

HTW BCT Meeting, April 14, 2021

Table 1: Jan-March 2021 – Sites 2/12 GWTP and SVTU Statistics

Monthly Statistics	Volume Treated	Average Flow	Percent of Time Online	COC Mass Removed (pounds)
Jan 2021 GWTP	6,091,020 gal	136 gpm	99.6	0.22
Feb 2021 GWTP	5,546,100 gal	133 gpm	99.9	0.19
Mar 2021 GWTP	6,071,040 gal	136 gpm	100	0.19
Total since April 1999	2.206 billion gal			493
Jan-Mar 2021 SVTU	0 scf	0 scfm	0	0.0
Total since September 2015	1.374 billion scf			9.9

Table 2: Jan-Mar 2021 – Sites 2/12 Treated Water Analytical Results at TS-212-INJ

COC	Discharge Limit (µg/L) ²	Sample Date / Analytical Results			
		01/04/21	02/02/21	03/01/21	03/29/21
1,1-Dichloroethene (1,1-DCE)	6.0	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
1,2-Dichloroethane (1,2-DCA)	0.50	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
1,3-dichloropropene (1,3-DCP) ¹	0.50	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
Chloroform	2.0	ND (0.25)	0.11 J	0.15 J	0.15 J
cis-1,2-dichloroethene (cis-1,2-DCE)	6.0	0.14 J	0.16 J	0.24 J	0.29 J
Tetrachloroethene (PCE)	5.0	0.25 J	0.14 J	ND (0.25)	0.14 J
Trichloroethene (TCE)	5.0	0.21 J	0.10 J	0.13 J	0.15 J
Vinyl Chloride (VC)	0.10	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)

Notes:

¹ The reported value is the sum of both cis- and trans-isomers.

² Discharge limits are the ACLs for injection over the plume.

J: Estimated results below the limit of quantitation (LOQ).

ND: The analyte was not detected at or above the limit of detection (LOD).

gpm: gallon(s) per minute

gal: gallon(s)

COC: chemical of concern

NS: Not sampled

scf: standard cubic foot or feet

scfm: standard cubic feet per minute

µg/L: micrograms per liter

Results in gray are ND

*Preliminary data

January 2021 Key Events

- Jan 1: Sites 2/12 GWTP shut down for two hours due to OU2 GWTP communications error.
- Jan 12: Sites 2/12 GWTP shut down for one hour due to OU2 GWTP communications maintenance.

February 2021 Key Events

- Feb 5: Sites 2/12 GWTP shut down for one hour for air stripper maintenance.
- Feb 16-19: First Quarter 2021 Soil Gas Monitoring event.

March 2021 Key Events

- Mar 1-5: First Quarter 2021 Groundwater Monitoring event.

April 2021 Key Events

- Apr 19: Redevelop EW-12-08-180U and install upsized pump.

Future 2021 Key Events

- May 17-19: Second Quarter 2021 Soil Gas Monitoring Event.
- Jun 7-11: Second Quarter 2021 Groundwater Monitoring Event.
- Shea Homes will decommission EW-12-04-180U and EW-12-04-180M (no date set).



Table 3. Sites 2/12 Soil Gas Monitoring Results

Soil Gas Probe ID	1Q20	2Q20	3Q20	4Q20	1Q21*	1Q20	2Q20	3Q20	4Q20	1Q21*	Schedule
	PCE					TCE					
SG-12-01-30	230	ND	450	370	270	ND	ND	ND	ND	ND	RB
SG-12-01-58	230	ND	410	ND	NS	ND	ND	ND	ND	NS	RB
SG-12-01-65	210	ND	330	270	220	ND	ND	ND	ND	ND	Q ²
SG-12-02-10	790	970	1,200	1,200	540	ND	ND	ND	ND	ND	Q ¹
SG-12-02-20	NS	NS	940	NS	NS	NS	NS	ND	NS	NS	A
SG-12-02-30	NS	NS	760	NS	NS	NS	NS	ND	NS	NS	A
SG-12-02-40	NS	NS	830	NS	NS	NS	NS	ND	NS	NS	A
SG-12-02-50	NS	NS	820	NS	NS	NS	NS	ND	NS	NS	A
SG-12-02-57	NS	NS	760	NS	NS	NS	NS	ND	NS	NS	A
SG-12-02-65	NS	NS	600	NS	NS	NS	NS	ND	NS	NS	A
SG-12-04-10	120	ND	100	120	100	1,300	ND	360	620	780	Q ¹
SG-12-04-20	110	ND	100	130	99	1,100	52 J	350	510	770	Q ³
SG-12-04-40	92	ND	83 J	87	89	90	ND	ND	56 J	88	INV
SG-12-04-50	92	52 J	85	110	100	630	140	180	230	530	INV
SG-12-04-58	110	ND	81 J	120	NS	440	46 J	170	250	NS	RB
SG-12-04-65	97	ND	88	130	100	890	150	220	440	560	Q ²
SG-12-06-10	120	ND	110	180	100	ND	ND	ND	ND	ND	Q ¹
SG-12-06-70	160	NS	160	210	180	ND	NS	ND	ND	ND	Q ²

