

# 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 <sup>1</sup>	EISB Deployment Area	Well Identification	COC Concentrations (µg/L)			
			3Q 2020	4Q 2020	1Q 2021	2Q 2021*
<b>ACL:</b>			<b>0.5</b>			
1	1C	EW-BW-109-A	<b>0.63</b>	<b>0.58 J</b>	<b>1.4 J+</b>	<b>0.80</b>
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	<b>0.62 J+</b>	0.33	0.26 J	0.15 J
2	3A	MW-BW-87-A	<b>1.5</b>	<b>2.1</b>	<b>3.9 J+</b>	<b>3.2</b>
2	3A	MW-BW-91-A	<b>0.97 J+</b>	<b>0.57</b>	<b>1.3</b>	<b>0.87</b>
2	N/A	MW-BW-94-AR	<b>0.64</b>	0.48	<b>0.56</b>	0.28 J
N/A	3A	MW-BW-90-A	<b>1.9</b>	<b>1.3</b>	<b>1.4</b>	<b>1.1</b>
2	3A	EW-BW-160-A	<b>1.4</b>	<b>1.8</b>	<b>2.1</b>	<b>1.3</b>
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	<b>0.74</b>	<b>0.63</b>	<b>0.92</b>
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	<b>1.2 J+</b>	<b>1.1</b>	<b>1.4</b>	<b>0.84</b>

**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

<sup>1</sup> 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.



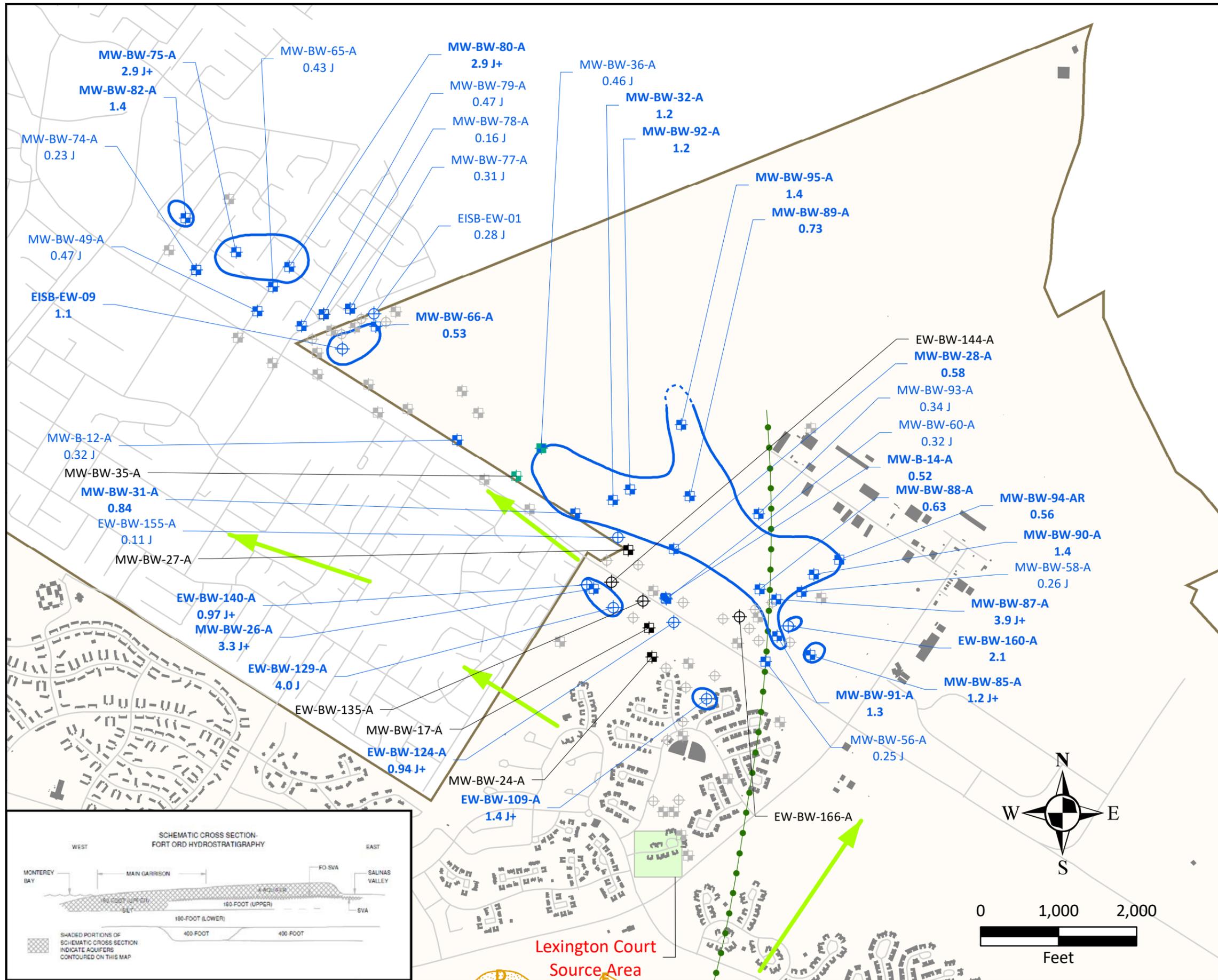
**Table 2.** OUCTP A-Aquifer Select Monitoring Well Data – Hydraulic Zones 4 and 5

