

Former Fort Ord Operable Unit Carbon Tetrachloride Plume Data and Status

HTW BCT, July 14, 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)			
			3Q 2020	4Q 2020	1Q 2021	2Q 2021*
ACL:			0.5			
1	1C	EW-BW-109-A	0.63	0.58 J	1.4 J+	0.80
1	N/A	MW-BW-24-A	ND (0.25)	ND (0.025)	ND (0.25)	ND (0.25)
2	3A	MW-BW-58-A	0.62 J+	0.33	0.26 J	0.15 J
2	3A	MW-BW-87-A	1.5	2.1	3.9 J+	3.2
2	3A	MW-BW-91-A	0.97 J+	0.57	1.3	0.87
2	N/A	MW-BW-94-AR	0.64	0.48	0.56	0.28 J
N/A	3A	MW-BW-90-A	1.9	1.3	1.4	1.1
2	3A	EW-BW-160-A	1.4	1.8	2.1	1.3
3	3A	EW-BW-166-A	ND (0.25)	0.029 J	ND (0.25)	ND (0.25)
3	N/A	MW-BW-88-A	0.44 J	0.74	0.63	0.92
3	N/A	MW-BW-93-A	0.33 J	0.28	0.34 J	0.24 J [0.16 J]
3	N/A	MW-BW-95-A	1.2 J+	1.1	1.4	0.84

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

April 2021 Key Events

- None.

May 2021 Key Events

- None.

June 2021 Key Events

- June 7-11: Second Quarter 2021 Groundwater Monitoring event completed. Preliminary results received.

July and Future 2021 Key Events

- Aug 30 – Sept 3: Third Quarter 2021 Groundwater Monitoring event.



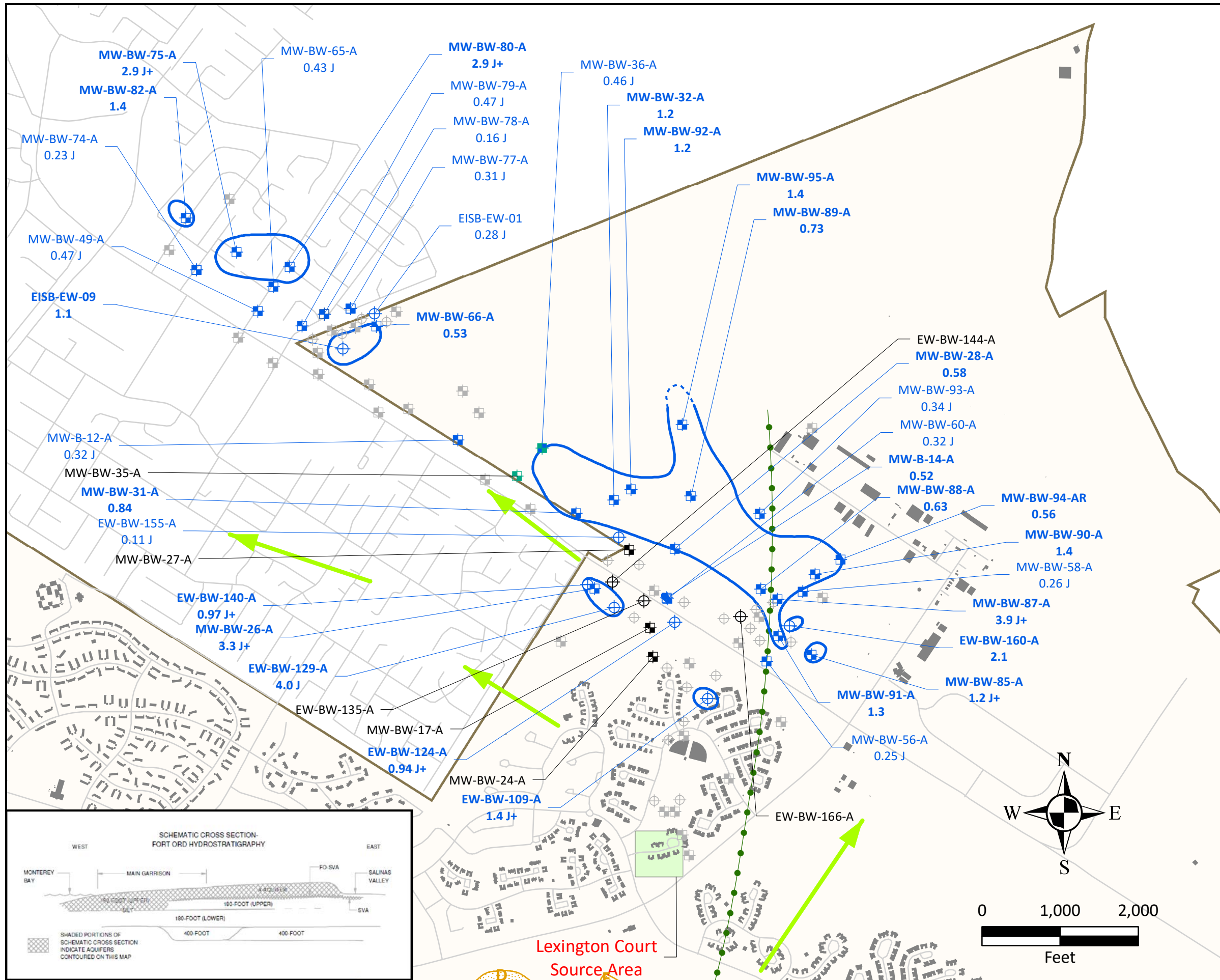
Table 2. OUCTP A-Aquifer Select Monitoring Well Data – Hydraulic Zones 4 and 5

