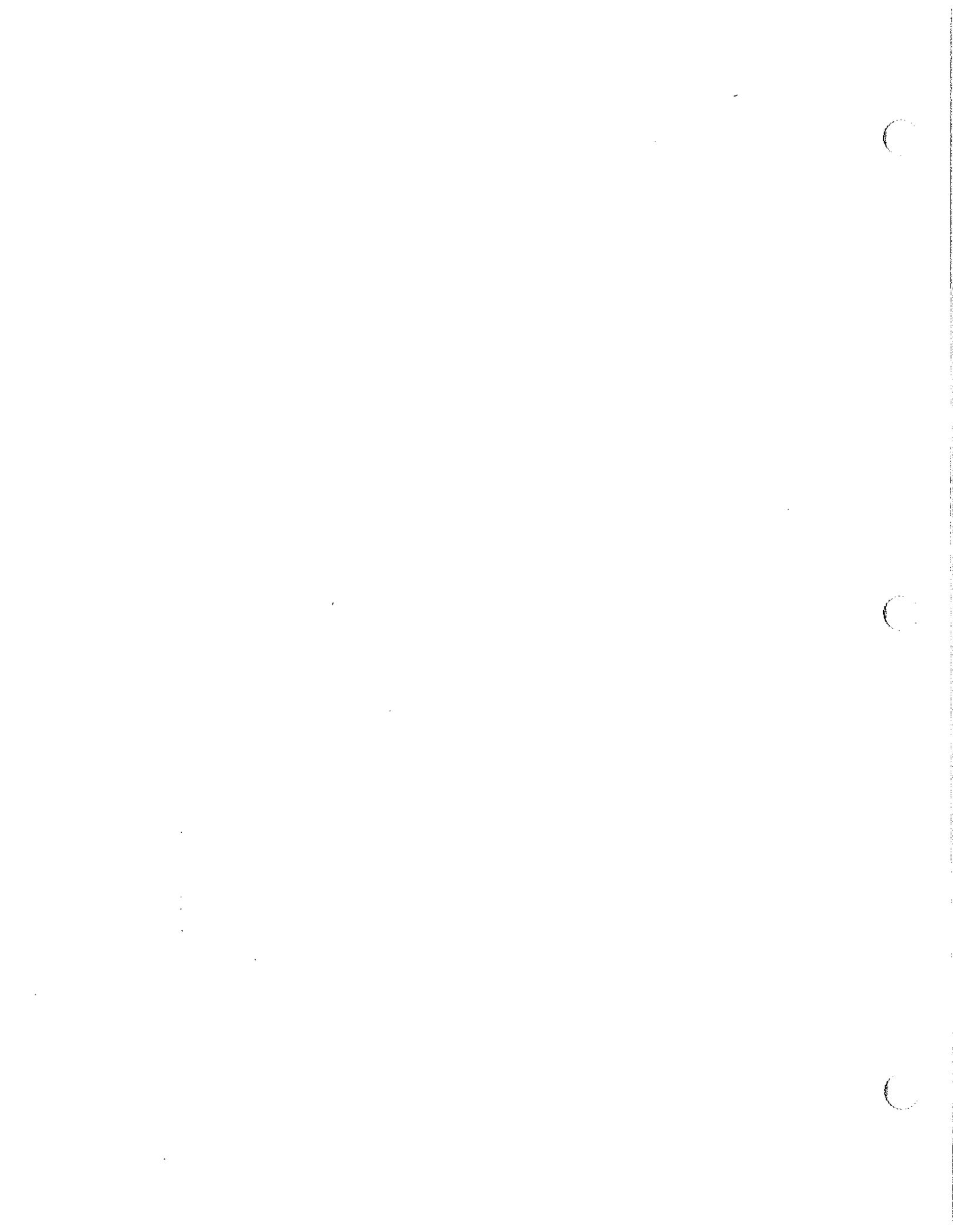


Table G13. Surficial Soil Analytical Results - Site 31
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
SOCs											
Benzo(a)anthracene	1	5	20.0 %	4.20E-02	2.44E-02	2.25E-02	4.47E-02	--	--	Y	--
Benzo(a)pyrene	1	5	20.0 %	3.20E-02	2.06E-02	2.24E-02	4.08E-02	--	--	Y	--
Benzo(b)fluoranthene	2	5	40.0 %	6.20E-02	2.21E-02	2.82E-02	4.75E-02	--	--	Y	--
Chrysene	2	5	40.0 %	1.10E-01	4.43E-02	3.87E-02	7.92E-02	--	--	Y	--
Dibenzo(a,h)anthracene	1	5	20.0 %	3.80E-02	5.41E-02	6.52E-02	1.13E-01	--	--	Y	--
Dibenzofuran	1	1	100.0 %	3.40E-02	--	--	--	--	--	Y	--
Fluoranthene	2	5	40.0 %	1.10E-01	4.15E-02	3.88E-02	7.65E-02	--	--	Y	--
2-Methylnaphthalene	3	8	37.5 %	1.70E-01	1.36E-01	5.62E-02	1.72E-01	--	--	Y	--
Naphthalene	2	6	33.3 %	1.30E-01	2.24E-01	1.74E-01	3.61E-01	--	--	Y	--
Phenanthrene	3	6	50.0 %	1.30E-01	7.07E-02	3.13E-02	9.55E-02	--	--	Y	--
Pyrene	1	5	20.0 %	4.70E-02	4.91E-02	3.20E-02	7.79E-02	--	--	Y	--
PESTICIDES											
4,4'-DDE	4	14	28.6 %	1.20E+00	1.33E-01	3.32E-01	2.89E-01	--	--	Y	--
4,4'-DDT	5	14	35.7 %	1.70E+00	1.57E-01	4.51E-01	3.70E-01	--	--	Y	--
DIOXINS/FURANS											
1,2,3,4,6,7,8-HpCDD	13	22	59.1 %	5.00E-04	6.00E-05	1.10E-04	1.00E-04	--	--	Y	--
Total HpCDD	13	22	59.1 %	9.30E-04	1.00E-04	2.10E-04	1.80E-04	--	--	Y	--
1,2,3,4,6,7,8-HpCDF	11	22	50.0 %	1.30E-03	8.00E-05	2.70E-04	1.80E-04	--	--	Y	--
Total HpCDF	12	22	54.6 %	3.80E-03	2.10E-04	8.00E-04	5.00E-04	--	--	Y	--
Total HxCDD	10	22	45.5 %	1.80E-04	2.29E-05	4.73E-05	4.02E-05	--	--	Y	--
Total HxCDF	10	22	45.5 %	8.10E-04	6.00E-05	1.70E-04	1.20E-04	--	--	Y	--
1,2,3,4,7,8,9-HpCDF	3	22	13.6 %	1.40E-05	1.61E-06	3.36E-06	2.84E-06	--	--	Y	--
1,2,3,4,7,8-HxCDD	1	22	4.6 %	1.20E-05	9.60E-07	2.52E-06	1.89E-06	--	--	N	--
1,2,3,6,7,8-HxCDD	4	22	18.2 %	2.40E-05	3.48E-06	6.75E-06	5.96E-06	--	--	Y	--
1,2,3,7,8,9-HxCDD	3	22	13.6 %	2.10E-05	1.98E-06	4.60E-06	3.66E-06	--	--	Y	--
1,2,3,4,7,8-HxCDF	4	21	19.1 %	1.10E-05	3.14E-06	4.21E-06	4.72E-06	--	--	Y	--
1,2,3,6,7,8-HxCDF	2	22	9.1 %	1.80E-05	2.62E-06	4.78E-06	4.37E-06	--	--	Y	--
2,3,4,6,7,8-HxCDF	3	22	13.6 %	1.20E-05	1.86E-06	3.29E-06	3.07E-06	--	--	Y	--
OCDD	21	22	95.5 %	3.10E-03	3.40E-04	6.60E-04	5.80E-04	--	--	Y	--
OCDF total	11	22	50.0 %	1.10E-03	8.00E-05	2.30E-04	1.70E-04	--	--	Y	--
1,2,3,7,8-PeCDD	2	22	9.1 %	5.70E-06	8.00E-07	1.59E-06	1.38E-06	--	--	Y	--
Total PeCDD	3	22	13.6 %	8.00E-05	6.39E-06	1.74E-05	1.28E-05	--	--	Y	--
1,2,3,7,8-PeCDF	2	22	9.1 %	1.50E-05	1.35E-06	3.31E-06	2.56E-06	--	--	Y	--
2,3,4,7,8-PeCDF	3	22	13.6 %	2.50E-05	2.49E-06	5.60E-06	4.54E-06	--	--	Y	--
Total PeCDF	10	22	45.5 %	2.80E-04	2.94E-05	6.00E-05	5.00E-05	--	--	Y	--
2,3,7,8-TCDF	4	22	18.2 %	1.50E-05	1.59E-06	3.50E-06	2.87E-06	--	--	Y	--
2,3,7,8-TCDD	3	22	13.6 %	3.20E-06	4.60E-07	7.70E-07	7.50E-07	--	--	Y	--

**Table G13. Surficial Soil Analytical Results - Site 31
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
DIOXINS/FURANS											
Total TCDD	6	22	27.3 %	9.00E-05	7.10E-06	2.06E-05	1.46E-05	--	--	Y	--
Total TCDF	10	22	45.5 %	4.80E-04	3.69E-05	1.00E-04	8.00E-05	--	--	Y	--
METALS											
Antimony	20	59	33.9 %	2.54E+01	1.62E+00	4.42E+00	2.56E+00	--	--	Y	--
Arsenic	38	59	64.4 %	5.80E+00	1.43E+00	1.23E+00	1.70E+00	3.40E+00	1.33E+00	Y	M/A
Beryllium	43	59	72.9 %	3.80E-01	1.80E-01	9.00E-02	2.00E-01	3.50E-01	--	Y	M
Cadmium	15	59	25.4 %	8.20E+00	1.01E+00	1.52E+00	1.33E+00	--	--	Y	--
Chromium	59	59	100.0 %	4.98E+01	1.57E+01	9.13E+00	1.76E+01	4.61E+01	9.22E+00	Y	M/A
Chromium VI	0	55	0.0 %	--	--	--	--	--	--	N	--
Copper	54	62	87.1 %	6.99E+02	4.00E+01	1.15E+02	6.40E+01	1.82E+01	4.50E+00	Y	M/A
Lead	59	59	100.0 %	2.21E+04	6.09E+02	2.94E+03	1.24E+03	5.18E+01	9.29E+00	Y	M/A
Mercury	20	59	33.9 %	1.30E+00	8.00E-02	1.70E-01	1.20E-01	1.20E-01	--	Y	M
Nickel	33	59	55.9 %	3.38E+01	6.78E+00	5.87E+00	8.04E+00	5.80E+01	7.81E+00	Y	N
Silver	5	59	8.5 %	7.40E+00	8.90E-01	1.36E+00	1.18E+00	3.60E-01	--	Y	M
Zinc	56	59	94.9 %	3.09E+03	2.53E+02	6.31E+02	3.88E+02	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table G14. Surficial Soil Analytical Results - Site 32
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
PESTICIDES											
Chlordane	1	4	25.0 %	4.40E-02	5.29E-02	2.15E-02	7.57E-02	--	--	Y	--
4,4'-DDD	2	4	50.0 %	2.80E-01	7.74E-02	1.35E-01	2.21E-01	--	--	Y	--
4,4'-DDE	1	4	25.0 %	4.00E-01	1.06E-01	1.96E-01	3.15E-01	--	--	Y	--
4,4'-DDT	2	4	50.0 %	7.50E-01	1.94E-01	3.71E-01	5.89E-01	--	--	Y	--
METALS											
Arsenic	3	4	75.0 %	7.80E-01	5.30E-01	2.20E-01	7.60E-01	3.40E+00	1.33E+00	Y	N
Beryllium	3	4	75.0 %	2.30E-01	2.00E-01	5.00E-02	2.50E-01	3.50E-01	--	Y	N
Chromium	4	4	100.0 %	1.23E+01	9.95E+00	1.87E+00	1.19E+01	4.61E+01	9.22E+00	Y	A
Copper	2	4	50.0 %	9.30E+00	4.60E+00	3.55E+00	8.39E+00	1.82E+01	4.50E+00	Y	A
Lead	4	4	100.0 %	1.08E+01	6.40E+00	4.39E+00	1.11E+01	5.18E+01	9.29E+00	Y	N
Mercury	2	4	50.0 %	1.30E-01	6.00E-02	5.00E-02	1.20E-01	1.20E-01	--	Y	M
Nickel	3	4	75.0 %	7.10E+00	5.63E+00	2.11E+00	7.87E+00	5.80E+01	7.81E+00	Y	N
Zinc	3	4	75.0 %	4.04E+01	2.59E+01	1.42E+01	4.10E+01	7.58E+01	1.49E+01	Y	A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table G15. Surficial Soil Analytical Results - Site 33
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
PESTICIDES											
gamma-BHC	1	12	8.3 %	1.90E-02	8.93E-03	1.14E-02	1.48E-02	--	--	Y	--
Chlordane	5	12	41.7 %	5.90E+00	8.33E-01	1.68E+00	1.70E+00	--	--	Y	--
4,4'-DDD	4	12	33.3 %	9.30E-01	1.23E-01	2.63E-01	2.59E-01	--	--	Y	--
4,4'-DDE	2	5	40.0 %	1.40E-01	5.21E-02	6.01E-02	1.06E-01	--	--	Y	--
4,4'-DDT	7	12	58.3 %	4.90E+00	6.15E-01	1.42E+00	1.35E+00	--	--	Y	--
Dieldrin	9	12	75.0 %	1.00E+00	2.05E-01	3.32E-01	3.76E-01	--	--	Y	--
Endrin	2	12	16.7 %	2.10E-02	1.73E-02	2.17E-02	2.84E-02	--	--	Y	--
HERBICIDES											
Dicamba	1	8	12.5 %	1.30E-01	3.34E-02	4.16E-02	6.08E-02	--	--	Y	--
METALS											
Antimony	7	12	58.3 %	3.60E+00	7.70E-01	9.80E-01	1.28E+00	--	--	Y	--
Arsenic	11	12	91.7 %	4.50E+00	1.88E+00	9.60E-01	2.37E+00	3.40E+00	1.33E+00	Y	M/A
Beryllium	2	12	16.7 %	1.60E-01	9.00E-02	3.00E-02	1.10E-01	3.50E-01	--	Y	N
Cadmium	5	12	41.7 %	2.30E+00	9.40E-01	6.80E-01	1.29E+00	--	--	Y	--
Chromium	12	12	100.0 %	3.60E+01	1.33E+01	8.48E+00	1.76E+01	4.61E+01	9.22E+00	Y	A
Copper	11	12	91.7 %	5.29E+01	1.60E+01	1.36E+01	2.30E+01	1.82E+01	4.50E+00	Y	M/A
Lead	11	12	91.7 %	1.18E+02	4.48E+01	3.82E+01	6.45E+01	5.18E+01	9.29E+00	Y	M/A
Mercury	11	12	91.7 %	6.50E+01	8.48E+00	1.85E+01	1.80E+01	1.20E-01	--	Y	M
Nickel	3	12	25.0 %	1.06E+01	4.24E+00	2.79E+00	5.68E+00	5.80E+01	7.81E+00	Y	N
Silver	2	12	16.7 %	7.60E+00	1.51E+00	2.46E+00	2.78E+00	3.60E-01	--	Y	M
Thallium	1	12	8.3 %	5.00E-01	2.60E-01	9.00E-02	3.00E-01	4.50E-01	--	Y	M
Zinc	10	12	83.3 %	2.13E+02	1.01E+02	6.75E+01	1.36E+02	7.58E+01	1.49E+01	Y	M/A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table G16. Surficial Soil Analytical Results - Site 35
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Number of Detections	Number of Analyses	Frequency of Detection (FOD)	Chemical Concentrations				Background Concentrations			Do Site Concentrations Exceed Background? /d/
				Maximum Concentration Detected (mg/kg)	Arithmetic Mean /a/ (mg/kg)	Standard Deviation	95% Upper Confidence Limit /b/ (mg/kg)	Maximum Value /c/ (mg/kg)	Arithmetic Mean /c/ (mg/kg)	Does FOD Exceed 5%?	
METALS											
Arsenic	5	10	50.0 %	1.40E+00	8.60E-01	3.90E-01	1.08E+00	3.40E+00	1.33E+00	Y	N
Beryllium	10	10	100.0 %	3.00E-01	2.30E-01	6.00E-02	2.60E-01	3.50E-01	--	Y	N
Chromium	10	10	100.0 %	1.57E+01	9.19E+00	2.85E+00	1.08E+01	4.61E+01	9.22E+00	Y	N
Lead	10	10	100.0 %	1.01E+01	5.73E+00	2.24E+00	7.01E+00	5.18E+01	9.29E+00	Y	N
Nickel	8	10	80.0 %	9.50E+00	5.45E+00	2.03E+00	6.61E+00	5.80E+01	7.81E+00	Y	N
Selenium	1	10	10.0 %	9.50E-01	4.60E-01	1.70E-01	5.60E-01	--	--	Y	--
Zinc	8	10	80.0 %	2.43E+01	1.67E+01	5.76E+00	2.00E+01	7.58E+01	1.49E+01	Y	A

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

/b/ 95 percent upper confidence limit of the arithmetic mean.

/c/ Background concentrations from: Harding Lawson Associates Draft Basewide Background Soil Investigation Report, dated March 15, 1993.

/d/ N = No detected concentration exceeded background.

M = Maximum detected concentration exceeds maximum background concentration.

A = Mean detected concentration exceeds mean background concentration.

**Table G17. Statistical Data Summary of Chemical Analyses for Oats
Biota Investigation - Site 11
Fort Ord Ecological Risk Assessment - Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Location of Minimum Detection	Depth of Min (ft)	Maximum Detected Value	Location of Maximum Detection	Depth of Max (ft)	Arithmetic Mean /a/	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS												
Arsenic	mg/kg	1 / 4	25.0%	0.14	TP-11-05	0.0	0.14	TP-11-05	0.0	0.08	0.04	0.12
Chromium	mg/kg	4 / 4	100.0%	1.80	TP-11-08	0.0	4.00	TP-11-05	0.0	3.25	0.98	4.30
Copper	mg/kg	4 / 4	100.0%	11.70	TP-11-07	0.0	23.60	TP-11-06	0.0	16.50	5.51	22.38
Lead	mg/kg	4 / 4	100.0%	0.11	TP-11-08	0.0	0.40	TP-11-05	0.0	0.26	0.12	0.39
Nickel	mg/kg	4 / 4	100.0%	2.30	TP-11-08	0.0	4.50	TP-11-07	0.0	3.60	0.96	4.62
Zinc	mg/kg	4 / 4	100.0%	29.10	TP-11-05	0.0	43.00	TP-11-06	0.0	36.58	6.15	43.13

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

**Table G18. Statistical Data Summary of Chemical Analyses for Oats
Biota Investigation - Site 12
Fort Ord Ecological Risk Assessment - Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Location of Minimum Detection	Depth of Min (ft)	Maximum Detected Value	Location of Maximum Detection	Depth of Max (ft)	Arithmetic Mean /a/	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS												
Chromium	mg/kg	4 / 4	100.0%	0.32	TP-12-03	0.0	1.40	TP-12-01	0.0	0.63	0.52	1.18
Copper	mg/kg	4 / 4	100.0%	6.00	TP-12-02	0.0	17.80	TP-12-01	0.0	12.63	5.22	18.19
Lead	mg/kg	4 / 4	100.0%	0.30	TP-12-02	0.0	0.90	TP-12-01	0.0	0.61	0.26	0.88
Nickel	mg/kg	4 / 4	100.0%	1.20	TP-12-03	0.0	3.00	TP-12-04	0.0	1.98	0.75	2.77
Zinc	mg/kg	4 / 4	100.0%	31.40	TP-12-02	0.0	57.90	TP-12-04	0.0	44.83	11.38	56.95

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

**Table G19. Statistical Data Summary of Chemical Analyses for Oats
Biota Investigation - Site 15
Fort Ord Ecological Risk Assessment - Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Location of Minimum Detection	Depth of Min (ft)	Maximum Detected Value	Location of Maximum Detection	Depth of Max (ft)	Arithmetic Mean /a/	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS												
Chromium	mg/kg	4 / 4	100.0%	0.83	TP-15-04	0.0	3.60	TP-15-01	0.0	2.10	1.41	3.60
Copper	mg/kg	4 / 4	100.0%	4.80	TP-15-01	0.0	20.60	TP-15-04	0.0	10.13	7.12	17.72
Lead	mg/kg	4 / 4	100.0%	0.28	TP-15-01	0.0	0.63	TP-15-03	0.0	0.46	0.14	0.61
Nickel	mg/kg	4 / 4	100.0%	1.40	TP-15-04	0.0	2.40	TP-15-01	0.0	1.93	0.43	2.38
Zinc	mg/kg	4 / 4	100.0%	33.30	TP-15-02	0.0	47.90	TP-15-01	0.0	41.05	7.15	48.67

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

**Table G20. Statistical Data Summary of Chemical Analyses for Oats
Biota Investigation - Site 16
Fort Ord Ecological Risk Assessment - Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Location of Minimum Detection	Depth of Min (ft)	Maximum Detected Value	Location of Maximum Detection	Depth of Max (ft)	Arithmetic Mean /a/	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
DIOXINS/FURANS												
Octachlorodibenzo-p-dioxin	pg/g	8 / 8	100.0%	6.60	TP-16-07	0.0	21.00	TP-16-03	0.0	13.10	4.60	16.13
Pentachlorodibenzofurans(total)	pg/g	1 / 8	12.5%	9.80	TP-16-05	0.0	9.80	TP-16-05	0.0	1.57	3.33	3.76
Tetrachlorodibenzofurans(total)	pg/g	2 / 8	25.0%	2.20	TP-16-04	0.0	32.00	TP-16-05	0.0	4.44	11.16	11.77
METALS												
Cadmium	mg/kg	2 / 8	25.0%	0.23	TP-16-02	0.0	0.25	TP-16-01	0.0	0.14	0.06	0.18
Chromium	mg/kg	8 / 8	100.0%	0.36	TP-16-07	0.0	0.94	TP-16-02	0.0	0.63	0.23	0.78
Copper	mg/kg	8 / 8	100.0%	4.70	TP-16-03	0.0	29.30	TP-16-08	0.0	12.18	8.28	17.62
Lead	mg/kg	7 / 8	87.5%	0.22	TP-16-02	0.0	0.60	TP-16-06	0.0	0.33	0.17	0.44
Nickel	mg/kg	4 / 8	50.0%	1.40	TP-16-07	0.0	3.40	TP-16-05	0.0	1.34	0.98	1.98
Zinc	mg/kg	8 / 8	100.0%	34.10	TP-16-03	0.0	54.70	TP-16-01	0.0	46.55	5.89	50.42

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

**Table G21. Statistical Data Summary of Chemical Analyses for Oats
Biota Investigation - Site 21
Fort Ord Ecological Risk Assessment - Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Location of Minimum Detection	Depth of Min (ft)	Maximum Detected Value	Location of Maximum Detection	Depth of Max (ft)	Arithmetic Mean /a/	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS												
Cadmium	mg/kg	1 / 4	25.0%	0.28	TP-21-03	0.0	0.28	TP-21-03	0.0	0.15	0.09	0.24
Chromium	mg/kg	4 / 4	100.0%	0.82	TP-21-04	0.0	1.50	TP-21-03	0.0	1.10	0.29	1.41
Copper	mg/kg	4 / 4	100.0%	4.80	TP-21-03	0.0	25.50	TP-21-02	0.0	10.30	10.14	21.11
Lead	mg/kg	1 / 4	25.0%	1.10	TP-21-03	0.0	1.10	TP-21-03	0.0	0.33	0.52	0.88
Nickel	mg/kg	3 / 4	75.0%	1.30	TP-21-01	0.0	1.70	TP-21-03	0.0	1.30	0.50	1.83
Zinc	mg/kg	4 / 4	100.0%	21.80	TP-21-01	0.0	88.30	TP-21-03	0.0	40.93	31.74	74.76

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

**Table G22. Statistical Data Summary of Chemical Analyses for Oats
Biota Investigation - Site 22
Fort Ord Ecological Risk Assessment - Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Location of Minimum Detection	Depth of Min (ft)	Maximum Detected Value	Location of Maximum Detection	Depth of Max (ft)	Arithmetic Mean /a/	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS												
Chromium	mg/kg	4 / 4	100.0%	1.40	TP-22-02	0.0	4.10	TP-22-03	0.0	2.63	1.12	3.82
Copper	mg/kg	4 / 4	100.0%	11.30	TP-22-04	0.0	33.00	TP-22-03	0.0	18.58	9.86	29.09
Lead	mg/kg	4 / 4	100.0%	0.11	TP-22-04	0.0	0.64	TP-22-02	0.0	0.26	0.26	0.53
Nickel	mg/kg	4 / 4	100.0%	1.90	TP-22-02	0.0	4.30	TP-22-03	0.0	3.15	1.14	4.36
Selenium	mg/kg	1 / 4	25.0%	0.16	TP-22-01	0.0	0.16	TP-22-01	0.0	0.10	0.04	0.14
Zinc	mg/kg	4 / 4	100.0%	31.50	TP-22-03	0.0	54.50	TP-22-02	0.0	40.28	10.14	51.08

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

**Table G23. Statistical Data Summary of Chemical Analyses for Oats
Biota Investigation - Site 24
Fort Ord Ecological Risk Assessment - Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Location of Minimum Detection	Depth of Min (ft)	Maximum Detected Value	Location of Maximum Detection	Depth of Max (ft)	Arithmetic Mean /a/	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS												
Chromium	mg/kg	6 / 6	100.0%	0.18	TP-24-05	0.0	1.70	TP-24-02	0.0	0.60	0.56	1.05
Copper	mg/kg	6 / 6	100.0%	5.50	TP-24-03	0.0	14.20	TP-24-02	0.0	10.53	3.39	13.22
Lead	mg/kg	6 / 6	100.0%	0.17	TP-24-03	0.0	1.20	TP-24-06	0.0	0.52	0.42	0.85
Nickel	mg/kg	5 / 6	83.3%	1.50	TP-24-01	0.0	3.30	TP-24-02	0.0	1.73	0.88	2.43
Zinc	mg/kg	6 / 6	100.0%	37.40	TP-24-02	0.0	58.10	TP-24-05	0.0	45.82	7.04	51.40

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

**Table G24. Statistical Data Summary of Chemical Analyses for Iceplant
Biota Investigation - Site 25
Fort Ord Ecological Risk Assessment - Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Location of Minimum Detection	Depth of Min (ft)	Maximum Detected Value	Location of Maximum Detection	Depth of Max (ft)	Arithmetic Mean /a/	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS												
Cadmium	mg/kg	2 / 4	50.0%	0.42	TP-25-02	0.0	0.75	TP-25-04	0.0	0.35	0.31	0.67
Chromium	mg/kg	2 / 4	50.0%	0.38	TP-25-01	0.0	0.79	TP-25-04	0.0	0.34	0.33	0.69
Copper	mg/kg	4 / 4	100.0%	8.50	TP-25-03	0.0	19.40	TP-25-04	0.0	12.43	4.80	17.55
Lead	mg/kg	4 / 4	100.0%	0.14	TP-25-01	0.0	0.38	TP-25-04	0.0	0.25	0.10	0.35
Nickel	mg/kg	2 / 4	50.0%	1.40	TP-25-01	0.0	2.20	TP-25-04	0.0	1.20	0.77	2.02
Zinc	mg/kg	4 / 4	100.0%	23.50	TP-25-03	0.0	41.50	TP-25-04	0.0	28.85	8.47	37.88

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

**Table G25. Statistical Data Summary of Chemical Analyses for Oats
Biota Investigation - Site 25
Fort Ord Ecological Risk Assessment - Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Location of Minimum Detection	Depth of Min (ft)	Maximum Detected Value	Location of Maximum Detection	Depth of Max (ft)	Arithmetic Mean /a/	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS												
Cadmium	mg/kg	1 / 4	25.0%	0.62	TP-25-08	0.0	0.62	TP-25-08	0.0	0.23	0.26	0.51
Chromium	mg/kg	4 / 4	100.0%	0.50	TP-25-06	0.0	3.60	TP-25-08	0.0	1.46	1.45	3.01
Copper	mg/kg	4 / 4	100.0%	13.20	TP-25-05	0.0	146.00	TP-25-08	0.0	52.65	62.94	119.75
Lead	mg/kg	4 / 4	100.0%	0.16	TP-25-07	0.0	0.39	TP-25-08	0.0	0.29	0.10	0.40
Nickel	mg/kg	4 / 4	100.0%	1.30	TP-25-05	0.0	3.10	TP-25-08	0.0	1.90	0.82	2.77
Zinc	mg/kg	4 / 4	100.0%	28.20	TP-25-07	0.0	41.80	TP-25-06	0.0	36.20	5.97	42.57

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

**Table G26. Statistical Data Summary of Chemical Analyses for Oats
Biota Investigation - Site 29
Fort Ord Ecological Risk Assessment - Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Location of Minimum Detection	Depth of Min (ft)	Maximum Detected Value	Location of Maximum Detection	Depth of Max (ft)	Arithmetic Mean /a/	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS												
Chromium	mg/kg	4 / 4	100.0%	2.70	TP-29-05	0.0	17.40	TP-29-06	0.0	7.58	6.70	14.71
Copper	mg/kg	4 / 4	100.0%	18.10	TP-29-05	0.0	63.20	TP-29-06	0.0	40.68	18.43	60.32
Lead	mg/kg	4 / 4	100.0%	0.11	TP-29-05	0.0	0.22	TP-29-06	0.0	0.14	0.05	0.20
Nickel	mg/kg	4 / 4	100.0%	3.20	TP-29-05	0.0	13.30	TP-29-06	0.0	7.23	4.46	11.98
Zinc	mg/kg	4 / 4	100.0%	35.10	TP-29-05	0.0	40.70	TP-29-06	0.0	37.65	2.92	40.76

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

**Table G27. Statistical Data Summary of Chemical Analyses for Oats
Biota Investigation - Site 31
Fort Ord Ecological Risk Assessment - Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Location of Minimum Detection	Depth of Min (ft)	Maximum Detected Value	Location of Maximum Detection	Depth of Max (ft)	Arithmetic Mean /a/	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS												
Chromium	mg/kg	1 / 1	100.0%	0.34	TP-31-01	0.0	0.34	TP-31-01	0.0	--	--	--
Copper	mg/kg	1 / 1	100.0%	2.80	TP-31-01	0.0	2.80	TP-31-01	0.0	--	--	--
Zinc	mg/kg	1 / 1	100.0%	24.90	TP-31-01	0.0	24.90	TP-31-01	0.0	--	--	--

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

**Table G28. Statistical Data Summary of Chemical Analyses for Oats
Biota Investigation - Site 32
Fort Ord Ecological Risk Assessment - Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Location of Minimum Detection	Depth of Min (ft)	Maximum Detected Value	Location of Maximum Detection	Depth of Max (ft)	Arithmetic Mean /a/	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
PESTICIDES												
4,4'-DDD	ug/kg	2 / 7	28.6%	12.00	TP-32-06	0.0	14.00	TP-32-07	0.0	9.43	2.51	11.22
4,4'-DDE	ug/kg	1 / 7	14.3%	17.00	TP-32-07	0.0	17.00	TP-32-07	0.0	9.29	3.40	11.72
4,4'-DDT	ug/kg	1 / 7	14.3%	12.00	TP-32-07	0.0	12.00	TP-32-07	0.0	8.57	1.51	9.65
METALS												
Beryllium	mg/kg	2 / 7	28.6%	0.24	TP-32-10	0.0	0.30	TP-32-11	0.0	0.09	0.13	0.18
Chromium	mg/kg	5 / 7	71.4%	0.55	TP-32-06	0.0	2.80	TP-32-07	0.0	0.96	0.94	1.63
Copper	mg/kg	5 / 7	71.4%	4.80	TP-32-09	0.0	19.20	TP-32-05	0.0	7.43	6.85	12.34
Lead	mg/kg	2 / 7	28.6%	0.68	TP-32-07	0.0	2.50	TP-32-11	0.0	0.50	0.91	1.16
Mercury	mg/kg	1 / 7	14.3%	0.07	TP-32-07	0.0	0.07	TP-32-07	0.0	0.03	0.02	0.04
Nickel	mg/kg	4 / 7	57.1%	1.50	TP-32-09	0.0	2.70	TP-32-07	0.0	1.50	0.92	2.16
Silver	mg/kg	1 / 7	14.3%	0.12	TP-32-05	0.0	0.12	TP-32-05	0.0	0.07	0.02	0.08
Zinc	mg/kg	7 / 7	100.0%	8.50	TP-32-10	0.0	92.40	TP-32-08	0.0	42.31	27.94	62.33

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

**Table G29. Statistical Data Summary of Chemical Analyses for Ripgut Brome and California Brome
Biota Investigation - Site 33
Fort Ord Ecological Risk Assessment - Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Location of Minimum Detection	Depth of Min (ft)	Maximum Detected Value	Location of Maximum Detection	Depth of Max (ft)	Arithmetic Mean /a/	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS												
Cadmium	mg/kg	1 / 4	25.0%	0.22	TP-33-01	0.0	0.22	TP-33-01	0.0	0.14	0.06	0.20
Chromium	mg/kg	4 / 4	100.0%	0.39	TP-33-03	0.0	3.80	TP-33-01	0.0	2.05	1.70	3.86
Copper	mg/kg	4 / 4	100.0%	6.00	TP-33-03	0.0	313.00	TP-33-02	0.0	101.45	143.55	254.48
Lead	mg/kg	1 / 4	25.0%	0.21	TP-33-01	0.0	0.21	TP-33-01	0.0	0.10	0.08	0.18
Nickel	mg/kg	2 / 4	50.0%	2.80	TP-33-02	0.0	3.50	TP-33-01	0.0	1.86	1.51	3.48
Zinc	mg/kg	4 / 4	100.0%	34.20	TP-33-03	0.0	90.60	TP-33-01	0.0	56.50	24.11	82.20

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

**Table G30. Statistical Data Summary of Chemical Analyses for Rippgut Brome
Biota Investigation - Site 35
Fort Ord Ecological Risk Assessment - Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Location of Minimum Detection	Depth of Min (ft)	Maximum Detected Value	Location of Maximum Detection	Depth of Max (ft)	Arithmetic Mean /a/	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS												
Antimony	mg/kg	2 / 10	20.0%	0.27	TP-35-07	0.0	0.38	TP-35-08	0.0	0.11	0.12	0.18
Chromium	mg/kg	10 / 10	100.0%	0.49	TP-35-01	0.0	7.00	TP-35-03	0.0	2.67	1.81	3.70
Copper	mg/kg	10 / 10	100.0%	10.60	TP-35-02	0.0	79.60	TP-35-03	0.0	24.33	20.57	36.12
Lead	mg/kg	8 / 10	80.0%	0.16	TP-35-07	0.0	0.32	TP-35-09	0.0	0.17	0.07	0.21
Nickel	mg/kg	7 / 10	70.0%	1.50	TP-35-10	0.0	5.90	TP-35-03	0.0	2.07	1.63	3.00
Zinc	mg/kg	10 / 10	100.0%	20.70	TP-35-03	0.0	34.00	TP-35-02	0.0	26.34	3.71	28.47

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

**Table G31. Statistical Data Summary of Chemical Analyses for Plants (all species)
Biota Investigation - BWERA (all sites)
Fort Ord Ecological Risk Assessment - Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Location of Minimum Detection	Depth of Min (ft)	Maximum Detected Value	Location of Maximum Detection	Depth of Max (ft)	Arithmetic Mean /a/	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
PESTICIDES												
4,4'-DDD	ug/kg	2 / 64	3.1%	12.00	TP-32-06	0.0	14.00	TP-32-07	0.0	8.16	0.89	8.34
4,4'-DDE	ug/kg	1 / 64	1.6%	17.00	TP-32-07	0.0	17.00	TP-32-07	0.0	8.14	1.13	8.37
4,4'-DDT	ug/kg	1 / 64	1.6%	12.00	TP-32-07	0.0	12.00	TP-32-07	0.0	8.06	0.50	8.17
DIOXINS/FURANS												
Octachlorodibenzo-p-dioxin	pg/g	8 / 9	88.9%	6.60	TP-16-07	0.0	21.00	TP-16-03	0.0	11.85	5.71	15.34
Pentachlorodibenzofurans(total)	pg/g	1 / 9	11.1%	9.80	TP-16-05	0.0	9.80	TP-16-05	0.0	1.43	3.14	3.35
Tetrachlorodibenzofurans(total)	pg/g	2 / 9	22.2%	2.20	TP-16-04	0.0	32.00	TP-16-05	0.0	3.97	10.53	10.40
METALS												
Antimony	mg/kg	2 / 68	2.9%	0.27	TP-35-07	0.0	0.38	TP-35-08	0.0	0.06	0.05	0.07
Arsenic	mg/kg	1 / 68	1.5%	0.14	TP-11-05	0.0	0.14	TP-11-05	0.0	0.07	0.03	0.08
Beryllium	mg/kg	2 / 68	2.9%	0.24	TP-32-10	0.0	0.30	TP-32-11	0.0	0.02	0.04	0.03
Cadmium	mg/kg	7 / 68	10.3%	0.22	TP-33-01	0.0	0.75	TP-25-04	0.0	0.14	0.11	0.16
Chromium	mg/kg	64 / 68	94.1%	0.18	TP-24-05	0.0	17.40	TP-29-06	0.0	1.87	2.43	2.35
Copper	mg/kg	66 / 68	97.1%	2.80	TP-31-01	0.0	313.00	TP-33-02	0.0	22.94	41.64	31.25
Lead	mg/kg	53 / 68	77.9%	0.11	TP-11-08	0.0	2.50	TP-32-11	0.0	0.32	0.37	0.39
Mercury	mg/kg	1 / 64	1.6%	0.07	TP-32-07	0.0	0.07	TP-32-07	0.0	0.02	9.90E-03	0.02
Nickel	mg/kg	51 / 68	75.0%	1.20	TP-12-03	0.0	13.30	TP-29-06	0.0	2.20	1.95	2.59
Selenium	mg/kg	1 / 68	1.5%	0.16	TP-22-01	0.0	0.16	TP-22-01	0.0	0.10	0.09	0.12
Silver	mg/kg	1 / 68	1.5%	0.12	TP-32-05	0.0	0.12	TP-32-05	0.0	0.06	8.00E-03	0.06
Zinc	mg/kg	68 / 68	100.0%	8.50	TP-32-10	0.0	92.40	TP-32-08	0.0	39.46	15.38	42.53

/a/ Nondetects assumed to be present at one-half the detection limit for calculating the mean.

Table G.32. Chemical Analyses for Reference Habitats
 Volume IV- Ecological Risk Assessment, Basewide RI/FS
 Fort Ord, California

Habitat	Transect Number	Chemical Concentrations (mg/kg)																							
		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	4,4'-DDD	4,4'-DDE	4,4'-DDT	Heptachlor	Heptachlor epoxide	Dieldrin	Chlordane	Endosulfan II	BHC (delta)
Soil																									
CMC	1	0.19	1.2	NA	0.07	0.19	8.5	3.4	11.7	0.025	2.1	0.19	0.16	0.13	NA	13.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
CLOW	1	0.19	1.0	NA	0.22	0.19	9.9	4.3	12.6	0.023	9.3	0.18	0.15	0.13	NA	16.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
UR	1	0.19	1.5	NA	0.07	0.41	16.2	5.0	19.9	0.025	9.1	0.19	0.16	0.13	NA	27.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mean		0.19	1.23		0.12	0.26	11.53	4.23	14.73	0.03	6.83	0.19	0.16	0.13		18.97									
Plants (Hottentot fig)																									
CMC	1	ND	0.22	NA	ND	0.29	0.36	3.9	0.21	ND	1.9	ND	ND	NA	27.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CMC	1	ND	0.2	NA	ND	0.05	0.7	8.1	0.39	ND	2.2	ND	ND	NA	22.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CMC	1	ND	0.3	NA	ND	0.05	0.47	2.1	0.41	ND	1.5	ND	ND	NA	21.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mean			0.24			0.13	0.51	4.70	0.34		1.87				23.93										
CLOW	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
CLOW	1	ND	0.16	NA	ND	0.11	0.09	1	0.18	ND	ND	ND	ND	NA	13.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CLOW	1	ND	0.3	NA	ND	0.1	0.3	2.5	0.44	ND	ND	ND	ND	NA	23.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mean			0.23			0.11	0.20	1.75	0.31						18.85										
UR	1	ND	0.14	NA	ND	0.46	0.29	5.4	2.3	ND	1.4	ND	ND	NA	67.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
UR	1	ND	0.12	NA	ND	0.19	0.27	3.5	0.57	ND	2.1	ND	ND	NA	39.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
UR	1	ND	0.24	NA	ND	0.52	0.43	4.2	3.5	ND	1.9	ND	ND	NA	66.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
UR			0.17			0.39	0.33	4.37	2.12		1.80				58.37										
Mammals (Mice)																									
OW	1	NA	NA	8.35	NA	NA	NA	4.08	0.196	NA	NA	NA	NA	NA	0.398	NA	ND	ND (0.0062)	ND (0.0062)	ND (0.0031)	ND (0.0031)	ND	ND(0.0062)	ND(0.0062)	ND (0.0031)
OW	1	NA	NA	5.83	NA	NA	NA	2.96	0.197	NA	NA	NA	NA	NA	0.866	NA	ND	ND(0.00591)	ND(0.00591)	ND (0.00295)	ND (0.00295)	ND	ND(0.00591)	ND(0.00591)	ND (0.00295)
CMC	1	NA	NA	5.31	NA	NA	NA	3.29	3.4	NA	NA	NA	NA	NA	0.400	NA	ND	ND(0.00775)	ND(0.00775)	ND(0.00386)	ND(0.00386)	ND	0.00261	ND(0.00775)	ND(0.00386)
CMC	1	NA	NA	5.51	NA	NA	NA	2.42	0.169	NA	NA	NA	NA	NA	0.402	NA	ND	ND(0.00519)	ND(0.00519)	ND(0.0026)	ND(0.0026)	ND	0.00274	ND(0.00519)	ND(0.0026)
CMC	1	NA	NA	9.83	NA	NA	NA	2.35	0.053	NA	NA	NA	NA	NA	0.941	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA

mg/kg Milligrams per kilogram.
 CMC Central maritime chaparral.
 CLOW Coast live oak woodland.
 UR Upland ruderal.
 ND Not detected.
 NA Not analyzed.
 NYA Not yet analyzed.

Note: All data is unvalidated.
 Shaded values represent one-half the detection limit.

Table G33. Mammal Data
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Sample No.	Site	Animal Code	Transect	% Lipid	Method 8080 Results (µg/kg)						
					Heptachlor	Heptachlor Epoxide	4,4'-DDE	4,4'-DDT	BHC (delta)	Chlordane (gamma)	Endosulfan II
9434G002001F	2	A	2-1	7.05	3.73	ND (4.75)	10.66	ND (9.51)	ND (4.75)	2.375	ND (9.51)
9434G002002F	2	C	2-4	8.27	2.55	ND (5.1)	5.65	ND (10.3)	ND (5.1)	4.6	ND (10.3)
9434G002003F	2	D	2-4	5.28	2.7	ND (5.4)	5.45	ND (10.9)	ND (5.4)	2.4	ND (10.9)
9432G002004F	2	B	2-4	NA	4.1	ND (6.2)	6.25	ND (12.5)	ND (6.2)	3.9	ND (12.5)
AVG SITE 2					3.27	--	7.00	--	--	3.32	--
STD DEV SITE 2					0.76	--	2.46	--	--	1.11	--
9432G003001F	3	C	3.1-2	8.98	NA	NA	NA	NA	NA	NA	NA
9432G003002F	3	B	3.1-2	5.1	NA	NA	NA	NA	NA	NA	NA
9432G003003F	3	A	3.1-2	7.65	NA	NA	NA	NA	NA	NA	NA
9432G003004F	3	A	3.2-4	5.05	NA	NA	NA	NA	NA	NA	NA
9432G003005F	3	C	3.2-2	6.02	NA	NA	NA	NA	NA	NA	NA
9432G003006F	3	B	3.2-2	5.02	NA	NA	NA	NA	NA	NA	NA
9438G003004F	3	A	3C-3	NA	ND (3.28)	ND (3.28)	ND (6.57)	ND (6.57)	ND (3.28)	ND (3.28)	ND (3.28)
9438G003005F	3	C	3C-3	NA	ND (3.09)	ND (3.09)	ND (6.18)	ND (6.18)	ND (3.09)	ND (3.09)	ND (3.09)
AVG SITE 3					--	--	--	--	--	--	--
STD DEV SITE 3					--	--	--	--	--	--	--
9435G011001F	11	A	11-4	6.82	NA	NA	NA	NA	NA	NA	NA
9435G011002F	11	B	11-4	4.31	NA	NA	NA	NA	NA	NA	NA
9437G011001F	11	C	11-3	14.72	NA	NA	NA	NA	NA	NA	NA
9437G011002F	11	D	11-3	8.39	NA	NA	NA	NA	NA	NA	NA
AVG SITE 11					--	--	--	--	--	--	--
STD DEV SITE 11					--	--	--	--	--	--	--
9437G024002F	24	A	24-5	3.31	NA	NA	NA	NA	NA	NA	NA
9437G024003F	24	E	24-4	2.94	NA	NA	NA	NA	NA	NA	NA
9437G024004F	24	D	24-4	7.67	NA	NA	NA	NA	NA	NA	NA
9437G024005F	24	F	24-3	5.51	NA	NA	NA	NA	NA	NA	NA
9437G024006F	24	B	24-4	11.16	NA	NA	NA	NA	NA	NA	NA

Harding Lawson Associates

Table G33. Mammal Data
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Sample No.	Site	Animal Code	Transect	% Lipid	Method 8080 Results (µg/kg)						
					Heptachlor	Heptachlor Epoxide	4,4'-DDE	4,4'-DDT	BHC (delta)	Chlordane (gamma)	Endosulfan II
9437G024007F	24	C	24-4	7.89	NA	NA	NA	NA	NA	NA	NA
AVG SITE 24					--	--	--	--	--	--	--
STD DEV SITE 24					--	--	--	--	--	--	--
9437G025001F	25	A	25-4	NA	ND (3.62)	ND (3.62)	ND (7.23)	5.78	1.53	1.69	ND (7.23)
AVG SITE 25											
STD DEV SITE 25											
9437G029003F	29	B	29-1	NA	ND (4.42)	ND (4.42)	ND (8.84)	ND (8.84)	ND (4.42)	2.8	ND (8.84)
9437G029004F	29	A	29-1	NA	ND (4.33)	ND (4.33)	ND (8.67)	ND (8.67)	ND (4.33)	3.32	ND (8.67)
AVG SITE 29					--	--	--	--	--	3.06	--
STD DEV SITE 29					--	--	--	--	--	0.37	--
9425G031001F	31	A	31-2	NA	4.4	2.6	5.15	5.15	2.6	2.6	5.15
9425G031002F	31	B	31-2	NA	2.6	2.6	5.2	5.2	2.6	2.6	5.2
9425G031003F	31	C	31-2	NA	2.6	2.6	8.2	5.15	2.6	2.6	5.15
9425G031004F	31	D	31-2	NA	2.55	2.55	5.1	5.1	2.55	2.55	5.1
9425G031005F	31	E	31-2	NA	1.5	1.9	5.2	5.2	2.6	2.6	5.2
9425G031006F	31	F	31-3	NA	NA	NA	NA	NA	NA	NA	NA
9425G031007F	31	G	31-3	5.1	NA	NA	NA	NA	NA	NA	NA
9425G031008F	31	H	31-3	NA	2.1	2.6	5.2	5.2	2.6	2.6	2.7
AVG SITE 31					2.63	2.48	5.68	5.17	2.59	2.59	4.75
STD DEV SITE 31					0.97	0.28	1.24	0.04	0.02	0.02	1.00
9438G033001F	33	A	33-2	NA	ND (4.32)	ND (4.32)	ND (8.65)	ND (8.65)	ND (4.32)	2.09	ND (8.65)
9438G033003F	33	D	33-4	6.01	NA	NA	NA	NA	NA	NA	NA
9438G033006F	33	C	33-4	5.68	NA	NA	NA	NA	NA	NA	NA
9438G003004F	33	B	33-4	NA	ND (2.81)	ND (2.81)	ND (5.62)	ND (5.62)	ND (2.81)	1.5	ND (5.62)
AVG SITE 33					NA	NA	NA	NA	NA	1.80	NA
STD DEV SITE 33					--	--	--	--	--	0.42	--

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Table G33. Mammal Data
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Sample No.	Site	Animal Code	Transect	% Lipid	Method 8080 Results ($\mu\text{g}/\text{kg}$)							
					Heptachlor	Heptachlor Epoxide	4,4'-DDE	4,4'-DDT	BHC (delta)	Chlordane (gamma)	Endosulfan II	
9433G035001F	35	A	35-1	NA	NA	NA	NA	NA	NA	NA	NA	NA
9433G035002F	35	B	35-1	8.89	NA	NA	NA	NA	NA	NA	NA	NA
9433G035003F	35	C	35-1	NA	ND (3.27)	ND (3.27)	ND (6.54)	ND (6.54)	1.635	1.635	ND (6.54)	ND (6.54)
9433G035004F	35	D	35-3	NA	ND (3.34)	ND (3.34)	ND (6.67)	ND (6.67)	1.67	5.25	ND (6.67)	ND (6.67)
9433G035005F	35	H	35-6	6.09	NA	NA	NA	NA	NA	NA	NA	NA
9433G035006F	35	E	35-4	3.1	NA	NA	NA	NA	NA	NA	NA	NA
9433G035007F	35	F	35-5	4.76	NA	NA	NA	NA	NA	NA	NA	NA
9433G035008F	35	G	35-6	NA	ND (3.30)	ND (3.30)	ND (6.60)	ND (6.60)	1.65	1.65	ND (6.60)	ND (6.60)
9433G035009F	35	I	35-10	5.72	NA	NA	NA	NA	NA	NA	NA	NA
9433G035010F	35	J	35-10	NA	ND (2.60)	ND (2.60)	ND (5.20)	ND (5.20)	0.61	3.83	ND (5.20)	ND (5.20)
AVG SITE 35					--	--	--	--	1.39	3.09	--	--
STD DEV SITE 35					--	--	--	--	0.52	1.77	--	--
9440G0ROW01F	OW	REF	OW-1	NA	1.55	1.55	3.10	3.10	1.55	1.55	3.10	3.10
9440G0ROW02F	OW	REF	OW-1	NA	1.48	1.48	2.96	2.96	1.48	1.48	2.96	2.96
9440G0RCH04F	CMC	REF	CMC-1	NA	1.93	1.93	3.86	3.86	1.93	2.61	1.93	1.93
9440G0RCH05F	CMC	REF	CMC-1	NA	1.30	1.30	2.60	2.60	1.30	2.74	1.30	1.30
9440G0RCH06F	CMC	REF	CMC-1	NA	NA	NA	NA	NA	NA	NA	NA	NA
AVG REF	CMC	REF	CMC-1		1.56	1.56	3.13	3.13	1.56	2.09	1.56	2.32
STD DEV REF	CMC	REF	CMC-1		0.27	0.27	0.53	0.53	0.27	0.67	0.27	0.86

Table G33. Mammal Data
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Sample No.	Method 8310 Results (ng/g)												
	Naphthalene	Acenaphthalene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene
9434G002001F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9434G002002F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9434G002003F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9432G002004F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AVG SITE 2	--	--	--	--	--	--	--	--	--	--	--	--	--
STD DEV SITE 2	--	--	--	--	--	--	--	--	--	--	--	--	--
9432G003001F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9432G003002F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9432G003003F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9432G003004F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9432G003005F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9432G003006F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9438G003004F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9438G003005F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AVG SITE 3	--	--	--	--	--	--	--	--	--	--	--	--	--
STD DEV SITE 3	--	--	--	--	--	--	--	--	--	--	--	--	--
9435G011001F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9435G011002F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9437G011001F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9437G011002F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AVG SITE 11	--	--	--	--	--	--	--	--	--	--	--	--	--
STD DEV SITE 11	--	--	--	--	--	--	--	--	--	--	--	--	--
9437G024002F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9437G024003F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9437G024004F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9437G024005F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9437G024006F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table G33. Mammal Data
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Sample No.	Method 8310 Results (ng/g)												
	Naphthalene	Acenaphthalene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene
9437G024007F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AVG SITE 24	--	--	--	--	--	--	--	--	--	--	--	--	--
STD DEV SITE 24	--	--	--	--	--	--	--	--	--	--	--	--	--
9437G025001F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AVG SITE 25													
STD DEV SITE 25													
9437G029003F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9437G029004F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AVG SITE 29	--	--	--	--	--	--	--	--	--	--	--	--	--
STD DEV SITE 29	--	--	--	--	--	--	--	--	--	--	--	--	--
9425G031001F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9425G031002F	50	410	30	15	120	9	21	210	170	5.5	29	13	5.5
9425G031003F	24	2800	26	13	130	6	10	85	150	58	34	13	5
9425G031004F	140	2700	35.5	21	65	3	17	180	79	13	26	10	24
9425G031005F	36.5	480	36.5	19	92	5	22	3.5	75	10	29	11	19
9425G031006F	41	150	7	19	95	9	22	250	90	4	38	10	4
9425G031007F	10	200	12.5	5	20	2	2	100	43	79	11	2	1.5
9425G031008F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AVG SITE 31	50.25	1123.33	24.58	15.33	87.00	5.67	15.67	138.08	101.17	28.25	27.83	9.83	9.83
STD DEV SITE 31	46.13	1266.47	12.23	5.85	40.00	2.94	8.12	91.47	48.59	32.04	9.28	4.07	9.28
9438G033001F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9438G033003F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9438G033006F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9438G003004F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AVG SITE 33	--	--	--	--	--	--	--	--	--	--	--	--	--
STD DEV SITE 33	--	--	--	--	--	--	--	--	--	--	--	--	--

Table G33. Mammal Data
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Sample No.	Method 8310 Results (ng/g)												
	Naphthalene	Acenaphthalene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene
9433G035001F	12.5	370	12.5	2	26	2	2.5	60	19	9	9	2	ND (2)
9433G035002F	45	1200	37	11	13	2	5	480	17	6	13	1	ND (2)
9433G035003F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9433G035004F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9433G035005F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9433G035006F	12.5	850	12.5	5	31	1	8	22	21	2	8	1	ND (2)
9433G035007F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9433G035008F	12.5	780	20	7	12	2	2	250	40	1	11	4	ND (2)
9433G035009F	12.5	810	5	3	17	2	2.5	160	35	4	11	3	ND (2)
9433G035010F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AVG SITE 35	19.00	802.00	17.40	5.60	19.80	1.80	4.00	194.40	26.40	4.40	10.40	2.20	--
STD DEV SITE 35	14.53	294.91	12.17	3.58	8.35	0.45	2.52	182.78	10.38	3.21	1.95	1.30	--
9440G0ROW01F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9440G0ROW02F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9440G0RCH04F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9440G0RCH05F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9440G0RCH06F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AVG REF	--	--	--	--	--	--	--	--	--	--	--	--	--
STD DEV REF	--	--	--	--	--	--	--	--	--	--	--	--	--

Table G33. Mammal Data
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Sample No.	Method 8290 Results (ng/kg)														
	1,2,3,7,8- PeCDD	1,2,3,4,7,8- HxCDD	1,2,3,6,7,8- HxCDD	1,2,3,7,8,9- HxCDD	1,2,3,4,6,7,8- HpCDD	OCDD	2,3,7,8- TCDF	2,3,4,7,8- PeCDF	1,2,3,4,7,8- HxCDF	1,2,3,6,7,8- HxCDF	2,3,4,6,7,8- HxCDF	1,2,3,4,6,7,8- HpCDF	1,2,3,4,7,8,9- HpCDF	OCDF	
9434G002001F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9434G002002F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9434G002003F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9432G002004F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
AVG SITE 2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
STD DEV SITE 2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
9432G003001F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9432G003002F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9432G003003F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9432G003004F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9432G003005F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9432G003006F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9438G003004F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9438G003005F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
AVG SITE 3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
STD DEV SITE 3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
9435G011001F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9435G011002F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9437G011001F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9437G011002F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
AVG SITE 11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
STD DEV SITE 11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
9437G024002F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9437G024003F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9437G024004F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9437G024005F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9437G024006F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

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Table G33. Mammal Data
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Sample No.	Method 8290 Results (ng/kg)													
	1,2,3,7,8- PeCDD	1,2,3,4,7,8- HxCDD	1,2,3,6,7,8- HxCDD	1,2,3,7,8,9- HxCDD	1,2,3,4,6,7,8- HpCDD	OCDD	2,3,7,8- TCDF	2,3,4,7,8- PeCDF	1,2,3,4,7,8- HxCDF	1,2,3,6,7,8- HxCDF	2,3,4,6,7,8- HxCDF	1,2,3,4,6,7,8- HpCDF	1,2,3,4,7,8,9- HpCDF	OCDF
9437G024007F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AVG SITE 24	--	--	--	--	--	--	--	--	--	--	--	--	--	--
STD DEV SITE 24	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9437G025001F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AVG SITE 25														
STD DEV SITE 25														
9437G029003F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9437G029004F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AVG SITE 29	--	--	--	--	--	--	--	--	--	--	--	--	--	--
STD DEV SITE 29	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9425G031001F	ND (1.2)	0.97	1.7	1.4	11.5	40.1	ND (1.1)	1.7	0.72	0.77	2.8	3.6	ND (0.5)	3.2
9425G031002F	ND (1.6)	ND (1.5)	0.96	ND (1.4)	6.2	29.4	ND (1.0)	ND (1.1)	ND (0.8)	ND (0.6)	ND (0.7)	2.2	ND (1.0)	1.8
9425G031003F	2.1	3.2	5.1	ND (3.0)	44.7	190	ND (1.4)	7.8	6.2	3.1	6.0	11.2	ND (3.3)	14.5
9425G031004F	ND (1.4)	1.3	1.8	ND (1.2)	7	22.8	ND (1.3)	ND (0.9)	ND (0.7)	ND (0.6)	ND (0.7)	1.1	ND (0.8)	ND (1)
9425G031005F	1.4	1.4	2.2	2.4	36.6	210	1.1	2.4	2.4	0.9	1.5	7.8	0.73	18.1
9425G031006F	3.4	2.2	5.8	2.1	28.4	152	ND (0.7)	6.9	6.1	2.2	3.4	6.4	ND (0.50)	7.6
9425G031007F	0.63	0.49	1.1	ND (0.5)	2.7	10.2	0.33	0.71	0.34	0.39	1.2	0.73	ND (0.4)	ND (0.7)
9425G031008F	1.1	0.81	4.1	ND (1.1)	5.3	10.5	ND (1.1)	ND (1.0)	ND (0.7)	ND (0.5)	1.1	0.65	ND (0.8)	ND (1.3)
AVG SITE 31	1.73	1.48	2.85	1.97	17.80	83.13	0.72	3.90	3.15	1.47	2.67	4.21	0.73	9.04
STD DEV SITE 31	1.08	0.93	1.88	0.51	16.32	85.55	0.54	3.22	2.84	1.14	1.88	3.88	--	7.08
9438G033001F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9438G033003F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9438G033006F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9438G003004F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AVG SITE 33	--	--	--	--	--	--	--	--	--	--	--	--	--	--
STD DEV SITE 33	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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Table G33. Mammal Data
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Sample No.	Method 8290 Results (ng/kg)													
	1,2,3,7,8- PeCDD	1,2,3,4,7,8- HxCDD	1,2,3,6,7,8- HxCDD	1,2,3,7,8,9- HxCDD	1,2,3,4,6,7,8- HpCDD	OCDD	2,3,7,8- TCDF	2,3,4,7,8- PeCDF	1,2,3,4,7,8- HxCDF	1,2,3,6,7,8- HxCDF	2,3,4,6,7,8- HxCDF	1,2,3,4,6,7,8- HpCDF	1,2,3,4,7,8,9- HpCDF	OCDF
9433G035001F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9433G035002F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9433G035003F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9433G035004F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9433G035005F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9433G035006F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9433G035007F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9433G035008F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9433G035009F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9433G035010F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AVG SITE 35	--	--	--	--	--	--	--	--	--	--	--	--	--	--
STD DEV SITE 35	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9440G0ROW01F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9440G0ROW02F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9440G0RCH04F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9440G0RCH05F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9440G0RCH06F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AVG REF	--	--	--	--	--	--	--	--	--	--	--	--	--	--
STD DEV REF	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table G33. Mammal Data
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Sample No.	Method 8290 Results (ng/kg; continued)						
	Total PeCDD	Total HxCDD	Total HpCDD	Total TCDF	Total PeCDF	Total HxCDF	Total HpCDF
9434G002001F	NA	NA	NA	NA	NA	NA	NA
9434G002002F	NA	NA	NA	NA	NA	NA	NA
9434G002003F	NA	NA	NA	NA	NA	NA	NA
9432G002004F	NA	NA	NA	NA	NA	NA	NA
AVG SITE 2	--	--	--	--	--	--	--
STD DEV SITE 2	--	--	--	--	--	--	--
9432G003001F	NA	NA	NA	NA	NA	NA	NA
9432G003002F	NA	NA	NA	NA	NA	NA	NA
9432G003003F	NA	NA	NA	NA	NA	NA	NA
9432G003004F	NA	NA	NA	NA	NA	NA	NA
9432G003005F	NA	NA	NA	NA	NA	NA	NA
9432G003006F	NA	NA	NA	NA	NA	NA	NA
9438G003004F	NA	NA	NA	NA	NA	NA	NA
9438G003005F	NA	NA	NA	NA	NA	NA	NA
AVG SITE 3	--	--	--	--	--	--	--
STD DEV SITE 3	--	--	--	--	--	--	--
9435G011001F	NA	NA	NA	NA	NA	NA	NA
9435G011002F	NA	NA	NA	NA	NA	NA	NA
9437G011001F	NA	NA	NA	NA	NA	NA	NA
9437G011002F	NA	NA	NA	NA	NA	NA	NA
AVG SITE 11	--	--	--	--	--	--	--
STD DEV SITE 11	--	--	--	--	--	--	--
9437G024002F	NA	NA	NA	NA	NA	NA	NA
9437G024003F	NA	NA	NA	NA	NA	NA	NA
9437G024004F	NA	NA	NA	NA	NA	NA	NA
9437G024005F	NA	NA	NA	NA	NA	NA	NA
9437G024006F	NA	NA	NA	NA	NA	NA	NA

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Table G33. Mammal Data
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Sample No.	Method 8290 Results (ng/kg; continued)						
	Total PeCDD	Total HxCDD	Total HpCDD	Total TCDF	Total PeCDF	Total HxCDF	Total HpCDF
9437G024007F	NA	NA	NA	NA	NA	NA	NA
AVG SITE 24	--	--	--	--	--	--	--
STD DEV SITE 24	--	--	--	--	--	--	--
9437G025001F	NA	NA	NA	NA	NA	NA	NA
AVG SITE 25							
STD DEV SITE 25							
9437G029003F	NA	NA	NA	NA	NA	NA	NA
9437G029004F	NA	NA	NA	NA	NA	NA	NA
AVG SITE 29	--	--	--	--	--	--	--
STD DEV SITE 29	--	--	--	--	--	--	--
9425G031001F	0.6	2.7	11.5	0.55	1.7	3.6	3.6
9425G031002F	0.8	0.96	8.8	0.5	0.55	0.35	3.3
9425G031003F	2.1	10	54	0.7	9.1	16.5	17.8
9425G031004F	0.7	3	7	0.7	0.45	0.35	2
9425G031005F	1.4	9.4	50.5	1.1	3.9	7.5	16.1
9425G031006F	3.4	10.1	35.5	0.35	6.9	11.6	9.1
9425G031007F	0.63	1.6	3.4	0.33	0.71	1.9	0.35
9425G031008F	1.1	4.1	5.3	0.55	0.5	1.1	0.65
AVG SITE 31	1.34	5.23	22.00	0.60	2.98	5.36	6.61
STD DEV SITE 31	0.97	3.93	21.22	0.25	3.36	5.99	6.94
9438G033001F	NA	NA	NA	NA	NA	NA	NA
9438G033003F	NA	NA	NA	NA	NA	NA	NA
9438G033006F	NA	NA	NA	NA	NA	NA	NA
9438G003004F	NA	NA	NA	NA	NA	NA	NA
AVG SITE 33	--	--	--	--	--	--	--
STD DEV SITE 33	--	--	--	--	--	--	--

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Table G33. Mammal Data
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Sample No.	Method 8290 Results (ng/kg; continued)						
	Total PeCDD	Total HxCDD	Total HpCDD	Total TCDF	Total PeCDF	Total HxCDF	Total HpCDF
9433G035001F	NA	NA	NA	NA	NA	NA	NA
9433G035002F	NA	NA	NA	NA	NA	NA	NA
9433G035003F	NA	NA	NA	NA	NA	NA	NA
9433G035004F	NA	NA	NA	NA	NA	NA	NA
9433G035005F	NA	NA	NA	NA	NA	NA	NA
9433G035006F	NA	NA	NA	NA	NA	NA	NA
9433G035007F	NA	NA	NA	NA	NA	NA	NA
9433G035008F	NA	NA	NA	NA	NA	NA	NA
9433G035009F	NA	NA	NA	NA	NA	NA	NA
9433G035010F	NA	NA	NA	NA	NA	NA	NA
AVG SITE 35	--	--	--	--	--	--	--
STD DEV SITE 35	--	--	--	--	--	--	--
9440G0ROW01F	NA	NA	NA	NA	NA	NA	NA
9440G0ROW02F	NA	NA	NA	NA	NA	NA	NA
9440G0RCH04F	NA	NA	NA	NA	NA	NA	NA
9440G0RCH05F	NA	NA	NA	NA	NA	NA	NA
9440G0RCH06F	NA	NA	NA	NA	NA	NA	NA
AVG REF	--	--	--	--	--	--	--
STD DEV REF	--	--	--	--	--	--	--

Table G33. Mammal Data
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Sample No.	Metals results (mg/kg)													
	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Lead	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
9434G002001F	NA	ND	1.22	ND	0.033	0.142	2.76	1.28	0.345	NA	ND	ND(0.163)	ND(0.774)	28.4
9434G002002F	NA	ND	0.623	ND	0.163	0.164	3.32	0.916	0.39	NA	ND	ND(0.154)	ND(0.734)	47.1
9434G002003F	NA	ND	8.81	ND	0.029	0.172	1.86	0.384	0.197	NA	ND	ND(0.167)	ND(0.798)	43.3
9432G002004F	NA	ND	2.21	ND	0.154	0.271	8.66	0.314	0.479	NA	ND	ND(0.155)	ND(0.738)	39.9
AVG SITE 2	--	--	3.22	--	0.09	0.19	4.15	0.72	0.35	--	--	--	--	39.68
STD DEV SITE 2	--	--	3.79	--	0.07	0.06	3.07	0.46	0.12	--	--	--	--	8.07
9432G003001F	NA	ND	0.536	ND	0.202	0.389	7.22	1.69	3.93	NA	ND	ND(0.161)	ND(0.769)	30.3
9432G003002F	NA	ND	1.42	ND	0.332	0.129	5.9	8.52	4.76	NA	ND	ND(0.165)	ND(0.787)	37.5
9432G003003F	NA	ND	1.26	ND	0.031	0.323	4.77	26.4	0.429	NA	ND	ND(0.162)	ND(0.773)	35.7
9432G003004F	NA	ND	3.23	ND	0.067	0.277	4.8	3.51	3.78	NA	ND	ND(0.169)	ND(0.805)	33.1
9432G003005F	NA	ND	1.17	ND	0.062	0.437	3.46	0.445	1.54	NA	ND	ND(0.168)	ND(0.802)	29.4
9432G003006F	NA	ND	3.98	ND	0.075	0.248	2.13	0.757	0.661	NA	ND	ND(0.169)	ND(0.805)	42.3
9438G003004F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9438G003005F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AVG SITE 3	--	--	1.93	--	0.13	0.30	4.71	6.89	2.52	--	--	--	--	34.72
STD DEV SITE 3	--	--	1.35	--	0.12	0.11	1.79	10.01	1.86	--	--	--	--	4.83
9435G011001F	NA	ND	3.52	ND	0.023	0.035	2.15	0.58	0.34	NA	ND	0.0845	0.402	41.4
9435G011002F	NA	ND	2.95	ND	0.027	0.171	3.2	0.59	0.448	NA	ND	0.0825	0.958	40.5
9437G011001F	NA	ND	4.06	ND	0.0095	0.0335	3.29	0.236	0.383	NA	ND	0.173	0.388	32.2
9437G011002F	NA	ND	4.79	ND	0.01	0.0345	3.31	0.644	0.885	NA	ND	0.084	0.4	39.8
AVG SITE 11	--	--	3.83	--	0.02	0.07	2.99	0.51	0.51	--	--	0.11	0.54	38.48
STD DEV SITE 11	--	--	0.78	--	0.01	0.07	0.56	0.19	0.25	--	--	0.04	0.28	4.23
9437G024002F	NA	ND	6.82	ND	0.0095	0.129	2.91	0.572	0.356	NA	ND	0.0825	0.785	37
9437G024003F	NA	ND	6.75	ND	0.026	0.134	4.2	1.14	0.501	NA	ND	0.08	0.763	51.7
9437G024004F	NA	ND	5.02	ND	0.0095	0.11	10.6	0.459	0.519	NA	ND	0.0815	0.387	40.2
9437G024005F	NA	ND	2.49	ND	0.024	0.031	2.71	0.438	0.477	NA	ND	0.075	0.358	36.8
9437G024006F	NA	ND	9.69	ND	0.0095	0.109	2.44	0.444	0.341	NA	ND	0.195	0.402	45

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Table G33. Mammal Data
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Sample No.	Metals results (mg/kg)													
	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Lead	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
9437G024007F	NA	ND	5.39	ND	0.02	0.0345	3.26	1.05	0.604	NA	ND	0.0835	1.07	43.1
AVG SITE 24	--	--	6.03	--	0.02	0.09	4.35	0.68	0.47	--	--	0.10	0.63	42.30
STD DEV SITE 24	--	--	2.39	--	0.01	0.05	3.12	0.32	0.10	--	--	0.05	0.29	5.64
9437G025001F	NA	ND	2.23	ND	0.029	0.088	2.56	0.745	0.461	NA	ND	ND(0.165)	1.11	27
AVG SITE 25														
STD DEV SITE 25														
9437G029003F	NA	ND	12.2	ND	0.01	0.0345	3.27	0.252	0.961	NA	ND	0.261	ND(0.795)	35.9
9437G029004F	NA	ND	5.47	ND	0.048	0.076	3.44	0.451	1.04	NA	ND	0.181	ND(0.775)	36.4
AVG SITE 29	--	--	8.84	--	0.03	0.06	3.36	0.35	1.00	--	--	0.22	--	36.15
STD DEV SITE 29	--	--	4.76	--	0.03	0.03	0.12	0.14	0.06	--	--	0.06	--	0.35
9425G031001F	NA	ND	4.23	ND	0.0095	0.0185	3.65	0.546	1.18	NA	ND	0.204	0.375	34
9425G031002F	NA	ND	5.32	ND	0.028	0.019	2.96	0.365	1.74	NA	ND	0.082	0.39	33.9
9425G031003F	NA	ND	4.14	ND	0.009	0.135	4.39	1.65	0.804	NA	ND	0.078	0.861	45.4
9425G031004F	NA	ND	4.17	ND	0.035	0.02	2.48	0.75	0.355	NA	ND	0.0845	0.4035	29.1
9425G031005F	NA	ND	5.53	ND	0.025	0.056	3.42	2.48	0.0645	NA	ND	0.084	0.4015	43.4
9425G031006F	NA	ND	2.25	ND	0.022	0.063	2	0.819	0.451	NA	ND	0.0795	0.971	30.5
9425G031007F	NA	ND	2.1	ND	0.02	0.064	1.96	0.31	0.266	NA	ND	0.082	1.5	25.1
9425G031008F	NA	ND	7.91	ND	0.0095	0.066	1.46	0.262	0.0615	NA	ND	0.0805	0.3825	34
AVG SITE 31	--	--	4.46	--	0.02	0.06	2.79	0.90	0.62	--	--	0.10	0.66	34.43
STD DEV SITE 31	--	--	1.87	--	0.01	0.04	0.99	0.78	0.59	--	--	0.04	0.42	6.89
9438G033001F	NA	ND	8.41	ND	0.0095	ND(0.066)	2.23	0.252	0.21	NA	ND	0.222	ND(0.760)	36.4
9438G033003F	NA	ND	4.19	ND	0.029	ND(0.068)	3.58	0.133	0.786	NA	ND	0.083	ND(0.789)	30.1
9438G033006F	NA	ND	9.82	ND	0.046	ND(0.066)	3.19	0.371	0.561	NA	ND	0.0795	ND(0.758)	8.38
9438G003004F	NA	ND	0.878	ND	0.032	ND(0.062)	2	0.324	0.508	NA	ND	0.0755	ND(0.721)	40.7
AVG SITE 33	--	--	5.82	--	0.03	--	2.75	0.27	0.52	--	--	0.12	--	28.90
STD DEV SITE 33	--	--	4.07	--	0.02	--	0.76	0.10	0.24	--	--	0.07	--	14.35

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Volume IV

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Table G33. Mammal Data
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Sample No.	Metals results (mg/kg)													
	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Lead	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
9433G035001F	NA	ND	5.86	ND	0.05	0.203	2.38	1.83	0.344	NA	ND	0.0815	0.388	29.4
9433G035002F	NA	ND	3.84	ND	0.092	0.167	2.91	0.641	0.286	NA	ND	0.0825	0.394	25.6
9433G035003F	NA	ND	1.92	ND	0.028	0.159	1.91	0.203	0.15	NA	ND	0.082	0.3905	26.9
9433G035004F	NA	ND	5.03	ND	0.052	0.169	1.89	0.169	0.295	NA	ND	0.076	0.363	27
9433G035005F	NA	ND	6.55	ND	0.047	0.183	1.33	0.521	0.28	NA	ND	0.0775	0.3695	32.2
9433G035006F	NA	ND	2.61	ND	0.072	0.213	3.25	0.162	0.223	NA	ND	0.0835	0.397	23.6
9433G035007F	NA	ND	1.63	ND	0.103	0.236	2.66	0.173	0.926	NA	ND	0.201	0.3775	25.2
9433G035008F	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9433G035009F	NA	ND	2.86	ND	0.024	0.254	1.32	0.316	0.398	NA	ND	0.082	0.927	26.6
9433G035010F	NA	ND	2.31	ND	0.067	0.251	1.56	0.376	0.538	NA	ND	0.0845	0.402	24.9
AVG SITE 35	--	--	3.62	--	0.06	0.20	2.13	0.49	0.38	--	--	0.09	0.45	26.82
STD DEV SITE 35	--	--	1.80	--	0.03	0.04	0.70	0.53	0.23	--	--	0.04	0.18	2.59
9440G0ROW01F	NA	ND	8.35	NA	NA	4.08	NA	0.196	NA	NA	NA	NA	0.398	NA
9440G0ROW02F	NA	ND	5.83	NA	NA	2.96	NA	0.197	NA	NA	NA	NA	0.866	NA
9440G0RCH04F	NA	ND	5.51	NA	NA	3.29	NA	3.40	NA	NA	NA	NA	0.400	NA
9440G0RCH05F	NA	ND	5.58	NA	NA	2.42	NA	0.169	NA	NA	NA	NA	0.402	NA
9440G0RCH06F	NA	ND	9.83	NA	NA	2.34	NA	0.055	NA	NA	NA	NA	0.941	NA
AVG REF	--	--	7.02	--	--	3.02	--	0.80	--	--	--	--	0.60	--
STD DEV REF	--	--	1.96	--	--	0.71	--	1.45	--	--	--	--	0.28	--

** alpha-BHC.
 NA Not analyzed.
 -- Not applicable.

Note: Shaded values represent one-half the detection limit for non-detect samples for the purpose of calculating summary statistics.

Table G34. Chemical Analysis for Leaf Litter
 Volume IV - Ecological Risk Assessment, Basewide RI/FS
 Fort Ord, California

Site	Transect /a/	Chemical Concentrations (mg/kg)																		
		Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc	4,4'-DDD	4,4'-DDE	4,4'-DDT	Heptachlor	Dieldrin	Chlordane
RCH10F	Ref.	0.17	ND (.60)	0.12	0.24	0.67	9	19.6	0.08	4.1	ND (.10)	ND (.08)	ND (.06)	62.7	NA	NA	NA	NA	NA	NA
ROW11F	Ref.	0.31	ND (.60)	0.13	0.28	7.3	8.9	20.9	0.11	5.4	ND (.10)	ND (.08)	ND (.06)	56.8	NA	12	NA	NA	NA	NA
ROW12F	Ref.	ND (.10)	0.67	0.10	ND (.10)	19.3	9.6	1.7	ND (.04)	10.7	ND (.51)	ND (.09)	ND (.07)	50.9	NA	NA	NA	NA	NA	NA
RUR12F	Ref.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
16	1	0.78	0.98	0.18	0.97	10.6	13	49.8	0.04	8.1	ND (.10)	ND (.08)	ND (.06)	108	NA	NA	NA	NA	NA	NA
16	2	0.24	0.6	0.14	0.75	6.8	12.7	14.1	0.04	5.4	ND (.10)	ND (.08)	ND (.06)	54.7	NA	NA	NA	NA	NA	NA
16	3	0.33	2.8	0.23	0.55	12.3	16.8	20.6	0.07	10.3	ND (0.1)	ND (0.08)	ND (0.06)	74.7	ND	34	68	ND	ND	97
16	4	0.57	2.8	0.26	1.2	21.3	19.4	62.2	0.12	15.1	ND (0.1)	ND (0.08)	ND (0.06)	110	ND	23	83	ND	ND	370
16	5	0.38	1.7	0.26	2.3	18.3	27.9	57.9	0.08	13.6	ND (0.48)	ND (0.08)	ND (0.06)	170	NA	NA	NA	NA	NA	NA
16	6	0.35	5.6	0.32	2.3	33.4	72.4	178	0.44	20	ND (0.08)	ND (0.08)	0.08	326	ND	12	ND	ND	ND	320
16	7	0.52	2.6	0.25	1.4	36.3	35.2	61.3	0.06	23.9	0.58	ND (.08)	ND (.07)	133	NA	NA	NA	NA	NA	NA
16	8	0.61	0.75	0.14	9.3	18.3	26	41.8	ND (.04)	11.2	ND (.48)	ND (.08)	ND (.06)	417	NA	NA	NA	NA	NA	NA
24	1	0.58	0.77	ND	0.6	20.8	17.8	68.8	0.13	10.5	ND	ND	0.07	130	0.047	ND	0.096	ND	ND	ND
24	2	0.27	0.93	0.08	0.21	13.9	19.2	15.6	0.05	8.9	ND	0.11	0.07	56.5	ND	ND	0.038	ND	ND	ND
24	3	0.68	2.7	0.08	0.46	55.5	12.3	601	0.06	10	ND	0.19	0.09	318	ND	0.032	0.086	ND	0.085	0.18
24	4	0.5	0.86	0.10	0.44	7.9	9.1	43.2	0.05	6.9	0.11	ND	ND	139	ND	ND	ND	0.019	ND	ND
24	5	0.38	0.92	0.07	0.45	7.9	9.8	16.4	ND	6.2	0.08	0.12	ND	118	ND	0.076	0.075	0.041	0.048	ND
24	6	0.72	1.7	0.07	0.25	17.8	12.5	29.6	0.04	11.6	ND	0.08	ND	74.7	0.057	0.15	0.42	0.026	0.17	0.19
25	7	1.4	12.6	ND	0.46	8.9	24.3	9.2	ND	9.6	ND	0.52	0.06	44.8	ND	ND	ND	ND	ND	ND
25	8	1.1	1	0.07	3	14.3	25.8	33.1	0.06	8.5	ND	0.13	ND	114	ND	ND	ND	ND	ND	ND
25	9	1.1	1.2	0.04	1.1	7.9	12.8	31.1	0.09	6.7	0.1	0.20	ND	68.9	ND	ND	ND	ND	ND	ND
25	10	0.79	2.1	ND	6.2	10.6	44.2	41.7	0.07	15.4	ND	0.28	ND	161	ND	ND	ND	ND	ND	ND
29	1	0.27	0.84	0.16	0.14	18.2	9.5	18.5	0.05	11.3	ND	0.17	0.07	37.3	ND	0.019	ND	ND	ND	ND
29	2	1.4	1.1	0.14	0.21	26.1	9.4	52.3	ND	13.1	0.08	0.20	0.06	108	ND	0.087	0.047	ND	ND	ND
29	3	0.26	3.5	0.15	1.1	17	7.5	28.2	ND	9.6	ND	0.25	ND	42.8	ND	0.11	ND	ND	ND	ND
29	4	0.28	0.72	0.15	0.77	17.8	8.8	24.5	ND	11.4	ND	0.23	ND	53.6	ND	0.054	0.054	ND	ND	ND
31	1	0.19	2.6	0.17	0.14	23.9	22.9	39.5	0.04	13.1	ND	0.29	0.07	107	ND	ND	ND	ND	ND	ND
31	2	2.2	11.2	0.21	0.52	33.8	5980	892	ND	41.4	ND	1.70	ND	362	ND	ND	ND	ND	ND	ND
31	3.1	2.1	43.2	0.18	0.45	43.8	186	375	0.14	55.5	ND	5.30	ND	167	ND	0.037	ND	ND	ND	ND
31	3.2	1.1	22.1	0.19	0.44	44.7	68.2	329	0.12	30.8	ND	3.60	ND	267	0.035	0.093	0.061	ND	ND	ND
35	1	0.22	0.7	0.11	0.34	5.9	8.2	29.2	0.1	6.6	0.1	ND	ND	45.2	ND	ND	ND	ND	ND	ND
35	2	0.54	0.62	0.10	0.91	3.7	17.8	13.9	0.06	4.2	0.1	ND	ND	107	ND	ND	ND	ND	ND	ND
35	3	0.18	0.99	0.04	0.25	13.4	6.6	15.8	0.11	10	ND	ND	ND	29.7	ND	ND	ND	ND	ND	ND
35	4	0.26	0.66	0.05	0.42	6.4	8.9	15.2	0.1	5.5	0.4	ND	ND	34.7	ND	ND	ND	ND	ND	ND
35	5	0.15	0.64	0.11	0.3	7.1	6.4	9.7	0.09	5.9	ND	0.14	ND	43.6	ND	ND	ND	ND	ND	ND
35	6	0.49	9	0.16	0.45	10.3	12.3	26.6	0.14	10.9	ND	0.49	ND	54.6	ND	ND	ND	ND	ND	ND
35	7	0.12	0.73	0.11	0.38	14.8	6.3	14.9	0.09	8	ND	ND	ND	32.4	ND	ND	ND	ND	ND	ND
35	8	ND	0.64	ND	0.48	5.6	8.8	21.4	0.09	5.2	ND	ND	ND	42.6	ND	ND	ND	ND	ND	ND
35	9	ND	0.62	ND	0.22	4.1	7.9	19.5	0.1	4.6	0.4	ND	ND	39.9	ND	ND	ND	ND	ND	ND
35	10	0.44	0.61	ND	0.24	4.9	9.1	19.6	0.08	5.4	ND	0.09	ND	44.2	ND	ND	ND	ND	ND	ND

Unvalidated data from Quanterra Labs.
 ND (xx) Not detected (detection limit).

/a/ See Plates 4.3 through 4.20 for location of transects.

APPENDIX H

**QUANTITATIVE ECOLOGICAL
RISK ASSESSMENT DATA ANALYSIS INFORMATION**

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DILUTION MODELING

H1.0 BAY DILUTION MODELING

This section has two objectives. The first is to identify the contribution of ocean outfall discharges to the water and sediment budgets of Monterey Bay. The second objective is to evaluate whether the concentrations of COPCs found in the stormwater or sediment discharges from the ocean outfalls present a problem to organisms in Monterey Bay.

No stormwater discharge measurements were obtained during stormwater sampling of the ocean outfalls at Fort Ord. Therefore, conservative assumptions were used to evaluate the potential dilution of the chemicals detected in the stormwater and associated sediments once they are discharged into Monterey Bay. Separate analyses were performed for the stormwater and the sediments. Section H1.1 presents the assumptions used in these analyses. The specific analyses for stormwater and sediments are discussed in Sections H1.2 and H1.3, respectively. Section H1.4 presents the conclusions.

H1.1 Assumptions Used in Modeling

This section presents the assumptions made for each of the four ocean outfalls and the overall approach used in this evaluation. Outfalls OF-01, OF-02, OF-03 and OF-04 are identified and discussed in the Basewide Surface Water Outfall Investigation (BWSWOI, Volume II of the RI/FS). The boundaries of the drainage areas that contribute surface water runoff and runoff from the storm drain system to Outfalls OF-01, OF-02, OF-03 and OF-04 are delineated on the plates in the BWSWOI.

The contribution of the ocean outfalls to the water and sediment budgets of Monterey Bay was evaluated using the following approach. The volume input to the bay from Fort Ord was calculated and compared to the volume of the bay in which this input would be diluted. Conservative assumptions were used. For rainfall inputs, it was assumed that the entire volume of water that falls on a watershed area is discharged as surface water runoff into the bay. For individual watershed analyses and rainfall event analyses, it was assumed that all the rainfall in the watershed for each event is collected in the outfall and deposited into the bay during the 24-hour period after the event, and that there is no dilution of the chemicals by stormwater in the pipe prior to a discharge into the bay.

In calculating annual sediment inputs, it was assumed that the entire volume of soil loss from erosion for the entire area of Fort Ord is available for deposition into the bay. For individual watershed analyses and rainfall event analyses, it was assumed that all the sediments generated as discussed below in the watershed for each event are collected in the outfall and deposited into the bay.

The stormwater or sediment inputs from Fort Ord were each compared to the appropriate area or calculated volume of Monterey Bay. For the annual stormwater evaluation, the basewide stormwater input was compared to the area of the restricted zone immediately offshore of Fort Ord. For the individual rainfall events, the stormwater input from each outfall was compared to the volume of water in the surf zone. It was assumed that the rainfall in the watershed for each event would be collected in the outfall and deposited into the bay during the 24 hours following the event.

H1.2 Stormwater Dilution

Potential stormwater inputs to Monterey Bay were evaluated using two approaches. The first used the total annual rainfall expected on Fort Ord. Because rainfall data for Fort Ord were not available,

data from the Monterey Station were used; the annual normal rainfall value of 18.72 inches (NOAA, 1992b) was used to estimate the total volume of rainfall that would be expected to fall on Fort Ord. The actual rainfall for the year beginning in October 1993 and ending in September 1994 was 13.96 inches, so the use of the normal precipitation amount provides a conservative estimate. This annual normal rainfall value was combined with the surface area of the base (28,000 acres) to calculate the total volume of water ($2E+09$ cu.ft.) that would fall on Fort Ord in the normal year. This entire volume was assumed to flow through the four ocean outfalls and into the restricted zone in Monterey Bay. The restricted zone is 4 by 4.5 nautical miles with a maximum depth of 240 feet and a minimum depth of zero. The total calculated volume is $8E+10$ cu.ft., and the average annual dilution is 0.024, as shown in Table 1. These calculations are presented in the dilution modeling spreadsheets.

In the second approach, actual rainfall data from the two stormwater sampling events were obtained. The daily rainfall associated with the event on January 23, 1994, was 0.48 inch, and the daily rainfall associated with the event on March 24, 1994, was 0.15 inch. The rainfall value of 0.48 in. was used to provide a conservative estimate of the dilution into the surf zone of Monterey Bay. This rainfall depth and the surface area of each watershed for the ocean outfalls were used to calculate the total volume of water that would fall on each watershed during this event. This entire volume was assumed to flow through the four ocean outfalls and into the surf zone in Monterey Bay.

The daily volume of the receiving water in the surf zone was calculated as follows. The diurnal range of tides for Monterey (5.4 ft.) represents the difference between the mean higher high water and the mean lower low water (NOAA, 1992c). This value was used along with the average slope (0.11) of the beaches at Fort Ord (U.S.G.S. 1985) to estimate the average cross-sectional area of the surf zone at each outfall. The result was combined with the longshore current of 10-25 cm/sec (Breaker and Broenkow, 1989) to estimate the volume of water passing each outfall in a 24-hour period. The lower current velocity was used as a conservative estimate.

The results of stormwater dilution modeling are presented in Table 1. For Outfall OF-01, which has an associated watershed area of 201 acres, the daily dilution based on the rainfall of 0.48 inch was 0.026. For Outfall OF-02, which has an associated watershed area of 287 acres, the daily dilution based on the rainfall of 0.48 in. was 0.037. For Outfall OF-03, which has an associated watershed area of 288 acres, the daily dilution based on the rainfall of 0.48 in. was also 0.037. For Outfall OF-04, which has an associated watershed area of 1,370 acres, the daily dilution based on the rainfall of 0.48 in. was 0.016. Details of these calculations are presented in the dilution modeling spreadsheets.

H1.3 Sediment Dilution

Estimates of the amount of annual soil erosion expected in each drainage area that contributes surface water runoff to Outfalls OF-01, OF-02 OF-03 and OF-04 were calculated using two methods. In the first method, the universal soil loss equation (USLE; U.S. Department of Agriculture, 1991) was used. The USLE computes the average annual erosion expected on sloped drainage areas as a function of factors for rainfall erosion, soil erodibility, slope length and steepness, vegetative cover, and erosion control practices within a drainage area. The average annual soil losses in tons/acre-year for the drainage areas upgradient of Outfalls OF-01, OF-02, OF-03 and OF-04 were 0.24, 0.24, 0.26, and 0.3 respectively. These values were also used to calculate an area-weighted average soil loss for Fort Ord of 0.281 tons/acre-year.

The second method for calculating the watershed-based sediment inputs was a rainfall-based method. The empirical relationship between water discharge and sediment discharge has been used to model Salinas River (Oradiwe, 1986) sediment deposition to Monterey Bay. This relationship was used to estimate the sediment content of the rainfall at each of the watersheds:

$$Q_s = K * Q^m$$

where:

Q_s = sediment discharge in tons

Q = water discharge (cubic feet per second) and K and m are empirically derived constants.

It was assumed that all rainfall that falls in a 24-hour period on a watershed flows through the outfall carrying sediments in a manner similar to the Salinas River. Rainfall data were provided by NOAA (facsimile transmittal from the National Climatic Data Center, Asheville, NC dated 8 Nov. 1994). The values for K and m for bed flow (0.0052 and 1.6369, respectively) and suspended sediment discharge (0.0044 and 1.6172, respectively) were obtained from Oradiwe (1986). The individual daily values were summed to obtain annual watershed sediment inputs.

The sediment inputs calculated by the two methods identified above were compared with two estimates of sediment transport in Monterey Bay. The first estimate was the average longshore sediment transport rates for four stations located offshore of Fort Ord. These values are presented in Attachment A and were used to calculate an average rate of 2.9E+05 cubic yards per year. The second estimate of sediment transport was the littoral yield of sediment from cliff erosion. Oradiwe (1986) presented estimates of annual yield in cubic yards for Marina to Fort Ord (1.5E+05) and from Fort Ord to Sand City (2.1E+05). The average of these two values was used in this evaluation.

The results of the comparisons for each watershed are presented in Table 2 and show basewide annual dilutions ranging from 0.021 to 0.033. Watershed-specific dilutions ranging from 0.0001 to 0.001 were calculated using the USLE and the rainfall-based method.

H1.4 Results and Conclusions

The following sections present the results of bay stormwater and sediment modeling together with preliminary conclusions for both the entire base area and each outfall-related watershed area.

H1.4.1 Stormwater Dilution

The concentrations of COPCs found in stormwater at the four ocean outfalls are unlikely to result in toxicity to biota in the bay on the basis of the substantial dilution estimated to occur for both total annual rainfall at Fort Ord and total rainfall contribution from each outfall-specific watershed, and the conservative assumptions used to calculate dilution. The estimated dilutions may be summarized as follows:

- The dilution estimated on the basis of the comparison of the total annual rainfall contribution from the entire Fort Ord Area and the volume in the restricted area of Monterey Bay was 0.022 (Table 1)
- The dilutions estimated by comparing the volume of runoff from each outfall-specific watershed and the volume of water in the corresponding surf zone to provide an estimate of immediate potential impact on biota may be summarized as follows (Table 1):
 - Outfall OF-01: 0.026

- Outfall OF-02: 0.037
- Outfall OF-03: 0.037
- Outfall OF-04: 0.016

These estimates are based on the conservative assumption that the entire rainfall amount received in a watershed is directly discharged into the bay. The contribution of both the entire base and each specific watershed is, therefore, likely to be an overestimate. However, in the unlikely event that the instantaneous concentration of the COPCs in stormwater may cause acute effects to organisms in the surf zone, stormwater runoff is expected to stress biota because of the mixing of fresh water with salt water. It would, therefore, be difficult to separate the effects of osmotic shock from the potential toxic effects of the COPCs. Additionally, the beach is a high energy beach with a stressed environment caused by the rapid mixing between low water and high water. In these conditions, a biota is not expected to be abundant.

H1.4.2 Sediment Dilution

COPCs contained in sediment from stormwater outfalls entering the bay are unlikely to cause substantial toxicity to marine biota because of the expected dilution of the sediment and the conservative assumptions used to estimate dilution. Dilutions were estimated for the entire base and for the watershed areas for each of the four outfalls.

The total annual sediment contribution from entire Fort Ord area calculated USLE was compared to the volume of longshore sediment drift in the southern cell of Monterey Bay and to the volume of sediment from cliff erosion data, resulting in two estimated dilution values (Table 2):

- The dilution of USLE-derived sediment volume to drift-derived sediment volume is 0.021
- The dilution of USLE-derived sediment volume to cliff erosion-derived sediment volume is 0.033.

Two methods were used to estimate the sediment contribution from each outfall-specific watershed; in the first, the USLE was used to estimate annual contribution. In the second, daily rainfall event-based sediment estimates were used to estimate annual sediment volume from each Fort Ord ocean outfall. Each estimate was compared to both the longshore sediment drift (southern cell) volume and the volume of sediment from cliff erosion data. The results are summarized below for each stormwater outfall (Table 2):

- Outfall OF-01
 - The dilution of USLE-derived to drift-derived sediment is 1E-04
 - The dilution of USLE-derived to cliff erosion-derived sediment is 2E-04
 - The dilution of daily event-derived to drift-derived sediment is 9E-06
 - The dilution of daily event-derived to cliff erosion-derived sediment is 1E-05
- Outfall OF-02
 - The dilution of USLE-derived to drift-derived sediment is 2E-04

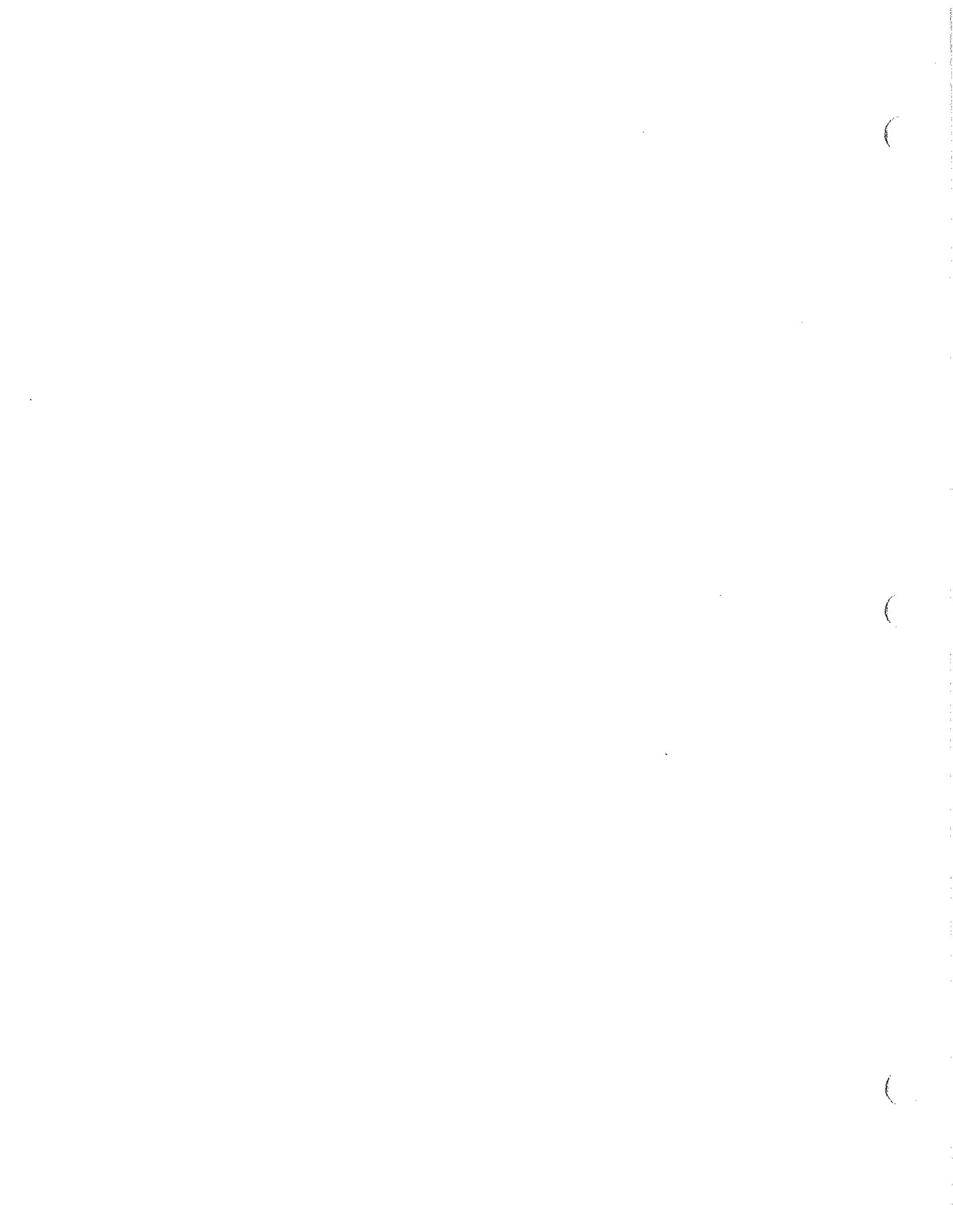
Text Revisions

In Volume IV, Baseline Ecological Risk Assessment, replace third line in Appendix H, Page H4, Section H1.4.1 to read:

- Outfall OF-04: 0.16

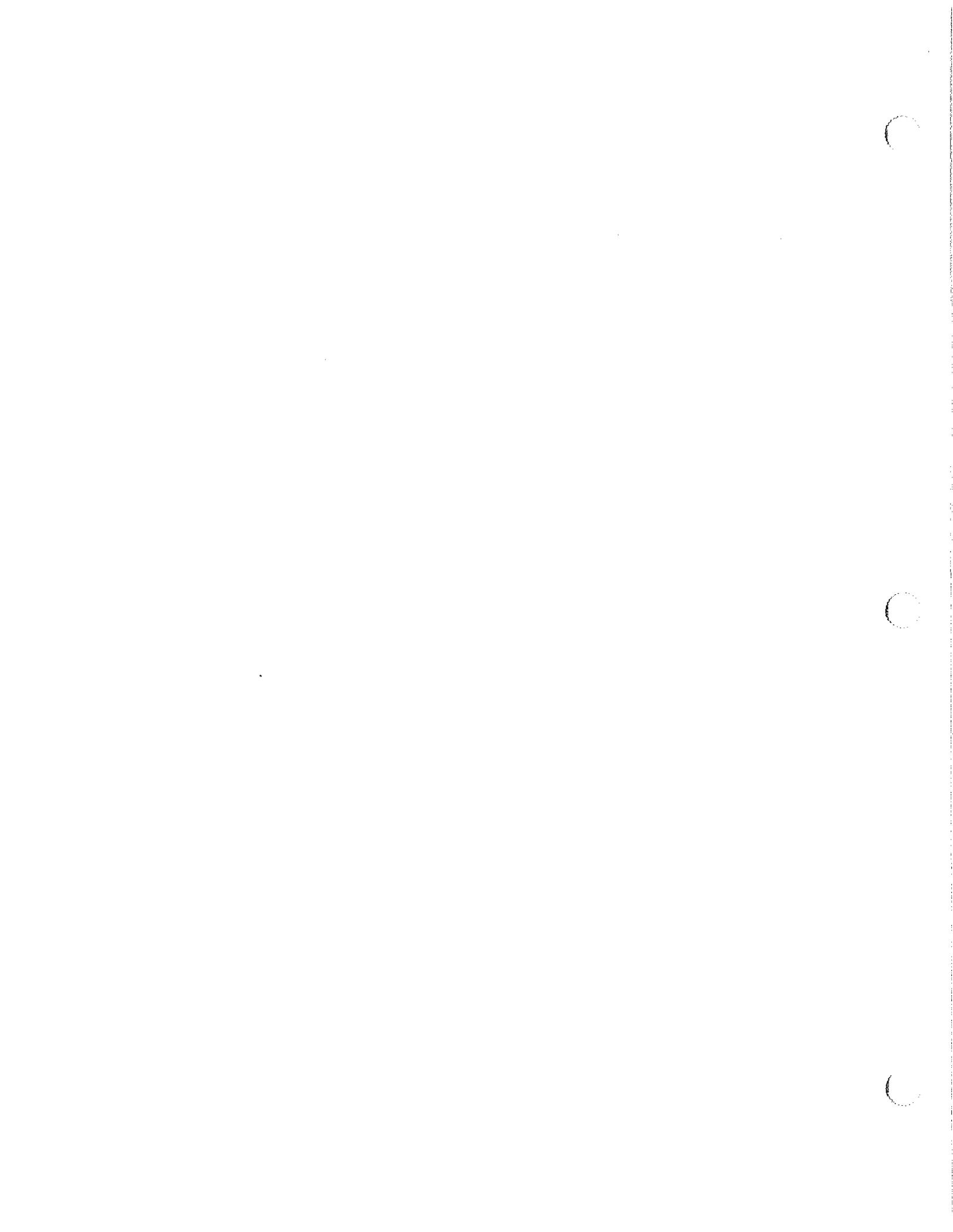
In Volume IV, Baseline Ecological Risk Assessment, delete the third and fourth sentences in the first paragraph in Appendix H, Page H4, Section H1.4.1.

In Volume IV, Baseline Ecological Risk Assessment, replace Appendix H, Dilution Modeling Table 1 with Table 1R.



**Table 1R. Summary of Stormwater Dilutions
Volume IV - Baseline Risk Assessment, Basewide RI/FS
Fort Ord, California**

Outfall	Receiving Water	Averaging Period	Dilution
Fort Ord	Restricted Zone	annual	0.022
OF-01	Surf Zone	Daily	0.026
OF-02	Surf Zone	Daily	0.037
OF-03	Surf Zone	Daily	0.037
OF-04	Surf Zone	Daily	0.16



- The dilution of USLE-derived to cliff erosion-derived sediment is $3E-04$
- The dilution of daily event-derived to drift-derived sediment is $2E-05$
- The dilution of daily event-derived to cliff erosion-derived sediment is $2E-05$.
- Outfall OF-03
 - The dilution of USLE-derived to drift-derived sediment is $2E-04$
 - The dilution of USLE-derived to cliff erosion-derived sediment is $3E-04$
 - The dilution of daily event-derived to drift-derived sediment is $2E-05$
 - The dilution of daily event-derived to cliff erosion-derived sediment is $2E-05$.
- Outfall OF-04
 - The dilution of USLE-derived to drift-derived sediment is $9E-04$
 - The dilution of USLE-derived to cliff erosion-derived sediment is $1E-03$
 - The dilution of daily event-derived to drift-derived sediment is $2E-04$
 - The dilution of daily event-derived to cliff erosion-derived sediment is $3E-04$.

The estimates of annual sediment inputs are based on the conservative assumption that the entire volume of soil loss from erosion of the entire area of Fort Ord is available for deposition in the bay; for the individual watershed analyses and the rainfall event analyses, it was assumed that all sediment generated by each event would be transported into the bay. The contribution of both the entire base and each watershed-specific area is, therefore, likely to be an overestimate, making it unlikely that COPCs present in base-derived sediment will cause toxic effects in marine biota.

H2.0 MONTE CARLO ANALYSIS

In typical human health and ecological risk assessments, chemical-specific exposure point concentrations are combined with single point estimates of exposure parameters such as body weight, surface area exposed, and frequency of exposure to generate a risk estimate that is then compared to an acceptable level of risk for that exposure scenario. In the quantitative screening ERA, a single point estimate, the maximum soil concentration, was used to estimate an upper-bound hazard index for the maximally exposed mouse and fox (Section 5.0). Other upper-bound intake assumptions were also used in the estimation of hazard indices. The end result of this combination of a number of upper-bound factors with unspecified conservatism may be more conservative than intended for an ecological risk assessment.

The level of conservatism and uncertainty surrounding a single point estimate is usually addressed in a qualitative discussion in the ecological risk assessment, if at all. A semiquantitative approach has been to generate best-, average-, and worst-case scenarios. These scenarios typically focus on the input variables that have the most influence on risk. Alternatively, a more quantitative evaluation can be performed using Monte Carlo analysis. A large number of different single point estimates of risk are calculated based on distributions of the input parameters, and bounds are placed on the distribution of possible ecological risks.

In Monte Carlo analysis, all of the available information about the parameters of exposure and toxicity, including upper bound and maximum values as well as lower bound and minimum values, are used to generate a distribution of possible risks. This distribution of potential risks provides far more information than a single point estimate. The analysis requires that the distribution of possible values for each parameter used be input along with the probability of occurrence of each value. Once all of the distributions have been defined, a Monte Carlo analysis is performed that consists of a large number of iterations of a mathematical model specifying how the parameters are combined. The model uses the same mathematical formulas used in the traditional single point estimate risk assessment approach. During each iteration, a value for each parameter is selected at random from each distribution based on its probability of occurrence. All of the risk values estimated in each iteration are combined to produce a frequency distribution of possible risks. This distribution of possible outcomes allows a quantitative evaluation of the uncertainty associated with the single point estimate of risk discussed above. More detailed descriptions and applications of Monte Carlo are described in the *Crystal Ball Version 3.0 User Manual (Decisioneering, Denver, CO, 1993)*.

For the ERA, a single point maximum concentration was used in combination with upper-bound intake factors in estimating hazard indices in the risk characterization section (Section 5.4). Sites with estimated hazard indices greater than 1.0 were further evaluated using a Monte Carlo analysis in Section 6.4. In the Monte Carlo analysis for this ERA, a range of hazard indices was estimated based on replacing the maximum chemical concentrations in soil and plants for the mouse evaluation (or soil, plants, and mice for the fox evaluation) with distributions based on the arithmetic or geometric mean concentrations, as appropriate. For soil exposures for both the mouse and fox, the geometric mean and standard deviation of COPCs in soil were used. For exposures to the mouse and fox from plant ingestion, the arithmetic mean and standard deviation of COPCs using measured data were used (Appendixes A and G). For estimating body burdens in mice as a potential exposure for the fox, the arithmetic mean and standard deviation of measured data were used (Appendix G, Table G33). The intake factors and exposure assumptions presented in Section 5.3 and the spreadsheets in Appendix H were used in conjunction with the new distributions of concentrations of COPCs to estimate the distributions of hazard indices.

Tables H49 through H54 in this appendix show the simulations and ranges of hazard indices resulting from the Monte Carlo analysis performed on sites and chemicals.

Table H.1. Comparison of Soil and Plant Data for Chromium
Ecological Risk Assessment
Fort Ord, California

UNCENSORED DATASET

Based on full validated dataset.
Data between May 1 and July 29, 1994.
All values are for oats unless specified in "Notes" column.
Includes site-specific NDs

Soil Station No.	Soil Conc. (mg/kg)	Plant Station No.	Oat Conc. (mg/kg)	Other Conc. (mg/kg)	Log Soil	Log Plant	Notes
SS-11-01	12.1	TP-11-05	4		1.08	0.60	
SS-11-02	12.8	TP-11-06	3.6		1.11	0.56	
SS-11-03	12.4	TP-11-07	3.6		1.09	0.56	
SS-11-04	12.1	TP-11-08	1.8		1.08	0.28	
SS-12-01	9.8	TP-12-01	1.4		0.99	0.16	
SS-12-02	9.2	TP-12-02	0.37		0.96	-0.43	
SS-12-03	10.3	TP-12-03	0.32		1.01	-0.49	
SS-12-04	15.4	TP-12-04	0.43		1.19	-0.37	
SS-15-01	18.1	TP-15-01	3.6		1.26	0.56	
SS-15-02	14.1	TP-15-02	3		1.15	0.48	
SS-15-03	9.7	TP-15-03	0.97		0.99	-0.01	
SS-15-04	12.3	TP-15-04	0.83		1.09	-0.08	
SS-16-01	9.9	TP-16-01	0.85		1.00	-0.07	
SS-16-02	14.8	TP-16-02	0.94		1.17	-0.03	
SS-16-04	14.3	TP-16-04	0.43		1.16	-0.37	
SS-16-05	10.3	TP-16-05	0.53		1.01	-0.28	
SS-16-07	10.4	TP-16-07	0.36		1.02	-0.44	
SS-21-01	8.6	TP-21-01	0.86		0.93	-0.02	
SS-21-02	6.5	TP-21-02	1.1		0.81	0.04	
SS-21-03	14.1	TP-21-03	1.5		1.15	0.18	
SS-21-04	12.0	TP-21-04	0.82		1.08	-0.09	
SS-22-01	11.8	TP-22-01	2.7		1.07	0.43	
SS-22-02	1.4	TP-22-02	1.4		0.13	0.15	soil value = 1/2 dl
SS-22-03	10.1	TP-22-03	4.1		1.00	0.81	
SS-22-04	3.8	TP-22-04	2.3		0.59	0.35	soil value = 1/2 dl
SS-24-01	9.1	TP-24-01	0.81		0.96	-0.21	
SS-24-02	9.3	TP-24-02	1.7		0.97	0.23	
SS-24-03	12.2	TP-24-03	0.31		1.09	-0.51	
SS-24-04	9.7	TP-24-04	0.51		0.99	-0.29	
SS-24-05	11.7	TP-24-05	0.18		1.07	-0.74	
SS-24-06	11.9	TP-24-06	0.3		1.08	-0.52	
SS-25-01	11.3	TP-25-05	0.65		1.05	-0.19	
SS-25-02	11.2	TP-25-06	0.6		1.05	-0.30	
SS-25-03	22.3	TP-25-07	1.1		1.35	0.04	
SS-25-04	11.5	TP-25-08	3.6		1.06	0.56	
SS-29-01	11.9	TP-29-03	4.1		1.08	0.61	
SS-29-02	12.4	TP-29-04	8.1		1.09	0.79	
SS-29-03	10.9	TP-29-05	2.7		1.04	0.43	
SS-29-04	10.9	TP-29-06	17.4		1.04	1.24	
SS-31-04	8.6	TP-31-01	0.34		0.93	-0.47	
SS-32-01	7.9	TP-32-05	1.3		0.90	0.11	
SS-32-02	10.4	TP-32-06	0.55		1.02	-0.26	
SS-32-03	9.2	TP-32-07	2.8		0.96	0.45	
SS-32-04	12.3	TP-32-08	0.68		1.09	-0.17	
SS-25-01	11.3	TP-25-06		0.38			Hottentot fig
SS-25-02	11.2	TP-25-08		0.09			Hottentot fig
SS-25-03	22.3	TP-25-07		0.09			Hottentot fig
SS-25-04	11.6	TP-25-08		0.79			Hottentot fig
SS-33-01	15.5	TP-33-01		3.8			B. diandrus
SS-33-02	7.4	TP-33-02		3.2			B. carinatus
SS-33-03	8.0	TP-33-03		0.39			B. diandrus
SS-33-04	12.4	TP-33-04		0.81			B. diandrus
SS-35-03	7.0	TP-35-03		7			B. diandrus
SS-35-04	8.7	TP-35-04		3.2			B. diandrus
SS-35-05	6.1	TP-35-05		3			B. diandrus
SS-35-06	10.9	TP-35-06		1.5			B. diandrus
SS-35-07	9.0	TP-35-07		3.3			B. diandrus
SS-35-08	9.0	TP-35-08		2.6			B. diandrus
SS-35-09	10.9	TP-35-09		2.3			B. diandrus
SS-35-10	15.7	TP-35-10		2.6			B. diandrus

slope = 1.76E-02 Average soil conc. = 11.1
 Intercept = 0.05 1.12 Average plant conc. = 2.04
 R-square = 0.00006 Average plant:soil ratio = 0.18
 Base plant uptake factor = 0.005

Equation = $y = 0.0176x + 1.12$

mg/kg Milligrams per kilogram.
 dl Detection limit.

CENSORED DATASET

Based on hits only; validated data.
Data between May 1 and July 29, 1994.
All values are for oats unless specified in "Notes" column.

Soil Station No.	Soil Conc. (mg/kg)	Plant Station No.	Oat Conc. (mg/kg)	Log Soil	Log Plant
SS-21-02	6.5	TP-21-02	1.1	0.81	0.04
SS-32-01	7.9	TP-32-05	1.3	0.90	0.11
SS-21-01	8.6	TP-21-01	0.96	0.93	-0.02
SS-31-04	8.6	TP-31-01	0.34	0.93	-0.47
SS-24-01	9.1	TP-24-01	0.81	0.96	-0.21
SS-12-02	9.2	TP-12-02	0.37	0.96	-0.43
SS-32-03	9.2	TP-32-07	2.8	0.96	0.45
SS-24-02	9.3	TP-24-02	1.7	0.97	0.23
SS-15-03	9.7	TP-15-03	0.97	0.99	-0.01
SS-24-04	9.7	TP-24-04	0.51	0.99	-0.29
SS-12-01	9.8	TP-12-01	1.4	0.99	0.16
SS-16-01	9.9	TP-16-01	0.85	1.00	-0.07
SS-22-03	10.1	TP-22-03	4.1	1.00	0.81
SS-12-03	10.3	TP-12-03	0.32	1.01	-0.49
SS-18-05	10.3	TP-16-05	0.53	1.01	-0.28
SS-18-07	10.4	TP-16-07	0.36	1.02	-0.44
SS-32-02	10.4	TP-32-06	0.55	1.02	-0.26
SS-29-03	10.9	TP-29-05	2.7	1.04	0.43
SS-29-04	10.9	TP-29-06	17.4	1.04	1.24
SS-25-02	11.2	TP-25-08	0.09	1.05	-1.05
SS-25-01	11.3	TP-25-05	0.38	1.05	-0.42
SS-25-04	11.5	TP-25-08	0.79	1.06	-0.10
SS-24-05	11.7	TP-24-05	0.18	1.07	-0.74
SS-22-01	11.8	TP-22-01	2.7	1.07	0.43
SS-24-06	11.9	TP-24-06	0.3	1.08	-0.52
SS-29-01	11.9	TP-29-03	4.1	1.08	0.61
SS-21-04	12.0	TP-21-04	0.82	1.08	-0.09
SS-11-01	12.1	TP-11-05	4	1.08	0.60
SS-11-04	12.1	TP-11-08	1.8	1.08	0.28
SS-24-03	12.2	TP-24-03	0.31	1.09	-0.51
SS-15-04	12.3	TP-15-04	0.83	1.09	-0.08
SS-32-04	12.3	TP-32-08	0.68	1.09	-0.17
SS-11-03	12.4	TP-11-07	3.6	1.09	0.56
SS-29-02	12.4	TP-29-04	8.1	1.09	0.79
SS-11-02	12.8	TP-11-06	3.6	1.11	0.56
SS-15-02	14.1	TP-15-02	3	1.15	0.48
SS-21-03	14.1	TP-21-03	1.5	1.15	0.18
SS-16-04	14.3	TP-16-04	0.43	1.16	-0.37
SS-16-02	14.8	TP-16-02	0.94	1.17	-0.03
SS-12-04	15.4	TP-12-04	0.43	1.19	-0.37
SS-15-01	18.1	TP-15-01	3.6	1.26	0.56
SS-25-03	22.3	TP-25-07	0.09	1.35	-1.05

slope = -2.53E-01
 Intercept = 0.28 1.83
 R-square = 0.0023
 Equation = $y = -0.43x + 2.83$

**Table H.2. Comparison of Soil and Plant Data for Copper
Ecological Risk Assessment
Fort Ord, California**

UNCENSORED DATASET

Based on full dataset; validated soil data and unvalidated plant data.
Data between May 1 and July 29, 1994.
All values are for oats unless specified in "Notes" column.
Includes site-specific NDs

Soil Station No.	Soil Conc. (mg/kg)	Plant Station No.	Oat Conc. (mg/kg)	Other Conc. (mg/kg)	Log Soil	Log Plant	Notes
SS-11-01	3.1	TP-11-05	15.1		0.49	1.28	
SS-11-02	24.1	TP-11-05	23.6		1.36	1.37	
SS-11-03	3.5	TP-11-07	11.7		0.54	1.07	
SS-11-04	0.6	TP-11-05	12.6		-0.22	1.10	soil value = 1/2 dl
SS-12-01	0.6	TP-12-01	17.6		-0.22	1.25	soil value = 1/2 dl
SS-12-02	4.3	TP-12-02	6.0		0.63	0.75	
SS-12-03	0.6	TP-12-03	11.1		-0.22	1.05	soil value = 1/2 dl
SS-12-04	19.8	TP-12-04	15.6		1.30	1.19	
SS-15-01	5.3	TP-15-01	4.5		0.92	0.65	
SS-15-02	3.3	TP-15-02	6.9		0.52	0.54	soil value = 1/2 dl
SS-15-03	7.0	TP-15-03	8.2		0.83	0.91	
SS-15-04	3.4	TP-15-04	20.6		0.53	1.31	soil value = 1/2 dl
SS-16-01	2.5	TP-16-01	18.2		0.39	1.28	soil value = 1/2 dl
SS-16-02	15.7	TP-16-02	13.9		1.20	1.14	
SS-16-04	53.9	TP-16-04	11.1		1.73	1.05	
SS-16-05	2.5	TP-16-05	7.7		0.39	0.89	soil value = 1/2 dl
SS-16-07	22.9	TP-16-07	6.1		1.36	0.79	
SS-21-01	2.5	TP-21-01	5.9		0.39	0.77	soil value = 1/2 dl
SS-21-02	2.0	TP-21-02	25.5		0.30	1.41	soil value = 1/2 dl
SS-21-03	11.0	TP-21-03	4.5		1.04	0.65	
SS-21-04	1.5	TP-21-04	5.0		0.24	0.70	soil value = 1/2 dl
SS-22-01	7.1	TP-22-01	16.5		0.65	1.22	
SS-22-02	0.5	TP-22-02	13.4		-0.30	1.13	soil value = 1/2 dl
SS-22-03	1.2	TP-22-03	33.0		0.05	1.52	soil value = 1/2 dl
SS-22-04	0.9	TP-22-04	11.3		-0.05	1.05	soil value = 1/2 dl
SS-24-01	3.1	TP-24-01	11.2		0.49	1.05	
SS-24-02	2.4	TP-24-02	14.2		0.38	1.15	
SS-24-03	3.0	TP-24-03	5.5		0.48	0.74	
SS-24-04	0.7	TP-24-04	14.2		-0.19	1.15	soil value = 1/2 dl
SS-24-05	2.6	TP-24-05	9.5		0.41	0.95	
SS-24-06	2.5	TP-24-06	5.5		0.40	0.93	
SS-25-01	4.5	TP-25-05	13.2		0.66	1.12	
SS-25-02	6.6	TP-25-06	16.7		0.82	1.22	
SS-25-03	20.6	TP-25-07	34.7		1.31	1.54	
SS-25-04	5.4	TP-25-08	146.0		0.73	2.16	
SS-29-01	5.9	TP-29-03	39.7		0.77	1.60	
SS-29-02	14.2	TP-29-04	41.7		1.15	1.62	
SS-29-03	5.8	TP-29-05	15.1		0.76	1.26	
SS-29-04	7.4	TP-29-06	63.2		0.87	1.80	
SS-31-04	2.1	TP-31-01	2.8		0.31	0.45	soil value = 1/2 dl
SS-32-01	1.7	TP-32-05	19.2		0.23	1.28	soil value = 1/2 dl
SS-32-02	5.4	TP-32-06	5.1		0.73	0.71	
SS-32-03	2.0	TP-32-07	11.1		0.30	1.05	soil value = 1/2 dl
SS-32-04	9.3	TP-32-08	11.3		0.97	1.05	
SS-25-01	4.6	TP-25-01		10.4			Hottentot fig
SS-25-02	6.6	TP-25-02		11.4			Hottentot fig
SS-25-03	20.6	TP-25-03		6.5			Hottentot fig
SS-25-04	5.4	TP-25-04		19.4			Hottentot fig
SS-33-01	17.5	TP-33-01		65.1			B. diandrus
SS-33-02	8.2	TP-33-02		313.0			B. carinatus
SS-33-03	6.9	TP-33-03		6.0			B. diandrus
SS-33-04	18.4	TP-33-04		18.7			B. diandrus
SS-35-03	2.0	TP-35-03		79.6			B. diandrus; soil value = 1/2 dl
SS-35-04	2.3	TP-35-04		20.3			B. diandrus; soil value = 1/2 dl
SS-35-05	1.5	TP-35-05		14.0			B. diandrus; soil value = 1/2 dl
SS-35-06	2.3	TP-35-06		14.0			B. diandrus; soil value = 1/2 dl
SS-35-07	2.0	TP-35-07		32.0			B. diandrus; soil value = 1/2 dl
SS-35-08	1.5	TP-35-08		20.7			B. diandrus; soil value = 1/2 dl
SS-35-09	1.8	TP-35-09		14.1			B. diandrus; soil value = 1/2 dl
SS-35-10	2.6	TP-35-10		26.0			B. diandrus; soil value = 1/2 dl

slope = 7.05E-02 Average soil conc. = 6.9
intercept = 1.05 11.99 Average plant conc. = 24.67
R-square = 1.06E-02 Average plants:soil ratio = 3.62
Base plant uptake factor = 0.255
Equation = y = 0.0040x + 12.39

mg/kg Milligrams per kilogram.
dl Detection limit.

CENSORED DATASET

Based on hits only; validated soil data and unvalidated plant data.
Data between May 1 and July 29, 1994.
All values are for oats unless specified in "Notes" column.

Soil Station No.	Soil Conc. (mg/kg)	Plant Station No.	Oat Conc. (mg/kg)	Log Soil	Log Plant
SS-24-02	2.4	TP-24-02	14.2	0.38	1.15
SS-24-06	2.5	TP-24-06	5.5	0.40	0.93
SS-24-05	2.6	TP-24-05	9.5	0.41	0.95
SS-11-01	3.1	TP-11-05	15.1	0.49	1.28
SS-24-01	3.1	TP-24-01	11.2	0.49	1.05
SS-11-03	3.5	TP-11-07	11.7	0.54	1.07
SS-12-02	4.3	TP-12-02	6.0	0.63	0.75
SS-25-01	4.5	TP-25-05	13.2	0.66	1.12
SS-25-04	5.4	TP-25-08	146.0	0.73	2.16
SS-32-02	5.4	TP-32-06	5.1	0.73	0.71
SS-29-03	5.8	TP-29-03	39.7	0.77	1.60
SS-29-01	5.9	TP-29-03	39.7	0.77	1.60
SS-25-02	6.6	TP-25-06	16.7	0.82	1.22
SS-15-03	7.0	TP-15-03	8.2	0.85	0.91
SS-22-01	7.1	TP-22-01	16.5	0.65	1.22
SS-29-04	7.4	TP-29-06	63.2	0.87	1.80
SS-15-01	8.3	TP-15-01	4.5	0.92	0.65
SS-32-04	9.3	TP-32-08	11.3	0.97	1.05
SS-21-03	11.0	TP-21-03	4.5	1.04	0.65
SS-29-02	14.2	TP-29-04	41.7	1.15	1.62
SS-16-02	15.7	TP-16-02	13.9	1.20	1.14
SS-12-04	19.8	TP-12-04	15.6	1.30	1.19
SS-25-03	20.6	TP-25-07	34.7	1.31	1.54
SS-16-07	22.9	TP-16-07	6.1	1.36	0.79
SS-11-02	24.1	TP-11-05	23.6	1.36	1.37
SS-10-04	53.9	TP-16-04	11.1	1.73	1.05

slope = 6.90E-02
intercept = 1.11 12.76
R-square = 4.72E-03
Equation = y = 0.0070x + 12.76

Table H.3. Comparison of Soil and Plant Data for Lead
Ecological Risk Assessment
Fort Ord, California

UNCENSORED DATASET

Based on full dataset; validated soil data and unvalidated plant data
Data between May 1 and July 29, 1994
All values are for oats unless specified in "Notes" column
Includes sample-specific DLs

CENSORED DATASET

Based on hits only; validated soil data and unvalidated plant data
Data between May 1 and July 29, 1994
All values are for oats unless specified in "Notes" column

Soil Station No.	Soil Conc (mg/kg)	Plant Station No.	Oat Conc. (mg/kg)	Other Conc. (mg/kg)	Log Soil	Log Plant	Notes
SS-11-01	12.0	TP-11-03	0.4		1.10	-0.398	
SS-11-02	106	TP-11-06	0.29		2.03	-0.536	
SS-11-03	15	TP-11-07	0.23		1.18	-0.636	
SS-11-04	25.4	TP-11-08	0.11		1.40	-0.939	
SS-12-01	5.3	TP-12-01	0.9		0.72	-0.046	
SS-12-02	13.0	TP-12-02	0.3		1.13	-0.523	
SS-12-03	3	TP-12-03	0.71		0.48	-0.149	
SS-12-04	99.9	TP-12-04	0.52		2.00	-0.284	
SS-15-01	24.4	TP-15-01	0.26		1.39	-0.553	
SS-15-02	25.9	TP-15-02	0.48		1.41	-0.310	
SS-15-03	33.0	TP-15-03	0.03		1.53	-0.201	
SS-15-04	24.6	TP-15-04	0.43		1.39	-0.367	
SS-16-01	10.0	TP-16-01	0.3		1.03	-0.523	
SS-16-02	36.3	TP-16-02	0.22		1.56	-0.658	
SS-16-04	36.7	TP-16-04	0.07		1.58	-1.155	plant value = 1/2 dl
SS-16-05	8.2	TP-16-05	0.22		0.91	-0.658	
SS-16-07	72.7	TP-16-07	0.33		1.86	-0.481	
SS-21-01	8.5	TP-21-01	0.14		0.93	-0.854	
SS-21-02	7	TP-21-02	0.07		0.83	-1.155	plant value = 1/2 dl
SS-21-03	310	TP-21-03	1.1		2.49	0.041	
SS-21-04	2.9	TP-21-04	0.07		0.46	-1.155	plant value = 1/2 dl
SS-22-01	67.2	TP-22-01	0.16		1.83	-0.796	
SS-22-02	18.2	TP-22-02	0.04		1.26	-0.194	
SS-22-03	2.1	TP-22-03	0.12		0.32	-0.921	
SS-22-04	7.6	TP-22-04	0.11		0.66	-0.659	
SS-24-01	14.3	TP-24-01	0.26		1.16	-0.553	
SS-24-02	0.3	TP-24-02	0.24		-0.52	-0.620	soil value = 1/2 dl
SS-24-03	5.8	TP-24-03	0.17		0.76	-0.770	
SS-24-04	6.5	TP-24-04	0.34		0.81	-0.460	
SS-24-05	1.8	TP-24-05	0.69		0.20	-0.051	
SS-24-06	3.3	TP-24-06	1.2		0.52	0.079	
SS-25-01	15.3	TP-25-03	0.24		1.18	-0.620	
SS-25-02	23.7	TP-25-06	0.35		1.37	-0.456	
SS-25-03	69.9	TP-25-07	0.16		1.84	-0.796	
SS-25-04	27.5	TP-25-08	0.39		1.44	-0.409	
SS-29-01	15.8	TP-29-03	0.12		1.20	-0.921	
SS-29-02	70.1	TP-29-04	0.12		1.85	-0.921	
SS-29-03	17.4	TP-29-05	0.11		1.24	-0.939	
SS-29-04	10.0	TP-29-06	0.22		1.04	-0.658	
SS-31-04	6.2	TP-31-01	0.075		0.79	-1.125	plant value = 1/2 dl
SS-32-01	2	TP-32-05	0.07		0.30	-1.155	plant value = 1/2 dl
SS-32-02	10.8	TP-32-06	0.07		1.03	-1.155	plant value = 1/2 dl
SS-32-03	3.3	TP-32-07	0.66		0.52	-0.197	
SS-32-04	9.5	TP-32-08	0.07		0.98	-1.155	plant value = 1/2 dl
SS-25-01	15.3	TP-25-01		0.14			Hottentot fig
SS-25-02	23.7	TP-25-02		0.25			Hottentot fig
SS-25-03	69.9	TP-25-03		0.21			Hottentot fig
SS-25-04	27.5	TP-25-04		0.38			Hottentot fig
SS-33-01	39.3	TP-33-01		0.21			B.diandrus
SS-33-02	26	TP-33-02		0.09			B.carinatus
SS-33-03	15.2	TP-33-03		0.07			B.diandrus; plant value = 1/2 dl
SS-33-04	116	TP-33-04		0.07			B.diandrus; plant value = 1/2 dl
SS-35-03	5.8	TP-35-03		0.17			B.diandrus
SS-35-04	6.8	TP-35-04		0.17			B.diandrus
SS-35-05	4.2	TP-35-05		0.17			B.diandrus
SS-35-06	6.3	TP-35-06		0.17			B.diandrus
SS-35-07	6.8	TP-35-07		0.16			B.diandrus
SS-35-08	2.6	TP-35-08		0.2			B.diandrus
SS-35-09	4.5	TP-35-09		0.32			B.diandrus
SS-35-10	10.1	TP-35-10		0.09			B.diandrus

Soil Station No.	Soil Conc (mg/kg)	Plant Station No.	Oat Conc. (mg/kg)	Log Soil	Log Plant
SS-24-05	1.8	TP-24-05	0.69	0.26	-0.051
SS-22-03	2.1	TP-22-03	0.12	0.32	-0.921
SS-12-03	3	TP-12-03	0.71	0.48	-0.149
SS-24-06	3.3	TP-24-06	1.2	0.52	0.079
SS-32-03	3.3	TP-32-07	0.66	0.52	-0.107
SS-12-01	5.3	TP-12-01	0.9	0.72	-0.046
SS-24-03	5.8	TP-24-03	0.17	0.76	-0.770
SS-24-04	6.5	TP-24-04	0.34	0.81	-0.460
SS-22-04	7.6	TP-22-04	0.11	0.88	-0.956
SS-16-05	8.2	TP-16-05	0.22	0.91	-0.658
SS-21-01	8.5	TP-21-01	0.14	0.93	-0.854
SS-16-01	10.0	TP-16-01	0.3	1.03	-0.523
SS-29-04	10.0	TP-29-06	0.22	1.04	-0.658
SS-11-01	12.6	TP-11-03	0.4	1.10	-0.398
SS-12-02	13.6	TP-12-02	0.3	1.13	-0.523
SS-24-01	14.3	TP-24-01	0.26	1.16	-0.553
SS-11-03	15	TP-11-07	0.23	1.18	-0.636
SS-25-01	15.3	TP-25-05	0.24	1.18	-0.620
SS-29-01	18.8	TP-29-03	0.12	1.20	-0.921
SS-29-03	17.4	TP-29-05	0.11	1.24	-0.959
SS-22-02	16.2	TP-22-02	0.64	1.26	-0.194
SS-25-02	23.7	TP-25-06	0.35	1.37	-0.456
SS-15-01	24.4	TP-15-01	0.26	1.39	-0.553
SS-13-04	24.6	TP-13-04	0.43	1.39	-0.367
SS-11-04	25.4	TP-11-08	0.11	1.40	-0.939
SS-15-02	25.9	TP-15-02	0.48	1.41	-0.310
SS-25-04	27.5	TP-25-08	0.39	1.44	-0.409
SS-15-03	33.0	TP-15-03	0.03	1.53	-0.201
SS-16-02	36.3	TP-16-02	0.22	1.56	-0.658
SS-22-01	67.2	TP-22-01	0.16	1.83	-0.796
SS-25-03	69.9	TP-25-07	0.16	1.84	-0.796
SS-29-02	70.1	TP-29-04	0.12	1.85	-0.921
SS-16-07	72.7	TP-16-07	0.33	1.86	-0.481
SS-12-04	99.9	TP-12-04	0.52	2.00	-0.284
SS-11-02	106	TP-11-06	0.29	2.03	-0.536
SS-21-03	310	TP-21-03	1.1	2.49	0.041

slope = -5.20E-02
intercept = -4.34E-01 0.35132
R-square = 7.67E-03
Equation: y = -0.052x + 0.35

slope = 6.49E-02 Average soil conc. = 25.2
intercept = -6.94E-01 0.20 Average plant conc. = 0.29
R-square = 1.04E-02 Average plant:soil ratio = 0.010
Basal plant uptake factor = 0.018
Equation = y = 0.065x + 0.20
mg/kg Milligrams per kilogram.
dl Detection limit.

Table H.4. Comparison of Soil and Plant Data for Nickel
Ecological Risk Assessment
Fort Ord, California

UNCENSORED DATASET

Based on full dataset; validated soil data and unvalidated plant data
Data between May 1 and July 29, 1994
All values are for oats unless specified in "Notes" column
Includes sample-specific DLs

CENSORED DATASET

Based on hits only; validated soil data and unvalidated plant data
Data between May 1 and July 29, 1994
All values are for oats unless specified in "Notes" column

Soil Station No.	Soil Conc (mg/kg)	Plant Station No.	Oct Conc. (mg/kg)	Other Conc. (mg/kg)	Log Soil	Log Plant	Notes
SS-11-01	8.4	TP-11-05	3.5		0.92	0.54	
SS-11-02	10.3	TP-11-06	4.1		1.01	0.61	
SS-11-03	6.8	TP-11-07	4.5		0.94	0.65	
SS-11-04	5.0	TP-11-08	2.3		0.77	0.36	
SS-12-01	8.4	TP-12-01	1.9		0.92	0.28	
SS-12-02	7.1	TP-12-02	1.8		0.85	0.26	
SS-12-03	7.2	TP-12-03	1.2		0.86	0.06	
SS-12-04	10.4	TP-12-04	3		1.02	0.48	
SS-15-01	10.5	TP-15-01	2.4		1.02	0.38	
SS-15-02	5.7	TP-15-02	2.1		0.94	0.32	
SS-15-03	5.2	TP-15-03	1.8		0.72	0.26	
SS-15-04	6.7	TP-15-04	1.4		0.83	0.15	
SS-16-01	5.7	TP-16-01	1.7		0.76	0.23	
SS-16-02	12.1	TP-16-02	1.8		1.08	0.26	
SS-16-04	10.4	TP-16-04	0.6		1.02	-0.22	plant value = 1/2dl
SS-16-05	5.2	TP-16-05	3.4		0.72	0.33	
SS-16-07	8.9	TP-16-07	1.4		0.95	0.15	
SS-21-01	2.6	TP-21-01	1.3		0.41	0.11	soil & plant value = 1/2dl
SS-21-02	2.45	TP-21-02	0.6		0.39	-0.22	soil & plant value = 1/2dl
SS-21-03	7.4	TP-21-03	1.7		0.87	0.23	
SS-21-04	5.6	TP-21-04	1.6		0.75	0.20	
SS-22-01	6.3	TP-22-01	3.9		0.80	0.59	
SS-22-02	2.3	TP-22-02	1.9		0.40	0.25	soil & plant value = 1/2dl
SS-22-03	2.5	TP-22-03	4.3		0.40	0.63	soil & plant value = 1/2dl
SS-22-04	2.5	TP-22-04	2.5		0.40	0.40	soil & plant value = 1/2dl
SS-24-01	7.2	TP-24-01	1.5		0.86	0.16	
SS-24-02	5	TP-24-02	3.3		0.70	0.52	
SS-24-03	9.3	TP-24-03	1.8		0.97	0.26	
SS-24-04	7.8	TP-24-04	1.7		0.88	0.23	
SS-24-05	6.8	TP-24-05	0.6		0.83	-0.22	plant value = 1/2dl
SS-24-06	8.1	TP-24-06	1.5		0.91	0.18	
SS-25-01	7.7	TP-25-03	1.3		0.89	0.11	
SS-25-02	6.3	TP-25-06	1.7		0.92	0.23	
SS-25-03	10.3	TP-25-07	1.5		1.01	0.16	
SS-25-04	8.8	TP-25-08	3.1		0.94	0.49	
SS-29-01	2.5	TP-29-03	4.7		0.40	0.67	soil value = 1/2dl
SS-29-02	2.5	TP-29-04	7.7		0.40	0.89	soil value = 1/2dl
SS-29-03	7.4	TP-29-05	3.2		0.67	0.51	
SS-29-04	2.5	TP-29-06	13.3		0.40	1.12	soil value = 1/2dl
SS-31-04	5.8	TP-31-01	0.6		0.76	-0.22	plant value = 1/2dl
SS-32-01	2.5	TP-32-03	2.5		0.40	0.40	soil value = 1/2dl
SS-32-02	7.1	TP-32-06	2		0.85	0.30	
SS-32-03	3.3	TP-32-07	2.7		0.52	0.43	
SS-32-04	6.3	TP-32-08	0.6		0.80	-0.22	plant value = 1/2dl
SS-25-01	7.7	TP-25-01		1.4			Hottentot fig
SS-25-02	8.3	TP-25-02		0.6			Hottentot fig; plant value = 1/2dl
SS-25-03	10.3	TP-25-03		0.6			Hottentot fig; plant value = 1/2dl
SS-25-04	8.8	TP-25-04		2.2			Hottentot fig
SS-33-01	10.6	TP-33-01		3.5			B. diandrus
SS-33-02	8.8	TP-33-02		2.6			B. carinatus
SS-33-03	2.5	TP-33-03		0.55			B. diandrus; soil & plant value=1/2 dl
SS-33-04	2.6	TP-33-04		0.6			B. diandrus; soil & plant value=1/2 dl
SS-35-03	2.4	TP-35-03		5.9			B. diandrus; soil value=1/2 dl
SS-35-04	6.3	TP-35-04		1.7			B. diandrus
SS-35-05	4.8	TP-35-05		2.1			B. diandrus
SS-35-06	5.3	TP-35-06		0.6			B. diandrus; plant value = 1/2dl
SS-35-07	5.4	TP-35-07		3.4			B. diandrus
SS-35-08	6.1	TP-35-08		2.6			B. diandrus
SS-35-09	3.9	TP-35-09		1.7			B. diandrus
SS-35-10	0.5	TP-35-10		1.5			B. diandrus

Soil Station No.	Soil Conc (mg/kg)	Plant Station No.	Oct Conc. (mg/kg)	Log Soil	Log Plant
SS-32-03	3.3	TP-32-07	2.7	0.52	0.43
SS-24-02	5	TP-24-02	3.3	0.70	0.52
SS-15-03	5.2	TP-15-03	1.8	0.72	0.26
SS-16-05	5.2	TP-16-05	3.4	0.72	0.33
SS-21-04	5.6	TP-21-04	1.6	0.75	0.20
SS-16-01	5.7	TP-16-01	1.7	0.76	0.23
SS-11-04	5.9	TP-11-06	2.3	0.77	0.30
SS-22-01	6.3	TP-22-01	3.9	0.80	0.59
SS-15-04	6.7	TP-15-04	1.4	0.83	0.15
SS-12-02	7.1	TP-12-02	1.8	0.85	0.26
SS-32-02	7.1	TP-32-06	2	0.85	0.30
SS-12-03	7.2	TP-12-03	1.2	0.86	0.06
SS-24-01	7.2	TP-24-01	1.5	0.86	0.16
SS-21-03	7.4	TP-21-03	1.7	0.87	0.23
SS-29-03	7.4	TP-29-03	3.2	0.87	0.51
SS-24-04	7.6	TP-24-04	1.7	0.88	0.23
SS-25-01	7.7	TP-25-05	1.3	0.89	0.11
SS-24-06	8.1	TP-24-06	1.5	0.91	0.18
SS-25-02	8.3	TP-25-06	1.7	0.92	0.23
SS-12-01	8.4	TP-12-01	1.9	0.92	0.28
SS-11-01	8.4	TP-11-05	3.5	0.94	0.54
SS-15-02	8.7	TP-15-02	2.1	0.94	0.32
SS-25-04	8.8	TP-25-08	3.1	0.94	0.49
SS-11-03	8.8	TP-11-07	4.5	0.94	0.55
SS-16-07	8.9	TP-16-07	1.4	0.95	0.15
SS-24-03	9.3	TP-24-03	1.8	0.97	0.26
SS-25-03	10.3	TP-25-07	1.5	1.01	0.16
SS-11-02	10.3	TP-11-06	4.1	1.01	0.51
SS-12-04	10.4	TP-12-04	3	1.02	0.48
SS-15-01	10.5	TP-15-01	2.4	1.02	0.38
SS-16-02	12.1	TP-16-02	1.8	1.08	0.26

slope = -0.77E-02
Intercept = 0.39 2.44
R-square = 2.41E-03
Equation = y = -0.005x + 0.39

slope = -3.43E-01 Average soil conc. = 6.6
Intercept = 0.57 3.74 Average plant conc. = 2.40
R-square = 6.87E-02 Average plant/soil ratio = 0.36
Basal plant uptake factor = 0.039
Equation = y = -0.34x + 3.74

mg/kg Milligrams per kilogram.
dl Detection limit.

**Table H.5. Comparison of Soil and Plant Data for Zinc
Ecological Risk Assessment
Fort Ord, California**

UNCENSORED DATASET

Based on full dataset; all validated data.
Data collected between May 1 and July 20, 1994.
All values are for oats unless specified in "Notes" column.
Includes site-specific non-detects, value listed is one-half detection limit.

CENSORED DATASET

Includes samples with detects for both soil and plant; all data validated.
Data between May 1 and July 20, 1994.
All values are for oats unless specified in "Notes" column.

Soil Station No.	Soil Conc. (mg/kg)	Plant Station No.	Oat Conc. (mg/kg)	Other Conc. (mg/kg)	Log Soil	Log Plant	Notes
SS-11-01	22.0	TP-11-05	20.1		1.34	1.46	
SS-11-02	260.0	TP-11-06	43.0		2.45	1.63	
SS-11-03	20.8	TP-11-07	34.3		1.32	1.54	
SS-11-04	14.2	TP-11-08	39.9		1.15	1.60	
SS-12-01	9.9	TP-12-01	49.3		1.00	1.69	
SS-12-02	27.2	TP-12-02	31.4		1.43	1.50	
SS-12-03	14.9	TP-12-03	40.7		1.17	1.61	
SS-12-04	74.2	TP-12-04	57.9		1.87	1.75	
SS-13-01	44.2	TP-13-01	47.9		1.65	1.68	
SS-13-02	32.3	TP-13-02	33.3		1.51	1.52	
SS-13-03	35.1	TP-13-03	46.3		1.58	1.67	
SS-13-04	54.4	TP-13-04	36.7		1.74	1.56	
SS-16-01	11.5	TP-16-01	54.7		1.06	1.74	soil value= 1/2 dl
SS-16-02	26.2	TP-16-02	46.0		1.42	1.66	soil value= 1/2 dl
SS-16-04	43.8	TP-16-04	49.8		1.64	1.70	soil value= 1/2 dl
SS-16-05	6.6	TP-16-05	44.3		0.82	1.65	soil value= 1/2 dl
SS-16-07	133.0	TP-16-07	47.9		2.12	1.66	
SS-21-01	30.9	TP-21-01	21.6		1.49	1.34	
SS-21-02	7.6	TP-21-02	24.3		0.88	1.39	soil value= 1/2 dl
SS-21-03	59.0	TP-21-03	66.3		1.77	1.93	
SS-21-04	15.7	TP-21-04	29.3		1.20	1.47	
SS-22-01	23.2	TP-22-01	40.2		1.37	1.60	soil value= 1/2 dl
SS-22-02	25.9	TP-22-02	54.5		1.41	1.74	soil value= 1/2 dl
SS-22-03	0.7	TP-22-03	31.5		0.83	1.50	soil value= 1/2 dl
SS-22-04	3.0	TP-22-04	34.9		0.48	1.54	soil value= 1/2 dl
SS-24-01	20.6	TP-24-01	43.6		1.32	1.64	
SS-24-02	9.2	TP-24-02	37.4		0.96	1.57	
SS-24-03	15.1	TP-24-03	45.0		1.18	1.69	
SS-24-04	13.7	TP-24-04	42.9		1.14	1.63	
SS-24-05	10.0	TP-24-05	58.1		1.00	1.76	
SS-24-06	15.9	TP-24-06	44.0		1.20	1.64	
SS-23-01	20.6	TP-23-05	35.3		1.32	1.35	
SS-23-02	46.2	TP-23-06	41.6		1.66	1.62	
SS-23-03	386.0	TP-23-07	26.2		2.59	1.45	
SS-23-04	73.4	TP-23-08	39.5		1.87	1.60	
SS-29-01	19.0	TP-29-03	39.6		1.28	1.50	
SS-29-02	58.7	TP-29-04	35.2		1.77	1.55	
SS-29-03	22.2	TP-29-05	35.1		1.35	1.55	
SS-29-04	23.6	TP-29-06	40.7		1.37	1.61	
SS-31-04	7.0	TP-31-01	24.0		0.84	1.40	soil value= 1/2 dl
SS-32-01	6.3	TP-32-05	56.3		0.81	1.77	soil value= 1/2 dl
SS-32-02	20.5	TP-32-06	44.0		1.47	1.64	
SS-32-03	27.1	TP-32-07	41.7		1.43	1.62	
SS-32-04	40.4	TP-32-08	92.4		1.61	1.67	
SS-25-01	20.8	SS-25-01		25.0			Hottentot fig
SS-25-02	46.2	SS-25-02		25.4			Hottentot fig
SS-25-03	386.0	SS-25-03		23.5			Hottentot fig
SS-25-04	73.4	SS-25-04		41.3			Hottentot fig
SS-33-01	58.0	TP-33-01		90.6			B. diandrus
SS-33-02	191.0	TP-33-02		33.2			B. cartnatus
SS-33-03	13	TP-33-03		34.2			B. diandrus; soil value= 1/2 dl
SS-33-04	58.5	TP-33-04		48.0			B. diandrus; soil value= 1/2 dl
SS-35-03	7.6	TP-35-03		20.7			B. diandrus; soil value= 1/2 dl
SS-35-04	16.1	TP-35-04		23.7			B. diandrus
SS-35-05	6.3	TP-35-05		26.2			B. diandrus; soil value= 1/2 dl
SS-35-06	16.4	TP-35-06		23.6			B. diandrus
SS-35-07	16.1	TP-35-07		25.6			B. diandrus
SS-35-08	10.4	TP-35-08		24.5			B. diandrus
SS-35-09	24.3	TP-35-09		29.5			B. diandrus
SS-35-10	19.8	TP-35-10		27.2			B. diandrus

Soil Station No.	Soil Conc. (mg/kg)	Plant Station No.	Oat Conc. (mg/kg)	Log Soil	Log Plant
SS-24-02	9.2	TP-24-02	37.4	0.96	1.57
SS-12-01	9.9	TP-12-01	49.3	1.00	1.69
SS-24-05	10.0	TP-24-05	58.1	1.00	1.76
SS-32-04	10.4	TP-32-08	92.4	1.02	1.97
SS-24-04	13.7	TP-24-04	42.9	1.14	1.63
SS-11-04	14.2	TP-11-05	39.9	1.15	1.60
SS-12-03	14.9	TP-12-03	40.7	1.17	1.61
SS-24-03	15.1	TP-24-03	48.9	1.18	1.69
SS-21-04	15.7	TP-21-04	29.3	1.20	1.47
SS-24-06	15.9	TP-24-06	44.0	1.20	1.64
SS-29-01	19.0	TP-29-03	39.6	1.28	1.60
SS-11-03	20.6	TP-11-07	34.3	1.32	1.54
SS-24-01	20.6	TP-24-01	43.6	1.32	1.64
SS-25-01	20.6	TP-25-05	35.3	1.32	1.35
SS-11-01	22.0	TP-11-05	20.1	1.34	1.46
SS-29-03	22.2	TP-29-05	35.1	1.35	1.55
SS-29-04	23.6	TP-29-06	40.7	1.37	1.61
SS-32-03	27.1	TP-32-07	41.7	1.43	1.62
SS-12-02	27.2	TP-12-02	31.4	1.43	1.50
SS-32-02	29.5	TP-32-06	44.0	1.47	1.64
SS-21-01	30.9	TP-21-01	21.6	1.49	1.34
SS-15-02	32.3	TP-15-02	33.3	1.51	1.52
SS-15-03	35.1	TP-15-03	46.3	1.58	1.67
SS-15-01	44.2	TP-15-01	47.9	1.65	1.68
SS-25-02	46.2	TP-25-06	41.6	1.66	1.62
SS-13-04	54.4	TP-13-04	36.7	1.74	1.56
SS-29-02	58.7	TP-29-04	35.2	1.77	1.55
SS-21-03	59.0	TP-21-03	66.3	1.77	1.93
SS-23-04	73.4	TP-23-08	39.5	1.87	1.60
SS-12-04	74.2	TP-12-04	57.9	1.87	1.75
SS-16-07	133.0	TP-16-07	47.9	2.12	1.66
SS-11-02	280.0	TP-11-06	43.0	2.45	1.63
SS-23-03	386.0	TP-23-07	26.2	2.59	1.45

slope = -3.80E-02
intercept = 1.07 log intercept = 46.75
R-square = 0.0127
Equation = y = -0.038x + 46.75

slope = 3.75E-02
intercept = 1.56 36.49
R-square = 1.56E-02

Average soil conc. = 47.9
Average plant conc. = 40.32
Average plant:soil ratio = 0.85
Base plant uptake factor = 1.04

mg/kg Milligrams per kilogram.
dl Detection limit.

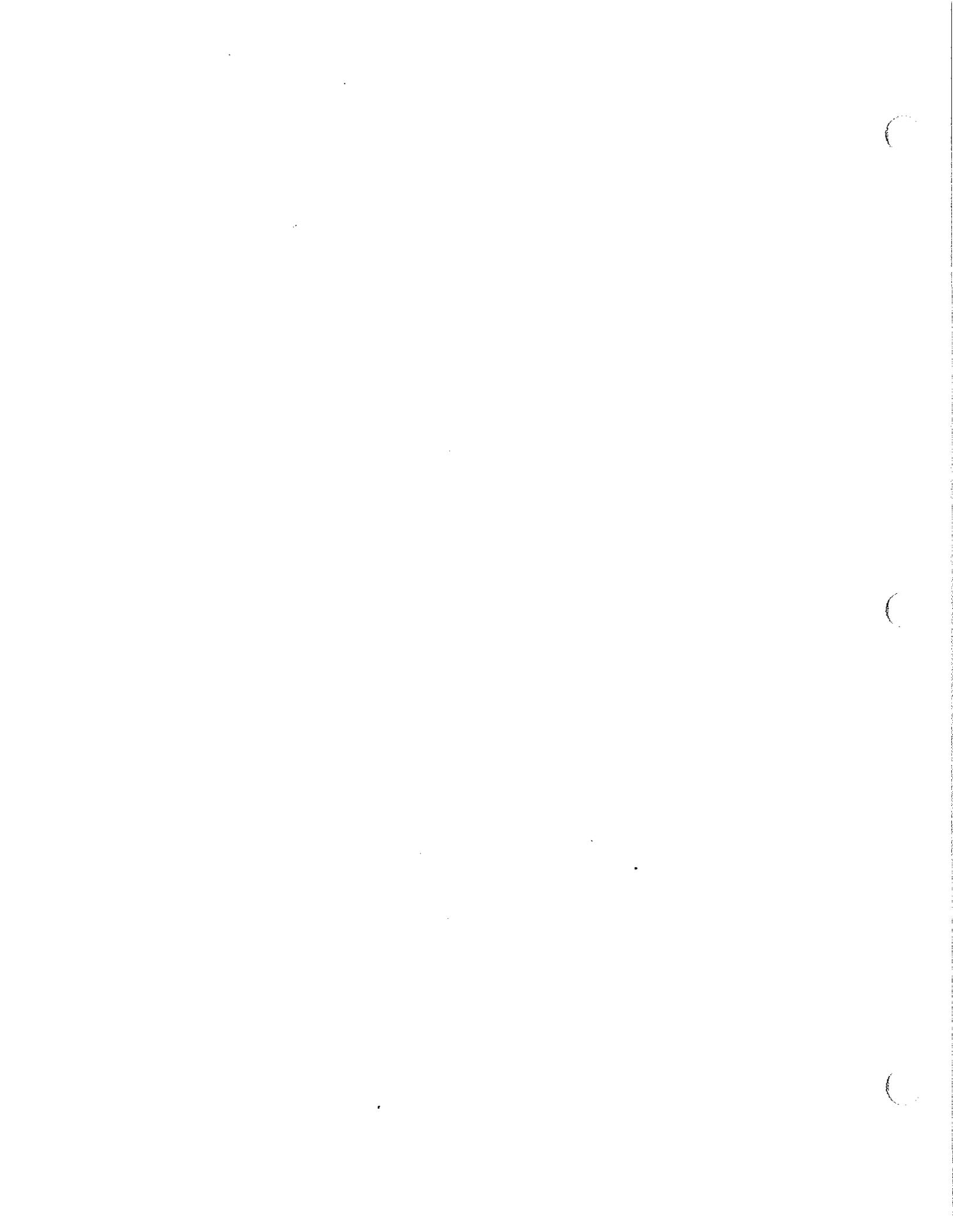


Table H.6. Comparison of Soil and Plant Data for Buckwheat at Site 3
Ecological Risk Assessment
Fort Ord, California

Non-transformed data
Based on unvalidated data

Soil Station No.	Soil conc. (mg/kg)					Plant Station No.	Plant conc. (mg/kg)				
	Antimony	Chromium	Copper	Lead	Zinc		Antimony	Chromium	Copper	Lead	Zinc
SS-R1-2	244	7.3	966	16100	121	TP-R1-2	1.3	0.38	15.3	44.8	42.4
SS-R8-1A	0.22 1/2dl	14.1	4.4	17.8	10.7	TP-R8-1	0.16	0.43	4.2	3.1	45.5
SS-R8-2A	0.215 1/2dl	15.5	2.8	7.4	8.7	TP-R8-2	0.12	0.64	4.2	4.9	34.2
SS-R8-3	0.22 1/2dl	12.4	1.9	3.8	8.4	TP-R8-3	0.055 1/2dl	0.39	3	1.5	37.7
SS-R12-1	0.6	18.2	10.2	84.9	18.6	TP-R12-1	0.16	0.38	12.2	3.3	71.5
SS-R15-1A	1.6	15	16.4	145	13.9	TP-R15-1	0.17	0.45	11	4.6	37.3
SS-R15-2	1.8	15	26.2	280	20.9	TP-R15-2	0.055 1/2dl	0.55	10.4	3.5	46.8
SS-R17-1	3.3	12.6	38.3	372	17.7	TP-R17-1	0.055 1/2dl	0.54	9.4	3.2	40.5
SS-R17-2A	104	19.3	358	5650	77.3	TP-R17-2	0.86	0.5	16.5	27.9	47.8
SS-ST-1A	0.22 1/2dl	13.1	3	6.7	11.2	TP-ST-1	0.055 1/2dl	0.38	3.2	0.64	37.5

Average conc. 35.62 14.25 142.72 2266.76 30.84

Average conc. 0.30 0.46 8.94 9.74 44.12

Standard deviation 0.43 0.09 5.03 14.63 10.64

Average plant:soil ratio 0.008 0.033 0.063 0.004 1.431

Bas plant uptake factor 0.072 0.005 0.285 0.018 1.040

mg/kg Milligrams per kilogram.
dl Detection limit.

slope = 0.005 0.008 0.010 0.003 0.022

intercept = 0.113 0.347 7.462 3.498 43.437

R-square = 0.956 0.092 0.405 0.946 0.006

Note: Bold values are statistically significant.

Equation: $y = 0.005x + 0.11$ $0.008x + 0.35$ $0.01x + 7.47$ $0.003x + 3.50$ $0.022x + 43.4$

Table H.6. Comparison of Soil and Plant Data for Buckwheat at Site 3
Ecological Risk Assessment
Fort Ord, California

Log-transformed data
Based on unvalidated data

Soil Station No.	Log Soil conc. (mg/kg)						Plant Station No.	Log Plant conc. (mg/kg)					
	Antimony		Chromium	Copper	Lead	Zinc		Antimony	Chromium	Copper	Lead	Zinc	
SS-R1-2	2.39		0.86	2.98	4.21	2.08	TP-R1-2	0.11	-0.42	1.18	1.65	1.63	
SS-R8-1A	-0.66	1/2dl	1.15	0.64	1.25	1.03	TP-R8-1	-0.80	-0.37	0.62	0.49	1.66	
SS-R8-2A	-0.67	1/2dl	1.19	0.45	0.87	0.94	TP-R8-2	-0.92	-0.19	0.62	0.69	1.53	
SS-R8-3	-0.66	1/2dl	1.09	0.28	0.58	0.92	TP-R8-3	-1.26	1/2dl	-0.41	0.48	0.18	1.58
SS-R12-1	-0.22		1.26	1.01	1.93	1.27	TP-R12-1	-0.80	-0.42	1.09	0.52	1.85	
SS-R15-1A	0.20		1.18	1.21	2.16	1.14	TP-R15-1	-0.77	-0.35	1.04	0.66	1.57	
SS-R15-2	0.26		1.18	1.42	2.45	1.32	TP-R15-2	-1.26	1/2dl	-0.26	1.02	0.54	1.67
SS-R17-1	0.52		1.10	1.58	2.57	1.25	TP-R17-1	-1.26	1/2dl	-0.27	0.97	0.51	1.61
SS-R17-2A	2.02		1.29	2.55	3.75	1.89	TP-R17-2	-0.07	-0.30	1.22	1.45	1.68	
SS-ST-1A	-0.66	1/2dl	1.12	0.48	0.83	1.05	TP-ST-1	-1.26	1/2dl	-0.42	0.51	-0.19	1.57
Average conc.	0.25		1.14	1.26	2.06	1.29	Average conc.	-0.83	-0.34	0.87	0.65	1.64	
							Standard deviation	0.50	0.08	0.29	0.54	0.09	
							Average plant:soil ratio	-3.282	-0.298	0.694	0.315	1.268	
							Bas plant uptake factor	0.072	0.005	0.285	0.018	1.040	
mg/kg	Milligrams per kilogram.												
dl	Detection limit.												
							slope =	0.360	0.248	0.269	0.381	0.067	
							intercept =	-0.918	-0.624	0.535	-0.136	1.549	
							R-square =	0.656	0.126	0.735	0.752	0.084	
							antilog(y-int)=	0.121	0.238	3.428	0.731	35.413	
Note: Bold values are statistically significant.							Equation: y =	0.36x + 0.121	0.248x + 0.238	0.269x + 3.43	0.381x + 0.731	0.067x + 35.4	

**Table H.7. Plant:Soil Ratios for Chromium Based on Field Data /a/
Ecological Risk Assessment
Fort Ord, California**

Site	Number of Samples	Plant:Soil Ratio			Baes Uptake Factor
		Arithmetic Mean	One Std. Dev. Range /b/	Two Std. Dev. Range /b/	
Site 3 /c/	10	0.034	0.0249 to 0.0433	0.0157 to 0.0525	0.0052
Site 11	4	0.263	0.1838 to 0.3417	0.1048 to 0.4206	0.0052
Site 12	4	0.061	0.0054 to 0.1157	-0.0498 to 0.1708	0.0052
Site 15	4	0.145	0.0728 to 0.2167	0.0009 to 0.2887	0.0052
Site 16	5	0.053	0.0304 to 0.0758	0.0078 to 0.0984	0.0052
Site 21	4	0.114	0.0723 to 0.1555	0.0306 to 0.1972	0.0052
Site 22	4	0.565	0.2181 to 0.9126	-0.1291 to 1.2599	0.0052
Site 24	6	0.061	-0.0012 to 0.1240	-0.0637 to 0.1865	0.0052
Site 25	4	0.116	-0.0152 to 0.2475	-0.1466 to 0.3789	0.0052
Site 25 /d/	4	0.029	-0.0012 to 0.0584	-0.0309 to 0.0881	0.0052
Site 29	4	0.670	0.0445 to 1.2957	-0.5810 to 1.9213	0.0052
Site 31 /e/	1	0.741	N/A	N/A	0.0052
Site 32	4	0.144	0.0255 to 0.2630	-0.0932 to 0.3818	0.0052
Site 33 /f/	4	0.198	0.0180 to 0.3778	-0.1618 to 0.5577	0.0052
Site 35 /f/	8	0.378	0.0997 to 0.6560	-0.1784 to 0.9342	0.0052

N/A Not applicable.

/a/ All entries for oats unless otherwise noted.

/b/ Shaded values indicate that the Baes uptake factor is outside this range.

/c/ Values for buckwheat.

/d/ Values for hottentot fig.

/e/ Only one sample for this site; value in arithmetic mean column is not a mean.

/f/ Values for Bromus sp.

**Table H.8. Plant:Soil Ratios for Copper Based on Field Data /a/
Ecological Risk Assessment
Fort Ord, California**

Site	Number of Samples	Plant:Soil Ratio			Baes Uptake Factor
		Arithmetic Mean	One Std. Dev. Range /b/	Two Std. Dev. Range /b/	
Site 3 /c/	10	0.767	0.1890 to 1.3452	-0.3891 to 1.9233	0.285
Site 11	4	7.790	-1.2371 to 16.8175	-10.2643 to 25.8448	0.285
Site 12	4	12.587	-1.4500 to 26.6249	-15.4874 to 40.6624	0.285
Site 15	4	2.475	0.0059 to 4.9439	-2.4632 to 7.4129	0.285
Site 16	5	2.386	-0.6760 to 5.4476	-3.7377 to 8.5094	0.285
Site 21	4	4.613	-0.9128 to 10.1386	-6.4384 to 15.6643	0.285
Site 22	4	17.298	5.1787 to 29.4181	-6.9410 to 41.5378	0.285
Site 24	6	6.717	-0.8080 to 14.2423	-8.3331 to 21.7674	0.285
Site 25	4	8.530	-3.8175 to 20.8782	-16.1654 to 33.2261	0.285
Site 25 /d/	4	1.998	0.6820 to 3.3147	-0.6344 to 4.6311	0.285
Site 29	4	5.332	2.5704 to 8.0929	-0.1908 to 10.8542	0.285
Site 31 /e/	1	0.380	N/A	N/A	0.285
Site 32	4	4.751	-0.0948 to 9.5966	-4.9406 to 14.4424	0.285
Site 33 /f/	4	10.987	-7.1888 to 29.1628	-25.3646 to 47.3386	0.285
Site 35 /f/	8	13.849	2.8340 to 24.8648	-8.1814 to 35.8803	0.285

N/A Not applicable.

/a/ All entries for oats unless otherwise noted.

/b/ Shaded values indicate that the Baes uptake factor is outside this range.

/c/ Values for buckwheat.

/d/ Values for hottentot fig.

/e/ Only one sample for this site; value in arithmetic mean column is not a mean.

/f/ Values for Bromus sp.

**Table H.9. Plant:Soil Ratios for Lead Based on Field Data /a/
Ecological Risk Assessment
Fort Ord, California**

Site	Number of Samples	Plant:Soil Ratio			Baes Uptake Factor
		Arithmetic Mean	One Std. Dev. Range /b/	Two Std. Dev. Range /b/	
Site 3 /c/	10	0.143	-0.0768 to 0.3620	-0.2962 to 0.5814	0.018
Site 11	4	0.014	0.0002 to 0.0269	-0.0132 to 0.0403	0.018
Site 12	4	0.108	-0.0046 to 0.2215	-0.1176 to 0.3345	0.018
Site 15	4	0.017	0.0131 to 0.0200	0.0097 to 0.0234	0.018
Site 16	5	0.014	0.0006 to 0.0264	-0.0123 to 0.0393	0.018
Site 21	4	0.014	0.0047 to 0.0224	-0.0041 to 0.0312	0.018
Site 22	4	0.027	0.0032 to 0.0514	-0.0208 to 0.0754	0.018
Site 24	6	0.293	-0.0245 to 0.6110	-0.3423 to 0.9287	0.018
Site 25	4	0.012	0.0054 to 0.0181	-0.0009 to 0.0244	0.018
Site 25 /d/	4	0.009	0.0046 to 0.0137	0.0001 to 0.0182	0.018
Site 29	4	0.009	0.0011 to 0.0169	-0.0069 to 0.0248	0.018
Site 31 /e/	1	0.012	N/A	N/A	0.018
Site 32	4	0.064	-0.0321 to 0.1595	-0.1279 to 0.2553	0.018
Site 33 /f/	4	0.003	0.0013 to 0.0048	-0.0004 to 0.0065	0.018
Site 35 /f/	8	0.037	0.0141 to 0.0604	-0.0091 to 0.0836	0.018

N/A Not applicable.

/a/ All entries for oats unless otherwise noted.

/b/ Shaded values indicate that the Baes uptake factor is outside this range.

/c/ Values for buckwheat.

/d/ Values for hottentot fig.

/e/ Only one sample for this site; value in arithmetic mean column is not a mean.

/f/ Values for Bromus sp.

**Table H.10. Plant:Soil Ratios for Nickel Based on Field Data /a/
Ecological Risk Assessment
Fort Ord, California**

Site	Number of Samples	Plant:Soil Ratio			Baes Uptake Factor
		Arithmetic Mean	One Std. Dev. Range /b/	Two Std. Dev. Range /b/	
Site 11	4	0.429	0.3729 to 0.4850	0.3169 to 0.5411	0.059
Site 12	4	0.234	0.1823 to 0.2852	0.1308 to 0.3366	0.059
Site 15	4	0.256	0.1949 to 0.3177	0.1335 to 0.3790	0.059
Site 16	5	0.263	0.0284 to 0.4979	-0.2063 to 0.7326	0.059
Site 21	4	0.315	0.1896 to 0.4406	0.0640 to 0.5661	0.059
Site 22	4	1.025	0.5353 to 1.5142	0.0459 to 2.0037	0.059
Site 24	6	0.260	0.0581 to 0.4616	-0.1437 to 0.6633	0.059
Site 25	4	0.218	0.1250 to 0.3107	0.0322 to 0.4036	0.059
Site 25 /c/	4	0.141	0.0491 to 0.2321	-0.0424 to 0.3236	0.059
Site 29	4	2.678	0.6108 to 4.7454	-1.4565 to 6.8127	0.059
Site 31 /d/	1	0.103	N/A	N/A	0.059
Site 32	4	0.549	0.1194 to 0.9782	-0.3101 to 1.4076	0.059
Site 33 /e/	4	0.275	0.2174 to 0.3322	0.1599 to 0.3896	0.059
Site 35 /e/	8	0.598	-0.1723 to 1.3675	-0.9423 to 2.1375	0.059

N/A Not applicable.

/a/ All entries for oats unless otherwise noted.

/b/ Shaded values indicate that the Baes uptake factor is outside this range.

/c/ Values for hottentot fig.

/d/ Only one sample for this site; value in arithmetic mean column is not a mean.

/e/ Values for Bromus sp.

**Table H.11. Plant:Soil Ratios for Zinc Based on Field Data /a/
Ecological Risk Assessment
Fort Ord, California**

Site	Number of Samples	Plant:Soil Ratio				Baes Uptake Factor
		Arithmetic Mean	One Std. Dev. Range /b/	Two Std. Dev. Range /b/		
Site 3 /c/	10	2.804	1.3522 to 4.2565	-0.1000 to 5.7086	1.04	
Site 11	4	1.484	0.3912 to 2.5764	-0.7014 to 3.6690	1.04	
Site 12	4	2.412	0.5019 to 4.3211	-1.4077 to 6.2307	1.04	
Site 15	4	1.001	0.7701 to 1.2322	0.5390 to 1.4632	1.04	
Site 16	5	2.957	0.2550 to 5.6581	-2.4466 to 8.3597	1.04	
Site 21	4	1.822	0.7722 to 2.8713	-0.2774 to 3.9208	1.04	
Site 22	4	5.043	0.4552 to 9.6307	-4.1326 to 14.2185	1.04	
Site 24	6	3.518	2.2246 to 4.8116	0.9311 to 6.1051	1.04	
Site 25	4	0.803	0.1170 to 1.4895	-0.5692 to 2.1757	1.04	
Site 25 /d/	4	0.594	0.1267 to 1.0623	-0.3411 to 1.5301	1.04	
Site 29	4	1.497	0.8626 to 2.1322	0.2278 to 2.7670	1.04	
Site 31 /e/	1	3.583	N/A	N/A	1.04	
Site 32	4	3.572	-0.0451 to 7.1884	-3.8619 to 10.8052	1.04	
Site 33 /f/	4	1.190	0.1784 to 2.2013	-0.8330 to 3.2127	1.04	
Site 35 /f/	8	1.885	0.8433 to 2.9262	-0.1982 to 3.9676	1.04	

N/A Not applicable.

/a/ All entries for oats unless otherwise noted.

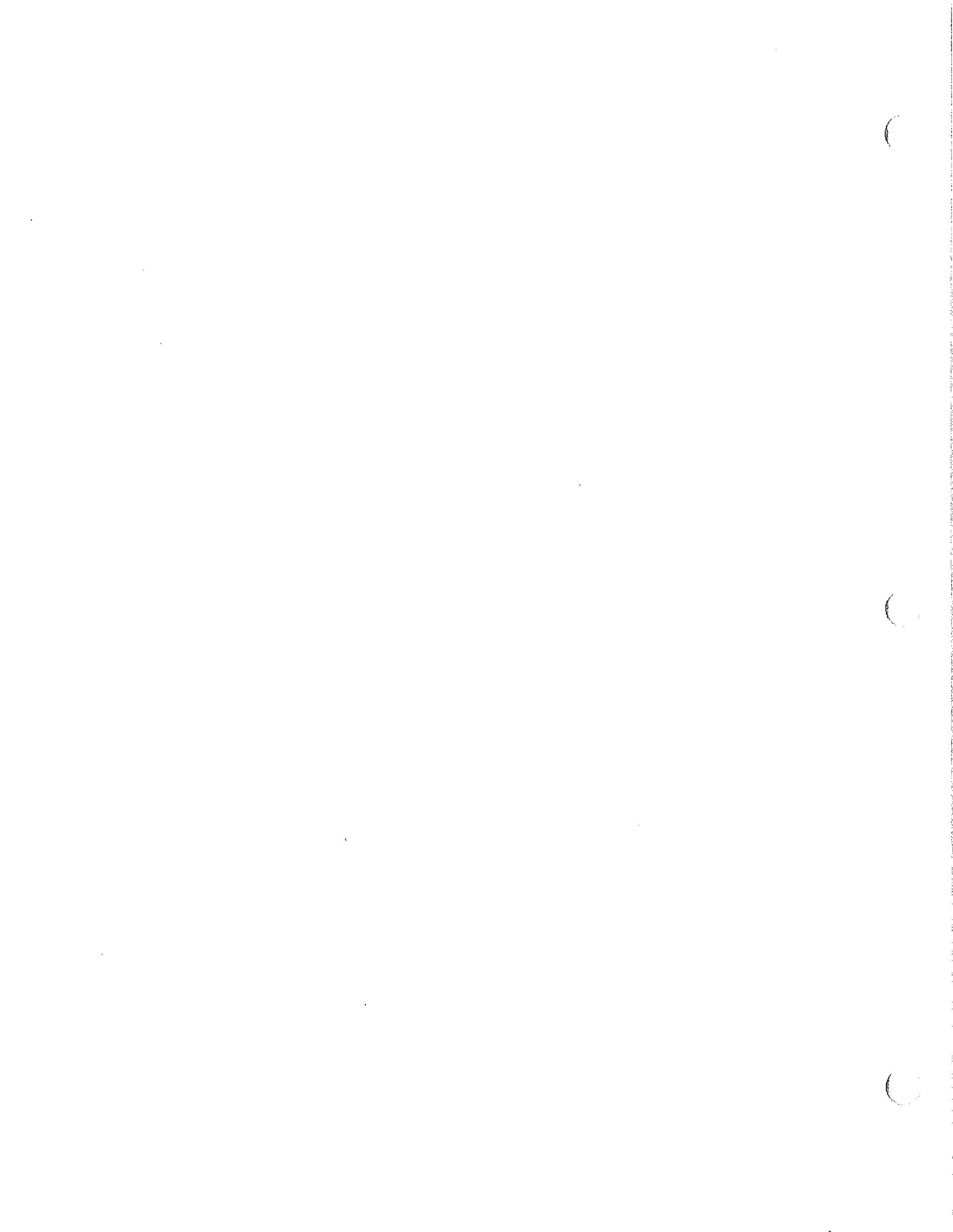
/b/ Shaded values indicate that the Baes uptake factor is outside this range.

