



# Monterey One Water

Providing Cooperative Water Solutions

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April 29, 2022

Dear Well Owner,

Monterey One Water (M1W) is the public wastewater and water recycling agency serving cities and districts in northern Monterey County. In 2020, we began operation of a new water reuse effort known as the Pure Water Monterey Groundwater Replenishment Project. Pure Water Monterey is a critical project that purifies wastewater to state and federal drinking water standards. The purified water produced is subsequently injected into the Seaside Groundwater Basin for groundwater replenishment.

The permits required to operate Pure Water Monterey include continuous water quality sampling and monitoring provisions. This testing is outlined in our Monitoring and Reporting Program No. R3-2020-0122 issued by the California Regional Water Quality Control Board, Central Coast Region, and includes routine reporting of our analytic parameters.

As an owner of a well located in close proximity to the Pure Water Monterey Injection Well Facilities this letter serves as the WDR/WRR-required annual notification of the availability of the Annual Summary Report.

To access this year's Annual Summary Report displaying data collected in calendar year 2021, please visit our website at: [www.montereyonewater.org/pwm/annual-report](http://www.montereyonewater.org/pwm/annual-report).

Sincerely,

Jose Guzman  
Chief Plant Operator



# Annual Summary Report 2021



Order No. R3-2017-0003  
MRP No. 2019-0116 & MRP 2020-0122  
*Advanced Water Purification Facility  
& Groundwater Replenishment Project*



**Monterey One Water**  
Providing Cooperative Water Solutions

**Prepared For:** Central Coast Regional Water Quality Control Board and  
State Water Resources Control Board, Division of Drinking Water

**Submitted By:** Monterey One Water

**Date:** April 29, 2022





# 2021 Annual Summary Report

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**Appendices:**

- Appendix A. Laboratory Proficiency Test Documentation
- Appendix B. Laboratory ELAP Certificates
- Appendix C. 2020 CalAm Water System #2710004 Consumer Confidence Report
- Appendix D. GeoTracker Report Access Instructions for Quarterly Monitoring Reports



**1.0 INTRODUCTION**

**1.1 Transmittal Sheet**

California Regional Water Quality Control Board  
Central Coast Region  
895 Aerovista Place, Suite 101  
San Luis Obsipo, CA 93401  
Submit this Self Monitoring Report to: centralcoast@waterboards.ca.gov

Document  
Date: 4/29/2022

FACILITY NAME: Monterey One Water

FACILITY ADDRESS: 14811 Del Monte Blvd  
Marina, CA 93933

CONTACT PERSON: Jose O. Guzman

JOB TITLE: Chief Plant Operator

PHONE NUMBER: 831-883-6183

EMAIL: joseg@my1water.org

WDR ORDER (Permit) Number: R3-2017-003

WDID NUMBER: 3 270417589

PERMITTED FLOW (see facility WDR Permit): 5,000,000 gpd

AVERAGE WASTEWATER FLOW (over monitoring period): 3,247,511 gpd

TYPE OF REPORT:  Annual  Semiannual  Quarterly  
 Monthly  Other: \_\_\_\_\_

REPORTING PERIOD: 1/1/2021 TO 12/31/2021

MONITORING PERFORMED DURING THIS PERIOD (check all that apply):

Groundwater  Lab Reports  Recycled Water  
 Treatment System Effluent  Solids Disposal  Disposal Area  
 Treatment System Influent  Water Supply  Use Area  
 Source Water Monitoring  Other: \_\_\_\_\_

Violation(s) during this monitoring period?  YES  NO

**Parameter(s) in Violation:** Pursuant to Standard Provisions<sup>1</sup> see footnote on next page, monitoring reports must contain date of violation, explanation of cause and corrective actions planned or taken to prevent recurrence. Please include parameter(s) and date(s) of violation in space provided below. If space is insufficient, include an independent discussion containing explanation of cause and corrective action within monitoring report.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Discharger Comments:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**Submit this self-monitoring report to [centralcoast@waterboards.ca.gov](mailto:centralcoast@waterboards.ca.gov) in searchable PDF format. Include attached cover sheet and signature page. DO NOT submit via US mail.**

In accordance with the Standard Provisions<sup>1</sup> and Reporting Requirements, I certify under penalty of law that this document and all attachments were prepared under my direction or supervision following a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my knowledge of the person(s) who manage the system, or those directly responsible for data gathering, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

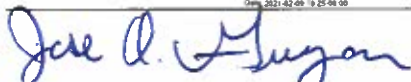
Print Name: Jose O. Guzman

Title: Chief Plant Operator

Signature:\* Jose O. Guzman

Digitally signed by Jose O. Guzman  
DN: cn=Jose O. Guzman, o=Chairman - US United  
States - US United States - Monterey One Water  
and Open Space Authority, email=joguz@moswa.org,  
Reason: I am the author of this document  
Location:  
Date: 2022.02.25 19:25:08 -08

Date: 4/29/2022



\*All reports shall be signed by one of the following:

- a. For a corporation: by a principle executive officer of at least the level of vice president.
- b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively.
- c. For a public agency: by either a principle executive officer or ranking elected official.
- d. For a LLC: either a member or manager given signing authority by the operating agreement of LLC.
- e. a "duly authorized representative" of one of the above.

<sup>1</sup> Electronic access to Standard Provisions: [https://www.waterboards.ca.gov/centralcoast/board\\_decisions/docs/wdr\\_standard\\_provisions\\_2013.pdf](https://www.waterboards.ca.gov/centralcoast/board_decisions/docs/wdr_standard_provisions_2013.pdf)

## 1.2 Background

Monterey One Water (M1W) in partnership with the Monterey Peninsula Water Management District (MPWMD) developed the Pure Water Monterey Groundwater Replenishment Project (Project) to deliver 3,500 acre-feet per year (AFY) of purified recycled water to replenish the Seaside Groundwater Basin (Seaside Basin), in Monterey County.

The Project includes an Advanced Water Purification Facility (AWPF), Product Water Pipeline, Source Water Diversions, and Injection Well Facilities (IWF). The AWPF, located adjacent to the Regional Treatment Plant (RTP), has a design capacity of 5 million gallons per day (MGD) and consists of ozone pre-treatment, low-pressure membrane filtration, reverse osmosis (RO) treatment, advanced oxidation, product water stabilization, and chloramination. Purified recycled water produced at the AWPF, also referred to as “product water,” is conveyed by a pipeline constructed in partnership with, and operated and maintained by, Marina Coast Water District (MCWD) to the Seaside Basin for groundwater recharge using both deep injection wells (DIW) and vadose zone wells (VZW). The injected purified recycled water comingles with groundwater and is stored for future urban use, including use as a potable water source.

AWPF operations and replenishment of the Seaside Basin by groundwater injection are regulated by Waste Discharge Requirements and Water Recycling Requirements (WDR/WRR) Order No. R3-2017-0003 and associated Monitoring and Reporting Program (MRP) No. R3-2020-0122<sup>1</sup> issued by the Central Coast Regional Water Quality Control Board (Regional Water Board) in collaboration with the State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW). This Annual Summary Report summarizes the previous calendar year’s analytical results and provides compliance, noncompliance, and water quality trends as required by the WDR/WRR and MRP.

The RO concentrate generated at the AWPF is piped to M1W’s ocean outfall, regulated by Regional Water Board Order No. R3-2018-00017, National Pollutant Discharge Elimination System (NPDES) No. CA0048551. Secondary wastewater effluent not utilized for the AWPF or tertiary treatment for agricultural reuse at the Salinas Valley Reclamation Project (SVRP) and hauled saline waste are also sent to the ocean outfall. Other AWPF waste streams from the waste equalization basin are diverted to the RTP headworks or the RTP sludge thickening process for treatment.

