Former Fort Ord Operable Unit 2 Data and Status

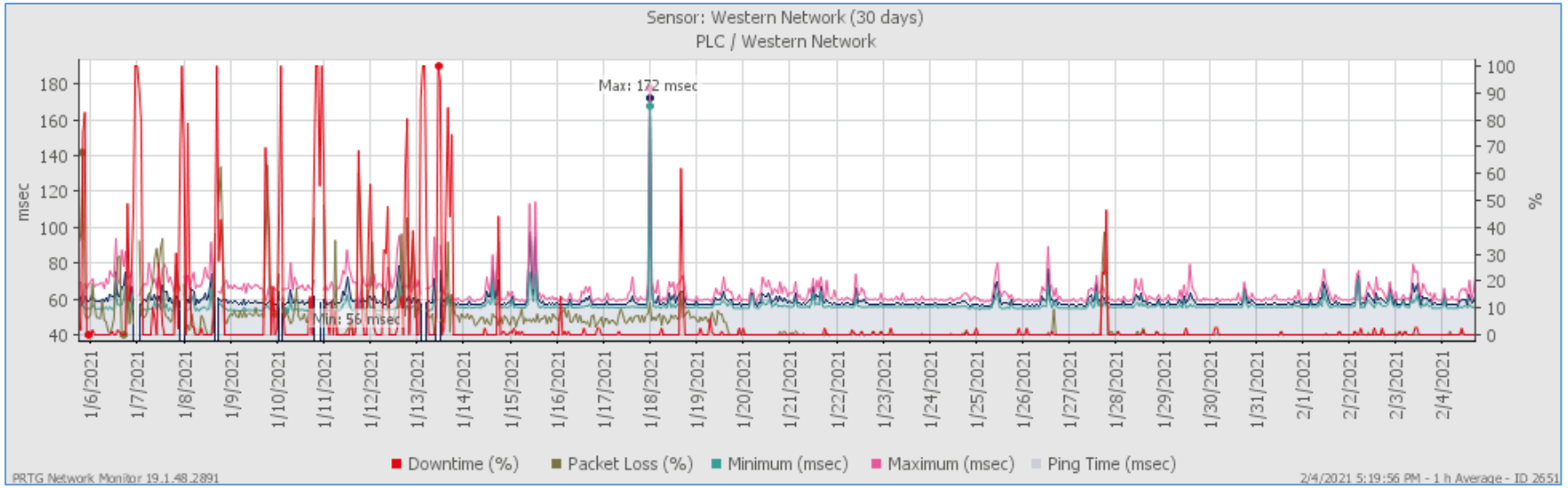
HTW BCT Meeting, April 14, 2021

January 2021 Key Events

- Jan 1: OU2 GWTP shut down for 33 hours due to communications failure, restarted Jan 2.
- Jan 7: Shea Homes contractor damaged OU2 southwest injection pipeline, ~500 gallons treated water released. Pipe repaired and normal operations resumed.
- Jan 11-14: Radio equipment upgrade to improve communications. New antenna mast installed at OU2 GWTP.
- Jan 12: welded joints of new HDPE pipe at southwest injection. OU2 GWTP shut down for 2 hours to perform communications upgrade.
- Jan 19: Southwest injection tie-in of new HDPE pipe to existing. JV replaced flowmeter transmitter at EW-OU2-02-180R.
- Jan 22: EW-OU2-04-A offline due to failed pump motor.
- Jan 28: Shea Homes contractor damaged OU2 southwest injection pipeline, ~6,000 gallons treated water released. Pipe repaired and normal operations resumed on Feb 1.
- 9,500 gallons treated water used.

SW Injection pipeline repair

Western Network comms data



February 2021 Key Events

- Feb 3: Shea Homes begins using ~200 gpm OU2 treated water for dust control.
- Feb 8: OU2 GWTP operated at 550 gpm over weekend due to power disruption that shut down Upper 180-Foot Aquifer extraction wells.
- 1.55 million gallons treated water used.

Loading treated water for dust control

New Western Network radio mast

March 2021 Key Events

- Mar 1: EW-OU2-10-180 inoperable due to a motor malfunction.
- Mar 1-5: First Quarter 2021 Groundwater Monitoring event.
- Mar 15: Installed new radio tower at western network. JV western network performance testing (EW-OU2-05-A and EW-OU2-06-A). Turned off EW-OU2-12-A due to low flow (redevelopment planned).
- Mar 22: EW-OU2-05-A and EW-OU2-06-A online approx. 63 gpm each.
- 1.6 million gallons treated water used.

April 2021 Key Events

- April 19: EW-OU2-12-180 and EW-OU2-12-A redevelopment.
- April 19: Replace failed pump motor at EW-OU2-12-180.

May 2021 Key Events

- Coordinate with Sea Haven on adjustment/survey of MW-OU2-04-AR, -05-AR, -07-A, -84-180, and -07-400.
- Replace failed pump motors at EW-OU2-02-A, -04-A, -10-180.