/c/ Values for buckwheat.

/d/ Values for hottentot fig.

/e/ Only one sample for this site; value in arithmetic mean column is not a mean.

/f/ Values for Bromus sp.



**Table H.12. Site 1 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	New Max Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose- Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Chromium	1.04E+01	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	5.20E-03
Copper	1.03E+01	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.85E-01
Mercury	2.40E-01	0.00E+00	0.00E+00	1.90E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.71E-01
Nickel	9.80E+00	0.00E+00	0.00E+00	8.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-04	5.94E-02
Silver	9.20E-01	0.00E+00	0.00E+00	1.78E+00	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.73E-01
Zinc	2.77E+01	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.04E+00

EXPOSURE PARAMETERS:

Table H.12. Site 1 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day)	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:
 Table H.12. Site 1 Risk Characterization for the Deer Mouse
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table H.12. Site 1 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Chromium	1.04E+01	5.20E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.08E-02
Copper	1.03E+01	2.85E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	5.87E-01
Mercury	2.40E-01	3.71E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.78E-02
Nickel	9.80E+00	5.94E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.16E-01
Silver	9.20E-01	1.73E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.18E-02
Zinc	2.77E+01	1.04E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	5.76E+00

SOIL INGESTION:

Table H.12. Site 1 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
Chromium	1.04E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.24E-02
Copper	1.03E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.18E-02
Mercury	2.40E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.44E-03
Nickel	9.80E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.88E-02
Silver	9.20E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.52E-03
Zinc	2.77E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.66E-01

SEDIMENT INGESTION:

Table H.12. Site 1 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.12. Site 1 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm ²)	Sediment Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.12. Site 1 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm ²)	Surface Soil Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Chromium	1.04E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.56E-03
Copper	1.03E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.52E-03
Mercury	2.40E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.21E-05
Nickel	9.80E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.35E-03
Silver	9.20E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.15E-04
Zinc	2.77E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	9.47E-03

SURFACE WATER DERMAL EXPOSURE:

Table H.12. Site 1 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Chromium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	8.55E+00	1.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	8.55E+00	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table H.12. Site 1 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Chromium	0.00E+00	0.00E+00	1.08E-02	6.24E-02	0.00E+00	0.00E+00	3.56E-03	0.00E+00	7.68E-02	3.20E-01
Copper	0.00E+00	0.00E+00	5.87E-01	6.18E-02	0.00E+00	0.00E+00	3.52E-03	0.00E+00	6.52E-01	1.88E-03
Mercury	0.00E+00	0.00E+00	1.78E-02	1.44E-03	0.00E+00	0.00E+00	8.21E-05	0.00E+00	1.93E-02	1.02E-02
Nickel	0.00E+00	0.00E+00	1.16E-01	5.88E-02	0.00E+00	0.00E+00	3.35E-03	0.00E+00	1.79E-01	2.10E-01
Silver	0.00E+00	0.00E+00	3.18E-02	5.52E-03	0.00E+00	0.00E+00	3.15E-04	0.00E+00	3.77E-02	2.12E-02
Zinc	0.00E+00	0.00E+00	5.76E+00	1.66E-01	0.00E+00	0.00E+00	9.47E-03	0.00E+00	5.94E+00	4.24E-01
TOTAL										9.87E-01

**Table H.13. Site 1 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Max Soil Conc. (mg/kg)	Modeled (no mice collected) Mouse Conc. (mg/kg)	Sediment Conc. (mg/kg)	Dose-Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Chromium	1.04E+01	7.68E-02	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.20E-03
Copper	1.03E+01	6.52E-01	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.85E-01
Mercury	2.40E-01	1.93E-02	0.00E+00	1.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.71E-01
Nickel	9.80E+00	1.79E-01	0.00E+00	2.69E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.94E-02
Silver	9.20E-01	3.77E-02	0.00E+00	8.90E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.73E-01
Zinc	2.77E+01	5.94E+00	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.04E+00

EXPOSURE PARAMETERS:

Table H.13. Site 1 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day)	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm2)	3.02E+02
Skin exposed - Soil/Sediment (cm2/day)	3.02E+02
Soil on Skin (kg/cm2)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table H.13. Site 1 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Aquatic BCF (L/kg)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Organism Consumption (mg/kg/day)
Chromium	7.68E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.82E-03
Copper	6.52E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.40E-02
Mercury	1.93E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	7.10E-04
Nickel	1.79E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	6.56E-03
Silver	3.77E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.38E-03
Zinc	5.94E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.18E-01

WATER CONSUMPTION

Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Site-Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Chromium	7.68E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	6.52E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	1.93E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	1.79E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	3.77E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	5.94E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table H.13. Site 1 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Chromium	1.04E+01	5.20E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.32E-03
Copper	1.03E+01	2.85E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	7.19E-02
Mercury	2.40E-01	3.71E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.18E-03
Nickel	9.80E+00	5.94E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.43E-02
Silver	9.20E-01	1.73E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.90E-03
Zinc	2.77E+01	1.04E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	7.05E-01

SOIL INGESTION:

Table H.13. Site 1 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
						Daily Dose From Soil Ingestion (mg/kg/day)
Chromium	1.04E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	7.64E-03
Copper	1.03E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	7.57E-03
Mercury	2.40E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.76E-04
Nickel	9.80E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	7.20E-03
Silver	9.20E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.76E-04
Zinc	2.77E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.04E-02

SEDIMENT INGESTION:

Table H.13. Site 1 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
						Daily Dose From Sediment Ingestion (mg/kg/day)
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.13. Site 1 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm ²)	Sediment Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
									Daily Dose From Sediment - Dermal (mg/kg/day)
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.13. Site 1 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm ²)	Surface Soil Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Chromium	1.04E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.98E-04
Copper	1.03E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.92E-04
Mercury	2.40E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.38E-05
Nickel	9.80E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.64E-04
Silver	9.20E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.29E-05
Zinc	2.77E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.59E-03

SURFACE WATER DERMAL EXPOSURE:

Table H.13. Site 1 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Chromium	7.68E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	6.52E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	1.93E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	1.79E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	3.77E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	5.94E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table H.13. Site 1 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Chromium	2.82E-03	0.00E+00	1.32E-03	7.64E-03	0.00E+00	0.00E+00	5.98E-04	0.00E+00	1.24E-02	4.13E-01
Copper	2.40E-02	0.00E+00	7.19E-02	7.57E-03	0.00E+00	0.00E+00	5.92E-04	0.00E+00	1.04E-01	6.01E-03
Mercury	7.10E-04	0.00E+00	2.18E-03	1.76E-04	0.00E+00	0.00E+00	1.38E-05	0.00E+00	3.08E-03	3.08E-02
Nickel	6.56E-03	0.00E+00	1.43E-02	7.20E-03	0.00E+00	0.00E+00	5.64E-04	0.00E+00	2.86E-02	1.06E-02
Silver	1.38E-03	0.00E+00	3.90E-03	6.76E-04	0.00E+00	0.00E+00	5.29E-05	0.00E+00	6.01E-03	6.75E-03
Zinc	2.18E-01	0.00E+00	7.05E-01	2.04E-02	0.00E+00	0.00E+00	1.59E-03	0.00E+00	9.46E-01	5.40E-01
TOTAL										1.01E+00

**Table H.14. Site 2 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA									
Compound	Avg. Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose-Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Antimony	4.04E+00	0.00E+00	0.00E+00	3.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	7.18E-02
Arsenic	2.41E+00	0.00E+00	0.00E+00	7.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.44E-02
Cadmium	2.92E+00	0.00E+00	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.48E-01
Chromium	2.63E+01	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.20E-03
Copper	1.78E+02	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.85E-01
Lead	3.55E+01	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.78E-02
Mercury	1.22E+00	0.00E+00	0.00E+00	1.90E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.71E-01
Nickel	1.03E+01	0.00E+00	0.00E+00	8.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.94E-02
Selenium	1.53E+00	0.00E+00	0.00E+00	6.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.48E-02
Silver	1.01E+01	0.00E+00	0.00E+00	1.78E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.73E-01
Thallium	2.70E-01	0.00E+00	0.00E+00	1.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.29E-03
Zinc	2.59E+02	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.04E+00

EXPOSURE PARAMETERS:

Table H.14. Site 2 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day)	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:
 Table H.14. Site 2 Risk Characterization for the Deer Mouse
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Antimony	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Antimony	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table H.14. Site 2 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Soil Conc (mg/kg)	Plant/root Uptake Factors (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
						Body Weight (kg)	Plant Consumption (mg/kg/day)
Antimony	4.04E+00	7.18E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	5.80E-02
Arsenic	2.41E+00	1.44E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	6.94E-03
Cadmium	2.92E+00	2.48E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.45E-01
Chromium	2.63E+01	5.20E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.74E-02
Copper	1.78E+02	2.85E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.01E+01
Lead	3.55E+01	1.78E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.26E-01
Mercury	1.22E+00	3.71E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	9.05E-02
Nickel	1.03E+01	5.94E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.22E-01
Selenium	1.53E+00	2.48E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	7.59E-03
Silver	1.01E+01	1.73E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.49E-01
Thallium	2.70E-01	1.29E-03	5.00E-03	1.00E+00	1.00E+00	2.50E-02	6.97E-05
Zinc	2.59E+02	1.04E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	5.39E+01

SOIL INGESTION:

Table H.14. Site 2 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From
						Soil Ingestion (mg/kg/day)
Antimony	4.04E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.42E-02
Arsenic	2.41E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.45E-02
Cadmium	2.92E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.75E-02
Chromium	2.63E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.58E-01
Copper	1.78E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.07E+00
Lead	3.55E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.13E-01
Mercury	1.22E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.32E-03
Nickel	1.03E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.18E-02
Selenium	1.53E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.18E-03
Silver	1.01E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.06E-02
Thallium	2.70E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.62E-03
Zinc	2.59E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.55E+00

SEDIMENT INGESTION:

Table H.14. Site 2 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.14. Site 2 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Antimony	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.14. Site 2 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Antimony	4.04E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.38E-03
Arsenic	2.41E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.24E-04
Cadmium	2.92E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	9.99E-04
Chromium	2.63E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.99E-03
Copper	1.78E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.09E-02
Lead	3.55E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.21E-02
Mercury	1.22E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.17E-04
Nickel	1.03E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.52E-03
Selenium	1.53E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.23E-04
Silver	1.01E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.45E-03
Thallium	2.70E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	9.23E-05
Zinc	2.59E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.86E-02

SURFACE WATER DERMAL EXPOSURE:

Table H.14. Site 2 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm2)	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Antimony	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table H.14. Site 2 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Antimony	0.00E+00	0.00E+00	5.80E-02	2.42E-02	0.00E+00	0.00E+00	1.38E-03	0.00E+00	8.36E-02	2.39E-01
Arsenic	0.00E+00	0.00E+00	6.94E-03	1.45E-02	0.00E+00	0.00E+00	8.24E-04	0.00E+00	2.22E-02	3.18E-02
Cadmium	0.00E+00	0.00E+00	1.45E-01	1.75E-02	0.00E+00	0.00E+00	9.99E-04	0.00E+00	1.63E-01	9.61E-01
Chromium	0.00E+00	0.00E+00	2.74E-02	1.58E-01	0.00E+00	0.00E+00	8.99E-03	0.00E+00	1.94E-01	8.09E-01
Copper	0.00E+00	0.00E+00	1.01E+01	1.07E+00	0.00E+00	0.00E+00	6.09E-02	0.00E+00	1.13E+01	3.25E-02
Lead	0.00E+00	0.00E+00	1.26E-01	2.13E-01	0.00E+00	0.00E+00	1.21E-02	0.00E+00	3.52E-01	3.91E+00
Mercury	0.00E+00	0.00E+00	9.05E-02	7.32E-03	0.00E+00	0.00E+00	4.17E-04	0.00E+00	9.83E-02	5.17E-02
Nickel	0.00E+00	0.00E+00	1.22E-01	6.18E-02	0.00E+00	0.00E+00	3.52E-03	0.00E+00	1.88E-01	2.21E-01
Selenium	0.00E+00	0.00E+00	7.59E-03	9.18E-03	0.00E+00	0.00E+00	5.23E-04	0.00E+00	1.73E-02	2.88E-01
Silver	0.00E+00	0.00E+00	3.49E-01	6.06E-02	0.00E+00	0.00E+00	3.45E-03	0.00E+00	4.14E-01	2.32E-01
Thallium	0.00E+00	0.00E+00	6.97E-05	1.62E-03	0.00E+00	0.00E+00	9.23E-05	0.00E+00	1.78E-03	1.78E-01
Zinc	0.00E+00	0.00E+00	5.39E+01	1.55E+00	0.00E+00	0.00E+00	8.86E-02	0.00E+00	5.55E+01	3.97E+00
TOTAL										1.09E+01

**Table H.15. Site 2 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Avg. Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose-Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Antimony	4.04E+00	8.36E-02	0.00E+00	2.99E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-03	7.18E-02
Arsenic	2.41E+00	0.00E+00	0.00E+00	3.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	1.44E-02
Barium	0.00E+00	3.22E+00	0.00E+00	4.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.48E-01
Cadmium	2.92E+00	9.00E-02	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	1.00E-03	5.20E-03
Chromium	2.63E+01	1.90E-01	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	2.85E-01
Copper	1.78E+02	4.15E+00	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	1.78E-02
Lead	3.55E+01	7.20E-01	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	4.00E-06	3.71E-01
Mercury	1.22E+00	9.83E-02	0.00E+00	1.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	5.94E-02
Nickel	1.03E+01	3.50E-01	0.00E+00	2.69E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-04	2.48E-02
Selenium	1.53E+00	1.73E-02	0.00E+00	3.10E-03	1.00E+00	1.00E+00	1.00E+00	1.00E-03	1.73E-01
Silver	1.01E+01	0.00E+00	0.00E+00	8.90E-01	1.00E+00	1.00E+00	1.00E+00	6.00E-04	1.29E-03
Thallium	2.70E-01	0.00E+00	0.00E+00	3.00E-03	1.00E+00	1.00E+00	1.00E+00	1.00E-03	1.04E+00
Zinc	2.59E+02	3.97E+01	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	6.00E-04	0.00E+00

EXPOSURE PARAMETERS:

Table H.15. Site 2 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Note: no plant data yet

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table H.15. Site 2 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Aquatic BCF (L/kg)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Organism Consumption (mg/kg/day)
Antimony	8.36E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.07E-03
Arsenic	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	3.22E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.18E-01
Cadmium	9.00E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.31E-03
Chromium	1.90E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	6.98E-03
Copper	4.15E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.52E-01
Lead	7.20E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.64E-02
Mercury	9.83E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.61E-03
Nickel	3.50E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.29E-02
Selenium	1.73E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	6.35E-04
Silver	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	3.97E+01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.46E+00

WATER CONSUMPTION

Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Site-Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Antimony	8.36E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	3.22E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	9.00E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	1.90E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	4.15E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	7.20E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	9.83E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	3.50E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	1.73E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	3.97E+01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table H.15. Site 2 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Soil Concentration (mg/kg)	Plant/root Uptake Factors (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Antimony	4.04E+00	7.18E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	7.10E-03
Arsenic	2.41E+00	1.44E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	8.50E-04
Barium	0.00E+00	2.48E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	2.92E+00	5.20E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.72E-04
Chromium	2.63E+01	2.85E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.84E-01
Copper	1.78E+02	1.78E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	7.76E-02
Lead	3.55E+01	3.71E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.23E-01
Mercury	1.22E+00	5.94E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.77E-03
Nickel	1.03E+01	2.48E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	6.26E-03
Selenium	1.53E+00	1.73E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	6.48E-03
Silver	1.01E+01	1.29E-03	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.19E-04
Thallium	2.70E-01	1.04E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	6.88E-03
Zinc	2.59E+02	0.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL INGESTION:

Table H.15. Site 2 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
Antimony	4.04E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.97E-03
Arsenic	2.41E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.77E-03
Barium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	2.92E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.15E-03
Chromium	2.63E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.93E-02
Copper	1.78E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.31E-01
Lead	3.55E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.61E-02
Mercury	1.22E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.96E-04
Nickel	1.03E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	7.57E-03
Selenium	1.53E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.12E-03
Silver	1.01E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	7.42E-03
Thallium	2.70E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.98E-04
Zinc	2.59E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.90E-01

SEDIMENT INGESTION:

Table H.15. Site 2 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.15. Site 2 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Antimony	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.15. Site 2 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Antimony	4.04E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.32E-04
Arsenic	2.41E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.39E-04
Barium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	2.92E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.68E-04
Chromium	2.63E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.51E-03
Copper	1.78E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.02E-02
Lead	3.55E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.04E-03
Mercury	1.22E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.02E-05
Nickel	1.03E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.92E-04
Selenium	1.53E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	8.80E-05
Silver	1.01E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.81E-04
Thallium	2.70E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.55E-05
Zinc	2.59E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.49E-02

SURFACE WATER DERMAL EXPOSURE:

Table H.15. Site 2 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm2)	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Antimony	8.36E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	3.22E+00	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	9.00E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	1.90E-01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	4.15E+00	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	7.20E-01	3.02E+02	4.00E-06	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	9.83E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	3.50E-01	3.02E+02	1.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	1.73E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	3.02E+02	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	3.97E+01	3.02E+02	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table H.15. Site 2 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Antimony	3.07E-03	0.00E+00	7.10E-03	2.97E-03	0.00E+00	0.00E+00	2.32E-04	0.00E+00	1.34E-02	4.47E-03
Arsenic	0.00E+00	0.00E+00	8.50E-04	1.77E-03	0.00E+00	0.00E+00	1.39E-04	0.00E+00	2.76E-03	7.46E-03
Barium	1.18E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.18E-01	2.96E+00
Cadmium	3.31E-03	0.00E+00	3.72E-04	2.15E-03	0.00E+00	0.00E+00	1.68E-04	0.00E+00	5.99E-03	7.05E-01
Chromium	6.98E-03	0.00E+00	1.84E-01	1.93E-02	0.00E+00	0.00E+00	1.51E-03	0.00E+00	2.11E-01	7.05E+00
Copper	1.52E-01	0.00E+00	7.76E-02	1.31E-01	0.00E+00	0.00E+00	1.02E-02	0.00E+00	3.71E-01	2.14E-02
Lead	2.64E-02	0.00E+00	3.23E-01	2.61E-02	0.00E+00	0.00E+00	2.04E-03	0.00E+00	3.77E-01	2.90E+00
Mercury	3.61E-03	0.00E+00	1.77E-03	8.96E-04	0.00E+00	0.00E+00	7.02E-05	0.00E+00	6.35E-03	6.35E-02
Nickel	1.29E-02	0.00E+00	6.26E-03	7.57E-03	0.00E+00	0.00E+00	5.92E-04	0.00E+00	2.73E-02	1.01E-02
Selenium	6.35E-04	0.00E+00	6.48E-03	1.12E-03	0.00E+00	0.00E+00	8.80E-05	0.00E+00	8.33E-03	2.69E+00
Silver	0.00E+00	0.00E+00	3.19E-04	7.42E-03	0.00E+00	0.00E+00	5.81E-04	0.00E+00	8.32E-03	9.35E-03
Thallium	0.00E+00	0.00E+00	6.88E-03	1.98E-04	0.00E+00	0.00E+00	1.55E-05	0.00E+00	7.09E-03	2.36E+00
Zinc	1.46E+00	0.00E+00	0.00E+00	1.90E-01	0.00E+00	0.00E+00	1.49E-02	0.00E+00	1.66E+00	9.51E-01
TOTAL										1.97E+01

**Table H.16. Site 3 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose-Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Avg. Plant conc. (mg/kg)
Antimony	2.87E+02	0.00E+00	0.00E+00	3.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.00E-01
Arsenic	2.33E+00	0.00E+00	0.00E+00	7.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chromium	1.78E+01	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	4.60E-01
Copper	8.08E+02	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	8.94E+00
Lead	6.72E+03	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	9.74E+00
Nickel	9.75E+00	0.00E+00	0.00E+00	8.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Silver	2.80E-01	0.00E+00	0.00E+00	1.78E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Tin	5.75E+00	0.00E+00	0.00E+00	7.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Zinc	1.11E+02	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	4.41E+01

EXPOSURE PARAMETERS:

Table H.16. Site 3 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:
 Table H.16. Site 3 Risk Characterization for the Deer Mouse
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic Consumption BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Antimony	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Tin	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Antimony	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Tin	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table H.16. Site 3 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Antimony	3.00E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	6.00E-02
Arsenic	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	4.60E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	9.20E-02
Copper	8.94E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.79E+00
Lead	9.74E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.95E+00
Nickel	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Tin	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	4.41E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	8.82E+00

SOIL INGESTION:

Table H.16. Site 3 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
Antimony	2.87E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.72E+00
Arsenic	2.33E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.40E-02
Chromium	1.78E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.07E-01
Copper	8.08E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.85E+00
Lead	6.72E+03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.03E+01
Nickel	9.75E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.85E-02
Silver	2.80E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.68E-03
Tin	5.75E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.45E-02
Zinc	1.11E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.66E-01

SEDIMENT INGESTION:

Table H.16. Site 3 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Tin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.16. Site 3 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Antimony	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Tin	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.16. Site 3 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Antimony	2.87E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	9.82E-02
Arsenic	2.33E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.97E-04
Chromium	1.78E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.09E-03
Copper	8.08E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.76E-01
Lead	6.72E+03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.30E+00
Nickel	9.75E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.33E-03
Silver	2.80E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	9.58E-05
Tin	5.75E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.97E-03
Zinc	1.11E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.80E-02

SURFACE WATER DERMAL EXPOSURE:

Table H.16. Site 3 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm2)	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Antimony	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Tin	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table H.16. Site 3 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Antimony	0.00E+00	0.00E+00	6.00E-02	1.72E+00	0.00E+00	0.00E+00	9.82E-02	0.00E+00	1.88E+00	5.37E+00
Arsenic	0.00E+00	0.00E+00	0.00E+00	1.40E-02	0.00E+00	0.00E+00	7.97E-04	0.00E+00	1.48E-02	2.11E-02
Chromium	0.00E+00	0.00E+00	9.20E-02	1.07E-01	0.00E+00	0.00E+00	6.09E-03	0.00E+00	2.05E-01	8.54E-01
Copper	0.00E+00	0.00E+00	1.79E+00	4.85E+00	0.00E+00	0.00E+00	2.76E-01	0.00E+00	6.91E+00	1.99E-02
Lead	0.00E+00	0.00E+00	1.95E+00	4.03E+01	0.00E+00	0.00E+00	2.30E+00	0.00E+00	4.46E+01	4.95E+02
Nickel	0.00E+00	0.00E+00	0.00E+00	5.85E-02	0.00E+00	0.00E+00	3.33E-03	0.00E+00	6.18E-02	7.27E-02
Silver	0.00E+00	0.00E+00	0.00E+00	1.68E-03	0.00E+00	0.00E+00	9.58E-05	0.00E+00	1.78E-03	9.98E-04
Tin	0.00E+00	0.00E+00	0.00E+00	3.45E-02	0.00E+00	0.00E+00	1.97E-03	0.00E+00	3.65E-02	5.21E-02
Zinc	0.00E+00	0.00E+00	8.82E+00	6.66E-01	0.00E+00	0.00E+00	3.80E-02	0.00E+00	9.52E+00	6.80E-01
TOTAL										5.02E+02

**Table H.17. Site 3 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Avg. Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose-Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Avg. Plant Conc. (mg/kg)
Antimony	2.87E+02	1.88E+00	0.00E+00	2.99E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.00E-01
Arsenic	2.33E+00	0.00E+00	0.00E+00	3.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Barium	0.00E+00	1.93E+00	0.00E+00	4.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Cadmium	0.00E+00	1.30E-01	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chromium	1.78E+01	3.00E-01	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	4.60E-01
Copper	8.08E+02	4.71E+00	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	8.94E+00
Lead	6.72E+03	6.89E+00	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	9.74E+00
Nickel	9.75E+00	2.52E+00	0.00E+00	2.69E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Silver	2.80E-01	0.00E+00	0.00E+00	8.90E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Tin	5.75E+00	3.65E-02	0.00E+00	4.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Zinc	1.11E+02	3.47E+01	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	4.41E+01

EXPOSURE PARAMETERS:

Table H.17. Site 3 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day)	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm2)	3.02E+02
Skin exposed - Soil/Sediment (cm2/day)	3.02E+02
Soil on Skin (kg/cm2)	1.00E-06

Note: See text for source of parameters

PLANT CONSUMPTION:

Table H.17. Site 3 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From Plant	
						Body Weight (kg)	Consumption (mg/kg/day)
Antimony	3.00E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	7.35E-03
Arsenic	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	4.60E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.13E-02
Copper	8.94E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.19E-01
Lead	9.74E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.39E-01
Nickel	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Tin	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	4.41E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.08E+00

SOIL INGESTION:

Table H.17. Site 3 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion
						(mg/kg/day)
Antimony	2.87E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.11E-01
Arsenic	2.33E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.71E-03
Barium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	1.78E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.31E-02
Copper	8.08E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.94E-01
Lead	6.72E+03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.94E+00
Nickel	9.75E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	7.16E-03
Silver	2.80E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.06E-04
Tin	5.75E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.22E-03
Zinc	1.11E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.15E-02

SEDIMENT INGESTION:

Table H.17. Site 3 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Tin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.17. Site 3 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm ²)	Sediment Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Antimony	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Tin	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.17. Site 3 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm ²)	Surface Soil Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Antimony	2.87E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.65E-02
Arsenic	2.33E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.34E-04
Barium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	1.78E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.02E-03
Copper	8.08E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.65E-02
Lead	6.72E+03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.86E-01
Nickel	9.75E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.61E-04
Silver	2.80E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.61E-05
Tin	5.75E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.31E-04
Zinc	1.11E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.38E-03

SURFACE WATER DERMAL EXPOSURE:

Table H.17. Site 3 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Antimony	1.88E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	1.93E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.30E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	3.00E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	4.71E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	6.89E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	2.52E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Tin	3.65E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	3.47E+01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table H.17. Site 3 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Antimony	6.91E-02	0.00E+00	7.35E-03	2.11E-01	0.00E+00	0.00E+00	1.65E-02	0.00E+00	3.04E-01	1.02E-01
Arsenic	0.00E+00	0.00E+00	0.00E+00	1.71E-03	0.00E+00	0.00E+00	1.34E-04	0.00E+00	1.85E-03	4.99E-03
Barium	7.09E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.09E-02	1.77E+00
Cadmium	4.78E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.78E-03	5.62E-01
Chromium	1.10E-02	0.00E+00	1.13E-02	1.31E-02	0.00E+00	0.00E+00	1.02E-03	0.00E+00	3.64E-02	1.21E+00
Copper	1.73E-01	0.00E+00	2.19E-01	5.94E-01	0.00E+00	0.00E+00	4.65E-02	0.00E+00	1.03E+00	5.95E-02
Lead	2.53E-01	0.00E+00	2.39E-01	4.94E+00	0.00E+00	0.00E+00	3.86E-01	0.00E+00	5.82E+00	4.47E+01
Nickel	9.26E-02	0.00E+00	0.00E+00	7.16E-03	0.00E+00	0.00E+00	5.61E-04	0.00E+00	1.00E-01	3.73E-02
Silver	0.00E+00	0.00E+00	0.00E+00	2.06E-04	0.00E+00	0.00E+00	1.61E-05	0.00E+00	2.22E-04	2.49E-04
Tin	1.34E-03	0.00E+00	0.00E+00	4.22E-03	0.00E+00	0.00E+00	3.31E-04	0.00E+00	5.89E-03	1.47E-01
Zinc	1.27E+00	0.00E+00	1.08E+00	8.15E-02	0.00E+00	0.00E+00	6.38E-03	0.00E+00	2.44E+00	1.40E+00
TOTAL										5.00E+01

**Table H.18. Site 11 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose-Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Avg. Plant Conc. (mg/kg)
Arsenic	0.00E+00	0.00E+00	0.00E+00	7.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	8.00E-02
Chromium	1.23E+01	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.25E+00
Copper	7.83E+00	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.65E+01
Lead	6.45E+01	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.60E-01
Nickel	8.35E+00	0.00E+00	0.00E+00	8.40E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.60E+00
Zinc	8.42E+01	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.66E+01

EXPOSURE PARAMETERS:

Table H.18. Site 11 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day)	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:
 Table H.18. Site 11 Risk Characterization for the Deer Mouse
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Arsenic	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Arsenic	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table H.18. Site 11 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Arsenic	8.00E-02	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.60E-02
Chromium	3.25E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	6.50E-01
Copper	1.65E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.30E+00
Lead	2.60E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	5.20E-02
Nickel	3.60E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	7.20E-01
Zinc	3.66E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	7.32E+00

SOIL INGESTION:

Table H.18. Site 11 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
Arsenic	0.00E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	1.23E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.38E-02
Copper	7.83E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.70E-02
Lead	6.45E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.87E-01
Nickel	8.35E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.01E-02
Zinc	8.42E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.05E-01

SEDIMENT INGESTION:

Table H.18. Site 11 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.18. Site 11 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermat AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Arsenic	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.18. Site 11 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Arsenic	0.00E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	1.23E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.21E-03
Copper	7.83E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.68E-03
Lead	6.45E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.21E-02
Nickel	8.35E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.86E-03
Zinc	8.42E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.88E-02

SURFACE WATER DERMAL EXPOSURE:

Table H.18. Site 11 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm2)	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Arsenic	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table H.18. Site 11 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Arsenic	0.00E+00	0.00E+00	1.60E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.60E-02	2.29E-02
Chromium	0.00E+00	0.00E+00	6.50E-01	7.38E-02	0.00E+00	0.00E+00	4.21E-03	0.00E+00	7.28E-01	3.03E+00
Copper	0.00E+00	0.00E+00	3.30E+00	4.70E-02	0.00E+00	0.00E+00	2.68E-03	0.00E+00	3.35E+00	9.65E-03
Lead	0.00E+00	0.00E+00	5.20E-02	3.87E-01	0.00E+00	0.00E+00	2.21E-02	0.00E+00	4.61E-01	5.12E+00
Nickel	0.00E+00	0.00E+00	7.20E-01	5.01E-02	0.00E+00	0.00E+00	2.86E-03	0.00E+00	7.73E-01	9.20E-01
Zinc	0.00E+00	0.00E+00	7.32E+00	5.05E-01	0.00E+00	0.00E+00	2.88E-02	0.00E+00	7.85E+00	5.61E-01
TOTAL										9.67E+00

**Table H.19. Site 11 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Avg. Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose-Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Avg. plant Conc. (mg/kg)
Arsenic	0.00E+00	0.00E+00	0.00E+00	3.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	8.00E-02
Barium	0.00E+00	3.83E+00	0.00E+00	4.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Cadmium	0.00E+00	2.00E-02	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chromium	1.23E+01	7.00E-02	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.25E+00
Copper	7.83E+00	2.99E+00	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.65E+01
Lead	6.45E+01	5.10E-01	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.60E-01
Nickel	8.35E+00	5.10E-01	0.00E+00	2.69E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.60E+00
Thallium	0.00E+00	1.10E-01	0.00E+00	3.00E-03	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Vanadium	0.00E+00	5.40E-01	0.00E+00	2.10E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Zinc	8.42E+01	3.85E+01	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.66E+01

EXPOSURE PARAMETERS:

Table H.19. Site 11 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day)	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table H.19. Site 11 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Aquatic BCF (L/kg)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Organism Consumption (mg/kg/day)
Arsenic	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	3.83E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.41E-01
Cadmium	2.00E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	7.35E-04
Chromium	7.00E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.57E-03
Copper	2.99E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.10E-01
Lead	5.10E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.87E-02
Nickel	5.10E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.87E-02
Thallium	1.10E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	4.04E-03
Vanadium	5.40E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.98E-02
Zinc	3.85E+01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.41E+00

WATER CONSUMPTION

Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Site-Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	3.83E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	2.00E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	7.00E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	2.99E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	5.10E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	5.10E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	1.10E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	5.40E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	3.85E+01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table H.19. Site 11 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Arsenic	8.00E-02	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.96E-03
Barium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	3.25E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	7.96E-02
Copper	1.65E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.04E-01
Lead	2.60E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	6.37E-03
Nickel	3.60E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	8.82E-02
Thallium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	3.66E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	8.96E-01

SOIL INGESTION:

Table H.19. Site 11 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
Arsenic	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	1.23E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.04E-03
Copper	7.83E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.75E-03
Lead	6.45E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.74E-02
Nickel	8.35E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.13E-03
Thallium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	8.42E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.19E-02

SEDIMENT INGESTION:

Table H.19. Site 11 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.19. Site 11 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Arsenic	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.19. Site 11 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Arsenic	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	1.23E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.07E-04
Copper	7.83E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.50E-04
Lead	6.45E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.71E-03
Nickel	8.35E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.80E-04
Thallium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	8.42E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.84E-03

SURFACE WATER DERMAL EXPOSURE:

Table H.19. Site 11 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm2)	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Arsenic	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	3.83E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	2.00E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	7.00E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	2.99E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	5.10E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	5.10E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	1.10E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	5.40E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	3.85E+01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table H.19. Site 11 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Arsenic	0.00E+00	0.00E+00	1.96E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-03	5.30E-03
Barium	1.41E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.41E-01	3.52E+00
Cadmium	7.35E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.35E-04	8.64E-02
Chromium	2.57E-03	0.00E+00	7.96E-02	9.04E-03	0.00E+00	0.00E+00	7.07E-04	0.00E+00	9.19E-02	3.06E+00
Copper	1.10E-01	0.00E+00	4.04E-01	5.75E-03	0.00E+00	0.00E+00	4.50E-04	0.00E+00	5.20E-01	3.01E-02
Lead	1.87E-02	0.00E+00	6.37E-03	4.74E-02	0.00E+00	0.00E+00	3.71E-03	0.00E+00	7.62E-02	5.86E-01
Nickel	1.87E-02	0.00E+00	8.82E-02	6.13E-03	0.00E+00	0.00E+00	4.80E-04	0.00E+00	1.14E-01	4.22E-02
Thallium	4.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.04E-03	1.35E+00
Vanadium	1.98E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.98E-02	9.45E-02
Zinc	1.41E+00	0.00E+00	8.96E-01	6.19E-02	0.00E+00	0.00E+00	4.84E-03	0.00E+00	2.38E+00	1.36E+00
TOTAL										1.01E+01

**Table H.20. Site 12 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose-Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Avg. Plant Conc. (mg/kg)
Tetrachloroethene	9.30E-03	0.00E+00	0.00E+00	2.80E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Toluene	2.10E-03	0.00E+00	0.00E+00	2.50E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Trichloroethene	2.40E-03	0.00E+00	0.00E+00	1.28E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Bis(2-ethylhexyl)phth	1.57E-01	0.00E+00	0.00E+00	2.60E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Di-n-butylphthalate	1.10E-01	0.00E+00	0.00E+00	1.25E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Diethylphthalate	4.10E-02	0.00E+00	0.00E+00	7.70E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Antimony	1.25E+00	0.00E+00	0.00E+00	3.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Arsenic	1.97E+00	0.00E+00	0.00E+00	7.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Beryllium	1.40E-01	0.00E+00	0.00E+00	9.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Cadmium	2.71E+00	0.00E+00	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chromium	3.25E+01	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	6.30E-01
Copper	2.74E+01	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.26E+01
Lead	1.99E+02	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	6.10E-01
Mercury	6.00E-02	0.00E+00	0.00E+00	1.90E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Nickel	1.08E+01	0.00E+00	0.00E+00	8.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.98E+00
Selenium	4.10E-01	0.00E+00	0.00E+00	6.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Zinc	1.25E+02	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	4.48E+01

EXPOSURE PARAMETERS:

Table H.20. Site 12 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:
 Table H.20. Site 12 Risk Characterization for the Deer Mouse
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Tetrachloroethene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Toluene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Trichloroethene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Di-n-butylphthalate	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Diethylphthalate	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Tetrachloroethene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Toluene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Trichloroethene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Di-n-butylphthalate	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Diethylphthalate	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

Volume IV

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Harding Lawson Associates

Site 12
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PLANT CONSUMPTION:

Table H.20. Site 12 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Tetrachloroethene	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Toluene	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Trichloroethene	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Di-n-butylphthalate	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Diethylphthalate	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	6.30E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.26E-01
Copper	1.26E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.53E+00
Lead	6.10E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.22E-01
Mercury	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	1.98E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.96E-01
Selenium	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	4.48E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	8.97E+00

SOIL INGESTION:

Table H.20. Site 12 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
Tetrachloroethene	9.30E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.58E-05
Toluene	2.10E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.26E-05
Trichloroethene	2.40E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.44E-05
Bis(2-ethylhexyl)phth	1.57E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.42E-04
Di-n-butylphthalate	1.10E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.60E-04
Diethylphthalate	4.10E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.46E-04
Antimony	1.25E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.50E-03
Arsenic	1.97E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.18E-02
Beryllium	1.40E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	8.40E-04
Cadmium	2.71E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.63E-02
Chromium	3.25E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.95E-01
Copper	2.74E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.64E-01
Lead	1.99E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.19E+00
Mercury	6.00E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.60E-04
Nickel	1.08E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.48E-02
Selenium	4.10E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.46E-03
Zinc	1.25E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.50E-01

SEDIMENT INGESTION:

Table H.20. Site 12 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Tetrachloroethene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Toluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Trichloroethene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Di-n-butylphthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Diethylphthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.20. Site 12 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Tetrachloroethene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Toluene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Trichloroethene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Di-n-butylphthalate	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Diethylphthalate	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.20. Site 12 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Tetrachloroethene	9.30E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.18E-06
Toluene	2.10E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.18E-07
Trichloroethene	2.40E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.21E-07
Bis(2-ethylhexyl)phth	1.57E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.37E-05
Di-n-butylphthalate	1.10E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.76E-05
Diethylphthalate	4.10E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.40E-05
Antimony	1.25E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.28E-04
Arsenic	1.97E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.74E-04
Beryllium	1.40E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.79E-05
Cadmium	2.71E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	9.27E-04
Chromium	3.25E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.11E-02
Copper	2.74E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	9.37E-03
Lead	1.99E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.81E-02
Mercury	6.00E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.05E-05
Nickel	1.08E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.69E-03
Selenium	4.10E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.40E-04
Zinc	1.25E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.28E-02

SURFACE WATER DERMAL EXPOSURE:

Table H.20. Site 12 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm2)	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Tetrachloroethene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Toluene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Trichloroethene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Di-n-butylphthalate	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Diethylphthalate	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table H.20. Site 12 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Tetrachloroethene	0.00E+00	0.00E+00	0.00E+00	5.58E-05	0.00E+00	0.00E+00	3.18E-06	0.00E+00	5.90E-05	2.11E-05
Toluene	0.00E+00	0.00E+00	0.00E+00	1.26E-05	0.00E+00	0.00E+00	7.18E-07	0.00E+00	1.33E-05	5.33E-08
Trichloroethene	0.00E+00	0.00E+00	0.00E+00	1.44E-05	0.00E+00	0.00E+00	8.21E-07	0.00E+00	1.52E-05	1.19E-07
Bis(2-ethylhexyl)phth	0.00E+00	0.00E+00	0.00E+00	9.42E-04	0.00E+00	0.00E+00	5.37E-05	0.00E+00	9.96E-04	3.83E-04
Di-n-butylphthalate	0.00E+00	0.00E+00	0.00E+00	6.60E-04	0.00E+00	0.00E+00	3.76E-05	0.00E+00	6.98E-04	5.58E-05
Diethylphthalate	0.00E+00	0.00E+00	0.00E+00	2.46E-04	0.00E+00	0.00E+00	1.40E-05	0.00E+00	2.60E-04	3.38E-06
Antimony	0.00E+00	0.00E+00	0.00E+00	7.50E-03	0.00E+00	0.00E+00	4.28E-04	0.00E+00	7.93E-03	2.27E-02
Arsenic	0.00E+00	0.00E+00	0.00E+00	1.18E-02	0.00E+00	0.00E+00	6.74E-04	0.00E+00	1.25E-02	1.78E-02
Beryllium	0.00E+00	0.00E+00	0.00E+00	8.40E-04	0.00E+00	0.00E+00	4.79E-05	0.00E+00	8.88E-04	9.35E-04
Cadmium	0.00E+00	0.00E+00	0.00E+00	1.63E-02	0.00E+00	0.00E+00	9.27E-04	0.00E+00	1.72E-02	1.01E-01
Chromium	0.00E+00	0.00E+00	1.26E-01	1.95E-01	0.00E+00	0.00E+00	1.11E-02	0.00E+00	3.32E-01	1.38E+00
Copper	0.00E+00	0.00E+00	2.53E+00	1.64E-01	0.00E+00	0.00E+00	9.37E-03	0.00E+00	2.70E+00	7.78E-03
Lead	0.00E+00	0.00E+00	1.22E-01	1.19E+00	0.00E+00	0.00E+00	6.81E-02	0.00E+00	1.38E+00	1.54E+01
Mercury	0.00E+00	0.00E+00	0.00E+00	3.60E-04	0.00E+00	0.00E+00	2.05E-05	0.00E+00	3.81E-04	2.00E-04
Nickel	0.00E+00	0.00E+00	3.96E-01	6.48E-02	0.00E+00	0.00E+00	3.69E-03	0.00E+00	4.64E-01	5.46E-01
Selenium	0.00E+00	0.00E+00	0.00E+00	2.46E-03	0.00E+00	0.00E+00	1.40E-04	0.00E+00	2.60E-03	4.33E-02
Zinc	0.00E+00	0.00E+00	8.97E+00	7.50E-01	0.00E+00	0.00E+00	4.28E-02	0.00E+00	9.76E+00	6.97E-01
TOTAL										1.82E+01

**Table H.21. Site 12 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Avg. Modeled (no mice collected) Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose-Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Avg. plant Conc. (mg/kg)
Tetrachloroethene	9.30E-03	5.90E-05	0.00E+00	1.40E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Toluene	2.10E-03	1.33E-05	0.00E+00	1.25E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Trichloroethene	2.40E-03	1.52E-05	0.00E+00	6.40E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Bis(2-ethylhexyl)phth	1.57E-01	9.96E-04	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Di-n-butylphthalate	1.10E-01	6.98E-04	0.00E+00	6.25E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Diethylphthalate	4.10E-02	2.60E-04	0.00E+00	3.85E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Antimony	1.25E+00	7.93E-03	0.00E+00	2.99E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Arsenic	1.97E+00	1.25E-02	0.00E+00	3.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Beryllium	1.40E-01	8.88E-04	0.00E+00	5.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Cadmium	2.71E+00	1.72E-02	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chromium	3.25E+01	3.32E-01	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	6.30E-01
Copper	2.74E+01	2.70E+00	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	1.26E+01
Lead	1.99E+02	1.38E+00	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	6.10E-01
Mercury	6.00E-02	3.81E-04	0.00E+00	1.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Nickel	1.08E+01	4.64E-01	0.00E+00	2.69E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.98E+00
Selenium	4.10E-01	2.60E-03	0.00E+00	3.10E-03	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Zinc	1.25E+02	9.76E+00	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	4.48E+01

EXPOSURE PARAMETERS:

Table H.21. Site 12 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day	0.00E+00
Soil Ingestion Rate (kg/day)	3.85E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm2)	3.02E+02
Skin exposed - Soil/Sediment (cm2/day)	3.02E+02
Soil on Skin (kg/cm2)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table H.21. Site 12 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Aquatic BCF (L/kg)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Organism Consumption (mg/kg/day)
Tetrachloroethene	5.90E-05	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.17E-06
Toluene	1.33E-05	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	4.89E-07
Trichloroethene	1.52E-05	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	5.59E-07
Bis(2-ethylhexyl)phth	9.96E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.66E-05
Di-n-butylphthalate	6.98E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.56E-05
Diethylphthalate	2.60E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	9.55E-06
Antimony	7.93E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.91E-04
Arsenic	1.25E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	4.59E-04
Beryllium	8.88E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.26E-05
Cadmium	1.72E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	6.31E-04
Chromium	3.32E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.22E-02
Copper	2.70E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	9.92E-02
Lead	1.38E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	5.08E-02
Mercury	3.81E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.40E-05
Nickel	4.64E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.71E-02
Selenium	2.60E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	9.55E-05
Zinc	9.76E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.58E-01

WATER CONSUMPTION

Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Site-Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Tetrachloroethene	5.90E-05	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Toluene	1.33E-05	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Trichloroethene	1.52E-05	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phth	9.96E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Di-n-butylphthalate	6.98E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Diethylphthalate	2.60E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	7.93E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	1.25E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	8.88E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.72E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	3.32E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	2.70E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	1.38E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	3.81E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	4.64E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	2.60E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	9.76E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table H.21. Site 12 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Tetrachloroethene	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Toluene	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Trichloroethene	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Di-n-butylphthalate	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Diethylphthalate	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	6.30E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.54E-02
Copper	1.26E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.09E-01
Lead	6.10E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.49E-02
Mercury	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	1.98E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.85E-02
Selenium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	4.48E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.10E+00

SOIL INGESTION:

Table H.21. Site 12 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
Tetrachloroethene	9.30E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.83E-06
Toluene	2.10E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.54E-06
Trichloroethene	2.40E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.76E-06
Bis(2-ethylhexyl)phth	1.57E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.15E-04
Di-n-butylphthalate	1.10E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.08E-05
Diethylphthalate	4.10E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.01E-05
Antimony	1.25E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.18E-04
Arsenic	1.97E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.45E-03
Beryllium	1.40E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.03E-04
Cadmium	2.71E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.99E-03
Chromium	3.25E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.39E-02
Copper	2.74E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.01E-02
Lead	1.99E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.46E-01
Mercury	6.00E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.41E-05
Nickel	1.08E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	7.93E-03
Selenium	4.10E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.01E-04
Zinc	1.25E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.18E-02

SEDIMENT INGESTION:

Table H.21. Site 12 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Tetrachloroethene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Toluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Trichloroethene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Di-n-butylphthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Diethylphthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.21. Site 12 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm ²)	Sediment Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Tetrachloroethene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Toluene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Trichloroethene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Di-n-butylphthalate	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Diethylphthalate	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.21. Site 12 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Tetrachloroethene	9.30E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.35E-07
Toluene	2.10E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.21E-07
Trichloroethene	2.40E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.38E-07
Bis(2-ethylhexyl)phth	1.57E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	9.03E-06
Di-n-butylphthalate	1.10E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.33E-06
Diethylphthalate	4.10E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.36E-06
Antimony	1.25E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.19E-05
Arsenic	1.97E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.13E-04
Beryllium	1.40E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	8.05E-06
Cadmium	2.71E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.56E-04
Chromium	3.25E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.87E-03
Copper	2.74E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.58E-03
Lead	1.99E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.14E-02
Mercury	6.00E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.45E-06
Nickel	1.08E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.21E-04
Selenium	4.10E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.36E-05
Zinc	1.25E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.19E-03

SURFACE WATER DERMAL EXPOSURE:

Table H.21. Site 12 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm2)	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Tetrachloroethene	5.90E-05	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Toluene	1.33E-05	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Trichloroethene	1.52E-05	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phth	9.96E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Di-n-butylphthalate	6.98E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Diethylphthalate	2.60E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	7.93E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	1.25E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	8.88E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.72E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	3.32E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	2.70E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	1.38E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	3.81E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	4.64E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	2.60E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	9.76E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table H.21. Site 12 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Tetrachloroethene	2.17E-06	0.00E+00	0.00E+00	6.83E-06	0.00E+00	0.00E+00	5.35E-07	0.00E+00	9.53E-06	6.81E-05
Toluene	4.89E-07	0.00E+00	0.00E+00	1.54E-06	0.00E+00	0.00E+00	1.21E-07	0.00E+00	2.15E-06	1.72E-07
Trichloroethene	5.59E-07	0.00E+00	0.00E+00	1.76E-06	0.00E+00	0.00E+00	1.38E-07	0.00E+00	2.46E-06	3.84E-07
Bis(2-ethylhexyl)phth	3.66E-05	0.00E+00	0.00E+00	1.15E-04	0.00E+00	0.00E+00	9.03E-06	0.00E+00	1.61E-04	1.24E-03
Di-n-butylphthalate	2.56E-05	0.00E+00	0.00E+00	8.08E-05	0.00E+00	0.00E+00	6.33E-06	0.00E+00	1.13E-04	1.80E-05
Diethylphthalate	9.55E-06	0.00E+00	0.00E+00	3.01E-05	0.00E+00	0.00E+00	2.36E-06	0.00E+00	4.20E-05	1.09E-06
Antimony	2.91E-04	0.00E+00	0.00E+00	9.18E-04	0.00E+00	0.00E+00	7.19E-05	0.00E+00	1.28E-03	4.29E-04
Arsenic	4.59E-04	0.00E+00	0.00E+00	1.45E-03	0.00E+00	0.00E+00	1.13E-04	0.00E+00	2.02E-03	5.46E-03
Beryllium	3.26E-05	0.00E+00	0.00E+00	1.03E-04	0.00E+00	0.00E+00	8.05E-06	0.00E+00	1.44E-04	2.87E-03
Cadmium	6.31E-04	0.00E+00	0.00E+00	1.99E-03	0.00E+00	0.00E+00	1.56E-04	0.00E+00	2.78E-03	3.27E-01
Chromium	1.22E-02	0.00E+00	1.54E-02	2.39E-02	0.00E+00	0.00E+00	1.87E-03	0.00E+00	5.34E-02	1.78E+00
Copper	9.92E-02	0.00E+00	3.09E-01	2.01E-02	0.00E+00	0.00E+00	1.58E-03	0.00E+00	4.30E-01	2.48E+02
Lead	5.08E-02	0.00E+00	1.49E-02	1.46E-01	0.00E+00	0.00E+00	1.14E-02	0.00E+00	2.23E-01	1.72E+00
Mercury	1.40E-05	0.00E+00	0.00E+00	4.41E-05	0.00E+00	0.00E+00	3.45E-06	0.00E+00	6.15E-05	6.15E-04
Nickel	1.71E-02	0.00E+00	4.85E-02	7.93E-03	0.00E+00	0.00E+00	6.21E-04	0.00E+00	7.41E-02	2.75E-02
Selenium	9.55E-05	0.00E+00	0.00E+00	3.01E-04	0.00E+00	0.00E+00	2.36E-05	0.00E+00	4.20E-04	1.36E-01
Zinc	3.58E-01	0.00E+00	1.10E+00	9.18E-02	0.00E+00	0.00E+00	7.19E-03	0.00E+00	1.56E+00	8.89E-01
TOTAL										4.91E+00

**Table H.22. Site 15 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose-Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Avg. Plant Conc. (mg/kg)
1,2-Dichloroethene (t	1.65E-03	0.00E+00	0.00E+00	3.40E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Ethylbenzene	3.02E-03	0.00E+00	0.00E+00	9.71E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Toluene	2.63E-03	0.00E+00	0.00E+00	2.50E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Xylenes	2.30E-03	0.00E+00	0.00E+00	1.79E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chlordane	1.69E+02	0.00E+00	0.00E+00	9.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDE	1.01E-01	0.00E+00	0.00E+00	3.40E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDT	6.06E-02	0.00E+00	0.00E+00	3.11E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Dieldrin	1.49E-01	0.00E+00	0.00E+00	3.00E-03	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Heptachlor	4.22E+00	0.00E+00	0.00E+00	2.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Heptachlor epoxide	3.12E-02	0.00E+00	0.00E+00	2.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Cadmium	2.50E+00	0.00E+00	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chromium	1.36E+01	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.10E+00
Copper	5.50E+00	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.01E+01
Lead	2.71E+01	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	4.60E-01
Mercury	8.00E-02	0.00E+00	0.00E+00	1.90E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	0.00E+00	8.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.93E+00
Zinc	4.22E+01	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	4.11E+01

EXPOSURE PARAMETERS:

Table H.22. Site 15 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day)	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm2)	8.55E+00
Skin exposed - Soil/Sediment (cm2/day)	8.55E+00
Soil on Skin (kg/cm2)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:
 Table H.22. Site 15 Risk Characterization for the Deer Mouse
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
1,2-Dichloroethene (t)	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Ethylbenzene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Toluene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Xylenes	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Heptachlor	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Heptachlor epoxide	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
1,2-Dichloroethene (t)	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Ethylbenzene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Toluene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Xylenes	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Heptachlor	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Heptachlor epoxide	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table H.22. Site 15 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
						Body Weight (kg)	Plant Consumption (mg/kg/day)
1,2-Dichloroethene (t	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Ethylbenzene	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Toluene	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Xylenes	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Heptachlor	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Heptachlor epoxide	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	2.10E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	4.20E-01
Copper	1.01E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.03E+00
Lead	4.60E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	9.20E-02
Mercury	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	1.93E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.86E-01
Zinc	4.11E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	8.21E+00

SOIL INGESTION:

Table H.22. Site 15 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose
						From Soil Ingestion (mg/kg/day)
1,2-Dichloroethene (t	1.65E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.90E-06
Ethylbenzene	3.02E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.81E-05
Toluene	2.63E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.58E-05
Xylenes	2.30E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.38E-05
Chlordane	1.69E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.01E+00
4,4'-DDE	1.01E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.06E-04
4,4'-DDT	6.06E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.64E-04
Dieldrin	1.49E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	8.94E-04
Heptachlor	4.22E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.53E-02
Heptachlor epoxide	3.12E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.87E-04
Cadmium	2.50E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.50E-02
Chromium	1.36E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	8.16E-02
Copper	5.50E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.30E-02
Lead	2.71E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.63E-01
Mercury	8.00E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.80E-04
Nickel	0.00E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	4.22E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.53E-01

SEDIMENT INGESTION:

Table H.22. Site 15 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
1,2-Dichloroethene (t)	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Ethylbenzene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Toluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Xylenes	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Heptachlor	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Heptachlor epoxide	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.22. Site 15 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
1,2-Dichloroethene (t)	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Ethylbenzene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Toluene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Xylenes	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Heptachlor	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Heptachlor epoxide	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.22. Site 15 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
1,2-Dichloroethene (t	1.65E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.64E-07
Ethylbenzene	3.02E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.03E-06
Toluene	2.63E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.99E-07
Xylenes	2.30E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.87E-07
Chlordane	1.69E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.78E-02
4,4'-DDE	1.01E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.45E-05
4,4'-DDT	6.06E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.07E-05
Dieldrin	1.49E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.10E-05
Heptachlor	4.22E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.44E-03
Heptachlor epoxide	3.12E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.07E-05
Cadmium	2.50E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.55E-04
Chromium	1.36E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.65E-03
Copper	5.50E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.88E-03
Lead	2.71E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	9.27E-03
Mercury	8.00E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.74E-05
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	4.22E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.44E-02

SURFACE WATER DERMAL EXPOSURE:

Table H.22. Site 15 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm2)	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
1,2-Dichloroethene (t	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Ethylbenzene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Toluene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Xylenes	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Heptachlor	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Heptachlor epoxide	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table H.22. Site 15 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
1,2-Dichloroethene (t	0.00E+00	0.00E+00	0.00E+00	9.90E-06	0.00E+00	0.00E+00	5.64E-07	0.00E+00	1.05E-05	3.08E-06
Ethylbenzene	0.00E+00	0.00E+00	0.00E+00	1.81E-05	0.00E+00	0.00E+00	1.03E-06	0.00E+00	1.92E-05	1.97E-06
Toluene	0.00E+00	0.00E+00	0.00E+00	1.58E-05	0.00E+00	0.00E+00	8.99E-07	0.00E+00	1.67E-05	6.67E-08
Xylenes	0.00E+00	0.00E+00	0.00E+00	1.38E-05	0.00E+00	0.00E+00	7.87E-07	0.00E+00	1.46E-05	8.15E-08
Chlordane	0.00E+00	0.00E+00	0.00E+00	1.01E+00	0.00E+00	0.00E+00	5.78E-02	0.00E+00	1.07E+00	1.19E+00
4,4'-DDE	0.00E+00	0.00E+00	0.00E+00	6.06E-04	0.00E+00	0.00E+00	3.45E-05	0.00E+00	6.41E-04	1.88E-05
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	3.64E-04	0.00E+00	0.00E+00	2.07E-05	0.00E+00	3.84E-04	1.24E-04
Dieldrin	0.00E+00	0.00E+00	0.00E+00	8.94E-04	0.00E+00	0.00E+00	5.10E-05	0.00E+00	9.45E-04	3.15E-01
Heptachlor	0.00E+00	0.00E+00	0.00E+00	2.53E-02	0.00E+00	0.00E+00	1.44E-03	0.00E+00	2.68E-02	1.07E-01
Heptachlor epoxide	0.00E+00	0.00E+00	0.00E+00	1.87E-04	0.00E+00	0.00E+00	1.07E-05	0.00E+00	1.98E-04	7.91E-04
Cadmium	0.00E+00	0.00E+00	0.00E+00	1.50E-02	0.00E+00	0.00E+00	8.55E-04	0.00E+00	1.59E-02	9.33E-02
Chromium	0.00E+00	0.00E+00	4.20E-01	8.16E-02	0.00E+00	0.00E+00	4.65E-03	0.00E+00	5.06E-01	2.11E+00
Copper	0.00E+00	0.00E+00	2.03E+00	3.30E-02	0.00E+00	0.00E+00	1.88E-03	0.00E+00	2.06E+00	5.94E-03
Lead	0.00E+00	0.00E+00	9.20E-02	1.63E-01	0.00E+00	0.00E+00	9.27E-03	0.00E+00	2.64E-01	2.93E+00
Mercury	0.00E+00	0.00E+00	0.00E+00	4.80E-04	0.00E+00	0.00E+00	2.74E-05	0.00E+00	5.07E-04	2.67E-04
Nickel	0.00E+00	0.00E+00	3.86E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.86E-01	4.54E-01
Zinc	0.00E+00	0.00E+00	8.21E+00	2.53E-01	0.00E+00	0.00E+00	1.44E-02	0.00E+00	8.48E+00	6.06E-01
TOTAL										7.81E+00

**Table H.23. Site 15 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Avg. Modeled Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose-Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Avg. Plant Conc. (mg/kg)
1,2-Dichloroethene (t	1.65E-03	1.05E-05	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Ethylbenzene	3.02E-03	1.92E-05	0.00E+00	4.86E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Toluene	2.63E-03	1.67E-05	0.00E+00	1.25E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Xylenes	2.30E-03	1.46E-05	0.00E+00	8.95E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chlordane	1.69E+02	1.07E+00	0.00E+00	4.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDE	1.01E-01	6.41E-04	0.00E+00	1.70E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDT	6.06E-02	3.84E-04	0.00E+00	1.60E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Dieldrin	1.49E-01	9.45E-04	0.00E+00	2.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Heptachlor	4.22E+00	2.68E-02	0.00E+00	3.00E-04	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Heptachlor epoxide	3.12E-02	1.98E-04	0.00E+00	3.00E-04	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Cadmium	2.50E+00	1.59E-02	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chromium	1.36E+01	5.06E-01	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.10E+00
Copper	5.50E+00	2.06E+00	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.01E+01
Lead	2.71E+01	2.64E-01	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	4.60E-01
Mercury	8.00E-02	5.07E-04	0.00E+00	1.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Nickel	0.00E+00	3.86E-01	0.00E+00	2.69E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.93E+00
Zinc	4.22E+01	8.48E+00	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	4.11E+01

EXPOSURE PARAMETERS:

Table H.23. Site 15 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table H.23. Site 15 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Aquatic BCF (L/kg)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From
							Organism Consumption (mg/kg/day)
1,2-Dichloroethene (t)	1.05E-05	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.84E-07
Ethylbenzene	1.92E-05	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	7.04E-07
Toluene	1.67E-05	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	6.13E-07
Xylenes	1.46E-05	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	5.36E-07
Chlordane	1.07E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.94E-02
4,4'-DDE	6.41E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.35E-05
4,4'-DDT	3.84E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.41E-05
Dieldrin	9.45E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.47E-05
Heptachlor	2.68E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	9.83E-04
Heptachlor epoxide	1.98E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	7.27E-06
Cadmium	1.59E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	5.82E-04
Chromium	5.06E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.86E-02
Copper	2.06E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	7.57E-02
Lead	2.64E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	9.69E-03
Mercury	5.07E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.86E-05
Nickel	3.86E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.42E-02
Zinc	8.48E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.11E-01

WATER CONSUMPTION

Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Site-Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From
						Water Consumption (mg/kg/day)
1,2-Dichloroethene (t)	1.05E-05	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Ethylbenzene	1.92E-05	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Toluene	1.67E-05	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Xylenes	1.46E-05	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	1.07E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	6.41E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	3.84E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	9.45E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Heptachlor	2.68E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Heptachlor epoxide	1.98E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.59E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	5.06E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	2.06E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	2.64E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	5.07E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	3.86E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	8.48E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table H.23. Site 15 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
1,2-Dichloroethene (t	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Ethylbenzene	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Toluene	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Xylenes	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Heptachlor	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Heptachlor epoxide	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	2.10E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	5.14E-02
Copper	1.01E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.48E-01
Lead	4.60E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.13E-02
Mercury	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	1.93E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.73E-02
Zinc	4.11E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.01E+00

SOIL INGESTION:

Table H.23. Site 15 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
1,2-Dichloroethene (t	1.65E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.21E-06
Ethylbenzene	3.02E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.22E-06
Toluene	2.63E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.93E-06
Xylenes	2.30E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.69E-06
Chlordane	1.69E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.24E-01
4,4'-DDE	1.01E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	7.42E-05
4,4'-DDT	6.06E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.45E-05
Dieldrin	1.49E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.09E-04
Heptachlor	4.22E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.10E-03
Heptachlor epoxide	3.12E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.29E-05
Cadmium	2.50E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.84E-03
Chromium	1.36E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.99E-03
Copper	5.50E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.04E-03
Lead	2.71E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.99E-02
Mercury	8.00E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.88E-05
Nickel	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	4.22E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.10E-02

SEDIMENT INGESTION:

Table H.23. Site 15 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
1,2-Dichloroethene (t)	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Ethylbenzene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Toluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Xylenes	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Heptachlor	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Heptachlor epoxide	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.23. Site 15 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
1,2-Dichloroethene (t)	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Ethylbenzene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Toluene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Xylenes	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Heptachlor	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Heptachlor epoxide	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.23. Site 15 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
1,2-Dichloroethene (t	1.65E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	9.49E-08
Ethylbenzene	3.02E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.74E-07
Toluene	2.63E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.51E-07
Xylenes	2.30E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.32E-07
Chlordane	1.69E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	9.72E-03
4,4'-DDE	1.01E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.81E-06
4,4'-DDT	6.06E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.48E-06
Dieldrin	1.49E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	8.57E-06
Heptachlor	4.22E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.43E-04
Heptachlor epoxide	3.12E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.79E-06
Cadmium	2.50E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.44E-04
Chromium	1.36E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.82E-04
Copper	5.50E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.16E-04
Lead	2.71E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.56E-03
Mercury	8.00E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.60E-06
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	4.22E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.43E-03

SURFACE WATER DERMAL EXPOSURE:

Table H.23. Site 15 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm2)	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
1,2-Dichloroethene (t	1.05E-05	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Ethylbenzene	1.92E-05	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Toluene	1.67E-05	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Xylenes	1.46E-05	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	1.07E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	6.41E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	3.84E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	9.45E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Heptachlor	2.68E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Heptachlor epoxide	1.98E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.59E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	5.06E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	2.06E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	2.64E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	5.07E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	3.86E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	8.48E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table H.23. Site 15 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
1,2-Dichloroethene (t	3.84E-07	0.00E+00	0.00E+00	1.21E-06	0.00E+00	0.00E+00	9.49E-08	0.00E+00	1.69E-06	9.95E-06
Ethylbenzene	7.04E-07	0.00E+00	0.00E+00	2.22E-06	0.00E+00	0.00E+00	1.74E-07	0.00E+00	3.10E-06	6.37E-07
Toluene	6.13E-07	0.00E+00	0.00E+00	1.93E-06	0.00E+00	0.00E+00	1.51E-07	0.00E+00	2.70E-06	2.16E-07
Xylenes	5.36E-07	0.00E+00	0.00E+00	1.69E-06	0.00E+00	0.00E+00	1.32E-07	0.00E+00	2.36E-06	2.63E-07
Chlordane	3.94E-02	0.00E+00	0.00E+00	1.24E-01	0.00E+00	0.00E+00	9.72E-03	0.00E+00	1.73E-01	4.33E+00
4,4'-DDE	2.35E-05	0.00E+00	0.00E+00	7.42E-05	0.00E+00	0.00E+00	5.81E-06	0.00E+00	1.04E-04	6.09E-05
4,4'-DDT	1.41E-05	0.00E+00	0.00E+00	4.45E-05	0.00E+00	0.00E+00	3.48E-06	0.00E+00	6.21E-05	3.88E-05
Dieldrin	3.47E-05	0.00E+00	0.00E+00	1.09E-04	0.00E+00	0.00E+00	8.57E-06	0.00E+00	1.53E-04	7.64E-03
Heptachlor	9.83E-04	0.00E+00	0.00E+00	3.10E-03	0.00E+00	0.00E+00	2.43E-04	0.00E+00	4.33E-03	1.44E+01
Heptachlor epoxide	7.27E-06	0.00E+00	0.00E+00	2.29E-05	0.00E+00	0.00E+00	1.79E-06	0.00E+00	3.20E-05	1.07E-01
Cadmium	5.82E-04	0.00E+00	0.00E+00	1.84E-03	0.00E+00	0.00E+00	1.44E-04	0.00E+00	2.56E-03	3.02E-01
Chromium	1.86E-02	0.00E+00	5.14E-02	9.99E-03	0.00E+00	0.00E+00	7.82E-04	0.00E+00	8.08E-02	2.69E+00
Copper	7.57E-02	0.00E+00	2.48E-01	4.04E-03	0.00E+00	0.00E+00	3.16E-04	0.00E+00	3.28E-01	1.89E-02
Lead	9.69E-03	0.00E+00	1.13E-02	1.99E-02	0.00E+00	0.00E+00	1.56E-03	0.00E+00	4.24E-02	3.26E-01
Mercury	1.86E-05	0.00E+00	0.00E+00	5.88E-05	0.00E+00	0.00E+00	4.60E-06	0.00E+00	8.20E-05	8.20E-04
Nickel	1.42E-02	0.00E+00	4.73E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.14E-02	2.28E-02
Zinc	3.11E-01	0.00E+00	1.01E+00	3.10E-02	0.00E+00	0.00E+00	2.43E-03	0.00E+00	1.35E+00	7.72E-01
TOTAL										2.30E+01

**Table H.24. Site 16 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose-Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Avg. Plant Conc. (mg/kg)
Acetone	7.38E-03	0.00E+00	0.00E+00	2.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Trichloroethene	6.76E-03	0.00E+00	0.00E+00	1.28E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Benzo(b)fluoranthene	1.70E-02	0.00E+00	0.00E+00	1.28E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Bis(2-ethylhexyl)phth	7.37E-01	0.00E+00	0.00E+00	2.60E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chlordane	4.38E-02	0.00E+00	0.00E+00	2.60E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Dibenzofuran	1.99E-01	0.00E+00	0.00E+00	2.50E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDD	9.60E-03	0.00E+00	0.00E+00	2.50E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDT	1.60E-02	0.00E+00	0.00E+00	2.50E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Di-n-butylphthalate	9.50E-02	0.00E+00	0.00E+00	1.25E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Fluorene	2.76E-01	0.00E+00	0.00E+00	2.50E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
2-Methylnaphthalene	1.11E+00	0.00E+00	0.00E+00	1.68E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Naphthalene	3.32E-01	0.00E+00	0.00E+00	1.68E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Phenanthrene	3.54E-01	0.00E+00	0.00E+00	1.50E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total PeCDF	1.30E-04	0.00E+00	0.00E+00	2.00E-07	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.57E-06
Total HpCDD	8.00E-05	0.00E+00	0.00E+00	1.00E-05	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total HpCDF	4.87E-05	0.00E+00	0.00E+00	1.00E-05	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total HxCDD	1.21E-05	0.00E+00	0.00E+00	1.00E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total HxCDF	3.55E-05	0.00E+00	0.00E+00	1.00E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total TCDD	7.10E-07	0.00E+00	0.00E+00	1.00E-07	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total TCDF	1.75E-05	0.00E+00	0.00E+00	1.00E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00	4.44E-06
Total OCDD	3.00E-04	0.00E+00	0.00E+00	1.00E-04	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.31E-05
Total OCDF	2.01E-05	0.00E+00	0.00E+00	1.00E-04	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Antimony	6.80E-01	0.00E+00	0.00E+00	3.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Arsenic	3.65E+00	0.00E+00	0.00E+00	7.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Beryllium	1.20E-01	0.00E+00	0.00E+00	9.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Cadmium	6.50E-01	0.00E+00	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.40E-01
Chromium	1.28E+01	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	6.30E-01
Copper	1.82E+01	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.22E+01
Lead	3.19E+01	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.30E-01
Mercury	7.00E-02	0.00E+00	0.00E+00	1.90E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Nickel	8.48E+00	0.00E+00	0.00E+00	8.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.34E+00
Silver	5.00E-01	0.00E+00	0.00E+00	1.78E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Zinc	3.60E+01	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	4.66E+01

EXPOSURE PARAMETERS:

**Table H.24. Site 16 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California**

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:
 Table H.24. Site 16 Risk Characterization for the Deer Mouse
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Acetone	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Trichloroethene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(b)fluoranthene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzofuran	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Di-n-butylphthalate	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Fluorene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-Methylnaphthalene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Naphthalene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Phenanthrene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total PeCDF	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HpCDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HpCDF	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HxCDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HxCDF	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total TCDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total TCDF	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total OCDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total OCDF	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Acetone	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Trichloroethene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(b)fluoranthene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzofuran	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Di-n-butylphthalate	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Fluorene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-Methylnaphthalene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Naphthalene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Phenanthrene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total PeCDF	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HpCDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HpCDF	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HxCDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HxCDF	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total TCDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total TCDF	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total OCDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total OCDF	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table H.24. Site 16 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Acetone	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Trichloroethene	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(b)fluoranthene	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzofuran	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Di-n-butylphthalate	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Fluorene	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-Methylnaphthalene	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Naphthalene	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Phenanthrene	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total PeCDF	1.57E-06	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.14E-07
Total HpCDD	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HpCDF	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HxCDD	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HxCDF	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total TCDD	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total TCDF	4.44E-06	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	8.88E-07
Total OCDD	1.31E-05	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.62E-06
Total OCDF	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	1.40E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.80E-02
Chromium	6.30E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.26E-01
Copper	1.22E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.44E+00
Lead	3.30E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	6.60E-02
Mercury	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	1.34E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.68E-01
Silver	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	4.66E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	9.31E+00

SOIL INGESTION:
 Table H.24. Site 16 Risk Characterization for the Deer Mouse
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface	Soil	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Ingestion Rate (kg/day)				Daily Dose From Soil Ingestion (mg/kg/day)
Acetone	7.38E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.43E-05
Trichloroethene	6.76E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.06E-05
Benzo(b)fluoranthene	1.70E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.02E-04
Bis(2-ethylhexyl)phth	7.37E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.42E-03
Chlordane	4.38E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.63E-04
Dibenzofuran	1.99E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.19E-03
4,4'-DDD	9.60E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.76E-05
4,4'-DDT	1.60E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.60E-05
Di-n-butylphthalate	9.50E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.70E-04
Fluorene	2.76E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.66E-03
2-Methylnaphthalene	1.11E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.66E-03
Naphthalene	3.32E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.99E-03
Phenanthrene	3.54E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.12E-03
Total PeCDF	1.30E-04	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.80E-07
Total HpCDD	8.00E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.80E-07
Total HpCDF	4.87E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.92E-07
Total HxCDD	1.21E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.26E-08
Total HxCDF	3.55E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.13E-07
Total TCDD	7.10E-07	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.26E-09
Total TCDF	1.75E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.05E-07
Total OCDD	3.00E-04	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.80E-06
Total OCDF	2.01E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.21E-07
Antimony	6.80E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.08E-03
Arsenic	3.65E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.19E-02
Beryllium	1.20E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.20E-04
Cadmium	6.50E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.90E-03
Chromium	1.28E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.68E-02
Copper	1.82E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.09E-01
Lead	3.19E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.91E-01
Mercury	7.00E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.20E-04
Nickel	8.48E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.09E-02
Silver	5.00E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.00E-03
Zinc	3.60E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.16E-01

SEDIMENT INGESTION:

Table H.24. Site 16 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Acetone	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Trichloroethene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(b)fluoranthene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzofuran	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Di-n-butylphthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Fluorene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-Methylnaphthalene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Naphthalene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Phenanthrene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total PeCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HpCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HpCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HxCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HxCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total TCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total TCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total OCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total OCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:
 Table H.24. Site 16 Risk Characterization for the Deer Mouse
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From sediment - Dermal (mg/kg/day)
Acetone	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Trichloroethene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(b)fluoranthene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzofuran	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Di-n-butylphthalate	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Fluorene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-Methylnaphthalene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Naphthalene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Phenanthrene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total PeCDF	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HpCDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HpCDF	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HxCDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HxCDF	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total TCDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total TCDF	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total OCDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total OCDF	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.24. Site 16 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Acetone	7.38E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.52E-06
Trichloroethene	6.76E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.31E-06
Benzo(b)fluoranthene	1.70E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.81E-06
Bis(2-ethylhexyl)phth	7.37E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.52E-04
Chlordane	4.38E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.50E-05
Dibenzofuran	1.99E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.81E-05
4,4'-DDD	9.60E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.28E-06
4,4'-DDT	1.60E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.47E-06
Di-n-butylphthalate	9.50E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.25E-05
Fluorene	2.76E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	9.44E-05
2-Methylnaphthalene	1.11E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.80E-04
Naphthalene	3.32E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.14E-04
Phenanthrene	3.54E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.21E-04
Total PeCDF	1.30E-04	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.45E-08
Total HpCDD	8.00E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.74E-08
Total HpCDF	4.87E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.67E-08
Total HxCDD	1.21E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.14E-09
Total HxCDF	3.55E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.21E-08
Total TCDD	7.10E-07	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.43E-10
Total TCDF	1.75E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.99E-09
Total OCDD	3.00E-04	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.03E-07
Total OCDF	2.01E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.87E-09
Antimony	6.80E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.33E-04
Arsenic	3.65E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.25E-03
Beryllium	1.20E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.10E-05
Cadmium	6.50E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.22E-04
Chromium	1.28E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.38E-03
Copper	1.82E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.22E-03
Lead	3.19E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.09E-02
Mercury	7.00E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.39E-05
Nickel	8.48E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.90E-03
Silver	5.00E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.71E-04
Zinc	3.60E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.23E-02

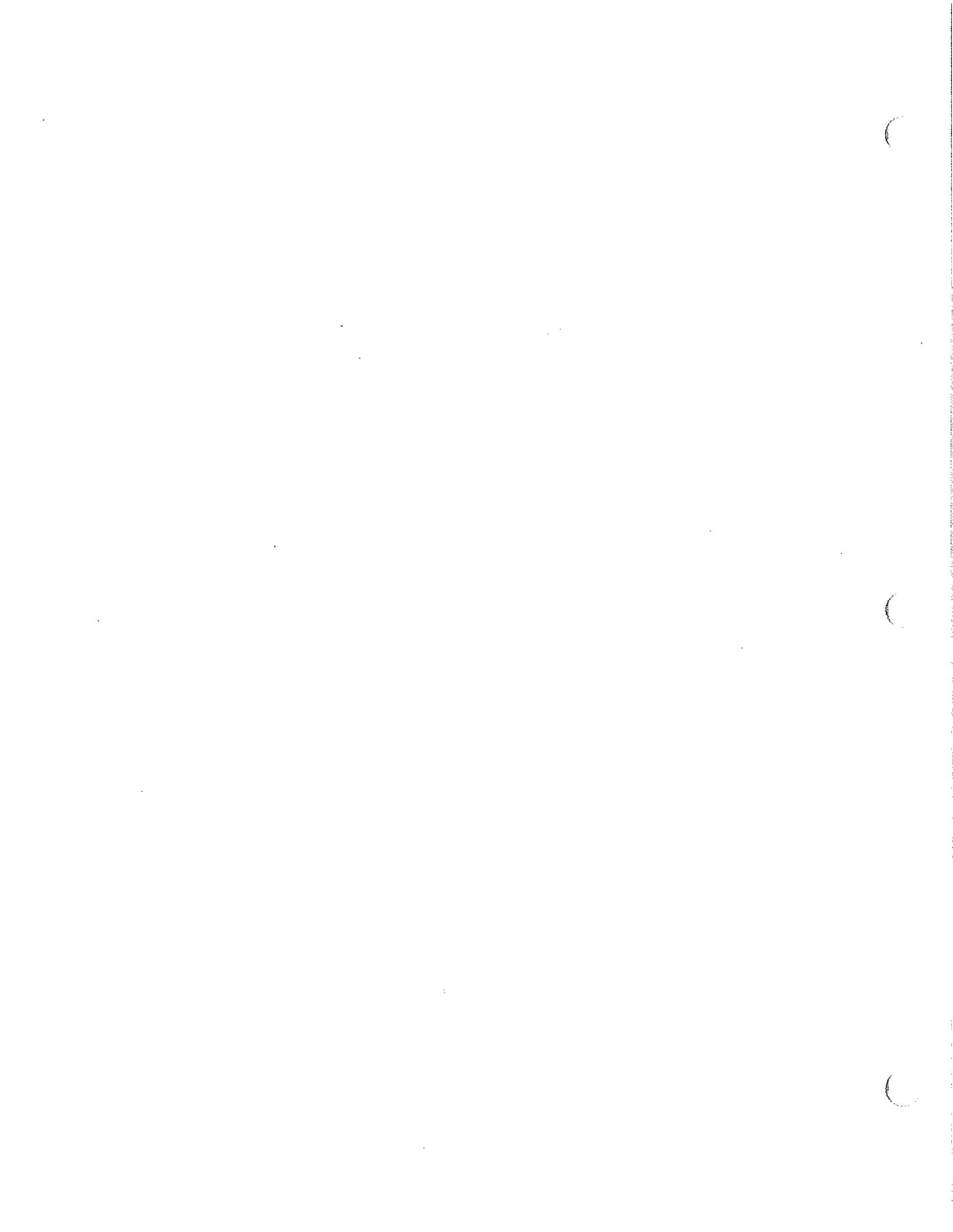
SURFACE WATER DERMAL EXPOSURE:
 Table H.24. Site 16 Risk Characterization for the Deer Mouse
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Acetone	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Trichloroethene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(b)fluoranthene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzofuran	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Di-n-butylphthalate	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Fluorene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-Methylnaphthalene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Naphthalene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Phenanthrene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total PeCDF	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HpCDF	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HpCDF	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HxCDD	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HxCDF	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total TCDD	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total TCDF	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total OCDD	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total OCDF	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table H.24. Site 16 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Acetone	0.00E+00	0.00E+00	0.00E+00	4.43E-05	0.00E+00	0.00E+00	2.52E-06	0.00E+00	4.68E-05	2.34E-05
Trichloroethene	0.00E+00	0.00E+00	0.00E+00	4.06E-05	0.00E+00	0.00E+00	2.31E-06	0.00E+00	4.29E-05	3.35E-07
Benzo(b)fluoranthene	0.00E+00	0.00E+00	0.00E+00	1.02E-04	0.00E+00	0.00E+00	5.81E-06	0.00E+00	1.08E-04	8.42E-07
Bis(2-ethylhexyl)phth	0.00E+00	0.00E+00	0.00E+00	4.42E-03	0.00E+00	0.00E+00	2.52E-04	0.00E+00	4.67E-03	1.80E-03
Chlordane	0.00E+00	0.00E+00	0.00E+00	2.63E-04	0.00E+00	0.00E+00	1.50E-05	0.00E+00	2.78E-04	1.07E-04
Dibenzofuran	0.00E+00	0.00E+00	0.00E+00	1.19E-03	0.00E+00	0.00E+00	6.81E-05	0.00E+00	1.26E-03	5.05E-05
4,4'-DDD	0.00E+00	0.00E+00	0.00E+00	5.76E-05	0.00E+00	0.00E+00	3.28E-06	0.00E+00	6.09E-05	2.44E-06
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	9.60E-05	0.00E+00	0.00E+00	5.47E-06	0.00E+00	1.01E-04	4.06E-06
Di-n-butylphthalate	0.00E+00	0.00E+00	0.00E+00	5.70E-04	0.00E+00	0.00E+00	3.25E-05	0.00E+00	6.02E-04	4.82E-05
Fluorene	0.00E+00	0.00E+00	0.00E+00	1.66E-03	0.00E+00	0.00E+00	9.44E-05	0.00E+00	1.75E-03	7.00E-05
2-Methylnaphthalene	0.00E+00	0.00E+00	0.00E+00	6.66E-03	0.00E+00	0.00E+00	3.80E-04	0.00E+00	7.04E-03	4.19E-04
Naphthalene	0.00E+00	0.00E+00	0.00E+00	1.99E-03	0.00E+00	0.00E+00	1.14E-04	0.00E+00	2.11E-03	1.25E-04
Phenanthrene	0.00E+00	0.00E+00	0.00E+00	2.12E-03	0.00E+00	0.00E+00	1.21E-04	0.00E+00	2.25E-03	1.50E-04
Total PeCDF	0.00E+00	0.00E+00	3.14E-07	7.80E-07	0.00E+00	0.00E+00	4.45E-08	0.00E+00	1.14E-06	5.69E+00
Total HpCDD	0.00E+00	0.00E+00	0.00E+00	4.80E-07	0.00E+00	0.00E+00	2.74E-08	0.00E+00	5.07E-07	5.07E-02
Total HpCDF	0.00E+00	0.00E+00	0.00E+00	2.92E-07	0.00E+00	0.00E+00	1.67E-08	0.00E+00	3.09E-07	3.09E-02
Total HxCDD	0.00E+00	0.00E+00	0.00E+00	7.26E-08	0.00E+00	0.00E+00	4.14E-09	0.00E+00	7.67E-08	7.67E-02
Total HxCDF	0.00E+00	0.00E+00	0.00E+00	2.13E-07	0.00E+00	0.00E+00	1.21E-08	0.00E+00	2.25E-07	2.25E-01
Total TCDD	0.00E+00	0.00E+00	0.00E+00	4.26E-09	0.00E+00	0.00E+00	2.43E-10	0.00E+00	4.50E-09	4.50E-02
Total TCDF	0.00E+00	0.00E+00	8.88E-07	1.05E-07	0.00E+00	0.00E+00	5.99E-09	0.00E+00	9.99E-07	9.99E-01
Total OCDD	0.00E+00	0.00E+00	2.62E-06	1.80E-06	0.00E+00	0.00E+00	1.03E-07	0.00E+00	4.52E-06	4.52E-02
Total OCDF	0.00E+00	0.00E+00	0.00E+00	1.21E-07	0.00E+00	0.00E+00	6.87E-09	0.00E+00	1.27E-07	1.27E-03
Antimony	0.00E+00	0.00E+00	0.00E+00	4.08E-03	0.00E+00	0.00E+00	2.33E-04	0.00E+00	4.31E-03	1.23E-02
Arsenic	0.00E+00	0.00E+00	0.00E+00	2.19E-02	0.00E+00	0.00E+00	1.25E-03	0.00E+00	2.31E-02	3.31E-02
Beryllium	0.00E+00	0.00E+00	0.00E+00	7.20E-04	0.00E+00	0.00E+00	4.10E-05	0.00E+00	7.61E-04	8.01E-04
Cadmium	0.00E+00	0.00E+00	2.80E-02	3.90E-03	0.00E+00	0.00E+00	2.22E-04	0.00E+00	3.21E-02	1.89E-01
Chromium	0.00E+00	0.00E+00	1.26E-01	7.68E-02	0.00E+00	0.00E+00	4.38E-03	0.00E+00	2.07E-01	8.63E-01
Copper	0.00E+00	0.00E+00	2.44E+00	1.09E-01	0.00E+00	0.00E+00	6.22E-03	0.00E+00	2.55E+00	7.36E-03
Lead	0.00E+00	0.00E+00	6.60E-02	1.91E-01	0.00E+00	0.00E+00	1.09E-02	0.00E+00	2.68E-01	2.98E+00
Mercury	0.00E+00	0.00E+00	0.00E+00	4.20E-04	0.00E+00	0.00E+00	2.39E-05	0.00E+00	4.44E-04	2.34E-04
Nickel	0.00E+00	0.00E+00	2.68E-01	5.09E-02	0.00E+00	0.00E+00	2.90E-03	0.00E+00	3.22E-01	3.79E-01
Silver	0.00E+00	0.00E+00	0.00E+00	3.00E-03	0.00E+00	0.00E+00	1.71E-04	0.00E+00	3.17E-03	1.78E-03
Zinc	0.00E+00	0.00E+00	9.31E+00	2.16E-01	0.00E+00	0.00E+00	1.23E-02	0.00E+00	9.54E+00	6.81E-01
TOTAL										1.23E+01



**Table H.25. Site 16 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California**

Compound	Avg. Soil Conc. (mg/kg)	Avg. Modeled Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose-Response Value (mg/kg/day)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Avg. Plant Conc. (mg/kg)
Acetone	7.38E-03	4.68E-05	0.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Trichloroethene	6.76E-03	4.29E-05	0.00E+00	6.40E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Benzo(b)fluoranthene	1.70E-02	1.08E-04	0.00E+00	1.25E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Bis(2-ethylhexyl)phth	7.37E-01	4.67E-03	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chlordane	4.38E-02	2.78E-04	0.00E+00	4.00E-02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Dibenzofuran	1.99E-01	1.26E-03	0.00E+00	1.25E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDD	9.60E-03	6.09E-05	0.00E+00	5.35E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDT	1.60E-02	1.01E-04	0.00E+00	1.60E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Di-n-butylphthalate	9.50E-02	6.02E-04	0.00E+00	6.25E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Fluorene	2.76E-01	1.75E-03	0.00E+00	1.25E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
2-Methylnaphthalene	1.11E+00	7.04E-03	0.00E+00	8.40E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Naphthalene	3.32E-01	2.11E-03	0.00E+00	8.40E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Phenanthrene	3.54E-01	2.25E-03	0.00E+00	7.50E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total PeCDF	1.30E-04	1.14E-06	0.00E+00	1.00E-07	1.00E+00	1.00E+00	1.00E+00	1.57E-06
Total HpCDD	8.00E-05	5.07E-07	0.00E+00	5.00E-06	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total HpCDF	4.87E-05	3.09E-07	0.00E+00	5.00E-06	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total HxCDD	1.21E-05	7.67E-08	0.00E+00	5.00E-07	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total HxCDF	3.55E-05	2.25E-07	0.00E+00	5.00E-07	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total TCDD	7.10E-07	4.50E-09	0.00E+00	5.00E-08	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total TCDF	1.75E-05	9.99E-07	0.00E+00	5.00E-07	1.00E+00	1.00E+00	1.00E+00	4.44E-06
Total OCDD	3.00E-04	4.52E-06	0.00E+00	5.00E-05	1.00E+00	1.00E+00	1.00E+00	1.31E-05
Total OCDF	2.01E-05	1.27E-07	0.00E+00	5.00E-05	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Antimony	6.80E-01	4.31E-03	0.00E+00	2.99E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Arsenic	3.65E+00	2.31E-02	0.00E+00	3.70E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Beryllium	1.20E-01	7.61E-04	0.00E+00	5.00E-02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Cadmium	6.50E-01	3.21E-02	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	1.40E-01
Chromium	1.28E+01	2.07E-01	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	6.30E-01
Copper	1.82E+01	2.55E+00	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	1.22E+01
Lead	3.19E+01	2.68E-01	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	3.30E-01
Mercury	7.00E-02	4.44E-04	0.00E+00	1.00E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Nickel	8.48E+00	3.22E-01	0.00E+00	2.69E+00	1.00E+00	1.00E+00	1.00E+00	1.34E+00
Silver	5.00E-01	3.17E-03	0.00E+00	8.90E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Zinc	3.60E+01	9.54E+00	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	4.66E+01

EXPOSURE PARAMETERS:

Table H.25. Site 16 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-08

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table H.25. Site 16 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Organism Consumption (mg/kg/day)
Acetone	4.68E-05	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.72E-06
Trichloroethene	4.29E-05	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.57E-06
Benzo(b)fluoranthene	1.08E-04	1.00E+00	1.93E-01	1.00E+00	5.25E+00	3.96E-06
Bis(2-ethylhexyl)phth	4.67E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.72E-04
Chlordane	2.78E-04	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.02E-05
Dibenzofuran	1.26E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	4.64E-05
4,4'-DDD	6.09E-05	1.00E+00	1.93E-01	1.00E+00	5.25E+00	2.24E-06
4,4'-DDT	1.01E-04	1.00E+00	1.93E-01	1.00E+00	5.25E+00	3.73E-06
Di-n-butylphthalate	6.02E-04	1.00E+00	1.93E-01	1.00E+00	5.25E+00	2.21E-05
Fluorene	1.75E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	6.43E-05
2-Methylnaphthalene	7.04E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	2.59E-04
Naphthalene	2.11E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	7.73E-05
Phenanthrene	2.25E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	8.25E-05
Total PeCDF	1.14E-06	1.00E+00	1.93E-01	1.00E+00	5.25E+00	4.18E-08
Total HpCDD	5.07E-07	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.86E-08
Total HpCDF	3.09E-07	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.13E-08
Total HxCDD	7.67E-08	1.00E+00	1.93E-01	1.00E+00	5.25E+00	2.82E-09
Total HxCDF	2.25E-07	1.00E+00	1.93E-01	1.00E+00	5.25E+00	8.27E-09
Total TCDD	4.50E-09	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.65E-10
Total TCDF	9.99E-07	1.00E+00	1.93E-01	1.00E+00	5.25E+00	3.67E-08
Total OCDD	4.52E-06	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.66E-07
Total OCDF	1.27E-07	1.00E+00	1.93E-01	1.00E+00	5.25E+00	4.68E-09
Antimony	4.31E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.58E-04
Arsenic	2.31E-02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	8.50E-04
Beryllium	7.61E-04	1.00E+00	1.93E-01	1.00E+00	5.25E+00	2.80E-05
Cadmium	3.21E-02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.18E-03
Chromium	2.07E-01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	7.61E-03
Copper	2.55E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	9.37E-02
Lead	2.68E-01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	9.86E-03
Mercury	4.44E-04	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.63E-05
Nickel	3.22E-01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.18E-02
Silver	3.17E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.16E-04
Zinc	9.54E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	3.50E-01

WATER CONSUMPTION
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Site-Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
						Daily Dose From Water Consumption (mg/kg/day)
Acetone	4.68E-05	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Trichloroethene	4.29E-05	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(b)fluoranthene	1.08E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phth	4.67E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	2.78E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzofuran	1.26E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	6.09E-05	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	1.01E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Di-n-butylphthalate	6.02E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Fluorene	1.75E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-Methylnaphthalene	7.04E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Naphthalene	2.11E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Phenanthrene	2.25E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total PeCDF	1.14E-06	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HpCDD	5.07E-07	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HpCDF	3.09E-07	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HxCDD	7.67E-08	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HxCDF	2.25E-07	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total TCDD	4.50E-09	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total TCDF	9.99E-07	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total OCDD	4.52E-06	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total OCDF	1.27E-07	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	4.31E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	2.31E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	7.61E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	3.21E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	2.07E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	2.55E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	2.68E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	4.44E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	3.22E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	3.17E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	9.54E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table H.25. Site 16 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Acetone	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Trichloroethene	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(b)fluoranthene	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzofuran	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Di-n-butylphthalate	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Fluorene	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-Methylnaphthalene	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Naphthalene	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Phenanthrene	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total PeCDF	1.57E-06	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.84E-08
Total HpCDD	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HpCDF	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HxCDD	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HxCDF	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total TCDD	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total TCDF	4.44E-06	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.09E-07
Total OCDD	1.31E-05	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.21E-07
Total OCDF	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.40E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.43E-03
Chromium	6.30E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.54E-02
Copper	1.22E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.98E-01
Lead	3.30E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	8.08E-03
Mercury	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	1.34E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.28E-02
Silver	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	4.66E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.14E+00

SOIL INGESTION:

Table H.25. Site 16 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface	Soil	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Concentration (mg/kg)	Ingestion Rate (kg/day)				Daily Dose From Soil Ingestion (mg/kg/day)
Acetone	7.38E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.42E-06
Trichloroethene	6.76E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.97E-06
Benzo(b)fluoranthene	1.70E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.25E-05
Bis(2-ethylhexyl)phth	7.37E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.41E-04
Chlordane	4.38E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.22E-05
Dibenzofuran	1.99E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.46E-04
4,4'-DDD	9.60E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	7.05E-06
4,4'-DDT	1.60E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.18E-05
Di-n-butylphthalate	9.50E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.98E-05
Fluorene	2.76E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.03E-04
2-Methylnaphthalene	1.11E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.15E-04
Naphthalene	3.32E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.44E-04
Phenanthrene	3.54E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.60E-04
Total PeCDF	1.30E-04	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.55E-08
Total HpCDD	8.00E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.88E-08
Total HpCDF	4.87E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.58E-08
Total HxCDD	1.21E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.89E-09
Total HxCDF	3.55E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.61E-08
Total TCDD	7.10E-07	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.22E-10
Total TCDF	1.75E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.29E-08
Total OCDD	3.00E-04	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.20E-07
Total OCDF	2.01E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.48E-08
Antimony	6.80E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.00E-04
Arsenic	3.65E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.68E-03
Beryllium	1.20E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.82E-05
Cadmium	6.50E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.78E-04
Chromium	1.28E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.40E-03
Copper	1.82E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.34E-02
Lead	3.19E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.34E-02
Mercury	7.00E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.14E-05
Nickel	8.48E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.23E-03
Silver	5.00E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.67E-04
Zinc	3.60E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.64E-02

SEDIMENT INGESTION:

Table H.25. Site 16 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Acetone	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Trichloroethene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(b)fluoranthene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzofuran	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Di-n-butylphthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Fluorene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-Methylnaphthalene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Naphthalene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Phenanthrene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total PeCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HpCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HpCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HxCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HxCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total TCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total TCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total OCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total OCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:
 Table H.25. Site 16 Risk Characterization for the Gray Fox
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From sediment - Dermal (mg/kg/day)
Acetone	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Trichloroethene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(b)fluoranthene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phth	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzofuran	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Di-n-butylphthalate	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Fluorene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-Methylnaphthalene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Naphthalene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Phenanthrene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total PeCDF	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HpCDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HpCDF	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HxCDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HxCDF	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total TCDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total TCDF	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total OCDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total OCDF	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.25. Site 16 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm ²)	Surface Soil Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Acetone	7.38E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.24E-07
Trichloroethene	6.76E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.89E-07
Benzo(b)fluoranthene	1.70E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	9.78E-07
Bis(2-ethylhexyl)phth	7.37E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.24E-05
Chlordane	4.38E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.52E-06
Dibenzofuran	1.99E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.14E-05
4,4'-DDD	9.60E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.52E-07
4,4'-DDT	1.60E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	9.20E-07
Di-n-butylphthalate	9.50E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.46E-06
Fluorene	2.76E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.59E-05
2-Methylnaphthalene	1.11E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.38E-05
Naphthalene	3.32E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.91E-05
Phenanthrene	3.54E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.04E-05
Total PeCDF	1.30E-04	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.48E-09
Total HpCDD	8.00E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.60E-09
Total HpCDF	4.87E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.80E-09
Total HxCDD	1.21E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.96E-10
Total HxCDF	3.55E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.04E-09
Total TCDD	7.10E-07	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.08E-11
Total TCDF	1.75E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.01E-09
Total OCDD	3.00E-04	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.73E-08
Total OCDF	2.01E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.16E-09
Antimony	6.80E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.91E-05
Arsenic	3.65E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.10E-04
Beryllium	1.20E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.90E-06
Cadmium	6.50E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.74E-05
Chromium	1.28E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.36E-04
Copper	1.82E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.05E-03
Lead	3.19E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.83E-03
Mercury	7.00E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.03E-06
Nickel	8.48E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.88E-04
Silver	5.00E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.88E-05
Zinc	3.60E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.07E-03

SURFACE WATER DERMAL EXPOSURE:
 Table H.25. Site 16 Risk Characterization for the Gray Fox
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Acetone	4.68E-05	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Trichloroethene	4.29E-05	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(b)fluoranthene	1.08E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phth	4.67E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	2.78E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzofuran	1.26E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	6.09E-05	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	1.01E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Di-n-butylphthalate	6.02E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Fluorene	1.75E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-Methylnaphthalene	7.04E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Naphthalene	2.11E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Phenanthrene	2.25E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total PeCDF	1.14E-06	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HpCDD	5.07E-07	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HpCDF	3.09E-07	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HxCDD	7.67E-08	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HxCDF	2.25E-07	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total TCDD	4.50E-09	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total TCDF	9.99E-07	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total OCDD	4.52E-06	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total OCDF	1.27E-07	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	4.31E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	2.31E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	7.61E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	3.21E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	2.07E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	2.55E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	2.68E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	4.44E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	3.22E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	3.17E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	9.54E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table H.25. Site 16 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Acetone	1.72E-06	0.00E+00	0.00E+00	5.42E-06	0.00E+00	0.00E+00	4.24E-07	0.00E+00	7.57E-06	7.57E-06
Trichloroethene	1.57E-06	0.00E+00	0.00E+00	4.97E-06	0.00E+00	0.00E+00	3.89E-07	0.00E+00	6.93E-06	1.08E-06
Benzo(b)fluoranthene	3.96E-06	0.00E+00	0.00E+00	1.25E-05	0.00E+00	0.00E+00	9.78E-07	0.00E+00	1.74E-05	1.39E-05
Bis(2-ethylhexyl)phth	1.72E-04	0.00E+00	0.00E+00	5.41E-04	0.00E+00	0.00E+00	4.24E-05	0.00E+00	7.56E-04	5.81E-03
Chlordane	1.02E-05	0.00E+00	0.00E+00	3.22E-05	0.00E+00	0.00E+00	2.52E-06	0.00E+00	4.49E-05	1.12E-03
Dibenzofuran	4.64E-05	0.00E+00	0.00E+00	1.46E-04	0.00E+00	0.00E+00	1.14E-05	0.00E+00	2.04E-04	1.63E-04
4,4'-DDD	2.24E-06	0.00E+00	0.00E+00	7.05E-06	0.00E+00	0.00E+00	5.52E-07	0.00E+00	9.84E-06	1.84E-06
4,4'-DDT	3.73E-06	0.00E+00	0.00E+00	1.18E-05	0.00E+00	0.00E+00	9.20E-07	0.00E+00	1.64E-05	1.03E-05
Di-n-butylphthalate	2.21E-05	0.00E+00	0.00E+00	6.98E-05	0.00E+00	0.00E+00	5.46E-06	0.00E+00	9.74E-05	1.56E-05
Fluorene	6.43E-05	0.00E+00	0.00E+00	2.03E-04	0.00E+00	0.00E+00	1.59E-05	0.00E+00	2.83E-04	2.26E-04
2-Methylnaphthalene	2.59E-04	0.00E+00	0.00E+00	8.15E-04	0.00E+00	0.00E+00	6.38E-05	0.00E+00	1.14E-03	1.35E-03
Naphthalene	7.73E-05	0.00E+00	0.00E+00	2.44E-04	0.00E+00	0.00E+00	1.91E-05	0.00E+00	3.40E-04	4.05E-04
Phenanthrene	8.25E-05	0.00E+00	0.00E+00	2.60E-04	0.00E+00	0.00E+00	2.04E-05	0.00E+00	3.63E-04	4.84E-04
Total PeCDF	4.18E-08	0.00E+00	3.84E-08	9.55E-08	0.00E+00	0.00E+00	7.48E-09	0.00E+00	1.83E-07	1.83E+00
Total HpCDD	1.86E-08	0.00E+00	0.00E+00	5.88E-08	0.00E+00	0.00E+00	4.60E-09	0.00E+00	8.20E-08	1.64E-02
Total HpCDF	1.13E-08	0.00E+00	0.00E+00	3.58E-08	0.00E+00	0.00E+00	2.80E-09	0.00E+00	4.99E-08	9.98E-03
Total HxCDD	2.82E-09	0.00E+00	0.00E+00	8.89E-09	0.00E+00	0.00E+00	6.96E-10	0.00E+00	1.24E-08	2.48E-02
Total HxCDF	8.27E-09	0.00E+00	0.00E+00	2.61E-08	0.00E+00	0.00E+00	2.04E-09	0.00E+00	3.64E-08	7.28E-02
Total TCDD	1.65E-10	0.00E+00	0.00E+00	5.22E-10	0.00E+00	0.00E+00	4.08E-11	0.00E+00	7.28E-10	1.46E-02
Total TCDF	3.67E-08	0.00E+00	1.09E-07	1.29E-08	0.00E+00	0.00E+00	1.01E-09	0.00E+00	1.59E-07	3.19E-01
Total OCDD	1.66E-07	0.00E+00	3.21E-07	2.20E-07	0.00E+00	0.00E+00	1.73E-08	0.00E+00	7.25E-07	1.45E-02
Total OCDF	4.68E-09	0.00E+00	0.00E+00	1.48E-08	0.00E+00	0.00E+00	1.16E-09	0.00E+00	2.06E-08	4.12E-04
Antimony	1.58E-04	0.00E+00	0.00E+00	5.00E-04	0.00E+00	0.00E+00	3.91E-05	0.00E+00	6.97E-04	2.33E-04
Arsenic	8.50E-04	0.00E+00	0.00E+00	2.68E-03	0.00E+00	0.00E+00	2.10E-04	0.00E+00	3.74E-03	1.01E-02
Beryllium	2.80E-05	0.00E+00	0.00E+00	8.82E-05	0.00E+00	0.00E+00	6.90E-06	0.00E+00	1.23E-04	2.46E-03
Cadmium	1.18E-03	0.00E+00	3.43E-03	4.78E-04	0.00E+00	0.00E+00	3.74E-05	0.00E+00	5.12E-03	6.03E-01
Chromium	7.61E-03	0.00E+00	1.54E-02	9.40E-03	0.00E+00	0.00E+00	7.36E-04	0.00E+00	3.32E-02	1.11E+00
Copper	9.37E-02	0.00E+00	2.98E-01	1.34E-02	0.00E+00	0.00E+00	1.05E-03	0.00E+00	4.06E-01	2.34E-02
Lead	9.86E-03	0.00E+00	8.08E-03	2.34E-02	0.00E+00	0.00E+00	1.83E-03	0.00E+00	4.32E-02	3.32E-01
Mercury	1.63E-05	0.00E+00	0.00E+00	5.14E-05	0.00E+00	0.00E+00	4.03E-06	0.00E+00	7.18E-05	7.18E-04
Nickel	1.18E-02	0.00E+00	3.28E-02	6.23E-03	0.00E+00	0.00E+00	4.88E-04	0.00E+00	5.14E-02	1.91E-02
Silver	1.16E-04	0.00E+00	0.00E+00	3.67E-04	0.00E+00	0.00E+00	2.88E-05	0.00E+00	5.13E-04	5.76E-04
Zinc	3.50E-01	0.00E+00	1.14E+00	2.64E-02	0.00E+00	0.00E+00	2.07E-03	0.00E+00	1.52E+00	8.68E-01
TOTAL										5.28E+00



**Table H.26. Site 21 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose-Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Avg. Plant Conc. (mg/kg)
Methylene chloride	6.45E-03	0.00E+00	0.00E+00	6.20E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Xylenes	3.03E-03	0.00E+00	0.00E+00	1.79E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Bis(2-ethylhexyl)phtha	1.00E-01	0.00E+00	0.00E+00	2.60E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chrysene	2.40E-02	0.00E+00	0.00E+00	4.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Antimony	1.01E+01	0.00E+00	0.00E+00	3.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Arsenic	1.09E+00	0.00E+00	0.00E+00	7.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Beryllium	2.00E-01	0.00E+00	0.00E+00	9.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Cadmium	6.25E+00	0.00E+00	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.50E-01
Chromium	3.71E+01	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.10E+00
Copper	6.10E+01	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.03E+01
Lead	1.69E+02	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.30E-01
Mercury	9.00E-02	0.00E+00	0.00E+00	1.90E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Nickel	1.30E+01	0.00E+00	0.00E+00	8.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.30E+00
Silver	2.60E-01	0.00E+00	0.00E+00	1.78E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Zinc	2.25E+02	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	4.09E+01

EXPOSURE PARAMETERS:

Table H.26. Site 21 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:
 Table H.26. Site 21 Risk Characterization for the Deer Mouse
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Methylene chloride	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Xylenes	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phtha	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chrysene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Methylene chloride	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Xylenes	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phtha	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chrysene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table H.26. Site 21 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Methylene chloride	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Xylenes	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phtha	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chrysene	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	1.50E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.00E-02
Chromium	1.10E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.20E-01
Copper	1.03E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.06E+00
Lead	3.30E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	6.60E-02
Mercury	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	1.30E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.60E-01
Silver	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	4.09E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	8.19E+00

SOIL INGESTION:

Table H.26. Site 21 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
Methylene chloride	6.45E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.87E-05
Xylenes	3.03E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.82E-05
Bis(2-ethylhexyl)phtha	1.00E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.00E-04
Chrysene	2.40E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.44E-04
Antimony	1.01E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.06E-02
Arsenic	1.09E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.54E-03
Beryllium	2.00E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.20E-03
Cadmium	6.25E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.75E-02
Chromium	3.71E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.23E-01
Copper	6.10E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.66E-01
Lead	1.69E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.01E+00
Mercury	9.00E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.40E-04
Nickel	1.30E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.80E-02
Silver	2.60E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.56E-03
Zinc	2.25E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.35E+00

SEDIMENT INGESTION:

Table H.26. Site 21 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Methylene chloride	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Xylenes	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phtha	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chrysene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.26. Site 21 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Methylene chloride	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Xylenes	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phtha	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chrysene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.26. Site 21 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm ²)	Surface Soil Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Methylene chloride	6.45E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.21E-06
Xylenes	3.03E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.04E-06
Bis(2-ethylhexyl)phtha	1.00E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.42E-05
Chrysene	2.40E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.21E-06
Antimony	1.01E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.45E-03
Arsenic	1.09E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.73E-04
Beryllium	2.00E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.84E-05
Cadmium	6.25E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.14E-03
Chromium	3.71E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.27E-02
Copper	6.10E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.09E-02
Lead	1.69E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.78E-02
Mercury	9.00E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.08E-05
Nickel	1.30E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.45E-03
Silver	2.60E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.89E-05
Zinc	2.25E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.70E-02

SURFACE WATER DERMAL EXPOSURE:

Table H.26. Site 21 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Methylene chloride	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Xylenes	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phtha	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chrysene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table H.26. Site 21 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Methylene chloride	0.00E+00	0.00E+00	0.00E+00	3.87E-05	0.00E+00	0.00E+00	2.21E-06	0.00E+00	4.09E-05	6.60E-05
Xylenes	0.00E+00	0.00E+00	0.00E+00	1.82E-05	0.00E+00	0.00E+00	1.04E-06	0.00E+00	1.92E-05	1.07E-07
Bis(2-ethylhexyl)phtha	0.00E+00	0.00E+00	0.00E+00	6.00E-04	0.00E+00	0.00E+00	3.42E-05	0.00E+00	6.34E-04	2.44E-04
Chrysene	0.00E+00	0.00E+00	0.00E+00	1.44E-04	0.00E+00	0.00E+00	8.21E-06	0.00E+00	1.52E-04	3.81E-04
Antimony	0.00E+00	0.00E+00	0.00E+00	6.06E-02	0.00E+00	0.00E+00	3.45E-03	0.00E+00	6.41E-02	1.83E-01
Arsenic	0.00E+00	0.00E+00	0.00E+00	6.54E-03	0.00E+00	0.00E+00	3.73E-04	0.00E+00	6.91E-03	9.88E-03
Beryllium	0.00E+00	0.00E+00	0.00E+00	1.20E-03	0.00E+00	0.00E+00	6.84E-05	0.00E+00	1.27E-03	1.34E-03
Cadmium	0.00E+00	0.00E+00	3.00E-02	3.75E-02	0.00E+00	0.00E+00	2.14E-03	0.00E+00	6.96E-02	4.10E-01
Chromium	0.00E+00	0.00E+00	2.20E-01	2.23E-01	0.00E+00	0.00E+00	1.27E-02	0.00E+00	4.55E-01	1.90E+00
Copper	0.00E+00	0.00E+00	2.06E+00	3.66E-01	0.00E+00	0.00E+00	2.09E-02	0.00E+00	2.45E+00	7.06E-03
Lead	0.00E+00	0.00E+00	6.60E-02	1.01E+00	0.00E+00	0.00E+00	5.78E-02	0.00E+00	1.14E+00	1.26E+01
Mercury	0.00E+00	0.00E+00	0.00E+00	5.40E-04	0.00E+00	0.00E+00	3.08E-05	0.00E+00	5.71E-04	3.00E-04
Nickel	0.00E+00	0.00E+00	2.60E-01	7.80E-02	0.00E+00	0.00E+00	4.45E-03	0.00E+00	3.42E-01	4.03E-01
Silver	0.00E+00	0.00E+00	0.00E+00	1.56E-03	0.00E+00	0.00E+00	8.89E-05	0.00E+00	1.65E-03	9.26E-04
Zinc	0.00E+00	0.00E+00	8.19E+00	1.35E+00	0.00E+00	0.00E+00	7.70E-02	0.00E+00	9.61E+00	6.87E-01
TOTAL										1.62E+01

**Table H.27. Site 21 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Avg. Modeled Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose-Response Value (mg/kg/day)		Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Avg. Plant Conc. (mg/kg)
Methylene chloride	6.45E-03	4.09E-05	0.00E+00	3.10E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Xylenes	3.03E-03	1.92E-05	0.00E+00	8.95E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Bis(2-ethylhexyl)phtha	1.00E-01	6.34E-04	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chrysene	2.40E-02	1.52E-04	0.00E+00	2.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Antimony	1.01E+01	6.41E-02	0.00E+00	2.99E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Arsenic	1.09E+00	6.91E-03	0.00E+00	3.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Beryllium	2.00E-01	1.27E-03	0.00E+00	5.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Cadmium	6.25E+00	6.96E-02	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.50E-01
Chromium	3.71E+01	4.55E-01	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.10E+00
Copper	6.10E+01	2.45E+00	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.03E+01
Lead	1.69E+02	1.14E+00	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.30E-01
Mercury	9.00E-02	5.71E-04	0.00E+00	1.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Nickel	1.30E+01	3.42E-01	0.00E+00	2.69E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.30E+00
Silver	2.60E-01	1.65E-03	0.00E+00	8.90E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Zinc	2.25E+02	9.61E+00	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	4.09E+01

EXPOSURE PARAMETERS:

Table H.27. Site 21 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day)	0.00E+00
Soil Ingestion Rate (kg/day)	3.88E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm2)	3.02E+02
Skin exposed - Soil/Sediment (cm2/day)	3.02E+02
Soil on Skin (kg/cm2)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table H.27. Site 21 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Organism Consumption (mg/kg/day)
Methylene chloride	4.09E-05	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.50E-06
Xylenes	1.92E-05	1.00E+00	1.93E-01	1.00E+00	5.25E+00	7.06E-07
Bis(2-ethylhexyl)phtha	6.34E-04	1.00E+00	1.93E-01	1.00E+00	5.25E+00	2.33E-05
Chrysene	1.52E-04	1.00E+00	1.93E-01	1.00E+00	5.25E+00	5.59E-06
Antimony	6.41E-02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	2.35E-03
Arsenic	6.91E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	2.54E-04
Beryllium	1.27E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	4.66E-05
Cadmium	6.96E-02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	2.56E-03
Chromium	4.55E-01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.67E-02
Copper	2.45E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	8.99E-02
Lead	1.14E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	4.18E-02
Mercury	5.71E-04	1.00E+00	1.93E-01	1.00E+00	5.25E+00	2.10E-05
Nickel	3.42E-01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.26E-02
Silver	1.65E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	6.06E-05
Zinc	9.61E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	3.53E-01

WATER CONSUMPTION

Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Site-Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Methylene chloride	4.09E-05	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Xylenes	1.92E-05	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phtha	6.34E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chrysene	1.52E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	6.41E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	6.91E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	1.27E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	6.96E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	4.55E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	2.45E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	1.14E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	5.71E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	3.42E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	1.65E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	9.61E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table H.27. Site 21 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Methylene chloride	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Xylenes	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phtha	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chrysene	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.50E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.67E-03
Chromium	1.10E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.69E-02
Copper	1.03E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.52E-01
Lead	3.30E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	8.08E-03
Mercury	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	1.30E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.18E-02
Silver	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	4.09E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.00E+00

SOIL INGESTION:

Table H.27. Site 21 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
Methylene chloride	6.45E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.74E-06
Xylenes	3.03E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.23E-06
Bis(2-ethylhexyl)phtha	1.00E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	7.35E-05
Chrysene	2.40E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.76E-05
Antimony	1.01E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	7.42E-03
Arsenic	1.09E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.01E-04
Beryllium	2.00E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.47E-04
Cadmium	6.25E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.59E-03
Chromium	3.71E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.73E-02
Copper	6.10E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.48E-02
Lead	1.69E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.24E-01
Mercury	9.00E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.61E-05
Nickel	1.30E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.55E-03
Silver	2.60E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.91E-04
Zinc	2.25E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.65E-01

SEDIMENT INGESTION:

Table H.27. Site 21 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Methylene chloride	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Xylenes	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phtha	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chrysene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.27. Site 21 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm ²)	Sediment Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Methylene chloride	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Xylenes	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phtha	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chrysene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.27. Site 21 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Methylene chloride	6.45E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.71E-07
Xylenes	3.03E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.74E-07
Bis(2-ethylhexyl)phtha	1.00E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.75E-06
Chrysene	2.40E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.38E-06
Antimony	1.01E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.81E-04
Arsenic	1.09E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.27E-05
Beryllium	2.00E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.15E-05
Cadmium	6.25E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.59E-04
Chromium	3.71E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.13E-03
Copper	6.10E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.51E-03
Lead	1.69E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	9.72E-03
Mercury	9.00E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.18E-06
Nickel	1.30E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.48E-04
Silver	2.60E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.50E-05
Zinc	2.25E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.29E-02

SURFACE WATER DERMAL EXPOSURE:

Table H.27. Site 21 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm2)	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Methylene chloride	4.09E-05	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Xylenes	1.92E-05	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phtha	6.34E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chrysene	1.52E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	6.41E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	6.91E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	1.27E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	6.96E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	4.55E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	2.45E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	1.14E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	5.71E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	3.42E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	1.65E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	9.61E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table H.27. Site 21 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Methylene chloride	1.50E-06	0.00E+00	0.00E+00	4.74E-06	0.00E+00	0.00E+00	3.71E-07	0.00E+00	6.61E-06	2.13E-05
Xylenes	7.06E-07	0.00E+00	0.00E+00	2.23E-06	0.00E+00	0.00E+00	1.74E-07	0.00E+00	3.11E-06	3.47E-07
Bis(2-ethylhexyl)phtha	2.33E-05	0.00E+00	0.00E+00	7.35E-05	0.00E+00	0.00E+00	5.75E-06	0.00E+00	1.03E-04	7.89E-04
Chrysene	5.59E-06	0.00E+00	0.00E+00	1.76E-05	0.00E+00	0.00E+00	1.38E-06	0.00E+00	2.46E-05	1.23E-03
Antimony	2.35E-03	0.00E+00	0.00E+00	7.42E-03	0.00E+00	0.00E+00	5.81E-04	0.00E+00	1.04E-02	3.46E-03
Arsenic	2.54E-04	0.00E+00	0.00E+00	8.01E-04	0.00E+00	0.00E+00	6.27E-05	0.00E+00	1.12E-03	3.02E-03
Beryllium	4.66E-05	0.00E+00	0.00E+00	1.47E-04	0.00E+00	0.00E+00	1.15E-05	0.00E+00	2.05E-04	4.10E-03
Cadmium	2.56E-03	0.00E+00	3.67E-03	4.59E-03	0.00E+00	0.00E+00	3.59E-04	0.00E+00	1.12E-02	1.32E+00
Chromium	1.67E-02	0.00E+00	2.69E-02	2.73E-02	0.00E+00	0.00E+00	2.13E-03	0.00E+00	7.31E-02	2.44E+00
Copper	8.99E-02	0.00E+00	2.52E-01	4.48E-02	0.00E+00	0.00E+00	3.51E-03	0.00E+00	3.90E-01	2.25E-02
Lead	4.18E-02	0.00E+00	8.08E-03	1.24E-01	0.00E+00	0.00E+00	9.72E-03	0.00E+00	1.84E-01	1.41E+00
Mercury	2.10E-05	0.00E+00	0.00E+00	6.61E-05	0.00E+00	0.00E+00	5.18E-06	0.00E+00	9.23E-05	9.23E-04
Nickel	1.26E-02	0.00E+00	3.18E-02	9.55E-03	0.00E+00	0.00E+00	7.48E-04	0.00E+00	5.47E-02	2.03E-02
Silver	6.06E-05	0.00E+00	0.00E+00	1.91E-04	0.00E+00	0.00E+00	1.50E-05	0.00E+00	2.67E-04	2.99E-04
Zinc	3.53E-01	0.00E+00	1.00E+00	1.65E-01	0.00E+00	0.00E+00	1.29E-02	0.00E+00	1.53E+00	8.76E-01
TOTAL										6.10E+00

**Table H.28. Site 22 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose-Response Value	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Avg/Plant Conc. (mg/kg)
Bis(2-ethylhexyl)phthalate	9.50E+00	0.00E+00	0.00E+00	2.60E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Benzo(b)fluoranthene	7.80E-03	0.00E+00	0.00E+00	2.50E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Butylbenzylphthalate	1.20E+01	0.00E+00	0.00E+00	1.59E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDD	9.63E-03	0.00E+00	0.00E+00	1.07E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDT	1.19E-02	0.00E+00	0.00E+00	3.11E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Arsenic	1.45E+00	0.00E+00	0.00E+00	7.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.63E+00
Copper	0.00E+00	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.86E+01
Lead	2.38E+01	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.60E-01
Nickel	0.00E+00	0.00E+00	0.00E+00	8.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.15E+00
Selenium	0.00E+00	0.00E+00	0.00E+00	6.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-01
Zinc	0.00E+00	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	4.03E+01

EXPOSURE PARAMETERS:

Table H.28. Site 22 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:
 Table H.28. Site 22 Risk Characterization for the Deer Mouse
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface	Aquatic Consumption BCF (L/kg)	Aquatic	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Water Concentration (mg/L)		Organism Consumption Rate (kg/day)				Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(b)fluoranthene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Butylbenzylphthalate	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Water Concentration (mg/L)					Daily Dose From Water Consumption (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(b)fluoranthene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Butylbenzylphthalate	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table H.28. Site 22 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
						Body Weight (kg)	Plant Consumption (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(b)fluoranthene	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Butylbenzylphthalate	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	2.63E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	5.26E-01
Copper	1.86E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.72E+00
Lead	2.60E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	5.20E-02
Nickel	3.15E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	6.30E-01
Selenium	1.00E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.00E-02
Zinc	4.03E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	8.06E+00

SOIL INGESTION:

Table H.28. Site 22 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
					Body Weight (kg)	Soil Ingestion (mg/kg/day)
Bis(2-ethylhexyl)phthalate	9.50E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.70E-02
Benzo(b)fluoranthene	7.80E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.68E-05
Butylbenzylphthalate	1.20E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.20E-02
4,4'-DDD	9.63E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.78E-05
4,4'-DDT	1.19E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.14E-05
Arsenic	1.45E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	8.70E-03
Chromium	0.00E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	2.38E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.43E-01
Nickel	0.00E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT INGESTION:

Table H.28. Site 22 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose
						From Sediment Ingestion (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(b)fluoranthene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Butylbenzylphthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.28. Site 22 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm ²)	Sediment Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose	
								Body Weight (kg)	From Sediment - Dermal (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(b)fluoranthene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Butylbenzylphthalate	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.28. Site 22 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil	Surface Soil	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Concentration (mg/kg)	Dermal Exposure (Soil on Skin) (kg/cm2)						Dermal Exposure (Skin Exposed) (cm2/day)
Bis(2-ethylhexyl)phthalate	9.50E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.25E-03
Benzo(b)fluoranthene	7.80E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.67E-06
Butylbenzylphthalate	1.20E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.10E-03
4,4'-DDD	9.63E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.29E-06
4,4'-DDT	1.19E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.07E-06
Arsenic	1.45E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.96E-04
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	2.38E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.14E-03
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SURFACE WATER DERMAL EXPOSURE:

Table H.28. Site 22 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water	Surface Water	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average
	Concentration (mg/L)	Dermal Exposure (Skin Exposed) (cm2)							Daily Dose From Water - Dermal (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(b)fluoranthene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Butylbenzylphthalate	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table H.28. Site 22 Risk Characterization for the Deer Mouse

Quantitative Ecological Risk Assessment

Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose Water Consumption (mg/kg/day)	Lifetime Average Daily Dose Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Bis(2-ethylhexyl)phthalate	0.00E+00	0.00E+00	0.00E+00	5.70E-02	0.00E+00	0.00E+00	3.25E-03	0.00E+00	6.02E-02	2.32E-02
Benzo(b)fluoranthene	0.00E+00	0.00E+00	0.00E+00	4.68E-05	0.00E+00	0.00E+00	2.67E-06	0.00E+00	4.95E-05	1.98E-06
Butylbenzylphthalate	0.00E+00	0.00E+00	0.00E+00	7.20E-02	0.00E+00	0.00E+00	4.10E-03	0.00E+00	7.61E-02	4.79E-03
4,4'-DDD	0.00E+00	0.00E+00	0.00E+00	5.78E-05	0.00E+00	0.00E+00	3.29E-06	0.00E+00	6.11E-05	5.71E-07
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	7.14E-05	0.00E+00	0.00E+00	4.07E-06	0.00E+00	7.55E-05	2.43E-05
Arsenic	0.00E+00	0.00E+00	0.00E+00	8.70E-03	0.00E+00	0.00E+00	4.96E-04	0.00E+00	9.20E-03	1.31E-02
Chromium	0.00E+00	0.00E+00	5.26E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.26E-01	2.19E+00
Copper	0.00E+00	0.00E+00	3.72E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E+00	1.07E-02
Lead	0.00E+00	0.00E+00	5.20E-02	1.43E-01	0.00E+00	0.00E+00	8.14E-03	0.00E+00	2.03E-01	2.25E+00
Nickel	0.00E+00	0.00E+00	6.30E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.30E-01	7.41E-01
Selenium	0.00E+00	0.00E+00	2.00E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.00E-02	3.33E-01
Zinc	0.00E+00	0.00E+00	8.06E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.06E+00	5.75E-01
TOTAL										6.15E+00

**Table H.29. Site 22 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Avg. Modeled Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose-Response Value		Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Avg. Plant Conc. (mg/kg)
Bis(2-ethylhexyl)phthalate	9.50E+00	6.02E-02	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Benzo(b)fluoranthene	7.80E-03	4.95E-05	0.00E+00	1.25E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Butylbenzylphthalate	1.20E+01	7.61E-02	0.00E+00	7.95E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDD	9.63E-03	6.11E-05	0.00E+00	5.35E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDT	1.19E-02	7.55E-05	0.00E+00	1.60E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Arsenic	1.45E+00	9.20E-03	0.00E+00	3.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chromium	0.00E+00	5.26E-01	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.63E+00
Copper	0.00E+00	3.72E+00	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.86E+01
Lead	2.38E+01	2.03E-01	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.60E-01
Nickel	0.00E+00	6.30E-01	0.00E+00	2.69E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.15E+00
Selenium	0.00E+00	2.00E-02	0.00E+00	3.10E-03	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-01
Zinc	0.00E+00	8.06E+00	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	4.03E+01

EXPOSURE PARAMETERS:

Table H.29. Site 22 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day)	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table H.29. Site 22 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Organism Consumption (mg/kg/day)
Bis(2-ethylhexyl)phthalate	6.02E-02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	2.21E-03
Benzo(b)fluoranthene	4.95E-05	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.82E-06
Butylbenzylphthalate	7.61E-02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	2.80E-03
4,4'-DDD	6.11E-05	1.00E+00	1.93E-01	1.00E+00	5.25E+00	2.24E-06
4,4'-DDT	7.55E-05	1.00E+00	1.93E-01	1.00E+00	5.25E+00	2.77E-06
Arsenic	9.20E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	3.38E-04
Chromium	5.26E-01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.93E-02
Copper	3.72E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.37E-01
Lead	2.03E-01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	7.45E-03
Nickel	6.30E-01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	2.31E-02
Selenium	2.00E-02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	7.35E-04
Zinc	8.06E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	2.96E-01

WATER CONSUMPTION

Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Site-Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Bis(2-ethylhexyl)phthalate	6.02E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(b)fluoranthene	4.95E-05	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Butylbenzylphthalate	7.61E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	6.11E-05	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	7.55E-05	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	9.20E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	5.26E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	3.72E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	2.03E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	6.30E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	2.00E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	8.06E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table H.29. Site 22 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(b)fluoranthene	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Butylbenzylphthalate	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	2.63E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	6.44E-02
Copper	1.86E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.55E-01
Lead	2.60E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	6.37E-03
Nickel	3.15E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	7.71E-02
Selenium	1.00E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.45E-03
Zinc	4.03E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	9.86E-01

SOIL INGESTION:

Table H.29. Site 22 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
Bis(2-ethylhexyl)phthalate	9.50E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.98E-03
Benzo(b)fluoranthene	7.80E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.73E-06
Butylbenzylphthalate	1.20E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.82E-03
4,4'-DDD	9.63E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	7.07E-06
4,4'-DDT	1.19E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.74E-06
Arsenic	1.45E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.07E-03
Chromium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	2.38E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.75E-02
Nickel	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT INGESTION:

Table H.29. Site 22 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Bis(2-ethyhexyl)phthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(b)fluoranthene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Butylbenzylphthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.29. Site 22 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Bis(2-ethyhexyl)phthalate	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(b)fluoranthene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Butylbenzylphthalate	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.29. Site 22 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose
									From Soil - Dermal (mg/kg/day)
Bis(2-ethylhexyl)phthalate	9.50E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.46E-04
Benzo(b)fluoranthene	7.80E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.49E-07
Butylbenzylphthalate	1.20E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.90E-04
4,4'-DDD	9.63E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.54E-07
4,4'-DDT	1.19E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.84E-07
Arsenic	1.45E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	8.34E-05
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	2.38E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.37E-03
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SURFACE WATER DERMAL EXPOSURE:

Table H.29. Site 22 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm2)	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose
									From Water - Dermal (mg/kg/day)
Bis(2-ethylhexyl)phthalate	6.02E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(b)fluoranthene	4.95E-05	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Butylbenzylphthalate	7.61E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	6.11E-05	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	7.55E-05	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	9.20E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	5.26E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	3.72E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	2.03E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	6.30E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	2.00E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	8.06E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table H.29. Site 22 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment

Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Bis(2-ethylhexyl)phthalate	2.21E-03	0.00E+00	0.00E+00	6.98E-03	0.00E+00	0.00E+00	5.46E-04	0.00E+00	9.74E-03	7.49E-02
Benzo(b)fluoranthene	1.82E-06	0.00E+00	0.00E+00	5.73E-06	0.00E+00	0.00E+00	4.49E-07	0.00E+00	8.00E-06	6.40E-06
Butylbenzylphthalate	2.80E-03	0.00E+00	0.00E+00	8.82E-03	0.00E+00	0.00E+00	6.90E-04	0.00E+00	1.23E-02	1.55E-03
4,4'-DDD	2.24E-06	0.00E+00	0.00E+00	7.07E-06	0.00E+00	0.00E+00	5.54E-07	0.00E+00	9.87E-06	1.85E-06
4,4'-DDT	2.77E-06	0.00E+00	0.00E+00	8.74E-06	0.00E+00	0.00E+00	6.84E-07	0.00E+00	1.22E-05	7.62E-06
Arsenic	3.38E-04	0.00E+00	0.00E+00	1.07E-03	0.00E+00	0.00E+00	8.34E-05	0.00E+00	1.49E-03	4.02E-03
Chromium	1.93E-02	0.00E+00	6.44E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.37E-02	2.79E+00
Copper	1.37E-01	0.00E+00	4.55E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.92E-01	3.42E-02
Lead	7.45E-03	0.00E+00	6.37E-03	1.75E-02	0.00E+00	0.00E+00	1.37E-03	0.00E+00	3.27E-02	2.51E-01
Nickel	2.31E-02	0.00E+00	7.71E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-01	3.73E-02
Selenium	7.35E-04	0.00E+00	2.45E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.18E-03	1.03E+00
Zinc	2.96E-01	0.00E+00	9.86E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.28E+00	7.33E-01
TOTAL										4.95E+00

**Table H.30. Site 24 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose-Response Value	Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Avg. Plant Conc (mg/kg)
Toluene	1.60E-03	0.00E+00	0.00E+00	2.50E+02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Bis(2-ethylhexyl)phthalate	8.50E-02	0.00E+00	0.00E+00	2.60E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
PCBs (aroclor-1260)	2.92E-01	0.00E+00	0.00E+00	1.40E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chlordane	6.64E-02	0.00E+00	0.00E+00	9.00E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDD	2.99E-02	0.00E+00	0.00E+00	1.07E+02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDE	1.70E-02	0.00E+00	0.00E+00	3.40E+01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDT	2.22E-01	0.00E+00	0.00E+00	3.11E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Dieldrin	1.12E-02	0.00E+00	0.00E+00	3.00E-03	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Gamma-BHC	5.51E-03	0.00E+00	0.00E+00	3.25E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Antimony	2.70E-01	0.00E+00	0.00E+00	3.50E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chromium	1.15E+01	0.00E+00	0.00E+00	3.25E+00	1.00E+00	1.00E+00	1.00E+00	6.00E-01
Copper	0.00E+00	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	1.05E+01
Lead	1.45E+01	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	5.20E-01
Mercury	4.00E-02	0.00E+00	0.00E+00	1.90E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	0.00E+00	8.50E-01	1.00E+00	1.00E+00	1.00E+00	1.73E+00
Silver	2.80E-01	0.00E+00	0.00E+00	1.78E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Zinc	2.03E+01	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	4.58E+01

EXPOSURE PARAMETERS:

Table H.30. Site 24 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:
 Table H.30. Site 24 Risk Characterization for the Deer Mouse
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Toluene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phthalate	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PCBs (aroclor-1260)	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Gamma-BHC	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Site - Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Toluene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phthalate	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PCBs (aroclor-1260)	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Gamma-BHC	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table H.30. Site 24 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
						Body Weight (kg)	Plant Consumption (mg/kg/day)
Toluene	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phthalate	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PCBs (aroclor-1260)	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Gamma-BHC	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	6.00E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.20E-01
Copper	1.05E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.11E+00
Lead	5.20E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.04E-01
Mercury	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	1.73E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.46E-01
Silver	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	4.58E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	9.16E+00

SOIL INGESTION:

Table H.30. Site 24 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From	
						Soil Ingestion (mg/kg/day)	Soil Ingestion (mg/kg/day)
Toluene	1.60E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.60E-06	
Bis(2-ethylhexyl)phthalate	8.50E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.10E-04	
PCBs (aroclor-1260)	2.92E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.75E-03	
Chlordane	6.64E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.98E-04	
4,4'-DDD	2.99E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.79E-04	
4,4'-DDE	1.70E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.02E-04	
4,4'-DDT	2.22E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.33E-03	
Dieldrin	1.12E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.72E-05	
Gamma-BHC	5.51E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.31E-05	
Antimony	2.70E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.62E-03	
Chromium	1.15E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.90E-02	
Copper	0.00E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	0.00E+00	
Lead	1.45E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	8.70E-02	
Mercury	4.00E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.40E-04	
Nickel	0.00E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	0.00E+00	
Silver	2.80E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.68E-03	
Zinc	2.03E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.22E-01	

SEDIMENT INGESTION:

Table H.30. Site 24 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Toluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PCBs (aroclor-1260)	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Gamma-BHC	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.30. Site 24 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose Sediment - Dermal (mg/kg/day)
Toluene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phthalate	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PCBs (aroclor-1260)	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Gamma-BHC	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.30. Site 24 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
									Daily Dose From Soil - Dermal (mg/kg/day)
Toluene	1.60E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.47E-07
Bis(2-ethylhexyl)phthalate	8.50E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.91E-05
PCBs (aroclor-1260)	2.92E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	9.99E-05
Chlordane	6.64E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.27E-05
4,4'-DDD	2.99E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.02E-05
4,4'-DDE	1.70E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.81E-06
4,4'-DDT	2.22E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.59E-05
Dieldrin	1.12E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.83E-06
Gamma-BHC	5.51E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.88E-06
Antimony	2.70E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	9.23E-05
Chromium	1.15E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.93E-03
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	1.45E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.96E-03
Mercury	4.00E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.37E-05
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	2.80E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	9.58E-05
Zinc	2.03E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.94E-03

SURFACE WATER DERMAL EXPOSURE:

Table H.30. Site 24 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm2)	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average
									Daily Dose From Water - Dermal (mg/kg/day)
Toluene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Bis(2-ethylhexyl)phthalate	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PCBs (aroclor-1260)	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Gamma-BHC	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table H.30. Site 24 Risk Characterization for the Deer Mouse

Quantitative Ecological Risk Assessment

Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Toluene	0.00E+00	0.00E+00	0.00E+00	9.60E-06	0.00E+00	0.00E+00	5.47E-07	0.00E+00	1.01E-05	4.06E-08
Bis(2-ethylhexyl)phthalate	0.00E+00	0.00E+00	0.00E+00	5.10E-04	0.00E+00	0.00E+00	2.91E-05	0.00E+00	5.39E-04	2.07E-04
PCBs (aroclor-1260)	0.00E+00	0.00E+00	0.00E+00	1.75E-03	0.00E+00	0.00E+00	9.99E-05	0.00E+00	1.85E-03	1.32E-02
Chlordane	0.00E+00	0.00E+00	0.00E+00	3.98E-04	0.00E+00	0.00E+00	2.27E-05	0.00E+00	4.21E-04	4.68E-04
4,4'-DDD	0.00E+00	0.00E+00	0.00E+00	1.79E-04	0.00E+00	0.00E+00	1.02E-05	0.00E+00	1.90E-04	1.77E-06
4,4'-DDE	0.00E+00	0.00E+00	0.00E+00	1.02E-04	0.00E+00	0.00E+00	5.81E-06	0.00E+00	1.08E-04	3.17E-06
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	1.33E-03	0.00E+00	0.00E+00	7.59E-05	0.00E+00	1.41E-03	4.53E-04
Dieldrin	0.00E+00	0.00E+00	0.00E+00	6.72E-05	0.00E+00	0.00E+00	3.83E-06	0.00E+00	7.10E-05	2.37E-02
Gamma-BHC	0.00E+00	0.00E+00	0.00E+00	3.31E-05	0.00E+00	0.00E+00	1.88E-06	0.00E+00	3.49E-05	1.08E-05
Antimony	0.00E+00	0.00E+00	0.00E+00	1.62E-03	0.00E+00	0.00E+00	9.23E-05	0.00E+00	1.71E-03	4.89E-03
Chromium	0.00E+00	0.00E+00	1.20E-01	6.90E-02	0.00E+00	0.00E+00	3.93E-03	0.00E+00	1.93E-01	5.94E-02
Copper	0.00E+00	0.00E+00	2.11E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E+00	6.07E-03
Lead	0.00E+00	0.00E+00	1.04E-01	8.70E-02	0.00E+00	0.00E+00	4.96E-03	0.00E+00	1.96E-01	2.18E+00
Mercury	0.00E+00	0.00E+00	0.00E+00	2.40E-04	0.00E+00	0.00E+00	1.37E-05	0.00E+00	2.54E-04	1.34E-04
Nickel	0.00E+00	0.00E+00	3.46E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.46E-01	4.07E-01
Silver	0.00E+00	0.00E+00	0.00E+00	1.68E-03	0.00E+00	0.00E+00	9.58E-05	0.00E+00	1.78E-03	9.98E-04
Zinc	0.00E+00	0.00E+00	9.16E+00	1.22E-01	0.00E+00	0.00E+00	6.94E-03	0.00E+00	9.29E+00	6.64E-01
TOTAL										3.36E+00

Table H.31. Site 24 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Avg. Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose-Response Value		Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Avg. Plant Conc. (mg/kg)
Toluene	1.60E-03	1.01E-05	0.00E+00	1.25E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Bis(2-ethylhexyl)phthalate	8.50E-02	5.39E-04	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
PCBs (aroclor-1260)	2.92E-01	1.85E-03	0.00E+00	5.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chlordane	6.64E-02	4.21E-04	0.00E+00	4.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDD	2.99E-02	1.90E-04	0.00E+00	5.35E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDE	1.70E-02	1.08E-04	0.00E+00	1.70E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDT	2.22E-01	1.41E-03	0.00E+00	1.60E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Dieldrin	1.12E-02	7.10E-05	0.00E+00	2.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Gamma-BHC	5.51E-03	3.49E-05	0.00E+00	2.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Antimony	2.70E-01	1.71E-03	0.00E+00	2.99E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Barium	0.00E+00	6.03E+00	0.00E+00	4.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Cadmium	0.00E+00	2.00E-02	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chromium	1.15E+01	9.00E-02	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	6.00E-01
Copper	0.00E+00	4.35E+00	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.05E+01
Lead	1.45E+01	6.80E-01	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.20E-01
Mercury	4.00E-02	2.54E-04	0.00E+00	1.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Nickel	0.00E+00	4.70E-01	0.00E+00	2.69E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.73E+00
Thallium	0.00E+00	1.00E-01	0.00E+00	3.00E-03	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Vanadium	0.00E+00	1.07E+00	0.00E+00	2.10E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Silver	2.80E-01	0.00E+00	0.00E+00	8.90E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Zinc	2.03E+01	4.23E+01	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	4.58E+01

EXPOSURE PARAMETERS:

Table H.31. Site 24 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

FIELD MOUSE CONSUMPTION:

Table H.31. Site 24 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Field Mouse Conc. (mg/kg/day)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From		
					Body Weight (kg)	Organism Consumption (mg/kg/day)	
Toluene	1.01E-05	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.73E-07
Bis(2-ethylhexyl)phthalate	5.39E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.98E-05
PCBs (aroclor-1260)	1.85E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	6.80E-05
Chlordane	4.21E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.55E-05
4,4'-DDD	1.90E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	6.97E-06
4,4'-DDE	1.08E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.96E-06
4,4'-DDT	1.41E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	5.17E-05
Dieldrin	7.10E-05	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.61E-06
Gamma-BHC	3.49E-05	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.28E-06
Antimony	1.71E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	6.29E-05
Barium	6.03E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.22E-01
Cadmium	2.00E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	7.35E-04
Chromium	9.00E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.31E-03
Copper	4.35E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.60E-01
Lead	6.80E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.50E-02
Mercury	2.54E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	9.32E-06
Nickel	4.70E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.73E-02
Thallium	1.00E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.67E-03
Vanadium	1.07E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.93E-02
Silver	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	4.23E+01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.55E+00

WATER CONSUMPTION
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Site-Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From Water	
					Body Weight (kg)	Consumption (mg/kg/day)
Toluene	1.01E-05	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phthalate	5.39E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PCBs (aroclor-1260)	1.85E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	4.21E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	1.90E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	1.08E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	1.41E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	7.10E-05	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Gamma-BHC	3.49E-05	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	1.71E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	6.03E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	2.00E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	9.00E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	4.35E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	6.80E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	2.54E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	4.70E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	1.00E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	1.07E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	4.23E+01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table H.31. Site 24 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average	
						Body Weight (kg)	Daily Dose From Plant Consumption (mg/kg/day)
Toluene	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phthalate	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PCBs (aroclor-1260)	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Gamma-BHC	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	6.00E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.47E-02
Copper	1.05E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.58E-01
Lead	5.20E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.27E-02
Mercury	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	1.73E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.24E-02
Thallium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	4.58E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.12E+00

SOIL INGESTION:
 Table H.31. Site 24 Risk Characterization for the Gray Fox
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface	Soil	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Ingestion Rate (kg/day)				Daily Dose From Soil Ingestion (mg/kg/day)
Toluene	1.60E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.18E-06
Bis(2-ethylhexyl)phthalate	8.50E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.24E-05
PCBs (aroclor-1260)	2.92E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.15E-04
Chlordane	6.64E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.88E-05
4,4'-DDD	2.99E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.20E-05
4,4'-DDE	1.70E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.25E-05
4,4'-DDT	2.22E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.63E-04
Dieldrin	1.12E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.23E-06
Gamma-BHC	5.51E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.05E-06
Antimony	2.70E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.98E-04
Barium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	1.15E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.45E-03
Copper	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	1.45E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.07E-02
Mercury	4.00E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.94E-05
Nickel	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	2.80E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.06E-04
Zinc	2.03E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.49E-02

SEDIMENT INGESTION:

Table H.31. Site 24 Risk Characterization for the Gray Fox

Quantitative Ecological Risk Assessment

Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Toluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PCBs (aroclor-1260)	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Gamma-BHC	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:
 Table H.31. Site 24 Risk Characterization for the Gray Fox
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose	
								Body Weight (kg)	From Sediment - Dermal (mg/kg/day)
Toluene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phthalate	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PCBs (aroclor-1260)	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Gamma-BHC	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.31. Site 24 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm ²)	Surface Soil Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
								Body Weight (kg)	From Soil - Dermal (mg/kg/day)
Toluene	1.60E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	9.20E-08
Bis(2-ethylhexyl)phthalate	8.50E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.89E-06
PCBs (aroclor-1260)	2.92E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.68E-05
Chlordane	6.64E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.82E-06
4,4'-DDD	2.99E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.72E-06
4,4'-DDE	1.70E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	9.78E-07
4,4'-DDT	2.22E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.28E-05
Dieldrin	1.12E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.44E-07
Gamma-BHC	5.51E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.17E-07
Antimony	2.70E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.55E-05
Barium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	1.15E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.61E-04
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	1.15E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.61E-04
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	1.45E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	8.34E-04
Mercury	4.00E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.30E-06
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	2.80E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.61E-05
Zinc	2.03E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.17E-03

SURFACE WATER DERMAL EXPOSURE:
 Table H.31. Site 24 Risk Characterization for the Gray Fox
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average
									Daily Dose From Water - Dermal (mg/kg/day)
Toluene	1.01E-05	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Bis(2-ethylhexyl)phthalate	5.39E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PCBs (aroclor-1260)	1.85E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	4.21E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	1.90E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	1.08E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	1.41E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	7.10E-05	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Gamma-BHC	3.49E-05	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	1.71E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	6.03E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	2.00E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	9.00E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	4.35E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	6.80E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	2.54E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	4.70E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	1.00E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	1.07E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	4.23E+01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table H.31. Site 24 Risk Characterization for the Gray Fox

Quantitative Ecological Risk Assessment

Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Toluene	3.73E-07	0.00E+00	0.00E+00	1.18E-06	0.00E+00	0.00E+00	9.20E-08	0.00E+00	1.64E-06	1.31E-07
Bis(2-ethylhexyl)phthalate	1.98E-05	0.00E+00	0.00E+00	6.24E-05	0.00E+00	0.00E+00	4.89E-06	0.00E+00	8.71E-05	6.70E-04
PCBs (aroclor-1260)	6.80E-05	0.00E+00	0.00E+00	2.15E-04	0.00E+00	0.00E+00	1.68E-05	0.00E+00	2.99E-04	5.99E-03
Chlordane	1.55E-05	0.00E+00	0.00E+00	4.88E-05	0.00E+00	0.00E+00	3.82E-06	0.00E+00	6.81E-05	1.70E-03
4,4'-DDD	6.97E-06	0.00E+00	0.00E+00	2.20E-05	0.00E+00	0.00E+00	1.72E-06	0.00E+00	3.07E-05	5.73E-06
4,4'-DDE	3.96E-06	0.00E+00	0.00E+00	1.25E-05	0.00E+00	0.00E+00	9.78E-07	0.00E+00	1.74E-05	1.03E-05
4,4'-DDT	5.17E-05	0.00E+00	0.00E+00	1.63E-04	0.00E+00	0.00E+00	1.28E-05	0.00E+00	2.28E-04	1.42E-04
Dieldrin	2.61E-06	0.00E+00	0.00E+00	8.23E-06	0.00E+00	0.00E+00	6.44E-07	0.00E+00	1.15E-05	5.74E-04
Gamma-BHC	1.28E-06	0.00E+00	0.00E+00	4.05E-06	0.00E+00	0.00E+00	3.17E-07	0.00E+00	5.65E-06	2.26E-05
Antimony	6.29E-05	0.00E+00	0.00E+00	1.98E-04	0.00E+00	0.00E+00	1.55E-05	0.00E+00	2.77E-04	9.26E-05
Barium	2.22E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.22E-01	5.54E+00
Cadmium	7.35E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.35E-04	8.64E-02
Chromium	3.31E-03	0.00E+00	1.47E-02	8.45E-03	0.00E+00	0.00E+00	6.61E-04	0.00E+00	2.71E-02	9.04E-01
Copper	1.60E-01	0.00E+00	2.58E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.18E-01	2.41E-02
Lead	2.50E-02	0.00E+00	1.27E-02	1.07E-02	0.00E+00	0.00E+00	6.61E-04	0.00E+00	4.90E-02	3.77E-01
Mercury	9.32E-06	0.00E+00	0.00E+00	2.94E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.87E-05	3.87E-04
Nickel	1.73E-02	0.00E+00	4.24E-02	0.00E+00	0.00E+00	0.00E+00	8.34E-04	0.00E+00	6.05E-02	2.25E-02
Thallium	3.67E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.30E-06	0.00E+00	3.68E-03	1.23E+00
Vanadium	3.93E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.93E-02	1.87E-01
Silver	0.00E+00	0.00E+00	0.00E+00	2.06E-04	0.00E+00	0.00E+00	1.61E-05	0.00E+00	2.22E-04	2.49E-04
Zinc	1.55E+00	0.00E+00	1.12E+00	1.49E-02	0.00E+00	0.00E+00	1.17E-03	0.00E+00	2.69E+00	1.54E+00

TOTAL

9.91E+00

**Table H.32. Site 25 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose-Response Value	Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Avg. Plant Conc. (mg/kg)
Acetone	1.60E-01	0.00E+00	0.00E+00	2.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
PCBs (aroclor-1254)	2.10E-01	0.00E+00	0.00E+00	4.90E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDE	6.44E-03	0.00E+00	0.00E+00	3.40E+01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDT	2.70E-02	0.00E+00	0.00E+00	3.11E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Dieldrin	9.00E-06	0.00E+00	0.00E+00	3.00E-03	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Antimony	1.78E+00	0.00E+00	0.00E+00	3.50E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Arsenic	1.36E+00	0.00E+00	0.00E+00	7.00E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Barium	1.41E+01	0.00E+00	0.00E+00	8.30E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Cadmium	1.65E+00	0.00E+00	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	2.30E-01
Chromium	1.41E+01	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	1.46E+00
Copper	5.58E+00	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	5.27E+01
Lead	1.91E+01	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	2.90E-01
Nickel	0.00E+00	0.00E+00	0.00E+00	8.50E-01	1.00E+00	1.00E+00	1.00E+00	1.90E+00
Vanadium	5.79E+00	0.00E+00	0.00E+00	4.10E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Silver	4.40E-01	0.00E+00	0.00E+00	1.78E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Zinc	6.40E+01	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	3.62E+01

EXPOSURE PARAMETERS:

Table H.32. Site 25 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:
 Table H.32. Site 25 Risk Characterization for the Deer Mouse
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)	
Acetone	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PCBs (aroclor-1254)	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Barium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Vanadium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Site - Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Acetone	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PCBs (aroclor-1254)	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Barium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Vanadium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table H.32. Site 25 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
						Body Weight (kg)	Plant Consumption (mg/kg/day)
Acetone	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PCBs (aroclor-1254)	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Barium	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	2.30E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	4.60E-02
Chromium	1.46E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.92E-01
Copper	5.27E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.05E+01
Lead	2.90E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	5.80E-02
Nickel	1.90E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.80E-01
Vanadium	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	3.62E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	7.24E+00

SOIL INGESTION:

Table H.32. Site 25 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
					Body Weight (kg)	Soil Ingestion (mg/kg/day)
Acetone	1.60E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.60E-04
PCBs (aroclor-1254)	2.10E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.26E-03
4,4'-DDE	6.44E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.86E-05
4,4'-DDT	2.70E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.62E-04
Dieldrin	9.00E-06	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.40E-08
Antimony	1.78E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.07E-02
Arsenic	1.36E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	8.16E-03
Barium	1.41E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	8.46E-02
Cadmium	1.65E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.90E-03
Chromium	1.41E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	8.46E-02
Copper	5.58E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.35E-02
Lead	1.91E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.15E-01
Nickel	0.00E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Vanadium	5.79E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.47E-02
Silver	4.40E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.64E-03
Zinc	6.40E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.84E-01

SEDIMENT INGESTION:

Table H.32. Site 25 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
						Daily Dose From Sediment Ingestion (mg/kg/day)
Acetone	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PCBs (aroclor-1254)	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Barium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Vanadium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.32. Site 25 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Lifetime Average	
								Body Weight (kg)	Daily Dose From Sediment - Dermal (mg/kg/day)
Acetone	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PCBs (aroclor-1254)	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Barium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Vanadium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.32. Site 25 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm ²)	Surface Soil Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose
									From Soil - Dermal (mg/kg/day)
Acetone	1.60E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.47E-05
PCBs (aroclor-1254)	2.10E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.18E-05
4,4'-DDE	6.44E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.20E-06
4,4'-DDT	2.70E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	9.23E-06
Dieldrin	9.00E-06	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.08E-09
Antimony	1.78E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.09E-04
Arsenic	1.36E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.65E-04
Barium	1.41E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.82E-03
Cadmium	1.65E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.64E-04
Chromium	1.41E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.82E-03
Copper	5.58E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.91E-03
Lead	1.91E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.53E-03
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Vanadium	5.79E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.98E-03
Silver	4.40E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.50E-04
Zinc	6.40E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.19E-02

SURFACE WATER DERMAL EXPOSURE:

Table H.32. Site 25 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose
									From Water - Dermal (mg/kg/day)
Acetone	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PCBs (aroclor-1254)	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Barium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Vanadium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table H.32. Site 25 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Acetone	0.00E+00	0.00E+00	0.00E+00	9.60E-04	0.00E+00	0.00E+00	5.47E-05	0.00E+00	1.01E-03	5.07E-04
PCBs (aroclor-1254)	0.00E+00	0.00E+00	0.00E+00	1.26E-03	0.00E+00	0.00E+00	7.18E-05	0.00E+00	1.33E-03	2.72E-03
4,4'-DDE	0.00E+00	0.00E+00	0.00E+00	3.86E-05	0.00E+00	0.00E+00	2.20E-06	0.00E+00	4.08E-05	1.20E-06
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	1.62E-04	0.00E+00	0.00E+00	9.23E-06	0.00E+00	1.71E-04	5.51E-05
Dieldrin	0.00E+00	0.00E+00	0.00E+00	5.40E-08	0.00E+00	0.00E+00	3.08E-09	0.00E+00	5.71E-08	1.90E-05
Antimony	0.00E+00	0.00E+00	0.00E+00	1.07E-02	0.00E+00	0.00E+00	6.09E-04	0.00E+00	1.13E-02	3.23E-02
Arsenic	0.00E+00	0.00E+00	0.00E+00	8.16E-03	0.00E+00	0.00E+00	4.65E-04	0.00E+00	8.63E-03	1.23E-02
Barium	0.00E+00	0.00E+00	0.00E+00	8.46E-02	0.00E+00	0.00E+00	4.82E-03	0.00E+00	8.94E-02	1.08E-01
Cadmium	0.00E+00	0.00E+00	4.60E-02	9.90E-03	0.00E+00	0.00E+00	5.64E-04	0.00E+00	5.65E-02	3.32E-01
Chromium	0.00E+00	0.00E+00	2.92E-01	8.46E-02	0.00E+00	0.00E+00	4.82E-03	0.00E+00	3.81E-01	1.59E+00
Copper	0.00E+00	0.00E+00	1.05E+01	3.35E-02	0.00E+00	0.00E+00	1.91E-03	0.00E+00	1.06E+01	3.04E-02
Lead	0.00E+00	0.00E+00	5.80E-02	1.15E-01	0.00E+00	0.00E+00	6.53E-03	0.00E+00	1.79E-01	1.99E+00
Nickel	0.00E+00	0.00E+00	3.80E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.80E-01	4.47E-01
Vanadium	0.00E+00	0.00E+00	0.00E+00	3.47E-02	0.00E+00	0.00E+00	1.98E-03	0.00E+00	3.67E-02	8.96E-03
Silver	0.00E+00	0.00E+00	0.00E+00	2.64E-03	0.00E+00	0.00E+00	1.50E-04	0.00E+00	2.79E-03	1.57E-03
Zinc	0.00E+00	0.00E+00	7.24E+00	3.84E-01	0.00E+00	0.00E+00	2.19E-02	0.00E+00	7.65E+00	5.46E-01
TOTAL										5.10E+00

**Table H.33. Site 25 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Avg. Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose-Response Value	Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Avg. Plant Conc. (mg/kg)
Acetone	1.60E-01	1.01E-03	0.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
PCBs (aroclor-1254)	2.10E-01	0.00E+00	0.00E+00	2.00E-02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDE	6.44E-03	0.00E+00	0.00E+00	1.70E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDT	2.70E-02	5.78E-03	0.00E+00	1.60E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Dieldrin	9.00E-06	0.00E+00	0.00E+00	2.00E-02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
gamma-BHC	0.00E+00	1.53E-03	0.00E+00	2.50E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chlordane	0.00E+00	1.69E-03	0.00E+00	4.00E-02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Antimony	1.78E+00	1.13E-02	0.00E+00	2.99E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Arsenic	1.36E+00	0.00E+00	0.00E+00	3.70E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Barium	1.41E+01	2.23E+00	0.00E+00	4.00E-02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Cadmium	1.65E+00	2.90E-02	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	2.30E-01
Chromium	1.41E+01	8.80E-02	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	1.46E+00
Copper	5.58E+00	2.56E+00	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	5.27E+01
Lead	1.91E+01	7.50E-01	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	2.90E-01
Nickel	0.00E+00	4.61E-01	0.00E+00	2.69E+00	1.00E+00	1.00E+00	1.00E+00	1.90E+00
Vanadium	5.79E+00	1.11E+00	0.00E+00	3.00E-03	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Silver	4.40E-01	0.00E+00	0.00E+00	8.90E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Zinc	6.40E+01	2.70E+01	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	3.62E+01

EXPOSURE PARAMETERS:

Table H.33. Site 25 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day)	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table H.33. Site 25 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Organism Consumption (mg/kg/day)	
Acetone	1.01E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.73E-05
PCBs (aroclor-1254)	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	5.78E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.12E-04
Dieldrin	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
gamma-BHC	1.53E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	5.62E-05
Chlordane	1.69E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	6.21E-05
Antimony	1.13E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	4.15E-04
Arsenic	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	2.23E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	8.19E-02
Cadmium	2.90E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.07E-03
Chromium	8.80E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.23E-03
Copper	2.56E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	9.40E-02
Lead	7.50E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.76E-02
Nickel	4.61E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.69E-02
Vanadium	1.11E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	4.03E-02
Silver	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	2.70E+01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	9.92E-01

WATER CONSUMPTION

Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Site - Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Acetone	1.01E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PCBs (aroclor-1254)	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	5.78E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
gamma-BHC	1.53E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	1.69E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	1.13E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	2.23E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	2.90E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	8.80E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	2.56E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	7.50E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	4.61E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	1.11E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	2.70E+01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table H.33. Site 25 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Acetone	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PCBs (aroclor-1254)	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
gamma-BHC	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	2.30E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	5.63E-03
Chromium	1.46E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.58E-02
Copper	5.27E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.29E+00
Lead	2.90E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	7.10E-03
Nickel	1.90E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.65E-02
Vanadium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	3.62E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	8.87E-01

SOIL INGESTION:

Table H.33. Site 25 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
Acetone	1.60E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.18E-04
PCBs (aroclor-1254)	2.10E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.54E-04
4,4'-DDE	6.44E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.73E-06
4,4'-DDT	2.70E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.98E-05
Dieldrin	9.00E-06	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.61E-09
gamma-BHC	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	1.78E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.31E-03
Arsenic	1.36E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.99E-04
Barium	1.41E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.04E-02
Cadmium	1.65E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.21E-03
Chromium	1.41E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.04E-02
Copper	5.58E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.10E-03
Lead	1.91E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.40E-02
Nickel	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	5.79E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.25E-03
Silver	4.40E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.23E-04
Zinc	6.40E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.70E-02

SEDIMENT INGESTION:

Table H.33. Site 25 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Acetone	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PCBs (aroclor-1254)	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
gamma-BHC	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.33. Site 25 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Acetone	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PCBs (aroclor-1254)	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
gamma-BHC	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.33. Site 25 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure		Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
		(Soil on Skin) (kg/cm2)	(Skin Exposed) (cm2/day)						Daily Dose From Soil - Dermal (mg/kg/day)
Acetone	1.60E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	9.20E-06
PCBs (aroclor-1254)	2.10E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.21E-05
4,4'-DDE	6.44E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.70E-07
4,4'-DDT	2.70E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.55E-06
Dieldrin	9.00E-06	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.18E-10
gamma-BHC	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	1.78E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.02E-04
Arsenic	1.36E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.82E-05
Barium	1.41E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	8.11E-04
Cadmium	1.65E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	9.49E-05
Chromium	1.41E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	8.11E-04
Copper	5.58E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.21E-04
Lead	1.91E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.10E-03
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	5.79E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.33E-04
Silver	4.40E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.53E-05
Zinc	6.40E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.68E-03

SURFACE WATER DERMAL EXPOSURE:

Table H.33. Site 25 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure		Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average
		(Skin Exposed) (cm2)	Kp (cm/hr)						Daily Dose From Water - Dermal (mg/kg/day)
Acetone	1.01E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PCBs (aroclor-1254)	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	5.78E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
gamma-BHC	1.53E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	1.69E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	1.13E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	2.23E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	2.90E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	8.80E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	2.56E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	7.50E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	4.61E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	1.11E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	2.70E+01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table H.33. Site 25 Risk Characterization for the Gray Fox

Quantitative Ecological Risk Assessment

Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Acetone	3.73E-05	0.00E+00	0.00E+00	1.18E-04	0.00E+00	0.00E+00	9.20E-06	0.00E+00	1.64E-04	1.64E-04
PCBs (aroclor-1254)	0.00E+00	0.00E+00	0.00E+00	1.54E-04	0.00E+00	0.00E+00	1.21E-05	0.00E+00	1.66E-04	8.32E-03
4,4'-DDE	0.00E+00	0.00E+00	0.00E+00	4.73E-06	0.00E+00	0.00E+00	3.70E-07	0.00E+00	5.10E-06	3.00E-06
4,4'-DDT	2.12E-04	0.00E+00	0.00E+00	1.98E-05	0.00E+00	0.00E+00	1.55E-06	0.00E+00	2.34E-04	1.46E-04
Dieldrin	0.00E+00	0.00E+00	0.00E+00	6.61E-09	0.00E+00	0.00E+00	5.18E-10	0.00E+00	7.13E-09	3.56E-07
gamma-BHC	5.62E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.62E-05	2.25E-04
Chlordane	6.21E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.21E-05	1.55E-03
Antimony	4.15E-04	0.00E+00	0.00E+00	1.31E-03	0.00E+00	0.00E+00	1.02E-04	0.00E+00	1.82E-03	6.10E-04
Arsenic	0.00E+00	0.00E+00	0.00E+00	9.99E-04	0.00E+00	0.00E+00	7.82E-05	0.00E+00	1.08E-03	2.91E-03
Barium	8.19E-02	0.00E+00	0.00E+00	1.04E-02	0.00E+00	0.00E+00	8.11E-04	0.00E+00	9.31E-02	2.33E+00
Cadmium	1.07E-03	0.00E+00	5.63E-03	1.21E-03	0.00E+00	0.00E+00	9.49E-05	0.00E+00	8.01E-03	9.42E-01
Chromium	3.23E-03	0.00E+00	3.58E-02	1.04E-02	0.00E+00	0.00E+00	8.11E-04	0.00E+00	5.02E-02	1.67E+00
Copper	9.40E-02	0.00E+00	1.29E+00	4.10E-03	0.00E+00	0.00E+00	3.21E-04	0.00E+00	1.39E+00	8.02E-02
Lead	2.76E-02	0.00E+00	7.10E-03	1.40E-02	0.00E+00	0.00E+00	1.10E-03	0.00E+00	4.98E-02	3.83E-01
Nickel	1.69E-02	0.00E+00	4.65E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.35E-02	2.36E-02
Vanadium	4.08E-02	0.00E+00	0.00E+00	4.25E-03	0.00E+00	0.00E+00	3.33E-04	0.00E+00	4.54E-02	1.51E+01
Silver	0.00E+00	0.00E+00	0.00E+00	3.23E-04	0.00E+00	0.00E+00	2.53E-05	0.00E+00	3.49E-04	3.92E-04
Zinc	9.92E-01	0.00E+00	8.87E-01	4.70E-02	0.00E+00	0.00E+00	3.68E-03	0.00E+00	1.93E+00	1.10E+00
TOTAL										2.17E+01

**Table H.34. Site 29 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose-Response Value	Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Avg. Plant Conc. (mg/kg)
Chlordane	1.18E-01	0.00E+00	0.00E+00	9.00E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDD	2.34E-02	0.00E+00	0.00E+00	1.07E+02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDE	1.44E-01	0.00E+00	0.00E+00	3.40E+01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDT	2.65E-01	0.00E+00	0.00E+00	3.11E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Antimony	3.50E-01	0.00E+00	0.00E+00	3.50E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Cadmium	2.50E-01	0.00E+00	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chromium	1.15E+01	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	7.58E+00
Copper	8.33E+00	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	4.07E+01
Lead	2.86E+01	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	1.40E-01
Mercury	7.00E-02	0.00E+00	0.00E+00	1.90E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	0.00E+00	8.50E-01	1.00E+00	1.00E+00	1.00E+00	7.23E+00
Selenium	2.80E-01	0.00E+00	0.00E+00	6.00E-02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Silver	1.29E+00	0.00E+00	0.00E+00	1.78E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Zinc	3.09E+01	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	3.77E+01

EXPOSURE PARAMETERS:

Table H.34. Site 29 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:
 Table H.34. Site 29 Risk Characterization for the Deer Mouse
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Chlordane	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Site - Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Chlordane	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table H.34. Site 29 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Chlordane	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	7.58E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.52E+00
Copper	4.07E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	8.14E+00
Lead	1.40E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.80E-02
Mercury	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	7.23E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.45E+00
Selenium	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	3.77E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	7.53E+00

SOIL INGESTION:

Table H.34. Site 29 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
Chlordane	1.18E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.08E-04
4,4'-DDD	2.34E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.40E-04
4,4'-DDE	1.44E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	8.64E-04
4,4'-DDT	2.65E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.59E-03
Antimony	3.50E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.10E-03
Cadmium	2.50E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.50E-03
Chromium	1.15E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.90E-02
Copper	8.33E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.00E-02
Lead	2.86E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.72E-01
Mercury	7.00E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.20E-04
Nickel	0.00E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	2.80E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.68E-03
Silver	1.29E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.74E-03
Zinc	3.09E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.85E-01

SEDIMENT INGESTION:

Table H.34. Site 29 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Chlordane	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.34. Site 29 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Chlordane	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.34. Site 29 Risk Characterization for the Deer Mouse Quantitative Ecological Risk Assessment Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Chlordane	1.18E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.04E-05
4,4'-DDD	2.34E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.00E-06
4,4'-DDE	1.44E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.92E-05
4,4'-DDT	2.65E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	9.06E-05
Antimony	3.50E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.20E-04
Cadmium	2.50E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.55E-05
Chromium	1.15E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.93E-03
Copper	8.33E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.85E-03
Lead	2.86E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	9.78E-03
Mercury	7.00E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.39E-05
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	2.80E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	9.58E-05
Silver	1.29E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.41E-04
Zinc	3.09E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.06E-02

SURFACE WATER DERMAL EXPOSURE:

Table H.34. Site 29 Risk Characterization for the Deer Mouse Quantitative Ecological Risk Assessment Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm2)	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Chlordane	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table H.34. Site 29 Risk Characterization for the Deer Mouse

Quantitative Ecological Risk Assessment

Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Chlordane	0.00E+00	0.00E+00	0.00E+00	7.08E-04	0.00E+00	0.00E+00	4.04E-05	0.00E+00	7.48E-04	8.32E-04
4,4'-DDD	0.00E+00	0.00E+00	0.00E+00	1.40E-04	0.00E+00	0.00E+00	8.00E-06	0.00E+00	1.48E-04	1.39E-06
4,4'-DDE	0.00E+00	0.00E+00	0.00E+00	8.64E-04	0.00E+00	0.00E+00	4.92E-05	0.00E+00	9.13E-04	2.69E-05
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	1.59E-03	0.00E+00	0.00E+00	9.06E-05	0.00E+00	1.68E-03	5.40E-04
Antimony	0.00E+00	0.00E+00	0.00E+00	2.10E-03	0.00E+00	0.00E+00	1.20E-04	0.00E+00	2.22E-03	6.34E-03
Cadmium	0.00E+00	0.00E+00	0.00E+00	1.50E-03	0.00E+00	0.00E+00	8.55E-05	0.00E+00	1.59E-03	9.33E-03
Chromium	0.00E+00	0.00E+00	1.52E+00	6.90E-02	0.00E+00	0.00E+00	3.93E-03	0.00E+00	1.59E+00	6.62E+00
Copper	0.00E+00	0.00E+00	8.14E+00	5.00E-02	0.00E+00	0.00E+00	2.85E-03	0.00E+00	8.19E+00	2.36E-02
Lead	0.00E+00	0.00E+00	2.80E-02	1.72E-01	0.00E+00	0.00E+00	9.78E-03	0.00E+00	2.09E-01	2.33E+00
Mercury	0.00E+00	0.00E+00	0.00E+00	4.20E-04	0.00E+00	0.00E+00	2.39E-05	0.00E+00	4.44E-04	2.34E-04
Nickel	0.00E+00	0.00E+00	1.45E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.45E+00	1.70E+00
Selenium	0.00E+00	0.00E+00	0.00E+00	1.68E-03	0.00E+00	0.00E+00	9.58E-05	0.00E+00	1.78E-03	2.96E-02
Silver	0.00E+00	0.00E+00	0.00E+00	7.74E-03	0.00E+00	0.00E+00	4.41E-04	0.00E+00	8.18E-03	4.60E-03
Zinc	0.00E+00	0.00E+00	7.53E+00	1.85E-01	0.00E+00	0.00E+00	1.06E-02	0.00E+00	7.73E+00	5.52E-01
TOTAL										1.13E+01

**Table H.35. Site 29 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Avg. Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose-Response Value	Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Avg. Plant Conc. (mg/kg)
Chlordane	1.18E-01	3.06E-03	0.00E+00	4.00E-02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDD	2.34E-02	0.00E+00	0.00E+00	5.35E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDE	1.44E-01	0.00E+00	0.00E+00	1.70E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDT	2.65E-01	0.00E+00	0.00E+00	1.60E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Antimony	3.50E-01	2.22E-03	0.00E+00	2.99E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Barium	0.00E+00	8.84E+00	0.00E+00	4.00E-02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Cadmium	2.50E-01	3.00E-02	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chromium	1.15E+01	6.00E-02	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	7.58E+00
Copper	8.33E+00	3.36E+00	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	4.07E+01
Lead	2.86E+01	3.50E-01	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	1.40E-01
Mercury	7.00E-02	4.44E-04	0.00E+00	1.00E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Nickel	0.00E+00	1.00E+00	0.00E+00	2.69E+00	1.00E+00	1.00E+00	1.00E+00	7.23E+00
Selenium	2.80E-01	1.78E-03	0.00E+00	3.10E-03	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Silver	1.29E+00	0.00E+00	0.00E+00	8.90E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Thallium	0.00E+00	2.20E-01	0.00E+00	3.00E-03	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Zinc	3.09E+01	3.62E+01	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	3.77E+01

EXPOSURE PARAMETERS:

Table H.35. Site 29 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day)	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:
 Table H.35. Site 29 Risk Characterization for the Gray Fox
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Organism Consumption (mg/kg/day)
Chlordane	3.06E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.12E-04
4,4'-DDD	0.00E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	0.00E+00
Antimony	2.22E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	8.15E-05
Barium	8.84E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	3.25E-01
Cadmium	3.00E-02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.10E-03
Chromium	6.00E-02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	2.20E-03
Copper	3.36E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.23E-01
Lead	3.50E-01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.29E-02
Mercury	4.44E-04	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.63E-05
Nickel	1.00E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	3.67E-02
Selenium	1.78E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	6.52E-05
Silver	0.00E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	0.00E+00
Thallium	2.20E-01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	8.08E-03
Zinc	3.62E+01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.33E+00

WATER CONSUMPTION
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Site - Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Chlordane	3.06E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	2.22E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	8.84E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	3.00E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	6.00E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	3.36E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	3.50E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	4.44E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	1.78E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	2.20E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	3.62E+01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table H.35. Site 29 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Chlordane	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	7.58E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.86E-01
Copper	4.07E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	9.96E-01
Lead	1.40E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.43E-03
Mercury	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	7.23E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.77E-01
Selenium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	3.77E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	9.22E-01

SOIL INGESTION:

Table H.35. Site 29 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
Chlordane	1.18E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.67E-05
4,4'-DDD	2.34E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.72E-05
4,4'-DDE	1.44E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.06E-04
4,4'-DDT	2.65E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.95E-04
Antimony	3.50E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.57E-04
Barium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	2.50E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.84E-04
Chromium	1.15E+01	3.86E-03	1.00E+00	1.00E+01	5.25E+00	8.45E-03
Copper	8.33E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.12E-03
Lead	2.86E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.10E-02
Mercury	7.00E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.14E-05
Nickel	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	2.80E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.06E-04
Silver	1.29E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.48E-04
Thallium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	3.09E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.27E-02

SEDIMENT INGESTION:

Table H.35. Site 29 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Chlordane	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.35. Site 29 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm ²)	Sediment Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Chlordane	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.35. Site 29 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Chlordane	1.18E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.79E-06
4,4'-DDD	2.34E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.35E-06
4,4'-DDE	1.44E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	8.28E-06
4,4'-DDT	2.65E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.52E-05
Antimony	3.50E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.01E-05
Barium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	2.50E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.44E-05
Chromium	1.15E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.61E-04
Copper	8.33E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.79E-04
Lead	2.86E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.64E-03
Mercury	7.00E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.03E-06
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	2.80E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.61E-05
Silver	1.29E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.42E-05
Thallium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	3.09E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.78E-03

SURFACE WATER DERMAL EXPOSURE:

Table H.35. Site 29 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm2)	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)
Chlordane	3.06E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	2.22E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	8.84E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	3.00E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	6.00E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	3.36E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	3.50E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	4.44E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	1.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	1.78E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	2.20E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	3.62E+01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table H.35. Site 29 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Chlordane	1.12E-04	0.00E+00	0.00E+00	8.67E-05	0.00E+00	0.00E+00	6.79E-06	0.00E+00	2.06E-04	5.15E-03
4,4'-DDD	0.00E+00	0.00E+00	0.00E+00	1.72E-05	0.00E+00	0.00E+00	1.35E-06	0.00E+00	1.85E-05	3.46E-06
4,4'-DDE	0.00E+00	0.00E+00	0.00E+00	1.06E-04	0.00E+00	0.00E+00	8.28E-06	0.00E+00	1.14E-04	6.71E-05
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	1.95E-04	0.00E+00	0.00E+00	1.52E-05	0.00E+00	2.10E-04	1.31E-04
Antimony	8.15E-05	0.00E+00	0.00E+00	2.57E-04	0.00E+00	0.00E+00	2.01E-05	0.00E+00	3.59E-04	1.20E-04
Barium	3.25E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.25E-01	8.12E+00
Cadmium	1.10E-03	0.00E+00	0.00E+00	1.84E-04	0.00E+00	0.00E+00	1.44E-05	0.00E+00	1.30E-03	1.53E-01
Chromium	2.20E-03	0.00E+00	1.86E-01	8.45E-03	0.00E+00	0.00E+00	6.61E-04	0.00E+00	1.97E-01	6.56E+00
Copper	1.23E-01	0.00E+00	9.96E-01	6.12E-03	0.00E+00	0.00E+00	4.79E-04	0.00E+00	1.13E+00	6.51E-02
Lead	1.29E-02	0.00E+00	3.43E-03	2.10E-02	0.00E+00	0.00E+00	1.64E-03	0.00E+00	3.89E-02	3.00E-01
Mercury	1.63E-05	0.00E+00	0.00E+00	5.14E-05	0.00E+00	0.00E+00	4.03E-06	0.00E+00	7.18E-05	7.18E-04
Nickel	3.67E-02	0.00E+00	1.77E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.14E-01	7.95E-02
Selenium	6.52E-05	0.00E+00	0.00E+00	2.06E-04	0.00E+00	0.00E+00	1.61E-05	0.00E+00	2.87E-04	9.26E-02
Silver	0.00E+00	0.00E+00	0.00E+00	9.48E-04	0.00E+00	0.00E+00	7.42E-05	0.00E+00	1.02E-03	1.15E-03
Thallium	8.08E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.08E-03	2.69E+00
Zinc	1.33E+00	0.00E+00	9.22E-01	2.27E-02	0.00E+00	0.00E+00	1.78E-03	0.00E+00	2.28E+00	1.30E+00
TOTAL										1.94E+01

**Table H.36. Site 31 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose-Response Value	Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Avg. Plant Conc. (mg/kg)
Benzo(a)anthracene	2.44E-02	0.00E+00	0.00E+00	4.00E-01	1.00E+00	2.00E-02	1.20E+00	0.00E+00
Benzo(a)pyrene	2.06E-02	0.00E+00	0.00E+00	4.00E-01	1.00E+00	2.00E-02	1.20E+00	0.00E+00
Benzo(b)fluoranthene	2.21E-02	0.00E+00	0.00E+00	2.50E+01	1.00E+00	2.00E-02	1.20E+00	0.00E+00
Chrysene	4.43E-02	0.00E+00	0.00E+00	4.00E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Dibenzo(a,h)anthracene	5.41E-02	0.00E+00	0.00E+00	4.00E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Dibenzofuran	3.40E-02	0.00E+00	0.00E+00	2.50E+01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Fluoranthene	4.15E-02	0.00E+00	0.00E+00	2.50E+01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
2-Methylnaphthalene	1.36E-01	0.00E+00	0.00E+00	1.68E+01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Naphthalene	2.24E-01	0.00E+00	0.00E+00	1.68E+01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Phenanthrene	7.07E-02	0.00E+00	0.00E+00	1.50E+01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Pyrene	4.91E-02	0.00E+00	0.00E+00	1.50E+01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDE	1.33E-01	0.00E+00	0.00E+00	3.40E+01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDT	1.57E-01	0.00E+00	0.00E+00	3.11E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total HpCDD	1.00E-04	0.00E+00	0.00E+00	1.00E-05	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total HpCDF	2.10E-04	0.00E+00	0.00E+00	1.00E-05	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total HxCDD	2.29E-05	0.00E+00	0.00E+00	1.00E-06	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total HxCDF	6.00E-05	0.00E+00	0.00E+00	1.00E-06	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total PeCDD	6.39E-06	0.00E+00	0.00E+00	2.00E-07	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total PeCDF	2.94E-05	0.00E+00	0.00E+00	2.00E-07	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total OCDD	3.40E-04	0.00E+00	0.00E+00	1.00E-04	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total OCDF	8.00E-05	0.00E+00	0.00E+00	1.00E-04	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total TCDD	7.10E-06	0.00E+00	0.00E+00	1.00E-07	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total TCDF	3.69E-05	0.00E+00	0.00E+00	1.00E-06	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Antimony	1.62E+00	0.00E+00	0.00E+00	3.50E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Arsenic	1.43E+00	0.00E+00	0.00E+00	7.00E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Beryllium	1.80E-01	0.00E+00	0.00E+00	9.50E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Cadmium	1.01E+00	0.00E+00	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chromium	1.57E+01	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	3.40E-01
Copper	4.00E+01	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	2.80E+00
Lead	6.09E+02	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Mercury	8.00E-02	0.00E+00	0.00E+00	1.90E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Silver	8.90E-01	0.00E+00	0.00E+00	1.78E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Thallium	3.00E-01	0.00E+00	0.00E+00	1.00E-02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Zinc	2.53E+02	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	2.49E+01

EXPOSURE PARAMETERS:

Table H.36. Site 31 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:
 Table H.36. Site 31 Risk Characterization for the Deer Mouse
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Benzo(a)anthracene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(a)pyrene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(b)fluoranthene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chrysene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzo(a,h)anthracene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzofuran	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Fluoranthene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-Methylnaphthalene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Naphthalene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Phenanthrene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Pyrene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HpCDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HpCDF	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HxCDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HxCDF	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total PeCDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total PeCDF	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total OCDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total OCDF	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total TCDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total TCDF	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Site - Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
					Body Weight (kg)	Water Consumption (mg/kg/day)
Benzo(a)anthracene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(a)pyrene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(b)fluoranthene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chrysene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzo(a,h)anthracene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzofuran	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Fluoranthene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-Methylnaphthalene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Naphthalene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Phenanthrene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Pyrene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HpCDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HpCDF	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HxCDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HxCDF	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total PeCDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total PeCDF	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total OCDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total OCDF	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total TCDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total TCDF	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table H.36. Site 31 Risk Characterization for the Dear Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
						Body Weight (kg)	Plant Consumption (mg/kg/day)
Benzo(a)anthracene	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(a)pyrene	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(b)fluoranthene	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chrysene	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzo(a,h)anthracene	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzofuran	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Fluoranthene	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-Methylnaphthalene	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Naphthalene	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Phenanthrene	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Pyrene	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HpCDD	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HpCDF	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HxCDD	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HxCDF	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total PeCDD	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total PeCDF	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total OCDD	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total OCDF	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total TCDD	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total TCDF	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	3.40E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	8.80E-02
Copper	2.80E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	5.60E-01
Lead	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	2.49E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	4.98E+00

SOIL INGESTION:
 Table H.38. Site 31 Risk Characterization for the Deer Mouse
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface	Soil	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Ingestion Rate (kg/day)				Daily Dose From Soil Ingestion (mg/kg/day)
Benzo(a)anthracene	2.44E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.46E-04
Benzo(a)pyrene	2.06E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.24E-04
Benzo(b)fluoranthene	2.21E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.33E-04
Chrysene	4.43E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.66E-04
Dibenzo(a,h)anthracene	5.41E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.25E-04
Dibenzofuran	3.40E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.04E-04
Fluoranthene	4.15E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.49E-04
2-Methylnaphthalene	1.36E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	8.16E-04
Naphthalene	2.24E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.34E-03
Phenanthrene	7.07E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.24E-04
Pyrene	4.91E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.95E-04
4,4'-DDE	1.33E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.98E-04
4,4'-DDT	1.57E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.42E-04
Total HpCDD	1.00E-04	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.00E-07
Total HpCDF	2.10E-04	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.28E-06
Total HxCDD	2.29E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.37E-07
Total HxCDF	8.00E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.60E-07
Total PeCDD	6.39E-06	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.83E-08
Total PeCDF	2.94E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.78E-07
Total OCDD	3.40E-04	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.04E-06
Total OCDF	8.00E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.80E-07
Total TCDD	7.10E-06	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.26E-08
Total TCDF	3.69E-05	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.21E-07
Antimony	1.62E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.72E-03
Arsenic	1.43E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	8.58E-03
Beryllium	1.80E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.08E-03
Cadmium	1.01E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.06E-03
Chromium	1.57E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.42E-02
Copper	4.00E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.40E-01
Lead	6.09E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.85E+00
Mercury	8.00E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.80E-04
Silver	8.90E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.34E-03
Thallium	3.00E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.80E-03
Zinc	2.53E+02	1.50E-04	1.00E+00	1.00E+00	2.60E-02	1.52E+00

SEDIMENT INGESTION:
 Table H.36. Site 31 Risk Characterization for the Deer Mouse
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
						Daily Dose From Sediment Ingestion (mg/kg/day)
Benzo(a)anthracene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(a)pyrene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(b)fluoranthene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chrysene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzo(a,h)anthracene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzofuran	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Fluoranthene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-Methylnaphthalene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Naphthalene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Phenanthrene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Pyrene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HpCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HpCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HxCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HxCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total PeCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total PeCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total OCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total OCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total TCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total TCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.36. Site 31 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose	
								Body Weight (kg)	From Sediment - Dermal (mg/kg/day)
Benzo(a)anthracene	0.00E+00	1.00E-06	8.55E+00	2.00E-02	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(a)pyrene	0.00E+00	1.00E-06	8.55E+00	2.00E-02	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(b)fluoranthene	0.00E+00	1.00E-06	8.55E+00	2.00E-02	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chrysene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzo(a,h)anthracene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzofuran	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Fluoranthene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-Methylnaphthalene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Naphthalene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Phenanthrene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Pyrene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HpCDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HpCDF	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HxCDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HxCDF	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total PeCDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total PeCDF	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total OCDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total OCDF	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total TCDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total TCDF	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.36. Site 31 Risk Characterization for the Deer Mouse
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose	
								Body Weight (kg)	From Soil - Dermal (mg/kg/day)
Benzo(a)anthracene	2.44E-02	1.00E-06	8.55E+00	2.00E-02	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.67E-07
Benzo(a)pyrene	2.06E-02	1.00E-06	8.55E+00	2.00E-02	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.41E-07
Benzo(b)fluoranthene	2.21E-02	1.00E-06	8.55E+00	2.00E-02	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.51E-07
Chrysene	4.43E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.52E-05
Dibenzo(a,h)anthracene	5.41E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.85E-05
Dibenzofuran	3.40E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.16E-05
Fluoranthene	4.15E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.42E-05
2-Methylnaphthalene	1.38E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.65E-05
Naphthalene	2.24E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.68E-05
Phenanthrene	7.07E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.42E-05
Pyrene	4.91E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.68E-05
4,4'-DDE	1.33E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.55E-05
4,4'-DDT	1.57E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.37E-05
Total HpCDD	1.00E-04	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.42E-08
Total HpCDF	2.10E-04	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.18E-08
Total HxCDD	2.29E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.83E-09
Total HxCDF	6.00E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.05E-08
Total PeCDD	8.39E-06	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.19E-09
Total PeCDF	2.94E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.01E-08
Total OCDD	3.40E-04	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.16E-07
Total OCDF	8.00E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.74E-08
Total TCDD	7.10E-06	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.43E-09
Total TCDF	3.69E-05	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.26E-08
Antimony	1.62E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.54E-04
Arsenic	1.43E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.89E-04
Beryllium	1.80E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.16E-05
Cadmium	1.01E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.45E-04
Chromium	1.57E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.37E-03
Copper	4.00E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.37E-02
Lead	6.09E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.08E-01
Mercury	8.00E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.74E-05
Silver	8.90E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.04E-04
Thallium	3.00E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.03E-04
Zinc	2.63E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.85E-02

SURFACE WATER DERMAL EXPOSURE:
 Table H.36. Site 31 Risk Characterization for the Deer Mouse
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm2)	Kp (cm/hr)	Conversion Factor (Ucm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Lifetime Average Daily Dose From Water - Dermal	
								Body Weight (kg)	(mg/kg/day)
Benzo(a)anthracene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(a)pyrene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Benzo(b)fluoranthene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chrysene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzo(a,h)anthracene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dibenzofuran	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Fluoranthene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-Methylnaphthalene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Naphthalene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Phenanthrene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Pyrene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HpCDD	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HpCDF	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HxCDD	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total HxCDF	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total PeCDD	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total PeCDF	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total OCDD	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total OCDF	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total TCDD	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Total TCDF	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table H.36. Site 31 Risk Characterization for the Deer Mouse

Quantitative Ecological Risk Assessment

Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Benzo(a)anthracene	0.00E+00	0.00E+00	0.00E+00	1.46E-04	0.00E+00	0.00E+00	1.67E-07	0.00E+00	1.47E-04	3.66E-04
Benzo(a)pyrene	0.00E+00	0.00E+00	0.00E+00	1.24E-04	0.00E+00	0.00E+00	1.41E-07	0.00E+00	1.24E-04	3.09E-04
Benzo(b)fluoranthene	0.00E+00	0.00E+00	0.00E+00	1.33E-04	0.00E+00	0.00E+00	1.51E-07	0.00E+00	1.33E-04	5.31E-04
Chrysene	0.00E+00	0.00E+00	0.00E+00	2.66E-04	0.00E+00	0.00E+00	1.52E-05	0.00E+00	2.81E-04	7.02E-04
Dibenzo(a,h)anthracene	0.00E+00	0.00E+00	0.00E+00	3.25E-04	0.00E+00	0.00E+00	1.85E-05	0.00E+00	3.43E-04	8.58E-04
Dibenzofuran	0.00E+00	0.00E+00	0.00E+00	2.04E-04	0.00E+00	0.00E+00	1.16E-05	0.00E+00	2.16E-04	8.63E-04
Fluoranthene	0.00E+00	0.00E+00	0.00E+00	2.49E-04	0.00E+00	0.00E+00	1.42E-05	0.00E+00	2.63E-04	1.05E-03
2-Methylnaphthalene	0.00E+00	0.00E+00	0.00E+00	8.16E-04	0.00E+00	0.00E+00	4.65E-05	0.00E+00	8.63E-04	5.14E-03
Naphthalene	0.00E+00	0.00E+00	0.00E+00	1.34E-03	0.00E+00	0.00E+00	7.68E-05	0.00E+00	1.42E-03	8.46E-03
Phenanthrene	0.00E+00	0.00E+00	0.00E+00	4.24E-04	0.00E+00	0.00E+00	2.42E-05	0.00E+00	4.48E-04	2.99E-03
Pyrene	0.00E+00	0.00E+00	0.00E+00	2.95E-04	0.00E+00	0.00E+00	1.68E-05	0.00E+00	3.11E-04	2.08E-03
4,4'-DDE	0.00E+00	0.00E+00	0.00E+00	7.98E-04	0.00E+00	0.00E+00	4.55E-05	0.00E+00	8.43E-04	2.48E-03
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	9.42E-04	0.00E+00	0.00E+00	5.37E-05	0.00E+00	9.96E-04	3.20E-03
Total HpCDD	0.00E+00	0.00E+00	0.00E+00	6.00E-07	0.00E+00	0.00E+00	3.42E-08	0.00E+00	6.34E-07	6.34E-02
Total HpCDF	0.00E+00	0.00E+00	0.00E+00	1.26E-06	0.00E+00	0.00E+00	7.18E-08	0.00E+00	1.33E-06	1.33E-01
Total HxCDD	0.00E+00	0.00E+00	0.00E+00	1.37E-07	0.00E+00	0.00E+00	7.83E-09	0.00E+00	1.45E-07	1.45E-01
Total HxCDF	0.00E+00	0.00E+00	0.00E+00	3.60E-07	0.00E+00	0.00E+00	2.05E-08	0.00E+00	3.81E-07	3.81E-01
Total PeCDD	0.00E+00	0.00E+00	0.00E+00	3.83E-08	0.00E+00	0.00E+00	2.19E-09	0.00E+00	4.05E-08	2.03E-01
Total PeCDF	0.00E+00	0.00E+00	0.00E+00	1.76E-07	0.00E+00	0.00E+00	1.01E-08	0.00E+00	1.86E-07	9.32E-01
Total OCDD	0.00E+00	0.00E+00	0.00E+00	2.04E-06	0.00E+00	0.00E+00	1.16E-07	0.00E+00	2.16E-06	2.16E-02
Total OCDF	0.00E+00	0.00E+00	0.00E+00	4.80E-07	0.00E+00	0.00E+00	2.74E-08	0.00E+00	5.07E-07	5.07E-03
Total TCDD	0.00E+00	0.00E+00	0.00E+00	4.26E-08	0.00E+00	0.00E+00	2.43E-09	0.00E+00	4.50E-08	4.50E-01
Total TCDF	0.00E+00	0.00E+00	0.00E+00	2.21E-07	0.00E+00	0.00E+00	1.26E-08	0.00E+00	2.34E-07	2.34E-01
Antimony	0.00E+00	0.00E+00	0.00E+00	9.72E-03	0.00E+00	0.00E+00	5.54E-04	0.00E+00	1.03E-02	2.94E-02
Arsenic	0.00E+00	0.00E+00	0.00E+00	8.58E-03	0.00E+00	0.00E+00	4.89E-04	0.00E+00	9.07E-03	1.30E-02
Beryllium	0.00E+00	0.00E+00	0.00E+00	1.08E-03	0.00E+00	0.00E+00	6.16E-05	0.00E+00	1.14E-03	1.20E-03
Cadmium	0.00E+00	0.00E+00	0.00E+00	6.06E-03	0.00E+00	0.00E+00	3.45E-04	0.00E+00	6.41E-03	3.77E-02
Chromium	0.00E+00	0.00E+00	6.80E-02	9.42E-02	0.00E+00	0.00E+00	5.37E-03	0.00E+00	1.68E-01	6.98E-01
Copper	0.00E+00	0.00E+00	5.60E-01	2.40E-01	0.00E+00	0.00E+00	1.37E-02	0.00E+00	8.14E-01	2.35E-03
Lead	0.00E+00	0.00E+00	0.00E+00	3.65E+00	0.00E+00	0.00E+00	2.08E-01	0.00E+00	3.88E+00	4.29E+01
Mercury	0.00E+00	0.00E+00	0.00E+00	4.80E-04	0.00E+00	0.00E+00	2.74E-05	0.00E+00	5.07E-04	2.67E-04
Silver	0.00E+00	0.00E+00	0.00E+00	5.34E-03	0.00E+00	0.00E+00	3.04E-04	0.00E+00	5.64E-03	3.17E-03
Thallium	0.00E+00	0.00E+00	0.00E+00	1.80E-03	0.00E+00	0.00E+00	1.03E-04	0.00E+00	1.90E-03	1.90E-01
Zinc	0.00E+00	0.00E+00	4.98E+00	1.52E+00	0.00E+00	0.00E+00	8.65E-02	0.00E+00	6.58E+00	4.70E-01
TOTAL										4.69E+01

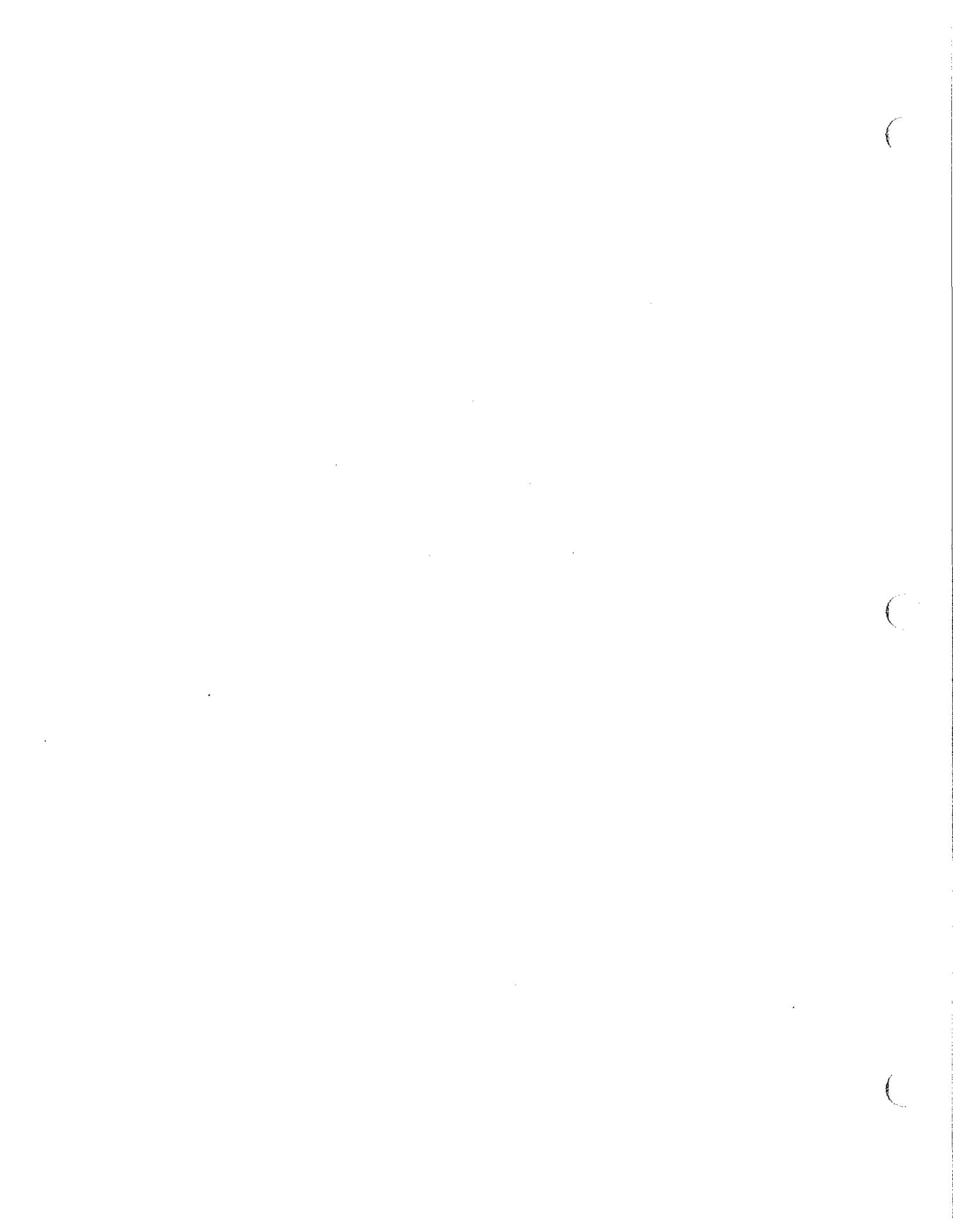


Table H.37. Site 31 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Avg. Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose-Response Value	Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Avg. Plant Conc. (mg/kg)
Benzo(a)anthracene	2.44E-02	0.00E+00	0.00E+00	2.00E-02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Benzo(a)pyrene	2.06E-02	0.00E+00	0.00E+00	2.00E-02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Benzo(b)fluoranthene	2.21E-02	0.00E+00	0.00E+00	1.25E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chrysene	4.43E-02	0.00E+00	0.00E+00	2.00E-02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Dibenzo(a,h)anthracene	5.41E-02	0.00E+00	0.00E+00	2.00E-02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Dibenzofuran	3.40E-02	0.00E+00	0.00E+00	1.25E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Fluoranthene	4.15E-02	0.00E+00	0.00E+00	1.25E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
2-Methylnaphthalene	1.36E-01	0.00E+00	0.00E+00	8.40E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Naphthalene	2.24E-01	0.00E+00	0.00E+00	8.40E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Phenanthrene	7.07E-02	0.00E+00	0.00E+00	7.50E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Pyrene	4.91E-02	0.00E+00	0.00E+00	7.50E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDE	1.33E-01	5.67E-03	0.00E+00	1.70E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDT	1.57E-01	0.00E+00	0.00E+00	1.60E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Heptachlor	0.00E+00	2.27E-03	0.00E+00	3.00E-04	1.00E+00	1.00E+00	1.00E+00	0.00E+00
HeptachlorEpoxide	0.00E+00	2.45E-03	0.00E+00	3.00E-04	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total HpCDD	1.00E-04	2.35E-05	0.00E+00	5.00E-06	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total HpCDF	2.10E-04	7.04E-06	0.00E+00	5.00E-06	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total HxCDD	2.29E-05	5.59E-06	0.00E+00	5.00E-07	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total HxCDF	6.00E-05	5.61E-06	0.00E+00	5.00E-07	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total PeCDD	6.39E-06	1.45E-06	0.00E+00	1.00E-07	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total PeCDF	2.94E-05	3.16E-06	0.00E+00	1.00E-07	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total OCDD	3.40E-04	8.92E-05	0.00E+00	5.00E-05	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total OCDF	8.00E-05	7.19E-06	0.00E+00	5.00E-05	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total TCDD	7.10E-06	0.00E+00	0.00E+00	5.00E-08	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Total TCDF	3.69E-05	5.80E-07	0.00E+00	5.00E-07	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Antimony	1.62E+00	1.03E-02	0.00E+00	2.99E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Arsenic	1.43E+00	0.00E+00	0.00E+00	3.70E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Barium	0.00E+00	4.49E+00	0.00E+00	4.00E-02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Beryllium	1.80E-01	0.00E+00	0.00E+00	5.00E-02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Cadmium	1.01E+00	2.00E-02	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chromium	1.57E+01	6.00E-02	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	3.40E-01
Copper	4.00E+01	2.67E+00	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	2.80E+00
Lead	6.09E+02	9.50E-01	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Mercury	8.00E-02	5.07E-04	0.00E+00	1.00E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Nickel	0.00E+00	5.30E-01	0.00E+00	2.69E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Silver	8.90E-01	0.00E+00	0.00E+00	8.90E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Thallium	3.00E-01	9.70E-02	0.00E+00	3.00E-03	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Vanadium	0.00E+00	8.60E-01	0.00E+00	2.10E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Zinc	2.53E+02	3.45E+01	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	2.49E+01

EXPOSURE PARAMETERS:

Table H.37. Site 31 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

FIELD MOUSE CONSUMPTION:

Table H.37. Site 31 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)		Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Organism Consumption (mg/kg/day)
Benzo(a)anthracene	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(a)pyrene	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(b)fluoranthene	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chrysene	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzo(a,h)anthracene	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzofuran	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Fluoranthene	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-Methylnaphthalene	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Naphthalene	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Phenanthrene	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Pyrene	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	5.67E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.08E-04
4,4'-DDT	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Heptachlor	2.27E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	8.34E-05
HeptachlorEpoxide	2.45E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	9.00E-05
Total HpCDD	2.35E-05	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	8.63E-07
Total HpCDF	7.04E-06	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.59E-07
Total HxCDD	5.59E-06	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.05E-07
Total HxCDF	5.61E-06	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.06E-07
Total PeCDD	1.45E-06	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	5.33E-08
Total PeCDF	3.16E-06	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.16E-07
Total OCDD	8.92E-05	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.28E-06
Total OCDF	7.19E-06	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.64E-07
Total TCDD	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total TCDF	5.80E-07	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.13E-08
Antimony	1.03E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.77E-04
Arsenic	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	4.49E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.65E-01
Beryllium	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	2.00E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	7.35E-04
Chromium	6.00E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.20E-03
Copper	2.67E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	9.81E-02
Lead	9.50E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.49E-02
Mercury	5.07E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.86E-05
Nickel	5.30E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.95E-02
Silver	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	9.70E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.56E-03
Vanadium	8.60E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.16E-02
Zinc	3.45E+01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.27E+00

WATER CONSUMPTION
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Site - Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Benzo(a)anthracene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(a)pyrene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(b)fluoranthene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chrysene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzo(a,h)anthracene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzofurani	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Fluoranthene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-Methylnaphthalene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Naphthalene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Phenanthrene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Pyrene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Heptachlor	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
HeptachlorEpoxide	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HpCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HpCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HxCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HxCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total PeCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total PeCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total OCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total OCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total TCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total TCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table H.37. Site 31 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
							Daily Dose From Plant Consumption (mg/kg/day)
Benzo(a)anthracene	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(a)pyrene	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(b)fluoranthene	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chrysene	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzo(a,h)anthracene	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzofuran	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Fluoranthene	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-Methylnaphthalene	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Naphthalene	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Phenanthrene	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Pyrene	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Heptachlor	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
HeptachlorEpoxide	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HpCDD	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HpCDF	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HxCDD	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HxCDF	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total PeCDD	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total PeCDF	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total OCDD	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total OCDF	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total TCDD	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total TCDF	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	3.40E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	8.33E-03
Copper	2.80E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	6.86E-02
Lead	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	2.49E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	6.10E-01

SOIL INGESTION:

Table H.37. Site 31 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface	Soil	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Concentration (mg/kg)	Ingestion Rate (kg/day)				Daily Dose From Soil Ingestion (mg/kg/day)
Benzo(a)anthracene	2.44E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.79E-05
Benzo(a)pyrene	2.06E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.51E-05
Benzo(b)fluoranthene	2.21E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.62E-05
Chrysene	4.43E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.25E-05
Dibenzo(a,h)anthracene	5.41E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.97E-05
Dibenzofuran	3.40E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.50E-05
Fluoranthene	4.15E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.05E-05
2-Methylnaphthalene	1.36E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.99E-05
Naphthalene	2.24E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.65E-04
Phenanthrene	7.07E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.19E-05
Pyrene	4.91E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.61E-05
4,4'-DDE	1.33E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.77E-05
4,4'-DDT	1.57E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.15E-04
Heptachlor	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
HeptachlorEpoxide	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HpCDD	1.00E-04	3.86E-03	1.00E+00	1.00E+00	5.25E+00	7.35E-08
Total HpCDF	2.10E-04	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.54E-07
Total HxCDD	2.29E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.68E-08
Total HxCDF	6.00E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.41E-08
Total PeCDD	6.39E-06	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.69E-09
Total PeCDF	2.94E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.16E-08
Total OCDD	3.40E-04	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.50E-07
Total OCDF	8.00E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.88E-08
Total TCDD	7.10E-06	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.22E-09
Total TCDF	3.69E-05	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.71E-08
Antimony	1.62E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.19E-03
Arsenic	1.43E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.05E-03
Barium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	1.80E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.32E-04
Cadmium	1.01E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	7.42E-04
Chromium	1.57E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.15E-02
Copper	4.00E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.94E-02
Lead	6.09E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.47E-01
Mercury	8.00E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.88E-05
Nickel	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	8.90E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.54E-04
Thallium	3.00E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.20E-04
Vanadium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	2.53E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.86E-01

SEDIMENT INGESTION:

Table H.37. Site 31 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Benzo(a)anthracene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(a)pyrene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(b)fluoranthene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chrysene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzo(a,h)anthracene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzofuran	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Fluoranthene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-Methylnaphthalene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Naphthalene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Phenanthrene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Pyrene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Heptachlor	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
HeptachlorEpoxide	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HpCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HpCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HxCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HxCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total PeCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total PeCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total OCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total OCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total TCDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total TCDF	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.37. Site 31 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose	
								Body Weight (kg)	From Sediment - Dermal (mg/kg/day)
Benzo(a)anthracene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(a)pyrene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(b)fluoranthene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chrysene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzo(a,h)anthracene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzofuran	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Fluoranthene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-Methylnaphthalene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Naphthalene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Phenanthrene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Pyrene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Heptachlor	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
HeptachlorEpoxide	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HpCDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HpCDF	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HxCDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HxCDF	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total PeCDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total PeCDF	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total OCDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total OCDF	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total TCDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total TCDF	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.37. Site 31 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm ²)	Surface Soil Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Benzo(a)anthracene	2.44E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.40E-06
Benzo(a)pyrene	2.06E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.18E-06
Benzo(b)fluoranthene	2.21E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.27E-06
Chrysene	4.43E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.55E-06
Dibenzo(a,h)anthracene	5.41E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.11E-06
Dibenzofuran	3.40E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.96E-06
Fluoranthene	4.15E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.39E-06
2-Methylnaphthalene	1.36E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.82E-06
Naphthalene	2.24E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.29E-05
Phenanthrene	7.07E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.07E-06
Pyrene	4.91E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.82E-06
4,4'-DDE	1.33E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.65E-06
4,4'-DDT	1.57E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	9.03E-06
Heptachlor	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
HeptachlorEpoxide	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HpCDD	1.00E-04	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.75E-09
Total HpCDF	2.10E-04	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.21E-08
Total HxCDD	2.29E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.32E-09
Total HxCDF	6.00E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.45E-09
Total PeCDD	6.39E-06	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.67E-10
Total PeCDF	2.94E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.69E-09
Total OCDD	3.40E-04	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.96E-08
Total OCDF	8.00E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.60E-09
Total TCDD	7.10E-06	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.08E-10
Total TCDF	3.69E-05	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.12E-09
Antimony	1.62E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	9.32E-05
Arsenic	1.43E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	8.22E-05
Barium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	1.80E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.04E-05
Cadmium	1.01E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.81E-05
Chromium	1.57E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	9.03E-04
Copper	4.00E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.30E-03
Lead	6.09E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.50E-02
Mercury	8.00E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.60E-06
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	8.90E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.12E-05
Thallium	3.00E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.73E-05
Vanadium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	2.53E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.45E-02

SURFACE WATER DERMAL EXPOSURE:
 Table H.37. Site 31 Risk Characterization for the Gray Fox
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Benzo(a)anthracene	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(a)pyrene	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Benzo(b)fluoranthene	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chrysene	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzo(a,h)anthracene	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dibenzofuran	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Fluoranthene	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-Methylnaphthalene	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Naphthalene	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Phenanthrene	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Pyrene	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	5.67E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Heptachlor	2.27E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
HeptachlorEpoxide	2.45E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HpCDD	2.35E-05	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HpCDF	7.04E-06	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HxCDD	5.59E-06	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total HxCDF	5.61E-06	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total PeCDD	1.45E-06	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total PeCDF	3.16E-06	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total OCDD	8.92E-05	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total OCDF	7.19E-06	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total TCDD	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Total TCDF	5.80E-07	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	1.03E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	4.49E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	2.00E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	6.00E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	2.67E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	9.50E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	5.07E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	5.30E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	9.70E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	8.60E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	3.45E+01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table H.37. Site 31 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment

Fort Ord, California	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Benzo(a)anthracene	0.00E+00	0.00E+00	0.00E+00	1.79E-05	0.00E+00	0.00E+00	1.40E-06	0.00E+00	1.93E-05	9.66E-04
Benzo(a)pyrene	0.00E+00	0.00E+00	0.00E+00	1.51E-05	0.00E+00	0.00E+00	1.18E-06	0.00E+00	1.63E-05	8.16E-04
Benzo(b)fluoranthene	0.00E+00	0.00E+00	0.00E+00	1.62E-05	0.00E+00	0.00E+00	1.27E-06	0.00E+00	1.75E-05	1.40E-05
Chrysene	0.00E+00	0.00E+00	0.00E+00	3.25E-05	0.00E+00	0.00E+00	2.55E-06	0.00E+00	3.51E-05	1.75E-03
Dibenzo(a,h)anthracene	0.00E+00	0.00E+00	0.00E+00	3.97E-05	0.00E+00	0.00E+00	3.11E-06	0.00E+00	4.29E-05	2.14E-03
Dibenzofuran	0.00E+00	0.00E+00	0.00E+00	2.50E-05	0.00E+00	0.00E+00	1.96E-06	0.00E+00	2.69E-05	2.15E-05
Fluoranthene	0.00E+00	0.00E+00	0.00E+00	3.05E-05	0.00E+00	0.00E+00	2.39E-06	0.00E+00	3.29E-05	2.63E-05
2-Methylnaphthalene	0.00E+00	0.00E+00	0.00E+00	9.99E-05	0.00E+00	0.00E+00	7.82E-06	0.00E+00	1.08E-04	1.28E-04
Naphthalene	0.00E+00	0.00E+00	0.00E+00	1.65E-04	0.00E+00	0.00E+00	1.29E-05	0.00E+00	1.77E-04	2.11E-04
Phenanthrene	0.00E+00	0.00E+00	0.00E+00	5.19E-05	0.00E+00	0.00E+00	4.07E-06	0.00E+00	5.60E-05	7.47E-05
Pyrene	0.00E+00	0.00E+00	0.00E+00	3.61E-05	0.00E+00	0.00E+00	2.82E-06	0.00E+00	3.89E-05	5.19E-05
4,4'-DDE	2.08E-04	0.00E+00	0.00E+00	9.77E-05	0.00E+00	0.00E+00	7.65E-06	0.00E+00	3.14E-04	1.84E-04
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	1.15E-04	0.00E+00	0.00E+00	9.03E-06	0.00E+00	1.24E-04	7.77E-05
Heptachlor	8.34E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.34E-05	2.78E-01
HeptachlorEpoxide	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.00E-05	3.00E-01
Total HpCDD	8.63E-07	0.00E+00	0.00E+00	7.36E-08	0.00E+00	0.00E+00	5.75E-09	0.00E+00	9.42E-07	1.88E-01
Total HpCDF	2.59E-07	0.00E+00	0.00E+00	1.54E-07	0.00E+00	0.00E+00	1.21E-08	0.00E+00	4.25E-07	8.50E-02
Total HxCDD	2.05E-07	0.00E+00	0.00E+00	1.68E-08	0.00E+00	0.00E+00	1.32E-09	0.00E+00	2.23E-07	4.47E-01
Total HxCDF	2.06E-07	0.00E+00	0.00E+00	4.41E-08	0.00E+00	0.00E+00	3.45E-09	0.00E+00	2.54E-07	5.07E-01
Total PeCDD	5.33E-08	0.00E+00	0.00E+00	4.69E-09	0.00E+00	0.00E+00	3.67E-10	0.00E+00	5.83E-08	5.83E-01
Total PeCDF	1.16E-07	0.00E+00	0.00E+00	2.16E-08	0.00E+00	0.00E+00	1.69E-09	0.00E+00	1.39E-07	1.39E+00
Total OCDD	3.28E-06	0.00E+00	0.00E+00	2.50E-07	0.00E+00	0.00E+00	1.96E-08	0.00E+00	3.55E-06	7.09E-02
Total OCDF	2.64E-07	0.00E+00	0.00E+00	5.88E-08	0.00E+00	0.00E+00	4.60E-09	0.00E+00	3.27E-07	6.55E-03
Total TCDD	0.00E+00	0.00E+00	0.00E+00	5.22E-09	0.00E+00	0.00E+00	4.08E-10	0.00E+00	5.62E-09	1.12E-01
Total TCDF	2.13E-08	0.00E+00	0.00E+00	2.71E-08	0.00E+00	0.00E+00	2.12E-09	0.00E+00	5.05E-08	1.01E-01
Antimony	3.77E-04	0.00E+00	0.00E+00	1.19E-03	0.00E+00	0.00E+00	9.32E-05	0.00E+00	1.66E-03	5.55E-04
Arsenic	0.00E+00	0.00E+00	0.00E+00	1.05E-03	0.00E+00	0.00E+00	8.22E-05	0.00E+00	1.13E-03	3.06E-03
Barium	1.65E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.65E-01	4.12E+00
Beryllium	0.00E+00	0.00E+00	0.00E+00	1.32E-04	0.00E+00	0.00E+00	1.04E-05	0.00E+00	1.43E-04	2.85E-03
Cadmium	7.35E-04	0.00E+00	0.00E+00	7.42E-04	0.00E+00	0.00E+00	5.81E-05	0.00E+00	1.53E-03	1.81E-01
Chromium	2.20E-03	0.00E+00	8.33E-03	1.15E-02	0.00E+00	0.00E+00	9.03E-04	0.00E+00	2.30E-02	7.68E-01
Copper	9.81E-02	0.00E+00	6.86E-02	2.94E-02	0.00E+00	0.00E+00	2.30E-03	0.00E+00	1.98E-01	1.15E-02
Lead	3.49E-02	0.00E+00	0.00E+00	4.47E-01	0.00E+00	0.00E+00	3.50E-02	0.00E+00	5.17E-01	3.98E+00
Mercury	1.88E-05	0.00E+00	0.00E+00	5.88E-05	0.00E+00	0.00E+00	4.60E-06	0.00E+00	8.20E-05	8.20E-04
Nickel	1.95E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-02	7.24E-03
Silver	0.00E+00	0.00E+00	0.00E+00	6.54E-04	0.00E+00	0.00E+00	5.12E-05	0.00E+00	7.05E-04	7.92E-04
Thallium	3.56E-03	0.00E+00	0.00E+00	2.20E-04	0.00E+00	0.00E+00	1.73E-05	0.00E+00	3.80E-03	1.27E+00
Vanadium	3.16E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.16E-02	1.50E-01
Zinc	1.27E+00	0.00E+00	6.10E-01	1.86E-01	0.00E+00	0.00E+00	1.45E-02	0.00E+00	2.08E+00	1.19E+00
TOTAL										1.58E+01



**Table H.38. Site 32 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose-Response Value	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Avg. plant Conc. (mg/kg)
4,4'-DDD	7.74E-02	0.00E+00	0.00E+00	1.07E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	9.43E-03
4,4'-DDE	1.06E-01	0.00E+00	0.00E+00	3.40E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	9.29E-03
4,4'-DDT	1.94E-01	0.00E+00	0.00E+00	3.11E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	8.57E-03
Chlordane	5.29E-02	0.00E+00	0.00E+00	9.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Beryllium	3.90E-01	0.00E+00	0.00E+00	9.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	9.00E-02
Cadmium	4.00E-01	0.00E+00	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chromium	9.95E+00	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	9.60E-01
Copper	4.60E+00	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	7.43E+00
Lead	0.00E+00	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.00E-01
Mercury	6.00E-02	0.00E+00	0.00E+00	1.90E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.00E-02
Nickel	0.00E+00	0.00E+00	0.00E+00	8.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.50E+00
Silver	0.00E+00	0.00E+00	0.00E+00	1.78E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	7.00E-02
Zinc	2.59E+01	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	4.23E+01

EXPOSURE PARAMETERS:

Table H.38. Site 32 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day)	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:

Table H.38. Site 32 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
4,4'-DDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION

Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
4,4'-DDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table H.38. Site 32 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
4,4'-DDD	9.43E-03	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.89E-03
4,4'-DDE	9.29E-03	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.86E-03
4,4'-DDT	8.57E-03	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.71E-03
Chlordane	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	9.00E-02	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.80E-02
Cadmium	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	9.60E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.92E-01
Copper	7.43E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.49E+00
Lead	5.00E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.00E-01
Mercury	3.00E-02	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	6.00E-03
Nickel	1.50E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.00E-01
Silver	7.00E-02	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.40E-02
Zinc	4.23E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	8.46E+00

SOIL INGESTION:

Table H.38. Site 32 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
4,4'-DDD	7.74E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.64E-04
4,4'-DDE	1.06E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.36E-04
4,4'-DDT	1.94E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.16E-03
Chlordane	5.29E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.17E-04
Beryllium	3.90E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.34E-03
Cadmium	4.00E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.40E-03
Chromium	9.95E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.97E-02
Copper	4.60E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.76E-02
Lead	0.00E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	6.00E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.60E-04
Nickel	0.00E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	2.59E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.55E-01

SEDIMENT INGESTION:

Table H.38. Site 32 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
4,4'-DDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.38. Site 32 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (kg/cm ²)	Sediment Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)
4,4'-DDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.38. Site 32 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure		Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose
		(Soil on Skin) (kg/cm ²)	(Skin Exposed) (cm ² /day)						From Soil - Dermal (mg/kg/day)
4,4'-DDD	7.74E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.65E-05
4,4'-DDE	1.06E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.63E-05
4,4'-DDT	1.94E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.63E-05
Chlordane	5.29E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.81E-05
Beryllium	3.90E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.33E-04
Cadmium	4.00E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.37E-04
Chromium	9.95E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.40E-03
Copper	4.60E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.57E-03
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	6.00E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.05E-05
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	2.59E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.86E-03

SURFACE WATER DERMAL EXPOSURE:

Table H.38. Site 32 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure		Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose
		(Skin Exposed) (cm ²)	Kp (cm/hr)						From Water - Dermal (mg/kg/day)
4,4'-DDD	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chlordane	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table H.38. Site 32 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
4,4'-DDD	0.00E+00	0.00E+00	1.89E-03	4.64E-04	0.00E+00	0.00E+00	2.65E-05	0.00E+00	2.38E-03	2.22E-05
4,4'-DDE	0.00E+00	0.00E+00	1.86E-03	6.36E-04	0.00E+00	0.00E+00	3.63E-05	0.00E+00	2.53E-03	7.44E-05
4,4'-DDT	0.00E+00	0.00E+00	1.71E-03	1.16E-03	0.00E+00	0.00E+00	6.63E-05	0.00E+00	2.94E-03	9.47E-04
Chlordane	0.00E+00	0.00E+00	0.00E+00	3.17E-04	0.00E+00	0.00E+00	1.81E-05	0.00E+00	3.35E-04	3.73E-04
Beryllium	0.00E+00	0.00E+00	1.80E-02	2.34E-03	0.00E+00	0.00E+00	1.33E-04	0.00E+00	2.05E-02	2.16E-02
Cadmium	0.00E+00	0.00E+00	0.00E+00	2.40E-03	0.00E+00	0.00E+00	1.37E-04	0.00E+00	2.54E-03	1.49E-02
Chromium	0.00E+00	0.00E+00	1.92E-01	5.97E-02	0.00E+00	0.00E+00	3.40E-03	0.00E+00	2.55E-01	1.06E+00
Copper	0.00E+00	0.00E+00	1.49E+00	2.76E-02	0.00E+00	0.00E+00	1.57E-03	0.00E+00	1.52E+00	4.37E-03
Lead	0.00E+00	0.00E+00	1.00E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-01	1.11E+00
Mercury	0.00E+00	0.00E+00	6.00E-03	3.60E-04	0.00E+00	0.00E+00	2.05E-05	0.00E+00	6.38E-03	3.36E-03
Nickel	0.00E+00	0.00E+00	3.00E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.00E-01	3.53E-01
Silver	0.00E+00	0.00E+00	1.40E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.40E-02	7.87E-03
Zinc	0.00E+00	0.00E+00	8.46E+00	1.55E-01	0.00E+00	0.00E+00	8.86E-03	0.00E+00	8.63E+00	6.16E-01
TOTAL										3.20E+00

**Table H.39. Site 32 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Avg. Modeled Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose-Response Value	Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Avg. Plant Conc. (mg/kg)
4,4'-DDD	7.74E-02	2.38E-03	0.00E+00	5.35E+00	1.00E+00	1.00E+00	1.00E+00	9.43E-03
4,4'-DDE	1.06E-01	2.53E-03	0.00E+00	1.70E+00	1.00E+00	1.00E+00	1.00E+00	9.29E-03
4,4'-DDT	1.94E-01	2.94E-03	0.00E+00	1.60E+00	1.00E+00	1.00E+00	1.00E+00	8.57E-03
Chlordane	5.29E-02	3.35E-04	0.00E+00	4.00E-02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Beryllium	3.90E-01	2.05E-02	0.00E+00	5.00E-02	1.00E+00	1.00E+00	1.00E+00	9.00E-02
Cadmium	4.00E-01	2.54E-03	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chromium	9.95E+00	2.55E-01	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	9.60E-01
Copper	4.60E+00	1.52E+00	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	7.43E+00
Lead	0.00E+00	2.05E-02	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	5.00E-01
Mercury	6.00E-02	2.54E-03	0.00E+00	1.00E-01	1.00E+00	1.00E+00	1.00E+00	3.00E-02
Nickel	0.00E+00	2.55E-01	0.00E+00	2.69E+00	1.00E+00	1.00E+00	1.00E+00	1.50E+00
Silver	0.00E+00	1.52E+00	0.00E+00	8.90E-01	1.00E+00	1.00E+00	1.00E+00	7.00E-02
Zinc	2.59E+01	8.63E+00	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	4.23E+01

EXPOSURE PARAMETERS:

Table H.39. Site 32 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day)	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm2)	3.02E+02
Skin exposed - Soil/Sediment (cm2/day)	3.02E+02
Soil on Skin (kg/cm2)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table H.39. Site 32 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Organism Consumption (mg/kg/day)
4,4'-DDD	2.38E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	8.73E-05
4,4'-DDE	2.53E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	9.29E-05
4,4'-DDT	2.94E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.08E-04
Chlordane	3.35E-04	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.23E-05
Beryllium	2.05E-02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	7.52E-04
Cadmium	2.54E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	9.32E-05
Chromium	2.55E-01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	9.37E-03
Copper	1.52E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	5.57E-02
Lead	2.05E-02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	7.52E-04
Mercury	2.54E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	9.32E-05
Nickel	2.55E-01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	9.37E-03
Silver	1.52E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	5.57E-02
Zinc	8.63E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	3.17E-01

WATER CONSUMPTION

Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Site-Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
4,4'-DDD	2.38E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	2.53E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	2.94E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	3.35E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	2.05E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	2.54E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	2.55E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	1.52E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	2.05E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	2.54E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	2.55E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	1.52E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	8.63E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table H.39. Site 32 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
4,4'-DDD	9.43E-03	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.31E-04
4,4'-DDE	9.29E-03	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.28E-04
4,4'-DDT	8.57E-03	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.10E-04
Chlordane	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	9.00E-02	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.20E-03
Cadmium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	9.60E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.35E-02
Copper	7.43E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.82E-01
Lead	5.00E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.22E-02
Mercury	3.00E-02	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	7.35E-04
Nickel	1.50E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.67E-02
Silver	7.00E-02	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.71E-03
Zinc	4.23E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.04E+00

SOIL INGESTION:

Table H.39. Site 32 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
4,4'-DDD	7.74E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.69E-05
4,4'-DDE	1.06E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	7.79E-05
4,4'-DDT	1.94E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.43E-04
Chlordane	5.29E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.89E-05
Beryllium	3.90E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.87E-04
Cadmium	4.00E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.94E-04
Chromium	9.95E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	7.31E-03
Copper	4.60E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.38E-03
Lead	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	6.00E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.41E-05
Nickel	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	2.59E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.90E-02

SEDIMENT INGESTION:

Table H.39. Site 32 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
						Daily Dose From Sediment Ingestion (mg/kg/day)
4,4'-DDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.39. Site 32 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Lifetime Average	
								Daily Dose From Sediment - Dermal (mg/kg/day)	
4,4'-DDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.39. Site 32 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure		Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose
		(Soil on Skin) (kg/cm2)	(Skin Exposed) (cm2/day)						From Soil - Dermal (mg/kg/day)
4,4'-DDD	7.74E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.45E-06
4,4'-DDE	1.06E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.10E-06
4,4'-DDT	1.94E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.12E-05
Chlordane	5.29E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.04E-06
Beryllium	3.90E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.24E-05
Cadmium	4.00E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.30E-05
Chromium	9.95E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.72E-04
Copper	4.60E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.65E-04
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	6.00E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.45E-06
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	2.59E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.49E-03

SURFACE WATER DERMAL EXPOSURE:

Table H.39. Site 32 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure		Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose
		(Skin Exposed) (cm2)	Kp (cm/hr)						From Water - Dermal (mg/kg/day)
4,4'-DDD	2.38E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	2.53E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	2.94E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chlordane	3.35E-04	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	2.05E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	2.54E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	2.55E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	1.52E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	2.05E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	2.54E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	2.55E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	1.52E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	8.63E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table H.39. Site 32 Risk Characterization for the Gray Fox

Quantitative Ecological Risk Assessment

Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
4,4'-DDD	8.73E-05	0.00E+00	2.31E-04	5.69E-05	0.00E+00	0.00E+00	4.45E-06	0.00E+00	3.80E-04	7.09E-05
4,4'-DDE	9.29E-05	0.00E+00	2.28E-04	7.79E-05	0.00E+00	0.00E+00	6.10E-06	0.00E+00	4.04E-04	2.38E-04
4,4'-DDT	1.08E-04	0.00E+00	2.10E-04	1.43E-04	0.00E+00	0.00E+00	1.12E-05	0.00E+00	4.72E-04	2.95E-04
Chlordane	1.23E-05	0.00E+00	0.00E+00	3.89E-05	0.00E+00	0.00E+00	3.04E-06	0.00E+00	5.42E-05	1.36E-03
Beryllium	7.52E-04	0.00E+00	2.20E-03	2.87E-04	0.00E+00	0.00E+00	2.24E-05	0.00E+00	3.27E-03	6.53E-02
Cadmium	9.32E-05	0.00E+00	0.00E+00	2.94E-04	0.00E+00	0.00E+00	2.30E-05	0.00E+00	4.10E-04	4.82E-02
Chromium	9.37E-03	0.00E+00	2.35E-02	7.31E-03	0.00E+00	0.00E+00	5.72E-04	0.00E+00	4.08E-02	1.36E+00
Copper	5.57E-02	0.00E+00	1.82E-01	3.38E-03	0.00E+00	0.00E+00	2.65E-04	0.00E+00	2.41E-01	1.39E-02
Lead	7.52E-04	0.00E+00	1.22E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.30E-02	1.00E-01
Mercury	9.32E-05	0.00E+00	7.35E-04	4.41E-05	0.00E+00	0.00E+00	3.45E-06	0.00E+00	8.75E-04	8.75E-03
Nickel	9.37E-03	0.00E+00	3.67E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.61E-02	1.71E-02
Silver	5.57E-02	0.00E+00	1.71E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.74E-02	6.45E-02
Zinc	3.17E-01	0.00E+00	1.04E+00	1.90E-02	0.00E+00	0.00E+00	1.49E-03	0.00E+00	1.37E+00	7.85E-01
TOTAL										2.46E+00

**Table H.40. Site 33 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose-Response Value	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Avg. Plant Conc (mg/kg)
Chlordane	8.33E-01	0.00E+00	0.00E+00	9.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDD	1.23E-01	0.00E+00	0.00E+00	1.07E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDE	5.21E-02	0.00E+00	0.00E+00	3.40E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDT	6.15E-01	0.00E+00	0.00E+00	3.11E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
gamma-BHC	8.93E-03	0.00E+00	0.00E+00	3.25E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Dicamba	3.34E-02	0.00E+00	0.00E+00	2.50E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Dieldrin	2.05E-01	0.00E+00	0.00E+00	3.00E-03	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Endrin	1.73E-02	0.00E+00	0.00E+00	3.00E-03	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Antimony	7.70E-01	0.00E+00	0.00E+00	3.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Arsenic	1.88E+00	0.00E+00	0.00E+00	7.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Cadmium	9.40E-01	0.00E+00	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.40E-01
Chromium	1.33E+01	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.05E+00
Copper	1.60E+01	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.01E+02
Lead	4.48E+01	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-01
Mercury	8.48E+00	0.00E+00	0.00E+00	1.90E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	0.00E+00	8.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.86E+00
Silver	1.51E+00	0.00E+00	0.00E+00	1.78E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Thallium	2.60E-01	0.00E+00	0.00E+00	1.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Zinc	1.01E+02	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.65E+01

EXPOSURE PARAMETERS:

Table H.40. Site 33 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:
 Table H.40. Site 33 Risk Characterization for the Deer Mouse
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Chlordane	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
gamma-BHC	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dicamba	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Endrin	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Chlordane	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
gamma-BHC	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dicamba	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Endrin	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table H.40. Site 33 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Chlordane	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
gamma-BHC	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dicamba	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Endrin	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	1.40E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.80E-02
Chromium	2.05E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	4.10E-01
Copper	1.01E+02	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.03E+01
Lead	1.00E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.00E-02
Mercury	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	1.86E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.72E-01
Silver	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	5.65E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.13E+01

SOIL INGESTION:

Table H.40. Site 33 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
Chlordane	8.33E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.00E-03
4,4'-DDD	1.23E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.38E-04
4,4'-DDE	5.21E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.13E-04
4,4'-DDT	6.15E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.69E-03
gamma-BHC	8.93E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.36E-05
Dicamba	3.34E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.00E-04
Dieldrin	2.05E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.23E-03
Endrin	1.73E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.04E-04
Antimony	7.70E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.62E-03
Arsenic	1.88E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.13E-02
Cadmium	9.40E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.64E-03
Chromium	1.33E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.98E-02
Copper	1.60E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.60E-02
Lead	4.48E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.69E-01
Mercury	8.48E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.09E-02
Nickel	0.00E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	1.51E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.06E-03
Thallium	2.60E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.56E-03
Zinc	1.01E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.06E-01

SEDIMENT INGESTION:

Table H.40. Site 33 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose
						From Sediment Ingestion (mg/kg/day)
Chlordane	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
gamma-BHC	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dicamba	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Endrin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.40. Site 33 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure on Skin (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose
									From Sediment Dermal (mg/kg/day)
Chlordane	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
gamma-BHC	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dicamba	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Endrin	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.40. Site 33 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil	Surface Soil	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
		Dermal Exposure (Soil on Skin) (kg/cm2)	Dermal Exposure (Skin Exposed) (cm2/day)						Daily Dose From Soil - Dermal (mg/kg/day)
Chlordane	8.33E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.85E-04
4,4'-DDD	1.23E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.21E-05
4,4'-DDE	5.21E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.78E-05
4,4'-DDT	6.15E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.10E-04
gamma-BHC	8.93E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.05E-06
Dicamba	3.34E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.14E-05
Dieldrin	2.05E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	7.01E-05
Endrin	1.73E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.92E-06
Antimony	7.70E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.63E-04
Arsenic	1.88E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.43E-04
Cadmium	9.40E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.21E-04
Chromium	1.33E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.55E-03
Copper	1.60E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.47E-03
Lead	4.48E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.53E-02
Mercury	8.48E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.90E-03
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	1.51E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.16E-04
Thallium	2.60E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.89E-05
Zinc	1.01E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.45E-02

SURFACE WATER DERMAL EXPOSURE:

Table H.40. Site 33 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average
		Dermal Exposure (Skin Exposed) (cm2)							From Water - Dermal (mg/kg/day)
Chlordane	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDD	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDE	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4,4'-DDT	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
gamma-BHC	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dicamba	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Dieldrin	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Endrin	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table H.40. Site 33 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Chlordane	0.00E+00	0.00E+00	0.00E+00	5.00E-03	0.00E+00	0.00E+00	2.85E-04	0.00E+00	5.28E-03	5.87E-03
4,4'-DDD	0.00E+00	0.00E+00	0.00E+00	7.38E-04	0.00E+00	0.00E+00	4.21E-05	0.00E+00	7.80E-04	7.29E-06
4,4'-DDE	0.00E+00	0.00E+00	0.00E+00	3.13E-04	0.00E+00	0.00E+00	1.78E-05	0.00E+00	3.30E-04	9.72E-06
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	3.69E-03	0.00E+00	0.00E+00	2.10E-04	0.00E+00	3.90E-03	1.25E-03
gamma-BHC	0.00E+00	0.00E+00	0.00E+00	5.36E-05	0.00E+00	0.00E+00	3.05E-06	0.00E+00	5.66E-05	1.74E-06
Dicamba	0.00E+00	0.00E+00	0.00E+00	2.00E-04	0.00E+00	0.00E+00	1.14E-05	0.00E+00	2.12E-04	8.47E-05
Dieldrin	0.00E+00	0.00E+00	0.00E+00	1.23E-03	0.00E+00	0.00E+00	7.01E-05	0.00E+00	1.30E-03	4.33E-01
Endrin	0.00E+00	0.00E+00	0.00E+00	1.04E-04	0.00E+00	0.00E+00	5.92E-06	0.00E+00	1.10E-04	3.66E-02
Antimony	0.00E+00	0.00E+00	0.00E+00	4.62E-03	0.00E+00	0.00E+00	2.63E-04	0.00E+00	4.88E-03	1.40E-02
Arsenic	0.00E+00	0.00E+00	0.00E+00	1.13E-02	0.00E+00	0.00E+00	6.43E-04	0.00E+00	1.19E-02	1.70E-02
Cadmium	0.00E+00	0.00E+00	2.80E-02	5.64E-03	0.00E+00	0.00E+00	3.21E-04	0.00E+00	3.40E-02	2.00E-01
Chromium	0.00E+00	0.00E+00	4.10E-01	7.98E-02	0.00E+00	0.00E+00	4.55E-03	0.00E+00	4.94E-01	2.06E+00
Copper	0.00E+00	0.00E+00	2.03E+01	9.60E-02	0.00E+00	0.00E+00	5.47E-03	0.00E+00	2.04E+01	5.88E-02
Lead	0.00E+00	0.00E+00	2.00E-02	2.69E-01	0.00E+00	0.00E+00	1.53E-02	0.00E+00	3.04E-01	3.38E+00
Mercury	0.00E+00	0.00E+00	0.00E+00	5.09E-02	0.00E+00	0.00E+00	2.90E-03	0.00E+00	5.38E-02	2.83E-02
Nickel	0.00E+00	0.00E+00	3.72E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-01	4.38E-01
Silver	0.00E+00	0.00E+00	0.00E+00	9.06E-03	0.00E+00	0.00E+00	5.16E-04	0.00E+00	9.58E-03	5.38E-03
Thallium	0.00E+00	0.00E+00	0.00E+00	1.56E-03	0.00E+00	0.00E+00	8.89E-05	0.00E+00	1.65E-03	1.65E-01
Zinc	0.00E+00	0.00E+00	1.13E+01	6.06E-01	0.00E+00	0.00E+00	3.45E-02	0.00E+00	1.19E+01	8.53E-01
TOTAL										7.69E+00

Table H.41. Site 33 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Avg. Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose-Response Value	Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Avg. Plant Conc. (mg/kg)
Chlordane	8.33E-01	1.80E-03	0.00E+00	4.00E-02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDD	1.23E-01	0.00E+00	0.00E+00	5.35E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDE	5.21E-02	0.00E+00	0.00E+00	1.70E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
4,4'-DDT	6.15E-01	0.00E+00	0.00E+00	1.60E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
gamma-BHC	8.93E-03	0.00E+00	0.00E+00	2.50E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Dicamba	3.34E-02	0.00E+00	0.00E+00	1.04E+01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Dieldrin	2.05E-01	0.00E+00	0.00E+00	2.00E-02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Endrin	1.73E-02	0.00E+00	0.00E+00	2.50E-03	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Antimony	7.70E-01	4.88E-03	0.00E+00	2.99E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Arsenic	1.88E+00	0.00E+00	0.00E+00	3.70E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Barium	0.00E+00	5.82E+00	0.00E+00	4.00E-02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Cadmium	9.40E-01	3.00E-02	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	1.40E-01
Chromium	1.33E+01	0.00E+00	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	2.05E+00
Copper	1.60E+01	2.75E+00	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	1.01E+02
Lead	4.48E+01	2.70E-01	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-01
Mercury	8.48E+00	5.38E-02	0.00E+00	1.00E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Nickel	0.00E+00	5.20E-01	0.00E+00	2.69E+00	1.00E+00	1.00E+00	1.00E+00	1.86E+00
Silver	1.51E+00	0.00E+00	0.00E+00	8.90E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Thallium	2.60E-01	1.30E-01	0.00E+00	3.00E-03	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Zinc	1.01E+02	2.89E+01	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	5.65E+01

EXPOSURE PARAMETERS:

Table H.41. Site 33 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table H.41. Site 33 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Organism Consumption (mg/kg/day)
Chlordane	1.80E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	6.61E-05
4,4'-DDD	0.00E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	0.00E+00
gamma-BHC	0.00E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	0.00E+00
Dicamba	0.00E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	0.00E+00
Dieldrin	0.00E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	0.00E+00
Endrin	0.00E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	0.00E+00
Antimony	4.88E-03	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.79E-04
Arsenic	0.00E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	0.00E+00
Barium	5.82E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	2.14E-01
Cadmium	3.00E-02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.10E-03
Chromium	0.00E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	0.00E+00
Copper	2.75E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.01E-01
Lead	2.70E-01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	9.92E-03
Mercury	5.38E-02	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.98E-03
Nickel	5.20E-01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.91E-02
Silver	0.00E+00	1.00E+00	1.93E-01	1.00E+00	5.25E+00	0.00E+00
Thallium	1.30E-01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	4.78E-03
Zinc	2.89E+01	1.00E+00	1.93E-01	1.00E+00	5.25E+00	1.06E+00

WATER CONSUMPTION
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)	Site-Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Chlordane	1.80E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
gamma-BHC	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dicamba	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Endrin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	4.88E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	5.82E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	3.00E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	2.75E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	2.70E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	5.38E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	5.20E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	1.30E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	2.89E+01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table H.41. Site 33 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Chlordane	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
gamma-BHC	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dicamba	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Endrin	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.40E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	3.43E-03
Chromium	2.05E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	5.02E-02
Copper	1.01E+02	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.48E+00
Lead	1.00E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.45E-03
Mercury	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	1.86E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.56E-02
Silver	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	5.65E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.38E+00

SOIL INGESTION:

Table H.41. Site 33 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface	Soil	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
	Soil Concentration (mg/kg)	Ingestion Rate (kg/day)				Daily Dose From Soil Ingestion (mg/kg/day)
Chlordane	8.33E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.12E-04
4,4'-DDD	1.23E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.04E-05
4,4'-DDE	5.21E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.83E-05
4,4'-DDT	6.15E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	4.52E-04
gamma-BHC	8.93E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.56E-06
Dicamba	3.34E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.45E-05
Dieldrin	2.05E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.51E-04
Endrin	1.73E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.27E-05
Antimony	7.70E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.66E-04
Arsenic	1.88E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.38E-03
Barium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	9.40E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.91E-04
Chromium	1.33E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.77E-03
Copper	1.60E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.18E-02
Lead	4.48E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.29E-02
Mercury	8.48E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.23E-03
Nickel	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	1.51E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.11E-03
Thallium	2.60E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.91E-04
Zinc	1.01E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	7.42E-02

SEDIMENT INGESTION:

Table H.41. Site 33 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Chlordane	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
gamma-BHC	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dicamba	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Endrin	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:
 Table H.41. Site 33 Risk Characterization for the Gray Fox
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)
Chlordane	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
gamma-BHC	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dicamba	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Endrin	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.41. Site 33 Risk Characterization for the Gray Fox

Quantitative Ecological Risk Assessment

Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
									Daily Dose From Soil Dermal (mg/kg/day)
Chlordane	8.33E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.79E-05
4,4'-DDD	1.23E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.07E-06
4,4'-DDE	5.21E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.00E-06
4,4'-DDT	6.15E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.54E-05
gamma-BHC	8.93E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.14E-07
Dicamba	3.34E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.92E-06
Dieldrin	2.05E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.18E-05
Endrin	1.73E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	9.95E-07
Antimony	7.70E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.43E-05
Arsenic	1.88E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.08E-04
Barium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	9.40E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.41E-05
Chromium	1.33E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.65E-04
Copper	1.60E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	9.20E-04
Lead	4.48E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.58E-03
Mercury	8.48E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.88E-04
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	1.51E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	8.68E-05
Thallium	2.60E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.50E-05
Zinc	1.01E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.81E-03

SURFACE WATER DERMAL EXPOSURE:
 Table H.41. Site 33 Risk Characterization for the Gray Fox
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Chlordane	1.80E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDD	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDE	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4,4'-DDT	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
gamma-BHC	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dicamba	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Dieldrin	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Endrin	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	4.88E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	5.82E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	3.00E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	2.75E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	2.70E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	5.38E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	5.20E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	1.30E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	2.89E+01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table H.41. Site 33 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Chlordane	6.61E-05	0.00E+00	0.00E+00	6.12E-04	0.00E+00	0.00E+00	4.79E-05	0.00E+00	7.26E-04	1.82E-02
4,4'-DDD	0.00E+00	0.00E+00	0.00E+00	9.04E-05	0.00E+00	0.00E+00	7.07E-06	0.00E+00	9.74E-05	1.82E-05
4,4'-DDE	0.00E+00	0.00E+00	0.00E+00	3.83E-05	0.00E+00	0.00E+00	3.00E-06	0.00E+00	4.13E-05	2.43E-05
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	4.52E-04	0.00E+00	0.00E+00	3.54E-05	0.00E+00	4.87E-04	3.04E-04
gamma-BHC	0.00E+00	0.00E+00	0.00E+00	6.56E-06	0.00E+00	0.00E+00	5.14E-07	0.00E+00	7.07E-06	2.83E-05
Dicamba	0.00E+00	0.00E+00	0.00E+00	2.45E-05	0.00E+00	0.00E+00	1.92E-06	0.00E+00	2.65E-05	2.54E-06
Dieldrin	0.00E+00	0.00E+00	0.00E+00	1.51E-04	0.00E+00	0.00E+00	1.18E-05	0.00E+00	1.62E-04	8.12E-03
Endrin	0.00E+00	0.00E+00	0.00E+00	1.27E-05	0.00E+00	0.00E+00	9.95E-07	0.00E+00	1.37E-05	5.48E-03
Antimony	1.79E-04	0.00E+00	0.00E+00	5.66E-04	0.00E+00	0.00E+00	4.43E-05	0.00E+00	7.89E-04	2.64E-04
Arsenic	0.00E+00	0.00E+00	0.00E+00	1.38E-03	0.00E+00	0.00E+00	1.08E-04	0.00E+00	1.49E-03	4.03E-03
Barium	2.14E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.14E-01	5.34E+00
Cadmium	1.10E-03	0.00E+00	3.43E-03	6.91E-04	0.00E+00	0.00E+00	5.41E-05	0.00E+00	5.28E-03	6.21E-01
Chromium	0.00E+00	0.00E+00	5.02E-02	9.77E-03	0.00E+00	0.00E+00	7.65E-04	0.00E+00	6.07E-02	2.02E+00
Copper	1.01E-01	0.00E+00	2.48E+00	1.18E-02	0.00E+00	0.00E+00	9.20E-04	0.00E+00	2.60E+00	1.50E-01
Lead	9.92E-03	0.00E+00	2.45E-03	3.29E-02	0.00E+00	0.00E+00	2.58E-03	0.00E+00	4.79E-02	3.68E-01
Mercury	1.98E-03	0.00E+00	0.00E+00	6.23E-03	0.00E+00	0.00E+00	4.88E-04	0.00E+00	8.69E-03	8.69E-02
Nickel	1.91E-02	0.00E+00	4.56E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.47E-02	2.40E-02
Silver	0.00E+00	0.00E+00	0.00E+00	1.11E-03	0.00E+00	0.00E+00	8.68E-05	0.00E+00	1.20E-03	1.34E-03
Thallium	4.78E-03	0.00E+00	0.00E+00	1.91E-04	0.00E+00	0.00E+00	1.50E-05	0.00E+00	4.98E-03	1.66E+00
Zinc	1.06E+00	0.00E+00	1.38E+00	7.42E-02	0.00E+00	0.00E+00	5.81E-03	0.00E+00	2.53E+00	1.44E+00
TOTAL										1.18E+01

**Table H.42. Site 35 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose-Response Value	Dermal Absorption Soil/Sediment	Dermal Absorption Water	Kp (cm/hr)	Avg. Plant Conc. (mg/kg)
Antimony	0.00E+00	0.00E+00	0.00E+00	3.50E-01	1.00E+00	1.00E+00	1.00E+00	1.10E-01
Chromium	0.00E+00	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	2.67E+00
Copper	0.00E+00	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	2.43E+01
Lead	0.00E+00	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	1.70E-01
Mercury	3.90E-01	0.00E+00	0.00E+00	1.90E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	0.00E+00	8.50E-01	1.00E+00	1.00E+00	1.00E+00	2.07E+00
Selenium	4.60E-01	0.00E+00	0.00E+00	6.00E-02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Zinc	1.67E+01	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	2.63E+01

EXPOSURE PARAMETERS:

Table H.42. Site 35 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:
Table H.42. Site 35 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Antimony	0.00E+00	1.00E+00	0.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E+00	0.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E+00	0.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Site - Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Antimony	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:
Table H.42. Site 35 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Antimony	1.10E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.20E-02
Chromium	2.67E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	5.34E-01
Copper	2.43E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	4.87E+00
Lead	1.70E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.40E-02
Mercury	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	2.07E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	4.14E-01
Selenium	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	2.63E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	5.27E+00

SOIL INGESTION:
 Table H.42. Site 35 Risk Characterization for the Deer Mouse
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
Antimony	0.00E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	3.90E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.34E-03
Nickel	0.00E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	4.60E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.76E-03
Zinc	1.67E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.00E-01

SEDIMENT INGESTION:
 Table H.42. Site 35 Risk Characterization for the Deer Mouse
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:
 Table H.42. Site 35 Risk Characterization for the Deer Mouse
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm ²)	Sediment Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Antimony	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.42. Site 35 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Antimony	0.00E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	3.90E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.33E-04
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	4.60E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.57E-04
Zinc	1.67E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.71E-03

SURFACE WATER DERMAL EXPOSURE:

Table H.42. Site 35 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm2)	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Antimony	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Mercury	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table H.42. Site 35 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Aq. Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Antimony	0.00E+00	0.00E+00	2.20E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.20E-02	6.29E-02
Chromium	0.00E+00	0.00E+00	5.34E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.34E-01	2.23E+00
Copper	0.00E+00	0.00E+00	4.87E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.87E+00	1.40E-02
Lead	0.00E+00	0.00E+00	3.40E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.40E-02	3.78E-01
Mercury	0.00E+00	0.00E+00	0.00E+00	2.34E-03	0.00E+00	0.00E+00	1.33E-04	0.00E+00	2.47E-03	1.30E-03
Nickel	0.00E+00	0.00E+00	4.14E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.14E-01	4.87E-01
Selenium	0.00E+00	0.00E+00	0.00E+00	2.76E-03	0.00E+00	0.00E+00	1.57E-04	0.00E+00	2.92E-03	4.86E-02
Zinc	0.00E+00	0.00E+00	5.27E+00	1.00E-01	0.00E+00	0.00E+00	5.71E-03	0.00E+00	5.37E+00	3.84E-01
TOTAL										3.60E+00

**Table H.43. Site 35 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Avg. Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose-Response Value		Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Avg. Plant Conc. (mg/kg)
Antimony	0.00E+00	2.20E-02	0.00E+00	2.99E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.10E-01
Barium	0.00E+00	3.62E+00	0.00E+00	4.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Cadmium	0.00E+00	6.00E-02	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Chromium	0.00E+00	2.00E-01	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.67E+00
Copper	0.00E+00	2.13E+00	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.43E+01
Lead	0.00E+00	4.90E-01	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.70E-01
Mercury	3.90E-01	2.47E-03	0.00E+00	1.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Nickel	0.00E+00	3.80E-01	0.00E+00	2.69E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.07E+00
Selenium	4.60E-01	2.92E-03	0.00E+00	3.10E-03	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Thallium	0.00E+00	9.00E-02	0.00E+00	3.00E-03	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Vanadium	0.00E+00	9.30E-01	0.00E+00	2.10E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Zinc	1.67E+01	2.68E+01	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.63E+01

EXPOSURE PARAMETERS:

Table H.43. Site 35 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:
 Table H.43. Site 35 Risk Characterization for the Gray Fox
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)		Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Organism Consumption (mg/kg/day)
Antimony	2.20E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	8.08E-04
Barium	3.62E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.33E-01
Cadmium	6.00E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.20E-03
Chromium	2.00E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	7.35E-03
Copper	2.13E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	7.82E-02
Lead	4.90E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.80E-02
Mercury	2.47E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	9.09E-05
Nickel	3.80E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.40E-02
Selenium	2.92E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.07E-04
Thallium	9.00E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.31E-03
Vanadium	9.30E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.42E-02
Zinc	2.68E+01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	9.84E-01

WATER CONSUMPTION
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Site - Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Antimony	2.20E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	3.62E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	6.00E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	2.00E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	2.13E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	4.90E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	2.47E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	3.80E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	2.92E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	9.00E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	9.30E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	2.68E+01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table H.43. Site 35 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Antimony	1.10E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.69E-03
Barium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	2.67E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	6.54E-02
Copper	2.43E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	5.96E-01
Lead	1.70E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.16E-03
Mercury	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	2.07E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	5.07E-02
Selenium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	2.63E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	6.45E-01

SOIL INGESTION:

Table H.43. Site 35 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
Antimony	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	3.90E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.87E-04
Nickel	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	4.60E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.38E-04
Thallium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	1.67E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.23E-02

SEDIMENT INGESTION:

Table H.43. Site 35 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.43. Site 35 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm2)	Sediment Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Antimony	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.43. Site 35 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure		Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose
		(Soil on Skin) (kg/cm2)	(Skin Exposed) (cm2/day)						From Soil - Dermal (mg/kg/day)
Antimony	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	3.90E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.24E-05
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	4.60E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.65E-05
Thallium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	1.67E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	9.60E-04

SURFACE WATER DERMAL EXPOSURE:

Table H.43. Site 35 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure		Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose
		(Skin Exposed) (cm2)	Kp (cm/hr)						From Water - Dermal (mg/kg/day)
Antimony	2.20E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	3.62E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	6.00E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	2.00E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	2.13E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	4.90E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Mercury	2.47E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	3.80E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	2.92E-03	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	9.00E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	9.30E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	2.68E+01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table H.43. Site 35 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Antimony	8.08E-04	0.00E+00	2.69E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.50E-03	1.17E-03
Barium	1.33E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.33E-01	3.32E+00
Cadmium	2.20E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.20E-03	2.59E-01
Chromium	7.35E-03	0.00E+00	6.54E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.27E-02	2.42E+00
Copper	7.82E-02	0.00E+00	5.96E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.74E-01	3.90E-02
Lead	1.80E-02	0.00E+00	4.16E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.22E-02	1.70E-01
Mercury	9.09E-05	0.00E+00	0.00E+00	2.87E-04	0.00E+00	0.00E+00	2.24E-05	0.00E+00	4.00E-04	4.00E-03
Nickel	1.40E-02	0.00E+00	5.07E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.47E-02	2.40E-02
Selenium	1.07E-04	0.00E+00	0.00E+00	3.38E-04	0.00E+00	0.00E+00	2.65E-05	0.00E+00	4.72E-04	1.52E-01
Thallium	3.31E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.31E-03	1.10E+00
Vanadium	3.42E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.42E-02	1.63E-01
Zinc	9.84E-01	0.00E+00	6.45E-01	1.23E-02	0.00E+00	0.00E+00	9.60E-04	0.00E+00	1.64E+00	9.39E-01
TOTAL										8.60E+00

**Table H.44. Site 39 Risk Characterization for the Deer Mouse (Vegetated Areas)
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose- Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Bis(2-ethylhexyl)phthalate	1.31E-01	0.00E+00	0.00E+00	2.60E+00	1.00E+00	1.00E+00	1.00E+00	3.36E-02	1.39E-02
2-amino Dinitrotoluene	1.30E-01	0.00E+00	0.00E+00	5.07E+01	1.00E+00	1.00E+00	1.00E+00	3.05E-03	8.94E-01
4-amino Dinitrotoluene	1.30E-01	0.00E+00	0.00E+00	4.47E+01	1.00E+00	1.00E+00	1.00E+00	3.05E-03	8.94E-01
HMX	2.04E+00	0.00E+00	0.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.69E-05	1.05E+01
PETN	2.60E-01	0.00E+00	0.00E+00	4.60E+00	1.00E+00	1.00E+00	1.00E+00	3.18E-04	1.44E+00
Pentachlorophenol	7.50E-02	0.00E+00	0.00E+00	3.00E-01	1.00E+00	1.00E+00	1.00E+00	1.61E-01	1.61E-02
RDX	1.80E-01	0.00E+00	0.00E+00	7.00E+00	1.00E+00	1.00E+00	1.00E+00	3.67E-04	3.76E+00
Tetryl	1.40E-01	0.00E+00	0.00E+00	1.25E+00	1.00E+00	1.00E+00	1.00E+00	5.02E-04	1.39E+00
									Max Plant conc. (mg/kg)
Antimony	1.16E+00	0.00E+00	0.00E+00	3.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.00E-01
Arsenic	1.13E+00	0.00E+00	0.00E+00	7.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	0.00E+00
Beryllium	1.50E-01	0.00E+00	0.00E+00	9.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	0.00E+00
Cadmium	8.80E-01	0.00E+00	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	0.00E+00
Chromium	1.21E+01	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	4.60E-01
Copper	5.16E+01	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	8.94E+00
Lead	7.96E+01	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	4.00E-06	9.74E+00
Nickel	9.09E+00	0.00E+00	0.00E+00	8.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-04	0.00E+00
Selenium	4.20E-01	0.00E+00	0.00E+00	6.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	0.00E+00
Silver	2.60E-01	0.00E+00	0.00E+00	1.78E+00	1.00E+00	1.00E+00	1.00E+00	6.00E-04	0.00E+00
Zinc	1.16E+02	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	6.00E-04	4.41E+01

EXPOSURE PARAMETERS:

Table H.44. Site 39 Risk Characterization for the Deer Mouse (Vegetated Areas)
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day)	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm2)	8.55E+00
Skin exposed - Soil/Sediment (cm2/day)	8.55E+00
Soil on Skin (kg/cm2)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:

Table H.44. Site 39 Risk Characterization for the Deer Mouse (Vegetated Areas)

Quantitative Ecological Risk Assessment

Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-amino Dinitrotoluene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4-amino Dinitrotoluene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
HMX	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PETN	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Pentachlorophenol	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
RDX	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Tetryl	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
					Body Weight (kg)	Water Consumption (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-amino Dinitrotoluene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4-amino Dinitrotoluene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
HMX	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PETN	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Pentachlorophenol	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
RDX	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Tetryl	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table H.44. Site 39 Risk Characterization for the Deer Mouse (Vegetated Areas)

Quantitative Ecological Risk Assessment

Fort Ord, California

Compound	Max Plant Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Bis(2-ethylhexyl)phthalate	1.31E-01	1.39E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.64E-04
2-amino Dinitrotoluene	1.30E-01	8.94E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.32E-02
4-amino Dinitrotoluene	1.30E-01	8.94E-01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.32E-02
HMX	2.04E+00	1.05E+01	5.00E-03	1.00E+00	1.00E+00	2.50E-02	4.28E+00
PETN	2.60E-01	1.44E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	7.49E-02
Pentachlorophenol	7.50E-02	1.61E-02	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.42E-04
RDX	1.90E-01	3.76E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.43E-01
Tetryl	1.40E-01	1.39E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	3.89E-02
Antimony	3.00E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	6.00E-02
Arsenic	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	4.60E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	9.20E-02
Copper	8.94E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.79E+00
Lead	9.74E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.95E+00
Nickel	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	4.41E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	8.82E+00

SOIL INGESTION:

Table H.44. Site 39 Risk Characterization for the Deer Mouse (Vegetated Areas)

Quantitative Ecological Risk Assessment

Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
Bis(2-ethylhexyl)phthalate	1.31E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.86E-04
2-amino Dinitrotoluene	1.30E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.80E-04
4-amino Dinitrotoluene	1.30E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.80E-04
HMX	2.04E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.22E-02
PETN	2.60E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.56E-03
Pentachlorophenol	7.50E-02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.50E-04
RDX	1.90E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.14E-03
Tetryl	1.40E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	8.40E-04
Antimony	1.16E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.96E-03
Arsenic	1.13E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.78E-03
Beryllium	1.50E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	9.00E-04
Cadmium	8.80E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.28E-03
Chromium	1.21E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	7.26E-02
Copper	5.16E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.10E-01
Lead	7.96E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	4.78E-01
Nickel	9.09E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.45E-02
Selenium	4.20E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.52E-03
Silver	2.60E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.58E-03
Zinc	1.16E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.96E-01

SEDIMENT INGESTION:

Table H.44. Site 39 Risk Characterization for the Deer Mouse (Vegetated Areas)

Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-amino Dinitrotoluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4-amino Dinitrotoluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
HMX	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PETN	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Pentachlorophenol	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
RDX	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Tetryl	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.44. Site 39 Risk Characterization for the Deer Mouse (Vegetated Areas)

Quantitative Ecological Risk Assessment

Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm ²)	Sediment Dermal Exposure (Skin Exposed) (cm ² /day)	Dermat AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-amino Dinitrotoluene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4-amino Dinitrotoluene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
HMX	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PETN	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Pentachlorophenol	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
RDX	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Tetryl	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.44. Site 39 Risk Characterization for the Deer Mouse (Vegetated Areas)

Quantitative Ecological Risk Assessment

Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm ²)	Surface Soil Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Bis(2-ethylhexyl)phthalate	1.31E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.48E-05
2-amino Dinitrotoluene	1.30E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.45E-05
4-amino Dinitrotoluene	1.30E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.45E-05
HMX	2.04E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.98E-04
PETN	2.60E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.89E-05
Pentachlorophenol	7.50E-02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.57E-05
RDX	1.90E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	6.50E-05
Tetryl	1.40E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.79E-05
Antimony	1.16E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.97E-04
Arsenic	1.13E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.88E-04
Beryllium	1.50E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	5.13E-05
Cadmium	8.80E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.01E-04
Chromium	1.21E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.14E-03
Copper	5.16E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.76E-02
Lead	7.96E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	2.72E-02
Nickel	9.09E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.11E-03
Selenium	4.20E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.44E-04
Silver	2.60E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.89E-05
Zinc	1.16E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.97E-02

SURFACE WATER DERMAL EXPOSURE:

Table H.44. Site 39 Risk Characterization for the Deer Mouse (Vegetated Areas)

Quantitative Ecological Risk Assessment

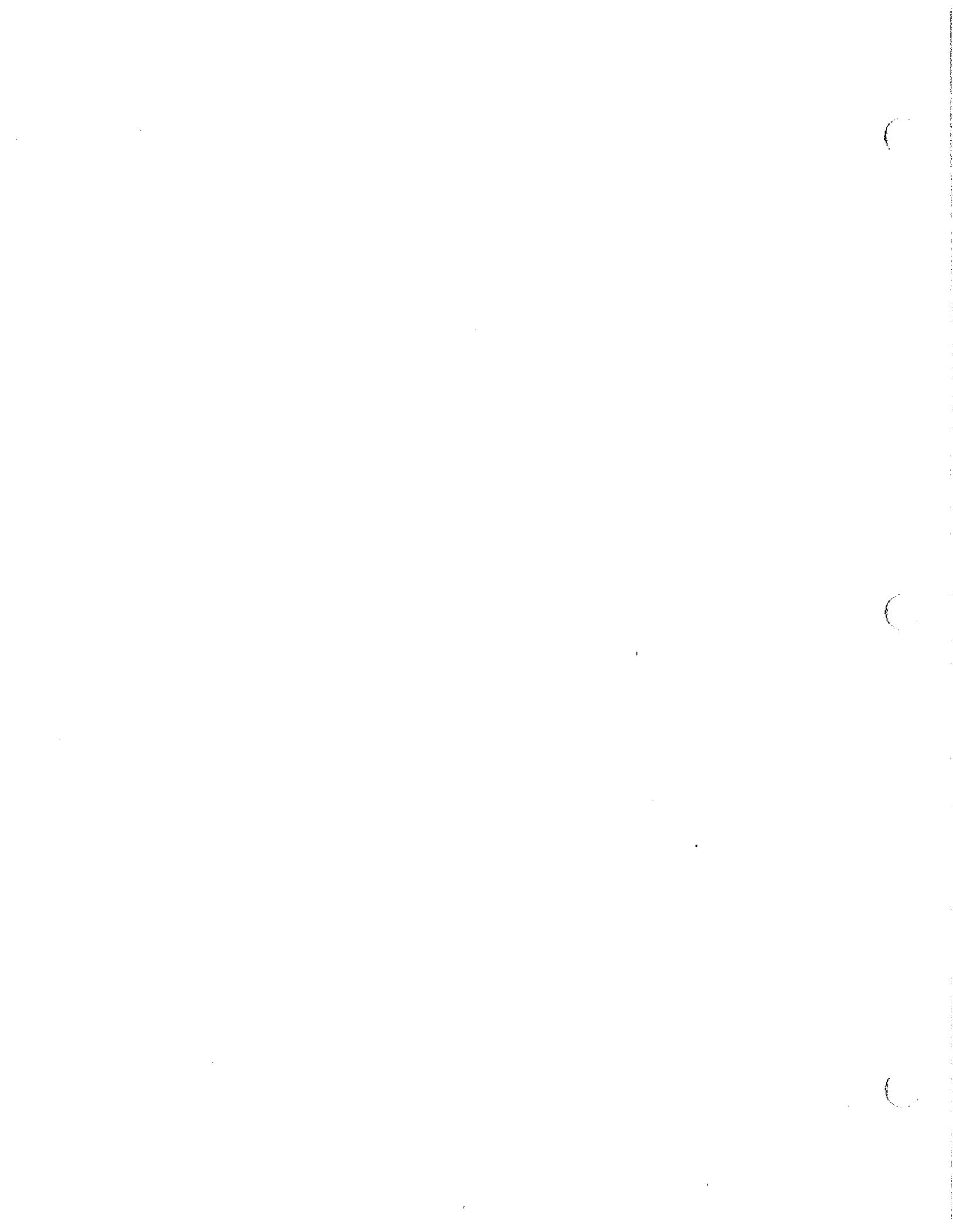
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	8.55E+00	3.36E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
2-amino Dinitrotoluene	0.00E+00	8.55E+00	3.05E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
4-amino Dinitrotoluene	0.00E+00	8.55E+00	3.05E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
HMX	0.00E+00	8.55E+00	3.69E-05	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
PETN	0.00E+00	8.55E+00	3.18E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Pentachlorophenol	0.00E+00	8.55E+00	1.61E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
RDX	0.00E+00	8.55E+00	3.67E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Tetryl	0.00E+00	8.55E+00	5.02E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Antimony	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	4.00E-06	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	8.55E+00	1.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	8.55E+00	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	8.55E+00	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table H.44. Site 39 Risk Characterization for the Deer Mouse (Vegetated Areas)
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Bis(2-ethylhexyl)phthalate	0.00E+00	0.00E+00	3.64E-04	7.86E-04	0.00E+00	0.00E+00	4.48E-05	0.00E+00	1.19E-03	4.60E-04
2-amino Dinitrotoluene	0.00E+00	0.00E+00	2.32E-02	7.80E-04	0.00E+00	0.00E+00	4.45E-05	0.00E+00	2.41E-02	4.74E-04
4-amino Dinitrotoluene	0.00E+00	0.00E+00	2.32E-02	7.80E-04	0.00E+00	0.00E+00	4.45E-05	0.00E+00	2.41E-02	5.38E-04
HMX	0.00E+00	0.00E+00	4.28E+00	1.22E-02	0.00E+00	0.00E+00	6.98E-04	0.00E+00	4.30E+00	4.30E+00
PETN	0.00E+00	0.00E+00	7.49E-02	1.56E-03	0.00E+00	0.00E+00	8.89E-05	0.00E+00	7.65E-02	1.66E-02
Pentachlorophenol	0.00E+00	0.00E+00	2.42E-04	4.50E-04	0.00E+00	0.00E+00	2.57E-05	0.00E+00	7.17E-04	2.39E-03
RDX	0.00E+00	0.00E+00	1.43E-01	1.14E-03	0.00E+00	0.00E+00	6.50E-05	0.00E+00	1.44E-01	2.06E-02
Tetryl	0.00E+00	0.00E+00	3.89E-02	8.40E-04	0.00E+00	0.00E+00	4.79E-05	0.00E+00	3.98E-02	3.18E-02
Total Orgs.										4.37E+00
Antimony	0.00E+00	0.00E+00	6.00E-02	6.96E-03	0.00E+00	0.00E+00	3.97E-04	0.00E+00	6.74E-02	1.92E-01
Arsenic	0.00E+00	0.00E+00	0.00E+00	6.78E-03	0.00E+00	0.00E+00	3.86E-04	0.00E+00	7.17E-03	1.02E-02
Beryllium	0.00E+00	0.00E+00	0.00E+00	9.00E-04	0.00E+00	0.00E+00	5.13E-05	0.00E+00	9.51E-04	1.00E-03
Cadmium	0.00E+00	0.00E+00	0.00E+00	5.28E-03	0.00E+00	0.00E+00	3.01E-04	0.00E+00	5.58E-03	3.28E-02
Chromium	0.00E+00	0.00E+00	9.20E-02	7.26E-02	0.00E+00	0.00E+00	4.14E-03	0.00E+00	1.69E-01	7.03E-01
Copper	0.00E+00	0.00E+00	1.79E+00	3.10E-01	0.00E+00	0.00E+00	1.76E-02	0.00E+00	2.12E+00	6.10E-03
Lead	0.00E+00	0.00E+00	1.95E+00	4.78E-01	0.00E+00	0.00E+00	2.72E-02	0.00E+00	2.45E+00	2.73E+01
Nickel	0.00E+00	0.00E+00	0.00E+00	5.45E-02	0.00E+00	0.00E+00	3.11E-03	0.00E+00	5.76E-02	6.78E-02
Selenium	0.00E+00	0.00E+00	0.00E+00	2.52E-03	0.00E+00	0.00E+00	1.44E-04	0.00E+00	2.66E-03	4.44E-02
Silver	0.00E+00	0.00E+00	0.00E+00	1.56E-03	0.00E+00	0.00E+00	8.89E-05	0.00E+00	1.65E-03	9.26E-04
Zinc	0.00E+00	0.00E+00	8.82E+00	6.96E-01	0.00E+00	0.00E+00	3.97E-02	0.00E+00	9.56E+00	6.83E-01
Total Metals										2.90E+01
TOTAL										3.34E+01



**Table H.45. Site 39 Risk Characterization for the Gray Fox (Vegetated Areas)
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Avg. Mouse Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose-Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Plant/root Uptake Factors (kg soil/kg plant)
Bis(2-ethylhexyl)phthalate	1.31E-01	1.19E-03	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	3.36E-02	1.39E-02
2-amino Dinitrotoluene	1.30E-01	2.41E-02	0.00E+00	2.54E+00	1.00E+00	1.00E+00	1.00E+00	3.05E-03	8.94E-01
4-amino Dinitrotoluene	1.30E-01	2.41E-02	0.00E+00	2.24E+00	1.00E+00	1.00E+00	1.00E+00	3.05E-03	8.94E-01
HMX	2.04E+00	4.30E+00	0.00E+00	5.00E-01	1.00E+00	1.00E+00	1.00E+00	3.69E-05	1.05E+01
PETN	2.60E-01	7.65E-02	0.00E+00	2.30E-01	1.00E+00	1.00E+00	1.00E+00	3.18E-04	1.44E+00
Pentachlorophenol	7.50E-02	7.17E-04	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	1.61E-01	1.61E-02
RDX	1.90E-01	1.44E-01	0.00E+00	3.00E-01	1.00E+00	1.00E+00	1.00E+00	3.67E-04	3.76E+00
Tetryl	1.40E-01	3.98E-02	0.00E+00	1.25E+00	1.00E+00	1.00E+00	1.00E+00	5.02E-04	1.39E+00
									Max Plant conc. (mg/kg)
Antimony	1.16E+00	6.74E-02	0.00E+00	2.99E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-03	3.00E-01
Arsenic	1.13E+00	0.00E+00	0.00E+00	3.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	0.00E+00
Barium	0.00E+00	1.93E+00	0.00E+00	4.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Beryllium	1.50E-01	0.00E+00	0.00E+00	5.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	0.00E+00
Cadmium	8.80E-01	1.30E-01	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	1.00E-03	0.00E+00
Chromium	1.21E+01	3.00E-01	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E-03	4.60E-01
Copper	5.16E+01	4.71E+00	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	8.94E+00
Lead	7.96E+01	6.89E+00	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	4.00E-06	9.74E+00
Nickel	9.09E+00	2.52E+00	0.00E+00	2.69E+00	1.00E+00	1.00E+00	1.00E+00	1.00E-04	0.00E+00
Selenium	4.20E-01	2.66E-03	0.00E+00	3.10E-03	1.00E+00	1.00E+00	1.00E+00	1.00E-03	0.00E+00
Silver	2.60E-01	0.00E+00	0.00E+00	8.90E-01	1.00E+00	1.00E+00	1.00E+00	6.00E-04	0.00E+00
Zinc	1.16E+02	3.47E+01	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	6.00E-04	4.41E+01

EXPOSURE PARAMETERS:

Table H.45. Site 39 Risk Characterization for the Gray Fox (Vegetated Areas)
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

MOUSE CONSUMPTION:

Table H.45. Site 39 Risk Characterization for the Gray Fox (Vegetated Areas)
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Mouse Concentration (mg/L)	Mouse (L/kg)	Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Organism Consumption (mg/kg/day)
Bis(2-ethylhexyl)phthalate	1.19E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	4.39E-05
2-amino Dinitrotoluene	2.41E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	8.84E-04
4-amino Dinitrotoluene	2.41E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	8.84E-04
HMX	4.30E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.58E-01
PETN	7.65E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.81E-03
Pentachlorophenol	7.17E-04	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.63E-05
RDX	1.44E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	5.29E-03
Tetryl	3.98E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.46E-03
Antimony	6.74E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.47E-03
Arsenic	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	1.93E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	7.09E-02
Beryllium	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.30E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	4.78E-03
Chromium	3.00E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.10E-02
Copper	4.71E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.73E-01
Lead	6.89E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.53E-01
Nickel	2.52E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	9.26E-02
Selenium	2.66E-03	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	9.78E-05
Silver	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	3.47E+01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.27E+00

WATER CONSUMPTION
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Mouse Concentration (mg/kg/day)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Bis(2-ethylhexyl)phthalate	1.19E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-amino Dinitrotoluene	2.41E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4-amino Dinitrotoluene	2.41E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
HMX	4.30E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PETN	7.65E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Pentachlorophenol	7.17E-04	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
RDX	1.44E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Tetryl	3.98E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	6.74E-02	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	1.93E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.30E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	3.00E-01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	4.71E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	6.89E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	2.52E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	2.66E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	3.47E+01	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table H.45. Site 39 Risk Characterization for the Gray Fox (Vegetated Areas)
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Bis(2-ethylhexyl)phthalate	1.31E-01	1.39E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.46E-05
2-amino Dinitrotoluene	1.30E-01	8.94E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.85E-03
4-amino Dinitrotoluene	1.30E-01	8.94E-01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.85E-03
HMX	2.04E+00	1.05E+01	1.29E-01	1.00E+00	1.00E+00	5.25E+00	5.25E-01
PETN	2.60E-01	1.44E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	9.17E-03
Pentachlorophenol	7.50E-02	1.61E-02	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.96E-05
RDX	1.90E-01	3.76E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.75E-02
Tetryl	1.40E-01	1.39E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	4.77E-03
	Max plant conc (mg/kg)						
Antimony	3.00E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	7.35E-03
Arsenic	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	4.60E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.13E-02
Copper	8.94E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.19E-01
Lead	9.74E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.39E-01
Nickel	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	4.41E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.08E+00

SOIL INGESTION:

Table H.45. Site 39 Risk Characterization for the Gray Fox (Vegetated Areas)
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average
						Daily Dose From Soil Ingestion (mg/kg/day)
Bis(2-ethylhexyl)phthalate	1.31E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.62E-05
2-amino Dinitrotoluene	1.30E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.55E-05
4-amino Dinitrotoluene	1.30E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.55E-05
HMX	2.04E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.50E-03
PETN	2.60E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.91E-04
Pentachlorophenol	7.50E-02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.51E-05
RDX	1.90E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.40E-04
Tetryl	1.40E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.03E-04
Antimony	1.16E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.52E-04
Arsenic	1.13E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.30E-04
Barium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	1.50E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.10E-04
Cadmium	8.80E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.47E-04
Chromium	1.21E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.89E-03
Copper	5.16E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.79E-02
Lead	7.96E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	5.85E-02
Nickel	9.09E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.68E-03
Selenium	4.20E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.09E-04
Silver	2.60E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.91E-04
Zinc	1.16E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.52E-02

SEDIMENT INGESTION:

Table H.45. Site 39 Risk Characterization for the Gray Fox (Vegetated Areas)
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-amino Dinitrotoluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4-amino Dinitrotoluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
HMX	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PETN	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Pentachlorophenol	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
RDX	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Tetryl	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.45. Site 39 Risk Characterization for the Gray Fox (Vegetated Areas)
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm ²)	Sediment Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Bis(2-ethylhexyl)phthalate	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-amino Dinitrotoluene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4-amino Dinitrotoluene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
HMX	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PETN	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Pentachlorophenol	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
RDX	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Tetryl	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.45. Site 39 Risk Characterization for the Gray Fox (Vegetated Areas)
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm ²)	Surface Soil Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Bis(2-ethylhexyl)phthalate	1.31E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.53E-06
2-amino Dinitrotoluene	1.30E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.48E-06
4-amino Dinitrotoluene	1.30E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.48E-06
HMX	2.04E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.17E-04
PETN	2.60E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.50E-05
Pentachlorophenol	7.50E-02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.31E-06
RDX	1.90E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.09E-05
Tetryl	1.40E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	8.05E-06
Antimony	1.16E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.67E-05
Arsenic	1.13E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.50E-05
Barium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	1.50E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	8.63E-06
Cadmium	8.80E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.06E-05
Chromium	1.21E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.96E-04
Copper	5.16E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.97E-03
Lead	7.96E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	4.58E-03
Nickel	9.09E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.23E-04
Selenium	4.20E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.42E-05
Silver	2.60E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.50E-05
Zinc	1.16E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.67E-03

SURFACE WATER DERMAL EXPOSURE:

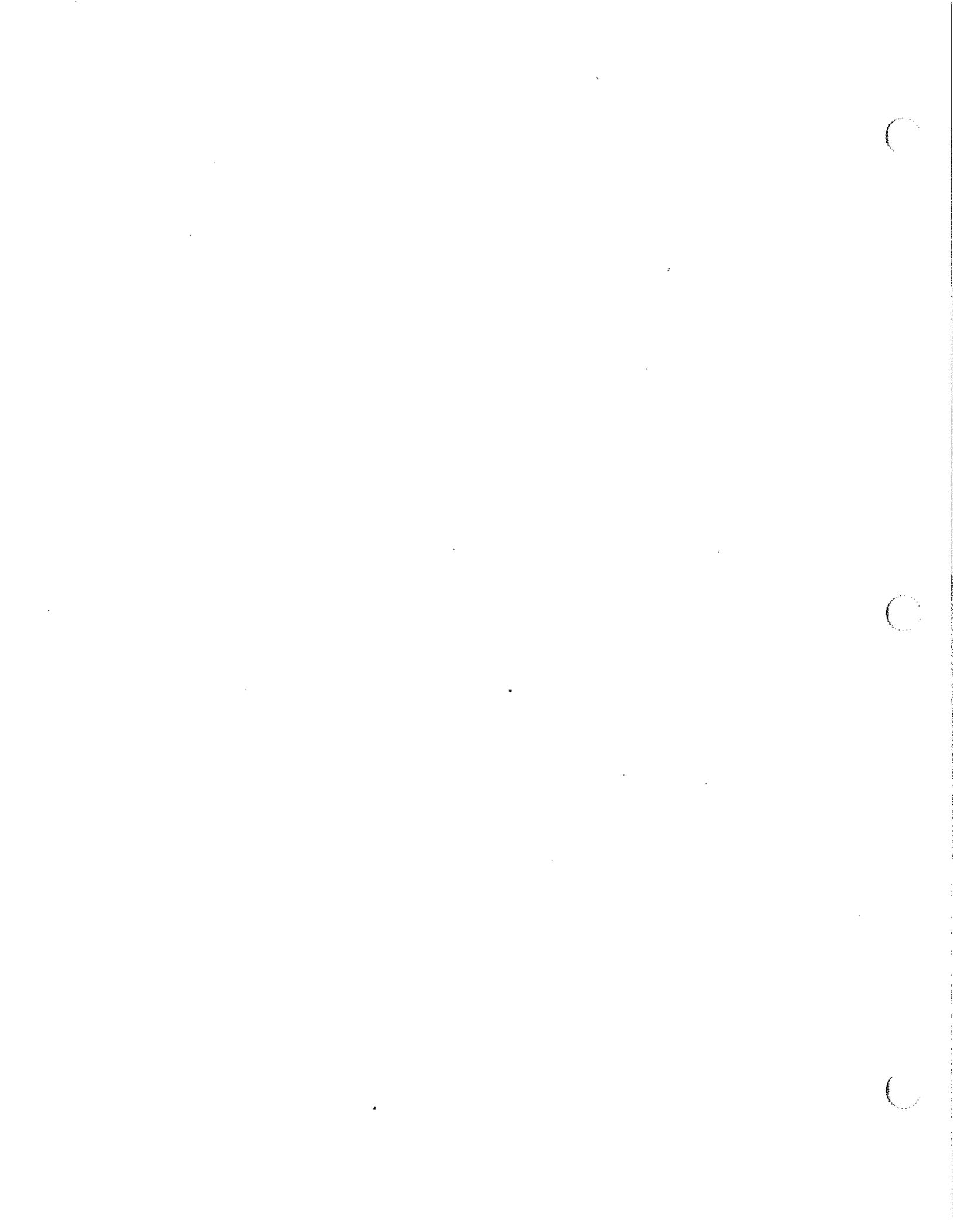
Table H.45. Site 39 Risk Characterization for the Gray Fox (Vegetated Areas)
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Bis(2-ethylhexyl)phthalate	1.19E-03	3.02E+02	3.36E-02	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
2-amino Dinitrotoluene	2.41E-02	3.02E+02	3.05E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
4-amino Dinitrotoluene	2.41E-02	3.02E+02	3.05E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
HMX	4.30E+00	3.02E+02	3.69E-05	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
PETN	7.65E-02	3.02E+02	3.18E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Pentachlorophenol	7.17E-04	3.02E+02	1.61E-01	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
RDX	1.44E-01	3.02E+02	3.67E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Tetryl	3.98E-02	3.02E+02	5.02E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Antimony	6.74E-02	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	1.93E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	1.30E-01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	3.00E-01	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	4.71E+00	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	6.89E+00	3.02E+02	4.00E-06	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	2.52E+00	3.02E+02	1.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	2.66E-03	3.02E+02	1.00E-03	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	3.02E+02	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	3.47E+01	3.02E+02	6.00E-04	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table H.45. Site 39 Risk Characterization for the Gray Fox (Vegetated Areas)
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Bis(2-ethylhexyl)phthalate	4.39E-05	0.00E+00	4.46E-05	9.62E-05	0.00E+00	0.00E+00	7.53E-06	0.00E+00	1.92E-04	1.48E-03
2-amino Dinitrotoluene	8.84E-04	0.00E+00	2.85E-03	9.55E-05	0.00E+00	0.00E+00	7.48E-06	0.00E+00	3.83E-03	1.51E-03
4-amino Dinitrotoluene	8.84E-04	0.00E+00	2.85E-03	9.55E-05	0.00E+00	0.00E+00	7.48E-06	0.00E+00	3.83E-03	1.71E-03
HMX	1.58E-01	0.00E+00	5.25E-01	1.50E-03	0.00E+00	0.00E+00	1.17E-04	0.00E+00	6.84E-01	1.37E+00
PETN	2.81E-03	0.00E+00	9.17E-03	1.91E-04	0.00E+00	0.00E+00	1.50E-05	0.00E+00	1.22E-02	5.30E-02
Pentachlorophenol	2.63E-05	0.00E+00	2.96E-05	5.51E-05	0.00E+00	0.00E+00	4.31E-06	0.00E+00	1.15E-04	6.78E-04
RDX	5.29E-03	0.00E+00	1.75E-02	1.40E-04	0.00E+00	0.00E+00	1.09E-05	0.00E+00	2.29E-02	7.65E-02
Tetryl	1.46E-03	0.00E+00	4.77E-03	1.03E-04	0.00E+00	0.00E+00	8.05E-06	0.00E+00	6.34E-03	5.07E-03
Total orgs										1.51E+00
Antimony	2.47E-03	0.00E+00	7.35E-03	8.52E-04	0.00E+00	0.00E+00	6.67E-05	0.00E+00	1.07E-02	3.59E-03
Arsenic	0.00E+00	0.00E+00	0.00E+00	8.30E-04	0.00E+00	0.00E+00	6.50E-05	0.00E+00	8.95E-04	2.42E-03
Barium	7.09E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.09E-02	1.77E+00
Beryllium	0.00E+00	0.00E+00	0.00E+00	1.10E-04	0.00E+00	0.00E+00	8.63E-06	0.00E+00	1.19E-04	2.38E-03
Cadmium	4.78E-03	0.00E+00	0.00E+00	6.47E-04	0.00E+00	0.00E+00	5.06E-05	0.00E+00	5.47E-03	6.44E-01
Chromium	1.10E-02	0.00E+00	1.13E-02	8.89E-03	0.00E+00	0.00E+00	6.96E-04	0.00E+00	3.19E-02	1.06E+00
Copper	1.73E-01	0.00E+00	2.19E-01	3.79E-02	0.00E+00	0.00E+00	2.97E-03	0.00E+00	4.33E-01	2.50E-02
Lead	2.53E-01	0.00E+00	2.39E-01	5.85E-02	0.00E+00	0.00E+00	4.58E-03	0.00E+00	5.55E-01	4.27E+00
Nickel	9.26E-02	0.00E+00	0.00E+00	6.68E-03	0.00E+00	0.00E+00	5.23E-04	0.00E+00	9.98E-02	3.71E-02
Selenium	9.78E-05	0.00E+00	0.00E+00	3.09E-04	0.00E+00	0.00E+00	2.42E-05	0.00E+00	4.31E-04	1.39E-01
Silver	0.00E+00	0.00E+00	0.00E+00	1.91E-04	0.00E+00	0.00E+00	1.50E-05	0.00E+00	2.06E-04	2.31E-04
Zinc	1.27E+00	0.00E+00	1.08E+00	8.52E-02	0.00E+00	0.00E+00	6.67E-03	0.00E+00	2.45E+00	1.40E+00
Total metals										9.35E+00
TOTAL										1.09E+01



**Table H.46. Site 41 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Surface Water Conc. (mg/L)	Sediment Conc. (mg/kg)	Dose-Response Value (mg/kg/day)	Aquatic BCF (L/kg)	Dermal Absorption Soil/Sediment (unitless)	Dermal Absorption Water (unitless)	Kp (cm/hr)	Avg. Plant Conc. (mg/kg)
Toluene	2.63E-03	0.00E+00	0.00E+00	2.50E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Arsenic	1.43E+01	0.00E+00	0.00E+00	7.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Beryllium	1.36E+00	0.00E+00	0.00E+00	9.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Cadmium	8.90E-01	0.00E+00	0.00E+00	1.70E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.40E-01
Chromium	5.23E+01	0.00E+00	0.00E+00	2.40E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	6.30E-01
Copper	4.88E+01	0.00E+00	0.00E+00	3.47E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.22E+01
Lead	3.95E+01	0.00E+00	0.00E+00	9.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	3.30E-01
Nickel	4.12E+01	0.00E+00	0.00E+00	8.50E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.34E+00
Selenium	9.30E-01	0.00E+00	0.00E+00	6.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Silver	1.11E+00	0.00E+00	0.00E+00	1.78E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Thallium	3.10E-01	0.00E+00	0.00E+00	1.00E-02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Zinc	2.50E+02	0.00E+00	0.00E+00	1.40E+01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	4.66E+01

EXPOSURE PARAMETERS:

Table H.46. Site 41 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	2.50E-02
Food Consumption Rate (kg/day)	5.00E-03
Food Consumption Rate (kg/day) - Organisms	0.00E+00
Food Consumption Rate (kg/day) - Plants	5.00E-03
Water Consumption Rate L/day)	6.80E-03
Soil Ingestion Rate (kg/day)	1.50E-04
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	8.55E+00
Skin exposed - Soil/Sediment (cm ² /day)	8.55E+00
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

AQUATIC ORGANISM CONSUMPTION:

Table H.46. Site 41 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Aquatic BCF (L/kg)	Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Aquatic Organism Consumption (mg/kg/day)
Toluene	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

WATER CONSUMPTION

Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Toluene	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	6.80E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00

PLANT CONSUMPTION:

Table H.46. Site 41 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Conc. (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)
Toluene	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	1.40E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.80E-02
Chromium	6.30E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	1.26E-01
Copper	1.22E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.44E+00
Lead	3.30E-01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	6.60E-02
Nickel	1.34E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	2.68E-01
Selenium	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	4.66E+01	1.00E+00	5.00E-03	1.00E+00	1.00E+00	2.50E-02	9.31E+00

SOIL INGESTION:

Table H.46. Site 41 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)
Toluene	2.63E-03	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.58E-05
Arsenic	1.43E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	8.58E-02
Beryllium	1.36E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	8.16E-03
Cadmium	8.90E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.34E-03
Chromium	5.23E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	3.14E-01
Copper	4.88E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.93E-01
Lead	3.95E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.37E-01
Nickel	4.12E+01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	2.47E-01
Selenium	9.30E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	5.58E-03
Silver	1.11E+00	1.50E-04	1.00E+00	1.00E+00	2.50E-02	6.66E-03
Thallium	3.10E-01	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.86E-03
Zinc	2.50E+02	1.50E-04	1.00E+00	1.00E+00	2.50E-02	1.50E+00

SEDIMENT INGESTION:

Table H.46. Site 41 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Toluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.46. Site 41 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm ²)	Sediment Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Toluene	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	1.00E-06	8.55E+00	1.00E+00	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.46. Site 41 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm2)	Surface Soil Dermal Exposure (Skin Exposed) (cm2/day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Soil - Dermal (mg/kg/day)
Toluene	2.69E-03	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.99E-07
Arsenic	1.43E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.89E-03
Beryllium	1.36E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	4.65E-04
Cadmium	8.90E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.04E-04
Chromium	5.23E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.79E-02
Copper	4.88E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.67E-02
Lead	3.95E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.35E-02
Nickel	4.12E+01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.41E-02
Selenium	9.30E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.18E-04
Silver	1.11E+00	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	3.80E-04
Thallium	3.10E-01	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	1.06E-04
Zinc	2.50E+02	1.00E-06	8.55E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	2.50E-02	8.55E-02

SURFACE WATER DERMAL EXPOSURE:

Table H.46. Site 41 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm2)	Kp (cm/hr)	Conversion Factor (L/cm3)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose From Water - Dermal (mg/kg/day)
Toluene	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Arsenic	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Beryllium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Cadmium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Chromium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Copper	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Lead	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Nickel	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Selenium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Silver	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Thallium	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00
Zinc	0.00E+00	8.55E+00	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	2.50E-02	0.00E+00

RISK CHARACTERIZATION

Table H.46. Site 41 Risk Characterization for the Deer Mouse
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Toluene	0.00E+00	0.00E+00	0.00E+00	1.58E-05	0.00E+00	0.00E+00	8.99E-07	0.00E+00	1.67E-05	6.67E-08
Arsenic	0.00E+00	0.00E+00	0.00E+00	8.58E-02	0.00E+00	0.00E+00	4.89E-03	0.00E+00	9.07E-02	1.30E-01
Beryllium	0.00E+00	0.00E+00	0.00E+00	8.16E-03	0.00E+00	0.00E+00	4.65E-04	0.00E+00	8.63E-03	9.08E-03
Cadmium	0.00E+00	0.00E+00	2.80E-02	5.34E-03	0.00E+00	0.00E+00	3.04E-04	0.00E+00	3.36E-02	1.98E-01
Chromium	0.00E+00	0.00E+00	1.26E-01	3.14E-01	0.00E+00	0.00E+00	1.79E-02	0.00E+00	4.58E-01	1.91E+00
Copper	0.00E+00	0.00E+00	2.44E+00	2.93E-01	0.00E+00	0.00E+00	1.67E-02	0.00E+00	2.75E+00	7.92E-03
Lead	0.00E+00	0.00E+00	6.60E-02	2.37E-01	0.00E+00	0.00E+00	1.35E-02	0.00E+00	3.17E-01	3.52E+00
Nickel	0.00E+00	0.00E+00	2.68E-01	2.47E-01	0.00E+00	0.00E+00	1.41E-02	0.00E+00	5.29E-01	6.23E-01
Selenium	0.00E+00	0.00E+00	0.00E+00	5.58E-03	0.00E+00	0.00E+00	3.18E-04	0.00E+00	5.90E-03	9.83E-02
Silver	0.00E+00	0.00E+00	0.00E+00	6.66E-03	0.00E+00	0.00E+00	3.80E-04	0.00E+00	7.04E-03	3.95E-03
Thallium	0.00E+00	0.00E+00	0.00E+00	1.86E-03	0.00E+00	0.00E+00	1.06E-04	0.00E+00	1.97E-03	1.97E-01
Zinc	0.00E+00	0.00E+00	9.31E+00	1.50E+00	0.00E+00	0.00E+00	8.55E-02	0.00E+00	1.09E+01	7.78E-01
TOTAL										7.47E+00

**Table H.47. Site 41 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California**

COMPOUND SPECIFIC DATA

Compound	Avg. Soil Conc. (mg/kg)	Avg. Mouse Conc. (mg/kg/day)	Sediment Conc. (mg/kg)	Dose-Response Value	Dermal Absorption Soil/Sediment unitless	Dermal Absorption Water unitless	Kp (cm/hr)	Avg. Plant Conc. (mg/kg)
Toluene	2.63E-03	1.67E-05	0.00E+00	1.25E+01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Arsenic	1.43E+01	0.00E+00	0.00E+00	3.70E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Barium	0.00E+00	4.49E+00	0.00E+00	4.00E-02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Beryllium	1.36E+00	0.00E+00	0.00E+00	5.00E-02	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Cadmium	8.90E-01	2.00E-02	0.00E+00	8.50E-03	1.00E+00	1.00E+00	1.00E+00	2.50E-01
Chromium	5.23E+01	6.00E-02	0.00E+00	3.00E-02	1.00E+00	1.00E+00	1.00E+00	9.40E-01
Copper	4.88E+01	2.67E+00	0.00E+00	1.73E+01	1.00E+00	1.00E+00	1.00E+00	2.93E+01
Lead	3.95E+01	9.50E-01	0.00E+00	1.30E-01	1.00E+00	1.00E+00	1.00E+00	6.00E-01
Nickel	4.12E+01	5.30E-01	0.00E+00	2.69E+00	1.00E+00	1.00E+00	1.00E+00	3.40E+00
Selenium	9.30E-01	0.00E+00	0.00E+00	3.10E-03	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Silver	1.11E+00	0.00E+00	0.00E+00	8.90E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Thallium	3.10E-01	9.70E-02	0.00E+00	3.00E-03	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Vanadium	0.00E+00	8.60E-01	0.00E+00	2.10E-01	1.00E+00	1.00E+00	1.00E+00	0.00E+00
Zinc	2.50E+02	3.45E+01	0.00E+00	1.75E+00	1.00E+00	1.00E+00	1.00E+00	5.47E+01

EXPOSURE PARAMETERS:

Table H.47. Site 41 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Body Weight (kg)	5.25E+00
Food Consumption Rate (kg/day)	3.21E-01
Food Consumption Rate (kg/day) - Organisms	1.93E-01
Food Consumption Rate (kg/day) - Plants	1.29E-01
Water Consumption Rate L/day	0.00E+00
Soil Ingestion Rate (kg/day)	3.86E-03
Sediment Ingestion Rate (kg/day)	0.00E+00
Exposure Frequency (days/365 days)	1.00E+00
Water Dermal Exposure Time (hours/day)	0.00E+00
Sediment Dermal Exposure Time (hours/day)	0.00E+00
Soil Dermal Exposure Time (hours/day)	1.00E+00
Duration of Exposure per Lifetime (year/year)	1.00E+00
Skin exposed - Water (cm ²)	3.02E+02
Skin exposed - Soil/Sediment (cm ² /day)	3.02E+02
Soil on Skin (kg/cm ²)	1.00E-06

Note: See text for source of parameters

FIELD MOUSE CONSUMPTION:
 Table H.47. Site 41 Risk Characterization for the Gray Fox
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Mouse Conc. (mg/kg/day)		Aquatic Organism Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Organism Consumption (mg/kg/day)
Toluene	1.67E-05	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	6.13E-07
Arsenic	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	4.49E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.65E-01
Beryllium	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	2.00E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	7.35E-04
Chromium	6.00E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	2.20E-03
Copper	2.67E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	9.81E-02
Lead	9.50E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.49E-02
Nickel	5.30E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.95E-02
Selenium	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	9.70E-02	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.56E-03
Vanadium	8.60E-01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	3.16E-02
Zinc	3.45E+01	1.00E+00	1.93E-01	1.00E+00	1.00E+00	5.25E+00	1.27E+00

WATER CONSUMPTION
 Quantitative Ecological Risk Assessment
 Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Site - Water Consumption Rate (L/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)
Toluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

PLANT CONSUMPTION:

Table H.47. Site 41 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Max Plant Concentration (mg/kg)	Plant/Root Uptake Factor (kg soil/kg plant)	Plant Consumption Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
						Body Weight (kg)	Plant Consumption (mg/kg/day)
Toluene	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	2.50E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	6.12E-03
Chromium	9.40E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	2.30E-02
Copper	2.93E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	7.18E-01
Lead	6.00E-01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.47E-02
Nickel	3.40E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	8.33E-02
Selenium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	5.47E+01	1.00E+00	1.29E-01	1.00E+00	1.00E+00	5.25E+00	1.34E+00

SOIL INGESTION:

Table H.47. Site 41 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Soil Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Lifetime Average Daily Dose From	
					Body Weight (kg)	Soil Ingestion (mg/kg/day)
Toluene	2.63E-03	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.93E-06
Arsenic	1.43E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.05E-02
Barium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	1.36E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	9.99E-04
Cadmium	8.90E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.54E-04
Chromium	5.23E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.84E-02
Copper	4.88E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.59E-02
Lead	3.95E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.90E-02
Nickel	4.12E+01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	3.03E-02
Selenium	9.30E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	6.83E-04
Silver	1.11E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	8.15E-04
Thallium	3.10E-01	3.86E-03	1.00E+00	1.00E+00	5.25E+00	2.28E-04
Vanadium	0.00E+00	3.86E-03	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	2.50E+02	3.86E-03	1.00E+00	1.00E+00	5.25E+00	1.84E-01

SEDIMENT INGESTION:

Table H.47. Site 41 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Ingestion Rate (kg/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)
Toluene	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SEDIMENT DERMAL EXPOSURE:

Table H.47. Site 41 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Sediment Concentration (mg/kg)	Sediment Dermal Exposure (Sediment on Skin) (kg/cm ²)	Sediment Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Sediment	Exposure Time (hr/24 hrs)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose From Sediment - Dermal (mg/kg/day)
Toluene	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	0.00E+00	1.00E-06	3.02E+02	1.00E+00	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

SOIL DERMAL EXPOSURE:

Table H.47. Site 41 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Soil Concentration (mg/kg)	Surface Soil Dermal Exposure (Soil on Skin) (kg/cm ²)	Surface Soil Dermal Exposure (Skin Exposed) (cm ² /day)	Dermal AAF Soil	Exposure Time (hr/day)	Exposure Frequency	Exposure Duration	Body Weight (kg)	Lifetime Average Daily Dose
									From Soil - Dermal (mg/kg/day)
Toluene	2.63E-03	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.51E-07
Arsenic	1.43E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	8.22E-04
Barium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	1.36E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	7.82E-05
Cadmium	8.90E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.12E-05
Chromium	5.23E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	3.01E-03
Copper	4.88E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.81E-03
Lead	3.95E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.27E-03
Nickel	4.12E+01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	2.37E-03
Selenium	9.30E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	5.35E-05
Silver	1.11E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	6.38E-05
Thallium	3.10E-01	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.78E-05
Vanadium	0.00E+00	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	2.50E+02	1.00E-06	3.02E+02	1.00E+00	1.00E+00	1.00E+00	1.00E+00	5.25E+00	1.44E-02

SURFACE WATER DERMAL EXPOSURE:

Table H.47. Site 41 Risk Characterization for the Gray Fox
Quantitative Ecological Risk Assessment
Fort Ord, California

Compound	Surface Water Concentration (mg/L)	Surface Water Dermal Exposure (Skin Exposed) (cm ²)	Kp (cm/hr)	Conversion Factor (L/cm ³)	Exposure Time (hr/day)	Exposure Frequency (day/day)	Exposure Duration (yr/yr)	Body Weight (kg)	Lifetime Average Daily Dose
									From Water - Dermal (mg/kg/day)
Toluene	1.67E-05	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Arsenic	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Barium	4.49E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Beryllium	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Cadmium	2.00E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Chromium	6.00E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Copper	2.67E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Lead	9.50E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Nickel	5.30E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Selenium	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Silver	0.00E+00	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Thallium	9.70E-02	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Vanadium	8.60E-01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00
Zinc	3.45E+01	3.02E+02	1.00E+00	1.00E-03	0.00E+00	1.00E+00	1.00E+00	5.25E+00	0.00E+00

RISK CHARACTERIZATION

Table H.47. Site 41 Risk Characterization for the Gray Fox

Quantitative Ecological Risk Assessment

Fort Ord, California

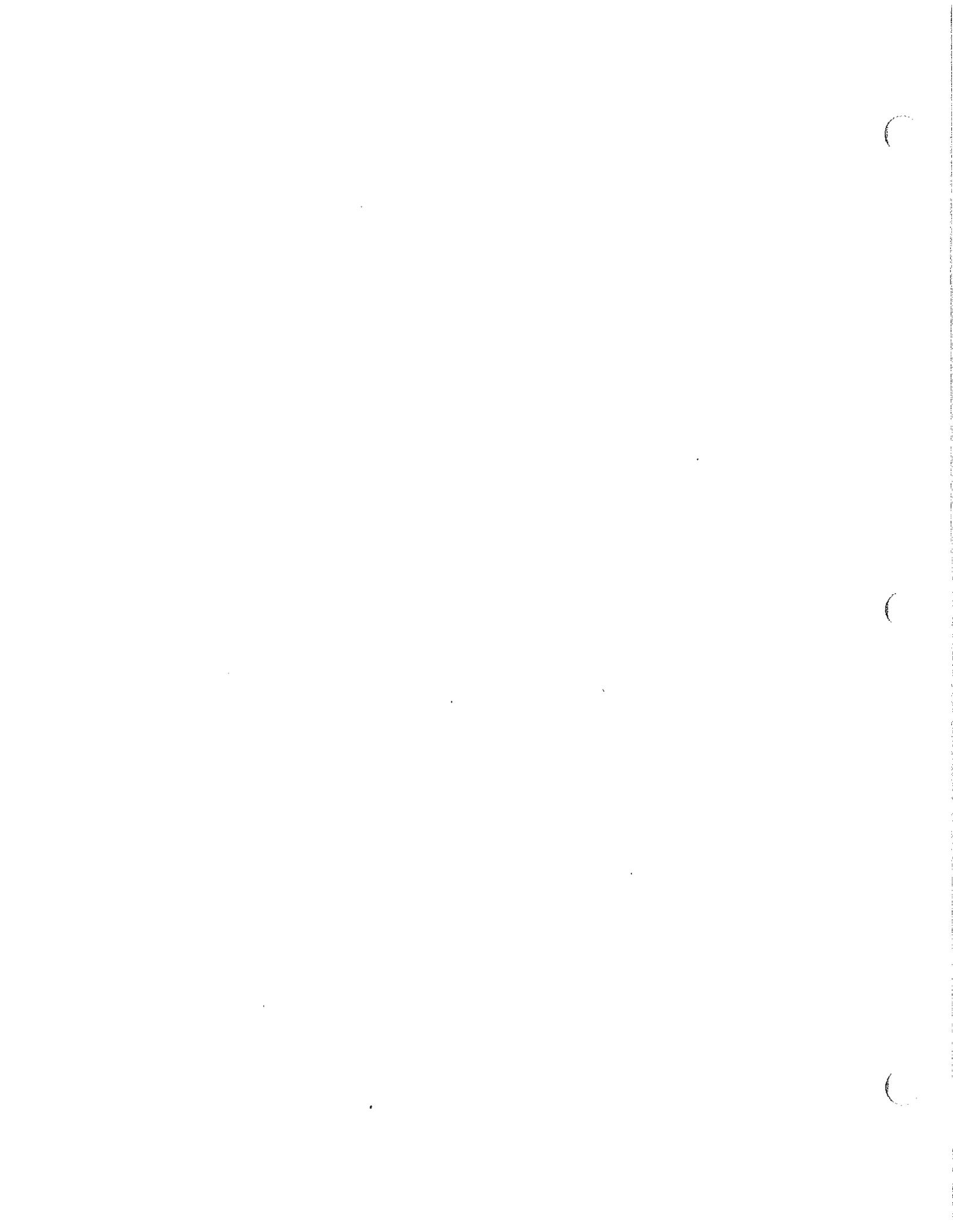
Compound	Lifetime Average Daily Dose From Org. Ing. (mg/kg/day)	Lifetime Average Daily Dose From Water Consumption (mg/kg/day)	Lifetime Average Daily Dose From Plant Consumption (mg/kg/day)	Lifetime Average Daily Dose From Soil Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Ingestion (mg/kg/day)	Lifetime Average Daily Dose From Sediment Dermal (mg/kg/day)	Lifetime Average Daily Dose From Soil Dermal (mg/kg/day)	Lifetime Average Daily Dose From Water Dermal (mg/kg/day)	Total Lifetime Average Daily Dose (mg/kg/day)	Hazard Quotient
Toluene	6.13E-07	0.00E+00	0.00E+00	1.93E-06	0.00E+00	0.00E+00	1.51E-07	0.00E+00	2.70E-06	2.16E-07
Arsenic	0.00E+00	0.00E+00	0.00E+00	1.05E-02	0.00E+00	0.00E+00	8.22E-04	0.00E+00	1.13E-02	3.06E-02
Barium	1.65E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.65E-01	4.12E+00
Beryllium	0.00E+00	0.00E+00	0.00E+00	9.99E-04	0.00E+00	0.00E+00	7.82E-05	0.00E+00	1.08E-03	2.15E-02
Cadmium	7.35E-04	0.00E+00	6.12E-03	6.54E-04	0.00E+00	0.00E+00	5.12E-05	0.00E+00	7.56E-03	8.90E-01
Chromium	2.20E-03	0.00E+00	2.30E-02	3.84E-02	0.00E+00	0.00E+00	3.01E-03	0.00E+00	6.67E-02	2.22E+00
Copper	9.81E-02	0.00E+00	7.18E-01	3.59E-02	0.00E+00	0.00E+00	2.81E-03	0.00E+00	8.54E-01	4.94E-02
Lead	3.49E-02	0.00E+00	1.47E-02	2.90E-02	0.00E+00	0.00E+00	2.27E-03	0.00E+00	8.09E-02	6.22E-01
Nickel	1.95E-02	0.00E+00	8.33E-02	3.03E-02	0.00E+00	0.00E+00	2.37E-03	0.00E+00	1.35E-01	5.03E-02
Selenium	0.00E+00	0.00E+00	0.00E+00	6.83E-04	0.00E+00	0.00E+00	5.35E-05	0.00E+00	7.37E-04	2.38E-01
Silver	0.00E+00	0.00E+00	0.00E+00	8.15E-04	0.00E+00	0.00E+00	6.38E-05	0.00E+00	8.79E-04	9.88E-04
Thallium	3.56E-03	0.00E+00	0.00E+00	2.28E-04	0.00E+00	0.00E+00	1.78E-05	0.00E+00	3.81E-03	1.27E+00
Vanadium	3.16E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.16E-02	1.50E-01
Zinc	1.27E+00	0.00E+00	1.34E+00	1.84E-01	0.00E+00	0.00E+00	1.44E-02	0.00E+00	2.80E+00	1.60E+00
TOTAL										1.13E+01

Table H.48. Summary of Risks by Chemical Drivers and Pathways /a/
 Volume IV-Ecological Risk Assessment, Basewide RI/FS
 Fort Ord, California

Site	Driver COPC	LADD					Hazard Quotient					Percent Contribution				
		Soil Ingestion	Soil Dermal	Plant Ingestion	Mouse Ingestion	Total	Soil Ingestion	Soil Dermal	Plant Ingestion	Mouse Ingestion	Total	Soil Ingestion	Soil Dermal	Plant Ingestion	Mouse Ingestion	Total
MOUSE																
3	Antimony	1.72E+00	9.83E-02	6.00E-02	NA	1.88E+00	4.91E+00	2.81E-01	1.71E-01	NA	5.37E+00	91.5	5.2	3.2	NA	100
3	Lead	4.03E+01	2.30E+00	1.95E+00	NA	4.46E+01	4.47E+02	2.55E+01	2.16E+01	NA	4.95E+02	90.4	5.2	4.4	NA	100
15	Chlordane	1.01E+00	5.78E-02	ND	NA	1.07E+00	1.12E+00	6.43E-02	ND	NA	1.19E+00	94.4	5.4	NA	NA	100
15	Heptachlor	2.53E-02	1.44E-03	ND	NA	2.68E-02	1.01E-01	5.75E-03	ND	NA	1.07E-01	94.4	5.4	NA	NA	100
15	Lead	1.63E-01	9.27E-03	9.20E-02	NA	2.64E-01	1.81E+00	1.03E-01	1.02E+00	NA	2.93E+00	61.7	3.5	34.8	NA	100
39	HMX	1.22E-02	6.98E-04	4.28E+00	NA	4.30E+00	1.22E-02	6.98E-04	4.28E+00	NA	4.30E+00	0.3	0.0	99.5	NA	100
39	Lead	4.78E-01	2.72E-02	1.95E+00	NA	2.45E+00	5.33E+00	3.03E-01	2.17E+01	NA	2.73E+01	19.5	1.1	79.6	NA	100
FOX																
3	Lead	4.94E+00	3.86E-01	2.39E-01	2.53E-01	5.82E+00	3.80E+01	2.97E+00	1.84E+00	1.9438	4.47E+01	84.9	6.6	4.1	4.3	100
15	Chlordane	1.24E-01	9.72E-03	ND	3.94E-02	1.73E-01	3.10E+00	2.43E-01	ND	0.9861	4.33E+00	71.7	5.6	NA	22.8	100
15	Heptachlor	3.10E-03	2.43E-04	ND	9.83E-04	4.33E-03	1.03E+01	8.08E-01	ND	3.2691	1.44E+01	71.6	5.6	NA	22.7	100
15	Lead	1.99E-02	1.56E-03	1.13E-02	9.69E-03	4.24E-02	1.53E-01	1.20E-02	8.69E-02	0.0745	3.26E-01	46.9	3.7	26.7	22.9	100

COPC Chemical of potential concern.
 LADD Lifetime average daily dose.
 NA Not applicable.
 ND Not detected.

/a/ For sites and receptors of "possible" or "probable concern" in the quantitative assessment.



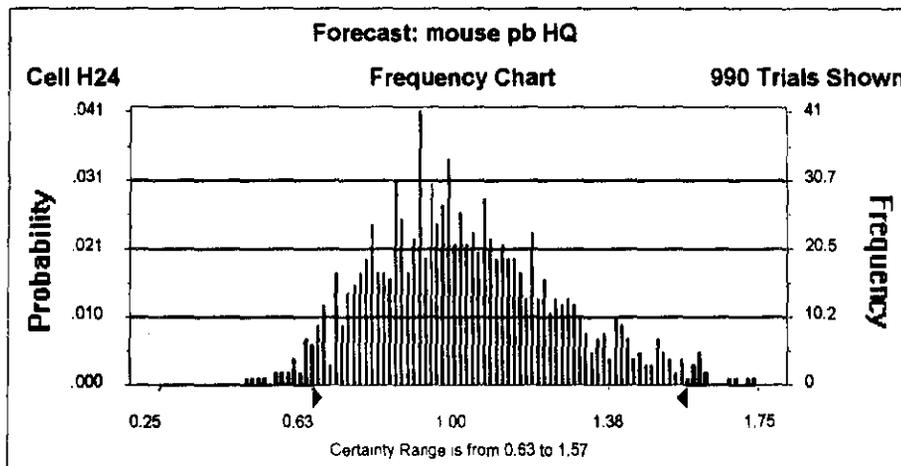
**Table H49. Monte Carlo Analysis - Site 2
 Mouse Lead Hazard Quotient
 Volume IV - Ecological Risk Assessment, Basewide RI/FS
 Fort Ord, California**

Summary:

Certainty Level is 95.00%
 Certainty Range is from 0.63 to 1.57
 Display Range is from 0.25 to 1.75
 Entire Range is from 0.47 to 2.23
 After 1,000 Trials, the Std. Error of the Mean is 0.01

Statistics:

	<u>Value</u>
Trials	1000
Mean	1.03
Median (approx.)	1.00
Mode (approx.)	0.90
Standard Deviation	0.25
Variance	0.06
Skewness	0.74
Kurtosis	3.98
Coeff. of Variability	0.24
Range Minimum	0.47
Range Maximum	2.23
Range Width	1.77
Mean Std. Error	0.01



**Table H49. Monte Carlo Analysis - Site 2
Mouse Lead Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	0.47
2.5%	0.63
5.0%	0.67
50.0%	1.00
95.0%	1.48
97.5%	1.57
100.0%	2.23

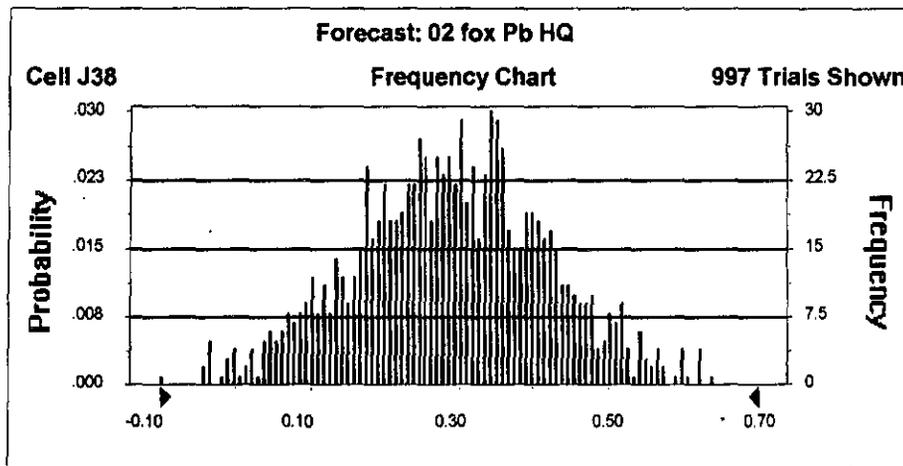
End of Forecast

**Table H49. Monte Carlo Analysis - Site 2
 Fox Lead Hazard Quotient
 Volume IV - Ecological Risk Assessment, Basewide RI/FS
 Fort Ord, California**

Summary:

Display Range is from -0.10 to 0.70
 Entire Range is from -0.17 to 0.71
 After 1,000 Trials, the Std. Error of the Mean is 0.00

Statistics:	<u>Value</u>
Trials	1000
Mean	0.29
Median (approx.)	0.29
Mode (approx.)	0.35
Standard Deviation	0.13
Variance	0.02
Skewness	-0.06
Kurtosis	2.94
Coeff. of Variability	0.46
Range Minimum	-0.17
Range Maximum	0.71
Range Width	0.88
Mean Std. Error	0.00



**Table H49. Monte Carlo Analysis - Site 2
Fox Lead Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	-0.17
2.5%	0.03
5.0%	0.07
50.0%	0.29
95.0%	0.51
97.5%	0.54
100.0%	0.71

End of Forecast

**Table H49. Monte Carlo Analysis - Site 2
Fox Selenium Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	0.15
2.5%	0.17
5.0%	0.18
50.0%	0.24
95.0%	0.81
97.5%	1.22
100.0%	10.41

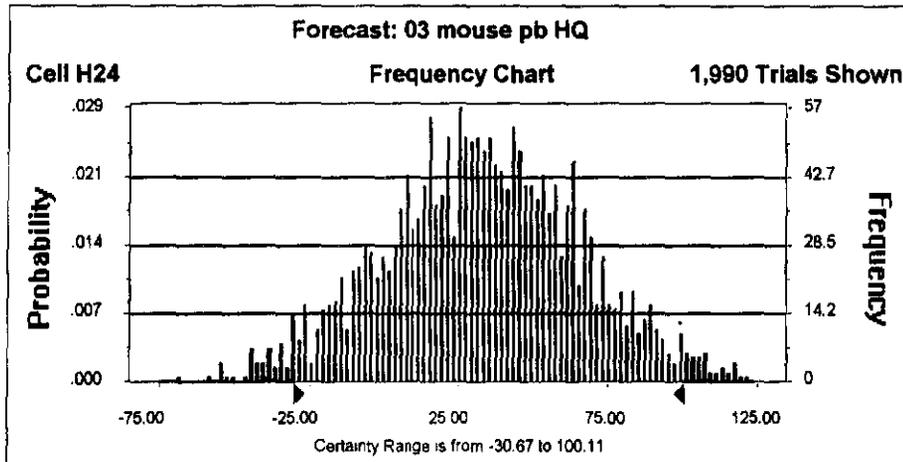
End of Forecast

**Table H50. Monte Carlo Analysis - Site 3
 Mouse Lead Hazard Quotient
 Volume IV - Ecological Risk Assessment, Basewide RI/FS
 Fort Ord, California**

Summary:

Certainty Level is 95.00%
 Certainty Range is from -30.67 to 100.11
 Display Range is from -75.00 to 125.00
 Entire Range is from -87.19 to 167.06
 After 2,000 Trials, the Std. Error of the Mean is 0.75

Statistics:	<u>Value</u>
Trials	2000
Mean	33.59
Median (approx.)	33.51
Mode (approx.)	25.95
Standard Deviation	33.37
Variance	1,113.46
Skewness	0.04
Kurtosis	3.05
Coeff. of Variability	0.99
Range Minimum	-87.19
Range Maximum	167.06
Range Width	254.25
Mean Std. Error	0.75



**Table H50. Monte Carlo Analysis - Site 3
Mouse Lead Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	-87.19
2.5%	-30.74
5.0%	-21.08
50.0%	33.51
95.0%	89.09
97.5%	100.25
100.0%	167.06

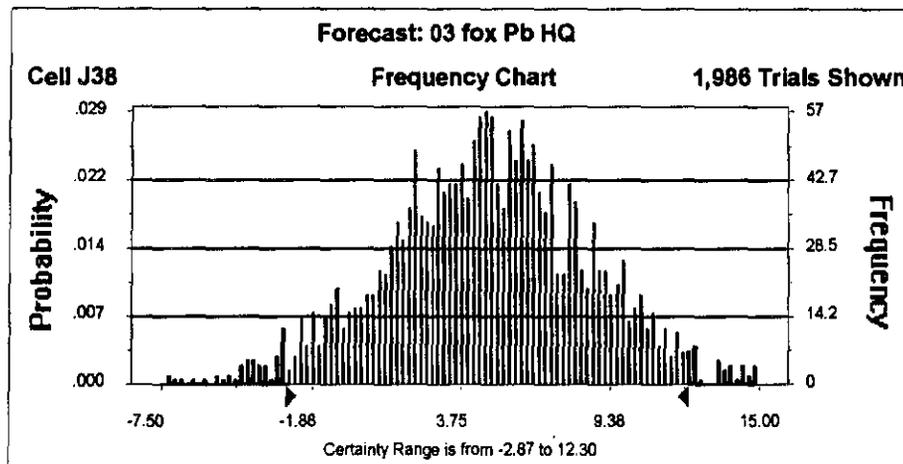
End of Forecast

**Table H50. Monte Carlo Analysis - Site 3
Fox Lead Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Summary:

Certainty Level is 95.00%
 Certainty Range is from -2.87 to 12.30
 Display Range is from -7.50 to 15.00
 Entire Range is from -11.26 to 17.03
 After 2,000 Trials, the Std. Error of the Mean is 0.09

Statistics:	<u>Value</u>
Trials	2000
Mean	4.84
Median (approx.)	4.87
Mode (approx.)	4.44
Standard Deviation	3.86
Variance	14.90
Skewness	-0.06
Kurtosis	3.24
Coeff. of Variability	0.80
Range Minimum	-11.26
Range Maximum	17.03
Range Width	28.29
Mean Std. Error	0.09



**Table H50. Monte Carlo Analysis - Site 3
Fox Lead Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	-11.26
2.5%	-2.89
5.0%	-1.70
50.0%	4.87
95.0%	11.06
97.5%	12.31
100.0%	17.03

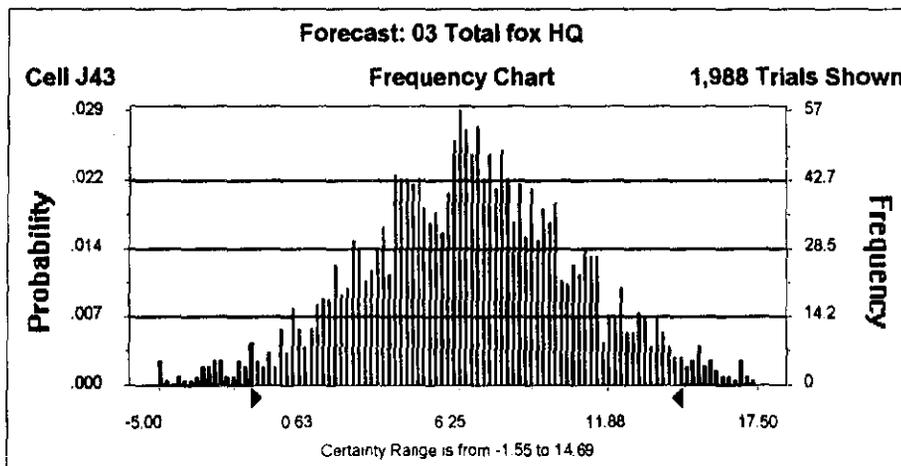
End of Forecast

**Table H50. Monte Carlo Analysis - Site 3
Fox Total Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Summary:

Certainty Level is 95.00%
 Certainty Range is from -1.55 to 14.69
 Display Range is from -5.00 to 17.50
 Entire Range is from -11.35 to 18.19
 After 2,000 Trials, the Std. Error of the Mean is 0.09

Statistics:	<u>Value</u>
Trials	2000
Mean	6.67
Median (approx.)	6.69
Mode (approx.)	6.23
Standard Deviation	4.08
Variance	16.66
Skewness	-0.08
Kurtosis	3.21
Coeff. of Variability	0.61
Range Minimum	-11.35
Range Maximum	18.19
Range Width	29.54
Mean Std. Error	0.09



**Table H50. Monte Carlo Analysis - Site 3
Fox Total Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	-11.35
2.5%	-1.54
5.0%	-0.04
50.0%	6.69
95.0%	13.51
97.5%	14.69
100.0%	18.19

End of Forecast

Table H51. Monte Carlo Analysis - Site 15
Mouse Chlordane
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Summary:

Display Range is from 0.70 to 1.40
 Entire Range is from 0.73 to 1.44
 After 1,000 Trials, the Std. Error of the Mean is 0.00

Statistics:

	<u>Value</u>
Trials	1000
Mean	1.07
Median (approx.)	1.07
Mode (approx.)	1.08
Standard Deviation	0.11
Variance	0.01
Skewness	0.07
Kurtosis	2.99
Coeff. of Variability	0.10
Range Minimum	0.73
Range Maximum	1.44
Range Width	0.70
Mean Std. Error	0.00

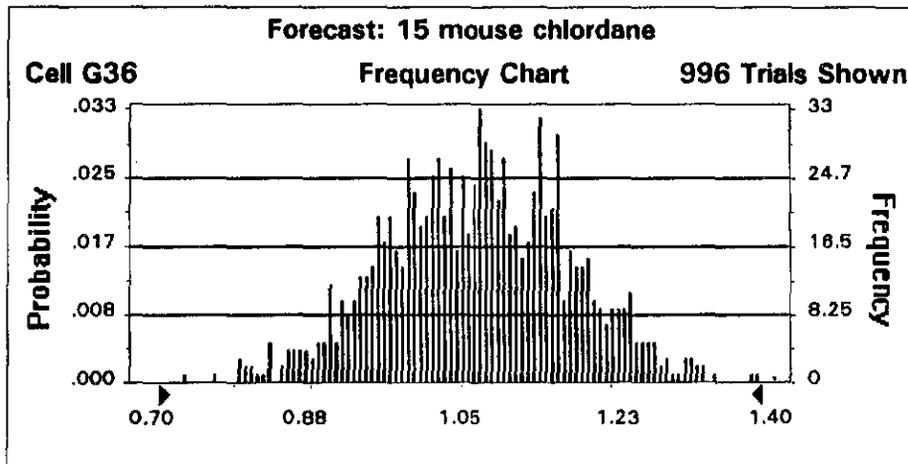


Table H51. Monte Carlo Analysis - Site 15
Mouse Chlordane
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0%	0.73
10%	0.94
20%	0.98
30%	1.01
40%	1.04
50%	1.07
60%	1.10
70%	1.13
80%	1.16
90%	1.21
100%	1.44

Table H51. Monte Carlo Analysis - Site 15
Mouse Lead Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Summary:

Certainty Level is 95.00%
 Certainty Range is from 2.24 to 3.53
 Display Range is from 2.00 to 4.00
 Entire Range is from 1.93 to 3.93
 After 1,000 Trials, the Std. Error of the Mean is 0.01

Statistics:

	<u>Value</u>
Trials	1000
Mean	2.93
Median (approx.)	2.93
Mode (approx.)	2.96
Standard Deviation	0.33
Variance	0.11
Skewness	-0.12
Kurtosis	2.96
Coeff. of Variability	0.11
Range Minimum	1.93
Range Maximum	3.93
Range Width	2.00
Mean Std. Error	0.01

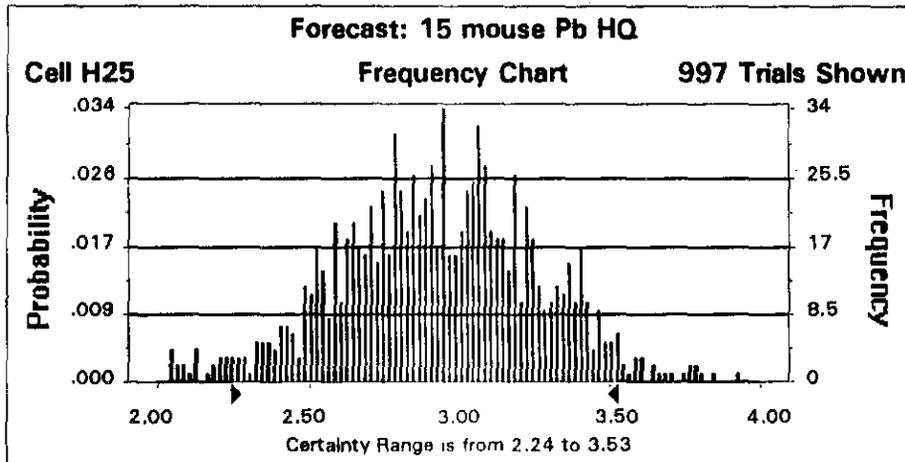


Table H51. Monte Carlo Analysis - Site 15
Mouse Lead Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0%	1.93
10%	2.52
20%	2.65
30%	2.76
40%	2.85
50%	2.93
60%	3.03
70%	3.10
80%	3.22
90%	3.36
100%	3.93

End of Forecast

Table H51. Monte Carlo Analysis - Site 15
Mouse Total Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Summary:

Certainty Level is 95.00%
 Certainty Range is from 2.58 to 7.65
 Display Range is from 1.00 to 9.00
 Entire Range is from 0.82 to 9.75
 After 1,000 Trials, the Std. Error of the Mean is 0.04

Statistics:

	<u>Value</u>
Trials	1000
Mean	5.05
Median (approx.)	5.12
Mode (approx.)	5.24
Standard Deviation	1.28
Variance	1.63
Skewness	0.03
Kurtosis	2.95
Coeff. of Variability	0.25
Range Minimum	0.82
Range Maximum	9.75
Range Width	8.93
Mean Std. Error	0.04

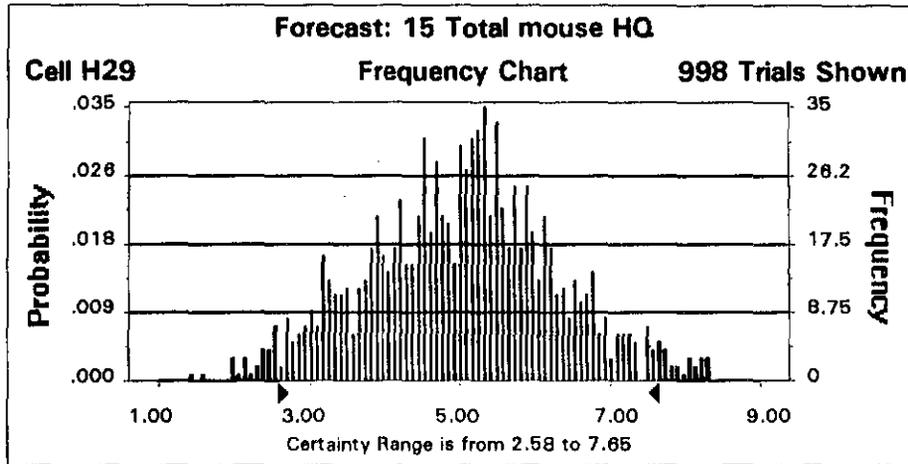


Table H51. Monte Carlo Analysis - Site 15
Mouse Total Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0%	0.82
10%	3.31
20%	3.94
30%	4.42
40%	4.75
50%	5.12
60%	5.36
70%	5.67
80%	6.09
90%	6.70
100%	9.75

End of Forecast

**Table H51. Monte Carlo Analysis - Site 15
 Fox Chlordane Hazard Quotient
 Volume IV - Ecological Risk Assessment, Basewide RI/FS
 Fort Ord, California**

Summary:

Certainty Level is 95.00%
 Certainty Range is from 0.83 to 1.22
 Display Range is from 0.75 to 1.30
 Entire Range is from 0.72 to 1.37
 After 1,000 Trials, the Std. Error of the Mean is 0.00

Statistics:

	<u>Value</u>
Trials	1000
Mean	1.03
Median (approx.)	1.03
Mode (approx.)	1.04
Standard Deviation	0.10
Variance	0.01
Skewness	0.07
Kurtosis	2.99
Coeff. of Variability	0.10
Range Minimum	0.72
Range Maximum	1.37
Range Width	0.65
Mean Std. Error	0.00

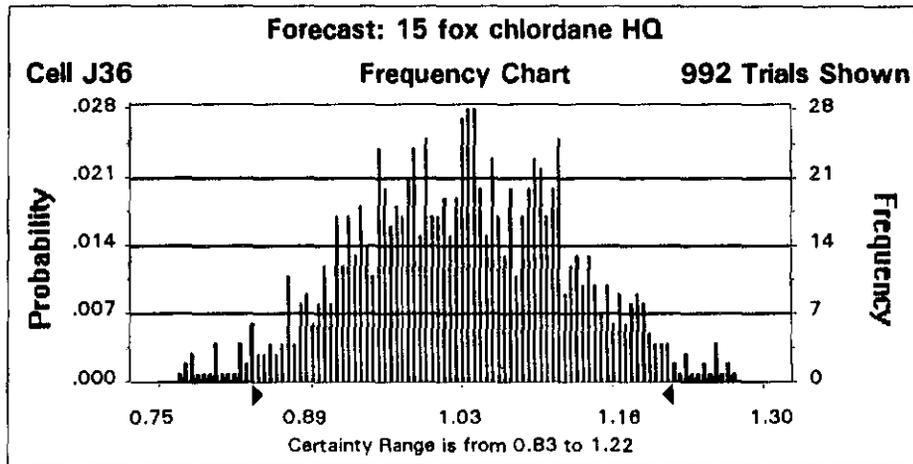


Table H51. Monte Carlo Analysis - Site 15
Fox Chlordane Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0%	0.72
10%	0.90
20%	0.94
30%	0.97
40%	1.00
50%	1.03
60%	1.05
70%	1.09
80%	1.11
90%	1.15
100%	1.37

End of Forecast

Table H51. Monte Carlo Analysis - Site 15
Fox Heptachlor Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Summary:

Certainty Level is 95.00%
 Certainty Range is from 2.88 to 4.30
 Display Range is from 2.50 to 4.75
 Entire Range is from 2.31 to 4.66
 After 1,000 Trials, the Std. Error of the Mean is 0.01

Statistics:

	<u>Value</u>
Trials	1000
Mean	3.61
Median (approx.)	3.61
Mode (approx.)	3.55
Standard Deviation	0.37
Variance	0.14
Skewness	-0.07
Kurtosis	2.89
Coeff. of Variability	0.10
Range Minimum	2.31
Range Maximum	4.66
Range Width	2.35
Mean Std. Error	0.01

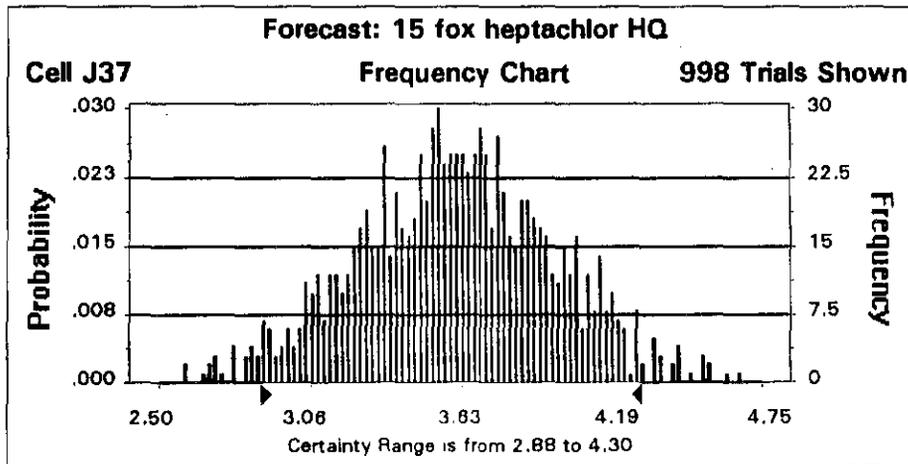


Table H51. Monte Carlo Analysis - Site 15
Fox Heptachlor Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0%	2.31
10%	3.12
20%	3.29
30%	3.41
40%	3.52
50%	3.61
60%	3.70
70%	3.80
80%	3.92
90%	4.09
100%	4.66

End of Forecast

Table H51. Monte Carlo Analysis - Site 15
Fox Total Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Summary:

Certainty Level is 95.00%
 Certainty Range is from 5.19 to 10.21
 Display Range is from 4.00 to 11.00
 Entire Range is from 3.79 to 12.16
 After 1,000 Trials, the Std. Error of the Mean is 0.04

Statistics:

	<u>Value</u>
Trials	1000
Mean	7.66
Median (approx.)	7.69
Mode (approx.)	7.85
Standard Deviation	1.26
Variance	1.58
Skewness	0.01
Kurtosis	3.06
Coeff. of Variability	0.16
Range Minimum	3.79
Range Maximum	12.16
Range Width	8.37
Mean Std. Error	0.04

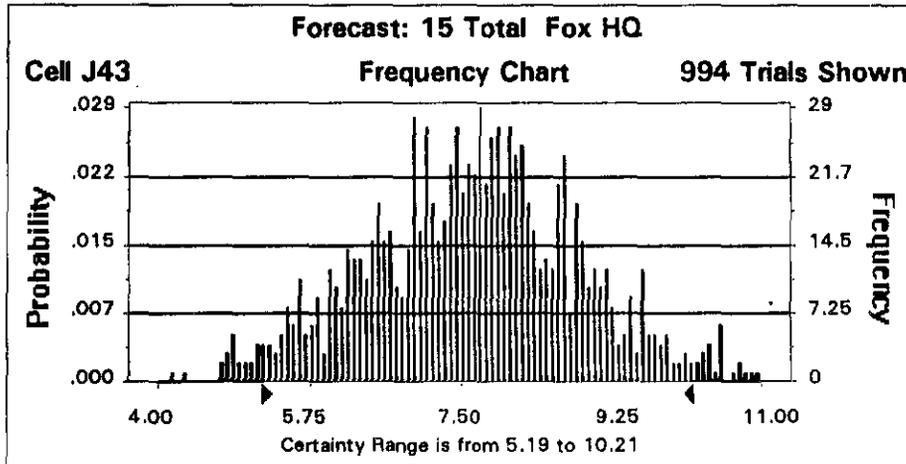


Table H51. Monte Carlo Analysis - Site 15
Fox Total Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0%	3.79
10%	6.02
20%	6.58
30%	7.02
40%	7.39
50%	7.69
60%	7.96
70%	8.26
80%	8.70
90%	9.23
100%	12.16

End of Forecast

Table H52. Monte Carlo Analysis - Site 16
Mouse Lead Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Summary:

Certainty Level is 95.00%
 Certainty Range is from 1.19 to 2.90
 Display Range is from 0.75 to 3.25
 Entire Range is from 0.73 to 3.58
 After 1,000 Trials, the Std. Error of the Mean is 0.01

Statistics:

	<u>Value</u>
Trials	1000
Mean	2.01
Median (approx.)	2.01
Mode (approx.)	1.86
Standard Deviation	0.44
Variance	0.20
Skewness	0.18
Kurtosis	3.07
Coeff. of Variability	0.22
Range Minimum	0.73
Range Maximum	3.58
Range Width	2.85
Mean Std. Error	0.01

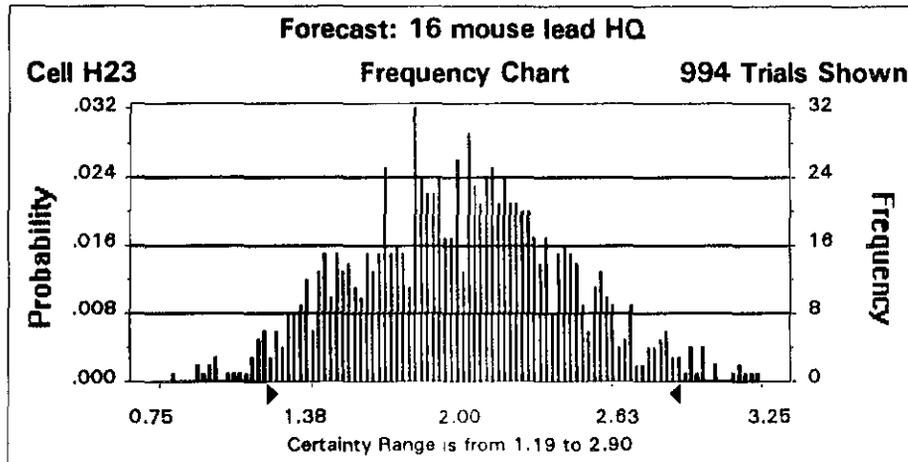


Table H52. Monte Carlo Analysis - Site 16
Mouse Lead Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	0.73
2.5%	1.19
5.0%	1.30
50.0%	2.01
95.0%	2.74
97.5%	2.90
100.0%	3.58

End of Forecast

Table H52. Monte Carlo Analysis - Site 16
Mouse PeCDF
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Summary:

Display Range is from -7.50 to 12.50
 Entire Range is from -10.05 to 15.17
 After 1,000 Trials, the Std. Error of the Mean is 0.11

Statistics:

	<u>Value</u>
Trials	1000
Mean	2.33
Median (approx.)	2.35
Mode (approx.)	2.68
Standard Deviation	3.32
Variance	11.04
Skewness	-0.04
Kurtosis	3.39
Coeff. of Variability	1.43
Range Minimum	-10.05
Range Maximum	15.17
Range Width	25.22
Mean Std. Error	0.11

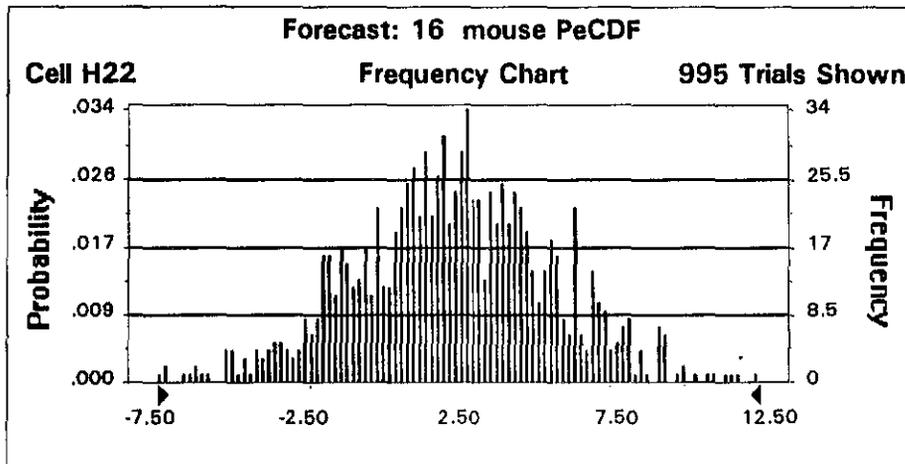


Table H52. Monte Carlo Analysis - Site 16
Mouse PeCDF
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	-10.05
2.5%	-4.29
5.0%	-3.08
50.0%	2.35
95.0%	7.73
97.5%	8.78
100.0%	15.17

End of Forecast

Table H52. Monte Carlo Analysis - Site 16
Mouse Total Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Summary:

Certainty Level is 95.00%
 Certainty Range is from -2.33 to 10.72
 Display Range is from -5.00 to 15.00
 Entire Range is from -8.00 to 17.56
 After 1,000 Trials, the Std. Error of the Mean is 0.11

Statistics:

	<u>Value</u>
Trials	1000
Mean	4.34
Median (approx.)	4.35
Mode (approx.)	5.16
Standard Deviation	3.36
Variance	11.26
Skewness	-0.04
Kurtosis	3.30
Coeff. of Variability	0.77
Range Minimum	-8.00
Range Maximum	17.56
Range Width	25.57
Mean Std. Error	0.11

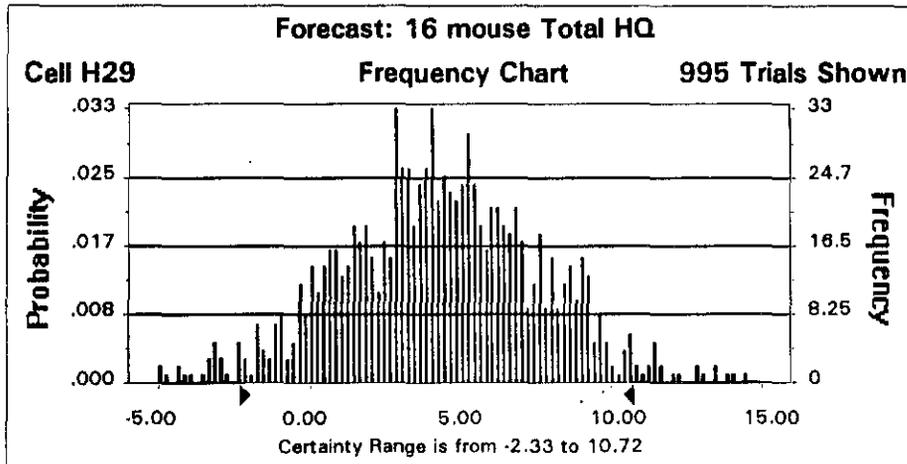


Table H52. Monte Carlo Analysis - Site 16
Mouse Total Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	-8.00
2.5%	-2.38
5.0%	-1.08
50.0%	4.35
95.0%	9.55
97.5%	10.73
100.0%	17.56

End of Forecast

Table H52. Monte Carlo Analysis - Site 16
Fox PeCDF Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Summary:

Certainty Level is 95.00%
 Certainty Range is from -0.65 to 2.60
 Display Range is from -1.50 to 3.50
 Entire Range is from -2.05 to 4.16
 After 1,000 Trials, the Std. Error of the Mean is 0.03

Statistics:

	<u>Value</u>
Trials	1000
Mean	0.99
Median (approx.)	0.99
Mode (approx.)	1.02
Standard Deviation	0.82
Variance	0.67
Skewness	-0.04
Kurtosis	3.39
Coeff. of Variability	0.83
Range Minimum	-2.05
Range Maximum	4.16
Range Width	6.22
Mean Std. Error	0.03

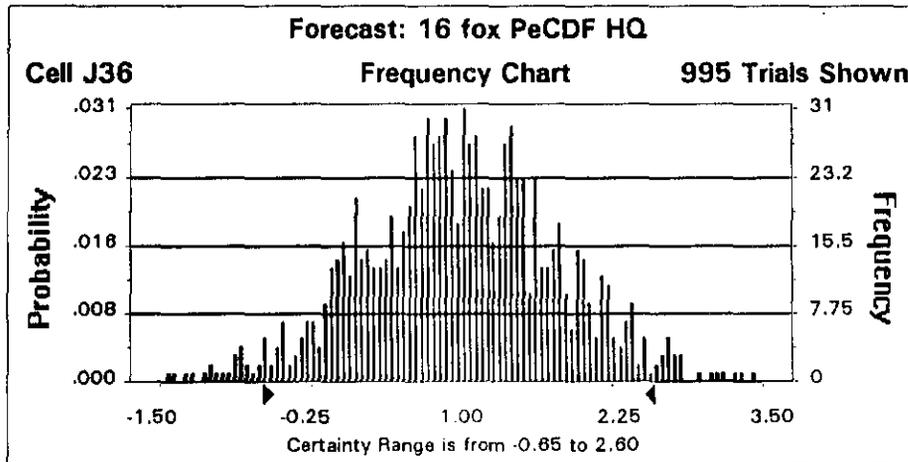


Table H52. Monte Carlo Analysis - Site 16
Fox PeCDF Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	-2.05
2.5%	-0.64
5.0%	-0.33
50.0%	0.99
95.0%	2.35
97.5%	2.61
100.0%	4.16

End of Forecast

Table H52. Monte Carlo Analysis - Site 16
Fox Total Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Summary:

Certainty Level is 95.00%
 Certainty Range is from -0.42 to 2.83
 Display Range is from -1.00 to 3.50
 Entire Range is from -1.80 to 4.45
 After 1,000 Trials, the Std. Error of the Mean is 0.03

Statistics:

	<u>Value</u>
Trials	1000
Mean	1.24
Median (approx.)	1.24
Mode (approx.)	0.98
Standard Deviation	0.82
Variance	0.67
Skewness	-0.04
Kurtosis	3.37
Coeff. of Variability	0.66
Range Minimum	-1.80
Range Maximum	4.45
Range Width	6.25
Mean Std. Error	0.03

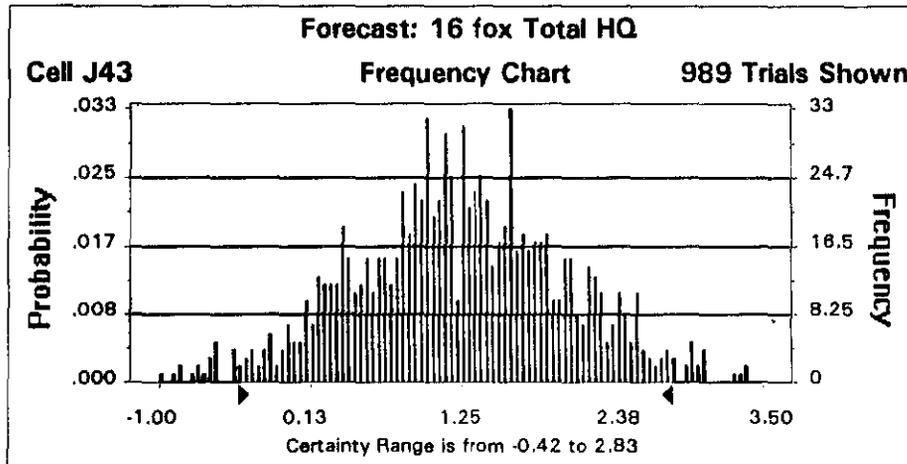


Table H52. Monte Carlo Analysis - Site 16
Fox Total Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	-1.80
2.5%	-0.43
5.0%	-0.09
50.0%	1.24
95.0%	2.57
97.5%	2.83
100.0%	4.45

End of Forecast

Table H53. Monte Carlo Analysis - Site 29
Mouse Lead Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Summary:

Display Range is from 1.30 to 2.40
 Entire Range is from 1.31 to 2.49
 After 1,000 Trials, the Std. Error of the Mean is 0.01

Statistics:

	<u>Value</u>
Trials	1000
Mean	1.81
Median (approx.)	1.81
Mode (approx.)	1.94
Standard Deviation	0.20
Variance	0.04
Skewness	0.24
Kurtosis	3.14
Coeff. of Variability	0.11
Range Minimum	1.31
Range Maximum	2.49
Range Width	1.18
Mean Std. Error	0.01

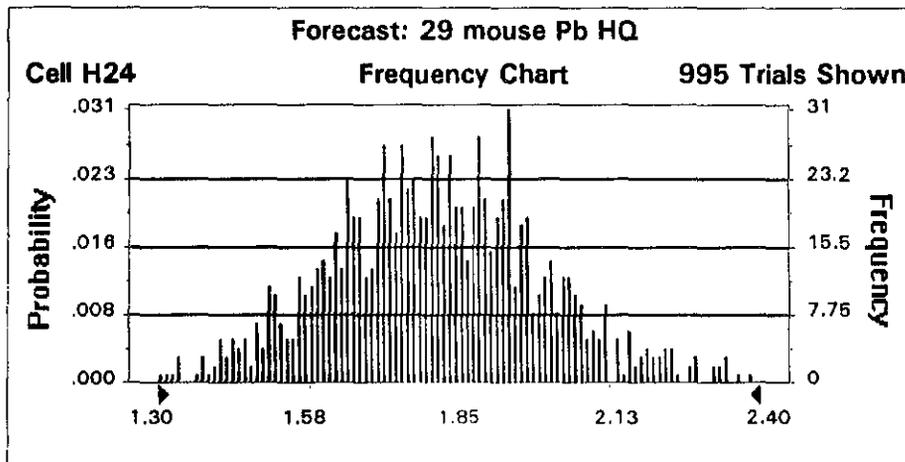


Table H53. Monte Carlo Analysis - Site 29
Mouse Lead Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	1.31
2.5%	1.44
5.0%	1.50
50.0%	1.81
95.0%	2.14
97.5%	2.23
100.0%	2.49

End of Forecast

Table H53. Monte Carlo Analysis - Site 29
Mouse Nickel Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Summary:

Certainty Level is 95.00%
 Certainty Range is from -0.28 to 3.88
 Display Range is from -1.50 to 4.50
 Entire Range is from -1.86 to 5.39
 After 1,000 Trials, the Std. Error of the Mean is 0.03

Statistics:

	<u>Value</u>
Trials	1000
Mean	1.72
Median (approx.)	1.69
Mode (approx.)	1.58
Standard Deviation	1.06
Variance	1.13
Skewness	0.08
Kurtosis	3.08
Coeff. of Variability	0.62
Range Minimum	-1.86
Range Maximum	5.39
Range Width	7.25
Mean Std. Error	0.03

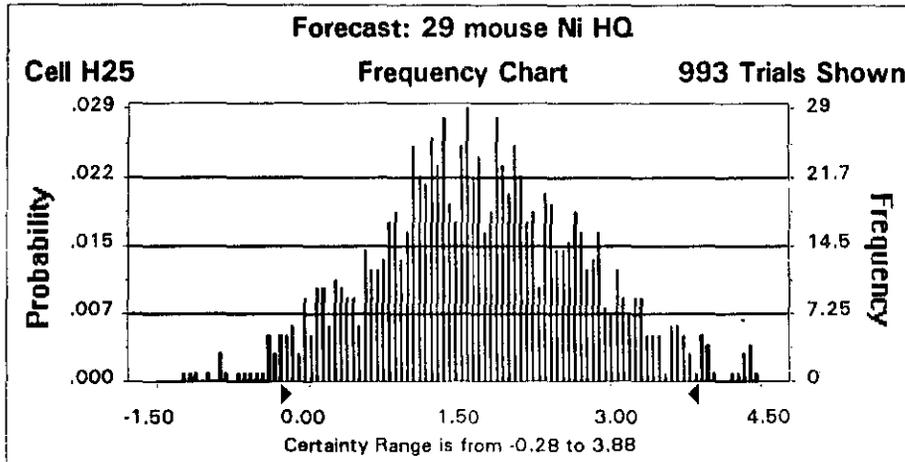


Table H53. Monte Carlo Analysis - Site 29
Mouse Nickel Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	-1.86
2.5%	-0.28
5.0%	-0.01
50.0%	1.69
95.0%	3.50
97.5%	3.89
100.0%	5.39

End of Forecast

Table H53. Monte Carlo Analysis - Site 29
Fox Thallium Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Summary:

Certainty Level is 95.00%
 Certainty Range is from 1.24 to 4.13
 Display Range is from 0.50 to 5.00
 Entire Range is from 0.22 to 5.37
 After 1,000 Trials, the Std. Error of the Mean is 0.02

Statistics:

	<u>Value</u>
Trials	1000
Mean	2.69
Median (approx.)	2.69
Mode (approx.)	2.72
Standard Deviation	0.74
Variance	0.54
Skewness	0.01
Kurtosis	3.23
Coeff. of Variability	0.27
Range Minimum	0.22
Range Maximum	5.37
Range Width	5.15
Mean Std. Error	0.02

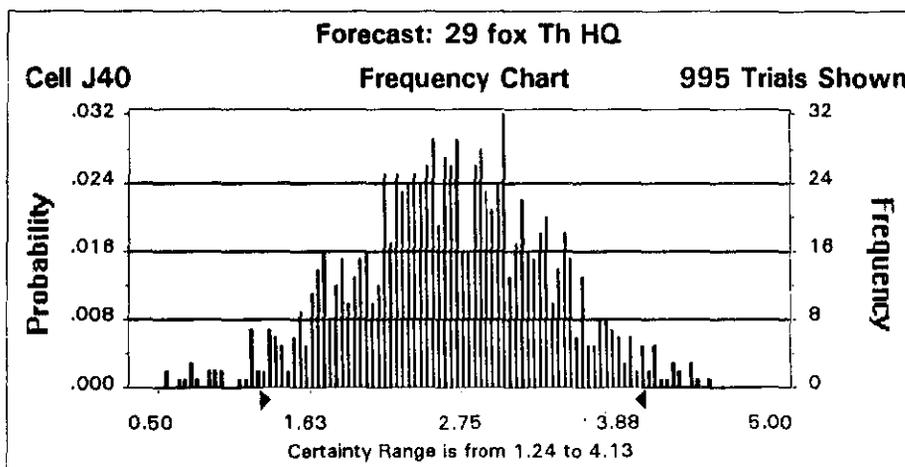


Table H53. Monte Carlo Analysis - Site 29
Fox Thallium Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	0.22
2.5%	1.24
5.0%	1.50
50.0%	2.69
95.0%	3.89
97.5%	4.13
100.0%	5.37

End of Forecast

Table H54. Monte Carlo Analysis - Site 31
Mouse Lead Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Summary:

Display Range is from 1.50 to 4.25
 Entire Range is from 1.52 to 4.95
 After 1,000 Trials, the Std. Error of the Mean is 0.02

Statistics:

	<u>Value</u>
Trials	1000
Mean	2.66
Median (approx.)	2.60
Mode (approx.)	2.61
Standard Deviation	0.53
Variance	0.28
Skewness	0.78
Kurtosis	4.07
Coeff. of Variability	0.20
Range Minimum	1.52
Range Maximum	4.95
Range Width	3.43
Mean Std. Error	0.02

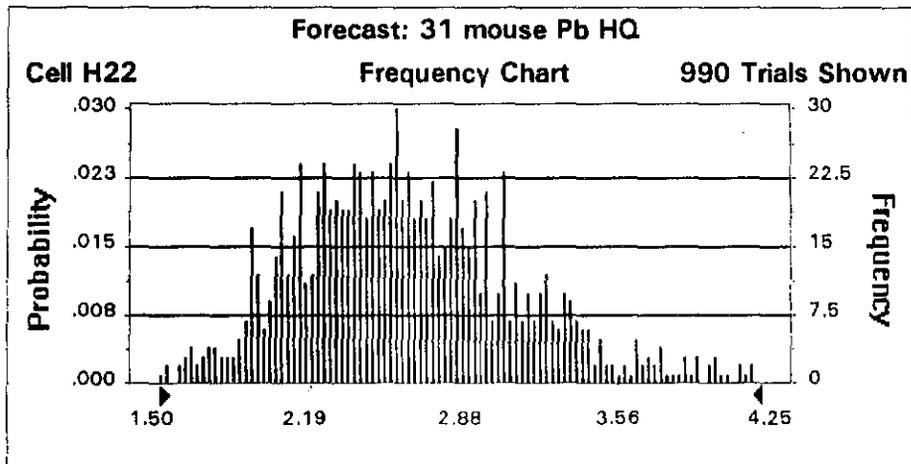


Table H54. Monte Carlo Analysis - Site 31
Mouse Lead Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	1.52
2.5%	1.78
5.0%	1.92
50.0%	2.60
95.0%	3.63
97.5%	3.95
100.0%	4.95

End of Forecast

Table H54. Monte Carlo Analysis - Site 31
Fox PeCDF Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Summary:

Certainty Level is 95.00%
 Certainty Range is from -1.25 to 3.67
 Display Range is from -2.00 to 5.00
 Entire Range is from -2.75 to 5.41
 After 1,000 Trials, the Std. Error of the Mean is 0.04

Statistics:

	<u>Value</u>
Trials	1000
Mean	1.31
Median (approx.)	1.31
Mode (approx.)	1.78
Standard Deviation	1.23
Variance	1.51
Skewness	-0.01
Kurtosis	3.12
Coeff. of Variability	0.94
Range Minimum	-2.75
Range Maximum	5.41
Range Width	8.16
Mean Std. Error	0.04

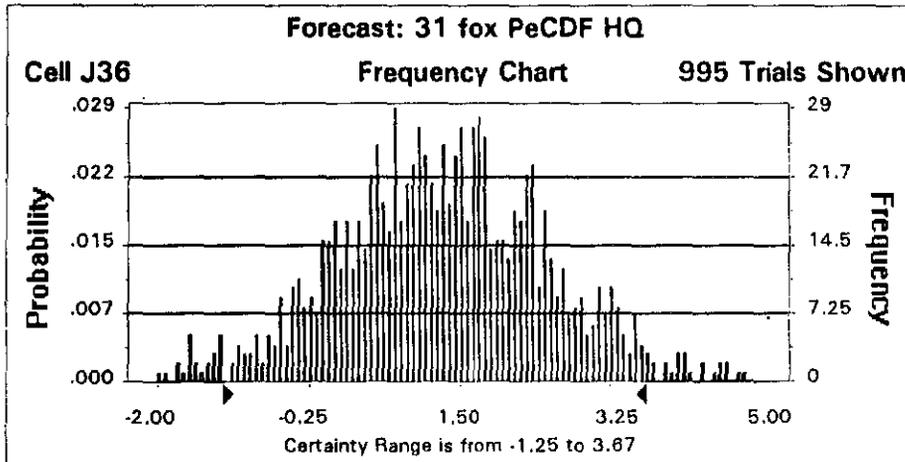


Table H54. Monte Carlo Analysis - Site 31
Fox PeCDF Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	-2.75
2.5%	-1.25
5.0%	-0.67
50.0%	1.31
95.0%	3.33
97.5%	3.66
100.0%	5.41

End of Forecast

Table H54. Monte Carlo Analysis - Site 31
Fox Thallium Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Summary:

Certainty Level is 95.00%
 Certainty Range is from 0.25 to 2.22
 Display Range is from -0.25 to 2.50
 Entire Range is from -0.28 to 2.73
 After 1,000 Trials, the Std. Error of the Mean is 0.02

Statistics:

	<u>Value</u>
Trials	1000
Mean	1.23
Median (approx.)	1.22
Mode (approx.)	1.30
Standard Deviation	0.49
Variance	0.24
Skewness	0.08
Kurtosis	2.93
Coeff. of Variability	0.40
Range Minimum	-0.28
Range Maximum	2.73
Range Width	3.02
Mean Std. Error	0.02

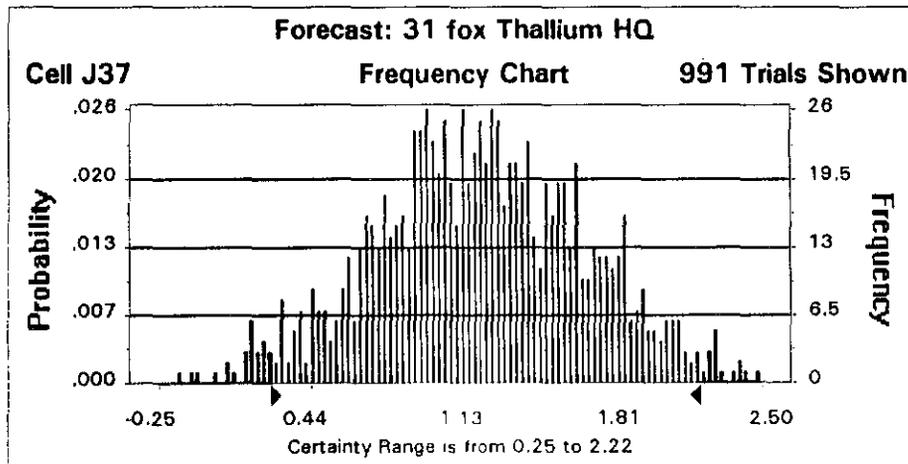


Table H54. Monte Carlo Analysis - Site 31
Fox Thallium Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	-0.28
2.5%	0.26
5.0%	0.41
50.0%	1.22
95.0%	2.05
97.5%	2.22
100.0%	2.73

End of Forecast

LITTER PLATES

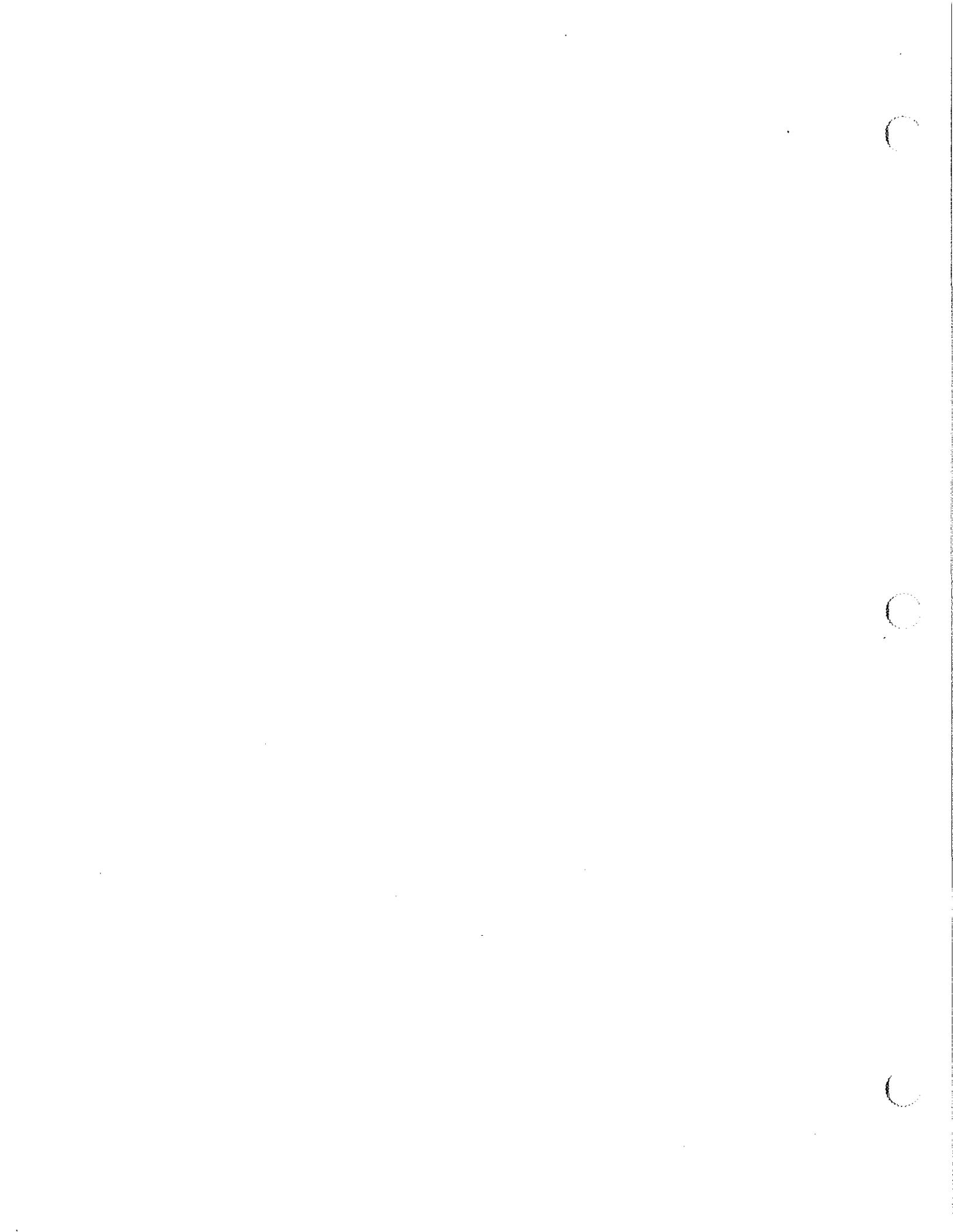


Figure H1. Litter Analysis for Coast Live Oak Woodland Habitat
 6 Transects (Sites 29, 31, and 35)
 Volume IV - Ecological Risk Assessment
 Fort Ord, California

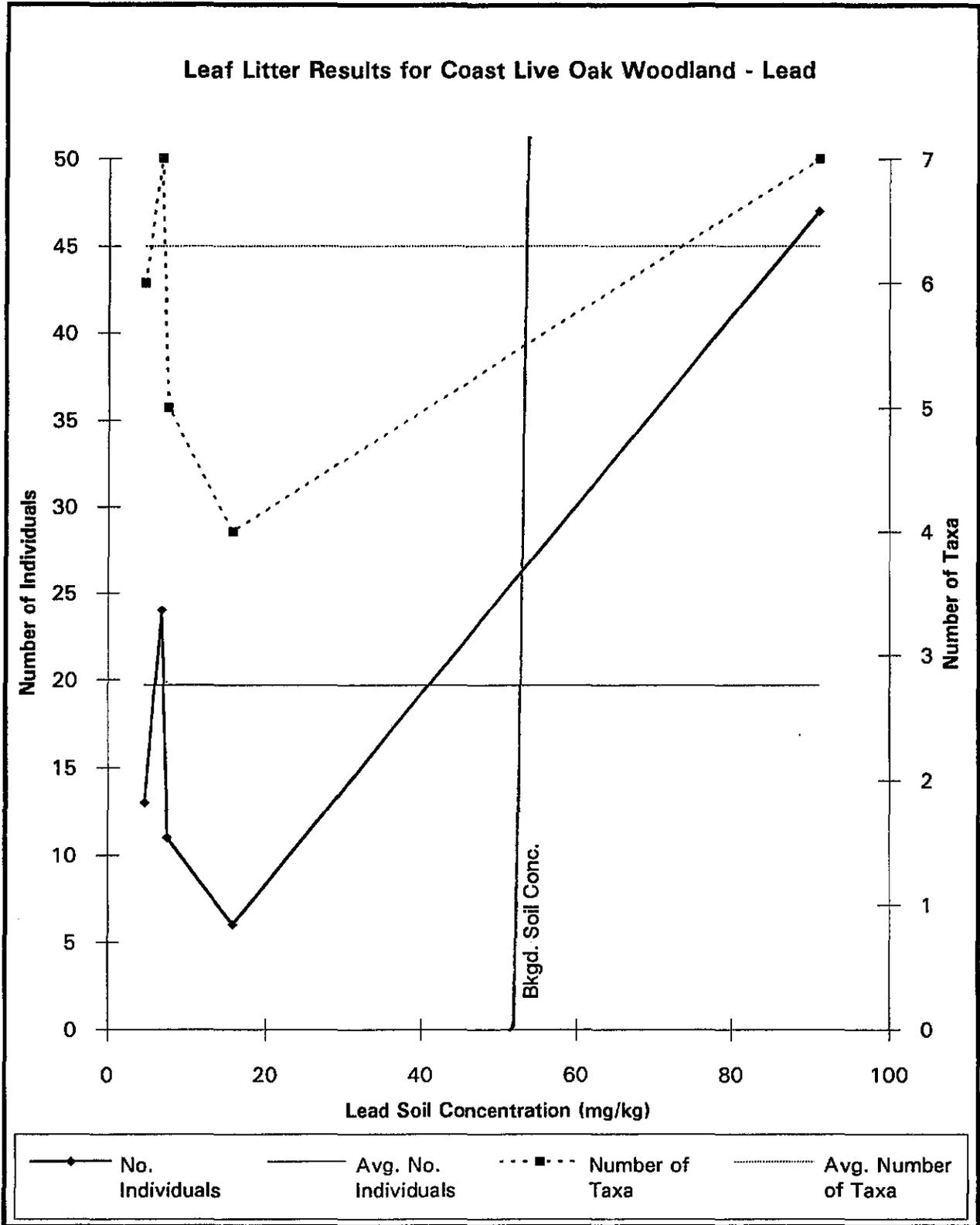


Figure H2. Litter Analysis for Coast Live Oak Woodland Habitat
 6 Transects (Sites 29, 31, and 35)
 Volume IV - Ecological Risk Assessment
 Fort Ord, California

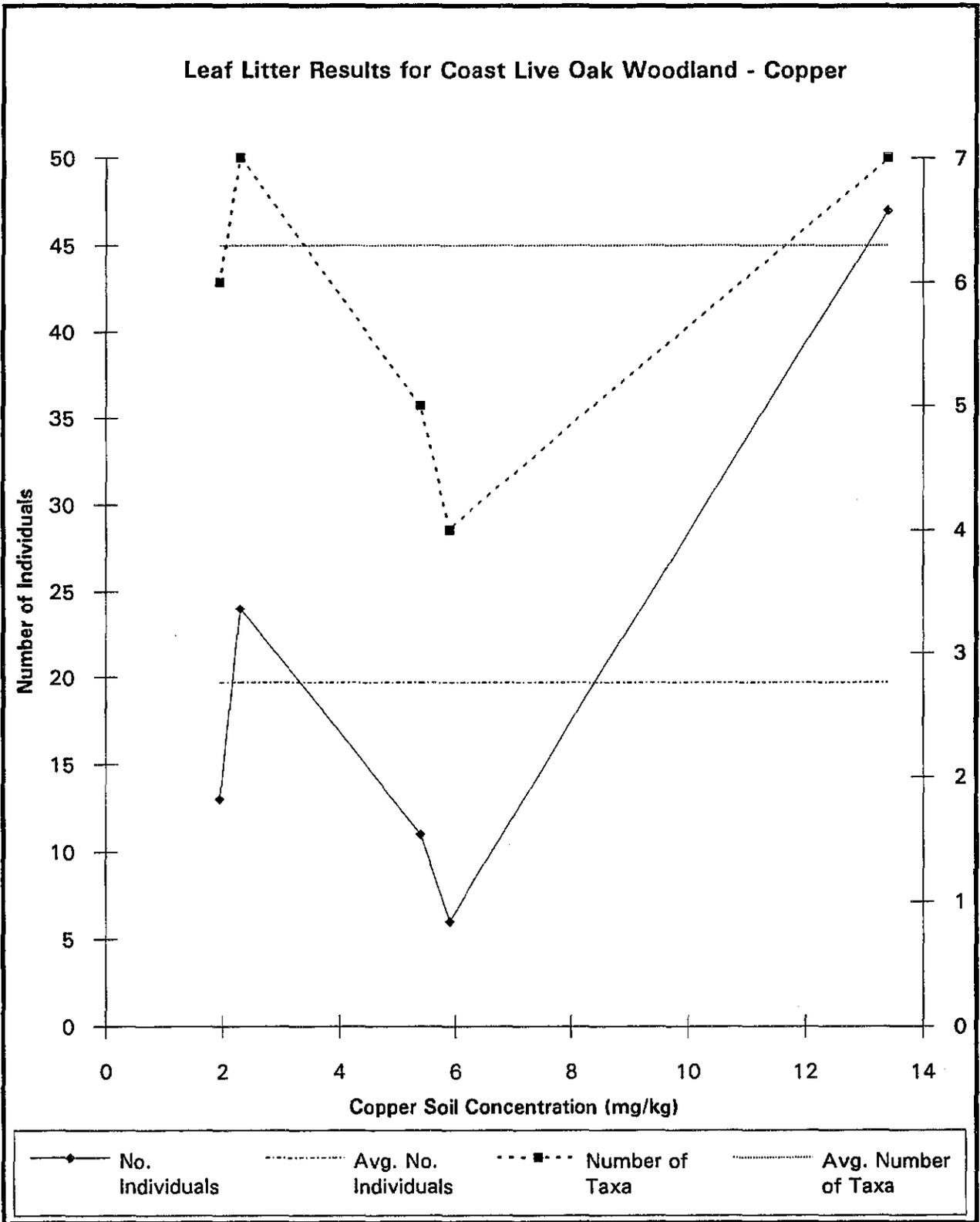


Figure H3. Litter Analysis for Coast Live Oak Woodland Habitat
 6 Transects (Sites 29, 31, and 35)
 Volume IV - Ecological Risk Assessment
 Fort Ord, California

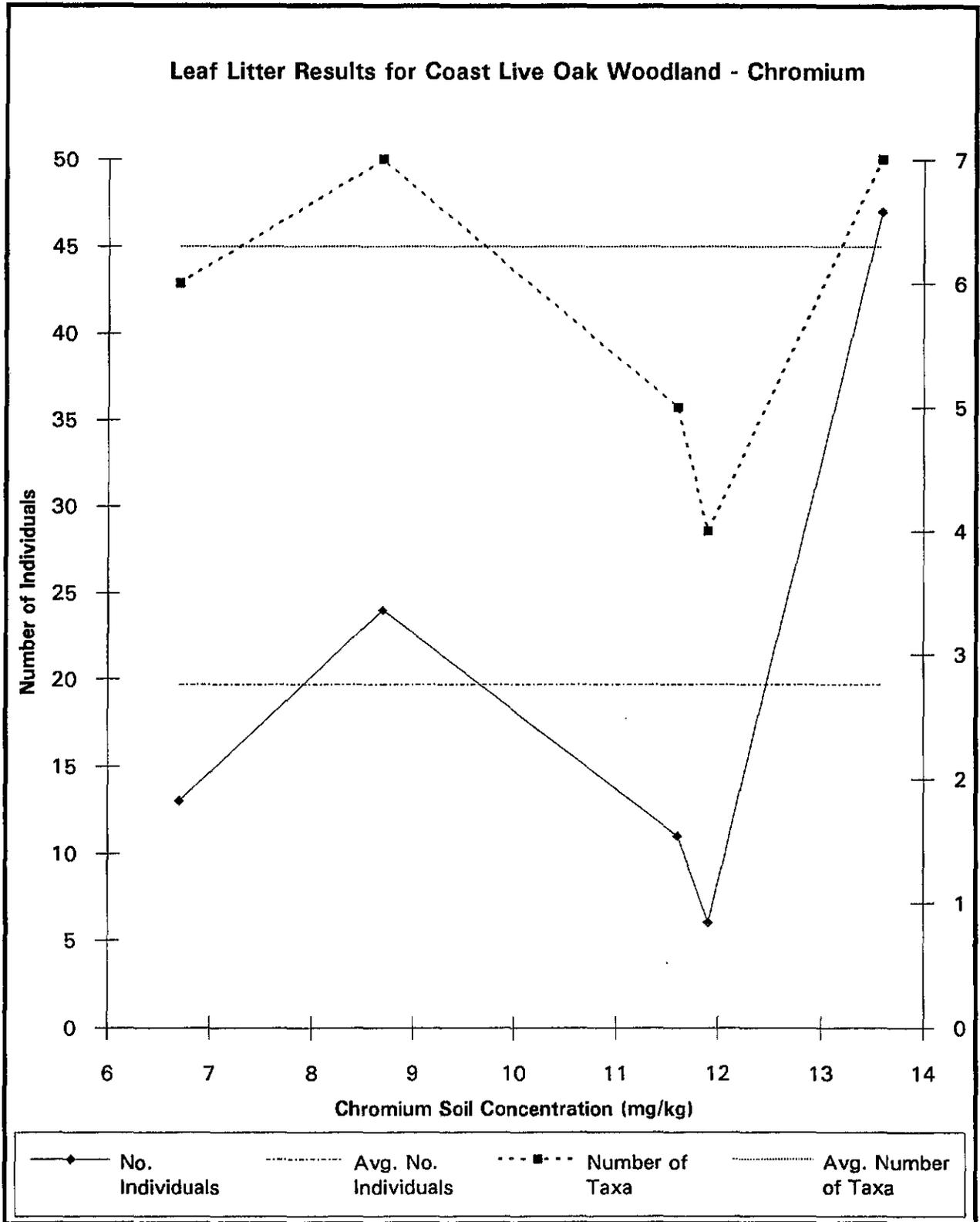


Figure H4. Litter Analysis for Coast Live Oak Woodland Habitat
 6 Transects (Sites 29, 31, and 35)
 Volume IV - Ecological Risk Assessment
 Fort Ord, California

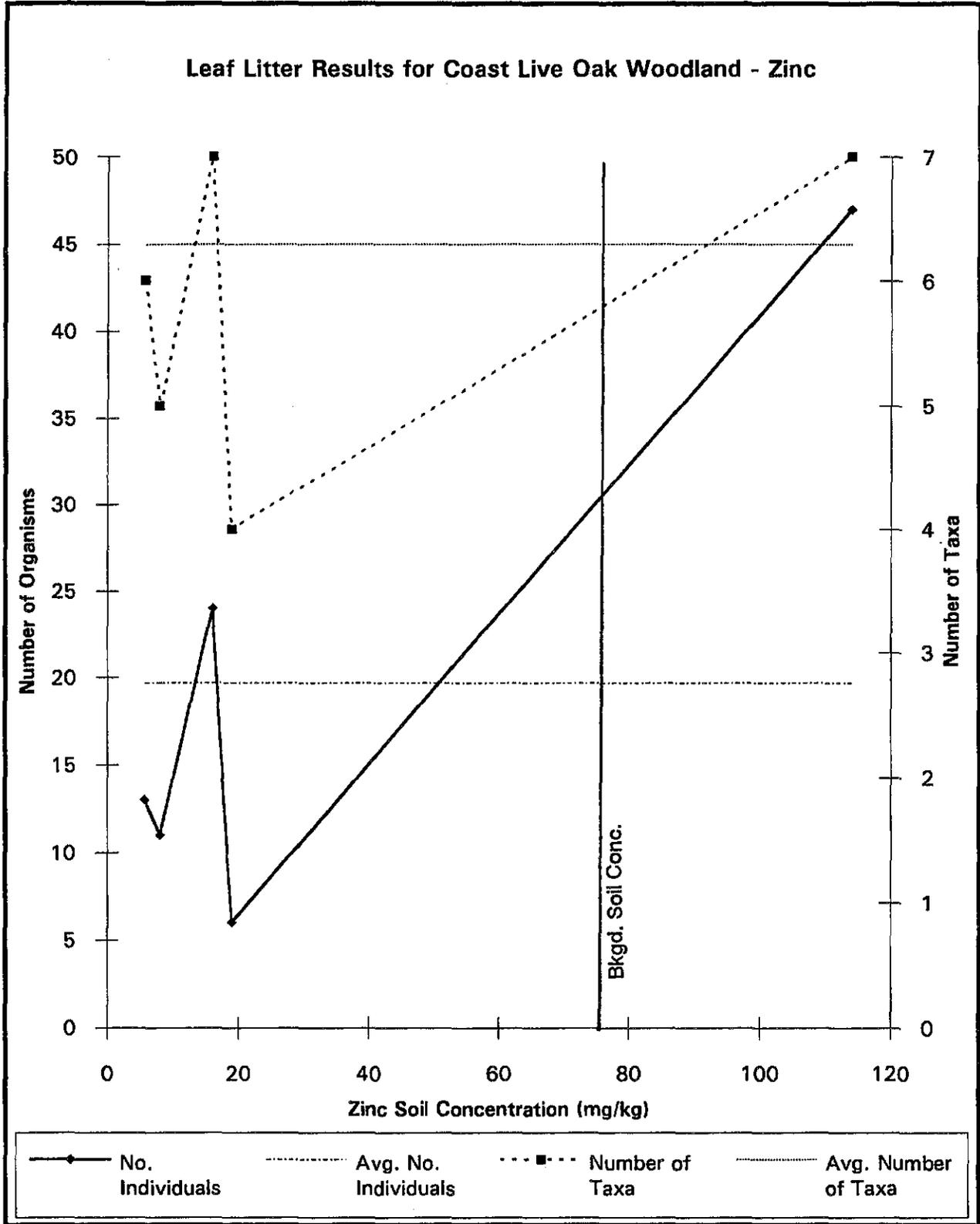


Figure H5. Litter Analysis for Coast Live Oak Woodland Habitat
 6 Transects (Sites 29, 31, and 35)
 Volume IV - Ecological Risk Assessment
 Fort Ord, California

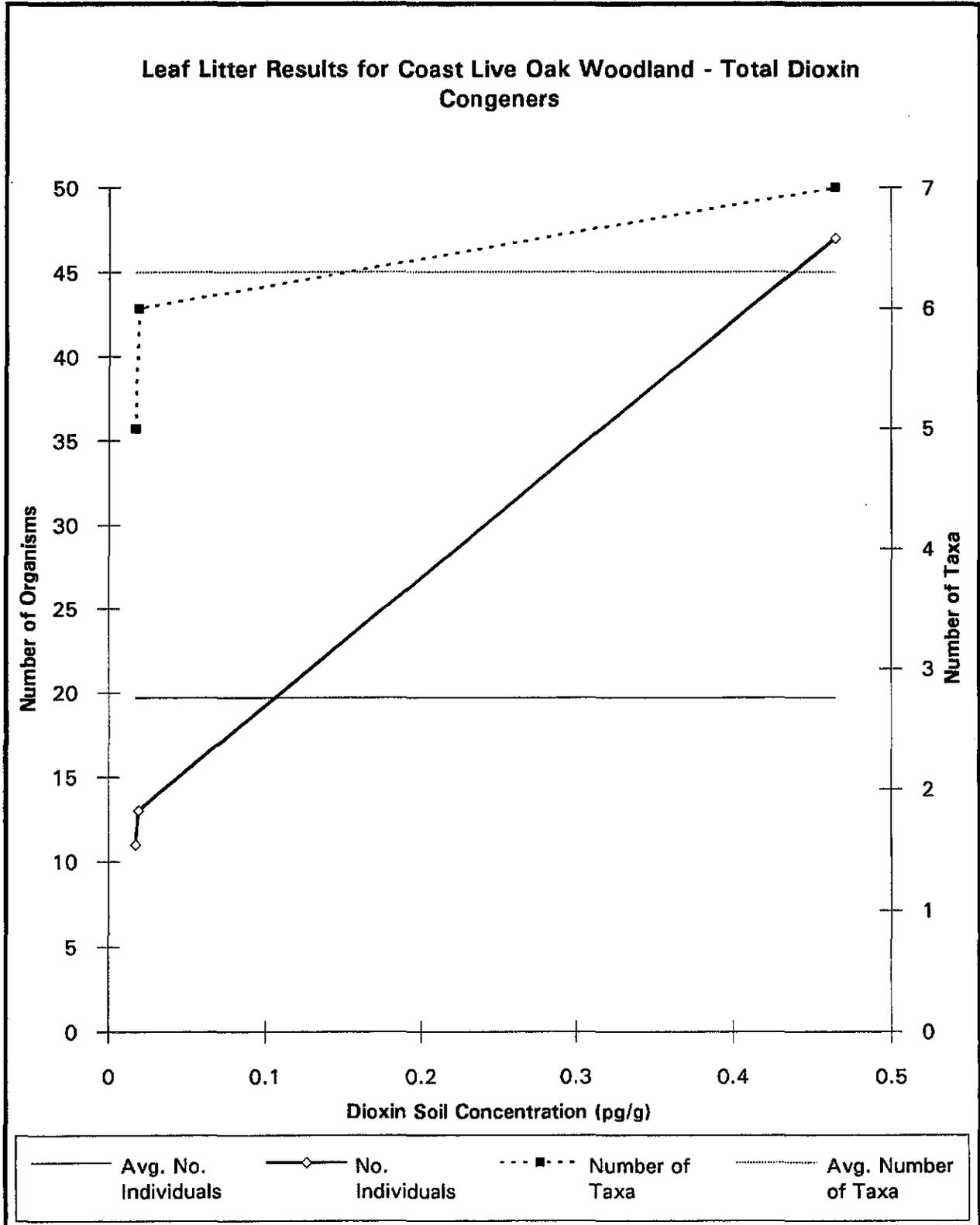


Figure H6. Litter Analysis for Central Maritime Chaparral Habitat
 11 Transects (Sites 16 and 35)
 Volume IV - Ecological Risk Assessment
 Fort Ord, California

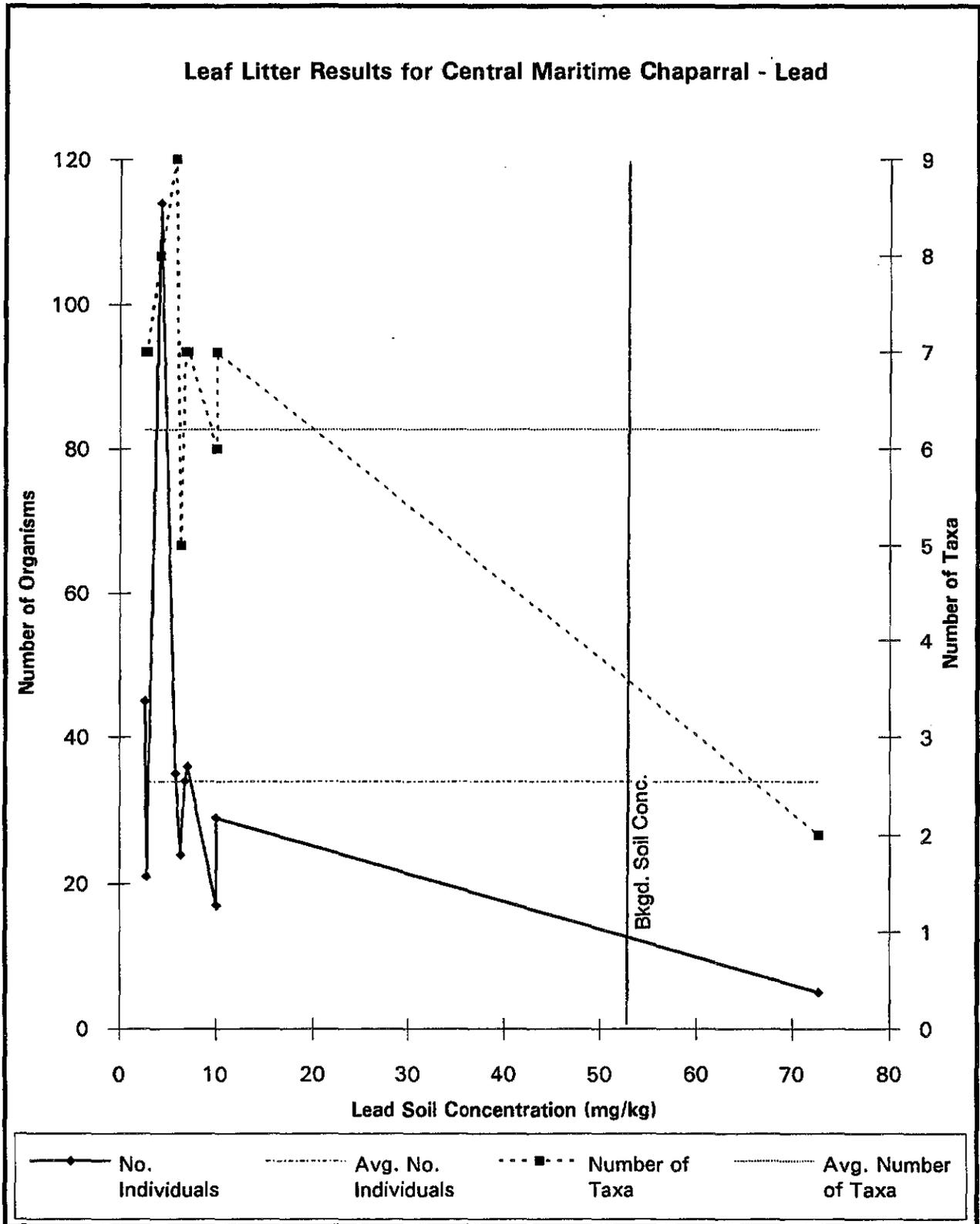


Figure H7. Litter Analysis for Central Maritime Chaparral Habitat
 11 Transects (Sites 16 and 35)
 Volume IV - Ecological Risk Assessment
 Fort Ord, California

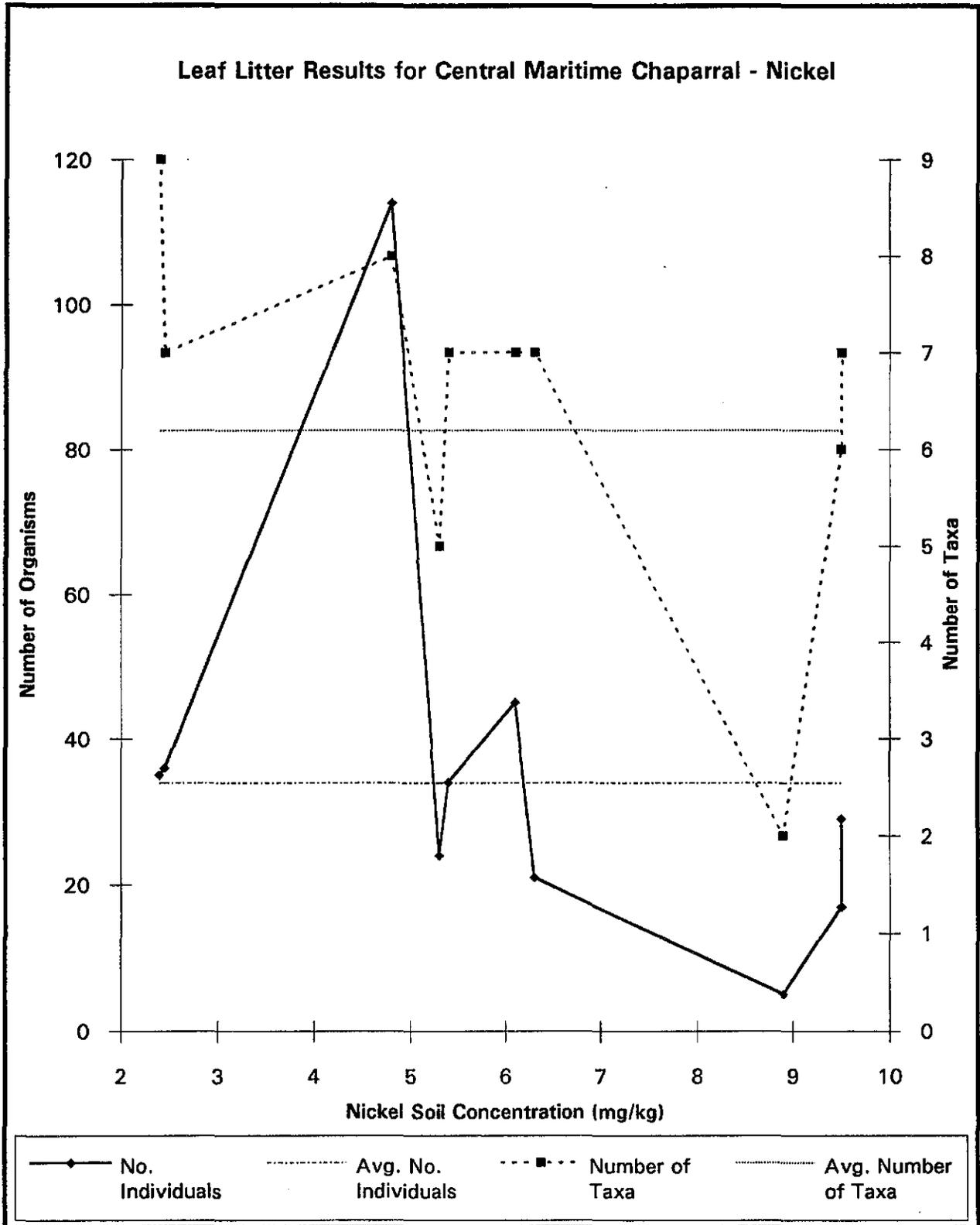


Figure H8. Litter Analysis for Central Maritime Chaparral Habitat
 11 Transects (Sites 16 and 35)
 Volume IV - Ecological Risk Assessment
 Fort Ord, California

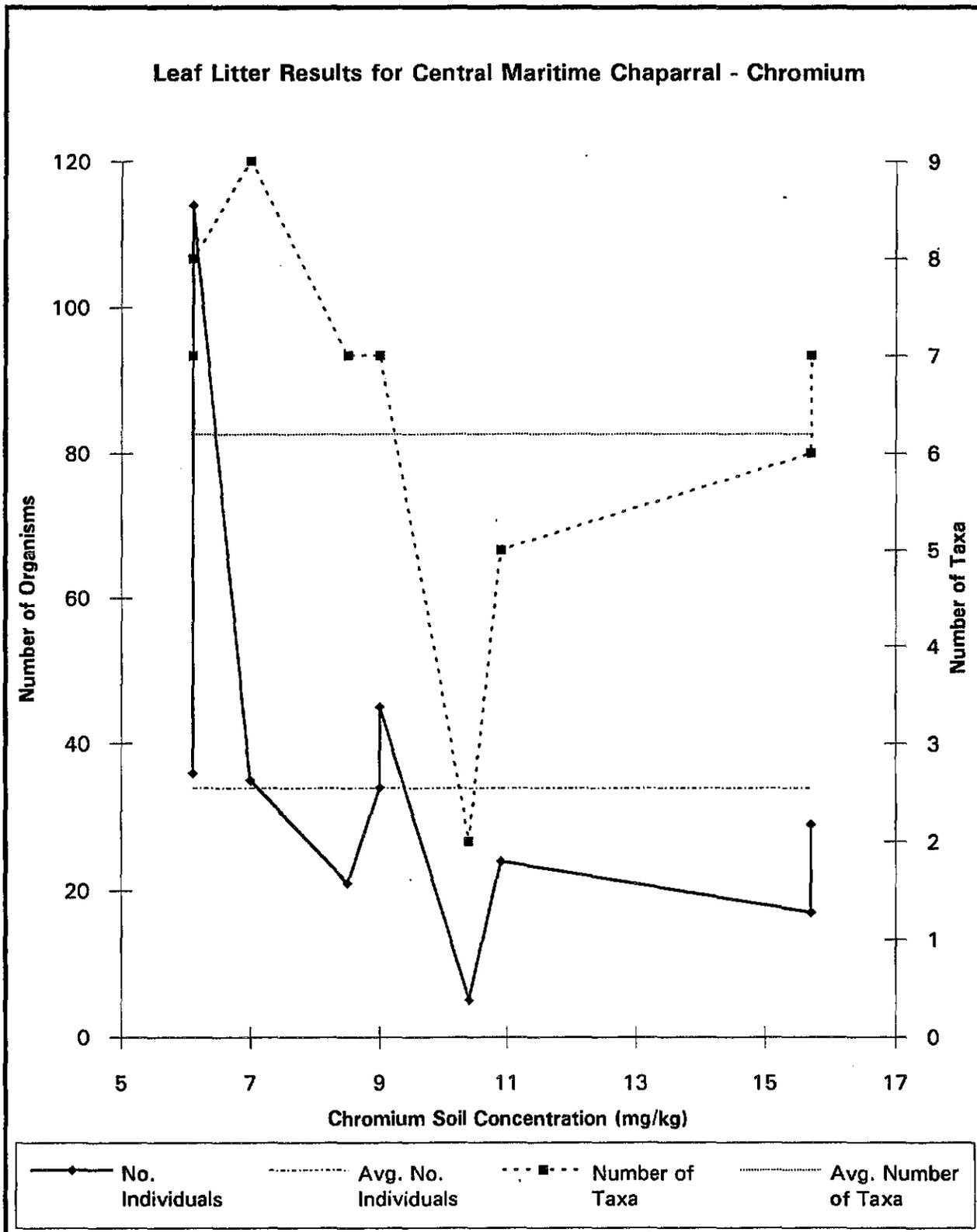


Figure H9. Litter Analysis for Central Maritime Chaparral Habitat
 11 Transects (Sites 16 and 35)
 Volume IV - Ecological Risk Assessment
 Fort Ord, California

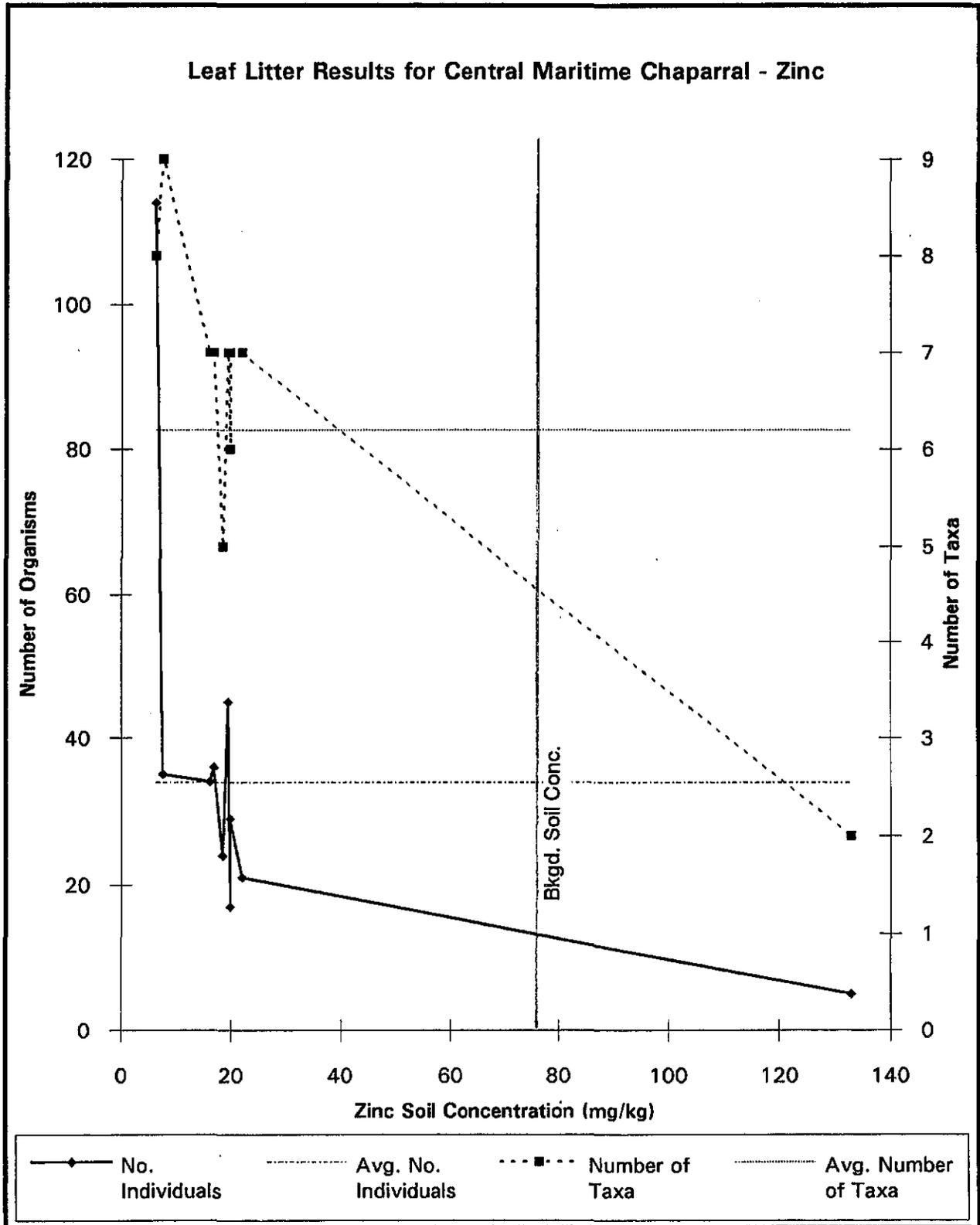


Figure H10. Litter Analysis for Upland Ruderal Habitat
 20 Transects (Sites 16, 24, 25, 29, and 35)
 Volume IV - Ecological Risk Assessment
 Fort Ord, California

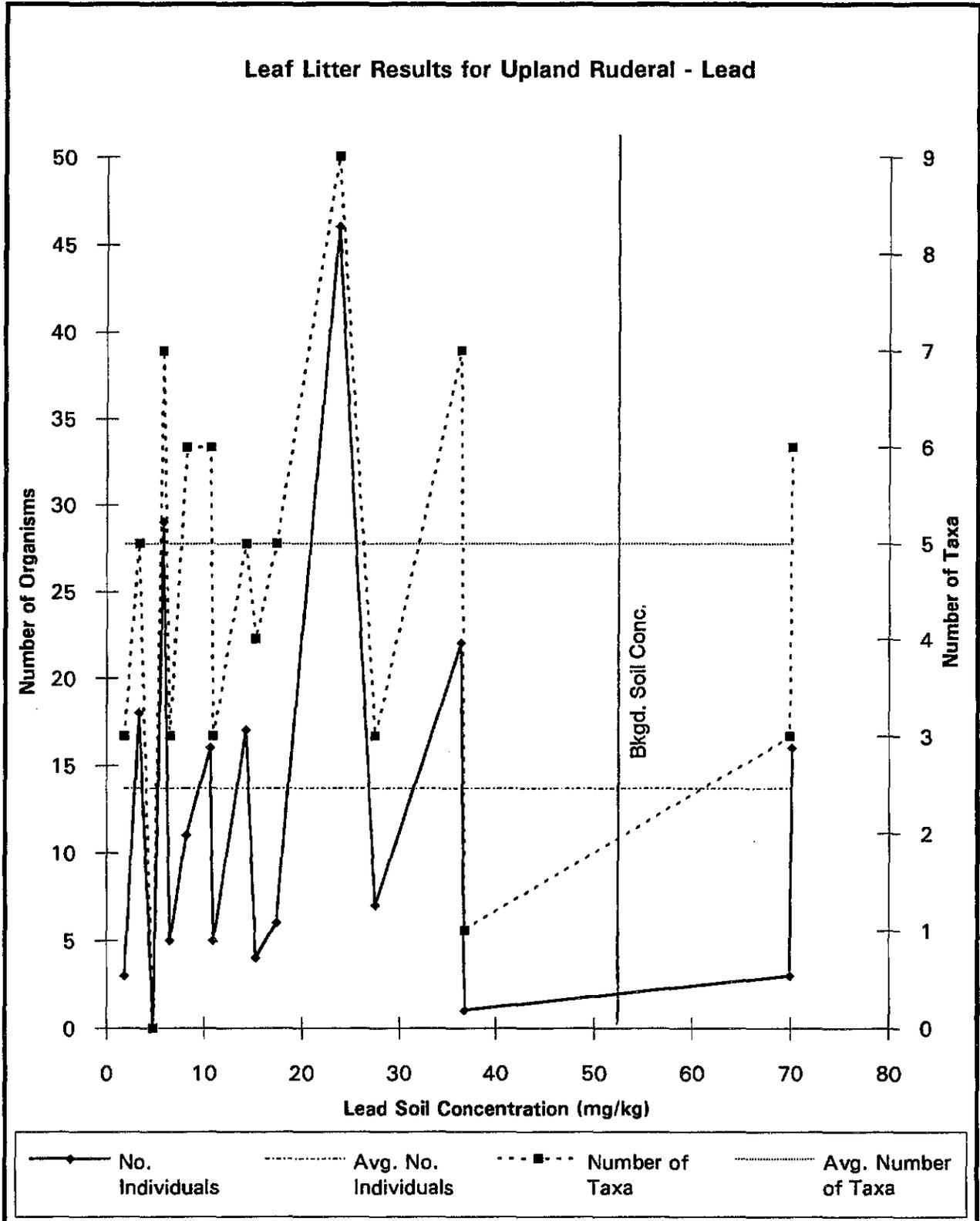


Figure H11. Litter Analysis for Upland Ruderal Habitat
 20 Transects (Sites 16, 24, 25, 29 and 35)
 Volume IV - Ecological Risk Assessment
 Fort Ord, California

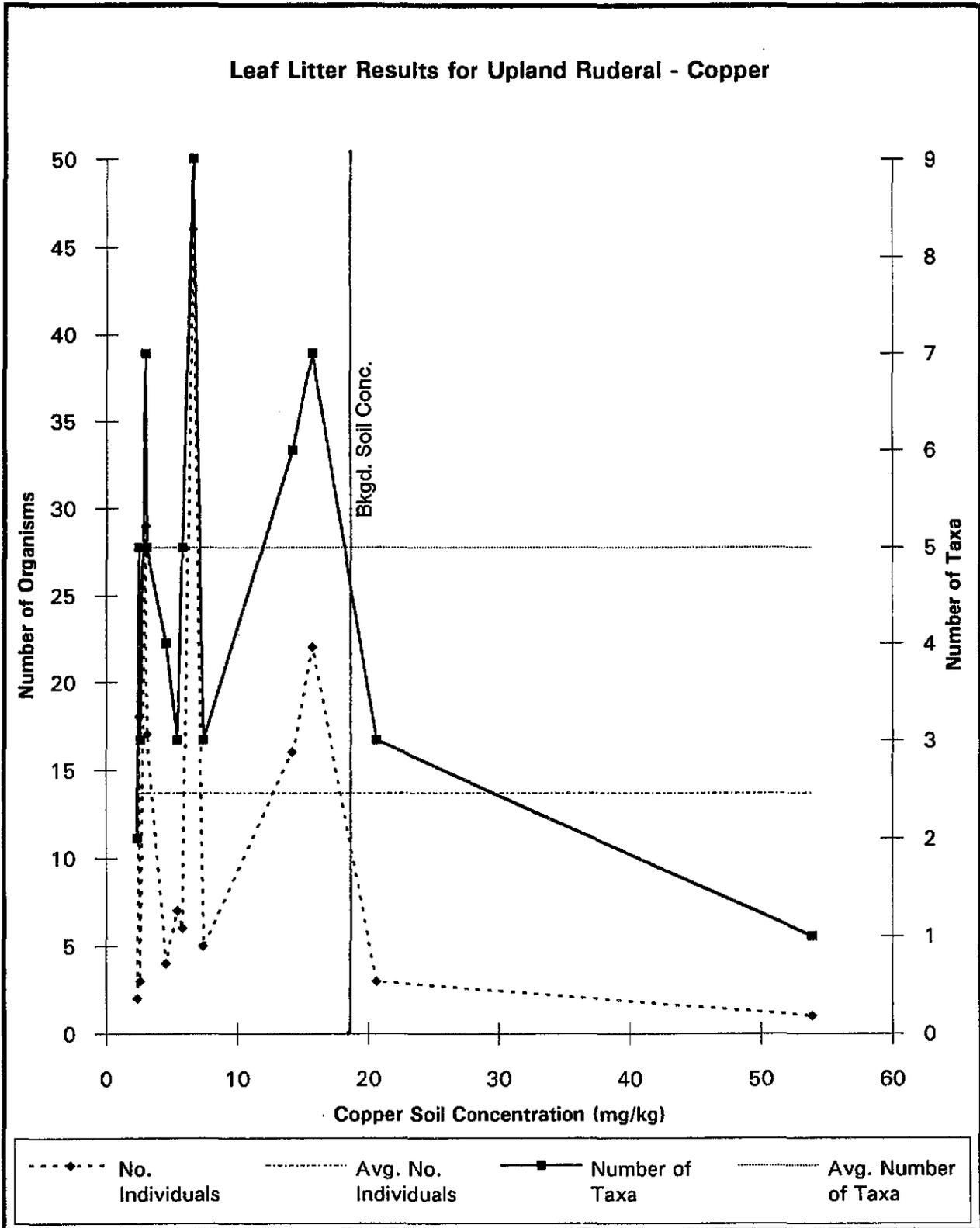


Figure H12. Litter Analysis for Upland Ruderal Habitat
 20 Transects (Sites 16, 24, 25, and 35)
 Volume IV - Ecological Risk Assessment
 Fort Ord, California

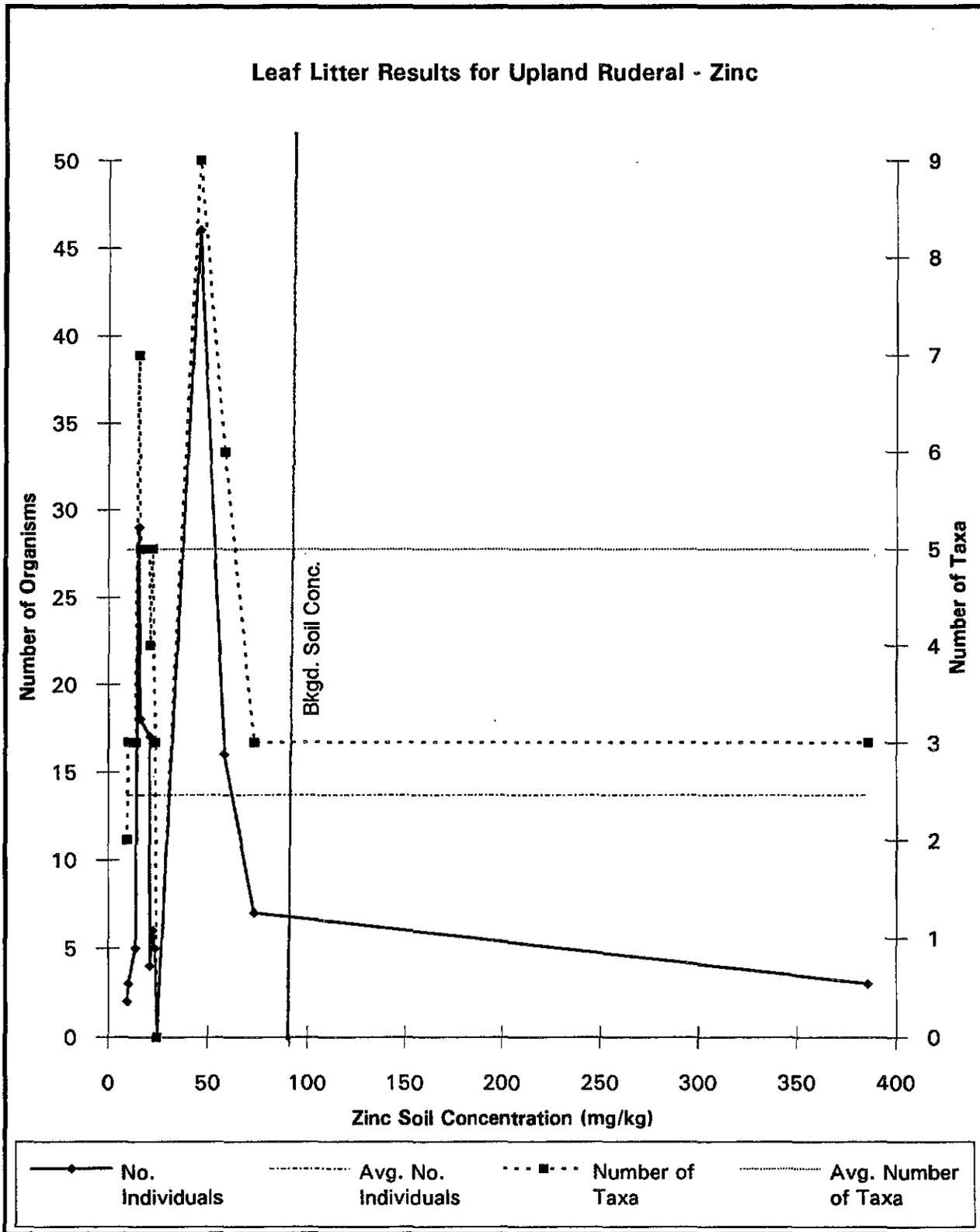


Figure H13. Litter Analysis for Upland Ruderal Habitat
 20 Transects (Sites 16, 24, 25, 29, and 35)
 Volume IV - Ecological Risk Assessment
 Fort Ord, California

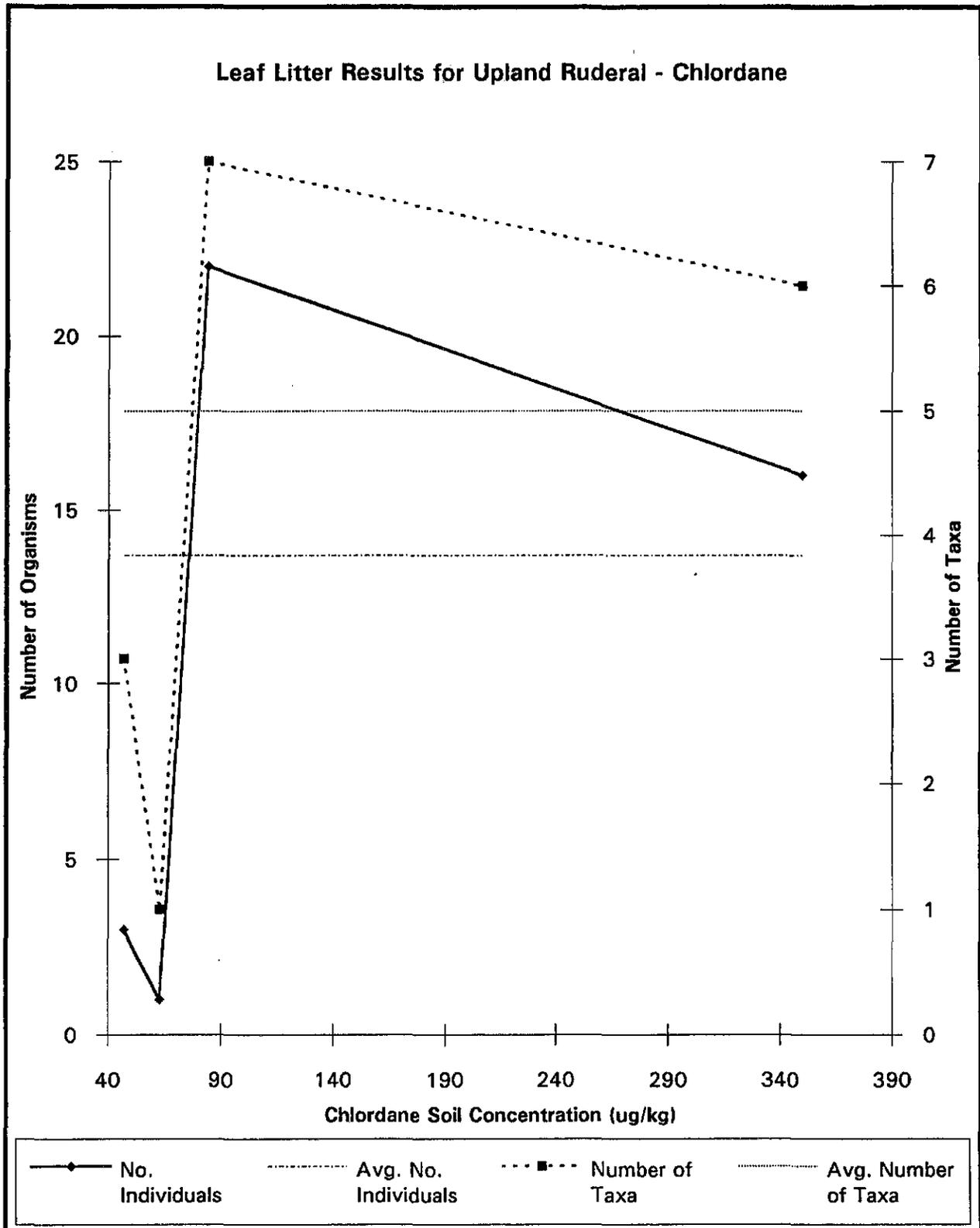


Figure H14. Litter Analysis for Upland Ruderal Habitat
 20 Transects (Sites 16, 24, 25, 29, and 35)
 Volume IV - Ecological Risk Assessment
 Fort Ord, California

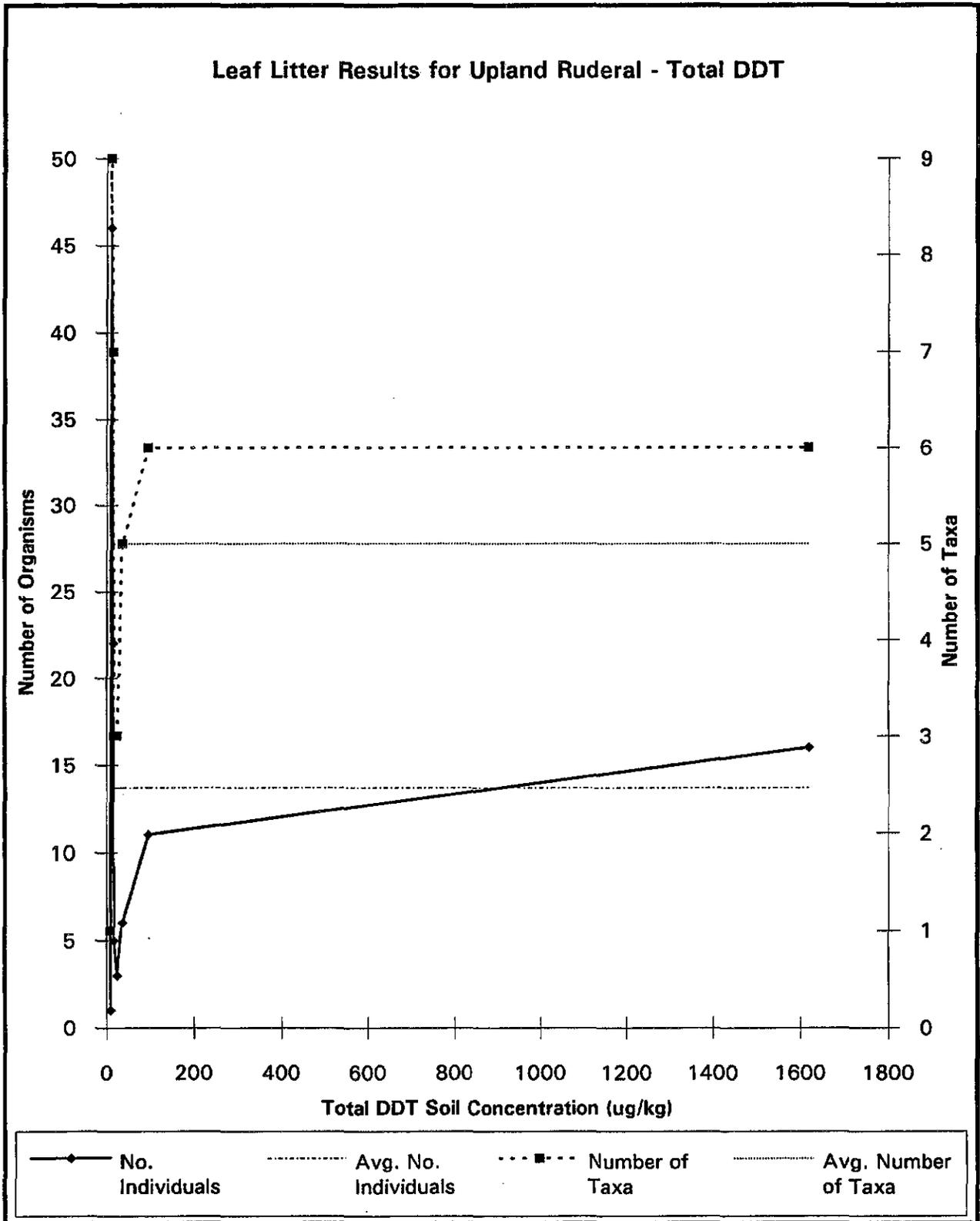
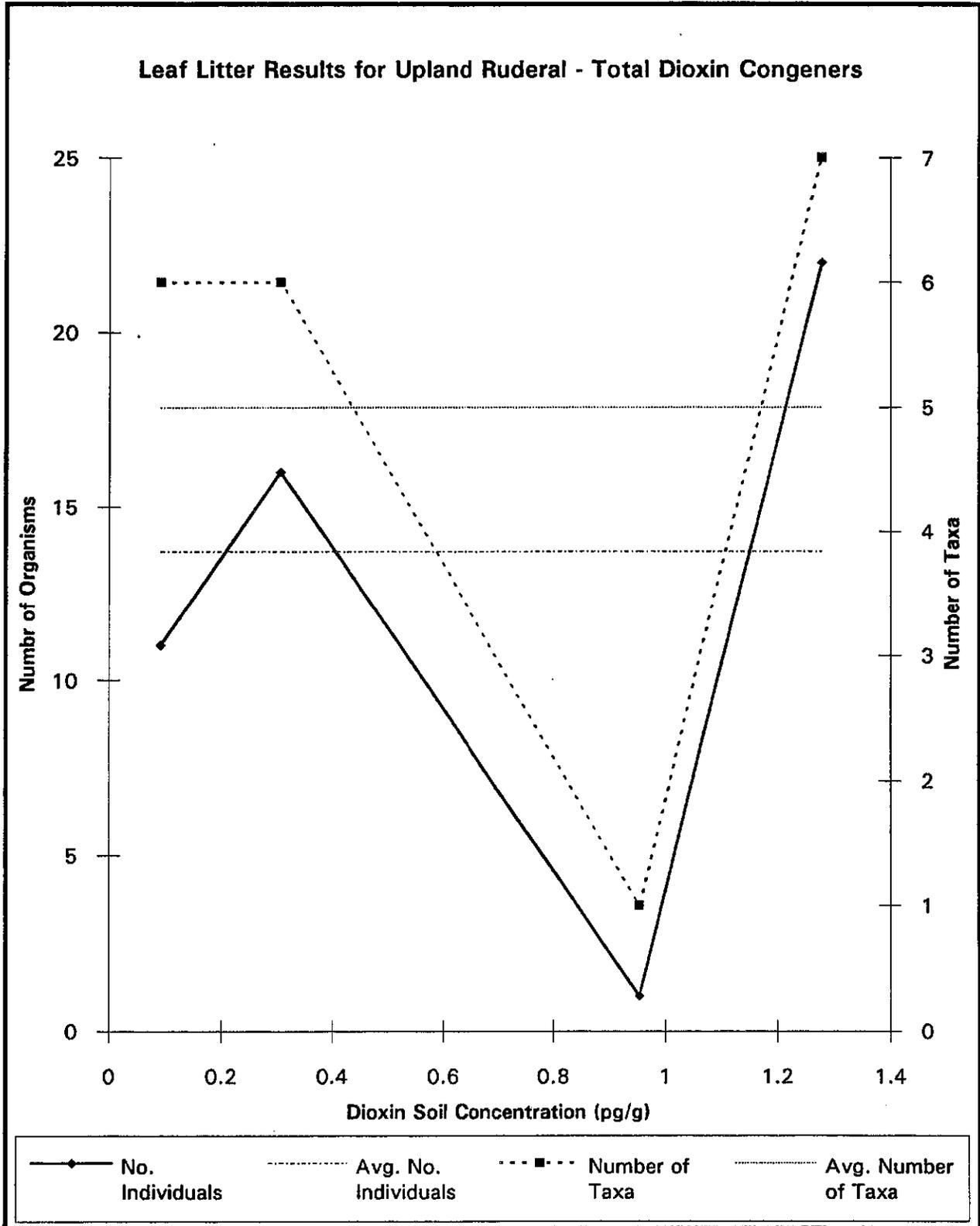


Figure H15. Litter Analysis for Upland Ruderal Habitat
 20 Transects (Sites 16, 24, 25, 29, and 35)
 Volume IV - Ecological Risk Assessment
 Fort Ord, California



H16. Leaf Litter Results for Coast Live Oak Woodland Habitat
 6 Transects (Sites 29, 31, and 35)
 Volume IV - Ecological Risk Assessment
 Fort Ord, California

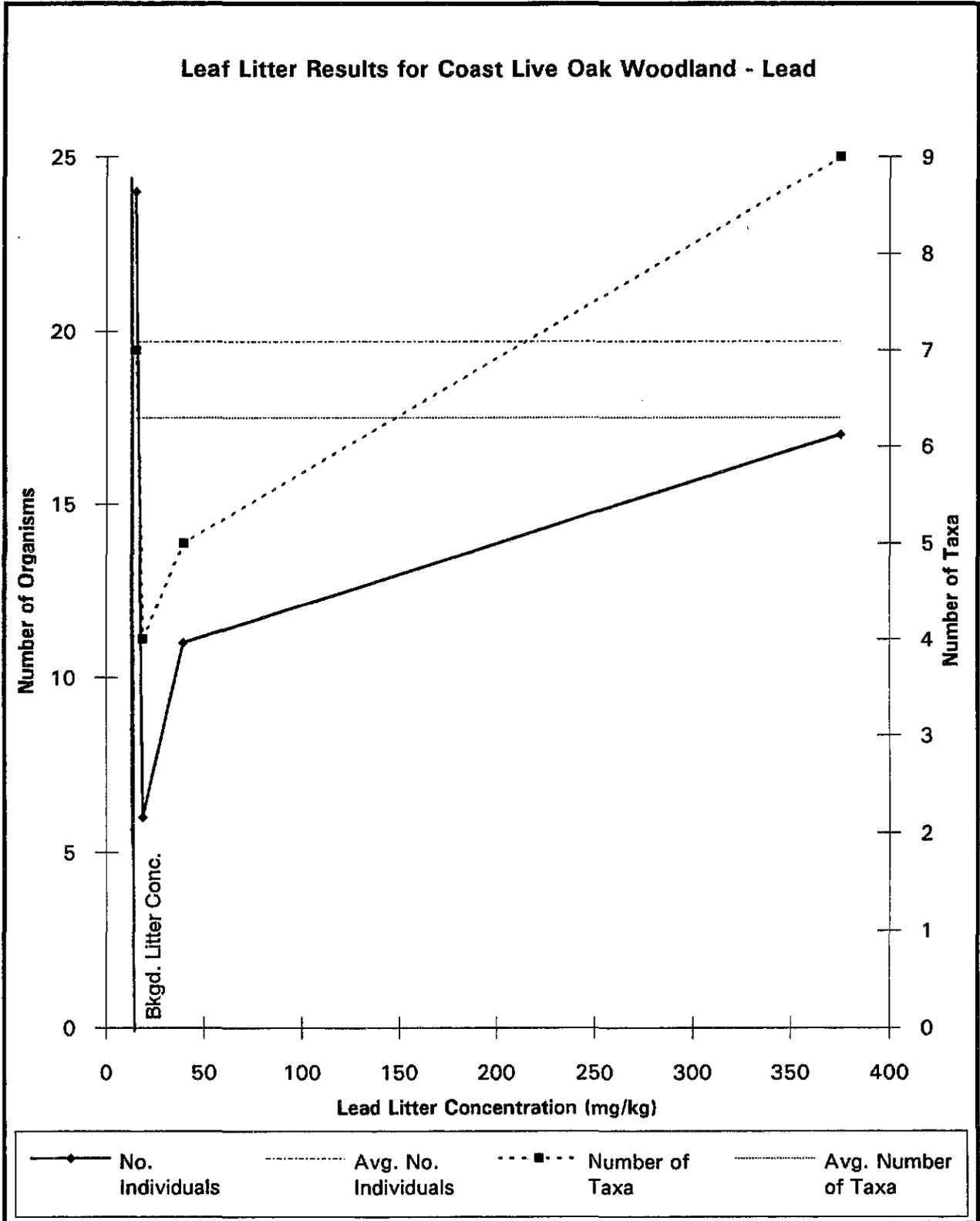


Figure H17. Leaf Litter Results for Coast Live Oak Woodland Habitat
 6 Transects (Sites 29, 31, and 35)
 Volume IV - Ecological Risk Assessment
 Fort Ord, California

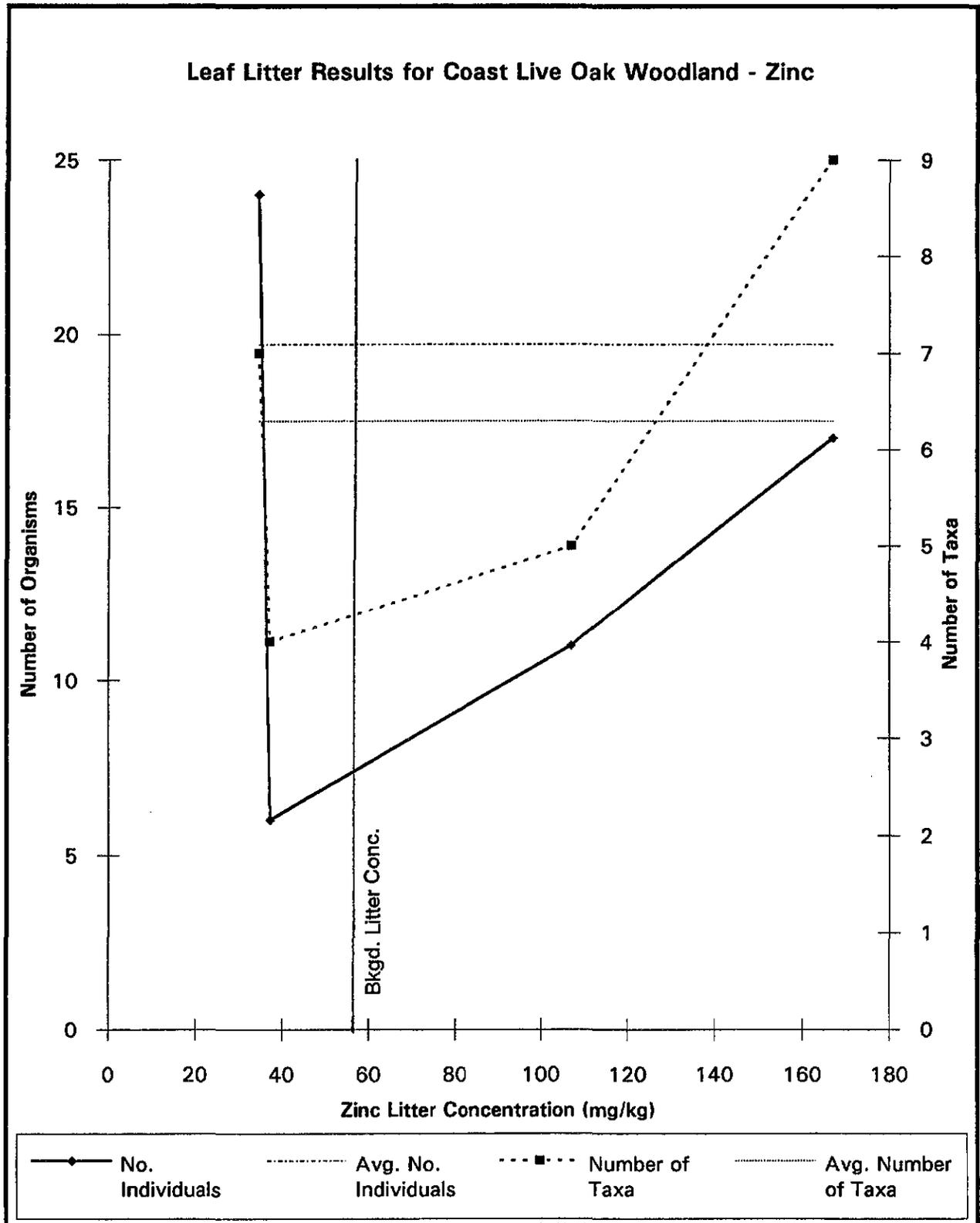


Figure H18. Leaf Litter Results for Upland Ruderal Habitat
 20 Transects (Sites 16, 24, 25, 29, and 35)
 Volume IV - Ecological Risk Assessment
 Fort Ord, California

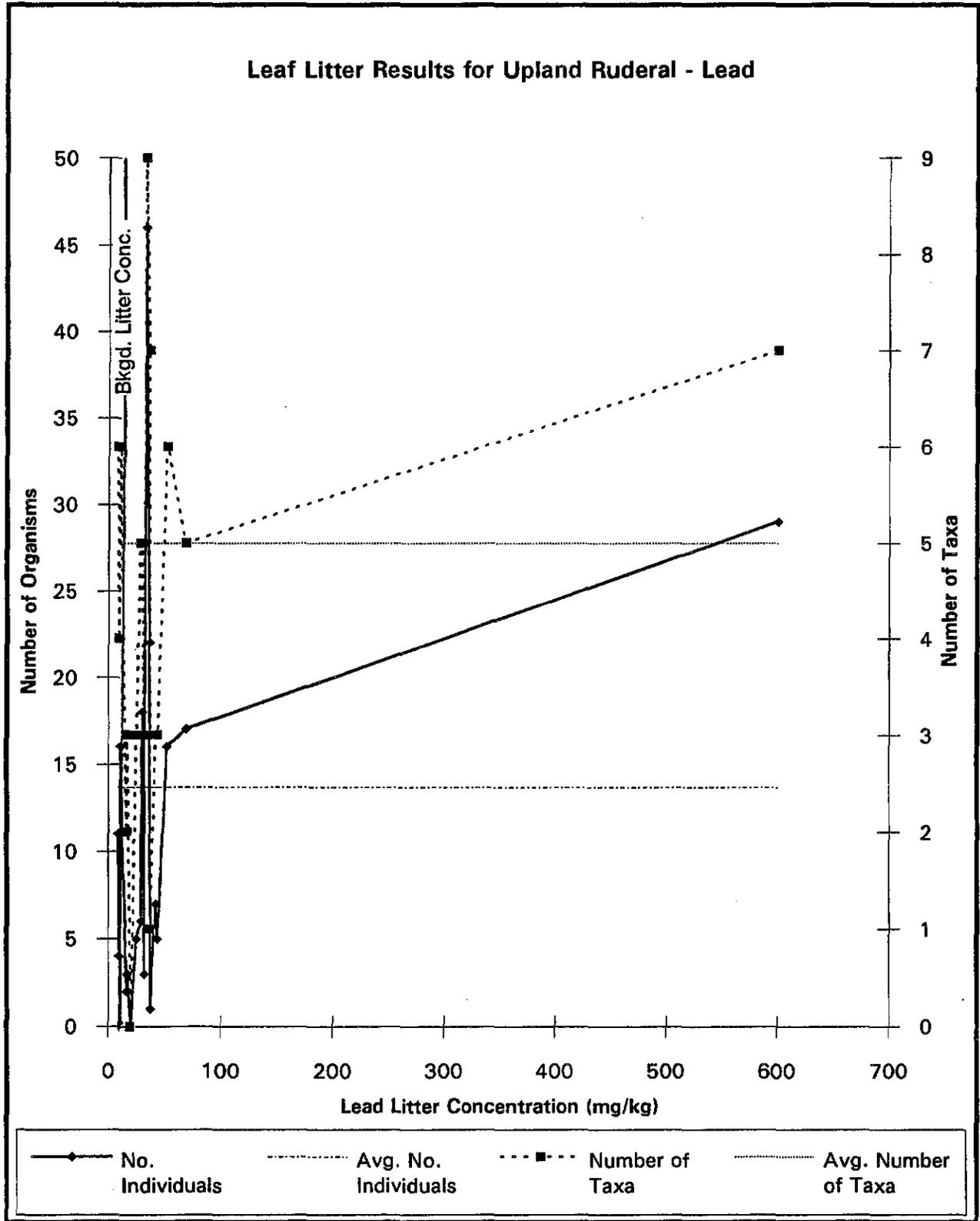


Figure H19. Leaf Litter Results for Upland Ruderal Habitat
 20 Transects (Sites 16, 24, 25, 29, and 35)
 Volume IV - Ecological Risk Assessment
 Fort Ord, California

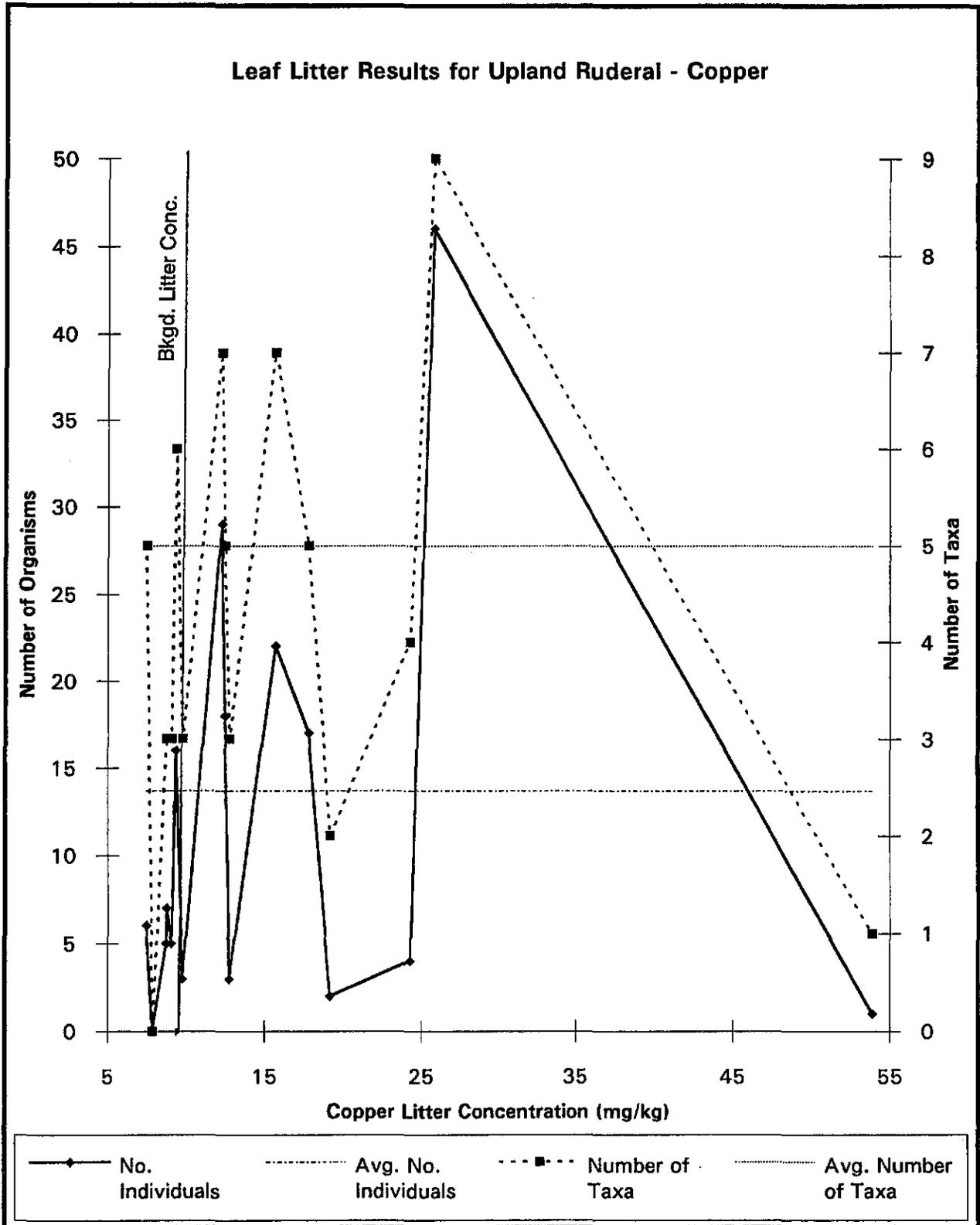
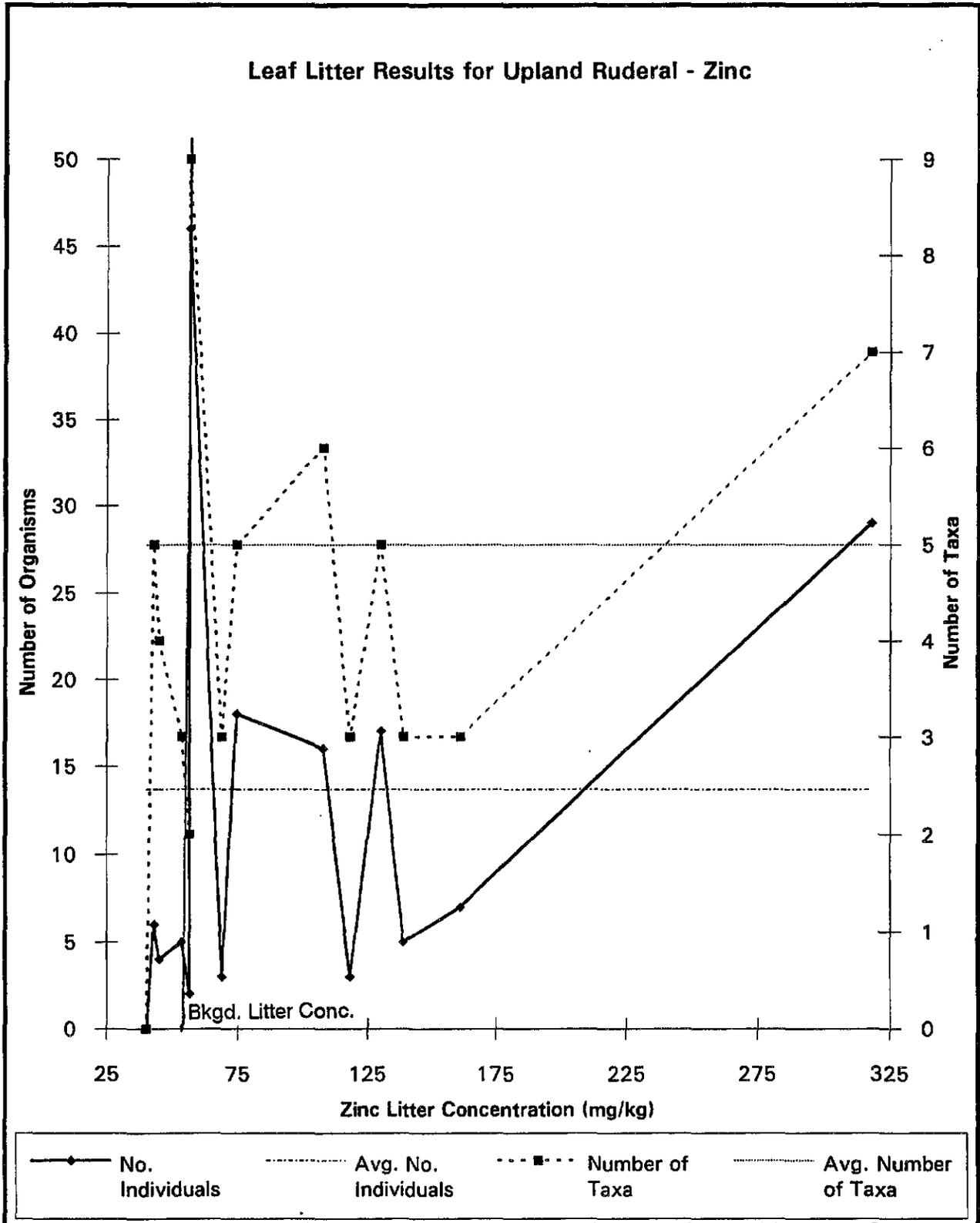
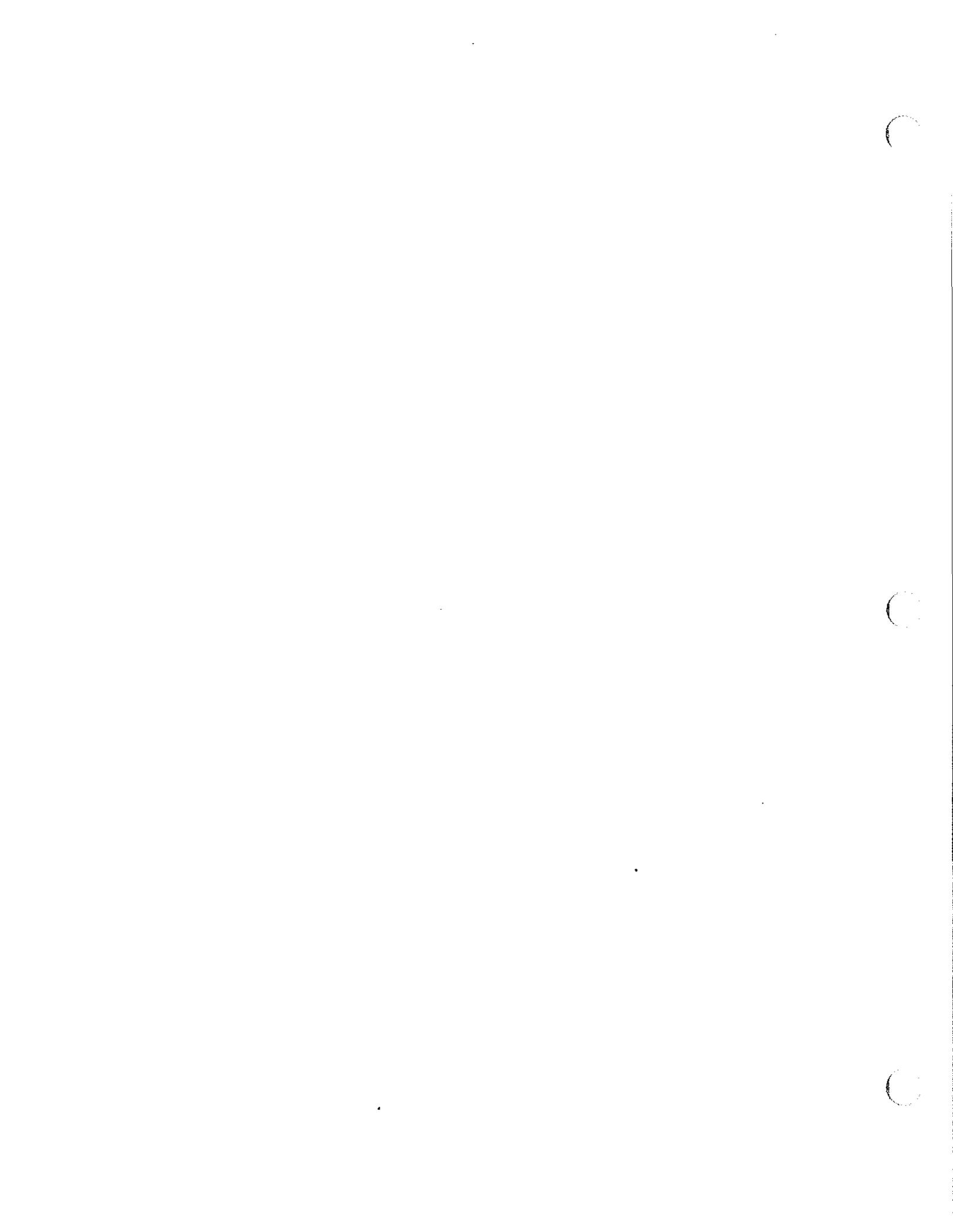


Figure H20. Leaf Litter Results fo Upland Ruderal Habitat
 20 Transects (Sites 16, 24, 25, 29, and 35)
 Volume IV - Ecological Risk Assessment
 Fort Ord, California



DILUTION MODELING



Dilution Modeling Spreadsheets

Basewide Annual Water Dilution

Area of Fort Ord	Acres	Conv. Factor (acre to SqFt)	Sq Ft
	2.80E+04	4.36E+04	1.22E+09
Rainfall	Inches	Conv. Factor (Inches to Ft)	Ft
	1.87E+01	1.20E+01	1.56E+00
Volume of Water	Cu Ft		
	1.90E+09		
Volume of Monterey Bay Restricted Area			
Area (4*4.5 nmi)	nmi	Conv. Factor (nmi to Ft)	Ft Sq Ft
	4.00E+00	6.08E+03	2.43E+04
	4.50E+00	6.08E+03	2.73E+04 6.65E+08
Min Depth			Avg Depth
	0.00E+00		1.25E+02
Max Depth			
	2.40E+02		
Volume of Water	Cu Ft		
	8.31E+10		
Average Annual Dilution		2.24E-02	
Dilution Factor		4.47E+01	

Basewide Annual Sediment Dilution

Area of Fort Ord	Acres	Conv. Factor (acre to SqFt)	Sq Ft
	2.80E+04	4.36E+04	1.22E+09
Universal Soil Loss	Loss/Acre	Tons/yr	conv. fact. Cu. Yds./yr
	2.81E-01	7.87E+03	1.3 6.05E+03
Volume of longshore sediment drift - southern cell			
Station 1	3.30E+05	Cu. Yds./yr	
Station 2	3.40E+05	Cu. Yds./yr	Average Drift
Station 3	5.00E+04	Cu. Yds./yr	2.85E+05
Station 4	4.20E+05	Cu. Yds./yr	
Average Annual Dilution		2.08E-02	
Dilution Factor		4.81E+01	
Cliff Erosion			
Marina to Fort Ord		1.52E+05	
Fort Ord to Sand City		2.07E+05	
Average		1.80E+05	
Average Annual Dilution		3.26E-02	
Dilution Factor		3.07E+01	

Average Soil Loss

Outfall	Area	USLE	
OF-01	2.01E+02	2.40E-01	48.24
OF-02	2.87E+02	2.40E-01	68.88
OF-03	2.88E+02	2.60E-01	74.88
OF-04	1.37E+03	3.00E-01	411
Area Weighted Soil Loss			0.280988

Dilution Modeling Spreadsheets

OF-01 Watershed Daily Dilution Based on Currents

	Acres	Conv. Factor (acre to SqFt)	Sq Ft
Area of Watershed	2.01E+02	4.36E+04	8.76E+06
	Inches	Conv. Factor (Inches to Ft)	Ft
Daily Rainfall	4.80E-01	8.33E-02	4.00E-02
Volume of Water	Cu Ft / Day 3.50E+05		
Volume of Monterey Bay Surf Zone			
	Current (cm/sec)	Conv. Factor (cm to in) (in. to ft)	(sec to day)
	1.00E+01	3.94E-01 8.33E-02	8.64E+04
Beach Slope		1.60E-02	1.60E-01
Tidal Height (ft)		5.40E+00	1.59E+06
Distance between tides		3.38E+02	
Cross Sectional Area		9.11E+02	
Daily Cross-sectional Area		4.56E+02	
Volume of Water	Cu Ft/day 1.29E+07		
Daily Dilution		2.64E-02	
Dilution Factor		3.79E+01	

OF-01 Watershed Sediment Loading Based on Rainfall

	Acres	Conv. Factor (acre to SqFt)	Sq Ft
Area of Watershed	2.01E+02	4.36E+04	8.76E+06
	Tons/yr	conv. fact.	Cu. Yds./yr
Bed Flow Sediment by Event	1.78E+00	1.3	1.37E+00
Suspended Sediment by Event	1.45E+00	1.3	1.12E+00
Total	3.24E+00	1.3	2.49E+00
	Loss/Acre	Tons/yr	conv. fact. Cu. Yds./yr
Universal Soil Loss	2.40E-01	4.82E+01	1.3 3.71E+01
Volume of longshore sediment drift - southern cell			
Station 1	3.30E+05	Cu. Yds./yr	
Station 2	3.40E+05	Cu. Yds./yr	Average Drift
Station 3	5.00E+04	Cu. Yds./yr	2.85E+05
Station 4	4.20E+05	Cu. Yds./yr	
	Rainfall Sediments	USLE	
Average Annual Dilution	8.74E-06	1.30E-04	
Dilution Factor	1.14E+05	7.68E+03	
Cliff Erosion			
Marina to Fort Ord	1.52E+05		
Fort Ord to Sand City	2.07E+05		
Average	1.80E+05		
Average Annual Dilution	1.39E-05	2.07E-04	
Dilution Factor	7.21E+04	4.84E+03	

Dilution Modeling Spreadsheets

OF-02 Watershed Daily Dilution Based on Currents

	Acres	Conv. Factor (acre to SqFt)	Sq Ft
Area of Watershed	2.87E+02	4.36E+04	1.25E+07
Daily Rainfall	Inches 4.80E-01	Conv. Factor (Inches to Ft) 8.33E-02	Ft 4.00E-02
Volume of Water	Cu Ft / Day 5.00E+05		
Volume of Monterey Bay Surf Zone			
Current (cm/sec)	1.00E+01	Conv. Factor (cm to in) (in. to ft) 3.94E-01 8.33E-02	(sec to day) 8.64E+04
Beach Slope		1.60E-02	
Tidal Height (ft)		5.40E+00	
Distance between tides		3.38E+02	
Cross Sectional Area		9.11E+02	
Daily Cross-sectional Area		4.56E+02	
Volume of Water	Cu Ft/day 1.29E+07		
Daily Dilution		3.73E-02	Dilution Factor 2.68E+01

OF-02 Watershed Sediment Loading Based on Rainfall

	Acres	Conv. Factor (acre to SqFt)	Sq Ft
Area of Watershed	2.87E+02	4.36E+04	1.25E+07
Bed Flow Sediment by Event		Tons/yr 3.20E+00	conv. fact. Cu. Yds./yr 1.3 2.46E+00
Suspended Sediment by Event		2.59E+00	1.3 1.99E+00
Total		5.78E+00	1.3 4.45E+00
Universal Soil Loss	Loss/Acre 2.40E-01	Tons/yr 6.89E+01	conv. fact. Cu. Yds./yr 1.3 5.30E+01
Volume of longshore sediment drift - southern cell			
Station 1	3.30E+05	Cu. Yds./yr	
Station 2	3.40E+05	Cu. Yds./yr	Average Drift
Station 3	5.00E+04	Cu. Yds./yr	2.85E+05
Station 4	4.20E+05	Cu. Yds./yr	
Average Annual Dilution		Rainfall Sediments 1.56E-05	USLE 1.86E-04
Dilution Factor		6.41E+04	5.38E+03
Cliff Erosion			
Marina to Fort Ord		1.52E+05	
Fort Ord to Sand City		2.07E+05	
Average		1.80E+05	
Average Annual Dilution		2.48E-05	2.95E-04
Dilution Factor		4.03E+04	3.39E+03

Dilution Modeling Spreadsheets

OF-03 Watershed Daily Dilution Based on Currents

	Acres	Conv. Factor (acre to SqFt)		Sq Ft
Area of Watershed	2.88E+02	4.36E+04		1.25E+07
	Inches	Conv. Factor (Inches to Ft)		Ft
Daily Rainfall	4.80E-01	8.33E-02		4.00E-02
Volume of Water	Cu Ft / Day 5.02E+05			
Volume of Monterey Bay Surf Zone				
		Conv. Factor (cm to in) (in. to ft) (sec to day)		
Current (cm/sec)	1.00E+01	3.94E-01	8.33E-02	8.64E+04
Beach Slope	1.60E-02			
Tidal Height (ft)	5.40E+00			
Distance between tides	3.38E+02			
Cross Sectional Area	9.11E+02			
Daily Cross-sectional Area	4.56E+02			
Volume of Water	Cu Ft/day 1.29E+07			
Daily Dilution	3.74E-02 Dilution Factor 2.67E+01			

OF-03 Watershed Sediment Loading Based on Rainfall

	Acres	Conv. Factor (acre to SqFt)		Sq Ft
Area of Watershed	2.88E+02	4.36E+04		1.25E+07
		Tons/yr	conv. fact.	Cu. Yds./yr
Bed Flow Sediment by Event		3.21E+00	1.3	2.47E+00
Suspended Sediment by Event		2.60E+00	1.3	2.00E+00
Total		5.82E+00	1.3	4.47E+00
	Loss/Acre	Tons/yr	conv. fact.	Cu. Yds./yr
Universal Soil Loss	2.60E-01	7.49E+01	1.3	5.76E+01
Volume of longshore sediment drift - southern cell				
Station 1	3.30E+05	Cu. Yds./yr		
Station 2	3.40E+05	Cu. Yds./yr		Average Drift
Station 3	5.00E+04	Cu. Yds./yr		2.85E+05
Station 4	4.20E+05	Cu. Yds./yr		
		Rainfall Sediments	USLE	
Average Annual Dilution		1.57E-05	2.02E-04	
Dilution Factor		6.37E+04	4.95E+03	
Cliff Erosion				
Marina to Fort Ord		1.52E+05		
Fort Ord to Sand City		2.07E+05		
Average		1.80E+05		
Average Annual Dilution		2.49E-05	3.21E-04	
Dilution Factor		4.01E+04	3.12E+03	

Dilution Modeling Spreadsheets

OF-04 Watershed Daily Dilution Based on Currents

	Acres	Conv. Factor (acre to SqFt)	Sq Ft
Area of Watershed	1.37E+03	4.36E+04	5.97E+07
	Inches	Conv. Factor (Inches to Ft)	Ft
Daily Rainfall	4.80E-01	8.33E-02	4.00E-02
Volume of Water	Cu Ft / Day 2.39E+06		
Volume of Monterey Bay Surf Zone			
		Conv. Factor (cm to in) (in. to ft) (sec to day)	
Current (cm/sec)	1.00E+01	3.94E-01 8.33E-02	8.64E+04
Beach Slope	1.60E-02		
Tidal Height (ft)	5.40E+00		
Distance between tides	3.38E+02		
Cross Sectional Area	9.11E+02		
Daily Cross-sectional Area	4.56E+02		
Volume of Water	Cu Ft/day 1.29E+07		
Daily Dilution	1.56E-01 Dilution Factor 6.41E+00		

OF-04 Watershed Sediment Loading Based on Rainfall

	Acres	Conv. Factor (acre to SqFt)	Sq Ft
Area of Watershed	1.37E+03	4.36E+04	5.97E+07
		Tons/yr	conv. fact.
Bed Flow Sediment by Event		4.13E+01	1.3
Suspended Sediment by Event		3.24E+01	1.3
Total		7.37E+01	1.3
	Loss/Acre	Tons/yr	conv. fact.
Universal Soil Loss	3.00E-01	4.11E+02	1.3
Volume of longshore sediment drift - southern cell			
Station 1	3.30E+05	Cu. Yds./yr	
Station 2	3.40E+05	Cu. Yds./yr	Average Drift
Station 3	5.00E+04	Cu. Yds./yr	2.85E+05
Station 4	4.20E+05	Cu. Yds./yr	
		Rainfall Sediments	USLE
Average Annual Dilution		1.99E-04	1.11E-03
Dilution Factor		5.03E+03	9.02E+02
Cliff Erosion			
Marina to Fort Ord	1.52E+05		
Fort Ord to Sand City	2.07E+05		
Average	1.80E+05		
Average Annual Dilution	3.16E-04		1.76E-03
Dilution Factor	3.17E+03		5.69E+02

**Table 1. Summary of Stormwater Dilutions
Volume IV - Baseline Risk Assessment, Basewide RI/FS
Fort Ord, California**

Outfall	Receiving Water	Averaging Period	Dilution
Fort Ord	Restricted Zone	annual	0.022
OF-01	Surf Zone	Daily	0.026
OF-02	Surf Zone	Daily	0.037
OF-03	Surf Zone	Daily	0.037
OF-04	Surf Zone	Daily	0.016

**Table 2. Summary of Sediment Dilutions
Volume IV - Baseline Risk Assessment, Basewide RI/FS
Fort Ord, California**

Outfall	Averaging Period	Dilution to Alongshore Sediment Drift		Dilution to Cliff Erosion	
		USLE	Rainfall	USLE	Rainfall
Fort Ord	annual	0.021	NC	0.033	NC
OF-01	annual	1.30E-04	8.70E-06	2.10E-04	1.40E-05
OF-02	annual	1.90E-04	1.60E-05	3.00E-04	2.50E-05
OF-03	annual	2.00E-04	1.60E-05	3.20E-04	2.50E-05
OF-04	annual	1.10E-03	2.00E-04	1.80E-03	3.20E-04

USLE Universal Soil Loss Equation
 NC Not Calculated

C

C

C

APPENDIX I
BUCKWHEAT ASSAY RESULTS (SITE 3)

DOCUMENT NO.:

PRT-25-4HHL-01-003

STUDY TITLE:

Buckwheat Assay, Fort Ord;

**Ecological Risk Assessment:
Root Elongation Test**

STUDY SPONSOR:

Harding Lawson Associates
Engineering and Environmental Services
105 Digital Drive
P.O. Box 6107
Novato, CA 94948

Study Monitor: Mark Stelljes
Project Manager: Donald R. Smallbeck

PERFORMING LABORATORY:

Plant Research Technologies, Inc.
525 Del Rey Avenue, Unit C
Sunnyvale, CA 94086

Principal Investigator: Scott L. Korney

STUDY NUMBERS:

PRT Project No. 4HHL-01
HLA Project No. 23366 06622

QUALITY ASSURANCE STATEMENT

It is the intent of Plant Research Technologies (PRT) Inc., that all studies conducted by our facility will be of the highest quality and meet or exceed the criteria promulgated by the EPA to assure the quality and integrity of the data generated. Study PRT-25-4HHL-01 was inspected by a representative of the PRT Quality Assurance Unit and the findings submitted to the Principal Investigator on the following dates:

<u>Inspection/Audit Date</u>	<u>Inspection/Audit Description</u>	<u>Report Date</u>
9/14/94	Protocol & Work Authorization	10/27/94
9/14/94	SOP #HHL-01-01	11/18/94
9/16/94	Test and Sample Preparations	10/27/94
11/16/94	Root Elongation/Hypocotyl Length Measurement Data	11/22/94
11/17/94	Study Notebook # 0025	11/22/94
11/21/94	Mass Determination Sheets	11/22/94
11/21/94	Dry Weight Data Sheets	11/22/94
11/23/94	Seed Germination Materials	11/23/94

The final audit of all records was completed by the PRT Quality Assurance Unit on November 23, 1994, the exception being, that the raw data from analysis of the soil elutriate and plant tissue for metal concentration (performed by Quanterra Laboratories) were not audited by PRT's QAU. All specimens and raw data are archived at:

Plant Research Technologies, Inc.
525 Del Rey Avenue, Unit C
Sunnyvale, CA 94086

At a prescribed time after submission of the final report to the sponsors, soils and related materials will be transferred into the possession of Harding Lawson Associates. A copy of the final report and raw data will be retained by PRT.

Signed: ESPA
Quality Assurance Unit Representative

Date: 11/23/94

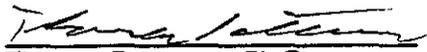
Name: Earl P. A. Smart

CERTIFICATION OF AUTHENTICITY

We the undersigned, hereby declare that the study described herein was performed at Plant Research Technologies, Inc. according to the procedures described herein, and that this report provides a true, unaltered, and accurate record of the results obtained.


Scott Korney
Study Director

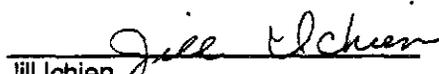
11-28-94
Date


Thomas Patterson, Ph.D.
Sr. Research Scientist
& Statistician

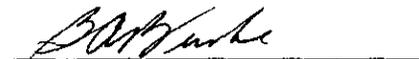
11-28-94
Date


Donna Goodson
Research Associate

11.28.94
Date


Jill Ichen
Research Associate

11-28-94
Date

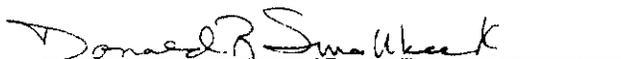

Basil A. Burke, Ph.D.
President

11-28-94
Date

PLANT RESEARCH TECHNOLOGIES, INC.

SPONSOR CERTIFICATION

Harding Lawson Associates certifies that Plant Research Technologies, Inc.'s Report No. PRT-25-4HHL-01-003 for Project No. PRT-25-4HHL-01 (HLA Project No. 23366 06622) is a complete and unaltered copy of the report as provided by the analytical testing facility.


Donald R. Smallbeck
Harding Lawson Associates

11/30/94
Date

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1.0. EXECUTIVE SUMMARY

Eighteen different soil samples collected from the Fort Ord areas, and one commercial sand sample (30 mesh, washed quartz sand) comprised the soils used in this study. These samples represented soils which varied in the density of spent bullets and bullet fragments, and were initially classified on the basis of visual inspection by field technicians (reporting 0 to approximately 90 percent bullets). The seeds used as test species in this study were collected from flowering parts of *E. latifolium* and *E. parvifolium* species which grew in the areas from which soils were collected. Flowers of the test species were collected from Fort Ord test locations by Harding Lawson and Associates (HLA) and delivered to PRT on August 12, 1994. The flowers were subsequently cleaned and separated for seeds. In addition, seeds of *E. latifolium* and *E. parvifolium*, collected from San Francisco and Santa Barbara coastal regions, respectively, were used as surrogate references.

The test soils were collected by HLA and arrived *via* courier at PRT on September 16, 1994. Elutriate solutions prepared from the various soils were dosed to the replicate seed treatments on September 18, 1994 and treatments were incubated for seven (7) days in the dark. Subsamples of soils and elutriate solutions were sent to Quanterra Laboratories, West Sacramento, CA for analysis for antimony, chromium, copper, lead and zinc. In addition, the total organic content (TOC) of the soils was determined.

At the conclusion of the treatment period, September 25, 1994, separate measurements for the root and hypocotyl portions of each germinated seedling were recorded. The germination results, hypocotyl length and root length were then statistically analyzed.

The pH of elutriates obtained from soils on which *E. parvifolium* and *E. latifolium* grew ranged from 5.31 to 7.14 and from 5.45 to 7.09, respectively. This is generally considered an acceptable pH range¹ for growing plants. No correlation was found between the pH of the elutriates and the observed measurement endpoints.

The conductivity (mmhos/cm) of elutriates from soils of *E. parvifolium* and *E. latifolium* ranged from 0 to 200, and from 0 to 150, respectively. This represents extremely low salt levels¹ and was considered not significant in the seed development results.

Individual analysis of variance (ANOVA) were conducted for each test species. When the ANOVA detected a significant difference of treatments, the treatment means were compared using a Least Significant Difference test (LSD). Means that differed by more than the LSD value were determined to be significantly different.

For *E. parvifolium*, the only statistically significant treatment difference found was a reduction in root length of seeds treated with elutriate of soil R1-2 (elutriate containing 7,010 ppb lead). This elutriate is high in total metals,

antimony, copper, lead, and zinc. In addition, the soil from which it was derived contained 16.4% bullets based on sieving.

For *E. latifolium*, statistically significant differences were found for treatments involving three elutriates. Statistically significant treatment differences were observed for elutriates from soils of ranges R17-2a and 2b, and R17-2c (elutriates containing 3,350 and 1,520 ppb lead, respectively). These elutriates are high in total metals. The related soils contained bullet densities (% bullets) of 12.5 and 33.9 percent, respectively. The elutriate from the unsieved soil (range R1516-1h) had significantly lowered germination percent and hypocotyl length. This elutriate had 417 ppb total metals, the major quantity of which (297 ppb) was zinc. The original soil contained 8.2% bullets, based on sieving. The elutriate from this sieved soil was associated with lower zinc and total metal contents, but had a higher antimony concentration. This latter elutriate had significantly shorter hypocotyl length, but seed germination and root length were not different.

In few cases, lowered growth was identified with elutriates which contained low lead and total metal concentrations. However, because of statistically significant differences at low metal concentrations, the potential for other chemicals, e.g. pesticides, to produce negative growth findings may provide the basis for better understanding the cause of these differences. The limited size and scope of this study do not provide sufficient data to form definitive conclusions.

Examination of the elutriate metal concentrations and the relationship between the germination and growth of buckwheat seed suggests a link between the elutriate metal (lead) concentration and the measured endpoints. From these data it appears that the soluble metal concentrations of these soils may be related to the germination and growth of *E. parvifolium* and *E. latifolium*. There is a positive correlation between the elutriate metal content, the soil metal and the percent of bullets in these soils. However, the relationship of these to germination and growth is not clear and may relate to other factors, such as the age of the bullets in the soil and the metallic composition.

The significant differences found in this study suggest that in general, reductions in *E. parvifolium* and *E. latifolium* root lengths may occur in soils containing bullets with lead levels as low as 928 ppm (elutriate concentration 1,520 ppb) and bullet densities as low as 12.5 % by weight. Although not as consistent, the effects on seed germination and hypocotyl length followed similar trends. In other cases, those trends associating lower germination, and longer root and hypocotyl length with higher elutriate concentrations were absent or reversed.

When taken as a whole, these data do not indicate that soluble metals concentrations in soil effect plant germination and growth at the Fort Ord trainfire ranges.

This evaluation of the elutriates on seed germination, hypocotyl length, and root length provide information on the expected early development of *Erigonium spp.*

seeds in the Fort Ord test soils. It completes the first of two related tests. The second test, that of plant bioaccumulation, involves the growth of plants in these same test soils and should be completed during the first quarter of 1995. The plant bioaccumulation test was designed to estimate the ability of germinated seedlings to survive in these test soils, and to estimate the uptake of metals into the plants. It is also expected to establish correlations between bullets, soil metals and seedling growth.

2.0 INTRODUCTION

Beachfront areas at Fort Ord, California were used as small arms target firing ranges and many spent bullets are present in near-surface dune sand in those areas. These bioassays were undertaken to evaluate potential toxicity of metal constituents in the bullets and sand on the local flora. Two plant species which grow in the dunes were used: coast buckwheat (*Erigonium latifolium*) and dune buckwheat (*Erigonium parvifolium*). Flower samples and co-located soil samples were collected from areas of low and high bullet density at the soil surface and from reference areas initially presumed to be unaffected by the trainfire ranges. Seeds from the flowers were germinated and grown *in vitro* with aqueous extracts (elutriates) of the soil samples. *E. latifolium* and *E. parvifolium* seeds from a different source were also treated with the elutriates. Metals concentrations in the soil, non-seed plant material, and elutriate solutions were measured by Quanterra Laboratories of West Sacramento, California.

The bioassay was performed by Plant Research Technologies, Inc. (PRT) between September 14, 1994 and September 25, 1994. The measurement endpoints used were germination, root elongation, and hypocotyl length. Statistical analyses were also performed by PRT to compare the treatment differences of soil elutriates on the bioassay endpoints by analysis of variance (ANOVA) and to identify correlations between the bioassay endpoints and metals concentrations measured. The bioassay test procedures were adapted from the Lettuce Root Elongation test method presented as Section A.8.7 of EPA's 1988 document *Protocols for Short-Term Toxicity Screening of Hazardous waste sites* (EPA 600/3-88/029).²

This report presents the methods, results, and statistical analysis used, and a discussion of the conclusions and inferences made.

3.0. CHARACTERIZATION OF ASSESSMENT PARAMETERS

3.1 Test Plant Species

The test plant species used in this study are listed in Table 1 according to the range from which they were collected. Seeds were obtained from five collections of flowers of *E. parvifolium*, identified with PRT ID number RS00086 A to E, and five collections of flowers of *E. latifolium*, identified by PRT ID number RS00086 F to J. The first column identifies the ranges on the Fort Ord sites from which the flowering parts of *E. parvifolium* and *E. latifolium* were collected. The second column contains the ID of the related seed lots. Since these test species were wildland plants and not readily germinated, the conditions of germination for these species were optimized prior to the study. Milli-Q water was used in these optimization tests. The results of these preliminary germination evaluations and the identification and characterization of the seeds are summarized in Table 1.

3.2 Test Soils

Eighteen (18) samples of test soils were collected by HLA from ranges within the Fort Ord site. These ranges corresponded to areas from which seeds of *E. parvifolium* and *E. latifolium* were collected from stands of each species.

Table 2 and Table 3 identify the different test systems. These include the seeds ID, the related soil ID and the corresponding soil elutriates (see definition below) used in the treatments. These tables also summarize the results of sieving the soil and measuring pH and conductivity of the solutions obtained from extracting subsamples of the soil with Milli-Q water. These aqueous soil extracts, referred to herein as elutriates, were used to treat seeds of *E. latifolium* and *E. parvifolium* *in vitro*. Abstracts of HLA notes recorded at the time of collecting the soils are shown in the second column of each table.

- *E. parvifolium* soil pH values ranged from 5.31 to 7.14, with conductivity values from 0 to 200 $\mu\text{mhos/cm}$.
- *E. latifolium* soil pH values ranged from 5.46 to 7.09, with conductivity values from 0 to 150 $\mu\text{mhos/cm}$.
- The pH of the sand elutriate was 7.13.

In some cases the classification of the soil samples based on field observations did not coincide with the laboratory results from sieving aliquots of the soil. In the first case, although the soil samples from the range R8-1a was classified as high on the basis of field observation the

percentage of bullets discovered after sieving was 0 %. Secondly, range R8-2c was classified as low (< 1% bullets) by field observation, but the bullet density (% bullets) found by sieving aliquots of this soil was 21.4 %. In the case of soil sample R1516-1h, the bullet density was determined by sieving to be 8.2 %. On the basis of the field observation this was considered a reference. As a result of the dichotomy of classifications, bioassay results were relative to the chemical concentration of metals found in soils and elutriates rather than in bullet density.

3.3 Experimental Design

The experimental design and treatment number designations are shown in Figure 1. At the time of designing the experiments, classifications of seed lots, related soil samples and the respective elutriates as either high, low or reference was based on the field observations of bullet density (first column). The concentration of lead in the elutriates is shown in the second column for comparison. The experimental design contained thirty-seven treatments. Each treatment was assigned a number (1 to 37) which consisted of the application of a soil elutriate to a seed lot. The first column indicates the elutriate (ten for *E. parvifolium* and eleven for *E. latifolium*). The top row of each species indicates the respective seed lots (six for each species).

Among the *E. parvifolium* treatments, each seed lot was treated with elutriate from sample G (soil ST1a to 1f), a common reference, and each seed lot of the *E. latifolium* treatments was treated with elutriate of sample P (soil R1516-1a to 1f).

Sand was included as a "soil" sample in order to indicate response and to provide an independent reference when necessary.

The measurement endpoints used in this study were seed germination, hypocotyl length and root length. Since lead was present as the most abundant metal in the soils and elutriates, the test results are presented with respect to the lead concentration in the elutriates.

Figure 2 illustrates the randomized manner in which the petri plates were stacked within the incubator during the exposure of the seeds to elutriates.

4.0. MATERIALS AND METHODS

4.1 Standard Operating Procedures

This study was conducted according to Work Authorization # 001A entitled "*Buckwheat Assay, Fort Ord*", effective date August 3, 1994, and SOP #HHL-01-01, entitled "*Short Term Toxicity Screening of Aqueous Wastes and Elutriates of Soil and Solid Waste to the Seedling of Terrestrial Plants; Root Elongation Test*", effective date September 14, 1994. PRT SOP #HHL-01-01 is attached as Appendix A. These were supplemented with PRT's equipment and procedural SOPs and by PRT's internal correspondences.

4.2 Fort Ord Test Site

The areas evaluated in this study are small arms trainfire target ranges located at Fort Ord, Site 3 (see plate 6.1, of Basewide Remedial Investigation/Feasibility Study, Fort Ord, CA, Vol. IV - Baseline Ecological Risk Assessment). Soil samples were collected from specific locations and were labeled accordingly (by range). These locations were also identified on the site map. Ranges were classified initially by HLA site investigators using visual inspection to estimate the density of bullets and bullet fragments on each range.

4.3 Seeds of Test Species

The *E. latifolium* and *E. parvifolium* flowers with seeds were collected by HLA and delivered at PRT on August 12, 1994. Flowers were segregated into 10 separate bags, representing plants from the various sites under evaluation. The flowers were air dried at ambient temperature ($\approx 20\text{ }^{\circ}\text{C}$)³ in a well ventilated laboratory. On August 18, 1994, the seeds were separated from the husks and chaffs by first abrading on a rub box, sieving through a set of 1.5 mm (0.059 inch) and 1.8 mm (0.071 inch) screens and finally collecting seeds by density using a column blower. Fractions of chaff and related seeds were labeled and bagged. The amount of chaff and estimated number of seeds recovered for each sample processed was determined by weighing the samples. These seeds were used in the bioassay.

Seeds of *E. latifolium* and *E. parvifolium*, which were collected from San Francisco and Santa Barbara coastal regions, respectively, were used as surrogate reference species. These were received on July 11, 1994 from S & S Seeds, P.O. Box 1275, Carpinteria, CA 93013.

4.4 Test Soils

Eighteen (18) soil types from the Fort Ord site under evaluation arrived at PRT on September 14, 1994. Following receipt each parcel was logged-in, assigned a PRT identification number, labeled and weighed. Aliquots of each soil (\approx 100 g each) were sieved (2.00 mm mesh size) and fractions weighed. The fractions containing bullet /bullet fragments and organic matter were additionally separated and weighed. The moisture content of each soil sample was estimated within 20 hours of receipt of soils at PRT. Test soils were stored in incubator I18 (PRT ID # 3566) at approximately 20 °C, in the dark.

As a reference soil, washed quartz sand (30 mesh size Natural Monterey Beach Sand) was incorporated into the study design. This sand was purchased in 50 lb. bags, packaged by RMC Lonestar, Pleasanton, CA. Sand from this commercial package was sieved with 30 and 40 mesh sieves, and washed with deionized water until the conductivity of the washings tested within the 0 - 50 mmhos/cm range. The washed sand was then oven dried at 90 - 100 °C for a minimum of 6 hours and then stored in a high density polypropylene container until ready for use.

4.5 Elutriate Preparations

Milli-Q water (480 mL) was added to each labeled 1000 mL acid washed glass vessel containing 120 g of treatment test soils. The resulting twenty (20) 1000 mL bottles containing hydrated soils were placed into Labline Incubator Shaker Model 325 (PRT ID# 3520) and agitated for approximately 24 hours, in darkness at 21.5 ± 0.6 °C. The incubator speed was set for vigorous shaking. At the end of the agitation period the solutions were allowed to settle, and the supernatants were decanted into 250 mL HDPE centrifuge bottles and centrifuged for 13 minutes at 2500 RPM. The elutriates were carefully decanted into 500 mL storage bottles.

Following elutriate preparation, subsamples were tested for pH and conductivity (mmhos/cm), and the temperature and color of each recorded. The bulk solutions were placed in the refrigerator (PRT ID #3517) for storage (approximately 5 °C).

4.6 Seed Preparation

Prior to treating the seeds in the study, the conditions for optimal germination of *E. latifolium* and *E. parvifolium* were evaluated. These optimal conditions were then used in the actual study, and are summarized as follows:

Temperature:	25 °C
Pretreatment:	Scarification
Photoperiod:	Full dark ^a

^a Surrogate *E. latifolium* species preferred light during germination

Ten (10) seeds of approximately uniform size were randomly selected from the test lot and placed in pre-labeled petri dishes, three replicate petri dishes for each treatment. Each seed was scarified, using a scalpel to remove the pointed tip of the seed coat. Seeds were then spaced in a circle on a sheet of filter paper, approximately equidistant from the edge to the center. This was repeated for each replicate of each seed sample to be evaluated. The experiment was designed and the treatments numbered as shown in Figure 1.

4.7 Treatment Applications (Dosing)

The elutriate dosing solutions were removed from refrigeration and brought to 20 °C by placing each container into a dark incubator at approximately 24.4 °C for 1.5 hours. Three petri dishes (replicates) were prepared for the treatment of each set of seeds with the respective elutriate. Once seeds were scarified and spaced, elutriate solutions (3 mL each) were dispensed to each replicate petri dish using a 5 mL disposable pipet. This was sufficient volume of solution to thoroughly saturate the filter paper and moisten the seeds. Seeds accidentally moved during the dispensing of the dosing solution were returned to similar spacing positions. The unused dosing solutions (elutriates) were returned to the refrigerator for storage.

4.8 Test Initiation

Immediately after dosing, the petri dishes were placed in a level position in layers within a black 33 gallon plastic garbage bag which formed a lining inside a cardboard box. Three boxes (each containing 37 petri dishes) were prepared for each of the three treatment replicates, with dishes arranged according to a randomized block design⁴, with location arranged as shown in Figure 2. The garbage bags were sealed and placed into environmental incubator I1, middle shelf. Incubator I1 was pre-calibrated at 24 ± 1 °C.

4.9 Test Termination

Seven (7) days after test initiation, the petri dishes were removed from the incubator and replicate boxes and measurements and observations recorded. Because some "germinated" seeds had hypocotyls, but minimal or no roots, values of both root length and hypocotyl length were measured for each seedling.

- 4.9.1 Seeds were removed, by treatment, from the petri dishes and individually placed on a clean work surface and measured (using calipers). Root and hypocotyl lengths were measured to the nearest millimeter, for each germinated seed.

4.9.2 Root measurements were made from the transition point between the hypocotyl and the primary root to the apex of the root. At the transition point, the axis may exhibit a slight swelling, a slight crook, or a noticeable change in size. The hypocotyl length was measured from above this transition point to the seed.

4.10 Analysis of Test Samples for Metals

In order to correlate the findings of this root elongation bioassay with the characteristics of the test soils, subsamples of test soils, and elutriate solutions were prepared and sent to Quanterra Laboratories (Quanterra), West Sacramento, on September 26, 1994 for analyses. Tests included analyses for metals (antimony, chromium, copper, lead, zinc), and total organic content (TOC). A summary of Quanterra analytical reports are found in table 635, of Basewide Remedial Investigation/ Feasibility Study, Fort Ord, CA, Vol. IV - Baseline Ecological Risk Assessment.

4.11 Glassware

The glassware used in this test was prewashed using an acid wash method and oven dried at approximately 100 °C. (SOP #AN-004-03).

4.12 Water

Water used in this study was Milli-Q pure. A subsample of this Milli-Q water (sample number 0025-38-W) was put aside and sent to Quanterra for metals content analyses. Results are found in the Quanterra analytical report, referred to in section 4.10. Only zinc (6.6 ppb) was detected.

4.13 Germination Containers and Filter Paper

The seed germination containers used were disposable polystyrene petri dishes with lids, 100 x 15 mm (VWR# 25384-208). Since dishes were unpacked directly from the manufacturer's shipping containers, and since the elutriates were not sterile, additional pre-washing / sterilization practices were not necessary.

One layer of filter paper, 9.0 cm (Whatman®, grade 3, 100 mm, qualitative cellulose) was fit in the bottom of each petri dish and the top of the dish used as a cover.

4.14 Incubation Environment and Layout

Incubator I1 (PRT ID# 3523) used in this test was set up according to the test initiation procedures described in section 3.8.

The temperature and relative humidity conditions within the incubator were continuously monitored with recorded printouts generated every 6 hours (e.g., 03:00 hr., 09:00 hr., 15:00 hr., 21:00 hr.) and maximum/minimum temperature summaries updated every 12 hours by the Beckman Data logger unit.

Temperature was measured by a calibrated thermocouple sensor located below the middle shelf and towards the middle of the incubator. The environmental conditions within each incubator are summarized as follows:

Environmental Summary
Incubator I1

<u>Condition</u>	Temp. (°C)	RH (%)
Nominal	24 ± 2	>60
Mean (SD)	24.1 (0.13)	92
Mean Maximum	24.7 (0.22)	98
Mean Minimum	23.6 (0.36)	60

Note: Standard Deviations (SD) are recorded in parenthesis

4.15 Treatment Assignments

Each proposed treatment was assigned a specific number. Figure 1 illustrates the numbers which were assigned to the different treatments. The second row lists the test species. The left-hand column identifies the elutriate solution used and (parenthetically) the degree of bullet cover on the soil surface where corresponding soil sample was collected.

Treatments consisted of a combination of seeds collected from a specific soil site (e.g. high) being evaluated against elutriate solutions derived from the respective soil of the same bullet density (i.e. high). An elutriate solution from at least one reference soil was used as a "reference".

Seeds from the soil classified as Fort Ord reference, were tested on elutriates from each of the three soils classified as reference and the reference sand.

Seeds from the surrogate reference species were tested on elutriate solutions from one of each representative soil (i.e. High, Low, Reference) and the reference sand.

5.0. STATISTICAL ANALYSIS

Differences in treatments (seed source and test soil elutriate) with respect to germination, hypocotyl growth, and root elongation were examined by analysis of variance (ANOVA). The data were analyzed using a computer statistical program (SPSS/PC+ version 4.0, SPSS Inc., Chicago, Illinois). Data from this study are submitted with this report as Appendix C.

Mean hypocotyl or root lengths were calculated for each replicate (average length of 10 seedlings). The mean length data were then analyzed as a randomized complete block design by ANOVA. Test treatments were compared with the designated reference treatments (Figure 1) to identify significant differences.

To evaluate differences in seed germination frequencies, the percent germination was determined for each replicate treatment plant. A seed was defined as germinated if it had a measurable hypocotyl (length > 0.1 mm). A germination score of 1 was assigned to each germinated seed, and 0 to ungerminated seeds. The percent germination was then calculated by summing the individual germination scores of each plate, dividing by 10 seeds and multiplying by 100. To normalize the percentage germination data prior to analysis of variance, an arcsin (square root (% germination x 0.01)) transformation was used as recommended by Snedecor and Cochran⁵.

Individual ANOVA were conducted for each test species. When the ANOVA detected a significant difference between treatments, the mean values of measurement endpoints were compared using a Least Significant Difference test (LSD). A 2 tailed LSD test ($P = 0.05$) was used to compare differences between treatment means (assuming treatments differences could increase or decrease growth or germination). Means that differed by more than the LSD value were determined to be significantly different. When no significant treatment differences were detected by the ANOVA, the individual treatment means were not compared by the LSD test.

The relationship between soil metal content, elutriate metal content, elutriate pH, and seed germination, hypocotyl length and root length were examined by correlation analysis. Using the SPSS/PC+ program, CORRELATION, the simple correlations were calculated for the *E. latifolium* and *E. parvifolium* data sets both individually and as a joint, pooled data set.

6.0 BIOASSAY RESULTS AND DISCUSSIONS

6.1 Statistically Significant Differences in Endpoints (*E. parvifolium*)

The effects of soil elutriates on *E. parvifolium* are summarized in Table 4 and Figures 3 to 6 and Appendix B, Tables B-1 to B-3. The elutriate (soil ST1a to 1f) used as "reference" in this experiment was found to contain 1,590 ppb lead. The statistically significant treatment differences found in this bioassay by ANOVA are summarized below.

6.1.1. Elutriate of soil R1-2 (containing 7,010 ppb lead) showed statistically lower root length in seed A (treatment 1A), relative to the reference ST1a to 1f (elutriate containing 1,590 ppb lead), (treatment 9A).

No statistically significant treatment differences were observed for germination or hypocotyl length of seed A.

6.2 Non-Significant Differences in Endpoints (*E. parvifolium*)

In addition to the significant difference shown in section 6.1.1 the following trends were observed, although they were not found as statistically significant by ANOVA.

6.2.1 Elutriates of soils R8-1a and R8-1c (containing 27 ppb and 16,900 ppb lead, respectively) had lower seed germination frequency and shorter hypocotyl length and root length for seeds C, relative to elutriates of reference soil ST1a to 1f (containing 1,590 ppb lead).

6.2.2 Elutriates of soil R8-1c (containing 16,900 ppb lead) showed less root elongation with seeds EP (Surrogate), relative to elutriates of reference soil ST1a to 1f (containing 1,590 ppb lead).

6.2.3 Elutriates of soils R8-2a and R8-2c (containing 517 ppb and 133 ppb lead, respectively) had longer root lengths of seeds B (treatments 5B and 7B, respectively) relative to elutriates of reference soil ST1a-1f (containing 1,590 ppb lead).

Because this reference shows elevated levels of lead and other metals, this trend of increased root elongation appears to be negated by the reduced growth differences of the reference.

6.3. Statistically Significant Differences in Endpoints (*E. latifolium*)

The observations of soil elutriates on *E. latifolium* are summarized in Table 5 and Figures 7 to 10 and Appendix B, Tables B-4 to B-6. The elutriate of combined soil R1516-1a to 1f used as a reference was found to contain 53 ppb of lead. Soil R1516-1h was classified as a reference soil on the basis of visual field observations of bullet density. However, upon sieving this soil it was found to contained 8.2 % bullets. Elutriates of unsieved and sieved soil R1516-1h were incorporated into the study and were compared with the elutriate of soil R1516-1a to 1f as well as that of quartz sand (elutriate containing 8 ppb lead). The statistically significant treatment differences within this bioassay are summarized below.

6.3.1. Elutriates of both unsieved and sieved soil R1516-1h (containing 58 ppb and 47 ppb lead, respectively) provided statistically lower germination frequency and shorter hypocotyl length of seeds H (treatments 34H and 35H) relative to the elutriate of reference soil R1516-1a to 1f (containing 53 ppb lead).

6.3.2. Elutriate of soils R17-2a-2b and R17-2c (containing 3,350 and 1,620 ppb lead, respectively) had significantly shorter the root length of seeds J (treatments 19J and 20J, respectively) relative to elutriates of reference soil R1516-1a-1f (containing 53 ppb lead).

6.4 Non-Significant Differences in Endpoints (*E. latifolium*)

In addition to the significant differences shown in Section 6.3, the following differences were observed although they were not found to be statistically significant by ANOVA.

6.4.1 Elutriates of soil R1516-1h, (both unsieved and sieved) (elutriates containing 58 ppb and 47 ppb lead, respectively) showed lower seed germination and shorter root length for seed H (treatments 34H and 35H) relative to the elutriates of reference soil R1516-1a to 1f (containing 53 ppb lead).

6.4.2 Elutriates of soils R12-1, R1516-2 and R17-1 (containing 13, 223 and 272 ppb lead, respectively) showed longer hypocotyl lengths for seeds F, G and I (treatments 23F, 25G and 26I, respectively), relative to the respective reference soil R1516-1a-1f (elutriate containing 53 ppb lead).

6.4.3 Elutriates of soil R17-2d (containing 1.250 ppb lead) showed shorter root length and hypocotyl length for Seeds J (treatment 21J), relative to elutriate of reference soil R1516-1a-1f (containing 53 ppb lead).

This response closely followed the statistically significant lower in root growth found for soils R17-2a-2b and R17-2c (elutriates containing 3,350 and 1,620 ppb lead, respectively), see Section 6.3.2.

6.4.4 Seeds EL (Surrogate): These seeds had very poor germination. Therefore, this data group should not be considered as indicative of any trend or result.

6.4.5 Elutriates of soil R17-1 (532 ppb lead) also had longer root length for Seeds I (treatment 26I), relative to elutriate of reference soil R1516-1a-1f (containing 53 ppb lead).

6.5 Summary of Treatment Findings

Table 6 summarizes the results of the bioassay of the soil elutriates against seeds of *E. parvifolium* and *E. latifolium*, reported in Tables 4 and 5. In this table, soil elutriates are identified by the range site from which the related soils were collected (first column). The second column shows the associated plant species. The table also reports the lead concentrations in soils and elutriates as well as the percentage (w/w) of bullets sieved from the collected soils.

For *E. parvifolium*, the only statistically significant treatment difference found was a reduction in root length of seeds treated with elutriate of soil R1-2 (containing 7,010 ppb lead) on root elongation. This particular elutriate is high in total metals, (antimony, copper, lead, and zinc). In addition, the soil from which it was derived contained 16.4% bullets (based on sieving).

For *E. latifolium*, statistically significant differences were found for treatments involving three elutriates. The elutriate from the unsieved soil (range R1516-1h) had significantly shorter hypocotyl length and lower germination percent. The elutriate had 417 ppb total metals, the major quantity of which (297 ppb) was zinc. The original soil contained 8.2% bullets, based on sieving. The elutriate from this sieved soil was associated with lower zinc and total metal contents, but had a higher antimony concentration. This latter elutriate had significantly shorter hypocotyl length, but seed germination and root length were not different.

There were statistically significant treatment differences for elutriates of soils from ranges R17-2a and 2b, and R17-2c (elutriates containing 3,350 and 1,520 ppb lead, respectively). These elutriate are also high in total metals. The soil from which the elutriate was derived contained bullets densities of 12.5 and 33.9 percent, respectively.

Thus, in General:

- Statistically significant differences by ANOVA were observed for treatments using elutriates containing concentrations ranging from 1,520 to 7,100 ppb lead:
 - i.e. Soil samples R1-2, R17-2a & 2b, and R17-2c
- Negative findings (reduced growth), although not statistically significant by ANOVA, were observed for treatments with elutriate concentrations ranging from 1,250 to 16,900 ppb lead:
 - i.e. Soil samples R8-1c, ST1a-1f and R17-2d

The elutriate of soil ST1a-1f was used as a "reference" for evaluating other *E. parvifolium* treatments. Analysis of the elutriate and the soil revealed that the elutriate contained elevated levels of lead (1,690 ppb) (relative to other soils characterized as references). This suggests the potential masking of treatment differences on soil sample R8-1c (16,900 ppb lead) and inconsistent reduced growth patterns within this reference soil treatment.

- Negative findings (reduced growth) were also observed for elutriates from soils containing very low lead levels (< 100 ppb lead)

The statistically significant findings in treatments with elutriates from soil R1516-1h and the shorter root and hypocotyl lengths found with elutriates of soil sample R8-1a suggests that since the concentrations of lead and total metal in these elutriates were low (< 100 ppb lead), secondary influences (e.g. pesticides) or other factors may be causing these reduced growth effects.

- Elutriates of the remaining soil samples (concentrations ranging from 13 to 517 ppb) showed no observable negative findings and only a slight positive difference when elutriates of R1516-2, R17-1 and R12-1 were assayed against seeds of the test species.
- In several cases these trends were reversed, higher elutriate metal concentrations were associated with higher germination rates and longer root and hypocotyl lengths.
- Differences in measurement endpoints were not observed in treatments with elutriates containing substantially higher metals concentrations than those in which significant differences were observed.
- No consistent dose-dependent response relationships were identified by comparing measurement endpoints for seeds from the same group treated with elutriates with different metals concentrations.

6.6 Correlation Analyses

The results of correlation analyses, using the SPSS/PC+ program, CORRELATION, to calculate simple correlation for the *E. parvifolium* and *E. latifolium* data sets are shown in Appendix B, Tables B-7 to B-12.

The following correlations relate to the present discussion:

- pH was not significantly correlated with the growth or germination tests.
- Positive correlations ($p < 0.05$) were observed in the following measurements:
 - Total soil metals and bullet density
 - Total elutriate metals and bullet density
 - Total soil metals and total elutriate metals
 - Total soil metals and each metal in soil except chromium
 - Total soil metals and lead and zinc in elutriate
 - Total bullet density and each metal in soil except chromium
 - Total bullet density and copper, lead, and zinc in elutriate

6.7 Conclusions

Examination of the elutriate metal concentrations and their influence on the germination and growth of buckwheat seed suggests a link between the elutriate metal (lead) concentration and the measured endpoints. From these data it appears that the soluble metal concentrations of these soils may be related to the germination and growth of *E. parvifolium* and *E. latifolium*. There is a positive correlation between the elutriate metal content, the soil metal and the percent of bullets in these soils. However, the relationship of these to germination and growth is not clear and may relate to other factors, such as the age of the bullets in the soil and the metallic composition.

The significant differences found in this study suggest that in general, reductions in *E. parvifolium* and *E. latifolium* root lengths may occur in soils containing bullets with lead levels as low as 928 ppm (elutriate concentration 1,520 ppb) and bullet densities as low as 12.5 % by weight. Although not as consistent, the effects on seed germination and hypocotyl length followed similar trends. In other cases, those trends associating lower germination, and longer root and hypocotyl length with higher elutriate concentrations were absent or reversed.

When taken as a whole, these data do not indicate that soluble metals concentrations in soil effect plant germination and growth at the Fort Ord trainfire ranges.

7.0 REFERENCES

1. Nelson, Paul, V., Greenhouse Operation and Management, Third Edition, Prentice-Hall, Inc., New Jersey, pages 198 and 251, 1985.
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Table 1. Identification, Characterization and Germination of Seed Lots From Fort Ord (Collected 8-12-94)

HLA I.D. (Range)	PRT I.D. (RS00086-)	Soil Type ^b	Seed Weight (mg)	Residue Weight ^c (g)	Estimate of Seed Count	Pretest Germ- ination ^d (%)	Estimate of Viable Seeds ^e
<u>EP^a</u>							
R1-2	A	High	430	7.6	450	70	315
R8-2	B	Low	425	6.4	700	10	70
R8-1	C	High	600	6.1	1000	20	200
R8-3	D	Low	365	7.9	450	60	270
ST-1	E	Reference	510	9.0	600	50	300
<u>EL^a</u>							
R12-1	F	Low	335	14.5	350	30	105
R1516-2	G	Low	565	18.5	725	60	435
R1516-1	H	Reference	990	16.7	1000	40	400
R17-1	I	Low	325	18.8	500	20	100
R17-2	J	High	600	11.6	700	40	280

- a EP = *E. parvifolium*, EL = *E. latifolium*
- b Classification based on HLA field observations;
Reference = 0 % bullets, Low = < 1 % bullets, High = > 1 % bullets
- c Chaff and flower parts (seeds removed)
- d Germination using Milli-Q water
- e Based on 6 day germination count

Table 2. Test System Characterization (*E. parvifolium*)

Seeds		Soil Classification		Sieved Fraction		Elutriate	
ID RS00086	Range	Soil Notes	Bullet (%)	Organic (%)	I.D. 0025-38	pH	Con- ductivity (umhos /cm)
A	R1-2	High	16.4	0	A	7.14	200
C	R8-1a	High, near plant, looks low	0	5.6	B	7.12	200
C	R8-1c	High, approx. 80% density	25.4	0	C	5.97	150
B	R8-2a	Low, beneath plant, 0%	0	1.6	D	6.76	150
D	R8-3	Low	0	2.5	E	6.63	100
B	R8-2c	Low, hill behind target, 5%	21.4	0	F	6.26	150
E	ST-1a thru ST-1f	Reference	0	1.1	G ^a	5.31	150
E	ST-1g	Reference, away from obs. site	0	1.3	H	5.57	150
E	ST-1h	Reference, away from obs. site	0	3.2	I	6.37	50
NA	NA	NA	0	0	S (PRT Sand)	7.13	0

^a Elutriate G was also applied to seeds A, C, B, D, and EP (surrogate)

Table 3. Test System Characterization (*E. latifolium*)

Seeds		HLA Site Classification		Sieved Fraction		Elutriate		
ID RS00086	Range	Soil Notes	Bullet (%)	Organic (%)	I.D. 0025-38	pH	Con- ductivity (umhos /cm)	
J	R17-2a and R17-2b	High, 5-10% under/ near plant	12.5	1.1	M	7.09	150	
J	R17-2c	High, 90%	33.9	0	N	6.37	100	
J	R17-2d	High, approx. 80% density	25.4	0	O	5.97	150	
F	R12-1	Low	0	0.6	J	6.44	150	
G	R1516- 2	Low, <1% density	0	2.4	K	6.45	50	
I	R17-1	Low	0	1.2	L	5.46	150	
H	R1516- 1a thru R1516- 1f	Reference	0	1.7	Pa	6.31	50	
H	R1516- 1g	Reference, <1%	0	0.4	Q	6.15	50	
H	R1516- 1h	Reference, >1%	8.2	0.7	R1 (Unsieved)	6.52	50	
H	R1516- 1h	Reference, >1%	0	0	R2 (Sieved)	6.51	50	
NA	NA	NA	0	0	S (PRT Sand)	7.13	0	

^a Elutriate P was also applied to seeds J, F, G, I and EL (surrogate)

Table 4 . Results of Bioassay on *E. parvifolium*

HLA Site Classification	Bullets	Lead Concentration		Soil/Elutriate	Differences ^b		
		Soil (ppm)	Elutriate (ppb)		I.D. 0025-42 (TAN) ^a	Germ-ination	Root Elong-ation
R1-2	16.4	16,100	7,010	A (1)	NOD	-*	NOD
R8-1a	0	18	27	B (2)	-	-	-
R8-1c	25.4	19,600	16,900	C (3,4)	-	-	-
R8-2a	0	7	517	D (5)	NOD	NOD	NOD
R8-3	0	4	167	E (6)	NOD	NOD	NOD
R8-2c	0	2,070	133	F (7,8)	NOD	NOD	NOD
ST-1a thru ST-1f	0	7	1,590	G (9-14)	NOD	-	-
ST-1g	0	15	30	H (15)	NOD	NOD	NOD
ST-1h	0	11	33	I (16)	NOD	NOD	NOD

* Significant treatment difference

- Decreased growth findings observed

NOD = No observed difference

^a (TAN) = Treatment Assignment Number

^b Difference between reference and test treatment

Table 5. Results of Bioassay on *E. latifolium*

HLA Site Classification	Bullets	Lead Concentration		Soil/Elutriate	Differences ^b		
		Soil (ppm)	Elutriate (ppb)		I.D. 0025-42 (TAN) ^a	Germ-ination	Root Elong-ation
R17-2a and R17-2b	12.5	5,650	3,350	M (19)	NOD	- *	NOD
R17-2c	33.9	928	1,520	N (20)	NOD	- *	NOD
R17-2d	25.4	37,600	1,250	O (21,22)	NOD	-	-
R12-1	0	85	13	J (23,24)	NOD	-	+
R1516-2	0	280	223	K (25)	NOD	NOD	+
R17-1	0	372	272	L (26)	NOD	+	+
R1516-1a thru R1516-1f	0	145	53	P (27-32)	NOD	NOD	NOD
R1516-1g	0	136	78	Q (33)	NOD	NOD	NOD
R1516-1h unsieved	8.2	126	58	R1 (Unsieved) (34)	- *	-	- *
R1516-1h sieved	0	153	47	R2 (Sieved) (35)	-	-	- *

* Significant treatment differences

+ Increased growth trend observed

- Decreased growth findings observed

NOD = No observed difference

^a (TAN) = Treatment Assignment Number

^b Difference between reference and test treatment

Table 6. Summary of Results of Seed Bioassay

Range (Site)	Species	Treatment #	Elutriate Lead (ppb) (w/v)	Differences	Soil Lead (ppm) (w/w)	Bullets % (w/w)
R1-2	EP	1A	7,010	-*	16,100	16.4
R17-2a-2b	EL	19J	3,350	-*	5,650	12.5
R17-2c	EL	20J	1,520	-*	928	33.9
R8-1c	EP	3C	16,900	-	19,500	25.4
ST1a-1f	EP	9A to 14EP	1,590	-	7	0
R17-2d	EL	21J	1,250	-	37,600	25.4
R1516-1h (Sieved & Unsieved) ^a	EL	34H, 35H	58	-*	16	8.2
R8-1a	EP	2C	27	-	18	0
R8-2a	EP	5B	517	NOD	7	0
R1516-2	EL	25G	223	+	280	0
R17-1	EL	26I	272	+	372	0
R8-3	EP	6D	167	NOD	4	0
R8-2c	EP	7B, 8EP	133	NOD	2,070	0
R1516-1g	EL	33H	78	NOD	136	0
ST-1h	EP	16E	33	NOD	11	0
R1516-1a-1f	EL	27J to 32EL	62	NOD	145	0
ST-1g	EP	15E	30	NOD	15	0
R12-1	EL	23F, 24EL	13	-/+	85	0

NOD = No observed differences
 - = Negative difference observed
 + = Positive difference observed
 * = Statistically significant difference observed
 a = Mean value

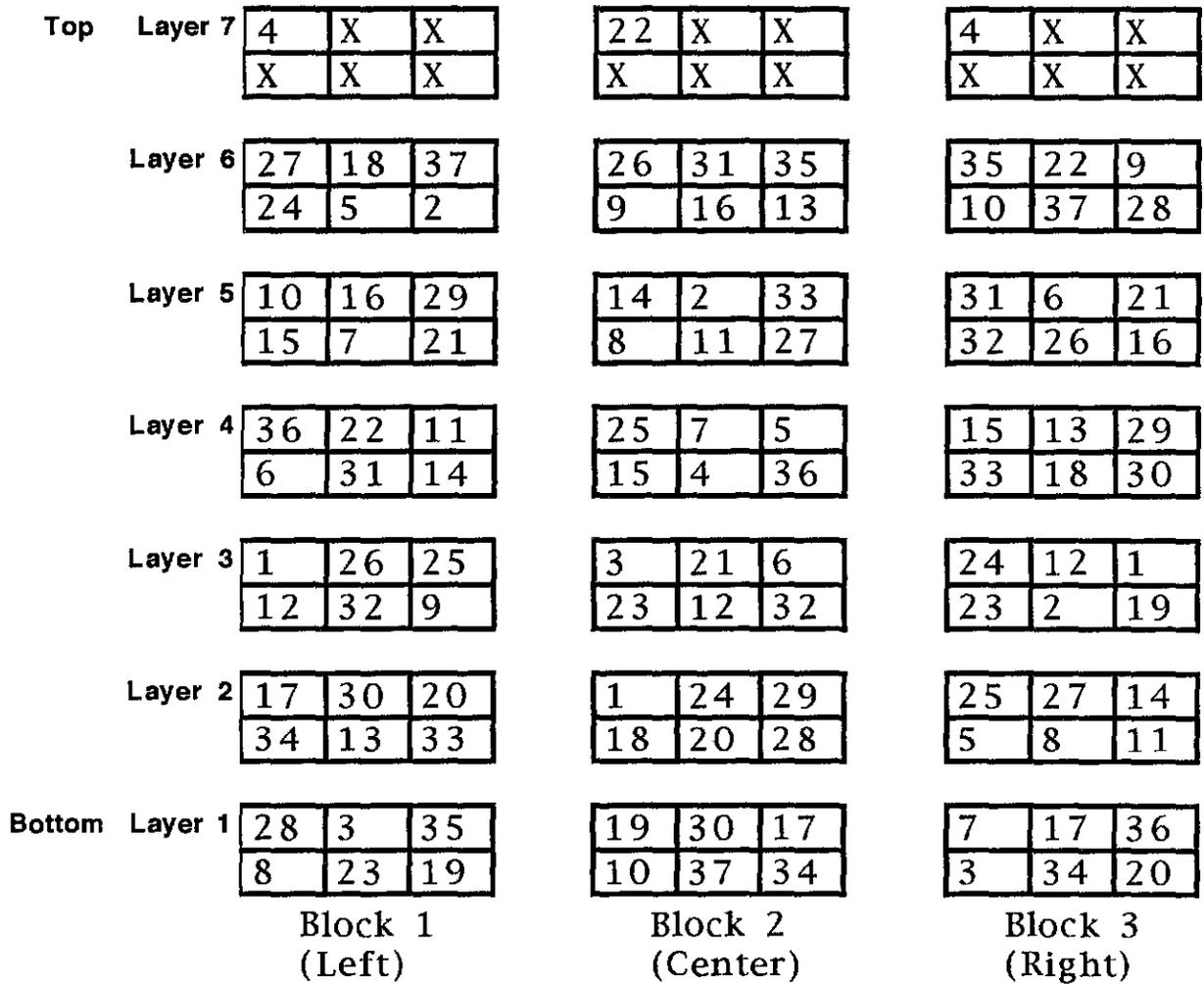
Elutriate/ Soil I.D. ^a 0025-32-	Lead ^b Con- centration	Seed I.D.					
		A (High)	C (High)	B (Low)	D (Low)	E (Reference)	EP (Surrogate)
<i>E. parvifolium</i>	(ppb)						
A (High)	7,010	1					
B (High)	27		2				
C2 (High)	16,900		3				4
D (Low)	517			5			
E (Low)	167				6		
F2 (Low)	133			7			8
G (Reference)	1,690	9	10	11	12	13	14
H (Reference)	30					15	
I (Reference)	33					16	
S (Sand)	8					17	18

<i>E. latifolium</i>	(ppb)	J (High)	F (Low)	G (Low)	I (Low)	H (Reference)	EL (Surrogate)
		M (High)	3,350	19			
N (High)	1,520	20					
O (High)	1,250	21					22
J (Low)	13		23				24
K (Low)	223			25			
L (Low)	272				26		
P (Reference)	53	27	28	29	30	31	32
Q (Reference)	78					33	
R(1) (Reference)	58 (Unsieved)					34	
R(2) (Reference)	47 (Sieved)					35	
S (Sand)	8					36	37

^a At the time of designing the experiment elutriate classification was based on the field classification of the soil from which the elutriate was obtained.

^b Analysis of soils by Quanterra Laboratories

Figure 1. Experimental Design and Treatment Numbers



X = Empty petri plates

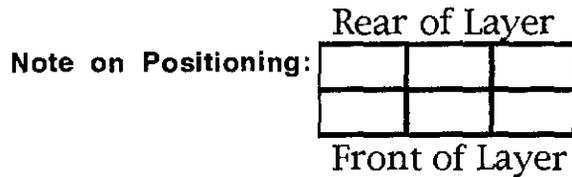


Figure 2. Randomized Petri Plate Arrangement

Figure 3.

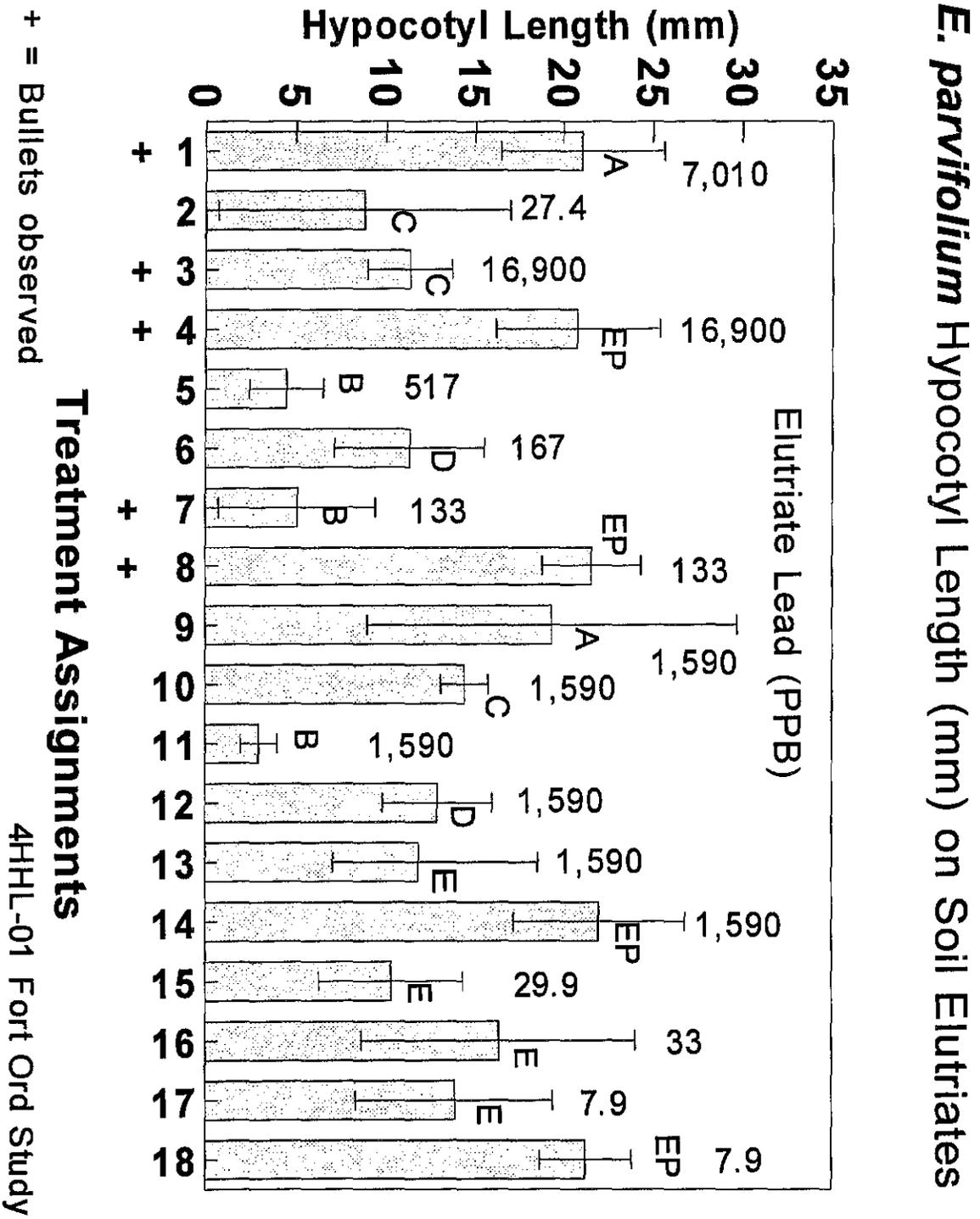


Figure 4.

E. parvifolium Hypocotyl Length (%Reference) on Soil Elutriates

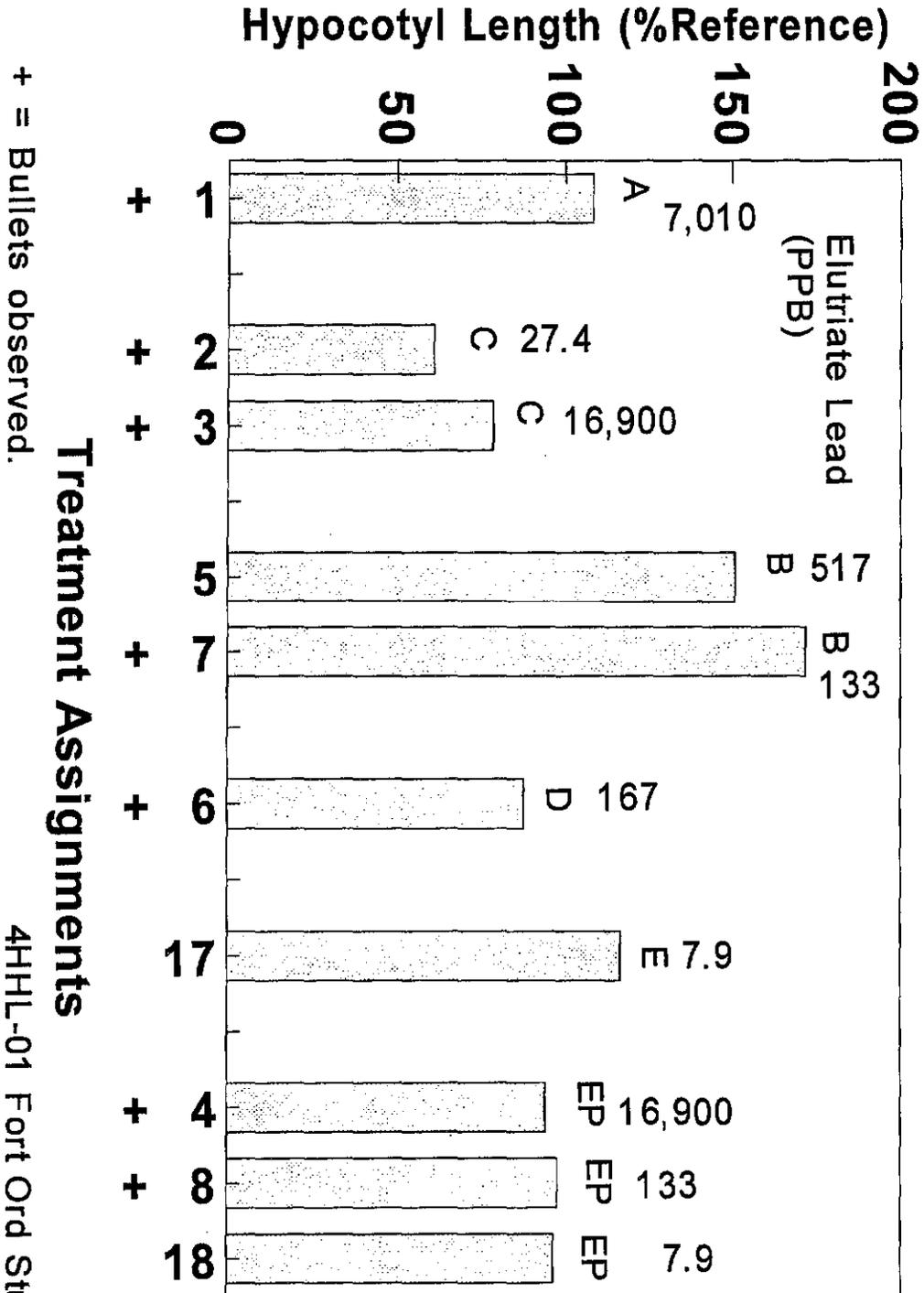


Figure 5.