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<sup>1</sup> Note: M1W received reissued MRP No. R3-2020-0122 replacing previous MRP R3-2019-0116 on February 1, 2021.

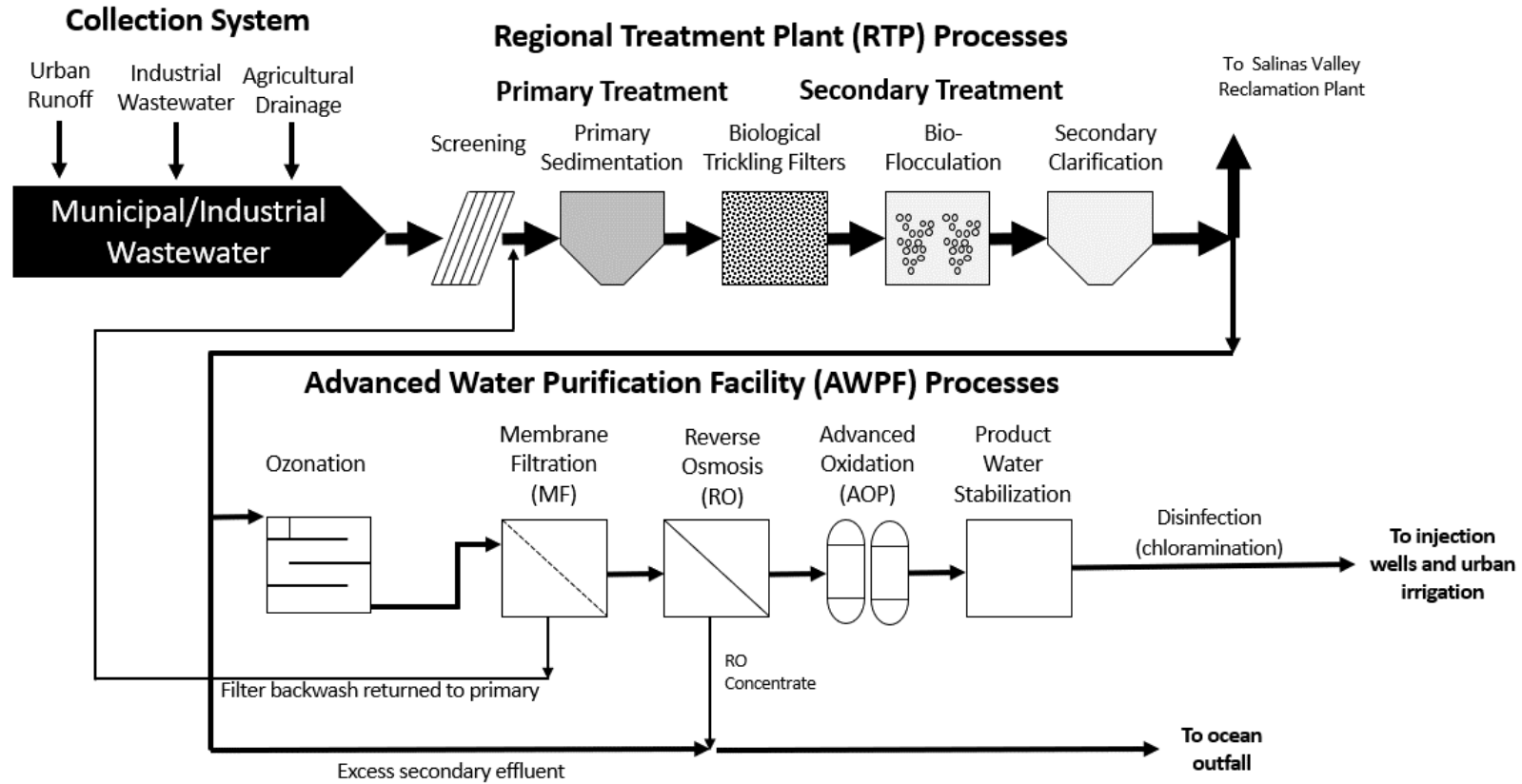


Figure A. Flow Schematic

The IWF are located in the eastern boundary of the City of Seaside, approximately 1.5 miles inland from Monterey Bay, in an area within the Northern Inland Subarea of the Seaside Basin. Currently, there are two VZW in the Paso Robles aquifer and two DIWs in the Santa Margarita aquifer. In 2021, M1W constructed two new DIWs, (DIW-3 and DIW-4), to provide additional injection capacity for the 3,500 AFY of product water from the AWPf.



**Figure B. Map of RTP, AWPf, and Injection Wells**

### 1.3 Annual Summary Report Requirements

Annual Summary Reports must contain a discussion of the previous calendar year's analytical results, as well as graphical and tabular summaries of the analytical data per Section III.5 of the MRP, which states:

*Annual Summary Reports: shall include, at a minimum, the following information:*

- a. *M1W must provide a summary on the makeup of source waters (municipal wastewater, agricultural wash water, Blanco Drain, and Reclamation Ditch) entering the Regional Treatment Plant in the annual report to DDW and Central Coast Regional Board required per Title 22 section 60320.228(a). At a minimum, the summary must include discussion on the following items:*
  - i. *The priority of source water usage for the period reported and the basis for the priority;*
  - ii. *A summary of monthly volume for each source water type; and*
  - iii. *An evaluation of which demand scenario best fit the volumes observed during reporting period (Drought, Normal/Wet Full Reserve, Normal/Wet Building Reserve).*
- b. *Tabular and graphical summaries of the monitoring data obtained during the previous calendar year;*
- c. *A summary of compliance status with all monitoring requirements during the previous calendar year;*
- d. *For any non-compliance during the previous calendar year, a description of:*
  - i. *the date, duration, and nature of the violation;*
  - ii. *a summary of any corrective actions and/or suspensions of subsurface application of recycled water resulting from a violation; and*
  - iii. *if uncorrected, a schedule for and summary of all pending and completed remedial actions;*
- e. *Any detections of monitored chemicals or contaminants, and any observed trends in the monitoring wells;*
- f. *Information pertaining to the vertical and horizontal migration of the recharge water plume;*
- g. *Title 22 drinking water quality data for the nearest drinking water supply well;*
- h. *A description of any changes in the operation of any unit processes or facilities;*
- i. *The estimated quantity and quality of the recycled water to be utilized for the next calendar year;*
- j. *A list of the analytical methods used for each test and associated laboratory quality assurance/quality control procedures shall be included. The report shall identify the laboratories used by M1W to monitor compliance with this Order, their status of certification, and provide a summary of proficiency test;*
- k. *A list of current operating personnel, their responsibilities, and their corresponding grade of certification.*
- l. *The Annual Report shall be prepared by a properly qualified engineer registered and licensed in California and experienced in the field of wastewater or water treatment; and*
- m. *A summary of monitoring reports, reporting and trend analysis, to describe the changes in water quality and contrast them to background measurements for all constituents exceeding MCLs or where concentration trends increase after the addition of recycled water. Specifically describe*

*studies or investigations made to identify the source, fate and transport path of constituents which exceed the MCL at the monitoring wells.*

- n. *M1W must submit to DDW and the Central Coast Water Board a summary of coordination activities with Marina Coast Water District on the operation and maintenance of the Product Water Pipeline and the Purified Water Reservoir necessary for protection of the product water for injection. At a minimum, M1W must be kept informed of the status of testing and maintenance of backflow preventers on the Product Water Pipeline, occurrence of backflow incidents (if any), and maintenance activities of the Purified Water Reservoir*

This Annual Summary Report is organized to provide the above-outlined information. Please also note that the Volumetric Annual Report required per the Water Quality Control Policy for Recycled Water ("Recycled Water Policy") is submitted under separate cover to the Regional Water Board and DDW. That report may be accessed via the GeoTracker Database. See **Appendix D** for access instructions.

