

HTW BCT Meeting, October 22, 2020

Table 1: July-Sept 2020 – OU2 GWTP Statistics

Monthly Statistics	Volume Treated (gallons)	Average Flow (gallons per minute)	Percent of Time Online	COC Mass Removed (pounds)
July 2020	31,305,452	701	84.4	2.2
Aug 2020	35,636,023	798	98.1	2.1
Sept 2020	35,524,915	822	99.1	2.4
Total since October 1995	8.247 billion			896

Table 2: July-Sept 2020 – OU2 Analytical Results at TS-OU2-INJ-01

COC	Discharge Limit (µg/L)	Analytical Results (µg/L)			
		7/7/2020	7/21/2020	8/4/2020	9/21/2020
1,1-dichloroethane (1,1-DCA)	5.0*	0.51	0.53	0.42 J	ND (0.25)
1,2-dichloroethane (1,2-DCA)	0.5	0.19 J	0.19 J	0.16 J	ND (0.25)
1,2-dichloropropane (1,2-DCP)	0.5	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
Benzene	0.5	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
Carbon tetrachloride (CT)	0.5	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
Chloroform	2.0*	0.38 J	0.39 J	0.32 J	ND (0.25)
Cis-1,2-dichloroethene (cis-1,2-DCE)	6.0*	1.3	1.3	1.2	ND (0.25)
Methylene Chloride	0.5	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)
Tetrachloroethene (PCE)	0.5	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
Trichloroethene (TCE)	0.5	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
Vinyl chloride (VC)	0.1	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)

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



July 2020 Key Events

- July 2: EW-OU2-19-A offline since May, restarted after cracked Y-Strainer repaired.
- July 23: The OU2 GWTP was shut down for 116 hours to install an isolation valve for the western network. The OU2 GWTP was restarted on July 28.

August 2020 Key Events

- Aug 15: OU2 GWTP offline for 14 hours due to electrical storm power outages. VFDs and PLCs inspected and rebooted. OU2 GWTP restarted on Aug 16.
- Aug 31: EW-OU2-09-A online for the first time since October 2018.
- Aug 31-Sep 4: Third Quarter 2020 Groundwater Monitoring Event.

September 2020 Key Events

- Sept 8: Lost communications to EW-OU2-17-A, EW-OU2-18-A, and EW-OU2-11-80. PLCs reset and wells restarted Sept 15.
- Sept 16: OU2 GWTP GAC Change out of primary vessels 1A and 2A.
- Sept 17: OU2 GWTP shut down for 4.5 hours due to communications loss. Inspected radio stations and rebooted PLCs and GWTP restarted.
- Sept 18: video logged EW-OU2-12-180, mud on screen but casing and screen intact .
- Sept 21: OU2 GWTP shut down for 2 hours to repair a leaking gasket at EW-OU2-09-A.

October 2020 Key Events

- Repair failed effluent pump P-2.
- Install transducer at EW-OU2-06-A.
- Install VFD at EW-OU2-09-A.
- Coordinate with Sea Haven adjustment/replacement of five MWs: MW-OU2-05-A, -05-180, -07-A, -07-180, and -07-400.

