

Operable Unit 2 Data and Status

Table 1: Sept-Nov 2022 – OU2 GWTP Statistics

Monthly Statistics	Volume Treated (gallons)	Average Flow (gallons per minute)	Percent of Time Online	COC Mass Removed (pounds)
Sept 2022	40,726,731	943	100	2.1
Oct 2022	41,503,556	961	99.1	2.4
Nov 2022	39,941,918	925	99.4	2.0
Total since October 1995	9.271 billion			954

Table 2: Sept-Nov 2022 – OU2 Analytical Results at TS-OU2-INJ-01

COC	Discharge Limit (µg/L)	Analytical Results (µg/L)	
		10/10/2022	11/7/2022^
1,1-dichloroethane (1,1-DCA)	5.0*	0.41 J	0.38 J
1,2-dichloroethane (1,2-DCA)	0.5	0.17 J	0.15 J
1,2-dichloropropane (1,2-DCP)	0.5	ND (0.25)	ND (0.25)
Benzene	0.5	ND (0.25)	ND (0.25)
Carbon tetrachloride (CT)	0.5	ND (0.25)	ND (0.25)
Chloroform	2.0*	0.38 J	0.36 J
Cis-1,2-dichloroethene (cis-1,2-DCE)	6.0*	1.0	1.2
Methylene Chloride	0.5	ND (0.50)	ND (0.50)
Tetrachloroethene (PCE)	0.5	ND (0.25)	ND (0.25)
Trichloroethene (TCE)	0.5	ND (0.25)	ND (0.25)
Vinyl chloride (VC)	0.1	ND (0.10)	ND (0.10)

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 data

Sep-Nov Key Events

- Sep 8: Communications loss, OU2 GWTP still online at 600 gpm.
- Oct 2: Several wells offline (EW-OU2-18-A, EW-OU2-19-A, and EW-OU2-12-180) due to VFD faults from power outage. Wells restarted Oct 3.
- Oct 12: Power outage caused 7-hour shutdown.
- Nov 5: OU2 GWTP offline 4 hours due to a power outage. EW-OU2-09-A and EW-OU2-19-A offline due to VFD fault. Restarted Nov 7 after 42 hours offline. EW-OU2-09-A offline since Nov 7 pending replacement VFD.
- Nov 21: EW-OU2-11-AR offline due to failed pump.
- Nov 14-18: Fourth Quarter 2022 Groundwater Monitoring event.

Future Key Events

- Dec 19: Replace pumps at EW-OU2-05-A and EW-OU2-06-A.
- Dec: Complete Fourth Quarter 2022 Groundwater Monitoring event (4 PFAS wells, 1 well with broken sample vials, and 2 restarted EWs).
- 2023: Repair and restart EW-OU2-09-A (VFD) and EW-OU2-11-AR (pump).



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

OU2 Hydraulic Zone ¹	Well Identification ²	Select COC Concentrations (µg/L)														
		2Q 2022					3Q 2022					4Q 2022*				
		TCE	PCE	1,1-DCA	1,2-DCA	VC	TCE	PCE	1,1-DCA	1,2-DCA	VC	TCE	PCE	1,1-DCA	1,2-DCA	VC
	ACL:	5	3	5	0.5	0.1	5	3	5	0.5	0.1	5	3	5	0.5	0.1
1	EW-OU2-16-A	2.3	1.6	4.5	1.6	0.46	2.1 J	1.5 J	4.0 J	1.5	ND (0.50)	2.4	2.0	5.2	1.8	0.62
1	EW-OU2-17-A	6.8	4.7	0.66	0.32 J	ND (0.10)	6.0	4.2	0.66	0.31 J	ND (0.10)	5.4	4.2	0.59	0.31 J	ND (0.10)
1	EW-OU2-18-A	11.3	5.1	3.5	0.72	0.22	8.5	3.7	3.1	ND (1.3)	ND (0.50)	11.9	4.9	3.5	0.61	0.32
1	EW-OU2-19-A	4.4	4.4	7.6	1.5	0.80	4.1	4.0	7.7	1.3	0.88	5.0	4.7	10	1.6	1.5
1	EW-OU2-20-A	1.5	1.3	3.7	0.65	0.59	1.4	1.4	3.7	0.56	0.77	1.4	1.5	4.0	0.62	1.1
1	MW-OU2-02-A	1.3	3.5	3.7	0.79	6.2	3.5	2.9	2.8	0.64	2.5					
1	MW-OU2-44-A	4.1	3.3	6.5	1.6	ND (0.10)	4.0	3.5	5.5	1.2	ND (0.10)					
1	MW-OU2-73-A	0.41 J	1.4	3.0	0.40 J	2.7	0.48 J	1.6	3.1	0.43 J	2.4					
2	EW-OU2-15-A	1.6	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.10)	1.8 J+	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.10)					
2	MW-OU2-27-A	0.12 J	3.6	0.30 J	ND (0.25)	ND (0.10)	ND (0.25)	3.7	0.28 J	ND (0.25)	ND (0.10)					
3	EW-OU2-09-A	0.19 J	0.27 J	ND (0.25)	0.15 J	ND (0.10)	0.24 J	0.26 J	ND (0.25)	0.14 J	0.055 J	NS	NS	NS	NS	NS
3	EW-OU2-10-A	1.0	0.74	0.25 J	0.54	0.061 J	0.97 J+	0.67 J+	0.26 J	0.52 J+	0.069 J	0.76	0.68	0.20 J	0.42 J	0.085 J
3	EW-OU2-11-AR	2.3	0.98	2.2	0.32 J	ND (0.10)	2.6 J+	1.3 J+	3.4 J+	0.39 J	0.052 J	2.4	1.4	2.6	0.34 J	0.063 J
3	EW-OU2-12-A	6.3	3.8	3.1	1.7	0.058 J	5.6 J+	3.2 J+	3.0 J+	1.6 J+	0.074 J	5.2	3.0	2.7	1.3	0.11
3	EW-OU2-13-A	6.0	2.0	ND (0.25)	3.8	ND (0.10)	5.6 J+	1.8 J+	1.0 J+	3.7 J+	ND (0.10)	5.1	1.9	0.93	3.4	ND (0.10)
3	MW-OU2-12-A	13.1	6.8	11.6	2.9	0.18	11.9	5.5	10.2	2.9	0.20					
3	MW-OU2-25-A	0.47 J	0.23 J	0.14 J	0.27 J	ND (0.10)	0.47 J	0.26 J	ND (0.25)	0.25 J	ND (0.10)					

