Former Fort Ord Operable Unit Carbon Tetrachloride Plume Data and Status

HTW BCT, January 27, 2021

Table 1. OUCTP A-Aquifer Select Monitoring Well Data – Hydraulic Zones 1, 2, and 3

OUCTP Hydraulic Zone[1]	EISB Deployment Area	Well Identification	COC Concentrations (µg/L)			
			1Q 2020	2Q 2020	3Q 2020	4Q 2020*
			CT			
ACL:			0.5			
1	1C	EW-BW-109-A	**1.1**	**1.2**	**0.63**	**0.58**
1	N/A	MW-BW-24-A	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.025)
2	3A	MW-BW-58-A	**0.52**	**0.53**	**0.62**	0.33
2	3A	MW-BW-87-A	**2.6**	**2.3**	**1.5**	**2.1**
2	3A	MW-BW-91-A	**1.0**	**0.94**	**0.97**	**0.57**
2	N/A	MW-BW-94-AR	**0.63**	**0.52**	**0.64**	0.48
N/A	3A	MW-BW-90-A	**1.6**	**1.4**	**1.9**	**1.3**
2	3A	EW-BW-160-A	**2.2**	**2.1**	**1.4**	**1.8**
3	3A	EW-BW-166-A	ND (0.25)	ND (0.25)	ND (0.25)	0.029 J
3	N/A	MW-BW-88-A	**1.5**	**1.0**	0.44 J	**0.74**
3	N/A	MW-BW-93-A	0.24 J	0.23 J	0.33 J	0.28
3	N/A	MW-BW-95-A	**1.5**	**1.1**	**1.2**	**1.1**

Notes:
CT: carbon tetrachloride
µg/L: micrograms per liter
ND: The analyte was not detected above the detection limit
NS: not sampled
N/A: not applicable
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

December 2020 Key Events

- Dec 7-11: Fourth Quarter 2020 Groundwater Monitoring event. Used backup laboratory due to COVID-19 outbreak at primary laboratory.

January 2021 Key Events

- None.

February 2021 Key Events

- None.

March 2021 Key Events

- March 1-5: First Quarter 2021 Groundwater Monitoring event.