OUCTP Hydraulic Zone ¹	EISB Deployment Area	Well Identification	COC Concentrations (µg/L)			
			3Q 2020	4Q 2020	1Q 2021	2Q 2021*
			CT			
ACL:			0.5			
4	2A	EW-BW-124-A	0.33 J	0.41	0.94 J+	0.84
4	2A	EW-BW-129-A	2.2	4.1	4.0 J	2.4
4	2A	EW-BW-140-A	0.27 J	0.48	0.97 J+	0.69
4	2A	MW-BW-26-A^	3.3	3.7	3.3 J+	2.9
4	N/A	MW-B-12-A	0.55 J+	0.46	0.32 J	0.44 J
4	2B	MW-B-14-A	0.49 J	0.55	0.52	0.48 J
4	2B	EW-BW-155-A	0.22 J	0.95	0.11 J	0.26 J
4	N/A	MW-BW-31-A	0.33 J	0.64	0.84	ND (0.25)
4	N/A	MW-BW-32-A	1.0	0.90	1.2	0.98
4	N/A	MW-BW-35-A	0.20 J	0.095 J	ND (0.25)	ND (0.25)
4	N/A	MW-BW-36-A	0.71	0.65	0.46 J	0.17 J
4	N/A	MW-BW-42-A	0.12 J	NS	NS	NS
4	N/A	MW-BW-89-A	0.69	0.67	0.73	0.47 J
4	N/A	MW-BW-92-A	0.64	0.95	1.2	0.78
5	Pilot	EISB-EW-01	0.22 J	0.26	0.28 J	0.25 J [0.27 J]
5	Pilot	EISB-EW-09	0.90	1.1	1.1	0.97
5	N/A	MW-BW-49-A	0.33 J	0.42	0.47 J	0.26 J
5	N/A	MW-BW-65-A	0.32 J	0.25	0.43 J	0.32 J
5	Pilot	MW-BW-66-A	0.35 J	0.50	0.53	0.46 J
5	N/A	MW-BW-74-A	ND (0.25) [ND (0.25)]	0.063 J [0.091 J]	0.18 J [0.23 J]	ND (0.25) [0.12 J]
5	N/A	MW-BW-75-A	2.2	2.4	2.9 J+	2.1 [2.1]
5	N/A	MW-BW-78-A	ND (0.25) [0.12 J]	0.11 J [0.22]	ND (0.25) [0.16 J]	ND (0.25) [0.17 J]
5	N/A	MW-BW-80-A	3.0	2.4	2.9 J+	3.7
5	N/A	MW-BW-82-A	1.2	1.1	1.4	0.98

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





EXPLANATION

- General groundwater flow direction
- Approximate location of the A-Aquifer groundwater divide
- Roads
- Facilities
- Lexington Court source area
- Approximate extent of landfill areas
- Former Fort Ord boundary

Well Type and COC Detection

- Monitoring Well with CT detection
- Monitoring Well with CT detection and chloroform above ACL
- Monitoring Well with no CT detection and above ACL for chloroform
- Monitoring Well with no CT detection
- Extraction Well with CT detection
- Extraction Well with no CT detection
- Monitoring Well not sampled
- Extraction Well not sampled

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

- Carbon Tetrachloride (CT) Plume Extent
- Estimated Carbon Tetrachloride (CT) Plume Extent

NOTES:

