

# Operable Unit 2 Data and Status

HTW BCT October 27, 2023

**Table 1:** July – Sept 2023 – OU2 GWTP Statistics

Monthly Statistics	Volume Treated (gallons)	Average Flow (gallons per minute)	Percent of Time Online	COC Mass Removed (pounds)
July 2023	42,688,339	956	100	2.1
Aug 2023	42,059,094	942	100	1.9
Sept 2023	38,182,072	884	96	1.7
Total since October 2795	9.705 billion			976

## Remedial Summary

- **11 COCs:** 1,1-DCA; 1,2-DCA; 1,2-DCPA; benzene; CT; chloroform; cis-1,2-DCE; methylene chloride; PCE; TCE; and VC. Metals monitored annually near OU2 Landfills.
- **Remediation:** Pump and treat with GAC in the A-Aquifer and Upper 180-Foot Aquifer since 1995. Extraction wells added in 2000 and 2007. OU2 GWTP relocated from the western network area to OU2 Landfills, extraction wells added in 2018.
- **Monitoring:** Quarterly groundwater monitoring and reporting, including annual 3Q monitoring and reports. Described in the most recent Groundwater QAPP.

July – Sept 2023 OU2 treated water at TS-OU2-INJ-01 did not exceed discharge limits

## July-Oct Key Events

- July 5: EW-OU2-06-180 offline 48 hours due to a failed VFD cooling fan. Repaired and online July 7.
- July 27: Replaced effluent pump P2 failed VFD.
- Aug 11: EW-OU2-05-A offline due to tripped breaker. Online Aug 14 after reset.
- Aug 14-18: Third Quarter 2023 Annual Groundwater Monitoring Program.
- Aug 22: EW-OU2-03-180 offline 16 hours to replace the VFD cooling fan.
- Sept 2: EW-OU2-05-A offline due to a tripped breaker. Reset Sept 5 and restarted.
- Sept 6: EW-OU2-05-A offline due to a tripped breaker. Replaced fuse and breaker blew upon restart.; possible pump failure.
- Sept 17: Power outage caused 28-hour OU2 GWTP downtime. Restarted Sept 18.
- Oct 2: Undercurrent fault, EW-OU2-03-180 offline for a day.
- Oct 11: Failed flowmeters replaced at EW-OU2-16-A and EW-OU2-09-180.
- Oct 14: EW-OU2-16-A, EW-OU2-05-180, and EW-OU2-06-180 offline due to PLC fault related to power outage, restarted Oct 17.

## Future Key Events

- Nov: Decommission four wells (MW-OU2-20-180X, -26-A, -37-A, & -37-180)
- Evaluate plume capture with EW-OU2-11-180 offline.
- Evaluate decline in performance of IW-OU2-04-180 and IW-OU2-05-180.
- Troubleshoot, repair, and restart EW-OU2-04-A, EW-OU2-05-A, and EW-OU2-09-180 (Oct 30).

# GWM COC Summary

**Table 2: OU2 GWM Summary – A-Aquifer**

Quarter	1,1-DCA	1,2-DCA	1,2-DCPA	Benzene	CT	Chloroform	Cis-1,2-DCE	Methylene Chloride	PCE	TCE	VC
2023-3Q	>ACL	>ACL	<ACL	<ACL	ND	>ACL	>ACL	<ACL	>ACL	>ACL	>ACL
2023-2Q	>ACL	>ACL	<ACL	<ACL	ND	>ACL	>ACL	<ACL	>ACL	>ACL	>ACL
2023-1Q	>ACL	>ACL	<ACL	<ACL	ND	>ACL	>ACL	<ACL	>ACL	>ACL	>ACL
2022-4Q	>ACL	>ACL	<ACL	<ACL	<ACL	>ACL	>ACL	<ACL	>ACL	>ACL	>ACL
Max COC/ACL Ratio	3.2	6.8	-	-	-	2.0	1.4	-	3.6	2.9	74
Hydraulic Zone	5	3	-	-	-	5	1	-	5	4	1

**Notes:**

\*Preliminary data  
>: greater than  
<: less than  
ACL: Aquifer Cleanup Level  
1,1-DCA: 1,1-dichloroethane  
1,2-DCA: 1,2-dichloroethane  
1,2-DCPA: 1,2-dichloropropane  
CT: carbon tetrachloride  
Cis-1,2-DCE: cis-1,2-dichloroethene  
TCE: trichloroethene  
PCE: tetrachloroethene  
VC: vinyl chloride  
ND: The analyte was not detected above the detection limit.