OUCTP Hydraulic Zone <sup>1</sup>	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	<b>0.94 J+</b>	<b>0.84</b>
4	2A	EW-BW-129-A	<b>2.2</b>	<b>4.1</b>	<b>4.0 J</b>	<b>2.4</b>
4	2A	EW-BW-140-A	0.27 J	0.48	<b>0.97 J+</b>	<b>0.69</b>
4	2A	MW-BW-26-A^	<b>3.3</b>	<b>3.7</b>	<b>3.3 J+</b>	<b>2.9</b>
4	N/A	MW-B-12-A	<b>0.55 J+</b>	0.46	0.32 J	0.44 J
4	2B	MW-B-14-A	0.49 J	<b>0.55</b>	<b>0.52</b>	0.48 J
4	2B	EW-BW-155-A	0.22 J	<b>0.95</b>	0.11 J	0.26 J
4	N/A	MW-BW-31-A	0.33 J	<b>0.64</b>	<b>0.84</b>	ND (0.25)
4	N/A	MW-BW-32-A	<b>1.0</b>	<b>0.90</b>	<b>1.2</b>	<b>0.98</b>
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	<b>0.71</b>	<b>0.65</b>	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	<b>0.69</b>	<b>0.67</b>	<b>0.73</b>	0.47 J
4	N/A	MW-BW-92-A	<b>0.64</b>	<b>0.95</b>	<b>1.2</b>	<b>0.78</b>
5	Pilot	EISB-EW-01	0.22 J	0.26	0.28 J	0.25 J [0.27 J]
5	Pilot	EISB-EW-09	<b>0.90</b>	<b>1.1</b>	<b>1.1</b>	<b>0.97</b>
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	<b>0.53</b>	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	<b>2.2</b>	<b>2.4</b>	<b>2.9 J+</b>	<b>2.1 [2.1]</b>
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	<b>3.0</b>	<b>2.4</b>	<b>2.9 J+</b>	<b>3.7</b>
5	N/A	MW-BW-82-A	<b>1.2</b>	<b>1.1</b>	<b>1.4</b>	<b>0.98</b>

**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
- <sup>1</sup> 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.

