

## HTW BCT Meeting, November 14, 2018

**Table 1:** Sites 2/12 GWTP and SVTU Statistics as of October 31, 2018

Monthly Statistics	Volume Treated	Average Flow	Percent of Time Online	COC Mass Removed (pounds)
October 2018 GWTP	2,789,241 gal	62 gpm	47.2	0.16
Total since April 1999	2.051 billion gal			485
October 2018 SVTU	23,557,800	497 scfm	100	0.04
Total since September 2015	1.259 billion scf			9.5

**Table 2:** October 2018 – Sites 2/12 Treated Water Analytical Results at TS-212-INJ

COC	Discharge Limit (µg/L) <sup>2</sup>	Sample Date / Analytical Results
		10/16/2018
1,1-Dichloroethene (1,1-DCE)	6.0	ND (0.25)
1,2-Dichloroethane (1,2-DCA)	0.50	ND (0.25)
1,3-dichloropropene (1,3-DCP) <sup>1</sup>	0.50	ND (0.25)
Chloroform	2.0	ND (0.25)
cis-1,2-dichloroethene (cis-1,2-DCE)	6.0	0.19 J
Tetrachloroethene (PCE)	5.0	0.52
Trichloroethene (TCE)	5.0	0.32 J
Vinyl Chloride (VC)	0.10	ND (0.05)

**Notes:**

<sup>1</sup>The reported value is the sum of both cis- and trans-isomers.

<sup>2</sup>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

**October 2018 Key Events for Sites 2/12**

- October 12: The OU2 GWTP was shut down at 8:03 am for the start of the transition period. The Sites 2/12 GWTP is operating only during business hours during the transition period. The Sites 2/12 SVTU continues to operate full time.
- October 15: The containment area at the Sites 2/12 GWTP flooded with treated water; EW-12-08-180U continued to run when the Sites 2/12 GWTP was shut down on October 12. The water was run back through the Sites 2/12 GWTP.

**November 2018 Key Events for Sites 2/12**

- November 13-16: Fourth Quarter 2018 soil gas monitoring event.
- Manual 2/12 GWTS operations during OU2 transition period.

**December 2018 Key Events for Sites 2/12**

- Manual 2/12 GWTS operations during OU2 transition period.
- December 10-14: Fourth Quarter 2018 groundwater monitoring event.

**January 2019 Key Events for Sites 2/12**

- Return to automatic fulltime 2/12 GWTS operations after OU2 transition period.



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

Well Identification <sup>3</sup>	Select COC Concentrations (µg/L) <sup>4</sup>			
	2Q 2018	3Q 2018	2Q 2018	3Q 2018
	TCE		PCE	
ACL:	5.0		5.0	
EW-12-03-180M	3.3	2.0	0.42 J	0.12 J
EW-12-05-180M	2.5	2.4	0.86	0.82
EW-12-07-180M	2.9	2.5	0.51	0.47 J
EW-12-08-180U	0.50	0.52	<b>10.2</b>	<b>12.3</b>
MW-12-09R-180	3.1	2.8	0.45 J	0.41 J
MW-12-14-180M	3.1	3.0	0.41 J	0.42 J
MW-12-16-180M	1.4	1.4	ND (0.25)	ND (0.25)
MW-12-20-180U	0.13 J	0.15 J	2.5	<b>7.7</b>
MW-12-21-180U	ND (0.25)	ND (0.25)	0.13 J	0.49 J
MW-12-24-180U	ND (0.25)	ND (0.25)	0.81	0.60
MW-12-25-180U	ND (0.25)	ND (0.25)	0.16 J	0.49 J
MW-12-28-180U	ND (0.25)	ND (0.25)	0.41 J	0.32 J
MW-12-31-180M	ND (0.25)	ND (0.25)	0.31 J	0.29 J
MW-12-32-180U	0.96	0.48 J	0.47 J	0.41 J

**Notes:**

<sup>1</sup> The reported value is the sum of both cis- and trans-isomers.

<sup>2</sup> Discharge limits are the ACLs for injection over the plume.

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

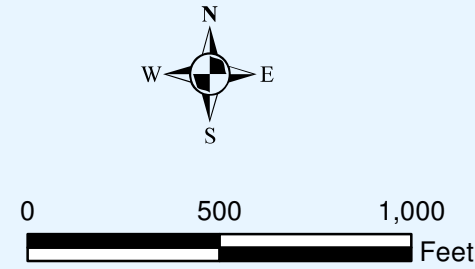
<sup>4</sup> Concentration in **bold** and shaded exceeds the Aquifer Cleanup Level (ACL). Concentrations in gray text are ND.