Notes:

*Preliminary results

A = Annual

J = estimated result below the limit of quantitation (LOQ)

INV = investigation (adjacent probe above SGCL/SG-SL)

ND = not detected above the limit of detection (LOD)

NS = not sampled

Q = Quarterly

R = Removed

RB = Rebound Study probe

Concentrations in **bold** exceed the SGCL

Concentrations in *italics* exceed the SG-SL

Results reported in micrograms per cubic meter (µg/m³)

¹ Quarterly probe due to proximity of store front in an area of historic soil gas concentrations above the SGCL.

² Will continue to sample probe quarterly if it is within the vicinity of the current groundwater plume above the ACL (probe adjacent to deepest probe will be sampled in lieu if deepest probe is in saturated zone).

³ Quarterly probe due to concentration above SGCL.

	SGCL (µg/m ³)	SG-SL (µg/m ³)
PCE	1,800	603
TCE	1,000	888

Table 3. Sites 2/12 Soil Gas Monitoring Results

Soil Gas Probe ID	1Q20	2Q20	3Q20	4Q20	1Q21*	1Q20	2Q20	3Q20	4Q20	1Q21*	Schedule
	PCE					TCE					
SG-12-07-65	380	NS	170	260	NS	51 J	NS	ND	ND	NS	RB
SG-12-08-70	160	NS	230	190	NS	ND	NS	ND	ND	NS	RB
SG-12-14-70	ND	NS	ND	ND	NS	52 J	NS	ND	ND	NS	RB
SG-12-16-70	ND	NS	ND	ND	NS	470	NS	540	430	NS	RB
SG-12-17-40	NS	NS	ND	NS	NS	NS	NS	700	NS	NS	A
SG-12-17-60	ND	NS	ND	ND	NS	740	NS	670	760	NS	RB
SG-12-18-70	ND	NS	ND	ND	NS	ND	NS	ND	ND	NS	RB
SG-12-20-10	ND	NS	<i>1,200</i>	NS	NS	NS	NS	ND	NS	NS	A
SG-12-20-20	ND	NS	<i>900</i>	NS	NS	NS	NS	ND	NS	NS	A
SG-12-20-70	320	NS	300	380	NS	ND	NS	ND	100	NS	RB

Notes:

*Preliminary results

A = Annual

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INV = investigation (adjacent probe above SGCL/SG-SL)

ND = not detected above the limit of detection (LOD)

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Concentrations in **bold** exceed the SGCL

Concentrations in *italics* exceed the SG-SL

Results reported in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)

¹ Quarterly probe due to proximity of store front in an area of historic soil gas concentrations above the SGCL.

² Will continue to sample probe quarterly if it is within the vicinity of the current groundwater plume above the ACL (probe adjacent to deepest probe will be sampled in lieu if deepest probe is in saturated zone).

³ Quarterly probe due to concentration above SGCL.

	SGCL ($\mu\text{g}/\text{m}^3$)	SG-SL ($\mu\text{g}/\text{m}^3$)
PCE	1,800	<i>603</i>
TCE	1,000	<i>888</i>



EXPLANATION

- Site 12 Soil Gas Probe: PCE is above SG-SL and TCE is non-detect
- Site 12 Soil Gas Probe: PCE and TCE are below SG-SL
- Site 12 Soil Gas Probe: PCE and TCE are non-detect
- Site 12 Soil Gas Cluster: Probes are not sampled
- Site 12 Soil Vapor Extraction Well: Extraction Well not sampled
- Roads
- Facilities

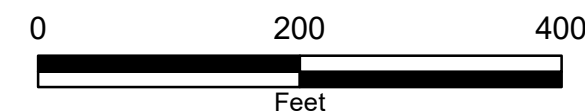
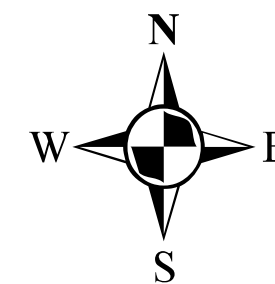
Label Description:

Well ID - Sample Location and Probe Depth
 TCE and PCE concentration (µg/L) with validation/lab qualifier.
 Italics when exceeds the SG-SL
 Bold when exceeds the SG-CL.