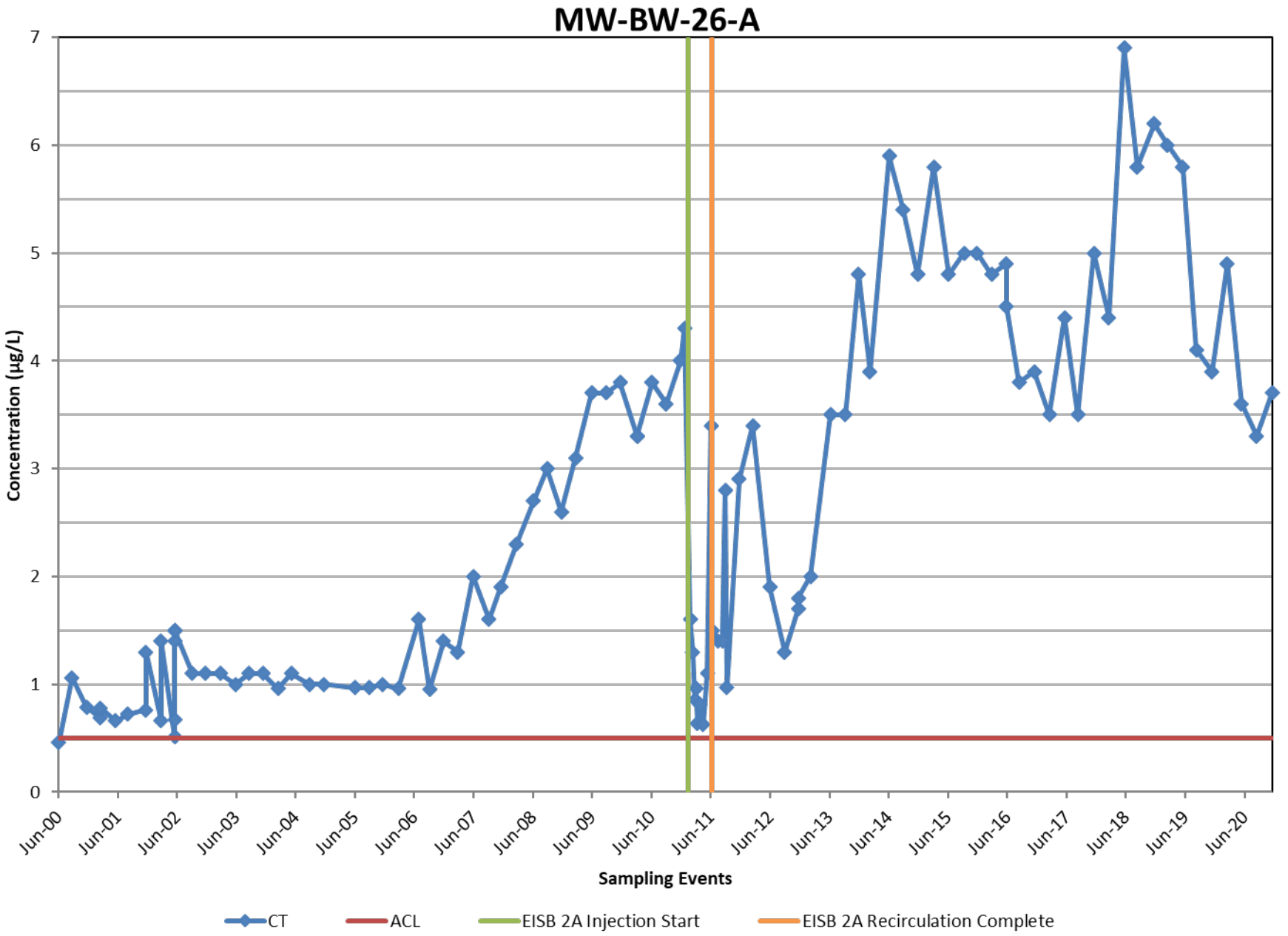
Ahtna

Table 2. OUCTP A-Aquifer Select Monitoring Well Data – Hydraulic Zones 4 and 5

OUCTP Hydraulic Zone[1]	EISB Deployment Area	Well Identification	COC Concentrations (µg/L)			
			1Q 2020	2Q 2020	3Q 2020	4Q 2020*
			CT			
		ACL:	0.5			
4	2A	EW-BW-124-A	ND (0.25)	ND (0.25)	0.33 J	0.41
4	2A	EW-BW-129-A	NS	**2.0**	**2.2**	**4.1**
4	2A	EW-BW-140-A	NS	0.28 J	0.27 J	0.48
4	N/A	MW-B-12-A	**0.56**	0.49 J	**0.55**	0.46
4	2B	MW-B-14-A	**0.73**	**0.52**	0.49 J	**0.55**
4	2B	EW-BW-155-A	0.25 J	0.12 J	0.22 J	**0.95**
4	2A	MW-BW-26-A^	**4.9**	**3.6**	**3.3**	**3.7**
4	N/A	MW-BW-31-A	**0.65**	0.45 J	0.33 J	**0.64**
4	N/A	MW-BW-32-A	**2.2**	**1.5**	**1.0**	**0.90**
4	N/A	MW-BW-35-A	0.34 J	0.12 J	0.20 J	0.095 J
4	N/A	MW-BW-36-A	**0.71**	0.21 J	**0.71**	**0.65**
4	N/A	MW-BW-42-A	0.16 J	ND (0.25)	0.12 J	NS
4	N/A	MW-BW-89-A	**0.81**	**0.66**	**0.69**	**0.67**
4	N/A	MW-BW-92-A	**0.95**	**0.83**	**0.64**	**0.95**
5	Pilot	EISB-EW-01	0.33 J	0.36 J	0.22 J	0.26
5	Pilot	EISB-EW-09	**1.3**	**1.2**	**0.90**	**1.1**
5	N/A	MW-BW-49-A	**0.96**	0.39 J	0.33 J	0.42
5	N/A	MW-BW-65-A	ND (0.25)	0.27 J	0.32 J	0.25
5	Pilot	MW-BW-66-A	**1.1**	**0.91**	0.35 J	0.50
5	N/A	MW-BW-74-A	ND (0.25) [0.10 J]	ND (0.25) [0.11 J]	ND (0.25) [ND (0.25)]	0.063 J [0.091 J]
5	N/A	MW-BW-75-A	**1.9**	**1.7**	**2.2**	**2.4**
5	N/A	MW-BW-78-A	ND (0.25) [0.15 J]	ND (0.25) [0.15 J]	ND (0.25) [0.12 J]	0.11 J [0.22]
5	N/A	MW-BW-80-A	**2.3**	**2.0**	**3.0**	**2.4**
5	N/A	MW-BW-82-A	NS	**1.1**	**1.2**	**1.1**

Notes:
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]
^ Downgradient monitoring well MW-BW-30-A sampled annually: ND.
* Preliminary data
† Qualified as estimated (J) due to field duplicate imprecision.