Former Fort Ord Operable Unit 2 Data and Status

HTW BCT Meeting, April 14, 2021

Table 1: Jan-Mar 2021 – OU2 GWTP Statistics

Monthly Statistics	Volume Treated (gallons)	Average Flow (gallons per minute)	Percent of Time Online	COC Mass Removed (pounds)
Jan 2021	35,563,677	797	95.3	2.3
Feb 2021	30,287,174	751	100	1.9
Mar 2021	30,454,560	682	100	1.9
Total since October 1995	8.456 billion			910

Table 2: Jan-Mar 2021 – OU2 Analytical Results at TS-OU2-INJ-01

COC	Discharge Limit (µg/L)	Analytical Results (µg/L)		
		01/11/2021	03/08/2021	04/05/2021
1,1-dichloroethane (1,1-DCA)	5.0*	0.25 J	0.35 J	0.27 J
1,2-dichloroethane (1,2-DCA)	0.5	ND (0.25)	0.11 J	ND (0.25)
1,2-dichloropropane (1,2-DCP)	0.5	ND (0.25)	ND (0.25)	ND (0.25)
Benzene	0.5	ND (0.25)	ND (0.25)	ND (0.25)
Carbon tetrachloride (CT)	0.5	ND (0.25)	ND (0.25)	ND (0.25)
Chloroform	2.0*	0.13 J	0.20 J	0.17 J
Cis-1,2-dichloroethene (cis-1,2-DCE)	6.0*	0.13 J	0.31 J	0.31 J
Methylene Chloride	0.5	ND (0.50)	ND (0.50)	ND (0.50)
Tetrachloroethene (PCE)	0.5	ND (0.25)	ND (0.25)	ND (0.25)
Trichloroethene (TCE)	0.5	ND (0.25)	ND (0.25)	ND (0.25)
Vinyl chloride (VC)	0.1	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

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

OU2 Hydraulic Zone[1]	Well Identification[2]	Select COC Concentrations (µg/L)									
		4Q 2020					1Q 2021*				
		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	2.2	2.1	4.6	**1.6**	**0.37**	2.5	2.4	**6.0**	**1.9**	**0.54**
1	EW-OU2-17-A	**10.0**	**6.6**	1.3	0.17 J	ND (0.013)	**8.7**	**5.3**	1.3	0.28 J	ND (0.05)
1	EW-OU2-18-A	**12.0**	**6.5**	**5.9**	**0.78**	**0.27**	**9.6**	**5.8**	**5.7**	**0.81**	**0.35**
1	EW-OU2-19-A	**5.7**	**5.6**	**11.0**	**1.6**	**0.87**	5.0	**5.7**	**13.5**	**1.9**	**1.1**
1	EW-OU2-20-A	1.2	1.3	4.3	**0.66**	**0.74**	1.5	1.5	**5.8**	**0.76**	**1.2**
1	MW-OU2-02-A	0.42	**3.1**	3.8	**0.71**	**7.1**	0.54	**3.4**	4.2	**0.68**	**8.6**
1	MW-OU2-44-A	2.3	2.6	**7.2**	**1.8**	**0.37**	1.8	1.9	**7.6**	**1.8**	**0.40**
1	MW-OU2-73-A	0.27	1.1	2.8	0.42	**4.0**	ND (0.25)	1.8	3.4	0.48 J	**6.5**
2	EW-OU2-15-A	1.9	ND (0.084)	ND (0.025)	ND (0.043)	ND (0.013)	1.5	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.05)
2	MW-OU2-27-A	0.13 J	**3.8**	0.31	ND (0.043)	ND (0.013)	0.10 J	**4.6**	0.46 J	ND (0.25)	ND (0.05)
3	EW-OU2-09-A	0.11 J	0.22 J	0.040 J	0.11 J	0.041	0.15 J	0.27 J	ND (0.25)	0.15 J	0.052 J
3	EW-OU2-10-A	0.88	0.78	0.21	0.40	0.032	0.95	0.83	0.32 J	**0.57**	0.066 J
3	EW-OU2-11-AR	2.0	0.78	1.3	0.26	ND (0.013)	2.1	0.94	2.2	0.34 J	ND (0.05)
3	EW-OU2-12-A	**7.5**	**4.4**	4.3	**1.9**	ND (0.013)	**6.1**	**4.2**	4.9	**2.2**	**0.16**
3	EW-OU2-13-A	**6.7 J**	2.3	1.2 J	**3.4 J**	ND (0.013)	**6.4**	2.5	1.5	**4.2**	ND (0.05)
3	MW-OU2-12-A	**12.0**	**9.3**	**20.0**	**1.8**	0.085	**11.3**	**9.6**	**14.1**	**3.8**	**0.25**
3	MW-OU2-25-A	1.1	0.37 J	0.48	**0.58**	**0.12**	1.1	0.51	0.59	**0.65**	**0.11**
4	EW-OU2-04-A	1.7	0.11 J	0.36	0.043 J	ND (0.013)	NS	NS	NS	NS	NS
4	EW-OU2-05-A	2.3	0.12 J	0.41	ND (0.043)	ND (0.013)	**5.2**	0.33 J	0.41 J	ND (0.25)	ND (0.05)
4	EW-OU2-06-A	4.3	0.28 J	0.12 J	ND (0.043)	ND (0.013)	3.5	0.30 J	0.20 J	ND (0.25)	ND (0.05)
4	MW-OU2-40-A	**8.8**	0.42 J	0.12 J	0.088 J	ND (0.013)	**8.6**	0.38 J	0.13 J	ND (0.25)	ND (0.05)
5	MW-OU2-04-A	1.9	0.67	0.61	**0.64**	ND (0.013)	2.7	1.1	1.0	**0.98**	ND (0.05)
5	MW-OU2-06AR	**7.3**	2.9	2.6	**0.86**	ND (0.013)	4.6	2.4	2.1	**0.58**	ND (0.05)
5	MW-OU2-07-A	1.4	0.80	**12.4**	0.46 J	**0.19**	NS	NS	NS	NS	NS
5	MW-OU2-08-A	3.2	1.2	**12.0**	**1.1**	**0.37**	**7.7**	**7.1**	**13.6**	**2.2**	**0.42**
5	MW-OU2-75-A	**6.8**	**9.4**	**11.0**	0.18 J	0.096	**7.2**	**10.4**	**15.5**	0.17 J	**0.16**
5	MW-OU2-81-A	**18.0**	**9.0**	2.1	0.50	ND (0.013)	**10.6**	**8.0**	2.1	**1.1**	ND (0.05)
5	MW-OU2-83-A	2.1	2.0	**9.2**	0.41	**0.17**	2.6	2.8	**13.8**	0.50	**0.26**
5	MW-BW-50-A	0.70	**4.4**	0.80	ND (0.043)	ND (0.013)	1.1	**3.3**	2.1	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