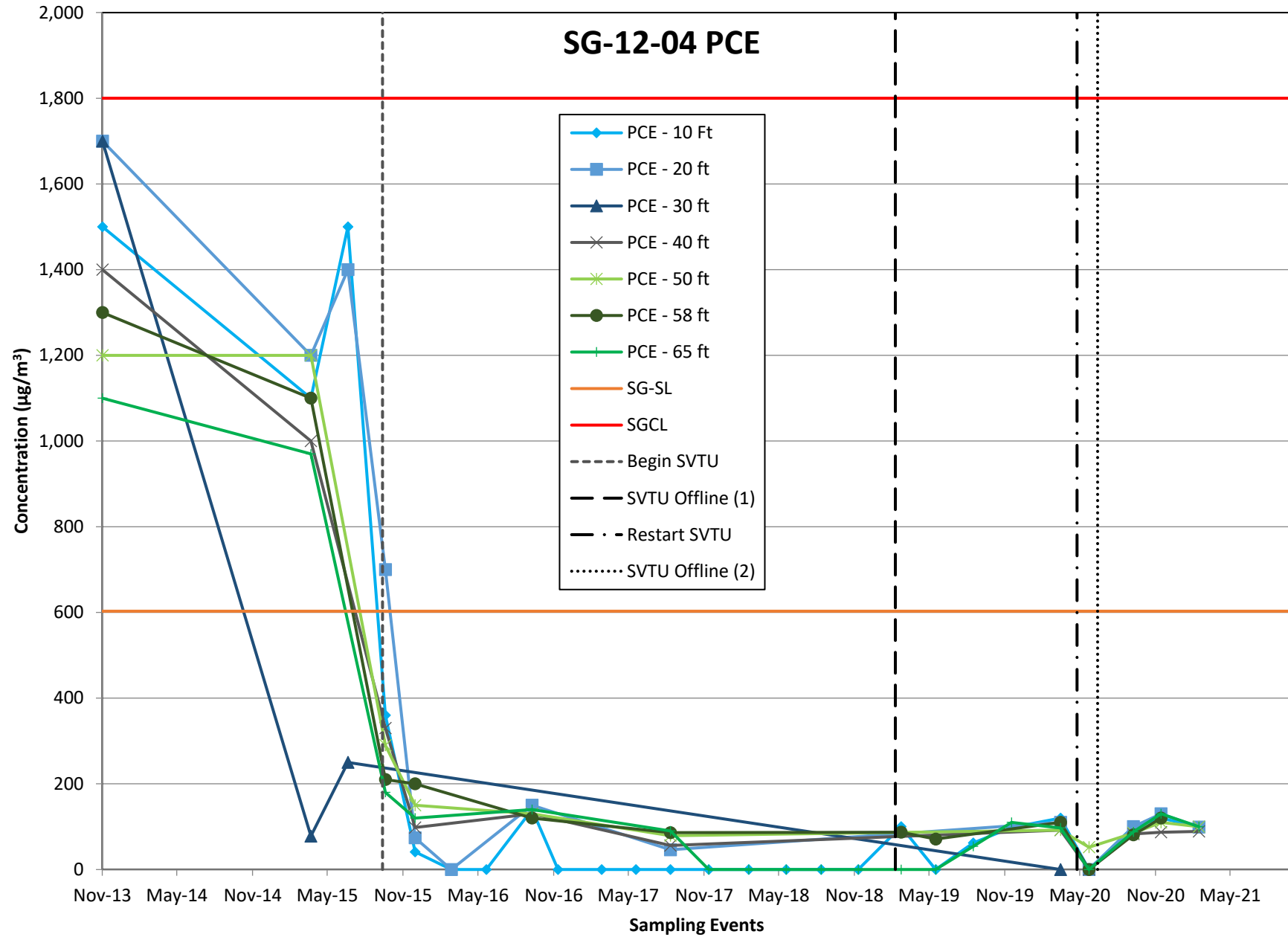
ND Chemical of Concern is non-detect.