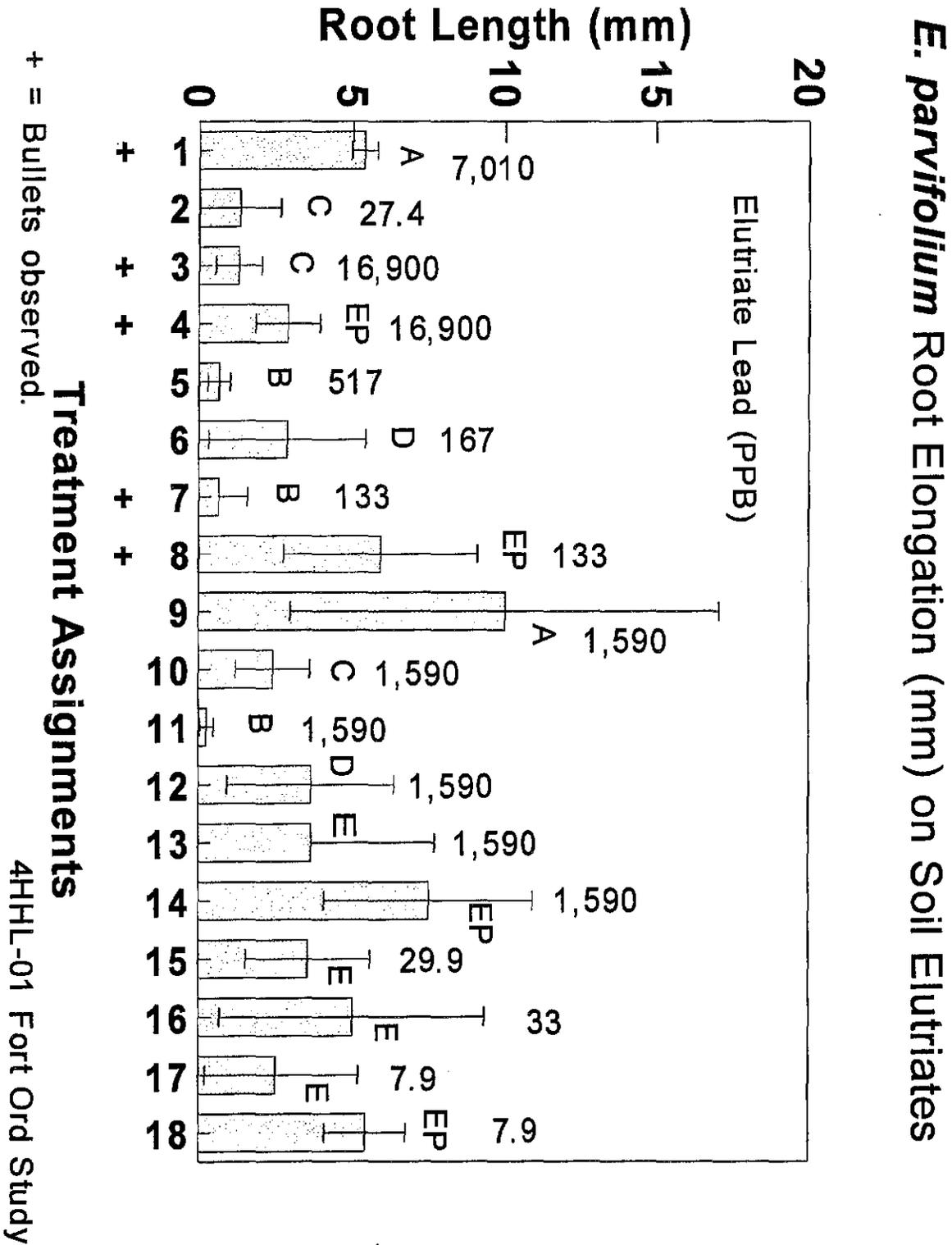


Figure 6.

E. parvifolium Root Elongation (%Reference) on Soil Elutriates

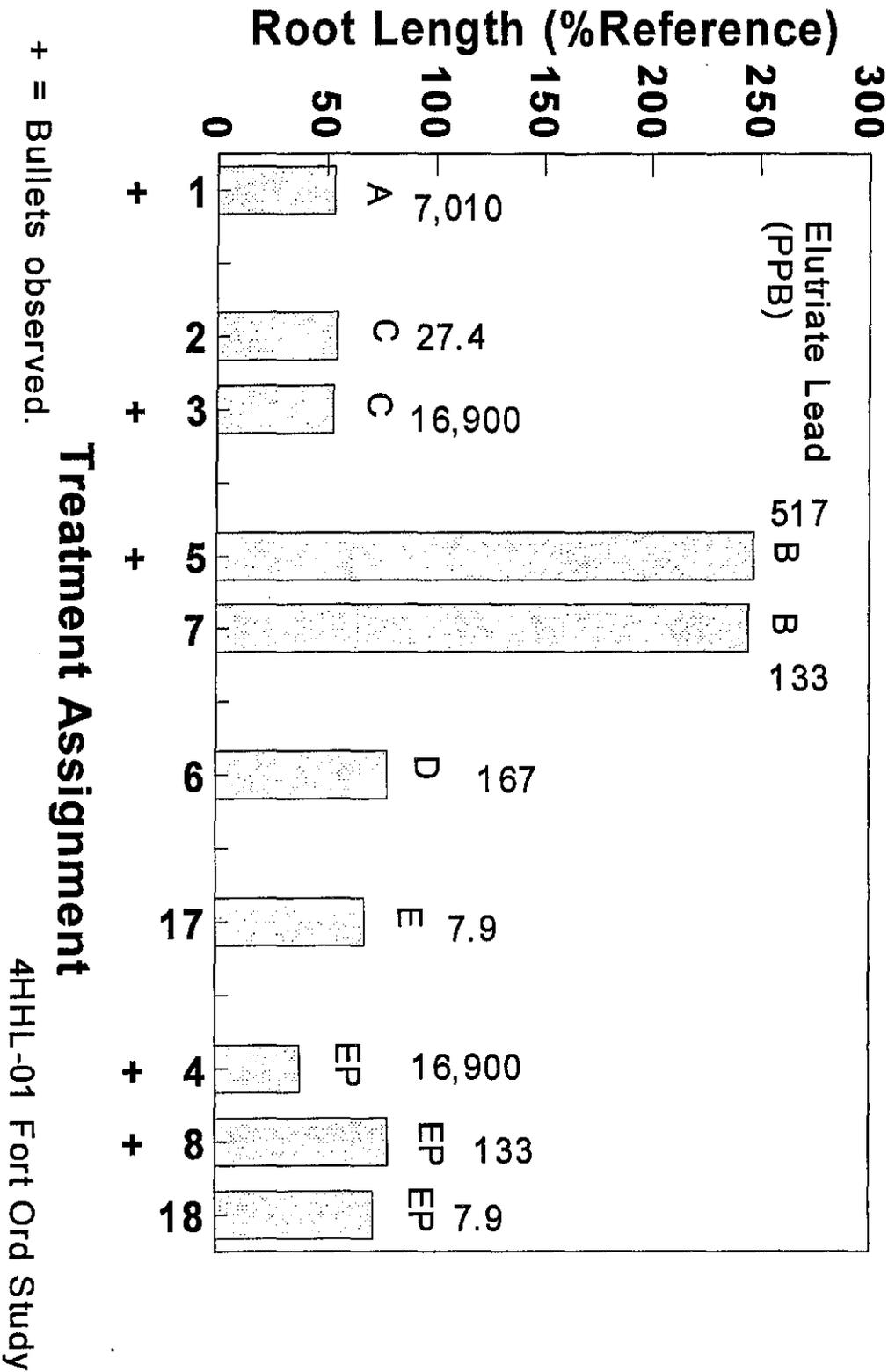


Figure 7.

E. latifolium Hypocotyl Length (mm) on Soil Elutriates

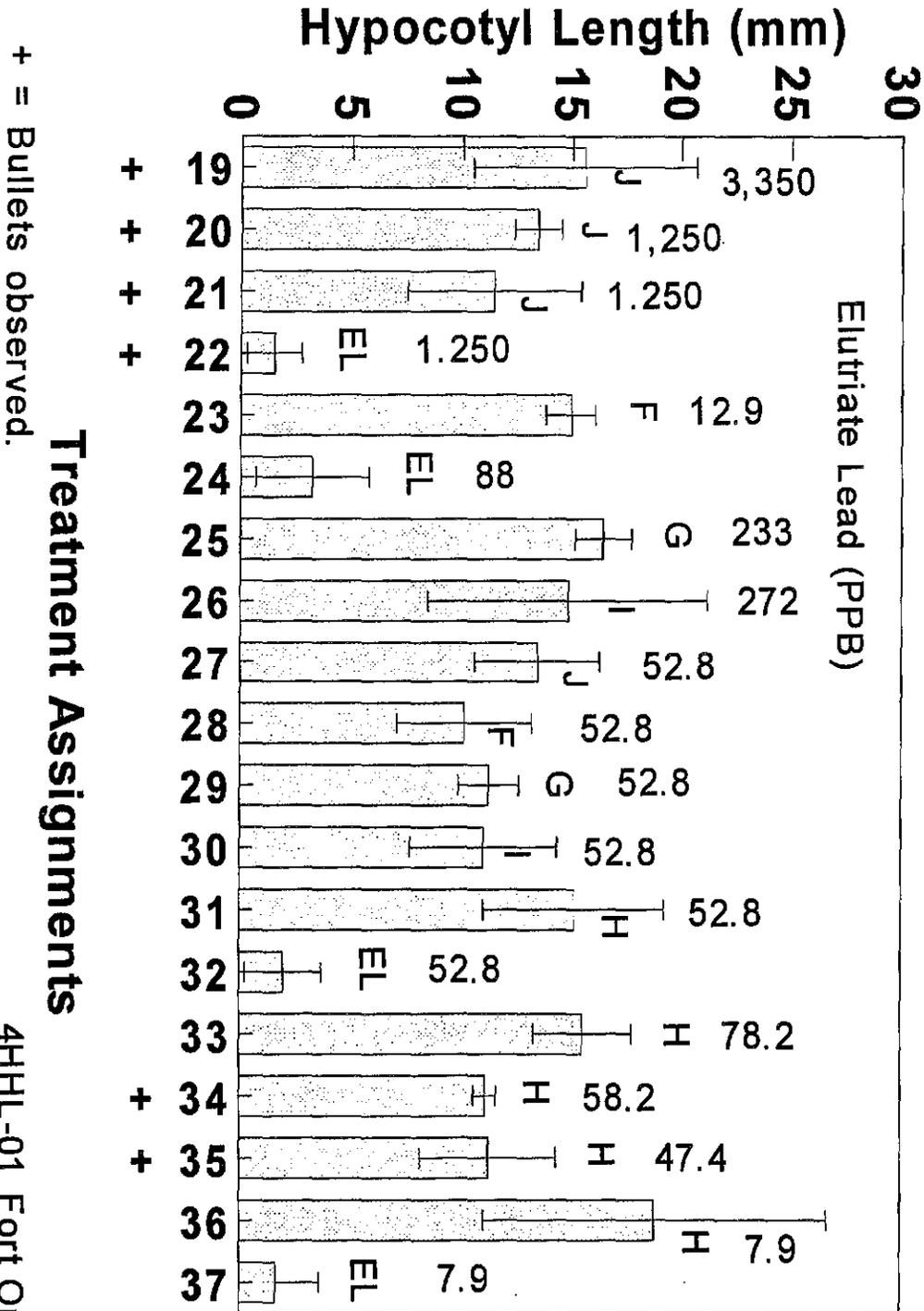
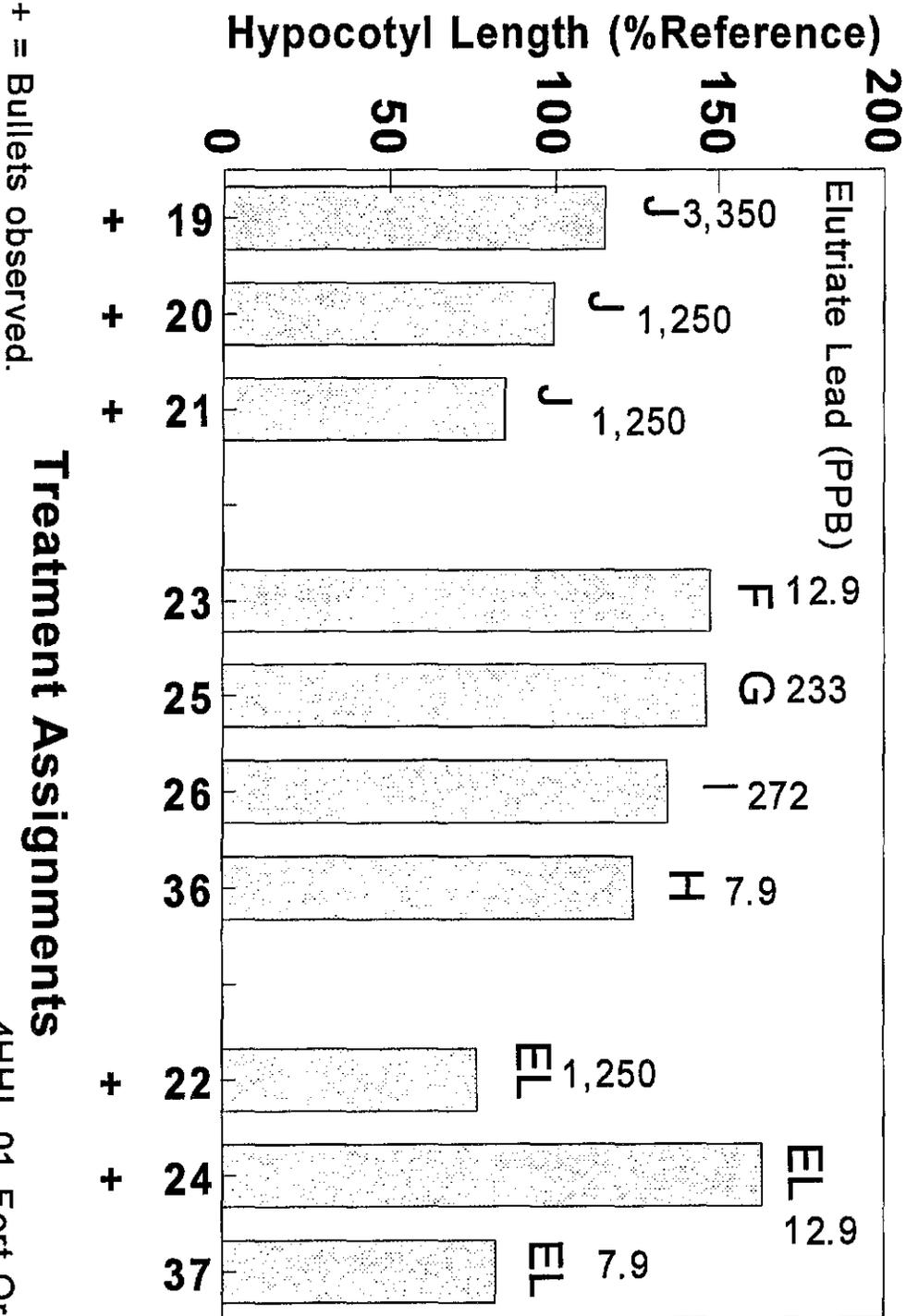


Figure 8.

E. latifolium Hypocotyl Length (%Reference) on Soil Elutriates



4HHL-01 Fort Ord Study

Figure 9.

E. latifolium Root Elongation (mm) on Soil Elutriates

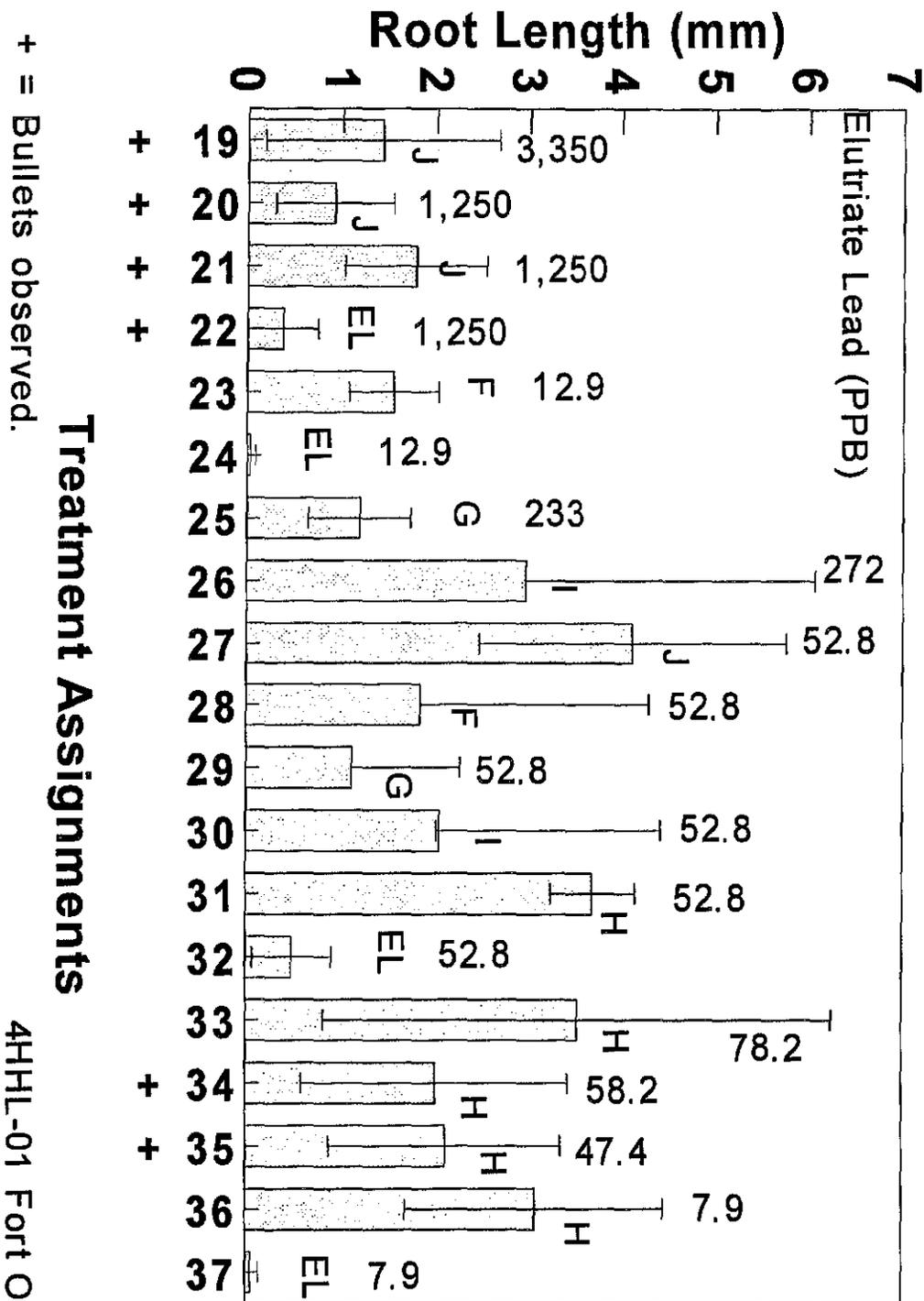
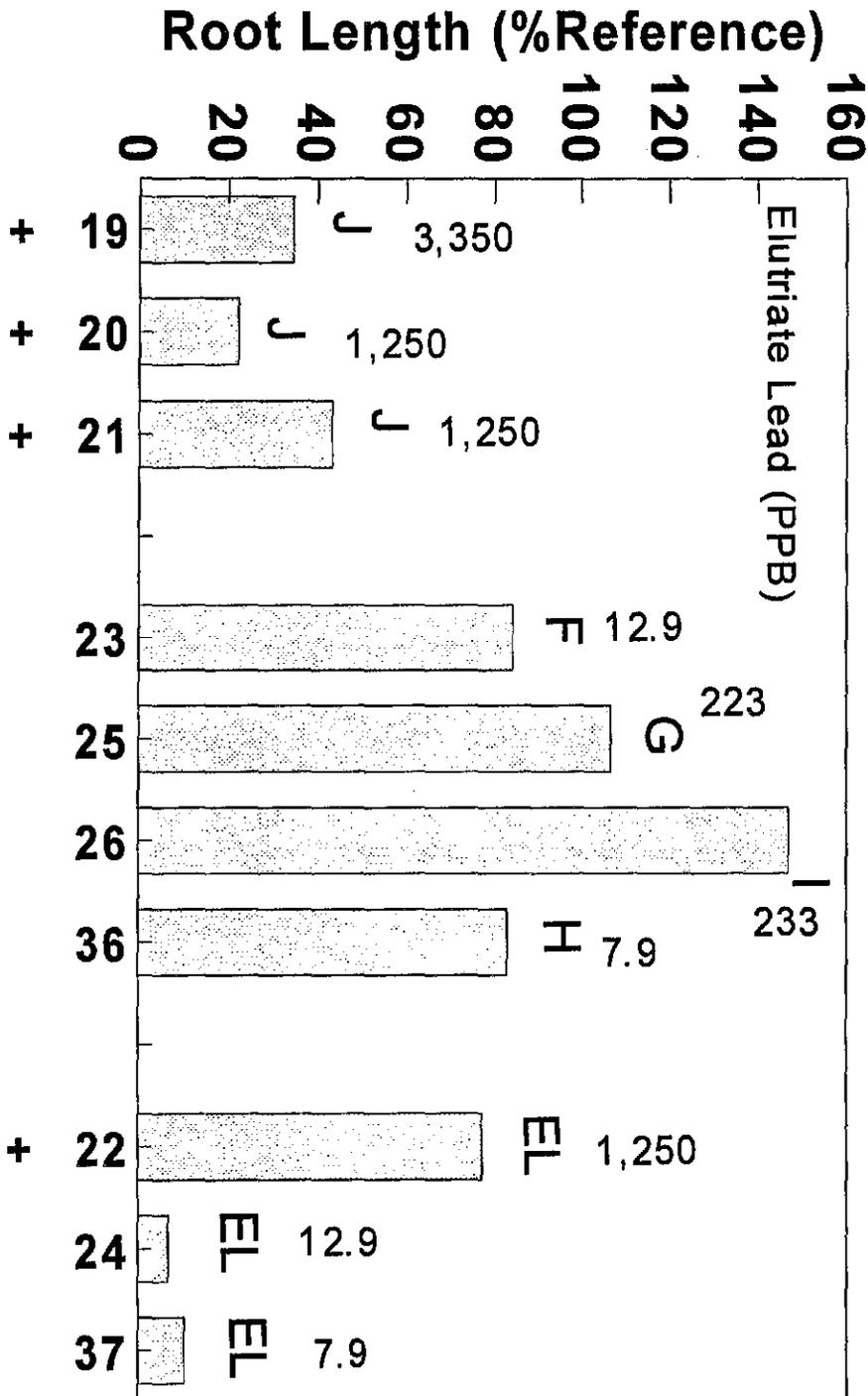


Figure 10.

E. latifolium Root Elongation (%Reference) on Soil Elutriates



+ = Bullets observed.
Treatment Assignments
 4HHL-01 Fort Ord Study

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F8.0 PLANT RESEARCH TECHNOLOGIES (PRT) STANDARD OPERATING PROCEDURES

SOP# HHL-01-01

Effective Date: September 14, 1994

**SHORT TERM TOXICITY SCREENING OF AQUEOUS WASTES
AND ELUTRIATES OF SOIL AND SOLID WASTE TO THE
SEEDLINGS OF TERRESTRIAL PLANTS;
ROOT ELONGATION TEST**

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Approved by:

	NAME	PRT TITLE	SIGNATURE	DATE
Validator:	Scott Korney	VP/Dir. Ag. Resources	<i>Scott Korney</i>	9/14/94
QAU:	Earl Smart	Quality Assurance	<i>Earl Smart</i>	9/14/94
Management:	Basil A. Burke	President	<i>Basil A. Burke</i>	9/14/94

ORIGINAL

PRT STANDARD OPERATING PROCEDURES
SOP #HHL-01-01

F8.1 Title: Short Term Toxicity Screening of Aqueous Wastes and Elutriates of Soil and Solid Waste to the Seedlings of Terrestrial Plants: Root Elongation Test

F8.1.1 Scope/Purpose

The objective of this procedure is to examine the acute toxicity effects of aqueous wastes and soil and solid waste elutriates on seedlings of terrestrial plants. Seeds are exposed to different concentrations of aqueous extracts of hazardous waste on wet filter paper for 7 days in the dark. Test results are based on the percent inhibition of seedling root elongation compared to controls.

Seeds of the coast buckwheat (*Erigeron latifolium*) and the dune buckwheat (*Erigeron parvifolium*) collected from Fort Ord will be used in these tests as well as a domestic cultivar of each species as an extra control.

F8.1.2 Definitions

Test Matrix - is generally either a soil or solid waste material provided by the Sponsor for evaluation. These samples generally contain one or more known (hazardous) contaminants. The nature of "suspected" contaminants shall be provided by the Sponsor.

F8.1.3 Materials

The following materials, or equivalent, may be used with this SOP.

- Collected seeds of *Erigeron latifolium* and *Erigeron parvifolium* as well as untreated seeds, of defined lot and germination for the same species
- Wire mesh screens: requirements and size to be determined by condition of seed lot and test matrix
- Balance, top loading (0.1 g accuracy)
- 1000 mL and 500 mL HDPE screw-cap bottles
- Screw-cap centrifuge bottles
- 250 mL borosilicate glass breakers
- 5 mL, 10 mL, and 25 mL disposable pipets
- Filter paper - Whatman® grade 3, 9 cm (100 mm qualitative cellulose)
- 100 mm x 15 mm plastic petri dishes with covers
- Forceps
- Environmental chamber (incubator)
- Calibrated thermometer

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Appendix F

**PRT STANDARD OPERATING PROCEDURES
SOP #HHL-01-01**

- pH meter
- Metric ruler
- Caliper
- Purified water - Milli-Q water
- 33-gallon black plastic garbage bags
- Incubator/shaker unit.

F8.1.4 Procedure**F8.1.4.1 Preparation**

- Following arrival of the test matrix at PRT, receipt will be documented and samples processed according to SOP #AR-002. Store matrix samples at approximately 20° C prior to use.
- Test procedures shall be initiated within 24 hours following receipt.
- Subsamples (approximately 100 g) of each sample shall be prepared for laboratory analysis according to Sponsor's instructions.
- Prewash required glassware using acid wash method (see SOP #AN-004).
- Calibrate the balance (as per relevant SOPs).
- Carefully inspect the lot of seeds and remove any trash, empty seed hulls and damaged seeds.
- Grade the seeds by size (use wire mesh screens if determined to be beneficial) as follows:
 - Nest the wire mesh screens, in descending mesh size order from top to bottom, with a bottom pan beneath.
 - Pour the seeds onto the top screen and gently agitate the set of screens until all seeds have been completely distributed according to size, remaining on one of the screens or having passed through to the bottom pan.
 - Collect for testing that size class containing the greatest quantity of seed. Note the size class selected.
- Label and store the remaining seed fractions in packets according to size, in airtight, waterproof containers at approximately 20°C.
- Determine the moisture content (MC) of the test matrix.
- Matrices will be sieved to separate soil from irregular solids as follows:
 - Accurately weigh approximately 100 g test matrix.

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Appendix F

**PRT STANDARD OPERATING PROCEDURES
SOP #HHL-01-01**

- Sieve sample through 9 mesh (2.00 mm) sieve.
- Weigh and record the weights of the separate fractions.
- Determine MC on that fraction of the test matrix portion which passed through the sieve (SOP #AN-031).
- Prepare the sample elutriate as follows:
 - From the moisture content (MC) determination, calculate the total wet weight of sample equivalent to 120 g dry weight:
 - Wet Wt. Equivalent (g) = [120 g dry sample] + [MC x 120 g dry sample]
 - Weigh the wet weight equivalent of 120 g dry weight of test sample into a 1,000 mL HDPE bottle.
 - Measure the volume of purified water required into the 1,000 mL bottle. Refer to F8.1.5 calculations.
- Secure the bottle to a mechanical shaker and set to agitate vigorously. Agitate the hydrated sample for 24 hours at $20 \pm 2^\circ\text{C}$ in total darkness.
- After agitation is complete, pour the suspension into a centrifuge bottle and centrifuge at approximately 2,500 rpm for 13 minutes. Carefully decant the elutriate fraction into a 500 mL bottle.
- Retain the elutriate for the following tests and for chemical analyses (if necessary refrigerate until ready for use).
- Calibrate the pH meter (as per relevant SOP).
- Prior to use, record the elutriate temperature.
- Monitor and record the pH and conductivity for elutriate dilution and the control (as per relevant SOPs). This aliquot may be discarded once values are recorded.
- Prepare and label three replicate petri dishes with covers for each test treatment and the control.
- Place a sheet of filter paper in each replicate petri dish. Working from the control to the elutriate using a 5 mL pipet, dispense 3 mL of test solution to each replicate so as to thoroughly wet the entire filter paper.
- Remaining solutions shall be sealed and refrigerated. Some samples may be designated for analysis (100 mL minimum requirement). The requirement for sample archiving and disposal shall be approved by the Agricultural Task Leader.

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Appendix F

**PRT STANDARD OPERATING PROCEDURES
SOP #HHL-01-01****F8.1.4.2 Test Initiation**

- Choose at least 10 scarified seeds (number of seeds pre-determined by a germination test) at random from the test lot and place them in a replicate petri dish, spacing the seeds equally in a circle on the filter paper, equidistant from the edge to the center. Repeat for each replicate.
- Place a petri dish cover over each replicate, and set the petri dishes in layers in a container in the dark, e.g., in a black 33-gallon plastic garbage bag lining a cardboard box (randomize the position of the replicates at the beginning of the test). Place moist paper towels between layers of petri dishes to keep humidity level elevated and prevent drying of filter paper. Close the container to seal the system.

F8.1.4.3 Monitoring and Maintenance

- Incubate the test replicates at $24 \pm 2^{\circ}\text{C}$ in total darkness for a time period predetermined by a germination test (approximately 7 days) during method evaluation.
- Monitor and record the temperature of the incubation chamber at test initiation and at each 24 hour interval thereafter.

F8.1.4.4 Test Termination

- The test is terminated after a duration of seven (7) days.
- Remove the petri dishes from the incubation chamber.
- Determine the root length for each replicate.
 - Remove the seeds from the filter paper to a clean work surface and measure (using either calipers or metric ruler) and record the root length, to the nearest millimeter, for each germinated seed.
 - Measurements are made from the transition point between the hypocotyl and the primary root to the apex of the root.
 - At the transition point, the axis may exhibit a slight swelling, a slight crook, or a noticeable change in size.

F8.1.4.5 Definitive Test

- Initial test evaluations showing significant effects may be reevaluated in a definitive test using a geometric series of elutriate concentrations. Using pipettes, volumetric flasks, or syringes, the elutriate dilutions by volume may be prepared, using deionized water, to result in aliquots (100 mL each) of a geometric series of sample concentrations (e.g., 6.25, 12.5, 25, 50, and 100 percent elutriate, i.e., mL elutriate per 100 mL solution). A purified water control is also added. The procedures of this definitive test follow the method F8.1.4.2 through F8.1.4.4 above for each concentration.

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**PRT STANDARD OPERATING PROCEDURES
SOP #HHL-01-01****F8.1.4.6 Reporting**

Report the LC50 and its 95 percent confidence limits. The LC50 is an estimate of the median lethal concentration. Methods will be equivalent to those of Peltier and Weber (1985).

- LC50 is the concentration that is estimated to be lethal to 50 percent of the organisms within the test period.
- Confidence interval (or range of values) expresses the values within which the "true" LC50 could occur.
- The effect is also measured as a percent inhibition of buckwheat root elongation as compared to controls.

F8.1.5 Calculations

The volume of purified water added to the sample is determined using the following calculation:

$$\text{Volume Water (mL)} = [480 \text{ mL}] - [\text{MC} \times 120 \text{ g dry sample}]$$

F8.1.6 Reporting and Documentation

Reporting and documentation of data will be recorded in the study notebook and/or appropriate data forms.

F8.1.7 Responsible individual

The Agricultural Task Leader is responsible for the review and implementation of this SOP.

F8.1.8 Contingencies

The Agricultural Task Leader shall be informed immediately of any problems with or any deviations from this SOP.

F8.1.9 Review and Update

This SOP is a study specific SOP which will be reviewed prior to each new test application and revised according to the procedures outlined in SOP #MN-003.

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APPENDIX B

Table B-1.

SOIL ELUTRIATES - HYPOCOTYL LENGTH

Species	Seed Source	Treatment# (PPB Lead)	Soil Elutriate	Hypocotyl Length	
				(mm)	LSD ^a (%reference)
<i>E. parvifolium</i>					
	A				
	(7,010)	1	0025-42A	21.03 ab	108.61
	(1,690)	9	0025-42G	19.37 abc	100.00
	B				
	(133)	7	002542F2	5.09	ef 172.01
	(517)	5	0025-42D	4.48	ef 151.19
	(1,690)	11	0025-42G	2.96	f 100.00
	C				
	(1,690)	10	0025-42G	14.42 abcd	100.00
	(16,900)	3	002542C2	11.35 cd	78.75
	(27)	2	0025-42B	8.81 d	61.13
	D				
	(1,690)	12	0025-42G	12.91 bcde	100.00
	(167)	6	0025-42E	11.35 cdef	87.89
	E				
	(33)	16	0025-42I	16.36 abcd	127.51
	(8)	17	0025-42S	13.90 abcd	108.31
	(1,690)	13	0025-42G	12.83 bcde	100.00
	(30)	15	0025-42H	10.33 def	80.51
<i>E. parvifolium</i> (surrogate)					
	EP				
	(1,690)	14	0025-42G	22.01 a	100.00
	(133)	8	002542F2	21.59 a	98.11
	(8)	18	0025-42S	21.26 ab	96.61
	(16,900)	4	002542C2	20.78 ab	94.43

^a Means followed by the same letter are not significantly different (P = 0.05).

APPENDIX B

Table B-2.

SOIL ELUTRIATES - ROOT ELONGATION

Species	Seed Source	Treatment# (PPB Lead)	Soil Elutriate	Root Length (mm)	LSD ^a	Root Length (%reference)
E. parvifolium						
	A					
	(1,690)	9	0025-42G	10.02 a		100.00
	(7,010)	1	0025-42A	<u>5.38 bcd</u>		<u>53.64</u>
	B					
	(517)	5	0025-42D	.65	de	247.19
	(133)	7	002542F2	.65	de	244.67
	(1,690)	11	0025-42G	.26	e	100.00
	C					
	(1,690)	10	0025-42G	2.42	cde	100.00
	(27)	2	0025-42B	1.33	cde	55.03
	(16,900)	3	002542C2	1.29	cde	53.38
	D					
	(1,690)	12	0025-42G	3.66	bcde	100.00
	(167)	6	0025-42E	2.88	bcde	78.53
	E					
	(33)	16	0025-42I	5.02	bcde	137.07
	(1,690)	13	0025-42G	3.66	bcde	100.00
	(30)	15	0025-42H	3.55	bcde	97.09
	(8)	17	0025-42S	2.50	cde	68.21
E. parvifolium (surrogate) EP						
	(1,690)	14	0025-42G	7.52 ab		100.00
	(133)	8	002542F2	5.93 abc		78.89
	(8)	18	0025-42S	5.42 abc		72.15
	(16,900)	4	002542C2	2.89 bcde		38.51

^a Means followed by the same letter are not significantly different (P = 0.05).

APPENDIX B

Table B-3.

SOIL ELUTRIATES - SEED GERMINATION

Species	Seed Source	Treatment# (PPB Lead)	Soil Elutriate	Arcsin	
				Transformed %Germination	%Germination
Means not Significantly different (P = 0.05).					
<i>E. parvifolium</i>					
	A				
	(7,010)	1	0025-42A	65.85	76.67
	(1,690)	9	0025-42G	62.21	70.00
	B				
	(517)	5	0025-42D	41.07	43.33
	(133)	7	002542F2	41.07	43.33
	(1,690)	11	0025-42G	39.06	40.00
	C				
	(1,690)	10	0025-42G	55.07	66.67
	(16,900)	3	002542C2	48.93	56.67
	(27)	2	0025-42B	43.08	46.67
	D				
	(1,690)	12	0025-42G	52.77	63.33
	(167)	6	0025-42E	52.77	63.33
	E				
	(33)	16	0025-42I	59.71	73.33
	(30)	15	0025-42H	52.77	63.33
	(8)	17	0025-42S	51.14	60.00
	(1,690)	13	0025-42G	48.84	56.67
<i>E. parvifolium</i> (surrogate) EP					
	(1,690)	14	0025-42G	71.56	90.00
	(16,900)	4	002542C2	72.78	86.67
	(133)	8	002542F2	61.92	76.67
	(8)	18	0025-42S	59.00	73.33

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Table B-4.

SOIL ELUTRIATES - HYPOCOTYL LENGTH

Species	Seed Source	Treatment# (PPB Lead)	Soil Elutriate	Hypocotyl Length	
				(mm)	LSD ^a
				Hypocotyl Length (%reference)	
<i>E. latifolium</i>					
	F				
	(13)	23	0025-42J	14.97 abc	147.70
	(62)	28	0025-42P	10.13 c	100.00
	G				
	(223)	25	0025-42K	16.47 ab	146.40
	(62)	29	0025-42P	11.25 bc	100.00
	H				
	(8)	36	0025-42S	18.84 a	124.35
	(62)	33	0025-42Q	15.55 abc	102.62
	(62)	31	0025-42P	15.15 abc	100.00
	(47)	35	002542R2	<u>11.26 bc</u>	<u>74.29</u>
	(68)	34	002542R1	<u>11.10 bc</u>	<u>73.23</u>
	I				
	(272)	26	0025-42L	14.85 abc	134.85
	(62)	30	0025-42P	11.01 bc	100.00
	J				
	(3,350)	19	0025-42M	15.57 abc	115.59
	(62)	27	0025-42P	13.47 abc	100.00
	(1,620)	20	0025-42N	13.42 abc	99.68
	(1,250)	21	0025-42O	11.44 bc	84.95
<i>E. latifolium</i>					
(surrogate)					
	EL				
	(13)	24	0025-42J	3.22 d	163.35
	(62)	32	0025-42P	1.97 d	100.00
	(8)	37	0025-42S	1.63 d	82.43
	(1,250)	22	0025-42O	1.51 d	76.69

^a Means followed by the same letter are not significantly different (P = 0.05).

APPENDIX B

Table B-5.

SOIL ELUTRIATES - ROOT ELONGATION

Species	Seed Source	Treatment# (PPE Lead)	Soil Elutriate	Root Length (mm)	LSD ^a	Root Length (%reference)
<i>E. latifolium</i>						
	F					
	(62)	28	0025-42P	1.84	abcde	100.00
	(13)	23	0025-42J	1.55	bcde	84.27
	G					
	(223)	25	0025-42K	1.20	cde	106.85
	(62)	29	0025-42P	1.12	cde	100.00
	H					
	(62)	31	0025-42P	3.70	ab	100.00
	(62)	33	0025-42Q	3.53	abc	95.50
	(8)	36	0025-42S	3.07	abcd	83.06
	(47)	35	002542R2	2.12	abcde	57.21
	(68)	34	002542R1	2.01	abcde	54.32
	I					
	(272)	26	0025-42L	2.97	abcd	144.88
	(62)	30	0025-42P	2.05	abcde	100.00
	J					
	(62)	27	0025-42P	4.12	a	100.00
	(1,250)	21	0025-42O	1.78	abcde	43.28
	(3,350)	19	0025-42M	1.42	bcde	34.55
	(1,620)	20	0025-42N	.92	de	22.25
<i>E. latifolium</i> (surrogate)						
	EL					
	(62)	32	0025-42P	.49	e	100.00
	(1,250)	22	0025-42O	.38	e	77.39
	(8)	37	0025-42S	.05	e	10.27
	(13)	24	0025-42J	.03	e	6.85

^a Means followed by the same letter are not significantly different (P = 0.05).

APPENDIX B

Table B-6.

SOIL ELUTRIATES - SEED GERMINATION

Species	Seed Source	Treatment# (PPB Lead)	Soil Elutriate	Arcsin Transformed %Germination	LSD ^a	%Germination
<i>E. latifolium</i>						
	F					
	(13)	23	0025-42J	71.56 a		90.00
	(62)	28	0025-42P	63.93 ab		80.00
	G					
	(223)	25	0025-42K	54.78 ab		66.67
	(62)	29	0025-42P	48.84 bc		56.67
	H					
	(62)	31	0025-42P	63.93 ab		80.00
	(8)	36	0025-42S	57.78 ab		70.00
	(62)	33	0025-42Q	54.78 ab		66.67
	(47)	35	002542R2	50.93 b		60.00
	(68)	34	002542R1	<u>37.22</u> cd		<u>36.67</u>
	I					
	(272)	26	0025-42L	65.85 ab		76.67
	(62)	30	0025-42P	57.00 ab		70.00
	J					
	(62)	27	0025-42P	57.00 ab		70.00
	(1,250)	21	0025-42O	58.08 ab		70.00
	(3,350)	19	0025-42M	53.15 bc		63.33
	(1,620)	20	0025-42N	51.14 bc		60.00
<i>E. latifolium</i>						
(surrogate) EL						
	(13)	24	0025-42J	25.37	de	20.00
	(1,250)	22	0025-42O	23.85	de	16.67
	(62)	32	0025-42P	17.71	e	13.33
	(8)	37	0025-42S	17.71	e	13.33

^a Means followed by the same letter are not significantly different (P = 0.05).

APPENDIX B

Table B-7

Correlation Analysis of Soil pH, Hypocotyl and Root Lengths,
 and Percent Germination of *E. parvifolium* and *E. latifolium*.
 Combined Analysis.

	Soil pH	Hypocotyl Length	Root Length	Percent Germination
Soil pH	1.0000**	-.0149	-.2033	-.1260
Hypocotyl Length		1.0000**	.7146**	.8349**
Root Length			1.0000**	.5446**
Percent germination				1.0000**

N of cases: 111 1-tailed Signif: * - .01 ** - .001

Correlation Analysis of Soil pH, Hypocotyl and Root Lengths,
 and Percent Germination of *E. parvifolium*.

	Soil pH	Hypocotyl Length	Root Length	Percent Germination
Matrix pH	1.0000**	.0340	-.1395	-.0605
Hypocotyl Length		1.0000**	.7692**	.8723**
Root Length			1.0000**	.6085**
Percent Germination				1.0000**

N of cases: 54 1-tailed Signif: * - .01 ** - .001

Correlation Analysis of Soil pH, Hypocotyl and Root Lengths,
 and Percent Germination of *E. latifolium*.

	Soil pH	Hypocotyl Length	Root Length	Percent Germination
Matrix pH	1.0000**	.0352	-.1397	-.1607
Hypocotyl Length		1.0000**	.5972**	.8408**
Root Length			1.0000**	.5681**
Percent Germination				1.0000**

N of cases: 57 1-tailed Signif: * - .01 ** - .001

APPENDIX B

Table B-8

Correlations between Total Metals in Soil Elutriate,
Total Metals in Soil, and Percent Bullets in Soil.

	<u>Percent Bullets</u>	<u>Total Elutriate Metals</u>
Total Soil Metals (PPM)	0.635*	0.544*
Total Elutriate Metals (PPB)	0.549*	

^a Correlation coefficient with n = 20 cases,
1-tailed significance * = 0.01, ** = 0.001

APPENDIX B

Table B-9

Correlations between Total Soil Metals and
Individual Metals in Elutriate and Soil

<u>Metal</u>	<u>Elutriate</u> <u>r^a</u>	<u>Soil</u> <u>r^a</u>
Antimony	0.169	0.892**
Chromium	-0.202	-0.104
Copper	0.386	0.950**
Lead	0.524*	0.999**
Zinc	0.594*	0.965**

^a Correlation coefficient with n = 20 cases,
1-tailed significance * = 0.01, ** = 0.001

Table B-10

Correlations between Percent Bullets in Soil and
Individual Metals in Elutriate and Soil

<u>Metal</u>	<u>Elutriate</u> <u>r^a</u>	<u>Soil</u> <u>r^a</u>
Antimony	0.209	0.625*
Chromium	0.057	0.013
Copper	0.674**	0.825**
Lead	0.518*	0.623*
Zinc	0.531*	0.789**

^a Correlation coefficient with n = 20 cases,
1-tailed significance * = 0.01, ** = 0.001

Table B-11

Correlations between Individual Metals in Soil and
Individual Metals in Soil Elutriate.

Soil Metal	Elutriate Metal				
	Antimony	Chromium	Copper	Lead	Zinc
	r^a	r^a	r^a	r^a	r^a
Antimony	0.324	-0.231	0.630*	0.794**	0.721**
Chromium	0.308	0.091	0.107	-0.365	-0.346
Copper	0.213	-0.112	0.597*	0.604*	0.615*
Lead	0.164	-0.206	0.371	0.516*	0.590*
Zinc	0.287	-0.150	0.562*	0.546*	0.573*

^a Correlation coefficient with n = 20 cases,
1-tailed significance * = 0.01, ** = 0.001

APPENDIX B

Table B-12

Correlations between Elutriate Metal Content and Hypocoytl Length, Root Length, and Percent Germination for *E. parvifolium*.

	Elutriate Metal				
	Antimony	Chromium	Copper	Lead	Zinc
	<u>r^a</u>	<u>r^a</u>	<u>r^a</u>	<u>r^a</u>	<u>r^a</u>
Hypocoytl Length	0.296	-0.335	0.306	0.208	0.145
Root Length	0.237	-0.185	0.077	-0.134	-0.194
Percent Germination	0.231	-0.171	0.311	0.261	0.219

Correlations between Elutriate Metal Content and Hypocoytl Length, Root Length, and Percent Germination for *E. latifolium*.

	Elutriate Metal				
	Antimony	Chromium	Copper	Lead	Zinc
	<u>r^a</u>	<u>r^a</u>	<u>r^a</u>	<u>r^a</u>	<u>r^a</u>
Hypocoytl Length	0.205	0.101	0.220	0.103	-0.241
Root Length	-0.237	-0.177	-0.219	-0.214	-0.229
Percent Germination	0.066	0.031	0.083	0.004	-0.232

^a Correlation coefficient with n = 20 cases, 1-tailed significance * = 0.01, ** = 0.001

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)	
E.P	0025-42A	A	1	1	1	24.10	5.90
					2	32.20	5.10
					3	30.10	2.00
					4	25.00	5.60
					5	33.70	14.00
					6	35.40	6.70
					7	31.60	10.80
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	21.21	5.01	
				StdD	15.05	4.75	
				2	1	32.40	10.70
					2	28.00	1.20
					3	32.50	16.10
					4	32.30	20.10
					5	28.10	3.20
					6	10.10	1.50
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	16.34	5.28	
				StdD	15.47	7.55	
				3	1	32.10	3.90
					2	23.10	7.50
					3	25.80	19.90
					4	22.80	8.40
					5	31.20	7.60
					6	11.70	0.00
					7	32.90	1.70
					8	32.20	2.40
					9	20.10	6.00
10	23.60	1.00					
Mean	25.55	5.84					
StdD	6.77	5.78					
Mean	21.03	5.38					
StdDev	13.17	5.93					

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)	
E.P	0025-42B	C	2	1			
					1	39.00	10.70
					2	32.00	4.50
					3	18.90	4.20
					4	31.40	3.00
					5	15.40	1.00
					6	21.60	2.00
					7	12.70	1.00
					8	2.00	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	17.30	2.64	
				StdD	14.00	3.29	
				2			
					1	8.80	0.00
					2	2.10	0.00
					3	0.00	0.00
					4	0.00	0.00
					5	0.00	0.00
					6	0.00	0.00
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	1.09	0.00	
				StdD	2.79	0.00	
				3			
					1	18.80	9.70
					2	32.90	0.00
					3	27.80	3.80
					4	1.00	0.00
					5	0.00	0.00
					6	0.00	0.00
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	8.05	1.35	
				StdD	13.17	3.17	
				Mean	8.81	1.33	
				StdDev	12.76	2.77	

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)
E.P	002542C2	C	3	1		
					1	28.80
					2	19.40
					3	17.70
					4	12.00
					5	11.90
					6	0.00
					7	0.00
					8	0.00
					9	0.00
					10	0.00
				Mean	8.98	.51
				StdD	10.53	.88
				2		
					1	25.40
					2	35.00
					3	22.70
					4	11.20
					5	19.30
					6	0.00
					7	0.00
					8	0.00
					9	0.00
					10	0.00
				Mean	11.36	1.35
				StdD	13.30	3.59
				3		
					1	34.00
					2	31.00
					3	18.80
					4	16.90
					5	11.80
					6	15.10
					7	9.60
					8	0.00
					9	0.00
					10	0.00
				Mean	13.72	2.01
				StdD	12.17	2.60
				Mean	11.35	1.29
				StdDev	11.80	2.60

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)		
E.P.S	002542C2	E	4	1	1	23.90	0.00	
					2	27.30	14.90	
					3	28.40	4.50	
					4	29.00	1.10	
					5	32.30	5.10	
					6	27.80	7.38	
					7	24.50	5.65	
					8	29.50	1.70	
					9	6.20	0.00	
					10	0.00	0.00	
					Mean	22.89	4.03	
					StdD	10.80	4.67	
					2	1	33.40	6.30
				2		29.10	8.90	
				3		29.50	4.50	
				4		19.00	0.00	
				5		37.80	0.00	
				6		5.10	0.00	
				7		1.00	0.00	
				8		0.00	0.00	
				9		0.00	0.00	
				10		0.00	0.00	
					Mean	15.49	1.97	
					StdD	15.81	3.34	
					3	1	35.60	11.70
				2		31.70	1.70	
				3		18.90	0.00	
				4		24.00	0.00	
				5		32.30	4.60	
				6		11.70	2.00	
				7		21.70	0.00	
				8		34.10	3.40	
				9		26.20	3.40	
				10		3.40	0.00	
					Mean	23.96	2.68	
	StdD	10.42	3.59					
	Mean	20.78	2.89					
	StdDev	12.73	3.87					

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)	
E.P	0025-42D	B	5	1	1	20.10	2.60
					2	8.00	0.00
					3	12.00	2.90
					4	1.00	0.00
					5	0.00	0.00
					6	0.00	0.00
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	4.11	.55	
				StdD	7.02	1.16	
				2	1	22.00	3.40
					2	31.30	4.70
					3	8.60	2.50
					4	2.50	0.00
					5	1.00	0.00
					6	1.50	0.00
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	6.69	1.06	
				StdD	11.05	1.78	
				3	1	22.80	2.00
					2	2.50	1.50
					3	1.00	0.00
					4	0.00	0.00
					5	0.00	0.00
					6	0.00	0.00
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
10	0.00	0.00					
Mean	2.63	.35					
StdD	7.13	.75					
Mean	4.48	.65					
StdDev	8.48	1.29					

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)		
E.P	0025-42E	D	6	1	1	30.90	0.00	
					2	22.50	4.10	
					3	22.30	5.30	
					4	12.30	0.00	
					5	1.00	0.00	
					6	1.00	0.00	
					7	0.00	0.00	
					8	0.00	0.00	
					9	0.00	0.00	
					10	0.00	0.00	
					Mean	9.00	.94	
					StdD	12.03	2.00	
					2	1	34.80	20.00
						2	31.10	29.00
						3	29.40	4.00
						4	25.90	2.70
						5	22.40	1.00
						6	17.20	1.00
						7	1.00	0.00
						8	0.00	0.00
						9	0.00	0.00
						10	0.00	0.00
						Mean	16.18	5.77
						StdD	14.51	10.18
					3	1	17.60	7.70
						2	29.00	9.50
						3	27.60	1.00
						4	12.40	1.00
						5	1.00	0.00
						6	1.00	0.00
						7	0.00	0.00
						8	0.00	0.00
						9	0.00	0.00
	10	0.00	0.00					
		Mean	8.86	1.92				
		StdD	11.94	3.57				
		Mean	11.35	2.88				
		StdDev	12.90	6.47				

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)				
E.P	002542F2	B	7	1	23.40	4.50				
					22.70	3.60				
					21.90	1.80				
					11.20	4.30				
					14.30	2.00				
					2.50	1.00				
					0.00	0.00				
					0.00	0.00				
					0.00	0.00				
					0.00	0.00				
				0.00	0.00					
				2	7.00	0.00				
					1.00	0.00				
					1.00	0.00				
					0.00	0.00				
					0.00	0.00				
					0.00	0.00				
					0.00	0.00				
					0.00	0.00				
					0.00	0.00				
					0.00	0.00				
				3	21.70	0.00				
					14.70	0.00				
					9.50	2.20				
					1.90	0.00				
					0.00	0.00				
					0.00	0.00				
					0.00	0.00				
					0.00	0.00				
					0.00	0.00				
					0.00	0.00				
				Mean					9.60	1.72
				StdD					10.31	1.84
Mean					.90	0.00				
StdD					2.18	0.00				
Mean					4.78	.22				
StdD					7.83	.70				
Mean					5.09	.65				
StdDev					8.16	1.34				

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)
E.P.S	002542F2	E	8	1	35.20	22.40
					32.90	13.90
					32.30	10.00
					29.50	23.40
					32.00	15.60
					27.30	6.10
					26.70	3.40
					1.20	0.00
					0.00	0.00
					0.00	0.00
				Mean	21.71	9.48
				StdD	14.93	9.04
				2	29.00	8.90
					29.00	5.60
					35.10	11.20
					33.40	0.00
					26.20	0.00
					15.60	0.00
					22.90	1.00
					31.70	7.30
					20.10	0.00
					0.00	0.00
				Mean	24.30	3.40
				StdD	10.48	4.41
				3	34.50	17.30
					32.70	18.80
					36.30	10.00
					31.20	1.20
					21.30	0.00
					31.60	1.80
					0.00	0.00
					0.00	0.00
					0.00	0.00
0.00	0.00					
Mean	18.76	4.91				
StdD	16.61	7.57				
Mean	21.59	5.93				
StdDev	13.93	7.49				

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)					
E.P	0025-42G	A	9	1	1	38.70	10.80				
					2	14.30	13.00				
					3	31.90	23.40				
					4	0.00	0.00				
					5	0.00	0.00				
					6	0.00	0.00				
					7	0.00	0.00				
					8	0.00	0.00				
					9	0.00	0.00				
					10	0.00	0.00				
				Mean	8.49	4.72					
				StdD	14.90	8.24					
				2					1	23.50	10.20
									2	23.20	2.10
									3	35.00	6.00
									4	28.80	6.00
									5	9.20	2.00
									6	28.60	5.70
									7	25.30	21.90
									8	31.20	19.50
									9	0.00	0.00
									10	0.00	0.00
				Mean	20.48	7.34					
				StdD	12.77	7.73					
				3					1	23.70	29.90
									2	31.20	23.70
									3	25.30	23.40
									4	34.00	22.10
									5	31.90	16.00
									6	31.10	12.30
									7	28.70	19.00
									8	24.50	22.70
									9	28.40	11.00
									10	32.50	0.00
				Mean	29.13	18.01					
StdD	3.61	8.52									
Mean	19.37	10.02									
StdDev	14.06	9.81									

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)		
E.P	0025-42G	C	10	1	1	25.60	1.10	
					2	31.20	14.10	
					3	13.10	0.00	
					4	24.00	1.70	
					5	33.40	9.10	
					6	1.70	0.00	
					7	1.00	0.00	
					8	0.00	0.00	
					9	0.00	0.00	
					10	0.00	0.00	
					Mean	13.00	2.60	
					StdD	14.17	4.92	
					2	1	22.30	0.00
						2	33.00	1.20
						3	26.70	5.60
						4	24.00	0.00
						5	25.60	0.00
						6	11.70	4.50
						7	1.60	0.00
						8	1.20	0.00
						9	0.00	0.00
						10	0.00	0.00
						Mean	14.61	1.13
						StdD	13.07	2.12
					3	1	36.00	16.40
						2	38.80	7.30
						3	35.10	2.00
						4	16.30	0.00
						5	30.20	9.50
						6	0.00	0.00
						7	0.00	0.00
						8	0.00	0.00
						9	0.00	0.00
	10	0.00	0.00					
		Mean	15.64	3.52				
		StdD	17.53	5.70				
		Mean	14.42	2.42				
		StdDev	14.55	4.47				

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)		
E.P	0025-42G	B	11	1	1	7.50	3.00	
					2	2.30	0.00	
					3	22.30	1.03	
					4	4.10	0.00	
					5	2.50	0.00	
					6	1.00	0.00	
					7	0.00	0.00	
					8	0.00	0.00	
					9	0.00	0.00	
					10	0.00	0.00	
					Mean	3.97	.40	
					StdD	6.87	.97	
					2	1	17.50	0.00
						2	1.00	0.00
						3	1.03	0.00
						4	0.00	0.00
						5	0.00	0.00
						6	0.00	0.00
						7	0.00	0.00
						8	0.00	0.00
						9	0.00	0.00
						10	0.00	0.00
						Mean	1.95	0.00
						StdD	5.48	0.00
					3	1	12.30	3.90
						2	9.50	0.00
						3	7.80	0.00
						4	0.00	0.00
						5	0.00	0.00
						6	0.00	0.00
						7	0.00	0.00
						8	0.00	0.00
						9	0.00	0.00
	10	0.00	0.00					
		Mean	2.96	.39				
		StdD	4.88	1.23				
		Mean	2.96	.26				
		StdDev	5.66	.89				

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)
E.P	0025-42G	D	12	1	21.20	4.90
					31.20	1.20
					27.80	11.70
					29.50	7.30
					27.40	9.50
					3.40	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
				0.00	0.00	
				14.05	3.46	
				14.35	4.55	
				2	22.40	9.50
					20.90	0.00
					23.40	0.00
					17.80	0.00
					7.30	1.00
					2.60	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
				9.44	1.05	
				10.39	2.99	
				3	32.00	17.80
					23.40	6.30
					17.80	7.00
					27.30	0.00
					31.20	27.90
					16.80	1.70
					3.90	4.10
					0.00	0.00
0.00	0.00					
0.00	0.00					
15.24	6.48					
13.26	9.33					
Mean	12.91	3.66				
StdDev	12.59	6.43				

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)	
E.P	0025-42G	E	13	1	1	28.90	11.60
					2	32.80	0.00
					3	10.10	0.00
					4	29.50	7.30
					5	29.00	5.10
					6	7.30	0.00
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	13.76	2.40	
				StdD	14.47	4.17	
2	31.20	7.30					
3	28.90	33.40					
4	32.80	7.30					
5	27.00	8.80					
6	33.40	25.10					
7	0.00	0.00					
8	0.00	0.00					
9	0.00	0.00					
10	0.00	0.00					
Mean	18.06	8.19					
StdD	15.68	11.83					
				2	31.70	3.90	
				3	8.90	0.00	
				4	1.60	0.00	
				5	.60	0.00	
				6	0.00	0.00	
				7	0.00	0.00	
				8	0.00	0.00	
				9	0.00	0.00	
				10	0.00	0.00	
				Mean	6.67	.39	
				StdD	11.61	1.23	
				Mean	12.83	3.66	
StdDev	14.35	7.78					

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)
E.P.S	0025-42G	E	14	1	37.20	32.50
					30.80	2.00
					29.10	21.10
					34.40	32.20
					39.80	11.70
					20.80	3.70
					12.70	0.00
					1.00	0.00
					1.00	0.00
					0.00	0.00
				Mean	20.68	10.32
				StdD	15.87	13.45
				2	21.70	3.40
					31.10	7.10
					33.70	9.00
					25.00	5.00
					28.00	7.60
					37.30	4.80
					1.00	0.00
					1.00	0.00
					1.00	0.00
					0.00	0.00
				Mean	17.98	3.69
				StdD	15.44	3.54
				3	42.70	8.00
					37.10	26.10
					32.00	32.10
					22.20	4.90
					29.40	4.70
					32.80	4.70
					29.00	0.00
					25.00	4.90
					23.40	0.00
0.00	0.00					
Mean	27.36	8.54				
StdD	11.47	11.25				
Mean	22.01	7.52				
StdDev	14.46	10.36				

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)	
E.P	0025-42H	E	15	1	1	29.40	11.80
					2	32.90	22.00
					3	31.00	13.90
					4	8.00	0.00
					5	18.50	0.00
					6	12.80	9.60
					7	1.00	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	13.36	5.73	
				StdD	13.72	8.03	
				2	1	43.10	11.10
					2	7.50	6.20
					3	3.00	0.00
					4	2.00	0.00
					5	1.00	0.00
					6	1.00	0.00
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	5.76	1.73	
				StdD	13.32	3.83	
				3	1	34.10	4.40
					2	35.30	26.60
					3	22.10	0.00
					4	9.90	0.00
					5	4.00	1.00
					6	13.30	0.00
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
10	0.00	0.00					
Mean	11.87	3.20					
StdD	14.06	8.34					
Mean	10.33	3.55					
StdDev	13.64	7.00					

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)
E.P	0025-42I	E	16	1	28.90	12.20
					34.00	3.30
					32.70	12.20
					36.10	11.10
					32.70	1.00
					32.60	27.40
					1.00	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
				Mean	19.80	6.72
				StdD	16.92	9.02
				2	41.50	34.40
					43.70	21.40
					36.50	4.40
					31.70	22.10
					18.50	0.00
					21.50	0.00
					21.40	0.00
					1.50	0.00
					1.00	0.00
					0.00	0.00
				Mean	21.73	8.23
				StdD	16.71	12.79
				3	8.00	0.00
					20.90	0.00
					23.50	1.00
					21.10	0.00
					1.00	0.00
					1.00	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
0.00	0.00					
Mean	7.55	.10				
StdD	10.17	.32				
Mean	16.36	5.02				
StdDev	15.76	9.43				

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)					
E.P	0025-42S	E	17	1	1	22.40	0.00				
					2	27.30	8.80				
					3	21.20	0.00				
					4	31.20	1.20				
					5	26.00	0.00				
					6	18.40	0.00				
					7	1.60	0.00				
					8	1.40	0.00				
					9	0.00	0.00				
					10	0.00	0.00				
				Mean	14.95	1.00					
				StdD	12.71	2.77					
				2					1	34.00	20.10
									2	30.90	17.80
									3	31.20	2.00
									4	13.40	0.00
									5	41.20	0.00
									6	35.10	16.20
									7	2.70	0.00
									8	0.00	0.00
									9	0.00	0.00
									10	0.00	0.00
				Mean	18.85	5.61					
				StdD	17.15	8.64					
				3					1	36.70	8.80
									2	19.50	0.00
									3	22.70	0.00
									4	0.00	0.00
									5	0.00	0.00
									6	0.00	0.00
									7	0.00	0.00
									8	0.00	0.00
									9	0.00	0.00
10	0.00	0.00									
Mean	7.89	.88									
StdD	13.42	2.78									
Mean	13.90	2.50									
StdDev	14.78	5.74									

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)		
E.P.S	0025-42S	E	18	1	1	27.80	9.50	
					2	38.80	8.80	
					3	28.90	4.10	
					4	37.30	5.10	
					5	30.10	19.00	
					6	13.80	0.00	
					7	34.00	0.00	
					8	0.00	0.00	
					9	0.00	0.00	
					10	0.00	0.00	
					Mean	21.07	4.65	
					StdD	16.05	6.28	
					2	1	27.70	7.80
				2		28.00	3.90	
				3		33.90	18.80	
				4		29.10	19.50	
				5		29.50	3.40	
				6		11.20	0.00	
				7		28.40	16.20	
				8		0.00	0.00	
				9		0.00	0.00	
				10		0.00	0.00	
					Mean	18.78	6.96	
					StdD	14.23	8.16	
					3	1	29.10	1.20
				2		30.00	7.30	
				3		30.10	0.00	
				4		32.80	3.40	
				5		33.90	28.80	
				6		32.70	3.90	
				7		32.90	2.00	
				8		17.80	0.00	
				9		0.00	0.00	
				10		0.00	0.00	
					Mean	23.93	4.66	
	StdD	13.42	8.81					
	Mean	21.26	5.42					
	StdDev	14.26	7.63					

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)	
E.L.	0025-42M	J	19	1	1	27.80	0.00
					2	39.00	0.00
					3	25.20	0.00
					4	12.30	0.00
					5	0.00	0.00
					6	0.00	0.00
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	10.43	0.00	
				StdD	14.88	0.00	
				2	1	34.10	0.00
					2	28.90	3.40
					3	30.00	5.00
					4	29.90	9.00
					5	29.50	2.30
					6	29.50	3.40
					7	9.50	0.00
					8	14.90	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	20.63	2.31	
				StdD	13.29	3.00	
				3	1	19.00	0.00
					2	29.50	0.00
					3	19.50	0.00
					4	26.20	0.00
					5	29.50	19.60
					6	22.70	0.00
					7	10.00	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	15.64	1.96	
StdD	12.19	6.20					
Mean	15.57	1.42					
StdDev	13.69	3.97					

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)
E.L.	0025-42N	J	20	1	23.40	0.00
					24.10	4.00
					27.30	0.00
					30.60	0.00
					16.70	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
				0.00	0.00	
				Mean	12.21	.40
				StdD	13.33	1.26
				2	20.20	2.80
					25.00	0.00
					8.90	0.00
					17.80	0.00
					15.60	0.00
					35.60	3.40
					17.80	1.20
					1.20	0.00
					0.00	0.00
					0.00	0.00
				Mean	14.21	.74
				StdD	11.73	1.31
				3	31.10	11.20
					30.00	4.90
					31.70	0.00
					29.50	0.00
					16.20	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
Mean	13.85	1.61				
StdD	15.23	3.70				
Mean	13.42	.92				
StdDev	13.06	2.36				

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)
E.L.	0025-420	J	21	1		
					1	21.20
					2	20.20
					3	23.90
					4	4.50
					5	0.00
					6	0.00
					7	0.00
					8	0.00
					9	0.00
					10	0.00
				Mean	6.98	1.12
				StdD	10.34	3.14
				2		
					1	22.40
					2	20.00
					3	21.20
					4	9.00
					5	22.80
					6	30.60
					7	1.90
					8	1.20
					9	0.00
					10	0.00
				Mean	12.91	1.62
				StdD	11.68	4.07
				3		
					1	21.70
					2	25.60
					3	21.70
					4	17.80
					5	29.50
					6	6.20
					7	13.90
					8	2.80
					9	5.10
					10	0.00
				Mean	14.43	2.61
				StdD	10.37	4.04
				Mean	11.44	1.78
				StdDev	10.93	3.70

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)	
E.L.S	0025-420	E	22	1	1	26.70	3.90
					2	0.00	0.00
					3	0.00	0.00
					4	0.00	0.00
					5	0.00	0.00
					6	0.00	0.00
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	2.67	.39	
				StdD	8.44	1.23	
				2	1	1.10	0.00
					2	1.00	0.00
					3	0.00	0.00
					4	0.00	0.00
					5	0.00	0.00
					6	0.00	0.00
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	.21	0.00	
				StdD	.44	0.00	
				3	1	15.60	7.40
					2	1.00	0.00
					3	0.00	0.00
					4	0.00	0.00
					5	0.00	0.00
					6	0.00	0.00
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
10	0.00	0.00					
Mean	1.66	.74					
StdD	4.91	2.34					
Mean	1.51	.38					
StdDev	5.54	1.51					

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)
E.L.	0025-42J	F	23	1	30.70	0.00
					39.60	6.50
					7.60	5.00
					18.60	4.80
					20.20	0.00
					12.40	4.40
					5.20	0.00
					1.00	0.00
					1.00	0.00
					0.00	0.00
				Mean	13.63	2.07
				StdD	13.53	2.72
				2	50.10	1.00
					43.00	10.20
					34.60	3.40
					21.20	0.00
					2.80	0.00
					1.40	0.00
					1.00	0.00
					1.00	0.00
					1.00	0.00
					0.00	0.00
				Mean	15.61	1.46
				StdD	19.95	3.25
				3	49.80	7.60
					44.80	0.00
					32.00	3.70
					15.60	0.00
					9.90	0.00
					1.00	0.00
					1.50	0.00
					1.00	0.00
					1.00	0.00
0.00	0.00					
Mean	15.66	1.13				
StdD	19.45	2.55				
Mean	14.97	1.55				
StdDev	17.28	2.79				

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)	
E.L.S	0025-42J	E	24	1	1	35.00	0.00
					2	21.70	0.00
					3	2.80	0.00
					4	1.00	0.00
					5	0.00	0.00
					6	0.00	0.00
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	6.05	0.00	
				StdD	12.20	0.00	
				2	1	25.10	1.00
					2	0.00	0.00
					3	0.00	0.00
					4	0.00	0.00
					5	0.00	0.00
					6	0.00	0.00
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	2.51	.10	
				StdD	7.94	.32	
				3	1	11.10	0.00
					2	0.00	0.00
					3	0.00	0.00
					4	0.00	0.00
					5	0.00	0.00
					6	0.00	0.00
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
10	0.00	0.00					
Mean	1.11	0.00					
StdD	3.51	0.00					
Mean	3.22	.03					
StdDev	8.60	.18					

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)	
E.L.	0025-42K	G	25	1	1	37.80	10.00
					2	30.00	3.90
					3	26.30	0.00
					4	24.00	1.20
					5	32.70	0.00
					6	4.90	0.00
					7	21.70	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	17.74	1.51	
				StdD	14.96	3.23	
				2	1	21.20	0.00
					2	33.40	0.00
					3	32.80	1.20
					4	23.40	4.50
					5	46.30	0.00
					6	4.90	0.00
					7	3.40	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	16.54	.57	
				StdD	17.10	1.43	
				3	1	38.50	0.00
					2	27.40	9.50
					3	36.70	5.60
					4	38.50	0.00
					5	4.00	0.00
					6	6.20	0.00
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
10	0.00	0.00					
Mean	15.13	1.51					
StdD	17.72	3.31					
Mean	16.47	1.20					
StdDev	16.09	2.74					

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)	
E.L.	0025-42L	I	26	1	1	24.90	0.00
					2	18.40	0.00
					3	12.30	0.00
					4	23.40	0.00
					5	4.50	0.00
					6	3.40	0.00
					7	6.70	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	9.36	0.00	
				StdD	9.76	0.00	
				2	1	30.60	14.10
					2	24.50	17.80
					3	23.40	2.30
					4	23.90	7.30
					5	12.80	1.20
					6	31.20	1.20
					7	22.40	0.00
					8	21.20	13.40
					9	22.80	4.50
					10	5.60	0.00
				Mean	21.84	6.18	
				StdD	7.64	6.62	
				3	1	34.50	7.80
					2	35.60	5.10
					3	17.80	8.80
					4	18.80	5.60
					5	22.80	0.00
					6	3.90	0.00
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
10	0.00	0.00					
Mean	13.34	2.73					
StdD	14.47	3.67					
Mean	14.85	2.97					
StdDev	11.86	4.94					

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)
E.L.	0025-42P	J	27	1		
					1	27.60
					2	31.10
					3	22.20
					4	16.00
					5	3.00
					6	1.00
					7	2.00
					8	1.00
					9	0.00
					10	0.00
				Mean	10.39	5.13
				StdD	12.53	7.21
				2		
					1	44.70
					2	31.50
					3	21.70
					4	21.50
					5	19.00
					6	1.00
					7	0.00
					8	0.00
					9	0.00
					10	0.00
				Mean	13.94	2.22
				StdD	16.13	3.91
				3		
					1	31.70
					2	32.30
					3	18.80
					4	19.40
					5	27.50
					6	30.00
					7	1.00
					8	0.00
					9	0.00
					10	0.00
				Mean	16.07	5.01
				StdD	14.35	6.48
				Mean	13.47	4.12
				StdDev	14.11	5.98

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)
E.L.	0025-42P	F	28	1		
					1	29.50
					2	13.60
					3	6.30
					4	4.60
					5	9.60
					6	5.50
					7	8.90
					8	2.80
					9	1.00
					10	0.00
				Mean	8.18	.20
				StdD	8.55	.42
				2		
					1	40.10
					2	19.50
					3	29.60
					4	41.30
					5	2.50
					6	1.60
					7	1.00
					8	1.00
					9	0.00
					10	0.00
				Mean	13.66	4.67
				StdD	17.37	10.84
				3		
					1	40.90
					2	9.40
					3	31.30
					4	1.00
					5	1.00
					6	1.00
					7	1.00
					8	0.00
					9	0.00
					10	0.00
				Mean	8.56	.66
				StdD	14.95	2.09
				Mean	10.13	1.84
				StdDev	13.86	6.49

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)		
E.L.	0025-42P	G	29	1	1	35.10	0.00	
					2	21.20	0.00	
					3	29.50	0.00	
					4	1.70	0.00	
					5	21.70	0.00	
					6	0.00	0.00	
					7	0.00	0.00	
					8	0.00	0.00	
					9	0.00	0.00	
					10	0.00	0.00	
					Mean	10.92	0.00	
					StdD	14.27	0.00	
					2	1	24.10	0.00
						2	15.10	0.00
						3	22.00	10.60
						4	30.00	0.00
						5	.60	0.00
						6	8.90	0.00
						7	0.00	0.00
						8	0.00	0.00
						9	0.00	0.00
						10	0.00	0.00
						Mean	10.07	1.06
						StdD	11.82	3.35
					3	1	42.20	0.00
						2	25.10	4.00
						3	35.60	19.00
						4	22.70	0.00
						5	1.00	0.00
						6	1.00	0.00
						7	0.00	0.00
						8	0.00	0.00
						9	0.00	0.00
	10	0.00	0.00					
		Mean	12.76	2.30				
		StdD	16.89	6.00				
		Mean	11.25	1.12				
		StdDev	14.02	3.95				

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)		
E.L.	0025-42P	I	30	1	1	19.40	0.00	
					2	31.10	0.00	
					3	20.30	2.30	
					4	21.80	4.40	
					5	16.50	0.00	
					6	21.10	0.00	
					7	10.50	3.00	
					8	5.20	0.00	
					9	0.00	0.00	
					10	0.00	0.00	
					Mean	14.59	.97	
					StdD	10.31	1.64	
					2	1	31.00	11.10
						2	18.30	11.10
						3	25.10	10.30
						4	19.40	9.20
						5	5.50	6.10
						6	4.00	0.00
						7	1.00	0.00
						8	0.00	0.00
						9	0.00	0.00
						10	0.00	0.00
						Mean	10.43	4.78
						StdD	11.84	5.23
					3	1	30.80	1.00
						2	7.30	0.00
						3	15.00	0.00
						4	14.00	0.00
						5	11.10	3.00
						6	1.90	0.00
						7	0.00	0.00
						8	0.00	0.00
						9	0.00	0.00
	10	0.00	0.00					
		Mean	8.01	.40				
		StdD	10.05	.97				
		Mean	11.01	2.05				
		StdDev	10.75	3.68				

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)		
E.L.	0025-42P	H	31	1	1	47.60	28.70	
					2	35.60	6.30	
					3	24.20	0.00	
					4	23.30	4.80	
					5	1.00	0.00	
					6	1.00	0.00	
					7	1.00	0.00	
					8	1.00	0.00	
					9	0.00	0.00	
					10	0.00	0.00	
					Mean	13.47	3.98	
					StdD	17.80	8.99	
					2	1	52.10	10.70
						2	42.80	1.00
						3	23.40	0.00
						4	20.20	1.00
						5	38.00	19.00
						6	19.10	0.00
						7	1.00	0.00
						8	1.00	0.00
						9	1.00	0.00
						10	0.00	0.00
						Mean	19.86	3.17
						StdD	19.35	6.47
					3	1	41.30	12.70
						2	32.70	11.70
						3	35.20	11.70
						4	6.50	3.40
						5	3.60	0.00
						6	1.00	0.00
						7	1.00	0.00
						8	0.00	0.00
						9	0.00	0.00
	10	0.00	0.00					
		Mean	12.13	3.95				
		StdD	17.00	5.68				
		Mean	15.15	3.70				
		StdDev	17.77	6.95				

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)	
E.L.S	0025-42P	E	32	1	1	16.70	7.30
					2	13.40	0.00
					3	0.00	0.00
					4	0.00	0.00
					5	0.00	0.00
					6	0.00	0.00
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	3.01	.73	
				StdD	6.39	2.31	
				2	1	0.00	0.00
					2	0.00	0.00
					3	0.00	0.00
					4	0.00	0.00
					5	0.00	0.00
					6	0.00	0.00
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	0.00	0.00	
				StdD	0.00	0.00	
				3	1	14.10	7.30
					2	15.00	0.00
					3	0.00	0.00
					4	0.00	0.00
					5	0.00	0.00
					6	0.00	0.00
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
10	0.00	0.00					
Mean	2.91	.73					
StdD	6.14	2.31					
Mean	1.97	.49					
StdDev	5.14	1.85					

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)	
E.L.	0025-42Q	H	33	1	1	46.50	0.00
					2	29.40	2.40
					3	34.00	8.80
					4	41.70	0.00
					5	26.50	0.00
					6	1.00	5.60
					7	1.00	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	18.01	1.68	
				StdD	19.39	3.10	
				2	1	33.30	7.30
					2	33.50	9.90
					3	22.50	1.50
					4	33.50	1.50
					5	11.80	2.50
					6	1.00	0.00
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	13.56	2.27	
				StdD	15.50	3.50	
				3	1	43.30	23.30
					2	40.50	10.80
					3	29.20	20.00
					4	28.80	4.00
					5	5.00	3.50
					6	3.00	4.90
					7	1.00	0.00
					8	0.00	0.00
					9	0.00	0.00
10	0.00	0.00					
Mean	15.08	6.65					
StdD	18.13	8.63					
Mean	15.55	3.53					
StdDev	17.22	5.91					

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)	
E.L.	002542R1	H	34	1	1	29.00	11.70
					2	25.60	2.30
					3	55.10	11.70
					4	1.00	0.00
					5	0.00	0.00
					6	0.00	0.00
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	11.07	2.57	
				StdD	19.17	4.87	
				2	1	34.10	2.80
					2	32.80	1.20
					3	39.00	0.00
					4	0.00	0.00
					5	0.00	0.00
					6	0.00	0.00
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
				Mean	10.59	.40	
				StdD	17.12	.92	
				3	1	35.90	20.60
					2	35.70	10.00
					3	13.00	0.00
					4	31.70	0.00
					5	0.00	0.00
					6	0.00	0.00
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
Mean	11.63	3.06					
StdD	16.28	6.92					
Mean	11.10	2.01					
StdDev	16.95	4.88					

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)		
E.L.	002542R2	H	35	1	1	28.30	0.00	
					2	29.30	10.90	
					3	42.80	11.30	
					4	37.00	0.00	
					5	1.00	0.00	
					6	1.00	0.00	
					7	1.00	0.00	
					8	0.00	0.00	
					9	0.00	0.00	
					10	0.00	0.00	
					Mean	14.04	2.22	
					StdD	17.93	4.68	
					2	1	40.80	19.40
				2		31.90	3.60	
				3		33.10	10.00	
				4		9.20	0.00	
				5		1.00	0.00	
				6		1.00	0.00	
				7		1.00	0.00	
				8		0.00	0.00	
				9		0.00	0.00	
				10		0.00	0.00	
					Mean	11.80	3.30	
					StdD	16.58	6.50	
					3	1	37.90	8.30
				2		39.40	0.00	
				3		1.00	0.00	
				4		1.00	0.00	
				5		0.00	0.00	
				6		0.00	0.00	
				7		0.00	0.00	
				8		0.00	0.00	
				9		0.00	0.00	
				10		0.00	0.00	
					Mean	7.93	.83	
	StdD	16.20	2.62					
	Mean	11.26	2.12					
	StdDev	16.52	4.81					

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)	
E.L.	0025-42S	H	36	1			
					1	29.50	15.10
					2	28.50	0.00
					3	20.60	0.00
					4	26.30	0.00
					5	14.10	0.00
					6	0.00	0.00
					7	0.00	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
					Mean	11.90	1.51
					StdD	13.26	4.78
				2			
					1	32.30	19.50
					2	31.20	1.20
					3	38.40	5.10
					4	41.20	14.00
					5	19.50	0.00
					6	22.90	0.00
					7	47.80	0.00
					8	38.40	1.70
					9	1.50	0.00
					10	0.00	0.00
					Mean	27.32	4.15
					StdD	16.30	6.95
				3			
					1	51.70	1.70
					2	10.00	10.60
					3	30.10	0.00
					4	38.40	14.90
					5	33.90	0.00
					6	7.30	8.40
					7	1.70	0.00
					8	0.00	0.00
					9	0.00	0.00
					10	0.00	0.00
					Mean	17.31	3.56
					StdD	19.33	5.59
					Mean	18.84	3.07
					StdDev	17.18	5.75

STUDY 4HHL-01 SEEDLING GROWTH ON SOIL ELUTRIATES DATA

Species	Soil Elutriate	Seed Source	Treatment#	Rep	Hypocotyl Length (mm)	Root Length (mm)
E.L.S	0025-42S	E	37	1	36.80	1.50
					1.00	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
				0.00	0.00	
				Mean	3.78	.15
				StdD	11.61	.47
				2	5.50	0.00
					5.50	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
				Mean	1.10	0.00
				StdD	2.32	0.00
				3	0.00	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
					0.00	0.00
0.00	0.00					
0.00	0.00					
Mean	0.00	0.00				
StdD	0.00	0.00				
Mean	1.63	.05				
StdDev	6.79	.27				

Appendix D
 Table D-1

Combined ANOVA of Treatments 1-18 (E. parvifolium)

BY		HLENGTH	Hypocotyl Length (mm)			
		REP	Rep			
		TRTNO	Treatment#			
Source of Variation		Sum of Squares	DF	Mean Square	F	Signif of F
REP		10.094	2	5.047	.192	.826
TRTNO		1959.574	17	115.269	4.389	.000 **
Residual		893.027	34	26.265	<u>LSD = 8.511</u>	
Total		2862.695	53	54.013		

BY		RLENGTH	Root Length (mm)			
		REP	Rep			
		TRTNO	Treatment#			
Source of Variation		Sum of Squares	DF	Mean Square	F	Signif of F
REP		.487	2	.244	.030	.971
TRTNO		339.548	17	19.973	2.436	.013 *
Residual		278.740	34	8.198	<u>LSD = 4.755</u>	
Total		618.776	53	11.675		

BY		ARCGERM	Arcsin Transformed %Germination			
		REP	Rep			
		TRTNO	Treatment#			
Source of Variation		Sum of Squares	DF	Mean Square	F	Signif of F
REP		30.444	2	15.222	.092	.912
TRTNO		5187.729	17	305.161	1.853	.062 ns
Residual		5600.576	34	164.723		
Total		10818.749	53	204.127		

* Significantly different at P = 0.05.
 ** Significantly different at P = 0.01.
 LSD Least Significant Difference test value (P = 0.05).

Appendix D

Table D-2

Combined ANOVA of Treatment 19-37 (E. latifolium)

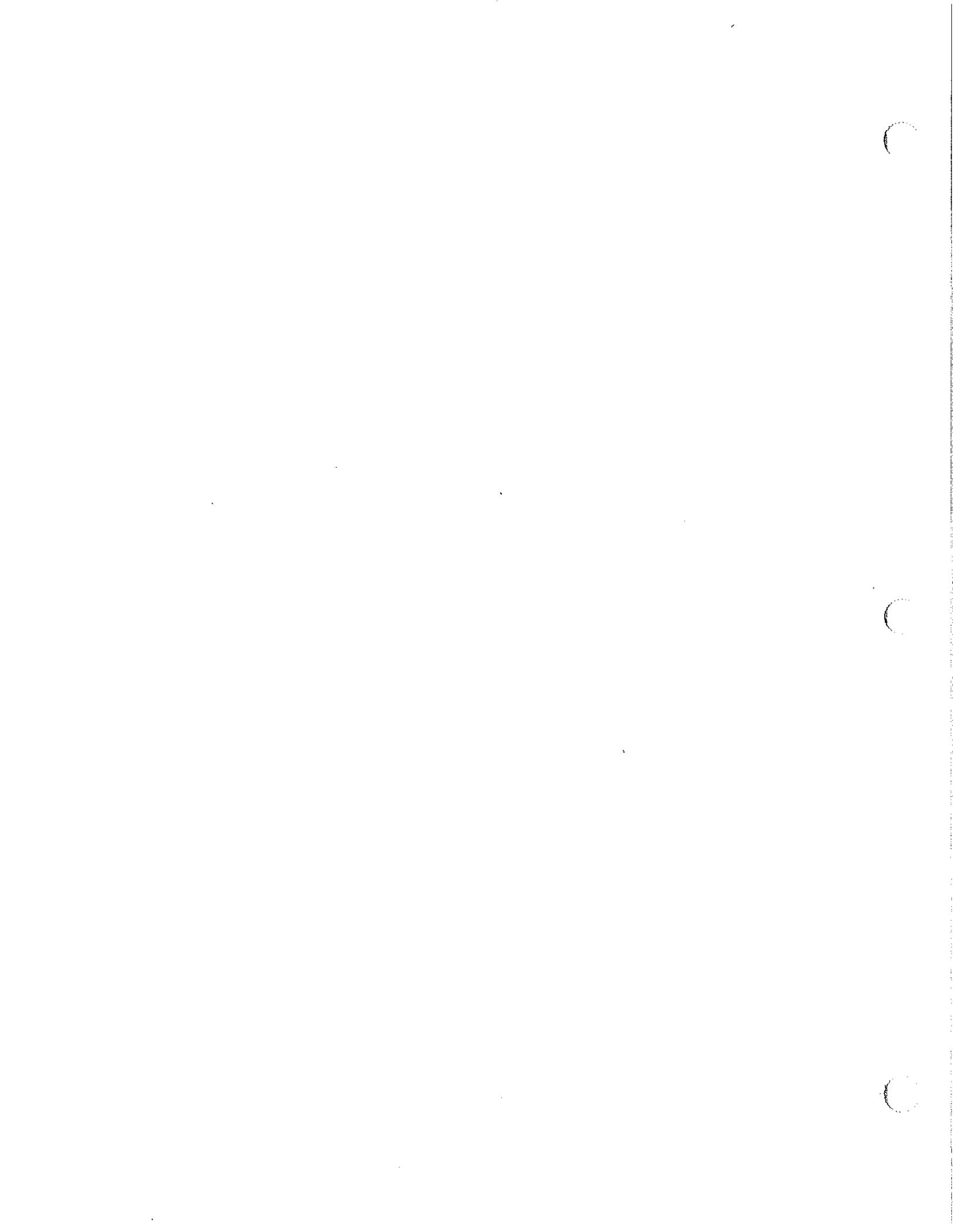
		HLENGTH	Hypocotyl Length (mm)				
BY	REP	TRTNO	Rep	Treatment#			
Source of Variation			Sum of Squares	DF	Mean Square	F	Signif of F
REP			45.999	2	23.000	2.051	.143
TRTNO			1538.599	18	85.478	7.623	.000 **
Residual			403.654	36	11.213	<u>LSD = 5.549</u>	
Total			1988.251	56	35.504		

		RLENGTH	Root Length (mm)				
BY	REP	TRTNO	Rep	Treatment#			
Source of Variation			Sum of Squares	DF	Mean Square	F	Signif of F
REP			7.474	2	3.737	1.770	.185
TRTNO			80.816	18	4.490	2.126	.027 *
Residual			76.019	36	2.112	<u>LSD = 2.408</u>	
Total			164.309	56	2.934		

		ARCGERM	Arcsin Transformed %Germination				
BY	REP	TRTNO	Rep	Treatment#			
Source of Variation			Sum of Squares	DF	Mean Square	F	Signif of F
REP			287.559	2	143.779	1.288	.288
TRTNO			14718.609	18	817.700	7.327	.000 **
Residual			4017.545	36	111.598	<u>LSD = 17.501</u>	
Total			19023.713	56	339.709		

* Significantly different at P = 0.05.
 ** Significantly different at P = 0.01.
 LSD Least Significant Difference test value (P = 0.05).

APPENDIX J
RESPONSE TO AGENCY COMMENTS



**RESPONSE TO AGENCY COMMENTS
DRAFT BASEWIDE REMEDIAL INVESTIGATION/FEASIBILITY STUDY
VOLUME IV - ECOLOGICAL RISK ASSESSMENT
FORT ORD, CALIFORNIA**

The following are the Army's responses to the comments of the regulatory agencies on the Draft Basewide Remedial Investigation/Feasibility Study. All comments and the associated responses pertaining to Volume IV of the Basewide Remedial Investigation/Feasibility Study are provided herein.

**I. U.S. ENVIRONMENTAL PROTECTION AGENCY TECHNICAL REVIEW COMMENTS,
VOLUME IV - BASELINE ECOLOGICAL RISK ASSESSMENT**

**Comments on the Review of Basewide
Remedial Investigation/Feasibility Study Fort Ord, California
Ecological Risk Assessment
by U.S. EPA, Region IX**

As I discussed with you, the following comments will address the "big" picture items with specific examples to emphasize my point.

Summary

Although there are many approaches to ecological impact assessment and ecological risk assessment the experience in Region 9 has been that deviations from our guidance produces incomplete efforts and insufficient data to support the positions that are proposed as final products. This report is an example of insufficient and inappropriate data being applied in an illogical manner to arrive at questionable results. There was a great amount of work performed as shown by the production of this report, however there could have been a much improved report had more site specific data been collected.

The methods used and approaches taken for this work are inadequate for many reasons. The assessment endpoints are poorly stated, the measurement endpoints cannot be related to the assessment endpoints in a logical and relevant way, estimates of exposure and the ultimate effects are highly questionable. With the material presented, it appears that several sites must be sampled further (as is planned by HLA) to collect more appropriate data for the measurement endpoints that will permit a more relevant evaluation of the assessment endpoints.

The data used to estimate critical toxicity values are questionable. Table 5 does not show any relationship to measurement nor assessment endpoint, only a "dose." The "Long and Morgan" data are used indiscriminately whether it is freshwater sediments, or projected to marine sediments. Data at the end of the pipe for the storm water drains is not discriminated as to receptors being terrestrial or aquatic whereas some of these drains do not reach any water body.

Specific Comments

Comment 1: p1, 1.2 Purpose and Objectives. The overall purpose as stated is a good statement of what is expected to be completed for this effort. I have a problem with the bullets and what they mean. For instance, the first bullet is most appropriate for the work plan, not this document; this document must be directed at results, findings, relationships of chemical contaminants with site resources, rather than presenting a "justification" for the work i.e., rationale and approaches. Many of the statements appear to be "setting the stage" for a statement that there is no problem. There are several statements made as if HLA is overly cautious about recognizing that contaminants have been found on the base as shown in the second and third bullets.

Response: Comment acknowledged. The first bullet has been deleted, and the text has been revised in Section 1.2 as suggested to clarify the meaning of the bullets.

Comment 2: p2, Second and third bullets. These bullets are intertwined and do not state clearly what should be completed for this process. The effort seems to be reversed, the Army should be focused on locations where COCs are present and might have affected flora and fauna, rather than where there are contaminants

and no problem. The third bullet. This is poorly stated and confusing. If the locations are first identified where the contaminants are present and do not cause a problem, then are the other sites all those that have contaminants that cause a problem? and those sites that do not have contaminants and have problems or do not have problems? I believe that HLA is confusing the real issue by trying to avoid admitting, suggesting, or recognizing that contaminants might be present on the site.

Response: Comment acknowledged. The text has been revised (Section 1.2) as suggested to clarify the meaning of the bullets.

Comment 3: p2, Fourth bullet. What and where is the "Framework for assessing whether remediation may be necessary" presented? I cannot find it in the table of contents.

Response: The entire ecological risk assessment is intended to provide a framework for assessing whether remediation may be necessary from an ecological perspective. The bullet referenced has been deleted, and the specific discussion of whether remediation may be necessary is provided in Section 7.0, Risk Description.

Comment 4: p2, Fifth bullet. Where is the discussion for establishing the chemical remediation goals? The wording of this bullet exemplifies the vagueness of the document as it relates to the Agency guidance. For example, "...remediation goals to protect the ecosystem, communities, and/or populations if remediation is found to be necessary" is inaccurate as nowhere in the document is an assessment endpoint identified at any of these levels. If HLA had paid more attention to EPA's guidance documents and my comments along the way, HLA could list the actual assessment endpoints rather than the general categories as shown.

Response: Comment acknowledged. The bullet has been deleted from Section 1.2 of the text. Assessment endpoints are described in Section 2.2 and Tables 2.1 through 2.3.

Comment 5: p2, Section 1.3 ERA Program Approach. (NOTE: THE CITATIONS ARE "OUT OF SYNC" EPA 1992k should be EPA 1992j). The EPA approach has been presented, discussed, and sometimes argued, but it is not as presented by HLA on p2. The "EPA Framework" as cited by HLA shows Risk Characterization as the last step in the process rather than "Hazard Assessment." Risk characterization is the preferred term because, "...it is less ambiguous and a "hazard" is more relevant to chemical than to nonchemical stressors" (p5 of EPA, 1992, the "Framework document"). If a "hazard" approach is followed as generally practiced it would be limiting in the overall assessment. I find it amazing that HLA did not cite Norton et al (1992) as the definitive document for EPA guidance document on Ecological Risk Assessment.

Response: Comment acknowledged. Reference citations in the text have been corrected and revised throughout the document as suggested. Plate 1.2 has been revised to eliminate the term "Hazard Assessment". Norton et al., which is a review of the EPA framework document (EPA, 1992j) has been cited and added to the reference list.

Comment 6: p2, Section 1.3. HLA makes several references to "testing the Conceptual Site Model" (CSM) which is an odd way for describing the value and use of the CSM. If HLA is suggesting that during the process of describing the relationships of contamination, receptors, and exposure on the site, they are also stating hypotheses to be tested and evaluated, then these hypotheses are not clearly stated. The CSM is not really "tested" in the sense of hypotheses, however the data for the components within such as exposure, distribution of contaminants and receptors should be verified, confirmed and otherwise established through an iterative process. In this way the CSM is "corrected" to better reflect the actual situation as more and more data are added to the knowledge pool with each iteration.

Response: Comment acknowledged. Section 1.3 and other text has been revised throughout the document as suggested.

NOTE: THE CITATIONS ARE "OUT OF SYNC." There is no citation shown in the references section for Cal/EPA, that relates to guidelines for a phased and iterative ecological assessment.

Response: Comment acknowledged. The reference to the Cal/EPA document has been removed from Section 1.3.

Comment 7: Figure 1.2 This is close to the EPA guidance, but HLA did not win the cigar. "Risk characterization" should replace "Hazard assessment" for the reasons cited above (see no. 4). The arrow from the "Hazard Assessment" box should not be connected to the Problem Formulation box, however it should be connected to one that indicates "data acquisition, verification, and monitoring" as shown in the EPA guidance document.

The three additional boxes below HLAs Hazard Assessment box, "Remedial Objectives, Analysis of Remedial Alternatives, and Remedy Selection, etc" are not discussed in the document and therefore have little relevance. This figure has major differences with the cited source and is not the best description for the process.

Response: Comment acknowledged. Figure 1.2 has been extensively modified to correspond to the EPA Framework.

Comment 8: Figure 1.3. This figure does not appear to be connected to Figure 1.2 as tasks 1, 2, 3 and 4 are part of the Problem Formulation phase, there is no mention of selection of endpoints without which some of the tasks cannot be completed e.g., effects assessment. Task 5, the preliminary assessment is really the effort involving the use of techniques such as the hazard quotient. Task 6 is the confirmatory phase in which further sampling is performed to confirm and verify the efforts of the previous phase utilizing the hazard quotient. Task 7 is best described as Risk Characterization, an integration of the data developed in the previous phases to describe and define the ecological risk as related to the site specific conditions.

Response: Comment acknowledged. Figure 1.3 has been deleted; the information from this figure was combined with Figure 1.2 to directly correspond to the EPA

Framework. The text in Sections 1.3 and 1.4 has also been revised to clarify the figures.

Comment 9: p3, I strongly differ with HLA that the delineation between Phases 1 and 2 are arbitrary. Although some tasks are continuous and may overlap the two efforts (it's always difficult to put things into discrete boxes), I would recommend that HLA examine carefully the EPA guidance material that describes the process from Problem Formulation (Scoping and Site Characterization) through the Preliminary Assessment (Hazard Quotient). Phase 1 is the gathering of information to define the status of the site whereas Phase 2 is the comparison of the exposure concentrations to the critical toxicity values that are relevant and important to the particular receptor and endpoint for the particular site being evaluated. This is important because at the end of Phase 1, HLA should be able to identify the data gaps and those areas where more data will need to be collected.

Response: Comment acknowledged. The text in Sections 1.3 and 1.4 has been revised to correspond more directly with the EPA framework.

Comment 10: The "Preliminary Hazard Assessment 1" of HLA should be a task that includes the hazard quotient and the results of this task are not to, "identify sites with potentially complete exposure pathways." As stated above the results of the preliminary assessment are to identify the data gaps and to provide the first estimate of potential impact to specific receptors using specific measurement endpoints for the specific site in question.

Response: Comment acknowledged. The text in Sections 1.3 and 1.4 has been revised to correspond more directly with the EPA framework. PHA1 is part of the problem formulation component of the EPA framework and does not include calculation of hazard quotients.

Comment 11: p3, Section 1.4 Assumptions Used in the ERA. The second bullet makes little sense in, "...assuming that most of designated sites have ben fully characterized in terms of chemicals present (except sites currently under investigation...). HLA should evaluate each site for adequacy of available samples in reference to adequately characterizing the site. Has HLA evaluated the data collected for adequacy? See Chapter 4, p63 of "Guidance for Data Useability in Risk Assessment, Part A"? Where are the discussion and results (i.e., Sampling Design Selection Worksheet) of the effort to determine data adequacy?

Response: Comment acknowledged. The section referred to is now designated as Section 1.5, and the text in Section 1.5 has been revised to state that samples were taken at and around known source areas. Where metals above background or organics at sufficient concentrations were detected, additional samples were taken as necessary to determine the extent of contamination.

Comment 12: p5, Overview of Scope of Work. As cited above, the HLA approach is not the same as EPAs Framework (EPA, 1992), as described by Norton et al (1992), nor similar to anything that Region 9 (CAC) has been discussing with them. In fact, I

have a paper trail to show that the four stages shown on p5 has only two of the phases of any guidance discussed with HLA.

Again, what is HLA calling the site characterization or scoping phase? Where are these data and information summarized?

Response: Comment acknowledged. The text in Sections 1.3 and 1.4 and Plate 1.2 have been revised to clarify the phases of the ERA as they correspond to the EPA framework. Sections 3.0 and 4.0 (PHA1 and PHA2) include the results of the site characterizations.

Comment 13: p5, Is the assumption correct that the primary effort in the Preliminary Hazard Assessment was to identify those sites with "complete exposure pathways"? Phase 1, preliminary assessment should be performed with the data at hand and I recognize the possible overlap of the HLA, "Preliminary Hazard Assessment" with a "Preliminary Screening Assessment" however based on what is presented, HLA's Quantitative Ecological Assessment is closer to what is generally accepted as the Preliminary Screening Assessment (EPA's Phase 1). I disagree with HLA about the similarity of their "stages" and EPA's "Problem Formulation" from the Framework document. EPA's Region 9 guidance has emphasized that the preliminary screening is primarily used to identify the data gaps and those results with unacceptable uncertainty. The presentation of the screening results also identifies those efforts that require verification/validation of the results. HLA's third stage "Tasks 5 and 6" does not correspond to the "other three components" of EPA's "conceptual framework" and HLA's Task 5 (preliminary hazard assessment) is best described as a hazard quotient and Task 6 would then be comparable to EPA's confirmatory effort, the Phase II with the exception of any modelling effort (see Fig 1.3).

Response: See response to EPA Specific Comment 12. Section 5.0 presents the results of the screening assessment.

Comment 14: p5, Section 2.1. Preliminary Hazard Assessment 1. The data reviewed in reports/programs/consultants as cited for background data must be referenced by volume and section for the final report. The second bullet should list the "fate and transport parameters" used by HLA to assess the offsite migration for detected chemicals.

Response: Comment acknowledged. The text in Section 1.4.1.1 of the Draft Final ERA is an overview of literature sources used for background information. Individual sources, volumes, and section numbers were added in discussions of specific sites as relevant (in Sections 3 and 4), rather than in this overview section. A discussion of fate and transport parameters used in PHA1 is presented in Section 3.1.3.

Comment 15: p5 I don't understand the statement that COCs are identified "based on possible laboratory contamination" as stated in the fifth bullet.

Response: Comment acknowledged. This bullet has been revised in Section 1.4.1.1 as suggested.

- Comment 16:** p5, Sixth bullet, Please show by example e.g., figure, discussion how the criteria were used for the "qualitative exposure analysis to determine if the pathway is complete or not? How were the criteria in Section 3.1.3 applied to sites to produce a diagram for completed or incomplete pathways e.g., Fig. 3.2?
- Response:** Comment acknowledged. Specific discussions of methods used to determine complete exposure pathways are discussed in Section 3.1.3.
- Comment 17:** p6, Preliminary Hazard Assessment 2. This effort appears to be the completion of the work performed in the PHA 1.
- Response:** Comment acknowledged. Text in Sections 1.4 and 4.0 have been revised to clarify the purposes of the PHA2 effort.
- Comment 18:** p7, Section 2.3.1 Quantitative ERA. The house mouse and the gray fox are questionable representatives of all of the locations at Fort Ord, especially in light of all of the potential receptors listed as potentially impacted by the potential COCs potentially used by the Army.
- Response:** Comment acknowledged. House mouse was changed to deer mouse. Section 2.4 justifies the selection of this species. Selection of a rodent allows for exposures via ingestion of plants and soil. Selection of a carnivore (the gray fox) allows for exposures via ingestion of rodents as well as plants and soil. In addition, deer mice and either the gray fox or the red fox were observed or expected at all sites evaluated, facilitating field investigations.
- Comment 19:** What is the justification for using the "maximum concentration of each of the COPCs and assuming that the indicator species will be continuously exposed for their entire lifetimes..."? This "conservative" practice is as ill advised as using the house mouse and the gray fox at every location. HLA must use the most appropriate estimate of exposure and the most appropriate receptor, otherwise the validity of the ERA effort is questionable.
- Response:** Comment acknowledged. The text in Section 5.4 has been revised to include justification for using maximum concentrations and for assuming that the mouse and fox will be exposed to maximum concentrations for their entire lifetimes.
- Comment 20:** pp7-8, The endpoints and limits of the hazard quotient are not well presented nor established at less than 1.0, 1.0, and substantially greater than 1.0. Although the arbitrary endpoint of 1.0 has traditionally been used, the quality of the input data i.e., numerator and denominator. At the screening phase, each datum must be evaluated for adequacy such that the resultant ratio can be confidently assessed for representing the site situation.
- Response:** Comment acknowledged. The uncertainties in the numerator and denominator used to calculate hazard quotients are evaluated in Section 5.4, 5.7, and 6.0.

Comment 21: p8, **Quantitative Ecological Risk Assessment** is really a misnomer based on what is described. The effort is an estimate of effects, whereas risk assessment includes a characterization of concentrations, exposure and effects of contaminants.

Response: Comment acknowledged. Text in Sections 1.0, 2.0, and 6.0 have been revised to clarify the purposes and activities conducted in this effort.

Comment 22: p8, **Data Quality Objectives Approach**. The description by HLA of this approach as applied to Fort Ord is simplistic and incomplete. 1) "Identify the spatial boundaries..." - this objective is not limited only to spatial boundaries, but should include temporal and scalar boundaries as well, neither of which is addressed; 2) "State the problem..." - this should be the same information as from the Scoping phase and is not just limited to the site conceptual model; 3) "Identify the potential threat..." - really should address the decisions to be made or in other words, "What will be the key questions to be addressed to be certain that one is able to proceed?"; 4) "Identify potential sources of data..." - this objective should list what is required for input data to address the decisions defined in no. 4; 5) "Develop a decision rule..." - this objective is probably the most critical because it integrates all of the above information for deciding what the "mechanics" will be to complete the risk assessment; 6) "Identify the sources of uncertainty..." From the SAB Report, "Review of the Process and Rationale for Developing Ecological Risk Assessment Guidelines (EPA-SAB-EPEC-92-023)" pertinent categories of uncertainty for this risk assessment include: 1) lack of basic scientific information about cause and effect relationships involving individuals, populations, communities as related to the reaction or the receptors to a stimulus; 2) Probabilistic behavior of natural systems, such as floods, droughts, or other serious perturbations resulting in the inability of representative characteristics being measured and assessed and then being difficult to separate from the impact of contaminants; 3) Probabilities of technological failure or accidents including failure of equipment that result in imprecise measurements or the introduction of bias because of a mechanical failure; and 4) Uncertainties stemming from imprecision in sampling, toxicological testing, and analysis including poor experimental design, the use of incorrect methods, not following the methods correctly, poor sample storage or processing, etc.

Response: Comment acknowledged. Text in Section 2.1 has been revised to clarify the purposes and activities conducted in this effort.

Comment 23: p8, 2.3.3.1 **Identify Study Boundaries**. This should be accomplished by the efforts of the Scoping phase in which chemical distributions are determined by sampling and records of use and disposal practices. Although HLA recognizes the lack of adequately addressing temporal boundaries, there is no mention of scalar boundaries.

Response: Comment acknowledged. Text in Sections 2.1 and 2.5 has been revised to clarify the purposes and activities conducted in this effort.

Comment 24: p9, 2.3.3.2 **State the Problem**. The problem statement is weak. The overall question to be addressed is, "What is the level of impact to natural (e.g.,

biological and ecological) resources at Fort Ord from the presence, the observed concentration, and the observed distribution of chemical contaminants and other observed stressors that are a result of the operational activities of Fort Ord?"

Response: Comment acknowledged. Text in Section 2.1 has been revised to clarify the purposes and activities conducted in this effort.

Comment 25: 2.3.3.3 Identify the Decision. Assessment endpoints identify the values to be protected and measurement endpoints state how they will be critically assessed. Receptors should be identified in this effort as well as the chemicals of concern and their patterns of distributions and concentrations. The conceptual site model should be developed to help integrate this information. This step should identify what will be used to determine if the impact has occurred and the level of impact from the contaminants found on the site.

Response: Comment acknowledged. Text in Section 2.1 has been revised to clarify the purposes and activities conducted in this effort.

Comment 26: 2.3.3.4 Identify Inputs. Data needs are identified as the measurement endpoints are identified along with the appropriate test species and testing strategies. Data requirements e.g., number of samples, analytes, detection limits, etc are defined for each receptor and COC identified for assessment. A listing of benchmark concentrations for the COCs for each receptor should be presented.

Response: Comment acknowledged. Text in Section 2.1 has been revised to clarify the purposes and activities conducted in this effort.

Comment 27: 2.3.3.5 Development of Decision Rules. This effort should state the mechanics of how the decision criteria i.e., benchmark concentrations will be applied. Reference sites, samples, test results and all data that will be used should be identified in the plan to apply the rules.

Response: Comment acknowledged. Text in Section 2.1 has been revised to clarify the purposes and activities conducted in this effort. As stated in Section 2.0 of the text, the specific mechanics of how decision criteria will be applied, including all data that will be applied to the criteria, are first presented in an overview manner in Section 2.1. More details are provided in Sections 3.0 through 6.0; summary tables have been added to these sections to detail decisions and their basis for each site, relating back to endpoints.

Comment 28: p9, Formulation of Conceptual Models and Endpoint Identification. This material (pp9-15) should be written in the format proposed for the DQO process.

Response: Comment acknowledged. The text has been revised as suggested.

Comment 29: p10, Whether or not a receptor has a small or large home range e.g., the carnivores listed, unless the appropriate information is gathered, nothing can be stated with assurance about the tendency to have a reduced "potential exposure"

to site related chemicals. What is the basis for the assumption that only a single location is producing food that is contaminated and might reach the receptor?

Response: Comment acknowledged. The purpose of this assumption is to provide a "worst-case" analysis in the screening assessment, not to reflect the actual behavior patterns and chemical distributions at Fort Ord. While the assumption that only a single location produces contaminated food that may reach the receptor is not representative of actual conditions, using this assumption maximizes potential exposures. If adverse impacts are not predicted for a receptor that is assumed to spend all of its life in the contaminated area and consume food that is contaminated at maximum levels, then that receptor need not be further evaluated at that location because actual exposures would be substantially less. The discussion of home range size places this conservative assumption in perspective; the assumption is less conservative for a species with a small home range (e.g., deer mouse) than for one with a large home range (e.g., fox) because food is obtained from a smaller area for the species with the smaller home range.

Comment 30: pp10-11, What is the basis for the classification of sites into superficial and mostly artificial "coastal, inland partially disturbed and disturbed" sites?

Response: Comment acknowledged. The text in Section 2.2.1 has been revised to clarify.

Comment 31: p11, What is the source of the quote, "Measurement endpoints are often expressed as the statistical or arithmetic summaries of the observations that comprise the measurement"?

Response: Comment acknowledged. The source of the quote is correctly cited as EPA, 1992j in Section 2.2.1. Please see page 38 of EPA (1992j) for the quotation.

Comment 32: p12, There are some statements made that need to be clarified; "...measurement endpoints related to exposure..." what does this mean? "...soil screening values..." where are these listed? "...insects presumed to be part of the litter..." either they are, or they aren't, basic information should be available to make this classification. p13, "...trophic niches..." what does this mean?

Response: Comment acknowledged. The text in Sections 2.2.2 and 2.2.3 has been revised as suggested to clarify these questions.

Comment 33: p13, The following statement, "As with the coastal sites model, surrogate species were used for measurement endpoints." do not convince me that HLA understands what a measurement endpoint is. What is "the approach to assessment and measurement endpoints..."? Again, use of the same receptor species is not appropriate for all locations.

Response: Comment acknowledged. The text in Section 2.2.3 has been revised as suggested to clarify these questions.

Comment 34: p14, Section 2.3.5.1 Exposure Based on Soil Observations. Apparently "concentrations of inorganic and organic chemicals in soil were compared with concentrations in reference or background areas" which would only be correct for inorganic contaminants.

Response: Comment acknowledged. This statement was removed from Section 1.4.2.1 and the text in Section 2.5 has been revised to clarify this point.

Comment 35: p14, Exposure Based on Biological (and Chemical) Observations. The suggested or planned efforts will be quite helpful to verify and validate the screening level assessments. The use of chemical measurements in samples from soil, plants, litter, and litter organisms will add greatly to the ability of HLA to evaluate the potential impact in the sand dunes habitat. I'm cautious about use of the diversity of litter organisms at this time to provide any definitive information.

Response: Comment acknowledged. Sections 4.0 and 5.0 describe the types of data collected and the purposes for those data. Section 6.0 presents the results of field data as well as the limitations of that data.

Comment 36: p14, I'm a little confused by the statement on this page regarding the evaluation of dusky-footed woodrat and that concerning the use of the house mouse. Does the house mouse best represent the dusky-footed woodrat? This should be verified in a table to show life history characteristics that are similar for both species. The same is true for the legless lizard and the proposed surrogate species.

Response: Comment acknowledged. The deer mouse is being evaluated instead of the house mouse; the text in Section 2.4 has been revised address this question and to compare the life history characteristics of the deer mouse to those of the dusky-footed rat. Lizards are also discussed in Section 2.4.

Comment 37: p15, The first paragraph discussing reference sites is confusing and even contradictory to the bullets that follow. For instance, "...ecological considerations were not factored into the placement of these 'background' locations" compared to the bullets, "Similar soil type to areas under evaluation; Representative of the habitat under evaluation, including similar nonchemical stressors; Similar introduced species, both qualitatively and quantitatively; Similar microhabitats to those under evaluation." And in the first sentence following the bullets, "...one site based upon ecological and physical features."

Response: Comment acknowledged. The first statement has been removed from Section 2.3 to reduce confusion over the use of reference areas.

Comment 38: p15, There are serious problems with at least some of the references; all of the ones that I tried to verify were out of sync with the text citation; some are not included in the listing i.e., Argonne National Laboratory, 1980 (note: this is not an EPA publication as stated in the text); others are hardly easily obtainable AMC, 1971. As cited in USATHAMA, 1985 "complete reference not provided."; Todd, D.K., 1961. A Review of Groundwater Conditions at Fort Ord, California. Referenced in GTRC, 1986.

Response: Comment acknowledged. Argonne, 1980 is actually an EPA publication, (EPA 450/2-81-078); the citation has been changed throughout the text to EPA, 1980c. USATHAMA, 1985 is in the reference list under U.S. Army Toxic and Hazardous Materials Agency. We cannot locate a reference to AMC, 1971 in the ERA text.

Scoping - Identification of Chemicals of Concern (COCs); Receptor Species; Listing of Assessment and Measurement Endpoints; and Description of Conceptual Site Model.

Comment 39: p17, Identification of Complete Exposure Pathways.

edit - where is the list of all sites, to see which ones were eliminated by incomplete pathways.

Response: Comment acknowledged. Table 1.1 lists all sites. Tables have been added to Sections 3.0 through 7.0 to show how each site was classified at each stage of the ERA.

Results

Comment 40: p17, Site 10, Burn Pit. There were no surface samples taken for this site, at least none are reported in this section, why not? Figure 3.2 does not provide any information that is proof that no exposure pathway exists for surface contaminants.

Response: Comment acknowledged. The text in Section 3.2.1 has been revised to explain that surface soil samples were not taken from the burn pit area of Site 10 (the only area where surface soil is exposed) since the area will be excavated to 8 to 10 feet bgs as part of interim action activities.

Comment 41: 18, Site 13 - Railroad Right-of-way. Why were there no surface soil samples collected? Where are criteria of selection for COCs shown to be "less than a factor of two compared to background"? How does this site relate to the toxic results of the storm water samples? Since the storm water samples and "sediments" showed toxic results, is it reasonable to classify this site as "no further action"?

Response: Comment acknowledged. Text in Section 3.2.2 was revised to indicate that site was paved or covered with gravel; therefore, no surface soil was exposed and no surface soil was sampled. In addition, text was revised to state that no metals exceeding background were excluded as COCs. Statements throughout Section 3.1 that describe the magnitude of the concentrations of metals detected with respect to background concentrations are observations, not criteria for the selection of COCs.

In the Draft ERA, evaluations of sites included in PHA1 included evaluations of surface water outfalls. Generic statements about stormwater toxicity were included for each site discussed. The text has now been revised to separately

evaluate surface water outfalls for both terrestrial and aquatic receptors (Sections 3.3, 3.4, 5.6, and 6.7). All sites in PHA1 can be reasonably classified as "no further action" sites, because outfalls at or near those sites are being evaluated separately. Site 13 can be classified as a "no further action" site on the basis of the information provided in Section 3.2.2.

Comment 42: p19, Site 14 - 707 Maintenance Facility. Since the storm water samples and "sediments" showed toxic results, is it reasonable to classify this site as "no further action"?

Response: Comment acknowledged. As discussed in EPA specific comment 41, surface water outfalls were evaluated separately for both terrestrial and aquatic receptors in Sections 3.3, 3.4, 5.6, and 6.7. Site 14 can be classified as a "no further action" site on the basis of the information provided in Section 3.2.3.

Comment 43: p19, Site 18 - 1600 Block Facility. Methylene chloride was detected; was this solvent used at this location in the normal operations? Since the storm water samples and "sediments" showed toxic results, is it reasonable to classify this site as "no further action"?

Response: Comment acknowledged. Text has been revised to clarify; methylene chloride is not site-related. As discussed in EPA specific comment 41, surface water outfalls were evaluated separately for both terrestrial and aquatic receptors in Sections 3.2, 3.3, 5.6, and 6.7. Site 18 can be classified as a "no further action" site on the basis of the information provided in Section 3.2.4.

Comment 44: p 20, Site 19 - 2200 Block Facility. Since the storm water samples and "sediments" showed toxic results, is it reasonable to classify this site as "no further action"?

Response: Comment acknowledged. As discussed in EPA specific comment 41, surface water outfalls were evaluated separately for both terrestrial and aquatic receptors in Sections 3.3, 3.4, 5.6, and 6.7. Site 19 can be classified as a "no further action" site on the basis of the information provided in Section 3.2.5.

Comment 45: p22, Site 20 - South Parade Ground; 3800 and 519th Motor Pools. Were there any surface samples collected at this site?

Response: Comment acknowledged. No surface soil samples were collected because the majority of the site is paved or covered with gravel and does not support habitat.

Comment 46: p22, Site 23 - 3700 Motor Pool Complex. Since the storm water samples and "sediments" showed toxic results, is it reasonable to classify this site as "no further action"?

Response: Comment acknowledged. As discussed in EPA specific comment 41, surface water outfalls were evaluated separately for both terrestrial and aquatic receptors

in Sections 3.3, 3.4, 5.6, and 6.7. Site 23 can be classified as a "no further action" site on the basis of the information provided in Section 3.2.7.

Comment 47: p23, Site 27 - Army Reserve Motor Pool. How can the proposed "no further action" be reconciled with the statement, "Results from chemical analyses of soil receiving storm water runoff from Site 27 indicated the presence of cadmium and zinc at the surface at the outfall location and at the surface 20 feet down gradient of the outfall location"?

Response: Comment acknowledged. As discussed in EPA specific comment 41, surface water outfalls were evaluated separately for both terrestrial and aquatic receptors in Sections 3.3, 3.4, 5.6, and 6.7. Site 27 can be classified as a "no further action" site on the basis of the information provided in Section 3.2.8.

Comment 48: p24, Site 28 - Barracks and Main Garrison Facilities. Since the storm water samples and "sediments" showed toxic results, is it reasonable to classify this site as "no further action"?

Response: Comment acknowledged. As discussed in EPA specific comment 41, surface water outfalls were evaluated separately for both terrestrial and aquatic receptors in Sections 3.3, 3.4, 5.6, and 6.7. Site 28 can be classified as a "no further action" site on the basis of the information provided in Section 3.2.9.

Comment 49: pp24-25, Site 30 - Driver Training Area. Since the storm water samples and "sediments" showed toxic results, is it reasonable to classify this site as "no further action"?

Response: Comment acknowledged. As discussed in EPA specific comment 41, surface water outfalls were evaluated separately for both terrestrial and aquatic receptors in Sections 3.3, 3.4, 5.6, and 6.7. Site 30 can be classified as a "no further action" site on the basis of the information provided in Section 3.2.10.

Comment 50: pp25-26, Site 37 - Trailer Park Maintenance Shop. Zinc, fluoranthene and pyrene were detected at this site. What is the rationale for eliminating this site for further considerations?

Response: Comment acknowledged. The zinc, fluoranthene and pyrene were detected in storm drains, not in site soils. All metals concentrations in soils are below background. As discussed in EPA specific comment 41, surface water outfalls were evaluated separately for both terrestrial and aquatic receptors in Sections 3.3, 3.4, 5.6, and 6.7. Site 37 can be classified as a "no further action" site on the basis of the information provided in Section 3.2.11.

Comment 51: p29 through p58. The "Preliminary Hazard Assessment 2 (PHA2). This information appears to be more site characterization and scoping data that adds very little at this point in the process.

Response: Comment acknowledged. The text has been revised in Sections 1.3, 1.4, and 4.0 to clarify the purpose of PHA2.

Comment 52: pp59-61, "Section 5.2 Chemicals of Potential Concern Selection." The strategy for inorganics, Comparison to background is straight forward however, it is not stated in this text why samples were collected at 0-2 feet and compared to 0-0.5 feet for surface samples and greater than 2 feet to be compared to 0.5 feet and greater.

Response: Comment acknowledged. The text has been revised to clarify the rationale for comparison of these data (Section 2.5).

Comment 53: Why were maximum background concentrations compared to maximum site concentrations when generally the mean with its 95% UCL is used?

Response: Comment acknowledged. The text has been revised in Section 5.4 to clarify the rationale for the use of the maximum values.

Comment 54: p61, Why were organics compared to "background" when all organics detected must be carried through the process.

Response: Comment acknowledged. The text has been revised in Section 2.5 to state that all organics detected were evaluated for inclusion as COPCs.

Comment 55: p61 Comparison with Blank Samples and Detection Limits. It is not clear from the information presented that acetone, methylene chloride, phthalate esters and 2-butanone were determined to be used in the operation at the particular site. If any of these are determined to have been used, then it cannot be eliminated as a COC.

Response: Comment acknowledged. The text in Section 2.5.2 has been revised to state that a chemical will only be omitted as a COPC if "no known use of the chemical has been identified at a site."

Comment 56: p61, Section 5.3 Indicator Species Selection. The selection criteria should include, that the indicator species should be sensitive to the contaminants; the species should be representative of the site through representative guilds at the site" in addition to those listed. The indicator species should include species that are representative of the potential contaminant impact i.e., exposure pathways, at the site, soil - plants and invertebrates; food chain - a herbivore and a carnivore; impact on functions, decomposition - microbes, fungi, other decomposer organisms; guilds - herbaceous plants, grasses, shrubs, and trees.

Response: Comment acknowledged. Indicator species were selected based on the conceptual site models and methods presented in Section 2.4, as discussed with the Agencies at previous meetings.

Comment 57: **Plants - the plants shown on p62 must include a herbaceous plant, a grass, a shrub, and others closely related to soil functioning i.e., fungi and most importantly the plant species of choice must be a food item of the small mammals chosen. The plant species selected must be sensitive to the contaminants at the site.**

Response: Comment acknowledged. Selection of plant indicator species is also discussed in Section 2.4 which has been revised to clarify this point.

Comment 58: **Mammals - the small mammals listed must be categorized as carnivore, herbivore and sensitive to metals, and organics where applicable. There must be an overlapping of the species of choice with plants that are present that are food items based on life history characteristics.**

Response: Comment acknowledged. Selection of animal indicator species is also described in Section 2.4. Indicator species were selected with this type of overlap considered.

Comment 59: **If the house mouse is being used as a surrogate for the other receptors listed on p63, then the characteristics for each of the receptors must be plugged into the appropriate formulae to estimate the lifetime average daily dose (LADD) to make the impact assessment relevant to each of the receptors. This has not been done and is not shown as part of the calculations.**

Response: Comment acknowledged. Inputs to LADD estimates have been revised to reflect assumptions relevant for the deer mouse and gray fox. The deer mouse was selected as a surrogate species for the dusky-footed woodrat, not for all species listed on page 63 of the Draft Ecological Risk Assessment. The rodent species listed on page 63 of the Draft Ecological Risk Assessment represent possible surrogate species to evaluate assessment endpoints relevant to the woodrat. Compared to the woodrat, the deer mouse consumes a larger percentage of its body weight daily as food and has a smaller home range. Therefore, exposures to the surrogate are expected to be greater than exposures to the woodrat, and providing an analysis that is sufficient for protecting the deer mouse should also be protective of the woodrat.

Comment 60: **Avian species - these are not selected for reasons that are not logical, "too large of a range." The mourning dove at Site 3 probably ranges as far as the California quail, the Mockingbird, the Loggerhead Shrike, etc.**

Response: Comment acknowledged. Section 2.4 has been revised to clarify this point.

Comment 61: **Herps - The lizard species chosen to represent the site (and especially the legless lizard) must be the most similar to the target species as possible.**

Response: Comment acknowledged. Section 2.4 has been revised to clarify this point.

Comment 62: p67 5.4.3 Multipathway Exposure. The LADDs must be calculated for each receptor. If the house mouse is the surrogate, the receptor species must be used whenever available otherwise use house mouse data and the "safety factors." The house mouse and the gray fox are not appropriate for all locations and assessment endpoints. This section makes no allowances for the assessment and measurement endpoint at each site, in fact these targets appear to be the same for all sites suggesting that all of the sites are essentially the same with identical "values" to protect. The sites, 1, 2 and 3 for instance, are quite different than the inland sites and therefore should have different assessment endpoints to protect. Because of the major differences in these sites, with different species, the measurement endpoints will be different.

Response: Comment acknowledged. For the first part of this comment, see the response to Comment 59. Regarding the statement that the house mouse and gray fox are not appropriate for all locations and assessment endpoints, the discussion of conceptual models in Section 2 indicates that all of the inland sites are essentially the same ecologically and have similar values to protect. This is supported by results of the habitat surveys at each site summarized in Section 4 and Appendix B. We acknowledge that the three coastal sites are different than the inland sites; this is why we developed separate conceptual models for the two types of sites, as discussed in Section 2. Measurement and assessment endpoints somewhat overlap at the coastal and inland sites, as summarized in Tables 2.1 and 2.2, and Plates 2.1 and 2.2. However, as shown in Tables 2.1 and 2.2, some endpoints are different for the two types of sites because of the differences shown in the two separate conceptual models.

Comment 63: p68, Critical Toxicity Values. What are the endpoints being addressed when "...doses, established for the protection of terrestrial species at the level of the population, are not expected to result in adverse health effects to the indicator species...? What are the endpoints being addressed when, "Appropriate endpoints that can be used to evaluate chemical toxicity include laboratory studies on changes in growth or behavior, histopathological abnormalities such as liver necrosis or tumorigenesis, changes in blood chemistry and changes in reproductive or developmental process?"

Response: Critical toxicity values were developed as stated in Section 5.3.2.2 using the most conservative endpoints from the literature values. The text in Section 5.3.2.2 has been modified to reference the assessment and measurement endpoints.

Comment 64: p71, Terrestrial Risk Characterization. I cannot find the ranges given for the hazard quotient in the citation given "EPA, 1988" what page or pages are these statements:

If the ratio is less than 0.1, the site is categorized as being of "no concern"

If the ratio is 0.1 to 10, the site is categorized as being of "possible concern"

If the ratio is greater than 10, the site is categorized as being of "probable concern"

Response: Comment acknowledged. The information on the hazard quotients cited in Section 5.6 can be found on page 17 and page C-68 of the EPA (1988j) document.

Comment 65: What is the rationale for making the above statements/conditions and then changing the conditions for classification of sites as shown at the bottom of p71 and the top of p72?

Response: Comment acknowledged. The text in Section 5.4 has been modified to clarify the methods of site classification.

Comment 66: p72, The decision to classify sites as no further action based on the calculations presented for the house mouse and fox alone is not valid. As stated above, the receptors listed for Fort Ord include more than the house mouse and the fox and the appropriate data were not presented for those species.

Response: Comment acknowledged. Lack of expected adverse effects to the deer mouse and gray fox addresses most of the assessment endpoints for these sites. The conclusions of no further action were based on more than just the evaluation of the mouse and the fox. Other assessment and measurement endpoints as presented in Tables 2.1, 2.2, and 2.3 were used to evaluate whether sites should be categorized as "no further action." In addition to evaluating these endpoints and as summarized on Table 6.1 and discussed in Section 5.0, no further action decisions were also based on planned interim actions designed to remove soil contamination (Sites 15, 21, and 29) and presence of pavement (Sites 17 and 40). Finally, all sites classified as no further action were further evaluated in the Draft Final to substantiate this conclusion.

Comment 67: p72 through 92, This material is incomplete in that much work is "in progress" and any work already done was completed with questionable techniques, it is best to wait for the complete document before I comment any further.

Response: Comment acknowledged. Field data, further evaluations, and conclusions are presented in Sections 6.0 and 7.0.

Comment 68: p93, "Quantitative Ecological Risk Assessment" Much of this material is incomplete as the following statement indicates, "As a result of the quantitative ecological screening assessment, additional data analysis and/or additional data collection activities will be performed at some sites to characterize potential risks to the indicator species. Additional activities may also be performed at outfalls to characterize potential risks to the watersheds of concern." There are many similar statements in this section and the document to show that the work is not complete.

Response: See response to EPA specific comment 67.

Comment 69: p93 HLA seems prone to "invent" terms such as "quantitative ecological screening assessment" and "screening risk characterization."

Response: Comment acknowledged. Phases of the ERA are described in Sections 1.3, 1.4, and Figure 1.2 and compared to the steps of an ecological risk assessment as described in the EPA framework document (EPA, 1992) and Norton et al. (1992).

Comment 70: p100, The ecological risk assessment for Fort Ord is presented in four parts, "PHA1, PHA2, the quantitative ecological screening assessment, and the quantitative ecological risk assessment" which should have been two parts, the scoping and the preliminary impact assessment. This difference is more than semantics as the PHA1 and 2 were continuations of the same process and the quantitative ecological screening assessment was the "impact assessment" as presented. There was little "risk" presented because of an incomplete impact assessment presented and an inadequate characterization of risks.

Response: See responses to EPA specific comment 67 and 68.

Comment 71: p103, The "Results of the ..." seems a bit premature because of the planned work.

Response: See response to EPA specific comment 67.

Comment 72: p104, Conclusions - "Conclusions will be presented when the final data are collected, analyzed and interpreted."

Response: See response to EPA specific comment 67.

...the ... of ...

**Basewide Remedial Investigation/Feasibility Study
Fort Ord, California**

Volume IV - Baseline Ecological Risk Assessment

Appendix K

Prepared for

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**Basewide Remedial Investigation/Feasibility Study
Fort Ord, California**

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K37	Summary of Deer Mouse Hazard Indices for Site 22
K38	Summary of Gray Fox Hazard Indices for Site 22
K39	Summary of Deer Mouse Hazard Indices for Site 24
K40	Summary of Gray Fox Hazard Indices for Site 24
K41	Summary of Deer Mouse Hazard Indices for Site 25
K42	Summary of Gray Fox Hazard Indices for Site 25
K43	Summary of Deer Mouse Hazard Indices for Site 29
K44	Summary of Gray Fox Hazard Indices for Site 29
K45	Summary of Deer Mouse Hazard Indices for Site 31
K46	Summary of Gray Fox Hazard Indices for Site 31
K47	Summary of Deer Mouse Hazard Indices for Site 32
K48	Summary of Gray Fox Hazard Indices for Site 32
K49	Summary of Deer Mouse Hazard Indices for Site 33
K50	Summary of Gray Fox Hazard Indices for Site 33
K51	Summary of Deer Mouse Hazard Indices for Site 35
K52	Summary of Gray Fox Hazard Indices for Site 35
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FIGURES

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ATTACHMENTS

A	SUMMARY OF CHEMICAL ANALYSES OF SOIL AND BIOTA
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K1.0 INTRODUCTION

This appendix updates the results and conclusions of the quantitative assessments presented in the main text of the Baseline Ecological Risk Assessment (ERA) for Fort Ord, California. A portion of the data was still being collected, analyzed, reported, or validated after submittal of the ERA with the Draft Final Basewide Remedial Investigation/Feasibility Study (RI/FS) in December 1994. Data used to draw conclusions in the December 1994 ERA are referred to herein as the Draft Final Report (DFR) data set. This appendix discusses only changes in data, results, and/or conclusions made from the updated data. Background information and methods are discussed in detail in the main text of the ERA. Any new methodologies or changes to the methodologies used in the main text of the report will be discussed where appropriate.

The quantitative ecological risk assessment (Section 6.0 in the ERA main text) contained evaluations of the potential impacts of chemicals detected at Sites 1, 2, 3, 11, 12, 15, 16, 21, 22, 24, 25, 29, 31, 32, 33, 35, and 41 to plants (i.e., wild oat, California brome, hottentot fig), mammals (i.e., deer mouse and gray fox), the leaf litter community, and aquatic receptors. The quantitative ecological risk assessment also included evaluations of potential impacts to buckwheat and mourning doves at Site 3. The quantitative ecological screening assessment (Section 5.0 in the ERA main text) contained evaluations of the potential impacts to mammals from chemicals detected at Sites 17 and 40 as well. An extensive amount of biota and soil was collected in the field to validate the results of the conservative screening assessment (Section 5.0 in the ERA main text) and to provide additional information about potential impacts. None of the new data or validated data evaluated herein were applicable to the assessments for mourning doves and aquatic receptors, so they are not discussed in this appendix; however, changes in the results and/or conclusions for the plant, buckwheat, mammal, and leaf litter assessments are discussed below.

Table K1 summarizes the status of the DFR data set in December 1994. DFR data that were not collected, analyzed, or validated by December 1994 and that are discussed in this appendix include:

- Soil data for Sites 1, 16, 22, 24, 25, 29, 31, 32, 33, 39, 40, and 41 and the reference sites, which were collected, analyzed, or validated
- Plant tissue data analyzed or validated for hottentot fig at Sites 2 and 3 and the reference sites and for buckwheat at Site 3
- Plant biomass assays for buckwheat at Site 3
- All leaf litter data
- All mammal data.

Section K2.0 provides a more detailed overview of the data discussed in this appendix. Updated results of plant, buckwheat, mammal, and leaf litter assessments are presented in Sections K3.0 through K6.0. The revised conclusions based on these assessments are presented in Section K7.0. The text focuses on conclusions that differ, due to the incorporation of additional or validated data, from those presented in the main text of the ERA.

K2.0 RESULTS

The updated results of chemical analyses of soil and biota for all sites are summarized in Attachment A. Sites that were evaluated in the quantitative assessments for the DFR are discussed in this appendix. The remaining sites, which were identified as lacking complete exposure pathways for ecological receptors (PHA1; Section 3.0 of the ERA), are not discussed herein because the changes in the DFR data set did not affect the assessment results.

Table K2 shows where the data for soil from the DFR data set and the updated data set can be found. As shown, the DFR data for soil are in Appendixes A and G of the ERA, the DFR data for plants are presented in Appendixes G and H of the ERA, and the DFR data for mammals and leaf litter are in Appendix G of the ERA. Updated soil data are presented in Attachment A of this appendix in Tables A1 through A90, updated plant data are presented in Tables A91 through A96, updated mammal data are presented in Tables A97 through A107, and updated litter data are presented in Tables A108 through A116. The DFR data are compared to the updated data for reference soil in Table K3 and for mammals in Tables K4 through K14. The updated data for leaf litter are in Table K15. Results of data comparisons are presented below. Further evaluation based on these results are presented in Sections K3.0 through K6.0.

Due to the collection of new data, COPC selection was revised for several sites; the revised COPCs are discussed below. COPCs were selected as described in Sections 2.5 and 6.1.2 in the main text of the ERA.

K2.1 Soil

New data collection efforts and/or validation of previously collected data at several sites (Sites 1, 16, 22, 24, 25, 29, 31, 32, 33, 39, 40, and 41 and the reference sites) have resulted in differences between the DFR data set and the updated data set (Tables K1 and K2). Mean concentrations between the DFR data set and the updated data set were compared and COPC selection was reevaluated. Chemicals were eliminated as COPCs if the mean concentration in the updated data set was less than the mean background concentration. For Sites 22, 29, 32, and 33, no changes were made in the selected COPCs; mean chemical concentrations in the updated data set were either the same or lower than those in the DFR data set. For Sites 1, 16, 24, 25, 31, 39, 40, and 41, some COPCs have changed and/or some concentrations have increased. Changes in the COPCs selected for these latter sites and differences in mean chemical concentrations based on the results for soil analyses in the updated data set are summarized below:

- For Site 1, all but one of the five COPCs selected using the DFR data set were also selected as COPCs using the updated data set. Nickel was eliminated as a COPC using the updated data set because the mean concentration was less than the mean background concentration. The mean chemical concentrations in soil for the remaining COPCs in the updated data set were less than or equal to those in the DFR data set.
- For Site 16, all 33 COPCs selected using the DFR data set were also selected as COPCs using the updated data set. For 11 of the COPCs (chlordane, total HpCDD, total HxCDD, total OCDD, arsenic, cadmium, chromium, copper, lead, mercury, and nickel), the mean chemical concentrations reported in the updated data set increased by less than 50 percent compared to those in the DFR data set. For the remaining 22 COPCs, the mean chemical concentrations reported in the updated data set were less than or equal to those in the DFR data set. Two

additional chemicals (benzo(k)fluoranthene and benzo(ghi)perylene) that were not previously detected in soil were detected and selected as COPCs using the updated data set.

- For Site 24, all 15 COPCs selected using the DFR data set were also selected as COPCs using the updated data set. Arochlor-1260, chlordane, and mercury were detected at slightly higher mean chemical concentrations (less than 10 percent higher) than those previously reported. For all other COPCs, the mean chemical concentrations in soil for the COPCs selected using the updated data set were less than or equal to those previously reported.
- For Site 25, all 15 COPCs selected using the DFR data set were also selected as COPCs using the updated data set. Dieldrin was detected at a mean chemical concentration almost three orders of magnitude higher than that previously reported. For all other COPCs, the mean chemical concentrations of soil for the COPCs in the updated data set were less than or equal to those in the DFR data set.
- For Site 31, all 34 COPCs selected using the DFR data set were also selected as COPCs using the updated data set. Of the 34 COPCs, total HpCDD and mercury were detected at slightly higher mean chemical concentrations (less than 10 percent higher) than previously reported. For all other COPCs, the mean chemical concentrations of soil in the updated data set were less than or equal to those reported in the DFR data set. In addition, one metal (nickel), which was not previously selected as a COPC in the DFR data set, was selected as a COPC using the updated data set.
- For Site 39, all but one of the 19 COPCs selected in the DFR data set were also selected as COPCs using the updated data set. Nickel was eliminated as a COPC in the updated data set because the mean concentration was less than the mean background concentration. The mean chemical concentrations of soil for the remaining COPCs in the updated data set were less than or equal to those reported in the DFR data set. In addition, one metal (nickel), which was not previously selected as a COPC, was selected as a COPC using the updated data set.
- For Site 40, which was only evaluated in the screening assessment based on maximum soil concentrations, all four COPCs selected using the DFR data set were also selected as COPCs using the updated data set. All COPCs with the exception of acetone were detected at higher maximum chemical concentrations than those previously reported (up to three times higher). Seven additional chemicals, including five organics (fluoranthene, pentachlorophenol, pyrene, tetrachloroethene, and trichloroethene) and two metals (cadmium and lead), which were not previously selected as COPCs, were selected as COPCs using the updated data set.
- For Site 41, all 12 COPCs selected using the DFR data set were also selected as COPCs using the updated data set. Arsenic and lead were detected at slightly higher mean chemical concentrations than those previously reported (less than 10 percent higher). For all other COPCs, the mean chemical concentrations of soil for the COPCs in the updated data set were less than or equal to those reported in the DFR data set. In addition, bis(2-ethylhexyl)phthalate, which was not previously detected, was selected as a COPC using the updated data set.
- For the soil samples from reference sites (Table K3), no changes to the chemicals detected or mean concentrations were observed for the central maritime chaparral or upland ruderal reference sites. For the coast live oak woodland reference site, beryllium, which was reported as not detected in the updated data set, was reported as detected in the DFR data set.

Results and conclusions based on these new soil values are presented in Sections K3.0 through K7.0.

K2.2 Plants

Only Sites 2 and 3 and the reference sites had newly collected, analyzed, or validated plant data (Table K1). No data for the hottentot fig were previously available for Site 2; conclusions in the main ERA text regarding potential impacts to plants at Site 2 were based on a qualitative comparison of data from other sites. Conclusions in the main ERA text for plants at Site 3 were based on unvalidated data for buckwheat because hottentot fig data were unavailable. Subsequently, hottentot fig data for Sites 2, 3, and the reference sites became available for use in the evaluations of Sites 2 and 3. There were no differences between the DFR data set and the updated data set for the remainder of sites. However, the results for plants at Site 39 changed because the Site 39 assessment in the main ERA text was based on data for buckwheat at Site 3. The results of the analyses on hottentot fig and validated buckwheat data are summarized in Attachment A, Tables A91 through A96; the DFR data are in Appendixes G and H (Table K2). Mean concentrations were compared between the DFR data set and the updated data set, and any new chemicals detected in plant tissues were selected as COPCs. Changes in the selected COPCs and differences in mean chemical concentrations based on the results for plant tissue in the updated data set are summarized below.

- For Site 2, five metals (chromium, copper, lead, nickel, and zinc) were detected in hottentot fig tissue in the updated data set. No plant tissue data were previously available for Site 2. Therefore, these five metals were selected as COPCs.
- For Site 3, all five of the COPCs that were detected in buckwheat tissue in the DFR data set were also detected in the updated data set. Antimony was detected at a slightly higher concentration in the updated data set than in the DFR data set (the mean concentration increased from 0.30 mg/kg to 0.46 mg/kg; Attachment A, Table A93). No plant tissue data were previously available for hottentot fig at Site 3 in the DFR. Concentrations of six metals (antimony, chromium, copper, lead, nickel, and zinc) were detected in hottentot fig tissue from Site 3 in the updated data set. Therefore, these six metals were selected as COPCs for hottentot fig.
- For the hottentot fig tissue from reference sites, two new metals (arsenic and lead) were detected at the central maritime chaparral reference site, three new metals (arsenic, copper and lead) were detected at the coast live oak woodland reference site, and one new metal (arsenic) was detected at the upland ruderal reference site.

Changes to the conclusions of the plant assessment based on newly selected COPCs are discussed in Section K3.0. Potential impacts to Smith's blue butterfly were evaluated previously by assessing potential impacts to buckwheat at Site 3. This assessment was made by evaluating the results of root elongation tests. Plant biomass tests conducted on buckwheat were not complete and therefore were not discussed in the main text. The results of the biomass tests are discussed in Section K4.0.

K2.3 Mammals

All deer mouse data used in the main ERA text to estimate potential impacts to mammals were unvalidated (Table K1). Tables K4 through K14 compare the mean chemical concentrations for unvalidated mammal data to those for validated mammal data. COPCs were eliminated in the updated data set if detected chemicals were qualified as nondetected due to data validation. Additional COPCs were selected where data not reported in the DFR data set were reported as detected in the updated data set. For Sites 2, 11, 24, 25, and 29, the updated data show that the mean chemical concentrations are the same or lower than those reported in the main ERA text; the number of COPCs based on mammal data decreased for these five sites (Tables K4, K6, K7, K8, and K9, respectively). For Sites 3, 31, 33, and 35, the updated data show that one or more chemical

concentrations in tissue were higher and/or additional COPCs were selected. Changes in the COPCs selected for these sites and differences in chemical concentrations based on the results for mammal tissue in the updated data set for these sites and the reference sites are summarized below.

- For Site 3 (Table K5), two metals (cadmium and chromium) were eliminated as COPCs after data validation. Of the five remaining COPCs, zinc was detected at a slightly higher concentration than previously reported (less than 10 percent higher). In all other cases, the mean chemical concentrations in mammal tissue using the updated data set were less than or equal to those reported in the DFR data set. In addition, one chemical (gamma-chlordane) that was not previously reported in the DFR data set was detected and selected as a COPC in the updated data set.
- For Site 31 (Table K10), four metals (cadmium, chromium, thallium, and vanadium) were eliminated as COPCs based on mean mammal tissue concentrations after data validation. Of the 43 remaining COPCs, naphthalene and total HpCDD were detected at slightly higher mean chemical concentrations than those reported in the DFR data set (less than 10 and 30 percent higher, respectively). In all other cases, the mean chemical concentrations in mammal tissue in the updated data set were less than or equal to those reported in the DFR data set. In addition, one chemical (gamma-chlordane) that was not previously reported, was detected and selected as a COPC in the updated data set.
- For Site 33 (Table K11), three metals (cadmium, nickel, and thallium) and chlordanes were eliminated as COPCs after data validation. Of the four remaining COPCs, barium was detected at a slightly higher mean chemical concentration than reported in the DFR data set (less than 30 percent higher). In all other cases, the mean chemical concentrations in mammal tissue using the updated data set were less than those reported in the DFR data set.
- For Site 35 (Table K12), six metals (cadmium, chromium, copper, nickel, thallium, and vanadium) were eliminated as COPCs after data validation. For the 16 other COPCs, the mean chemical concentrations in mammal tissue using the updated data set were less than or equal to those reported in the DFR data set. In addition, one chemical (alpha-BHC) that was not previously reported in the DFR data set, was detected and selected as a COPC in the updated data set.
- Results for the reference sites are presented in Tables K13 and K14. For the central maritime chaparral reference site (Table K13), two metals (chromium and vanadium) and gamma-chlordane were eliminated as detected chemicals after data validation. For the coast live oak woodland reference site (Table K14), three metals (chromium, lead, and vanadium) were eliminated as detected chemicals based on mean mammal tissue concentrations after data validation. Two metals (nickel and zinc) that were not previously reported in the DFR data set were detected and selected as COPCs for the coast live oak woodland reference site in the updated data set (Table K14). Ten PAHs (Table K13) and one metal (zinc) that were not previously reported in the DFR data set were detected at the central maritime chaparral reference site in the updated data set.

Potential impacts to mammals at these sites based on the validated data are discussed in Section K5.0.

K2.4 Leaf Litter Data

Discussion of potential impacts to lizards presented in the main text was based on analysis of validated data soil and invalidated leaf litter data (Table K1). Impacts were assessed by comparing habitats within sites to similar reference habitats. Potential impacts to lizards are reevaluated herein using validated chemical analyses data for leaf litter presented in Table K15; the DFR data set are in Appendix G (Table G34). These data are summarized below for Sites 16, 24, 25, 29, 31, and 35 and the reference sites (coastal marine chaparral, coast live oak, and upland ruderal sites).

For these sites, a number of the metals previously evaluated were eliminated as detected chemicals using the updated data set due to issues of contamination of laboratory blanks. In addition, data for some PAHs had been analyzed but not reported in time for the submittal of the Draft Final RI/FS. These validated PAH data were reported as detected values in the updated data set. The changes in the updated data set compared to the DFR data set are discussed on a site-by-site basis below.

- For Site 16, there were no changes in the number of chemicals detected. Beryllium and cadmium were detected in eight and five fewer samples, respectively, in the updated data set. The concentrations of 4,4'-DDE, 4,4'-DDT, and chlordane were 3 orders of magnitude lower than those reported in the DFR data set. No other changes were observed.
- At Site 24, antimony, arsenic, and silver were detected in six, five, and four fewer samples, respectively, in the updated data set. Dieldrin and 4,4'-DDE were each detected in two additional samples. Four PAHs (acenaphthene, benzo(b)fluoranthene, phenanthrene, and pyrene) were each detected in one sample in the updated data set. No other changes were observed.
- For Site 25, antimony, arsenic, and silver were detected in four, two, and three fewer samples, respectively, in the updated data set. Concentrations of 4,4'-DDE were detected in one additional sample. The concentration of mercury increased in one sample by less than 1 order of magnitude (an increase of approximately 25 percent) in the updated data set. No other changes were observed.
- For Site 29, antimony, arsenic, beryllium, and silver were not detected in any of the four samples analyzed in the updated data set. Concentrations of 4,4'-DDT were detected in two additional samples. One PAH (indeno[1,2,3-cd]pyrene) was detected in one sample. No other changes were observed.
- For Site 31, antimony and beryllium were not detected in any of the four samples analyzed in the updated data set. Arsenic and 4,4'-DDT were detected in one fewer sample, silver was detected in two fewer samples, and 4,4'-DDE was detected in one additional sample. Two PAHs (fluoranthene and pyrene) were each detected in one sample, and two other PAHs (naphthalene and phenanthrene) were each detected in three samples in the updated data set. No other changes were observed.
- For Site 35, antimony and arsenic were detected in eight and nine fewer samples, respectively in the updated data set. Chromium and silver were each detected in one fewer sample. Concentrations of 4,4'-DDE and 4,4'-DDT were detected in six and one additional samples, respectively. Three PAHs (benzo(a)pyrene, benzo(b)fluoranthene, and dibenzo(a,h)anthracene) were each detected in one sample, and one PAH (benzo(ghi)perylene) was detected in two additional samples in the updated data set. No other changes were observed.

- For both the central maritime chaparral and coast live oak woodland reference sites, beryllium and cadmium were not detected in any of the samples in the updated data set. The concentration of chromium in the updated central maritime chaparral reference site data was 1 order of magnitude greater than reported in the main ERA text. In addition, the concentration of 4,4'-DDE in the updated data set was 3 orders of magnitude smaller than in the DFR. At the upland ruderal reference site, beryllium was not detected in the updated data set. No other changes were observed for the three reference sites.

Potential impacts to the leaf litter community at these sites based on the updated data set are discussed in Section K6.0 of this appendix.

K3.0 PLANT ASSESSMENT

This section summarizes the changes to the analysis and risk estimation components of the plant assessment, Section 6.2 in the main text. The changes were based on analyses conducted using the updated data set. These revisions affect only the results for Sites 2 and 3, the sites where hottentot fig and/or buckwheat data were collected. Results were also revised for Site 39, because its analysis was based on Site 3 data.

K3.1 Regression Analysis

A regression analysis was performed for hottentot fig and buckwheat for all metals consistently detected in collocated samples of both soil and plant tissue. The analysis compared in-plant chemical concentrations to soil chemical concentrations to evaluate the uptake of metals by plants. Chromium, copper, lead, nickel, and zinc were evaluated for hottentot fig (Table K16). Antimony, chromium, copper, lead, and zinc were evaluated for buckwheat (Table K17).

The results of the regression analysis for hottentot fig showed significant correlations between plant tissue and soil chemical concentrations for nontransformed nickel data only. This correlation was negative (i.e., increasing soil concentrations were associated with decreasing uptake). The uptake factors (Attachment A, Table A117) for lead and zinc were up to 1 order of magnitude lower than those calculated using Baes et al. (1984) while those for chromium, copper, and nickel were higher than the Baes uptake factors.

The results of the regression analysis for buckwheat (Attachment A, Table A118) were similar to those discussed in the main text of the ERA, with significant correlations between plant tissue and soil chemical concentrations for antimony, copper, and lead. The uptake factors for antimony, copper, and lead were up to 1 order of magnitude lower than the Baes uptake factors, while those for chromium and zinc were higher than the Baes uptake factors.

K3.2 Reference Sites

Table K18 presents the revised hazard quotients for the reference sites. Background hazard quotients were calculated using both the y-intercept from the plant to soil regression analysis, which was considered to represent background, as well as the chemical concentrations of plant tissues from the reference sites. Revised hazard quotients calculated for Sites 2, 3, and 39 are presented in Table K19. Hazard quotients for the sites that were less than or equal to the background hazard quotients were not included in the totals.

K3.3 Risk Estimation

All metals except chromium and zinc were eliminated as COPCs at Sites 2, 3, and 39 because they were detected below benchmark concentrations (BCs) in plant tissue (BCs used in this evaluation are discussed in Section 6.1 in the main ERA text). The hazard quotients for chromium and zinc as well as the hazard indices for Sites 2, 3, and 39 are shown on Table K19. Table K20 presents a comparison of these hazard indices to those calculated based on soil concentrations in the ecological screening assessment. The results indicate "possible concern" at Sites 2, 3, and 39 based on the hottentot fig tissue concentrations and "no concern" at Site 3 and 39 based on the buckwheat tissue concentrations.

K3.4 Ecological Significance

Tissue concentrations indicate that the only contribution to the "possible concern" at Sites 3 and 39 is chromium. However, mean soil concentrations of chromium at Sites 3 and 39 (Attachment A, Tables A7 and A76) were lower than the background threshold of 24.0 mg/kg for chromium. Because site soil concentrations are not different from the background soil threshold, no site-related adverse impacts of chromium to plants at Sites 3 and 39 are expected.

The mean chromium concentration of 26.3 mg/kg in soil at Site 2 (Attachment A, Table A4) is slightly above the shallow background soil chromium threshold of 24.0 mg/kg as well as above the deep background soil chromium threshold of 16.6 mg/kg. However, the mean chromium tissue concentration of 0.54 mg/kg (Attachment A, Table A91) at Site 2 is roughly equivalent to the benchmark concentration of 0.5 mg/kg in tissue for chromium, which represents the upper bound of the normal range of tissue concentrations. Therefore, chromium is not expected to cause adverse impacts to plants at Site 2.

The mean zinc concentration of 259.5 mg/kg in soil at Site 2 (Attachment A, Table A4) exceeds background soil zinc concentrations. In addition, the mean zinc tissue concentration of 117.9 mg/kg (Attachment A, Table A91) exceeds the benchmark concentration of 100 mg/kg for zinc. However, the benchmark concentration represents the lower bound of the toxic range of tissue concentrations; the upper bound of the normal range is 150 mg/kg. In addition, two sources (*Gough et al., 1979* and *Mortvedt et al., 1972*) report that normal concentrations of zinc in plants range from 25 to 150 mg/kg and that toxic effects are only present at concentrations greater than 400 mg/kg. Another source reports that toxic levels range from 160 to 320 mg/kg (*Davis et al., 1978*). This information indicates that no adverse impacts to plants at Site 2 are expected.

K4.0 BUCKWHEAT ASSESSMENT

Buckwheat analyses and bioassays were conducted to assess potential impacts to the Smith's blue butterfly at Site 3, as discussed in the main ERA text. The following analyses and bioassays were conducted:

- Chemical analysis of soil
- Chemical analysis of buckwheat tissue from Site 3
- Root elongation bioassay using soil elutriates and buckwheat seeds from Site 3
- Bioaccumulation, uptake, and biomass assay using buckwheat seeds and soil from Site 3.

Results of the first three analyses are presented in the main ERA text. The root elongation bioassay is further discussed in Appendix J of the ERA. The bioaccumulation assay was still being conducted when the main text was first submitted. This assay is now complete and is briefly discussed below.

Buckwheat plants grow slowly in the field. Buckwheat seeds were obtained from Site 3 and grown in the laboratory, although roots were not well developed in young seedlings prior to transplanting. As a result, the survival of seedlings transplanted by the bioassay laboratory was less than 10 percent. At the end of the experiment, the survival rate of the seedlings that survived transplanting was only 22 percent. Therefore, the results of this bioassay were not considered acceptable, and the data were not usable for risk assessment. No additional information was obtained from this assay, and conclusions regarding the Smith's butterfly cannot be revised.

K5.0 MAMMAL ASSESSMENT

This section summarizes the changes to the results presented in Section 6.4 in the main ERA text made on the basis of analyses conducted using the updated data set. These changes in results apply to all of the quantitative ecological risk assessment sites (Sites 1, 2, 3, 11, 12, 15, 16, 21, 22, 24, 25, 29, 31, 32, 33, 35, 39, and 41) as well as Sites 17 and 40 from the quantitative ecological screening assessment. The old and revised (new) hazard indices are presented in Tables K21 through K58.

K5.1 Body Burden Analysis

An additional evaluation was conducted using the chemical analysis results for mammal tissue to evaluate differences among the three age classes of deer mice. Table K59 presents means and standard deviations of chemical concentrations in tissue for adult, subadult, and juvenile deer mice. The results of this analysis can be summarized as follows:

- Pesticides: There are no apparent trends in chemical concentrations among the different age classes of deer mice as the mean concentrations among the age classes are not significantly different.
- PAHs: There are no apparent trends in chemical concentrations among the different age classes of deer mice as the mean concentrations among the age classes are not significantly different and the data for a given age group are highly variable (standard deviations generally similar to means).
- Dioxins/Furans: Chemical concentrations for most of the dioxins/furans in juveniles are higher than those measured in adults at Site 31, the only site for which dioxins were analyzed in deer mice. However, the data for a given age group, congener, and congener group are highly variable (standard deviations generally similar to means). No subadults were collected at Site 31. This trend is opposite of the expectation that concentrations should accumulate over time because dioxins are known to bioaccumulate. No mice from reference areas were analyzed for dioxins. However, the concentrations of 2,3,7,8-TCDF and total TCDF in mice from both age groups at Site 31 are less than half the background concentrations reported by Thiel, et al. (1989; see Table 6.16). Therefore, regardless of the mechanism responsible for this trend, it is unlikely that the higher concentrations in juvenile mice will cause adverse impacts to the deer mouse population at Site 31.
- Metals: There are no apparent trends in chemical concentrations among the different age classes of deer mice as the mean concentrations among the age classes are not significantly different.

K5.2 Monte Carlo Analysis

Monte Carlo simulations were conducted using the updated data set. The simulations were conducted and the results were interpreted in the same manner as described in Section 6.4.2.2 of the main text, with the exception that 2,000 iterations were used for all simulations. Table K60 summarizes the results of the simulations. Site-specific results are presented in Tables A124 through A129. For all sites, chemicals, and receptors except for the mouse hazard quotient estimates for lead at Site 2 and the fox hazard quotient estimates for total PeCDF at Site 31, the analysis using the updated data set resulted in the same or lower values for the expected values, the lower 95th percentile, and the upper 95th percentile. In addition, based on the updated data, selenium at

Site 2 and thallium at Sites 29 and 31 were not included in the updated Monte Carlo analysis since their HQs were less than 1.0.

For the mouse at Site 2, the expected value for the revised Monte Carlo simulation increased from 1.0 to 1.5 and the upper bound of the upper 95th percentile increased from 1.5 to 2.1. For the fox at Site 31, the expected value for the revised Monte Carlo simulation increased from 1.3 to 1.4 and the upper 95th percentile increased from 3.7 to 3.9. However, the expected values are close to one and the upper 95th percentiles for both distributions are 4 or less. Consistent with the interpretations in the main text, the conclusion that it is unlikely that deer mouse populations at these sites are adversely affected by these chemicals is still appropriate. In addition, for the remaining sites where the values from the updated Monte Carlo analysis were the same or lower, the conclusions for those sites were unchanged from those presented in the main text.

K5.3 Conclusions

Comparison of the results based on the DFR data set with those based on the updated data set are presented in Tables K21 through K58 and can be summarized as follows:

- For Sites 12, 15, 17, 21, 22, and 32, there were no changes in the data or the resulting hazard indices as a consequence of data validation. Therefore, the conclusions for those sites have not been changed from those presented in the main text.
- For Sites 1, 2, 3, 11, 16, 24, 25, 29, 31, 33, 35, 39, and 41, hazard indices calculated based on the updated data were lower than those calculated using the DFR data set. Therefore, the conclusions for those sites have not been changed from those presented in the main text.
- For Site 40, the results of the quantitative ecological screening assessment in the DFR indicated "no concern" for mammals due to chemicals at the site. However, based on the updated data set, the hazard indices of 75 for the deer mouse and 11 for the gray fox indicate "probable concern" for mammals due to chemicals at the site. The COPC responsible for most of the estimated risks for the mouse is lead; soil ingestion was the major route of exposure. The COPCs responsible for most of the estimated risks for the fox, in order of importance, were lead and cadmium; soil and plant ingestion were the major routes of exposure. In the DFR data set, lead was not selected as a COPC since the concentrations were below background. Newly collected data, however, indicated that the maximum lead concentration in soil was 669 mg/kg. Cadmium was also not detected above background levels in the DFR data set and was not previously selected as a COPC. All concentrations of cadmium and lead detected above background levels were found in upland ruderal areas adjacent to a paved area. Interim remedial action is planned for those areas. Potential risks to terrestrial receptors are expected to be acceptable following remedial actions. Therefore, the conclusion that Site 40 requires no further action, as presented in the main text, is still valid.
- Changes in the chemical concentrations at the reference sites did not change the evaluation of potential impacts at any sites except Site 31. Site 31 consists mostly of coast live oak woodland habitat. Seven out of eight mammal tissue samples collected from Site 31 had detected lead concentrations whereas lead was not detected at the coast live oak reference site. However, all of the detected lead concentrations in mammal tissue from Site 31 were less than the lead concentrations detected in mammal tissue from the other reference site. The measured tissue concentrations of lead in mammals in the updated data set were also lower than those in the DFR data set. Therefore, the conclusion for this site has not been changed from that presented in the main text.

K6.0 LEAF LITTER ASSESSMENT

This section summarizes the changes to the results presented in Section 6.6 in the main ERA text comparing chemical concentrations in leaf litter and the species composition and abundance data. The results were revised to accommodate information from analyses conducted using the updated data set. These revisions affect the results for all sites at which litter was collected (Sites 16, 21, 24, 25, 29, 31, and 35). Comparison of the results based on the DFR data set and the updated data set are summarized below by habitat type. This approach is consistent with the approach used previously. The analysis of community structure is discussed in the main ERA text.

- For the coast live oak woodland habitat (six transects, Sites 29, 31, and 35), revised graphs based on the updated data are provided in Figures K1 and K2. Comparison of graphs for lead and zinc from the main ERA text and those based on the updated data (Figures K1 and K2, respectively) indicated that there are no apparent trends associated with increasing concentrations of lead or zinc in either data set. The detected concentrations of 4,4'-DDE, 4,4'-DDT, and six PAHs (benzo(b)fluoranthene, benzo(ghi)perylene, fluoranthene, naphthalene, phenanthrene, and pyrene) are low (near the detection limit) and no trends in number of taxa or abundance are apparent in samples in which these chemicals were detected. Therefore, the conclusions for this habitat have not been changed from those presented in the main text.
- For the central maritime chaparral habitat (11 transects, Sites 16 and 35), revised graphs based on the updated data are provided in Figures K3 through K6. No leaf litter data were evaluated for this habitat in the DFR. Evaluation of graphs for chromium and nickel based on the updated data (Figures K3 and K5, respectively) indicate that abundance and diversity of leaf litter taxa are lower at the transect associated with the highest detected concentrations. These trends were not evident based on soil data for these chemicals. No trends are apparent for lead or zinc (Figures K4 and K6, respectively). The detected concentrations of 4,4'-DDE, 4,4'-DDT, chlordane, and three PAHs (benzo(a)pyrene, benzo(ghi)perylene, and dibenzo(a,h)anthracene) are low (near the detection limit); no trends in number of taxa or abundance are apparent in samples in which these chemicals were detected. Because the trend seen for chromium and nickel based on leaf litter data is not evident from soil data, it is unclear if any chemicals are affecting the leaf litter community. Because of the lack of clear and consistent trends, the conclusions for this habitat have not been changed from those presented in the main ERA text.
- For the upland ruderal habitat (20 transects, Sites 16, 24, 25, 29, and 35), revised graphs based on the updated data are provided in Figures K7 through K11. Comparison of graphs for copper and zinc based on the DFR data set and those based on the updated data (Figures K8 and K11, respectively) do not indicate different trends. New graphs based on updated data for chromium, nickel, and lead do not indicate any trends. The detected concentrations of 4,4'-DDE, 4,4'-DDT, chlordane, and four PAHs (acenaphthalene, benzo(b)fluoranthene, phenanthrene, and pyrene) are low (near the detection limit); no trends in number of taxa or abundance are apparent in samples in which these chemicals were detected. Therefore, the conclusions for this habitat have not been changed from those presented in the main ERA text.

The conclusion that no impacts are expected to the silvery legless lizard due to chemical concentrations in litter was further evaluated by examining relationships between chemical concentrations in leaf litter and functional composition of the litter organisms. For each transect, the identified taxa were categorized into one or more of the following five general functional groups:

- Detritivores
- Predators
- Herbivores
- Parasitic on animals
- Parasitic on plants.

These groups were considered to adequately represent the important functional constituents of the litter community. Because of the wide diversity of taxa within the identified orders, many of the orders have more than one function. Each of these five general functions performed by species within each taxonomic group were included in this evaluation. As a result, the total number of functions for each transect is greater than the number of identified taxa. The functional categorization of the 19 identified orders, based on a review of the available literature, is provided in Table K61. The breakdown of functional groups for each transect is provided in Table K62. Table K62 is organized by habitat and by site for each habitat. Because there are different totals for each transect within each habitat, comparisons between the transects are difficult. To directly compare data across transects within a habitat type, the functional composition of taxa was normalized on a percent basis for each transect. For example, 53 functions were identified for the taxa collected from transect 16-1 (Table K62). Of these 53 functions, detritivores comprised 13 (24.5 percent) of the total. This normalized value of 24.5 percent was then graphed against the litter chemical concentration measured at that transect (Figure K12). Graphs of these normalized values are presented for all three habitats in Figures K12 through K26. Figures K12 through K16 present data for chromium, copper, lead, nickel, and zinc for the upland ruderal habitat. Figures K17 through K21 and K22 through K26 present similar data for the central maritime chaparral and coast live oak woodland habitats, respectively. For each chemical, the five functional groups are plotted on two separate graphs for ease in interpretation; detritivore, predator, and herbivore data are presented on the "a" figures, and the two parasitic functions are presented on the "b" figures. Data collected from the reference transect for each habitat type are included in the figures and in Table K62. For all three habitat types, the normalized abundances of the five functional groups are similar between the reference and site transects.

For the upland ruderal habitat, some trends are apparent. At higher concentrations for all five metals, the percentage of predators is greater than those for other nonparasitic functions (Figures K12a, K13a, K14a, K15a, K16a). The percentage of detritivores and herbivores are closely related. Both parasitic functions are closely related and often show identical patterns, especially at higher concentrations (e.g., Figures K13b, K15b). Parasitic functions are generally as abundant as predatory functions. No clear patterns are discernable due to the large variation in results over the range of detected litter concentrations. For copper, lead, and nickel, the highest normalized abundance of parasitic functions were seen at the highest litter concentrations. However, although the abundance of predators also increased at higher concentrations, the abundance of herbivores and detritivores at higher concentrations were not depressed below abundances seen at some lower concentrations. These patterns suggest that while there may be changes to some of the functional components of the litter community at the highest metal concentrations, the overall community functional composition is within the variability observed at lower metals concentrations detected in litter. In the upland ruderal habitat, because no functions are completely absent at higher concentrations, impacts to the litter community as a result of loss of the functional groups related to chemical concentrations in leaf litter are not anticipated.

The same trends for the relative abundances of the five functions are also apparent in the central maritime chaparral habitat (Figures K17 through K21). The abundance of parasitic functions were highest at the highest litter concentration for copper, lead, and zinc (Figures K18b, K19b, and K21b). Similar abundances of these functions were also seen at lower concentrations of these three metals. The patterns of parasitic functions were very closely related for all five metals (Figures K17b, K18b, K19b, K20b, and K21b). The patterns seen in the central maritime chaparral habitat are similar to those observed in the upland ruderal habitat. These patterns suggest that while there may be changes to some of the functional components of the litter community at the highest metal concentrations, the overall community functional composition is within the variability observed at lower metals concentrations detected in litter. In the central maritime chaparral habitat, because no functions are completely absent at higher concentrations, impacts to the litter community as a result of loss of the functional groups related to chemical concentrations in leaf litter are not anticipated.

Different patterns were observed in the coast live oak woodland habitat. This is to be expected because this habitat is characterized by oak trees, which provide a different litter structure than those observed in the other two habitats that are dominated by shrubs and/or opportunistic weedy species. Patterns are less consistent in this habitat than in the other two habitats, perhaps because the heterogeneity of the litter is greater. Transects that pass within the drip line of oak trees would have substantially different litter composition than transects that do not pass within the drip line; therefore interpretation of the data presented in Figures K22 through K26 is more complex. Also, this habitat contained the fewest transects, increasing the variability associated with the few available data points.

In general, abundance of predators is greatest in leaf litter in the coast live oak woodland habitat. Detritivores are second in abundance and herbivores are less abundant. These overall trends are apparent across the range of chemical concentrations observed in leaf litter. The main difference between patterns observed in this habitat and those seen in the other habitats lies in the relative abundance of parasitic functions. In general, the abundance of parasitic functions declines as the chemical concentration in litter increases (Figures K22b, K23b, K24b, K25b, and K26b). However, the lowest abundances are seen at concentrations less than the maximum. Due to the large variation in results over the range of detected litter concentrations, there is no clear impact on any of the five functions at higher concentrations. In the coast live oak woodland habitat, because no functions are completely absent at higher concentrations, impacts to the litter community as a result of loss of the functional groups related to chemical concentrations in leaf litter are not anticipated.

In summary, no clear patterns related to chemical concentrations in leaf litter are discernable in any habitat type due to the large variation in results over the range of detected litter concentrations. Chemical concentrations at the reference transects are consistent with background, and the normalized abundances of the five functional groups are similar between reference and site transects. This indicates that the overall community functional composition in each habitat is within the variability observed at metals concentrations consistent with background in litter. Therefore, impacts to the litter community as a result of loss of the functional groups related to chemical concentrations in leaf litter are not anticipated.

K7.0 CONCLUSIONS

This section summarizes the conclusions for the quantitative assessment sites. The conclusions were based on an evaluation of differences between the DFR data set and the updated data set. The assessments for mourning doves (Site 3 only), aquatic receptors, and plants for sites other than Sites 2, 3, and 39 are not discussed in this appendix because none of the new data and/or newly validated data evaluated were applicable to those assessments. Therefore, the conclusions presented in the main text have not changed. Conclusions of the assessments for plants at Sites 2 and 3, buckwheat at Site 3, mammals at Sites 1, 2, 3, 11, 12, 15, 16, 17, 21, 22, 24, 25, 29, 31, 32, 33, 35, 39, 40, and 41, and leaf litter at Sites 16, 21, 24, 25, 29, 31, and 35 are presented below and summarized in Table K63. The conclusions are discussed below in relation to how they differ from those presented in the main ERA text. The conclusions presented in the main text can be found for plants in Sections 6.2.2 and 7.2, for buckwheat in Sections 6.3.2, 7.2, and 7.3, for mammals in Sections 6.4.2, 7.2, and 7.3, and for leaf litter in Sections 6.6, 7.2, and 7.3.

- For Site 1, only the mammal assessment was affected by changes in the data set due to data collection/validation. For mammals, hazard indices were lower when based on the updated data set than those based on the DFR data set. Therefore, the conclusions for Site 1 presented in Section 6.8.1 of the main text have not been changed.
- For Site 2, the results of the plant and mammal assessments were affected by changes in the data set due to data collection/validation. The results of the plant assessment indicate that concentrations in detected hottentot fig tissue are consistent with either background or normal tissue concentrations. For mammals, hazard indices were lower based on the updated data set than those based on the DFR data set. Therefore, the conclusions for Site 2 presented in Sections 6.8.2 and 7.2 of the main text have not been changed.
- For Site 3, the results of the plant, buckwheat, and mammal assessments were affected by changes in the data set due to data collection/validation. The results of the plant assessment indicate that concentrations detected in hottentot fig tissue are consistent with background concentrations. Because no additional information on impacts to buckwheat was obtained from the plant bioaccumulation, uptake, and biomass assays, no changes were made to the conclusions regarding potential impacts to the Smith's blue butterfly. For mammals, hazard indices were lower based on the updated data set than those based on the DFR data set. Therefore, the conclusions for Site 3 presented in Sections 6.8.3, 7.2, and 7.3 of the main text have not been changed.
- For Sites 11, 33, and 41, where only mammal assessment was affected by changes in the data set due to data collection/validation, hazard indices were lower when based on the updated data set than those based on the DFR data set. Therefore, there are no changes to the conclusions in the main text for Sites 11, 33, and 41; the conclusions are presented in Sections 6.8.4 and 7.2, Sections 6.8.15 and 7.2, and Section 6.8.18, respectively.
- For Sites 12, 15, 17, 22, and 32, where only mammal assessment was affected by changes in the data set due to data collection/validation, hazard indices did not change when based on the updated data set from those based on the DFR data set. Therefore, there are no changes to the conclusions in the main text for Sites 12, 15, 17, 22, and 32; the conclusions are presented in Section 6.8.5, Sections 6.8.6, 7.2, and 7.3, Section 5.4.8, Section 6.8.9, and Section 6.8.14, respectively.

K8.0 REFERENCES

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TABLES

**Table K1. Status of Quantitative Assessment Datasets
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site	Status /a/			
	Surface Soil	Plants	Small Mammals /b/	Leaf Litter
1	N	--	--	--
2	C	N	V	--
3	C	N, V	V	--
11	C	C	V	--
12	C	C	/c/	--
15	C	C	--	--
16	N	C	/c/	V
17 /d/	C	--	--	--
21	C	C	--	--
22	V	C	--	--
24	V	C	V	V
25	V	C	V	V
29	V	C	V	V
31	N	C	V	V
32	V	C	--	--
33	V	C	V	--
35	C	C	V	V
39	V	--	--	--
40 /d/	N	--	--	--
41	V	--	--	--
CLOW	V	V	V	V
CMC	V	V	V	V
UR	V	V	/c/	V

CLOW Coast live oak woodland reference site.
 CMC Central maritime chaparral reference site.
 UR Upland ruderal reference site.

- /a/ V = Unvalidated data as of December 1994 that have since been validated.
 N = New data (since December 1994).
 C = Complete data were in December 1994 ERA.
 -- = No samples collected; see Section 6.1 of main text for description of sampling effort.
- /b/ All small mammals caught were deermice (*Peromyscus* sp.).
 /c/ Trapping was unsuccessful at this site.
 /d/ This is a screening assessment site with new/validated data.

**Table K2. Location of Chemical Analyses Data Tables for Soil and Plants /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site	Soil		Plants	
	DFR Tables /b/	Updated Tables /c/	DFR Tables /d/	Updated Tables /c/
1	A1, A2, G1	A1-A3	NA	NA
2	A3-A5, G2	A4-A6	NA	A91
3	A6-A8, G3	A7-A9	H6	A92, A93
11	G4	A17	G17	--
12	A19-A21, G5	A18-A20	G18	--
15	A26-A28, G6	A25-A27	G19	--
16	A29-A31, G7	A28-A30	G20	--
17	A32-A34	A31-A33	NA	NA
21	A40, A41, G8	A39, A40	G21	--
22	A42, A43, G9	A41, A42	G22	--
24	A46-A48, G10	A45-A47	G23	--
25	A49, A50, G11	A48, A49	G24, G25	--
29	A54, A55, G12	A53-A55	G26	--
31	A58, A59, G13	A58-A60	G27	--
32	A61, A62, G14	A61-A63	G28	--
33	A63, A65, G15	A64-A66	G29	--
35	A68, A69, G16	A69-A71	G30	--
39	A74-A79	A76-A81	NA	NA
40	A80-A82	A82-A84	NA	NA
41	A83-A85	A85-A87	NA	NA
CMC	G32	A88	G32	A94
CLOW	G32	A89	G32	A95
UR	G32	A90	G32	A96

- Not discussed in Appendix K.
- NA Not analyzed.
- CLOW Coast live oak woodland reference site.
- CMC Central maritime chaparral reference site.
- UR Upland ruderal reference site.