MW-OU2-07-A
1.4 J

MW-OU2-08-A*
3.2

MW-OU2-81-A
18

EW-OU2-13-A
6.7

MW-OU2-83-A
2.1

MW-OU2-75-A
6.8

MW-BW-13-A
1

MW-OU2-05-A

MW-OU2-06-AR
7.3

MW-BW-50-A
0.7

EW-OU2-04-A
1.7

MW-OU2-04-A
1.9

EW-OU2-16-A
2.2

EW-OU2-05-A
2.3

MW-OU2-40-A
8.8

MW-OU2-46-A
0.46

EW-OU2-11-AR
2

EW-OU2-06-A
4.3

EW-OU2-09-A
0.11 J

EW-OU2-15-A
1.9

MW-OU2-79-A
0.76

EW-OU2-10-A
0.88

MW-OU2-45-A
2.7

MW-OU2-28-A

MW-OU2-27-A
0.13 J

EW-OU2-12-A
7.5

MW-OU2-12-A
12

MW-OU2-25-A
1.1

MW-OU2-80-A

EW-OU2-17-A
10

MW-OU2-73-A
0.27

EW-OU2-18-A
12

EW-OU2-20-A
1.2

MW-OU2-44-A
2.3

EW-OU2-19-A
5.7

MW-OU2-74-A
0.63

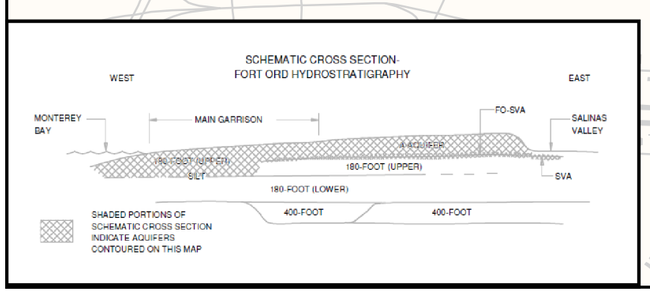
MW-OU2-01-A
2.7

MW-OU2-02-A
0.43

B
C
D
E
F

N
W
E
S

0 1,600 3,200
Feet



EXPLANATION

- Monitoring Well with TCE Detection
- Extraction Well with TCE Detection
- MW-OU2-40-A 8.8 — Well ID - Bold When ACL Exceeded; * Well not used for contouring; TCE Concentration (µg/L) and validation/lab qualifier.
- Monitoring Well with no COC ACL Exceedance and ND for TCE
- Monitoring Well with Methyl Chloride ACL Exceedance and ND for TCE

Chemical of Concern (COC) Aquifer Clenaup Level (ACL) Exceedance Countour in µg/L.