#### 1.4 Monitoring Requirements

Project monitoring requirements as outlined in the MRP are as follows:

*M1W shall monitor the flow and quality of the following according to the manner and frequency specified in this MRP:*

- a. *Influent to the AWPf – At a location before clarified secondary effluent enters the ozone pre-treatment system of the AWPf;*
- b. *Prior to RO - At a location where all membrane filtration effluent streams are combined prior to RO treatment;*
- c. *After RO – At a location after RO treatment where all RO effluent streams are combined prior to AOP treatment;*
- d. *AWPf Recycled Water – At a location downstream of the last chemical injection point and prior to well injection;*
- e. *Upon approval by the Central Coast Water Board and DDW, if potable water is used as a diluent, blend of recycled water and diluent water; and*
- f. *Groundwater Monitoring Wells (ID#'s) – MW-2D, MW-2AD, MW-2AS, MW1D, MW-1S, MW-1AD, MW-1AS. (7 total).*

*Monitoring reports must include, but not limited to, the following:*

- a. *Analytical results;*
- b. *Location of each sampling station where representative samples are obtained, including a map, at a scale of 1-inch equals 1,200 feet or less, that clearly identifies the locations of all injection wells, project monitoring wells, and production wells;*
- c. *Analytical test methods used and the corresponding minimum reporting levels (MRLs);*
- d. *Name(s) of the laboratory, which conducted the analyses;*

- e. Copy of laboratory certifications by the DDW's Environmental Laboratory Accreditation Program (ELAP);
- f. Quality assurance and control information, including documentation of chain of custody; and,
- g. Maximum contaminant level (MCL), notification level, response level, DDW Condition or Recycled Water Discharge Limit.

## 1.5 Monitoring Locations

There are eleven monitoring locations, including seven groundwater monitoring wells listed in **Table A**, Sampling Locations, which includes the Primary Station (PS) Code, and latitude/longitude information. A map illustrating the AWPf on-site monitoring locations, and the groundwater monitoring wells is provided in **Figure C** and **Figure D**, respectively.

**Table A. Sampling Locations**

	Site Description	Sample ID	PS Code	Latitude	Longitude
1	Influent to the AWPf	AWPF Influent	2790002-301	36.7070	-121.7711
2	Prior to RO	AWPF RO Feed	2790002-302	36.7069	-121.7722
3	After RO (Prior to AOP)	AWPF RO Permeate	2790002-303	36.7068	-121.7725
4	AWPF Recycled Water	AWPF Product Water	2790002-300	36.7062	-121.7725
5	Groundwater Monitoring Wells (MW-1D)	MW-1D SANTA MARGARITA	2790002-203	36.6183	-121.8143
6	Groundwater Monitoring Wells (MW-1S)	MW-1S PASO ROBLES	2790002-204	36.6183	-121.8143
7	Groundwater Monitoring Wells (MW-1AD)	MW-1AD SANTA MARGARITA	2790002-205	36.6198	-121.8149
8	Groundwater Monitoring Wells (MW-1AS)	MW-1AS PASO ROBLES	2790002-206	36.6197	-121.8150
9	Groundwater Monitoring Wells (MW-2D)	MW-2D SANTA MARGARITA	2790002-207	36.6168	-121.8171
10	Groundwater Monitoring Wells (MW-2AS)	MW-2AS PASO ROBLES	2790002-209	36.6182	-121.8168
11	Groundwater Monitoring Wells (MW-2AD)	MW-2AD SANTA MARGARITA	2790002-210	36.6182	-121.8168

*Note: Per the MRP, M1W will include monitoring if potable water is used as a diluent. In 2021, no potable water was used as a diluent.*



Figure C. Map of AWPf On-Site Monitoring Locations



Figure D. Map of Groundwater Monitoring Well Locations



## 1.6 Acronyms

Acronym/Abbreviation	Term
AFY	Acre-Feet/Year
AWPF	Advanced Water Purification Facility
CBOD <sub>5</sub>	Carbonaceous Biochemical Oxygen Demand
CEC	Constituents of Emerging Concern
DDW	State Water Resources Control Board, Division of Drinking Water
DIW	Deep Injection Well
DNQ	Detected, but Not Quantified
DNQ	Detected, but Not Quantified
DTW	Distance to Water
ELAP	California Environmental Laboratory Accreditation Program
GWR	Groundwater Replenishment
IWF	Injection Well Facilities
LSI	Langelier Saturation Index
M1W	Monterey One Water
MCL	Maximum Contaminant Level
MCWD	Marina Coast Water District
MCWRA	Monterey County Water Resources Agency
MDL	Minimum Detection Level
MGD	Million Gallons Per Day
MPN	Most Probable Number
MPWMD	Monterey Peninsula Water Management District
MRL	Minimum Reporting Level
MS4	Municipal Separate Storm Sewer System
MTL	Monitoring Trigger Levels
MW	Monitoring Well
ND	Not Detected
NL	Notification Level
NTU	Nephelometric Turbidity Units
P3PS	Pond 3 Pump Station (Salinas Stormwater Projects)
Project	Pure Water Monterey Groundwater Replenishment Project
PS Codes	Primary Station Codes
PWM	Pure Water Monterey
PWPS	Product Water Pump Station
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
RDL	Reporting Detection Limit
Recycled Water Policy	Water Quality Control Policy for Recycled Water
Regional Water Board	Central Coast Regional Water Quality Control Board
RL	Response Level
RO	Reverse Osmosis
RTP	Regional Treatment Plant
RWDL	Recycled Water Discharge Limit
SAPS	Salinas Pump Station
Seaside Basin	Seaside Groundwater Basin
State Water Board	State Water Resources Control Board
SVRP	Salinas Valley Reclamation Project
TDS	Total Dissolved Solids
Title 22	California Code of Regulations, Title 22
TKN	Total Kjeldahl Nitrogen
TOC	Total Organic Carbon
TSS	Total Suspended Solids
UV	Ultraviolet
UVT	UV Transmittance
VZW	Vadose Zone Well

## 2.0 SOURCE WATERS INFLUENT TO THE RTP

*M1W must provide a summary on the makeup of source waters (municipal wastewater, agricultural wash water, Blanco Drain, and Reclamation Ditch) entering the Regional Treatment Plant in the annual report to DDW and Central Coast Regional Board required per Title 22 section 60320.228(a). At a minimum, the summary must include discussion on the following items:*

- i. The priority of source water usage for the period reported and the basis for the priority;*
- ii. A summary of monthly volume for each source water type; and*
- iii. An evaluation of which demand scenario best fit the volumes observed during reporting period (Drought, Normal/Wet Full Reserve, Normal/Wet Building Reserve).*

This section provides a summary of the makeup of source waters (municipal wastewater, industrial wastewater (IWW), Blanco Drain, and Reclamation Ditch) entering the RTP in 2021.

### 2.1 Priority of Source Waters

During 2021, a combination of municipal wastewater flows and new source waters consistently met the secondary effluent needs for influent to both recycling facilities (SVRP<sup>2</sup> and the AWPf). M1W has developed a prioritization for the new source waters to meet the needs during times of low municipal wastewater flows and peak recycled water demands. M1W operators have the ability to divert additional source waters into the collection system and treatment facilities. M1W typically utilizes diversions in the following priority which is based on operational cost and ease of conveyance and treatment:

1. Surface water in the Reclamation Ditch near Davis Road west of Salinas;
2. Surface water in the Blanco Drain near the Salinas River; and
3. Industrial Wastewater (also referred to as “Agricultural Wash Water”) which can be diverted to the Salinas Pump Station (SAPS).<sup>3</sup>

Diversion of surface water from the Reclamation Ditch and Blanco Drain are subject to conditions of applicable water rights permits (SWRCB Water Rights Permits Nos. 21377 and 21376). This prioritization is subject to change based on operational considerations and the need for maintenance.