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



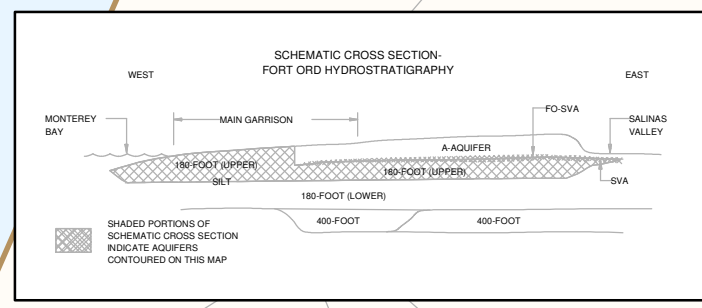
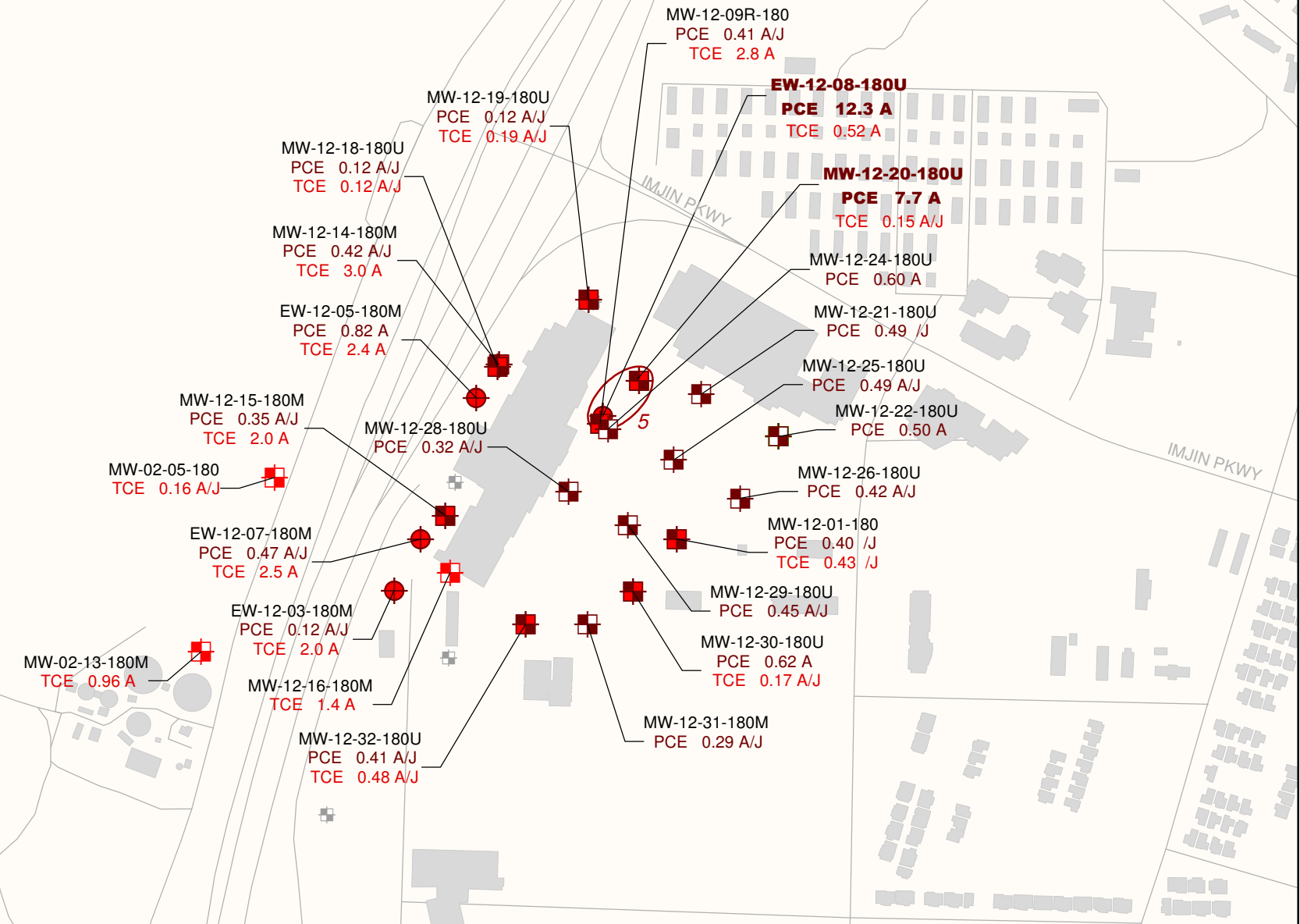
**EXPLANATION**