- 5 — Trichloroethene (TCE)
- 3 — Tetrachloroethene (PCE)
- 5 — 1,1-Dichloroethane (1,1-DCA)
- 0.5 — 1,2-Dichloroethane (1,2-DCA)
- 0.1 — Vinyl Chloride (VC)
- General Groundwater Flow Direction
- Approximate location of the Upper 180-Foot Aquifer Groundwater Divide
- Approximate location of the A-Aquifer Groundwater Divide
- OU2 Landfill Areas B through F
- Facilities
- Roads
- Former Fort Ord Boundary

NOTES:

(1) Groundwater samples were collected between December 7, 2020 and December 11, 2020.
(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) Contours near wells not sampled this quarter are inferred from previous analytical data.

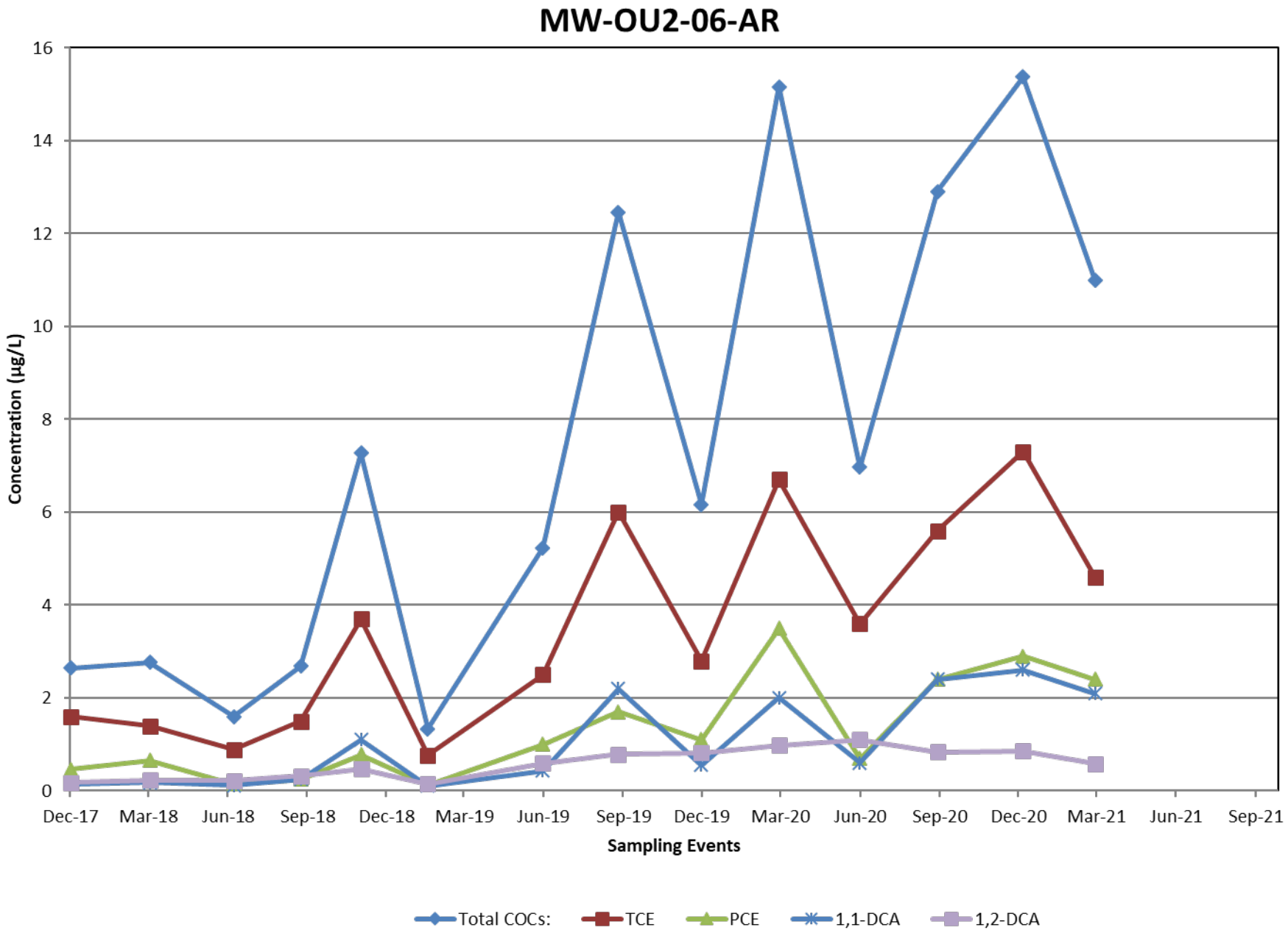
TCE CONCENTRATIONS AND OTHER COC ACL EXCEEDANCES
A-AQUIFER
Operable Unit 2, Fourth Quarter 2020, Groundwater Monitoring and Treatment System Report,
Former Fort Ord, California