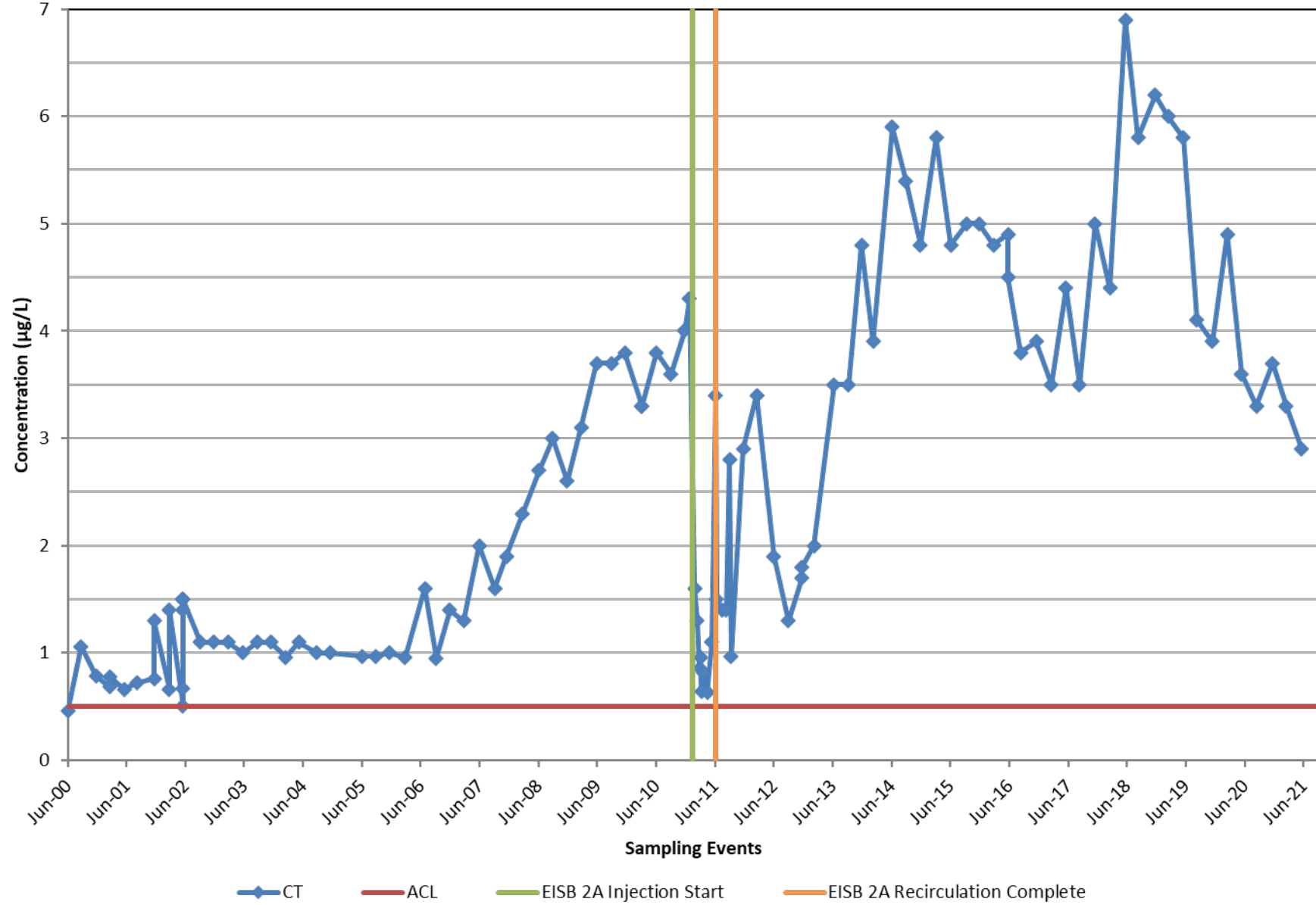
- Groundwater samples were collected between March 1, 2021 and March 5, 2021.
- Contours based on highest value obtained from multiple bags and/or multiple ports where applicable.
- Contours near wells not sampled this quarter are inferred from previous analytical data.

**CT CONCENTRATIONS
A-AQUIFER
First Quarter 2021**

Operable Unit Carbon Tetrachloride Plume
Groundwater Monitoring Report
Former Fort Ord, California