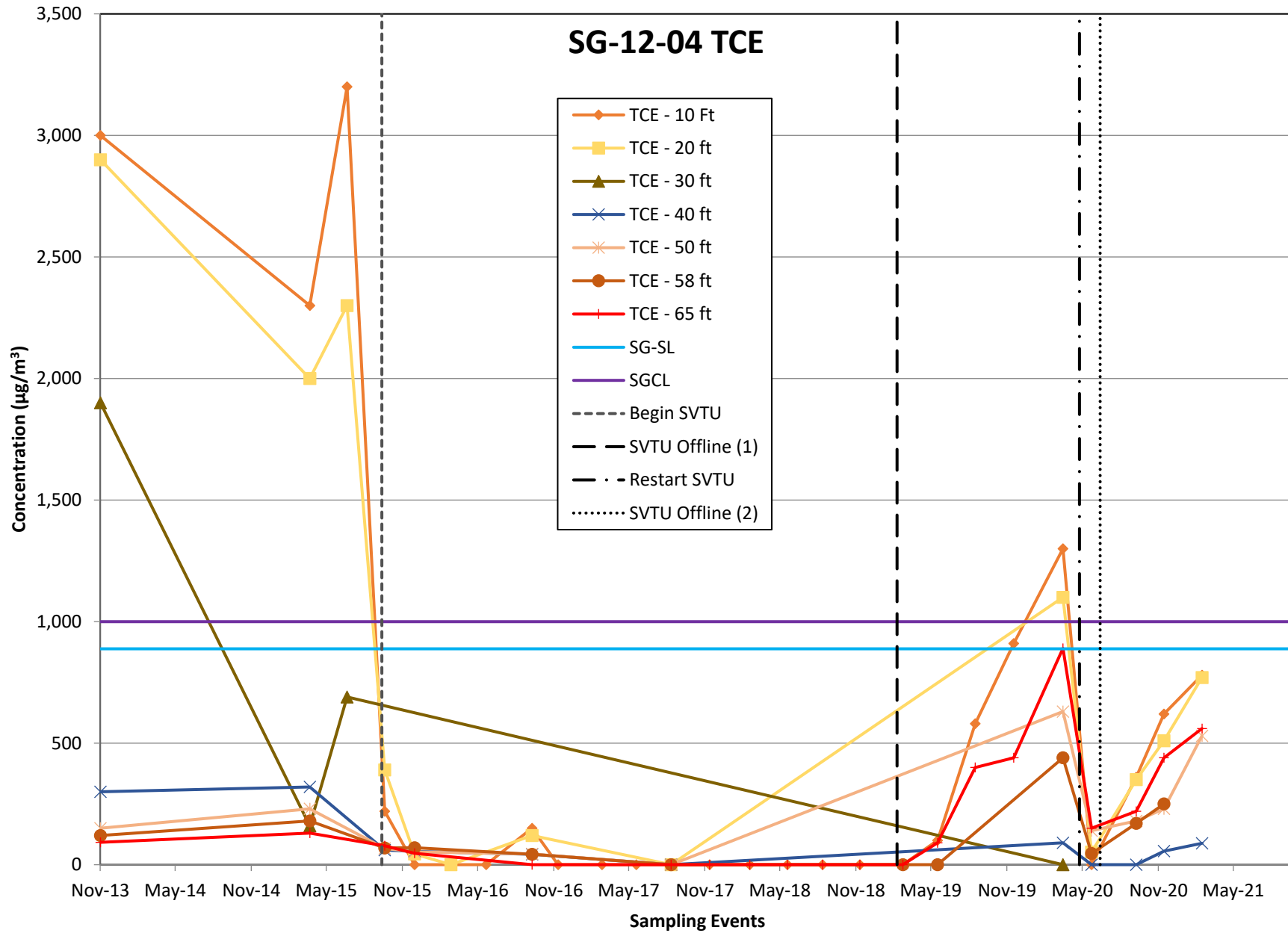
NOTES:

(1) Samples were collected between November 16, 2020 and November 20, 2020.



