

Former Fort Ord Operable Unit 2 Data and Status

HTW BCT Meeting, February 1, 2019

Table 1: OU2 GWTP Statistics as of January 25, 2019

Monthly Statistics	Volume Treated (gallons)	Average Flow (gallons per minute)	Percent of Time Online	COC Mass Removed (pounds)
January 2019	31,065,204	720-850	99	1.88
Total since October 1995	7.491 billion			846

Table 2: January 2019 – OU2 Analytical Results at SP-EF-01

COC	Discharge Limit (µg/L)	Analytical Results (µg/L)		
		1/16/2019	1/23/2019	1/28/2019
1,1-dichloroethane (1,1-DCA)	5.0*	Pending Lab Analysis	Pending Lab Analysis	Pending Lab Analysis
1,2-dichloroethane (1,2-DCA)	0.5			
1,2-dichloropropane (1,2-DCP)	0.5			
Benzene	0.5			
Carbon tetrachloride (CT)	0.5			
Chloroform	2.0*			
Cis-1,2-dichloroethene (cis-1,2-DCE)	6.0*			
Methylene Chloride	0.5			
Tetrachloroethene (PCE)	0.5			
Trichloroethene (TCE)	0.5			
Vinyl chloride (VC)	0.1			

Notes:

COC: chemical of concern

µg/L: micrograms per liter

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

NS: not sampled.

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

TS-OU2-INJ: Injection point of compliance, the OU2 effluent pipeline.

*Discharge limits for low carbon affinity compounds were increased to the Aquifer Cleanup Level (ACL).

Results in *italics* are above the discharge limit, and results in **bold** and shaded are concentrations above the ACL

Results in *gray* are ND

^Preliminary results

January 2019 Key Events for OU2

- Dec 28-Jan 8: OU2 GWTP average total flow = 720 gpm.
- Jan 8-25: OU2 GWTP average total flow = 850 gpm.
- OU2 GWTP offline for six hours for perturbation testing.
- January 16: Sample OU2 GWTP and EW-OU2-04-180.
- January 23: Sample OU2 GWTP.
- January 23: Decommissioned two OU2 A-Aquifer monitoring wells (MW-OU2-20-A and MW-OU2-41-A).
- January 24: temporary communications for Sites 2/12 GWTP SCADA disrupts Ord Market extraction well network.
- January 28: Sample OU2 GWTP.
- January 29: replace pump at EW-OU2-02-A.

February 2019 Key Events for OU2

- Prepare for GWTP decommissioning.
- Prepare for First Quarter 2019 PFOA/PFOS resample.



Table 3. OU2 A-Aquifer Select Extraction/Monitoring Well Data

OU2 Hydraulic Zone ¹	Well Identification ²	Select COC Concentrations (µg/L)									
		3Q 2018					4Q 2018*				
		TCE	PCE	1,1-DCA	1,2-DCA	VC	TCE	PCE	1,1-DCA	1,2-DCA	VC
ACL:		5.0	3.0	5.0	0.5	0.1	5.0	3.0	5.0	0.5	0.1
1	EW-OU2-16-A	3.1	2.7	7.5	2.4	0.96	2.7	2.3	6.6	2.3	0.94
1	MW-OU2-02-A	0.11 J	2.7	6.1	1.2	10.7	0.52	2.3	5.3	1.2	9.4
1	MW-OU2-44-A	6.2	8.6	18.8	4.2	0.72	4.7	3.7	16.0	4.0	0.59
1	MW-OU2-73-A	ND (0.25)	1.7	5.7	0.91	10.3	ND (0.25)	1.1	6.1	0.95	10.5
2	EW-OU2-15-A	0.32 J	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.05)	1.4	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.05)
2	MW-OU2-27-A	ND (0.25)	4.0	0.27 J	ND (0.25)	ND (0.05)	ND (0.25)	3.0	0.27 J	ND (0.25)	ND (0.05)
3	EW-OU2-09-A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
3	EW-OU2-10-A	1.6	1.0	0.68	0.78	ND (0.05)	1.4	1.0	0.62	0.83	0.10
3	EW-OU2-12-A	7.9	4.4	6.3	1.9	0.12	7.5	4.6	5.9	2.0	0.17
3	EW-OU2-13-A	6.6	2.3	1.7	3.3	ND (0.05)	6.2	2.2	1.7	3.6	ND (0.05)
3	MW-OU2-25-A	0.63	0.25 J	0.30 J	0.28 J	ND (0.05)	0.90	0.45 J	0.45 J	0.70	ND (0.05)
4	EW-OU2-04-A	1.3	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.05)	NS	NS	NS	NS	NS
4	EW-OU2-05-A	4.4	0.27 J	0.27 J	ND (0.25)	ND (0.05)	NS	NS	NS	NS	NS
4	EW-OU2-06-A	2.8	0.30 J	0.15 J	ND (0.25)	ND (0.05)	NS	NS	NS	NS	NS
4	MW-OU2-40-A	5.6	0.43 J	0.31 J	ND (0.25)	ND (0.05)	14.9	0.61	0.24 J	ND (0.25)	ND (0.05)
5	MW-OU2-04-A	2.6	0.71	0.50	0.34 J	ND (0.05)	2.9	0.77	0.59	0.10 J	ND (0.05)
5	MW-OU2-06AR	1.5	0.25 J	0.25 J	0.32 J	ND (0.05)	3.7	0.78	1.1	0.47 J	ND (0.05)
5	MW-OU2-08-A	8.8	8.9	31	1.3	0.69	7.7	7.1	26.6	1.1	0.77
5	MW-OU2-75-A	3.7	6.6	7.3	ND (0.25)	ND (0.05)	3.7	6.4	7.8	ND (0.25)	0.087 J
5	MW-OU2-81-A	7.7	12.8	3.9	0.21 J	ND (0.05)	13.9	12.1	3.9	0.19 J	ND (0.05)
5	MW-OU2-83-A	NEW WELL (NS)					0.55	0.60	3.0	ND (0.25)	ND (0.05)
5	MW-BW-50-A	1.3	3.3	1.9	ND (0.25)	ND (0.05)	0.58	1.2	0.61	ND (0.25)	ND (0.05)