/a/ Updated mammal data are compared to DFR mammal data in Tables K4 through K14.
Updated litter data are in Table K15 and DFR litter data are in Table G34.
/b/ In Appendixes A and G of the ERA.
/c/ In Attachment A of Appendix K.
/d/ In Appendixes A, G, and H of the ERA.

**Table K3. Comparison of Reference Soil Data
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Central Maritime Chaparral		Coast Live Oak Woodland		Upland Ruderal	
	DFR	Updated	DFR	Updated	DFR	Updated
	Concentration (mg/kg)	Concentration (mg/kg)	Concentration (mg/kg)	Concentration (mg/kg)	Concentration (mg/kg)	Concentration (mg/kg)
Arsenic	1.20	1.20	1.00	1.00	1.50	1.50
Beryllium	ND	ND	0.22	ND	ND	ND
Cadmium	ND	ND	ND	ND	0.41	0.41
Chromium	8.50	8.50	9.90	9.90	16.20	16.20
Copper	3.40	3.40	4.30	4.30	5.00	5.00
Lead	11.70	11.70	12.60	12.60	19.90	19.90
Nickel	ND	ND	9.30	9.30	9.10	9.10
Zinc	13.30	13.30	16.40	16.40	27.20	27.20

mg/kg Milligrams per kilogram.
ND Not detected.

**Table K5. Comparison of Biota Data for Mammals - Site 3
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Draft Final Dataset					Complete Dataset				
	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)
gamma Chlordane	0	0	0%	NR	NR	1	1	100%	0.0015	0.0015
Barium	6	6	100%	3.98	1.93	7	7	100%	3.98	1.78
Cadmium	6	6	100%	0.332	0.13	0	7	0%	ND	ND
Chromium	6	6	100%	0.437	0.3	0	7	0%	ND	ND
Copper	6	6	100%	7.22	4.71	5	7	71%	7.22	3.93
Lead	6	6	100%	26.4	6.89	1	2	50%	0.32	0.27
Nickel	6	6	100%	4.76	2.52	5	7	71%	4.76	2.15
Zinc	6	6	100%	42.3	34.72	7	7	100%	42.3	35.57

ND Not detected.

NR Not reported in DFR dataset.

**Table K45. Summary of Deer Mouse Hazard Indices for Site 31 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	TRV (mg/kg/day)	Old HI	New HI
2,3,4,7,8-PeCDF	0	2.49E-06	0.00634	0	0	2.00E-01	2.00E-07	/b/	/b/
OCDD	0	0	0.00634	0	0	2.00E-01	1.00E-04	/b/	/b/
OCDF	0	0	0.00634	0	0	2.00E-01	1.00E-04	/b/	/b/
2,3,7,8-TCDD	0	4.60E-07	0.00634	0	0	2.00E-01	1.00E-07	/b/	/b/
2,3,7,8-TCDF	0	1.59E-06	0.00634	0	0	2.00E-01	1.00E-06	/b/	/b/
Total HpCDD	1.00E-04	1.05E-04	0.00634	0	0	2.00E-01	1.00E-05	6.34E-02	6.64E-02
Total HpCDF	2.10E-04	2.07E-04	0.00634	0	0	2.00E-01	1.00E-05	1.33E-01	1.31E-01
Total HxCDD	2.29E-05	2.29E-05	0.00634	0	0	2.00E-01	1.00E-06	1.45E-01	1.45E-01
Total HxCDF	6.00E-05	6.14E-05	0.00634	0	0	2.00E-01	1.00E-06	3.80E-01	3.89E-01
Total PeCDD	6.39E-06	6.39E-06	0.00634	0	0	2.00E-01	2.00E-07	2.03E-01	2.03E-01
Total PeCDF	2.94E-05	2.94E-05	0.00634	0	0	2.00E-01	2.00E-07	9.32E-01	9.31E-01
Total OCDD	3.40E-04	3.38E-04	0.00634	0	0	2.00E-01	1.00E-04	2.16E-02	2.14E-02
Total OCDF	8.00E-05	7.96E-05	0.00634	0	0	2.00E-01	1.00E-04	5.07E-03	5.05E-03
Total TCDD	7.10E-06	7.10E-06	0.00634	0	0	2.00E-01	1.00E-07	4.50E-01	4.50E-01
Total TCDF	3.69E-05	3.69E-05	0.00634	0	0	2.00E-01	1.00E-06	2.34E-01	2.34E-01
Antimony	1.62E+00	1.62E+00	0.00634	0	0	2.00E-01	0.35	2.93E-02	2.93E-02
Arsenic	1.43E+00	1.43E+00	0.00634	0	0	2.00E-01	0.7	1.30E-02	1.30E-02
Beryllium	1.80E-01	1.80E-01	0.00634	0	0	2.00E-01	0.95	1.20E-03	1.20E-03
Cadmium	1.01E+00	1.01E+00	0.00634	0	0	2.00E-01	0.17	3.77E-02	3.77E-02
Chromium	1.57E+01	1.57E+01	0.00634	3.40E-01	3.40E-01	2.00E-01	0.24	6.98E-01	6.98E-01
Copper	4.00E+01	4.00E+01	0.00634	2.80E+00	2.80E+00	2.00E-01	347	2.34E-03	2.34E-03
Lead	6.09E+02	6.09E+02	0.00634	0	0	2.00E-01	0.09	4.29E+01	4.29E+01
Mercury	8.00E-02	8.10E-02	0.00634	0	0	2.00E-01	1.9	2.67E-04	2.70E-04
Nickel	0	1.16E+01	0.00634	0	0	2.00E-01	0.85	--	8.65E-02
Silver	8.90E-01	8.90E-01	0.00634	0	0	2.00E-01	1.78	3.17E-03	3.17E-03

**Table K45. Summary of Deer Mouse Hazard Indices for Site 31 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	TRV (mg/kg/day)	Old HI	New HI
Thallium	3.00E-01	3.00E-01	0.00634	0	0	2.00E-01	0.01	1.90E-01	1.90E-01
Zinc	2.53E+02	2.53E+02	0.00634	2.49E+01	2.49E+01	2.00E-01	14	4.70E-01	4.70E-01
Total HI								4.69E+01	4.70E+01

HI Hazard index.
TRV Toxicity reference value.
-- HI not calculable.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

/b/ Analysis conducted for "total" dioxin values only.

Notes:

"Old" refers to data the DFR dataset. "New" refers to the updated dataset.

**Table K46. Summary of Gray Fox Hazard Indices for Site 31 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	Old Mouse Conc. (mg/kg)	New Mouse Conc. (mg/kg)	Mouse Factor	TRV (mg/kg/day)	Old HI	New HI
Benzo(a)anthracene	2.44E-02	1.68E-02	7.92E-04	0	0	2.46E-02	1.01E-04	1.01E-04	3.68E-02	0.02	1.15E-03	8.50E-04
Benzo(a)pyrene	2.06E-02	1.20E-02	7.92E-04	0	0	2.46E-02	9.83E-06	9.83E-06	3.68E-02	0.02	8.34E-04	4.93E-04
Benzo(b)fluoranthene	2.21E-02	2.21E-02	7.92E-04	0	0	2.46E-02	2.78E-05	2.78E-05	3.68E-02	1.25	1.48E-05	1.48E-05
Chrysene	4.43E-02	4.43E-02	7.92E-04	0	0	2.46E-02	2.83E-05	2.83E-05	3.68E-02	0.02	1.81E-03	1.81E-03
Dibenzo(a,h)anthracene	5.41E-02	2.51E-02	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	0.02	2.14E-03	9.95E-04
Dibenzofuran	3.40E-02	3.40E-02	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	1.25	2.15E-05	2.15E-05
Fluoranthene	4.15E-02	4.15E-02	7.92E-04	0	0	2.46E-02	1.57E-05	1.57E-05	3.68E-02	1.25	2.68E-05	2.68E-05
Fluorene	0	0	7.92E-04	0	0	2.46E-02	1.53E-05	1.53E-05	3.68E-02	1.25	4.51E-07	4.51E-07
2-Methylnaphthalene	1.36E-01	1.36E-01	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	0.84	1.28E-04	1.28E-04
Naphthalene	2.24E-01	8.35E-02	7.92E-04	0	0	2.46E-02	5.03E-05	5.07E-05	3.68E-02	0.84	2.13E-04	8.09E-05
Phenanthrene	7.07E-02	7.07E-02	7.92E-04	0	0	2.46E-02	8.70E-05	8.70E-05	3.68E-02	0.75	7.89E-05	7.89E-05
Pyrene	4.91E-02	3.51E-02	7.92E-04	0	0	2.46E-02	1.38E-04	1.38E-04	3.68E-02	0.75	5.86E-05	4.39E-05
Chlordane	0	0	7.92E-04	0	0	2.46E-02	0	1.30E-03	3.68E-02	0.04	--	1.20E-03
4,4'-DDE	1.33E-01	1.33E-01	7.92E-04	0	0	2.46E-02	5.68E-03	5.68E-03	3.68E-02	1.7	1.85E-04	1.85E-04
4,4'-DDT	1.57E-01	1.57E-01	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	1.6	7.77E-05	7.78E-05
Heptachlor	0	0	7.92E-04	0	0	2.46E-02	2.63E-03	2.63E-03	3.68E-02	0.0003	3.23E-01	3.23E-01
Heptachlor epoxide	0	0	7.92E-04	0	0	2.46E-02	2.48E-03	1.90E-03	3.68E-02	0.0003	3.04E-01	2.33E-01
1,2,3,4,6,7,8-HpCDD	0	5.71E-05	7.92E-04	0	0	2.46E-02	1.78E-05	1.76E-05	3.68E-02	5.00E-06	/b/	/b/
1,2,3,4,6,7,8-HpCDF	0	7.66E-05	7.92E-04	0	0	2.46E-02	4.21E-06	4.17E-06	3.68E-02	5.00E-06	/b/	/b/
1,2,3,4,7,8,9-HpCDF	0	1.61E-06	7.92E-04	0	0	2.46E-02	7.30E-07	3.90E-07	3.68E-02	5.00E-06	/b/	/b/
1,2,3,4,7,8-HxCDD	0	9.60E-07	7.92E-04	0	0	2.46E-02	1.48E-06	1.28E-06	3.68E-02	5.00E-07	/b/	/b/
1,2,3,6,7,8-HxCDD	0	3.48E-06	7.92E-04	0	0	2.46E-02	2.85E-06	2.69E-06	3.68E-02	5.00E-07	/b/	/b/
1,2,3,7,8,9-HxCDD	0	1.98E-06	7.92E-04	0	0	2.46E-02	1.97E-06	1.06E-06	3.68E-02	5.00E-07	/b/	/b/
1,2,3,4,7,8-HxCDF	0	3.14E-06	7.92E-04	0	0	2.46E-02	3.15E-06	2.10E-06	3.68E-02	5.00E-07	/b/	/b/
1,2,3,6,7,8-HxCDF	0	2.62E-06	7.92E-04	0	0	2.46E-02	1.47E-06	9.50E-07	3.68E-02	5.00E-07	/b/	/b/
1,2,3,7,8,9-HxCDF	0	2.56E-06	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	5.00E-07	/b/	/b/
2,3,4,6,7,8-HxCDF	0	1.86E-06	7.92E-04	0	0	2.46E-02	2.67E-06	1.92E-06	3.68E-02	5.00E-07	/b/	/b/

**Table K46. Summary of Gray Fox Hazard Indices for Site 31 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	Old Mouse Conc. (mg/kg)	New Mouse Conc. (mg/kg)	Mouse Factor	TRV (mg/kg/day)	Old HI	New HI
1,2,3,7,8-PeCDD	0	8.00E-07	7.92E-04	0	0	2.46E-02	1.73E-06	1.03E-06	3.68E-02	1.00E-07	/b/	/b/
1,2,3,7,8-PeCDF	0	1.35E-06	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	1.00E-06	/b/	/b/
2,3,4,7,8-PeCDF	0	2.49E-06	7.92E-04	0	0	2.46E-02	3.90E-06	2.58E-06	3.68E-02	1.00E-07	/b/	/b/
OCDD	0	3.38E-04	7.92E-04	0	0	2.46E-02	8.31E-05	8.32E-05	3.68E-02	5.00E-05	/b/	/b/
OCDF	0	0	7.92E-04	0	0	2.46E-02	9.04E-06	5.72E-06	3.68E-02	5.00E-05	/b/	/b/
2,3,7,8-TCDD	0	4.60E-07	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	5.00E-08	/b/	/b/
2,3,7,8-TCDF	0	1.59E-06	7.92E-04	0	0	2.46E-02	7.20E-07	5.90E-07	3.68E-02	5.00E-07	/b/	/b/
Total HpCDD	1.00E-04	1.05E-04	7.92E-04	0	0	2.46E-02	2.20E-05	2.68E-05	3.68E-02	5.00E-06	1.78E-01	2.14E-01
Total HpCDF	2.10E-04	2.07E-04	7.92E-04	0	0	2.46E-02	6.61E-06	6.60E-06	3.68E-02	5.00E-06	8.19E-02	8.14E-02
Total HxCDD	2.29E-05	2.29E-05	7.92E-04	0	0	2.46E-02	5.23E-06	4.92E-06	3.68E-02	5.00E-07	4.21E-01	3.98E-01
Total HxCDF	6.00E-05	6.14E-05	7.92E-04	0	0	2.46E-02	5.36E-06	5.36E-06	3.68E-02	5.00E-07	4.90E-01	4.92E-01
Total PeCDD	6.39E-06	6.39E-06	7.92E-04	0	0	2.46E-02	1.34E-06	1.03E-06	3.68E-02	1.00E-07	5.44E-01	4.30E-01
Total PeCDF	2.94E-05	2.94E-05	7.92E-04	0	0	2.46E-02	2.98E-06	2.94E-06	3.68E-02	1.00E-07	1.33E+00	1.31E+00
Total OCDD	3.40E-04	0	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	5.00E-05	5.39E-03	--
Total OCDF	8.00E-05	7.96E-05	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	5.00E-05	1.27E-03	1.26E-03
Total TCDD	7.10E-06	7.10E-06	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	5.00E-08	1.12E-01	1.12E-01
Total TCDF	3.69E-05	3.69E-05	7.92E-04	0	0	2.46E-02	6.00E-07	5.90E-07	3.68E-02	5.00E-07	1.03E-01	1.02E-01
Antimony	1.62E+00	1.62E+00	7.92E-04	0	0	2.46E-02	1.03E-02	1.03E-02	3.68E-02	2.99	5.56E-04	5.56E-04
Arsenic	1.43E+00	1.43E+00	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	0.37	3.06E-03	3.06E-03
Barium	0	0	7.92E-04	0	0	2.46E-02	4.46E+00	4.46E+00	3.68E-02	0.04	4.10E+00	4.10E+00
Beryllium	1.80E-01	1.80E-01	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	0.05	2.85E-03	2.85E-03
Cadmium	1.01E+00	1.01E+00	7.92E-04	0	0	2.46E-02	2.00E-02	0	3.68E-02	0.0085	1.81E-01	9.41E-02
Chromium	1.57E+01	1.57E+01	7.92E-04	3.40E-01	3.40E-01	2.46E-02	6.00E-02	0	3.68E-02	0.03	7.67E-01	6.93E-01
Copper	4.00E+01	4.00E+01	7.92E-04	2.80E+00	2.80E+00	2.46E-02	2.79E+00	1.67E+00	3.68E-02	17.3	1.17E-02	9.36E-03
Lead	6.09E+02	6.09E+02	7.92E-04	0	0	2.46E-02	9.00E-01	8.50E-01	3.68E-02	0.13	3.96E+00	3.95E+00
Mercury	8.00E-02	8.10E-02	7.92E-04	0	0	2.46E-02	5.07E-04	5.14E-04	3.68E-02	0.1	8.20E-04	8.31E-04
Nickel	0	1.16E+01	7.92E-04	0	0	2.46E-02	6.20E-01	2.40E-01	3.68E-02	2.69	8.48E-03	6.70E-03
Silver	8.90E-01	8.90E-01	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	0.89	7.92E-04	7.92E-04
Thallium	3.00E-01	3.00E-01	7.92E-04	0	0	2.46E-02	1.00E-01	0	3.68E-02	0.003	1.31E+00	7.92E-02

**Table K6. Comparison of Biota Data for Mammals - Site 11
Volume IV - Ecological Risk Assessment, Basewide RI/Fs
Fort Ord, California**

Chemical	Draft Final Dataset					Complete Dataset				
	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)
Barium	4	4	100%	4.79	3.83	4	4	100%	4.79	3.83
Cadmium	2	4	50%	0.027	0.02	0	4	0%	ND	ND
Chromium	1	4	25%	0.171	0.07	0	4	0%	ND	ND
Copper	4	4	100%	3.31	2.99	0	4	0%	ND	ND
Lead	4	4	100%	0.644	0.51	1	4	25%	0.58	0.33
Nickel	4	4	100%	0.885	0.51	1	4	25%	0.45	0.31
Thallium	1	4	25%	0.173	0.11	0	4	0%	ND	ND
Vanadium	1	4	25%	0.958	0.54	0	4	0%	ND	ND
Zinc	4	4	100%	41.4	38.48	4	4	100%	41.4	38.48

ND Not detected.

**Table K7. Comparison of Biota Data for Mammals - Site 24
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Draft Final Dataset					Complete Dataset				
	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)
Barium	6	6	100%	9.69	6.03	6	6	100%	9.69	6.03
Cadmium	3	6	50%	0.026	0.02	0	6	0%	ND	ND
Chromium	4	6	67%	0.134	0.09	0	6	0%	ND	ND
Copper	6	6	100%	10.6	4.35	2	6	33%	10.6	3.41
Lead	6	6	100%	1.14	0.68	0	6	0%	ND	ND
Nickel	6	6	100%	0.604	0.47	0	6	0%	ND	ND
Thallium	1	6	17%	0.195	0.10	0	6	0%	ND	ND
Vanadium	1	6	17%	1.07	0.63	0	6	0%	ND	ND
Zinc	6	6	100%	51.7	42.3	6	6	100%	51.7	42.3

ND Not detected.

**Table K8. Comparison of Biota Data for Mammals - Site 25
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Draft Final Dataset					Complete Dataset				
	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)
4,4'-DDT	1	1	100%	0.00578	0.00578	1	1	100%	0.00578	0.00578
delta-BHC	1	1	100%	0.00153	0.00153	1	1	100%	0.00153	0.00153
gamma Chlordane	1	1	100%	0.00169	0.00169	1	1	100%	0.00169	0.00169
Barium	1	1	100%	2.23	2.23	1	1	100%	2.23	2.23
Cadmium	1	1	100%	0.029	0.029	0	1	0%	ND	ND
Chromium	1	1	100%	0.088	0.088	0	1	0%	ND	ND
Copper	1	1	100%	2.56	2.56	0	1	0%	ND	ND
Lead	1	1	100%	0.745	0.745	0	1	0%	ND	ND
Nickel	1	1	100%	0.461	0.461	0	1	0%	ND	ND
Vanadium	1	1	100%	1.11	1.11	0	1	0%	ND	ND
Zinc	1	1	100%	27	27	1	1	100%	27	27

ND Not detected.

**Table K9. Comparison of Biota Data for Mammals - Site 29
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Draft Final Dataset					Complete Dataset				
	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)
gamma Chlordane	2	2	100%	0.00332	0.00306	2	2	100%	0.00332	0.00306
Barium	2	2	100%	12.2	8.84	2	2	100%	12.2	8.84
Cadmium	1	2	50%	0.048	0.03	0	2	0%	ND	ND
Chromium	1	2	50%	0.076	0.06	0	2	0%	ND	ND
Copper	2	2	100%	3.44	3.36	0	2	0%	ND	ND
Lead	2	2	100%	0.451	0.35	1	2	50%	0.25	0.24
Nickel	2	2	100%	1.04	1.0	2	2	100%	1.04	1.00
Thallium	2	2	100%	0.261	0.22	0	2	0%	ND	ND
Zinc	2	2	100%	36.4	36.15	2	2	100%	36.4	36.15

ND Not detected.

Table K10. Comparison of Biota Data for Mammals - Site 31
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Chemical	Draft Final Dataset					Complete Dataset				
	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)
Acenaphthalene	6	6	100%	2.80E-03	1.12E-03	6	6	100%	2.80E-03	1.12E-03
Acenaphthene	3	6	50%	3.00E-05	2.46E-05	3	4	75%	3.00E-05	1.89E-05
Anthracene	6	6	100%	9.00E-06	5.67E-06	6	6	100%	9.00E-06	5.67E-06
Benzo(a)anthracene	6	6	100%	1.70E-04	1.01E-04	6	6	100%	1.70E-04	1.01E-04
Benzo(a)pyrene	2	6	33%	2.40E-05	9.83E-06	2	6	33%	2.40E-05	9.83E-06
Benzo(b)fluoranthene	6	6	100%	3.80E-05	2.78E-05	6	6	100%	3.80E-05	2.78E-05
Benzo(k)fluoranthene	6	6	100%	1.30E-05	9.83E-06	6	6	100%	1.30E-05	9.83E-06
Chrysene	4	6	67%	7.90E-05	2.83E-05	4	6	67%	7.90E-05	2.83E-05
Fluoranthene	5	6	83%	2.20E-05	1.57E-05	5	6	83%	2.20E-05	1.57E-05
Fluorene	6	6	100%	1.90E-05	1.53E-05	6	6	100%	2.10E-05	1.53E-05
Naphthalene	3	6	50%	1.40E-04	5.03E-05	3	6	50%	1.40E-04	5.07E-05
Phenanthrene	6	6	100%	1.30E-04	8.70E-05	6	6	100%	1.30E-04	8.70E-05
Pyrene	5	6	83%	2.50E-04	1.38E-04	5	6	83%	2.50E-04	1.38E-04
gamma-Chlordane	0	6	0%	NR	NR	1	1	100%	1.30E-03	1.30E-03
4,4'-DDE	1	6	17%	1.90E-03	5.68E-03	1	6	17%	8.20E-03	5.68E-03
Endosulfan II	1	6	17%	2.70E-03	4.75E-03	1	1	100%	2.70E-03	2.70E-03
Heptachlor	3	6	50%	4.40E-03	2.63E-03	3	6	50%	4.40E-03	2.63E-03
Heptachlor Epoxide	1	6	17%	1.90E-03	2.48E-03	1	1	100%	1.90E-03	1.90E-03
1,2,3,4,6,7,8-HpCDD	8	8	100%	4.47E-05	1.78E-05	7	8	88%	4.47E-05	1.76E-05
HpCDD (total)	8	8	100%	5.40E-05	2.20E-05	7	8	88%	5.40E-05	2.68E-05
1,2,3,4,6,7,8-HpCDF	8	8	100%	1.12E-05	4.21E-06	1	8	13%	1.12E-05	4.17E-06

**Table K10. Comparison of Biota Data for Mammals - Site 31
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Draft Final Dataset					Complete Dataset				
	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)
1,2,3,4,7,8,9-HpCDF	1	8	13%	7.30E-07	7.30E-07	1	7	14%	7.30E-07	3.90E-07
HpCDF (total)	8	8	100%	1.78E-05	6.61E-06	8	8	100%	1.78E-05	6.60E-06
1,2,3,4,7,8-HxCDD	7	8	88%	3.20E-06	1.48E-06	5	8	63%	3.17E-06	1.28E-06
1,2,3,6,7,8-HxCDD	8	8	100%	5.80E-06	2.85E-06	7	8	88%	5.78E-06	2.69E-06
1,2,3,7,8,9-HxCDD	3	8	38%	2.40E-06	1.97E-06	2	8	25%	2.38E-06	1.06E-06
HxCDD (total)	8	8	100%	1.01E-05	5.23E-06	7	8	88%	1.01E-05	4.92E-06
1,2,3,4,7,8-HxCDF	5	8	63%	6.20E-06	3.15E-06	5	8	63%	6.20E-06	2.10E-06
1,2,3,6,7,8-HxCDF	5	8	63%	3.10E-06	1.47E-06	4	8	50%	3.11E-06	9.50E-07
2,3,4,6,7,8-HxCDF	6	8	75%	6.00E-06	2.67E-06	5	8	63%	5.98E-06	1.92E-06
HxCDF (total)	6	8	75%	1.65E-05	5.36E-06	6	8	75%	1.65E-05	5.36E-06
OCDD	8	8	100%	2.10E-04	8.31E-05	8	8	100%	2.10E-04	8.32E-05
OCDF	5	8	63%	1.81E-05	9.04E-06	4	8	50%	1.81E-05	5.72E-06
1,2,3,7,8-PeCDD	5	8	63%	3.40E-06	1.73E-06	1	8	13%	3.40E-06	1.03E-06
PeCDD (total)	5	8	63%	3.40E-06	1.34E-06	1	8	13%	3.40E-06	1.03E-06
2,3,4,7,8-PeCDF	5	8	63%	7.80E-06	3.90E-06	4	8	50%	7.84E-06	2.58E-06
PeCDF (total)	5	8	63%	9.10E-06	2.98E-06	4	8	50%	9.14E-06	2.94E-06
2,3,7,8-TCDF	2	8	25%	1.10E-06	7.20E-07	2	8	25%	1.09E-06	5.90E-07
TCDF (total)	2	8	25%	1.10E-06	6.00E-07	2	8	25%	1.09E-06	5.90E-07
Barium	8	8	100%	7.91	4.46	8	8	100%	7.91	4.46
Cadmium	5	8	63%	0.035	0.02	0	8	0%	ND	ND
Chromium	5	8	63%	0.135	0.06	0	8	0%	ND	ND
Copper	8	8	100%	4.39	2.79	3	7	43%	2	1.67

**Table K10. Comparison of Biota Data for Mammals - Site 31
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Draft Final Dataset					Complete Dataset				
	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)
Lead	8	8	100%	2.48	0.9	7	8	88%	2.48	0.85
Nickel	6	8	75%	1.74	0.62	2	8	25%	0.45	0.24
Thallium	1	8	13%	0.204	0.1	0	8	0%	ND	ND
Vanadium	3	8	38%	1.5	0.66	0	8	0%	ND	ND
Zinc	8	8	100%	45.4	34.43	8	8	100%	45.4	34.43

ND Not detected.

NR Not reported in DFR dataset.

**Table K11. Comparison of Biota Data for Mammals - Site 33
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Draft Final Dataset					Complete Dataset				
	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)
Chlordane	2	2	100%	0.00209	0.0018	0	2	0%	ND	ND
Barium	4	4	100%	9.82	5.82	4	4	100%	9.82	7.27
Cadmium	3	4	75%	0.046	0.03	0	4	0%	ND	ND
Copper	4	4	100%	3.58	2.75	1	4	25%	2.7	1.8
Lead	4	4	100%	0.371	0.27	2	4	50%	0.25	0.18
Nickel	4	4	100%	0.786	0.52	0	4	0%	ND	ND
Thallium	1	4	25%	0.222	0.12	0	4	0%	ND	ND
Zinc	4	4	100%	40.7	28.9	4	4	100%	37.1	28

ND Not detected.

Table K12. Comparison of Biota Data for Mammals - Site 35
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Chemical	Draft Final Dataset					Complete Dataset				
	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)
Acenaphthalene	5	5	100%	1.20E-03	8.02E-04	5	5	100%	1.20E-03	8.02E-04
Acenaphthene	3	5	60%	3.70E-05	1.74E-05	3	5	60%	3.70E-05	1.74E-05
Anthracene	5	5	100%	2.00E-06	1.80E-06	5	5	100%	2.00E-06	1.80E-06
Benzo(a)anthracene	5	5	100%	4.00E-05	2.64E-05	5	5	100%	4.00E-05	2.64E-05
Benzo(b)fluoranthene	5	5	100%	1.30E-05	1.04E-05	5	5	100%	1.30E-05	1.04E-05
Benzo(k)fluoranthene	3	5	60%	4.00E-06	2.20E-06	3	5	60%	4.00E-06	2.20E-06
Chrysene	4	5	80%	9.00E-06	4.40E-06	4	5	80%	9.00E-06	4.40E-06
Fluoranthene	3	5	60%	8.00E-06	4.00E-06	3	5	60%	8.00E-06	4.00E-06
Fluorene	5	5	100%	1.10E-05	5.60E-06	5	5	100%	1.10E-05	5.60E-06
Naphthalene	1	5	20%	4.50E-05	1.90E-05	1	5	20%	4.50E-05	1.90E-05
Phenanthrene	5	5	100%	3.10E-05	1.98E-05	5	5	100%	3.10E-05	1.98E-05
Pyrene	5	5	100%	4.80E-04	1.94E-04	5	5	100%	4.80E-04	1.94E-04
alpha-BHC	0	0	0%	NR	NR	1	1	100%	6.10E-04	6.10E-04
gamma-Chlordane	2	4	50%	5.25E-03	3.09E-03	2	4	50%	5.25E-03	3.09E-03
Barium	9	9	100%	6.55	3.62	9	9	100%	6.55	3.62
Cadmium	9	9	100%	0.103	0.06	0	9	0%	ND	ND
Chromium	9	9	100%	0.254	0.2	0	9	0%	ND	ND
Copper	9	9	100%	3.25	2.13	0	9	0%	ND	ND
Lead	9	9	100%	1.83	0.49	4	6	67%	0.2	0.18
Nickel	9	9	100%	0.926	0.38	0	9	0%	ND	ND
Thallium	1	9	11%	0.201	0.09	0	9	0%	ND	ND

**Table K12. Comparison of Biota Data for Mammals - Site 35
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Draft Final Dataset					Complete Dataset				
	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)
Vanadium	1	9	11%	0.927	0.45	0	9	0%	ND	ND
Zinc	9	9	100%	32.2	26.82	9	9	100%	32.2	26.82

NA Not reported in DFR dataset.
ND Not detected.

**Table K13. Comparison of Biota Data for Mammals - Central Maritime Chaparral Reference Site
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Draft Final Dataset					Complete Dataset				
	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)
Acenaphthalene	0	0	0%	NR	NR	2	2	100%	1.10E-03	5.71E-04
Anthracene	0	0	0%	NR	NR	2	2	100%	6.00E-06	6.00E-06
Benzo(a)anthracene	0	0	0%	NR	NR	2	2	100%	2.00E-04	1.50E-04
Benzo(b)fluoranthene	0	0	0%	NR	NR	2	2	100%	1.50E-05	1.35E-05
Benzo(k)fluoranthene	0	0	0%	NR	NR	1	2	50%	3.00E-06	2.00E-06
Chrysene	0	0	0%	NR	NR	2	2	100%	3.60E-05	2.30E-05
Fluoranthene	0	0	0%	NR	NR	2	2	100%	3.30E-05	2.45E-05
Fluorene	0	0	0%	NR	NR	2	2	100%	1.00E-05	9.50E-06
Phenanthrene	0	0	0%	NR	NR	2	2	100%	6.30E-05	5.10E-05
Pyrene	0	0	0%	NR	NR	2	2	100%	7.90E-05	7.05E-05
gamma-Chlordane	2	2	100%	0.00274	0.00209	0	2	0%	ND	ND
Barium	3	3	100%	9.3	6.97	3	3	100%	9.83	6.97
Chromium	3	3	100%	3.29	2.68	0	3	0%	ND	ND
Lead	2	3	67%	3.40	1.21	1	3	33%	3.4	1.18
Vanadium	1	3	33%	0.941	0.581	0	3	0%	ND	ND
Zinc	0	0	0%	NR	NR	3	3	100%	37.1	32.2

NR Not reported in DFR dataset.

ND Not detected.

**Table K14. Comparison of Biota Data for Mammals - Coast Live Oak Woodland Reference Site
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Draft Final Dataset					Complete Dataset				
	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)	Number of Detects	Number of Analyses	Frequency of Detection (percent)	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)
Barium	2	2	100%	8.35	7.09	2	2	100%	8.35	7.09
Chromium	2	2	100%	4.08	3.52	0	2	0%	ND	ND
Lead	2	2	100%	0.197	0.1965	0	2	0%	ND	ND
Nickel	0	0	0%	NR	NR	2	2	100%	2.97	2.56
Vanadium	1	2	50%	0.866	0.632	0	2	0%	ND	ND
Zinc	0	0	0%	NR	NR	2	2	100%	31.2	29.9

NR Not reported in DFR dataset.

ND Not detected.

Table K15. Final Chemical Analytical Results for Leaf Litter
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Site	Transect /a/	Chemical Concentrations (mg/kg)																		
		Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc	4,4'-DDD	4,4'-DDE	4,4'-DDT	Heptachlor	Dieldrin	Chlordane
CMC	1	0.17	ND	ND	ND	6.7	9.0	19.6	0.08	4.1	ND	ND	ND	62.7	ND	ND	ND	ND	ND	ND
CLOW	1	0.31	ND	ND	ND	7.3	8.9	20.9	0.11	5.4	ND	ND	ND	56.8	ND	0.012	ND	ND	ND	ND
UR	1	ND	0.67	ND	ND	19.3	9.6	1.7	ND	10.7	ND	ND	ND	50.9	ND	ND	ND	ND	ND	ND
16	1	0.78	0.98	ND	ND	10.6	13	49.8	0.040	8.1	ND	ND	ND	108	ND	ND	ND	ND	ND	ND
16	2	0.24	0.60	ND	ND	6.8	12.7	14.1	0.040	5.4	ND	ND	ND	54.7	ND	ND	ND	ND	ND	ND
16	3	0.33	2.8	ND	ND	12.3	16.8	20.6	0.070	10.3	ND	ND	ND	74.7	ND	0.034	0.068	ND	ND	0.097
16	4	0.57	2.8	ND	ND	21.3	19.4	62.2	0.12	15.1	ND	ND	ND	110	ND	0.023	0.083	ND	ND	0.37
16	5	0.38	1.7	ND	2.3	18.3	27.9	57.9	0.080	13.6	ND	ND	ND	170	ND	ND	ND	ND	ND	ND
16	6	0.35	5.6	ND	2.3	33.4	72.4	178	0.44	20	ND	ND	0.082	326	ND	0.012	ND	ND	ND	0.32
16	7	0.52	2.6	ND	ND	36.3	35.2	61.3	0.060	23.9	0.58	ND	ND	193	ND	ND	ND	ND	ND	ND
16	8	0.61	0.75	ND	9.3	18.3	26	41.8	ND	11.2	ND	ND	ND	417	ND	ND	ND	ND	ND	ND
24	1	ND	ND	ND	0.6	20.8	17.8	68.8	0.13	10.5	ND	ND	0.070	130	0.047	ND	0.096	ND	0.011	ND
24	2	ND	ND	0.080	0.21	13.9	19.2	15.6	0.050	8.9	ND	ND	0.070	56.6	ND	0.016	0.038	ND	ND	ND
24	3	ND	2.7	0.080	0.46	55.5	12.3	601	0.060	10	ND	ND	0.090	318	ND	0.032	0.086	ND	0.085	0.18
24	4	ND	ND	0.10	0.44	7.9	9.1	43.2	0.050	6.9	0.11	ND	ND	139	ND	0.0087	ND	0.019	0.0086	ND
24	5	ND	ND	0.070	0.45	7.9	9.8	16.4	ND	6.2	0.080	ND	ND	118	ND	0.076	0.075	0.041	0.048	ND
24	6	ND	ND	0.070	0.25	17.8	12.5	29.6	0.040	11.6	ND	ND	ND	74.7	0.057	0.15	0.42	0.026	0.17	0.19
25	7	ND	12.6	ND	0.46	8.9	24.3	9.2	ND	9.6	ND	0.52	0.060	44.8	ND	ND	ND	ND	ND	ND
25	8	ND	ND	0.070	3.0	14.3	25.8	33.1	0.080	8.5	ND	ND	ND	114	ND	ND	ND	ND	ND	ND
25	9	ND	ND	0.040	1.1	7.9	12.8	31.1	0.090	6.7	0.10	ND	ND	68.9	ND	0.0099	ND	ND	ND	ND
25	10	ND	2.1	ND	6.2	10.6	44.2	41.7	0.070	15.4	ND	ND	ND	161	NA	NA	NA	NA	NA	NA
29	1	ND	ND	ND	0.14	18.2	9.5	18.5	0.050	11.3	ND	ND	0.070	37.3	ND	0.019	0.029	ND	ND	ND
29	2	ND	ND	ND	0.21	26.1	9.4	52.3	ND	13.1	0.080	ND	0.060	108	ND	0.087	0.047	ND	ND	ND
29	3	ND	ND	ND	1.1	17	7.5	28.2	ND	9.6	ND	ND	ND	42.8	ND	0.11	0.031	ND	ND	ND
29	4	ND	ND	ND	0.77	17.8	8.8	24.5	ND	11.4	ND	ND	ND	53.6	ND	0.054	0.054	ND	ND	ND
31	1	ND	ND	ND	0.14	23.9	22.9	39.5	0.042	13.1	ND	ND	0.070	107	ND	0.011	ND	ND	ND	ND
31	2	ND	11.2	ND	0.52	33.8	5980	892	ND	41.4	ND	ND	ND	362	ND	0.0095	ND	ND	ND	ND
31	3.1	ND	43.2	ND	0.45	43.8	186	375	0.14	55.5	ND	5.30	ND	167	ND	0.037	0.031	ND	ND	ND
31	3.2	ND	22.1	ND	0.44	44.7	68.2	329	0.12	30.8	ND	3.60	ND	267	0.035	0.093	0.061	ND	ND	ND
35	1	ND	ND	0.11	0.34	5.9	8.2	29.2	0.10	6.6	0.10	ND	ND	45.2	ND	0.012	0.024	ND	ND	ND
35	2	ND	ND	0.10	0.91	ND	17.8	13.9	0.060	4.2	0.10	ND	ND	107	ND	0.11	ND	ND	ND	ND
35	3	ND	ND	0.040	0.25	13.4	6.6	15.8	0.11	10	ND	ND	ND	29.7	ND	ND	ND	ND	ND	ND
35	4	ND	ND	0.050	0.42	6.4	8.9	15.2	0.010	5.5	0.40	ND	ND	34.7	ND	0.015	ND	ND	ND	ND
35	5	ND	ND	0.11	0.30	7.1	6.4	9.7	0.090	5.9	ND	0.14	ND	43.6	ND	0.0085	ND	ND	ND	ND
35	6	ND	9.0	0.16	0.45	10.3	12.3	26.6	0.14	10.9	ND	0.49	ND	54.6	ND	ND	ND	ND	ND	ND
35	7	ND	ND	0.11	0.38	14.8	6.3	14.9	0.090	8	ND	ND	ND	32.4	ND	ND	ND	ND	ND	ND
35	8	ND	ND	ND	0.48	5.6	8.8	21.4	0.090	5.2	ND	ND	ND	42.6	ND	0.016	ND	ND	ND	ND
35	9	ND	ND	ND	0.22	4.1	7.9	19.5	0.10	4.6	0.40	ND	ND	39.9	ND	ND	ND	ND	ND	ND
35	10	ND	ND	ND	0.24	4.9	9.1	19.6	0.080	5.4	ND	ND	ND	44.2	ND	0.011	ND	ND	ND	ND

CMC Central maritime chaparral reference site.
CLOW Coast live oak woodland reference site.
UR Upland ruderal reference site.
ND Not detected.

/a/ See Plates 4.3 through 4.20 for location of transects.

Table K15. Final Chemical Analytical Results for Leaf Litter
 Volume IV - Ecological Risk Assessment, Basewide RI/FS
 Fort Ord, California

Site	Transect /a/	Chemical Concentrations (mg/kg)										
		Acenaphthalene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(ghi)perylene	Dibenzo(a,h)anthracene	Fluoranthene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	
CMC	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CLOW	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
UR	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
16	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16	8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24	5	ND	ND	0.049	ND	ND	ND	ND	ND	0.26	0.17	ND
24	6	0.31	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
29	1	ND	ND	ND	ND	ND	ND	0.20	ND	ND	ND	ND
29	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31	2	ND	ND	ND	ND	ND	0.16	ND	0.25	0.25	0.12	ND
31	3.1	ND	ND	ND	ND	ND	ND	ND	0.40	0.78	ND	ND
31	3.2	ND	ND	ND	ND	ND	ND	ND	1.1	0.93	ND	ND
35	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
35	2	ND	0.0075	ND	ND	0.021	ND	ND	ND	ND	ND	ND
35	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
35	4	ND	ND	0.0047	0.013	ND	ND	ND	ND	ND	ND	ND
35	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
35	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
35	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
35	8	ND	ND	ND	0.085	ND	ND	ND	ND	ND	ND	ND
35	9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
35	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

CMC Central maritime chaparral reference site.
 CLOW Coast live oak woodland reference site.
 UR Upland ruderal reference site.
 ND Not detected.

/a/ See Plates 4.3 through 4.20 for location of transects.

**Table K16. Summary of Regression Analyses for Soil and Hottentot Fig /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Slope	y-intercept (mg/kg)		R-square
Nontransformed data				
Chromium	0.002	0.42		0.001
Copper	-0.051	10.75	*	0.088
Lead	0.0005	0.23	*	0.015
Nickel	-0.563	7.26	* *	0.554
Zinc	-0.180	90.20	*	0.204
Log-transformed data				
		/b/		
Chromium	-0.046	0.38		0.0003
Copper	-0.033	10.01	**	0.013
Lead	0.109	0.17	*	0.071
Nickel	-1.073	17.39		0.353
Zinc	-0.326	197.60	*	0.264

mg/kg Milligrams per kilogram.

* Significantly different from 0 (p < 0.05).

** Significantly different from 0 (p < 0.0001).

/a/ Regression for the following equation: $Y = mX + b$ where:

Y Plant concentration

m Slope

X Soil concentration

b Y-intercept.

/b/ Inverse log of log-transformed y-intercept.

**Table K17. Summary of Regression Analyses for Soil and Buckwheat /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Slope		y-intercept (mg/kg)		R-square	
Nontransformed data						
Antimony	0.005	*	0.17	*	0.968	*
Chromium	0.008		0.35	*	0.092	
Copper	0.010	*	7.46	*	0.406	*
Lead	0.003	**	3.50	*	0.946	**
Zinc	0.022		43.44	**	0.006	
Log-transformed data						
			/b/			
Antimony	0.321	*	0.2	**	0.965	*
Chromium	0.248		0.24	*	0.126	
Copper	0.252	*	3.8	**	0.791	*
Lead	0.381	*	0.73		0.752	*
Zinc	0.067		35.41	**	0.084	

mg/kg Milligrams per kilogram.

* Significantly different from 0 (p < 0.05).

** Significantly different from 0 (p < 0.0001).

/a/ Regression for the following equation: $Y = mX + b$ where:

Y Plant concentration

m Slope

X Soil concentration

b Y-intercept.

/b/ Inverse log of log-transformed y-intercept.

**Table K18. Comparison of Background Values for Buckwheat and Hottentot Fig
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Hazard Quotient							
	Buckwheat		Hottentot fig /c/					
	y-Int /a/	Actual /b/	y-Int /a/	CLOW	CMC	UR	Average	
Antimony	0.004	NA	NA	NA	NA	NA	NA	
Cadmium	NA	NA	NA	0.4	0.7	2.0	1.0	
Chromium	0.7	0.8	0.8	0.4	1.0	0.7	0.7	
Copper	0.4	0.2	0.5	NA	0.2	0.2	0.3	
Lead	0.4	0.06	0.02	NA	NA	0.2	0.1	
Nickel	NA	NA	1.5	NA	0.4	0.4	0.8	
Zinc	0.4	0.4	0.9	0.2	0.2	0.6	0.5	

GLOW Coast live oak woodland.
GMC Central maritime chaparral.
UR Upland ruderal.
NA Not available.

/a/ Based on regression analysis.
/b/ Based on plant tissue data from control or area of Site 3.
/c/ Based on plant tissue data from reference locations.

**Table K19. Results of Evaluation of Toxicity Using In-Plant Metal Concentrations
(Based on Kabata-Pendias and Pendias Screening Levels)
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Chemical	Hazard Quotient /a/				
	Site /b/				
	2	3a	3b	39a	39b
Antimony					
Arsenic					
Beryllium					
Cadmium					
Chromium	1.1		6.5		6.5
Copper					
Lead					
Nickel					
Selenium					
Zinc	1.2				
TOTAL /c/	2	<1	7	<1	7

NC No COPCs.

/a/ The hazard quotients shown here represent the ratio of the mean detected in-plant concentration to the applicable screening concentration (lower of upper bound of normal range and lower bound of toxic range). Blank spaces indicate that the chemical was eliminated as a COPC or had a hazard quotient less than or equal to 1.0.

/b/ Sites 2, 3b and 39b are hottentot fig and Sites 3a and 39a are buckwheat.

/c/ The total of the hazard quotients for each site represents the hazard index for the potential effects of inorganic COPCs on plants.

/d/ Hazard quotients due to background levels were excluded in this value.

**Table K20. Comparison of Hazard Indices - Modeled Plant Tissue Concentrations vs. Measured Plant Tissue Concentrations
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site /a/	Hazard Indices		Status
	Screening /b/	Quantitative /c/	
2	75	2	Possible concern
3a/39a	596/154	<1	No concern
3b/39b	596/154	7	Possible concern

/a/ Sites 2, 3b and 39b are hottentot fig and Sites 3a and 39a are buckwheat.

/b/ Hazard quotients calculated using maximum soil concentrations and EPA tissue screening values (if available) or lower bound of toxic range.

/c/ Hazard quotients calculated using measured plant tissue concentrations and lower of lower bound of toxic range and upper bound of normal range.

**Table K21. Summary of Deer Mouse Hazard Indices for Site 1 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Plant Uptake Factor (kg soil/kg plant)	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	TRV (mg/kg/day)	Old HI	New HI
Chromium	1.04E+01	9.52E+00	0.00634	5.20E-03	5.41E-02	4.95E-02	2.00E-01	0.24	3.20E-01	2.93E-01
Copper	1.03E+01	5.78E+00	0.00634	2.85E-01	2.94E+00	1.65E+00	2.00E-01	347	1.88E-03	1.06E-03
Mercury	2.40E-01	2.40E-01	0.00634	3.71E-01	8.90E-02	8.90E-02	2.00E-01	1.9	1.02E-02	1.02E-02
Nickel	9.80E+00	0	0.00634	5.94E-02	5.82E-01	0	2.00E-01	0.85	2.10E-01	--
Silver	9.20E-01	3.70E-01	0.00634	1.73E-01	1.59E-01	6.40E-02	2.00E-01	1.78	2.12E-02	8.51E-03
Zinc	2.77E+01	2.21E+01	0.00634	1.04E+00	2.88E+01	2.29E+01	2.00E-01	14	4.24E-01	3.38E-01
Total HI									9.87E-01	6.50E-01

HI Hazard index.

TRV Toxicity reference value.

-- HI not calculable.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.

Bold values denote modeled concentrations.

**Table K22. Summary of Gray Fox Hazard Indices for Site 1 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Plant Uptake Factor (kg soil/kg plant)	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	Old Mouse Conc. (mg/kg)	New Mouse Conc. (mg/kg)	Mouse Factor	TRV (mg/kg/day)	Old HI	New HI
Chromium	1.04E+01	9.52E+00	7.92E-04	5.20E-03	5.41E-02	4.95E-02	2.46E-02	7.68E-02	7.03E-02	3.68E-02	0.03	4.13E-01	3.78E-01
Copper	1.03E+01	5.78E+00	7.92E-04	2.85E-01	2.94E+00	1.65E+00	2.46E-02	6.52E-01	3.66E-01	3.68E-02	17.3	6.03E-03	3.39E-03
Mercury	2.40E-01	2.40E-01	7.92E-04	3.71E-01	8.90E-02	8.90E-02	2.46E-02	1.93E-02	1.93E-02	3.68E-02	0.1	3.09E-02	3.09E-02
Nickel	9.80E+00	0	7.92E-04	5.94E-02	5.82E-01	0	2.46E-02	1.79E-01	0	3.68E-02	2.69	1.07E-02	--
Silver	9.20E-01	3.70E-01	7.92E-04	1.73E-01	1.59E-01	6.40E-02	2.46E-02	3.77E-02	1.51E-02	3.68E-02	0.89	6.78E-03	2.72E-03
Zinc	2.77E+01	2.21E+01	7.92E-04	1.04E+00	2.88E+01	2.29E+01	2.46E-02	5.94E+00	4.73E+00	3.68E-02	1.75	5.42E-01	4.32E-01
TOTAL HI												1.01E+00	8.47E-01

HI Hazard index.
TRV Toxicity reference value.
-- HI not calculable.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.
Bold values denote modeled concentrations.

**Table K23. Summary of Deer Mouse Hazard Indices for Site 2 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Plant Uptake Factor (kg soil/kg plant)	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	TRV (mg/kg/day)	Old HI	New HI
Antimony	4.04E+00	4.04E+00	0.00634	7.18E-02	2.90E-01	0	2.00E-01	0.35	2.39E-01	7.32E-02
Arsenic	2.41E+00	2.41E+00	0.00634	1.44E-02	3.47E-02	0	2.00E-01	0.7	3.17E-02	2.18E-02
Cadmium	2.92E+00	2.92E+00	0.00634	2.48E-01	7.24E-01	0	2.00E-01	0.17	9.61E-01	1.09E-01
Chromium	2.63E+01	2.63E+01	0.00634	5.20E-03	1.37E-01	5.40E-01	2.00E-01	0.24	8.09E-01	1.15E+00
Copper	1.78E+02	1.78E+02	0.00634	2.85E-01	5.07E+01	7.60E+00	2.00E-01	347	3.25E-02	7.64E-03
Lead	3.55E+01	3.55E+01	0.00634	1.78E-02	6.32E-01	2.30E-01	2.00E-01	0.09	3.91E+00	3.01E+00
Mercury	1.22E+00	1.22E+00	0.00634	3.71E-01	4.53E-01	0	2.00E-01	1.9	5.17E-02	4.07E-03
Nickel	1.03E+01	1.03E+01	0.00634	5.94E-02	6.12E-01	4.25E+00	2.00E-01	0.85	2.21E-01	1.08E+00
Selenium	1.53E+00	1.53E+00	0.00634	2.48E-02	3.79E-02	0	2.00E-01	0.06	2.88E-01	1.62E-01
Silver	1.01E+01	1.01E+01	0.00634	1.73E-01	1.75E+00	0	2.00E-01	1.78	2.32E-01	3.60E-02
Thallium	2.70E-01	2.70E-01	0.00634	1.29E-03	3.48E-04	0	2.00E-01	0.01	1.78E-01	1.71E-01
Zinc	2.59E+02	2.59E+02	0.00634	1.04E+00	2.69E+02	1.18E+02	2.00E-01	14	3.97E+00	1.80E+00
Total HI									1.09E+01	7.62E+00

HI Hazard index.

TRV Toxicity reference value.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.

Bold values denote modeled concentrations.

**Table K24. Summary of Gray Fox Hazard Indices for Site 2 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Plant Uptake Factor (kg soil/kg plant)	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	Old Mouse Conc. (mg/kg)	New Mouse Conc. (mg/kg)	Mouse Factor	TRV (mg/kg/day)	Old HI	New HI
Chlordane	0	0	7.92E-04	0	0	0	2.46E-02	0	0.00332	3.68E-02	0.04	--	3.05E-03
4,4'-DDE	0	0	7.92E-04	0	0	0	2.46E-02	0	0.00688	3.68E-02	1.7	--	1.49E-04
Heptachlor	0	0	7.92E-04	0	0	0	2.46E-02	0	0.00327	3.68E-02	0.0003	--	4.01E-01
Antimony	4.04E+00	4.04E+00	7.92E-04	7.18E-02	2.90E-01	0	2.46E-02	8.36E-02	2.56E-02	3.68E-02	2.99	4.49E-03	1.39E-03
Arsenic	2.41E+00	2.41E+00	7.92E-04	1.44E-02	3.47E-02	0	2.46E-02	0	0	3.68E-02	0.37	7.47E-03	5.16E-03
Barium	0	0	7.92E-04	0	0	0	2.46E-02	3.22E+00	3.22	3.68E-02	0.04	2.96E+00	2.96E+00
Cadmium	2.92E+00	2.92E+00	7.92E-04	2.48E-01	7.24E-01	0	2.46E-02	9.00E-02	0	3.68E-02	0.0085	2.76E+00	2.72E-01
Chromium	2.63E+00	2.63E+01	7.92E-04	5.20E-03	1.37E-02	5.40E-01	2.46E-02	1.90E-01	0	3.68E-02	0.03	3.14E-01	1.14E+00
Copper	1.78E+02	1.78E+02	7.92E-04	2.85E-01	5.07E+01	7.60E+00	2.46E-02	4.15E+00	3.16	3.68E-02	17.3	8.91E-02	2.57E-02
Lead	3.55E+01	3.55E+01	7.92E-04	1.78E-02	6.32E-01	2.30E-01	2.46E-02	7.20E-01	0	3.68E-02	0.13	5.40E-01	2.60E-01
Mercury	1.22E+00	1.22E+00	7.92E-04	3.71E-01	4.53E-01	0	2.46E-02	9.83E-02	7.73E-03	3.68E-02	0.1	1.57E-01	1.25E-02
Nickel	1.03E+01	1.03E+01	7.92E-04	5.94E-02	6.12E-01	4.25E+00	2.46E-02	3.50E-01	0	3.68E-02	2.69	1.34E-02	4.19E-02
Selenium	1.53E+00	1.53E+00	7.92E-04	2.48E-02	3.79E-02	0	2.46E-02	1.73E-02	9.70E-03	3.68E-02	0.003	9.27E-01	5.23E-01
Silver	1.01E+01	1.01E+01	7.92E-04	1.73E-01	1.75E+00	0	2.46E-02	0	0	3.68E-02	0.89	5.73E-02	8.99E-03
Thallium	2.70E-01	2.70E-01	7.92E-04	1.29E-03	3.48E-04	0	2.46E-02	0	0	3.68E-02	0.003	7.41E-02	7.13E-02
Zinc	2.59E+02	2.59E+02	7.92E-04	1.04E+00	2.69E+02	1.18E+02	2.46E-02	3.97E+01	47.1	3.68E-02	1.75	4.74E+00	2.76E+00
TOTAL HI												1.26E+01	8.49E+00

HI Hazard index.
TRV Toxicity reference value.
-- HI not calculable.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.
Bold values denote modeled concentrations.

**Table K25. Summary of Deer Mouse Hazard Indices for Site 3 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	TRV (mg/kg/day)	Old HI	New HI
Antimony	2.87E+02	2.87E+02	0.00634	3.00E-01	1.30E-01	2.00E-01	0.35	5.37E+00	5.27E+00
Arsenic	2.33E+00	2.33E+00	0.00634	0	0	2.00E-01	0.7	2.11E-02	2.11E-02
Chromium	1.78E+01	1.78E+01	0.00634	4.60E-01	3.26E+00	2.00E-01	0.24	8.54E-01	3.19E+00
Copper	8.08E+02	8.08E+02	0.00634	8.94E+00	4.95E+00	2.00E-01	347	1.99E-02	1.76E-02
Lead	6.72E+03	6.72E+03	0.00634	9.74E+00	6.15E+00	2.00E-01	0.09	4.95E+02	4.87E+02
Nickel	9.75E+00	9.75E+00	0.00634	0	3.85E+00	2.00E-01	0.85	7.27E-02	9.79E-01
Silver	2.80E-01	2.80E-01	0.00634	0	0	2.00E-01	1.78	9.97E-04	9.97E-04
Tin	5.75E+00	5.75E+00	0.00634	0	0	2.00E-01	0.7	5.21E-02	5.21E-02
Zinc	1.11E+02	1.11E+02	0.00634	4.41E+01	1.71E+01	2.00E-01	14	6.80E-01	2.94E-01
Total HI								5.02E+02	4.97E+02

HI Hazard index.
TRV Toxicity reference value.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.

**Table K26. Summary of Gray Fox Hazard Indices for Site 3 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	Old Mouse Conc. (mg/kg)	New Mouse Conc. (mg/kg)	Mouse Factor	TRV (mg/kg/day)	Old HI	New HI
Chlordane	0	0	7.92E-04	0	0	2.46E-02	0	1.50E-03	3.68E-02	0.04	--	1.38E-03
Antimony	2.87E+02	2.87E+02	7.92E-04	3.00E-01	1.30E-01	2.46E-02	1.88E+00	1.85E+00	3.68E-02	2.99	1.02E-01	9.98E-02
Arsenic	2.33E+00	2.33E+00	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	0.37	4.99E-03	4.99E-03
Barium	0	0	7.92E-04	0	0	2.46E-02	1.93E+00	1.78E+00	3.68E-02	0.04	1.78E+00	1.64E+00
Cadmium	0	0	7.92E-04	0	0	2.46E-02	1.30E-01	0	3.68E-02	0.0085	5.63E-01	--
Chromium	1.78E+01	1.78E+01	7.92E-04	4.60E-01	3.26E+00	2.46E-02	3.00E-01	0	3.68E-02	0.03	1.22E+00	3.14E+00
Copper	8.08E+02	8.08E+02	7.92E-04	8.94E+00	4.95E+00	2.46E-02	4.71E+00	3.93E+00	3.68E-02	17.3	5.97E-02	5.24E-02
Lead	6.72E+03	6.72E+03	7.92E-04	9.74E+00	6.15E+00	2.46E-02	6.89E+00	2.70E-01	3.68E-02	0.13	4.47E+01	4.22E+01
Nickel	9.75E+00	9.75E+00	7.92E-04	0	3.85E+00	2.46E-02	2.52E+00	2.15E+00	3.68E-02	2.69	3.73E-02	6.75E-02
Silver	2.80E-01	2.80E-01	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	0.89	2.49E-04	2.49E-04
Tin	5.75E+00	5.75E+00	7.92E-04	0	0	2.46E-02	3.65E-02	3.65E-02	3.68E-02	0.04	1.47E-01	1.47E-01
Zinc	1.11E+02	1.11E+02	7.92E-04	4.41E+01	1.71E+01	2.46E-02	3.47E+01	3.56E+01	3.68E-02	1.75	1.40E+00	1.04E+00
TOTAL HI											5.00E+01	4.84E+01

HI Hazard index.

TRV Toxicity reference value.

-- HI not calculable.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.

Bold values denote modeled concentrations.

**Table K27. Summary of Deer Mouse Hazard Indices for Site 11 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	TRV (mg/kg/day)	Old HI	New HI
Arsenic	0	0	0.00634	8.38E-02	8.38E-02	2.00E-01	0.7	2.39E-02	2.39E-02
Chromium	1.24E+01	1.24E+01	0.00634	3.25E+00	3.25E+00	2.00E-01	0.24	3.03E+00	3.03E+00
Copper	7.83E+00	7.83E+00	0.00634	1.65E+01	1.65E+01	2.00E-01	347	9.65E-03	9.65E-03
Lead	6.45E+01	6.45E+01	0.00634	2.60E-01	2.60E-01	2.00E-01	0.09	5.12E+00	5.12E+00
Nickel	8.35E+00	8.35E+00	0.00634	3.60E+00	3.60E+00	2.00E-01	0.85	9.09E-01	9.09E-01
Zinc	8.42E+01	8.43E+01	0.00634	3.66E+01	3.66E+01	2.00E-01	14	5.61E-01	5.61E-01
Total HI								9.66E+00	9.66E+00

HI Hazard index.

TRV Toxicity reference value.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.

**Table K28. Summary of Gray Fox Hazard Indices for Site 11 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	Old Mouse Conc. (mg/kg)	New Mouse Conc. (mg/kg)	Mouse Factor	TRV (mg/kg/day)	Old HI	New HI
Arsenic	0	0	7.92E-04	8.38E-02	8.38E-02	2.46E-02	0	0	3.68E-02	0.37	5.57E-03	5.57E-03
Barium	0	0	7.92E-04	0	0	2.46E-02	3.83E+00	3.83E+00	3.68E-02	0.04	3.52E+00	3.52E+00
Cadmium	0	0	7.92E-04	0	0	2.46E-02	2.00E-02	0	3.68E-02	0.0085	8.66E-02	--
Chromium	1.23E+01	1.24E+01	7.92E-04	3.25E+00	3.25E+00	2.46E-02	7.00E-02	0	3.68E-02	0.03	3.08E+00	2.99E+00
Copper	7.83E+00	7.83E+00	7.92E-04	1.65E+01	1.65E+01	2.46E-02	2.99E+00	0	3.68E-02	17.3	3.02E-02	2.38E-02
Lead	6.45E+01	6.45E+01	7.92E-04	2.60E-01	2.60E-01	2.46E-02	5.10E-01	3.30E-01	3.68E-02	0.13	5.87E-01	5.36E-01
Nickel	8.35E+00	8.35E+00	7.92E-04	3.60E+00	3.60E+00	2.46E-02	5.10E-01	3.10E-01	3.68E-02	2.69	4.24E-02	3.96E-02
Thallium	0	0	7.92E-04	0	0	2.46E-02	1.10E-01	0	3.68E-02	0.003	1.35E+00	--
Vanadium	0	0	7.92E-04	0	0	2.46E-02	5.40E-01	0	3.68E-02	0.21	9.46E-02	--
Zinc	8.42E+01	8.43E+01	7.92E-04	3.66E+01	3.66E+01	2.46E-02	3.85E+01	3.85E+01	3.68E-02	1.75	1.36E+00	1.36E+00
TOTAL HI											1.02E+01	8.48E+00

HI Hazard index.
TRV Toxicity reference value.
-- HI not calculable.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.

**Table K29. Summary of Deer Mouse Hazard Indices for Site 12 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	TRV (mg/kg/day)	Old HI	New HI
Tetrachloroethene	9.30E-03	9.30E-03	0.00634	0	0	2.00E-01	2.8	2.11E-05	2.11E-05
Toluene	2.10E-03	2.10E-03	0.00634	0	0	2.00E-01	250	5.33E-08	5.33E-08
Trichloroethene	2.40E-03	2.40E-03	0.00634	0	0	2.00E-01	128.37	1.19E-07	1.19E-07
Bis(2-ethylhexyl)phthalate	1.57E-01	1.57E-01	0.00634	0	0	2.00E-01	2.6	3.83E-04	3.82E-04
Di-n-butylphthalate	1.10E-01	1.10E-01	0.00634	0	0	2.00E-01	12.5	5.58E-05	5.58E-05
Diethylphthalate	4.10E-02	4.10E-02	0.00634	0	0	2.00E-01	77	3.38E-06	3.38E-06
Antimony	1.25E+00	1.25E+00	0.00634	0	0	2.00E-01	0.35	2.26E-02	2.26E-02
Arsenic	1.97E+00	1.97E+00	0.00634	0	0	2.00E-01	0.7	1.78E-02	1.78E-02
Beryllium	1.40E-01	1.40E-01	0.00634	0	0	2.00E-01	0.95	9.34E-04	9.34E-04
Cadmium	2.71E+00	2.71E+00	0.00634	0	0	2.00E-01	0.17	1.01E-01	1.01E-01
Chromium	3.25E+01	3.25E+01	0.00634	6.30E-01	6.30E-01	2.00E-01	0.24	1.38E+00	1.38E+00
Copper	2.74E+01	2.74E+01	0.00634	1.26E+01	1.26E+01	2.00E-01	347	7.78E-03	7.78E-03
Lead	1.99E+02	1.99E+02	0.00634	6.10E-01	6.10E-01	2.00E-01	0.09	1.54E+01	1.54E+01
Mercury	6.00E-02	6.00E-02	0.00634	0	0	2.00E-01	1.9	2.00E-04	2.00E-04
Nickel	1.09E+01	1.09E+01	0.00634	1.98E+00	1.98E+00	2.00E-01	0.85	5.47E-01	5.47E-01
Selenium	4.10E-01	4.10E-01	0.00634	0	0	2.00E-01	0.06	4.33E-02	4.33E-02
Zinc	1.25E+02	1.25E+02	0.00634	4.48E+01	4.48E+01	2.00E-01	14	6.97E-01	6.97E-01
Total HI								1.82E+01	1.82E+01

HI Hazard index.
TRV Toxicity reference value.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.

**Table K30. Summary of Gray Fox Hazard Indices for Site 12 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	Old Mouse Conc. (mg/kg)	New Mouse Conc. (mg/kg)	Mouse Factor	TRV (mg/kg/day)	Old HI	New HI
Tetrachloroethene	9.30E-03	9.30E-03	7.92E-04	0	0	2.46E-02	5.90E-05	5.90E-05	3.68E-02	0.14	6.81E-05	6.81E-05
Toluene	2.10E-03	2.10E-03	7.92E-04	0	0	2.46E-02	1.33E-05	1.33E-05	3.68E-02	12.5	1.72E-07	1.72E-07
Trichloroethene	2.40E-03	2.40E-03	7.92E-04	0	0	2.46E-02	1.52E-05	1.52E-05	3.68E-02	1.28	1.92E-06	1.92E-06
Bis(2-ethylhexyl)phthalate	1.57E-01	1.57E-01	7.92E-04	0	0	2.46E-02	9.95E-04	9.92E-04	3.68E-02	0.13	1.24E-03	1.23E-03
Di-n-butylphthalate	1.10E-01	1.10E-01	7.92E-04	0	0	2.46E-02	6.97E-04	6.97E-04	3.68E-02	6.25	1.80E-05	1.80E-05
Diethylphthalate	4.10E-02	4.10E-02	7.92E-04	0	0	2.46E-02	2.60E-04	2.60E-04	3.68E-02	38.5	1.09E-06	1.09E-06
Antimony	1.25E+00	1.25E+00	7.92E-04	0	0	2.46E-02	7.93E-03	7.93E-03	3.68E-02	2.99	4.29E-04	4.29E-04
Arsenic	1.97E+00	1.97E+00	7.92E-04	0	0	2.46E-02	1.25E-02	1.25E-02	3.68E-02	0.37	5.46E-03	5.46E-03
Beryllium	1.40E-01	1.40E-01	7.92E-04	0	0	2.46E-02	8.88E-04	8.88E-04	3.68E-02	0.05	2.87E-03	2.87E-03
Cadmium	2.71E+00	2.71E+00	7.92E-04	0	0	2.46E-02	1.72E-02	1.72E-02	3.68E-02	0.0085	3.27E-01	3.27E-01
Chromium	3.25E+01	3.25E+01	7.92E-04	6.30E-01	6.30E-01	2.46E-02	3.32E-01	3.32E-01	3.68E-02	0.03	1.78E+00	1.78E+00
Copper	2.74E+01	2.74E+01	7.92E-04	1.26E+01	1.26E+01	2.46E-02	2.70E+00	2.70E+00	3.68E-02	17.3	2.50E-02	2.50E-02
Lead	1.99E+02	1.99E+02	7.92E-04	6.10E-01	6.10E-01	2.46E-02	1.38E+00	1.38E+00	3.68E-02	0.13	1.72E+00	1.72E+00
Mercury	6.00E-02	6.00E-02	7.92E-04	0	0	2.46E-02	3.80E-04	3.80E-04	3.68E-02	0.1	6.15E-04	6.15E-04
Nickel	1.08E+01	1.09E+01	7.92E-04	1.98E+00	1.98E+00	2.46E-02	4.64E-01	4.65E-01	3.68E-02	2.69	2.76E-02	2.77E-02
Selenium	4.10E-01	4.10E-01	7.92E-04	0	0	2.46E-02	2.60E-03	2.60E-03	3.68E-02	0.003	1.40E-01	1.40E-01
Zinc	1.25E+02	1.25E+02	7.92E-04	4.48E+01	4.48E+01	2.46E-02	9.76E+00	9.76E+00	3.68E-02	1.75	8.92E-01	8.92E-01
TOTAL HI											4.92E+00	4.92E+00

HI Hazard index.
TRV Toxicity reference value.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.
Bold values denote modeled concentrations.

**Table K31. Summary of Deer Mouse Hazard Indices for Site 15 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	TRV (mg/kg/day)	Old HI	New HI
1,2-Dichloroethene (total)	1.65E-03	1.65E-03	0.00634	0	0	2.00E-01	3.4	3.08E-06	3.08E-06
Ethylbenzene	3.02E-03	3.02E-03	0.00634	0	0	2.00E-01	9.71	1.97E-06	1.97E-06
Toluene	2.63E-03	2.63E-03	0.00634	0	0	2.00E-01	250	6.67E-08	6.67E-08
Xylenes	2.30E-03	2.30E-03	0.00634	0	0	2.00E-01	179	8.15E-08	8.15E-08
Chlordane	1.69E+02	1.69E+02	0.00634	0	0	2.00E-01	0.9	1.19E+00	1.19E+00
4,4'-DDE	1.01E-01	1.01E-01	0.00634	0	0	2.00E-01	34	1.88E-05	1.88E-05
4,4'-DDT	6.06E-02	6.06E-02	0.00634	0	0	2.00E-01	3.11	1.24E-04	1.24E-04
Dieldrin	1.49E-01	1.49E-01	0.00634	0	0	2.00E-01	0.003	3.15E-01	3.15E-01
Heptachlor	4.22E+00	4.22E+00	0.00634	0	0	2.00E-01	0.25	1.07E-01	1.07E-01
Heptachlor epoxide	3.12E-02	3.12E-02	0.00634	0	0	2.00E-01	0.25	7.92E-04	7.92E-04
Cadmium	2.50E+00	2.50E+00	0.00634	0	0	2.00E-01	0.17	9.32E-02	9.32E-02
Chromium	1.36E+01	1.36E+01	0.00634	2.10E+00	2.10E+00	2.00E-01	0.24	2.11E+00	2.11E+00
Copper	5.50E+00	5.50E+00	0.00634	1.01E+01	1.01E+01	2.00E-01	347	5.94E-03	5.94E-03
Lead	2.71E+01	2.71E+01	0.00634	4.60E-01	4.60E-01	2.00E-01	0.09	2.93E+00	2.93E+00
Mercury	7.90E-02	7.90E-02	0.00634	0	0	2.00E-01	1.9	2.64E-04	2.64E-04
Nickel	0	0	0.00634	1.93E+00	1.93E+00	2.00E-01	0.85	4.54E-01	4.54E-01
Zinc	4.23E+01	4.23E+01	0.00634	4.11E+01	4.11E+01	2.00E-01	14	6.06E-01	6.06E-01
Total HI								7.82E+00	7.82E+00

HI Hazard index.

TRV Toxicity reference value.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.

**Table K32. Summary of Gray Fox Hazard Indices for Site 15 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	Old Mouse Conc. (mg/kg)	New Mouse Conc. (mg/kg)	Mouse Factor	TRV (mg/kg/day)	Old HI	New HI
1,2-Dichloroethene (total)	1.65E-03	1.65E-03	7.92E-04	0	0	2.46E-02	1.05E-05	1.05E-05	3.68E-02	0.17	9.95E-06	9.95E-06
Ethylbenzene	3.02E-03	3.02E-03	7.92E-04	0	0	2.46E-02	1.91E-05	1.91E-05	3.68E-02	4.86	6.37E-07	6.37E-07
Toluene	2.63E-03	2.63E-03	7.92E-04	0	0	2.46E-02	1.67E-05	1.67E-05	3.68E-02	12.5	2.16E-07	2.16E-07
Xylenes	2.30E-03	2.30E-03	7.92E-04	0	0	2.46E-02	1.46E-05	1.46E-05	3.68E-02	8.95	2.63E-07	2.63E-07
Chlordane	1.69E+02	1.69E+02	7.92E-04	0	0	2.46E-02	1.07E+00	1.07E+00	3.68E-02	0.04	4.33E+00	4.34E+00
4,4'-DDE	1.01E-01	1.01E-01	7.92E-04	0	0	2.46E-02	6.40E-04	6.40E-04	3.68E-02	1.7	6.09E-05	6.09E-05
4,4'-DDT	6.06E-02	6.06E-02	7.92E-04	0	0	2.46E-02	3.84E-04	3.84E-04	3.68E-02	1.6	3.88E-05	3.88E-05
Dieldrin	1.49E-01	1.49E-01	7.92E-04	0	0	2.46E-02	9.45E-04	9.46E-04	3.68E-02	0.02	7.64E-03	7.65E-03
Heptachlor	4.22E+00	4.22E+00	7.92E-04	0	0	2.46E-02	2.68E-02	2.68E-02	3.68E-02	0.0003	1.44E+01	1.44E+01
Heptachlor epoxide	3.12E-02	3.12E-02	7.92E-04	0	0	2.46E-02	1.98E-04	1.98E-04	3.68E-02	0.0003	1.07E-01	1.07E-01
Cadmium	2.50E+00	2.50E+00	7.92E-04	0	0	2.46E-02	1.59E-02	1.59E-02	3.68E-02	0.0085	3.02E-01	3.02E-01
Chromium	1.36E+01	1.36E+01	7.92E-04	2.10E+00	2.10E+00	2.46E-02	5.06E-01	5.06E-01	3.68E-02	0.03	2.70E+00	2.70E+00
Copper	5.50E+00	5.50E+00	7.92E-04	1.01E+01	1.01E+01	2.46E-02	2.06E+00	2.06E+00	3.68E-02	17.3	1.90E-02	1.90E-02
Lead	2.71E+01	2.71E+01	7.92E-04	4.60E-01	4.60E-01	2.46E-02	2.64E-01	2.64E-01	3.68E-02	0.13	3.27E-01	3.27E-01
Mercury	8.00E-02	7.90E-02	7.92E-04	0	0	2.46E-02	5.07E-04	5.01E-04	3.68E-02	0.1	8.20E-04	8.10E-04
Nickel	0	0	7.92E-04	1.93E+00	1.93E+00	2.46E-02	3.86E-01	3.86E-01	3.68E-02	2.69	2.29E-02	2.29E-02
Zinc	4.22E+01	4.23E+01	7.92E-04	4.11E+01	4.11E+01	2.46E-02	8.48E+00	8.48E+00	3.68E-02	1.75	7.74E-01	7.74E-01
TOTAL HI											2.30E+01	2.30E+01

HI Hazard index.

TRV Toxicity reference value.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.

Bold values denote modeled concentrations.

**Table K33. Summary of Deer Mouse Hazard Indices for Site 16 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	TRV (mg/kg/day)	Old HI	New HI
Acetone	7.38E-03	7.38E-03	0.00634	0	0	2.00E-01	2	2.34E-05	2.34E-05
Trichloroethene	6.76E-03	6.76E-03	0.00634	0	0	2.00E-01	128.37	3.34E-07	3.34E-07
Benzo(b)fluoranthene	1.70E-02	2.16E-03	0.00634	0	0	2.00E-01	25	4.31E-06	5.48E-07
Benzo(k)fluoranthene	0	2.11E-03	0.00634	0	0	2.00E-01	25	--	5.35E-07
Benzo(ghi)perylene	0	8.10E-03	0.00634	0	0	2.00E-01	25	--	2.05E-06
Bis(2-ethylhexyl)phthalate	7.37E-01	7.37E-01	0.00634	0	0	2.00E-01	2.6	1.80E-03	1.80E-03
Dibenzofuran	1.99E-01	1.99E-01	0.00634	0	0	2.00E-01	25	5.05E-05	5.06E-05
Di-n-butylphthalate	9.50E-02	9.50E-02	0.00634	0	0	2.00E-01	12.5	4.82E-05	4.82E-05
Fluorene	2.76E-01	2.76E-01	0.00634	0	0	2.00E-01	25	7.00E-05	7.00E-05
2-Methylnaphthalene	1.11E+00	1.11E+00	0.00634	0	0	2.00E-01	16.8	4.19E-04	4.19E-04
Naphthalene	3.32E-01	3.32E-01	0.00634	0	0	2.00E-01	16.8	1.25E-04	1.25E-04
Phenanthrene	3.54E-01	3.54E-01	0.00634	0	0	2.00E-01	15	1.50E-04	1.50E-04
Chlordane	4.38E-02	4.61E-02	0.00634	0	0	2.00E-01	0.9	3.09E-04	3.25E-04
4,4'-DDD	9.60E-03	9.20E-03	0.00634	0	0	2.00E-01	107	5.69E-07	5.45E-07
4,4'-DDT	1.60E-02	1.35E-02	0.00634	0	0	2.00E-01	3.11	3.26E-05	2.74E-05
1,2,3,4,6,7,8-HpCDD	0	4.17E-05	0.00634	0	0	2.00E-01	1.00E-05	/b/	/b/
1,2,3,4,6,7,8-HpCDF	0	1.74E-05	0.00634	0	0	2.00E-01	1.00E-05	/b/	/b/
1,2,3,4,7,8,9-HpCDF	0	0	0.00634	0	0	2.00E-01	1.00E-05	/b/	/b/
1,2,3,4,7,8-HxCDD	0	0	0.00634	0	0	2.00E-01	1.00E-06	/b/	/b/
1,2,3,6,7,8-HxCDD	0	2.03E-06	0.00634	0	0	2.00E-01	1.00E-06	/b/	/b/
1,2,3,7,8,9-HxCDD	0	1.67E-06	0.00634	0	0	2.00E-01	1.00E-06	/b/	/b/
1,2,3,4,7,8-HxCDF	0	1.15E-06	0.00634	0	0	2.00E-01	1.00E-06	/b/	/b/
1,2,3,6,7,8-HxCDF	0	5.33E-06	0.00634	0	0	2.00E-01	1.00E-06	/b/	/b/
1,2,3,7,8,9-HxCDF	0	0	0.00634	0	0	2.00E-01	1.00E-06	/b/	/b/
2,3,4,6,7,8-HxCDF	0	2.07E-06	0.00634	0	0	2.00E-01	1.00E-06	/b/	/b/

**Table K33. Summary of Deer Mouse Hazard Indices for Site 16 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	TRV (mg/kg/day)	Old HI	New HI
1,2,3,7,8-PeCDD	0	0	0.00634	0	0	2.00E-01	2.00E-07	/b/	/b/
1,2,3,7,8-PeCDF	0	0	0.00634	0	0	2.00E-01	2.00E-06	/b/	/b/
2,3,4,7,8-PeCDF	0	0	0.00634	0	0	2.00E-01	2.00E-07	/b/	/b/
OCDD	0	0	0.00634	0	0	2.00E-01	1.00E-04	/b/	/b/
OCDF	0	0	0.00634	0	0	2.00E-01	1.00E-04	/b/	/b/
2,3,7,8-TCDD	0	0	0.00634	0	0	2.00E-01	1.00E-07	/b/	/b/
2,3,7,8-TCDF	0	3.70E-07	0.00634	0	0	2.00E-01	1.00E-06	/b/	/b/
Total HpCDD	8.00E-05	8.36E-05	0.00634	0	0	2.00E-01	1.00E-05	5.07E-02	5.30E-02
Total HpCDF	4.87E-05	4.62E-05	0.00634	0	0	2.00E-01	1.00E-05	3.09E-02	2.93E-02
Total HxCDD	1.21E-05	1.26E-05	0.00634	0	0	2.00E-01	1.00E-06	7.67E-02	7.97E-02
Total HxCDF	3.55E-05	3.18E-05	0.00634	0	0	2.00E-01	1.00E-06	2.25E-01	2.02E-01
Total PeCDF	1.30E-04	1.06E-04	0.00634	1.57E-06	1.57E-06	2.00E-01	2.00E-07	5.69E+00	4.91E+00
Total OCDD	3.00E-04	3.09E-04	0.00634	1.31E-05	1.31E-05	2.00E-01	1.00E-04	4.52E-02	4.58E-02
Total OCDF	2.01E-05	2.00E-05	0.00634	0	0	2.00E-01	1.00E-04	1.27E-03	1.27E-03
Total TCDD	7.10E-07	5.20E-07	0.00634	0	0	2.00E-01	1.00E-07	4.50E-02	3.30E-02
Total TCDF	1.75E-05	1.59E-05	0.00634	4.44E-06	4.44E-06	2.00E-01	1.00E-06	9.99E-01	9.89E-01
Antimony	6.80E-01	5.80E-01	0.00634	0	0	2.00E-01	0.35	1.23E-02	1.05E-02
Arsenic	3.65E+00	4.32E+00	0.00634	0	0	2.00E-01	0.7	3.31E-02	3.91E-02
Beryllium	1.20E-01	1.20E-01	0.00634	0	0	2.00E-01	0.95	8.01E-04	8.01E-04
Cadmium	6.50E-01	7.00E-01	0.00634	1.40E-01	1.40E-01	2.00E-01	0.17	1.89E-01	1.91E-01
Chromium	1.28E+01	1.29E+01	0.00634	6.30E-01	6.30E-01	2.00E-01	0.24	8.63E-01	8.67E-01
Copper	1.82E+01	1.95E+01	0.00634	1.22E+01	1.22E+01	2.00E-01	347	7.35E-03	7.38E-03
Lead	3.19E+01	3.20E+01	0.00634	3.30E-01	3.30E-01	2.00E-01	0.09	2.98E+00	2.98E+00
Mercury	7.00E-02	7.30E-02	0.00634	0	0	2.00E-01	1.9	2.34E-04	2.44E-04
Nickel	8.48E+00	1.20E+01	0.00634	1.34E+00	1.34E+00	2.00E-01	0.85	3.79E-01	4.05E-01

**Table K33. Summary of Deer Mouse Hazard Indices for Site 16 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	TRV (mg/kg/day)	Old HI	New HI
Silver	5.00E-01	5.00E-01	0.00634	0	0	2.00E-01	1.78	1.78E-03	1.78E-03
Zinc	3.60E+01	3.26E+01	0.00634	4.66E+01	4.66E+01	2.00E-01	14	6.81E-01	6.80E-01
Total HI								1.23E+01	1.15E+01

HI Hazard index.
TRV Toxicity reference value.
-- HI not calculable.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

/b/ Analysis conducted for "total" dioxin values only.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.

**Table K34. Summary of Gray Fox Hazard Indices for Site 16 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	Old Mouse Conc. (mg/kg)	New Mouse Conc. (mg/kg)	Mouse Factor	TRV (mg/kg/day)	Old HI	New HI
Acetone	7.38E-03	7.38E-03	7.92E-04	0	0	2.46E-02	4.68E-05	4.68E-05	3.68E-02	1	7.57E-06	7.57E-06
Trichloroethene	6.76E-03	6.76E-03	7.92E-04	0	0	2.46E-02	4.29E-05	4.29E-05	3.68E-02	1.28	5.41E-06	5.41E-06
Benzo(b)fluoranthene	1.70E-02	2.16E-03	7.92E-04	0	0	2.46E-02	1.08E-04	1.37E-05	3.68E-02	1.25	1.39E-05	1.77E-06
Benzo(k)fluoranthene	0	2.11E-03	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	1.25	--	1.34E-06
Benzo(ghi)perylene	0	8.10E-03	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	1.25	--	5.13E-06
Bis(2-ethylhexyl)phthalate	7.37E-01	7.37E-01	7.92E-04	0	0	2.46E-02	4.67E-03	4.67E-03	3.68E-02	0.13	5.81E-03	5.82E-03
Dibenzofuran	1.99E-01	1.99E-01	7.92E-04	0	0	2.46E-02	1.26E-03	1.26E-03	3.68E-02	1.25	1.63E-04	1.64E-04
Di-n-butylphthalate	9.50E-02	9.50E-02	7.92E-04	0	0	2.46E-02	6.02E-04	6.02E-04	3.68E-02	6.25	1.56E-05	1.56E-05
Fluorene	2.76E-01	2.76E-01	7.92E-04	0	0	2.46E-02	1.75E-03	1.75E-03	3.68E-02	1.25	2.26E-04	2.26E-04
2-Methylnaphthalene	1.11E+00	1.11E+00	7.92E-04	0	0	2.46E-02	7.04E-03	7.03E-03	3.68E-02	0.84	1.35E-03	1.35E-03
Naphthalene	3.32E-01	3.32E-01	7.92E-04	0	0	2.46E-02	2.10E-03	2.10E-03	3.68E-02	0.84	4.05E-04	4.05E-04
Phenanthrene	3.54E-01	3.54E-01	7.92E-04	0	0	2.46E-02	2.24E-03	2.24E-03	3.68E-02	0.75	4.84E-04	4.84E-04
Chlordane	4.38E-02	4.61E-02	7.92E-04	0	0	2.46E-02	2.78E-04	2.92E-04	3.68E-02	0.04	1.12E-03	1.18E-03
4,4'-DDD	9.60E-03	9.20E-03	7.92E-04	0	0	2.46E-02	6.09E-05	5.83E-05	3.68E-02	5.35	1.84E-06	1.76E-06
4,4'-DDT	1.60E-02	1.35E-02	7.92E-04	0	0	2.46E-02	1.01E-04	8.53E-05	3.68E-02	1.6	1.03E-05	8.62E-06
1,2,3,4,6,7,8-HpCDD	0	4.17E-05	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	5.00E-06	/b/	/b/
1,2,3,4,6,7,8-HpCDF	0	1.74E-05	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	5.00E-06	/b/	/b/
1,2,3,4,7,8,9-HpCDF	0	0	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	5.00E-06	/b/	/b/
1,2,3,4,7,8-HxCDD	0	0	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	5.00E-07	/b/	/b/
1,2,3,6,7,8-HxCDD	0	2.03E-06	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	5.00E-07	/b/	/b/
1,2,3,7,8,9-HxCDD	0	1.67E-06	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	5.00E-07	/b/	/b/
1,2,3,4,7,8-HxCDF	0	1.15E-06	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	5.00E-07	/b/	/b/
1,2,3,6,7,8-HxCDF	0	5.33E-06	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	5.00E-07	/b/	/b/
1,2,3,7,8,9-HxCDF	0	0	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	5.00E-07	/b/	/b/
2,3,4,6,7,8-HxCDF	0	2.07E-06	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	5.00E-07	/b/	/b/
1,2,3,7,8-PeCDD	0	0	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	1.00E-07	/b/	/b/
1,2,3,7,8-PeCDF	0	0	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	1.00E-06	/b/	/b/
2,3,4,7,8-PeCDF	0	0	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	1.00E-07	/b/	/b/
OCDD	0	0	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	5.00E-05	/b/	/b/
OCDF	0	0	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	5.00E-05	/b/	/b/
2,3,7,8-TCDD	0	0	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	5.00E-08	/b/	/b/

**Table K34. Summary of Gray Fox Hazard Indices for Site 16 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	Old Mouse Conc. (mg/kg)	New Mouse Conc. (mg/kg)	Mouse Factor	TRV (mg/kg/day)	Old HI	New HI
2,3,7,8-TCDF	0	3.70E-07	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	5.00E-07	/b/	/b/
Total HpCDD	8.00E-05	8.36E-05	7.92E-04	0	0	2.46E-02	5.07E-07	5.30E-07	3.68E-02	5.00E-06	1.64E-02	1.71E-02
Total HpCDF	4.87E-05	4.62E-05	7.92E-04	0	0	2.46E-02	3.09E-07	2.93E-07	3.68E-02	5.00E-06	9.99E-03	9.48E-03
Total HxCDD	1.21E-05	1.26E-05	7.92E-04	0	0	2.46E-02	7.67E-08	7.97E-08	3.68E-02	5.00E-07	2.48E-02	2.58E-02
Total HxCDF	3.55E-05	3.18E-05	7.92E-04	0	0	2.46E-02	2.25E-07	2.02E-07	3.68E-02	5.00E-07	7.28E-02	6.53E-02
Total PeCDF	1.30E-04	1.06E-04	7.92E-04	1.57E-06	1.57E-06	2.46E-02	1.14E-06	9.83E-07	3.68E-02	1.00E-07	1.83E+00	1.58E+00
Total OCDD	3.00E-04	3.09E-04	7.92E-04	1.31E-05	1.31E-05	2.46E-02	4.52E-06	4.58E-06	3.68E-02	5.00E-05	1.45E-02	1.47E-02
Total OCDF	2.01E-05	2.00E-05	7.92E-04	0	0	2.46E-02	1.27E-07	1.27E-07	3.68E-02	5.00E-05	4.12E-04	4.10E-04
Total TCDD	7.10E-07	5.20E-07	7.92E-04	0	0	2.46E-02	4.50E-09	3.30E-09	3.68E-02	5.00E-08	1.46E-02	1.07E-02
Total TCDF	1.75E-05	1.59E-05	7.92E-04	4.44E-06	4.44E-06	2.46E-02	9.99E-07	9.89E-07	3.68E-02	5.00E-07	3.20E-01	3.16E-01
Antimony	6.80E-01	5.80E-01	7.92E-04	0	0	2.46E-02	4.31E-03	3.68E-03	3.68E-02	2.99	2.33E-04	1.99E-04
Arsenic	3.65E+00	4.32E+00	7.92E-04	0	0	2.46E-02	2.31E-02	2.74E-02	3.68E-02	0.37	1.01E-02	1.20E-02
Beryllium	1.20E-01	1.20E-01	7.92E-04	0	0	2.46E-02	7.61E-04	7.61E-04	3.68E-02	0.05	2.46E-03	2.46E-03
Cadmium	6.50E-01	7.00E-01	7.92E-04	1.40E-01	1.40E-01	2.46E-02	3.21E-02	3.24E-02	3.68E-02	0.0085	6.05E-01	6.11E-01
Chromium	1.28E+01	1.29E+01	7.92E-04	6.30E-01	6.30E-01	2.46E-02	2.07E-01	2.08E-01	3.68E-02	0.03	1.11E+00	1.11E+00
Copper	1.82E+01	1.95E+01	7.92E-04	1.22E+01	1.22E+01	2.46E-02	2.55E+00	2.56E+00	3.68E-02	17.3	2.36E-02	2.37E-02
Lead	3.19E+01	3.20E+01	7.92E-04	3.30E-01	3.30E-01	2.46E-02	2.68E-01	2.69E-01	3.68E-02	0.13	3.33E-01	3.33E-01
Mercury	7.00E-02	7.30E-02	7.92E-04	0	0	2.46E-02	4.44E-04	4.63E-04	3.68E-02	0.1	7.18E-04	7.48E-04
Nickel	8.48E+00	1.20E+01	7.92E-04	1.34E+00	1.34E+00	2.46E-02	3.22E-01	3.44E-01	3.68E-02	2.69	1.92E-02	2.05E-02
Silver	5.00E-01	5.00E-01	7.92E-04	0	0	2.46E-02	3.17E-03	3.17E-03	3.68E-02	0.89	5.76E-04	5.76E-04
Zinc	3.60E+01	3.26E+01	7.92E-04	4.66E+01	4.66E+01	2.46E-02	9.54E+00	9.52E+00	3.68E-02	1.75	8.71E-01	8.69E-01
TOTAL HI											5.29E+00	5.04E+00

HI Hazard index.
TRV Toxicity reference value.
-- HI not calculable.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

/b/ Analysis conducted for "total" dioxin values only.

Notes:

**Table K34. Summary of Gray Fox Hazard Indices for Site 16 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	Old Mouse Conc. (mg/kg)	New Mouse Conc. (mg/kg)	Mouse Factor	TRV (mg/kg/day)	Old HI	New HI
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"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.
Bold values denote modeled concentrations.

**Table K35. Summary of Deer Mouse Hazard Indices for Site 21 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	TRV (mg/kg/day)	Old HI	New HI
Methylene chloride	6.45E-03	6.45E-03	0.00634	0	0	2.00E-01	0.62	6.60E-05	6.60E-05
Xylenes	3.03E-03	3.03E-03	0.00634	0	0	2.00E-01	179	1.07E-07	1.07E-07
Bis(2-ethylhexyl)phthalate	1.00E-01	1.00E-01	0.00634	0	0	2.00E-01	2.6	2.44E-04	2.44E-04
Chrysene	2.40E-02	2.40E-02	0.00634	0	0	2.00E-01	0.4	3.80E-04	3.80E-04
Antimony	1.01E+01	1.01E+01	0.00634	0	0	2.00E-01	0.35	1.83E-01	1.83E-01
Arsenic	1.09E+00	1.09E+00	0.00634	0	0	2.00E-01	0.7	9.87E-03	9.87E-03
Beryllium	2.00E-01	2.00E-01	0.00634	0	0	2.00E-01	0.95	1.33E-03	1.33E-03
Cadmium	6.25E+00	6.25E+00	0.00634	1.50E-01	1.50E-01	2.00E-01	0.17	4.10E-01	4.10E-01
Chromium	3.71E+01	3.71E+01	0.00634	1.10E+00	1.10E+00	2.00E-01	0.24	1.90E+00	1.90E+00
Copper	6.10E+01	6.10E+01	0.00634	1.03E+01	1.03E+01	2.00E-01	347	7.05E-03	7.05E-03
Lead	1.69E+02	1.69E+02	0.00634	3.30E-01	3.30E-01	2.00E-01	0.09	1.26E+01	1.26E+01
Mercury	8.90E-02	8.90E-02	0.00634	0	0	2.00E-01	1.9	2.97E-04	2.97E-04
Nickel	1.30E+01	1.30E+01	0.00634	1.30E+00	1.30E+00	2.00E-01	0.85	4.03E-01	4.03E-01
Silver	2.60E-01	2.60E-01	0.00634	0	0	2.00E-01	1.78	9.26E-04	9.26E-04
Zinc	2.25E+02	2.25E+02	0.00634	4.09E+01	4.09E+01	2.00E-01	14	6.87E-01	6.87E-01
Total HI								1.62E+01	1.62E+01

HI Hazard index.
TRV Toxicity reference value.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.

**Table K36. Summary of Gray Fox Hazard Indices for Site 21 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	Old Mouse Conc. (mg/kg)	New Mouse Conc. (mg/kg)	Mouse Factor	TRV (mg/kg/day)	Old HI	New HI
Methylene chloride	6.45E-03	6.45E-03	7.92E-04	0	0	2.46E-02	4.09E-05	4.09E-05	3.68E-02	0.31	2.13E-05	2.13E-05
Xylenes	3.03E-03	3.03E-03	7.92E-04	0	0	2.46E-02	1.92E-05	1.92E-05	3.68E-02	8.95	3.47E-07	3.47E-07
Bis(2-ethylhexyl)phthalate	1.00E-01	1.00E-01	7.92E-04	0	0	2.46E-02	6.34E-04	6.34E-04	3.68E-02	0.13	7.89E-04	7.89E-04
Chrysene	2.40E-02	2.40E-02	7.92E-04	0	0	2.46E-02	1.52E-04	1.52E-04	3.68E-02	0.02	1.23E-03	1.23E-03
Antimony	1.01E+01	1.01E+01	7.92E-04	0	0	2.46E-02	6.40E-02	6.41E-02	3.68E-02	2.99	3.46E-03	3.47E-03
Arsenic	1.09E+00	1.09E+00	7.92E-04	0	0	2.46E-02	6.91E-03	6.91E-03	3.68E-02	0.37	3.02E-03	3.02E-03
Beryllium	2.00E-01	2.00E-01	7.92E-04	0	0	2.46E-02	1.27E-03	1.27E-03	3.68E-02	0.05	4.10E-03	4.10E-03
Cadmium	6.25E+00	6.25E+00	7.92E-04	1.50E-01	1.50E-01	2.46E-02	6.96E-02	6.96E-02	3.68E-02	0.0085	1.32E+00	1.32E+00
Chromium	3.71E+01	3.71E+01	7.92E-04	1.10E+00	1.10E+00	2.46E-02	4.55E-01	4.55E-01	3.68E-02	0.03	2.44E+00	2.44E+00
Copper	6.10E+01	6.10E+01	7.92E-04	1.03E+01	1.03E+01	2.46E-02	2.45E+00	2.45E+00	3.68E-02	17.3	2.26E-02	2.26E-02
Lead	1.69E+02	1.69E+02	7.92E-04	3.30E-01	3.30E-01	2.46E-02	1.13E+00	1.13E+00	3.68E-02	0.13	1.41E+00	1.41E+00
Mercury	8.90E-02	8.90E-02	7.92E-04	0	0	2.46E-02	5.64E-04	5.64E-04	3.68E-02	0.1	9.13E-04	9.13E-04
Nickel	1.30E+01	1.30E+01	7.92E-04	1.30E+00	1.30E+00	2.46E-02	3.42E-01	3.42E-01	3.68E-02	2.69	2.04E-02	2.04E-02
Silver	2.60E-01	2.60E-01	7.92E-04	0	0	2.46E-02	1.65E-03	1.65E-03	3.68E-02	0.89	3.00E-04	3.00E-04
Zinc	2.25E+02	2.25E+02	7.92E-04	4.09E+01	4.09E+01	2.46E-02	9.61E+00	9.61E+00	3.68E-02	1.75	8.80E-01	8.80E-01
TOTAL HI											6.10E+00	6.10E+00

HI Hazard index.
TRV Toxicity reference value.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.
Bold values denote modeled concentrations.

**Table K37. Summary of Deer Mouse Hazard Indices for Site 22 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	TRV (mg/kg/day)	Old HI	New HI
Benzo(b)fluoranthene	7.80E-03	3.50E-03	0.00634	0	0	2.00E-01	25	1.98E-06	8.88E-07
Bis(2-ethylhexyl)phthalate	9.50E+00	9.50E+00	0.00634	0	0	2.00E-01	2.6	2.32E-02	2.32E-02
Butylbenzylphthalate	1.20E+01	1.20E+01	0.00634	0	0	2.00E-01	15.9	4.78E-03	4.78E-03
4,4'-DDE	9.63E-03	9.63E-03	0.00634	0	0	2.00E-01	34	1.80E-06	1.80E-06
4,4'-DDT	1.19E-02	1.19E-02	0.00634	0	0	2.00E-01	3.11	2.43E-05	2.42E-05
Arsenic	1.45E+00	1.45E+00	0.00634	0	0	2.00E-01	0.7	1.31E-02	1.31E-02
Chromium	0	0	0.00634	2.63	2.63	2.00E-01	0.24	2.19E+00	2.19E+00
Copper	0	0	0.00634	18.58	18.58	2.00E-01	347	1.07E-02	1.07E-02
Lead	2.38E+01	2.38E+01	0.00634	0.26	0.26	2.00E-01	0.09	2.25E+00	2.25E+00
Nickel	0	0	0.00634	3.15	3.15	2.00E-01	0.85	7.41E-01	7.41E-01
Selenium	0	0	0.00634	0.1	0.1	2.00E-01	0.06	3.33E-01	3.33E-01
Zinc	0	0	0.00634	40.28	40.28	2.00E-01	14	5.75E-01	5.75E-01
Total HI								6.15E+00	6.15E+00

HI Hazard index.
TRV Toxicity reference value.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.

**Table K38. Summary of Gray Fox Hazard Indices for Site 22 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	Old Mouse Conc. (mg/kg)	New Mouse Conc. (mg/kg)	Mouse Factor	TRV (mg/kg/day)	Old HI	New HI
Benzo(b)fluoranthene	7.80E-03	3.50E-03	7.92E-04	0	0	2.46E-02	4.95E-05	2.22E-05	3.68E-02	1.25	6.40E-06	2.87E-06
Bis(2-ethylhexyl)phthalate	9.50E+00	9.50E+00	7.92E-04	0	0	2.46E-02	6.02E-02	6.02E-02	3.68E-02	0.13	7.49E-02	7.49E-02
Butylbenzylphthalate	1.20E+01	1.20E+01	7.92E-04	0	0	2.46E-02	7.61E-02	7.61E-02	3.68E-02	7.95	1.55E-03	1.55E-03
4,4'-DDE	9.63E-03	9.63E-03	7.92E-04	0	0	2.46E-02	6.11E-05	6.11E-05	3.68E-02	1.7	5.81E-06	5.81E-06
4,4'-DDT	1.19E-02	1.19E-02	7.92E-04	0	0	2.46E-02	7.54E-05	7.53E-05	3.68E-02	1.6	7.63E-06	7.61E-06
Arsenic	1.45E+00	1.45E+00	7.92E-04	0	0	2.46E-02	9.19E-03	9.19E-03	3.68E-02	0.37	4.02E-03	4.02E-03
Chromium	0	0	7.92E-04	2.63	2.63	2.46E-02	5.26E-01	5.26E-01	3.68E-02	0.03	2.80E+00	2.80E+00
Copper	0	0	7.92E-04	18.58	18.58	2.46E-02	3.72E+00	3.72E+00	3.68E-02	17.3	3.43E-02	3.43E-02
Lead	2.38E+01	2.38E+01	7.92E-04	0.26	0.26	2.46E-02	2.03E-01	2.03E-01	3.68E-02	0.13	2.52E-01	2.51E-01
Nickel	0	0	7.92E-04	3.15	3.15	2.46E-02	6.30E-01	6.30E-01	3.68E-02	2.69	3.74E-02	3.74E-02
Selenium	0	0	7.92E-04	0.1	0.1	2.46E-02	2.00E-02	2.00E-02	3.68E-02	0.003	1.07E+00	1.07E+00
Zinc	0	0	7.92E-04	40.28	40.28	2.46E-02	8.06E+00	8.06E+00	3.68E-02	1.75	7.36E-01	7.36E-01
TOTAL HI											5.01E+00	5.01E+00

HI Hazard index.
TRV Toxicity reference value.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.
Bold values denote modeled concentrations.

**Table K39. Summary of Deer Mouse Hazard Indices for Site 24 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	TRV (mg/kg/day)	Old HI	New HI
Toluene	1.60E-03	1.60E-03	0.00634	0	0	2.00E-01	250	4.06E-08	4.06E-08
Bis(2-ethylhexyl)phthalate	8.50E-02	8.50E-02	0.00634	0	0	2.00E-01	2.6	2.07E-04	2.07E-04
PCBs (aroclor-1260)	2.92E-01	2.93E-01	0.00634	0	0	2.00E-01	0.14	1.32E-02	1.32E-02
Chlordane	6.64E-02	6.65E-02	0.00634	0	0	2.00E-01	0.9	4.68E-04	4.68E-04
4,4'-DDD	2.99E-02	2.99E-02	0.00634	0	0	2.00E-01	107	1.77E-06	1.77E-06
4,4'-DDE	1.70E-02	1.70E-02	0.00634	0	0	2.00E-01	34	3.17E-06	3.16E-06
4,4'-DDT	2.22E-01	2.22E-01	0.00634	0	0	2.00E-01	3.11	4.53E-04	4.52E-04
Dieldrin	1.12E-02	1.12E-02	0.00634	0	0	2.00E-01	0.003	2.37E-02	2.36E-02
Gamma-BHC	5.51E-03	5.51E-03	0.00634	0	0	2.00E-01	32.5	1.07E-06	1.07E-06
Antimony	2.70E-01	2.70E-01	0.00634	0	0	2.00E-01	0.35	4.89E-03	4.89E-03
Chromium	1.15E+01	1.15E+01	0.00634	6.00E-01	6.00E-01	2.00E-01	0.24	8.04E-01	8.05E-01
Copper	0	0	0.00634	1.05E+01	1.05E+01	2.00E-01	347	6.07E-03	6.07E-03
Lead	1.45E+01	1.45E+01	0.00634	5.20E-01	5.20E-01	2.00E-01	0.09	2.18E+00	2.18E+00
Mercury	4.00E-02	4.20E-02	0.00634	0	0	2.00E-01	1.9	1.33E-04	1.40E-04
Nickel	0	0	0.00634	1.73E+00	1.73E+00	2.00E-01	0.85	4.07E-01	4.07E-01
Silver	2.80E-01	2.80E-01	0.00634	0	0	2.00E-01	1.78	9.97E-04	9.97E-04
Zinc	2.03E+01	2.03E+01	0.00634	4.58E+01	4.58E+01	2.00E-01	14	6.64E-01	6.64E-01
Total HI								4.10E+00	4.10E+00

HI Hazard index.
TRV Toxicity reference value.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.

Table K40. Summary of Gray Fox Hazard Indices for Site 24 /a/
 Volume IV - Ecological Risk Assessment, Basewide RI/FS
 Fort Ord, California

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	Old Mouse Conc. (mg/kg)	New Mouse Conc. (mg/kg)	Mouse Factor	TRV (mg/kg/day)	Old HI	New HI
Toluene	1.60E-03	1.60E-03	7.92E-04	0	0	2.46E-02	1.01E-05	1.01E-05	3.68E-02	12.5	1.31E-07	1.31E-07
Bis(2-ethylhexyl)phthalate	8.50E-02	8.50E-02	7.92E-04	0	0	2.46E-02	5.39E-04	5.39E-04	3.68E-02	0.13	6.70E-04	6.70E-04
PCBs (aroclor-1260)	2.92E-01	2.93E-01	7.92E-04	0	0	2.46E-02	1.85E-03	1.85E-03	3.68E-02	0.07	4.28E-03	4.28E-03
Chlordane	6.64E-02	6.65E-02	7.92E-04	0	0	2.46E-02	4.21E-04	4.21E-04	3.68E-02	0.04	1.70E-03	1.70E-03
4,4'-DDD	2.99E-02	2.99E-02	7.92E-04	0	0	2.46E-02	1.90E-04	1.90E-04	3.68E-02	5.35	5.73E-06	5.73E-06
4,4'-DDE	1.70E-02	1.70E-02	7.92E-04	0	0	2.46E-02	1.08E-04	1.08E-04	3.68E-02	1.7	1.03E-05	1.02E-05
4,4'-DDT	2.22E-01	2.22E-01	7.92E-04	0	0	2.46E-02	1.41E-03	1.41E-03	3.68E-02	1.6	1.42E-04	1.42E-04
Dieldrin	1.12E-02	1.12E-02	7.92E-04	0	0	2.46E-02	7.10E-05	7.09E-05	3.68E-02	0.02	5.74E-04	5.73E-04
Gamma-BHC	5.51E-03	5.51E-03	7.92E-04	0	0	2.46E-02	3.49E-05	3.49E-05	3.68E-02	0.25	2.26E-05	2.26E-05
Antimony	2.70E-01	2.70E-01	7.92E-04	0	0	2.46E-02	1.71E-03	1.71E-03	3.68E-02	2.99	9.26E-05	9.26E-05
Barium	0	0	7.92E-04	0	0	2.46E-02	6.03	6.03	3.68E-02	0.04	5.55E+00	5.55E+00
Cadmium	0	0	7.92E-04	0	0	2.46E-02	0.02	0	3.68E-02	0.0085	8.66E-02	--
Chromium	1.15E+01	1.15E+01	7.92E-04	0.60	0.60	2.46E-02	0.09	0	3.68E-02	0.03	9.06E-01	7.96E-01
Copper	0	0	7.92E-04	10.53	10.53	2.46E-02	4.35	3.41	3.68E-02	17.3	2.42E-02	2.22E-02
Lead	1.45E+01	1.45E+01	7.92E-04	0.52	0.52	2.46E-02	0.68	0	3.68E-02	0.13	3.79E-01	1.87E-01
Mercury	4.00E-02	4.20E-02	7.92E-04	0	0	2.46E-02	2.54E-04	2.66E-04	3.68E-02	0.1	4.10E-04	4.31E-04
Nickel	0	0	7.92E-04	1.73	1.73	2.46E-02	0.47	0	3.68E-02	2.69	2.23E-02	1.58E-02
Silver	2.80E-01	2.80E-01	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	0.89	2.49E-04	2.49E-04
Thallium	0	0	7.92E-04	0	0	2.46E-02	0.10	0	3.68E-02	0.003	1.23E+00	--
Vanadium	0	0	7.92E-04	0	0	2.46E-02	0.63	0	3.68E-02	0.21	1.10E-01	--
Zinc	2.03E+01	2.03E+01	7.92E-04	45.82	45.82	2.46E-02	42.30	42.3	3.68E-02	1.75	1.54E+00	1.54E+00
TOTAL HI											9.85E+00	8.12E+00

HI Hazard index.
 TRV Toxicity reference value.
 -- HI not calculable.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.
 Bold values denote modeled concentrations.

**Table K41. Summary of Deer Mouse Hazard Indices for Site 25 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	TRV (mg/kg/day)	Old HI	New HI
Acetone	1.60E-01	1.60E-01	0.00634	0	0	2.00E-01	2	5.07E-04	5.07E-04
PCBs (aroclor-1254)	2.10E-01	2.10E-01	0.00634	0	0	2.00E-01	0.49	2.72E-03	2.72E-03
4,4'-DDE	6.44E-03	6.44E-03	0.00634	0	0	2.00E-01	34	1.20E-06	1.20E-06
4,4'-DDT	2.70E-02	2.70E-02	0.00634	0	0	2.00E-01	3.11	5.50E-05	5.50E-05
Dieldrin	9.00E-06	5.67E-03	0.00634	0	0	2.00E-01	0.003	1.90E-05	1.20E-02
Antimony	1.78E+00	5.10E-01	0.00634	0	0	2.00E-01	0.35	3.22E-02	9.24E-03
Arsenic	1.36E+00	1.36E+00	0.00634	0	0	2.00E-01	0.7	1.23E-02	1.23E-02
Barium	1.41E+01	1.41E+01	0.00634	0	0	2.00E-01	0.83	1.08E-01	1.08E-01
Cadmium	1.65E+00	1.65E+00	0.00634	2.30E-01	2.30E-01	2.00E-01	0.17	3.32E-01	3.32E-01
Chromium	1.41E+01	1.09E+01	0.00634	1.46E+00	1.46E+00	2.00E-01	0.24	1.59E+00	1.50E+00
Copper	5.58E+00	5.58E+00	0.00634	5.27E+01	5.27E+01	2.00E-01	347	3.04E-02	3.04E-02
Lead	1.91E+01	1.91E+01	0.00634	2.90E-01	2.90E-01	2.00E-01	0.09	1.99E+00	1.99E+00
Nickel	0	0	0.00634	1.90E+00	1.90E+00	2.00E-01	0.85	4.47E-01	4.47E-01
Silver	4.40E-01	4.40E-01	0.00634	0	0	2.00E-01	1.78	1.57E-03	1.57E-03
Vanadium	5.79E+00	5.79E+00	0.00634	0	0	2.00E-01	4.1	8.95E-03	8.95E-03
Zinc	6.40E+01	6.40E+01	0.00634	3.62E+01	3.62E+01	2.00E-01	14	5.46E-01	5.46E-01
Total HI								5.10E+00	5.00E+00

HI Hazard index.
TRV Toxicity reference value.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.

**Table K42. Summary of Gray Fox Hazard Indices for Site 25 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	Old Mouse Conc. (mg/kg)	New Mouse Conc. (mg/kg)	Mouse Factor	TRV (mg/kg/day)	Old HI	New HI
Acetone	1.60E-01	1.60E-01	7.92E-04	0	0	2.46E-02	1.01E-03	1.01E-03	3.68E-02	1	1.64E-04	1.64E-04
PCBs (aroclor-1254)	2.10E-01	2.10E-01	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	0.02	8.32E-03	8.32E-03
Chlordane	0	0	7.92E-04	0	0	2.46E-02	1.69E-03	1.69E-03	3.68E-02	0.04	1.55E-03	1.55E-03
4,4'-DDE	6.44E-03	6.44E-03	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	1.7	3.00E-06	3.00E-06
4,4'-DDT	2.70E-02	2.70E-02	7.92E-04	0	0	2.46E-02	5.78E-03	5.78E-03	3.68E-02	1.6	1.46E-04	1.46E-04
delta-BHC	0	0	7.92E-04	0	0	2.46E-02	1.53E-03	1.53E-03	3.68E-02	0.25	2.25E-04	2.25E-04
Dieldrin	9.00E-06	5.67E-03	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	0.02	3.56E-07	2.25E-04
Antimony	1.78E+00	5.10E-01	7.92E-04	0	0	2.46E-02	1.13E-02	3.23E-03	3.68E-02	2.99	6.10E-04	1.75E-04
Arsenic	1.36E+00	1.36E+00	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	0.37	2.91E-03	2.91E-03
Barium	1.41E+01	1.41E+01	7.92E-04	0	0	2.46E-02	2.23E+00	2.23E+00	3.68E-02	0.04	2.33E+00	2.33E+00
Cadmium	1.65E+00	1.65E+00	7.92E-04	2.30E-01	2.30E-01	2.46E-02	2.90E-02	0	3.68E-02	0.0085	9.45E-01	8.19E-01
Chromium	1.41E+01	1.09E+01	7.92E-04	1.46E+00	1.46E+00	2.46E-02	8.80E-03	0	3.68E-02	0.03	1.58E+00	1.48E+00
Copper	5.58E+00	5.58E+00	7.92E-04	5.27E+01	5.27E+01	2.46E-02	2.56E+00	0	3.68E-02	17.3	8.06E-02	7.51E-02
Lead	1.91E+01	1.91E+01	7.92E-04	2.90E-01	2.90E-01	2.46E-02	7.45E-01	0	3.68E-02	0.13	3.82E-01	1.71E-01
Nickel	0	0	7.92E-04	1.90E+00	1.90E+00	2.46E-02	4.61E-01	0	3.68E-02	2.69	2.37E-02	1.74E-02
Silver	4.40E-01	4.40E-01	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	0.89	3.92E-04	3.92E-04
Vanadium	5.79E+00	5.79E+00	7.92E-04	0	0	2.46E-02	1.11E+00	0	3.68E-02	0.21	2.16E-01	2.18E-02
Zinc	6.40E+01	6.40E+01	7.92E-04	3.62E+01	3.62E+01	2.46E-02	2.70E+01	2.70E+01	3.68E-02	1.75	1.11E+00	1.11E+00
TOTAL HI											6.68E+00	6.04E+00

HI Hazard index.
TRV Toxicity reference value.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.
Bold values denote modeled concentrations.

**Table K43. Summary of Deer Mouse Hazard Indices for Site 29 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	TRV (mg/kg/day)	Old HI	New HI
Chlordane	1.18E-01	1.18E-01	0.00634	0	0	2.00E-01	0.9	8.31E-04	8.31E-04
4,4'-DDD	2.34E-02	2.34E-02	0.00634	0	0	2.00E-01	107	1.39E-06	1.39E-06
4,4'-DDE	1.44E-01	1.44E-01	0.00634	0	0	2.00E-01	34	2.69E-05	2.68E-05
4,4'-DDT	2.65E-01	2.65E-01	0.00634	0	0	2.00E-01	3.11	5.40E-04	5.40E-04
Antimony	3.50E-01	3.50E-01	0.00634	0	0	2.00E-01	0.35	6.34E-03	6.34E-03
Cadmium	2.50E-01	2.50E-01	0.00634	0	0	2.00E-01	0.17	9.32E-03	9.32E-03
Chromium	1.15E+01	1.15E+01	0.00634	7.58E+00	7.58E+00	2.00E-01	0.24	6.62E+00	6.62E+00
Copper	8.33E+00	8.33E+00	0.00634	4.07E+01	4.07E+01	2.00E-01	347	2.36E-02	2.36E-02
Lead	2.86E+01	2.86E+01	0.00634	1.40E-01	1.40E-01	2.00E-01	0.09	2.33E+00	2.32E+00
Mercury	7.00E-02	6.70E-02	0.00634	0	0	2.00E-01	1.9	2.34E-04	2.24E-04
Nickel	0	0	0.00634	7.23E+00	7.23E+00	2.00E-01	0.85	1.70E+00	1.70E+00
Selenium	2.80E-01	2.80E-01	0.00634	0	0	2.00E-01	0.06	2.96E-02	2.96E-02
Silver	1.29E+00	1.29E+00	0.00634	0	0	2.00E-01	1.78	4.59E-03	4.59E-03
Zinc	3.09E+01	3.09E+01	0.00634	3.77E+01	3.77E+01	2.00E-01	14	5.52E-01	5.52E-01
Total HI								1.13E+01	1.13E+01

HI Hazard index.
TRV Toxicity reference value.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.

**Table K44. Summary of Gray Fox Hazard Indices for Site 29 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	Old Mouse Conc. (mg/kg)	New Mouse Conc. (mg/kg)	Mouse Factor	TRV (mg/kg/day)	Old HI	New HI
Chlordane	1.18E-01	1.18E-01	7.92E-04	0	0	2.46E-02	3.06E-03	3.06E-03	3.68E-02	0.04	5.15E-03	5.15E-03
4,4'-DDD	2.34E-02	2.34E-02	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	5.35	3.46E-06	3.46E-06
4,4'-DDE	1.44E-01	1.44E-01	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	1.7	6.71E-05	6.69E-05
4,4'-DDT	2.65E-01	2.65E-01	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	1.6	1.31E-04	1.31E-04
Antimony	3.50E-01	3.50E-01	7.92E-04	0	0	2.46E-02	2.22E-03	2.22E-03	3.68E-02	2.99	1.20E-04	1.20E-04
Barium	0	0	7.92E-04	0	0	2.46E-02	8.84E+00	8.84E+00	3.68E-02	0.04	8.13E+00	8.13E+00
Cadmium	2.50E-01	2.50E-01	7.92E-04	0	0	2.46E-02	3.00E-02	0	3.68E-02	0.0085	1.53E-01	2.33E-02
Chromium	1.15E+01	1.15E+01	7.92E-04	7.58E+00	7.58E+00	2.46E-02	6.00E-02	0	3.68E-02	0.03	6.59E+00	6.52E+00
Copper	8.33E+00	8.33E+00	7.92E-04	4.07E+01	4.07E+01	2.46E-02	3.36E+00	0	3.68E-02	17.3	6.54E-02	5.82E-02
Lead	2.86E+01	2.86E+01	7.92E-04	1.40E-01	1.40E-01	2.46E-02	3.50E-01	2.40E-01	3.68E-02	0.13	3.00E-01	2.68E-01
Mercury	7.00E-02	6.70E-02	7.92E-04	0	0	2.46E-02	4.44E-04	4.25E-04	3.68E-02	0.1	7.18E-04	6.87E-04
Nickel	0	0	7.92E-04	7.23E+00	7.23E+00	2.46E-02	1.00E+00	1.00E+00	3.68E-02	2.69	7.98E-02	7.98E-02
Selenium	2.80E-01	2.80E-01	7.92E-04	0	0	2.46E-02	1.78E-03	1.78E-03	3.68E-02	0.003	9.57E-02	9.57E-02
Silver	1.29E+00	1.29E+00	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	0.89	1.15E-03	1.15E-03
Thallium	0	0	7.92E-04	0	0	2.46E-02	2.20E-01	0	3.68E-02	0.003	2.70E+00	--
Zinc	3.09E+01	3.09E+01	7.92E-04	3.77E+01	3.77E+01	2.46E-02	3.62E+01	3.62E+01	3.68E-02	1.75	1.30E+00	1.30E+00
TOTAL HI											1.94E+01	1.65E+01

HI Hazard index.
TRV Toxicity reference value.
-- HI not calculable.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.
Bold values denote modeled concentrations.

**Table K45. Summary of Deer Mouse Hazard Indices for Site 31 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	TRV (mg/kg/day)	Old HI	New HI
Benzo(a)anthracene	2.44E-02	1.68E-02	0.00634	0	0	2.00E-01	0.4	3.87E-04	2.65E-04
Benzo(a)pyrene	2.06E-02	1.20E-02	0.00634	0	0	2.00E-01	0.4	3.27E-04	1.90E-04
Benzo(b)fluoranthene	2.21E-02	2.21E-02	0.00634	0	0	2.00E-01	25	5.60E-06	5.59E-06
Chrysene	4.43E-02	4.43E-02	0.00634	0	0	2.00E-01	0.4	7.02E-04	7.02E-04
Dibenzo(a,h)anthracene	5.41E-02	2.51E-02	0.00634	0	0	2.00E-01	0.4	8.57E-04	3.98E-04
Dibenzofuran	3.40E-02	3.40E-02	0.00634	0	0	2.00E-01	25	8.62E-06	8.62E-06
Fluoranthene	4.15E-02	4.15E-02	0.00634	0	0	2.00E-01	25	1.05E-05	1.05E-05
2-Methylnaphthalene	1.36E-01	1.36E-01	0.00634	0	0	2.00E-01	16.8	5.13E-05	5.11E-05
Naphthalene	2.24E-01	8.35E-02	0.00634	0	0	2.00E-01	16.8	8.45E-05	3.15E-05
Phenanthrene	7.07E-02	7.07E-02	0.00634	0	0	2.00E-01	15	2.99E-05	2.99E-05
Pyrene	4.91E-02	3.51E-02	0.00634	0	0	2.00E-01	15	2.08E-05	1.48E-05
4,4'-DDE	1.33E-01	1.33E-01	0.00634	0	0	2.00E-01	34	2.48E-05	2.49E-05
4,4'-DDT	1.57E-01	1.57E-01	0.00634	0	0	2.00E-01	3.11	3.20E-04	3.20E-04
1,2,3,4,6,7,8-HpCDD	0	5.71E-05	0.00634	0	0	2.00E-01	1.00E-05	/b/	/b/
1,2,3,4,6,7,8-HpCDF	0	7.66E-05	0.00634	0	0	2.00E-01	1.00E-05	/b/	/b/
1,2,3,4,7,8,9-HpCDF	0	1.61E-06	0.00634	0	0	2.00E-01	1.00E-05	/b/	/b/
1,2,3,4,7,8-HxCDD	0	9.60E-07	0.00634	0	0	2.00E-01	1.00E-06	/b/	/b/
1,2,3,6,7,8-HxCDD	0	3.48E-06	0.00634	0	0	2.00E-01	1.00E-06	/b/	/b/
1,2,3,7,8,9-HxCDD	0	1.98E-06	0.00634	0	0	2.00E-01	1.00E-06	/b/	/b/
1,2,3,4,7,8-HxCDF	0	3.14E-06	0.00634	0	0	2.00E-01	1.00E-06	/b/	/b/
1,2,3,6,7,8-HxCDF	0	2.62E-06	0.00634	0	0	2.00E-01	1.00E-06	/b/	/b/
1,2,3,7,8,9-HxCDF	0	2.56E-06	0.00634	0	0	2.00E-01	1.00E-06	/b/	/b/
2,3,4,6,7,8-HxCDF	0	1.86E-06	0.00634	0	0	2.00E-01	1.00E-06	/b/	/b/
1,2,3,7,8-PeCDD	0	8.00E-07	0.00634	0	0	2.00E-01	2.00E-07	/b/	/b/
1,2,3,7,8-PeCDF	0	1.35E-06	0.00634	0	0	2.00E-01	2.00E-06	/b/	/b/

**Table K46. Summary of Gray Fox Hazard Indices for Site 31 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	Old Mouse Conc. (mg/kg)	New Mouse Conc. (mg/kg)	Mouse Factor	TRV (mg/kg/day)	Old HI	New HI
Vanadium	0	0	7.92E-04	0	0	2.46E-02	6.60E-01	0	3.68E-02	0.21	1.16E-01	--
Zinc	2.53E+02	2.53E+02	7.92E-04	2.49E+01	2.49E+01	2.46E-02	3.44E+01	3.44E+01	3.68E-02	1.75	1.19E+00	1.19E+00
TOTAL HI											1.56E+01	1.38E+01

HI Hazard index.
TRV Toxicity reference value.
-- HI not calculable.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.
/b/ Analysis conducted for "total" dioxins values only.

Notes:
"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.
Bold values denote modeled concentrations.

**Table K47. Summary of Deer Mouse Hazard Indices for Site 32 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	TRV (mg/kg/day)	Old HI	New HI
Chlordane	5.29E-02	4.22E-02	0.00634	0	0	2.00E-01	0.9	3.73E-04	2.97E-04
4,4'-DDD	7.74E-02	7.74E-02	0.00634	9.43E-03	9.43E-03	2.00E-01	107	2.22E-05	2.22E-05
4,4'-DDE	1.06E-01	1.06E-01	0.00634	9.29E-03	9.29E-03	2.00E-01	34	7.44E-05	7.44E-05
4,4'-DDT	1.94E-01	1.94E-01	0.00634	8.57E-03	8.57E-03	2.00E-01	3.11	9.47E-04	9.46E-04
Beryllium	3.90E-01	3.90E-01	0.00634	9.00E-02	8.79E-02	2.00E-01	0.95	2.16E-02	2.11E-02
Cadmium	4.00E-01	4.00E-01	0.00634	0	0	2.00E-01	0.17	1.49E-02	1.49E-02
Chromium	9.95E+00	9.95E+00	0.00634	9.60E-01	9.60E-01	2.00E-01	0.24	1.06E+00	1.06E+00
Copper	4.60E+00	4.60E+00	0.00634	7.43E+00	7.43E+00	2.00E-01	347	4.37E-03	4.37E-03
Lead	0	0	0.00634	5.00E-01	5.00E-01	2.00E-01	0.09	1.11E+00	1.11E+00
Mercury	6.00E-02	6.30E-02	0.00634	3.00E-02	3.14E-02	2.00E-01	1.9	3.36E-03	3.52E-03
Nickel	0	0	0.00634	1.50E+00	1.50E+00	2.00E-01	0.85	3.53E-01	3.53E-01
Silver	0	0	0.00634	7.00E-02	6.64E-02	2.00E-01	1.78	7.87E-03	7.46E-03
Zinc	2.59E+01	2.59E+01	0.00634	4.23E+01	4.23E+01	2.00E-01	14	6.16E-01	6.16E-01
Total HI								3.20E+00	3.20E+00

HI Hazard index.
TRV Toxicity reference value.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.

**Table K48. Summary of Gray Fox Hazard Indices for Site 32 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	Old Mouse Conc. (mg/kg)	New Mouse Conc. (mg/kg)	Mouse Factor	TRV (mg/kg/day)	Old HI	New HI
Chlordane	5.29E-02	4.22E-02	7.92E-04	0	0	2.46E-02	3.35E-04	2.67E-04	3.68E-02	0.04	1.36E-03	1.08E-03
4,4'-DDD	7.74E-02	7.74E-02	7.92E-04	9.43E-03	9.43E-03	2.46E-02	2.38E-03	2.38E-03	3.68E-02	5.35	7.12E-05	7.12E-05
4,4'-DDE	1.06E-01	1.06E-01	7.92E-04	9.29E-03	9.29E-03	2.46E-02	2.53E-03	2.53E-03	3.68E-02	1.7	2.39E-04	2.39E-04
4,4'-DDT	1.94E-01	1.94E-01	7.92E-04	8.57E-03	8.57E-03	2.46E-02	2.94E-03	2.94E-03	3.68E-02	1.6	2.96E-04	2.95E-04
Beryllium	3.90E-01	3.90E-01	7.92E-04	9.00E-02	8.79E-02	2.46E-02	2.05E-02	2.01E-02	3.68E-02	0.05	6.55E-02	6.42E-02
Cadmium	4.00E-01	4.00E-01	7.92E-04	0	0	2.46E-02	2.54E-03	2.54E-03	3.68E-02	0.0085	4.82E-02	4.82E-02
Chromium	9.95E+00	9.95E+00	7.92E-04	9.60E-01	9.60E-01	2.46E-02	2.55E-01	2.55E-01	3.68E-02	0.03	1.36E+00	1.36E+00
Copper	4.60E+00	4.60E+00	7.92E-04	7.43E+00	7.43E+00	2.46E-02	1.52E+00	1.52E+00	3.68E-02	17.3	1.40E-02	1.40E-02
Lead	0	0	7.92E-04	5.00E-01	5.00E-01	2.46E-02	1.00E-01	1.00E-01	3.68E-02	0.13	1.23E-01	1.23E-01
Mercury	6.00E-02	6.30E-02	7.92E-04	3.00E-02	3.14E-02	2.46E-02	6.38E-03	6.68E-03	3.68E-02	0.1	1.02E-02	1.07E-02
Nickel	0	0	7.92E-04	1.50E+00	1.50E+00	2.46E-02	3.00E-01	3.00E-01	3.68E-02	2.69	1.78E-02	1.78E-02
Silver	0	0	7.92E-04	7.00E-02	6.64E-02	2.46E-02	1.40E-02	1.33E-02	3.68E-02	0.89	2.51E-03	2.38E-03
Zinc	2.59E+01	2.59E+01	7.92E-04	4.23E+01	4.23E+01	2.46E-02	8.62E+00	8.63E+00	3.68E-02	1.75	7.88E-01	7.88E-01
TOTAL HI											2.43E+00	2.43E+00

HI Hazard index.

TRV Toxicity reference value.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.

Bold values denote modeled concentrations.

**Table K49. Summary of Deer Mouse Hazard Indices for Site 33 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	TRV (mg/kg/day)	Old HI	New HI
Chlordane	8.33E-01	8.33E-01	0.00634	0	0	2.00E-01	0.9	5.87E-03	5.87E-03
4,4'-DDD	1.23E-01	1.23E-01	0.00634	0	0	2.00E-01	107	7.29E-06	7.32E-06
4,4'-DDE	5.21E-02	5.21E-02	0.00634	0	0	2.00E-01	34	9.72E-06	9.72E-06
4,4'-DDT	6.15E-01	6.15E-01	0.00634	0	0	2.00E-01	3.11	1.25E-03	1.25E-03
Dicamba	3.34E-02	3.34E-02	0.00634	0	0	2.00E-01	2.5	8.47E-05	8.47E-05
Dieldrin	2.05E-01	2.05E-01	0.00634	0	0	2.00E-01	0.003	4.33E-01	4.33E-01
Endrin	1.73E-02	1.11E-02	0.00634	0	0	2.00E-01	0.003	3.66E-02	2.34E-02
Gamma-BHC	8.93E-03	5.88E-03	0.00634	0	0	2.00E-01	32.5	1.74E-06	1.15E-06
Antimony	7.70E-01	7.70E-01	0.00634	0	0	2.00E-01	0.35	1.39E-02	1.39E-02
Arsenic	1.88E+00	1.88E+00	0.00634	0	0	2.00E-01	0.7	1.70E-02	1.70E-02
Cadmium	9.40E-01	9.40E-01	0.00634	1.40E-01	1.40E-01	2.00E-01	0.17	2.00E-01	2.00E-01
Chromium	1.33E+01	1.33E+01	0.00634	2.05E+00	2.05E+00	2.00E-01	0.24	2.06E+00	2.06E+00
Copper	1.60E+01	1.60E+01	0.00634	1.01E+02	1.01E+02	2.00E-01	347	5.85E-02	5.88E-02
Lead	4.48E+01	4.48E+01	0.00634	1.00E-01	1.00E-01	2.00E-01	0.09	3.38E+00	3.38E+00
Mercury	8.48E+00	8.48E+00	0.00634	0	0	2.00E-01	1.9	2.83E-02	2.83E-02
Nickel	0	0	0.00634	1.86E+00	1.86E+00	2.00E-01	0.85	4.38E-01	4.38E-01
Silver	1.51E+00	1.51E+00	0.00634	0	0	2.00E-01	1.78	5.38E-03	5.38E-03
Thallium	2.60E-01	2.60E-01	0.00634	0	0	2.00E-01	0.01	1.65E-01	1.65E-01
Zinc	1.01E+02	1.01E+02	0.00634	5.65E+01	5.65E+01	2.00E-01	14	8.53E-01	8.53E-01
Total HI								7.69E+00	7.68E+00

HI Hazard index.
TRV Toxicity reference value.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.

**Table K50. Summary of Gray Fox Hazard Indices for Site 33 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	Old Mouse Conc. (mg/kg)	New Mouse Conc. (mg/kg)	Mouse Factor	TRV (mg/kg/day)	Old HI	New HI
Chlordane	8.33E-01	8.33E-01	7.92E-04	0	0	2.46E-02	1.80E-03	0	3.68E-02	0.04	1.81E-02	1.65E-02
4,4'-DDD	1.23E-01	1.23E-01	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	5.35	1.82E-05	1.83E-05
4,4'-DDE	5.21E-02	5.21E-02	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	1.7	2.43E-05	2.43E-05
4,4'-DDT	6.15E-01	6.15E-01	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	1.6	3.04E-04	3.05E-04
Dicamba	3.34E-02	3.34E-02	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	10.4	2.54E-06	2.54E-06
Dieldrin	2.05E-01	2.05E-01	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	0.02	8.12E-03	8.12E-03
Endrin	1.73E-02	1.11E-02	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	0.003	4.57E-03	2.93E-03
Gamma-BHC	8.93E-03	5.88E-03	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	0.25	2.83E-05	1.86E-05
Antimony	7.70E-01	7.70E-01	7.92E-04	0	0	2.46E-02	4.88E-03	4.88E-03	3.68E-02	2.99	2.64E-04	2.64E-04
Arsenic	1.88E+00	1.88E+00	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	0.37	4.02E-03	4.02E-03
Barium	0	0	7.92E-04	0	0	2.46E-02	5.82E+00	7.27E+00	3.68E-02	0.04	5.35E+00	6.69E+00
Cadmium	9.40E-01	9.40E-01	7.92E-04	1.40E-01	1.40E-01	2.46E-02	3.00E-02	0	3.68E-02	0.0085	6.23E-01	4.93E-01
Chromium	1.33E+01	1.33E+01	7.92E-04	2.05E+00	2.05E+00	2.46E-02	0	0	3.68E-02	0.03	2.03E+00	2.03E+00
Copper	1.60E+01	1.60E+01	7.92E-04	1.01E+02	1.01E+02	2.46E-02	2.75E+00	1.80E+00	3.68E-02	17.3	1.50E-01	1.49E-01
Lead	4.48E+01	4.48E+01	7.92E-04	1.00E-01	1.00E-01	2.46E-02	2.70E-01	1.80E-01	3.68E-02	0.13	3.68E-01	3.43E-01
Mercury	8.48E+00	8.48E+00	7.92E-04	0	0	2.46E-02	5.38E-02	5.38E-02	3.68E-02	0.1	8.69E-02	8.69E-02
Nickel	0	0	7.92E-04	1.86E+00	1.86E+00	2.46E-02	5.20E-01	0	3.68E-02	2.69	2.41E-02	1.70E-02
Silver	1.51E+00	1.51E+00	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	0.89	1.34E-03	1.34E-03
Thallium	2.60E-01	2.60E-01	7.92E-04	0	0	2.46E-02	1.20E-01	0	3.68E-02	0.003	1.54E+00	6.86E-02
Zinc	1.01E+02	1.01E+02	7.92E-04	5.65E+01	5.65E+01	2.46E-02	2.89E+01	2.80E+01	3.68E-02	1.75	1.45E+00	1.43E+00
TOTAL HI											1.17E+01	1.13E+01

HI Hazard index.
TRV Toxicity reference value.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.
Bold values denote modeled concentrations.

**Table K51. Summary of Deer Mouse Hazard Indices for Site 35 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	TRV (mg/kg/day)	Old HI	New HI
Antimony	0	0	0.00634	1.10E-01	1.10E-01	2.00E-01	0.35	6.29E-02	6.29E-02
Chromium	0	0	0.00634	2.67E+00	2.67E+00	2.00E-01	0.24	2.23E+00	2.23E+00
Copper	0	0	0.00634	2.43E+01	2.43E+01	2.00E-01	347	1.40E-02	1.40E-02
Lead	0	0	0.00634	1.70E-01	1.70E-01	2.00E-01	0.09	3.78E-01	3.78E-01
Mercury	3.90E-01	3.90E-01	0.00634	0	0	2.00E-01	1.9	1.30E-03	1.30E-03
Nickel	0	0	0.00634	2.07E+00	2.07E+00	2.00E-01	0.85	4.87E-01	4.87E-01
Selenium	4.60E-01	4.60E-01	0.00634	0	0	2.00E-01	0.06	4.86E-02	4.86E-02
Zinc	1.67E+01	1.67E+01	0.00634	2.63E+01	2.63E+01	2.00E-01	14	3.83E-01	3.84E-01
Total HI								3.60E+00	3.60E+00

HI Hazard index.
TRV Toxicity reference value.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.

**Table K52. Summary of Gray Fox Hazard Indices for Site 35 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	Old Mouse Conc. (mg/kg)	New Mouse Conc. (mg/kg)	Mouse Factor	TRV (mg/kg/day)	Old HI	New HI
Antimony	0	0	7.92E-04	1.10E-01	1.10E-01	2.46E-02	2.20E-02	2.20E-02	3.68E-02	2.99	1.18E-03	1.18E-03
Barium	0	0	7.92E-04	0	0	2.46E-02	3.62E+00	3.62E+00	3.68E-02	0.04	3.33E+00	3.33E+00
Cadmium	0	0	7.92E-04	0	0	2.46E-02	6.00E-02	0	3.68E-02	0.0085	2.60E-01	--
Chromium	0	0	7.92E-04	2.67E+00	2.67E+00	2.46E-02	2.00E-01	0	3.68E-02	0.03	2.43E+00	2.19E+00
Copper	0	0	7.92E-04	2.43E+01	2.43E+01	2.46E-02	2.13E+00	0	3.68E-02	17.3	3.91E-02	3.46E-02
Lead	0	0	7.92E-04	1.70E-01	1.70E-01	2.46E-02	4.90E-01	1.80E-01	3.68E-02	0.13	1.71E-01	8.31E-02
Mercury	3.90E-01	3.90E-01	7.92E-04	0	0	2.46E-02	2.47E-03	2.47E-03	3.68E-02	0.1	4.00E-03	4.00E-03
Nickel	0	0	7.92E-04	2.07E+00	2.07E+00	2.46E-02	3.80E-01	0	3.68E-02	2.69	2.41E-02	1.89E-02
Selenium	4.60E-01	4.60E-01	7.92E-04	0	0	2.46E-02	2.92E-03	2.92E-03	3.68E-02	0.003	1.57E-01	1.57E-01
Thallium	0	0	7.92E-04	0	0	2.46E-02	9.00E-02	0	3.68E-02	0.003	1.10E+00	--
Vanadium	0	0	7.92E-04	0	0	2.46E-02	4.50E-01	0	3.68E-02	0.21	7.89E-02	--
Zinc	1.67E+01	1.67E+01	7.92E-04	2.63E+01	2.63E+01	2.46E-02	2.68E+01	2.68E+01	3.68E-02	1.75	9.41E-01	9.42E-01
TOTAL HI											8.55E+00	6.76E+00

HI Hazard index.

TRV Toxicity reference value.

-- HI not calculable.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.

Bold values denote modeled concentrations.

**Table K53. Summary of Deer Mouse Hazard Indices for Site 39 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Plant Uptake Factor (kg soil/kg plant)	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	TRV (mg/kg/day)	Old HI	New HI
Bis(2-ethylhexyl)phthalate	1.31E-01	1.31E-01	0.00634	0.0139	1.82E-03	1.82E-03	2.00E-01	2.6	4.60E-04	4.60E-04
Pentachlorophenol	7.50E-02	7.50E-02	0.00634	0.0161	1.21E-03	1.21E-03	2.00E-01	0.35	2.05E-03	2.05E-03
2-Amino-dinitrotoluene	1.30E-01	1.30E-01	0.00634	0.894	1.16E-01	1.16E-01	2.00E-01	50.7	4.75E-04	4.75E-04
4-Amino-dinitrotoluene	1.30E-01	1.30E-01	0.00634	0.894	1.16E-01	1.16E-01	2.00E-01	44.7	5.38E-04	5.38E-04
HMX	2.04E+00	2.04E+00	0.00634	10.5	2.14E+01	2.14E+01	2.00E-01	1	4.30E+00	4.30E+00
PETN	2.60E-01	2.60E-01	0.00634	1.44	3.74E-01	3.74E-01	2.00E-01	4.6	1.66E-02	1.66E-02
RDX	1.90E-01	1.90E-01	0.00634	3.76	7.14E-01	7.14E-01	2.00E-01	7	2.06E-02	2.06E-02
Tetryl	1.40E-01	1.40E-01	0.00634	1.39	1.95E-01	1.95E-01	2.00E-01	1.25	3.18E-02	3.18E-02
Antimony	1.16E+00	1.16E+00	0.00634	0	3.00E-01	1.30E-01	2.00E-01	0.35	1.92E-01	9.53E-02
Arsenic	1.13E+00	1.13E+00	0.00634	0	0	0	2.00E-01	0.7	1.02E-02	1.02E-02
Beryllium	1.50E-01	1.50E-01	0.00634	0	0	0	2.00E-01	0.95	1.00E-03	1.00E-03
Cadmium	8.80E-01	8.80E-01	0.00634	0	0	0	2.00E-01	0.17	3.28E-02	3.28E-02
Chromium	1.21E+01	1.21E+01	0.00634	0	4.60E-01	3.26E+00	2.00E-01	0.24	7.03E-01	3.04E+00
Copper	5.16E+01	5.16E+01	0.00634	0	8.94E+00	4.95E+00	2.00E-01	347	6.10E-03	3.80E-03
Lead	7.96E+01	7.96E+01	0.00634	0	9.74E+00	6.15E+00	2.00E-01	0.09	2.73E+01	1.93E+01
Nickel	9.09E+00	0	0.00634	0	0	3.85E+00	2.00E-01	0.85	6.78E-02	9.06E-01
Selenium	4.20E-01	4.20E-01	0.00634	0	0	0	2.00E-01	0.06	4.44E-02	4.44E-02
Silver	2.60E-01	2.50E-01	0.00634	0	0	0	2.00E-01	1.78	9.26E-04	8.90E-04
Zinc	1.16E+02	1.16E+02	0.00634	0	4.41E+01	1.71E+01	2.00E-01	14	6.83E-01	2.96E-01
Total HI									3.34E+01	2.81E+01

HI Hazard index.
TRV Toxicity reference value.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.
Bold values denote modeled concentrations.

**Table K54. Summary of Gray Fox Hazard Indices for Site 39 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Plant Uptake Factor (kg soil/kg plant)	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	Old Mouse Conc. (mg/kg)	New Mouse Conc. (mg/kg)	Mouse Factor	TRV (mg/kg/day)	Old HI	New HI
Bis(2-ethylhexyl)phthalate	1.31E-01	1.31E-01	7.92E-04	0.0139	1.82E-03	1.82E-03	2.46E-02	1.19E-03	1.19E-03	3.68E-02	0.13	1.48E-03	1.48E-03
Pentachlorophenol	7.50E-02	7.50E-02	7.92E-04	0.0161	1.21E-03	1.21E-03	2.46E-02	7.17E-04	7.17E-04	3.68E-02	0.17	6.79E-04	6.79E-04
2-Amino-dinitrotoluene	1.30E-01	1.30E-01	7.92E-04	0.894	1.16E-01	1.16E-01	2.46E-02	2.41E-02	2.41E-02	3.68E-02	2.54	1.51E-03	1.51E-03
4-Amino-dinitrotoluene	1.30E-01	1.30E-01	7.92E-04	0.894	1.16E-01	1.16E-01	2.46E-02	2.41E-02	2.41E-02	3.68E-02	2.24	1.72E-03	1.72E-03
HMX	2.04E+00	2.04E+00	7.92E-04	10.5	2.14E+01	2.14E+01	2.46E-02	4.30E+00	4.30E+00	3.68E-02	0.5	1.37E+00	1.37E+00
PETN	2.60E-01	2.60E-01	7.92E-04	1.44	3.74E-01	3.74E-01	2.46E-02	7.65E-02	7.65E-02	3.68E-02	0.23	5.32E-02	5.32E-02
RDX	1.90E-01	1.90E-01	7.92E-04	3.76	7.14E-01	7.14E-01	2.46E-02	1.44E-01	1.44E-01	3.68E-02	0.3	7.68E-02	7.68E-02
Tetryl	1.40E-01	1.40E-01	7.92E-04	1.39	1.95E-01	1.95E-01	2.46E-02	3.98E-02	3.98E-02	3.68E-02	1.25	5.09E-03	5.09E-03
Antimony	1.16E+00	1.16E+00	7.92E-04	0	3.00E-01	1.30E-01	2.46E-02	6.74E-02	3.34E-02	3.68E-02	2.99	3.60E-03	1.79E-03
Arsenic	1.13E+00	1.13E+00	7.92E-04	0	0	0	2.46E-02	0	0	3.68E-02	0.37	2.42E-03	2.42E-03
Barium	0	0	7.92E-04	0	0	0	2.46E-02	1.93E+00	1.78E+00	3.68E-02	0.04	1.78E+00	1.64E+00
Beryllium	1.50E-01	1.50E-01	7.92E-04	0	0	0	2.46E-02	0	0	3.68E-02	0.05	2.38E-03	2.38E-03
Cadmium	8.80E-01	8.80E-01	7.92E-04	0	0	0	2.46E-02	1.30E-01	0	3.68E-02	0.0085	6.45E-01	8.20E-02
Chromium	1.21E+01	1.21E+01	7.92E-04	0	4.60E-01	3.26E+00	2.46E-02	3.00E-01	0	3.68E-02	0.03	1.06E+00	2.99E+00
Copper	5.16E+01	5.16E+01	7.92E-04	0	8.94E+00	4.95E+00	2.46E-02	4.71E+00	3.93E+00	3.68E-02	17.3	2.51E-02	1.78E-02
Lead	7.96E+01	7.96E+01	7.92E-04	0	9.74E+00	6.15E+00	2.46E-02	6.89E+00	2.70E-01	3.68E-02	0.13	4.28E+00	1.73E+00
Nickel	9.09E+00	0	7.92E-04	0	0	3.85E+00	2.46E-02	2.52E+00	2.15E+00	3.68E-02	2.69	3.72E-02	6.46E-02
Selenium	4.20E-01	4.20E-01	7.92E-04	0	0	0	2.46E-02	2.66E-03	2.66E-03	3.68E-02	0.003	1.44E-01	1.44E-01
Silver	2.60E-01	2.60E-01	7.92E-04	0	0	0	2.46E-02	0	0	3.68E-02	0.89	2.31E-04	2.31E-04
Zinc	1.16E+02	1.16E+02	7.92E-04	0	4.41E+01	1.71E+01	2.46E-02	3.47E+01	3.56E+01	3.68E-02	1.75	1.40E+00	1.04E+00
TOTAL HI												1.09E+01	9.22E+00

HI Hazard index.
TRV Toxicity reference value.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.
Bold values denote modeled concentrations.

**Table K55. Summary of Deer Mouse Hazard Indices for Site 40 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Plant Uptake Factor (kg soil/kg plant)	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	TRV (mg/kg/day)	Old HI	New HI
Acetone	2.80E-03	2.80E-03	0.00634	1.72E+01	4.82E-02	4.82E-02	2.00E-01	2	4.82E-03	4.82E-03
Tetrachloroethene	0	2.10E-03	0.00634	3.92E-01	0	8.23E-04	2.00E-01	2.8	--	6.36E-05
Toluene	1.20E-03	3.10E-03	0.00634	3.29E-01	3.95E-04	1.02E-03	2.00E-01	250	3.46E-07	8.95E-07
Trichloroethene	0	1.70E-03	0.00634	5.25E-01	0	8.93E-04	2.00E-01	128.37	--	1.47E-06
Bis(2-ethylhexyl)phthalate	5.60E-02	1.00E-01	0.00634	1.39E-02	7.78E-04	1.39E-03	2.00E-01	2.6	1.96E-04	3.51E-04
Fluoranthene	0	2.10E+00	0.00634	1.83E-02	0	3.84E-02	2.00E-01	25	--	8.40E-04
Pentachlorophenol	0	3.90E-01	0.00634	1.61E-02	0	6.28E-03	2.00E-01	0.35	--	1.07E-02
Pyrene	0	1.50E+00	0.00634	1.88E-02	0	2.82E-02	2.00E-01	15	--	1.01E-03
Cadmium	0	1.90E+00	0.00634	2.48E-01	0	4.71E-01	2.00E-01	0.17	--	6.25E-01
Chromium	1.14E+01	1.25E+01	0.00634	5.20E-03	5.93E-02	6.50E-02	2.00E-01	0.24	3.51E-01	3.84E-01
Lead	0	6.69E+02	0.00634	1.78E-02	0	1.19E+01	2.00E-01	0.09	--	7.36E+01
Total HI									3.56E-01	7.46E+01

HI Hazard index.
TRV Toxicity reference value.
-- HI not calculable.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:
"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.
Bold values denote modeled concentrations.

Table K56. Summary of Gray Fox Hazard Indices for Site 40 /a/
 Volume IV - Ecological Risk Assessment, Basewide RI/FS
 Fort Ord, California

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Plant Uptake Factor (kg soil/kg plant)	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	Old Mouse Conc. (mg/kg)	New Mouse Conc. (mg/kg)	Mouse Factor	TRV (mg/kg/day)	Old HI	New HI
Acetone	2.80E-03	2.80E-03	7.92E-04	1.72E+01	4.82E-02	4.82E-02	2.46E-02	9.65E-03	9.65E-03	3.68E-02	1	1.54E-03	1.54E-03
Tetrachloroethene	0	2.10E-03	7.92E-04	3.92E-01	0	8.23E-04	2.46E-02	0	1.78E-04	3.68E-02	0.14	--	2.03E-04
Toluene	1.20E-03	3.10E-03	7.92E-04	3.29E-01	3.95E-04	1.02E-03	2.46E-02	8.66E-05	2.24E-04	3.68E-02	12.5	1.11E-06	2.86E-06
Trichloroethene	0	1.70E-03	7.92E-04	5.25E-01	0	8.93E-04	2.46E-02	0	1.89E-04	3.68E-02	1.28	--	2.36E-05
Bis(2-ethylhexyl)phthalate	5.60E-02	1.00E-01	7.92E-04	1.39E-02	7.78E-04	1.39E-03	2.46E-02	5.11E-04	9.12E-04	3.68E-02	0.13	6.33E-04	1.13E-03
Fluoranthene	0	2.10E+00	7.92E-04	1.83E-02	0	3.84E-02	2.46E-02	0	2.10E-02	3.68E-02	1.25	--	2.71E-03
Pentachlorophenol	0	3.90E-01	7.92E-04	1.61E-02	0	6.28E-03	2.46E-02	0	3.73E-03	3.68E-02	0.17	--	3.53E-03
Pyrene	0	1.50E+00	7.92E-04	1.88E-02	0	2.82E-02	2.46E-02	0	1.52E-02	3.68E-02	0.75	--	3.25E-03
Cadmium	0	1.90E+00	7.92E-04	2.48E-01	0	4.71E-01	2.46E-02	0	1.06E-01	3.68E-02	0.0085	--	2.00E+00
Chromium	1.14E+01	1.25E+01	7.92E-04	5.20E-03	5.93E-02	6.50E-02	2.46E-02	8.41E-02	9.23E-02	3.68E-02	0.03	4.53E-01	4.96E-01
Lead	0	6.69E+02	7.92E-04	1.78E-02	0	1.19E+01	2.46E-02	0	6.62E+00	3.68E-02	0.13	--	8.20E+00
Total HI												4.55E-01	1.07E+01

HI Hazard index.
 TRV Toxicity reference value.
 -- HI not calculable.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.
 Bold values denote modeled concentrations.

**Table K57. Summary of Deer Mouse Hazard Indices for Site 41 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	TRV (mg/kg/day)	Old HI	New HI
Toluene	2.63E-03	1.95E-03	0.00634	0	0	2.00E-01	250	6.67E-08	4.95E-08
Bis(2-ethylhexyl)phthalate	0	1.31E-01	0.00634	0	0	2.00E-01	2.6	--	3.18E-04
Arsenic	1.43E+01	1.44E+01	0.00634	0	0	2.00E-01	0.7	1.30E-01	1.30E-01
Beryllium	1.36E+00	1.36E+00	0.00634	0	0	2.00E-01	0.95	9.08E-03	9.08E-03
Cadmium	8.90E-01	8.90E-01	0.00634	1.40E-01	1.40E-01	2.00E-01	0.17	1.98E-01	1.98E-01
Chromium	5.23E+01	5.23E+01	0.00634	6.30E-01	6.30E-01	2.00E-01	0.24	1.91E+00	1.91E+00
Copper	4.88E+01	4.88E+01	0.00634	1.22E+01	1.22E+01	2.00E-01	347	7.92E-03	7.91E-03
Lead	3.95E+01	3.96E+01	0.00634	3.30E-01	3.30E-01	2.00E-01	0.09	3.52E+00	3.52E+00
Nickel	4.12E+01	4.12E+01	0.00634	1.34E+00	1.34E+00	2.00E-01	0.85	6.23E-01	6.23E-01
Selenium	9.30E-01	9.30E-01	0.00634	0	0	2.00E-01	0.06	9.83E-02	9.83E-02
Silver	1.11E+00	1.11E+00	0.00634	0	0	2.00E-01	1.78	3.95E-03	3.95E-03
Thallium	3.10E-01	3.10E-01	0.00634	0	0	2.00E-01	0.01	1.97E-01	1.97E-01
Zinc	2.50E+02	2.50E+02	0.00634	4.66E+01	4.66E+01	2.00E-01	14	7.79E-01	7.78E-01
Total HI								7.47E+00	7.47E+00

HI Hazard index.
TRV Toxicity reference value.
-- HI not calculable.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.

**Table K58. Summary of Gray Fox Hazard Indices for Site 41 /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

COPC	Old Soil Conc. (mg/kg)	New Soil Conc. (mg/kg)	Soil Factor	Old Plant Conc. (mg/kg)	New Plant Conc. (mg/kg)	Plant Factor	Old Mouse Conc. (mg/kg)	New Mouse Conc. (mg/kg)	Mouse Factor	TRV (mg/kg/day)	Old HI	New HI
Toluene	2.63E-03	1.95E-03	7.92E-04	0	0	2.46E-02	1.67E-05	1.24E-05	3.68E-02	12.5	2.16E-07	1.60E-07
Bis(2-ethylhexyl)phthalate	0	1.31E-01	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	0.13	--	7.96E-04
Arsenic	1.43E+01	1.44E+01	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	0.37	3.06E-02	3.07E-02
Barium	0	0	7.92E-04	0	0	2.46E-02	4.46E+00	4.46E+00	3.68E-02	0.04	4.10E+00	4.10E+00
Beryllium	1.36E+00	1.36E+00	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	0.05	2.15E-02	2.15E-02
Cadmium	8.90E-01	8.90E-01	7.92E-04	1.40E-01	1.40E-01	2.46E-02	2.00E-02	0	3.68E-02	0.0085	5.75E-01	4.88E-01
Chromium	5.23E+01	5.23E+01	7.92E-04	6.30E-01	6.30E-01	2.46E-02	6.00E-02	0	3.68E-02	0.03	1.97E+00	1.90E+00
Copper	4.88E+01	4.88E+01	7.92E-04	1.22E+01	1.22E+01	2.46E-02	2.79E+00	1.67E+00	3.68E-02	17.3	2.55E-02	2.31E-02
Lead	3.95E+01	3.96E+01	7.92E-04	3.30E-01	3.30E-01	2.46E-02	9.00E-01	8.50E-01	3.68E-02	0.13	5.58E-01	5.44E-01
Nickel	4.12E+01	4.12E+01	7.92E-04	1.34E+00	1.34E+00	2.46E-02	6.20E-01	2.40E-01	3.68E-02	2.69	3.29E-02	2.77E-02
Selenium	9.30E-01	9.30E-01	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	0.003	2.46E-01	2.46E-01
Silver	1.11E+00	1.11E+00	7.92E-04	0	0	2.46E-02	0	0	3.68E-02	0.89	9.88E-04	9.88E-04
Thallium	3.10E-01	3.10E-01	7.92E-04	0	0	2.46E-02	1.00E-01	0	3.68E-02	0.003	1.31E+00	8.18E-02
Vanadium	0	0	7.92E-04	0	0	2.46E-02	6.60E-01	0	3.68E-02	0.21	1.16E-01	--
Zinc	2.50E+02	2.50E+02	7.92E-04	4.66E+01	4.66E+01	2.46E-02	3.44E+01	3.44E+01	3.68E-02	1.75	1.49E+00	1.49E+00
TOTAL HI											1.05E+01	8.96E+00

HI Hazard index.
TRV Toxicity reference value.
-- HI not calculable.

/a/ "0" values denote nondetected concentrations or chemicals that are not COPCs for a given media.

Notes:

"Old" refers to data from the DFR dataset. "New" refers to the updated dataset.
Bold values denote modeled concentrations.

Table K59. Mammal Data by Age Class
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Age/Statistics	% Lipid	Method 8080 Results ($\mu\text{g}/\text{kg}$)						
		Heptachlor	Heptachlor Epoxide	4,4'-DDE	4,4'-DDT	BHC (delta)	Chlordane (gamma)	Endosulfan II
ADULTS								
Mean	5.81	2.28	2.00	4.34	3.66	1.56	3.05	3.64
Standard deviation	1.80	0.94	0.58	1.21	1.27	0.23	1.42	1.10
SUBADULTS								
Mean	6.54	3.92	ND	8.46	ND	ND	3.03	ND
Standard deviation	1.42	0.26	ND	3.12	ND	ND	0.79	ND
JUVENILES								
Mean	7.13	2.23	2.37	6.20	ND	ND	ND	5.18
Standard deviation	3.48	0.64	0.40	1.73	ND	ND	ND	0.03

Table K59. Mammal Data by Age Class
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Age/Statistics	Method 8310 Results (ng/g)												
	Naphthalene	Acenaphthalene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene
ADULTS													
Mean	33.33	856.38	16.94	7.75	34.13	3.00	10.38	114.13	67.13	19.25	12.88	3.25	12.75
Standard deviation	52.27	827.95	9.56	6.02	20.24	1.93	11.07	76.04	60.56	26.57	5.69	2.92	15.91
SUBADULTS													
Mean	45.00	1200.00	37.00	11.00	13.00	2.00	5.00	480.00	17.00	6.00	13.00	1.00	ND
Standard deviation	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
JUVENILES													
Mean	37.88	960.00	24.88	16.50	109.25	7.25	18.75	137.13	121.25	19.38	32.50	11.75	8.38
Standard deviation	10.82	1234.85	12.68	3.00	18.68	2.06	5.85	113.47	45.89	25.88	4.36	1.50	7.11

Table K59. Mammal Data by Age Class
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Age/Statistics	Method 8290 Results (ng/kg)													
	1,2,3,7,8- PeCDD	1,2,3,4,7,8- HxCDD	1,2,3,6,7,8- HxCDD	1,2,3,7,8,9- HxCDD	1,2,3,4,6,7,8- HpCDD	OCDD	2,3,7,8- TCDF	2,3,4,7,8- PeCDF	1,2,3,4,7,8- HxCDF	1,2,3,6,7,8- HxCDF	2,3,4,6,7,8- HxCDF	1,2,3,4,6,7,8- HpCDF	1,2,3,4,7,8,9- HpCDF	OCDF
ADULTS														
Mean	0.29	0.49	1.78	0.22	6.29	20.90	0.26	0.61	0.33	0.17	1.31	1.43	0.19	1.01
Standard deviation	0.03	0.34	1.66	0.04	4.20	14.08	0.05	0.73	0.28	0.15	1.10	1.48	0.09	1.46
SUBADULTS														
Mean	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Standard deviation	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
JUVENILES														
Mean	1.09	1.78	3.52	1.34	28.98	145.35	0.40	4.33	3.71	1.58	2.40	6.90	0.43	10.13
Standard deviation	1.55	1.23	2.31	1.06	16.58	80.96	0.48	3.62	2.96	1.33	2.86	3.73	0.32	7.86

Table K59. Mammal Data by Age Class
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Age/Statistics	Method 8290 Results (ng/kg; continued)						
	Total PeCDD	Total HxCDD	Total HpCDD	Total TCDF	Total PeCDF	Total HxCDF	Total HpCDF
ADULTS							
Mean	0.29	2.16	6.38	0.26	0.61	1.68	1.65
Standard deviation	0.03	1.64	4.07	0.05	0.73	1.47	1.48
SUBADULTS							
Mean	NA	NA	NA	NA	NA	NA	NA
Standard deviation	NA	NA	NA	NA	NA	NA	NA
JUVENILES							
Mean	1.09	7.62	37.20	0.18	5.03	8.94	11.58
Standard deviation	1.55	4.45	20.56	0.08	3.85	6.92	6.68

Table K59. Mammal Data by Age Class
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Age/Statistics	Metals results (mg/kg)													
	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Lead	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
ADULTS														
Mean	NA	ND	4.04	ND	0.10	0.18	2.59	0.62	1.32	NA	ND	ND	ND	31.41
Standard deviation	NA	ND	2.77	ND	0.15	0.16	2.14	1.10	1.55	NA	ND	ND	ND	6.32
SUBADULTS														
Mean	NA	ND	4.71	ND	0.05	0.21	4.14	2.07	1.32	NA	ND	ND	ND	33.96
Standard deviation	NA	ND	3.45	ND	0.04	0.09	3.10	4.53	1.67	NA	ND	ND	ND	5.13
JUVENILES														
Mean	NA	ND	5.24	ND	0.02	0.08	2.78	0.76	0.38	NA	ND	ND	0.41	37.95
Standard deviation	NA	ND	2.29	ND	0.01	0.05	2.88	0.80	0.25	NA	ND	ND	0.06	9.85

**Table K60. Summary of Revised Quantitative Uncertainty for Mammalian Assessment
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site	COPC	Mouse Hazard Quotient Monte Carlo Analysis /b/				Fox Hazard Quotient Monte Carlo Analysis /b/			
		Point Estimate /a/	MC-2.5 /c/	MC-Expected /d/	MC-97.5 /e/	Point Estimate /a/	MC-2.5 /c/	MC-Expected /d/	MC-97.5 /e/
2	Lead	3.0	1.1	1.5	2.1	NA	NA	NA	NA
3	Antimony	5.3	NE	NE	NE	NA	NA	NA	NA
	Lead	487	0	26	62	42.0	0	2.3	5.3
15	Chlordane	1.2	0.01	0.01	0.01	4.3	0.8	1.0	1.2
	Heptachlor	NA	NA	NA	NA	14.0	2.8	3.6	4.3
	Lead	2.9	2.3	2.9	3.6	NA	NA	NA	NA
16	Total PeCDF	4.9	0	2.1	8.5	1.6	0	0.9	2.5
	Lead	3.0	1.2	2.0	2.9	NA	NA	NA	NA
29	Lead	2.3	1.4	1.8	2.2	NA	NA	NA	NA
	Nickel	1.7	0	1.7	3.9	NA	NA	NA	NA
31	Total PeCDF	NA	NA	NA	NA	1.3	0	1.4	3.9
	Lead	43	1.8	2.6	3.8	4.0	NE	NE	NE
39	HMX	4.3	NE	NE	NE	1.4	NE	NE	NE
	Lead	19	NE	NE	NE	1.7	NE	NE	NE

MC Monte Carlo.

NA Not applicable to this species; point estimate Hazard Quotient <1.0.

NE Not evaluated; see text for explanation.

/a/ Based on arithmetic mean.

/b/ Monte Carlo analysis based on distribution of concentrations of chemicals in soil with point estimates of Hazard Quotient >1.0.

/c/ Lower bound of the 95% confidence interval.

/d/ Expected value based on distribution.

/e/ Upper bound of the 95% confidence interval.

**Table K61. Functional Categorization of Taxa Identified In Leaf Litter
Ecological Risk Assessment
Fort Ord, California**

Class	Order	Functional Group				
		Detritivore	Predator	Herbivore	Animal Parasite	Plant Parasite
Arachnida	Acarina		x		x	x
Arachnida	Araneae		x			
Arachnida	Pseudoscorpionidae		x			
Crustacea	Isopoda	x				
Insecta	Anoplera				x	
Insecta	Coleoptera	x	x	x		
Insecta	Collembola	x				
Insecta	Dermaptera	x	x			
Insecta	Diptera	x	x	x	x	x
Insecta	Embioptera	x				
Insecta	Hemiptera	x	x	x		x
Insecta	Homoptera	x				x
Insecta	Hymenoptera	x	x	x		
Insecta	Isoptera	x				
Insecta	Lepidoptera	x		x		
Insecta	Orthoptera	x	x	x		
Insecta	Psocoptera	x				
Insecta	Thysanoptera	x	x	x	x	
Insecta	Thysanura	x				

**Table K62. Number of Taxa Collected in Leaf Litter by Functional Group
Ecological Risk Assessment
Fort Ord, California**

Habitat/Transect	Functional Group										Total Functions
	Detritivore		Predator		Herbivore		Animal Parasite		Plant Parasite		
	Number	Percent /a/	Number	Percent /a/	Number	Percent /a/	Number	Percent /a/	Number	Percent /a/	
Upland Ruderal											
16-1	13	25	15	28	12	23	6	11	7	13	53
16-2	21	29	22	30	21	29	6	8	3	4	73
16-3	3	25	4	33	3	25	1	8	1	8	12
16-4	1	33	1	33	1	33	0	0	0	0	3
16-5	9	36	6	24	4	16	3	12	3	12	25
16-8	9	17	18	35	9	17	8	15	8	15	52
24-1	11	44	7	28	1	4	3	12	3	12	25
24-2	2	33	2	33	2	33	0	0	0	0	6
24-3	16	25	25	39	14	22	7	11	2	3	64
24-4	3	43	2	29	0	0	1	14	1	14	7
24-5	2	40	1	20	0	0	1	20	1	20	5
24-6	15	29	16	31	13	25	1	2	6	12	51
25-1	4	40	2	20	2	20	1	10	1	10	10
25-2	36	46	17	22	7	9	10	13	9	11	79
25-3	2	29	2	29	1	14	1	14	1	14	7
25-4	2	11	6	32	1	5	5	26	5	26	19
29-2	13	27	15	31	12	24	4	8	5	10	49
29-3	5	25	5	25	3	15	4	20	3	15	20
29-4	2	12	5	29	2	12	4	24	4	24	17
35-9	0	--	0	--	0	--	0	--	0	--	0
Reference	43	22	62	31	35	18	29	15	29	15	198

**Table K62. Number of Taxa Collected in Leaf Litter by Functional Group
Ecological Risk Assessment
Fort Ord, California**

Habitat/Transect	Functional Group										Total Functions
	Detritivore		Predator		Herbivore		Animal Parasite		Plant Parasite		
	Number	Percent /a/	Number	Percent /a/	Number	Percent /a/	Number	Percent /a/	Number	Percent /a/	
Central Maritime Chaparral											
16-6	2	5	13	32	2	5	12	29	12	29	41
16-7	2	13	5	33	2	13	3	20	3	20	15
35-1	12	15	25	32	1	1	20	26	20	26	78
35-2	8	16	16	31	3	6	12	24	12	24	51
35-3	21	27	25	32	8	10	12	16	11	14	77
35-5	61	28	60	28	7	3	44	20	45	21	217
35-6	13	31	12	29	1	2	8	19	8	19	42
35-7	10	12	28	34	4	5	20	24	20	24	82
35-8	25	23	30	28	10	9	25	23	19	17	109
35-10.1	9	29	11	35	3	10	4	13	4	13	31
35-10.2	17	26	17	26	5	8	14	22	12	18	65
Reference	25	6	130	33	21	5	115	29	108	27	399
Coast Live Oak Woodland											
29-1	4	29	5	36	3	21	1	7	1	7	14
31-1	6	40	5	33	0	0	1	7	3	20	15
31-2	8	20	12	29	7	17	8	20	6	15	41
31-3.1	22	18	46	38	21	17	16	13	16	13	121
31-3.2	12	30	12	30	8	20	5	13	3	8	40
35-4	17	41	9	22	3	7	6	15	6	15	41
Reference	26	8	111	32	12	3	98	28	99	29	346

-- Not calculable.

/a/ Percent of total functions.

**Table K63. Comparison of Conclusions for Quantitative Assessment Results
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site	Result of Assessment /a/							
	Plant		Buckwheat		Mouse		Fox	
	Old	New	Old	New	Old	New	Old	New
1 /b/	NA	NA	NA	NA	<1 / NC	<1 / NC	<1 / NC	<1 / NC
2	estimated / PC	2 / PC	NA	NA	11 / NC	7 / NC	13 / NC	8 / NC
3	<1 / NC	7 / PC	PC*	PC*	502 / RC	497 / RC	50 / PC	48 / PC
11	7 / PC	--	NA	NA	10 / NC	10 / NC	10 / NC	8 / NC
12	<1 / NC	--	NA	NA	18 / NC	18 / NC	5 / NC	5 / NC
15	4 / PC	--	NA	NA	8 / NC	8 / NC	23 / NC	23 / NC
16	1 / NC	--	NA	NA	12 / NC	12 / NC	5 / NC	5 / NC
17 /b/	NA	--	NA	NA	<1 / NC	<1 / NC	<1 / NC	<1 / NC
21	<1 / NC	--	NA	NA	16 / NC	16 / NC	6 / NC	6 / NC
22	<1 / NC	--	NA	NA	6 / NC	6 / NC	5 / NC	5 / NC
24	<1 / NC	--	NA	NA	4 / NC	4 / NC	10 / NC	8 / NC
25	3 / PC	--	NA	NA	5 / NC	5 / NC	7 / NC	6 / NC
29	17 / RC	--	NA	NA	11 / NC	11 / NC	19 / NC	17 / NC
31	<1 / NC	--	NA	NA	47 / NC	47 / NC	16 / NC	14 / NC

**Table K63. Comparison of Conclusions for Quantitative Assessment Results
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site	Result of Assessment /a/							
	Plant		Buckwheat		Mouse		Fox	
	Old	New	Old	New	Old	New	Old	New
32	<1 / NC	--	NA	NA	3 / NC	3 / NC	2 / NC	2 / NC
33	9 / PC	--	NA	NA	8 / NC	8 / NC	12 / NC	11 / NC
35	<1 / NC	--	NA	NA	4 / NC	4 / NC	9 / NC	7 / NC
39	<1 / NC	7 / PC	NA	NA	33 / PC	28 / PC	11 / NC	9 / NC
40 /b/	NA	--	NA	NA	<1 / NC	<1 / NC	75 / NC	11 / NC
41	<1 / NC	--	NA	NA	7 / NC	7 / NC	11 / NC	9 / NC

NA Not assessed.

* High bullet areas only. Other areas NC.

-- Not discussed in addendum.

/a/ Hazard Index / Conclusion where NC = no concern, PC = possible concern, and RC = probable concern.

"Old" refers to results presented in Table 6.45 of the ERA; "New" refers to results based on new/validated data.

/b/ Screening assessment site.

