

What to Do With Results Greater Than Zero (Detections)

Oregon Health Authority Drinking Water Services, Updated April 2018

Problem	Action Needed	Resolution	OAR Citation
Inorganics (including Arsenic)^a			
Result over the MCL	Confirmation sample plus quarterly monitoring ^a . Confirmation sample must be taken within 2 weeks. Average initial + confirmation sample to determine compliance.	Review after 2 quarters for GW, after 4 quarters for SW. Sample qtrly until R&C ^b below MCL, but if running annual average (RAA) is above MCL, treatment is required. For arsenic, DWS generally requires 4 quarters for all systems before review.	OAR 333-061-0036(2)(f) OAR 333-061-0036(2)(a)(D) OAR 333-061-0036(2)(h)(B)
Nitrate and Nitrite^a			
Result over the MCL	Confirmation sample plus quarterly monitoring.	If avg of initial + confirmation is above MCL, treatment is required. If avg < MCL, monitor quarterly until R&C ^b below MCL.	OAR 333-061-0036(2)(f)(B&C) and OAR 333-061-0036(2)(h)(C) OAR 333-061-0036(2)(c) OAR 333-061-0036(2)(d)(C)
Result $\geq \frac{1}{2}$ the MCL	Quarterly monitoring	Continue monitoring qtrly. Review annually to determine whether system should continue quarterly monitoring. If results are R&C ^b below the MCL (for GW) or below $\frac{1}{2}$ the MCL (for nitrates, SW), then system can return to annual monitoring.	OAR 333-061-0036(2)(c) OAR 333-061-0036(2)(d)(C and D)
Lead and Copper^a			
Above Action Level	Review sampling protocol. Collect source testing and WQPs ^c , submit treatment recommendation. May need public education.	Install corrosion control, or make necessary adjustments. 2 six-month rounds less than Action Level, minimum WQPs ^c set.	OAR 333-061-0036(10)(g) and 333-061-0034(4) OAR 333-061-0036(10)(f) OAR 333-061-0034(2) & (3) OAR 333-061-0034(5) OAR 333-061-0036(10)(d)(B)
Volatile & Synthetic Organics^a			
Result over the MCL	Confirmation sample plus quarterly monitoring. ^d	Compliance is based on running annual average.	OAR 333-061-0036 (3)(b)(F) OAR 333-061-0036 (3)(a)(F) OAR 333-061-0036 (3)(b)(E) OAR 333-061-0036 (3)(a)(E) OAR 333-061-0036 (3)(b)(H) OAR 333-061-0036 (3)(a)(H)

Problem	Action Needed	Resolution	OAR Citation	
<p>Result > Detection Limit (for VOCs); Result ≥ Detection Limit (SOCs)</p> <p>Detect limit for VOCs is 0.0005 mg/l.</p> <p>Detect limits for SOCs vary.</p>	<p>Confirmation sample plus quarterly monitoring.^d</p> <p>Vinyl chloride samples required following certain VOC detections in GW systems.^f</p>	<p>If avg of initial + confirmation is below detection limit, or if original sample can be shown to be non-representative, resume routine monitoring schedule. Document the decision.</p> <p>If avg > detection limit, must monitor quarterly. Review after 2 Qs for GW, after 4 Qs for SW. If average > MCL, treatment is required. If R&C^b below MCL, sample annually. Review GW after 3 yrs – reduction if no detects.</p>	<p>(1st paragraph under Resolution per DWS policy)</p> <p>OAR 333-061-0036 (3)(b)(F) OAR 333-061-0036 (3)(a)(F) OAR 333-061-0036 (3)(b)(D) OAR 333-061-0036 (3)(a)(D) OAR 333-061-0036 (3)(b)(D)(i)</p> <p>OAR 333-061-0036 (3)(a)(D)(i)</p>	<p>VOC confirmation sample SOC confirmation sample VOC quarterly monitoring SOC quarterly monitoring VOC annual sampling reduction SOC annual sampling reduction</p>
Disinfection By-Products (TTHM & HAA5s)^a				
Result over the MCL	Quarterly monitoring at all locations.	<p>Compliance is based on the LRAA at each location.</p> <p>Modifications to treatment or operations may be necessary.</p>	<p>OAR 333-061-0036(4)(c) OAR 333-061-0036(4)(e) OAR 333-061-0036(4)(c)(D) OAR 333-061-0050(4)(b)(G)</p>	<p>Routine monitoring Increased monitoring Compliance DBP Best Avail. Technology</p>
Running Annual Average ≥ 80% of MCL	Conduct disinfection profile (surface water and GWUDI sources only).	Have results available for review by DWS.	OAR 333-061-0036(4)(l)	Disinfection profiling
Operational Evaluation Levels (OELs) over the MCL	PWS must conduct an operational evaluation and submit a written report to DWS within 90 days.	Eval must examine the WS's treatment & distribution practices that may contribute to TTHM/ HAA5 formation. Identify steps the PWS could take to avoid future exceedances.	<p>OAR 333-061-0036(4)(f)</p> <p>See also DWS OEL webpage</p>	Operation evaluation levels
Radionuclides (Gross-Alpha, Radium-226/228, and Uranium)^e				
Result over MCL	Quarterly monitoring.	Compliance is based on running annual average.	OAR 333-061-0036 (7)(a)(A)(iv) and OAR 333-061-0036 (7)(c)	
Result > ½ MCL	Must monitor every 3 years.	Re-evaluate frequency each round.	OAR 333-061-0036 (7)(a)(B)(iii)	
Result ≥ Detection Limit	Must monitor every 6 years.	Re-evaluate frequency each round.	OAR 333-061-0036 (7)(a)(B)(ii)	

a For Community and Non-Transient water systems only.

b R&C = Reliably and Consistently. As determined by OHA Drinking Water Services.

c WQPs = Water Quality Parameters.

d Confirmation sample must be taken within the same quarter. If collected in the following quarter, it will count towards the new quarterly monitoring schedule. A non-detect is considered to be a zero.

e For Community water systems only.

f Certain VOC detects in groundwater systems require vinyl chloride to be sampled as well. See [OAR 333-061-0036\(3\)\(b\)\(D\)\(iii\)](#).