Ahtna | Date: 2/28/2021 | Figure: 9

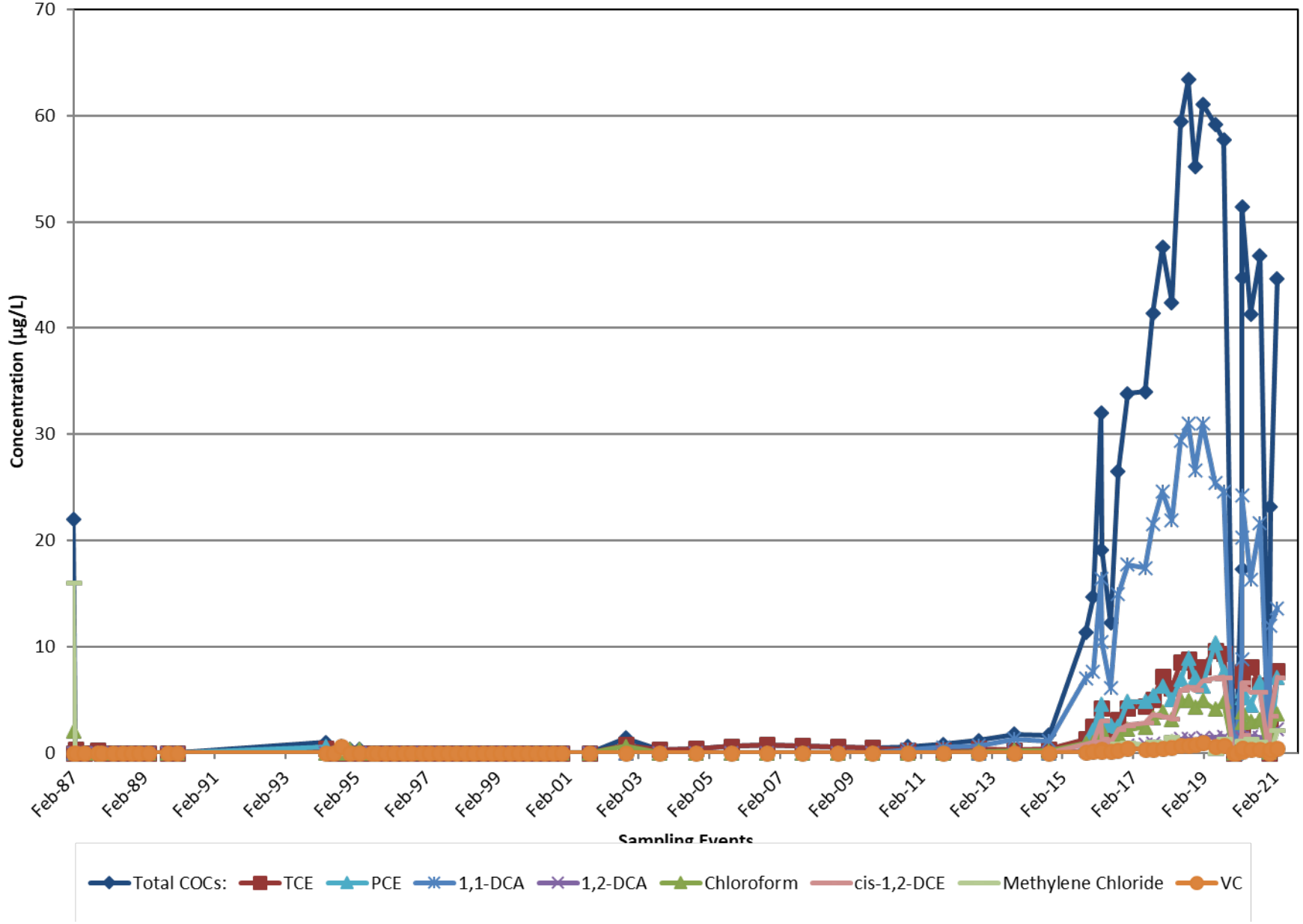
Table 4. Replacement OU2 A-Aquifer Monitoring Well Data

OU2 Hydraulic Zone[1]	Well Identification[2]	Select COC Concentrations (µg/L)									
		4Q 2020					1Q 2021*				
		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**
N/A	MW-OU2-05-A	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.05)	NS	NS	NS	NS	NS
N/A	MW-OU2-05-AR	NS	NS	NS	NS	NS	0.15 J	ND (0.25)	3.9	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


MW-OU2-06-AR
Concentration (µg/L)
16
14
12
10
8
6
4
2
0
Dec-17
Mar-18
Jun-18
Sep-18
Dec-18
Mar-19
Jun-19
Sep-19
Dec-19
Mar-20
Jun-20
Sep-20
Dec-20
Mar-21
Jun-21
Sep-21
Sampling Events
Total COCs:
TCE
PCE
1,1-DCA
1,2-DCA