### 2.2 Summary of Monthly Volumes

Monthly volumes of source waters influent to the RTP are provided in **Table 1**.

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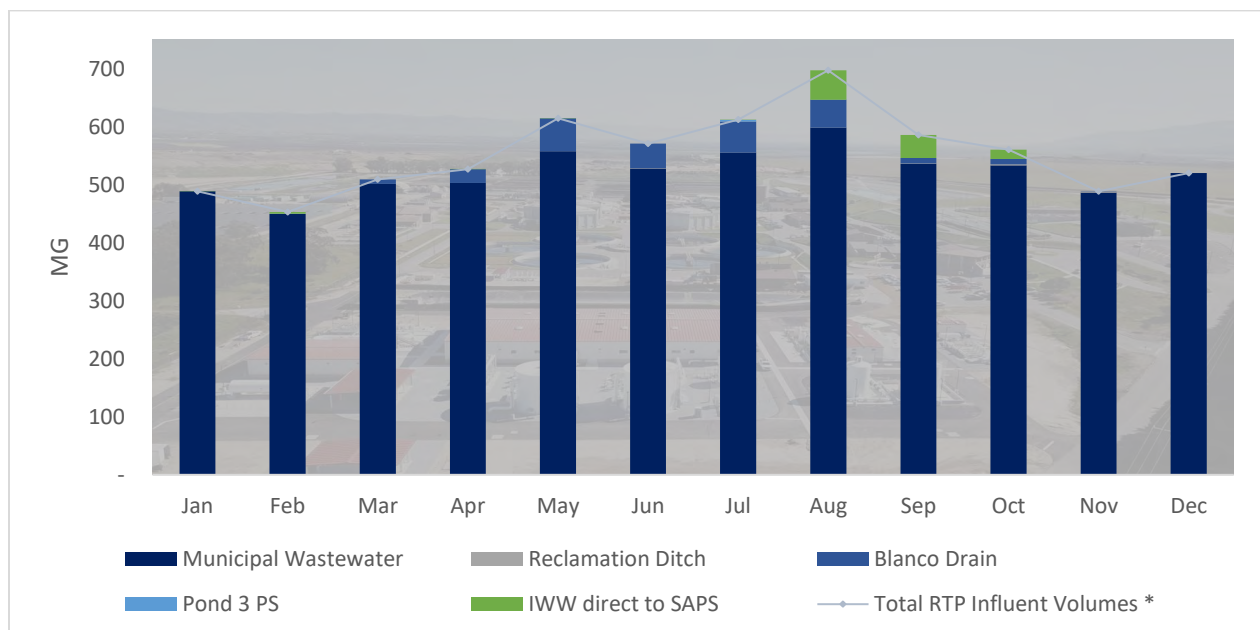
<sup>2</sup> The SVRP is a water reclamation facility producing Title 22 Disinfected Tertiary recycled water for agricultural irrigation in the Castroville Seawater Intrusion Project (CSIP) distribution system.

<sup>3</sup> Note: as of the date of this report, M1W and the City of Salinas had not yet reached an agreement for the conveyance and utilization of treated IWW via the Pond 3 Pump Station; however, as outlined in a previous short-term agreement, M1W can divert stormwater from the ponds to the RTP.

**Table 1. Monthly Source Water Volumes Influent to the RTP (MG)**

Month	Total Influent to the RTP <sup>1</sup>	Total Municipal Wastewater <sup>1</sup>	New Source Waters			
			Reclamation Ditch Diversions	Blanco Drain Diversions	Salinas IWW Treatment Facility Pond 3 Diversions	Salinas IWW to Salinas Pump Station Diversions
January	488.92	488.78	-	-	-	0.14
February	453.11	449.76	-	-	0.25	3.10
March	509.16	501.24	-	7.92	-	-
April	526.85	502.93	-	23.92	-	0.001
May	614.57	557.71	-	56.86	-	0.0003
June	571.16	527.97	0.27	42.91	-	-
July	612.12	555.72	-	53.15	3.06	0.19
August	697.29	598.75	-	47.74	0.23	50.57
September	586.14	536.32	0.28	9.74	-	39.79
October	560.75	533.58	1.67	9.06	-	16.44
November	488.55	486.78	1.74	0.03	-	-
December	520.01	520.01	-	-	-	-
<b>Total</b>	<b>6,628.62</b>	<b>6,259.55</b>	<b>3.96</b>	<b>251.33</b>	<b>3.54</b>	<b>110.24</b>

<sup>1</sup>Volumes do not include de minimis on-site wastewater, liquid waste hauled to site, Monterey Regional Waste Management District domestic wastewater, or backwash from the Salinas River Diversion Facility, which enter the plant downstream of the flowmeter.


**Figure 1. Monthly Source Water Volumes Influent to the RTP (MG)**

*\*See Table 1, Footnote 1.*

All 1,133 acre-feet of diverted, interruptible source water became influent to the RTP primary and secondary treatment processes. The diversions occurred while AWPF was operating. In 2021, all new source waters were diverted for recycling and beneficial reuse by the PWM Project for groundwater replenishment and indirect potable reuse or by the SVRP for agricultural irrigation in the Castroville Seawater Intrusion Project (CSIP).

### 2.3 Demand Scenario Discussion

During 2021, M1W continued operation of the AWPf and worked to produce and inject as much purified recycled water as possible. The source water scenario was considered a “Wet Year/Building Reserve.”

A total of 167 acre feet delivered to the Seaside Basin was added to the operating reserve for Monterey Peninsula potable supplies for a total operating reserve of 1,200 acre feet as of December 31, 2021. M1W has not produced or injected water for the “Drought Reserve” for the Castroville Seawater Intrusion Project to date because Monterey County Water Resources Agency (MCWRA) has not committed to fund the new source water facilities or diversions. Nor did MCWD use purified recycled water for urban irrigation in 2021.

### 3.0 TABULAR AND GRAPHICAL SUMMARIES OF MONITORING DATA

*Tabular and graphical summaries of the monitoring data obtained during the previous calendar year...*

Note that for parameters for which all of calendar year 2021 monitoring results were non-detect (ND), no graphical summary is provided as approved by the Regional Water Board.<sup>4</sup>