Ahtna


MW-BW-26-A
Concentration (µg/L)
0
1
2
3
4
5
6
7
Jun-00
Jun-01
Jun-02
Jun-03
Jun-04
Jun-05
Jun-06
Jun-07
Jun-08
Jun-09
Jun-10
Jun-11
Jun-12
Jun-13
Jun-14
Jun-15
Jun-16
Jun-17
Jun-18
Jun-19
Jun-20
Sampling Events
CT
ACL
EISB 2A Injection Start
EISB 2A Recirculation Complete

MW-BW-75-A

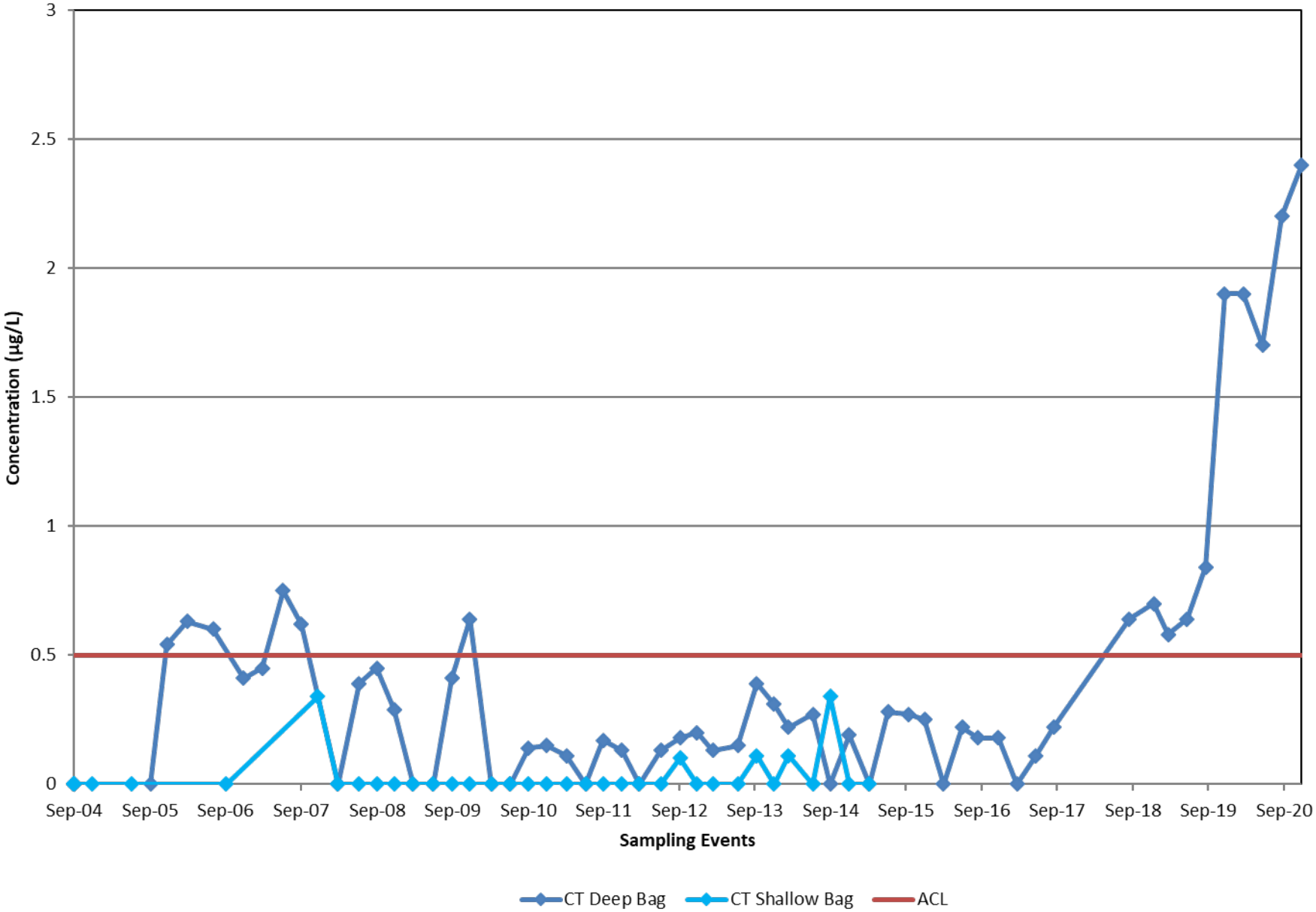

3
2.5
2
1.5
1
0.5
0
Concentration (µg/L)
Sep-04
Sep-05
Sep-06
Sep-07
Sep-08
Sep-09
Sep-10
Sep-11
Sep-12
Sep-13
Sep-14
Sep-15
Sep-16
Sep-17
Sep-18
Sep-19
Sep-20
Sampling Events
CT Deep Bag
CT Shallow Bag
ACL

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

OUCTP Hydraulic Zone[1]	Well Identification	CT Concentration (µg/L)[2]			
		1Q 2020	2Q 2020	3Q 2020	4Q 2020*
	ACL:	0.5			
6	EW-OU2-09-180[3]	ND (0.25)	ND (0.25)	ND (0.25)	0.025 J
6	MP-BW-46-170	**6.5**	**4.5**	**4.0**	**5.2**
N/A	MW-BW-21-180	NS	0.15	ND (0.25)	0.044 J
N/A	MW-BW-43-180	NS	ND (0.25)	ND (0.25)	ND (0.025)
6	MW-BW-52-180	**0.65**	**0.62**	**0.52**	**0.70**
6	MW-BW-57-180	**1.1**	**0.96**	**0.96**	**0.82**
6	MW-BW-58-180	ND (0.25)	ND (0.25)	ND (0.25)	NS
6	MW-OU2-64-180	**7.4**	**4.3**	**6.6**	**6.8**
6	MW-OU2-67-180[5]	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.025)

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.
[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)
[5] Downgradient well MW-OU2-70-180 sampled annually: ND.
* Preliminary data