November 2020 Key Events

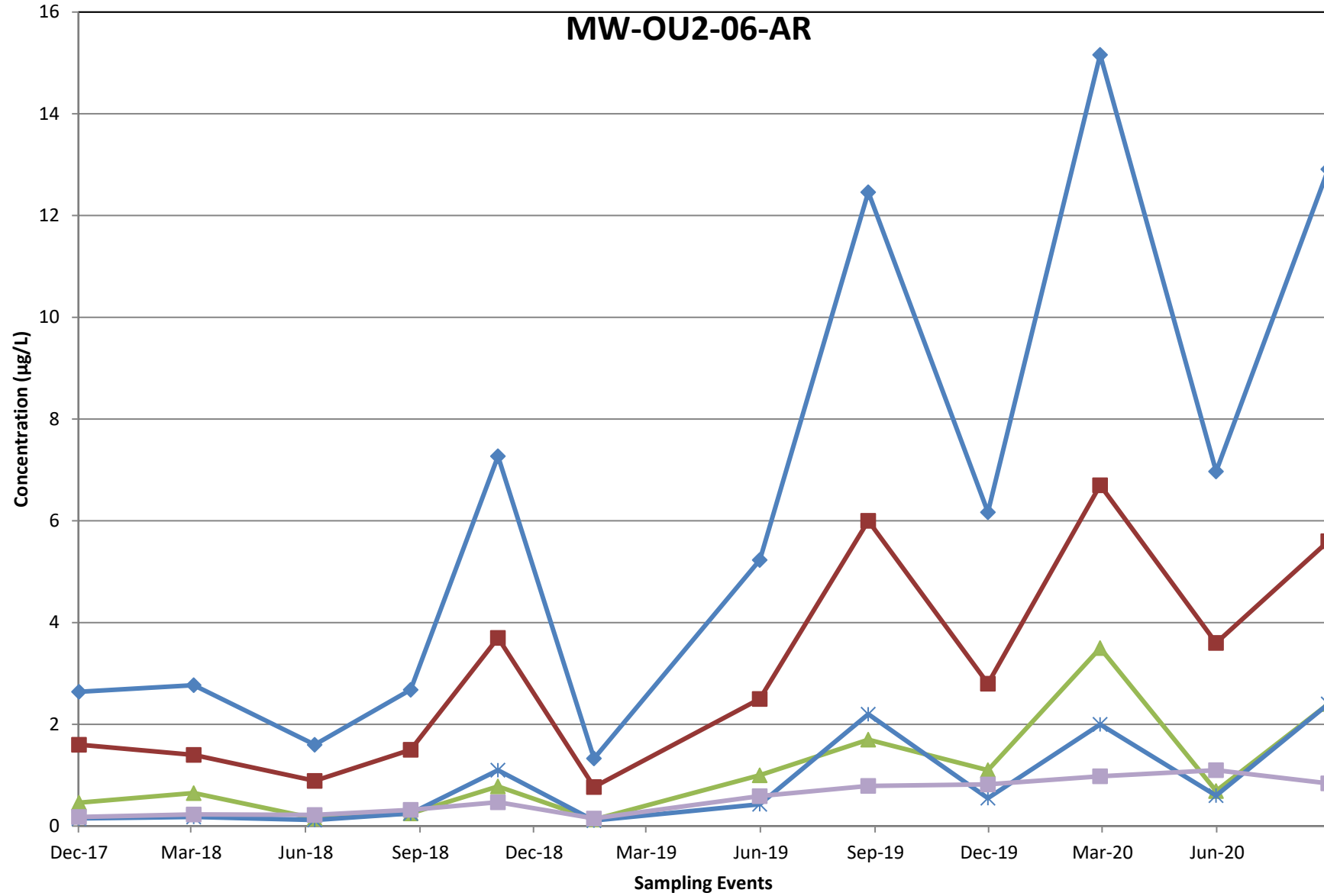
- None.