SOIL GAS PCE/TCE CONCENTRATIONS AND SGCL EXCEEDANCES,
 Sites 2 and 12, Fourth Quarter 2020
 Groundwater and Soil Gas Monitoring and Treatment System Report, Former Fort Ord, California





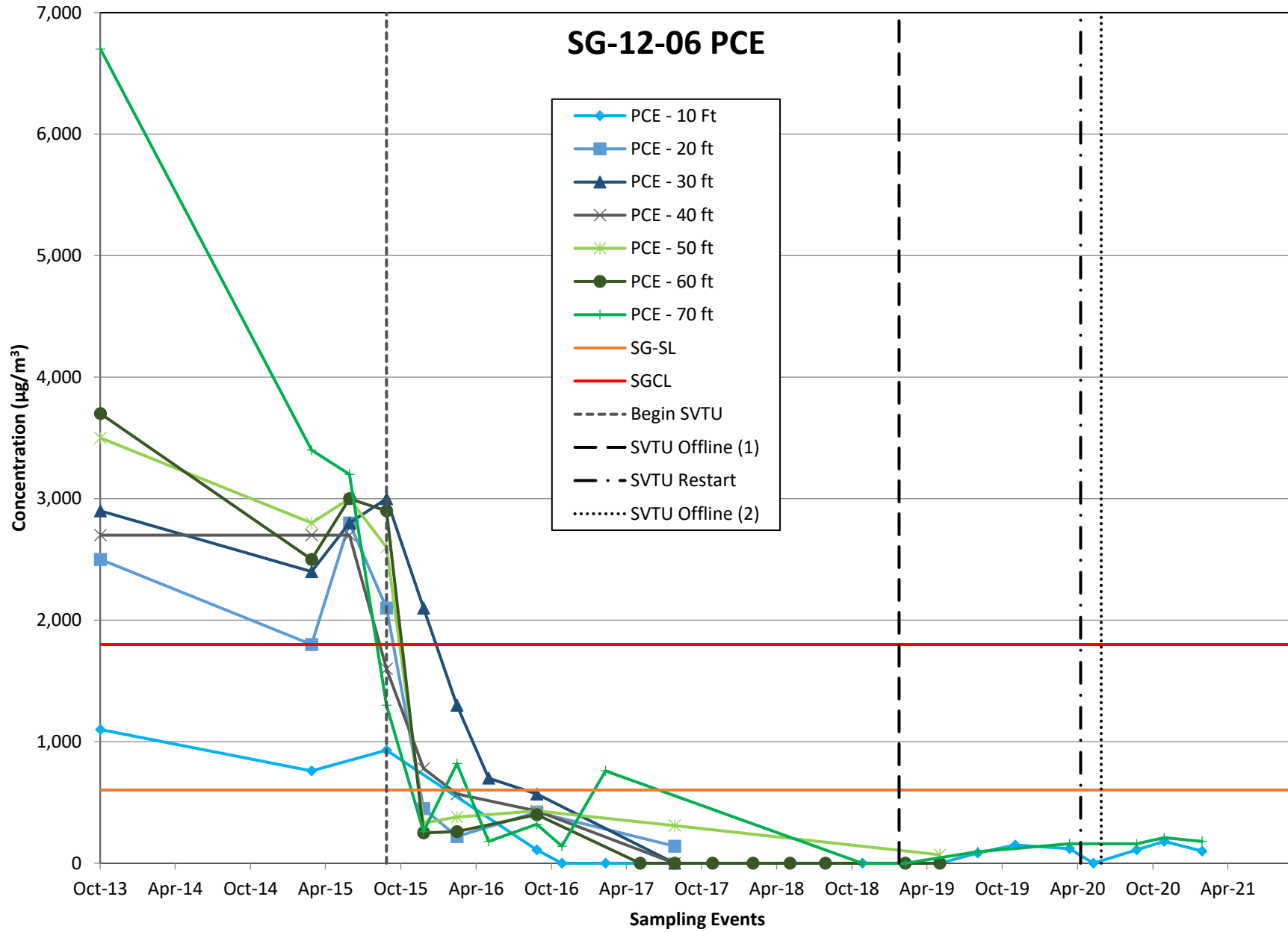


Table 3. Sites 2/12 Select Groundwater Extraction/Monitoring Well Data

Well Identification ³	Select COC Concentrations (µg/L) ⁴									
	1Q 2020	2Q 2020	3Q 2020	4Q 2020	1Q 2021*	1Q 2020	2Q 2020	3Q 2020	4Q 2020	1Q 2021*
	TCE					PCE				
ACL:	5.0					5.0				
EW-12-03-180M	2.1	0.62	2.4	2.3	0.14 J	ND (0.25)	ND (0.25)	0.18 J	0.16 J	ND (0.25)
EW-12-05-180M	0.60	2.1	1.9	2.4	2.0	0.68	0.95	0.65	0.79	0.71
EW-12-07-180M	0.78	0.63	0.54	0.59	0.56	0.24 J	0.19 J	0.12 J	0.14 J	0.16 J
EW-12-08-180U	0.31 J	0.35 J	0.36 J	0.16 J	0.27 J	8.4	13.1	11.6	6.1	5.3
MW-12-09R-180	2.3	1.4	1.2	1.6	1.7	0.34 J	0.30 J	0.21 J	0.26 J	0.27 J
MW-12-14-180M	1.6	1.9	2.1	1.2	1.4	0.31 J	0.43 J	0.36 J	0.32 J	0.34 J
MW-12-16-180M	1.8	1.8	1.7	2.0	2.6	ND (0.25)	ND (0.25)	ND (0.25)	0.089 J	0.11 J
MW-12-20-180U	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.066)	ND (0.25)	0.94	2.0	3.1	0.87	0.81
MW-12-21-180U	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.066)	ND (0.25)	0.35 J	0.23 J	0.41 J	0.38 J	0.38 J
MW-12-24-180U	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.066)	ND (0.25)	0.60	0.94	0.33 J	0.36 J	0.68
MW-12-28-180U	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.066)	ND (0.25)	0.52	0.42 J	0.39 J	0.36 J	0.29 J
MW-12-32-180U	0.84	0.57	0.64	0.70	0.55	0.71	0.48 J	0.64	0.73	0.50

Notes:

¹ The reported value is the sum of both cis- and trans-isomers.

² Discharge limits are the ACLs for injection over the plume.

³ Extraction wells not listed have met the QAPP decision rules to no longer operate.

⁴ Concentration in **bold** and shaded exceeds the Aquifer Cleanup Level (ACL). Concentrations in gray text are ND.