Notes:

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
 * Preliminary Data



Table 4. OU2 A-Aquifer Select Extraction/Monitoring Well Data

OU2 Hydraulic Zone ¹	Well Identification ²	Select COC Concentrations (µg/L)														
		2Q 2022					3Q 2022					4Q 2022*				
		TCE	PCE	1,1-DCA	1,2-DCA	VC	TCE	PCE	1,1-DCA	1,2-DCA	VC	TCE	PCE	1,1-DCA	1,2-DCA	VC
ACL:	5	3	5	0.5	0.1	5	3	5	0.5	0.1	5	3	5	0.5	0.1	
4	EW-OU2-02-A	0.36 J	ND (0.25)	0.13 J	ND (0.25)	ND (0.10)	0.40 J	ND (0.25)	0.18 J	ND (0.25)	ND (0.10)	0.34 J	ND (0.25)	0.21 J	ND (0.25)	ND (0.10)
4	EW-OU2-04-A	2.5	0.25 J	0.72	ND (0.25)	ND (0.10)	2.6 J+	0.27 J	0.91 J+	ND (0.25)	ND (0.10)	3.0	0.33 J	0.94	ND (0.25)	ND (0.10)
4	EW-OU2-05-A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
4	EW-OU2-06-A	3.1	0.28 J	0.14 J	ND (0.25)	ND (0.10)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
4	MW-OU2-40-A	17.8	0.52	0.27 J	ND (0.25)	ND (0.10)	13.9	0.52	0.40 J	0.14 J	ND (0.10)	7.6	0.34 J	0.26 J	0.11 J	ND (0.10)
5	MW-OU2-04-A	2.7	1.1	0.75	0.75	ND (0.10)	2.1	0.68	0.58	0.52	ND (0.10)	1.8	0.69	0.43 J	0.40 J	ND (0.10)
5	MW-OU2-05-AR	0.24 J	ND (0.25)	8.2	ND (0.25)	0.071 J	0.26 J	ND (0.25)	10.1	ND (0.25)	ND (0.10)	0.22 J	ND (0.25)	14.6	0.14 J	0.13
5	MW-OU2-06-AR	5.4	2.6	1.5	0.76	ND (0.10)	4.9	2.2	0.93	0.74	ND (0.10)	4.5	2.1	0.64	0.86	ND (0.10)
5	MW-OU2-07-A	2.6	1.4	14.4	0.94	0.31	4.2	2.1	18.0	1.3	0.53					
5	MW-OU2-08-A	9.7	8.4	22.1 J+	2.4	0.23	7.6	5.9	21.0	2.1 J	ND (0.50)					
5	MW-OU2-75-A	5.1	5.9	8.0	0.11 J	0.095 J	6.8 J+	9.0 J+	9.8 J+	0.15 J	0.083 J					
5	MW-OU2-76-A	ND (0.25)	ND (0.25)	0.11 J	ND (0.25)	ND (0.10)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.10)					
5	MW-OU2-81-A	13.6	5.6	1.5	0.76	ND (0.10)	17.0 J+	6.4 J+	1.9 J+	1.0 J+	ND (0.10)					
5	MW-OU2-83-A	1.9	1.3	6.8	0.30 J	0.072 J	1.7 J+	0.76 J+	6.6 J+	0.37 J	ND (0.10)					
5	MW-BW-50-A	0.67	3.4	0.68	ND (0.25)	ND (0.10)	0.79	4.6	0.79	ND (0.25)	ND (0.10)					
5	MW-BW-71-A	ND (0.25)	0.20 J	NS	NS	ND (0.10)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.10)					