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

**NOTES:**

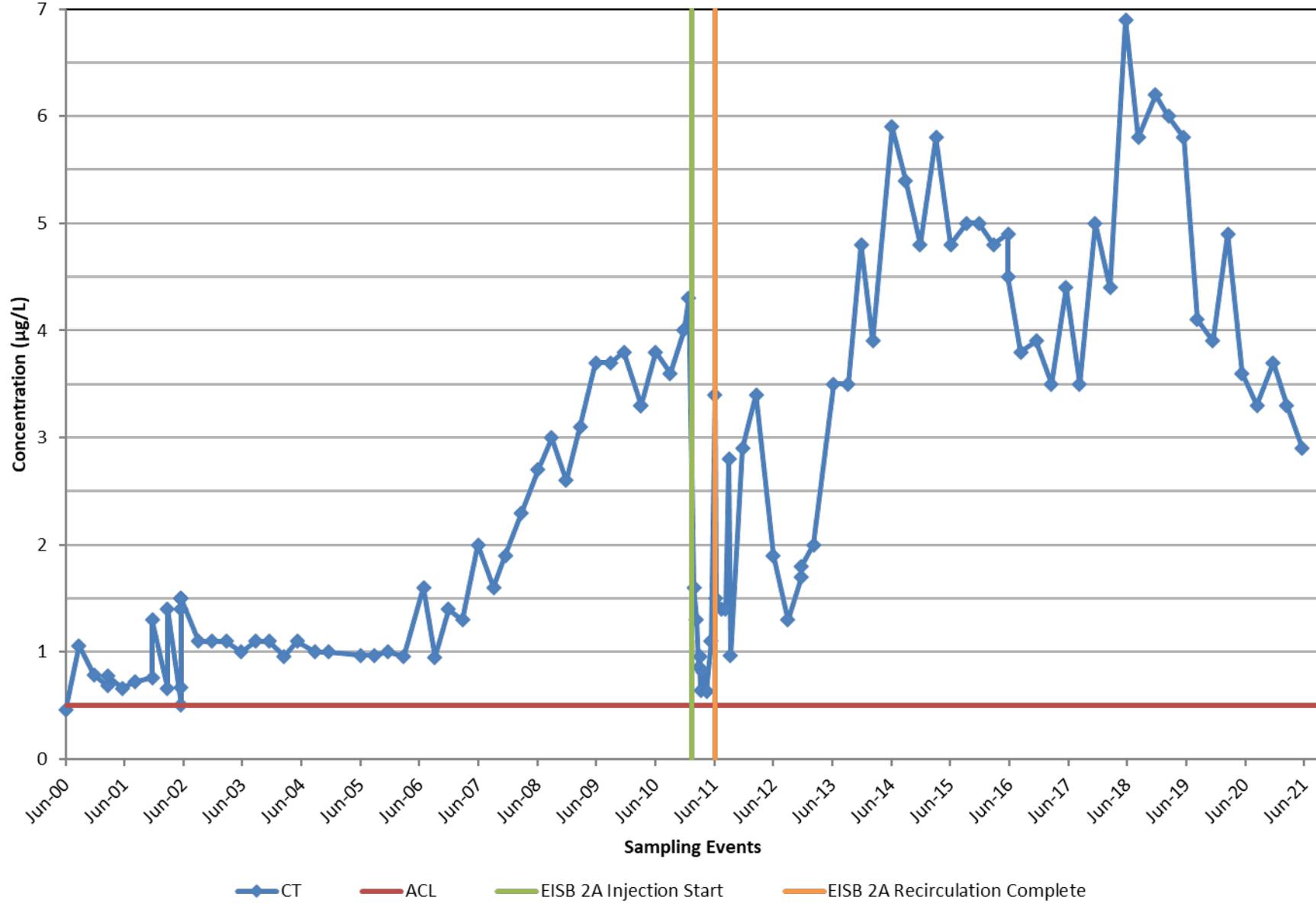
- Groundwater samples were collected between March 1, 2021 and March 5, 2021.
- Contours based on highest value obtained from multiple bags and/or multiple ports where applicable.