Ahtna Date: 6/7/2021 Figure: 4

MW-BW-26-A



MW-BW-75-A

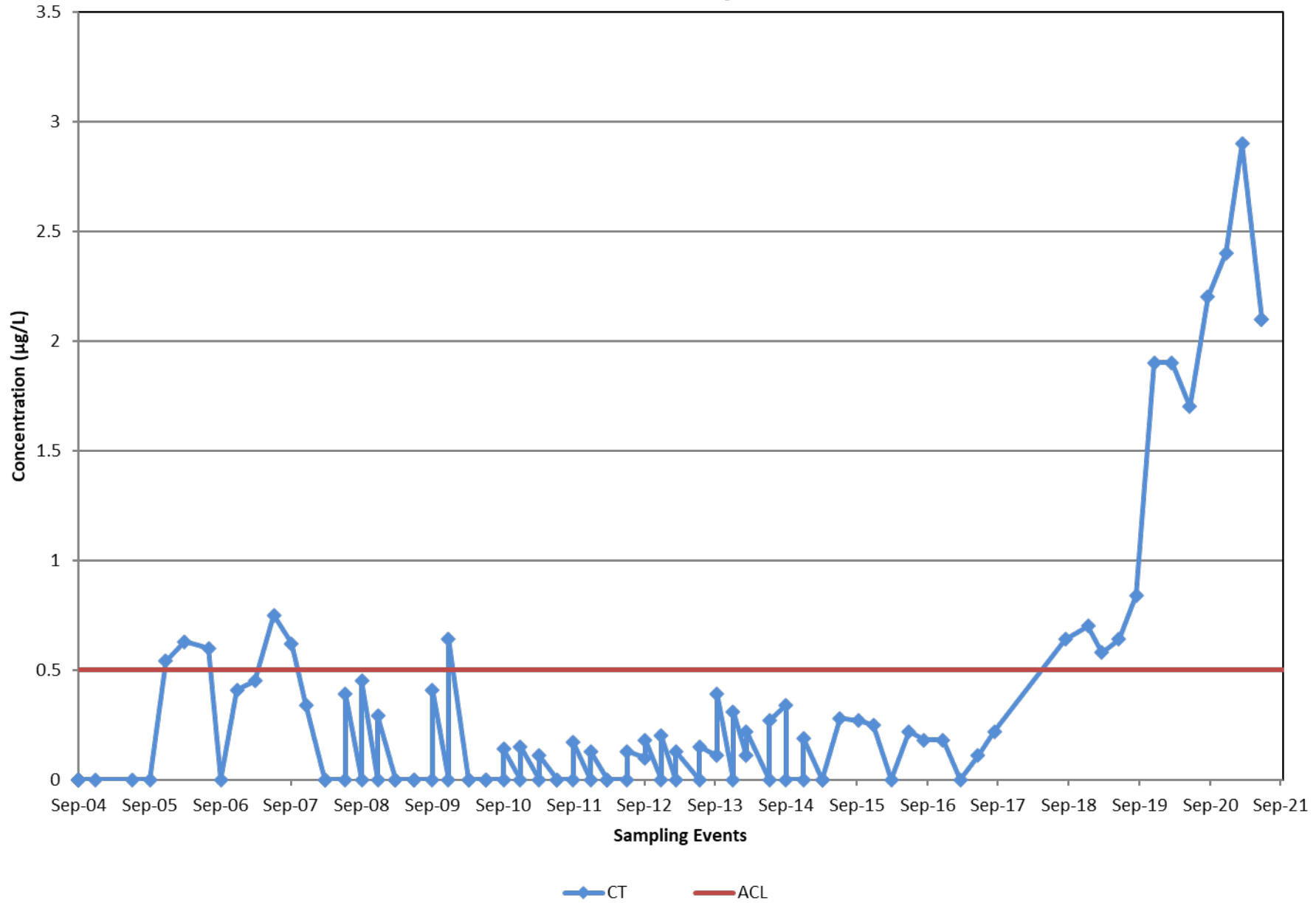


Table 4. OUCTP Upper 180-Foot Aquifer Select Monitoring Well Data

OUCTP Hydraulic Zone ¹	Well Identification	CT Concentration (µg/L) ²			
		3Q 2020	4Q 2020	1Q 2021	2Q 2021*
ACL:		0.5			
6	EW-OU2-09-180 ³	ND (0.25)	0.025 J	ND (0.25)	ND (0.25)
6	MP-BW-46-170	4.0 J+	5.2	6.4 J+	5.2
N/A	MW-BW-21-180	ND (0.25)	0.044 J	0.16 J	0.22 J
N/A	MW-BW-43-180	ND (0.25)	ND (0.025)	ND (0.25)	ND (0.25)
6	MW-BW-52-180	0.52	0.70	0.67 J+	0.60