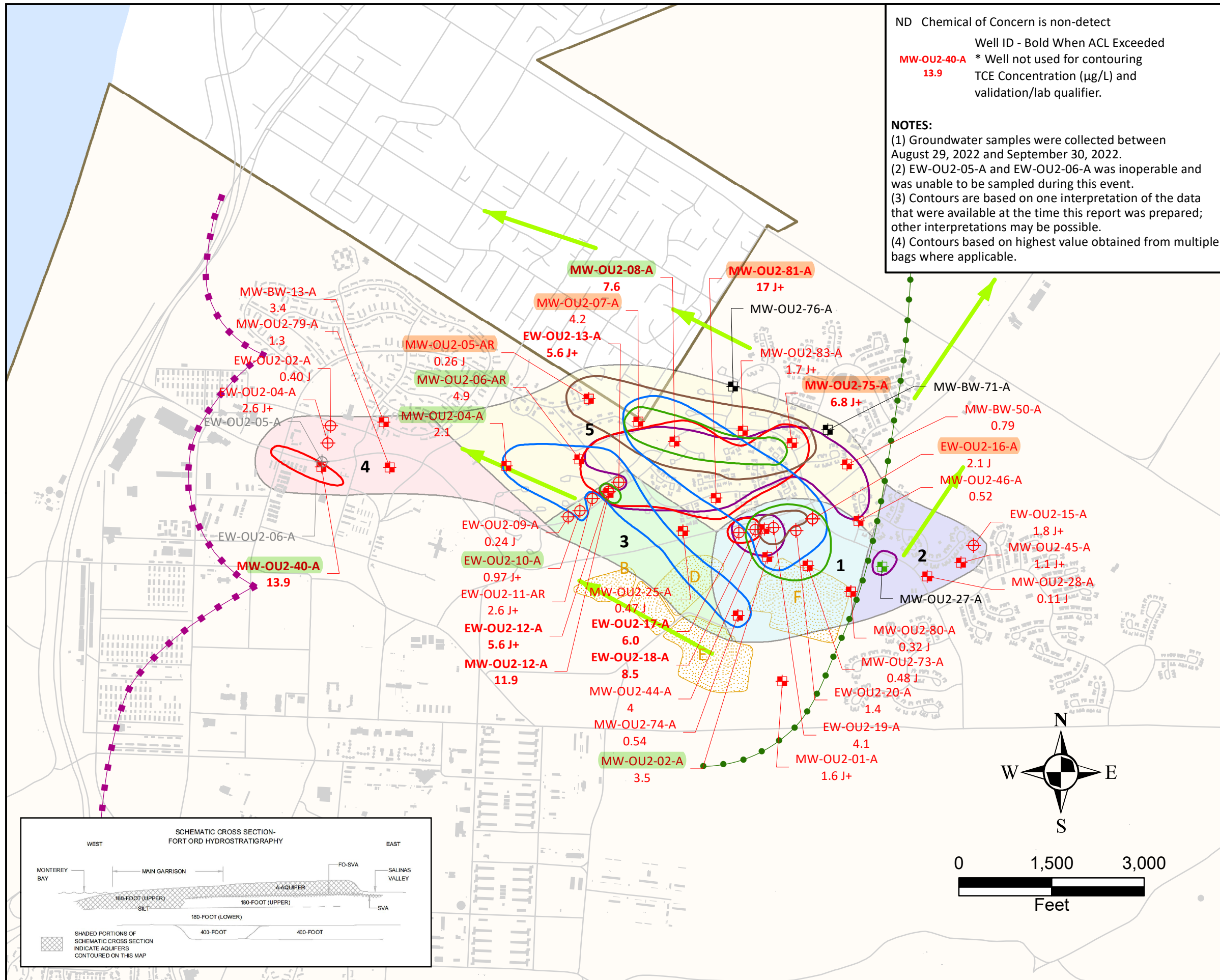
Notes:

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

¹ Hydraulic zones are identified in the Groundwater QAPP.
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 * Preliminary Data

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

Well Type and COC Detection

- ⊕ Extraction well with TCE detected
- ⊖ Extraction well not sampled
- ⊕ Monitoring well with TCE detected
- ⊖ Monitoring well with non-detect (ND) for TCE and with COC ACL exceedance
- ⊖ Monitoring well with non-detect (ND) for TCE and no COC ACL exceedance

— Roads
 ➔ General groundwater flow direction
 ■ Facilities
 ■ Approximate extent of landfill areas (Areas B through F)
 □ Former Fort Ord boundary

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

- 5 Trichloroethene (TCE) plume extent
- 3 Tetrachloroethene (PCE) plume extent
- 5 1,1-Dichloroethane (1,1-DCA) plume extent
- 0.5 1,2-Dichloroethane (1,2-DCA) plume extent
- 0.1 Vinyl Chloride (VC) plume extent

Groundwater Aquifer Divide

- Approximate location of the Upper 180-Foot Aquifer groundwater divide
- Approximate location of the A-Aquifer groundwater divide

