Former Fort Ord Operable Unit Carbon Tetrachloride Plume Data and Status

HTW BCT, January 10, 2018

Table 1. OUCTP EISB 3A VOC Results

Analyte:	Carbon Tetrachloride								
ACL:	0.5 µg/L								
Well Identification	Baseline	Month 1	Month 2	Month 3	Month 5	Month 6	Month 7	3Q 2017	4Q 2017*
EW-BW-160-A	**1.1 J+**	**0.86**	**0.66**	**0.60**	**1.3**	**1.0**	**1.0**	**0.64**	**0.83**
EW-BW-161-A	**0.84 J+**	**0.67**	**0.51**	0.48 J	**0.69**	0.47 J	0.47 J	0.38 J	0.19 J
EW-BW-162-A	**1.0 J+**	**0.72**	**0.59**	**0.56**	0.41 J	0.28 J	0.18 J	ND (0.25)	ND (0.25)
EW-BW-163-A	**1.2 J+**	**1.2**	**0.94**	**0.89**	0.31 J	0.25 J	0.25 J	0.16 J	0.13 J
EW-BW-164-A	**0.92 J+**	**0.73**	**0.61 J-**	**0.59**	**0.78**	**0.71**	**0.89**	**0.64**	0.47 J
EW-BW-165-A	**1.2 J+**	**1.1**	**0.83**	**0.82**	0.13 J	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
EW-BW-166-A	**1.7 J+**	**1.4**	**1.2**	**1.2**	**1.4**	**1.1**	**1.3**	**1.5**	0.35 J
EW-BW-167-A	**1.7 J+**	**1.4**	**1.1**	**1.4**	**1.1**	**0.71**	**0.66**	0.43 J	0.22 J
EW-BW-168-A	**1.3 J+**	**1.1**	**0.82**	**0.77**	**0.84**	**0.72**	**0.80**	**0.55**	**0.53**
EW-BW-169-A	**1.0 J+**	**0.68**	**0.63**	**0.67**	**0.73**	0.42 J	**0.80**	**0.51**	0.38 J
MW-BW-16-A	**0.60 J+**	**0.75**	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	0.42 J
MW-BW-57-A	0.45 J+	ND (0.25)	0.26 J	0.32 J	0.26 J	0.24 J	0.31 J	0.17 J	ND (0.25)
MW-BW-87-A	0.17 J+	ND (0.25)	0.29 J	**0.65**	**0.61**	0.34 J	**1.6**	0.16 J	ND (0.25)
MW-BW-91-A	ND (0.25)	**1.3**	**0.84**	**2.3**	0.50	0.28 J	**0.55**	**0.59**	**4.3**

Notes:
There were no detections for either methylene chloride or trichloroethene
ACL: Aquifer Cleanup Level
ND: The analyte was not detected at or above the detection limit
µg/L: micrograms per liter
J: Estimated result with a possible low (-) or high bias (+)
Results in **bold** and shaded are concentrations above the ACL
Results in gray are ND
*Preliminary data

December 2017 Key Events for OUCTP

- Dec 4-8: Fourth Quarter 2017 GWMP event.
    - Dec 26: MW-OU2-67-180 sample collected.
- Dec 14: Optimization meeting.

January 2018 Key Events for OUCTP

- None.

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Table 1 (continued). OUCTP EISB 3A VOC Results

Analyte:	Chloroform									Chloromethane								
ACL:	2.0 µg/L									N/A								
Well Identification	Baseline	Month 1	Month 2	Month 3	Month 5	Month 6	Month 7	3Q 2017	4Q 2017*	Baseline	Month 1	Month 2	Month 3	Month 5	Month 6	Month 7	3Q 2017	4Q 2017*
EW-BW-160-A	0.15 J	ND (0.25)	ND (0.25)	0.13 J	0.18 J	0.20 J	0.19 J	0.18 J	0.16 J	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	0.13 J	ND (0.25)	ND (0.25)
EW-BW-161-A	0.13 J	ND (0.25)	ND (0.25)	ND (0.25)	0.14 J	0.18 J	0.15 J	0.14 J	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	0.44 J
EW-BW-162-A	0.13 J	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	0.15 J	0.15 J	0.17 J	ND (0.25)	0.40 J	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
EW-BW-163-A	0.19 J	0.16 J	0.16 J	0.16 J	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	0.11 J	ND (0.25)	0.53	ND (0.25)	ND (0.25)	ND (0.25)	0.79	0.95	0.20 J	ND (0.25)
EW-BW-164-A	0.17 J	0.14 J	0.14 J	0.14 J	0.16 J	0.16 J	0.19 J	0.19 J	0.11 J	ND (0.25)	0.32 J	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	0.14 J	ND (0.25)	ND (0.25)
EW-BW-165-A	0.25 J	0.22 J	0.20 J	0.18 J	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	0.11 J	ND (0.25)	0.41 J	ND (0.25)	ND (0.25)	0.11 J	2.5	ND (0.25)	1.9	0.11 J
EW-BW-166-A	0.39 J	0.30 J-	0.28 J	0.29 J	0.28 J	0.28 J	0.25 J	0.34 J	ND (0.25)	ND (0.25)	0.28 J	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
EW-BW-167-A	0.30 J	0.25 J	0.25 J	0.26 J	0.21 J	0.20 J	0.17 J	0.16 J	ND (0.25)	ND (0.25)	0.44 J	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
EW-BW-168-A	0.23 J	0.17 J	0.16 J	0.15 J	0.16 J	0.17 J	0.15 J	0.15 J	0.13 J	ND (0.25)	0.20 J	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
EW-BW-169-A	0.17 J	ND (0.25)	ND (0.25)	ND (0.25)	0.14 J	ND (0.25)	0.17 J	0.14 J	0.11 J	ND (0.25)	0.24 J	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
MW-BW-16-A	0.13 J	0.36 J	ND (0.25)	ND (0.25)	ND (0.25)	0.16 J	0.15 J	ND	0.15 J	ND (0.25)	0.36 J	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
MW-BW-57-A	0.18 J	0.23 J	0.22 J	0.16 J	0.12 J	0.15 J	0.14 J	0.18 J	0.38 J	ND (0.25)	1.1	ND (0.25)	ND (0.25)	0.10 J	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
MW-BW-87-A	ND (0.25)	ND (0.25)	ND (0.25)	0.15 J	0.13 J	ND (0.25)	0.28 J	ND	0.15 J	ND (0.25)	0.50	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
MW-BW-91-A	ND (0.25)	0.20 J	0.21 J	0.34 J	0.17 J	0.15 J	0.20 J	0.14 J	0.63	ND (0.25)	0.37 J	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)