FIGURES

Figure K1. Litter Analysis for Coast Live Oak Woodland Habitat
 6 Transects (Sites 29, 31, and 35)
 Volume IV - Ecological Risk Assessment
 Fort Ord, California

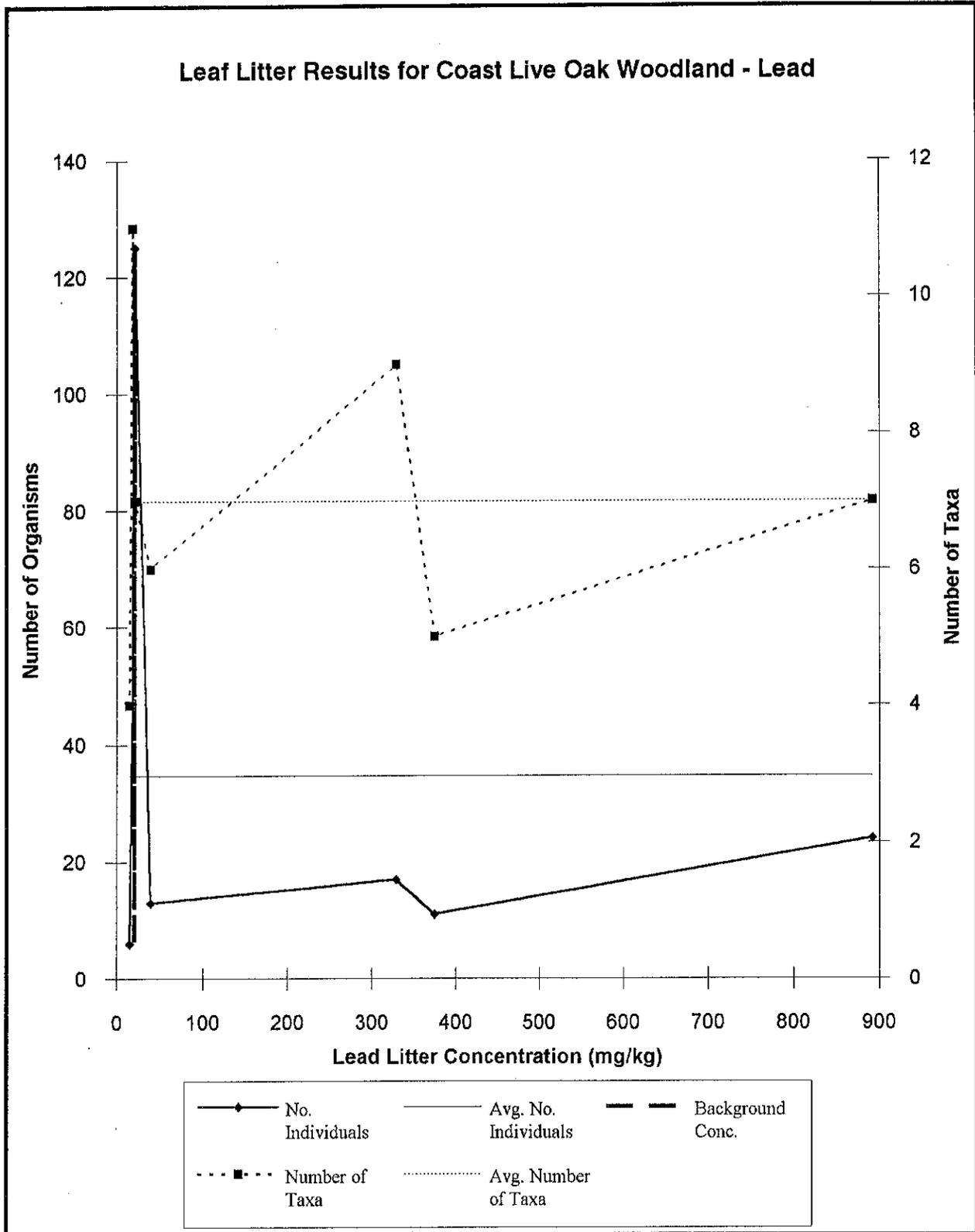


Figure K2. Litter Analysis for Coast Live Oak Woodland Habitat
 6 Transects (Sites 29, 31, and 35)
 Volume IV - Ecological Risk Assessment
 Fort Ord, California

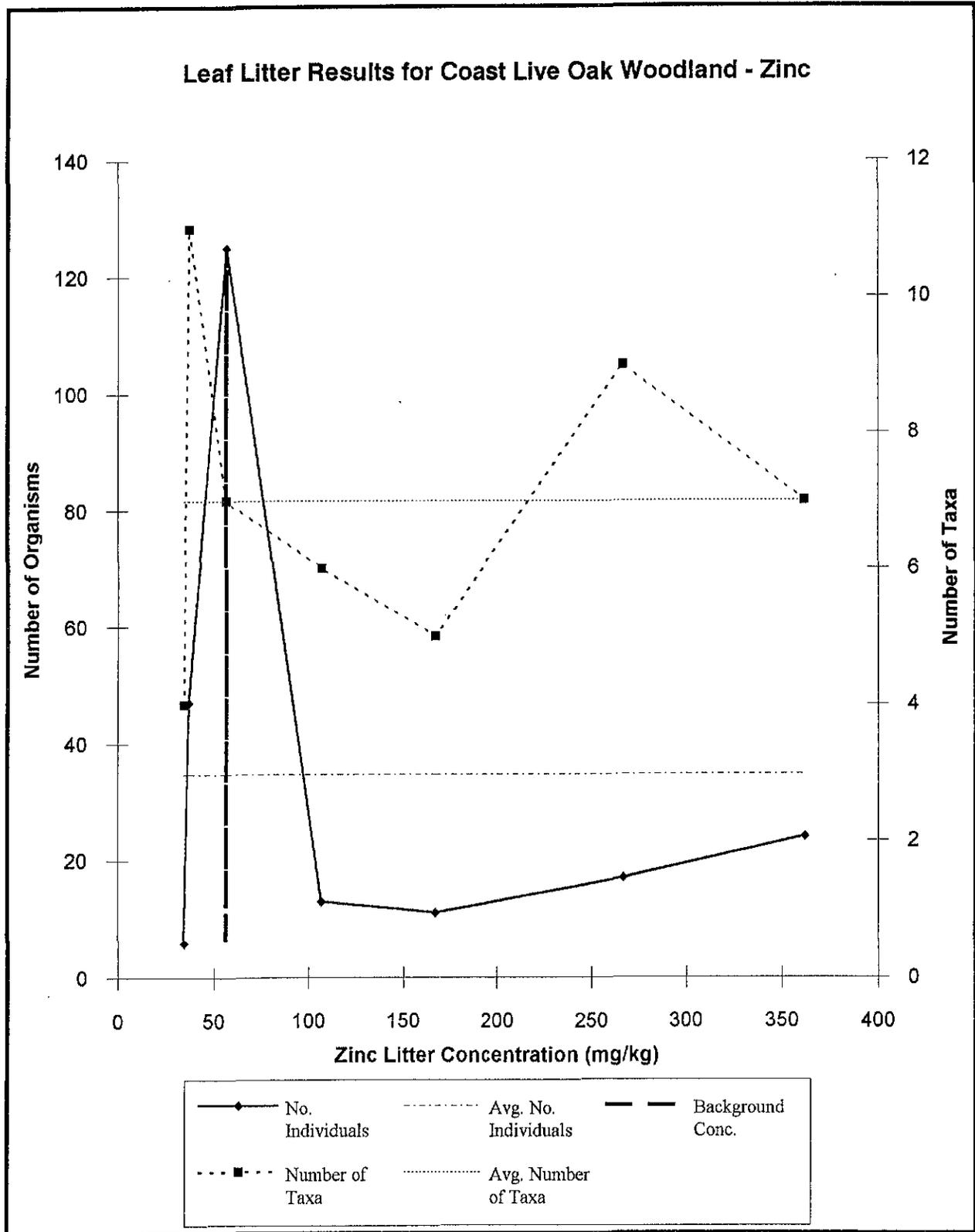


Figure K3. Leaf Litter Results for Central Maritime Chaparral Habitat
 11 Transects (Sites 16 and 35)
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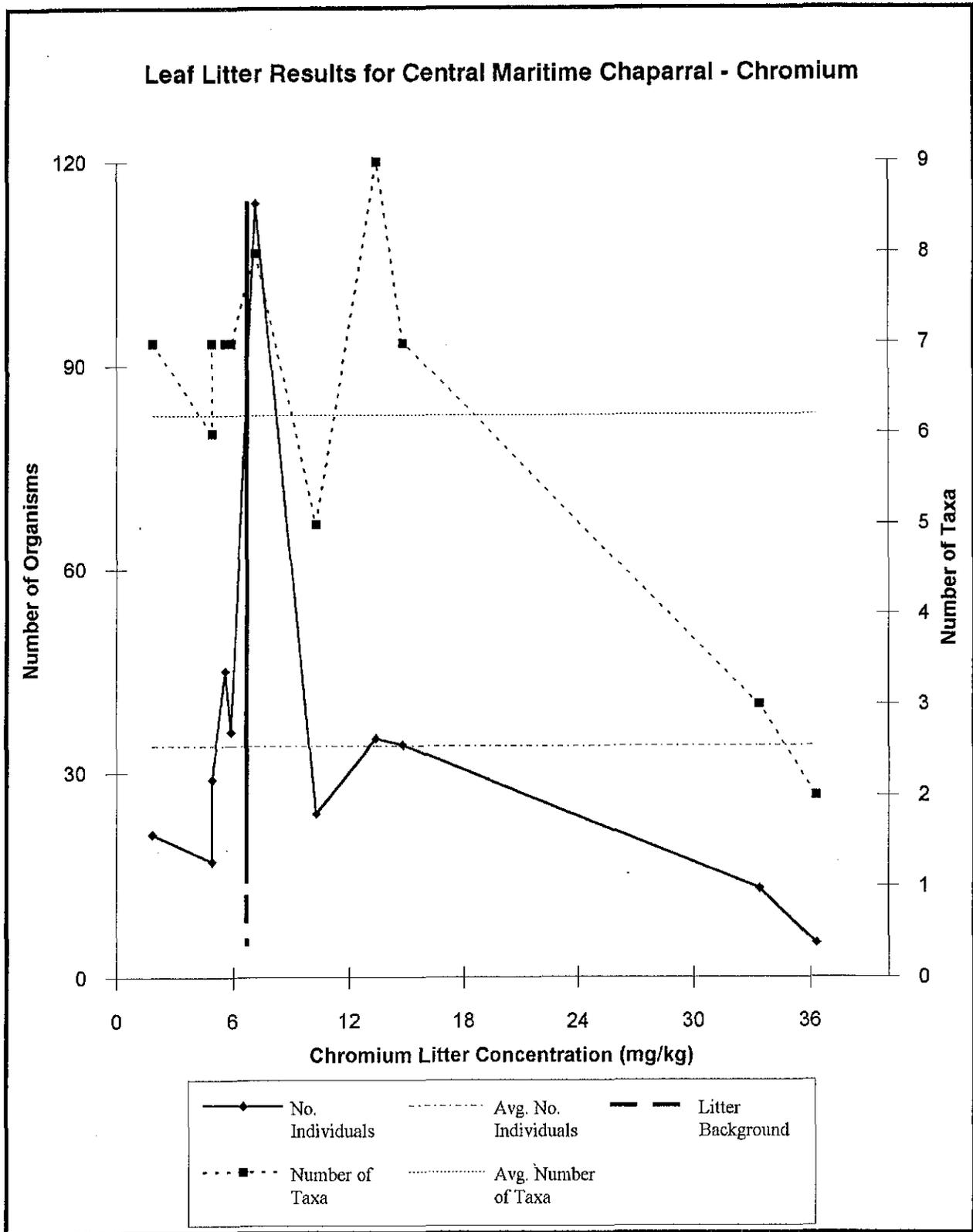


Figure K4. Leaf Litter Results for Central Maritime Chaparral Habitat
 11 Transects (Sites 16 and 35)
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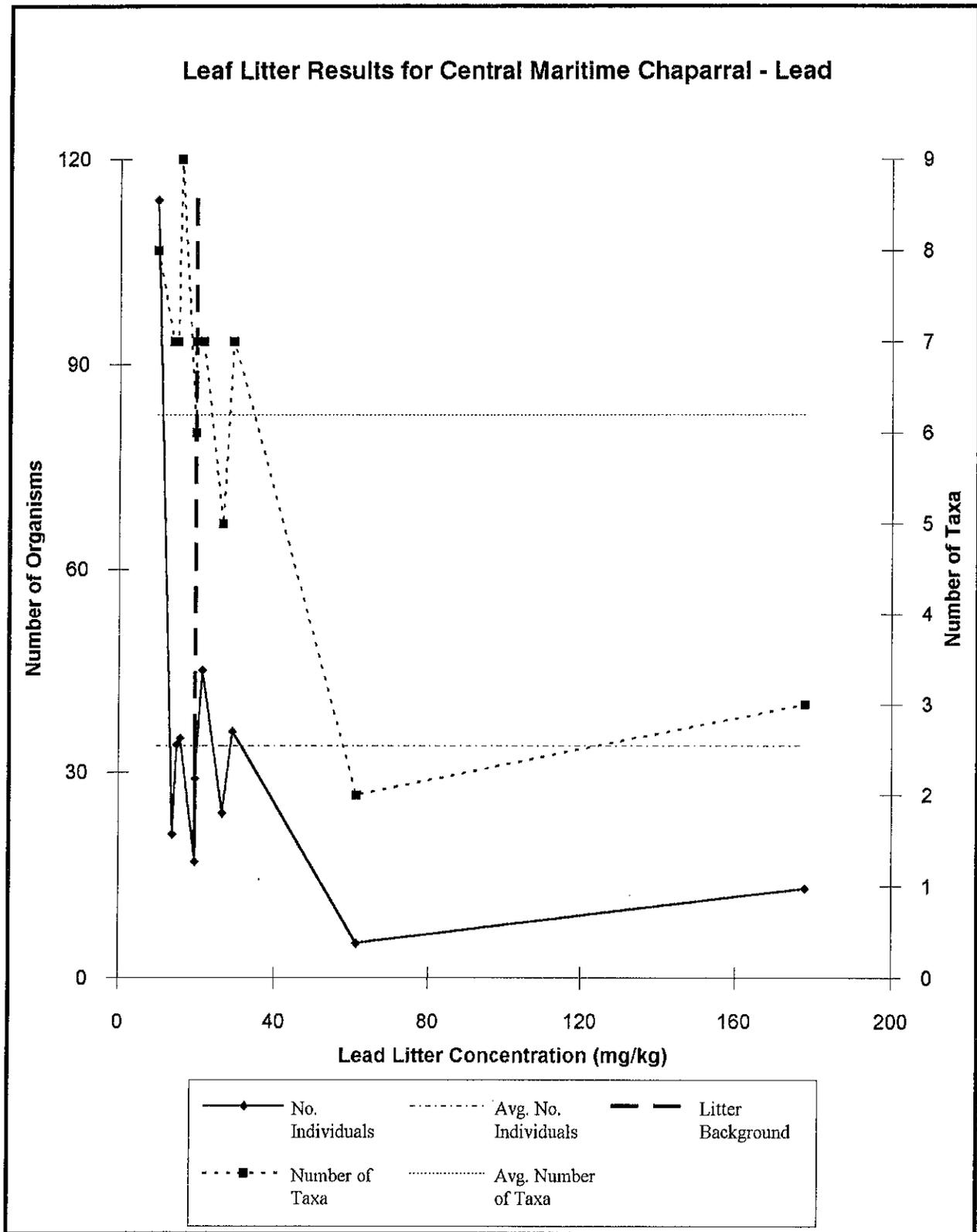


Figure K5. Leaf Litter Results for Central Maritime Chaparral Habitat
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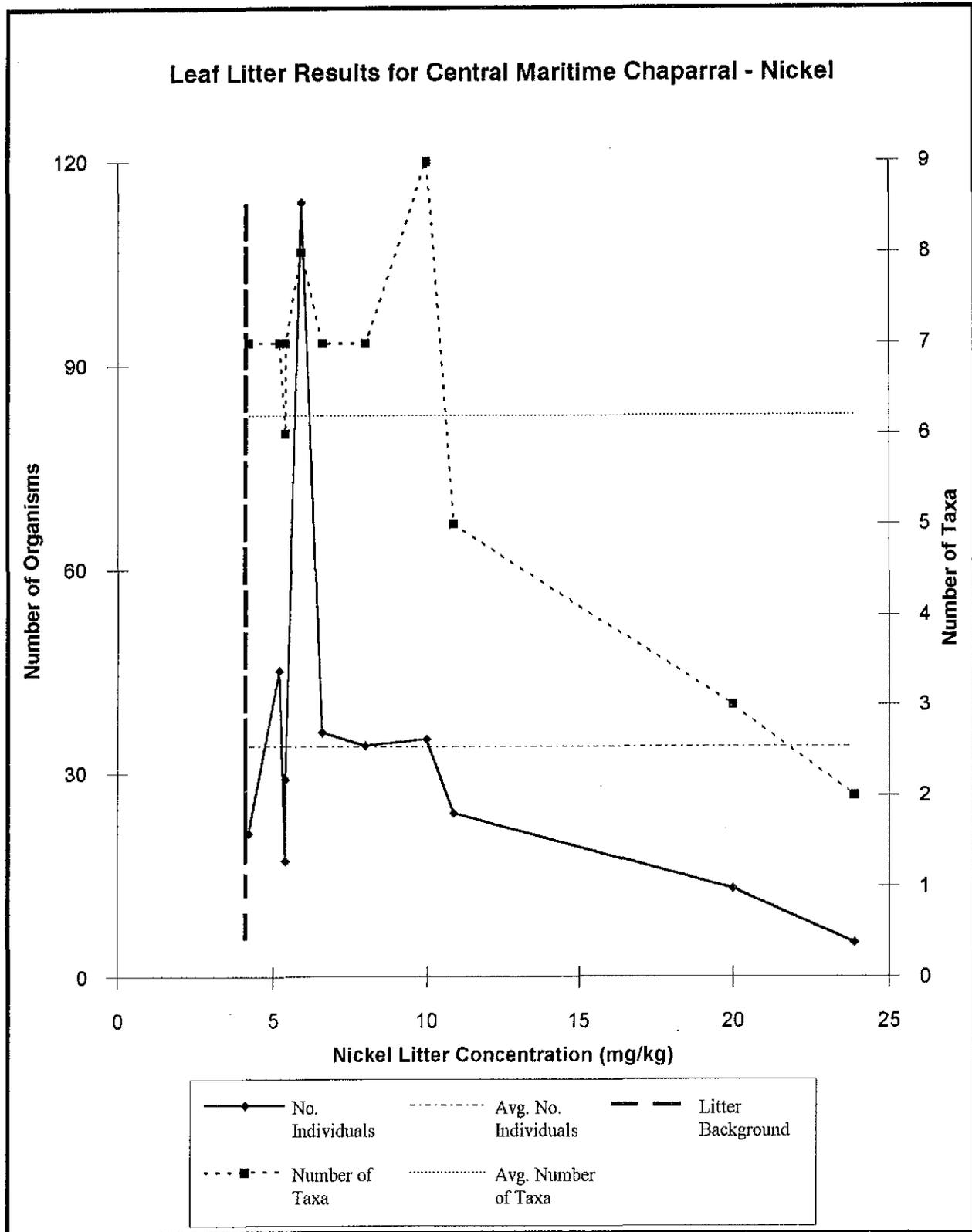


Figure K6. Leaf Litter Results for Central Maritime Chaparral Habitat
 11 Transects (Sites 16 and 35)
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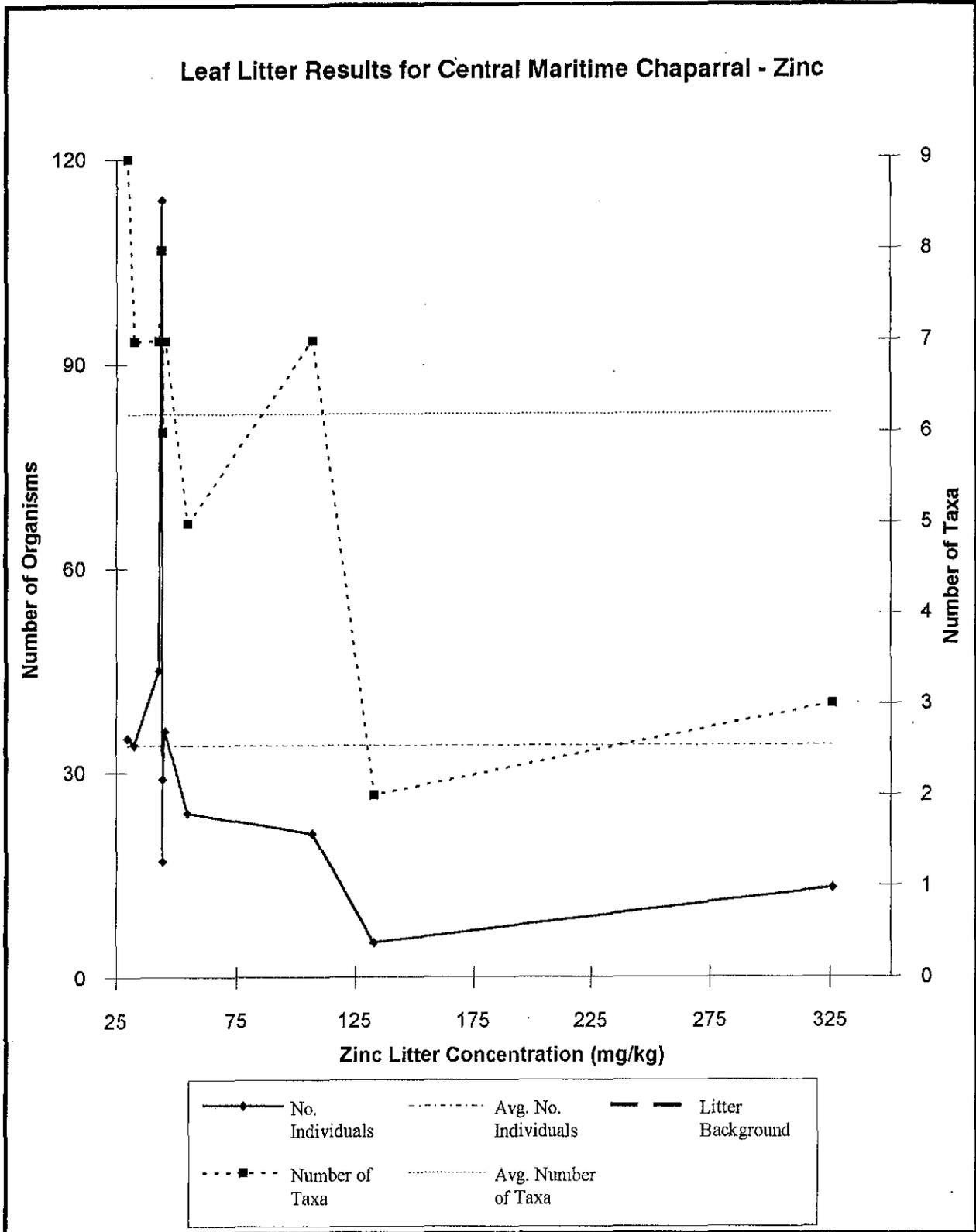


Figure K7. Leaf Litter Results for Upland Ruderal Habitat
 20 Transects (Sites 16, 24, 25, 29, and 35)
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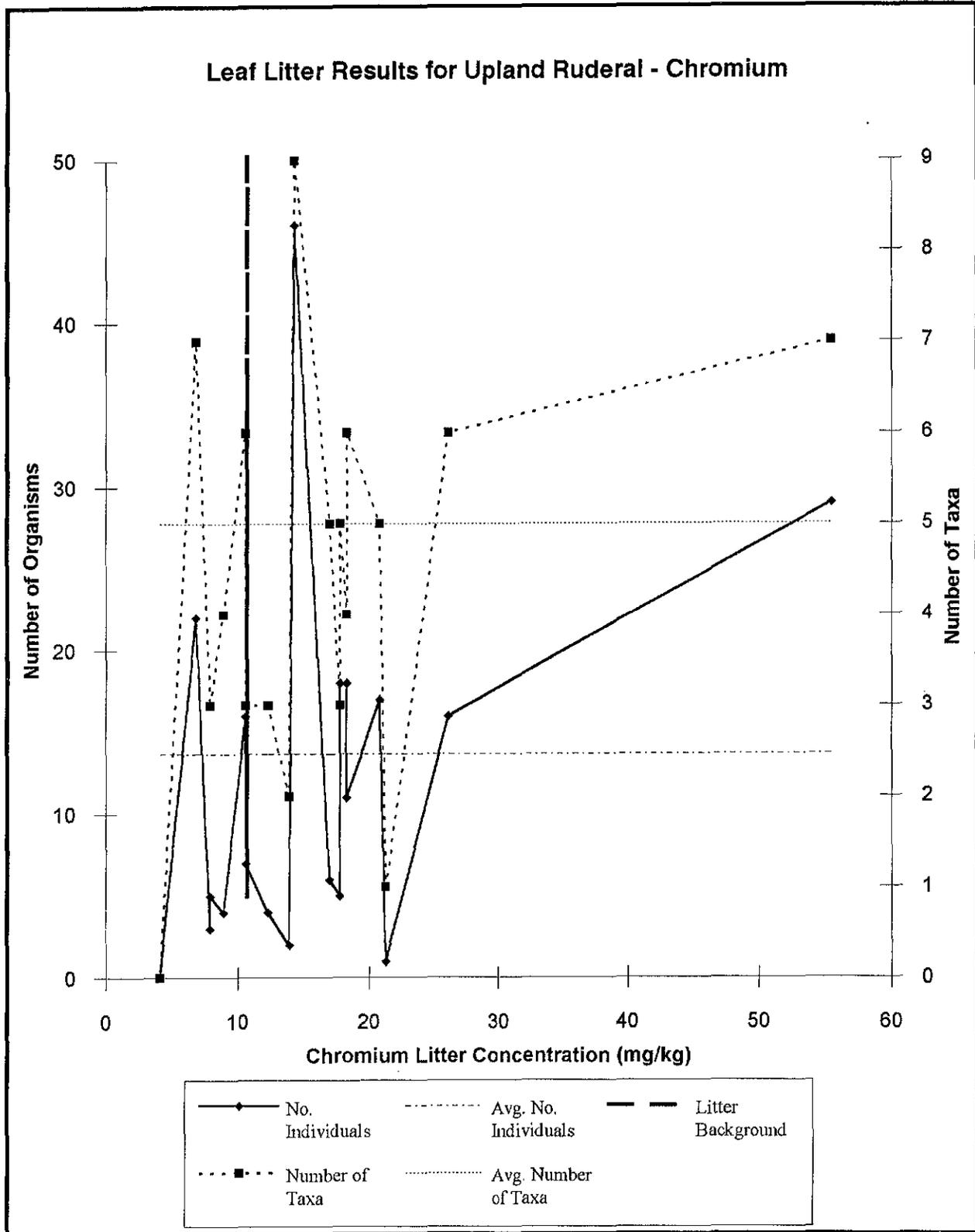


Figure K8. Leaf Litter Results for Upland Ruderal Habitat
 20 Transects (Sites 16, 24, 25, 29, and 35)
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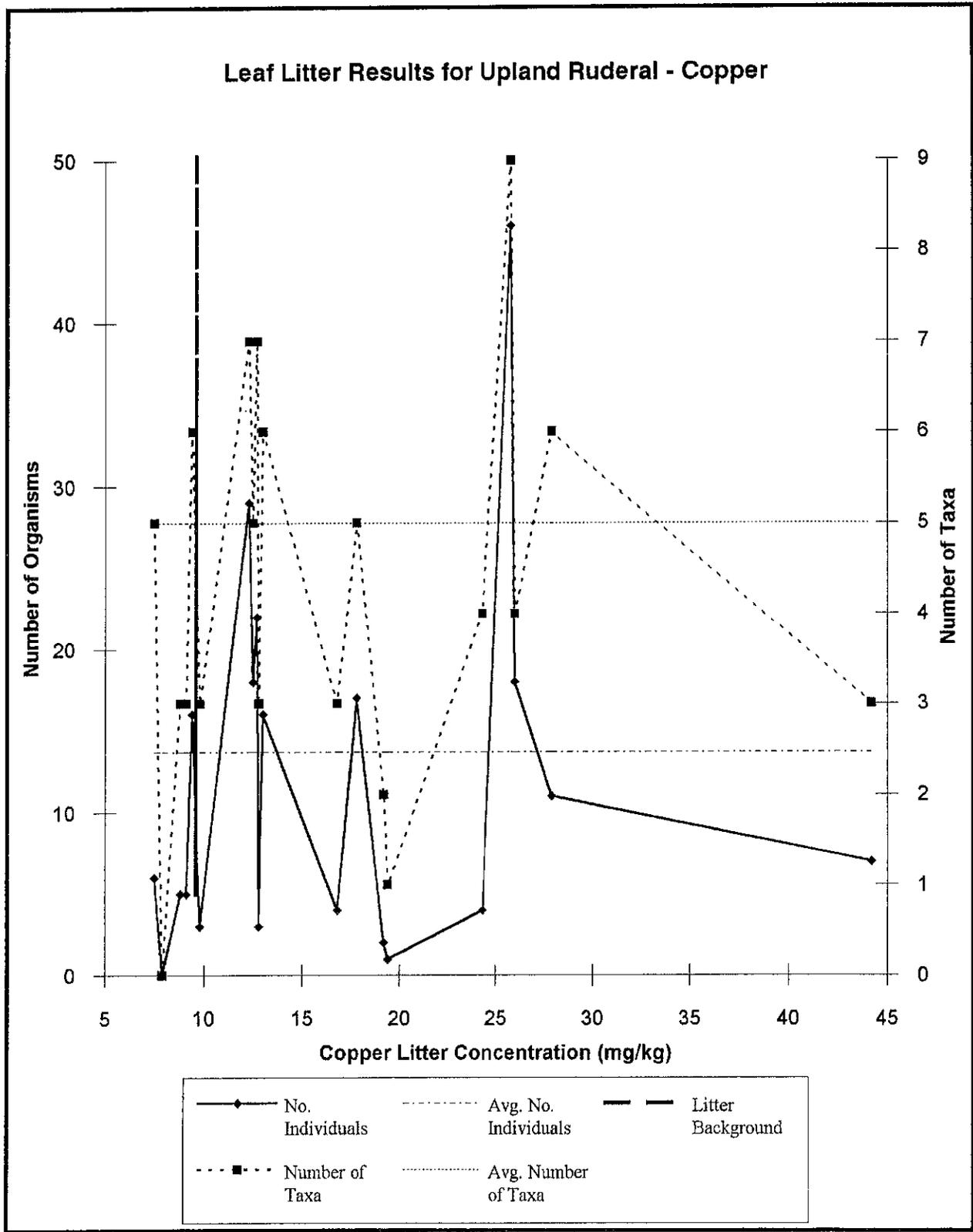


Figure K9. Leaf Litter Results for Upland Ruderal Habitat
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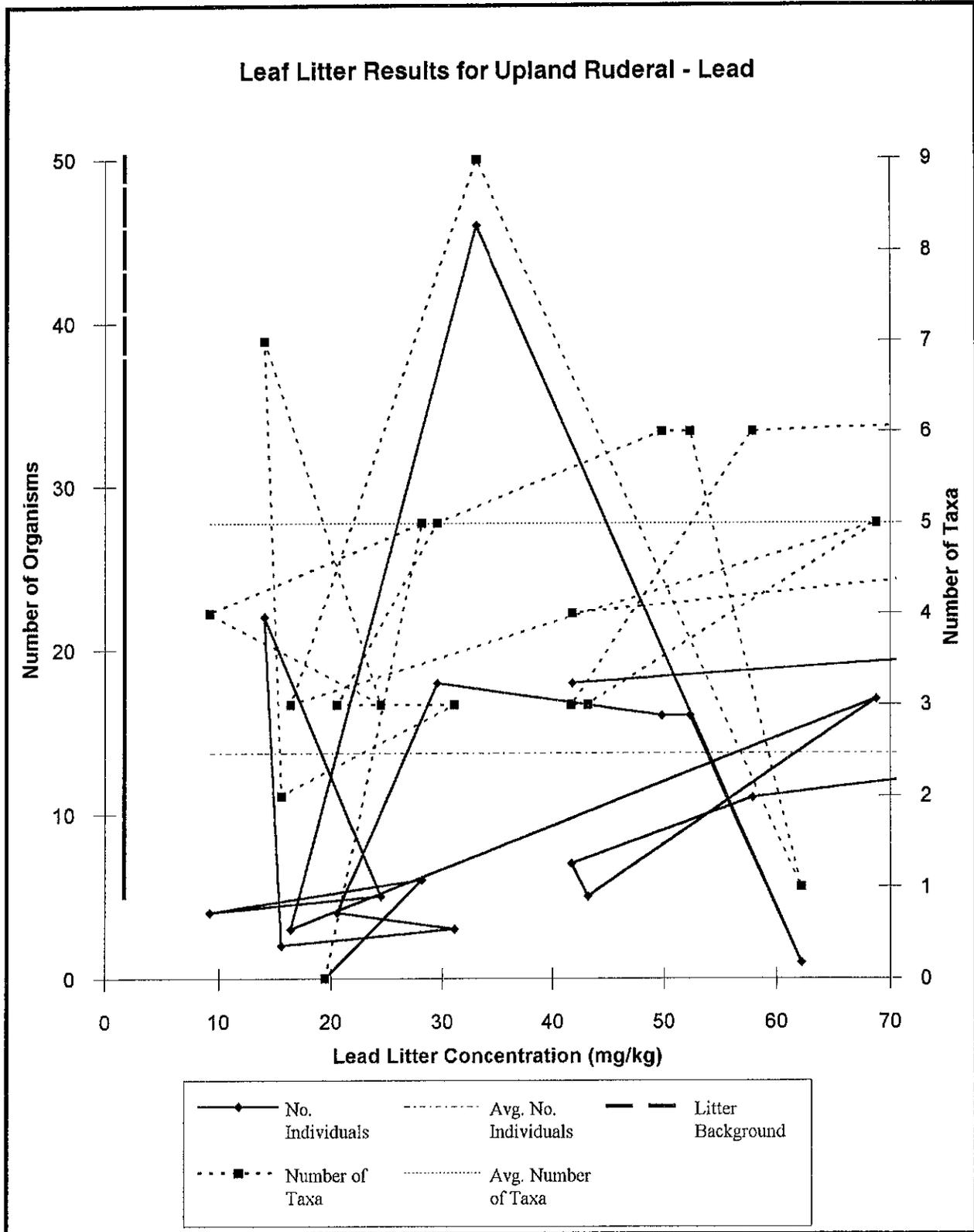


Figure K10. Leaf Litter Results for Upland Ruderal Habitat
 20 Transects (Sites 16, 24, 25, 29, and 35)
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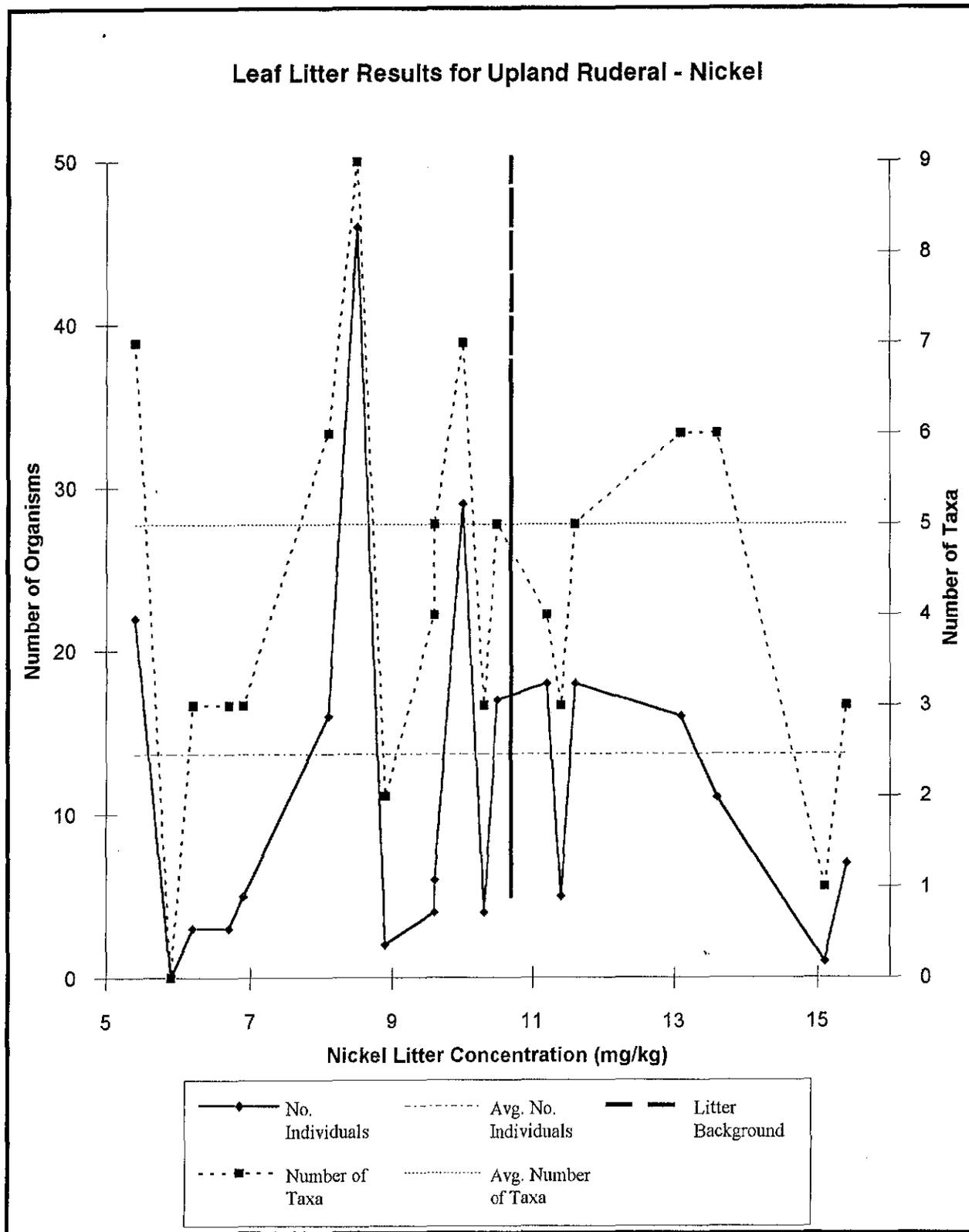


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 20 Transects (Sites 16, 24, 25, 29, and 35)
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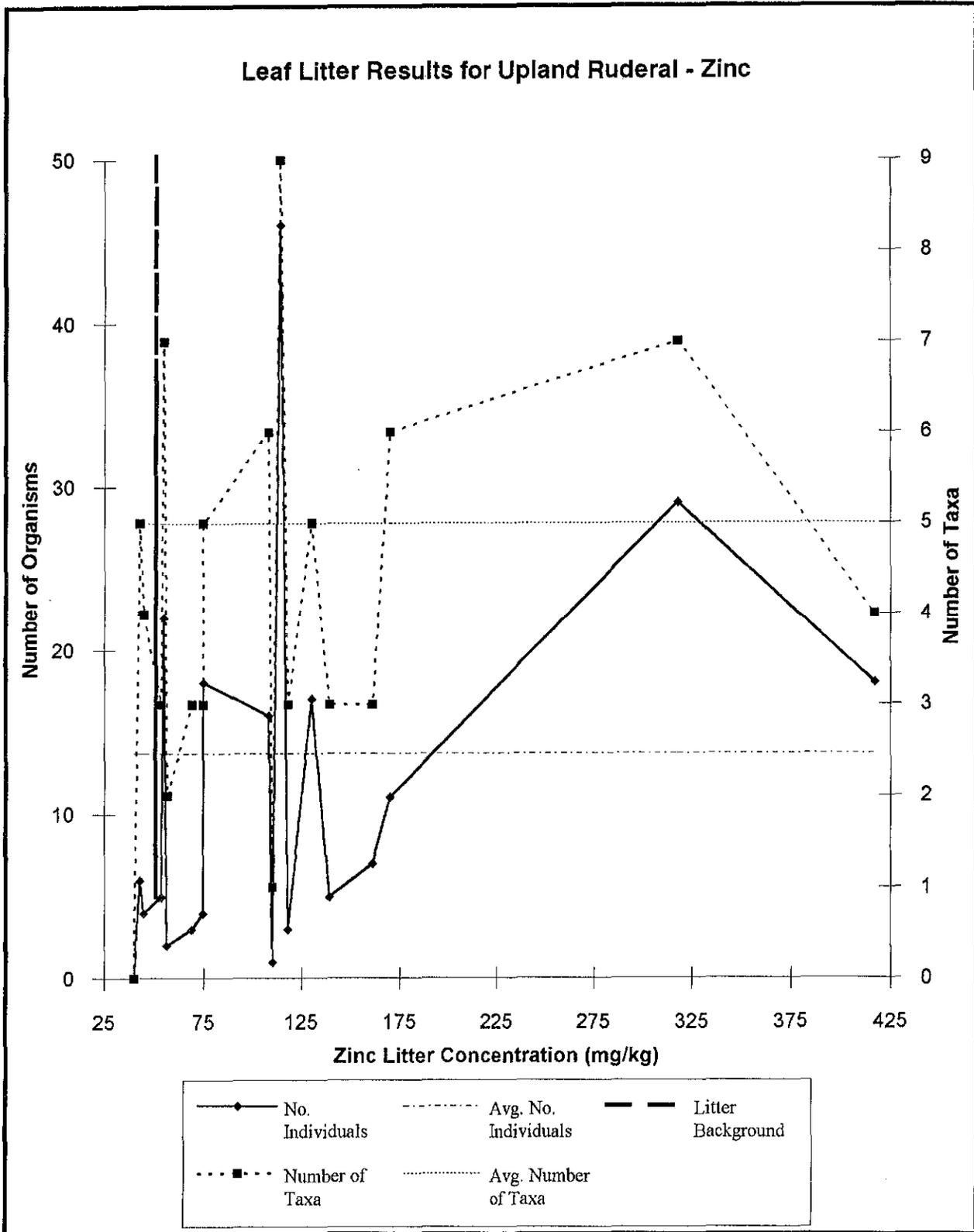


Figure K12a. Normalized Litter Analysis for Upland Ruderal
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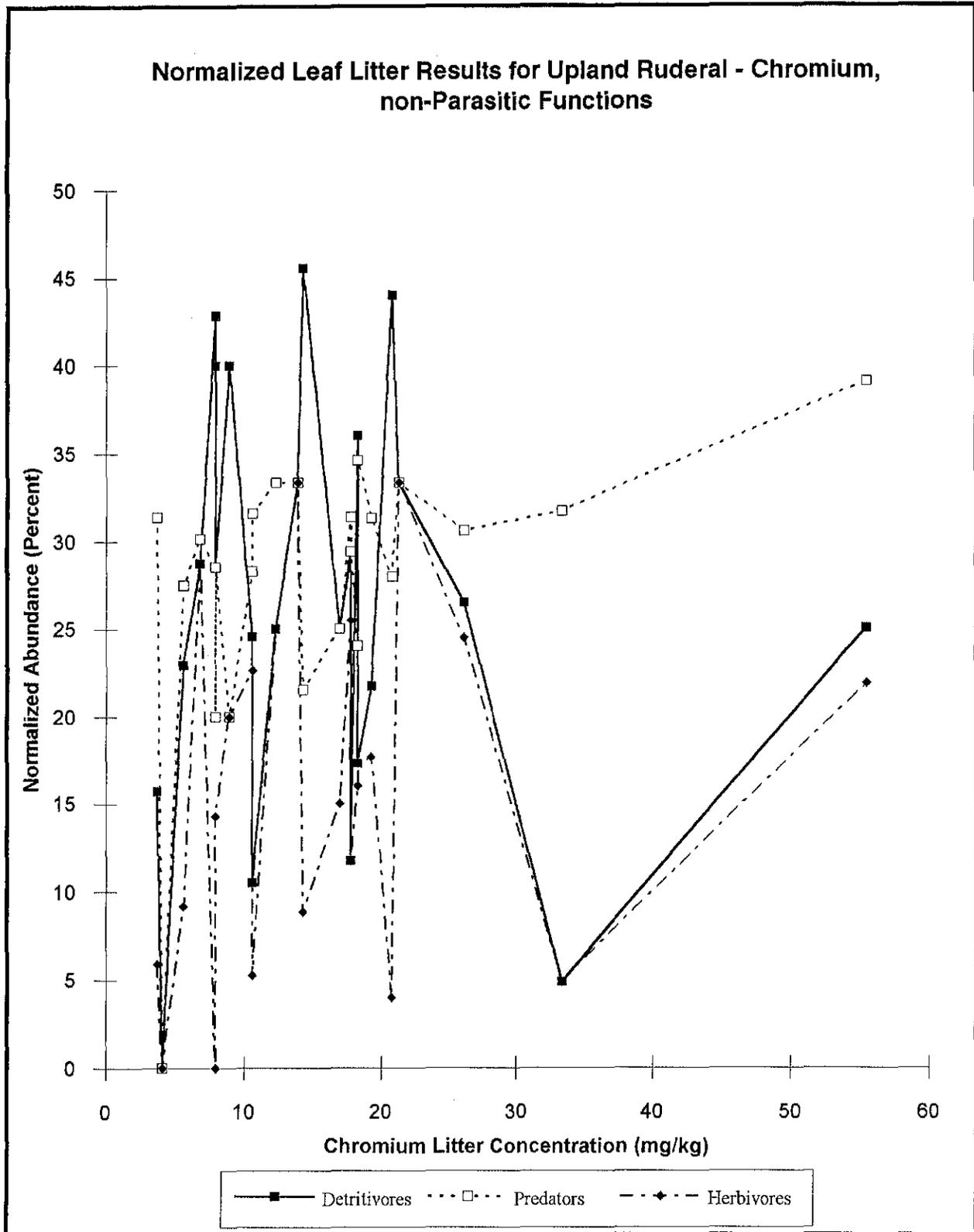


Figure K12b. Normalized Litter Analysis for Upland Ruderal
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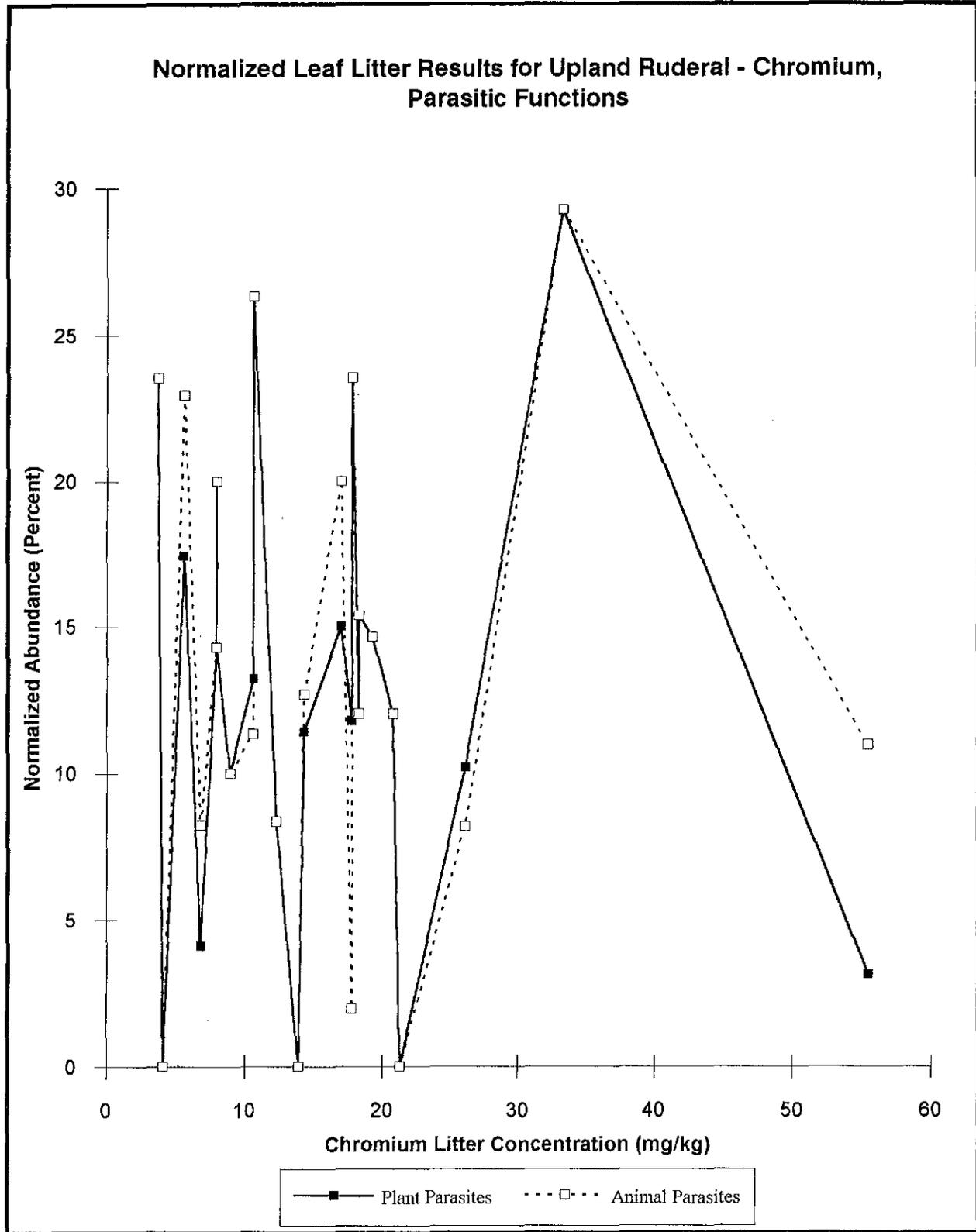


Figure K13a. Normalized Litter Analysis for Upland Ruderal
 21 Transects (Sites 16, 24, 25, 29, and 35) and Reference
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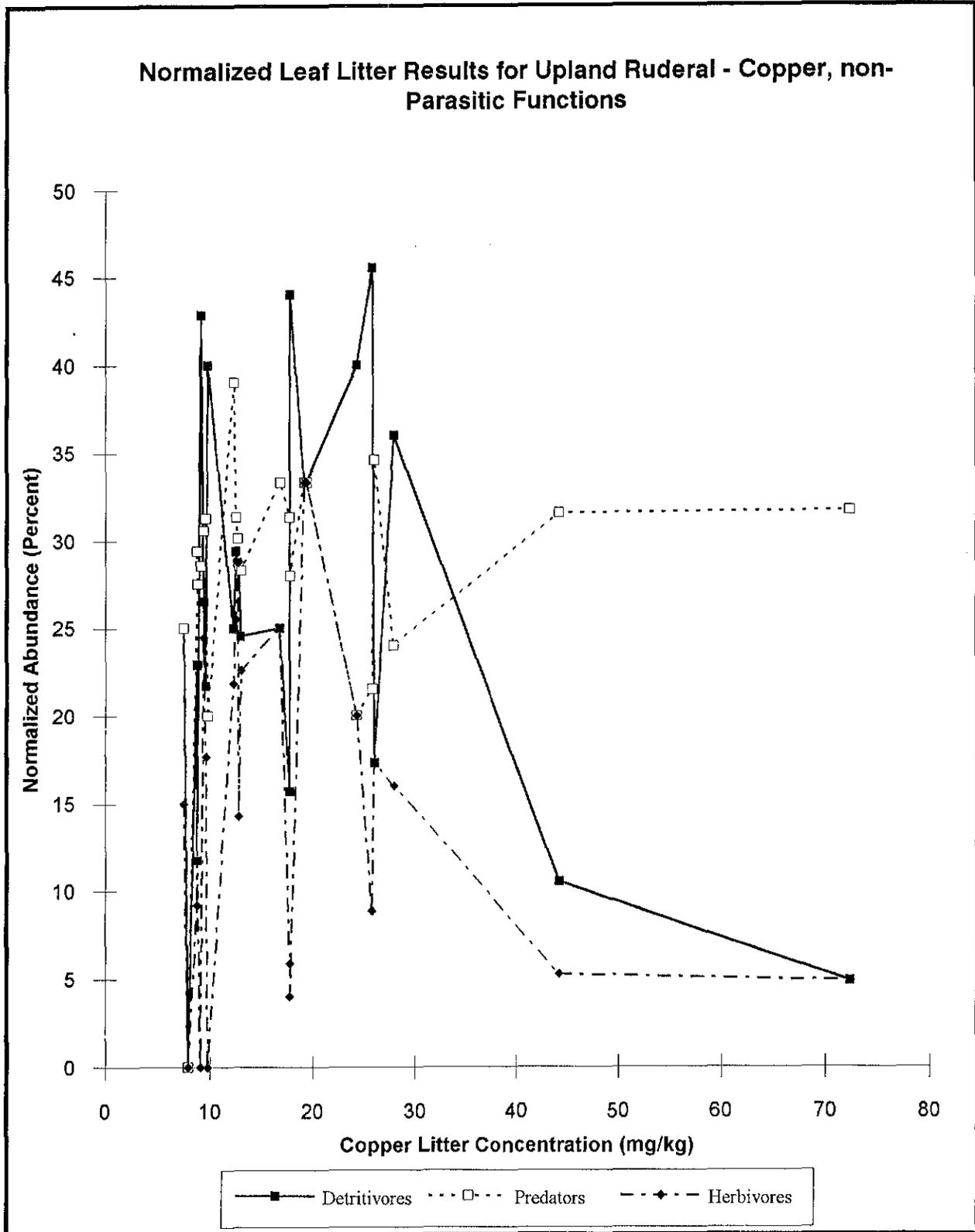


Figure K13b. Normalized Litter Analysis for Upland Ruderal
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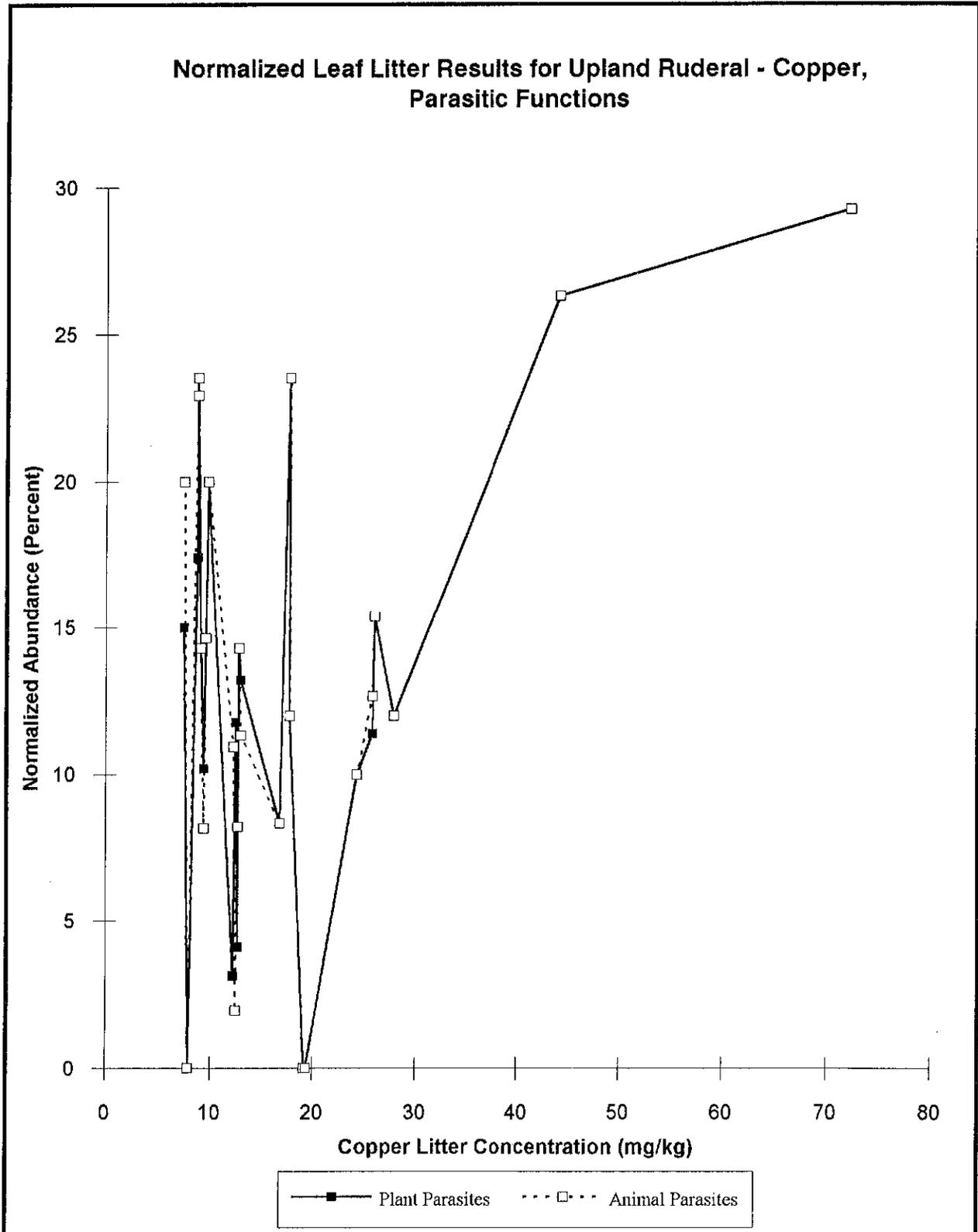


Figure K14a. Normalized Litter Analysis for Upland Ruderal
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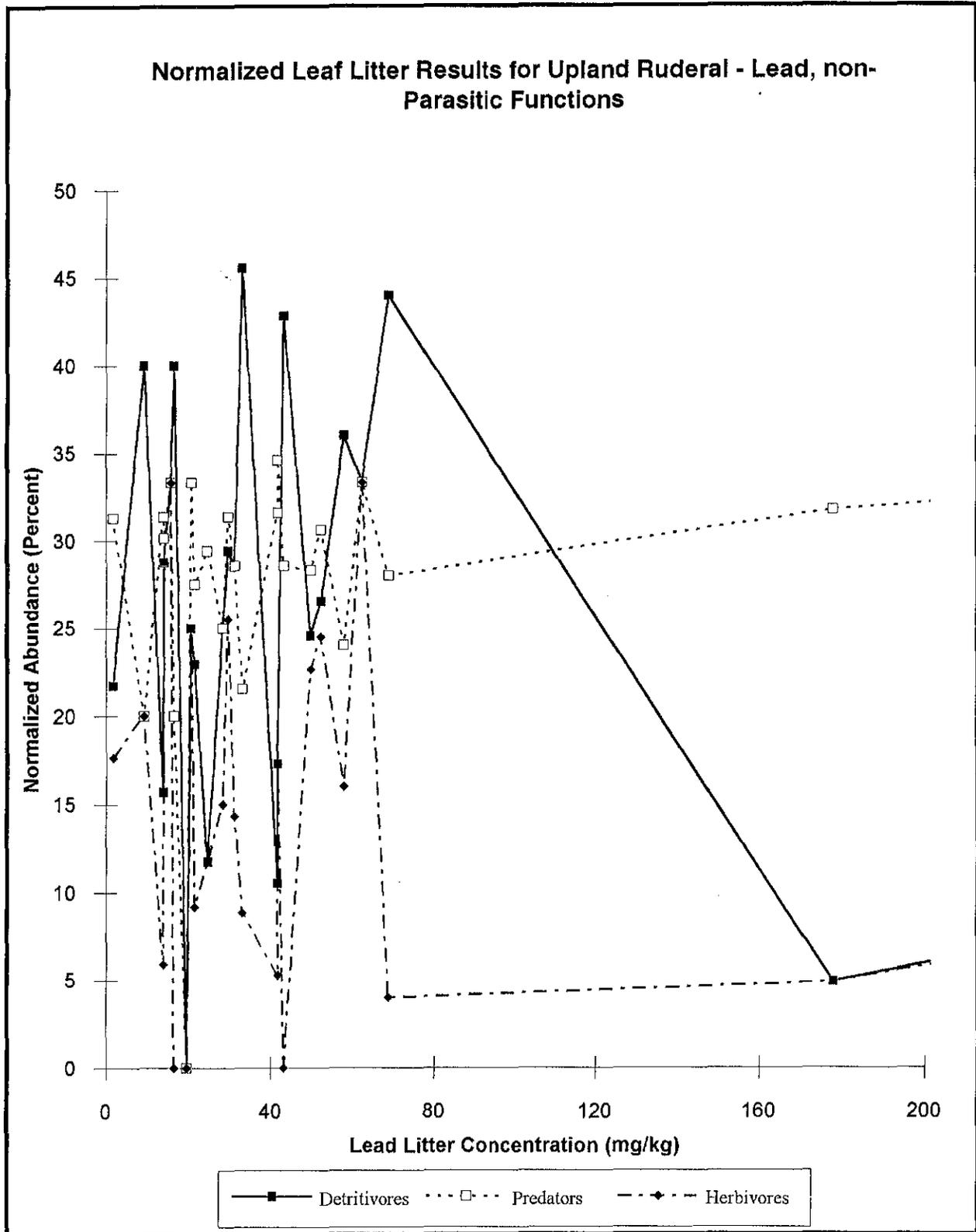


Figure K14b. Normalized Litter Analysis for Upland Ruderal
 21 Transects (Sites 16, 24, 25, 29, and 35) and Reference
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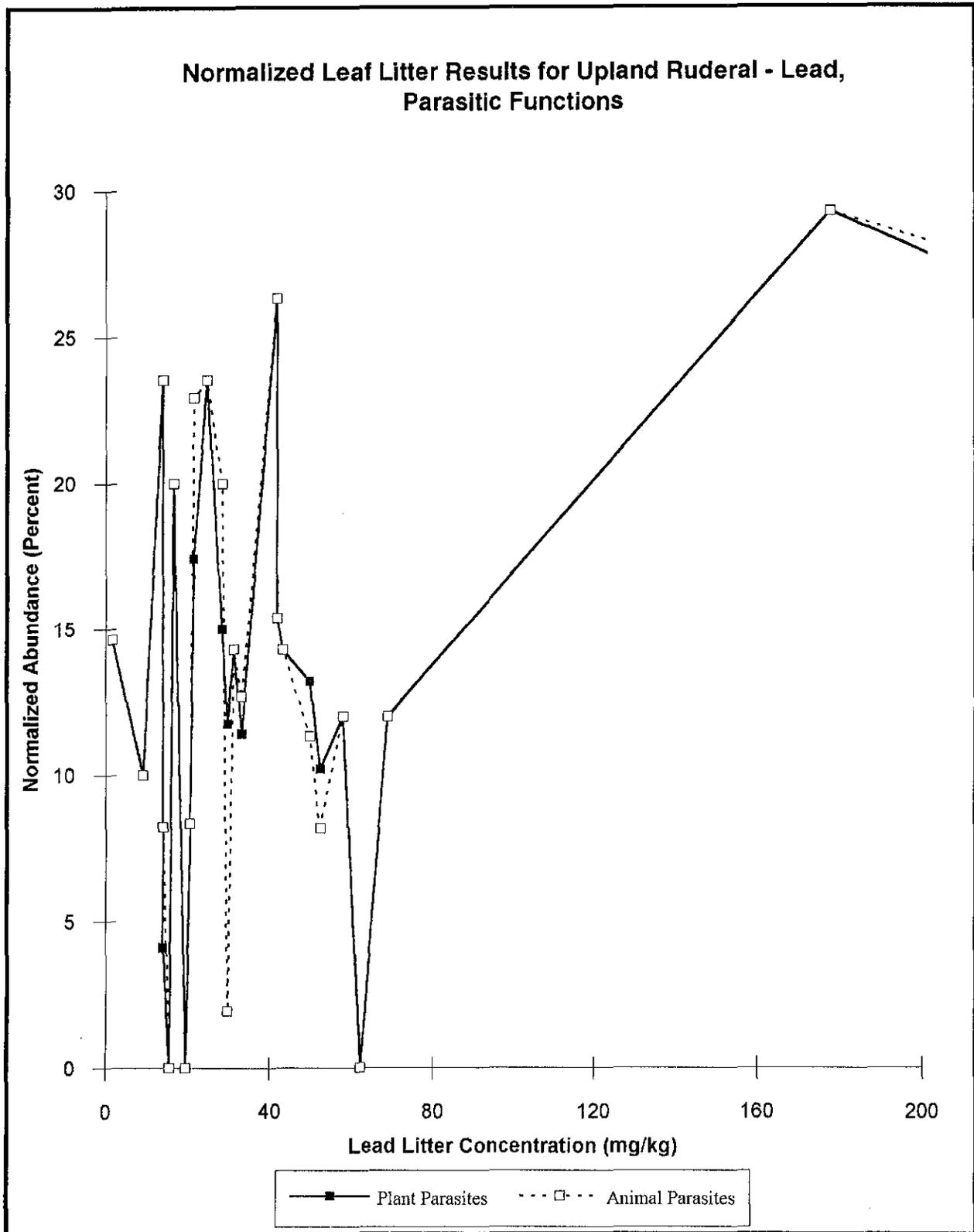


Figure K15a. Normalized Litter Analysis for Upland Ruderal
 21 Transects (Sites 16, 24, 25, 29, and 35) and Reference
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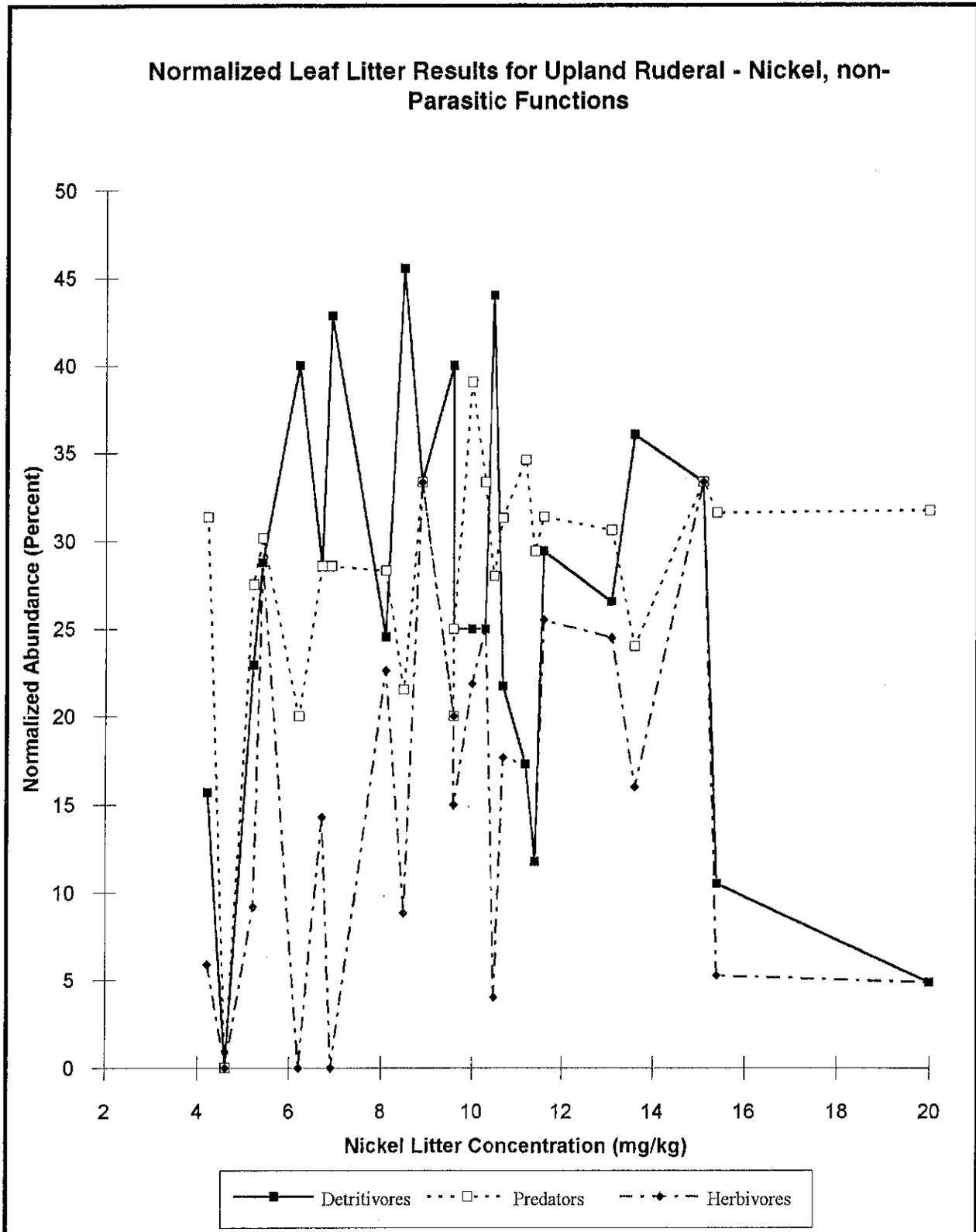


Figure K15b. Normalized Litter Analysis for Upland Ruderal
 21 Transects (Sites 16, 24, 25, 29, and 35) and Reference
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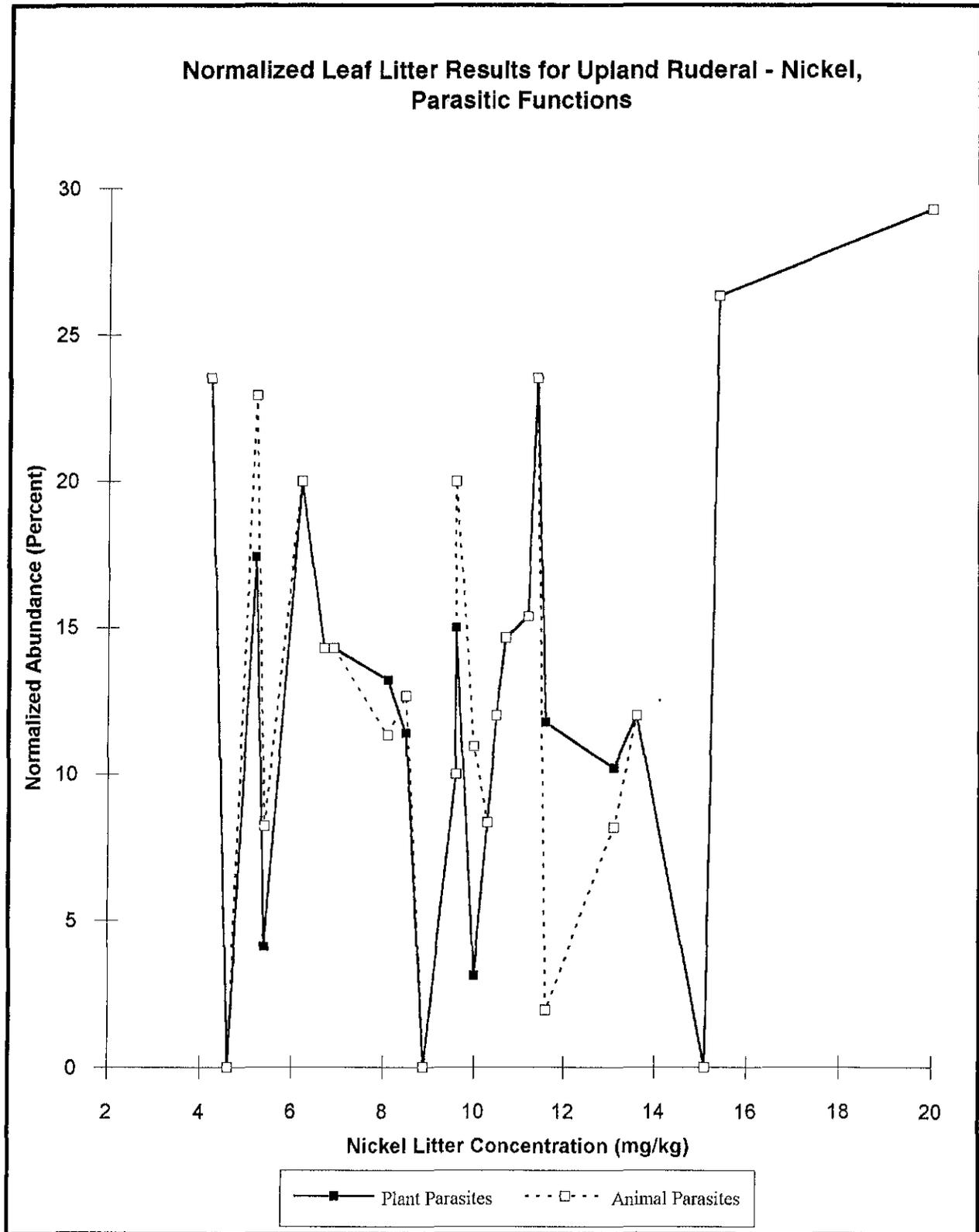


Figure K16a. Normalized Litter Analysis for Upland Ruderal
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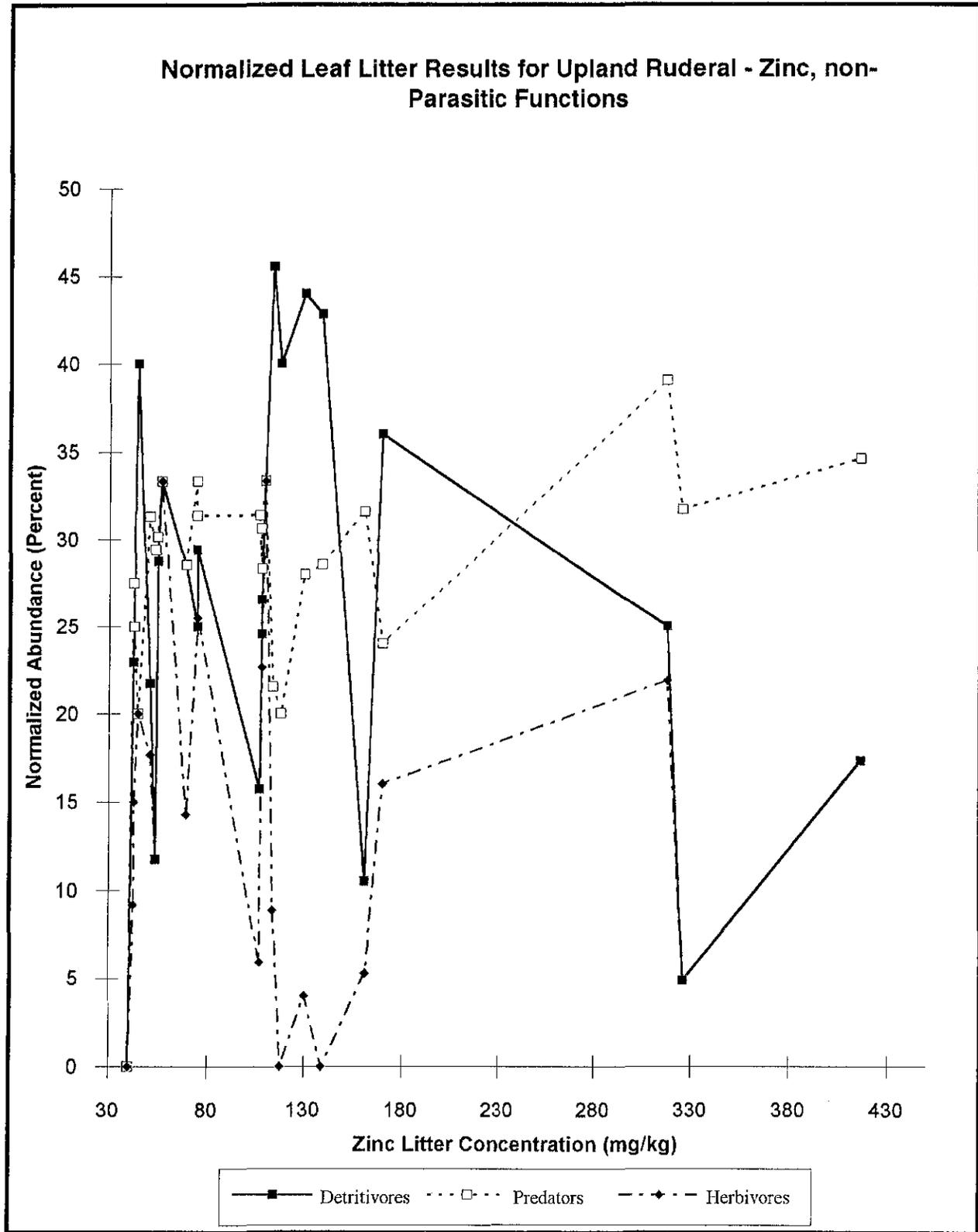


Figure K16b. Normalized Litter Analysis for Upland Ruderal
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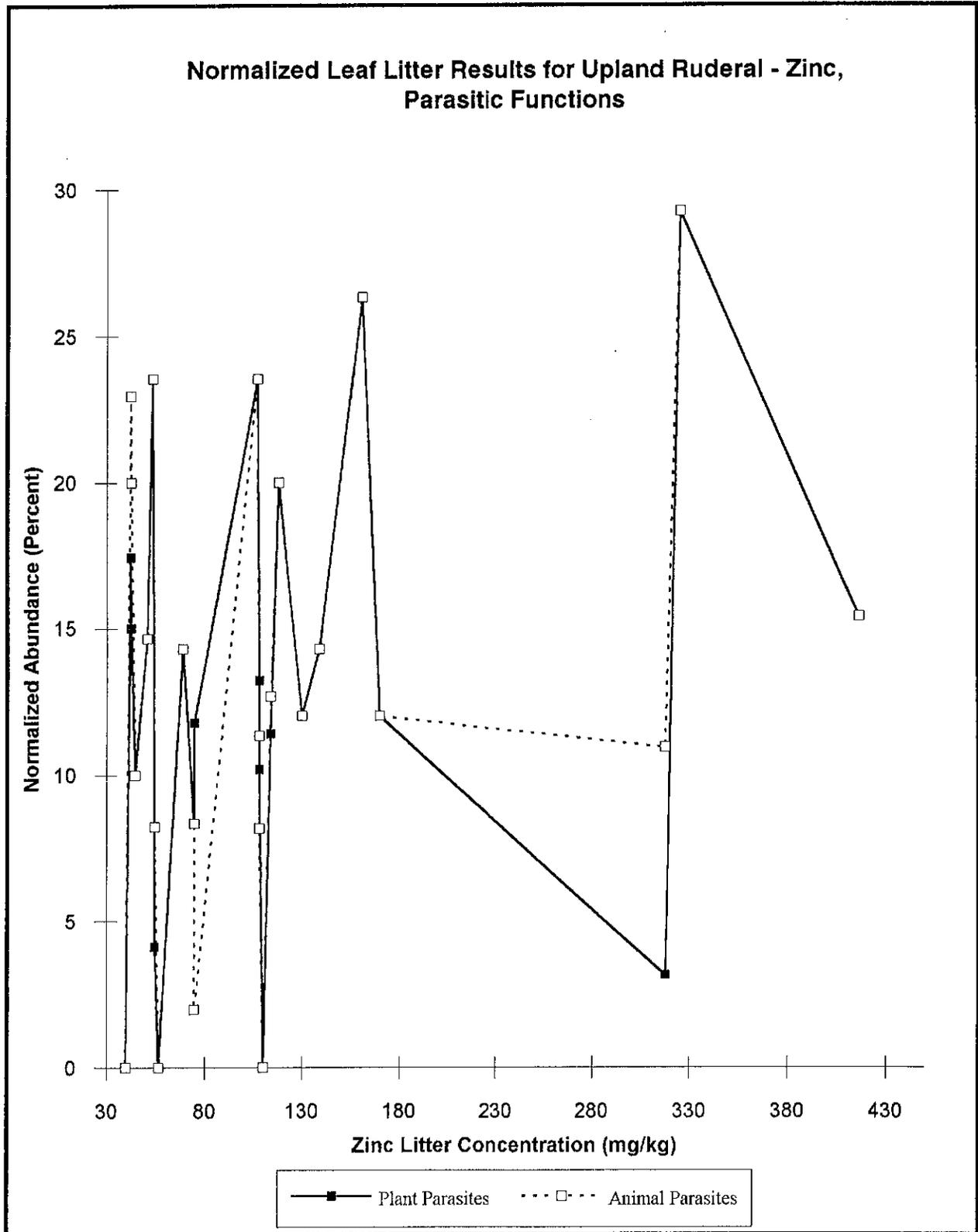


Figure K17a. Normalized Litter Analysis for Central Maritime Chaparral
 11 Transects (Sites 16 and 35) and Reference
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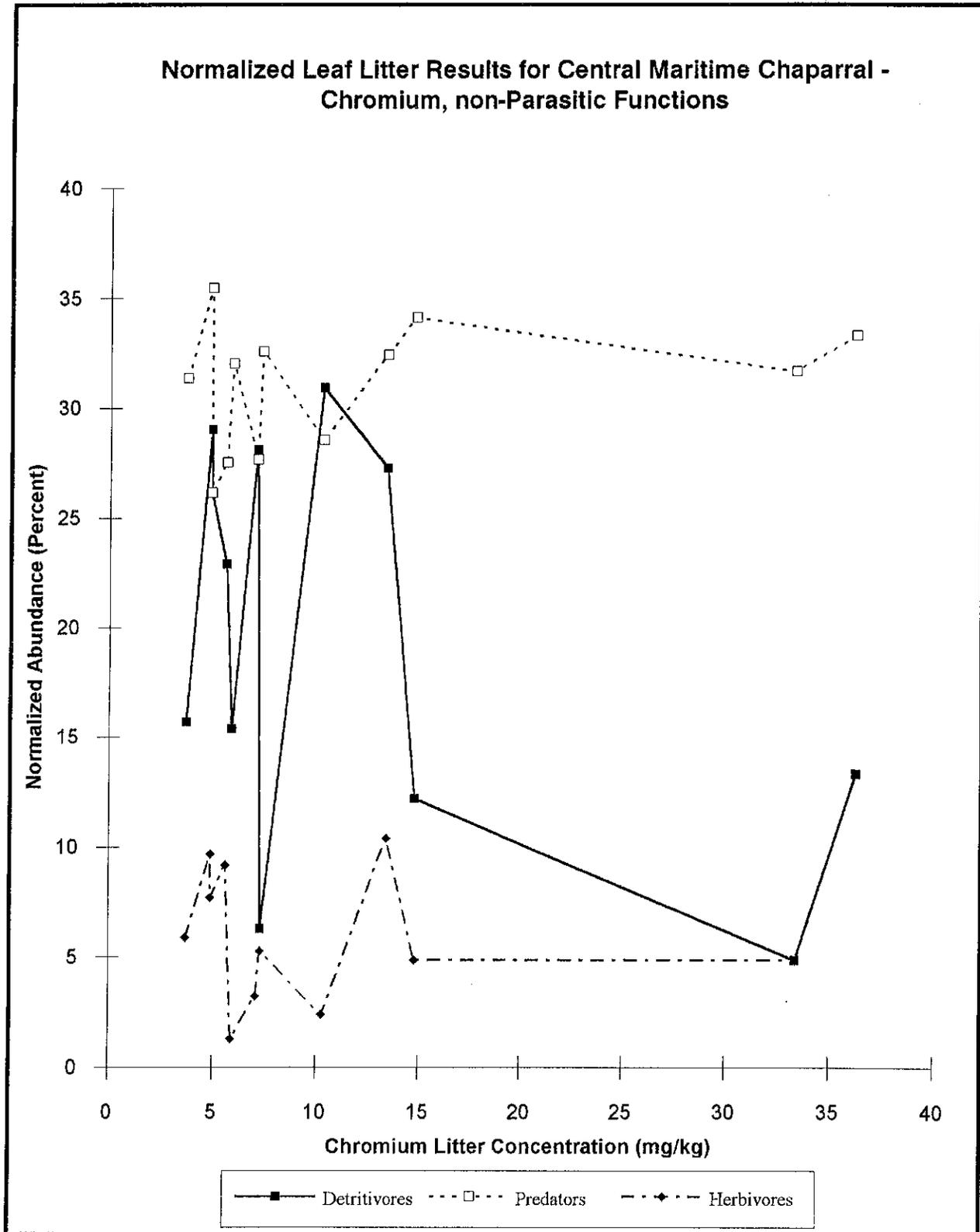


Figure K17b. Normalized Litter Analysis for Central Maritime Chaparral
 11 Transects (Sites 16 and 35) and Reference
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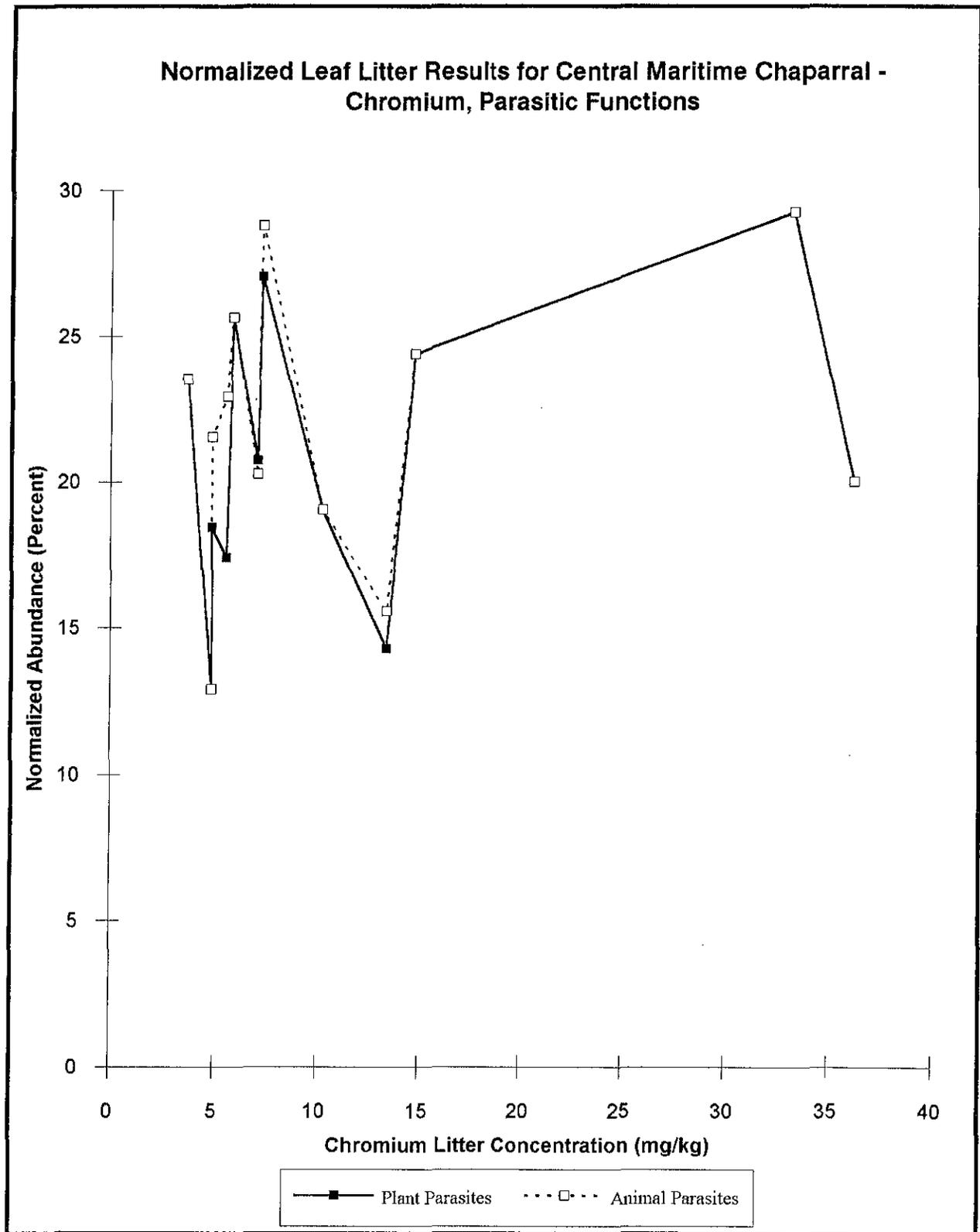


Figure K18a. Normalized Litter Analysis for Central Maritime Chaparral
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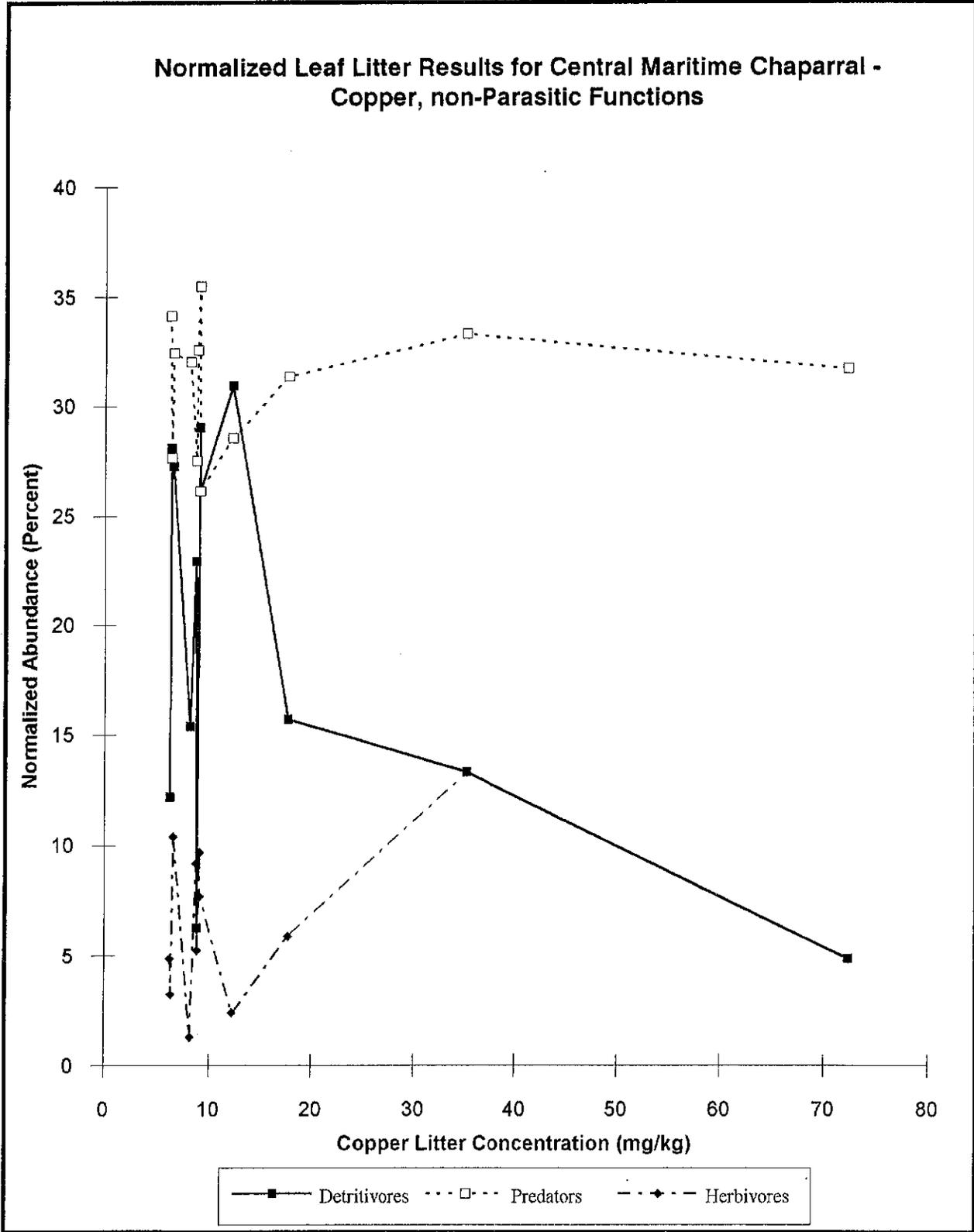


Figure K18b. Normalized Litter Analysis for Central Maritime Chaparral
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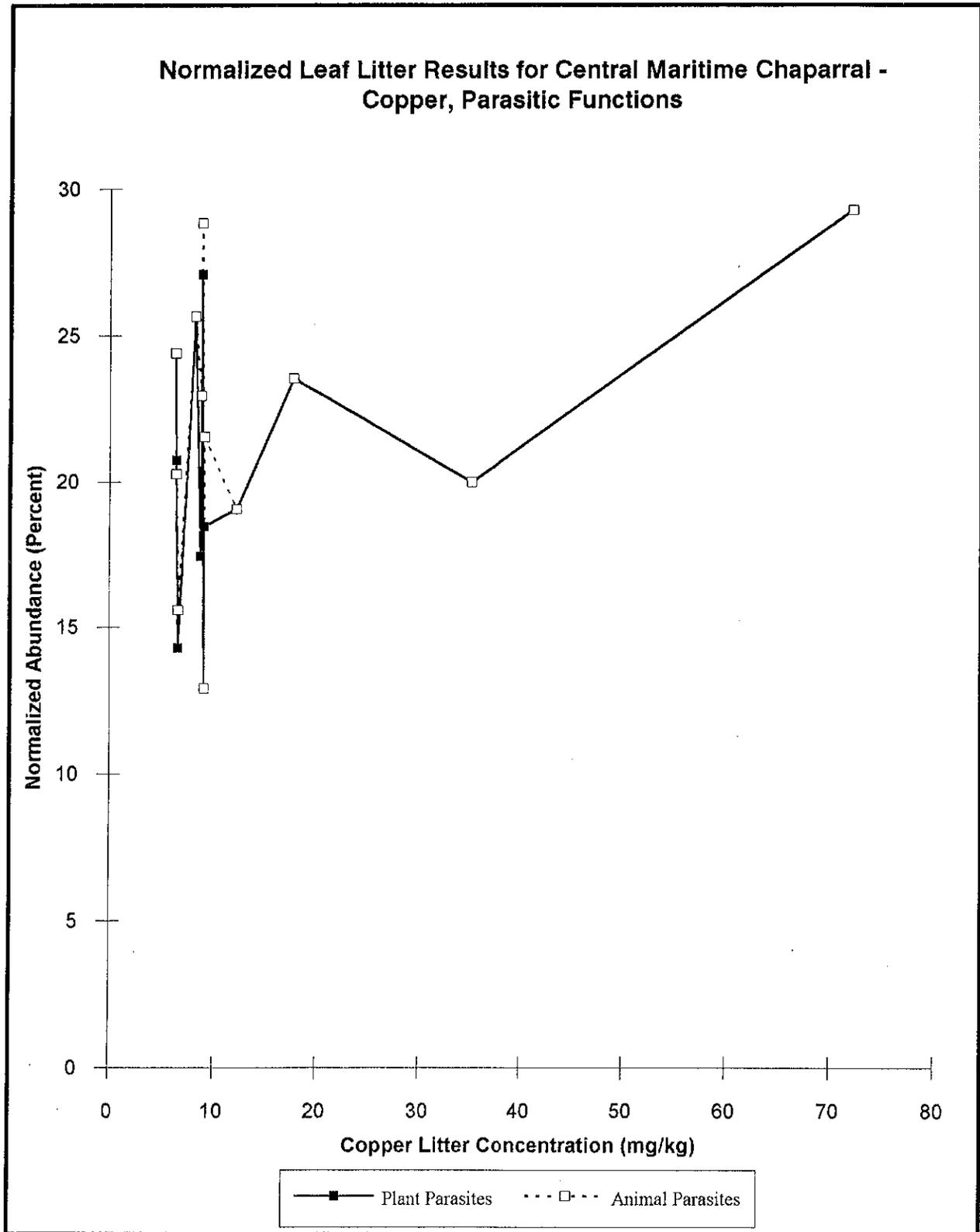


Figure K19a. Normalized Litter Analysis for Central Maritime Chaparral
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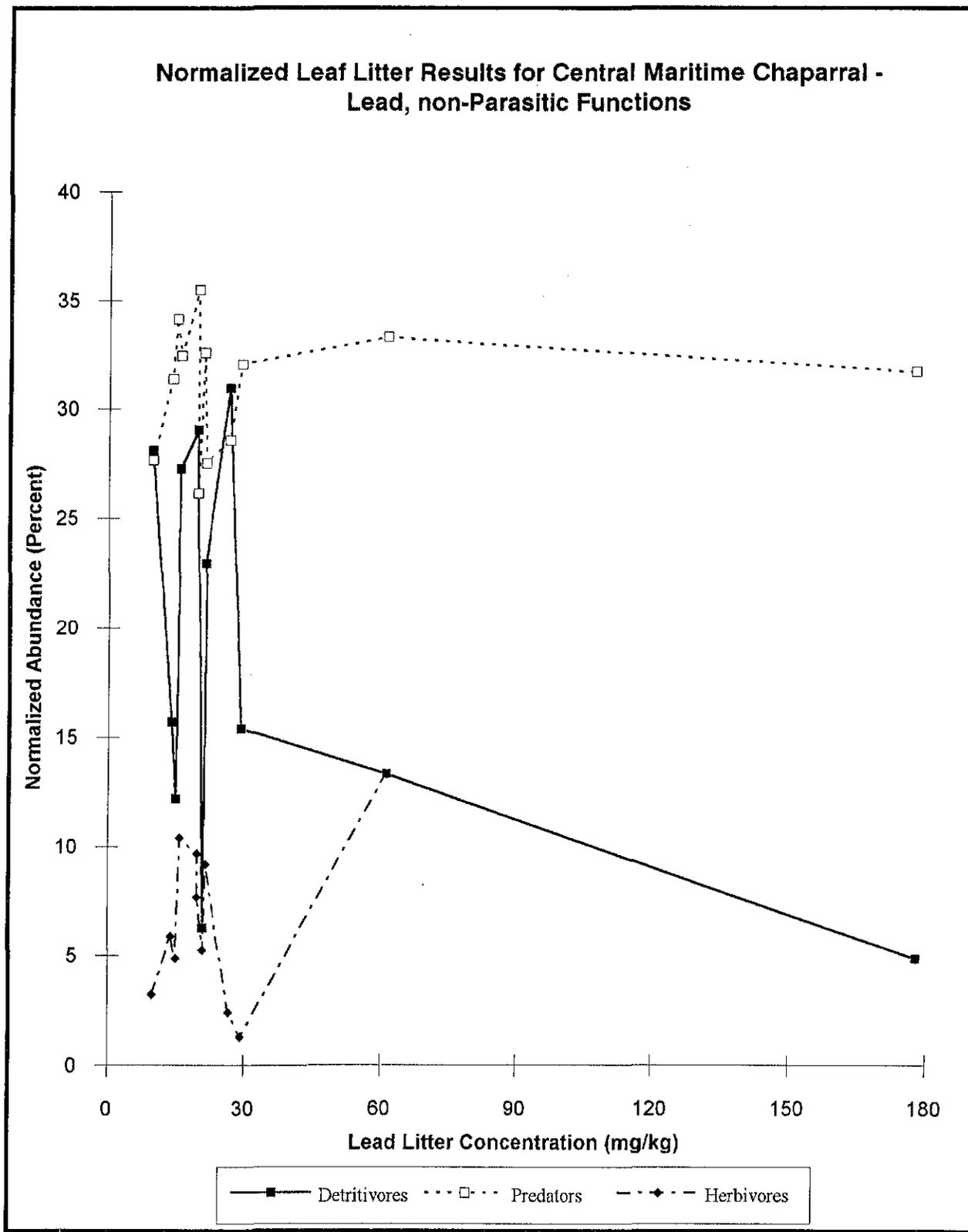


Figure K20a. Normalized Litter Analysis for Central Maritime Chaparral
 11 Transects (Sites 16 and 35) and Reference
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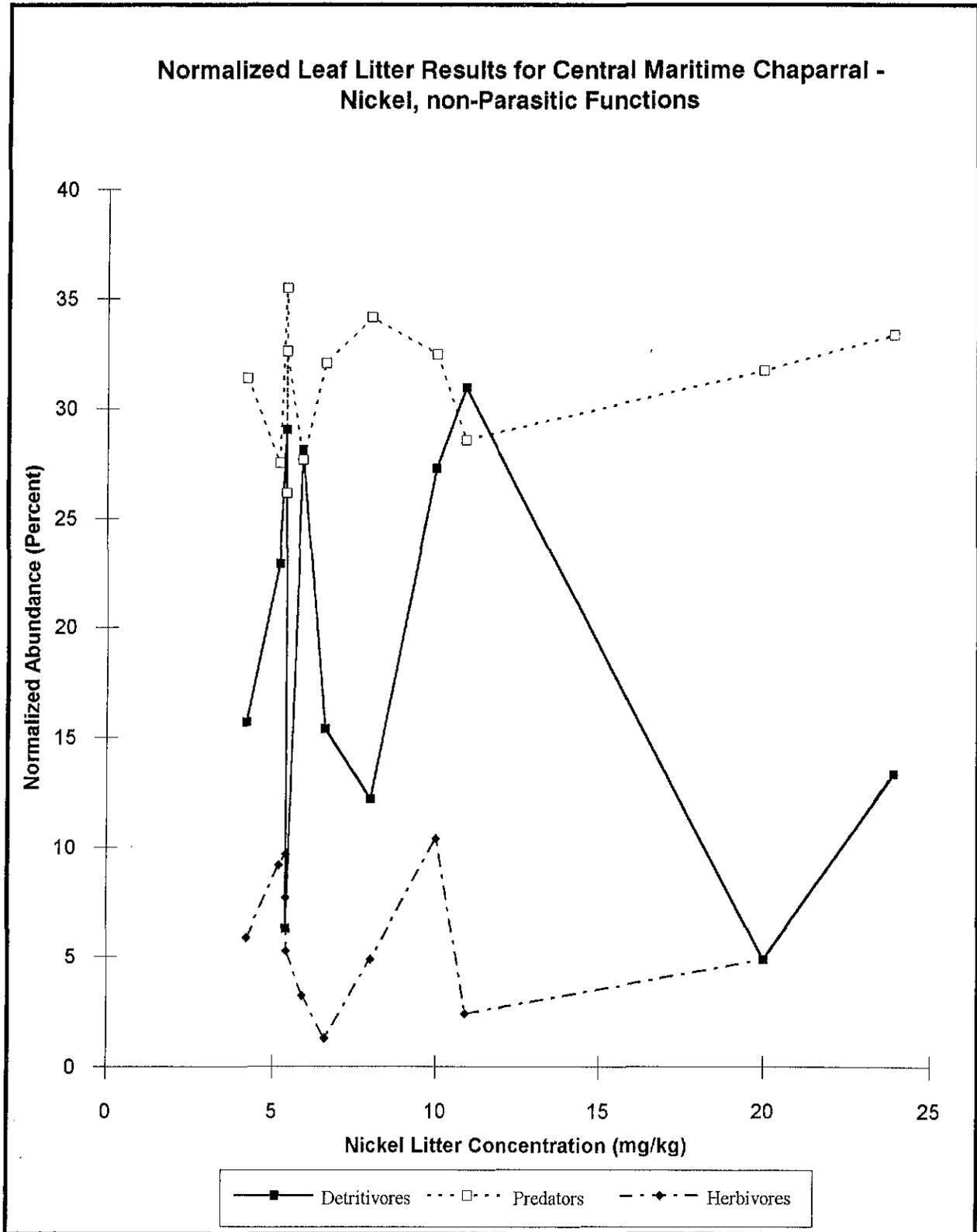


Figure K20b. Normalized Litter Analysis for Central Maritime Chaparral
 11 Transects (Sites 16 and 35) and Reference
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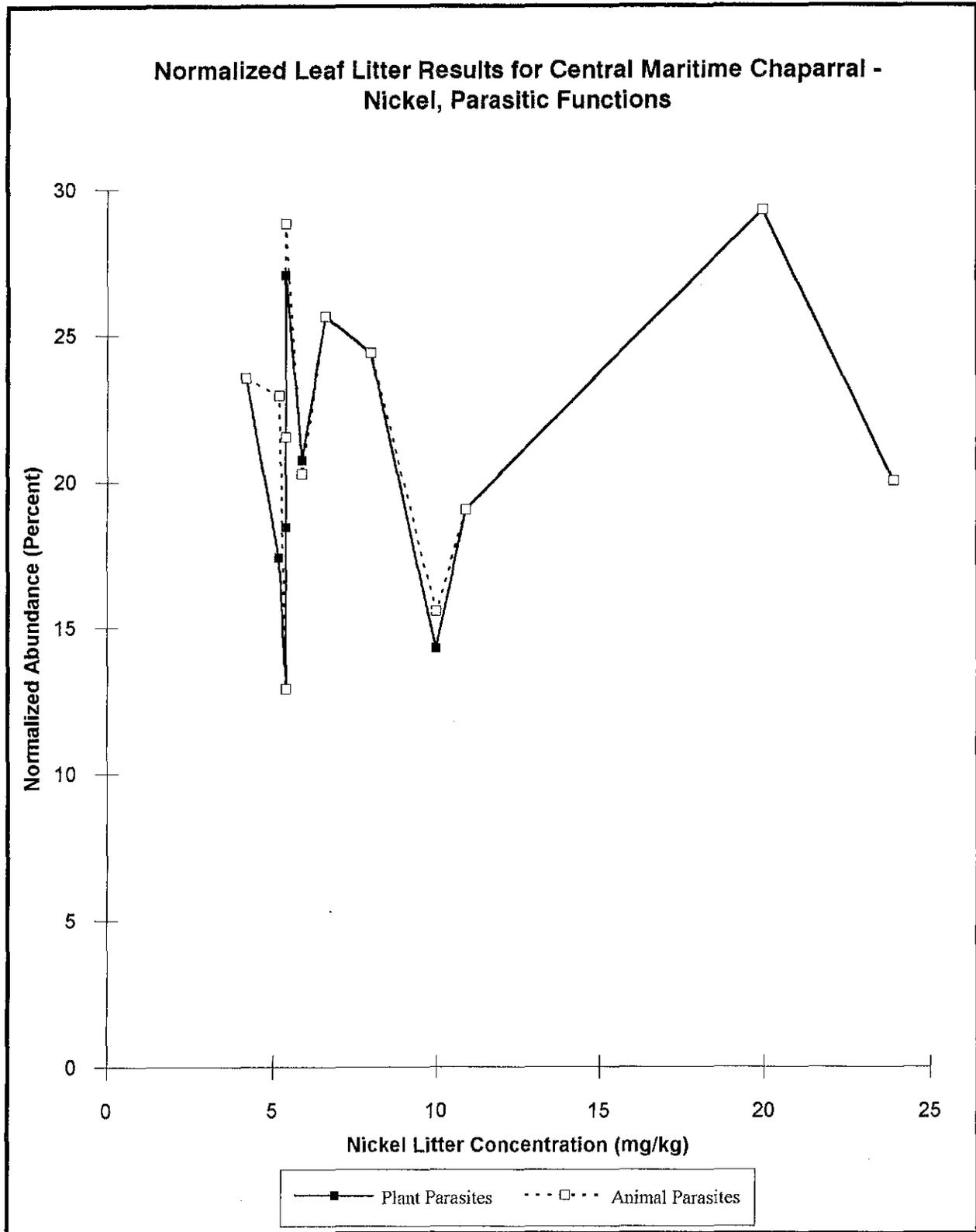


Figure K21a. Normalized Litter Analysis for Central Maritime Chaparral
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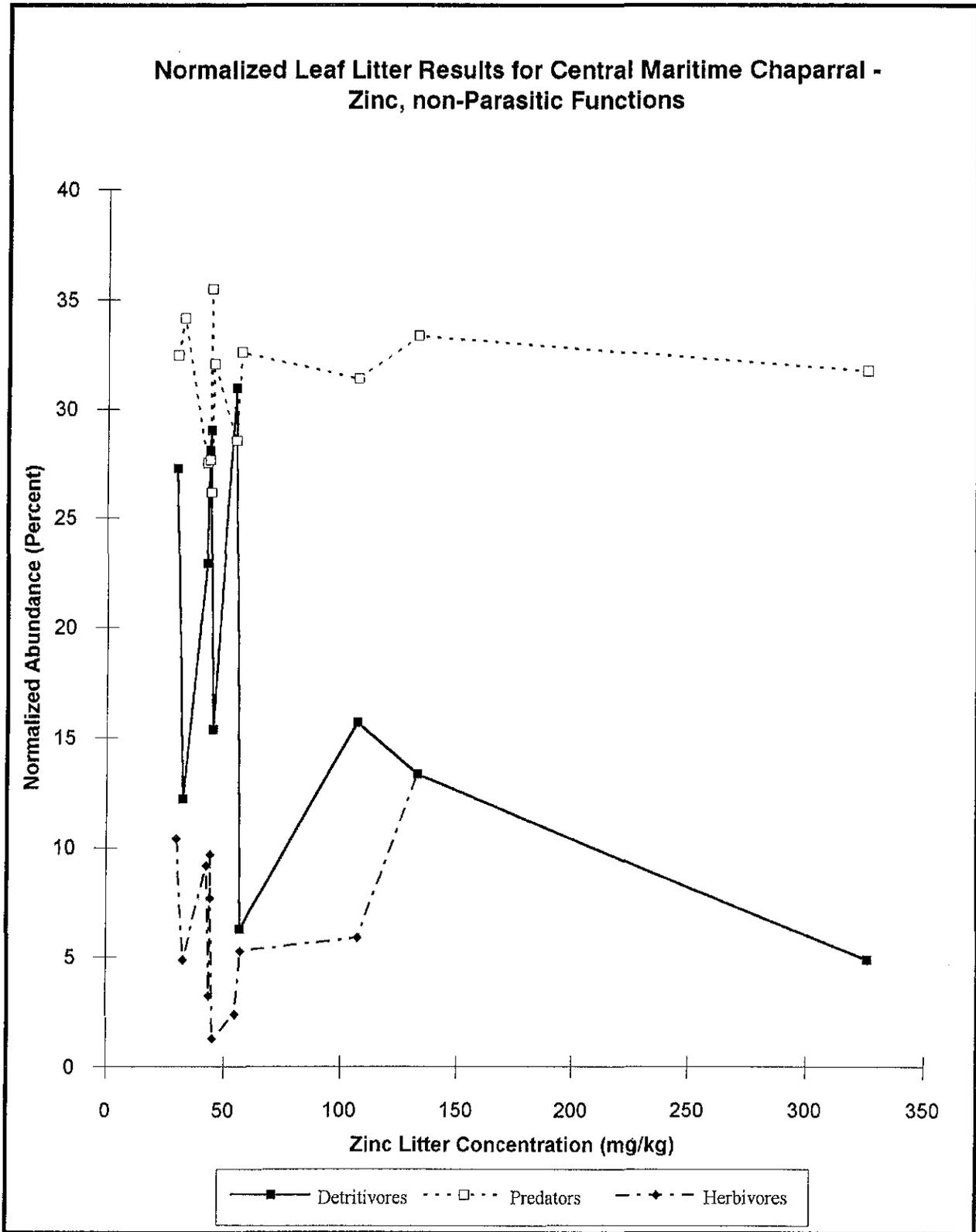


Figure K21b. Normalized Litter Analysis for Central Maritime Chaparral
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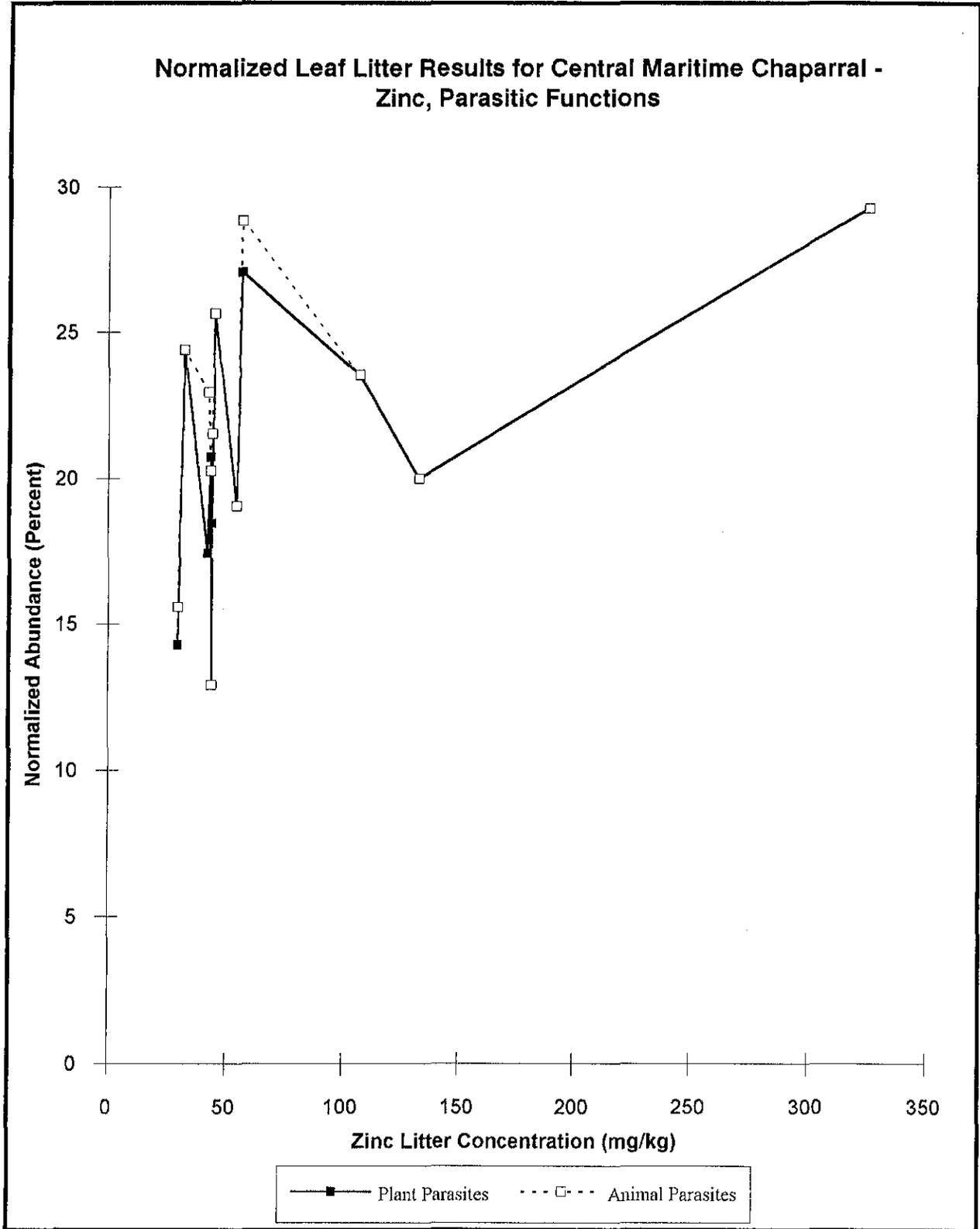


Figure K22b. Normalized Litter Analysis for Coast Live Oak Woodland
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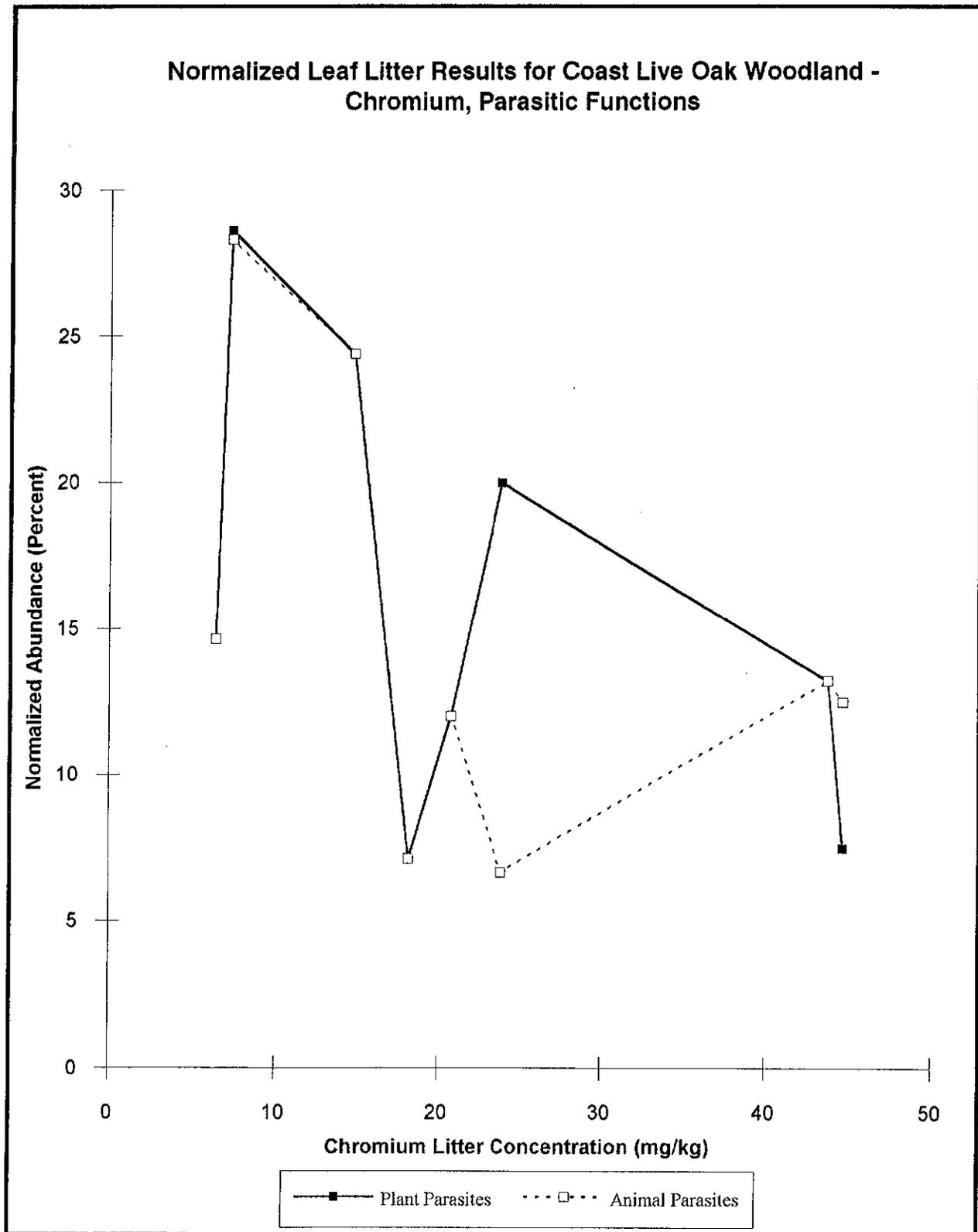


Figure K23a. Normalized Litter Analysis for Coast Live Oak Woodland
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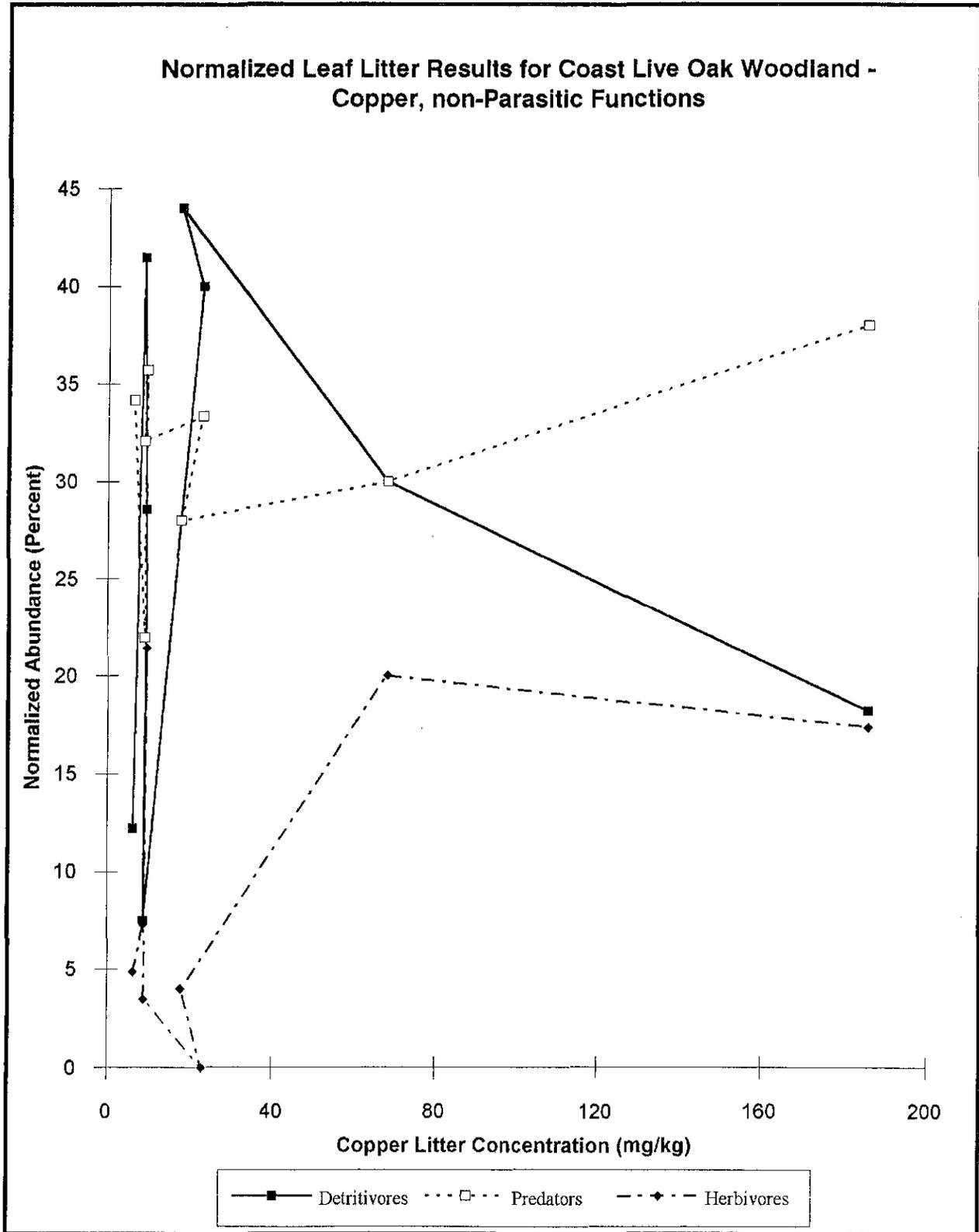


Figure K23b. Normalized Litter Analysis for Coast Live Oak Woodland
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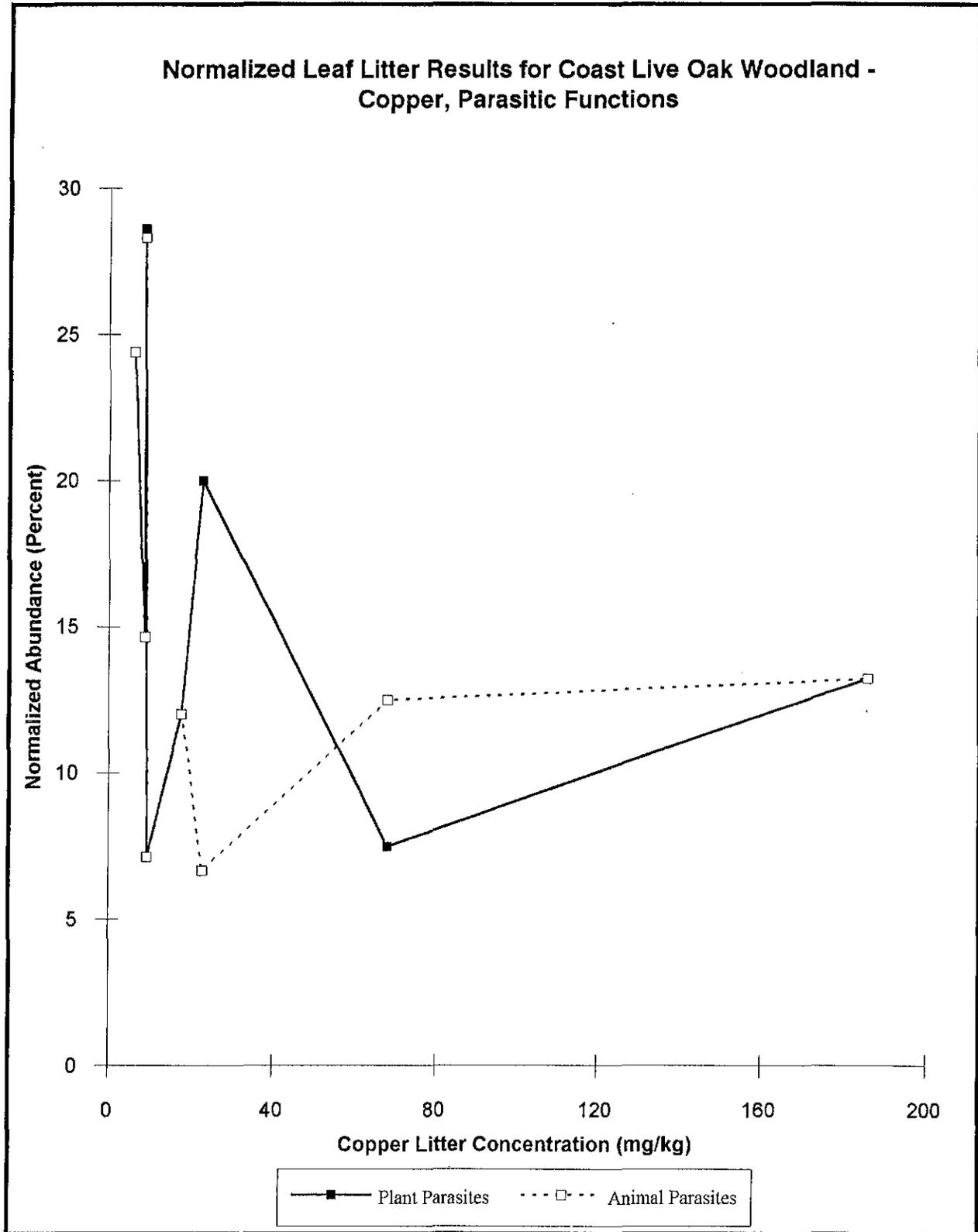


Figure K24a. Normalized Litter Analysis for Coast Live Oak Woodland
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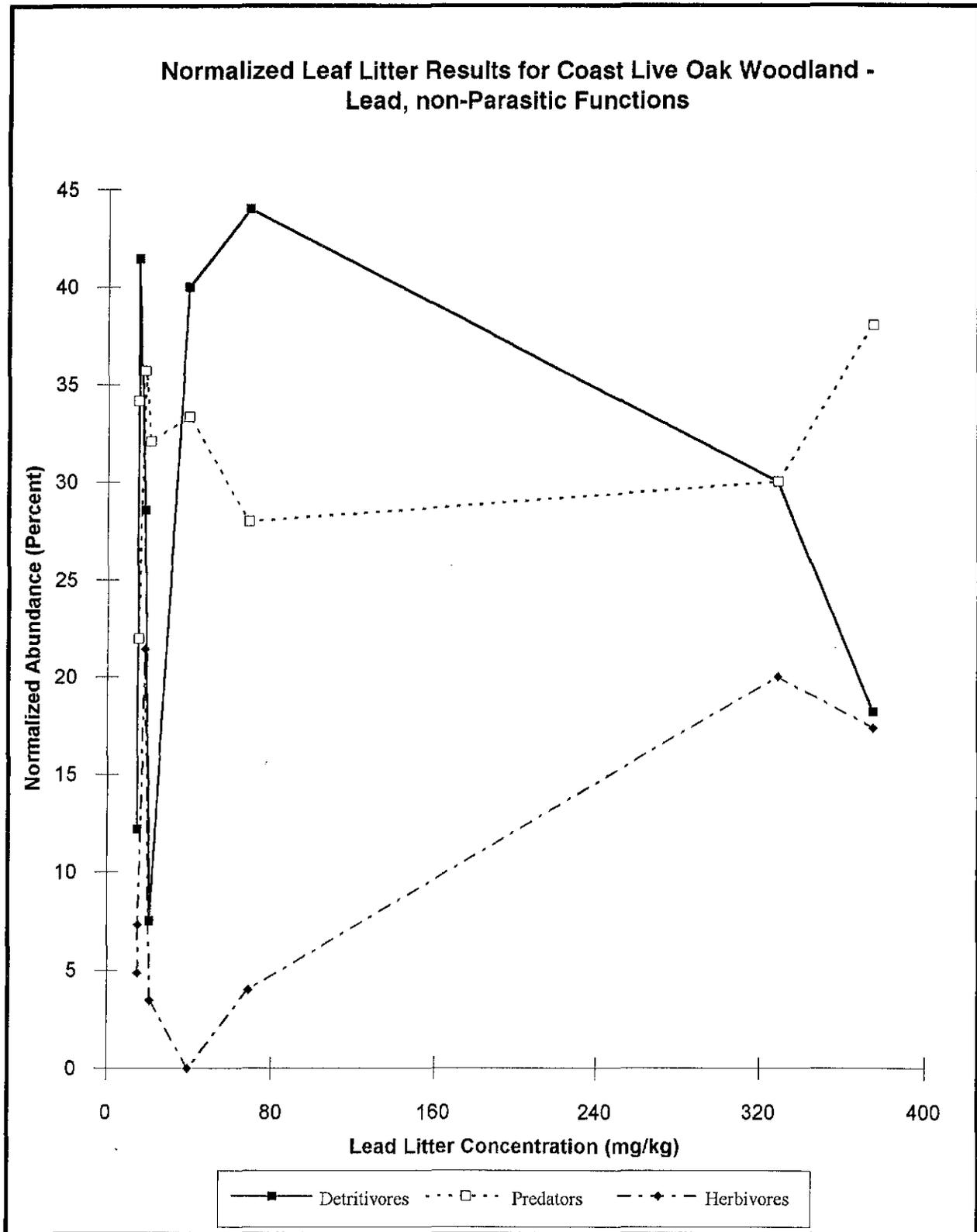


Figure K24b. Normalized Litter Analysis for Coast Live Oak Woodland
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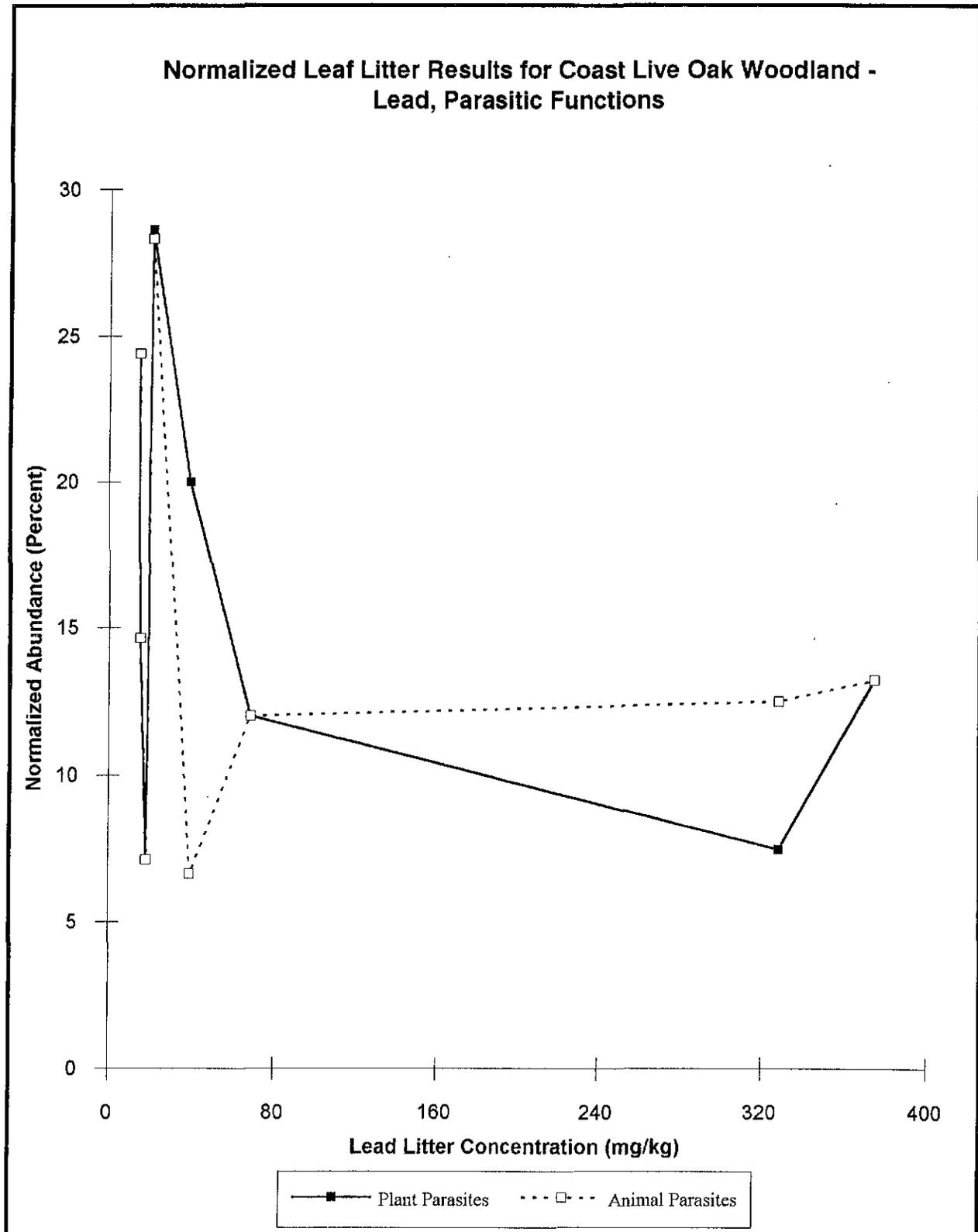


Figure K25a. Normalized Litter Analysis for Coast Live Oak Woodland
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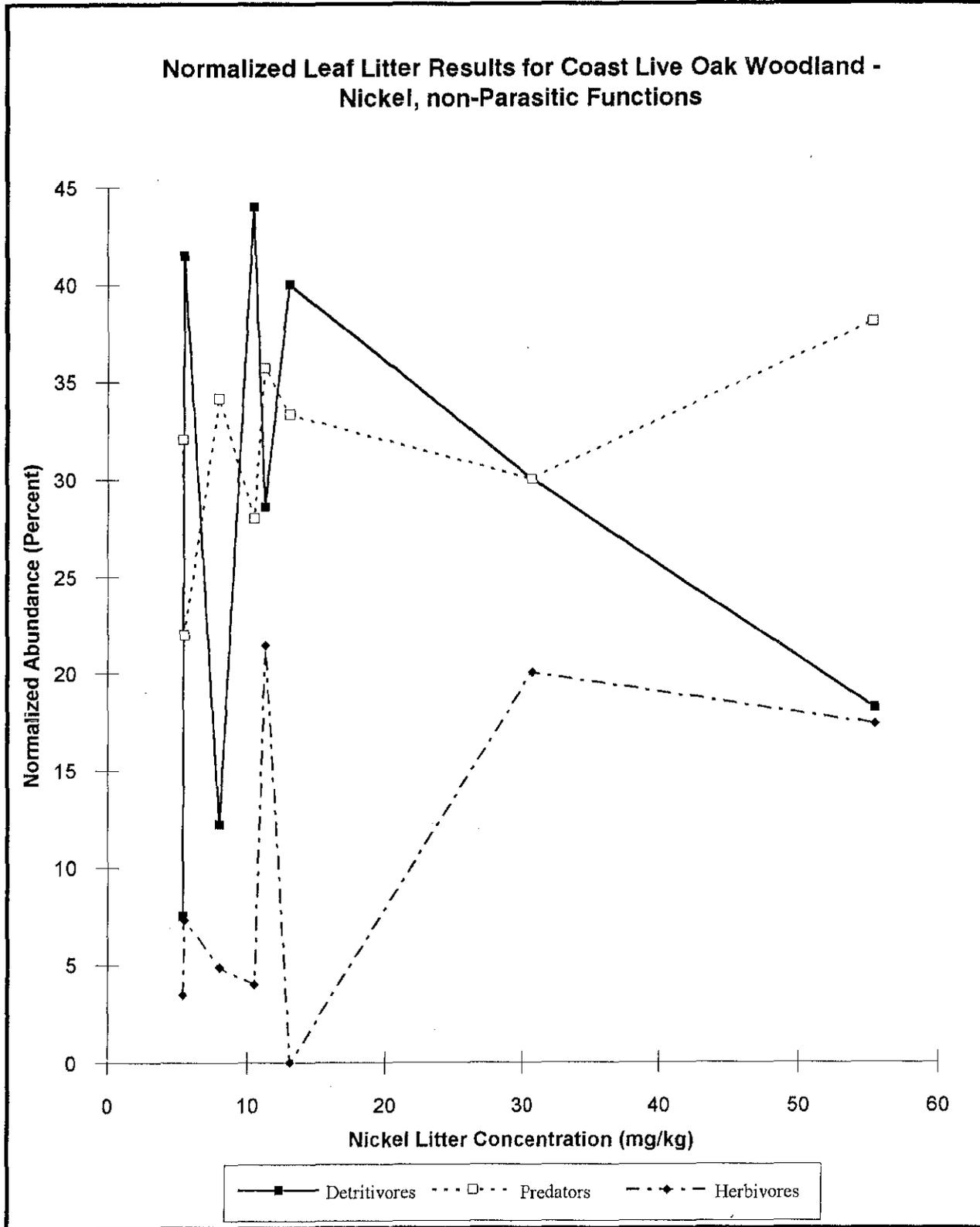


Figure K26a. Normalized Litter Analysis for Coast Live Oak Woodland
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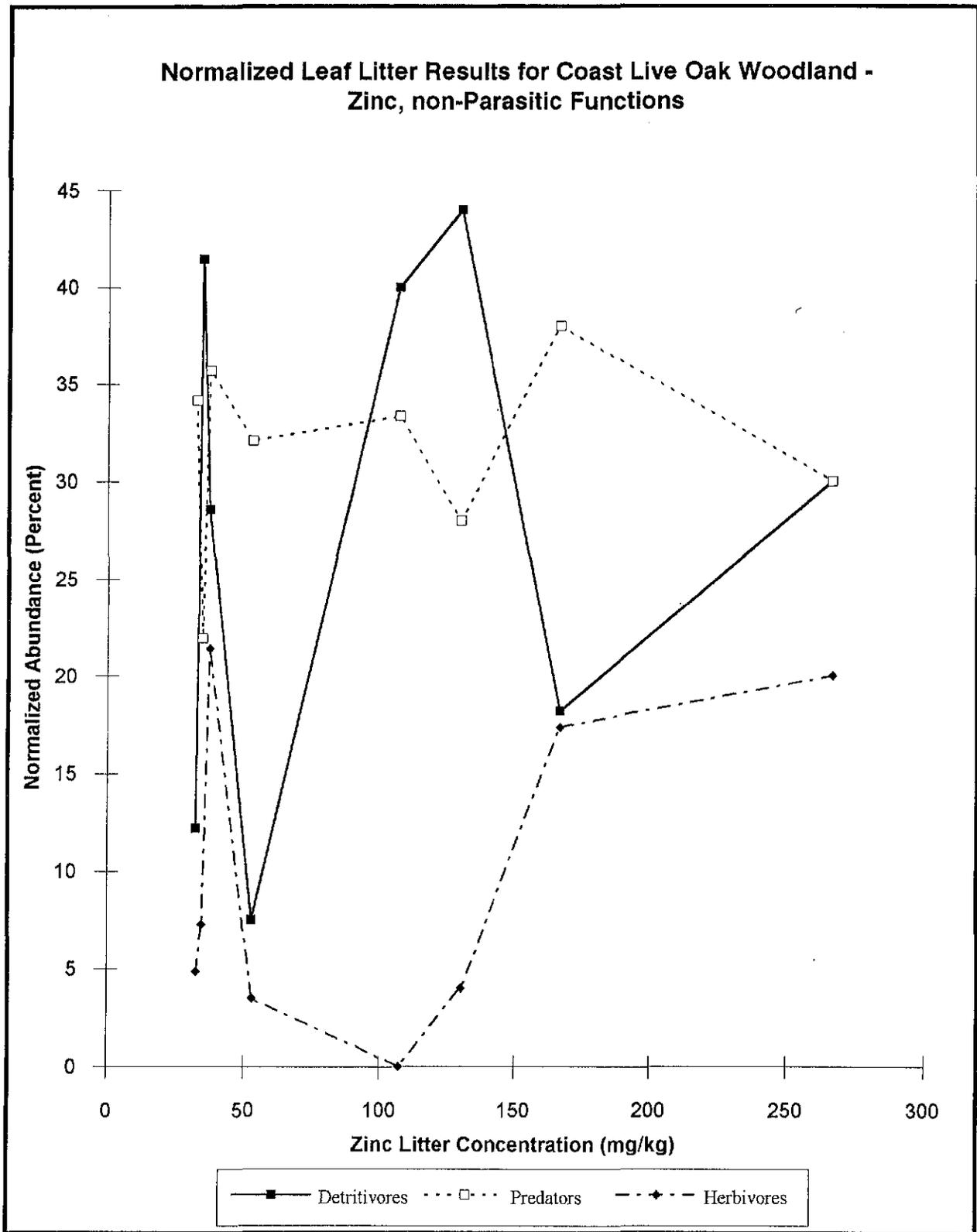
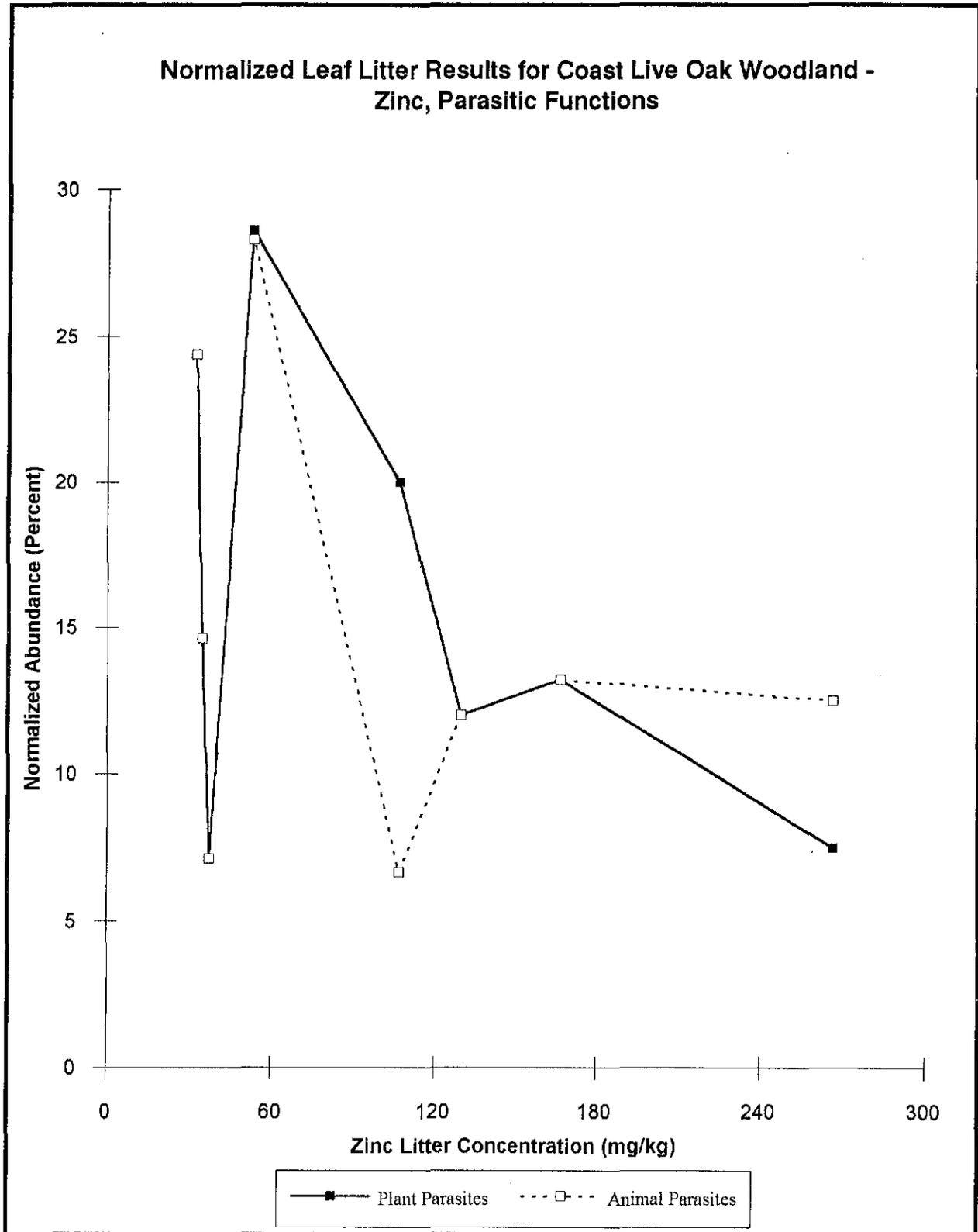


Figure K26b. Normalized Litter Analysis for Coast Live Oak Woodland
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ATTACHMENT A

SUMMARY OF CHEMICAL ANALYSES OF SOIL AND BIOTA

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SUMMARY OF CHEMICAL ANALYSES OF SOIL AND BIOTA (ECOLOGICAL RISK ASSESSMENT ADDENDUM)

The following tables present the updated analytical results for soil and biota samples from sites and reference locations discussed in the Ecological Risk Assessment Addendum, Appendix K, of the ERA for the Basewide RI/FS for Fort Ord, California. Soil samples were of surficial soil (soil taken from 0-0.5 feet), shallow soil (soil taken from >0.5-4.0 feet), or deep soil (soil taken from >4.0-10 feet). Plant, mammal, and litter samples were taken along transects as described in Section 6.1 of the main ERA text. All concentrations are reported in milligrams per kilogram (mg/kg), micrograms per kilogram ($\mu\text{g}/\text{kg}$), nanograms per kilogram (ng/kg), or picograms per kilogram (pg/kg).

Samples were analyzed for different classes of chemicals, including:

- Dioxins/Furans
- Explosives
- Metals
- Pesticides
- PCBs (Polychlorinated biphenyls)
- PAHs (Polycyclic aromatic hydrocarbons).

**Table A2. Shallow Soil Analytical Results - Site 1
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Arsenic	mg/kg	1 / 1	100.0%	2.20	2.20	--	--	--
Chromium	mg/kg	1 / 1	100.0%	13.00	13.00	--	--	--
Copper	mg/kg	1 / 1	100.0%	4.70	4.70	--	--	--
Lead	mg/kg	1 / 1	100.0%	8.60	8.60	--	--	--
Mercury	mg/kg	1 / 1	100.0%	0.24	0.24	--	--	--
Nickel	mg/kg	1 / 1	100.0%	7.90	7.90	--	--	--
Zinc	mg/kg	1 / 1	100.0%	22.70	22.70	--	--	--

**Table A3. Deep Soil Analytical Results - Site 1
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
<u>VOCs</u>								
Acetone	ug/kg	5 / 11	45.5%	5.70	17.00	7.41	3.82	9.48
Chloromethane	ug/kg	1 / 11	9.1%	16.00	16.00	6.05	3.30	7.84
Methylene chloride	ug/kg	4 / 11	36.4%	3.00	5.00	2.96	0.75	3.37
<u>SOCs</u>								
Diethyl phthalate	ug/kg	6 / 15	40.0%	190.00	270.00	190.00	32.07	204.52
Bis(2-ethylhexyl)phthalate	ug/kg	1 / 15	6.7%	420.00	420.00	189.33	64.22	218.40
<u>METALS</u>								
Arsenic	mg/kg	14 / 15	93.3%	1.10	2.10	1.62	0.38	1.79
Beryllium	mg/kg	2 / 15	13.3%	0.22	0.23	0.12	6.34E-02	0.15
Chromium	mg/kg	13 / 15	86.7%	6.50	20.90	9.24	4.90	11.46
Copper	mg/kg	2 / 15	13.3%	1.40	5.20	1.58	1.06	2.06
Lead	mg/kg	12 / 15	80.0%	0.67	3.10	1.39	0.80	1.75
Nickel	mg/kg	9 / 15	60.0%	3.70	13.30	6.22	3.64	7.87
Silver	mg/kg	1 / 11	9.1%	0.43	0.43	0.20	7.56E-02	0.24
Zinc	mg/kg	15 / 15	100.0%	5.60	20.00	9.59	4.27	11.52

**Table A4. Surficial Soil Analytical Results - Site 2
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Antimony	mg/kg	2 / 7	28.6%	1.30	23.10	4.04	8.47	10.11
Arsenic	mg/kg	7 / 7	100.0%	1.40	3.70	2.41	0.80	2.99
Beryllium	mg/kg	1 / 7	14.3%	0.23	0.23	0.12	5.24E-02	0.15
Cadmium	mg/kg	2 / 7	28.6%	0.90	17.50	2.92	6.43	7.53
Chromium	mg/kg	7 / 7	100.0%	9.60	90.80	26.33	28.77	46.94
Copper	mg/kg	3 / 7	42.9%	6.50	1160.00	178.29	433.68	488.92
Lead	mg/kg	7 / 7	100.0%	5.70	181.00	35.54	64.66	81.86
Mercury	mg/kg	6 / 7	85.7%	0.19	5.30	1.22	1.86	2.55
Nickel	mg/kg	5 / 7	71.4%	6.00	31.30	10.26	9.81	17.28
Selenium	mg/kg	1 / 7	14.3%	8.40	8.40	1.53	3.03	3.70
Silver	mg/kg	4 / 7	57.1%	0.50	58.60	10.10	21.64	25.59
Thallium	mg/kg	1 / 7	14.3%	0.60	0.60	0.27	0.15	0.37
Zinc	mg/kg	3 / 7	42.9%	8.50	1550.00	259.49	571.79	669.03

**Table A5. Shallow Soil Analytical Results - Site 2
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Chromium	mg/kg	1 / 1	100.0%	22.90	22.90	--	--	--
Copper	mg/kg	1 / 1	100.0%	3.70	3.70	--	--	--
Nickel	mg/kg	1 / 1	100.0%	8.80	8.80	--	--	--
Zinc	mg/kg	1 / 1	100.0%	20.40	20.40	--	--	--

**Table A6. Deep Soil Analytical Results - Site 2
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Arsenic	mg/kg	2 / 4	50.0%	1.80	4.00	2.11	1.29	3.48
Chromium	mg/kg	4 / 4	100.0%	18.90	30.20	24.50	5.72	30.60
Copper	mg/kg	4 / 4	100.0%	3.50	4.60	4.13	0.56	4.72
Lead	mg/kg	2 / 4	50.0%	1.40	1.40	0.93	0.60	1.56
Nickel	mg/kg	4 / 4	100.0%	8.90	19.00	14.43	4.79	19.53
Zinc	mg/kg	4 / 4	100.0%	16.70	31.60	21.03	7.10	28.59

**Table A7. Surficial Soil Analytical Results - Site 3
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Antimony	mg/kg	15 / 38	39.5%	1.20	3360.00	294.37	750.92	494.75
Arsenic	mg/kg	13 / 13	100.0%	1.00	10.70	2.33	2.64	3.63
Chromium	mg/kg	40 / 40	100.0%	3.80	53.80	18.02	10.49	20.75
Copper	mg/kg	41 / 41	100.0%	0.65	19900.00	808.04	3147.47	1616.64
Lead	mg/kg	34 / 40	85.0%	3.10	47500.00	6885.84	13507.31	10399.05
Mercury	mg/kg	1 / 13	7.7%	5.00E-02	5.00E-02	2.73E-02	6.86E-03	3.06E-02
Nickel	mg/kg	12 / 13	92.3%	6.30	15.40	9.75	3.66	11.55
Silver	mg/kg	1 / 13	7.7%	0.89	0.89	0.28	0.18	0.37
Tin (total)	mg/kg	10 / 27	37.0%	1.00	67.40	5.75	13.75	10.26
Zinc	mg/kg	39 / 40	97.5%	8.20	2160.00	114.02	345.46	203.87

**Table A8. Shallow Soil Analytical Results - Site 3
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Antimony	mg/kg	7 / 34	20.6%	9.30	82.70	9.85	18.97	15.20
Chromium	mg/kg	40 / 40	100.0%	3.20	46.90	16.54	9.16	18.92
Copper	mg/kg	40 / 40	100.0%	0.47	2020.00	172.99	493.93	301.46
Lead	mg/kg	17 / 40	42.5%	12.00	14900.00	906.43	2709.66	1611.21
Tin (total)	mg/kg	3 / 40	7.5%	1.50	3.70	0.64	0.56	0.79
Zinc	mg/kg	38 / 40	95.0%	6.30	240.00	32.21	57.27	47.10

**Table A9. Deep Soil Analytical Results - Site 3
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
Cation Exchange Capacity as N	meq/1	2 / 2	100.0%	6.10	8.70	7.40	1.84	11.20
METALS								
Chromium	mg/kg	2 / 2	100.0%	10.90	23.10	17.00	8.63	34.81
Copper	mg/kg	2 / 2	100.0%	2.70	113.00	57.85	77.99	218.89
Iron	mg/kg	2 / 2	100.0%	4830.00	9440.00	7135.00	3259.76	13865.60
Lead	mg/kg	2 / 2	100.0%	11.00	164.00	87.50	108.19	310.88
Zinc	mg/kg	2 / 2	100.0%	9.60	28.80	19.20	13.58	47.23

**Table A10. Surficial Soil Analytical Results - Site 5
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
SOCs								
HMX	ug/g	5 / 23	21.7%	0.41	1.84	0.35	0.38	0.48
RDX	ug/g	9 / 23	39.1%	0.31	16.50	1.47	3.47	2.71
METALS								
Arsenic	mg/kg	24 / 24	100.0%	0.46	3.10	1.45	0.64	1.67
Beryllium	mg/kg	11 / 24	45.8%	0.19	0.81	0.19	0.15	0.25
Chromium	mg/kg	19 / 24	79.2%	5.70	36.80	8.94	7.80	11.67
Copper	mg/kg	14 / 24	58.3%	3.90	15.10	5.10	4.47	6.66
Lead	mg/kg	24 / 24	100.0%	1.60	176.00	16.31	34.90	28.50
Nickel	mg/kg	12 / 24	50.0%	6.10	25.60	6.50	5.03	8.26
Selenium	mg/kg	1 / 24	4.2%	0.55	0.55	0.28	6.00E-02	0.30
Silver	mg/kg	1 / 24	4.2%	0.38	0.38	0.19	4.21E-02	0.21
Zinc	mg/kg	14 / 24	58.3%	6.60	53.10	12.98	13.90	17.83

**Table A11. Surficial Soil Analytical Results - Site 6
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
TPH								
TPH-Diesel	mg/kg	1 / 21	4.8%	23.00	23.00	6.45	3.85	7.90
METALS								
Antimony	mg/kg	1 / 22	4.5%	12.80	12.80	3.33	2.12	4.10
Arsenic	mg/kg	17 / 22	77.3%	0.94	6.80	1.77	1.58	2.35
Beryllium	mg/kg	13 / 22	59.1%	0.19	0.41	0.21	0.11	0.25
Cadmium	mg/kg	1 / 22	4.5%	0.76	0.76	0.33	0.10	0.37
Chromium	mg/kg	22 / 22	100.0%	8.60	48.50	14.94	8.29	17.98
Copper	mg/kg	9 / 22	40.9%	6.60	17.80	5.10	4.83	6.87
Lead	mg/kg	19 / 22	86.4%	1.30	98.70	16.13	26.68	25.89
Nickel	mg/kg	19 / 22	86.4%	6.50	30.10	10.06	5.76	12.17
Silver	mg/kg	1 / 22	4.5%	0.46	0.46	0.20	6.14E-02	0.23
Zinc	mg/kg	12 / 22	54.5%	7.10	26.10	9.98	6.58	12.38

**Table A12. Surficial Soil Analytical Results - Site 8
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Lead	mg/kg	1 / 1	100.0%	39.40	39.40	--	--	--

**Table A13. Surficial Soil Analytical Results - Site 9
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Lead	mg/kg	6 / 6	100.0%	1.50	71.40	26.10	30.02	49.91

**Table A14. Surficial Soil Analytical Results - Site 10
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
DIOXINS/FURANS								
1,2,3,4,6,7,8-HpCDD	pg/g	3 / 3	100.0%	23.00	630.00	401.00	329.79	849.02
Total HpCDD	pg/g	3 / 3	100.0%	43.00	1200.00	747.67	618.40	1587.76
1,2,3,4,6,7,8-HpCDF	pg/g	2 / 3	66.7%	19.00	25.00	15.20	12.15	31.71
Total HpCDF	pg/g	3 / 3	100.0%	7.60	54.00	36.87	25.47	71.47
1,2,3,4,7,8-HxCDD	pg/g	2 / 3	66.7%	6.50	7.40	4.69	3.94	10.05
1,2,3,6,7,8-HxCDD	pg/g	2 / 3	66.7%	23.00	26.00	16.55	13.85	35.37
1,2,3,7,8,9-HxCDD	pg/g	2 / 3	66.7%	20.00	27.00	15.79	13.81	34.54
Total HxCDD	pg/g	2 / 3	66.7%	190.00	230.00	140.52	122.00	306.25
Total HxCDF	pg/g	2 / 3	66.7%	26.00	27.00	17.88	14.93	38.17
OCDD	pg/g	3 / 3	100.0%	170.00	4800.00	2723.33	2351.52	5917.88
OCDF total	pg/g	2 / 3	66.7%	19.00	27.00	16.33	12.22	32.93
Total PeCDD	pg/g	1 / 3	33.3%	12.00	12.00	4.86	6.28	13.39
Total PeCDF	pg/g	2 / 3	66.7%	16.00	27.00	14.60	13.16	32.47
2,3,7,8-TCDD	pg/g	2 / 3	66.7%	2.70	3.00	2.03	1.43	3.97
Total TCDD	pg/g	2 / 3	66.7%	4.50	4.60	3.17	2.40	6.42
Total TCDF	pg/g	2 / 3	66.7%	5.20	23.00	9.49	11.95	25.73
METALS								
Antimony	mg/kg	1 / 2	50.0%	0.42	0.42	0.29	0.18	0.67
Arsenic	mg/kg	2 / 2	100.0%	0.64	0.94	0.79	0.21	1.23
Beryllium	mg/kg	2 / 2	100.0%	0.19	0.23	0.21	2.83E-02	0.27
Cadmium	mg/kg	1 / 2	50.0%	3.40	3.40	1.93	2.08	6.22
Chromium	mg/kg	2 / 2	100.0%	13.20	44.50	28.85	22.13	74.55
Copper	mg/kg	1 / 2	50.0%	150.00	150.00	75.73	105.04	292.61
Lead	mg/kg	2 / 2	100.0%	10.00	412.00	211.00	284.26	797.92
Nickel	mg/kg	2 / 2	100.0%	10.30	13.30	11.80	2.12	16.18
Zinc	mg/kg	1 / 2	50.0%	220.00	220.00	113.18	151.07	425.10

**Table A15. Shallow Soil Analytical Results - Site 10
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
VOCs								
Acetone	ug/kg	1 / 6	16.7%	470.00	470.00	86.33	188.15	235.58
Ethyl benzene	ug/kg	1 / 6	16.7%	190.00	190.00	35.73	75.70	95.77
Methyl ethyl ketone	ug/kg	1 / 6	16.7%	150.00	150.00	33.00	57.94	78.96
Tetrachloroethene	ug/kg	1 / 6	16.7%	53.00	53.00	12.81	20.12	28.76
Toluene	ug/kg	1 / 6	16.7%	320.00	320.00	57.39	128.72	159.50
Xylenes	ug/kg	1 / 6	16.7%	1600.00	1600.00	270.73	651.22	787.29
SOCs								
Bis(2-ethylhexyl)phthalate	ug/kg	6 / 6	100.0%	46.00	1700.00	592.00	783.66	1213.62
2-Methylnaphthalene	ug/kg	1 / 6	16.7%	3400.00	3400.00	977.50	1342.96	2042.77
4-Methylphenol	ug/kg	1 / 5	20.0%	460.00	460.00	235.00	126.19	348.72
Naphthalene	ug/kg	1 / 6	16.7%	1800.00	1800.00	710.83	824.50	1364.85
Pentachlorophenol	ug/kg	1 / 1	100.0%	36.00	36.00	--	--	--
Phenanthrene	ug/kg	1 / 5	20.0%	480.00	480.00	239.00	135.11	360.75
Pyrene	ug/kg	2 / 6	33.3%	450.00	750.00	319.17	237.50	507.55
TPH								
TPH-Extractable Unknown Hyd.	mg/kg	3 / 6	50.0%	420.00	4800.00	1606.08	2328.07	3452.77
TPH-Purgeable Unknown Hyd.	mg/kg	1 / 6	16.7%	320.00	320.00	53.78	130.42	157.24

**Table A16. Deep Soil Analytical Results - Site 10
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
VOCs								
Xylenes	ug/kg	1 / 6	16.7%	12.00	12.00	4.18	3.83	7.22
SOCs								
Di-n-butylphthalate	ug/kg	1 / 1	100.0%	36.00	36.00	--	--	--
Bis(2-ethylhexyl)phthalate	ug/kg	3 / 5	60.0%	90.00	290.00	163.40	80.48	235.93
DIOXINS/FURANS								
1,2,3,4,6,7,8-HpCDD	pg/g	2 / 2	100.0%	46.00	480.00	263.00	306.88	896.64
Total HpCDD	pg/g	2 / 2	100.0%	91.00	920.00	505.50	586.19	1715.84
1,2,3,4,6,7,8-HpCDF	pg/g	1 / 2	50.0%	13.00	13.00	6.93	8.59	24.66
Total HpCDF	pg/g	1 / 2	50.0%	41.00	41.00	21.18	28.04	79.06
1,2,3,6,7,8-HxCDD	pg/g	1 / 2	50.0%	41.00	41.00	21.75	27.22	77.96
1,2,3,7,8,9-HxCDD	pg/g	1 / 2	50.0%	22.00	22.00	11.63	14.67	41.92
Total HxCDD	pg/g	2 / 2	100.0%	25.00	280.00	152.50	180.31	524.80
Total HxCDF	pg/g	1 / 2	50.0%	9.30	9.30	4.95	6.15	17.65
OCDD	pg/g	2 / 2	100.0%	350.00	3600.00	1975.00	2298.10	6720.00
OCDF total	pg/g	1 / 2	50.0%	11.00	11.00	5.85	7.28	20.89
1,2,3,7,8-PeCDD	pg/g	1 / 2	50.0%	6.90	6.90	3.64	4.61	13.16
Total PeCDD	pg/g	1 / 2	50.0%	6.90	6.90	3.64	4.61	13.16
Total PeCDF	pg/g	1 / 2	50.0%	21.00	21.00	10.83	14.39	40.54
2,3,7,8-TCDD	pg/g	1 / 2	50.0%	1.60	1.60	0.89	1.01	2.97
Total TCDD	pg/g	1 / 2	50.0%	3.30	3.30	1.74	2.21	6.30
Total TCDF	pg/g	1 / 2	50.0%	6.40	6.40	3.26	4.44	12.42
TPH								
TPH-Extractable Unknown Hyd.	mg/kg	3 / 6	50.0%	10.00	4400.00	757.58	1784.99	2173.49
TPH-Purgeable Unknown Hyd.	mg/kg	1 / 6	16.7%	1.40	1.40	0.67	0.36	0.95
METALS								
Arsenic	mg/kg	1 / 6	16.7%	1.00	1.00	0.69	0.25	0.88
Beryllium	mg/kg	5 / 6	83.3%	0.14	0.30	0.20	0.09	0.27
Chromium	mg/kg	6 / 6	100.0%	10.80	13.80	12.13	1.17	13.06
Lead	mg/kg	6 / 6	100.0%	1.60	15.60	4.92	5.46	9.25
Nickel	mg/kg	6 / 6	100.0%	6.80	11.20	9.05	1.58	10.30

Table A17. Surficial Soil Analytical Results - Site 11
 Volume IV - Baseline Ecological Risk Assessment
 Fort Ord, California

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Arsenic	mg/kg	4 / 4	100.0%	0.93	1.30	1.11	0.17	1.29
Beryllium	mg/kg	4 / 4	100.0%	0.20	0.26	0.23	2.75E-02	0.26
Chromium	mg/kg	4 / 4	100.0%	12.10	12.80	12.35	0.33	12.70
Copper	mg/kg	3 / 4	75.0%	3.10	24.10	7.83	10.93	19.47
Lead	mg/kg	17 / 18	94.4%	1.50	230.00	64.52	84.65	99.12
Mercury	mg/kg	1 / 4	25.0%	6.00E-02	6.00E-02	3.44E-02	1.71E-02	5.26E-02
Nickel	mg/kg	4 / 4	100.0%	5.90	10.30	8.35	1.83	10.30
Zinc	mg/kg	4 / 4	100.0%	14.20	280.00	84.25	130.55	223.41

**Table A18. Surficial Soil Analytical Results - Site 12
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
<u>VOCs</u>								
Tetrachloroethene	ug/kg	1 / 6	16.7%	43.00	43.00	9.30	16.51	22.40
Toluene	ug/kg	1 / 1	100.0%	2.10	2.10	--	--	--
Trichloroethene	ug/kg	1 / 1	100.0%	2.40	2.40	--	--	--
<u>TPH</u>								
TPH-Extractable Unknown Hyd.	mg/kg	5 / 6	83.3%	220.00	4700.00	1570.92	1881.58	3063.44
<u>METALS</u>								
Antimony	mg/kg	5 / 10	50.0%	0.50	4.50	1.25	1.67	2.20
Arsenic	mg/kg	9 / 10	90.0%	1.40	5.70	1.97	1.35	2.74
Beryllium	mg/kg	4 / 10	40.0%	0.16	0.25	0.14	6.26E-02	0.18
Cadmium	mg/kg	4 / 10	40.0%	0.89	18.60	2.71	5.67	5.95
Chromium	mg/kg	10 / 10	100.0%	9.20	184.00	32.45	54.37	63.60
Copper	mg/kg	8 / 10	80.0%	4.30	125.00	27.41	38.94	49.72
Lead	mg/kg	9 / 10	90.0%	3.00	1140.00	198.86	359.98	405.13
Mercury	mg/kg	2 / 10	20.0%	6.00E-02	0.33	5.99E-02	0.10	0.11
Nickel	mg/kg	10 / 10	100.0%	7.10	15.10	10.85	2.99	12.56
Zinc	mg/kg	10 / 10	100.0%	9.90	499.00	124.87	162.24	217.84

**Table A19. Shallow Soil Analytical Results - Site 12
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
<u>VOCs</u>								
Tetrachloroethene	ug/kg	2 / 16	12.5%	1.30	10.00	3.01	1.89	3.83
<u>SOCs</u>								
Di-n-butylphthalate	ug/kg	1 / 1	100.0%	110.00	110.00	--	--	--
Diethyl phthalate	ug/kg	1 / 1	100.0%	41.00	41.00	--	--	--
Bis(2-ethylhexyl)phthalate	ug/kg	3 / 12	25.0%	76.00	220.00	156.50	39.42	176.78
<u>TPH</u>								
TPH-Extractable Unknown Hyd.	mg/kg	1 / 16	6.3%	58.00	58.00	8.59	13.18	14.35
<u>METALS</u>								
Antimony	mg/kg	2 / 16	12.5%	0.37	8.70	0.74	2.12	1.66
Arsenic	mg/kg	15 / 16	93.8%	0.93	2.80	1.46	0.47	1.66
Beryllium	mg/kg	6 / 16	37.5%	0.17	0.36	0.14	8.76E-02	0.18
Cadmium	mg/kg	1 / 16	6.3%	7.90	7.90	0.92	1.86	1.73
Chromium	mg/kg	16 / 16	100.0%	8.20	28.20	12.61	4.65	14.64
Copper	mg/kg	10 / 16	62.5%	1.50	75.40	6.46	18.41	14.50
Lead	mg/kg	15 / 22	68.2%	0.57	441.00	21.26	93.76	55.58
Mercury	mg/kg	2 / 16	12.5%	7.00E-02	0.19	3.93E-02	4.17E-02	5.74E-02
Nickel	mg/kg	15 / 16	93.8%	6.90	13.30	9.72	1.96	10.57
Selenium	mg/kg	1 / 15	6.7%	0.77	0.77	0.41	0.10	0.46
Zinc	mg/kg	14 / 16	87.5%	7.60	249.00	31.95	64.84	60.25

Table A20. Deep Soil Analytical Results - Site 12
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
Cation Exchange Capacity as N meqna		1 / 1	100.0%	1.30	1.30	--	--	--
VOCs								
Acetone	ug/kg	7 / 45	15.6%	7.00	37.00	7.45	6.17	8.96
Methyl ethyl ketone	ug/kg	2 / 44	4.5%	4.30	7.10	5.35	0.39	5.45
Methylene chloride	ug/kg	3 / 43	7.0%	2.80	3.20	2.37	0.62	2.53
Tetrachloroethene	ug/kg	4 / 44	9.1%	1.30	3.60	2.61	0.27	2.67
Xylenes	ug/kg	3 / 45	6.7%	1.10	28.00	3.16	3.80	4.09
SOCs								
Di-n-butylphthalate	ug/kg	2 / 28	7.1%	46.00	180.00	170.39	24.64	178.31
Diethyl phthalate	ug/kg	3 / 29	10.3%	190.00	320.00	181.21	27.51	189.88
Bis(2-ethylhexyl)phthalate	ug/kg	9 / 30	30.0%	48.00	3600.00	311.33	632.73	501.36
2-Methylnaphthalene	ug/kg	1 / 30	3.3%	230.00	230.00	176.83	10.79	180.07
TPH								
TPH-Extractable Unknown Hyd.	mg/kg	4 / 45	8.9%	32.00	1400.00	55.71	222.43	110.26
TPH-Purgeable Unknown Hyd.	mg/kg	2 / 27	7.4%	2.40	160.00	6.50	30.68	16.56
METALS								
Antimony	mg/kg	3 / 16	18.8%	0.38	1.90	0.33	0.43	0.52
Arsenic	mg/kg	27 / 45	60.0%	1.00	4.70	1.22	0.69	1.39
Beryllium	mg/kg	14 / 45	31.1%	0.13	0.29	0.13	6.39E-02	0.14
Cadmium	mg/kg	5 / 45	11.1%	0.70	2.00	0.45	0.35	0.54
Chromium	mg/kg	42 / 45	93.3%	2.80	91.60	15.48	18.75	20.08
Copper	mg/kg	37 / 45	82.2%	1.50	28.00	5.26	5.65	6.65
Lead	mg/kg	43 / 45	95.6%	0.43	777.00	68.91	184.19	114.08
Lead	mg/l	1 / 6	16.7%	2.00	2.00	0.54	0.71	1.11
Mercury	mg/kg	2 / 45	4.4%	0.18	0.29	5.23E-02	4.35E-02	6.30E-02
Nickel	mg/kg	40 / 45	88.9%	4.20	14.60	8.45	3.01	9.18
Selenium	mg/kg	3 / 45	6.7%	0.57	0.74	0.34	0.11	0.37
Zinc	mg/kg	40 / 45	88.9%	5.60	223.00	27.58	49.15	39.63

**Table A21. Shallow Soil Analytical Results - Site 13
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
VOCs								
Acetone	ug/kg	18 / 27	66.7%	4.00	18.00	8.96	4.29	10.37
Methylene chloride	ug/kg	1 / 19	5.3%	5.00	5.00	3.45	1.01	3.85
Tetrachloroethene	ug/kg	2 / 28	7.1%	10.00	290.00	13.04	54.30	30.49
TPH								
TPH-Diesel	mg/kg	1 / 28	3.6%	54.00	54.00	8.39	11.80	12.19
TPH-Extractable Unknown Hyd.	mg/kg	3 / 28	10.7%	15.00	490.00	23.34	91.51	52.76
METALS								
Antimony	mg/kg	1 / 28	3.6%	6.40	6.40	3.02	0.67	3.23
Arsenic	mg/kg	27 / 28	96.4%	0.54	1.80	1.12	0.40	1.25
Beryllium	mg/kg	6 / 27	22.2%	8.00E-02	0.37	0.11	7.62E-02	0.13
Cadmium	mg/kg	1 / 28	3.6%	0.49	0.49	0.25	4.77E-02	0.27
Chromium	mg/kg	28 / 28	100.0%	8.60	27.90	12.55	3.80	13.77
Copper	mg/kg	19 / 28	67.9%	1.50	128.00	23.33	35.36	34.70
Lead	mg/kg	27 / 28	96.4%	0.74	41.90	4.99	8.80	7.82
Nickel	mg/kg	27 / 28	96.4%	4.30	12.30	7.68	2.18	8.38
Selenium	mg/kg	1 / 28	3.6%	1.50	1.50	0.31	0.23	0.38
Zinc	mg/kg	27 / 28	96.4%	4.40	50.10	16.57	13.88	21.03