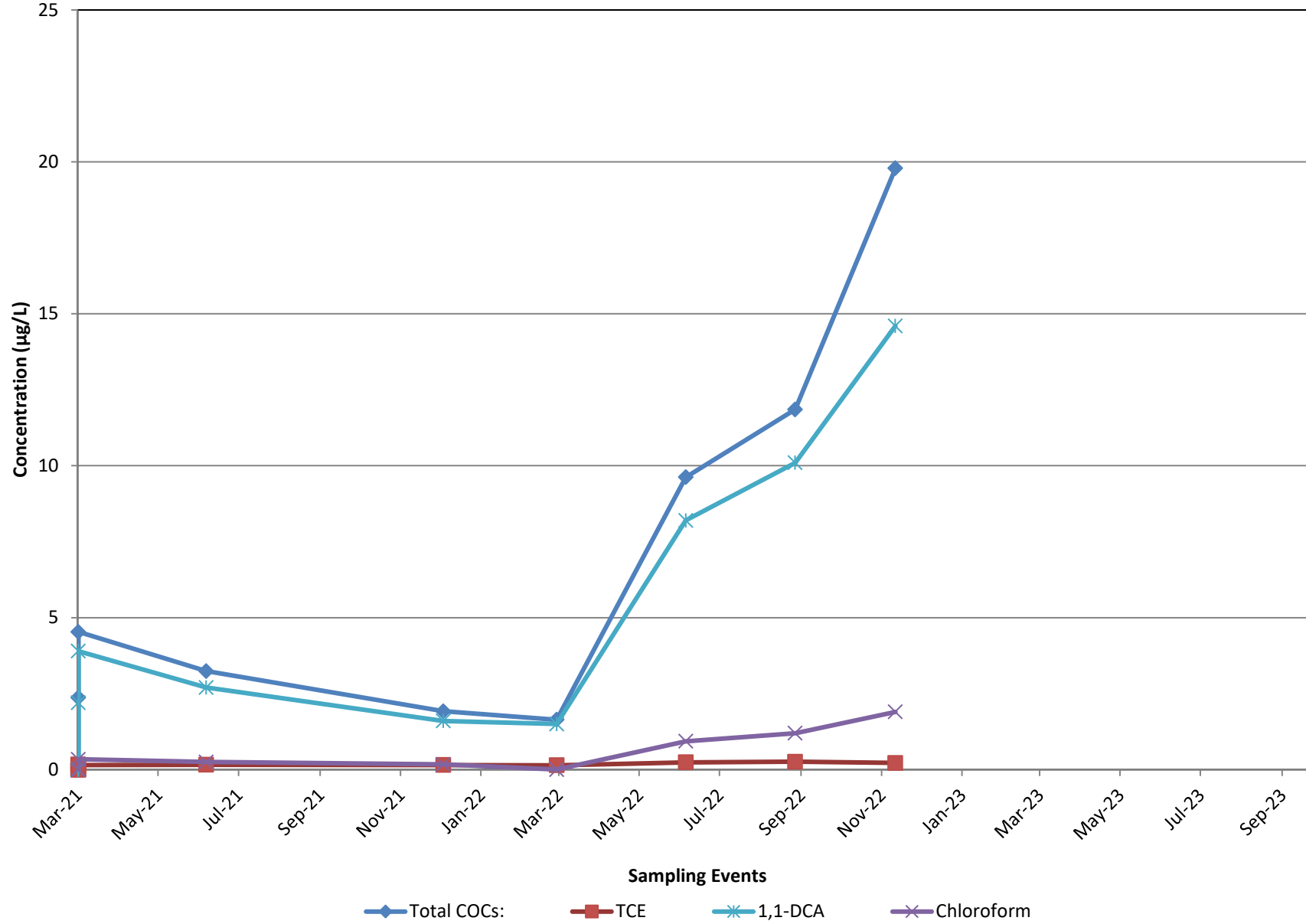
OU2 A-Aquifer Hydraulic Zone

- 1
- 2
- 3
- 4
- 5

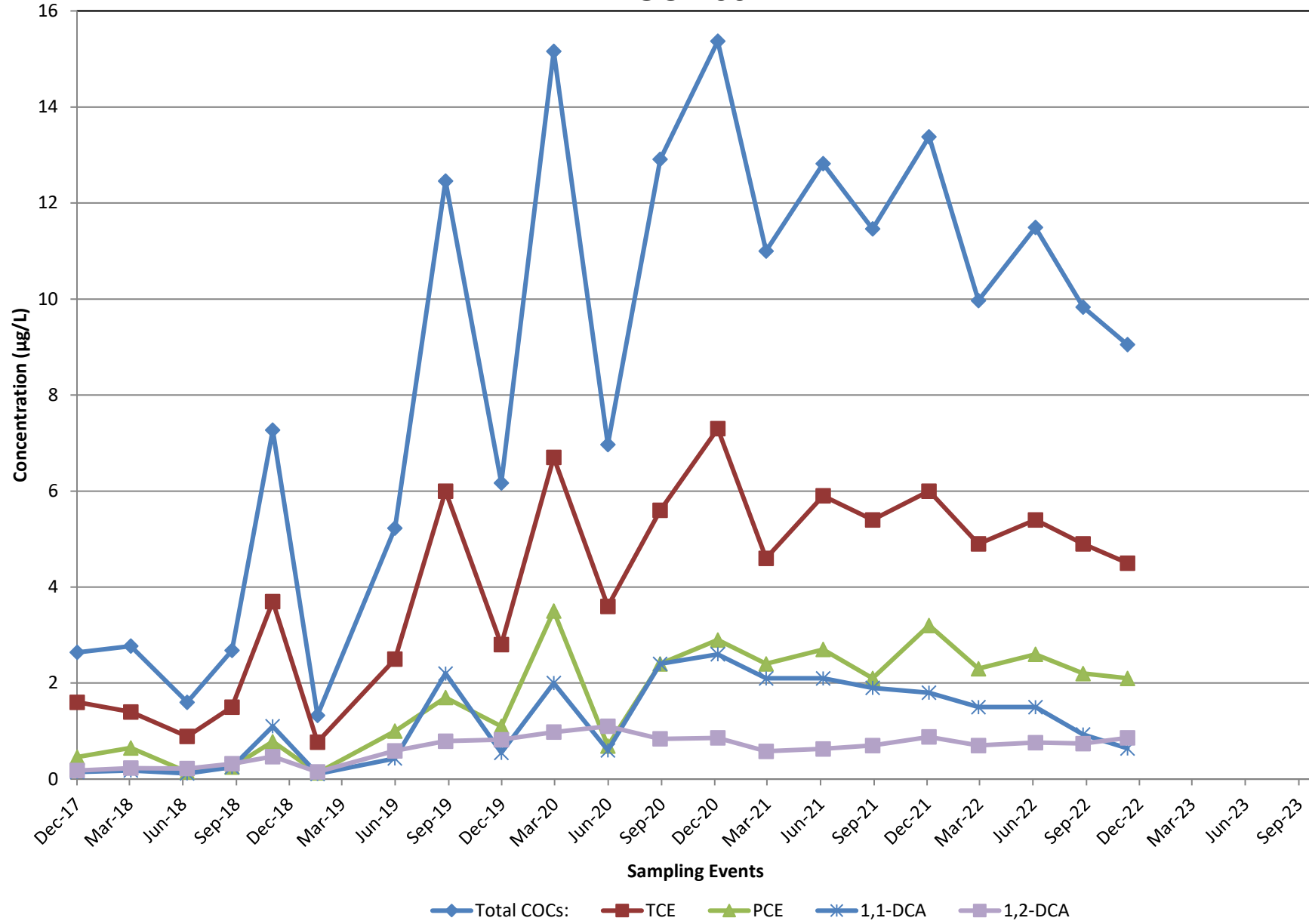
TCE CONCENTRATIONS AND OTHER COC ACL EXCEEDANCES
 A-AQUIFER
 THIRD QUARTER 2022
 Operable Unit 2, Remedy Monitoring and Operations and Maintenance, Fourth Quarter 2021 - Third Quarter 2022
 Former Fort Ord, California