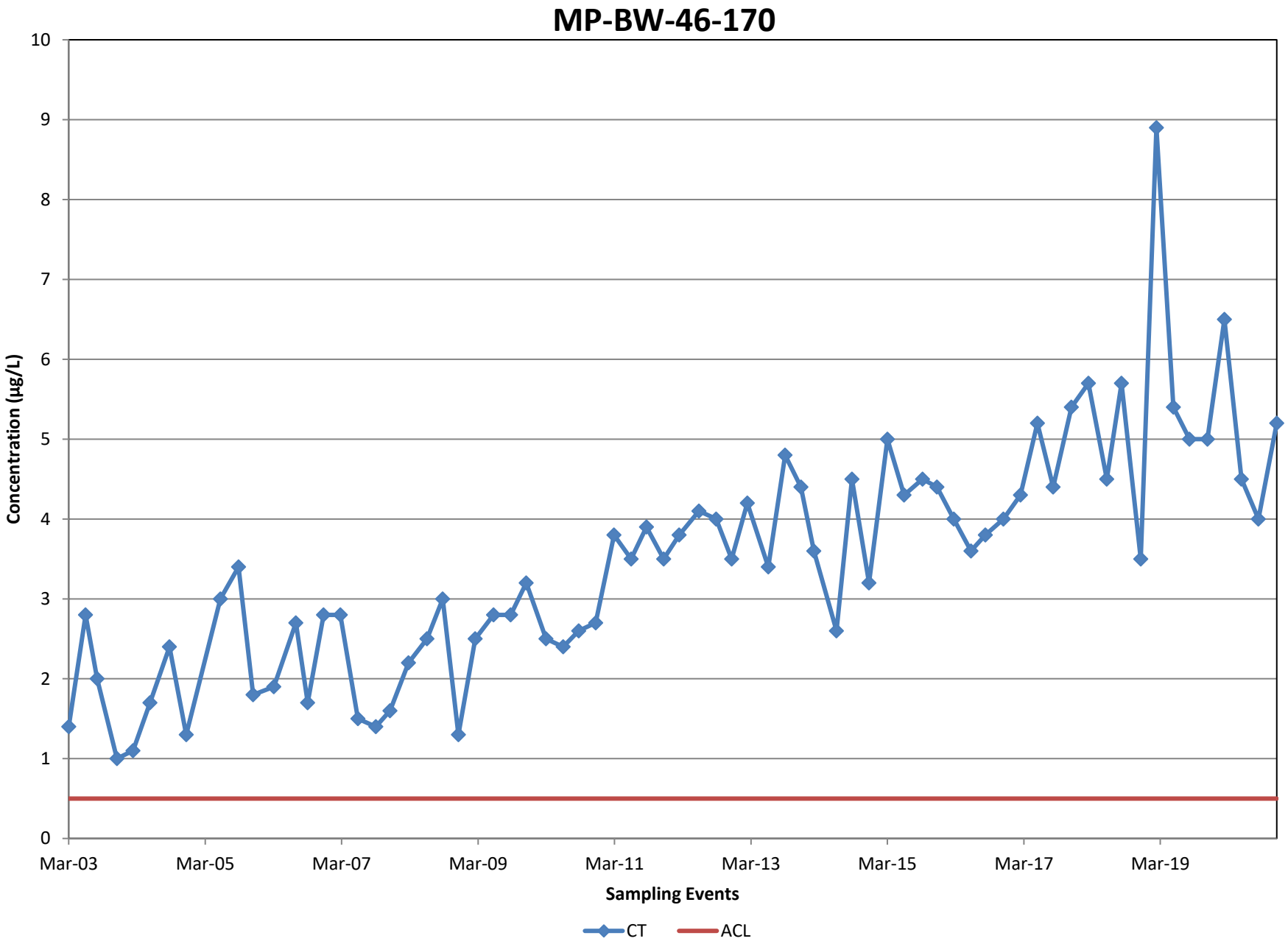