Notes:
There were no detections for either methylene chloride or trichloroethene
ACL: Aquifer Cleanup Level
ND: The analyte was not detected at or above the detection limit
µg/L: micrograms per liter
J: Estimated result with a possible low (-) or high bias (+)
Results in **bold** and shaded are concentrations above the ACL
Results in gray are ND
*Preliminary data

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Table 2. OUCTP A-Aquifer Select Monitoring Well Data

OUCTP Hydraulic Zone[1]	EISB Deployment Area	Well Identification	Select COC Concentrations (µg/L)					
			3Q 2017	4Q 2017*	3Q 2017	4Q 2017*	3Q 2017	4Q 2017*
			CT		Chloroform		TCE	
		ACL:	0.5		2.0		5.0	
1	1C	EW-BW-109-A	**1.5**	**1.8**	0.34 J	0.35 J	0.65	0.77
1	N/A	MW-BW-24-A	**3.9**	**4.5**	0.68	0.69	2.4	2.5
2	3A	MW-BW-58-A	**1.1**	**1.2**	0.24 J	0.21 J	ND (0.25)	ND (0.25)
2	3A	MW-BW-87-A	**1.9**	0.40 J	0.32 J	0.14 J	ND (0.25)	ND (0.25)
2	3A	MW-BW-91-A	**2.8 J+**	**4.4**	0.59 J+	0.67	ND (0.25)	ND (0.25)
N/A	3A	MW-BW-90-A	**0.99**	**0.99**	0.17 J	0.15 J	ND (0.25)	ND (0.25)
3	3A	MW-BW-16-A	ND (0.25)	ND (0.25)	ND (0.25)	0.40 J	ND (0.25)	ND (0.25)
3	3A	MW-BW-57-A	0.29 J	ND (0.25)	0.25 J	0.15 J	ND (0.25)	ND (0.25)
3	N/A	MW-BW-88-A	**3.0**	**1.9**	0.87	0.59	ND (0.25)	ND (0.25)
4	2A	EW-BW-124-A	**0.51**	**0.59**	1.0	1.1	1.4	1.5
4	N/A	MW-B-12-A	**0.81**	**0.99**	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
4	2B	MW-B-14-A	**2.0**	**2.2**	0.27 J	0.36 J	0.13 J	0.20 J
4	2B	EW-BW-155-A	**1.8**	ND (0.25)	0.23 J	1.2	0.74	0.74
4	2A	MW-BW-26-A	**3.5**	**5.0**	0.58	0.71	ND (0.25)	0.90
4	N/A	MW-BW-31-A	ND (0.25)	ND (0.25)	**7.1 J+**	**2.6**	ND (0.25)	ND (0.25)
4	N/A	MW-BW-32-A	**2.1**	**2.5**	0.27 J	0.30 J	0.15 J	0.17 J
4	N/A	MW-BW-36-A	**1.1**	0.16 J	0.41 J	0.50	ND (0.25)	ND (0.25)
4	N/A	MW-BW-42-A	0.16 J	ND (0.25)	0.76	0.22 J	ND (0.25)	ND (0.25)
4	N/A	MW-BW-89-A	**1.5**	**1.3**	0.39 J	0.43 J	ND (0.25)	ND (0.25)
4	N/A	MW-BW-92-A	**1.2**	**1.9**	0.18 J	0.25 J	ND (0.25)	ND (0.25)
5	Pilot	EISB-EW-01	**0.85**	**0.52**	0.41 J	0.27 J	ND (0.25)	ND (0.25)
5	Pilot	EISB-EW-09	**4.4**	**3.3**	0.30 J	0.27 J	ND (0.25)	ND (0.25)
5	N/A	MW-BW-65-A	0.19 J	0.15 J	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
5	Pilot	MW-BW-66-A	**0.97**	**1.4**	0.16 J	0.27 J	ND (0.25)	ND (0.25)
5	N/A	MW-BW-74-A	ND (0.25) [0.21 J]	ND (0.25) [0.17 J]	ND (0.25) [ND (0.25)]	ND (0.25) [ND (0.25)]	ND (0.25) [ND (0.25)]	ND (0.25) [ND (0.25)]
5	N/A	MW-BW-49-A	**1.1**	**1.5**	0.22 J	0.57	ND (0.25)	ND (0.25)
5	N/A	MW-BW-78-A	0.30 J [0.37 J]	0.33 J [**0.55**]	ND (0.25) [0.11 J]	ND (0.25) [0.14 J]	ND (0.25) [ND (0.25)]	ND (0.25) [ND (0.25)]
5	N/A	MW-BW-80-A	ND (0.25)	0.49 J	ND (0.25)	0.11 J	ND (0.25)	ND (0.25)