6	MW-BW-57-180	0.96	0.82	0.70	0.60
6	MW-BW-58-180	ND (0.25)	NS	NS	NS
6	MW-OU2-64-180	6.6 J+	6.8	8.7 J+	5.3
6	MW-OU2-67-180 ⁵	ND (0.25)	ND (0.025)	ND (0.25)	ND (0.25)

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.

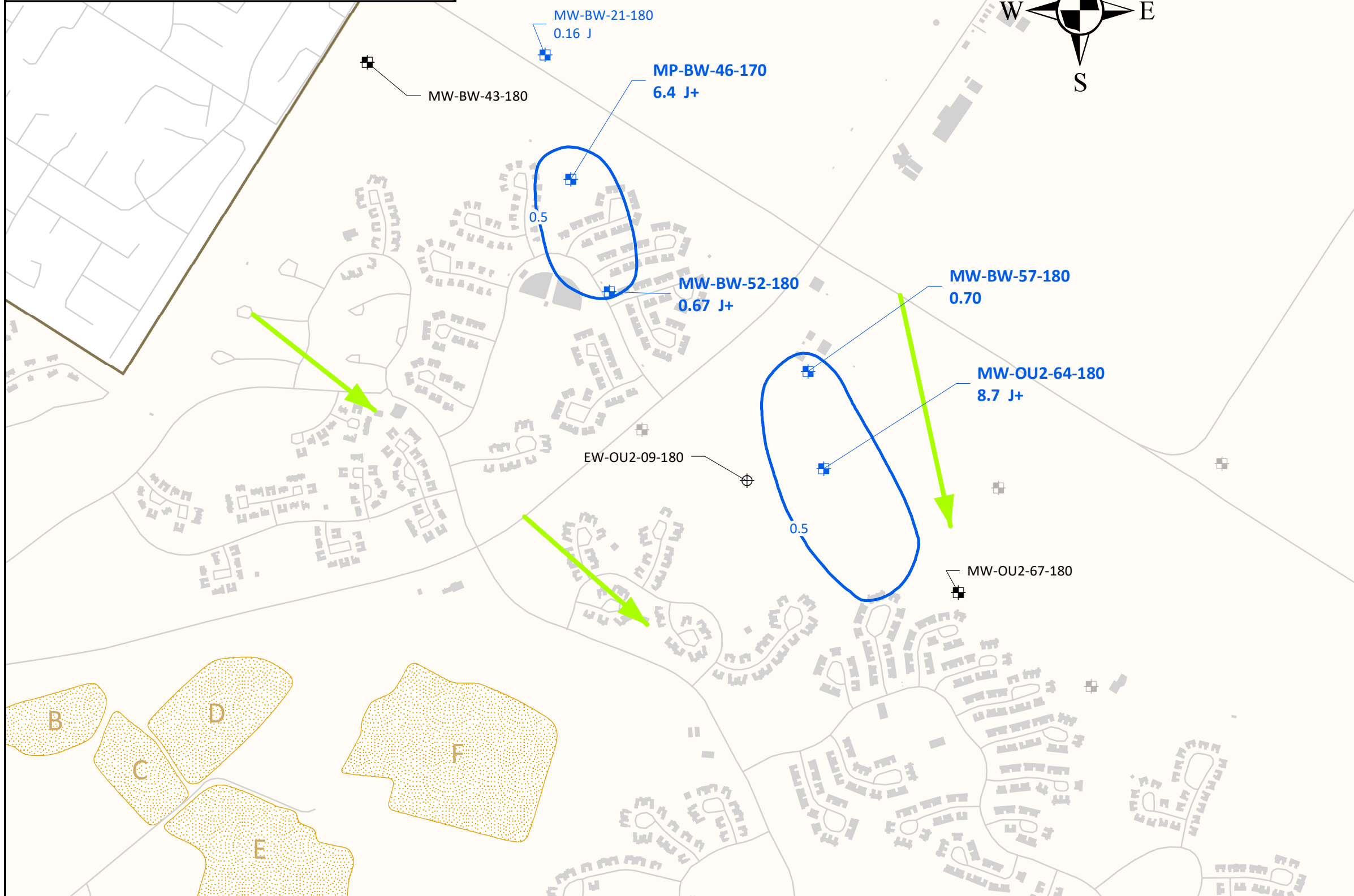
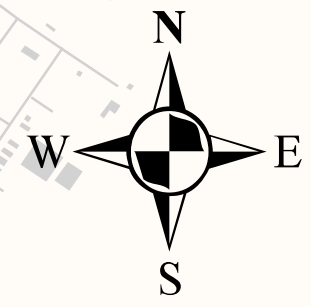
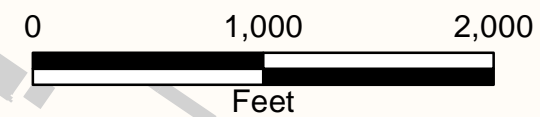
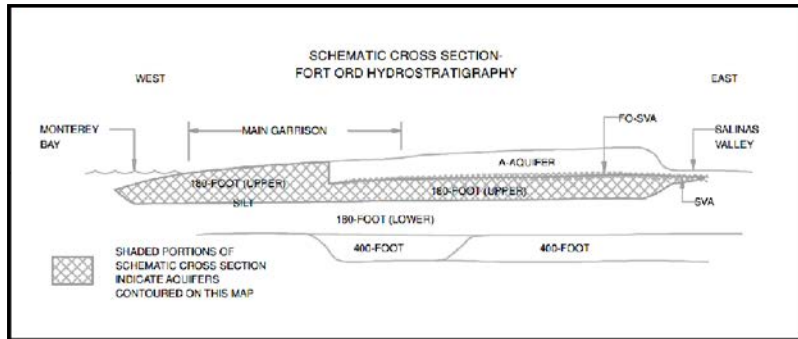
³ EW-OU2-09-180 is operated as part of the remedy for the OUCTP Upper 180-Foot Aquifer and is connected to the OU2 GWTP.