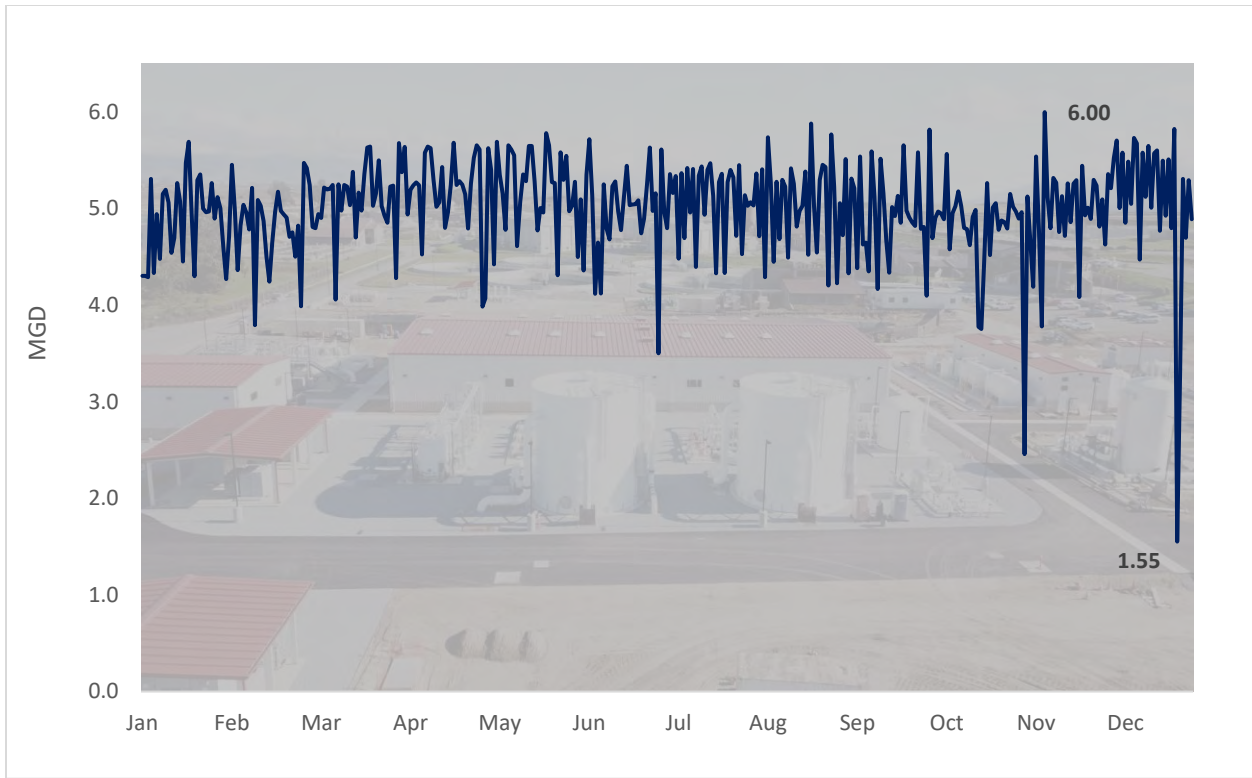
#### 3.1 Flow Volumes

##### 3.1.1 AWPf Influent - Secondary Effluent from the RTP

**Table 2. AWPf Influent – Secondary Effluent from the RTP – Daily Average (MGD)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	4.30	5.45	4.81	5.38	5.62	4.50	4.97	5.03	4.72	5.82	4.90	4.63
2	4.30	4.99	4.80	5.64	5.40	5.09	4.80	5.36	5.51	4.69	4.96	5.36
3	4.29	4.36	4.94	4.94	4.42	4.36	5.36	4.71	4.33	4.90	2.46	5.21
4	5.31	4.83	4.90	5.20	5.69	5.35	5.16	5.41	5.31	4.97	5.13	5.52
5	4.33	5.04	5.22	5.24	5.35	5.72	5.34	4.29	5.21	4.95	4.66	5.70
6	4.94	4.96	5.20	5.27	5.15	5.14	4.48	5.74	4.38	4.89	4.19	5.00
7	4.48	4.78	5.20	5.24	4.78	4.12	5.37	5.27	5.54	5.57	5.54	5.58
8	5.15	5.21	5.24	4.52	5.66	4.65	4.69	4.45	4.63	4.58	4.78	4.85
9	5.19	3.79	4.06	5.58	5.61	4.12	5.42	5.28	4.65	4.95	3.78	5.48
10	5.06	5.09	5.25	5.64	5.55	5.25	4.96	4.68	4.35	5.03	6.00	5.05
11	4.54	5.03	4.98	5.63	4.61	4.79	5.41	5.30	5.59	5.18	5.11	5.73
12	4.70	4.87	5.24	5.30	5.07	4.68	4.40	5.23	5.12	5.03	4.80	5.67
13	5.26	4.50	5.23	5.02	5.35	5.23	5.34	4.49	4.17	4.80	5.32	4.47
14	5.07	4.24	5.03	5.06	5.28	5.28	5.43	5.42	5.52	4.79	5.27	5.58
15	4.45	4.65	5.38	5.43	5.65	4.97	4.93	5.26	5.16	4.62	4.76	5.12
16	5.47	4.97	4.70	4.80	5.65	4.78	5.40	4.81	4.66	4.91	5.13	5.65
17	5.69	5.17	5.16	4.96	5.28	5.12	5.47	4.97	4.34	4.99	4.72	5.01
18	4.95	4.97	4.98	5.24	4.77	5.44	5.13	5.03	5.01	3.78	5.26	5.57
19	4.30	4.94	5.36	5.68	5.00	5.03	4.33	5.38	4.92	3.75	4.86	5.60
20	5.29	4.91	5.63	5.24	4.96	5.04	5.28	4.52	5.13	4.47	5.26	4.77
21	5.35	4.71	5.64	5.28	5.78	5.05	5.36	5.88	4.85	5.26	5.29	5.49
22	5.00	4.75	5.03	5.25	5.65	5.08	4.33	5.03	5.65	4.52	4.08	4.92
23	4.96	4.50	5.15	5.15	5.27	4.74	5.27	4.54	4.98	5.01	5.44	5.51
24	4.97	4.82	5.50	4.79	5.26	4.90	5.40	5.30	4.91	5.05	4.93	4.80
25	5.26	3.99	5.02	5.26	4.31	5.24	5.32	5.45	4.86	4.78	5.01	5.82
26	4.90	5.47	4.92	5.52	5.58	5.63	4.72	5.43	4.82	4.88	4.89	1.55
27	5.12	5.42	4.85	5.65	5.30	4.98	5.45	4.21	5.58	4.86	5.30	3.28
28	5.00	5.24	5.23	5.61	5.54	5.16	4.53	5.77	4.79	4.79	5.24	5.31
29	4.61		5.24	3.98	4.97	3.50	5.14	5.23	4.81	5.15	4.81	4.70
30	4.27		4.28	4.07	5.03	5.61	5.03	4.23	4.10	5.02	5.09	5.29
31	4.71		5.68		5.28		5.06	5.05		4.97		4.89