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

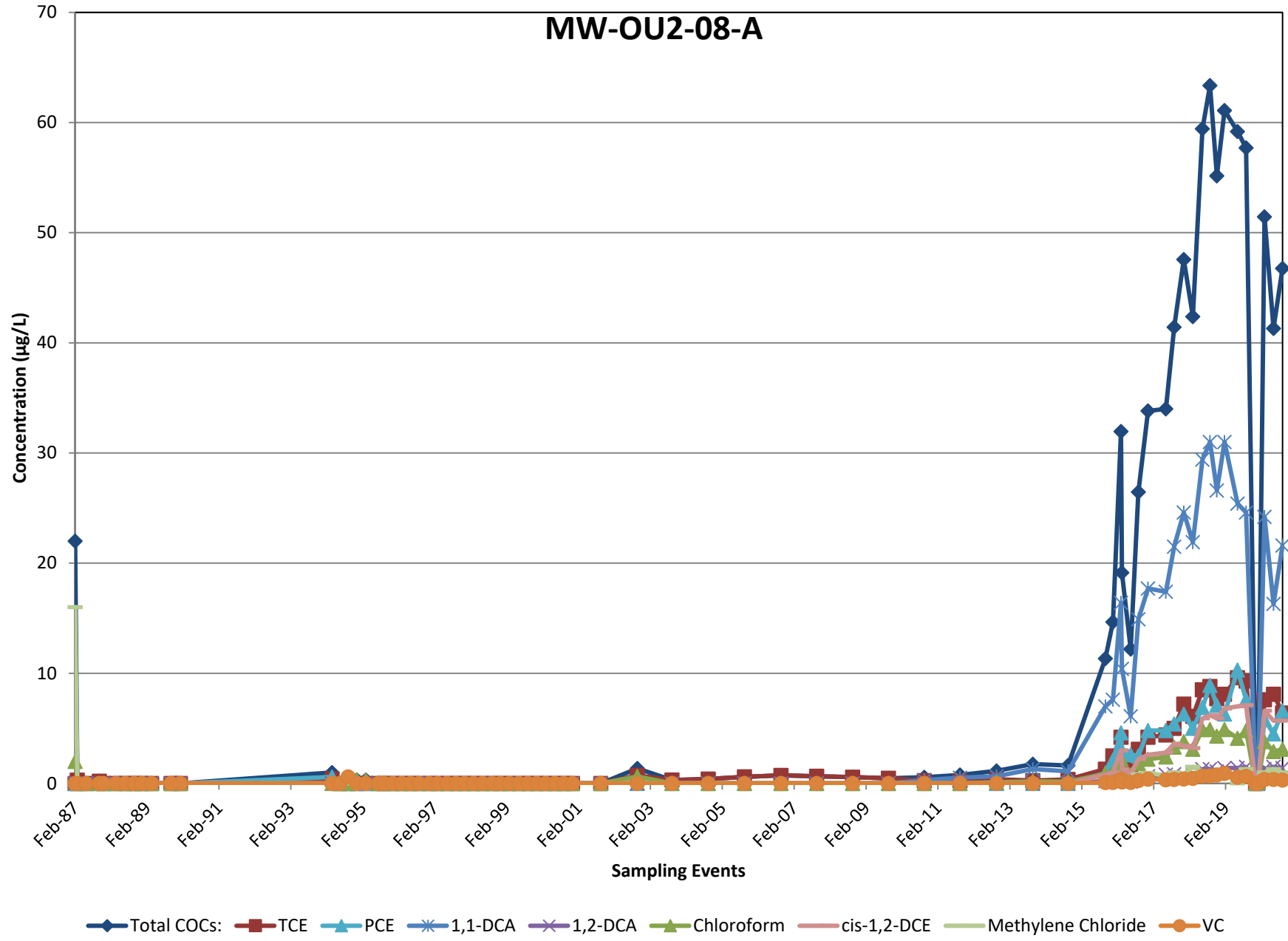
OU2 Hydraulic Zone ¹	Well Identification ²	Select COC Concentrations (µg/L)									
		2Q 2020					3Q 2020*				
		TCE	PCE	1,1-DCA	1,2-DCA	VC	TCE	PCE	1,1-DCA	1,2-DCA	VC
ACL:		5.0	3.0	5.0	0.5	0.1	5.0	3.0	5.0	0.5	0.1
1	EW-OU2-16-A	2.8	2.4	5.8	1.9	0.53	2.5	2.2	5.7	2.0	0.57
1	EW-OU2-17-A	11.6	7.1	1.8	0.11 J	ND (0.05)	9.5	5.9	1.4	0.12 J	ND (0.05)
1	EW-OU2-18-A	11.5	6.2	7.7	1.2	0.52	10.1	5.4	6.6	1.0	0.51
1	EW-OU2-19-A	6.3	6.1	14.0	2.2	1.2	5.3	5.4	12.6	1.9	1.3
1	EW-OU2-20-A	NS	NS	NS	NS	NS	1.3	1.3	5.1	0.72	0.86
1	MW-OU2-02-A	0.71	2.5	4.6	0.78	9.3	0.51	2.6	3.9	0.91	7.5
1	MW-OU2-44-A	3.5	4.8	11.5	2.6	0.60	1.2	1.5	5.5	1.5	0.22
1	MW-OU2-73-A	0.27 J	1.3	5.1	0.65	6.3	ND (0.25)	1.9	2.7	0.51	5.2
2	EW-OU2-15-A	1.6	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	0.13 J	5.0	0.45 J	ND (0.25)	ND (0.05)	ND (0.25)	4.1	0.34 J	ND (0.25)	ND (0.05)
3	EW-OU2-09-A	NS	NS	NS	NS	NS	0.14 J	0.17 J	ND (0.25)	ND (0.25)	0.051 J
3	EW-OU2-10-A	0.87	0.68	0.27 J	0.56	0.052 J	0.70	0.61	0.25 J	0.51	0.053 J
3	EW-OU2-11-AR	1.9	0.79	1.2	0.32 J	ND (0.05)	1.8	0.77	1.4	0.30 J	ND (0.05)