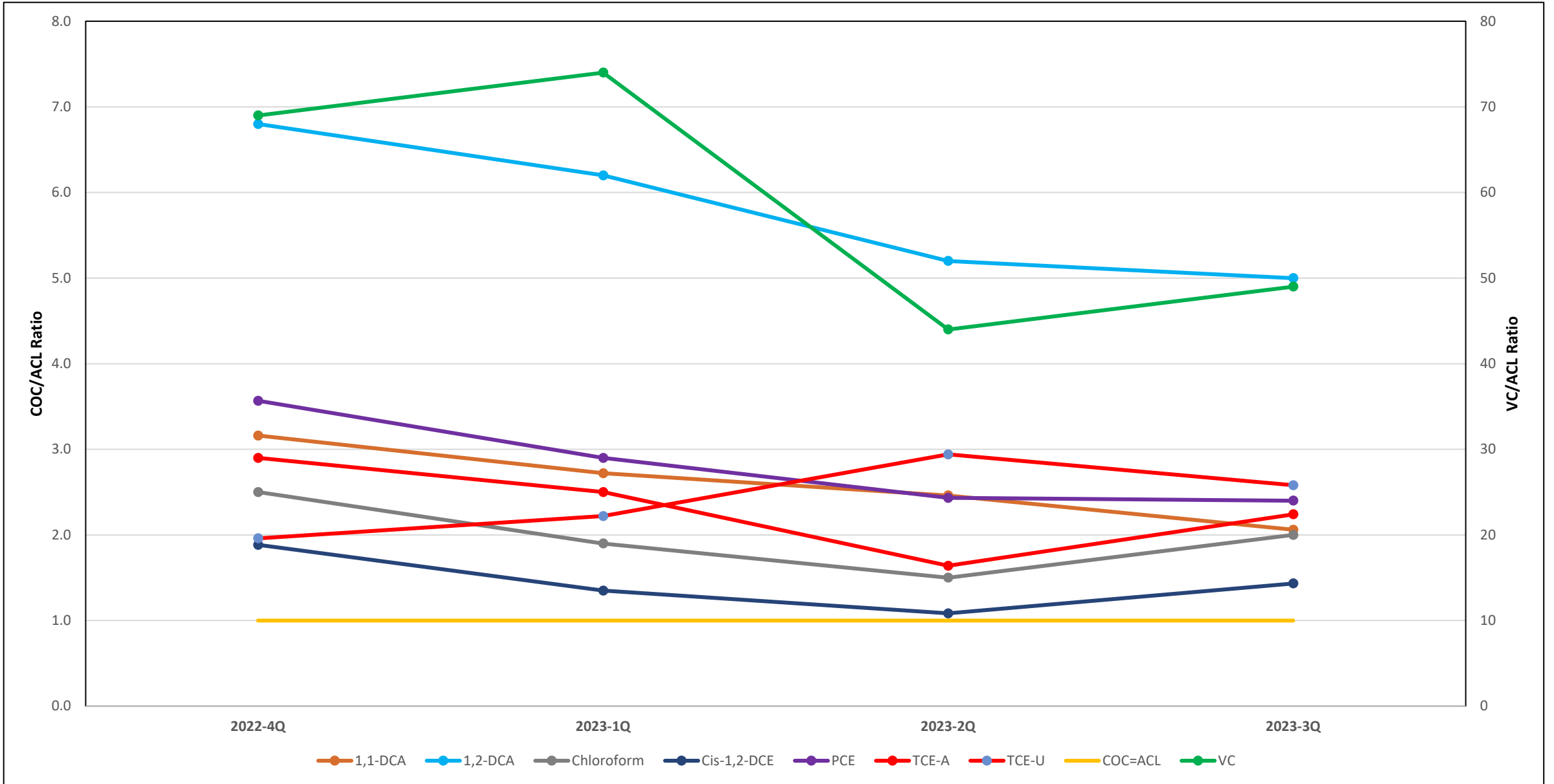
**Table 3: OU2 GWM Summary – Upper 180-Foot Aquifer**