Ahtna Date: 11/19/2022 Figure: 34

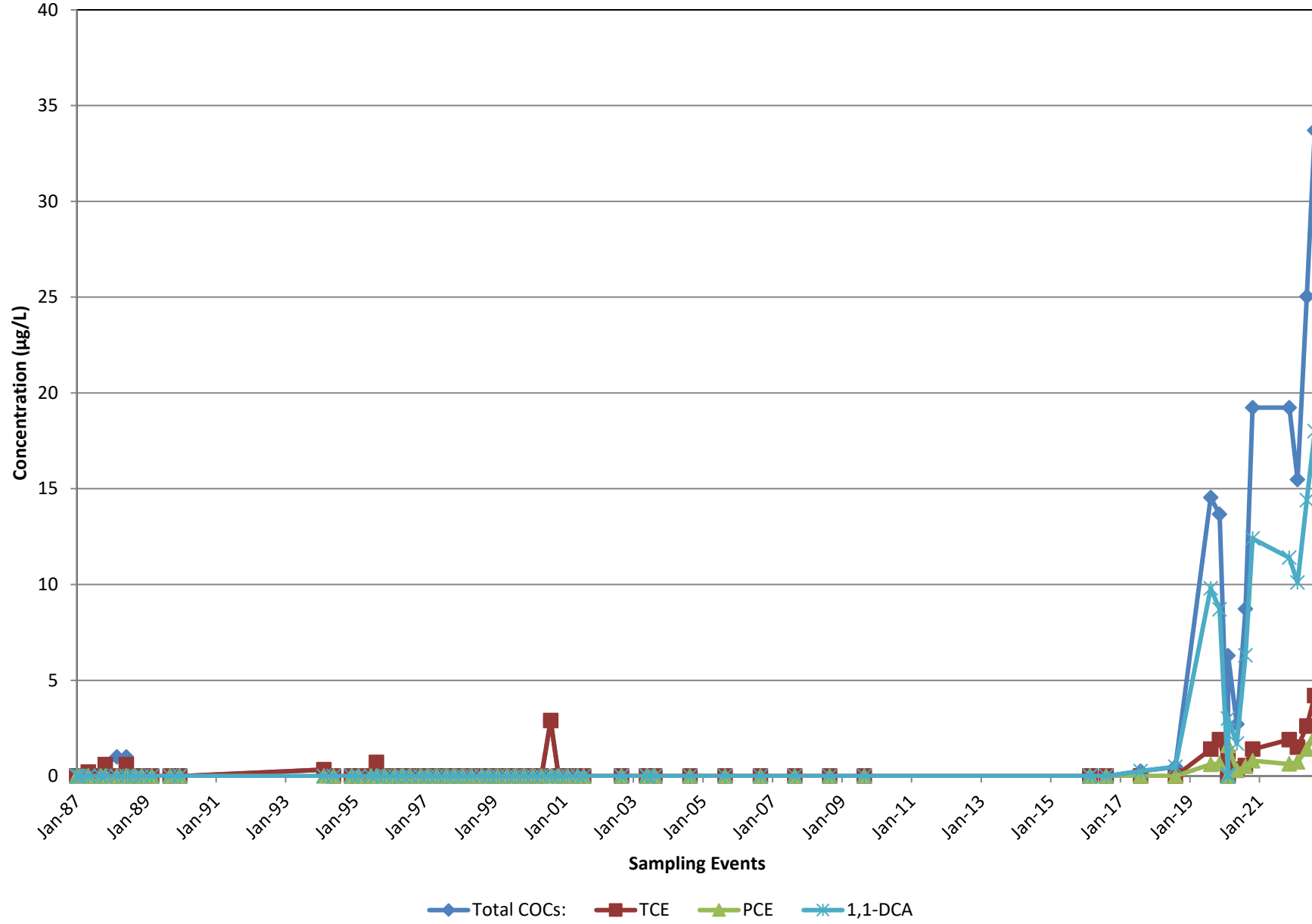
MW-OU2-05-AR



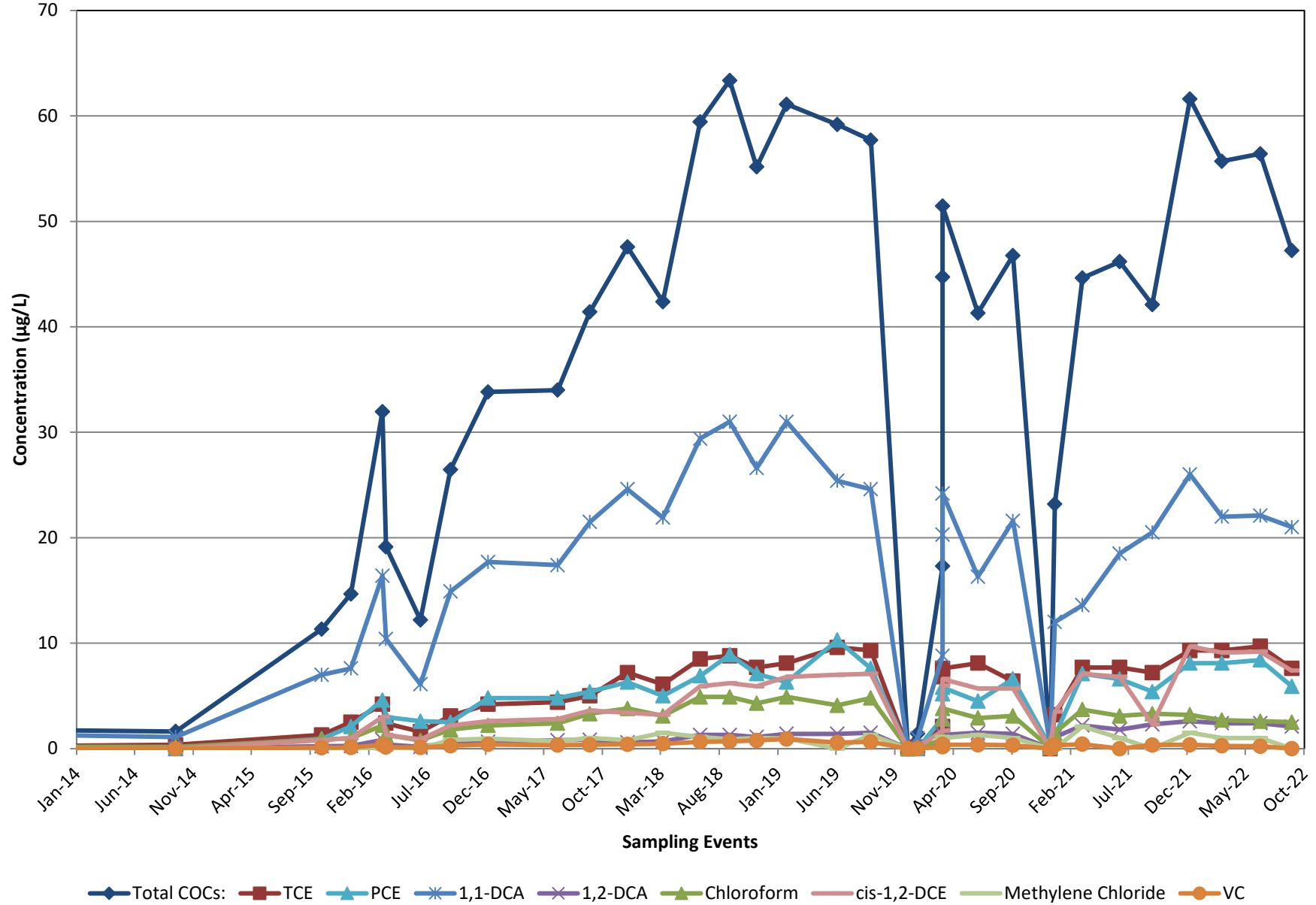
MW-OU2-06-AR



MW-OU2-07-A



MW-OU2-08-A



MW-OU2-75-A

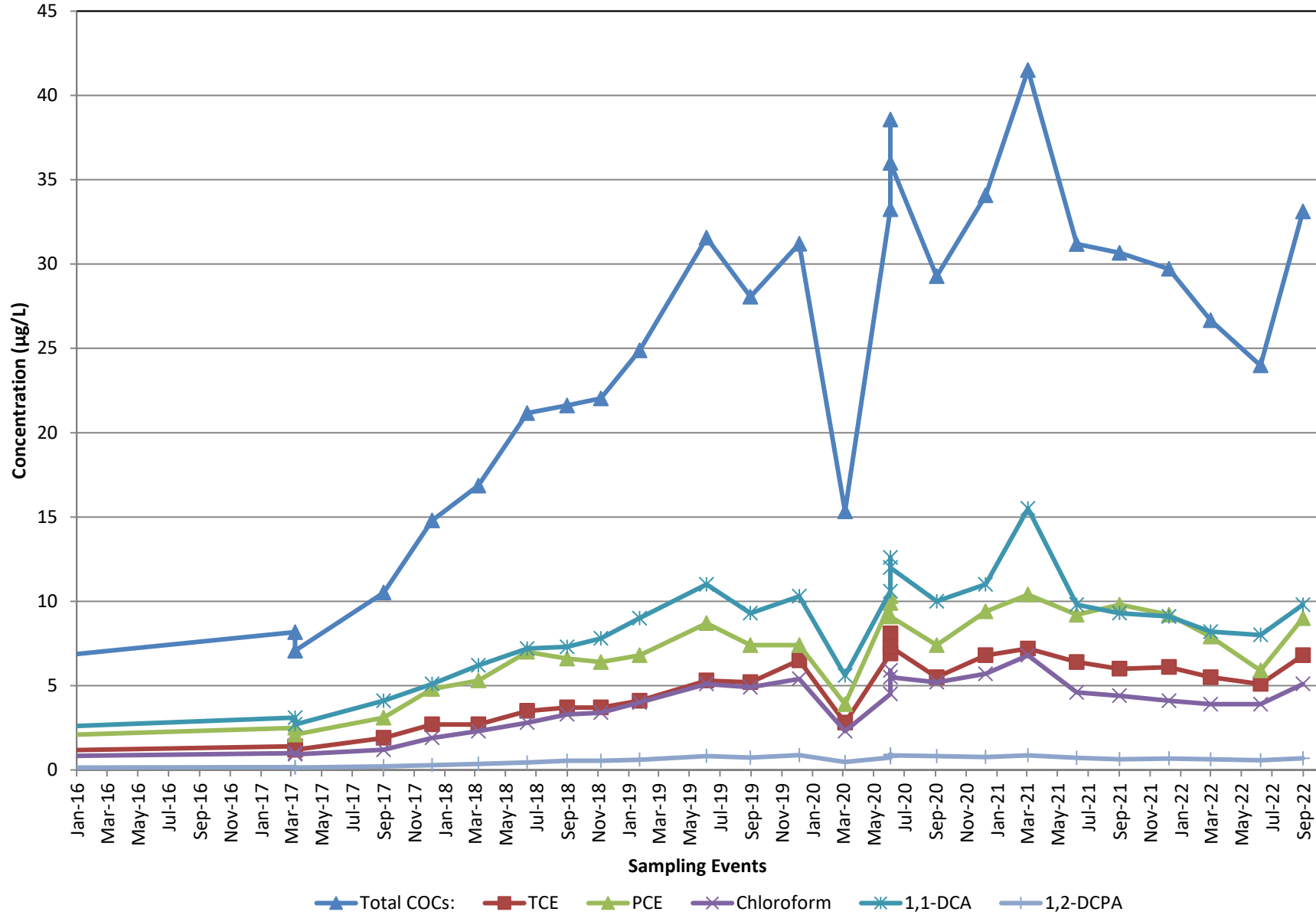


Table 5. OU2 Upper 180-Foot Select Extraction/Monitoring Well Data

OU2 Hydraulic Zone ¹	Well Identification ²	TCE Concentration (µg/L)				
		4Q 2021	1Q 2022	2Q 2022	3Q 2022	4Q22*
ACL:		5				
6	EW-OU2-03-180	8.1	7.4	7.9	7.0	
6	MW-OU2-23-180	13.5 J+	10.8	12.4	11.4	
6	MW-OU2-50-180	15.9 J+	8.6	10.9 J+	11.1	