MW-OU2-08-A


70
60
50
40
30
20
10
0
Concentration (µg/L)
Feb-87
Feb-89
Feb-91
Feb-93
Feb-95
Feb-97
Feb-99
Feb-01
Feb-03
Feb-05
Feb-07
Feb-09
Feb-11
Feb-13
Feb-15
Feb-17
Feb-19
Feb-21
Sampling Events
Total COCs:
TCE
PCE
1,1-DCA
1,2-DCA
Chloroform
cis-1,2-DCE
Methylene Chloride
VC

MW-OU2-75-A

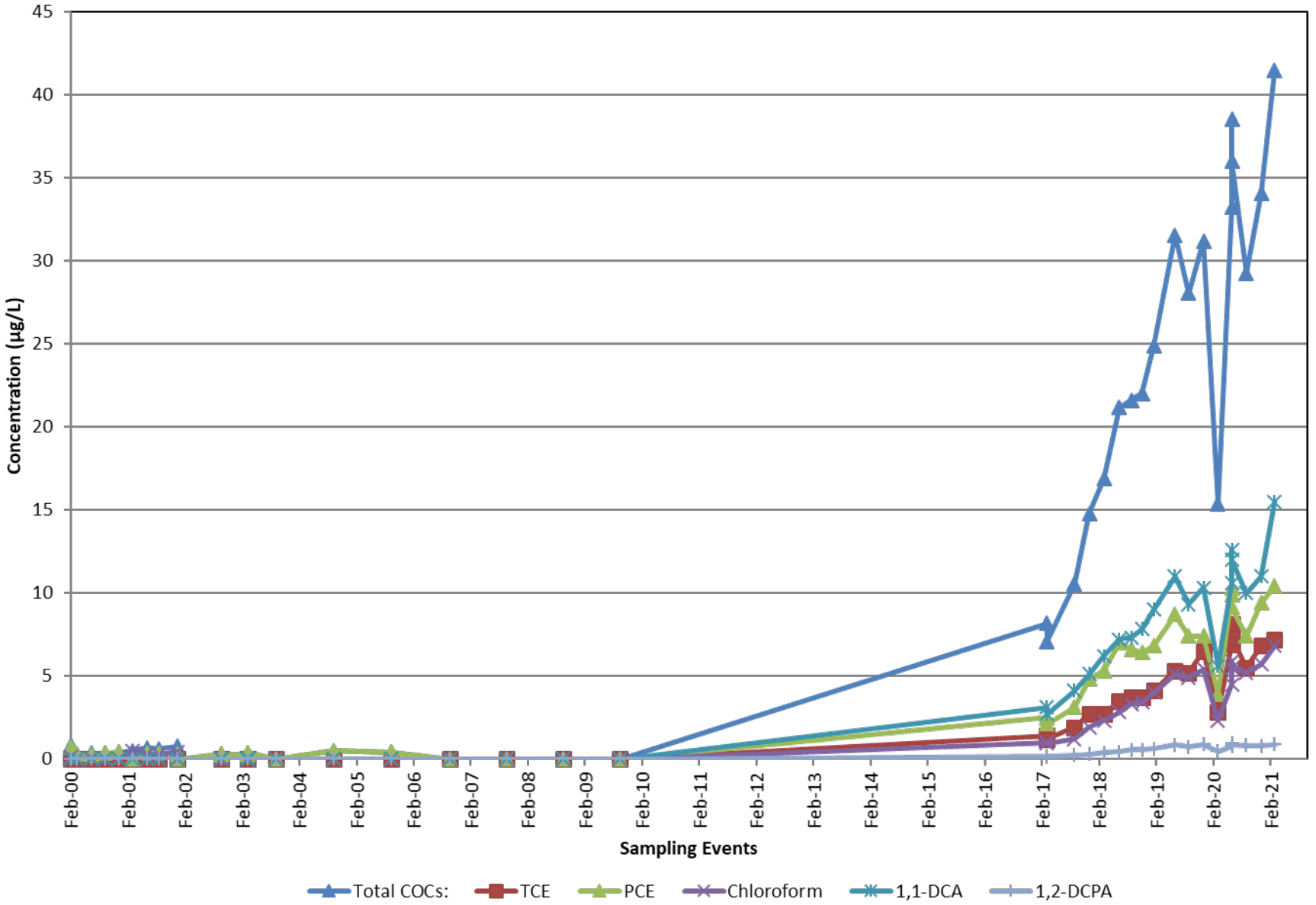
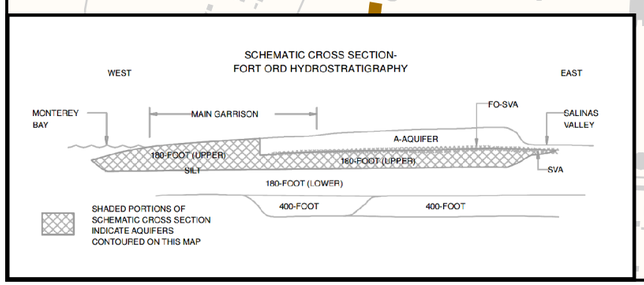