Notes:
TCE: trichloroethene
CT: carbon tetrachloride
µg/L: micrograms per liter
ND: The analyte was not detected above the detection limit
NS: not sampled
J: Estimated result with a low (-) or high (+) bias
[1] Hydraulic zones are identified in the Groundwater QAPP.
Results in **bold** and shaded are concentrations above the ACL
Results in gray are ND
COC: chemical of concern
[Results in brackets are from a second deeper passive diffusion bag]
* Preliminary data

Table 3. OUCTP Upper 180-Foot Aquifer Select Monitoring Well Data

OUCTP Hydraulic Zone[1]	Well Identification	CT Concentration (µg/L)[2]	
		3Q 2017	4Q 2017*
	ACL:	0.5	
6	EW-OU2-09-180[3]	0.13 J	0.11 J
6	MP-BW-41-231	0.35 J	0.34 J
6	MP-BW-46-170	**4.4**	**5.4**
6	MW-BW-52-180	**1.2**	**1.1**
6	MW-OU2-64-180	**8.8**	**8.4**
6	MW-OU2-67-180	**0.71**	0.35 J
6	MW-OU2-70-180	NS	ND (0.25)

Notes:
ACL: aquifer cleanup level
COC: chemical of concern
CT: carbon tetrachloride
MCL: maximum contaminant level
ND: The analyte was not detected at or above the detection limit
NS: not sampled
TCE: trichloroethene
µg/L: micrograms per liter
J: Estimated result with a low (-) or high (+) bias
[1] Hydraulic zones are identified in the Groundwater QAPP.
[2] Concentration in **bold** and shaded cell exceeds the Aquifer Cleanup Level (ACL) for CT and the Maximum Contaminant Level (MCL) for TCE. Results in gray are ND.
[3] EW-OU2-09-180 is operated as part of the remedy for the OUCTP Upper 180-Foot Aquifer and is connected to the OU2 GWTP. cis-1,2-DCE was detected in this well at 8.4 µg/L in 2Q17 and 2.7 µg/L in 3Q17.
[4] TCE is not a COC in the OUCTP Lower 180-Foot Aquifer (reported for Lower 180-Foot Aquifer with respect to protection of supply wells)
* Preliminary data

Table 4. OUCTP Lower 180-Foot Aquifer Select Monitoring Well Data

OUCTP Hydraulic Zone[1]	Well Identification	Select COC Concentrations (µg/L)[2]			
		3Q 2017	4Q 2017*	3Q 2017	4Q 2017*
		CT		TCE[4]	
	Limit:	ACL 0.5		MCL 5.0	
7	MP-BW-49-316	**1.4**	**0.88**	ND (0.25)	ND (0.25)
7	MP-BW-49-400	ND (0.25)	ND (0.25)	4.1	4.8
7	MP-BW-50-339	**0.55**	0.33 J	ND (0.25)	ND (0.25)
7	MP-BW-50-384	0.12 J	0.10 J	2.3	2.4
7	MP-BW-51-405	0.16 J	0.18 J	1.7	1.7
7	MW-OU2-69-180	0.48 J	**0.70**	0.16 J	0.13 J
8	AIRFIELD	**0.57**	**0.68**	ND (0.25)	ND (0.25)
N/A	EW-OU2-07-180	ND (0.25)	ND (0.25)	1.6	2.2
N/A	FO-29	0.11 J	0.17 J	1.8	1.6
N/A	FO-30	0.15 J	0.15 J	0.46 J	0.52
N/A	FO-31	ND (0.25)	ND (0.25)	0.83	0.52
N/A	MP-BW-41-353	ND (0.25)	ND (0.25)	1.3	1.7
N/A	MW-OU2-72-180	ND (0.25)	ND (0.25)	1.5	1.6
N/A	MW-OU2-78-180	ND (0.25)	ND (0.25)	2.0	2.3
N/A	MW-OU2-82-180	ND (0.25)	ND (0.25)	**6.4**	**6.3**

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