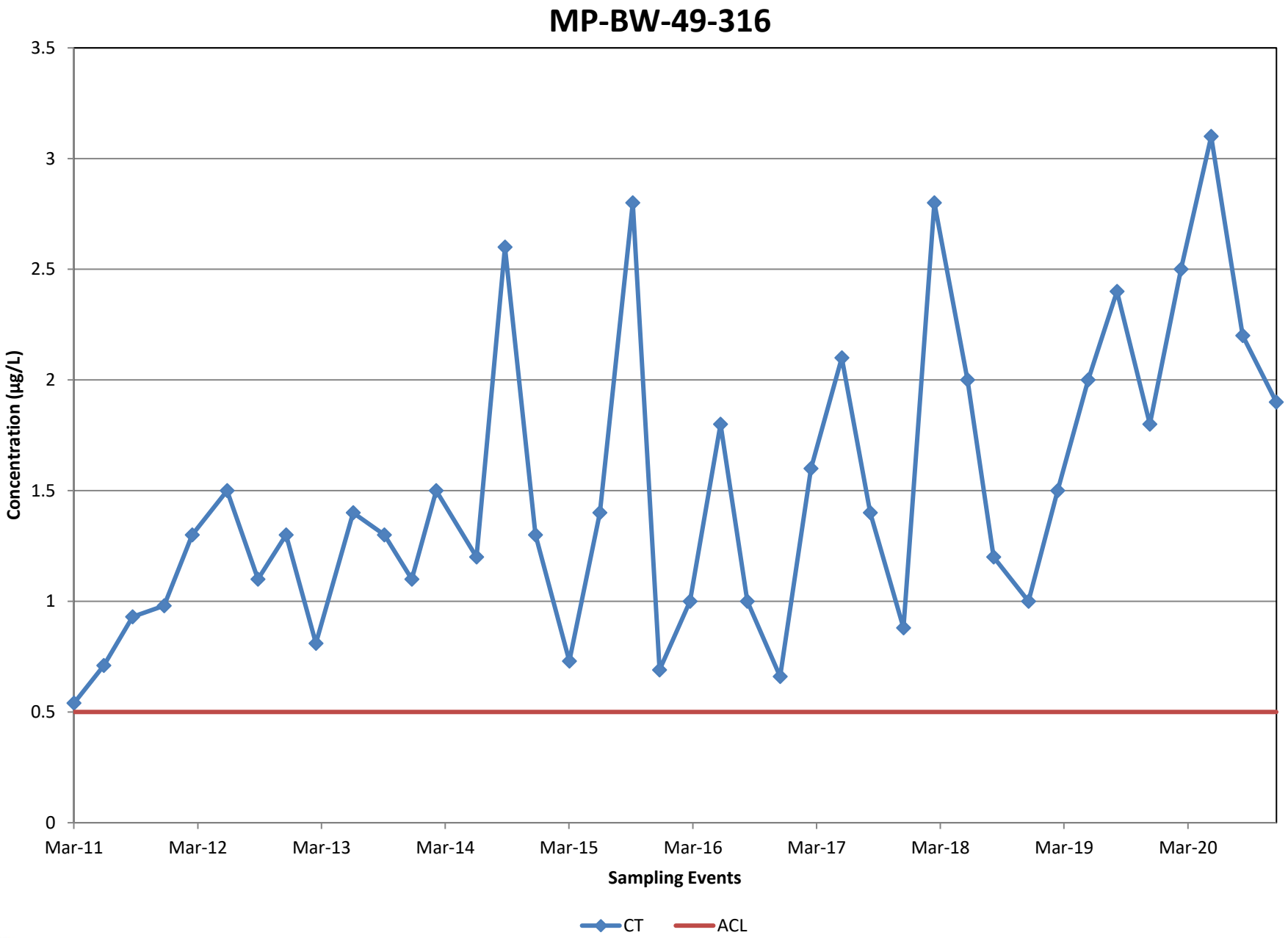