<sup>4</sup> James Bishop, email communication 1/20/2021

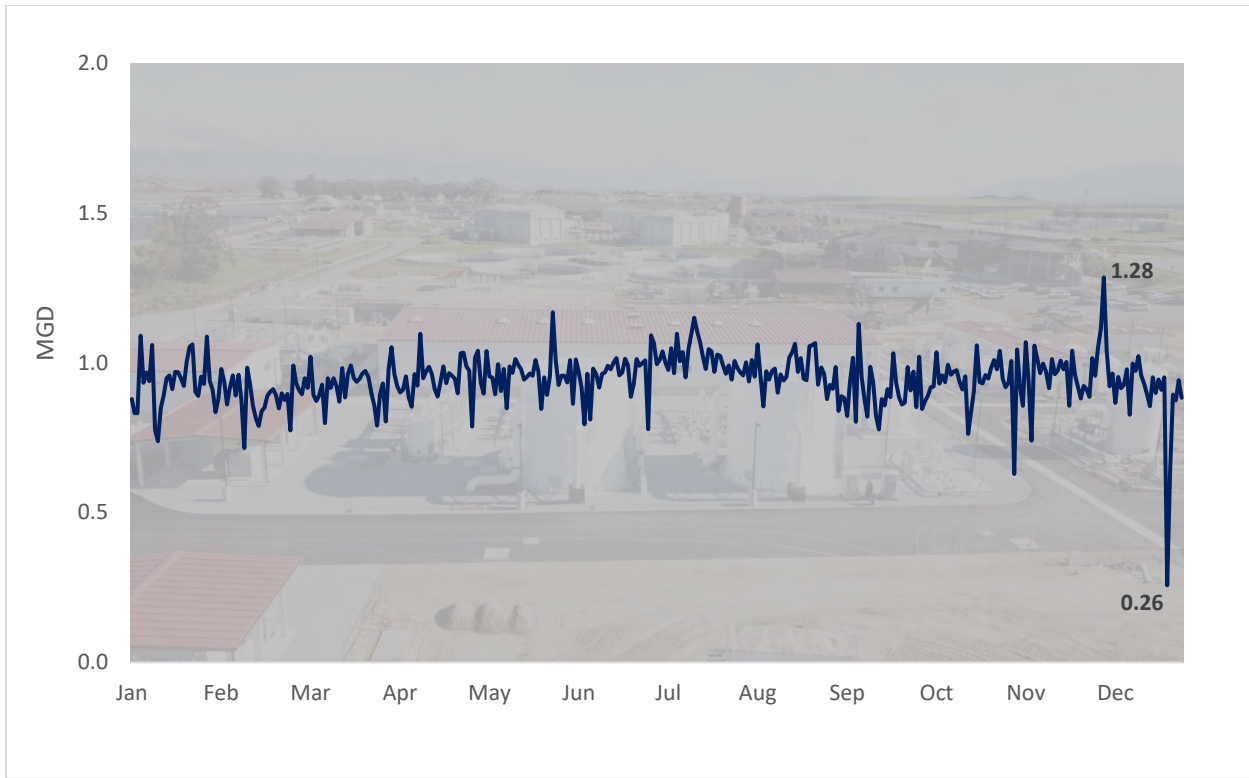


**Figure 2. AWPF Influent – Secondary Effluent from the RTP – Daily Average (MGD)**

### 3.1.2 Waste Equalization Effluent Discharged into the RTP

**Table 3. Waste Equalization Effluent Discharged into the RTP – Daily Average (MGD)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.88	0.98	0.89	1.05	1.04	0.93	1.07	0.96	0.91	1.02	0.93	0.96
2	0.83	0.94	0.95	0.96	0.93	1.01	0.99	1.00	0.99	0.85	1.01	1.05
3	0.83	0.86	0.92	0.92	0.90	0.86	1.01	0.94	0.84	0.87	0.63	1.12
4	1.09	0.92	1.02	0.90	1.04	1.01	1.04	1.01	0.89	0.89	1.04	1.28
5	0.93	0.96	0.89	0.91	0.95	0.97	1.00	0.95	0.88	0.92	0.92	1.04
6	0.97	0.89	0.87	0.95	0.95	0.92	0.98	1.06	0.82	0.92	0.86	0.92
7	0.94	0.96	0.89	0.88	0.89	0.79	1.05	0.96	0.94	1.04	1.07	0.96
8	1.06	0.87	0.93	0.85	0.99	0.96	0.97	0.85	1.02	0.93	0.94	0.87
9	0.78	0.71	0.80	0.96	0.90	0.81	1.10	0.97	0.80	0.96	0.74	0.95
10	0.74	0.98	0.95	0.92	0.98	0.98	1.01	0.94	1.13	0.94	1.06	0.92
11	0.85	0.93	0.92	1.10	0.85	0.96	1.04	0.97	0.95	0.99	1.01	0.93
12	0.89	0.86	0.95	0.95	0.99	0.92	0.95	0.98	0.88	0.96	0.97	0.98
13	0.95	0.81	0.92	0.97	0.97	0.96	1.05	0.90	0.82	0.97	1.00	0.83
14	0.96	0.79	0.87	0.99	1.01	0.97	1.10	0.96	0.99	0.98	0.97	1.00
15	0.91	0.84	0.98	0.96	0.99	0.99	1.15	0.94	0.94	0.94	0.92	0.97
16	0.97	0.85	0.88	0.91	0.98	0.98	1.11	0.95	0.82	0.91	1.01	1.02
17	0.97	0.89	0.96	0.89	0.94	1.00	1.07	1.02	0.78	0.95	0.96	0.96
18	0.95	0.90	0.99	0.94	0.95	1.02	1.02	1.03	0.88	0.76	0.97	0.93
19	0.92	0.91	0.95	0.99	0.96	0.96	0.98	1.06	0.86	0.83	1.01	0.89
20	1.00	0.89	0.94	0.93	0.96	0.97	1.04	0.97	0.91	0.91	0.98	0.85
21	1.05	0.85	0.95	0.96	1.01	1.01	1.04	1.02	0.88	1.06	1.00	0.95
22	1.06	0.90	0.96	0.96	0.97	0.99	0.97	0.95	1.03	0.94	0.86	0.90
23	0.90	0.88	0.97	0.95	0.85	0.89	1.03	0.94	0.93	0.93	1.04	0.94
24	0.89	0.90	0.95	0.90	0.95	0.93	1.02	1.05	0.89	0.96	0.96	0.91
25	0.95	0.77	0.90	1.03	0.89	1.01	0.99	1.06	0.86	0.95	0.92	0.95
26	0.93	0.99	0.86	1.03	0.96	0.99	0.96	1.07	0.87	0.98	0.88	0.26
27	1.09	0.93	0.79	0.99	1.17	1.00	0.99	0.93	0.99	1.01	0.92	0.64
28	0.94	0.91	0.89	0.97	1.01	1.01	0.94	0.98	0.91	0.98	0.91	0.89
29	0.91		0.93	0.79	0.93	0.78	1.01	0.96	0.97	1.04	0.89	0.87
30	0.84		0.80	1.02	0.96	1.09	0.98	0.88	0.85	0.95	1.02	0.94
31	0.88		0.98		0.96		0.97	0.93		0.92		0.88