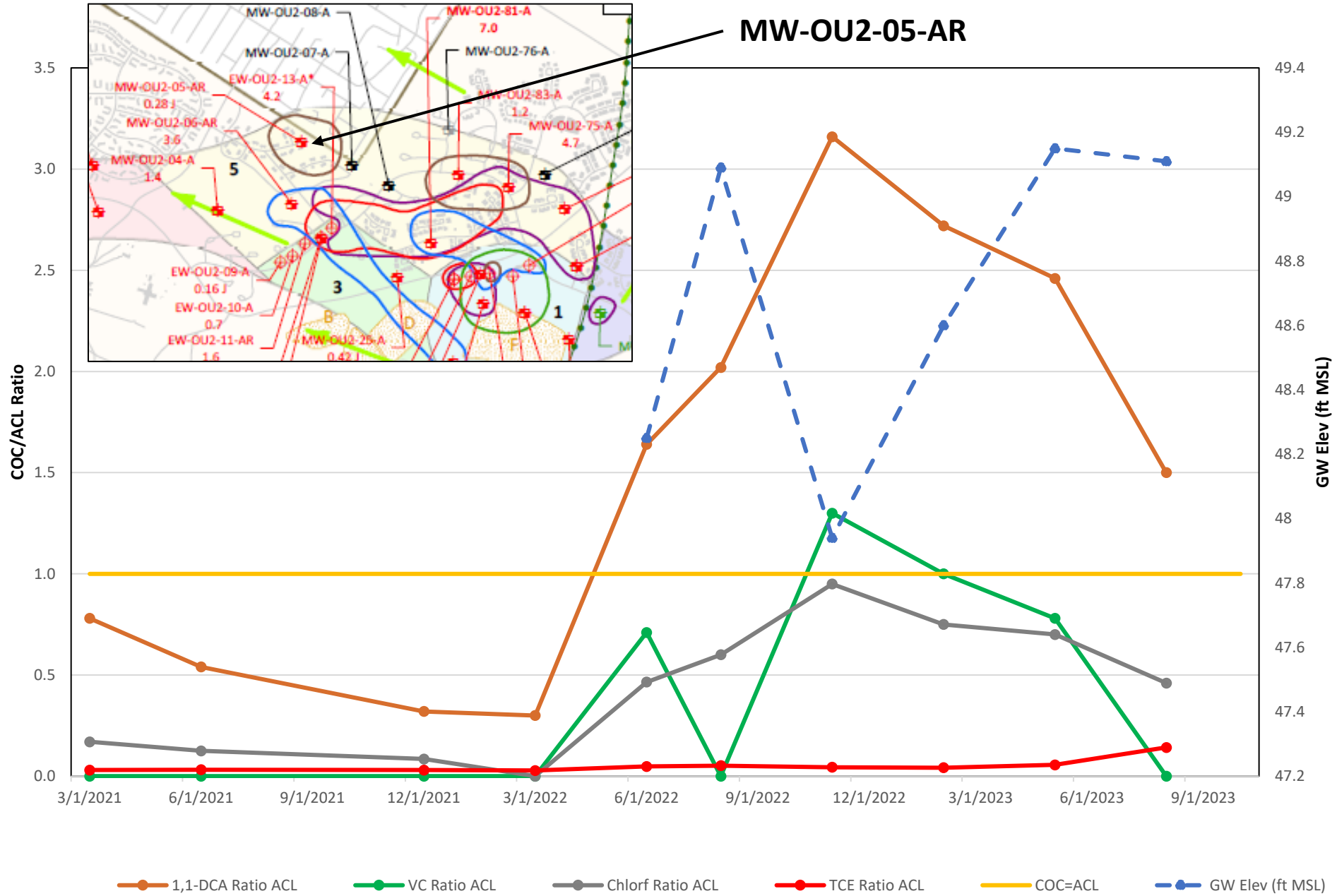
Quarter	1,1-DCA	1,2-DCA	1,2-DCPA	Benzene	CT	Chloroform	Cis-1,2-DCE	Methylene Chloride	PCE	TCE	VC
2023-3Q	<ACL	ND	<ACL	<ACL	<ACL	<ACL	<ACL	<ACL	<ACL	>ACL	ND
2023-2Q	<ACL	ND	ND	<ACL	<ACL	<ACL	<ACL	ND	<ACL	>ACL	ND
2023-1Q	<ACL	ND	ND	<ACL	<ACL	<ACL	<ACL	ND	<ACL	>ACL	ND
2022-4Q	<ACL	ND	ND	<ACL	<ACL	<ACL	<ACL	ND	<ACL	>ACL	ND
Max COC/ACL Ratio	-	-	-	-	-	-	-	-	-	2.9	-
Hydraulic Zone	-	-	-	-	-	-	-	-	-	7	-