MP-BW-46-170
Concentration (µg/L)
0
1
2
3
4
5
6
7
8
9
10
Mar-03
Mar-05
Mar-07
Mar-09
Mar-11
Mar-13
Mar-15
Mar-17
Mar-19
Sampling Events
CT
ACL

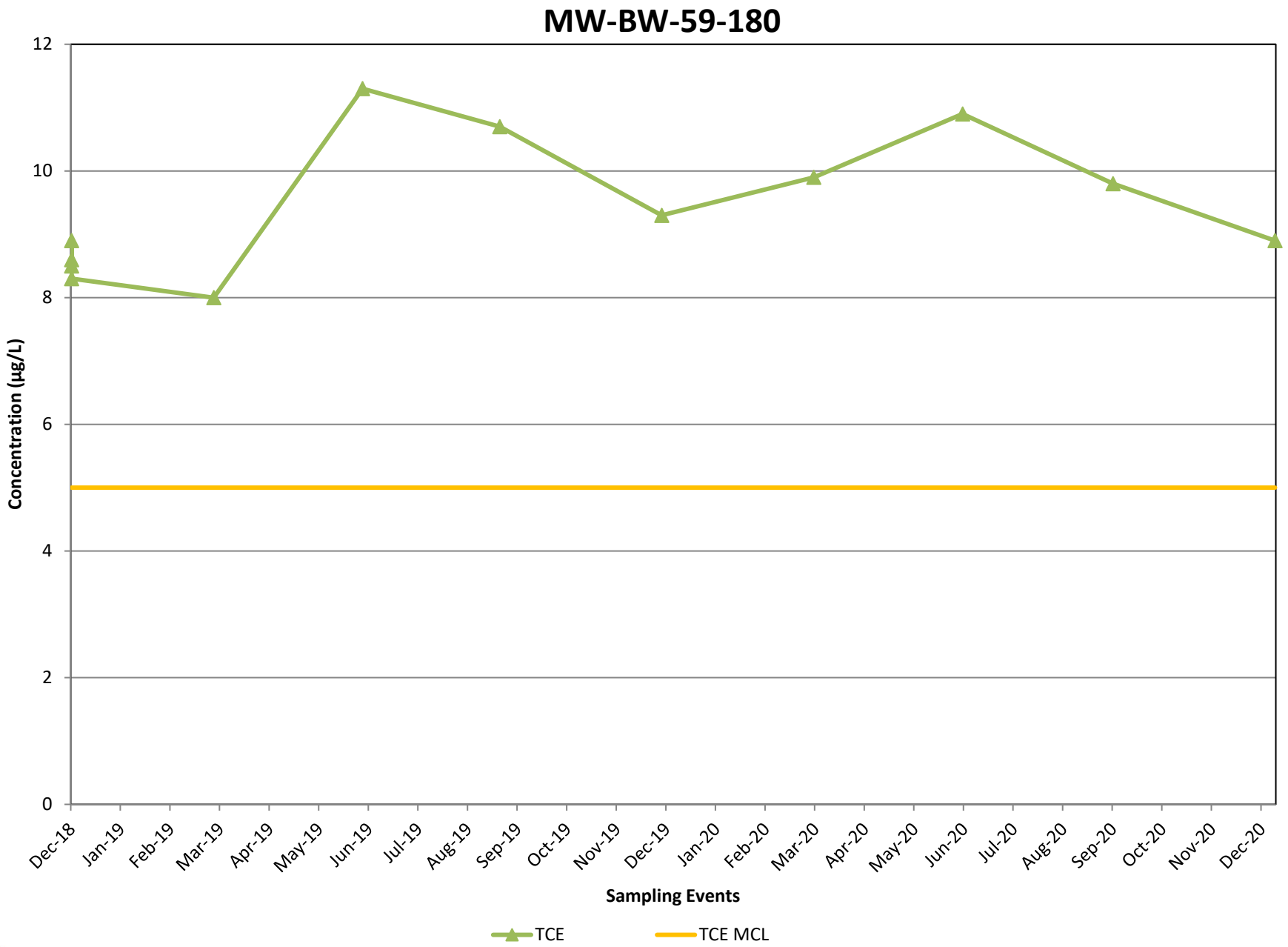
Table 5. OUCTP Lower 180-Foot Aquifer Select Monitoring Well Data