6	MW-OU2-51-180	0.72 J+	0.65	0.69	0.79	
7	EW-OU2-05-180	2.0	2.1	2.4	2.5	2.7
7	EW-OU2-06-180	3.3	3.6	3.9	4.3	4.4
7	EW-OU2-10-180	6.8	7.3	7.6	7.5	
7	EW-OU2-11-180	3.8	4.2	4.8	4.3	4.7
7	EW-OU2-12-180	7.0	7.3	7.4	7.9 J+	7.7
7	MW-OU2-24-180	9.5	8.0	7.4	7.7	
7	MW-OU2-81-180	4.5	3.8	3.1	3.0 J+	
7	MW-OU2-44-180	12.4	10.6	11.8	12.5	
7	MW-OU2-56-180	7.0 J+	5.8	7.1	7.2	
8	EW-OU2-08-180	2.6	1.6	2.4 J+	2.5	2.6
8	MW-OU2-28-180	5.2 J+	3.3	3.7	5.3 J+	
8	MW-OU2-62-180	1.9	1.5	1.1	0.73	
9	EW-OU2-01-180	9.7	9.6	9.2 J+	9.2 J+	8.4
9	EW-OU2-02-180R	4.9	5.2	5.7	5.6 J+	5.2
9	MW-OU2-06-180R2	1.2	1.2	0.87	0.88	0.66
9	MW-OU2-43-180	2.4 J+	1.9	2.9	3.8	2.6
N/A	MW-OU2-84-180	ND (0.25)	0.10 J	ND (0.25)	ND (0.25)	ND (0.25)

Notes:

ACL: Aquifer Cleanup Level

COC: chemical of concern

TCE: trichloroethene

µg/L: micrograms per liter

NS: not sampled

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

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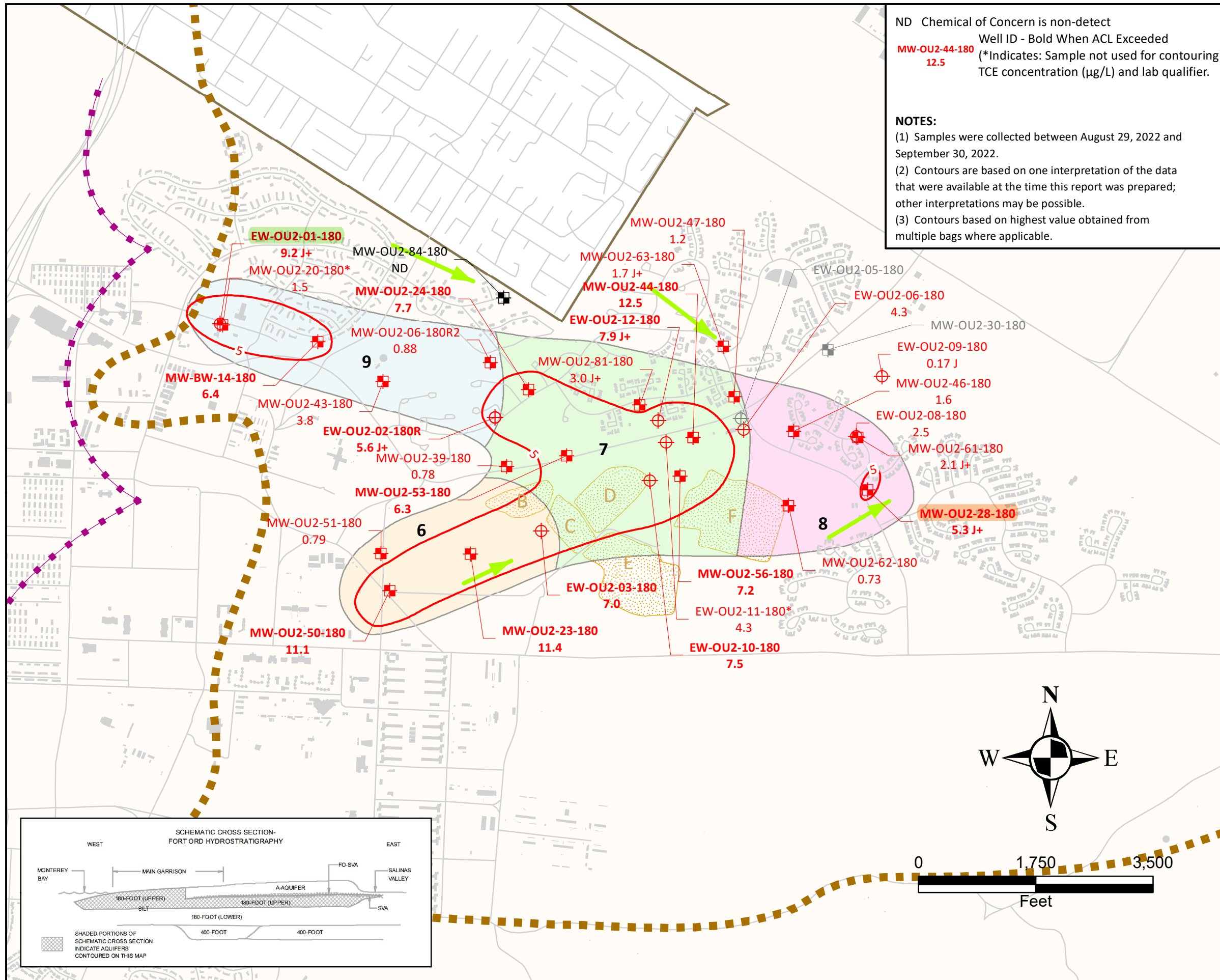
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Results in **bold** and shaded are concentrations above the ACL