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





EXPLANATION

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

- Well Type and CT Detection**
- Monitoring Well: CT detection
 - Monitoring Well: non detect for CT
 - Extraction Well: non detect for CT
 - Monitoring Well not sampled

- Chemical of Concern (COC) Aquifer Cleanup Level (ACL) exceedance contour in µg/L.**
- 0.5 Carbon Tetrachloride (CT)
- Well ID - Bold When Concentration Exceeds the ACL
- MW-OU2-64-180 8.7
- CT Concentrations (µg/L) and validation/lab qualifier.

- NOTES:**
- Samples were collected between March 1, 2021 and March 5, 2021.
 - Contours are based on one interpretation of the data that were available at the time this report was prepared; other interpretations may be possible.
 - Contours are based on highest value obtained from multiple bags and/or multiple ports were applicable.
 - Contours near wells not sampled this quarter are inferred from previous analytical data.

CT CONCENTRATIONS
UPPER 180-FOOT AQUIFER
First Quarter 2021
Operable Unit Carbon Tetrachloride Plume
Groundwater Monitoring Report
Former Fort Ord, California

MP-BW-46-170

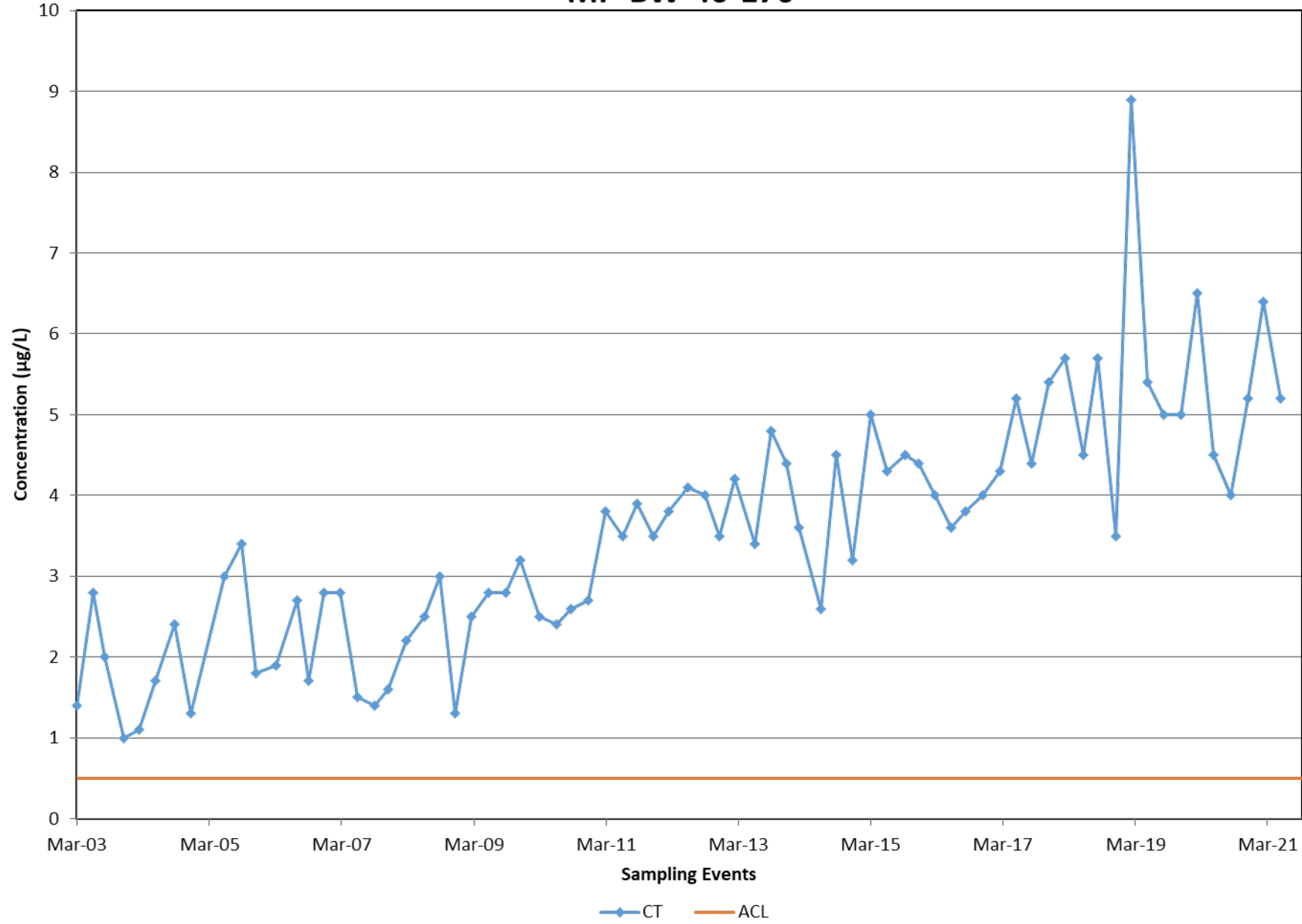
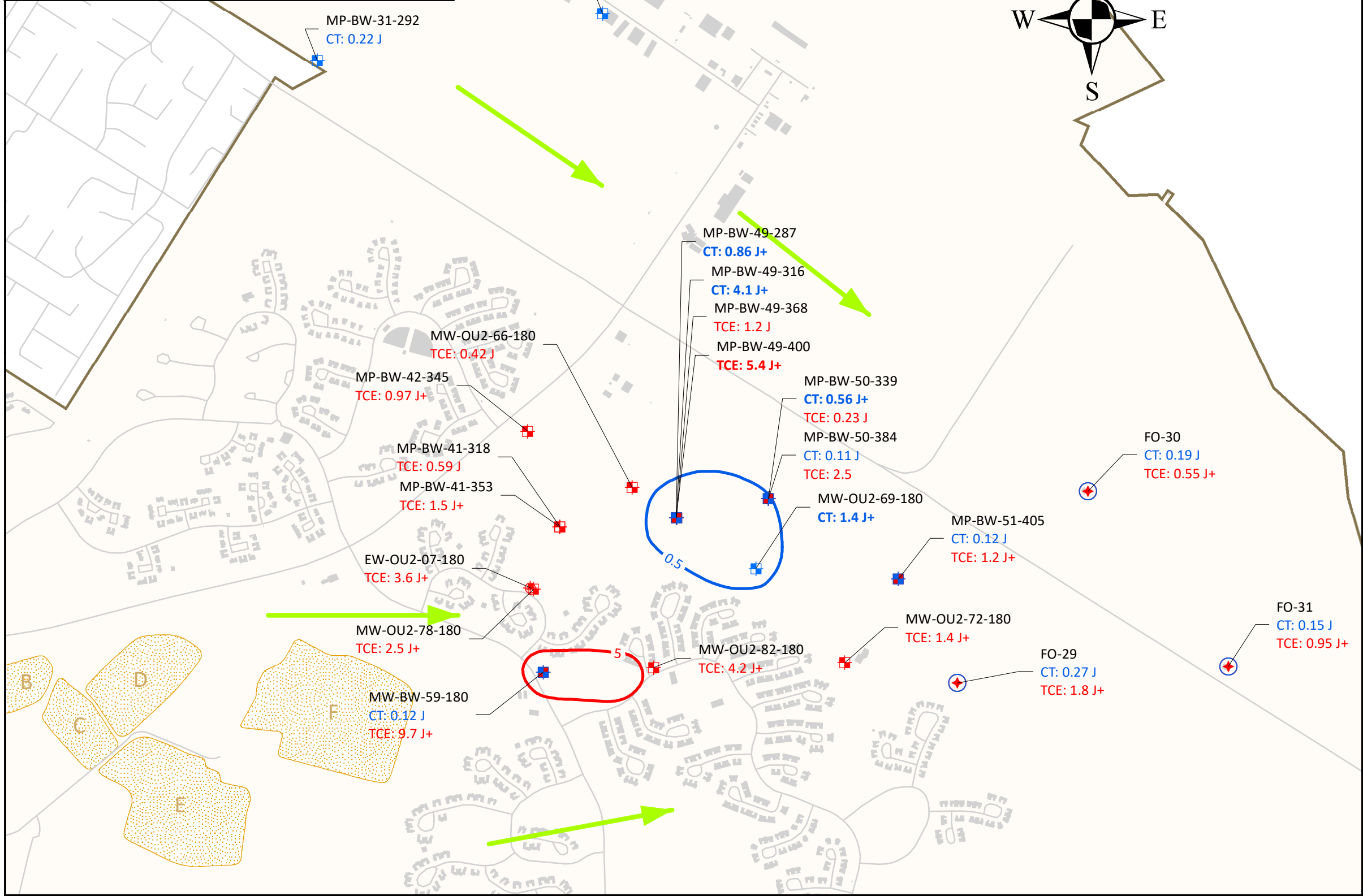
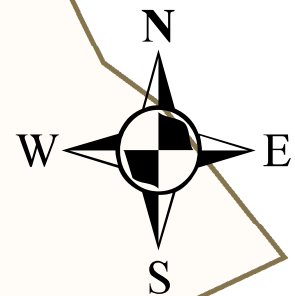
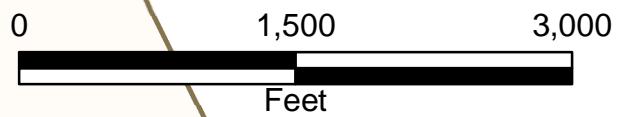
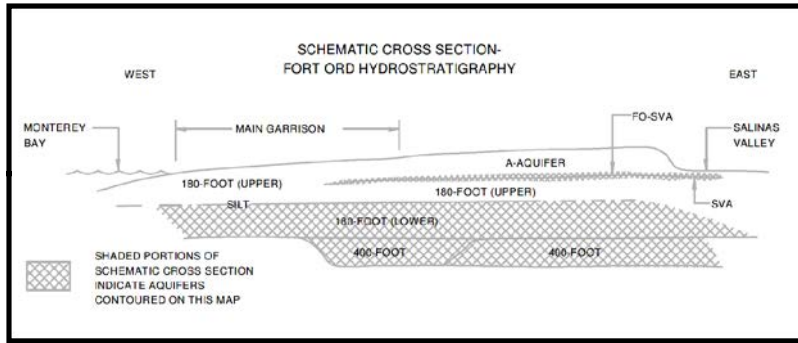