**Figure 3. Waste Equalization Effluent Discharged into the RTP – Daily Average (MGD)**

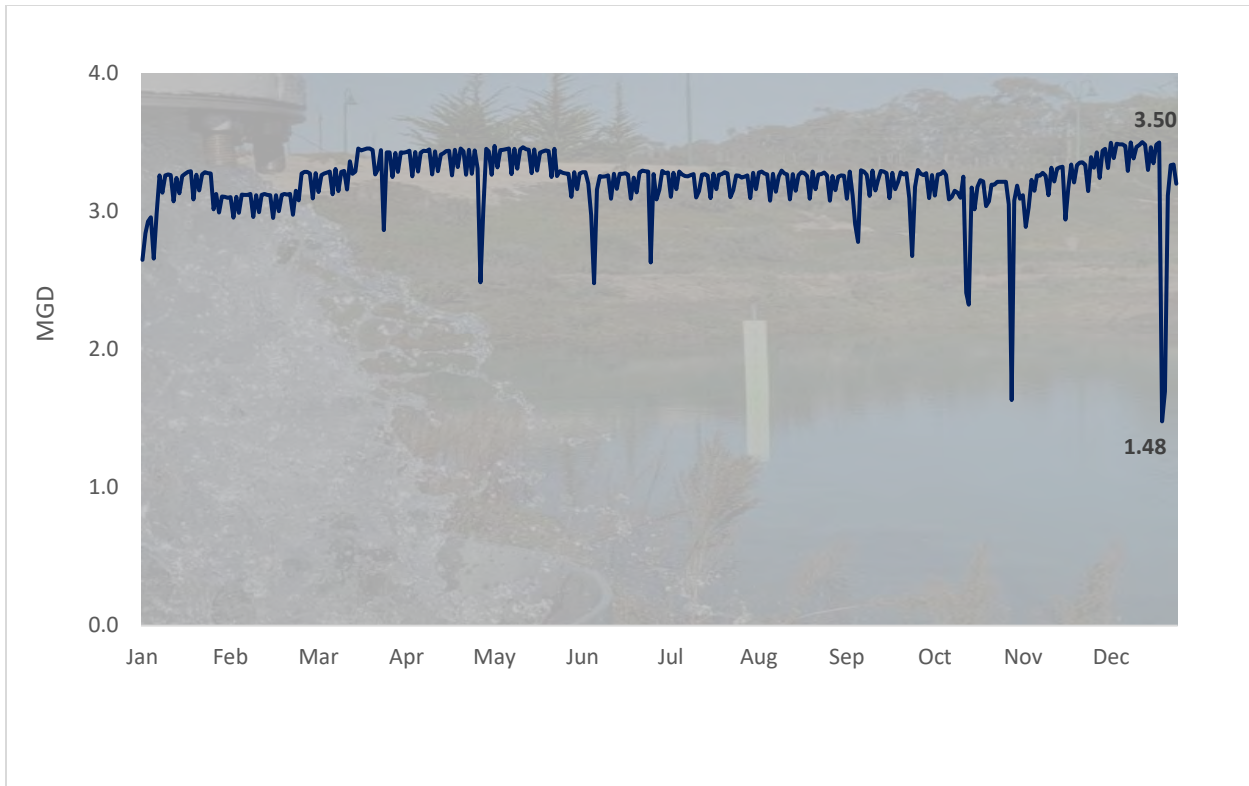


### 3.1.3 AWPf Recycled Water Injected into the Seaside Basin

Table 4. AWPf Recycled Water Injected into the Seaside Basin <sup>5</sup> - Daily Average (MGD)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.65	3.10	3.27	3.29	3.02	3.11	3.09	3.25	3.26	3.30	3.21	3.39
2	2.84	2.95	3.09	3.43	3.45	3.28	3.16	3.26	3.15	3.27	3.05	3.32
3	2.93	3.11	3.28	3.43	3.43	3.16	3.29	3.10	3.25	3.26	1.63	3.43
4	2.96	2.99	3.14	3.43	3.27	3.27	3.28	3.28	3.26	3.28	3.08	3.24
5	2.66	3.12	3.26	3.44	3.47	3.28	3.28	3.16	3.26	3.10	3.19	3.44
6	2.99	3.12	3.27	3.25	3.32	3.28	3.10	3.28	3.09	3.26	3.09	3.45
7	3.26	3.12	3.28	3.43	3.44	3.20	3.28	3.29	3.29	3.11	3.12	3.31
8	3.14	3.13	3.29	3.29	3.45	2.97	3.16	3.27	3.11	3.27	2.89	3.50
9	3.26	2.96	3.12	3.43	3.45	2.48	3.29	3.27	2.90	3.27	3.03	3.39
10	3.27	3.12	3.31	3.44	3.45	3.16	3.27	3.08	2.78	3.29	3.23	3.49
11	3.26	2.99	3.15	3.44	3.27	3.25	3.26	3.27	3.30	3.26	3.15	3.48
12	3.07	3.12	3.29	3.45	3.45	3.25	3.25	3.14	3.29	3.09	3.26	3.48
13	3.24	3.13	3.29	3.27	3.31	3.25	3.26	3.25	3.27	3.10	3.26	3.47
14	3.13	3.12	3.16	3.43	3.45	3.26	3.27	3.29	3.11	3.15	3.28	3.29
15	3.26	3.12	3.36	3.29	3.46	3.09	3.10	3.27	3.29	3.13	3.26	3.50
16	3.27	2.95	3.27	3.41	3.45	3.27	3.15	3.27	3.15	3.10	3.12	3.38
17	3.29	3.12	3.29	3.42	3.45	3.16	3.26	3.09	3.22	3.25	3.32	3.47
18	3.29	3.00	3.45	3.44	3.28	3.27	3.27	3.27	3.29	2.41	3.22	3.48
19	3.09	3.12	3.44	3.44	3.45	3.27	3.26	3.15	3.29	2.32	3.31	3.50
20	3.26	3.12	3.45	3.26	3.30	3.28	3.10	3.26	3.28	3.17	3.32	3.48
21	3.15	3.12	3.45	3.44	3.43	3.27	3.27	3.28	3.10	3.01	3.32	3.30
22	3.27	3.13	3.45	3.32	3.43	3.09	3.16	3.28	3.28	3.18	2.94	3.46
23	3.28	2.98	3.44	3.45	3.44	3.24	3.26	3.26	3.16	3.23	3.17	3.35
24	3.28	3.15	3.27	3.43	3.44	3.14	3.27	3.09	3.21	3.22	3.34	3.48
25	3.27	3.08	3.31	3.26	3.25	3.28	3.28	3.29	3.28	3.04	3.21	3.50
26	3.02	3.27	3.44	3.45	3.45	3.29	3.27	3.16	3.27	3.07	3.33	1.48
27	3.13	3.29	2.86	3.27	3.25	3.29	3.10	3.27	3.28	3.19	3.35	1.70
28	2.99	3.28	3.43	3.44	3.29	3.29	3.15	3.27	3.10	3.19	3.35	3.11
29	3.11		3.43	3.31	3.28	2.63	3.26	3.28	2.68	3.21	3.34	3.33
30	3.10		3.25	2.49	3.27	3.27	3.26	3.26	3.18	3.21	3.15	3.34
31	3.10		3.42		3.27		3.24	3.08		3.21		3.20

<sup>5</sup>Volumes include backwash water.