Concentration (µg/L)
45
40
35
30
25
20
15
10
5
0
Feb-00
Feb-01
Feb-02
Feb-03
Feb-04
Feb-05
Feb-06
Feb-07
Feb-08
Feb-09
Feb-10
Feb-11
Feb-12
Feb-13
Feb-14
Feb-15
Feb-16
Feb-17
Feb-18
Feb-19
Feb-20
Feb-21
Sampling Events
Total COCs:
TCE
PCE
Chloroform
1,1-DCA
1,2-DCPA

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

OU2 Hydraulic Zone[1]	Well Identification[2]	TCE Concentration (µg/L)			
		2Q 2020	3Q 2020	4Q 2020	1Q 2021*
ACL:		5.0			
6	EW-OU2-03-180	**7.3**	**7.3**	**7.4**	**6.7**
6	MW-OU2-23-180	**17.7**	**12.2**	**16.0**	**14.9**
6	MW-OU2-50-180	**11.8**	**8.7**	**13.0**	**9.8**
6	MW-OU2-51-180	0.94	0.56	0.79	1.4
7	EW-OU2-05-180	2.7	2.7	2.4	2.2
7	EW-OU2-06-180	4.1	4.2	3.6	3.9
7	EW-OU2-10-180	**8.5**	**7.6**	**7.1**	NS
7	EW-OU2-11-180	4.3	3.5	4.5	3.9
7	EW-OU2-12-180	NS	NS	NS	NS
7	MW-OU2-81-180	**5.4**	3.7	4.9	3.9
7	MW-OU2-44-180	**11.6**	**13.3**	**12.0**	**9.1**
7	MW-OU2-56-180	**6.3**	**7.0**	**8.1**	**5.8**
8	EW-OU2-08-180	1.4	1.7	1.7	1.3
8	MW-OU2-28-180	4.3	**5.1**	**6.1**	4.5
8	MW-OU2-62-180	4.0	3.1	**5.3**	4.7
9	EW-OU2-01-180	4.4	4.0	3.8	4.2
9	EW-OU2-02-180R	**5.7**	**5.2**	**6.5**	4.8
9	MW-OU2-06-180R2	1.0	0.82	0.97	0.65
9	MW-OU2-24-180	**10.5**	**9.6**	**9.3**	**8.9**
9	MW-OU2-43-180	1.0	2.5	2.4	1.5

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

MW-OU2-24-180
9.3
EW-OU2-01-180
3.8
MW-OU2-20-180
1.9
MW-OU2-06-180R2
0.97
MW-BW-14-180
3.7
MW-OU2-43-180
2.4
EW-OU2-02-180R
6.5
MW-OU2-39-180
1.1
MW-OU2-53-180
5.5
MW-OU2-51-180
0.79
MW-OU2-50-180
13.0
MW-OU2-23-180
16.0
MW-OU2-07-180R
1.3 J
MW-OU2-47-180
1.2
MW-OU2-44-180
12.0
MW-OU2-81-180
4.9
EW-OU2-05-180
2.4
EW-OU2-06-180
3.6
MW-OU2-30-180
MW-OU2-46-180
1
EW-OU2-08-180
1.7
MW-OU2-61-180
0.41
MW-OU2-28-180
6.1
MW-OU2-56-180
8.1
EW-OU2-11-180*
4.5
EW-OU2-10-180
7.1
MW-OU2-62-180
5.3
EW-OU2-03-180
7.4
B
C
D
E
F



N
W
E
S

0 1,500 3,000
Feet

Explanation

- Extraction Well with TCE Detection
- Monitoring Well with TCE Detection
- Well ID - Bold When ACL Exceeded (*Indicates: Sample not used for contouring)
  MW-OU2-44-180
  12.0
  TCE concentration (µg/L) and lab qualifier.
- Monitoring Well with no COC ACL Exceedance and ND for TCE

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

- 5 — Trichloroethene (TCE)
- Approximate location of the Upper 180-Foot Aquifer Groundwater Divide
- General Groundwater Flow Direction
- Roads
- Facilities
- Approximate extent of landfill areas
- Approximate Edge of Fort Ord - Salinas Valley Aquitard
- Former Fort Ord Boundary

NOTES:

(1) Samples were collected between December 7, 2020 and December 11, 2020.

(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.