Table 5. OUCTP Lower 180-Foot Aquifer Select Monitoring Well Data

OUCTP Hydraulic Zone ¹	Well Identification	Select COC Concentrations (µg/L) ²							
		3Q 2020	4Q 2020	1Q 2021	2Q 2021*	3Q 2020	4Q 2020	1Q 2021	2Q 2021*
		CT				TCE ⁴			
Limit:		ACL 0.5				MCL 5.0			
7	MP-BW-49-316	2.2	1.9	4.1 J+	3.7	ND (0.25)	ND (0.066)	ND (0.25)	ND (0.25)
7	MP-BW-49-400	ND (0.25)	ND (0.025)	ND (0.25)	ND (0.25)	3.7	4.0	5.4 J+	4.5
7	MP-BW-50-339	0.95	0.31	0.56 J+	ND (0.25)	ND (0.25)	ND (0.066)	0.23 J	ND (0.25)
7	MP-BW-50-384	ND (0.25)	0.058 J	0.11 J	0.13 J	1.6	1.6	2.5	1.8
7	MP-BW-51-405	0.13 J	0.13 J	0.12 J	0.15 J	1.3	1.7	1.2 J+	1.5
7	MW-OU2-69-180	1.1	0.96	1.4 J+	1.1	ND (0.25)	ND (0.066)	ND (0.25)	ND (0.25)
8	AIRFIELD	0.30 J	ND (0.025)	0.37 J	ND (0.25)	ND (0.25)	ND (0.066)	ND (0.25)	ND (0.25)
9	EW-OU2-07-180	ND (0.25)	0.030 J	ND (0.25)	ND (0.25)	3.0	3.0	3.6	3.3
N/A	FO-29	0.15 J	0.18 J	0.27 J	0.22 J	1.8	1.7	1.8	1.8
N/A	FO-30	0.21 J	0.17 J	0.19 J	0.27 J	0.45 J	0.38	0.55	0.53
N/A	FO-31	0.13 J	0.11 J	0.15 J	0.11 J	0.84	0.75	0.95	0.92
N/A	MP-BW-41-318	ND (0.25)	ND (0.025)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.066)	0.59 J	0.32 J
N/A	MP-BW-41-353	ND (0.25)	ND (0.025)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.066)	1.5 J+	1.3
9	MW-BW-59-180	0.10 J	0.076 J	0.12 J	0.14 J	9.8	8.9	9.7 J+	10.4
N/A	MW-OU2-72-180	ND (0.25)	ND (0.025)	ND (0.25)	ND (0.25)	1.1	1.4	1.4 J+	1.3
9	MW-OU2-78-180	ND (0.25)	ND (0.025)	ND (0.25)	ND (0.25)	2.2	2.1	2.5 J+	2.6
9	MW-OU2-82-180	ND (0.25)	0.041 J	ND (0.25)	ND (0.25)	4.5 J-	4.0	4.2 J+	4.2