**Table A22. Deep Soil Analytical Results - Site 13
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
VOCs								
Acetone	ug/kg	16 / 29	55.2%	6.00	62.00	11.16	11.28	14.71
Methylene chloride	ug/kg	3 / 24	12.5%	5.00	5.00	3.59	1.17	4.00
Tetrachloroethene	ug/kg	1 / 29	3.4%	17.00	17.00	3.01	2.69	3.86
PESTICIDES								
4,4'-DDT	ug/kg	1 / 27	3.7%	10.00	10.00	8.48	0.35	8.60
TPH								
TPH-Extractable Unknown Hyd.	mg/kg	3 / 29	10.3%	28.00	160.00	13.76	31.19	23.60
METALS								
Arsenic	mg/kg	29 / 29	100.0%	0.66	2.30	1.20	0.40	1.33
Beryllium	mg/kg	7 / 27	25.9%	8.00E-02	0.33	0.11	7.36E-02	0.14
Chromium	mg/kg	29 / 29	100.0%	6.60	18.40	11.70	2.69	12.54
Copper	mg/kg	18 / 29	62.1%	1.60	123.00	9.61	26.08	17.83
Lead	mg/kg	28 / 29	96.6%	0.51	22.20	2.74	4.36	4.12
Nickel	mg/kg	28 / 29	96.6%	4.00	14.60	8.45	2.97	9.39
Selenium	mg/kg	1 / 29	3.4%	1.90	1.90	0.32	0.30	0.41
Thallium	mg/kg	1 / 29	3.4%	0.51	0.51	0.22	5.65E-02	0.24
Zinc	mg/kg	28 / 29	96.6%	4.80	43.40	10.90	9.68	13.95

**Table A23. Shallow Soil Analytical Results - Site 14
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
VOCs								
Acetone	ug/kg	1 / 12	8.3%	10.00	10.00	4.98	2.18	6.10
Methylene chloride	ug/kg	1 / 5	20.0%	2.60	2.60	1.71	0.84	2.47
SOCs								
Bis(2-ethylhexyl)phthalate	ug/kg	1 / 1	100.0%	320.00	320.00	--	--	--
TPH								
Non-Polar Oil & Grease	mg/kg	2 / 10	20.0%	68.00	860.00	112.80	262.89	263.44
TPH-Extractable Unknown Hyd.	mg/kg	3 / 10	30.0%	11.00	57.00	12.45	16.37	21.83
METALS								
Arsenic	mg/kg	12 / 12	100.0%	0.93	1.80	1.26	0.23	1.38
Beryllium	mg/kg	1 / 12	8.3%	0.30	0.30	0.12	7.55E-02	0.16
Chromium	mg/kg	11 / 12	91.7%	9.50	19.50	12.07	4.76	14.51
Copper	mg/kg	4 / 12	33.3%	1.80	22.10	3.04	6.21	6.24
Lead	mg/kg	12 / 12	100.0%	1.10	6.10	2.54	1.61	3.37
Nickel	mg/kg	11 / 12	91.7%	5.90	12.60	8.37	2.81	9.81
Silver	mg/kg	1 / 10	10.0%	0.50	0.50	0.27	8.14E-02	0.32
Zinc	mg/kg	11 / 12	91.7%	7.50	58.80	15.90	14.38	23.30

**Table A28. Surficial Soil Analytical Results - Site 16
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
SOCs								
Benzo(b)fluoranthene	ug/kg	1 / 15	6.7%	3.30	3.30	2.16	0.32	2.31
Benzo(ghi)perylene	ug/kg	1 / 3	33.3%	8.30	8.30	8.10	0.17	8.34
Benzo(k)fluoranthene	ug/kg	2 / 15	13.3%	2.30	2.30	2.11	0.09	2.15
PESTICIDES								
Chlordane	ug/kg	2 / 15	13.3%	63.00	84.00	46.07	11.85	51.43
4,4'-DDD	ug/kg	1 / 15	6.7%	20.00	20.00	9.20	3.00	10.56
4,4'-DDT	ug/kg	3 / 15	20.0%	9.20	76.00	13.45	17.39	21.32
DIOXINS/FURANS								
1,2,3,4,6,7,8-HpCDD	pg/g	11 / 15	73.3%	9.50	170.00	41.65	55.86	66.93
Total HpCDD	pg/g	11 / 15	73.3%	19.00	370.00	83.55	121.59	138.58
1,2,3,4,6,7,8-HpCDF	pg/g	10 / 15	66.7%	9.40	63.00	17.36	20.96	26.85
Total HpCDF	pg/g	10 / 15	66.7%	26.00	150.00	46.23	55.14	71.19
1,2,3,6,7,8-HxCDD	pg/g	3 / 15	20.0%	5.80	8.10	2.03	2.85	3.32
1,2,3,7,8,9-HxCDD	pg/g	2 / 15	13.3%	7.20	7.20	1.67	2.36	2.74
Total HxCDD	pg/g	5 / 15	33.3%	6.60	64.00	12.57	22.75	22.87
1,2,3,4,7,8-HxCDF	pg/g	1 / 15	6.7%	5.50	5.50	1.15	1.58	1.87
2,3,4,6,7,8-HxCDF	pg/g	4 / 15	26.7%	5.70	6.70	2.07	2.62	3.25
Total HxCDF	pg/g	10 / 15	66.7%	7.60	110.00	31.84	39.93	49.91
OCDD	pg/g	15 / 15	100.0%	21.00	1200.00	309.13	392.44	486.76
OCDF total	pg/g	8 / 15	53.3%	12.00	78.00	19.98	26.46	31.96
Total PeCDF	pg/g	10 / 15	66.7%	22.00	750.00	105.50	194.07	193.34
Total TCDD	pg/g	2 / 15	13.3%	1.10	4.60	0.52	1.16	1.04
2,3,7,8-TCDF	pg/g	1 / 15	6.7%	2.70	2.70	0.37	0.66	0.67
Total TCDF	pg/g	11 / 15	73.3%	1.60	51.00	15.90	19.70	24.82
TPH								
TPH-Extractable Unknown Hyd.	mg/kg	1 / 3	33.3%	35.00	35.00	15.00	17.32	38.53
METALS								
Antimony	mg/kg	6 / 18	33.3%	0.59	4.10	0.58	0.92	0.96
Arsenic	mg/kg	18 / 18	100.0%	1.10	22.30	4.32	6.58	7.00
Beryllium	mg/kg	1 / 18	5.6%	0.17	0.17	0.11	3.32E-02	0.12
Cadmium	mg/kg	3 / 18	16.7%	1.10	2.40	0.70	0.64	0.96
Chromium	mg/kg	16 / 18	88.9%	9.20	31.70	12.94	7.51	16.01
Copper	mg/kg	13 / 18	72.2%	6.80	53.90	19.45	19.75	27.52
Lead	mg/kg	18 / 18	100.0%	2.30	98.40	31.95	30.95	44.60
Mercury	mg/kg	3 / 18	16.7%	0.25	0.34	7.34E-02	0.11	0.12
Nickel	mg/kg	14 / 18	77.8%	5.20	16.60	7.60	4.21	9.32

**Table A28. Surficial Soil Analytical Results - Site 16
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Zinc	mg/kg	4 / 18	22.2%	10.80	133.00	32.60	31.78	45.59

Table A29. Shallow Soil Analytical Results - Site 16
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
VOCs								
Acetone	ug/kg	2 / 16	12.5%	17.00	28.00	7.38	6.26	10.11
Trichloroethene	ug/kg	3 / 18	16.7%	1.40	68.00	6.76	15.45	13.07
SOCs								
Di-n-butylphthalate	ug/kg	1 / 1	100.0%	95.00	95.00	--	--	--
Dibenzofuran	ug/kg	1 / 9	11.1%	410.00	410.00	199.44	81.37	249.16
Bis(2-ethylhexyl)phthalate	ug/kg	2 / 9	22.2%	96.00	3900.00	737.33	1285.11	1522.54
Fluorene	ug/kg	1 / 9	11.1%	1100.00	1100.00	276.11	309.58	465.27
2-Methylnaphthalene	ug/kg	1 / 9	11.1%	8600.00	8600.00	1109.44	2809.03	2825.76
Naphthalene	ug/kg	1 / 9	11.1%	1600.00	1600.00	331.67	476.03	622.52
Phenanthrene	ug/kg	1 / 9	11.1%	1800.00	1800.00	353.89	542.65	685.45
DIOXINS/FURANS								
1,2,3,4,6,7,8-HpCDD	pg/g	1 / 2	50.0%	33.00	33.00	16.98	22.66	63.77
Total HpCDD	pg/g	1 / 2	50.0%	62.00	62.00	31.48	43.17	120.61
1,2,3,4,6,7,8-HpCDF	pg/g	1 / 2	50.0%	33.00	33.00	17.35	22.13	63.05
Total HpCDF	pg/g	1 / 2	50.0%	57.00	57.00	29.38	39.07	110.04
Total HxCDD	pg/g	1 / 2	50.0%	7.60	7.60	3.90	5.23	14.70
1,2,3,6,7,8-HxCDF	pg/g	1 / 2	50.0%	10.00	10.00	5.33	6.61	18.98
Total HxCDF	pg/g	1 / 2	50.0%	52.00	52.00	26.98	35.39	100.05
OCDD	pg/g	1 / 2	50.0%	180.00	180.00	92.48	123.78	348.05
OCDF total	pg/g	1 / 2	50.0%	28.00	28.00	14.38	19.27	54.16
Total PeCDF	pg/g	1 / 2	50.0%	120.00	120.00	60.68	83.90	233.90
Total TCDD	pg/g	1 / 2	50.0%	2.10	2.10	1.11	1.40	4.00
Total TCDF	pg/g	1 / 2	50.0%	46.00	46.00	23.16	32.30	89.86
TPH								
TPH-Diesel	mg/kg	1 / 29	3.4%	2000.00	2000.00	73.89	370.45	190.76
TPH-Extractable Unknown Hyd.	mg/kg	11 / 26	42.3%	12.00	22.00	9.98	5.86	11.94
METALS								
Antimony	mg/kg	5 / 17	29.4%	3.00	6.90	1.72	2.01	2.57
Arsenic	mg/kg	15 / 17	88.2%	0.49	6.40	1.69	1.34	2.26
Beryllium	mg/kg	6 / 17	35.3%	0.14	0.42	0.12	0.09	0.16
Cadmium	mg/kg	4 / 17	23.5%	0.76	3.40	0.73	0.76	1.05
Chromium	mg/kg	17 / 17	100.0%	8.70	25.10	13.89	3.91	15.54
Copper	mg/kg	10 / 17	58.8%	1.30	443.00	59.40	114.14	107.57
Lead	mg/kg	17 / 17	100.0%	1.40	741.00	119.71	209.30	208.03
Mercury	mg/kg	2 / 17	11.8%	6.00E-02	0.63	6.56E-02	0.15	0.13
Nickel	mg/kg	17 / 17	100.0%	8.60	20.20	12.03	3.06	13.32

**Table A29. Shallow Soil Analytical Results - Site 16
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Silver	mg/kg	3 / 17	17.6%	0.42	1.20	0.50	0.23	0.59
Zinc	mg/kg	14 / 17	82.4%	8.90	1730.00	302.03	475.96	502.89

**Table A30. Deep Soil Analytical Results - Site 16
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
VOCs								
Acetone	ug/kg	6 / 40	15.0%	6.50	77.00	8.79	12.54	12.05
Methyl ethyl ketone	ug/kg	2 / 45	4.4%	9.10	27.00	5.98	3.27	6.78
Methylene chloride	ug/kg	2 / 40	5.0%	3.30	3.40	2.49	0.57	2.63
Tetrachloroethene	ug/kg	2 / 45	4.4%	6.40	11.00	2.94	1.36	3.27
Toluene	ug/kg	2 / 10	20.0%	1.20	1.60	0.72	0.37	0.93
Trichloroethene	ug/kg	3 / 45	6.7%	1.80	7.00	2.81	0.77	3.00
SOCs								
Bis(2-ethylhexyl)phthalate	ug/kg	3 / 3	100.0%	45.00	150.00	90.67	53.82	163.78
Fluorene	ug/kg	1 / 13	7.7%	670.00	670.00	227.69	139.44	296.18
2-Methylnaphthalene	ug/kg	3 / 15	20.0%	1700.00	8500.00	972.67	2168.23	1954.06
Naphthalene	ug/kg	3 / 15	20.0%	700.00	3700.00	512.67	914.02	926.37
Pentachlorophenol	ug/kg	1 / 1	100.0%	88.00	88.00	--	--	--
Phenanthrene	ug/kg	2 / 15	13.3%	190.00	1100.00	298.67	289.89	429.88
DIOXINS/FURANS								
1,2,3,4,6,7,8-HpCDD	pg/g	2 / 3	66.7%	10.00	110.00	40.12	60.71	122.60
Total HpCDD	pg/g	2 / 3	66.7%	10.00	210.00	73.45	118.36	234.24
1,2,3,4,6,7,8-HpCDF	pg/g	1 / 3	33.3%	42.00	42.00	14.79	23.59	46.83
Total HpCDF	pg/g	1 / 3	33.3%	54.00	54.00	18.81	30.49	60.23
1,2,3,6,7,8-HxCDD	pg/g	1 / 3	33.3%	13.00	13.00	4.49	7.37	14.50
1,2,3,7,8,9-HxCDD	pg/g	1 / 3	33.3%	15.00	15.00	5.17	8.52	16.74
Total HxCDD	pg/g	1 / 3	33.3%	150.00	150.00	50.21	86.42	167.61
1,2,3,4,7,8-HxCDF	pg/g	1 / 3	33.3%	31.00	31.00	11.02	17.33	34.56
1,2,3,6,7,8-HxCDF	pg/g	1 / 3	33.3%	12.00	12.00	4.24	6.72	13.38
2,3,4,6,7,8-HxCDF	pg/g	1 / 3	33.3%	10.00	10.00	3.42	5.70	11.16
Total HxCDF	pg/g	1 / 3	33.3%	95.00	95.00	32.35	54.26	106.07
OCDD	pg/g	2 / 3	66.7%	72.00	310.00	127.80	161.69	347.46
OCDF total	pg/g	1 / 3	33.3%	13.00	13.00	5.25	6.76	14.44
Total PeCDD	pg/g	1 / 3	33.3%	24.00	24.00	9.02	12.98	26.64
1,2,3,7,8-PeCDF	pg/g	1 / 3	33.3%	9.90	9.90	3.51	5.54	11.03
2,3,4,7,8-PeCDF	pg/g	1 / 3	33.3%	17.00	17.00	5.84	9.67	18.97
Total PeCDF	pg/g	1 / 3	33.3%	190.00	190.00	63.85	109.26	212.27
2,3,7,8-TCDD	pg/g	1 / 3	33.3%	1.60	1.60	0.62	0.85	1.77
Total TCDD	pg/g	1 / 3	33.3%	70.00	70.00	23.43	40.33	78.22
2,3,7,8-TCDF	pg/g	1 / 3	33.3%	13.00	13.00	4.45	7.40	14.51
Total TCDF	pg/g	1 / 3	33.3%	310.00	310.00	103.47	178.86	346.45
TPH								
Oil & Grease	mg/kg	1 / 5	20.0%	77.00	77.00	36.60	22.59	56.95
TPH-Extractable Unknown Hyd.	mg/kg	11 / 62	17.7%	11.00	4300.00	155.66	622.25	285.66

**Table A30. Deep Soil Analytical Results - Site 16
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
TPH								
TPH-Motor Oil	mg/kg	1 / 33	3.0%	220.00	220.00	33.92	34.68	43.86
METALS								
Antimony	mg/kg	3 / 44	6.8%	0.56	3.90	1.90	1.32	2.23
Arsenic	mg/kg	30 / 45	66.7%	0.41	3.70	1.02	0.76	1.21
Beryllium	mg/kg	22 / 45	48.9%	0.13	0.45	0.17	0.10	0.20
Cadmium	mg/kg	3 / 45	6.7%	1.10	2.40	0.43	0.37	0.52
Chromium	mg/kg	41 / 45	91.1%	5.50	32.50	12.01	5.65	13.40
Copper	mg/kg	17 / 45	37.8%	2.20	122.00	6.98	21.81	12.33
Lead	mg/kg	44 / 45	97.8%	0.77	475.00	15.86	72.39	33.61
Mercury	mg/kg	1 / 45	2.2%	0.09	0.09	4.50E-02	1.59E-02	4.89E-02
Nickel	mg/kg	43 / 45	95.6%	6.20	45.60	11.03	6.37	12.59
Zinc	mg/kg	41 / 45	91.1%	4.00	1000.00	49.99	176.70	93.32

**Table A31. Surficial Soil Analytical Results - Site 17
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
<u>TPH</u>								
TPH-Extractable Unknown Hyd.	mg/kg	2 / 4	50.0%	11.00	38.00	15.00	15.56	31.58
<u>METALS</u>								
Antimony	mg/kg	1 / 4	25.0%	0.38	0.38	0.22	0.11	0.33
Arsenic	mg/kg	4 / 4	100.0%	1.00	1.40	1.20	0.18	1.39
Beryllium	mg/kg	1 / 4	25.0%	0.15	0.15	0.09	3.86E-02	0.13
Chromium	mg/kg	4 / 4	100.0%	10.00	11.80	10.80	0.81	11.67
Lead	mg/kg	4 / 4	100.0%	2.40	12.90	5.65	4.92	10.89
Nickel	mg/kg	4 / 4	100.0%	7.20	11.60	9.88	1.89	11.89
Zinc	mg/kg	2 / 4	50.0%	17.20	24.20	13.29	9.04	22.92

**Table A32. Shallow Soil Analytical Results - Site 17
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
VOCS								
Acetone	ug/kg	2 / 7	28.6%	8.80	22.00	7.89	6.45	12.51
Methylene chloride	ug/kg	1 / 6	16.7%	3.50	3.50	2.25	0.76	2.86
DIOXINS/FURANS								
1,2,3,4,6,7,8-HpCDD	pg/g	3 / 4	75.0%	8.80	97.00	37.98	44.09	84.98
Total HpCDD	pg/g	3 / 4	75.0%	17.00	200.00	78.03	91.21	175.26
1,2,3,4,6,7,8-HpCDF	pg/g	2 / 4	50.0%	23.00	170.00	48.92	81.37	135.66
Total HpCDF	pg/g	3 / 4	75.0%	6.80	340.00	98.52	162.31	271.54
Total HxCDD	pg/g	2 / 4	50.0%	6.60	13.00	5.07	6.06	11.53
Total HxCDF	pg/g	2 / 4	50.0%	32.00	63.00	24.36	29.57	55.89
OCDD	pg/g	3 / 4	75.0%	77.00	1300.00	436.93	597.00	1073.32
OCDF total	pg/g	2 / 4	50.0%	20.00	87.00	27.73	40.44	70.85
Total PeCDF	pg/g	3 / 4	75.0%	11.00	160.00	49.55	74.45	128.92
Total TCDF	pg/g	3 / 4	75.0%	5.10	62.00	20.05	28.46	50.40
METALS								
Antimony	mg/kg	1 / 3	33.3%	0.72	0.72	0.40	0.28	0.78
Arsenic	mg/kg	5 / 9	55.6%	0.72	1.50	0.80	0.37	1.03
Beryllium	mg/kg	3 / 9	33.3%	0.19	0.25	0.16	6.59E-02	0.20
Cadmium	mg/kg	1 / 9	11.1%	0.61	0.61	0.38	0.11	0.45
Chromium	mg/kg	9 / 9	100.0%	9.60	15.20	11.98	1.66	12.99
Copper	mg/kg	6 / 9	66.7%	3.10	11.00	5.66	3.88	8.03
Lead	mg/kg	9 / 9	100.0%	1.20	29.00	11.94	9.08	17.49
Mercury	mg/kg	3 / 9	33.3%	0.12	0.13	6.77E-02	4.35E-02	0.09
Nickel	mg/kg	9 / 9	100.0%	7.30	11.10	9.68	1.53	10.61
Zinc	mg/kg	8 / 9	88.9%	5.80	39.80	20.27	10.98	26.98

**Table A33. Deep Soil Analytical Results - Site 17
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
VOCs								
Acetone	ug/kg	5 / 26	19.2%	1.60	31.00	5.84	5.37	7.63
SOCs								
Bis(2-ethylhexyl)phthalate	ug/kg	1 / 1	100.0%	130.00	130.00	--	--	--
DIOXINS/FURANS								
1,2,3,4,6,7,8-HpCDD	pg/g	1 / 2	50.0%	760.00	760.00	380.33	536.94	1488.98
Total HpCDD	pg/g	1 / 2	50.0%	1600.00	1600.00	800.33	1130.91	3135.38
1,2,3,4,6,7,8-HpCDF	pg/g	1 / 2	50.0%	340.00	340.00	170.22	240.10	665.97
1,2,3,4,7,8,9-HpCDF	pg/g	1 / 2	50.0%	5.70	5.70	2.99	3.83	10.90
Total HpCDF	pg/g	1 / 2	50.0%	860.00	860.00	430.33	607.65	1684.98
1,2,3,6,7,8-HxCDD	pg/g	1 / 2	50.0%	23.00	23.00	11.58	16.15	44.93
Total HxCDD	pg/g	1 / 2	50.0%	120.00	120.00	60.10	84.71	235.01
1,2,3,4,7,8-HxCDF	pg/g	1 / 2	50.0%	6.40	6.40	3.24	4.48	12.48
Total HxCDF	pg/g	1 / 2	50.0%	230.00	230.00	115.04	162.58	450.73
OCDD	pg/g	1 / 2	50.0%	14000.00	14000.00	7005.25	9892.07	27429.92
OCDF total	pg/g	1 / 2	50.0%	340.00	340.00	170.38	239.89	665.68
Total PeCDF	pg/g	1 / 2	50.0%	77.00	77.00	38.58	54.34	150.77
2,3,7,8-TCDD	pg/g	1 / 2	50.0%	1.20	1.20	0.67	0.75	2.22
Total TCDD	pg/g	1 / 2	50.0%	6.40	6.40	3.27	4.43	12.41
2,3,7,8-TCDF	pg/g	1 / 2	50.0%	6.50	6.50	3.30	4.53	12.65
Total TCDF	pg/g	1 / 2	50.0%	34.00	34.00	17.05	23.97	66.55
TPH								
TPH-Extractable Unknown Hyd.	mg/kg	8 / 28	28.6%	38.00	1000.00	96.29	246.50	175.53
TPH-Motor Oil	mg/kg	1 / 17	5.9%	740.00	740.00	169.12	215.51	260.07
METALS								
Antimony	mg/kg	9 / 28	32.1%	0.40	5.50	1.77	1.43	2.23
Arsenic	mg/kg	20 / 28	71.4%	0.60	13.10	1.83	2.81	2.74
Beryllium	mg/kg	2 / 27	7.4%	0.20	0.25	0.11	4.90E-02	0.12
Cadmium	mg/kg	3 / 28	10.7%	1.10	3.20	0.55	0.58	0.73
Chromium	mg/kg	28 / 28	100.0%	5.30	52.70	14.40	12.23	18.33
Copper	mg/kg	8 / 28	28.6%	2.80	257.00	27.33	65.78	48.48
Lead	mg/kg	28 / 28	100.0%	0.69	442.00	62.94	131.33	105.16
Mercury	mg/kg	10 / 28	35.7%	6.00E-02	7.50	0.63	1.65	1.16
Nickel	mg/kg	24 / 28	85.7%	5.00	170.00	20.45	37.43	32.48
Selenium	mg/kg	1 / 28	3.6%	1.20	1.20	0.37	0.18	0.43
Silver	mg/kg	1 / 28	3.6%	4.80	4.80	0.54	0.91	0.83
Zinc	mg/kg	20 / 28	71.4%	5.20	673.00	94.24	174.89	150.46

**Table A34. Deep Soil Analytical Results - Site 18
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
<u>VOCs</u>								
Methylene chloride	ug/kg	2 / 8	25.0%	3.00	4.00	2.92	0.48	3.24
<u>TPH</u>								
TPH-Extractable Unknown Hyd.	mg/kg	2 / 8	25.0%	44.00	73.00	18.56	25.84	35.56
<u>METALS</u>								
Arsenic	mg/kg	4 / 8	50.0%	0.53	1.40	0.80	0.30	0.99
Chromium	mg/kg	8 / 8	100.0%	6.80	13.50	10.80	2.09	12.17
Copper	mg/kg	6 / 8	75.0%	1.20	29.70	6.34	9.66	12.69
Lead	mg/kg	8 / 8	100.0%	0.83	4.10	1.89	1.03	2.57
Nickel	mg/kg	7 / 8	87.5%	6.80	10.90	7.72	2.38	9.28
Zinc	mg/kg	8 / 8	100.0%	5.00	18.60	8.61	4.20	11.37

Table A35. Surficial Soil Analytical Results - Site 19
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
<u>VOCs</u>								
Methylene chloride	ug/kg	1 / 1	100.0%	6.90	6.90	--	--	--
<u>PESTICIDES</u>								
Chlordane	ug/kg	1 / 1	100.0%	3000.00	3000.00	--	--	--
<u>METALS</u>								
Arsenic	mg/kg	1 / 1	100.0%	1.80	1.80	--	--	--
Beryllium	mg/kg	1 / 1	100.0%	0.30	0.30	--	--	--
Chromium	mg/kg	1 / 1	100.0%	11.10	11.10	--	--	--
Copper	mg/kg	1 / 1	100.0%	4.70	4.70	--	--	--
Lead	mg/kg	1 / 1	100.0%	23.60	23.60	--	--	--
Nickel	mg/kg	1 / 1	100.0%	9.50	9.50	--	--	--
Zinc	mg/kg	1 / 1	100.0%	21.80	21.80	--	--	--

**Table A36. Deep Soil Analytical Results - Site 19
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
VOCs								
Acetone	ug/kg	1 / 1	100.0%	5.00	5.00	--	--	--
METALS								
Chromium	mg/kg	3 / 3	100.0%	7.90	9.00	8.43	0.55	9.18
Lead	mg/kg	3 / 3	100.0%	0.95	1.70	1.32	0.38	1.83
Nickel	mg/kg	3 / 3	100.0%	7.90	8.90	8.37	0.50	9.05
Zinc	mg/kg	3 / 3	100.0%	5.80	7.80	6.83	1.00	8.19

**Table A37. Shallow Soil Analytical Results - Site 20
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
VOCs								
Toluene	ug/kg	1 / 1	100.0%	2.20	2.20	--	--	--
SOCs								
Butylbenzylphthalate	ug/kg	1 / 1	100.0%	33.00	33.00	--	--	--
Bis(2-ethylhexyl)phthalate	ug/kg	1 / 1	100.0%	220.00	220.00	--	--	--
2-Methylnaphthalene	ug/kg	1 / 1	100.0%	93.00	93.00	--	--	--
TPH								
Non-Polar Oil & Grease	mg/kg	2 / 9	22.2%	220.00	3400.00	422.78	1118.29	1106.05
TPH-Extractable Unknown Hyd.	mg/kg	3 / 9	33.3%	18.00	170.00	26.94	54.07	59.98
METALS								
Arsenic	mg/kg	9 / 11	81.8%	0.85	1.70	1.20	0.34	1.39
Beryllium	mg/kg	2 / 11	18.2%	0.15	0.19	0.09	4.42E-02	0.12
Chromium	mg/kg	8 / 11	72.7%	8.50	22.60	10.61	7.47	14.66
Copper	mg/kg	3 / 11	27.3%	4.40	13.30	2.80	4.10	5.01
Lead	mg/kg	11 / 11	100.0%	0.91	22.10	3.56	6.17	6.89
Nickel	mg/kg	8 / 11	72.7%	5.90	20.20	8.44	5.40	11.36
Zinc	mg/kg	7 / 11	63.6%	9.20	23.90	9.93	7.61	14.05

**Table A38. Deep Soil Analytical Results - Site 20
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
VOCs								
Acetone	ug/kg	3 / 41	7.3%	1.60	13.00	4.93	2.24	5.50
2-Hexanone	ug/kg	1 / 1	100.0%	1.30	1.30	--	--	--
Methylene chloride	ug/kg	3 / 36	8.3%	3.00	4.00	2.47	0.79	2.69
Toluene	ug/kg	1 / 1	100.0%	1.30	1.30	--	--	--
SOCs								
Bis(2-ethylhexyl)phthalate	ug/kg	2 / 19	10.5%	53.00	400.00	177.79	60.40	201.75
TPH								
Non-Polar Oil & Grease	mg/kg	2 / 9	22.2%	100.00	700.00	109.44	222.79	245.57
TPH-Extractable Unknown Hyd.	mg/kg	3 / 44	6.8%	45.00	160.00	12.02	28.32	19.05
METALS								
Arsenic	mg/kg	21 / 42	50.0%	0.78	2.00	0.84	0.40	0.94
Beryllium	mg/kg	23 / 42	54.8%	0.14	0.40	0.18	0.10	0.21
Chromium	mg/kg	37 / 42	88.1%	7.70	19.10	11.68	4.81	12.90
Chromium VI	mg/kg	1 / 15	6.7%	0.15	0.15	6.13E-02	2.83E-02	7.41E-02
Copper	mg/kg	2 / 42	4.8%	2.00	8.70	1.30	1.32	1.63
Lead	mg/kg	39 / 41	95.1%	0.61	4.40	1.70	0.70	1.88
Nickel	mg/kg	37 / 42	88.1%	6.40	16.00	9.62	3.50	10.50
Zinc	mg/kg	31 / 42	73.8%	5.10	36.40	11.42	9.07	13.72

**Table A39. Surficial Soil Analytical Results - Site 21
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
<u>VOCs</u>								
Methylene chloride	ug/kg	2 / 2	100.0%	5.40	7.50	6.45	1.48	9.52
Xylenes	ug/kg	1 / 2	50.0%	3.30	3.30	3.03	0.39	3.83
<u>SOCs</u>								
Chrysene	ug/kg	1 / 5	20.0%	36.00	36.00	24.00	6.73	30.06
Bis(2-ethylhexyl)phthalate	ug/kg	2 / 2	100.0%	100.00	100.00	100.00	--	100.00
<u>TPH</u>								
Oil & Grease	mg/kg	1 / 2	50.0%	400.00	400.00	213.25	264.10	758.56
TPH-Extractable Unknown Hyd.	mg/kg	3 / 5	60.0%	18.00	29.00	16.40	10.69	26.03
<u>METALS</u>								
Antimony	mg/kg	11 / 16	68.8%	0.49	52.40	10.11	16.29	17.22
Arsenic	mg/kg	10 / 16	62.5%	0.51	3.80	1.09	0.89	1.48
Beryllium	mg/kg	10 / 16	62.5%	0.16	0.67	0.20	0.15	0.27
Cadmium	mg/kg	9 / 16	56.3%	2.40	22.80	6.25	7.53	9.54
Chromium	mg/kg	16 / 16	100.0%	6.50	141.00	37.06	38.66	53.94
Copper	mg/kg	13 / 16	81.3%	4.90	235.00	61.04	74.73	93.66
Lead	mg/kg	16 / 16	100.0%	2.90	689.00	168.54	220.35	264.72
Mercury	mg/kg	6 / 16	37.5%	0.12	0.32	8.91E-02	8.78E-02	0.13
Nickel	mg/kg	14 / 16	87.5%	5.30	34.60	12.99	9.68	17.21
Silver	mg/kg	1 / 9	11.1%	0.43	0.43	0.26	6.81E-02	0.30
Zinc	mg/kg	15 / 16	93.8%	15.70	889.00	225.33	274.28	345.05

Table A40. Deep Soil Analytical Results - Site 21
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
VOCs								
Acetone	ug/kg	2 / 9	22.2%	15.00	24.00	9.22	6.41	13.14
Methylene chloride	ug/kg	2 / 9	22.2%	3.00	5.10	3.07	0.83	3.57
METALS								
Arsenic	mg/kg	9 / 9	100.0%	1.10	2.70	1.44	0.51	1.76
Beryllium	mg/kg	2 / 9	22.2%	0.27	0.28	0.12	0.10	0.18
Chromium	mg/kg	7 / 9	77.8%	9.50	17.10	9.37	5.63	12.81
Copper	mg/kg	3 / 9	33.3%	3.20	5.80	1.99	1.96	3.19
Lead	mg/kg	9 / 9	100.0%	1.50	2.90	2.22	0.56	2.57
Nickel	mg/kg	6 / 9	66.7%	7.20	12.50	7.39	3.62	9.61
Zinc	mg/kg	7 / 9	77.8%	8.00	11.40	7.16	3.84	9.50

**Table A41. Surficial Soil Analytical Results - Site 22
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
SOCs								
Benzo(b)fluoranthene	ug/kg	1 / 4	25.0%	7.80	7.80	3.50	2.87	6.56
Benzo(ghi)perylene	ug/kg	1 / 4	25.0%	16.00	16.00	10.13	3.92	14.31
Benzo(k)fluoranthene	ug/kg	1 / 4	25.0%	2.90	2.90	2.28	0.42	2.72
Butylbenzylphthalate	ug/kg	1 / 1	100.0%	12000.00	12000.00	--	--	--
Bis(2-ethylhexyl)phthalate	ug/kg	1 / 1	100.0%	9500.00	9500.00	--	--	--
PESTICIDES								
4,4'-DDE	ug/kg	1 / 4	25.0%	14.00	14.00	9.63	2.93	12.74
4,4'-DDT	ug/kg	1 / 4	25.0%	23.00	23.00	11.88	7.42	19.79
TPH								
TPH-Extractable Unknown Hyd.	mg/kg	1 / 1	100.0%	8500.00	8500.00	--	--	--
METALS								
Arsenic	mg/kg	4 / 4	100.0%	1.20	1.70	1.45	0.21	1.67
Chromium	mg/kg	2 / 4	50.0%	10.10	11.80	6.78	4.98	12.08
Copper	mg/kg	1 / 4	25.0%	7.10	7.10	2.43	3.13	5.76
Lead	mg/kg	4 / 4	100.0%	2.10	67.20	23.78	29.71	55.45
Mercury	mg/kg	1 / 4	25.0%	6.00E-02	6.00E-02	3.43E-02	1.72E-02	5.26E-02
Nickel	mg/kg	1 / 4	25.0%	6.30	6.30	3.43	1.92	5.47

**Table A1. Surficial Soil Analytical Results - Site 1
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Arsenic	mg/kg	5 / 5	100.0%	0.85	1.70	1.17	0.32	1.46
Chromium	mg/kg	5 / 5	100.0%	7.90	10.40	9.52	1.04	10.46
Copper	mg/kg	5 / 5	100.0%	2.50	10.30	5.78	3.28	8.74
Lead	mg/kg	5 / 5	100.0%	2.20	6.40	4.84	1.75	6.42
Mercury	mg/kg	2 / 5	40.0%	6.00E-02	8.00E-02	4.32E-02	2.55E-02	6.62E-02
Nickel	mg/kg	5 / 5	100.0%	5.00	9.80	7.32	1.78	8.93
Silver	mg/kg	1 / 5	20.0%	0.92	0.92	0.37	0.31	0.65
Zinc	mg/kg	5 / 5	100.0%	14.10	27.70	22.06	6.03	27.49

**Table A47. Deep Soil Analytical Results - Site 24
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
VOCs								
Acetone	ug/kg	1 / 4	25.0%	1.70	1.70	1.09	0.49	1.60
1,1,2,2-Tetrachloroethane	ug/kg	6 / 24	25.0%	1.80	56000.00	2994.11	11484.86	7005.27
Tetrachloroethene	ug/kg	3 / 23	13.0%	22.00	220.00	13.97	45.36	30.18
Toluene	ug/kg	1 / 1	100.0%	1.00	1.00	--	--	--
1,1,2-Trichloroethane	ug/kg	3 / 23	13.0%	7.30	28.00	4.55	5.98	6.69
Trichloroethene	ug/kg	4 / 24	16.7%	420.00	4400.00	283.85	933.59	609.91
Xylenes	ug/kg	1 / 21	4.8%	11.00	11.00	3.02	1.83	3.71
SOCs								
Acenaphthene	ug/kg	2 / 12	16.7%	1100.00	6700.00	1680.42	2575.18	3005.14
Benzo(a)pyrene	ug/kg	1 / 9	11.1%	3100.00	3100.00	496.11	976.46	1092.73
Benzo(b)fluoranthene	ug/kg	3 / 12	25.0%	1100.00	6200.00	1647.08	2503.42	2934.89
Benzo(k)fluoranthene	ug/kg	1 / 9	11.1%	1800.00	1800.00	351.67	543.13	683.52
Chrysene	ug/kg	2 / 10	20.0%	3200.00	4100.00	866.50	1482.29	1715.86
2,4-Dimethylphenol	ug/kg	1 / 9	11.1%	2300.00	2300.00	407.22	709.79	840.91
Bis(2-ethylhexyl)phthalate	ug/kg	6 / 8	75.0%	39.00	210.00	138.63	52.76	173.32
Fluoranthene	ug/kg	3 / 12	25.0%	2200.00	16000.00	2555.42	4712.86	4979.80
Fluorene	ug/kg	1 / 9	11.1%	3000.00	3000.00	485.00	943.13	1061.25
Phenanthrene	ug/kg	2 / 12	16.7%	1400.00	8600.00	1863.75	2938.31	3375.27
Pyrene	ug/kg	3 / 12	25.0%	1500.00	17000.00	3197.08	5784.59	6172.79
TPH								
Non-Polar Oil & Grease	mg/kg	4 / 16	25.0%	53000.00	67000.00	15144.78	27176.19	27007.19
TPH-Extractable Unknown Hyd.	mg/kg	5 / 24	20.8%	33.00	6900.00	609.60	1618.28	1174.80
TPH-Purgeable Unknown Hyd.	mg/kg	3 / 16	18.8%	1.30	93.00	11.07	28.83	23.65
METALS								
Arsenic	mg/kg	18 / 28	64.3%	0.65	2.80	1.06	0.71	1.29
Beryllium	mg/kg	17 / 28	60.7%	0.18	0.36	0.23	7.21E-02	0.25
Cadmium	mg/kg	2 / 20	10.0%	0.41	0.45	0.37	0.12	0.41
Chromium	mg/kg	28 / 28	100.0%	9.40	26.20	14.29	4.53	15.74
Copper	mg/kg	12 / 28	42.9%	2.10	4.20	1.84	0.96	2.15
Lead	mg/kg	28 / 28	100.0%	0.73	16.80	2.56	3.16	3.58
Nickel	mg/kg	27 / 28	96.4%	5.10	25.10	11.03	4.59	12.50
Silver	mg/kg	3 / 28	10.7%	0.49	0.72	0.26	0.13	0.31
Zinc	mg/kg	17 / 28	60.7%	8.00	40.50	11.22	7.51	13.64

Table A48. Surficial Soil Analytical Results - Site 25
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
VOCs								
Acetone	mg/kg	1 / 5	20.0%	0.30	0.30	0.16	7.83E-02	0.23
PESTICIDES								
4,4'-DDE	ug/kg	3 / 9	33.3%	4.00E-03	9.00	6.44	2.94	8.24
4,4'-DDT	ug/kg	6 / 9	66.7%	8.00E-03	92.00	27.00	34.35	47.99
Dieldrin	ug/kg	1 / 9	11.1%	9.00E-03	9.00	5.67	3.48	7.79
PCBs								
Aroclor-1254	mg/kg	2 / 5	40.0%	0.16	0.88	0.21	0.38	0.55
TPH								
HBPHC	mg/kg	1 / 5	20.0%	16.00	16.00	7.20	4.92	11.63
METALS								
Antimony	mg/kg	2 / 4	50.0%	0.57	1.00	0.51	0.36	0.90
Arsenic	mg/kg	4 / 11	36.4%	1.20	1.90	1.36	0.23	1.48
Barium	mg/kg	7 / 7	100.0%	10.00	22.00	14.14	4.45	17.33
Beryllium	mg/kg	4 / 11	36.4%	0.17	0.32	0.25	3.64E-02	0.27
Cadmium	mg/kg	3 / 11	27.3%	2.10	10.60	1.65	3.11	3.33
Chromium	mg/kg	11 / 11	100.0%	6.80	22.30	10.87	4.11	13.10
Copper	mg/kg	7 / 11	63.6%	4.60	20.60	5.58	5.85	8.75
Lead	mg/kg	11 / 11	100.0%	2.00	69.90	19.08	21.25	30.59
Mercury	mg/kg	4 / 11	36.4%	2.00E-02	8.00E-02	2.91E-02	2.36E-02	4.19E-02
Nickel	mg/kg	11 / 11	100.0%	4.40	10.30	7.52	1.70	8.44
Silver	mg/kg	1 / 11	9.1%	0.65	0.65	0.44	0.14	0.52
Vanadium	mg/kg	6 / 7	85.7%	5.50	7.50	5.79	1.64	6.96
Zinc	mg/kg	11 / 11	100.0%	7.80	386.00	64.02	112.63	125.01

**Table A49. Deep Soil Analytical Results - Site 25
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Barium	mg/kg	5 / 7	71.4%	10.00	22.00	12.57	6.75	17.41
Chromium (total)	mg/kg	7 / 7	100.0%	5.40	11.00	7.39	2.25	9.00
Copper	mg/kg	2 / 7	28.6%	3.00	4.00	1.36	1.49	2.43
Lead	mg/kg	7 / 7	100.0%	1.00	2.00	1.29	0.39	1.57
Nickel	mg/kg	7 / 7	100.0%	4.30	10.00	6.47	2.04	7.93
Vanadium	mg/kg	3 / 7	42.9%	5.30	8.70	4.40	2.57	6.24
Zinc	mg/kg	7 / 7	100.0%	3.40	10.00	5.64	2.06	7.12

**Table A50. Deep Soil Analytical Results - Site 27
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
VOCs								
Tetrachloroethene	ug/kg	1 / 1	100.0%	2.00	2.00	--	--	--
METALS								
Arsenic	mg/kg	1 / 1	100.0%	1.20	1.20	--	--	--
Beryllium	mg/kg	1 / 1	100.0%	0.35	0.35	--	--	--
Chromium	mg/kg	1 / 1	100.0%	9.60	9.60	--	--	--
Copper	mg/kg	1 / 1	100.0%	4.80	4.80	--	--	--
Lead	mg/kg	1 / 1	100.0%	2.20	2.20	--	--	--
Nickel	mg/kg	1 / 1	100.0%	6.60	6.60	--	--	--
Zinc	mg/kg	1 / 1	100.0%	10.10	10.10	--	--	--

Table A51. Surficial Soil Analytical Results - Site 28
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Beryllium	mg/kg	2 / 3	66.7%	0.12	0.12	0.10	4.04E-02	0.15
Cadmium	mg/kg	1 / 3	33.3%	1.20	1.20	0.61	0.52	1.31
Chromium	mg/kg	3 / 3	100.0%	9.60	27.40	16.97	9.29	29.58
Copper	mg/kg	2 / 3	66.7%	16.10	42.40	21.13	19.25	47.28
Lead	mg/kg	3 / 3	100.0%	36.10	155.00	81.23	64.41	168.74
Mercury	mg/kg	1 / 3	33.3%	0.31	0.31	0.12	0.16	0.34
Nickel	mg/kg	3 / 3	100.0%	7.00	10.00	8.03	1.70	10.35
Silver	mg/kg	2 / 3	66.7%	2.70	72.50	25.32	40.87	80.84
Zinc	mg/kg	3 / 3	100.0%	59.60	93.50	79.17	17.55	103.00

**Table A52. Deep Soil Analytical Results - Site 28
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
<u>VOCs</u>								
Acetone	ug/kg	2 / 6	33.3%	5.30	8.00	5.55	1.21	6.51
Methylene chloride	ug/kg	1 / 6	16.7%	2.70	2.70	2.59	5.85E-02	2.64

**Table A53. Surficial Soil Analytical Results - Site 29
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
PESTICIDES								
Chlordane	ug/kg	1 / 4	25.0%	350.00	350.00	118.00	154.67	282.88
4,4'-DDD	ug/kg	1 / 4	25.0%	69.00	69.00	23.38	30.42	55.80
4,4'-DDE	ug/kg	1 / 4	25.0%	550.00	550.00	143.63	270.92	432.42
4,4'-DDT	ug/kg	3 / 4	75.0%	17.00	1000.00	265.00	490.13	787.48
METALS								
Antimony	mg/kg	1 / 4	25.0%	0.73	0.73	0.35	0.25	0.62
Arsenic	mg/kg	2 / 4	50.0%	0.64	0.67	0.46	0.23	0.70
Beryllium	mg/kg	4 / 4	100.0%	0.17	0.24	0.20	2.99E-02	0.23
Chromium	mg/kg	4 / 4	100.0%	10.90	12.40	11.53	0.75	12.32
Copper	mg/kg	4 / 4	100.0%	5.80	14.20	8.33	3.98	12.57
Lead	mg/kg	4 / 4	100.0%	10.90	70.10	28.55	27.84	58.22
Mercury	mg/kg	1 / 4	25.0%	6.00E-02	6.00E-02	3.41E-02	1.73E-02	5.25E-02
Nickel	mg/kg	1 / 4	25.0%	7.40	7.40	3.70	2.47	6.33
Zinc	mg/kg	4 / 4	100.0%	19.00	58.70	30.88	18.65	50.76

**Table A54. Shallow Soil Analytical Results - Site 29
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
TPH								
Oil & Grease	mg/kg	19 / 29	65.5%	53.00	6100.00	471.36	1180.80	843.90
TPH-Extractable Unknown Hyd.	mg/kg	7 / 29	24.1%	11.00	280.00	17.12	50.93	33.19
METALS								
Arsenic	mg/kg	29 / 29	100.0%	0.45	1.20	0.80	0.20	0.86
Cadmium	mg/kg	1 / 29	3.4%	0.49	0.49	0.25	4.67E-02	0.26
Chromium	mg/kg	29 / 29	100.0%	4.80	17.90	12.71	2.81	13.60
Copper	mg/kg	14 / 29	48.3%	2.00	42.90	5.15	7.86	7.63
Lead	mg/kg	29 / 29	100.0%	0.79	39.30	7.88	8.78	10.65
Mercury	mg/kg	3 / 29	10.3%	0.12	0.31	6.74E-02	5.46E-02	8.46E-02
Nickel	mg/kg	26 / 29	89.7%	4.00	11.40	7.29	2.85	8.19
Selenium	mg/kg	2 / 29	6.9%	0.53	0.55	0.28	7.22E-02	0.30
Silver	mg/kg	1 / 29	3.4%	23.10	23.10	1.29	4.20	2.61
Zinc	mg/kg	29 / 29	100.0%	6.40	63.80	17.86	15.26	22.67

**Table A55. Deep Soil Analytical Results - Site 29
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
TPH								
Oil & Grease	mg/kg	6 / 29	20.7%	54.00	310.00	45.02	55.82	62.63
TPH-Extractable Unknown Hyd.	mg/kg	1 / 29	3.4%	33.00	33.00	6.19	5.16	7.82
METALS								
Arsenic	mg/kg	29 / 29	100.0%	0.40	1.70	0.89	0.31	0.99
Cadmium	mg/kg	1 / 29	3.4%	0.49	0.49	0.25	4.62E-02	0.26
Chromium	mg/kg	29 / 29	100.0%	6.70	21.60	12.79	4.63	14.25
Copper	mg/kg	5 / 29	17.2%	1.90	4.50	1.66	0.76	1.90
Lead	mg/kg	24 / 29	82.8%	1.10	3.60	1.83	0.82	2.09
Nickel	mg/kg	27 / 29	93.1%	4.10	12.90	7.14	3.47	8.24
Selenium	mg/kg	1 / 29	3.4%	0.60	0.60	0.27	6.28E-02	0.29
Zinc	mg/kg	29 / 29	100.0%	3.80	29.40	8.50	5.02	10.08

**Table A56. Surficial Soil Analytical Results - Site 30
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
<u>SOCs</u>								
Bis(2-ethylhexyl)phthalate	ug/kg	1 / 1	100.0%	35000.00	35000.00	--	--	--
<u>TPH</u>								
TPH-Extractable Unknown Hyd.	mg/kg	1 / 1	100.0%	3300.00	3300.00	--	--	--

**Table A57. Deep Soil Analytical Results - Site 30
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
<u>VOCs</u>								
Methylene chloride	ug/kg	2 / 2	100.0%	2.90	4.90	3.90	1.41	6.82
<u>METALS</u>								
Arsenic	mg/kg	5 / 5	100.0%	0.72	1.10	0.97	0.18	1.13
Beryllium	mg/kg	3 / 5	60.0%	0.19	0.22	0.14	0.09	0.22
Chromium	mg/kg	5 / 5	100.0%	14.00	18.70	15.28	1.95	17.04
Copper	mg/kg	4 / 5	80.0%	3.40	4.10	3.27	1.00	4.17
Lead	mg/kg	5 / 5	100.0%	2.00	3.10	2.42	0.42	2.80
Nickel	mg/kg	5 / 5	100.0%	5.70	10.50	7.86	1.91	9.58
Zinc	mg/kg	5 / 5	100.0%	9.00	13.70	10.96	1.97	12.74

**Table A58. Surficial Soil Analytical Results - Site 31
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
SOCs								
Acenaphthene	ug/kg	1 / 13	7.7%	1800.00	1800.00	304.23	449.80	525.17
Benzo(a)anthracene	ug/kg	1 / 4	25.0%	42.00	42.00	16.75	16.83	34.70
Benzo(a)pyrene	ug/kg	1 / 4	25.0%	32.00	32.00	12.00	13.34	26.22
Benzo(b)fluoranthene	ug/kg	2 / 5	40.0%	42.00	62.00	22.05	28.24	47.50
Benzo(k)fluoranthene	ug/kg	1 / 4	25.0%	30.00	30.00	9.06	13.96	23.94
Chrysene	ug/kg	2 / 5	40.0%	49.00	110.00	44.30	38.70	79.17
Dibenzo(a,h)anthracene	ug/kg	1 / 4	25.0%	38.00	38.00	25.13	8.59	34.28
Dibenzofuran	ug/kg	1 / 1	100.0%	34.00	34.00	--	--	--
Fluoranthene	ug/kg	2 / 5	40.0%	35.00	110.00	41.50	38.78	76.45
2-Methylnaphthalene	ug/kg	3 / 8	37.5%	43.00	170.00	135.50	56.20	172.46
Naphthalene	ug/kg	2 / 2	100.0%	37.00	130.00	83.50	65.76	219.28
Phenanthrene	ug/kg	3 / 6	50.0%	36.00	130.00	70.67	31.33	95.52
Pyrene	ug/kg	1 / 4	25.0%	47.00	47.00	35.13	7.93	43.58
PESTICIDES								
4,4'-DDE	ug/kg	4 / 14	28.6%	27.00	1200.00	133.39	331.52	289.42
4,4'-DDT	ug/kg	5 / 14	35.7%	9.80	1700.00	157.13	451.27	369.52
DIOXINS/FURANS								
1,2,3,4,6,7,8-HpCDD	pg/g	13 / 22	59.1%	7.90	500.00	57.13	112.54	98.33
Total HpCDD	pg/g	13 / 22	59.1%	17.00	930.00	104.68	207.27	180.56
1,2,3,4,6,7,8-HpCDF	pg/g	11 / 22	50.0%	5.70	1300.00	76.56	274.62	177.09
1,2,3,4,7,8,9-HpCDF	pg/g	3 / 22	13.6%	6.30	14.00	1.61	3.36	2.84
Total HpCDF	pg/g	12 / 22	54.5%	6.30	3800.00	206.97	804.80	501.58
1,2,3,4,7,8-HxCDD	pg/g	1 / 22	4.5%	12.00	12.00	0.96	2.52	1.89
1,2,3,6,7,8-HxCDD	pg/g	4 / 22	18.2%	7.20	24.00	3.48	6.75	5.96
1,2,3,7,8,9-HxCDD	pg/g	3 / 22	13.6%	5.70	21.00	1.98	4.60	3.66
Total HxCDD	pg/g	10 / 22	45.5%	5.30	180.00	22.92	47.29	40.23
1,2,3,4,7,8-HxCDF	pg/g	4 / 21	19.0%	5.70	11.00	3.14	4.21	4.72
1,2,3,6,7,8-HxCDF	pg/g	2 / 22	9.1%	8.60	18.00	2.62	4.78	4.37
2,3,4,6,7,8-HxCDF	pg/g	3 / 22	13.6%	7.90	12.00	1.86	3.29	3.07
Total HxCDF	pg/g	10 / 22	45.5%	6.30	810.00	61.38	171.95	124.32
OCDD	pg/g	21 / 22	95.5%	17.00	3100.00	338.13	661.51	580.28
OCDF total	pg/g	11 / 22	50.0%	12.00	1100.00	79.64	234.09	165.33
1,2,3,7,8-PeCDD	pg/g	2 / 22	9.1%	5.60	5.70	0.80	1.59	1.38
Total PeCDD	pg/g	3 / 22	13.6%	11.00	78.00	6.39	17.40	12.76
1,2,3,7,8-PeCDF	pg/g	2 / 22	9.1%	6.10	15.00	1.35	3.31	2.56
2,3,4,7,8-PeCDF	pg/g	3 / 22	13.6%	7.90	25.00	2.49	5.60	4.54
Total PeCDF	pg/g	10 / 22	45.5%	5.20	280.00	29.38	63.44	52.61
2,3,7,8-TCDD	pg/g	3 / 22	13.6%	1.20	3.20	0.46	0.77	0.75
Total TCDD	pg/g	6 / 22	27.3%	3.00	92.00	7.10	20.55	14.63
2,3,7,8-TCDF	pg/g	4 / 22	18.2%	1.80	15.00	1.59	3.50	2.87

Table A58. Surficial Soil Analytical Results - Site 31
 Volume IV - Baseline Ecological Risk Assessment
 Fort Ord, California

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
DIOXINS/FURANS								
Total TCDF	pg/g	10 / 22	45.5%	1.60	480.00	36.87	104.36	75.07
METALS								
Antimony	mg/kg	20 / 59	33.9%	0.34	25.40	1.62	4.42	2.56
Arsenic	mg/kg	38 / 59	64.4%	0.64	5.80	1.43	1.23	1.70
Beryllium	mg/kg	43 / 59	72.9%	0.13	0.38	0.18	8.98E-02	0.20
Cadmium	mg/kg	15 / 59	25.4%	0.90	8.20	1.01	1.52	1.33
Chromium	mg/kg	59 / 59	100.0%	5.90	49.80	15.68	9.13	17.63
Copper	mg/kg	54 / 62	87.1%	1.50	699.00	39.98	114.81	63.96
Lead	mg/kg	59 / 59	100.0%	1.80	22100.00	609.46	2942.97	1239.73
Mercury	mg/kg	20 / 59	33.9%	6.00E-02	1.30	8.06E-02	0.17	0.12
Nickel	mg/kg	33 / 59	55.9%	5.60	33.80	6.78	5.87	8.04
Silver	mg/kg	5 / 59	8.5%	2.70	7.40	0.89	1.36	1.18
Zinc	mg/kg	56 / 59	94.9%	9.40	3090.00	252.53	631.07	387.68

**Table A60. Deep Soil Analytical Results - Site 31
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
VOCs								
Acetone	ug/kg	9 / 18	50.0%	6.20	10.00	6.48	1.62	7.14
Methylene chloride	ug/kg	1 / 18	5.6%	3.60	3.60	2.70	0.24	2.80
PESTICIDES								
4,4'-DDE	ug/kg	1 / 3	33.3%	18.00	18.00	12.00	5.29	19.19
4,4'-DDT	ug/kg	1 / 3	33.3%	42.00	42.00	20.00	19.08	45.92
DIOXINS/FURANS								
1,2,3,4,6,7,8-HpCDD	pg/g	4 / 11	36.4%	22.00	68.00	17.20	26.51	31.56
Total HpCDD	pg/g	4 / 11	36.4%	44.00	130.00	31.56	49.50	58.36
1,2,3,4,6,7,8-HpCDF	pg/g	3 / 11	27.3%	8.70	14.00	4.38	5.02	7.10
Total HpCDF	pg/g	3 / 11	27.3%	8.70	28.00	6.42	9.33	11.48
1,2,3,6,7,8-HxCDD	pg/g	1 / 11	9.1%	5.90	5.90	0.97	1.74	1.92
Total HxCDD	pg/g	2 / 11	18.2%	28.00	34.00	6.29	12.32	12.96
1,2,3,4,7,8-HxCDF	pg/g	1 / 11	9.1%	5.70	5.70	2.43	1.55	3.27
Total HxCDF	pg/g	3 / 11	27.3%	5.70	50.00	7.91	14.71	15.88
OCDD	pg/g	5 / 11	45.5%	26.00	340.00	80.75	115.96	143.55
Total PeCDD	pg/g	1 / 11	9.1%	15.00	15.00	2.15	4.31	4.48
Total PeCDF	pg/g	3 / 11	27.3%	6.70	71.00	9.78	21.01	21.16
Total TCDD	pg/g	4 / 11	36.4%	1.70	63.00	6.58	18.76	16.73
2,3,7,8-TCDF	pg/g	4 / 11	36.4%	1.20	5.60	1.21	1.68	2.12
Total TCDF	pg/g	5 / 11	45.5%	6.80	92.00	13.77	27.05	28.42
TPH								
TPH-Diesel	mg/kg	1 / 18	5.6%	12.00	12.00	5.64	1.62	6.30
METALS								
Antimony	mg/kg	7 / 12	58.3%	0.78	2.60	0.95	0.82	1.37
Arsenic	mg/kg	18 / 30	60.0%	0.72	40.80	3.45	7.83	5.81
Beryllium	mg/kg	17 / 30	56.7%	0.19	0.59	0.26	0.14	0.30
Cadmium	mg/kg	2 / 30	6.7%	1.60	4.40	0.58	0.79	0.82
Chromium	mg/kg	30 / 30	100.0%	5.50	49.20	16.74	10.54	19.91
Copper	mg/kg	18 / 30	60.0%	1.30	1180.00	85.42	269.94	166.49
Lead	mg/kg	30 / 30	100.0%	1.40	2410.00	221.75	560.46	390.07
Mercury	mg/kg	6 / 30	20.0%	8.00E-02	0.51	7.18E-02	8.82E-02	0.10
Nickel	mg/kg	21 / 30	70.0%	5.30	140.00	15.53	26.17	23.39
Silver	mg/kg	2 / 30	6.7%	2.50	3.00	0.52	0.70	0.73
Thallium	mg/kg	1 / 26	3.8%	0.53	0.53	0.22	6.74E-02	0.24
Zinc	mg/kg	28 / 30	93.3%	6.40	1820.00	223.62	510.69	376.99

**Table A62. Shallow Soil Analytical Results - Site 32
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Beryllium	mg/kg	2 / 3	66.7%	0.53	0.55	0.39	0.26	0.74
Cadmium	mg/kg	1 / 3	33.3%	0.62	0.62	0.40	0.19	0.66
Chromium	mg/kg	3 / 3	100.0%	8.60	11.10	10.17	1.37	12.02
Copper	mg/kg	1 / 3	33.3%	8.90	8.90	3.82	4.41	9.81
Lead	mg/kg	3 / 3	100.0%	1.60	1.70	1.67	5.77E-02	1.75
Nickel	mg/kg	2 / 3	66.7%	8.10	8.80	6.65	3.14	10.91
Zinc	mg/kg	3 / 3	100.0%	7.00	12.60	9.07	3.07	13.24

**Table A63. Deep Soil Analytical Results - Site 32
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Beryllium	mg/kg	1 / 1	100.0%	0.27	0.27	--	--	--
Chromium	mg/kg	1 / 1	100.0%	8.00	8.00	--	--	--
Lead	mg/kg	1 / 1	100.0%	0.88	0.88	--	--	--
Nickel	mg/kg	1 / 1	100.0%	7.20	7.20	--	--	--
Zinc	mg/kg	1 / 1	100.0%	6.60	6.60	--	--	--

**Table A64. Surficial Soil Analytical Results - Site 33
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
PESTICIDES								
gamma-BHC	ug/kg	1 / 11	9.1%	19.00	19.00	5.88	4.38	8.26
Chlordane	ug/kg	5 / 12	41.7%	210.00	5900.00	832.63	1678.30	1695.97
4,4'-DDD	ug/kg	4 / 12	33.3%	71.00	930.00	123.46	262.80	258.65
4,4'-DDE	ug/kg	2 / 5	40.0%	12.00	140.00	52.10	60.09	106.25
4,4'-DDT	ug/kg	7 / 12	58.3%	9.90	4900.00	615.41	1418.88	1345.31
Dieldrin	ug/kg	9 / 12	75.0%	13.00	1000.00	205.08	332.18	375.96
Endrin	ug/kg	2 / 11	18.2%	18.00	21.00	11.09	4.35	13.44
HERBICIDES								
Dicamba	ug/kg	1 / 8	12.5%	130.00	130.00	33.38	41.65	60.76
METALS								
Antimony	mg/kg	7 / 12	58.3%	0.46	3.60	0.77	0.98	1.28
Arsenic	mg/kg	11 / 12	91.7%	1.20	4.50	1.88	0.96	2.37
Beryllium	mg/kg	2 / 12	16.7%	0.15	0.16	0.09	3.47E-02	0.11
Cadmium	mg/kg	5 / 12	41.7%	0.94	2.30	0.94	0.68	1.29
Chromium	mg/kg	12 / 12	100.0%	4.30	36.00	13.28	8.48	17.65
Copper	mg/kg	11 / 12	91.7%	5.60	52.90	16.03	13.59	23.02
Lead	mg/kg	11 / 12	91.7%	6.30	118.00	44.81	38.19	64.46
Mercury	mg/kg	11 / 12	91.7%	0.12	65.00	8.48	18.46	17.98
Nickel	mg/kg	3 / 12	25.0%	6.50	10.60	4.24	2.79	5.68
Silver	mg/kg	2 / 12	16.7%	5.80	7.60	1.51	2.46	2.78
Thallium	mg/kg	1 / 12	8.3%	0.50	0.50	0.26	8.56E-02	0.30
Zinc	mg/kg	10 / 12	83.3%	42.60	213.00	101.03	67.51	135.75

**Table A65. Shallow Soil Analytical Results - Site 33
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
PESTICIDES								
Chlordane	ug/kg	3 / 7	42.9%	54.00	570.00	134.36	196.17	274.86
4,4'-DDD	ug/kg	2 / 8	25.0%	34.00	550.00	79.94	190.14	204.98
4,4'-DDT	ug/kg	2 / 8	25.0%	240.00	11000.00	1411.94	3875.00	3960.18
Dieldrin	ug/kg	4 / 8	50.0%	14.00	310.00	76.00	119.36	154.49
HERBICIDES								
Dicamba	ug/kg	1 / 8	12.5%	19.00	19.00	14.69	2.27	16.18
METALS								
Antimony	mg/kg	1 / 8	12.5%	0.72	0.72	0.23	0.20	0.36
Arsenic	mg/kg	8 / 8	100.0%	1.30	2.30	1.78	0.32	1.99
Beryllium	mg/kg	1 / 7	14.3%	0.13	0.13	0.09	3.19E-02	0.12
Cadmium	mg/kg	1 / 8	12.5%	1.90	1.90	0.62	0.52	0.96
Chromium	mg/kg	8 / 8	100.0%	3.30	14.30	10.98	3.29	13.14
Copper	mg/kg	7 / 8	87.5%	2.50	14.30	4.98	3.93	7.56
Lead	mg/kg	8 / 8	100.0%	2.80	19.70	9.46	6.00	13.41
Mercury	mg/kg	6 / 8	75.0%	0.15	2.40	0.54	0.80	1.07
Nickel	mg/kg	6 / 7	85.7%	5.90	10.30	7.41	2.66	9.31
Zinc	mg/kg	6 / 8	75.0%	21.50	87.70	40.12	30.70	60.31

**Table A66. Deep Soil Analytical Results - Site 33
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
PESTICIDES								
Chlordane	ug/kg	3 / 9	33.3%	43.00	630.00	114.11	194.12	232.72
4,4'-DDD	ug/kg	2 / 9	22.2%	24.00	110.00	21.89	33.46	42.33
4,4'-DDT	ug/kg	2 / 9	22.2%	100.00	1200.00	151.44	394.36	392.40
Dieldrin	ug/kg	3 / 9	33.3%	21.00	53.00	19.39	18.96	30.97
HERBICIDES								
Dicamba	ug/kg	2 / 9	22.2%	14.00	210.00	34.06	66.03	74.40
METALS								
Arsenic	mg/kg	8 / 9	88.9%	1.10	2.60	1.54	0.67	1.95
Beryllium	mg/kg	3 / 9	33.3%	0.13	0.29	0.11	7.30E-02	0.16
Cadmium	mg/kg	2 / 9	22.2%	1.00	1.20	0.58	0.30	0.76
Chromium	mg/kg	9 / 9	100.0%	8.50	14.10	11.61	2.03	12.85
Copper	mg/kg	5 / 9	55.6%	1.90	22.10	4.27	6.76	8.39
Lead	mg/kg	8 / 9	88.9%	2.00	8.00	3.52	2.43	5.00
Mercury	mg/kg	6 / 9	66.7%	0.16	0.56	0.21	0.19	0.33
Nickel	mg/kg	6 / 9	66.7%	6.30	11.70	7.21	3.71	9.47
Zinc	mg/kg	5 / 9	55.6%	15.70	47.00	18.44	15.86	28.13
INORGANICS								
Sodium	mg/kg	3 / 9	33.3%	73.50	159.00	84.22	28.13	101.41

Table A67. Shallow Soil Analytical Results - Site 34
 Volume IV - Baseline Ecological Risk Assessment
 Fort Ord, California

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Arsenic	mg/kg	1 / 1	100.0%	0.70	0.70	--	--	--
Lead	mg/kg	1 / 1	100.0%	2.80	2.80	--	--	--
Selenium	mg/kg	1 / 1	100.0%	0.74	0.74	--	--	--

**Table A68. Deep Soil Analytical Results - Site 34
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
VOCs								
Methylene chloride	ug/kg	2 / 4	50.0%	3.20	3.80	3.11	0.51	3.66
Xylenes	ug/kg	1 / 5	20.0%	6500.00	6500.00	1302.14	2905.69	3920.56
TPH								
TPH-Extractable Unknown Hyd.	mg/kg	1 / 5	20.0%	200.00	200.00	44.30	87.04	122.73
TPH-Purgeable Unknown Hyd.	mg/kg	1 / 5	20.0%	7900.00	7900.00	1580.43	3532.75	4763.91
METALS								
Arsenic	mg/kg	5 / 5	100.0%	0.61	1.20	0.88	0.23	1.08
Chromium	mg/kg	4 / 5	80.0%	6.10	14.00	6.97	4.90	11.38
Copper	mg/kg	1 / 5	20.0%	4.00	4.00	1.27	1.54	2.67
Lead	mg/kg	5 / 5	100.0%	0.94	2.10	1.45	0.50	1.90
Nickel	mg/kg	4 / 5	80.0%	5.00	9.80	6.23	3.08	9.00
Thallium	mg/kg	1 / 5	20.0%	0.53	0.53	0.28	0.14	0.40
Zinc	mg/kg	4 / 5	80.0%	5.00	7.20	5.03	2.59	7.36

**Table A69. Surficial Soil Analytical Results - Site 35
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Arsenic	mg/kg	5 / 10	50.0%	1.00	1.40	0.86	0.39	1.08
Beryllium	mg/kg	10 / 10	100.0%	0.14	0.30	0.23	6.04E-02	0.26
Chromium	mg/kg	10 / 10	100.0%	6.10	15.70	9.19	2.85	10.82
Lead	mg/kg	10 / 10	100.0%	2.60	10.10	5.73	2.24	7.01
Nickel	mg/kg	8 / 10	80.0%	4.80	9.50	5.45	2.03	6.61
Selenium	mg/kg	1 / 10	10.0%	0.95	0.95	0.46	0.17	0.56
Zinc	mg/kg	8 / 10	80.0%	16.10	24.30	16.68	5.76	19.97

**Table A70. Shallow Soil Analytical Results - Site 35
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Chromium	mg/kg	1 / 1	100.0%	9.50	9.50	--	--	--
Lead	mg/kg	1 / 1	100.0%	1.70	1.70	--	--	--
Mercury	mg/kg	1 / 1	100.0%	0.39	0.39	--	--	--
Nickel	mg/kg	1 / 1	100.0%	9.00	9.00	--	--	--
Zinc	mg/kg	1 / 1	100.0%	9.00	9.00	--	--	--

**Table A71. Deep Soil Analytical Results - Site 35
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
<u>VOCs</u>								
Acetone	ug/kg	1 / 3	33.3%	6.00	6.00	5.50	0.50	6.18
<u>METALS</u>								
Beryllium	mg/kg	1 / 3	33.3%	0.42	0.42	0.20	0.19	0.46
Chromium	mg/kg	3 / 3	100.0%	5.10	10.10	8.20	2.71	11.88
Lead	mg/kg	3 / 3	100.0%	0.92	1.30	1.11	0.19	1.36
Mercury	mg/kg	1 / 3	33.3%	0.13	0.13	7.83E-02	4.48E-02	0.14
Nickel	mg/kg	2 / 3	66.7%	7.10	7.60	5.88	2.55	9.35

**Table A72. Surficial Soil Analytical Results - Site 36
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
VOCs								
Acetone	ug/kg	1 / 1	100.0%	3.90	3.90	--	--	--
SOCs								
Bis(2-ethylhexyl)phthalate	ug/kg	2 / 2	100.0%	120.00	150.00	135.00	21.21	178.80
METALS								
Antimony	mg/kg	1 / 2	50.0%	1.00	1.00	0.61	0.55	1.75
Arsenic	mg/kg	2 / 2	100.0%	0.97	1.20	1.09	0.16	1.42
Cadmium	mg/kg	2 / 2	100.0%	1.40	4.30	2.85	2.05	7.08
Chromium	mg/kg	2 / 2	100.0%	11.80	24.20	18.00	8.77	36.10
Copper	mg/kg	2 / 2	100.0%	9.70	22.30	16.00	8.91	34.40
Lead	mg/kg	2 / 2	100.0%	37.90	54.00	45.95	11.38	69.46
Mercury	mg/kg	2 / 2	100.0%	6.00E-02	7.00E-02	6.50E-02	7.07E-03	7.96E-02
Silver	mg/kg	1 / 2	50.0%	0.88	0.88	0.56	0.46	1.50
Zinc	mg/kg	2 / 2	100.0%	36.30	82.30	59.30	32.53	126.46

**Table A73. Shallow Soil Analytical Results - Site 36
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
SOCs								
Di-n-octylphthalate	ug/kg	1 / 1	100.0%	77.00	77.00	--	--	--
Bis(2-ethylhexyl)phthalate	ug/kg	1 / 1	100.0%	48.00	48.00	--	--	--
METALS								
Arsenic	mg/kg	1 / 2	50.0%	1.20	1.20	0.73	0.66	2.10
Beryllium	mg/kg	2 / 2	100.0%	0.23	0.31	0.27	5.66E-02	0.39
Chromium	mg/kg	2 / 2	100.0%	11.30	11.70	11.50	0.28	12.08
Copper	mg/kg	2 / 2	100.0%	3.40	4.20	3.80	0.57	4.97
Lead	mg/kg	2 / 2	100.0%	1.70	1.80	1.75	7.07E-02	1.90
Nickel	mg/kg	2 / 2	100.0%	7.80	13.40	10.60	3.96	18.78
Zinc	mg/kg	1 / 2	50.0%	7.50	7.50	7.25	0.35	7.98

**Table A74. Deep Soil Analytical Results - Site 36
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
SOCs								
Bis(2-ethylhexyl)phthalate	ug/kg	3 / 3	100.0%	53.00	77.00	63.33	12.34	80.10
METALS								
Arsenic	mg/kg	3 / 5	60.0%	0.65	0.66	0.50	0.22	0.69
Beryllium	mg/kg	3 / 5	60.0%	0.18	0.54	0.21	0.20	0.39
Chromium	mg/kg	5 / 5	100.0%	5.40	18.10	9.94	5.13	14.56
Copper	mg/kg	3 / 5	60.0%	1.40	5.60	2.27	1.97	4.05
Lead	mg/kg	5 / 5	100.0%	0.83	2.90	1.33	0.88	2.13
Nickel	mg/kg	4 / 5	80.0%	5.10	14.90	8.80	5.03	13.34
Zinc	mg/kg	3 / 5	60.0%	5.20	17.30	10.10	6.23	15.72
INORGANICS								
Nitrate as N	mg/kg	2 / 2	100.0%	0.66	1.40	1.03	0.52	2.11

**Table A75. Deep Soil Analytical Results - Site 37
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
VOCs								
Acetone	ug/kg	1 / 3	33.3%	5.20	5.20	5.07	0.12	5.22
TPH								
Oil & Grease	mg/kg	1 / 1	100.0%	63.00	63.00	--	--	--
TPH-Extractable Unknown Hyd.	mg/kg	1 / 3	33.3%	15.00	15.00	8.33	5.77	16.18
METALS								
Arsenic	mg/kg	3 / 3	100.0%	1.20	1.70	1.47	0.25	1.81
Chromium	mg/kg	3 / 3	100.0%	5.00	7.80	6.30	1.41	8.22
Copper	mg/kg	3 / 3	100.0%	0.98	2.50	1.53	0.85	2.67
Nickel	mg/kg	1 / 3	33.3%	7.50	7.50	4.45	2.64	8.04
Zinc	mg/kg	3 / 3	100.0%	3.70	8.40	5.43	2.58	8.94

**Table A76. Surficial Soil Analytical Results - Site 39 Vegetated Area
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
SOCs								
2-Amino-dinitrotoluene	mg/kg	1 / 91	1.1%	0.13	0.13	0.13	5.24E-04	0.13
4-Amino-dinitrotoluene	mg/kg	1 / 91	1.1%	0.13	0.13	0.13	5.24E-04	0.13
Bis(2-ethylhexyl)phthalate	ug/kg	2 / 2	100.0%	62.00	200.00	131.00	97.58	332.48
HMX	mg/kg	6 / 91	6.6%	0.14	120.00	2.27	14.74	4.82
Tetryl	mg/kg	1 / 91	1.1%	0.39	0.39	0.13	2.78E-02	0.13
Pentachlorophenol	ug/kg	1 / 1	100.0%	75.00	75.00	--	--	--
PETN	mg/kg	1 / 91	1.1%	1.50	1.50	0.26	0.13	0.29
RDX	mg/kg	5 / 91	5.5%	0.12	1.50	0.15	0.16	0.18
METALS								
Antimony	mg/kg	21 / 99	21.2%	0.46	27.90	0.95	2.90	1.43
Arsenic	mg/kg	65 / 99	65.7%	0.53	6.80	1.09	0.83	1.23
Beryllium	mg/kg	22 / 97	22.7%	0.13	0.84	0.14	0.12	0.15
Cadmium	mg/kg	15 / 97	15.5%	0.98	25.30	0.96	2.75	1.41
Chromium	mg/kg	96 / 97	99.0%	3.70	65.00	12.32	10.35	14.05
Copper	mg/kg	37 / 97	38.1%	3.60	1640.00	57.38	229.57	95.73
Lead	mg/kg	100 / 101	99.0%	1.10	4060.00	87.78	437.73	159.43
Mercury	mg/kg	1 / 97	1.0%	7.00E-02	7.00E-02	2.78E-02	6.82E-03	2.89E-02
Nickel	mg/kg	56 / 97	57.7%	4.90	45.70	6.98	7.40	8.22
Selenium	mg/kg	2 / 98	2.0%	1.00	1.00	0.43	0.10	0.45
Silver	mg/kg	2 / 96	2.1%	0.49	0.66	0.25	6.18E-02	0.26
Zinc	mg/kg	60 / 97	61.9%	6.80	8910.00	128.13	909.10	279.97
INORGANICS								
Total Organic Carbon	mg/kg	6 / 6	100.0%	632.00	16200.00	6020.33	5500.28	10383.30
pH	ph	2 / 2	100.0%	5.70	7.00	6.35	0.92	8.25

**Table A77. Shallow Soil Analytical Results - Site 39 Vegetated Area
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
SOCs								
HMX	mg/kg	3 / 90	3.3%	0.19	13.00	0.27	1.36	0.51
RDX	mg/kg	1 / 90	1.1%	0.22	0.22	0.13	1.00E-02	0.13
METALS								
Antimony	mg/kg	8 / 96	8.3%	0.50	0.92	0.29	0.13	0.31
Arsenic	mg/kg	68 / 93	73.1%	0.54	7.90	1.28	0.91	1.44
Beryllium	mg/kg	24 / 93	25.8%	0.13	0.97	0.16	0.13	0.18
Cadmium	mg/kg	1 / 93	1.1%	1.80	1.80	0.48	0.14	0.50
Chromium	mg/kg	93 / 94	98.9%	5.30	47.60	12.33	7.46	13.59
Copper	mg/kg	11 / 93	11.8%	1.80	76.80	3.65	10.53	5.44
Lead	mg/kg	95 / 95	100.0%	0.89	54.00	4.76	10.06	6.46
Mercury	mg/kg	6 / 93	6.5%	5.00E-02	0.11	2.97E-02	1.25E-02	3.19E-02
Nickel	mg/kg	52 / 93	55.9%	5.20	28.10	6.64	5.52	7.58
Selenium	mg/kg	3 / 95	3.2%	0.90	1.80	0.46	0.18	0.49
Zinc	mg/kg	39 / 94	41.5%	5.70	40.20	9.72	10.15	11.44
INORGANICS								
Total Organic Carbon	mg/kg	6 / 6	100.0%	488.00	7100.00	2009.50	2525.20	4012.56

**Table A78. Deep Soil Analytical Results - Site 39 Vegetated Area
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Arsenic	mg/kg	8 / 18	44.4%	0.63	3.40	1.15	0.84	1.49
Beryllium	mg/kg	9 / 18	50.0%	0.14	0.75	0.30	0.25	0.40
Chromium	mg/kg	18 / 18	100.0%	6.10	29.70	14.54	7.34	17.54
Copper	mg/kg	6 / 18	33.3%	3.90	10.20	3.18	3.41	4.57
Lead	mg/kg	18 / 18	100.0%	0.69	7.00	3.08	1.84	3.83
Mercury	mg/kg	2 / 17	11.8%	6.00E-02	0.17	4.24E-02	3.52E-02	5.73E-02
Nickel	mg/kg	11 / 18	61.1%	7.10	23.80	9.09	6.59	11.79
Selenium	mg/kg	2 / 18	11.1%	0.66	1.20	0.47	0.20	0.55
Silver	mg/kg	1 / 18	5.6%	0.55	0.55	0.27	8.87E-02	0.31
Zinc	mg/kg	10 / 18	55.6%	6.10	41.50	9.93	9.76	13.92
INORGANICS								
Moisture Content	%	3 / 3	100.0%	3.30	9.40	7.20	3.39	11.80
Total Organic Carbon	mg/kg	4 / 4	100.0%	375.00	461.00	421.25	45.17	469.40
pH	ph	1 / 1	100.0%	6.80	6.80	--	--	--

**Table A79. Surficial Soil Analytical Results - Site 39 Nonvegetated Area
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
SOCs								
2-Amino-dinitrotoluene	mg/kg	10 / 52	19.2%	0.10	1.20	0.18	0.19	0.22
4-Amino-dinitrotoluene	mg/kg	11 / 52	21.2%	0.10	1.50	0.19	0.23	0.24
Di-n-octylphthalate	ug/kg	1 / 1	100.0%	55.00	55.00	--	--	--
Bis(2-ethylhexyl)phthalate	ug/kg	8 / 11	72.7%	50.00	420.00	189.36	116.27	252.33
HMX	mg/kg	19 / 52	36.5%	0.10	1100.00	33.26	154.34	68.47
2-Methylnaphthalene	ug/kg	1 / 12	8.3%	2600.00	2600.00	394.17	696.55	752.48
4-Nitrophenol	ug/kg	1 / 1	100.0%	68.00	68.00	--	--	--
Pentachlorophenol	ug/kg	2 / 2	100.0%	49.00	58.00	53.50	6.36	66.64
Phenanthrene	ug/kg	1 / 11	9.1%	210.00	210.00	180.45	11.28	186.56
Pyrene	ug/kg	1 / 11	9.1%	190.00	190.00	178.64	6.74	182.29
RDX	mg/kg	14 / 52	26.9%	0.11	12.00	0.67	2.24	1.18
1,3,5-Trinitrobenzene	mg/kg	1 / 52	1.9%	0.14	0.14	0.13	2.08E-03	0.13
2,4,6-Trinitrotoluene	mg/kg	2 / 52	3.8%	0.16	4.00	0.20	0.54	0.32
TPH								
TPH-Extractable Unknown Hyd.	mg/kg	5 / 27	18.5%	13.00	1400.00	78.22	274.86	168.31
TPH-Purgeable Unknown Hyd.	ug/kg	1 / 1	100.0%	10000.00	10000.00	--	--	--
METALS								
Antimony	mg/kg	25 / 77	32.5%	0.46	100.00	3.22	12.82	5.62
Arsenic	mg/kg	61 / 75	81.3%	0.74	10.50	1.86	1.51	2.15
Beryllium	mg/kg	20 / 74	27.0%	0.12	66.90	1.09	7.76	2.58
Cadmium	mg/kg	24 / 74	32.4%	0.93	104.00	7.52	19.98	11.34
Chromium	mg/kg	74 / 75	98.7%	6.70	380.00	22.10	47.31	31.09
Copper	mg/kg	47 / 76	61.8%	0.49	12900.00	325.06	1570.13	621.33
Lead	mg/kg	77 / 78	98.7%	1.40	2700.00	140.71	426.78	220.20
Mercury	mg/kg	2 / 74	2.7%	5.00E-02	8.00E-02	2.78E-02	7.31E-03	2.92E-02
Nickel	mg/kg	70 / 74	94.6%	5.10	344.00	18.07	41.31	25.97
Selenium	mg/kg	3 / 75	4.0%	1.00	1.00	0.45	0.12	0.47
Silver	mg/kg	6 / 74	8.1%	0.50	12.30	0.60	1.68	0.92
Zinc	mg/kg	53 / 74	71.6%	5.20	3080.00	145.29	504.88	241.84
EXPLOSIVES								
Nitroglycerin	mg/kg	3 / 52	5.8%	0.28	8.10	0.41	1.09	0.65
INORGANICS								
Total Organic Carbon	mg/kg	2 / 2	100.0%	554.00	6900.00	3727.00	4487.30	12992.16
pH	ph	1 / 1	100.0%	6.60	6.60	--	--	--

**Table A80. Shallow Soil Analytical Results - Site 39 Nonvegetated Area
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
SOCs								
2-Amino-dinitrotoluene	mg/kg	1 / 1	100.0%	0.10	0.10	--	--	--
Bis(2-ethylhexyl)phthalate	ug/kg	1 / 1	100.0%	140.00	140.00	--	--	--
HMX	mg/kg	11 / 54	20.4%	0.18	56.00	1.54	7.73	3.27
4-Nitrophenol	ug/kg	1 / 1	100.0%	98.00	98.00	--	--	--
Pentachlorophenol	ug/kg	1 / 1	100.0%	67.00	67.00	--	--	--
RDX	mg/kg	5 / 54	9.3%	0.12	0.50	0.14	5.50E-02	0.15
METALS								
Antimony	mg/kg	5 / 74	6.8%	0.52	1.30	0.30	0.19	0.34
Arsenic	mg/kg	54 / 74	73.0%	0.53	3.90	1.47	0.81	1.63
Beryllium	mg/kg	22 / 74	29.7%	0.18	1.10	0.22	0.21	0.26
Cadmium	mg/kg	4 / 74	5.4%	1.60	3.30	0.60	0.51	0.70
Chromium	mg/kg	72 / 74	97.3%	6.60	51.60	14.60	9.83	16.48
Copper	mg/kg	24 / 74	32.4%	2.10	1220.00	25.29	143.83	52.79
Lead	mg/kg	74 / 74	100.0%	0.62	362.00	15.16	46.12	23.98
Mercury	mg/kg	3 / 74	4.1%	7.00E-02	7.00E-02	2.87E-02	8.58E-03	3.03E-02
Nickel	mg/kg	61 / 74	82.4%	5.30	25.00	9.12	5.27	10.13
Selenium	mg/kg	4 / 74	5.4%	0.85	1.00	0.46	0.11	0.48
Zinc	mg/kg	42 / 74	56.8%	6.60	542.00	23.30	64.68	35.67
INORGANICS								
Total Organic Carbon	mg/kg	2 / 2	100.0%	902.00	1700.00	1301.00	564.27	2466.08

**Table A81. Deep Soil Analytical Results - Site 39 Nonvegetated Area
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
SOCs								
HMX	mg/kg	2 / 15	13.3%	0.20	1.00	0.22	0.22	0.32
RDX	mg/kg	1 / 1	100.0%	0.11	0.11	--	--	--
TPH								
TPH-Extractable Unknown Hyd.	mg/kg	1 / 59	1.7%	28.00	28.00	6.02	2.93	6.64
METALS								
Antimony	mg/kg	2 / 58	3.4%	0.53	0.55	0.28	8.26E-02	0.29
Arsenic	mg/kg	48 / 64	75.0%	0.61	4.80	1.70	1.05	1.92
Beryllium	mg/kg	38 / 64	59.4%	0.20	1.30	0.41	0.30	0.47
Cadmium	mg/kg	1 / 64	1.6%	0.65	0.65	0.47	6.44E-02	0.48
Chromium	mg/kg	59 / 64	92.2%	4.40	69.20	21.43	14.38	24.38
Copper	mg/kg	37 / 64	57.8%	2.00	26.30	5.47	5.60	6.62
Lead	mg/kg	71 / 71	100.0%	0.83	23.80	4.04	3.49	4.72
Mercury	mg/kg	7 / 62	11.3%	7.00E-02	0.19	3.80E-02	2.68E-02	4.36E-02
Nickel	mg/kg	50 / 64	78.1%	5.10	43.10	12.38	8.28	14.08
Selenium	mg/kg	1 / 64	1.6%	1.10	1.10	0.44	0.10	0.46
Silver	mg/kg	1 / 64	1.6%	0.91	0.91	0.26	8.75E-02	0.28
Zinc	mg/kg	43 / 64	67.2%	7.30	147.00	16.14	18.93	20.04
INORGANICS								
Moisture Content	%	4 / 4	100.0%	7.20	8.50	7.85	0.70	8.59
pH	ph	7 / 7	100.0%	4.80	7.70	6.09	1.02	6.82

**Table A82. Surficial Soil Analytical Results - Site 40
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
VOCs								
Methyl ethyl ketone	ug/kg	1 / 1	100.0%	4.00	4.00	--	--	--
Toluene	ug/kg	3 / 8	37.5%	1.10	3.10	2.29	0.73	2.77
SOCs								
Fluoranthene	ug/kg	1 / 4	25.0%	2100.00	2100.00	783.75	912.70	1756.69
Pentachlorophenol	ug/kg	1 / 1	100.0%	390.00	390.00	--	--	--
Pyrene	ug/kg	1 / 4	25.0%	1500.00	1500.00	633.75	629.70	1305.01
TPH								
Non-Polar Oil & Grease	mg/kg	4 / 5	80.0%	16000.00	30000.00	19205.20	12184.03	30184.66
TPH-Extractable Unknown Hyd.	mg/kg	5 / 10	50.0%	340.00	950.00	319.50	369.15	531.02
METALS								
Arsenic	mg/kg	3 / 9	33.3%	0.52	1.10	0.62	0.26	0.78
Cadmium	mg/kg	2 / 9	22.2%	1.00	1.90	0.67	0.50	0.97
Chromium	mg/kg	9 / 9	100.0%	7.80	12.50	9.89	1.75	10.96
Copper	mg/kg	5 / 9	55.6%	1.70	5.50	2.12	1.68	3.14
Lead	mg/kg	9 / 9	100.0%	1.50	669.00	95.66	221.04	230.71
Nickel	mg/kg	8 / 9	88.9%	5.90	11.70	7.21	2.64	8.82
Zinc	mg/kg	8 / 9	88.9%	6.00	12.50	9.74	3.26	11.73

**Table A83. Shallow Soil Analytical Results - Site 40
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
VOCs								
Acetone	ug/kg	2 / 2	100.0%	2.80	2.80	2.80	1.00E-08	2.80
Tetrachloroethene	ug/kg	1 / 1	100.0%	2.10	2.10	--	--	--
Trichloroethene	ug/kg	1 / 1	100.0%	1.70	1.70	--	--	--
SOCs								
Bis(2-ethylhexyl)phthalate	ug/kg	2 / 2	100.0%	56.00	100.00	78.00	31.11	142.24
METALS								
Arsenic	mg/kg	4 / 6	66.7%	0.64	1.20	0.81	0.24	1.00
Chromium	mg/kg	6 / 6	100.0%	6.10	11.10	7.87	1.68	9.20
Copper	mg/kg	5 / 6	83.3%	0.99	2.00	1.55	0.42	1.88
Lead	mg/kg	6 / 6	100.0%	0.86	2.60	1.58	0.57	2.03
Nickel	mg/kg	5 / 6	83.3%	6.00	10.40	6.63	2.49	8.60
Zinc	mg/kg	6 / 6	100.0%	5.90	13.10	9.05	2.89	11.34

**Table A84. Deep Soil Analytical Results - Site 40
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
VOCs								
Acetone	ug/kg	2 / 24	8.3%	22.00	22.00	7.63	5.45	9.53
Methyl ethyl ketone	ug/kg	4 / 25	16.0%	4.00	8.90	5.55	0.91	5.86
Methylene chloride	ug/kg	1 / 2	50.0%	1.50	1.50	1.50	--	1.50
Toluene	ug/kg	2 / 2	100.0%	1.10	1.90	1.50	0.57	2.67
SOCs								
Bis(2-ethylhexyl)phthalate	ug/kg	8 / 8	100.0%	35.00	130.00	70.13	36.86	94.37
Pentachlorophenol	ug/kg	1 / 1	100.0%	96.00	96.00	--	--	--
TPH								
TPH-Extractable Unknown Hyd.	mg/kg	1 / 38	2.6%	15.00	15.00	5.39	1.62	5.83
METALS								
Antimony	mg/kg	2 / 24	8.3%	0.32	0.36	0.21	5.72E-02	0.23
Arsenic	mg/kg	10 / 25	40.0%	0.59	1.30	0.68	0.28	0.78
Beryllium	mg/kg	2 / 25	8.0%	0.19	0.22	0.11	5.15E-02	0.13
Chromium	mg/kg	25 / 25	100.0%	4.80	12.10	8.90	1.67	9.47
Copper	mg/kg	12 / 25	48.0%	1.00	4.80	1.69	1.03	2.04
Lead	mg/kg	25 / 25	100.0%	0.59	2.70	1.64	0.48	1.80
Nickel	mg/kg	17 / 25	68.0%	5.30	11.90	6.24	3.00	7.26
Zinc	mg/kg	24 / 25	96.0%	4.20	23.00	10.87	4.17	12.29

Table A85. Surficial Soil Analytical Results - Site 41
 Volume IV - Baseline Ecological Risk Assessment
 Fort Ord, California

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
<u>VOCs</u>								
Methyl ethyl ketone	ug/kg	1 / 1	100.0%	1.40	1.40	--	--	--
Toluene	ug/kg	2 / 2	100.0%	1.50	2.40	1.95	0.64	3.26
<u>SOCs</u>								
Bis(2-ethylhexyl)phthalate	ug/kg	4 / 5	80.0%	37.00	230.00	130.60	83.24	205.61
<u>TPH</u>								
TPH-Extractable Unknown Hyd.	mg/kg	5 / 7	71.4%	20.00	440.00	114.50	169.45	235.87
<u>METALS</u>								
Arsenic	mg/kg	3 / 4	75.0%	3.30	47.70	14.35	22.27	38.09
Beryllium	mg/kg	4 / 4	100.0%	0.73	2.20	1.36	0.62	2.02
Cadmium	mg/kg	1 / 4	25.0%	2.00	2.00	0.89	0.74	1.68
Chromium	mg/kg	4 / 4	100.0%	31.70	73.80	52.28	17.35	70.77
Copper	mg/kg	4 / 4	100.0%	7.50	139.00	48.78	61.29	114.12
Lead	mg/kg	4 / 4	100.0%	10.40	112.00	39.55	48.51	91.26
Nickel	mg/kg	4 / 4	100.0%	11.00	102.00	41.20	41.44	85.37
Selenium	mg/kg	1 / 4	25.0%	2.50	2.50	0.93	1.04	2.05
Silver	mg/kg	3 / 4	75.0%	0.81	2.50	1.11	0.96	2.13
Thallium	mg/kg	1 / 4	25.0%	0.57	0.57	0.31	0.18	0.50
Zinc	mg/kg	4 / 4	100.0%	25.80	771.00	249.50	352.47	625.23

**Table A88. Soil Analytical Results - Central Maritime Chaparral
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Arsenic	mg/kg	1 / 1	100.0%	1.20	1.20	--	--	--
Chromium	mg/kg	1 / 1	100.0%	8.50	8.50	--	--	--
Copper	mg/kg	1 / 1	100.0%	3.40	3.40	--	--	--
Lead	mg/kg	1 / 1	100.0%	11.70	11.70	--	--	--
Zinc	mg/kg	1 / 1	100.0%	13.30	13.30	--	--	--

**Table A89. Soil Analytical Results - Coast Live Oak Woodland
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Arsenic	mg/kg	1 / 1	100.0%	1.00	1.00	--	--	--
Chromium	mg/kg	1 / 1	100.0%	9.90	9.90	--	--	--
Copper	mg/kg	1 / 1	100.0%	4.30	4.30	--	--	--
Lead	mg/kg	1 / 1	100.0%	12.60	12.60	--	--	--
Nickel	mg/kg	1 / 1	100.0%	9.30	9.30	--	--	--
Zinc	mg/kg	1 / 1	100.0%	16.40	16.40	--	--	--

**Table A90. Soil Analytical Results - Upland Ruderal
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Arsenic	mg/kg	1 / 1	100.0%	1.50	1.50	--	--	--
Cadmium	mg/kg	1 / 1	100.0%	0.41	0.41	--	--	--
Chromium	mg/kg	1 / 1	100.0%	16.20	16.20	--	--	--
Copper	mg/kg	1 / 1	100.0%	5.00	5.00	--	--	--
Lead	mg/kg	1 / 1	100.0%	19.90	19.90	--	--	--
Nickel	mg/kg	1 / 1	100.0%	9.10	9.10	--	--	--
Zinc	mg/kg	1 / 1	100.0%	27.20	27.20	--	--	--

Table A91. Summary of Chemical Analyses for Hottentot Fig - Site 2
 Volume IV - Baseline Ecological Risk Assessment
 Fort Ord, California

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Chromium	mg/kg	4 / 4	100.0%	0.37	0.87	0.54	0.23	0.78
Copper	mg/kg	4 / 4	100.0%	6.40	9.60	7.60	1.41	9.10
Lead	mg/kg	4 / 4	100.0%	0.18	0.28	0.23	5.77E-02	0.29
Nickel	mg/kg	4 / 4	100.0%	2.60	6.90	4.25	1.86	6.23
Zinc	mg/kg	4 / 4	100.0%	76.40	142.00	117.85	28.59	148.32

Table A92. Summary of Chemical Analyses for Hottentot Fig - Site 3
 Volume IV - Baseline Ecological Risk Assessment
 Fort Ord, California

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Antimony	mg/kg	2 / 2	100.0%	0.12	0.14	0.13	1.41E-02	0.16
Chromium	mg/kg	2 / 2	100.0%	0.42	6.10	3.26	4.02	11.55
Copper	mg/kg	2 / 2	100.0%	2.40	7.50	4.95	3.61	12.40
Lead	mg/kg	2 / 2	100.0%	0.49	11.80	6.15	8.00	22.66
Nickel	mg/kg	2 / 2	100.0%	1.30	6.40	3.85	3.61	11.30
Zinc	mg/kg	2 / 2	100.0%	13.90	20.20	17.05	4.45	26.25

**Table A94. Summary of Chemical Analyses for Hottentot Fig - Central Maritime Chaparral
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Cadmium	mg/kg	1 / 3	33.3%	0.29	0.29	0.13	0.14	0.32
Chromium	mg/kg	3 / 3	100.0%	0.36	0.70	0.51	0.17	0.75
Copper	mg/kg	2 / 3	66.7%	3.90	8.10	4.35	3.55	9.17
Nickel	mg/kg	3 / 3	100.0%	1.50	2.20	1.87	0.35	2.34
Zinc	mg/kg	3 / 3	100.0%	21.70	27.20	23.93	2.89	27.86

**Table A96. Summary of Chemical Analyses for Hottentot Fig - Upland Ruderal
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Cadmium	mg/kg	3 / 3	100.0%	0.19	0.52	0.39	0.18	0.63
Chromium	mg/kg	3 / 3	100.0%	0.27	0.43	0.33	8.72E-02	0.45
Copper	mg/kg	3 / 3	100.0%	3.50	5.40	4.37	0.96	5.67
Lead	mg/kg	2 / 3	66.7%	2.30	3.50	2.03	1.62	4.24
Nickel	mg/kg	3 / 3	100.0%	1.40	2.10	1.80	0.36	2.29
Zinc	mg/kg	3 / 3	100.0%	39.20	68.10	58.37	16.60	80.92

Table A98. Summary of Chemical Analyses for Mammal Tissue - Site 3
 Volume IV - Baseline Ecological Risk Assessment
 Fort Ord, California

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
PESTICIDES								
gamma-Chlordane	ug/kg	1 / 1	100.0%	1.50	1.50	--	--	--
METALS								
Barium	mg/kg	7 / 7	100.0%	0.54	3.98	1.78	1.30	2.71
Copper	mg/kg	5 / 7	71.4%	2.00	7.22	3.93	2.34	5.60
Iron	mg/kg	7 / 7	100.0%	35.90	60.00	50.14	8.65	56.34
Lead	mg/kg	1 / 2	50.0%	0.32	0.32	0.27	7.18E-02	0.42
Nickel	mg/kg	5 / 7	71.4%	0.51	4.76	2.15	1.95	3.55
Zinc	mg/kg	7 / 7	100.0%	29.40	42.30	35.57	4.95	39.12

Table A99. Summary of Chemical Analyses for Mammal Tissue - Site 11
 Volume IV - Baseline Ecological Risk Assessment
 Fort Ord, California

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Barium	mg/kg	4 / 4	100.0%	2.95	4.79	3.83	0.78	4.67
Iron	mg/kg	4 / 4	100.0%	70.30	96.10	81.28	11.19	93.21
Lead	mg/kg	1 / 4	25.0%	0.58	0.58	0.33	0.19	0.53
Nickel	mg/kg	1 / 4	25.0%	0.45	0.45	0.31	0.15	0.48
Zinc	mg/kg	4 / 4	100.0%	32.20	41.40	38.48	4.23	42.99

**Table A100. Summary of Chemical Analyses for Mammal Tissue - Site 24
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Barium	mg/kg	6 / 6	100.0%	2.49	9.69	6.03	2.39	7.92
Copper	mg/kg	2 / 6	33.3%	4.20	10.60	3.41	3.70	6.34
Iron	mg/kg	6 / 6	100.0%	41.30	89.70	63.30	19.51	78.77
Zinc	mg/kg	6 / 6	100.0%	36.80	51.70	42.30	5.64	46.77

Table A101. Summary of Chemical Analyses for Mammal Tissue - Site 25
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
PESTICIDES								
delta-BHC	ug/kg	1 / 1	100.0%	1.53	1.53	--	--	--
gamma-Chlordane	ug/kg	1 / 1	100.0%	1.69	1.69	--	--	--
4,4'-DDT	ug/kg	1 / 1	100.0%	5.78	5.78	--	--	--
METALS								
Barium	mg/kg	1 / 1	100.0%	2.23	2.23	--	--	--
Iron	mg/kg	1 / 1	100.0%	28.20	28.20	--	--	--
Zinc	mg/kg	1 / 1	100.0%	27.00	27.00	--	--	--

**Table A102. Summary of Chemical Analyses for Mammal Tissue - Site 29
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
PESTICIDES								
gamma-Chlordane	ug/kg	2 / 2	100.0%	2.80	3.32	3.06	0.37	3.82
METALS								
Barium	mg/kg	2 / 2	100.0%	5.47	12.20	8.84	4.76	18.66
Iron	mg/kg	2 / 2	100.0%	49.80	95.30	72.55	32.17	138.98
Lead	mg/kg	1 / 2	50.0%	0.25	0.25	0.24	1.87E-02	0.28
Nickel	mg/kg	2 / 2	100.0%	0.96	1.04	1.00	5.59E-02	1.12
Zinc	mg/kg	2 / 2	100.0%	35.90	36.40	36.15	0.35	36.88

Table A103. Summary of Chemical Analyses for Mammal Tissue - Site 31
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
SOCs								
Acenaphthylene	ng/g	6 / 6	100.0%	150.00	2800.00	1123.33	1266.47	2127.93
Acenaphthene	ng/g	3 / 4	75.0%	7.00	30.00	18.88	10.90	30.49
Anthracene	ng/g	6 / 6	100.0%	2.00	9.00	5.67	2.94	8.00
Benzo(a)anthracene	ng/g	6 / 6	100.0%	43.00	170.00	101.17	48.59	139.71
Benzo(a)pyrene	ng/g	2 / 6	33.3%	19.00	24.00	9.83	9.28	17.19
Benzo(b)fluoranthene	ng/g	6 / 6	100.0%	11.00	38.00	27.83	9.28	35.20
Benzo(k)fluoranthene	ng/g	6 / 6	100.0%	2.00	13.00	9.83	4.07	13.06
Chrysene	ng/g	4 / 6	66.7%	10.00	79.00	28.25	32.04	53.66
Fluoranthene	ng/g	5 / 6	83.3%	2.00	22.00	15.67	8.12	22.10
Fluorene	ng/g	6 / 6	100.0%	5.00	21.00	15.33	5.85	19.98
Naphthalene	ng/g	3 / 6	50.0%	10.00	140.00	50.67	46.14	87.26
Phenanthrene	ng/g	6 / 6	100.0%	20.00	130.00	87.00	40.00	118.73
Pyrene	ng/g	5 / 6	83.3%	85.00	250.00	138.08	91.47	210.64
PESTICIDES								
gamma-Chlordane	ug/kg	1 / 1	100.0%	1.30	1.30	--	--	--
4,4'-DDE	ug/kg	1 / 6	16.7%	8.20	8.20	5.68	1.24	6.66
Endosulfan II	ug/kg	1 / 1	100.0%	2.70	2.70	--	--	--
Heptachlor	ug/kg	3 / 6	50.0%	1.50	4.40	2.63	0.97	3.39
Heptachlor epoxide	ug/kg	1 / 1	100.0%	1.90	1.90	--	--	--
DIOXINS/FURANS								
1,2,3,4,6,7,8-HpCDD	ppt	7 / 8	87.5%	5.30	44.72	17.62	16.51	28.48
Total HpCDD	ppt	7 / 8	87.5%	5.30	54.01	21.78	21.45	35.88
1,2,3,4,6,7,8-HxCDF	ppt	7 / 8	87.5%	0.65	11.24	4.17	3.94	6.77
1,2,3,4,7,8,9-HpCDF	ppt	1 / 7	14.3%	0.73	0.73	0.39	0.19	0.52
Total HpCDF	ppt	8 / 8	100.0%	0.35	17.81	6.60	6.94	11.17
1,2,3,4,7,8-HxCDD	ppt	5 / 8	62.5%	0.49	3.17	1.28	0.94	1.90
1,2,3,6,7,8-HxCDD	ppt	7 / 8	87.5%	0.96	5.78	2.69	2.02	4.02
1,2,3,7,8,9-HxCDD	ppt	2 / 8	25.0%	2.08	2.38	1.06	0.81	1.59
Total HxCDD	ppt	7 / 8	87.5%	0.96	10.05	4.92	4.19	7.68
1,2,3,4,7,8-HxCDF	ppt	5 / 8	62.5%	0.34	6.20	2.10	2.58	3.80
1,2,3,6,7,8-HxCDF	ppt	4 / 8	50.0%	0.39	3.11	0.95	1.09	1.67
2,3,4,6,7,8-HxCDF	ppt	5 / 8	62.5%	1.10	5.98	1.92	2.03	3.25
Total HxCDF	ppt	6 / 8	75.0%	1.10	16.53	5.36	6.00	9.31
OCDD	ppt	8 / 8	100.0%	10.20	209.88	83.18	85.63	139.49
OCDF total	ppt	4 / 8	50.0%	3.16	18.13	5.72	7.05	10.36
1,2,3,7,8-PeCDD	ppt	1 / 8	12.5%	3.40	3.40	1.03	1.01	1.69
Total PeCDD	ppt	1 / 8	12.5%	3.40	3.40	1.03	1.01	1.69
2,3,4,7,8-PeCDF	ppt	4 / 8	50.0%	1.68	7.84	2.58	3.05	4.59
Total PeCDF	ppt	4 / 8	50.0%	1.68	9.14	2.94	3.41	5.18
2,3,7,8-TCDF	ppt	2 / 8	25.0%	0.33	1.09	0.59	0.24	0.75

Table A103. Summary of Chemical Analyses for Mammal Tissue - Site 31
 Volume IV - Baseline Ecological Risk Assessment
 Fort Ord, California

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
<u>DIOXINS/FURANS</u>								
Total TCDF	ppt	2 / 8	25.0%	0.33	1.09	0.59	0.24	0.75
<u>METALS</u>								
Barium	mg/kg	8 / 8	100.0%	2.10	7.91	4.46	1.87	5.69
Copper	mg/kg	3 / 7	42.9%	1.46	2.00	1.67	0.28	1.87
Iron	mg/kg	8 / 8	100.0%	24.50	75.40	45.48	19.21	58.11
Lead	mg/kg	7 / 8	87.5%	0.26	2.48	0.85	0.80	1.38
Nickel	mg/kg	2 / 6	33.3%	0.27	0.45	0.24	0.17	0.37
Zinc	mg/kg	8 / 8	100.0%	25.10	45.40	34.43	6.89	38.96

Table A104. Summary of Chemical Analyses for Mammal Tissue - Site 33
 Volume IV - Baseline Ecological Risk Assessment
 Fort Ord, California

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Barium	mg/kg	4 / 4	100.0%	4.19	9.82	7.27	2.43	9.86
Copper	mg/kg	1 / 4	25.0%	2.70	2.70	1.80	0.66	2.51
Iron	mg/kg	4 / 4	100.0%	55.90	62.80	59.18	3.26	62.65
Lead	mg/kg	2 / 4	50.0%	0.13	0.25	0.18	5.50E-02	0.24
Zinc	mg/kg	4 / 4	100.0%	8.38	37.10	28.00	13.45	42.33

Table A105. Summary of Chemical Analyses for Mammal Tissue - Site 35
 Volume IV - Baseline Ecological Risk Assessment
 Fort Ord, California

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
SOCs								
Acenaphthylene	ng/g	5 / 5	100.0%	370.00	1200.00	802.00	294.91	1067.75
Acenaphthene	ng/g	3 / 5	60.0%	5.00	37.00	17.40	12.17	28.37
Anthracene	ng/g	5 / 5	100.0%	1.00	2.00	1.80	0.45	2.20
Benzo(a)anthracene	ng/g	5 / 5	100.0%	17.00	40.00	26.40	10.38	35.76
Benzo(b)fluoranthene	ng/g	5 / 5	100.0%	8.00	13.00	10.40	1.95	12.16
Benzo(k)fluoranthene	ng/g	3 / 5	60.0%	2.00	4.00	2.20	1.30	3.37
Chrysene	ng/g	4 / 5	80.0%	2.00	9.00	4.40	3.21	7.29
Fluoranthene	ng/g	3 / 5	60.0%	2.00	8.00	4.00	2.52	6.28
Fluorene	ng/g	5 / 5	100.0%	2.00	11.00	5.60	3.58	8.82
Naphthalene	ng/g	1 / 5	20.0%	45.00	45.00	19.00	14.53	32.10
Phenanthrene	ng/g	5 / 5	100.0%	12.00	31.00	19.80	8.35	27.32
Pyrene	ng/g	5 / 5	100.0%	22.00	480.00	194.40	182.78	359.11
PESTICIDES								
alpha-BHC	ug/kg	1 / 1	100.0%	0.61	0.61	--	--	--
gamma-Chlordane	ug/kg	2 / 4	50.0%	3.83	5.25	3.09	1.77	4.98
METALS								
Barium	mg/kg	9 / 9	100.0%	1.63	6.55	3.62	1.80	4.72
Iron	mg/kg	9 / 9	100.0%	33.50	70.70	47.42	12.26	54.91
Lead	mg/kg	4 / 6	66.7%	0.16	0.20	0.18	1.70E-02	0.19
Zinc	mg/kg	9 / 9	100.0%	23.60	32.20	26.82	2.59	28.41

Table A106. Summary of Chemical Analyses for Mammal Tissue - Central Maritime Chaparral
 Volume IV - Baseline Ecological Risk Assessment
 Fort Ord, California

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
SOCs								
Acenaphthylene	ng/g	2 / 2	100.0%	41.00	1100.00	570.50	748.83	2116.64
Anthracene	ng/g	2 / 2	100.0%	6.00	6.00	6.00	--	6.00
Benzo(a)anthracene	ng/g	2 / 2	100.0%	100.00	200.00	150.00	70.71	296.00
Benzo(b)fluoranthene	ng/g	2 / 2	100.0%	12.00	15.00	13.50	2.12	17.88
Benzo(k)fluoranthene	ng/g	1 / 2	50.0%	3.00	3.00	2.00	1.41	4.92
Chrysene	ng/g	2 / 2	100.0%	10.00	36.00	23.00	18.38	60.96
Fluoranthene	ng/g	2 / 2	100.0%	16.00	33.00	24.50	12.02	49.32
Fluorene	ng/g	2 / 2	100.0%	9.00	10.00	9.50	0.71	10.96
Phenanthrene	ng/g	2 / 2	100.0%	39.00	63.00	51.00	16.97	86.04
Pyrene	ng/g	2 / 2	100.0%	62.00	79.00	70.50	12.02	95.32
METALS								
Barium	mg/kg	3 / 3	100.0%	5.51	9.83	6.97	2.47	10.33
Iron	mg/kg	3 / 3	100.0%	65.30	121.00	91.87	27.94	129.82
Lead	mg/kg	1 / 3	33.3%	3.40	3.40	1.18	1.92	3.79
Zinc	mg/kg	3 / 3	100.0%	25.00	37.10	32.20	6.37	40.85

**Table A107. Summary of Chemical Analyses for Mammal Tissue - Coast Live Oak Woodland
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Barium	mg/kg	2 / 2	100.0%	5.83	8.35	7.09	1.78	10.77
Iron	mg/kg	2 / 2	100.0%	87.80	797.00	442.40	501.48	1477.83
Nickel	mg/kg	2 / 2	100.0%	2.14	2.97	2.56	0.59	3.77
Zinc	mg/kg	2 / 2	100.0%	28.60	31.20	29.90	1.84	33.70

**Table A108. Summary of Chemical Analyses for Leaf Litter - Site 16
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
PESTICIDES								
Chlordane	ug/kg	3 / 8	37.5%	97.00	370.00	156.50	117.90	234.03
4,4'-DDE	ug/kg	3 / 8	37.5%	12.00	34.00	14.44	9.31	20.56
4,4'-DDT	ug/kg	2 / 8	25.0%	68.00	83.00	32.31	27.11	50.14
METALS								
Antimony	mg/kg	8 / 8	100.0%	0.24	0.78	0.47	0.18	0.59
Arsenic	mg/kg	8 / 8	100.0%	0.60	5.60	2.23	1.64	3.31
Cadmium	mg/kg	3 / 8	37.5%	2.30	9.30	2.04	3.05	4.05
Chromium	mg/kg	8 / 8	100.0%	6.80	36.30	19.66	10.51	26.58
Copper	mg/kg	8 / 8	100.0%	12.70	72.40	27.93	19.59	40.81
Lead	mg/kg	8 / 8	100.0%	14.10	178.00	60.71	50.74	94.08
Mercury	mg/kg	7 / 8	87.5%	4.00E-02	0.44	0.11	0.14	0.20
Nickel	mg/kg	8 / 8	100.0%	5.40	23.90	13.45	6.13	17.48
Selenium	mg/kg	1 / 8	12.5%	0.58	0.58	0.19	0.18	0.31
Thallium	mg/kg	1 / 8	12.5%	8.20E-02	8.20E-02	3.71E-02	1.82E-02	4.91E-02
Zinc	mg/kg	8 / 8	100.0%	54.70	417.00	174.18	128.95	258.97

Table A109. Summary of Chemical Analyses for Leaf Litter - Site 24
 Volume IV - Baseline Ecological Risk Assessment
 Fort Ord, California

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
SOCs								
Acenaphthylene	ug/kg	1 / 5	20.0%	310.00	310.00	222.00	49.19	266.33
Benzo(b)fluoranthene	ug/kg	1 / 5	20.0%	49.00	49.00	27.80	16.10	42.31
Phenanthrene	ug/kg	1 / 6	16.7%	260.00	260.00	93.33	81.65	158.10
Pyrene	ug/kg	1 / 6	16.7%	170.00	170.00	100.00	44.27	135.12
PESTICIDES								
Chlordane	ug/kg	2 / 6	33.3%	180.00	190.00	118.33	51.74	159.37
4,4'-DDD	ug/kg	2 / 6	33.3%	47.00	57.00	27.00	19.86	42.76
4,4'-DDE	ug/kg	5 / 6	83.3%	8.70	150.00	48.53	55.81	92.80
4,4'-DDT	ug/kg	5 / 6	83.3%	38.00	420.00	121.92	149.11	240.20
Dieldrin	ug/kg	5 / 6	83.3%	8.60	170.00	55.18	63.91	105.88
Heptachlor	ug/kg	3 / 6	50.0%	19.00	41.00	18.58	13.14	29.00
METALS								
Arsenic	mg/kg	1 / 6	16.7%	2.70	2.70	0.88	0.91	1.60
Beryllium	mg/kg	5 / 6	83.3%	7.00E-02	0.10	7.00E-02	2.68E-02	0.09
Cadmium	mg/kg	6 / 6	100.0%	0.21	0.60	0.40	0.15	0.52
Chromium	mg/kg	6 / 6	100.0%	7.90	55.50	20.63	17.85	34.79
Copper	mg/kg	6 / 6	100.0%	9.10	19.20	13.45	4.16	16.75
Lead	mg/kg	6 / 6	100.0%	15.60	601.00	129.10	232.03	313.15
Mercury	mg/kg	5 / 6	83.3%	4.00E-02	0.13	5.83E-02	3.76E-02	8.82E-02
Nickel	mg/kg	6 / 6	100.0%	6.20	11.60	9.02	2.11	10.69
Selenium	mg/kg	2 / 6	33.3%	8.00E-02	0.11	5.83E-02	2.99E-02	8.21E-02
Thallium	mg/kg	3 / 6	50.0%	7.00E-02	0.09	5.33E-02	2.66E-02	7.44E-02
Zinc	mg/kg	6 / 6	100.0%	56.60	318.00	139.38	93.26	213.36

Table A110. Summary of Chemical Analyses for Leaf Litter - Site 25
 Volume IV - Baseline Ecological Risk Assessment
 Fort Ord, California

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Arsenic	mg/kg	2 / 4	50.0%	2.10	12.60	3.95	5.81	10.15
Beryllium	mg/kg	2 / 4	50.0%	4.00E-02	7.00E-02	3.75E-02	2.36E-02	6.27E-02
Cadmium	mg/kg	4 / 4	100.0%	0.46	6.20	2.69	2.58	5.44
Chromium	mg/kg	4 / 4	100.0%	7.90	14.30	10.43	2.81	13.42
Copper	mg/kg	4 / 4	100.0%	12.80	44.20	26.78	12.99	40.62
Lead	mg/kg	4 / 4	100.0%	9.20	41.70	28.78	13.84	43.52
Mercury	mg/kg	3 / 4	75.0%	7.00E-02	0.09	6.50E-02	3.11E-02	0.10
Nickel	mg/kg	4 / 4	100.0%	6.70	15.40	10.05	3.76	14.06
Selenium	mg/kg	1 / 4	25.0%	0.10	0.10	5.50E-02	3.00E-02	8.70E-02
Silver	mg/kg	1 / 4	25.0%	0.52	0.52	0.21	0.21	0.43
Thallium	mg/kg	1 / 4	25.0%	6.00E-02	6.00E-02	3.75E-02	1.50E-02	5.35E-02
Zinc	mg/kg	4 / 4	100.0%	44.80	161.00	97.18	51.31	151.88

**Table A112. Summary of Chemical Analyses for Leaf Litter - Site 31
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
SOCs								
Fluoranthene	ug/kg	1 / 4	25.0%	160.00	160.00	95.00	70.47	170.13
Naphthalene	ug/kg	3 / 4	75.0%	250.00	1100.00	487.50	417.08	932.11
Phenanthrene	ug/kg	3 / 4	75.0%	250.00	930.00	505.00	416.05	948.51
Pyrene	ug/kg	1 / 3	33.3%	120.00	120.00	83.33	47.26	147.53
PESTICIDES								
4,4'-DDD	ug/kg	1 / 4	25.0%	35.00	35.00	21.13	9.25	30.99
4,4'-DDE	ug/kg	4 / 4	100.0%	9.50	93.00	37.63	39.02	79.22
4,4'-DDT	ug/kg	2 / 4	50.0%	31.00	61.00	31.25	20.98	53.61
Endrin	ug/kg	2 / 4	50.0%	13.00	15.00	11.25	3.28	14.75
Heptachlor	ug/kg	1 / 4	25.0%	17.00	17.00	10.63	4.25	15.16
METALS								
Arsenic	mg/kg	3 / 4	75.0%	11.20	43.20	19.45	17.97	38.60
Cadmium	mg/kg	4 / 4	100.0%	0.14	0.52	0.39	0.17	0.57
Chromium	mg/kg	4 / 4	100.0%	23.90	44.70	36.55	9.77	46.97
Copper	mg/kg	4 / 4	100.0%	22.90	5980.00	1564.28	2944.62	4703.24
Lead	mg/kg	4 / 4	100.0%	39.50	892.00	408.88	354.67	786.95
Mercury	mg/kg	3 / 4	75.0%	4.20E-02	0.14	8.05E-02	5.84E-02	0.14
Nickel	mg/kg	4 / 4	100.0%	13.10	55.50	35.20	17.87	54.25
Silver	mg/kg	2 / 4	50.0%	3.60	5.30	2.47	2.40	5.03
Thallium	mg/kg	1 / 4	25.0%	7.00E-02	7.00E-02	4.00E-02	2.00E-02	6.13E-02
Zinc	mg/kg	4 / 4	100.0%	107.00	362.00	225.75	112.28	345.44

**Table A113. Summary of Chemical Analyses for Leaf Litter - Site 35
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
SOCs								
Benzo(a)pyrene	ug/kg	1 / 2	50.0%	7.50	7.50	6.25	1.77	9.90
Benzo(b)fluoranthene	ug/kg	1 / 3	33.3%	4.70	4.70	2.90	1.56	5.02
Benzo(ghi)perylene	ug/kg	2 / 10	20.0%	13.00	85.00	45.00	38.01	66.78
Dibenzo(a,h)anthracene	ug/kg	1 / 7	14.3%	21.00	21.00	20.14	0.38	20.41
PESTICIDES								
4,4'-DDE	ug/kg	6 / 10	60.0%	8.50	16.00	10.75	2.84	12.38
4,4'-DDT	ug/kg	1 / 10	10.0%	24.00	24.00	17.25	2.37	18.61
METALS								
Arsenic	mg/kg	1 / 10	10.0%	9.00	9.00	1.21	2.74	2.78
Beryllium	mg/kg	7 / 10	70.0%	4.00E-02	0.16	7.40E-02	4.99E-02	0.10
Cadmium	mg/kg	10 / 10	100.0%	0.22	0.91	0.40	0.20	0.51
Chromium	mg/kg	9 / 10	90.0%	4.10	14.80	7.44	4.13	9.80
Copper	mg/kg	10 / 10	100.0%	6.30	17.80	9.23	3.49	11.23
Lead	mg/kg	10 / 10	100.0%	9.70	29.20	18.58	5.97	22.00
Mercury	mg/kg	10 / 10	100.0%	1.00E-02	0.14	8.71E-02	3.40E-02	0.11
Nickel	mg/kg	10 / 10	100.0%	4.20	10.90	6.63	2.28	7.94
Selenium	mg/kg	4 / 10	40.0%	0.10	0.40	0.15	0.14	0.24
Silver	mg/kg	2 / 10	20.0%	0.14	0.49	0.10	0.14	0.18
Zinc	mg/kg	10 / 10	100.0%	29.70	107.00	47.39	22.14	60.08

**Table A114. Summary of Chemical Analyses for Leaf Litter - Central Maritime Chaparral
Volume IV - Baseline Ecological Risk Assessment
Fort Ord, California**

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Antimony	mg/kg	1 / 1	100.0%	0.17	0.17	--	--	--
Chromium	mg/kg	1 / 1	100.0%	6.70	6.70	--	--	--
Copper	mg/kg	1 / 1	100.0%	9.00	9.00	--	--	--
Lead	mg/kg	1 / 1	100.0%	19.60	19.60	--	--	--
Mercury	mg/kg	1 / 1	100.0%	8.00E-02	8.00E-02	--	--	--
Nickel	mg/kg	1 / 1	100.0%	4.10	4.10	--	--	--
Zinc	mg/kg	1 / 1	100.0%	62.70	62.70	--	--	--

Table A116. Summary of Chemical Analyses for Leaf Litter - Upland Ruderal
 Volume IV - Baseline Ecological Risk Assessment
 Fort Ord, California

Parameter	Units	Number of Detects/Analyses	Frequency of Detect	Minimum Detected Value	Maximum Detected Value	Arithmetic Mean	Standard Deviation of the Arithmetic Mean	95% Upper Confidence Limit of the Arithmetic Mean
METALS								
Arsenic	mg/kg	1 / 1	100.0%	0.67	0.67	--	--	--
Chromium	mg/kg	1 / 1	100.0%	19.30	19.30	--	--	--
Copper	mg/kg	1 / 1	100.0%	9.60	9.60	--	--	--
Lead	mg/kg	1 / 1	100.0%	1.70	1.70	--	--	--
Nickel	mg/kg	1 / 1	100.0%	10.70	10.70	--	--	--
Zinc	mg/kg	1 / 1	100.0%	50.90	50.90	--	--	--

**Table A117. Comparison of Updated Collocated Soil and Plant Data for Hottentot Fig
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Non-transformed data

Soil Station No.	Soil Conc. (mg/kg)					Plant Station No.	Plant Conc. (mg/kg)				
	Chromium	Copper	Lead	Nickel	Zinc		Chromium	Copper	Lead	Nickel	Zinc
SS-02-01	9.6	2.2	8.5	2.45	12.6	TP-02-01	0.37	6.4	0.18	6.9	127
SS-02-02	23.0	73.1	29.5	6.0	167	TP-02-02	0.49	6.9	0.28	4.0	76.4
SS-02-03	19.1	1.9	7.2	11.1	11.15	TP-02-03	0.87	7.5	0.28	2.6	126
SS-02-04	15.8	2.6	9.0	9.8	29.9	TP-02-04	0.43	9.6	0.18	3.5	142
SS-25-01	11.3	4.6	15.3	7.7	20.8	TP-25-01	0.38	10.4	0.14	1.4	25.0
SS-25-02	11.2	6.6	23.7	8.3	46.2	TP-25-02	0.09	11.4	0.25	0.6	25.4
SS-25-03	22.3	20.6	69.9	10.3	386	TP-25-03	0.09	8.5	0.21	0.6	23.5
SS-25-04	11.5	5.4	27.5	8.8	73.4	TP-25-04	0.79	19.4	0.38	2.2	41.5

Average conc.	15.48	14.63	23.83	8.06	93.38	Average conc.	0.44	10.01	0.24	2.73	73.35
						Standard deviation	0.28	4.17	0.08	2.10	51.42
						Average plant:soil ratio	0.028	0.685	0.010	0.338	0.785
						Basal plant uptake factor	0.0052	0.285	0.0178	0.0594	1.04
mg/kg	Milligrams per kilogram.					slope =	0.002	-0.051	0.0005	-0.563	-0.180
Note:	Shaded values represent one-half the detection limit.					y-intercept =	0.415	10.753	0.227	7.262	90.199
	Bold values are statistically significant.					R-square =	0.001	0.088	0.015	0.554	0.204
						Equation: y =	0.002x + 0.42	-0.05x + 10.8	0.0005x + 0.23	-0.56x + 7.26	-0.18x + 90.2

**Table A117. Comparison of Updated Collocated Soil and Plant Data for Hottentot Fig
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Log-transformed data

Soil /a/ Station No.	Log Soil conc. (mg/kg)					Plant Station No.	Log Plant conc. (mg/kg)				
	Chromium	Copper	Lead	Nickel	Zinc		Chromium	Copper	Lead	Nickel	Zinc
SS-02-01	0.98	0.34	0.93	0.39	1.10	TP-02-01	-0.43	0.81	-0.74	0.84	2.10
SS-02-02	1.36	1.86	1.47	0.78	2.22	TP-02-02	-0.31	0.84	-0.55	0.60	1.88
SS-02-03	1.28	0.28	0.86	1.05	1.05	TP-02-03	-0.06	0.88	-0.55	0.41	2.10
SS-02-04	1.20	0.41	0.95	0.99	1.48	TP-02-04	-0.37	0.98	-0.74	0.54	2.15
SS-25-01	1.05	0.66	1.18	0.89	1.32	TP-25-01	-0.42	1.02	-0.85	0.15	1.40
SS-25-02	1.05	0.82	1.37	0.92	1.66	TP-25-02	-1.05	1.06	-0.60	-0.22	1.40
SS-25-03	1.35	1.31	1.84	1.01	2.59	TP-25-03	-1.05	0.93	-0.68	-0.22	1.37
SS-25-04	1.06	0.73	1.44	0.94	1.87	TP-25-04	-0.10	1.29	-0.42	0.34	1.62

Average conc.	1.17	0.80	1.26	0.87	1.66	Average conc.	-0.47	0.97	-0.64	0.31	1.75
						Standard deviation	0.38	0.15	0.14	0.38	0.34
						Average plant:soil ratio	-0.405	1.212	-0.512	0.351	1.057
						Bas plant uptake factor	0.0718	0.005	0.285	0.018	1.04
mg/kg	Milligrams per kilogram.					slope =	-0.046	-0.033	0.109	-1.073	-0.326
Note:	Shaded values represent one-half the detection limit.					y-intercept =	-0.419	1.000	-0.781	1.240	2.296
	Bold values are statistically significant.					R-square =	0.0003	0.013	0.071	0.353	0.264
						antilog(y-int)=	0.381	10.011	0.166	17.386	197.602

/a/ Hottentot fig for Site 3 is not included here because soil samples at Site 3 were not collocated with the plant samples.

Equation: $y = -0.046x + 0.38 \quad -0.033x + 10.0 \quad 0.11x + 0.17 \quad -1.07x + 17.4 \quad -0.33x + 198$

**Table A118. Comparison of Updated Soil and Plant Data for Buckwheat - Site 3
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Non-transformed data

Soil		Soil conc. (mg/kg)					Plant		Plant conc. (mg/kg)				
Station No.	Antimony	Chromium	Copper	Lead	Zinc	Station No.	Antimony	Chromium	Copper	Lead	Zinc		
SS-R1-2	244	7.3	966	16100	121	TP-R1-2	1.3	0.38	15.3	44.8	42.4		
SS-R8-2A	0.215	1/2dl	15.5	1.4	1/2dl	7.4	8.7	0.12	0.64	4.2	34.2		
SS-R12-1	0.6	18.2	10.2	84.9	18.6	TP-R12-1	0.16	0.38	12.2	3.3	71.5		
SS-R15-1A	1.6	15	16.4	145	13.9	TP-R15-1	0.17	0.45	11	4.6	37.3		
SS-R15-2		15	26.2	280	20.9	TP-R15-2		0.55	10.4	3.5	46.8		
SS-R17-1		12.6	38.3	372	17.7	TP-R17-1		0.54	9.4	3.2	40.5		
SS-R17-2A	104	19.3	358	5650	77.3	TP-R17-2	0.86	0.5	16.5	27.9	47.8		
SS-R8-3		12.4	0.95	1/2dl	3.8	8.4	TP-R8-3		0.39	3	1.5	37.7	
SS-R8-1A	0.22	1/2dl	14.1	4.4	17.8	10.7	TP-R8-1	0.16	0.43	4.2	3.1	45.5	
SS-ST-1A		13.1	1.5	1/2dl	6.7	11.2	TP-ST-1		0.38	3.2	0.64	37.5	

Average conc. 58.44 14.25 142.34 2266.76 30.84

Average conc. 0.46 0.46 8.94 9.74 44.12

Standard deviation 0.50 0.09 5.03 14.63 10.64

Average plant:soil ratio 0.008 0.033 0.063 0.004 1.431

Bas plant uptake factor 0.072 0.005 0.285 0.018 1.040

mg/kg Milligrams per kilogram.
dl Detection limit.

slope = **0.007** 0.008 **0.010** **0.003** 0.022

y-intercept = **0.158** **0.347** **7.464** **3.498** **43.437**

R-square = **1.000** 0.092 **0.406** **0.946** 0.006

Note: Bold values are statistically significant.

Equation: y = 0.005x + 0.17 0.008x + 0.35 0.01x + 7.46 0.003x + 3.50 0.022x + 43.4

**Table A118. Comparison of Updated Soil and Plant Data for Buckwheat - Site 3
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Log-transformed data

Soil		Log Soil conc. (mg/kg)						Plant		Log Plant conc. (mg/kg)					
Station No.	Antimony	Chromium	Copper	Lead	Zinc		Station No.	Antimony	Chromium	Copper	Lead	Zinc			
SS-R1-2	2.39		0.86	2.98	4.21	2.08	TP-R1-2	0.11	-0.42	1.18	1.65	1.63			
SS-R8-2A	-0.67	1/2dl	1.19	0.15	0.87	0.94	TP-R8-2	-0.92	-0.19	0.62	0.69	1.53			
SS-R12-1	-0.22		1.26	1.01	1.93	1.27	TP-R12-1	-0.80	-0.42	1.09	0.52	1.85			
SS-R15-1A	0.20		1.18	1.21	2.16	1.14	TP-R15-1	-0.77	-0.35	1.04	0.66	1.57			
SS-R15-2			1.18	1.42	2.45	1.32	TP-R15-2		-0.26	1.02	0.54	1.67			
SS-R17-1			1.10	1.58	2.57	1.25	TP-R17-1		-0.27	0.97	0.51	1.61			
SS-R17-2A	2.02		1.29	2.55	3.75	1.89	TP-R17-2	-0.07	-0.30	1.22	1.45	1.68			
SS-R8-3			1.09	-0.02	0.58	0.92	TP-R8-3		-0.41	0.48	0.18	1.58			
SS-R8-1A	-0.66	1/2dl	1.15	0.64	1.25	1.03	TP-R8-1	-0.80	-0.37	0.62	0.49	1.66			
SS-ST-1A			1.12	0.18	0.83	1.05	TP-ST-1		-0.42	0.51	-0.19	1.57			
Average conc.	0.51		1.14	1.17	2.06	1.29	Average conc.	-0.54	-0.34	0.87	0.65	1.64			
							Standard deviation	0.44	0.08	0.29	0.54	0.09			
							Average plant:soil ratio	-1.056	-0.298	0.747	0.315	1.268			
							Bas plant uptake factor	0.072	0.005	0.285	0.018	1.040			
mg/kg	Milligrams per kilogram.						slope =	0.296	0.248	0.252	0.381	0.067			
dl	Detection limit.						y-intercept =	-0.706	-0.624	0.580	-0.136	1.549			
Note:	Bold values are statistically significant.						R-square =	0.926	0.126	0.791	0.752	0.084			
							antilog(y-int)=	0.197	0.238	3.803	0.731	35.413			
							Equation: y =	.32x + 0.198	0.248x + 0.238	0.252x + 3.80	0.381x + 0.731	0.067x + 35.4			

**Table A119. Plant:Soil Ratios for Chromium Based on Field Data /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site	Number of Samples	Plant:Soil Ratio			Baes Uptake Factor
		Arithmetic Mean	One Std. Dev. Range /b/	Two Std. Dev. Range /b/	
Site 2 /c/	4	0.033	0.0222 to 0.0441	0.0113 to 0.055	0.0052
Site 3 /d/	10	0.034	0.0249 to 0.0433	0.0157 to 0.0525	0.0052
Site 11	4	0.263	0.1838 to 0.3417	0.1048 to 0.4206	0.0052
Site 12	4	0.061	0.0054 to 0.1157	-0.0498 to 0.1708	0.0052
Site 15	4	0.145	0.0728 to 0.2167	0.0009 to 0.2887	0.0052
Site 16	5	0.053	0.0304 to 0.0758	0.0078 to 0.0984	0.0052
Site 21	4	0.114	0.0723 to 0.1555	0.0306 to 0.1972	0.0052
Site 22	4	0.565	0.2181 to 0.9126	-0.1291 to 1.2599	0.0052
Site 24	6	0.061	-0.0012 to 0.1240	-0.0637 to 0.1865	0.0052
Site 25	4	0.116	-0.0152 to 0.2475	-0.1466 to 0.3789	0.0052
Site 25 /c/	4	0.029	-0.0012 to 0.0584	-0.0309 to 0.0881	0.0052
Site 29	4	0.670	0.0445 to 1.2957	-0.5810 to 1.9213	0.0052
Site 31 /e/	1	0.741	N/A N/A	N/A N/A	0.0052
Site 32	4	0.144	0.0255 to 0.2630	-0.0932 to 0.3818	0.0052
Site 33 /f/	4	0.198	0.0180 to 0.3778	-0.1618 to 0.5577	0.0052
Site 35 /f/	8	0.378	0.0997 to 0.6560	-0.1784 to 0.9342	0.0052

N/A Not applicable.

/a/ All entries for oats unless otherwise noted.

/b/ Shaded values indicate that the Baes uptake factor is outside this range.

/c/ Values for hottentot fig.

/d/ Values for buckwheat.

/e/ Only one sample for this site; value in arithmetic mean column is not a mean.

/f/ Values for Bromus sp.

**Table A120. Plant:Soil Ratios for Copper Based on Field Data /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site	Number of Samples	Plant:Soil Ratio			Baes Uptake Factor
		Arithmetic Mean	One Std. Dev. Range /b/	Two Std. Dev. Range /b/	
Site 2 /c/	4	2.661	0.89374 to 4.42784	-0.8733 to 6.19488	0.285
Site 3 /d/	10	1.182	-0.0002 to 2.3636	-1.1821 to 3.5454	0.285
Site 11	4	7.790	-1.2371 to 16.8175	-10.2643 to 25.8448	0.285
Site 12	4	12.587	-1.4500 to 26.6249	-15.4874 to 40.6624	0.285
Site 15	4	2.475	0.0059 to 4.9439	-2.4632 to 7.4129	0.285
Site 16	5	2.386	-0.6760 to 5.4476	-3.7377 to 8.5094	0.285
Site 21	4	4.613	-0.9128 to 10.1386	-6.4384 to 15.6643	0.285
Site 22	4	17.298	5.1787 to 29.4181	-6.9410 to 41.5378	0.285
Site 24	6	6.717	-0.8080 to 14.2423	-8.3331 to 21.7674	0.285
Site 25	4	8.530	-3.8175 to 20.8782	-16.1654 to 33.2261	0.285
Site 25 /c/	4	1.998	0.6820 to 3.3147	-0.6344 to 4.6311	0.285
Site 29	4	5.332	2.5704 to 8.0929	-0.1908 to 10.8542	0.285
Site 31 /e/	1	0.380	N/A N/A	N/A N/A	0.285
Site 32	4	4.751	-0.0948 to 9.5966	-4.9406 to 14.4424	0.285
Site 33 /f/	4	10.987	-7.1888 to 29.1628	-25.3646 to 47.3386	0.285
Site 35 /f/	8	13.849	2.8340 to 24.8648	-8.1814 to 35.8803	0.285

N/A Not applicable.

/a/ All entries for oats unless otherwise noted.

/b/ Shaded values indicate that the Baes uptake factor is outside this range.

/c/ Values for hottentot fig.

/d/ Values for buckwheat.

/e/ Only one sample for this site; value in arithmetic mean column is not a mean.

/f/ Values for Bromus sp.

**Table A121. Plant:Soil Ratios for Lead Based on Field Data /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site	Number of Samples	Plant:Soil Ratio			Baes Uptake Factor
		Arithmetic Mean	One Std. Dev. Range /b/	Two Std. Dev. Range /b/	
Site 2 /c/	4	0.022	0.0102 to 0.0346	-0.002 to 0.0468	0.018
Site 3 /d/	10	0.143	-0.0768 to 0.3620	-0.2962 to 0.5814	0.018
Site 11	4	0.014	0.0002 to 0.0269	-0.0132 to 0.0403	0.018
Site 12	4	0.108	-0.0046 to 0.2215	-0.1176 to 0.3345	0.018
Site 15	4	0.017	0.0131 to 0.0200	0.0097 to 0.0234	0.018
Site 16	5	0.014	0.0006 to 0.0264	-0.0123 to 0.0393	0.018
Site 21	4	0.014	0.0047 to 0.0224	-0.0041 to 0.0312	0.018
Site 22	4	0.027	0.0032 to 0.0514	-0.0208 to 0.0754	0.018
Site 24	6	0.293	-0.0245 to 0.6110	-0.3423 to 0.9287	0.018
Site 25	4	0.012	0.0054 to 0.0181	-0.0009 to 0.0244	0.018
Site 25 /c/	4	0.009	0.0046 to 0.0137	0.0001 to 0.0182	0.018
Site 29	4	0.009	0.0011 to 0.0169	-0.0069 to 0.0248	0.018
Site 31 /e/	1	0.012	N/A	N/A	0.018
Site 32	4	0.064	-0.0321 to 0.1595	-0.1279 to 0.2553	0.018
Site 33 /f/	4	0.003	0.0013 to 0.0048	-0.0004 to 0.0065	0.018
Sito 35 /f/	8	0.037	0.0141 to 0.0604	-0.0091 to 0.0836	0.018

N/A Not applicable.

/a/ All entries for oats unless otherwise noted.

/b/ Shaded values indicate that the Baes uptake factor is outside this range.

/c/ Values for hottentot fig.

/d/ Values for buckwheat.

/e/ Only one sample for this site; value in arithmetic mean column is not a mean.

/f/ Values for Bromus sp.

**Table A122. Plant:Soil Ratios for Nickel Based on Field Data /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site	Number of Samples	Plant:Soil Ratio			Baes Uptake Factor
		Arithmetic Mean	One Std. Dev. Range /b/	Two Std. Dev. Range /b/	
Site 2 /c/	4	1.019	-0.1936 to 2.2308	-1.4058 to 3.443	0.059
Site 11	4	0.429	0.3729 to 0.4850	0.3169 to 0.5411	0.059
Site 12	4	0.234	0.1823 to 0.2852	0.1308 to 0.3366	0.059
Site 15	4	0.256	0.1949 to 0.3177	0.1335 to 0.3790	0.059
Site 16	5	0.263	0.0284 to 0.4979	-0.2063 to 0.7326	0.059
Site 21	4	0.315	0.1896 to 0.4406	0.0640 to 0.5661	0.059
Site 22	4	1.025	0.5353 to 1.5142	0.0459 to 2.0037	0.059
Site 24	6	0.260	0.0581 to 0.4616	-0.1437 to 0.6633	0.059
Site 25	4	0.218	0.1250 to 0.3107	0.0322 to 0.4036	0.059
Site 25 /c/	4	0.141	0.0491 to 0.2321	-0.0424 to 0.3236	0.059
Site 29	4	2.678	0.6108 to 4.7454	-1.4565 to 6.8127	0.059
Site 31 /d/	1	0.103	N/A N/A	N/A N/A	0.059
Site 32	4	0.549	0.1194 to 0.9782	-0.3101 to 1.4076	0.059
Site 33 /e/	4	0.275	0.2174 to 0.3322	0.1599 to 0.3896	0.059
Site 35 /e/	8	0.598	-0.1723 to 1.3675	-0.9423 to 2.1375	0.059

N/A Not applicable.

/a/ All entries for oats unless otherwise noted.

/b/ Shaded values indicate that the Baes uptake factor is outside this range.

/c/ Values for hottentot fig.

/d/ Only one sample for this site; value in arithmetic mean column is not a mean.

/e/ Values for Bromus sp.

**Table A123. Plant:Soil Ratios for Zinc Based on Field Data /a/
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Site	Number of Samples	Plant:Soil Ratio			Baes Uptake Factor
		Arithmetic Mean	One Std. Dev. Range /b/	Two Std. Dev. Range /b/	
Site 2 /c/	4	6.647	1.635 to 11.658	-3.3765 to 16.6698	1.04
Site 3 /d/	10	2.804	1.3522 to 4.2565	-0.1000 to 5.7086	1.04
Site 11	4	1.484	0.3912 to 2.5764	-0.7014 to 3.6690	1.04
Site 12	4	2.412	0.5019 to 4.3211	-1.4077 to 6.2307	1.04
Site 15	4	1.001	0.7701 to 1.2322	0.5390 to 1.4632	1.04
Site 16	5	2.957	0.2550 to 5.6581	-2.4466 to 8.3597	1.04
Site 21	4	1.822	0.7722 to 2.8713	-0.2774 to 3.9208	1.04
Site 22	4	5.043	0.4552 to 9.6307	-4.1326 to 14.2185	1.04
Site 24	6	3.518	2.2246 to 4.8116	0.9311 to 6.1051	1.04
Site 25	4	0.803	0.1170 to 1.4895	-0.5692 to 2.1757	1.04
Site 25 /c	4	0.594	0.1267 to 1.0623	-0.3411 to 1.5301	1.04
Site 29	4	1.497	0.8626 to 2.1322	0.2278 to 2.7670	1.04
Site 31 /e	1	3.583	N/A	N/A	1.04
Site 32	4	3.572	-0.0451 to 7.1884	-3.6619 to 10.8052	1.04
Site 33 /f/	4	1.190	0.1784 to 2.2013	-0.8330 to 3.2127	1.04
Site 35 /f/	8	1.885	0.8433 to 2.9262	-0.1982 to 3.9676	1.04

N/A Not applicable.

/a/ All entries for oats unless otherwise noted.

/b/ Shaded values indicate that the Baes uptake factor is outside this range.

/c/ Values for hottentot fig.

/d/ Values for buckwheat.

/e/ Only one sample for this site; value in arithmetic mean column is not a mean.

/f/ Values for Bromus sp.

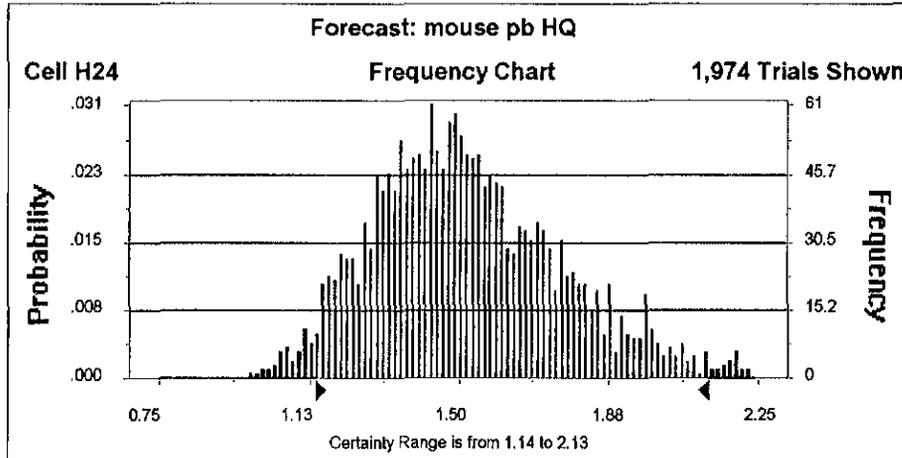
**Table A124. Monte Carlo Analysis - Site 2
 Mouse Lead Hazard Quotient
 Volume IV - Ecological Risk Assessment, Basewide RI/FS
 Fort Ord, California**

Summary:

Certainty Level is 95.00%
 Certainty Range is from 1.14 to 2.13
 Display Range is from 0.75 to 2.25
 Entire Range is from 0.98 to 2.66
 After 2,000 Trials, the Std. Error of the Mean is 0.01

Statistics:

	<u>Value</u>
Trials	2000
Mean	1.54
Median (approx.)	1.50
Mode (approx.)	1.49
Standard Deviation	0.25
Variance	0.06
Skewness	0.79
Kurtosis	3.94
Coeff. of Variability	0.16
Range Minimum	0.98
Range Maximum	2.66
Range Width	1.69
Mean Std. Error	0.01



**Table A124. Monte Carlo Analysis - Site 2
Mouse Lead Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Percentiles:

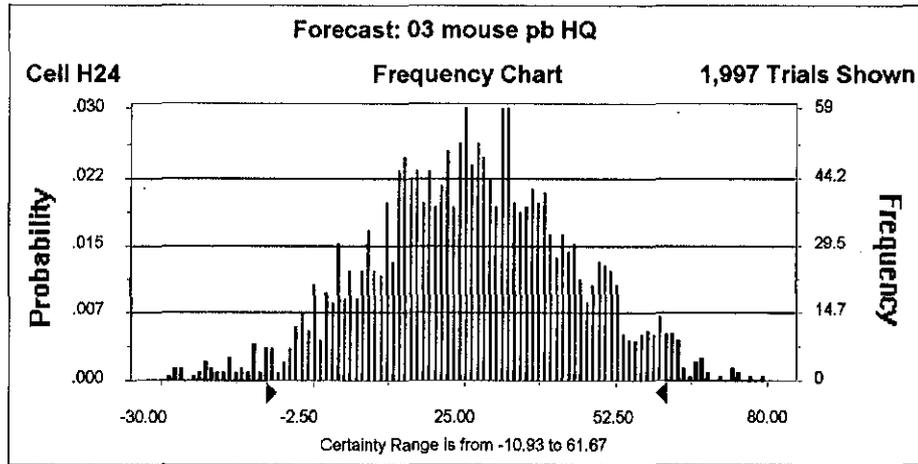
<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	0.98
2.5%	1.14
5.0%	1.18
50.0%	1.50
95.0%	1.99
97.5%	2.12
100.0%	2.66

**Table A125. Monte Carlo Analysis - Site 3
 Mouse Lead Hazard Quotient
 Volume IV - Ecological Risk Assessment, Basewide RI/FS
 Fort Ord, California**

Summary:

Certainty Level is 95.15%
 Certainty Range is from -10.93 to 61.67
 Display Range is from -30.00 to 80.00
 Entire Range is from -31.01 to 84.38
 After 2,000 Trials, the Std. Error of the Mean is 0.41

Statistics:	<u>Value</u>
Trials	2000
Mean	26.41
Median (approx.)	26.50
Mode (approx.)	33.04
Standard Deviation	18.17
Variance	330.20
Skewness	-0.07
Kurtosis	2.99
Coeff. of Variability	0.69
Range Minimum	-31.01
Range Maximum	84.38
Range Width	115.39
Mean Std. Error	0.41



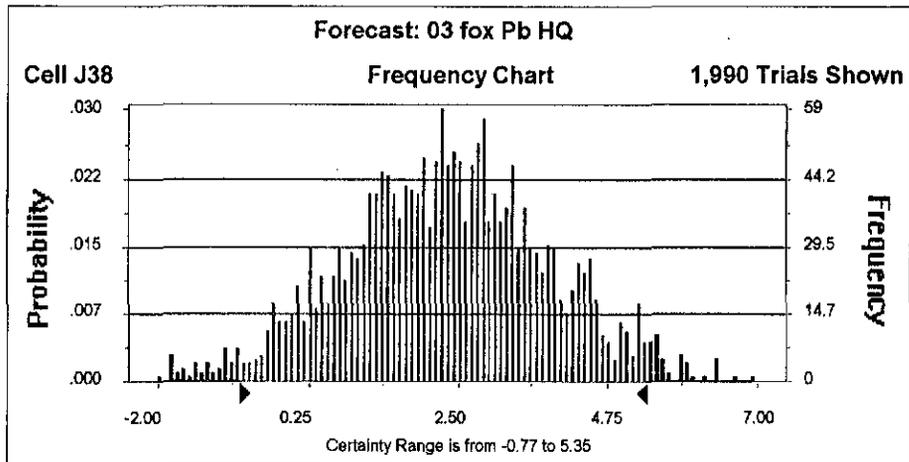
**Table A125. Monte Carlo Analysis - Site 3
Fox Lead Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Summary:

Certainty Level is 95.05%
 Certainty Range is from -0.77 to 5.35
 Display Range is from -2.00 to 7.00
 Entire Range is from -2.55 to 7.28
 After 2,000 Trials, the Std. Error of the Mean is 0.03

Statistics:

	<u>Value</u>
Trials	2000
Mean	2.34
Median (approx.)	2.35
Mode (approx.)	2.31
Standard Deviation	1.55
Variance	2.40
Skewness	-0.07
Kurtosis	2.99
Coeff. of Variability	0.66
Range Minimum	-2.55
Range Maximum	7.28
Range Width	9.83
Mean Std. Error	0.03



**Table A125. Monte Carlo Analysis - Site 3
Fox Lead Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Percentiles:

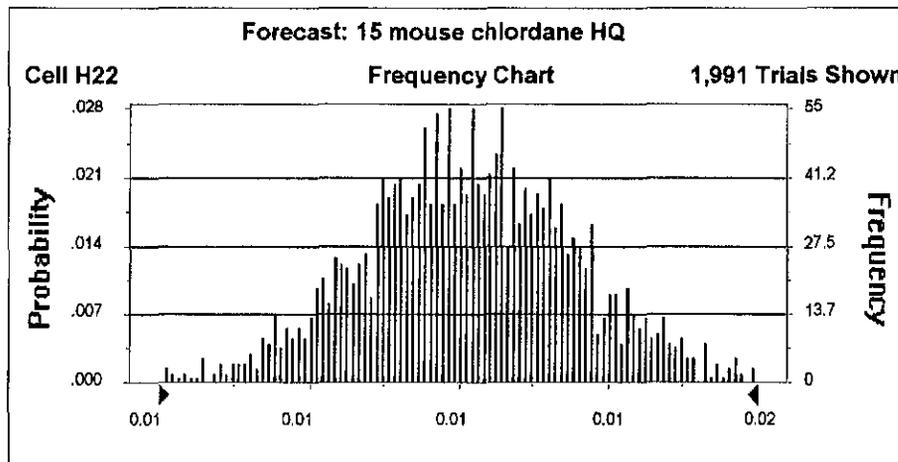
<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	-2.55
2.5%	-0.78
5.0%	-0.22
50.0%	2.35
95.0%	4.94
97.5%	5.35
100.0%	7.28

**Table A126. Monte Carlo Analysis - Site 15
 Mouse Chlordane Hazard Quotient
 Volume IV - Ecological Risk Assessment, Basewide RI/FS
 Fort Ord, California**

Summary:

Display Range is from 0.01 to 0.02
 Entire Range is from 0.01 to 0.02
 After 2,000 Trials, the Std. Error of the Mean is 0.00

Statistics:	<u>Value</u>
Trials	2000
Mean	0.01
Median (approx.)	0.01
Mode (approx.)	0.01
Standard Deviation	0.00
Variance	0.00
Skewness	0.01
Kurtosis	3.03
Coeff. of Variability	0.01
Range Minimum	0.01
Range Maximum	0.02
Range Width	0.00
Mean Std. Error	0.00



**Table A126. Monte Carlo Analysis - Site 15
Mouse Chlordane Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	0.01
2.5%	0.01
5.0%	0.01
50.0%	0.01
95.0%	0.01
97.5%	0.01
100.0%	0.02

End of Forecast

**Table A126. Monte Carlo Analysis - Site 15
 Mouse Lead Hazard Quotient
 Volume IV - Ecological Risk Assessment, Basewide RI/FS
 Fort Ord, California**

Summary:

Certainty Level is 94.95%
 Certainty Range is from 2.30 to 3.55
 Display Range is from 2.00 to 4.00
 Entire Range is from 1.83 to 4.05
 After 2,000 Trials, the Std. Error of the Mean is 0.01

Statistics:

	<u>Value</u>
Trials	2000
Mean	2.93
Median (approx.)	2.93
Mode (approx.)	2.84
Standard Deviation	0.32
Variance	0.10
Skewness	0.02
Kurtosis	2.95
Coeff. of Variability	0.11
Range Minimum	1.83
Range Maximum	4.05
Range Width	2.21
Mean Std. Error	0.01

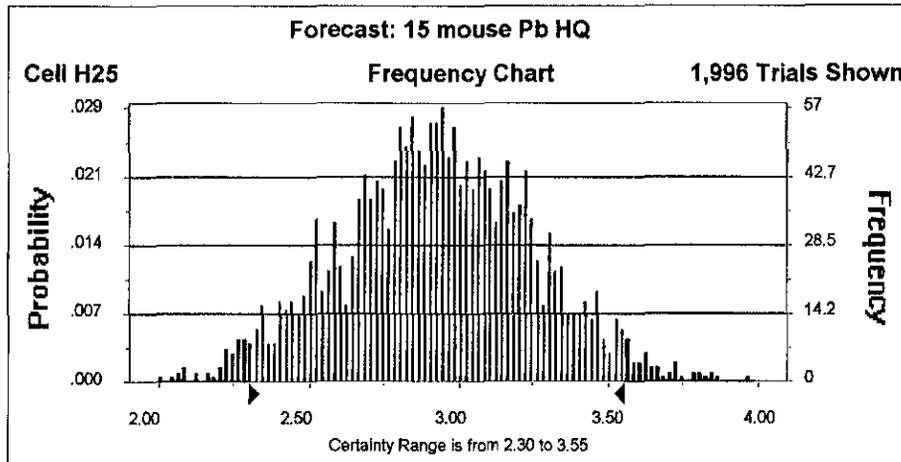


Table A126. Monte Carlo Analysis - Site 15
Mouse Lead Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	1.83
2.5%	2.31
5.0%	2.40
50.0%	2.93
95.0%	3.47
97.5%	3.56
100.0%	4.05

**Table A126. Monte Carlo Analysis - Site 15
 Fox Chlordane Hazard Quotient
 Volume IV - Ecological Risk Assessment, Basewide RI/FS
 Fort Ord, California**

Summary:

Certainty Level is 94.75%
 Certainty Range is from 0.83 to 1.22
 Display Range is from 0.75 to 1.30
 Entire Range is from 0.70 to 1.34
 After 2,000 Trials, the Std. Error of the Mean is 0.00

Statistics:

	<u>Value</u>
Trials	2000
Mean	1.02
Median (approx.)	1.02
Mode (approx.)	1.03
Standard Deviation	0.10
Variance	0.01
Skewness	-0.02
Kurtosis	3.07
Coeff. of Variability	0.10
Range Minimum	0.70
Range Maximum	1.34
Range Width	0.64
Mean Std. Error	0.00

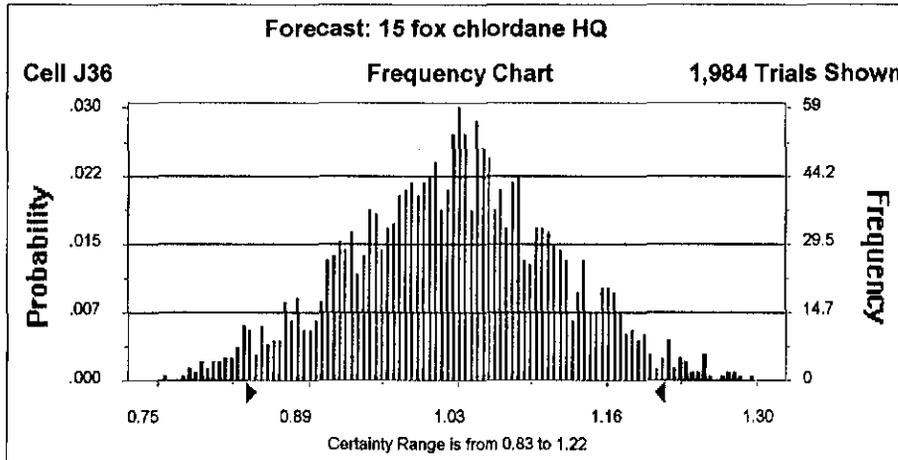


Table A126. Monte Carlo Analysis - Site 15
Fox Chlordane Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	0.70
2.5%	0.83
5.0%	0.86
50.0%	1.02
95.0%	1.18
97.5%	1.21
100.0%	1.34

**Table A126. Monte Carlo Analysis - Site 15
Fox Heptachlor Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Summary:

Certainty Level is 95.00%
 Certainty Range is from 2.84 to 4.30
 Display Range is from 2.50 to 4.75
 Entire Range is from 2.29 to 4.78
 After 2,000 Trials, the Std. Error of the Mean is 0.01

Statistics:	<u>Value</u>
Trials	2000
Mean	3.58
Median (approx.)	3.59
Mode (approx.)	3.52
Standard Deviation	0.37
Variance	0.14
Skewness	-0.10
Kurtosis	2.98
Coeff. of Variability	0.10
Range Minimum	2.29
Range Maximum	4.78
Range Width	2.49
Mean Std. Error	0.01

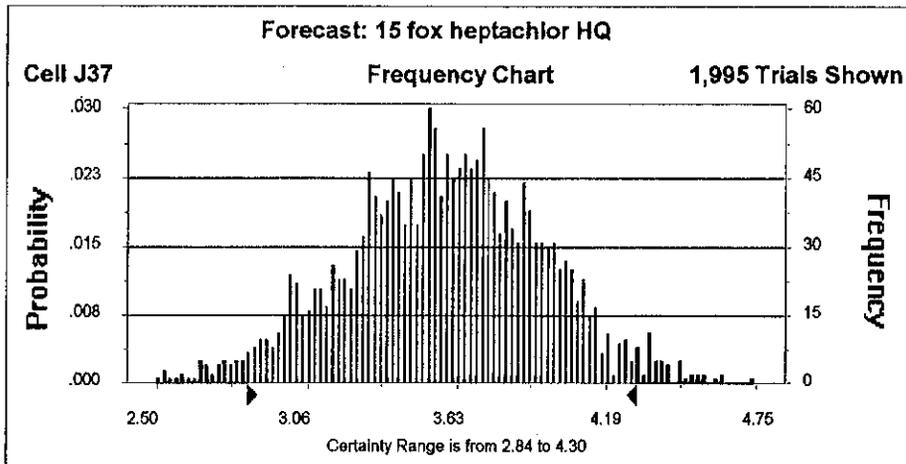


Table A126. Monte Carlo Analysis - Site 15
Fox Heptachlor Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	2.29
2.5%	2.85
5.0%	2.97
50.0%	3.59
95.0%	4.16
97.5%	4.30
100.0%	4.78

**Table A127. Monte Carlo Analysis - Site 16
 Mouse Lead Hazard Quotient
 Volume IV - Ecological Risk Assessment, Basewide RI/FS
 Fort Ord, California**

Summary:

Certainty Level is 95.00%
 Certainty Range is from 1.17 to 2.91
 Display Range is from 0.75 to 3.25
 Entire Range is from 0.72 to 4.33
 After 2,000 Trials, the Std. Error of the Mean is 0.01

Statistics:

	<u>Value</u>
Trials	2000
Mean	2.02
Median (approx.)	2.01
Mode (approx.)	1.93
Standard Deviation	0.45
Variance	0.21
Skewness	0.16
Kurtosis	3.06
Coeff. of Variability	0.22
Range Minimum	0.72
Range Maximum	4.33
Range Width	3.61
Mean Std. Error	0.01

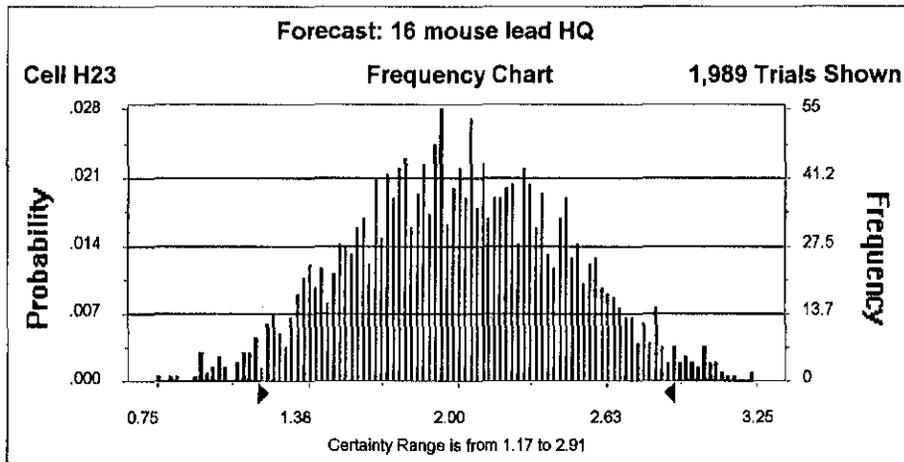


Table A127. Monte Carlo Analysis - Site 16
Mouse Lead Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Percentiles:

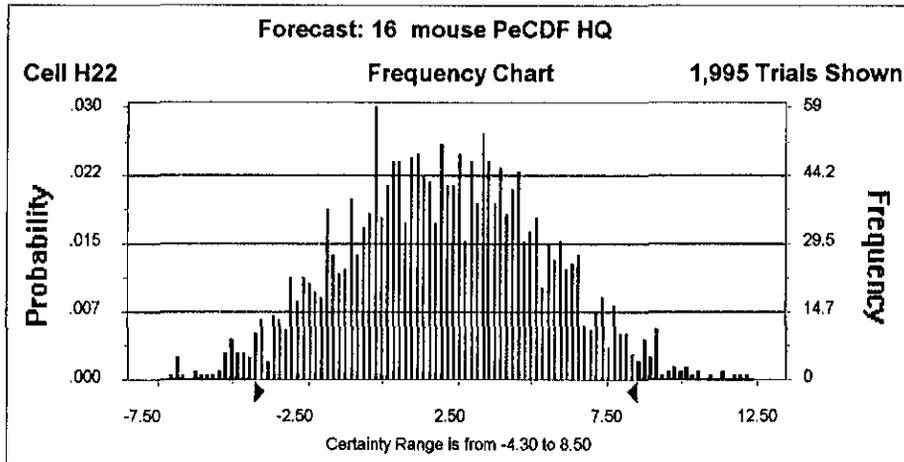
<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	0.72
2.5%	1.17
5.0%	1.31
50.0%	2.01
95.0%	2.77
97.5%	2.91
100.0%	4.33

Table A127. Monte Carlo Analysis - Site 16
Mouse PeCDF Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Summary:

Certainty Level is 95.00%
 Certainty Range is from -4.30 to 8.50
 Display Range is from -7.50 to 12.50
 Entire Range is from -10.23 to 13.26
 After 2,000 Trials, the Std. Error of the Mean is 0.07

Statistics:	<u>Value</u>
Trials	2000
Mean	2.07
Median (approx.)	2.06
Mode (approx.)	1.16
Standard Deviation	3.34
Variance	11.13
Skewness	0.01
Kurtosis	2.86
Coeff. of Variability	1.61
Range Minimum	-10.23
Range Maximum	13.26
Range Width	23.49
Mean Std. Error	0.07



**Table A127. Monte Carlo Analysis - Site 16
Mouse PeCDF Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	-10.23
2.5%	-4.31
5.0%	-3.34
50.0%	2.06
95.0%	7.53
97.5%	8.53
100.0%	13.26

**Table A127. Monte Carlo Analysis - Site 16
Fox PeCDF Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California**

Summary:

Certainty Level is 95.00%
 Certainty Range is from -0.72 to 2.47
 Display Range is from -1.50 to 3.50
 Entire Range is from -2.16 to 3.65
 After 2,000 Trials, the Std. Error of the Mean is 0.02

Statistics:	<u>Value</u>
Trials	2000
Mean	0.87
Median (approx.)	0.87
Mode (approx.)	0.60
Standard Deviation	0.82
Variance	0.68
Skewness	0.02
Kurtosis	2.85
Coeff. of Variability	0.94
Range Minimum	-2.16
Range Maximum	3.65
Range Width	5.80
Mean Std. Error	0.02

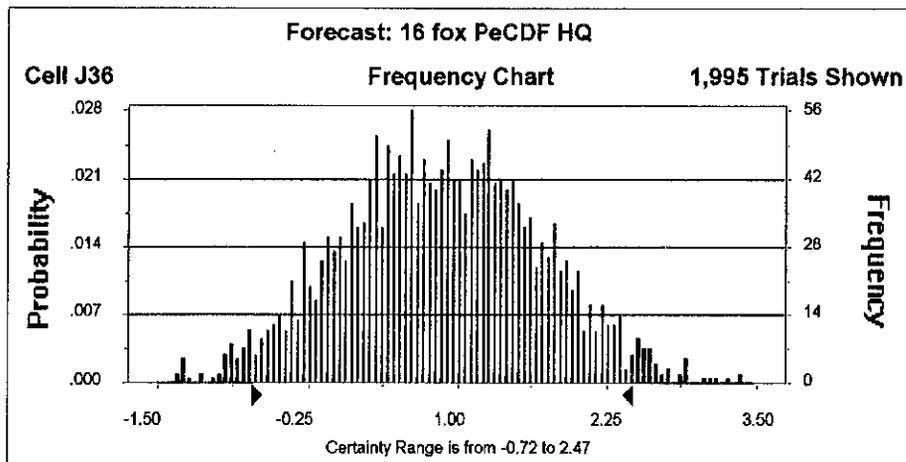


Table A127. Monte Carlo Analysis - Site 16
Fox PeCDF Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	-2.16
2.5%	-0.71
5.0%	-0.47
50.0%	0.87
95.0%	2.22
97.5%	2.47
100.0%	3.65

Table A128. Monte Carlo Analysis - Site 29
Mouse Lead Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Summary:

Certainty Level is 95.05%
 Certainty Range is from 1.45 to 2.23
 Display Range is from 1.30 to 2.40
 Entire Range is from 1.28 to 2.55
 After 2,000 Trials, the Std. Error of the Mean is 0.00

Statistics:	<u>Value</u>
Trials	2000
Mean	1.82
Median (approx.)	1.82
Mode (approx.)	1.83
Standard Deviation	0.20
Variance	0.04
Skewness	0.19
Kurtosis	2.95
Coeff. of Variability	0.11
Range Minimum	1.28
Range Maximum	2.55
Range Width	1.27
Mean Std. Error	0.00

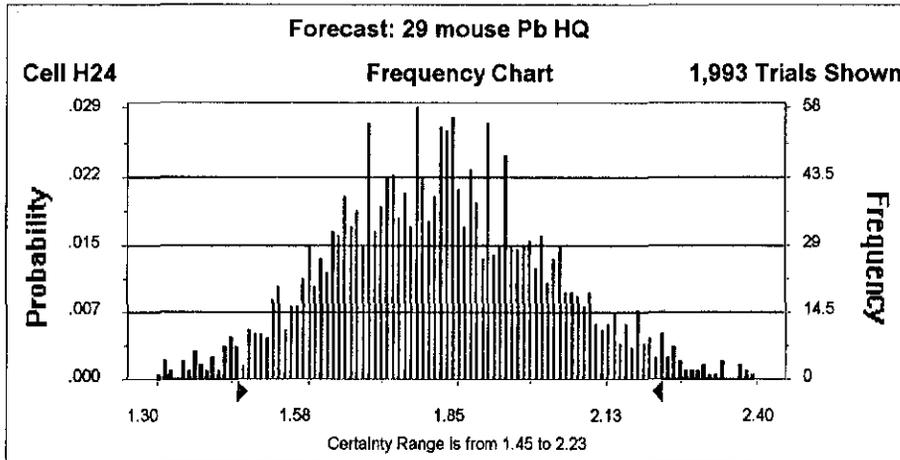


Table A128. Monte Carlo Analysis - Site 29
Mouse Lead Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	1.28
2.5%	1.45
5.0%	1.51
50.0%	1.82
95.0%	2.17
97.5%	2.23
100.0%	2.55

**Table A128. Monte Carlo Analysis - Site 29
 Mouse Nickel Hazard Quotient
 Volume IV - Ecological Risk Assessment, Basewide RI/FS
 Fort Ord, California**

Summary:

Certainty Level is 95.00%
 Certainty Range is from -0.27 to 3.90
 Display Range is from -1.00 to 4.50
 Entire Range is from -1.52 to 5.13
 After 2,000 Trials, the Std. Error of the Mean is 0.02

Statistics:

	<u>Value</u>
Trials	2000
Mean	1.73
Median (approx.)	1.72
Mode (approx.)	1.70
Standard Deviation	1.05
Variance	1.10
Skewness	0.05
Kurtosis	2.87
Coeff. of Variability	0.60
Range Minimum	-1.52
Range Maximum	5.13
Range Width	6.65
Mean Std. Error	0.02

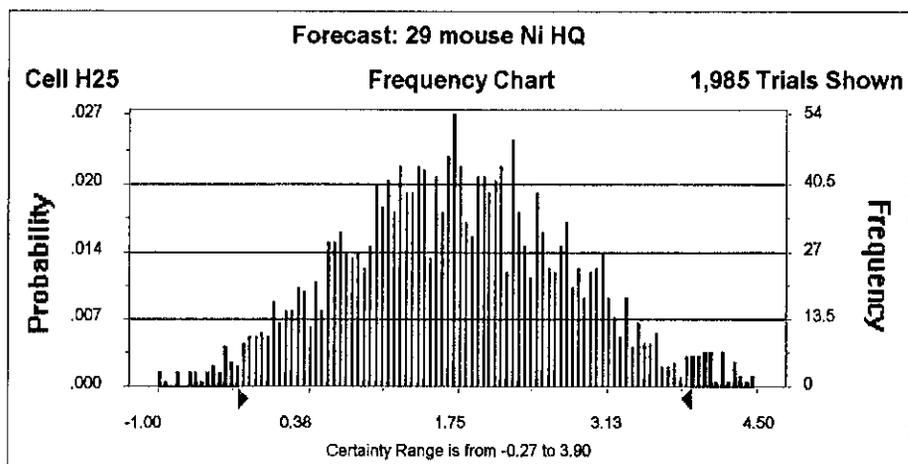


Table A128. Monte Carlo Analysis - Site 29
Mouse Nickel Hazard Quotient
Volume IV - Ecological Risk Assessment, Basewide RI/FS
Fort Ord, California

Percentiles:

<u>Percentile</u>	<u>Value (approx.)</u>
0.0%	-1.52
2.5%	-0.24
5.0%	0.04
50.0%	1.72
95.0%	3.47
97.5%	3.90
100.0%	5.13

**Table A129. Monte Carlo Analysis - Site 31
 Mouse Lead Hazard Quotient
 Volume IV - Ecological Risk Assessment, Basewide RI/FS
 Fort Ord, California**

Summary:

Certainty Level is 95.10%
 Certainty Range is from 1.78 to 3.75
 Display Range is from 1.25 to 4.00
 Entire Range is from 1.39 to 5.05
 After 2,000 Trials, the Std. Error of the Mean is 0.01

Statistics:

	<u>Value</u>
Trials	2000
Mean	2.65
Median (approx.)	2.60
Mode (approx.)	2.50
Standard Deviation	0.51
Variance	0.26
Skewness	0.53
Kurtosis	3.38
Coeff. of Variability	0.19
Range Minimum	1.39
Range Maximum	5.05
Range Width	3.66
Mean Std. Error	0.01