- Contours near wells not sampled this quarter are inferred from previous analytical data.

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

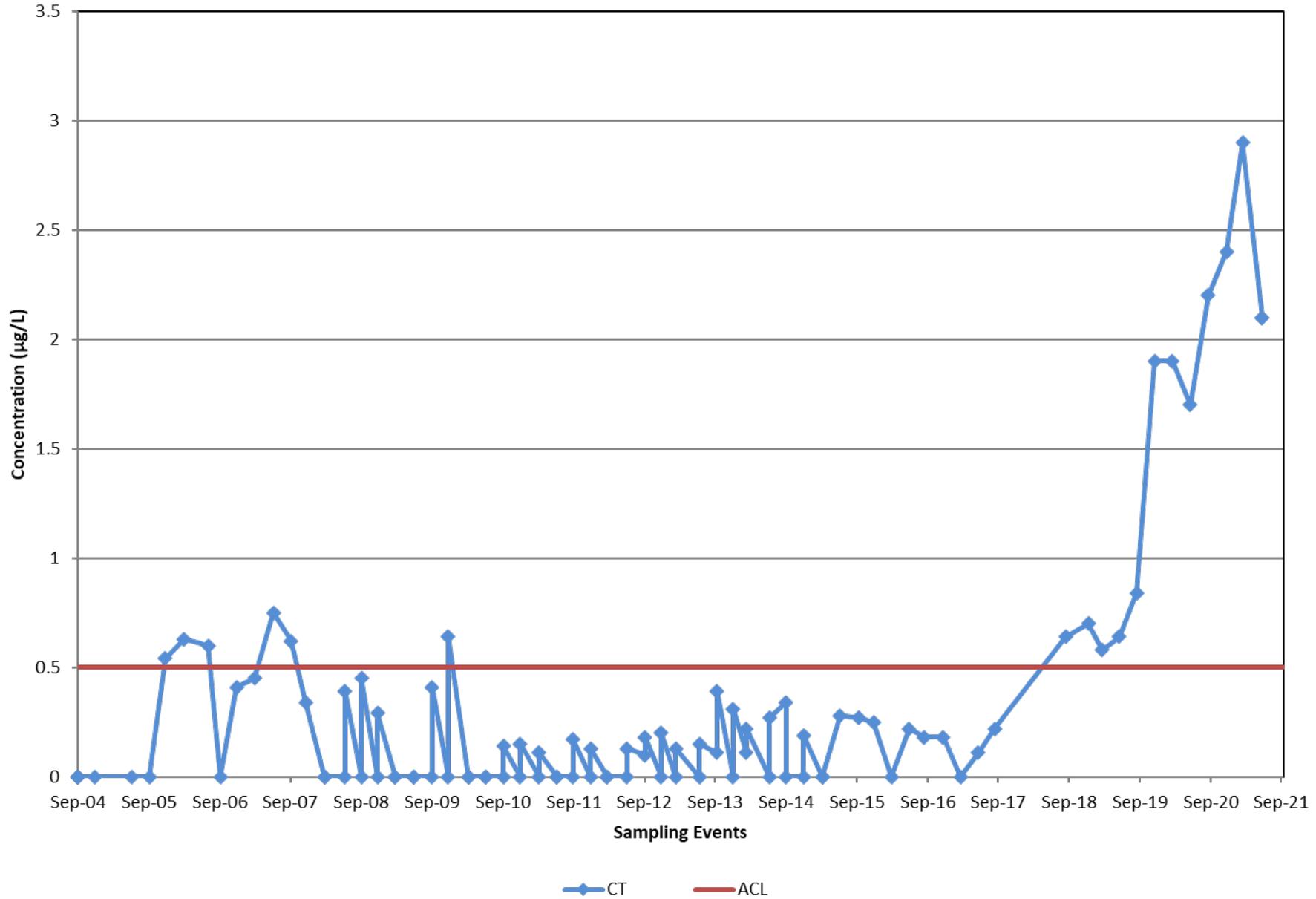
Operable Unit Carbon Tetrachloride Plume  
Groundwater Monitoring Report  
Former Fort Ord, California