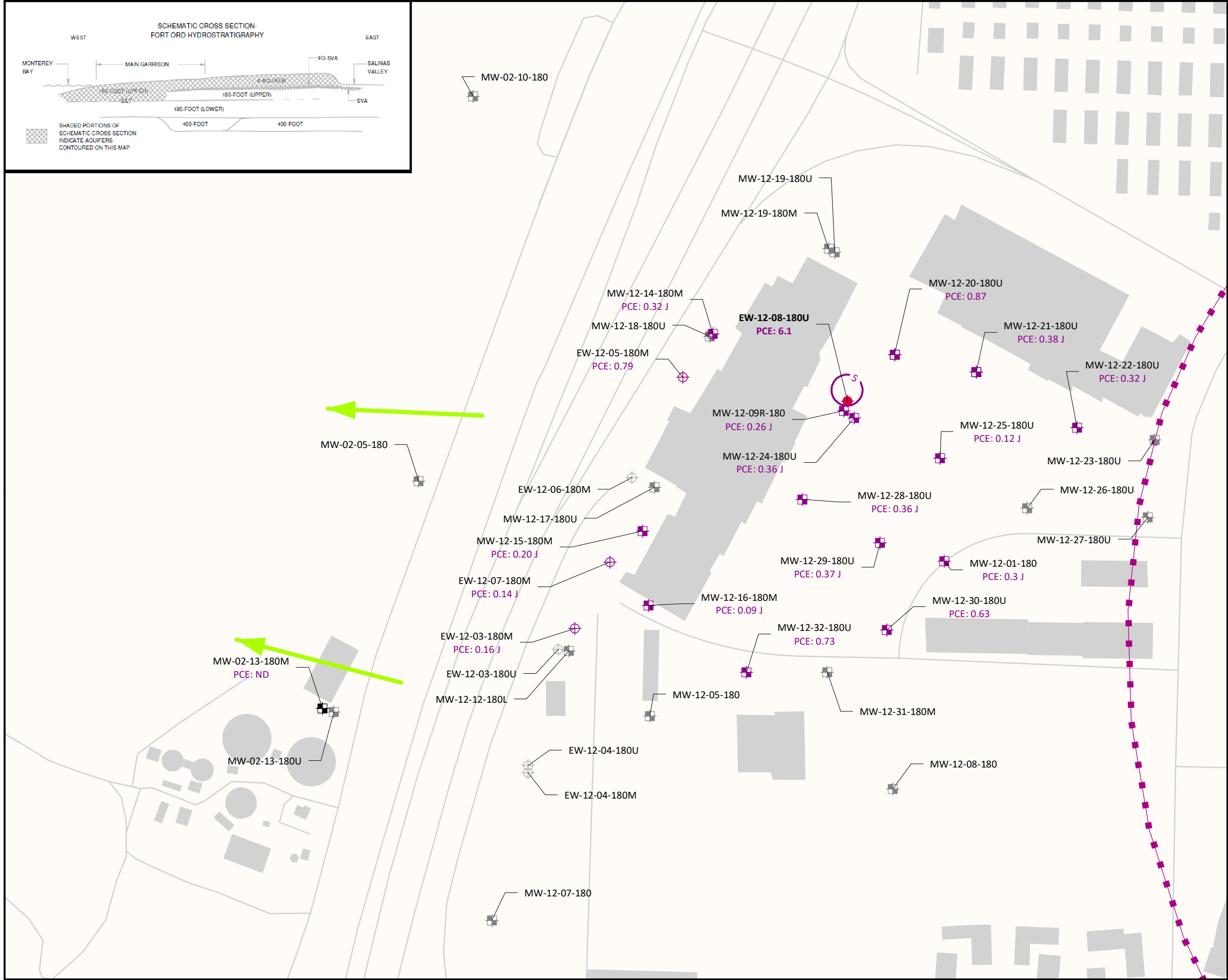
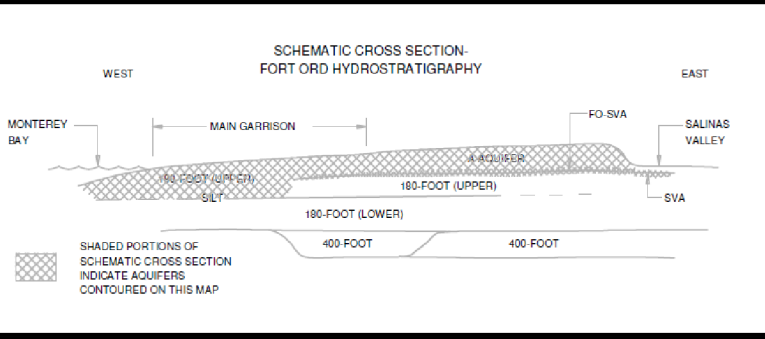
J: Estimated results below the limit of quantitation (LOQ)

ND: The analyte was not detected at or above the limit of detection (LOD)

COC: chemical of concern

µg/L: micrograms per liter

* Preliminary data



EXPLANATION

- Monitoring Well Not Sampled
 - Monitoring Well with No PCE Detection
 - Monitoring Well with PCE Less than ACL
 - Extraction Well Not Sampled
 - Extraction Well with PCE Less than ACL
 - Extraction Well with PCE Detection Above or Equal to ACL
- Well ID - Bold when ACL Exceeded**
TCE and/or PCE concentration (µg/L)
with validation/lab qualifier.
- Chemical of Concern (COC) Aquifer Cleanup Level (ACL) Exceedance Contour in µg/L.**
- 5** Tetrachloroethene (PCE)
 - General Groundwater Flow Direction
 - Roads
 - Approximate location of the Upper 180-Foot Aquifer Groundwater Divide
 - Facilities

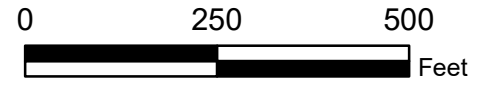
NOTES:

(1) Samples were collected between December 7, 2020 and December 11, 2020.

(2) Contour is based on one interpretation of the data that was available at the time this report was prepared; other interpretations may be possible.

(3) Contours based on highest value obtained from multiple bags where applicable.

(4) Other COC ACL Exceedances detected beyond the extent of the PCE Plume are illustrated when present.



GROUNDWATER PCE CONCENTRATIONS
UPPER 180-FOOT AQUIFER WEST OF THE SVA
Sites 2 and 12, Fourth Quarter 2020
Groundwater and Soil Gas Monitoring and Treatment
System Report, Former Fort Ord, California

EW-12-08-180U