7 COCs in the A-Aquifer and 1 in the Upper 180-Foot Aquifer above the ACLs. 3 COCs max in Hydraulic Zone 5.

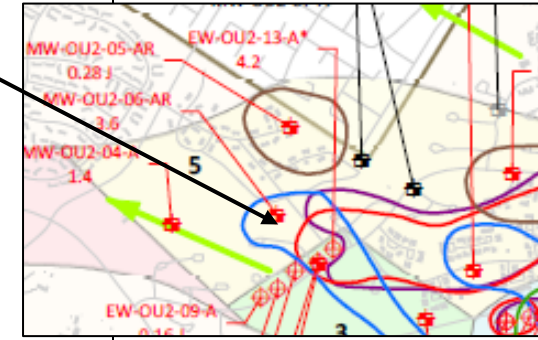
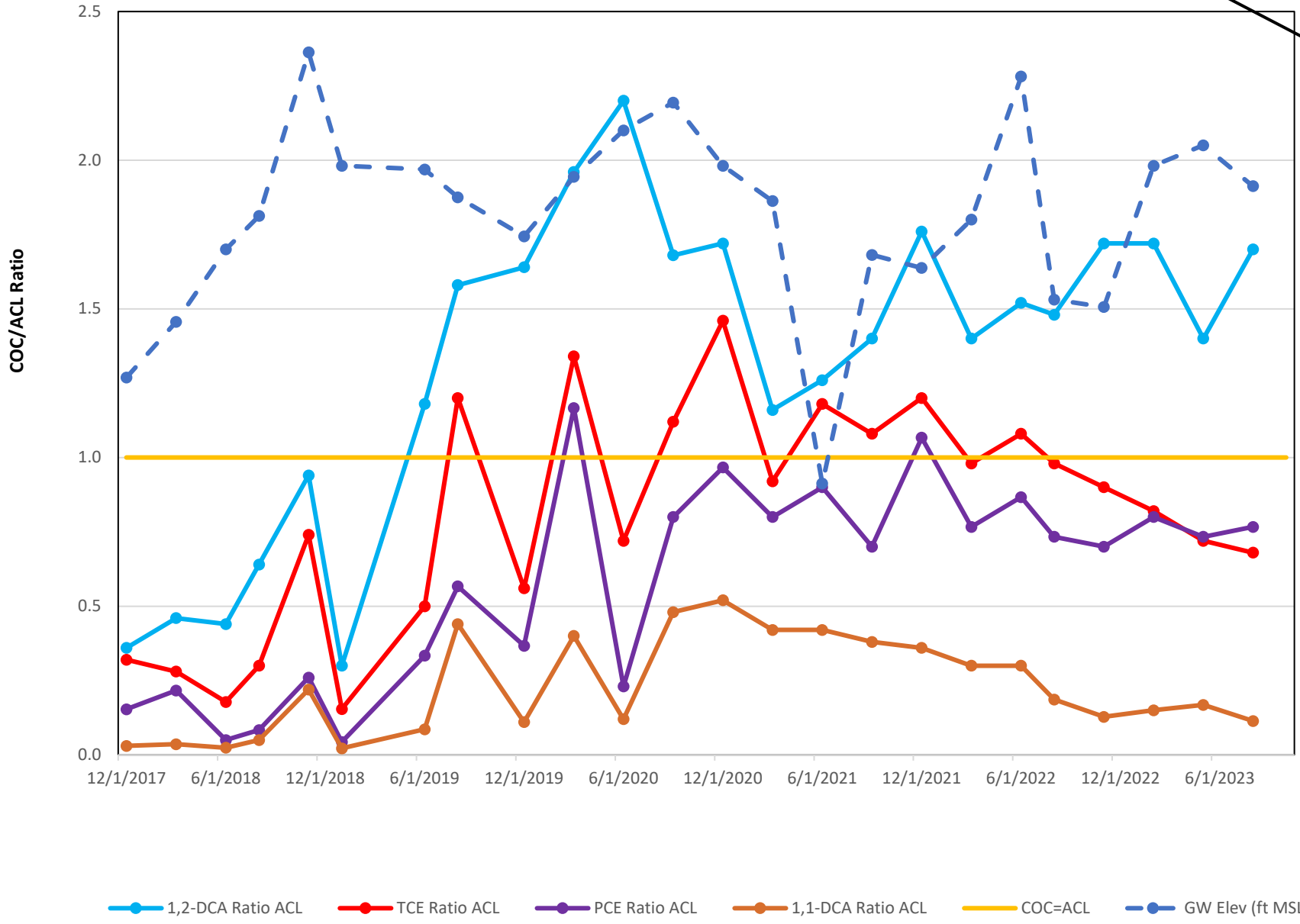
Minor decrease in Max COC/ACL ratio since 2023-2Q for A-Aquifer; 1,1-DCA; 1,2-DCA; Chloroform; and TCE.