**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 <sup>1</sup>	Well Identification	CT Concentration (µg/L) <sup>2</sup>			
		3Q 2020	4Q 2020	1Q 2021	2Q 2021*
<b>ACL:</b>		<b>0.5</b>			
6	EW-OU2-09-180 <sup>3</sup>	ND (0.25)	0.025 J	ND (0.25)	ND (0.25)
6	MP-BW-46-170	<b>4.0 J+</b>	<b>5.2</b>	<b>6.4 J+</b>	<b>5.2</b>
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	<b>0.52</b>	<b>0.70</b>	<b>0.67 J+</b>	<b>0.60</b>
6	MW-BW-57-180	<b>0.96</b>	<b>0.82</b>	<b>0.70</b>	<b>0.60</b>
6	MW-BW-58-180	ND (0.25)	NS	NS	NS
6	MW-OU2-64-180	<b>6.6 J+</b>	<b>6.8</b>	<b>8.7 J+</b>	<b>5.3</b>
6	MW-OU2-67-180 <sup>5</sup>	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

<sup>1</sup> Hydraulic zones are identified in the Groundwater QAPP.

<sup>2</sup> 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.

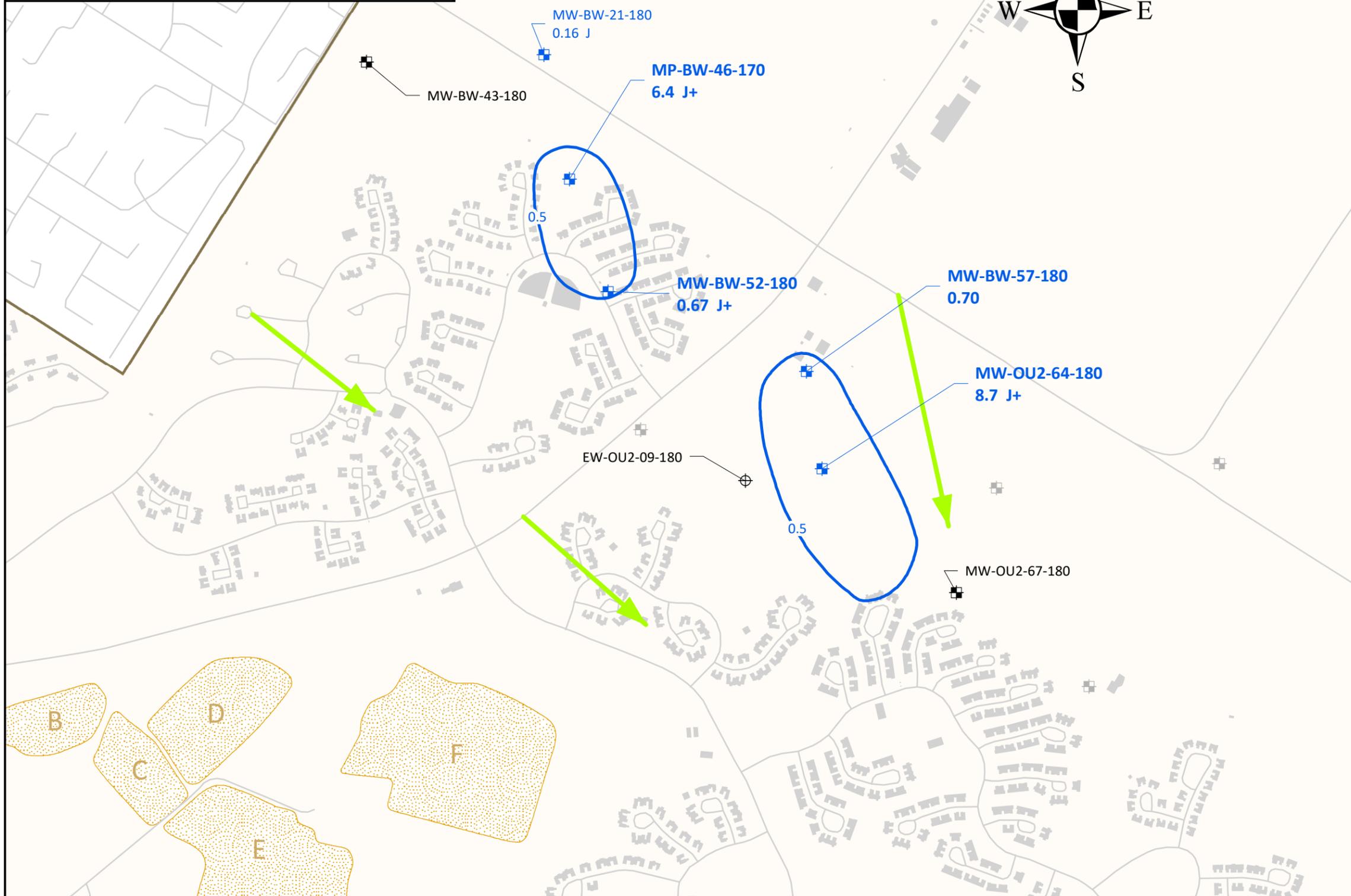
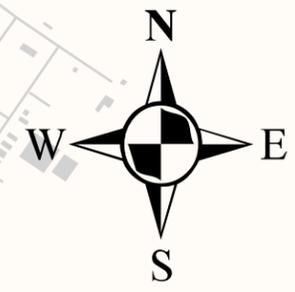
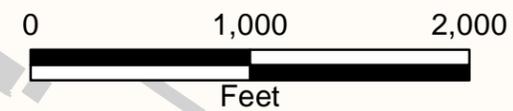
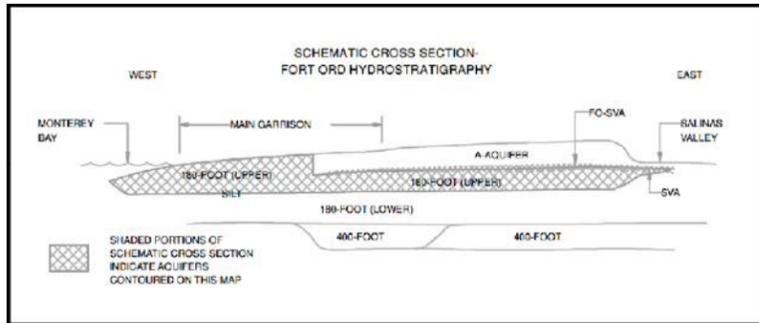
<sup>3</sup> EW-OU2-09-180 is operated as part of the remedy for the OUCTP Upper 180-Foot Aquifer and is connected to the OU2 GWTP.

<sup>4</sup> 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)

<sup>5</sup> Downgradient well MW-OU2-70-180 sampled annually: ND.