OUCTP Hydraulic Zone[1]	Well Identification	Select COC Concentrations (µg/L)[2]							
		1Q 2020	2Q 2020	3Q 2020	4Q 2020*	1Q 2020	2Q 2020	3Q 2020	4Q 2020*
		CT				TCE[4]			
Limit:		ACL 0.5				MCL 5.0			
7	MP-BW-49-316	**2.5**	**3.1**	**2.2**	**1.9**	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.066)
7	MP-BW-49-400	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.025)	ND (0.25)	4.4	3.7	4.0
7	MP-BW-50-339	0.48 J	**1.2**	**0.95**	0.31	0.22 J	ND (0.25)	ND (0.25)	ND (0.066)
7	MP-BW-50-384	ND (0.25)	ND (0.25)	ND (0.25)	0.058 J	2.4	1.4	1.6	1.6
7	MP-BW-51-405	0.18 J	0.13 J	0.13 J	0.13 J	2.0	1.7	1.3	1.7
7	MW-OU2-69-180	**1.1**	**0.91**	**1.1**	**0.96**	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.066)
8	AIRFIELD	0.42 J	0.44 J	0.30 J	ND (0.025)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.066)
9	EW-OU2-07-180	ND (0.25)	ND (0.25)	ND (0.25)	0.030 J	2.9	2.8	3.0	3.0
N/A	FO-29	0.23 J	0.23 J	0.15 J	0.18 J	1.9	1.8	1.8	1.7
N/A	FO-30	0.16 J	0.24 J	0.21 J	0.17 J	0.69	0.52	0.45 J	0.38
N/A	FO-31	0.15 J	0.14 J	0.13 J	0.11 J	1.0	0.85	0.84	0.75
N/A	MP-BW-41-318	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.025)	0.55	0.67	ND (0.25)	ND (0.066)
N/A	MP-BW-41-353	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.025)	1.3	1.3	ND (0.25)	ND (0.066)
9	MW-BW-59-180	0.11 J	0.13 J	0.10 J	0.076 J	**9.9**	**10.9**	**9.8**	**8.9**
N/A	MW-OU2-72-180	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.025)	1.6	1.3	1.1	1.4
9	MW-OU2-78-180	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.025)	2.3	2.0	2.2	2.1
9	MW-OU2-82-180	ND (0.25)	ND (0.25)	ND (0.25)	0.041 J	4.2	3.7	4.5	4.0

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.
[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)
[5] Downgradient well MW-OU2-70-180 sampled annually: ND.
* Preliminary data


MP-BW-49-316
3.5
3
2.5
2
1.5
1
0.5
0
Concentration (µg/L)
Mar-11
Mar-12
Mar-13
Mar-14
Mar-15
Mar-16
Mar-17
Mar-18
Mar-19
Mar-20
Sampling Events
CT
ACL


MW-BW-59-180
12
10
8
6
4
2
0
Concentration (µg/L)
Dec-18
Jan-19
Feb-19
Mar-19
Apr-19
May-19
Jun-19
Jul-19
Aug-19
Sep-19
Oct-19
Nov-19
Dec-19
Jan-20
Feb-20
Mar-20
Apr-20
May-20
Jun-20
Jul-20
Aug-20
Sep-20
Oct-20
Nov-20
Dec-20
Sampling Events
TCE
TCE MCL