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



EXPLANATION

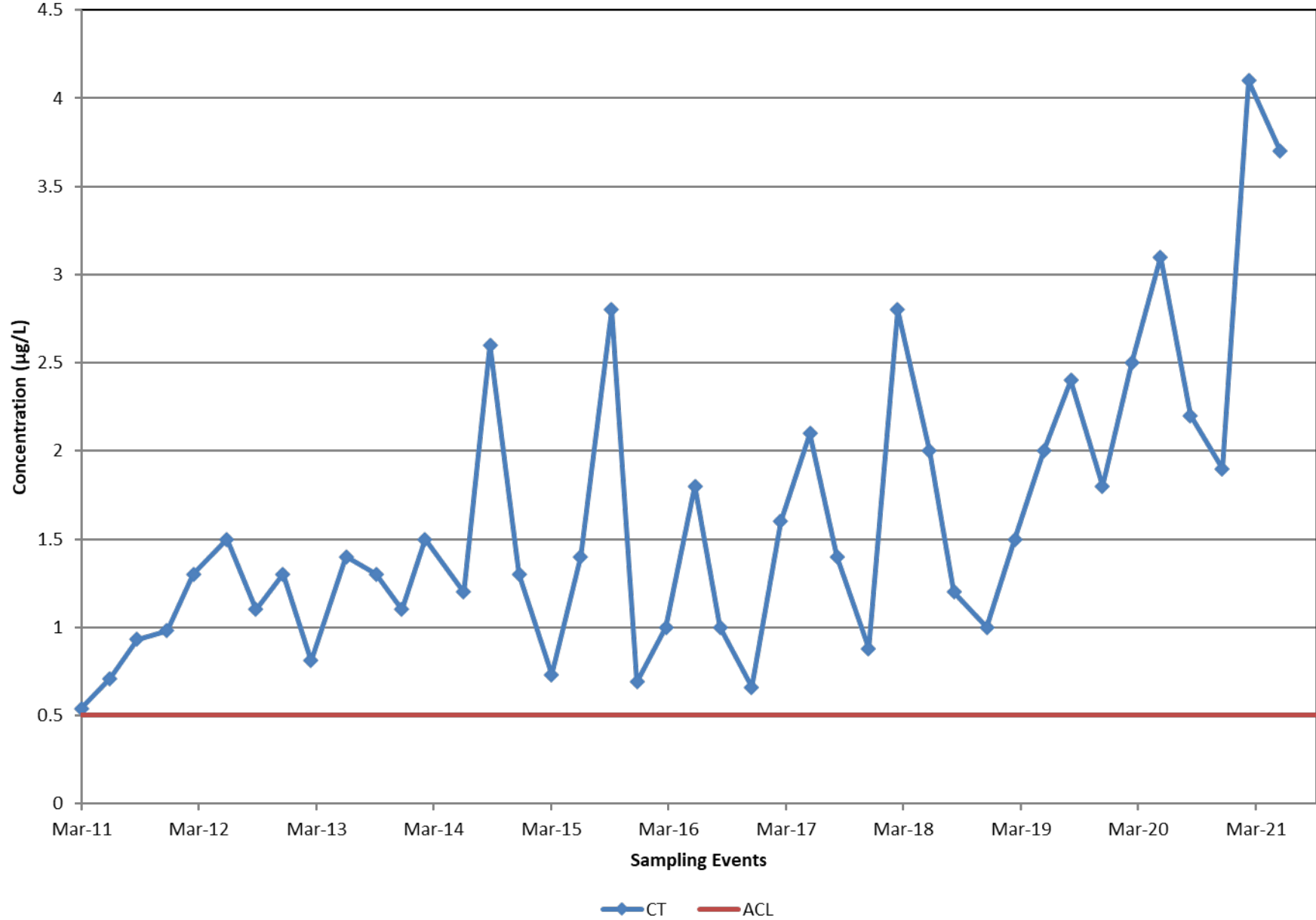
- General groundwater flow direction
- Roads
- Facilities
- Approximate extent of landfill areas (Areas B through F)
- Former Fort Ord boundary
- Well Type and COC Concentration**
- Extraction Well with TCE detection
- Monitoring Well with TCE detection
- Monitoring Well with CT detection
- Monitoring Well with CT and TCE detection
- Marina Coast Active Supply Wells with CT and TCE detection

- Chemical of Concern (COC) Aquifer Cleanup Level (ACL) Exceedance Contour in µg/L.**
- 0.5 Carbon Tetrachloride (CT)
 - 5.0 Trichloroethene (TCE)
- MP-BW-51-405 Well ID
 CT: 0.13 J Concentration in µg/L and validation/lab qualifier.
 TCE: 1.7 (blue indicates CT; red indicates TCE)
 CT Bold when COC exceeds the ACL.

- NOTES:**
- (1) Groundwater samples were collected between March 1, 2021 and March 5, 2021.
 - (2) Contour is based on one interpretation of the data that was available at the time this report was prepared; other interpretations may be possible.
 - (3) Contour based on highest value obtained from multiple bags and/or multiple ports where applicable.
 - (4) TCE is not a chemical of concern in the OUCTP Lower 180-Foot Aquifer.

CT AND TCE CONCENTRATIONS
 LOWER 180-FOOT/400-FOOT AQUIFERS
 First Quarter 2021
 Operable Unit Carbon Tetrachloride Plume
 Groundwater Monitoring Report
 Former Fort Ord, California

MP-BW-49-316



MW-BW-59-180