\* Preliminary data





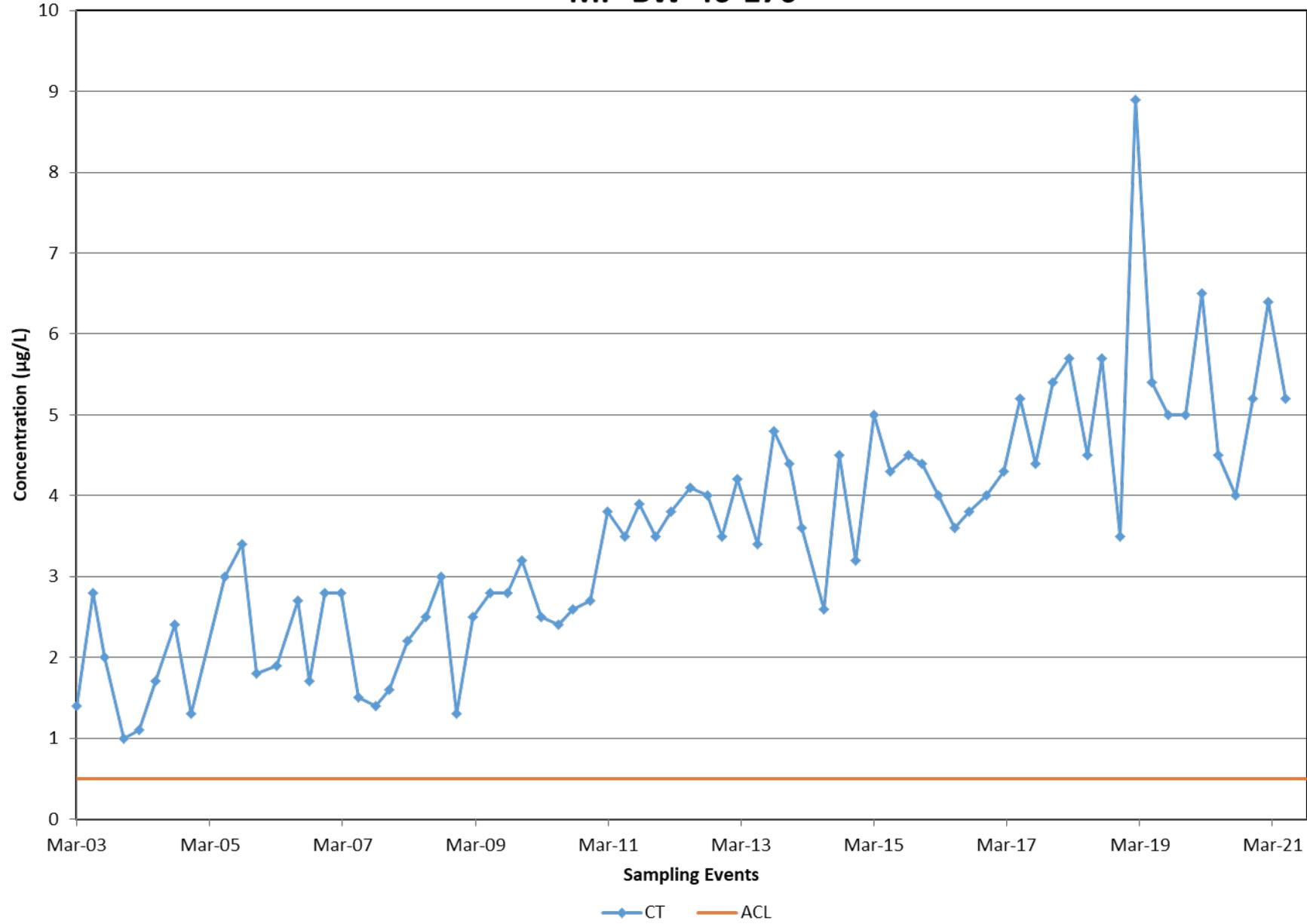
**EXPLANATION**

- 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
- CT Concentrations (µg/L) and validation/lab qualifier.

- NOTES:**
- (1) Samples were collected between March 1, 2021 and March 5, 2021.
  - (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 are based on highest value obtained from multiple bags and/or multiple ports were applicable.
  - (4) Contours near wells not sampled this quarter are inferred from previous analytical data.

CT CONCENTRATIONS  
UPPER 180-FOOT AQUIFER  
First Quarter 2021  
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### MP-BW-46-170