Table 4. OU2 Upper 180-Foot Select Extraction/Monitoring Well Data

OU2 Hydraulic Zone ¹	Well Identification ²	TCE Concentration (µg/L)	
		3Q 2018	4Q 2018*
ACL:		5.0	
6	EW-OU2-03-180	8.1	9.6
6	MW-OU2-50-180	10.0	9.9
6	MW-OU2-55-180	NS	ND (0.25)
7	EW-OU2-05-180	NS	1.6
7	EW-OU2-06-180	5.2	6.0
7	MW-OU2-81-180	6.3	7.0
7	MW-OU2-44-180	14.4	16.4
8	EW-OU2-08-180	NS	3.1
8	MW-OU2-28-180	4.7	5.0
8	MW-OU2-62-180	6.3	8.0
9	EW-OU2-01-180	4.6	3.7
9	MW-OU2-06-180R2	2.0	2.0
9	MW-OU2-43-180	1.8	2.2

Notes:

- *Preliminary results
 - ACL: Aquifer Cleanup Level
 - COC: chemical of concern
 - 1,2-DCA: 1,2-dichloroethane
 - TCE: trichloroethene
 - PCE: tetrachloroethene
 - 1,1-DCA: 1,1-dichloroethane
 - µg/L: micrograms per liter
 - NS: not sampled
 - ND: The analyte was not detected above the detection limit.
 - J: Estimated result with a high (+) or low (-) bias.
 - ¹ Hydraulic zones are identified in the Groundwater QAPP.
 - ² Extraction wells not listed have met the QAPP decision rules to no longer operate.
- Results in **bold** and shaded are concentrations above the ACL
 Results in gray are ND
 Results in brackets from a second deeper passive diffusion bag



Table 5. OU2 New Extraction/Monitoring Well Data

OU2 Hydraulic Zone ¹	Well Identification	Sample Depth (ft btoc)	Select COC Concentrations (µg/L)				
			4Q 2018*				
			TCE	PCE	1,1-DCA	1,2-DCA	VC
ACL:			5.0	3.0	5.0	0.5	0.1
1	EW-OU2-17-A	Pump	11.9	10.4	3.9	0.11 J	0.20
1	EW-OU2-18-A	Pump	6.8	6.9	12.5	1.8	1.0
1	EW-OU2-19-A	Pump	8.3	9.7	19.1	2.5	1.4
1	EW-OU2-20-A	Pump	2.5	2.9	11.0	1.5	1.2
3	EW-OU2-11-AR	Pump	1.3	0.85	0.43 J	0.31 J	ND (0.05)
7	EW-OU2-10-180	Pump	5.5	1.1	0.32 J	ND (0.25)	ND (0.05)
7	EW-OU2-11-180	Pump	8.2	0.81	ND (0.25)	ND (0.25)	ND (0.05)
7	EW-OU2-12-180	Pump	8.9	0.81	ND (0.25)	ND (0.25)	ND (0.05)
5	MW-OU2-83-A	91	ND (0.25)	0.13 J	0.37 J	ND (0.25)	ND (0.05)
		96	0.17 J	0.25 J	0.89	ND (0.25)	ND (0.05)
		101	0.40 J	0.54	2.3	ND (0.25)	ND (0.05)
		106	0.46 J	0.60	2.6	ND (0.25)	ND (0.05)
		111	0.47 J	0.63	2.7	ND (0.25)	0.054 J
		116	0.55	0.60	3.0	ND (0.25)	ND (0.05)
9	EW-OU2-02-180R	Pump	5.6	0.50	0.24 J	ND (0.25)	ND (0.05)

Notes:

*Preliminary results

ACL: Aquifer Cleanup Level

COC: chemical of concern

1,2-DCA: 1,2-dichloroethane

TCE: trichloroethene

PCE: tetrachloroethene

1,1-DCA: 1,1-dichloroethane

µg/L: micrograms per liter

NS: not sampled

ND: The analyte was not detected above the detection limit.

Ft btoc: feet below top of casing

J: Estimated result with a high (+) or low (-) 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

Results in brackets from a second deeper passive diffusion bag