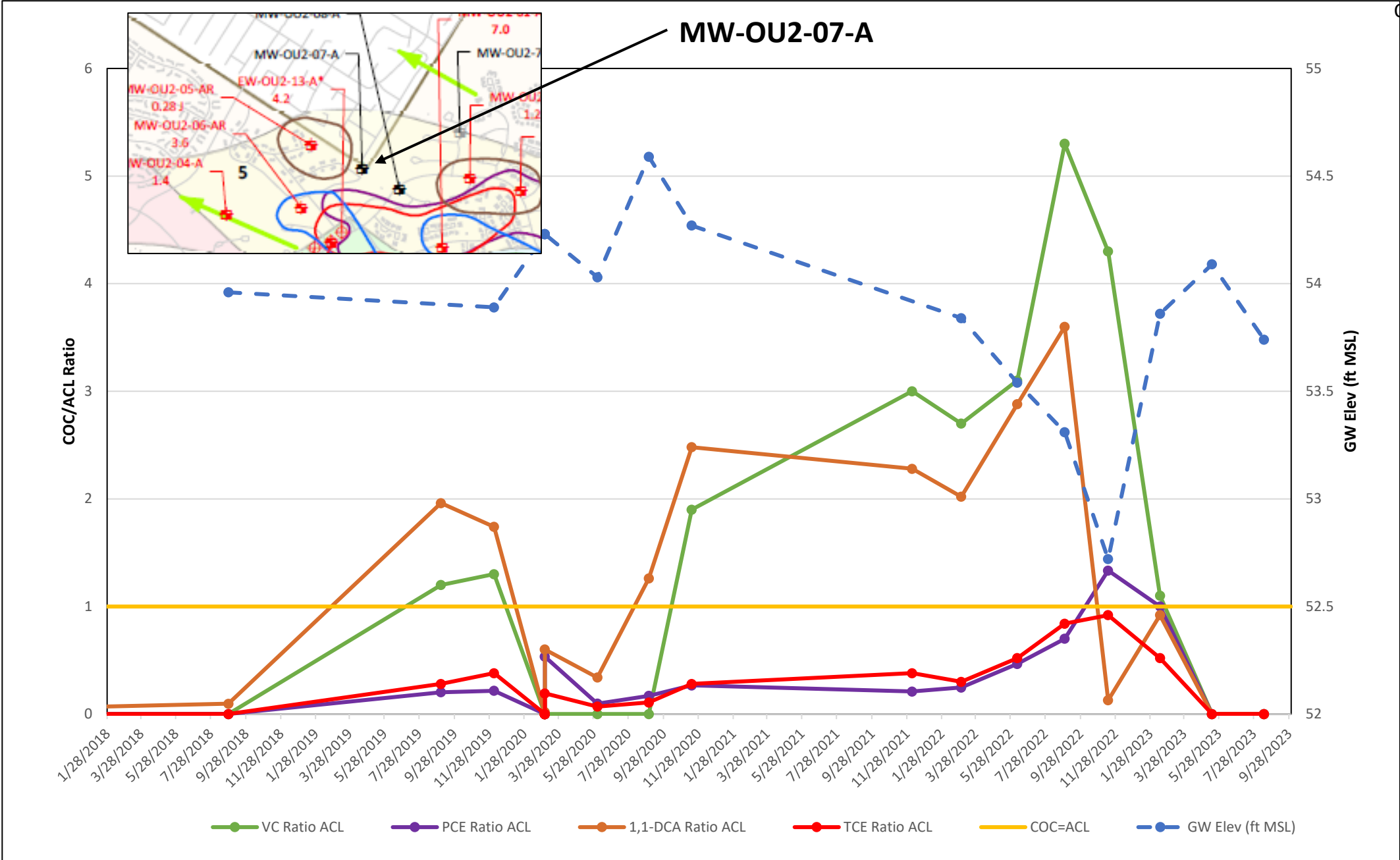
# Max Quarterly COC/ACL Ratio Trend

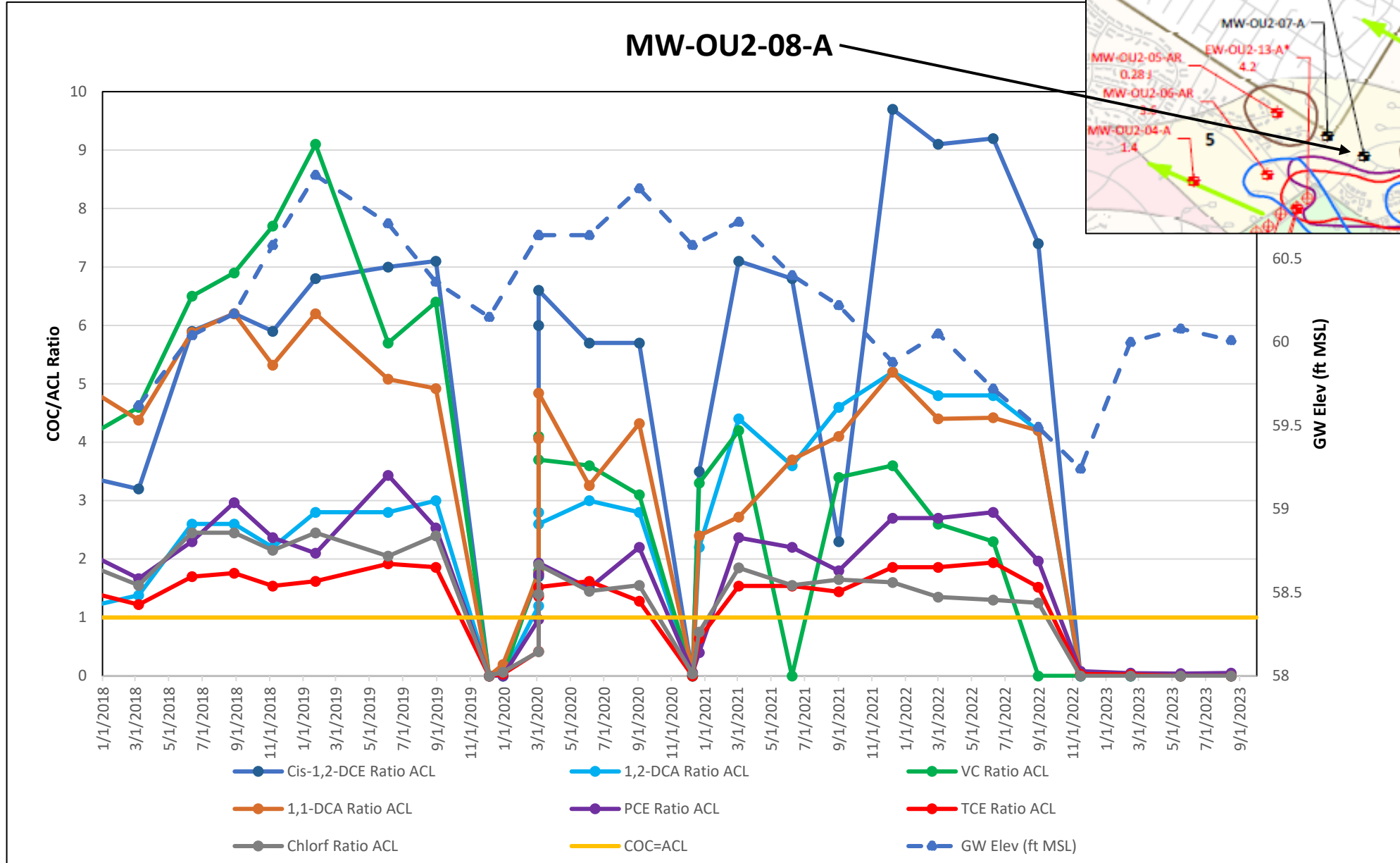