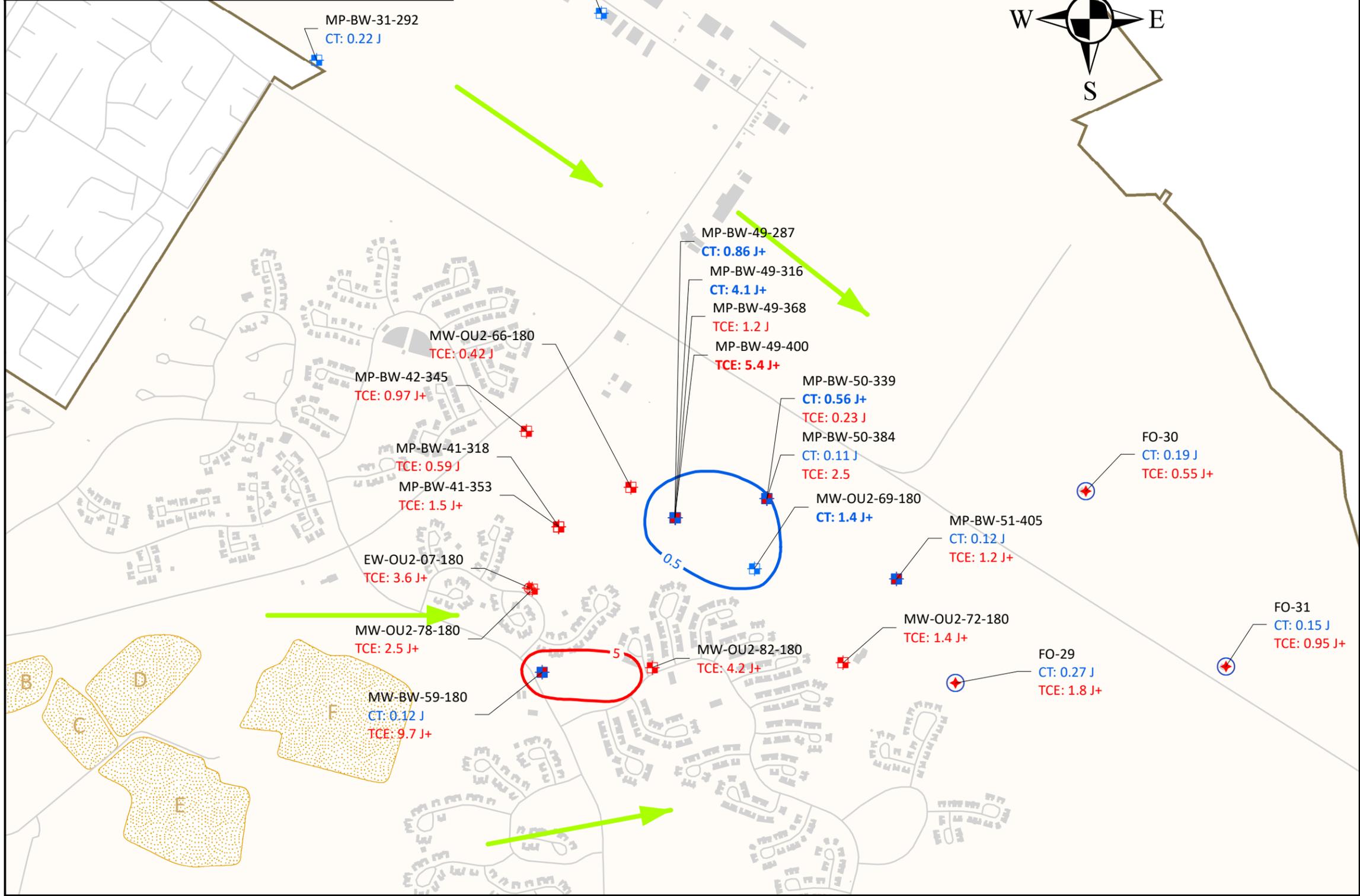
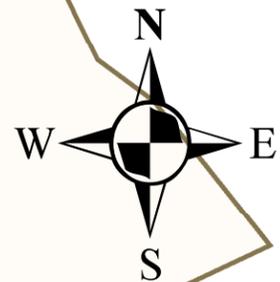
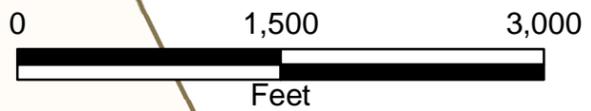
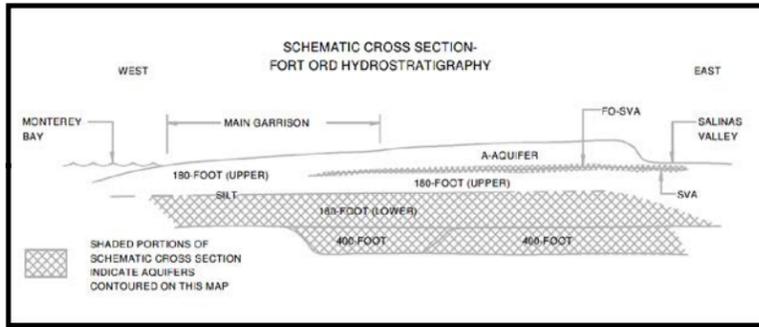


**Table 5.** OUCTP Lower 180-Foot Aquifer Select Monitoring Well Data

OUCTP Hydraulic Zone <sup>1</sup>	Well Identification	Select COC Concentrations (µg/L) <sup>2</sup>							
		3Q 2020	4Q 2020	1Q 2021	2Q 2021*	3Q 2020	4Q 2020	1Q 2021	2Q 2021*
		CT				TCE <sup>4</sup>			
Limit:		ACL 0.5				MCL 5.0			
7	MP-BW-49-316	<b>2.2</b>	<b>1.9</b>	<b>4.1 J+</b>	<b>3.7</b>	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	<b>5.4 J+</b>	4.5
7	MP-BW-50-339	<b>0.95</b>	0.31	<b>0.56 J+</b>	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	<b>1.1</b>	<b>0.96</b>	<b>1.4 J+</b>	<b>1.1</b>	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	<b>9.8</b>	<b>8.9</b>	<b>9.7 J+</b>	<b>10.4</b>
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
- <sup>1</sup> Hydraulic zones are identified in the Groundwater QAPP.
- <sup>2</sup> 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.
- <sup>3</sup> 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.
- <sup>4</sup> 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)
- <sup>5</sup> Downgradient well MW-OU2-70-180 sampled annually: ND.
- \* Preliminary data