Results in *gray* are ND

Results in brackets from a second deeper passive diffusion bag

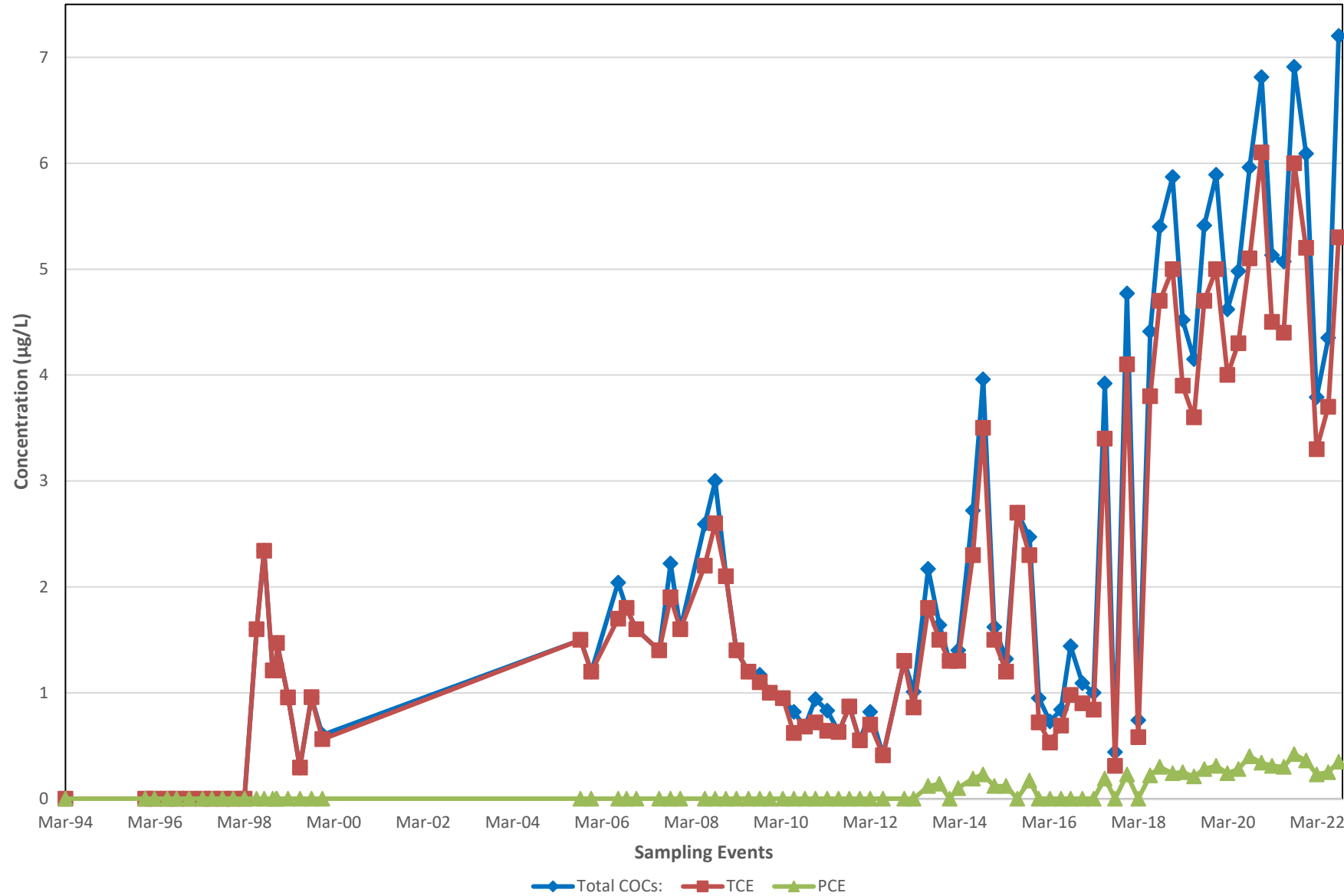
* Preliminary data



TCE CONCENTRATIONS AND OTHER COC ACL EXCEEDANCES
UPPER 180-FOOT AQUIFER
THIRD QUARTER 2022
 Operable Unit 2, Remedy Monitoring and Operations and Maintenance, Fourth Quarter 2021 - Third Quarter 2022
 Former Fort Ord, California

Ahtna Date: 11/18/2022 Figure: 44

MW-OU2-28-180



MW-OU2-62-180