- Monitoring Well with TCE Detection, and No ACL Exceedances by Other COCs
- Monitoring Well with PCE Detection and No ACL Exceedances by other COCs
- Monitoring Well with TCE and PCE Detection
- Extraction Well with TCE and PCE Detection

- Well ID - Bold When ACL Exceeded (\* Indicates: Sample result not used for contouring)
- TCE and/or PCE concentration (µg/L) with validation/lab qualifier. Bold when exceeds the ACL.
- Monitoring Well - TCE or PCE not detected and no other COC ACL exceedances
- Monitoring Well not sampled this quarter
- Extraction Well not sampled this quarter

- Chemical of Concern (COC) Aquifer Cleanup Level (ACL) Exceedance Contour in µg/L
- 5 Tetrachloroethene (PCE)
  - Roads
  - Facilities
  - Former Fort Ord Boundary

- NOTES:
- (1) Samples were collected between August 27 and 31, 2018.
  - (2) Contours are based on one interpretation of the data that were 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/TCE CONCENTRATIONS AND OTHER COC ACL EXCEEDANCES - UPPER 180-FOOT AQUIFER  
 THIRD QUARTER 2018  
 Sites 2 and 12, Fourth Quarter 2017 - Third Quarter 2018  
 Groundwater and Soil Gas Monitoring and Treatment System Report, Former Fort Ord, California

Thursday, September 27, 2018 9:33:55 AM thomas.hunt P:\8418191360\_FortOrd\GIS\Q18\Site212\_GMR\Figure19\_TCE-PCE-COC\_Site212-18Q3.mxd

**Table 4.** Sites 2/12 Proposed Schedule Changes to the QAPP (effective 2018-4Q)

Well Identification	Current Schedule	Proposed Schedule	Primary COC
MW-12-19-180U	A	D <sup>1</sup>	TCE/PCE
MW-12-25-180U	Q	A <sup>2</sup>	PCE
MW-12-31-180M	Q	A <sup>2</sup>	TCE

**Notes:**

<sup>1</sup> If two consecutive annual monitoring results show concentrations of COCs below their respective limits of quantitation (LOQs), or below 10% of their respective aquifer cleanup levels (ACL), whichever is greater, then the well may be proposed for removal from the sampling program.

<sup>2</sup> If four consecutive quarters of monitoring data show concentrations of COCs below their respective LOQs, or below 10% of their respective ACLs, whichever is greater, then the well may be proposed for annual sampling.

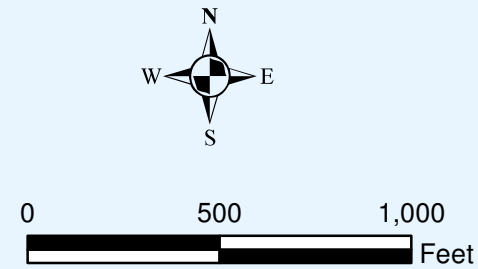
A: annual

D: depth to water only (no sampling)

PCE: tetrachloroethene

Q: quarterly

TCE: trichloroethene



**EXPLANATION**

- Monitoring Well with TCE Detection, and No ACL Exceedances by Other COCs
- Monitoring Well with PCE Detection and No ACL Exceedances by other COCs
- Monitoring Well with TCE and PCE Detection
- Extraction Well with TCE and PCE Detection

**MW-12-19-180U** Meets decision criteria to stop sampling as defined in Volume I, Appendix A of the Final Revision 6 QAPP (Army, 2018).

**MW-12-31-180M** Meets decision criteria to reduce from quarterly sampling as defined in Volume I, Appendix A of the Final Revision 6 QAPP (Army, 2018).

- Monitoring Well - TCE or PCE not detected and no other COC ACL exceedances
- Monitoring Well not sampled this quarter
- Extraction Well not sampled this quarter

Chemical of Concern (COC) Aquifer Cleanup Level (ACL) Exceedance Contour in µg/L

- 5 Tetrachloroethene (PCE)
- Roads
- Facilities
- Former Fort Ord Boundary

- NOTES:
- (1) Samples were collected between August 27 and 31, 2018.
  - (2) Contours are based on one interpretation of the data that were 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.