**EXPLANATION**

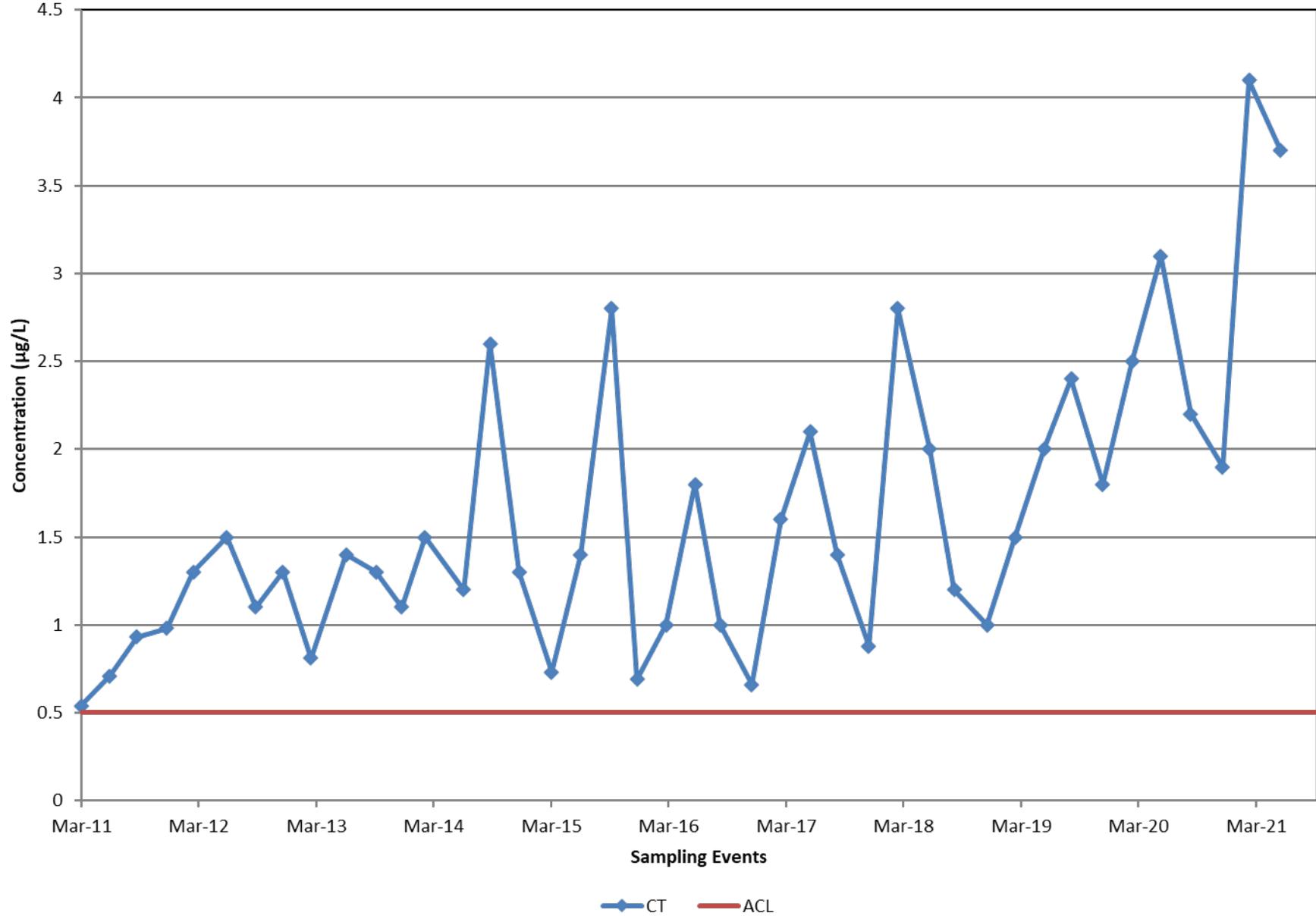
- General groundwater flow direction
- Roads
- Facilities
- Approximate extent of landfill areas (Areas B through F)
- Former Fort Ord boundary
- Well Type and COC Concentration**
- Extraction Well with TCE detection
- Monitoring Well with TCE detection
- Monitoring Well with CT detection
- Monitoring 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  
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### MP-BW-49-316



### MW-BW-59-180