TCE CONCENTRATIONS AND OTHER COC ACL EXCEEDANCES
UPPER 180-FOOT AQUIFER
Operable Unit 2, Fourth Quarter 2020 Groundwater Monitoring and Treatment System Report,
Former Fort Ord, California

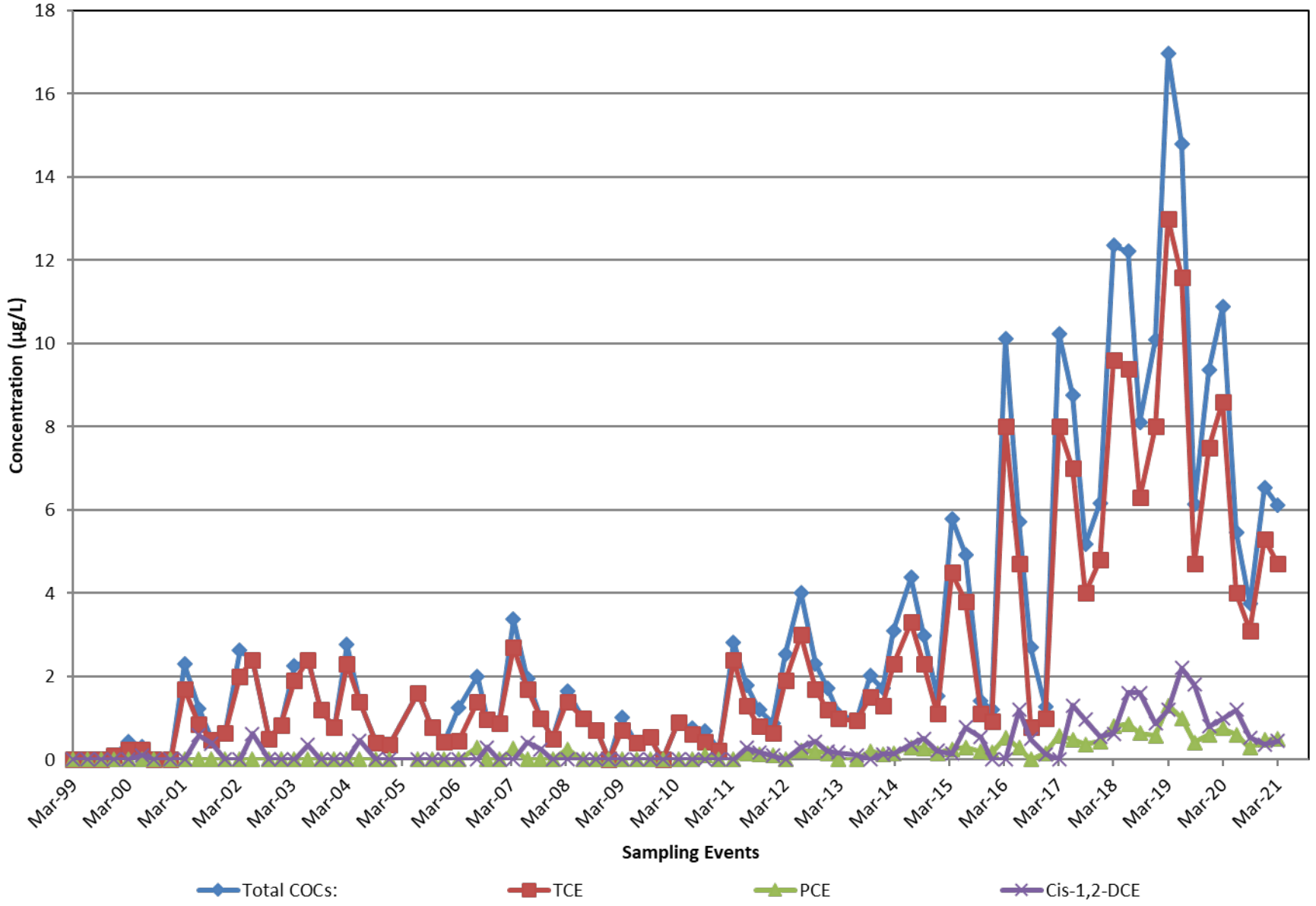
Ahtna | Date: 3/2/2021 | Figure: 11

Table 6. Replacement OU2 Upper 180-Foot Select Monitoring Well Data

OU2 Hydraulic Zone[1]	Well Identification[2]	TCE Concentration (µg/L)			
		2Q 2020	3Q 2020	4Q 2020	1Q 2021*
ACL:		**5.0**			
5	MW-OU2-07-180R	0.50	0.51	1.3	NS
N/A	MW-OU2-84-180	NS	NS	NS	ND (0.25)

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

MW-OU2-62-180


Concentration (µg/L)
18
16
14
12
10
8
6
4
2
0
Mar-99
Mar-00
Mar-01
Mar-02
Mar-03
Mar-04
Mar-05
Mar-06
Mar-07
Mar-08
Mar-09
Mar-10
Mar-11
Mar-12
Mar-13
Mar-14
Mar-15
Mar-16
Mar-17
Mar-18
Mar-19
Mar-20
Mar-21
Sampling Events
Total COCs:
TCE
PCE
Cis-1,2-DCE