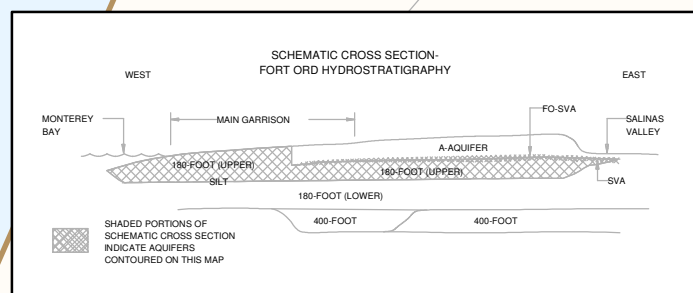
**SAMPLE FREQUENCY CHANGES  
SITES 2 AND 12 UPPER 180-FOOT AQUIFER  
Based on Data Collected Through  
Third Quarter 2018  
Former Fort Ord, California**

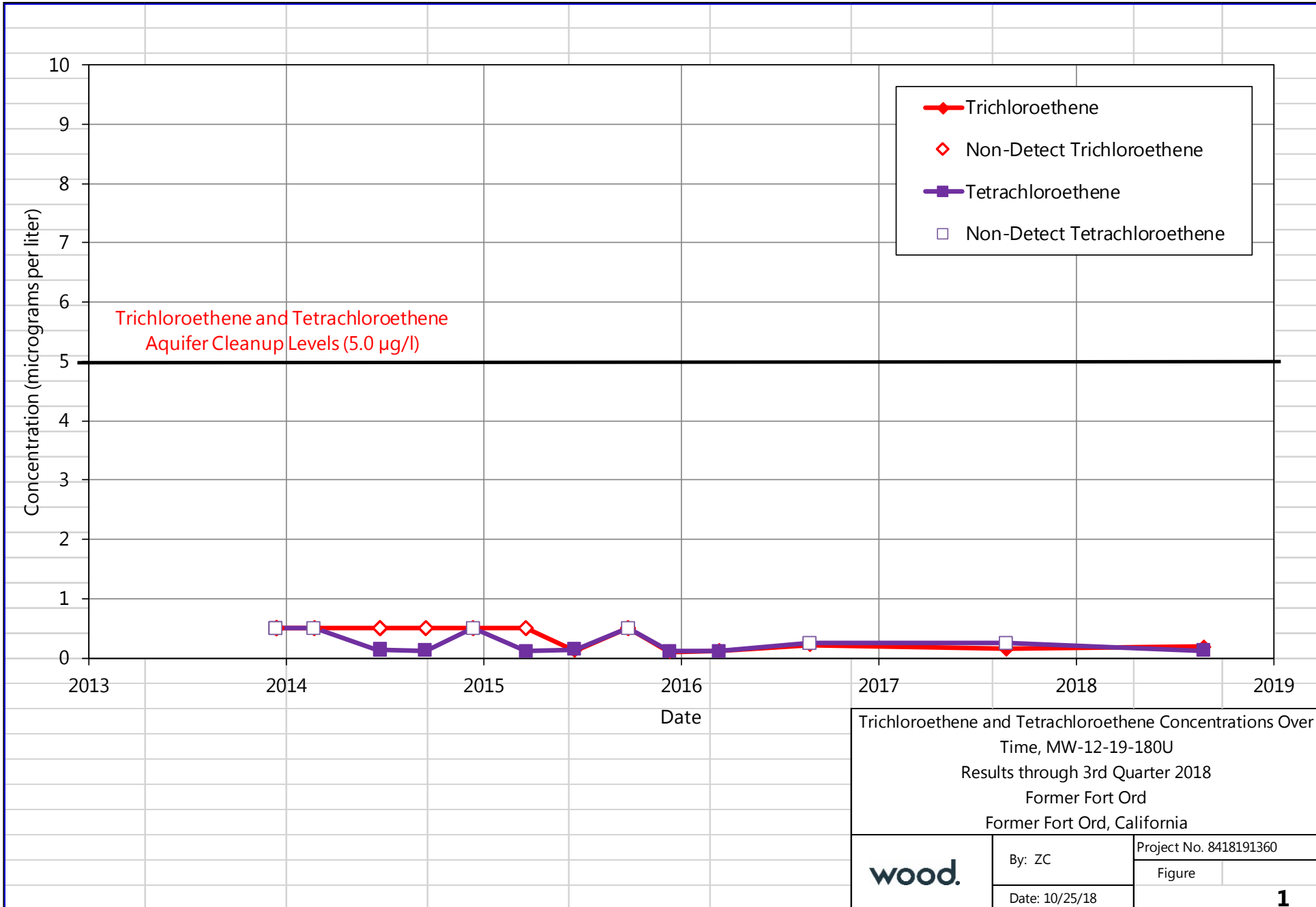


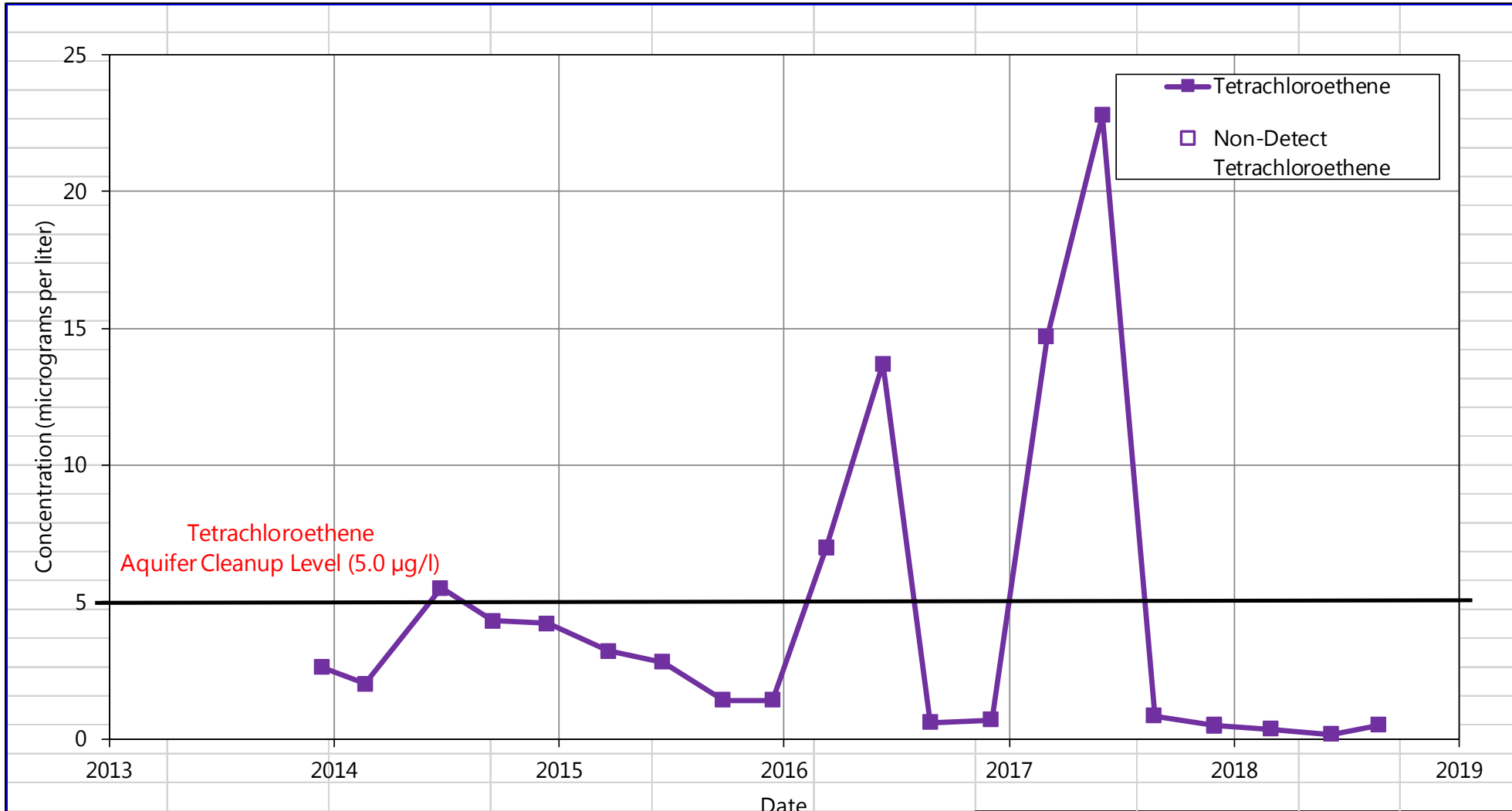
By: TJH  
Date: 10/30/2018

Project No. 8418191360

Figure **1**







Tetrachloroethene Concentration Over Time,  
MW-12-25-180U  
Results through 3rd Quarter 2018  
Former Fort Ord  
Former Fort Ord, California



By: ZC  
Date: 10/25/18

Project No. 8418191360  
Figure