3	EW-OU2-12-A	8.5	4.9	5.9	2.3	0.11	6.5	4.2	5.4	2.1	0.11
3	EW-OU2-13-A	6.5	2.1	1.4	3.9	ND (0.05)	5.9	2.1	1.5	4.1	ND (0.05)
3	MW-OU2-25-A	1.2	0.36 J	0.62	0.61	0.16	1.0	0.43 J	0.54	0.57	ND (0.05)
4	EW-OU2-04-A	1.5	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.05)	1.9	ND (0.25)	0.37 J	ND (0.25)	ND (0.05)
4	EW-OU2-05-A	3.5	0.31 J	0.31 J	ND (0.25)	ND (0.05)	3.9	0.50	0.46 J	0.30 J	ND (0.05)
4	EW-OU2-06-A	3.2	0.33 J	0.25 J	ND (0.25)	ND (0.05)	3.1	0.27 J	0.19 J	ND (0.25)	ND (0.05)
4	MW-OU2-40-A	11.3	0.47 J	0.19 J	ND (0.25)	ND (0.05)	10.0	0.42 J	0.16 J	ND (0.25)	ND (0.05)
5	MW-OU2-04-A	2.3	1.0	0.61	0.51	ND (0.05)	2.6	1.2	0.70	0.61	ND (0.05)
5	MW-OU2-06AR	3.6	0.69	0.60	1.1	ND (0.05)	5.6	2.4	2.4	0.84	ND (0.05)
5	MW-OU2-07-A	0.35 J	0.29 J	1.7	ND (0.25)	ND (0.05)	0.54	0.51	6.3	ND (0.25)	ND (0.05)
5	MW-OU2-08-A	8.1	4.5	16.3	1.5	0.36	6.4	6.6	21.6	1.4	0.31
5	MW-OU2-75-A	8.1	10.3	12.6	0.17 J	0.14	5.5	7.4	10.0	ND (0.25)	ND (0.05)
5	MW-OU2-81-A	8.2	10.8	1.9	0.46 J	ND (0.05)	12.1	9.7	2.1	0.47 J	ND (0.05)
5	MW-OU2-83-A	1.5	1.4	5.9	0.20 J	0.12	1.2	1.3	5.5	0.21 J	ND (0.05)
5	MW-BW-50-A	0.88	5.4	1.1	ND (0.25)	ND (0.05)	1.1	2.9	1.9	ND (0.25)	ND (0.05)