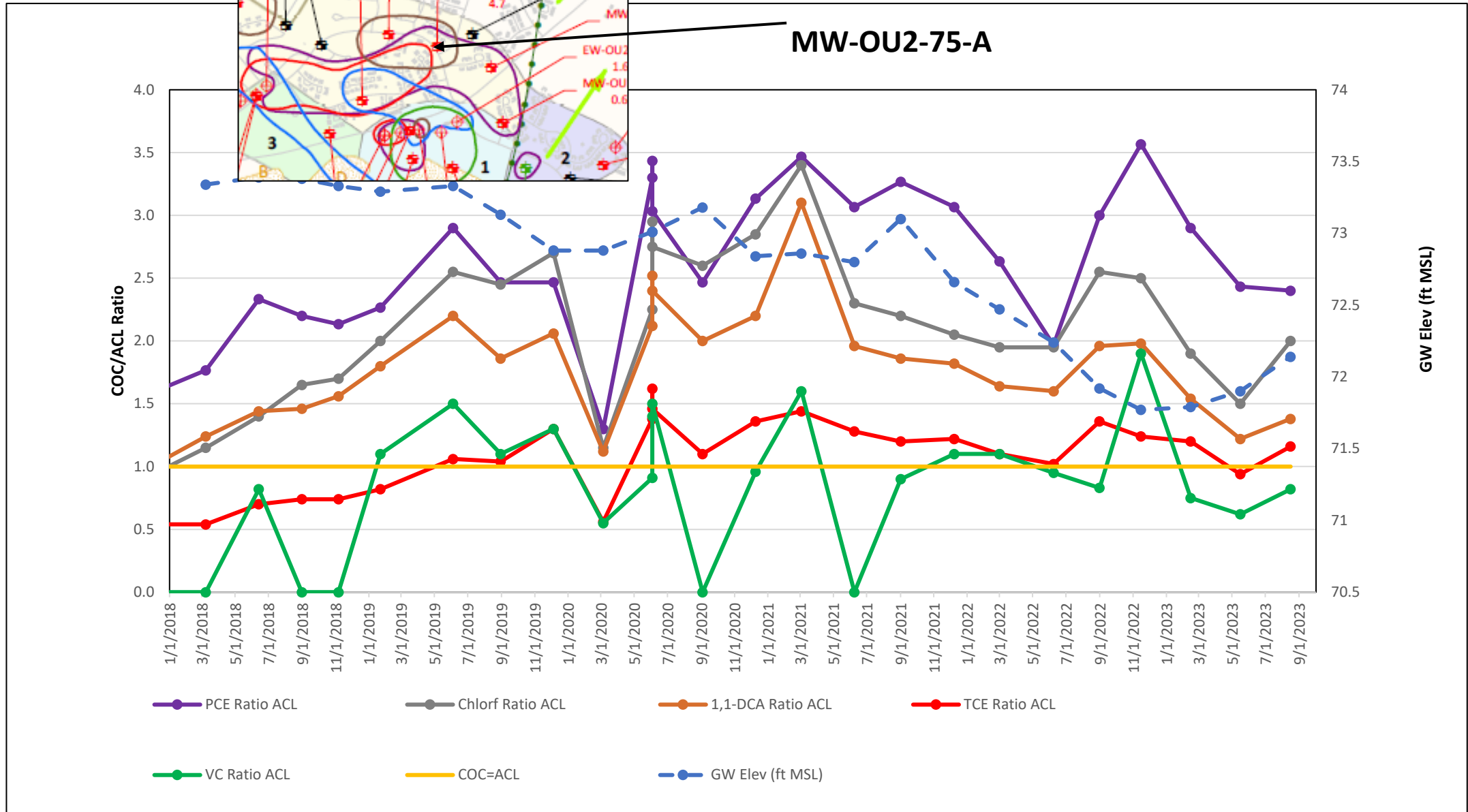


### MW-OU2-06-AR

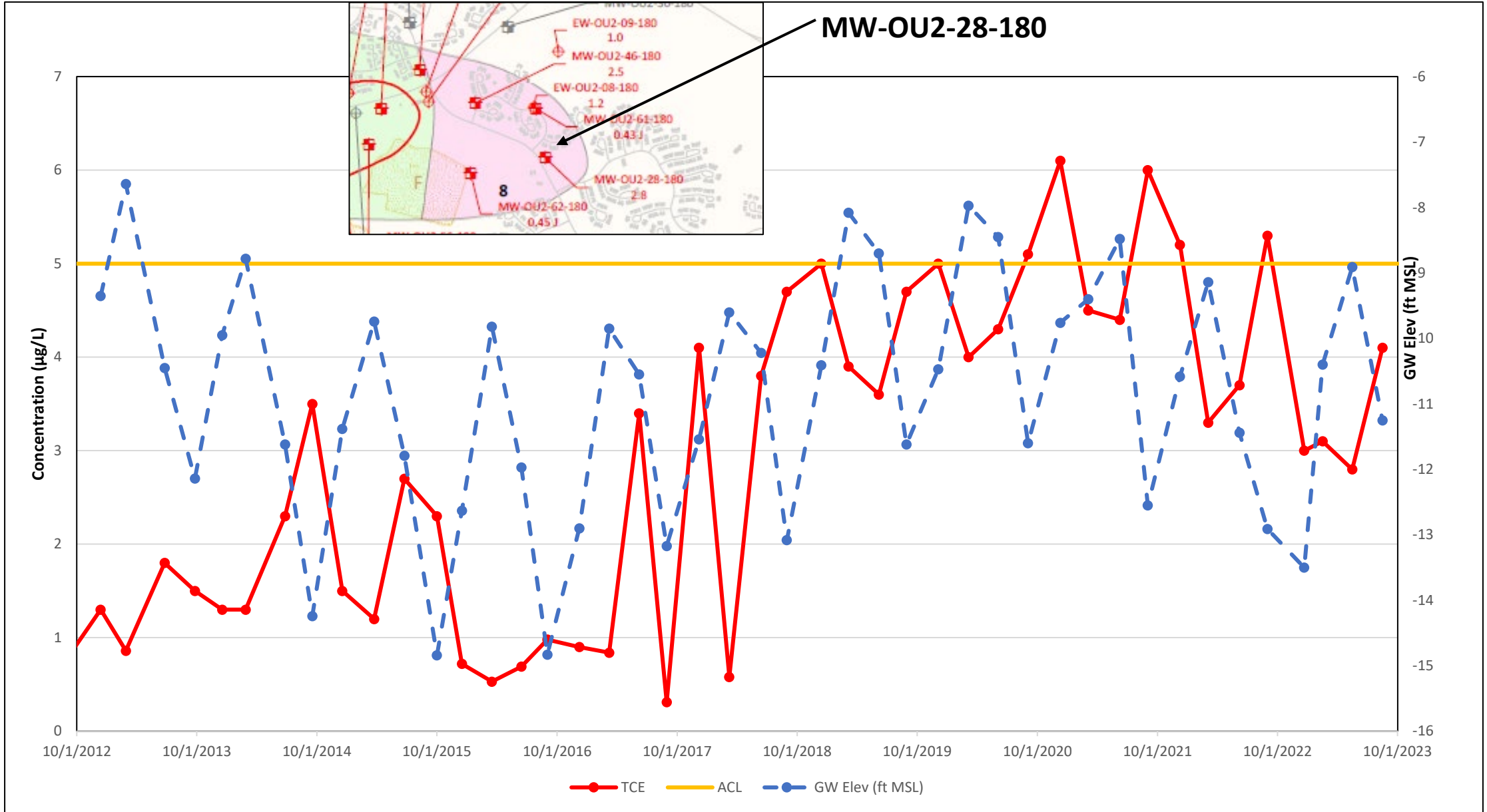


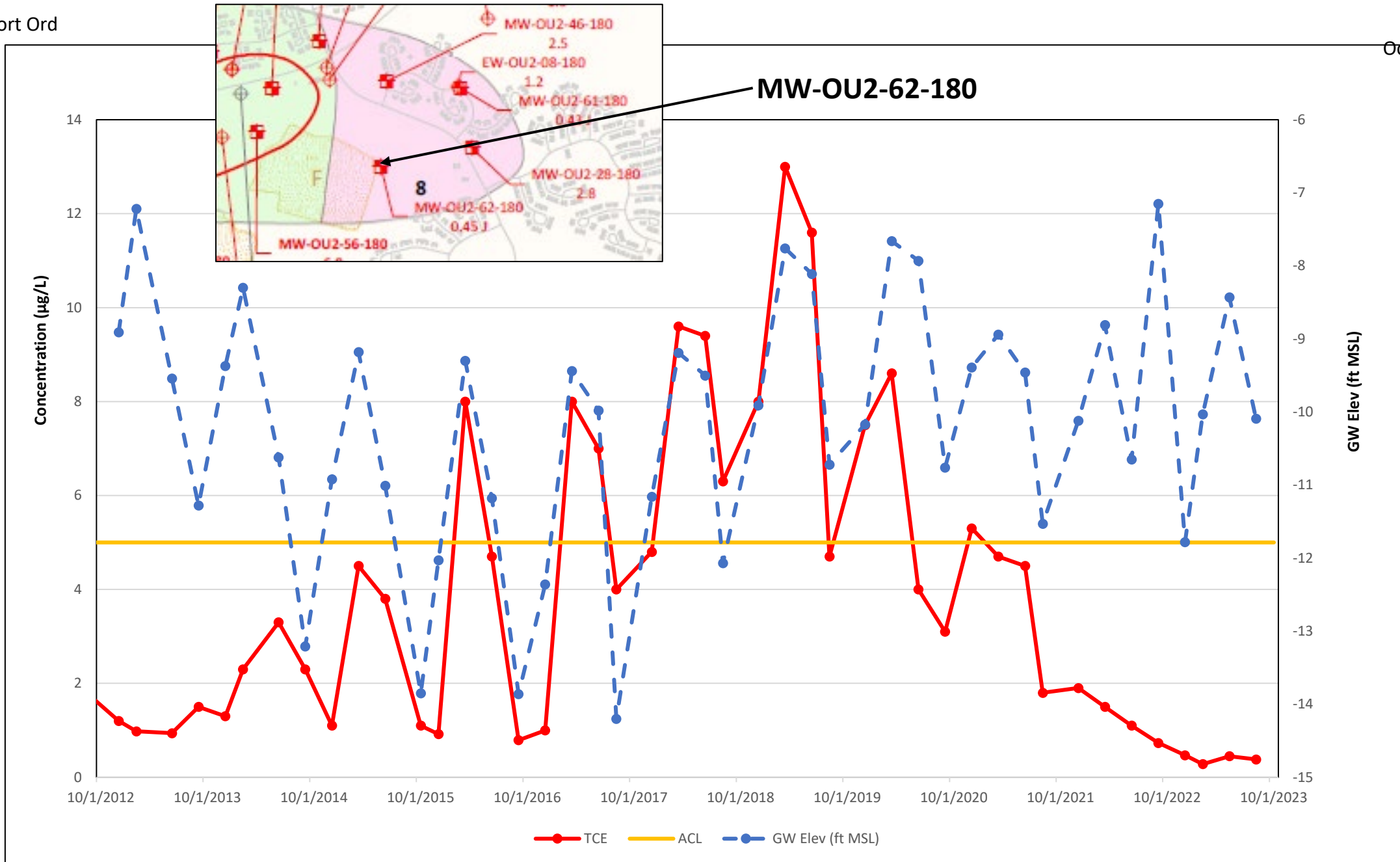












## Recommended Changes to the OU2 GWMP

### A-Aquifer

MW-OU2-76-A was recommended to reduce sampling frequency to annual last year but will remain quarterly because it is a boundary well for plume control.

### Upper 180-Foot Aquifer

None