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



◆ Total COCs: ■ TCE ▲ PCE * 1,1-DCA ■ 1,2-DCA



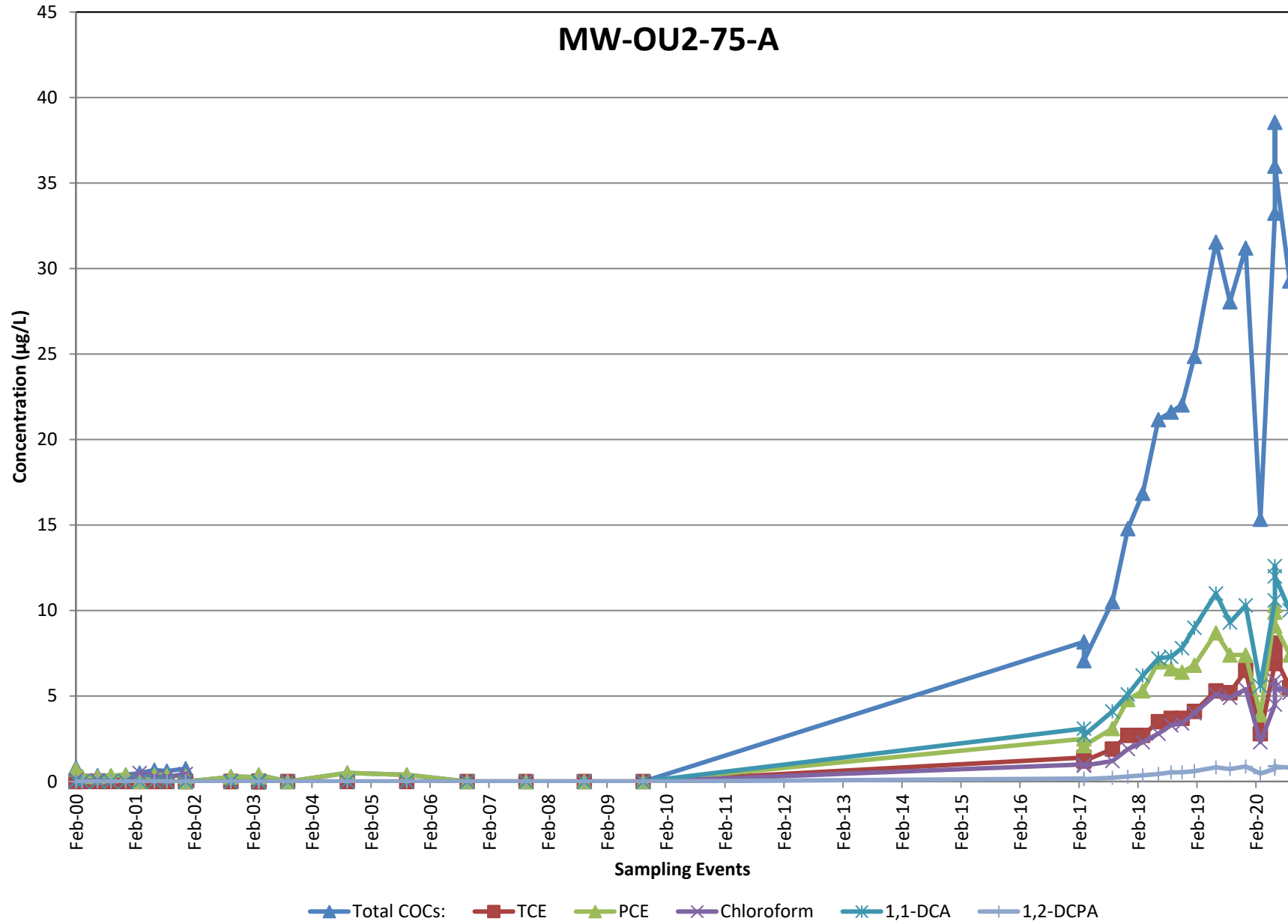


Table 4. OU2 Upper 180-Foot Select Extraction/Monitoring Well Data

OU2 Hydraulic Zone ¹	Well Identification ²	TCE Concentration (µg/L)			
		4Q 2019	1Q 2020	2Q 2020	3Q 2020*
ACL:		5.0			
6	EW-OU2-03-180	6.5	8.0	7.3	7.3
6	MW-OU2-23-180	11.7	13.3	17.7	12.2
6	MW-OU2-50-180	5.1	11.8	11.8	8.7
6	MW-OU2-51-180	0.65	ND (0.25)	0.94	0.56
7	EW-OU2-05-180	2.9	2.6	2.7	2.7
7	EW-OU2-06-180	3.9 J	3.8	4.1	4.2
7	EW-OU2-10-180	6.3	7.4	8.5	7.6
7	EW-OU2-11-180	6.6	5.1	4.3	3.5
7	EW-OU2-12-180	6.1	NS	NS	NS
7	MW-OU2-81-180	5.1	4.7	5.4	3.7
7	MW-OU2-44-180	13.6	11.4	11.6	13.3
7	MW-OU2-56-180	6.6	ND (0.25)	6.3	7.0
8	EW-OU2-08-180	2.1	1.7	1.4	1.7
8	MW-OU2-28-180	5.0	4.0	4.3	5.1
8	MW-OU2-62-180	7.5	8.6	4.0	3.1
9	EW-OU2-01-180	0.11 J	3.8	4.4	4.0
9	EW-OU2-02-180R	4.9	5.2	5.7	5.2
9	MW-OU2-06-180R2	1.3	1.1	1.0	0.82
9	MW-OU2-24-180	3.7	8.5	10.5	9.6
9	MW-OU2-43-180	3.7	2.3	1.0	2.5
N/A	MW-OU2-07-180R	2.1	1.6	0.50	0.51

Notes:

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COC: chemical of concern

1,2-DCA: 1,2-dichloroethane

TCE: trichloroethene

PCE: tetrachloroethene

1,1-DCA: 1,1-dichloroethane

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