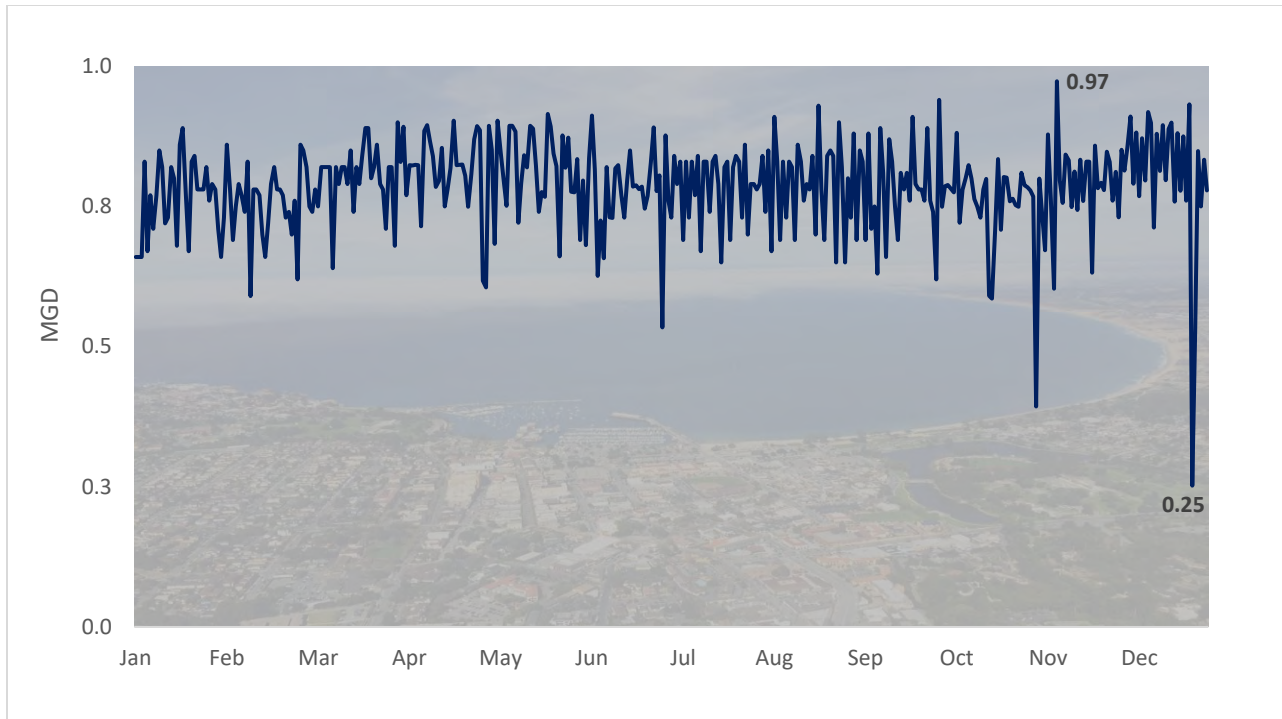


**Figure 4. AWPF Recycled Water Injected into the Seaside Basin – Daily Average (MGD)**

### 3.1.4 RO Concentrate Sent to the Ocean Outfall

Table 5. RO Concentrate Sent to the Ocean Outfall – Daily Average (MGD)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.66	0.86	0.75	0.83	0.89	0.69	0.76	0.79	0.73	0.94	0.78	0.73
2	0.66	0.78	0.74	0.89	0.85	0.80	0.73	0.84	0.88	0.75	0.77	0.85
3	0.66	0.69	0.78	0.77	0.68	0.68	0.84	0.74	0.69	0.79	0.39	0.81
4	0.83	0.75	0.75	0.82	0.90	0.84	0.79	0.85	0.85	0.79	0.80	0.85
5	0.67	0.79	0.82	0.82	0.85	0.91	0.83	0.67	0.83	0.78	0.73	0.91
6	0.77	0.77	0.82	0.82	0.80	0.82	0.69	0.91	0.69	0.77	0.67	0.79
7	0.71	0.74	0.82	0.82	0.75	0.63	0.83	0.83	0.88	0.88	0.88	0.88
8	0.77	0.83	0.82	0.71	0.89	0.72	0.73	0.69	0.71	0.72	0.76	0.77
9	0.85	0.59	0.64	0.88	0.89	0.66	0.83	0.83	0.75	0.78	0.60	0.87
10	0.82	0.78	0.82	0.90	0.88	0.82	0.77	0.73	0.63	0.80	0.97	0.80
11	0.72	0.78	0.79	0.87	0.72	0.73	0.84	0.83	0.89	0.82	0.80	0.92
12	0.73	0.77	0.82	0.84	0.79	0.73	0.67	0.82	0.81	0.80	0.76	0.90
13	0.82	0.70	0.82	0.78	0.84	0.82	0.83	0.69	0.66	0.76	0.84	0.71
14	0.80	0.66	0.79	0.80	0.82	0.82	0.83	0.86	0.87	0.75	0.83	0.88
15	0.68	0.72	0.85	0.85	0.89	0.77	0.74	0.83	0.83	0.73	0.75	0.81
16	0.86	0.79	0.74	0.75	0.89	0.73	0.83	0.76	0.75	0.78	0.81	0.90
17	0.89	0.82	0.82	0.78	0.82	0.80	0.84	0.79	0.69	0.80	0.74	0.80
18	0.77	0.78	0.79	0.82	0.74	0.85	0.79	0.78	0.81	0.59	0.83	0.89
19	0.67	0.78	0.84	0.90	0.78	0.79	0.65	0.84	0.78	0.59	0.76	0.90
20	0.83	0.77	0.89	0.82	0.77	0.79	0.82	0.70	0.81	0.71	0.83	0.76
21	0.84	0.73	0.89	0.82	0.92	0.78	0.83	0.93	0.76	0.83	0.83	0.88
22	0.78	0.74	0.80	0.82	0.89	0.79	0.69	0.78	0.91	0.71	0.63	0.78
23	0.78	0.70	0.82	0.80	0.84	0.75	0.82	0.69	0.79	0.80	0.86	0.87
24	0.78	0.76	0.86	0.75	0.82	0.77	0.84	0.84	0.78	0.80	0.78	0.76
25	0.82	0.62	0.79	0.81	0.66	0.83	0.83	0.85	0.78	0.76	0.79	0.93
26	0.76	0.86	0.78	0.87	0.88	0.89	0.73	0.84	0.76	0.76	0.78	0.25
27	0.79	0.85	0.71	0.89	0.82	0.78	0.86	0.65	0.89	0.75	0.85	0.53
28	0.78	0.82	0.82	0.89	0.87	0.81	0.70	0.90	0.76	0.75	0.83	0.85
29	0.71		0.82	0.62	0.78	0.53	0.79	0.82	0.74	0.81	0.76	0.75
30	0.66		0.68	0.61	0.77	0.88	0.79	0.65	0.62	0.79	0.81	0.83
31	0.73		0.90		0.83		0.78	0.80		0.78		0.78



**Figure 5. RO Concentrate Sent to the Ocean Outfall – Daily Average (MGD)**

### 3.1.5 AWPf Non-Production Statement

There were no substantial periods of non-injection in 2021.

### 3.2 Date and Time of Sampling and Analyses

Dates and times of sampling and analyses for compliance samples analyzed by M1W’s Laboratory, in addition to the analytical methods used were provided in AWPf Quarterly Monitoring Reports. See **Section 11.0** and **Appendix A** and **Appendix B** for additional laboratory information including laboratories utilized, ELAP certificates, analytical methods, contact laboratory QA/QC procedures, and proficiency test documentation. Note that Contract Lab Reports and COCs were provided in the 2021 Quarterly Reports, which are available via GeoTracker. See **Appendix D** for instructions on how to access those, and other, Project reports.

### 3.3 Analytical Results

*All analytical results of samples collected during the monitoring period of the:*

- i. AWPf Influent,*
- ii. RO Feed Water (prior to RO),*
- iii. AWPf Recycled Water, and*
- iv. Groundwater.*

### 3.3.1 AWPf Influent

#### *AWPF Influent Monitoring*

- a. *Monitoring is required to determine compliance with water quality conditions and standards and assess AWPf performance.*
- b. *The influent sampling station is located before clarified secondary effluent from the RTP enters the ozone pre-treatment system of the AWPf. Influent samples shall be obtained on the same day that stabilized advanced treated recycled water samples are obtained. The date and time of sampling shall be reported with the analytical values determined. Table M-2 constitutes the influent monitoring program.*

Table M-2: Influent Monitoring			
Constituents	Units	Type of Sample	Minimum Frequency of Analysis
Ammonia-N	mg/L	grab	Weekly
CBOD <sub>5</sub>	mg/L	24-hour composite	Weekly
Boron	mg/L	grab	Weekly
Chloride	mg/L	24-hour composite	Weekly
Nitrate-N	mg/L	24-hour composite	Weekly
Nitrite-N	mg/L	24-hour composite	Weekly
pH	pH units	Metered	Continuous
Sodium	mg/L	24-hour composite	Weekly
Sulfate	mg/L	grab	Weekly
Total Suspended Solids	mg/L	24-hour composite	Weekly
Total coliform	MPN/100	grab	Weekly
Total Dissolve Solids	mg/L	24-hour composite	Weekly
Total flow	mgd	Metered	Continuous <sup>3</sup>
Total Kjeldahl Nitrogen-N	mg/L	grab	Weekly
Total Nitrogen <sup>4</sup>	mg/L	grab	Weekly
Total Organic Carbon (TOC)	mg/L	24-hour composite <sup>1</sup>	Weekly
Turbidity	NTU	Metered	Continuous <sup>5</sup>
UV transmittance	%	grab	Weekly

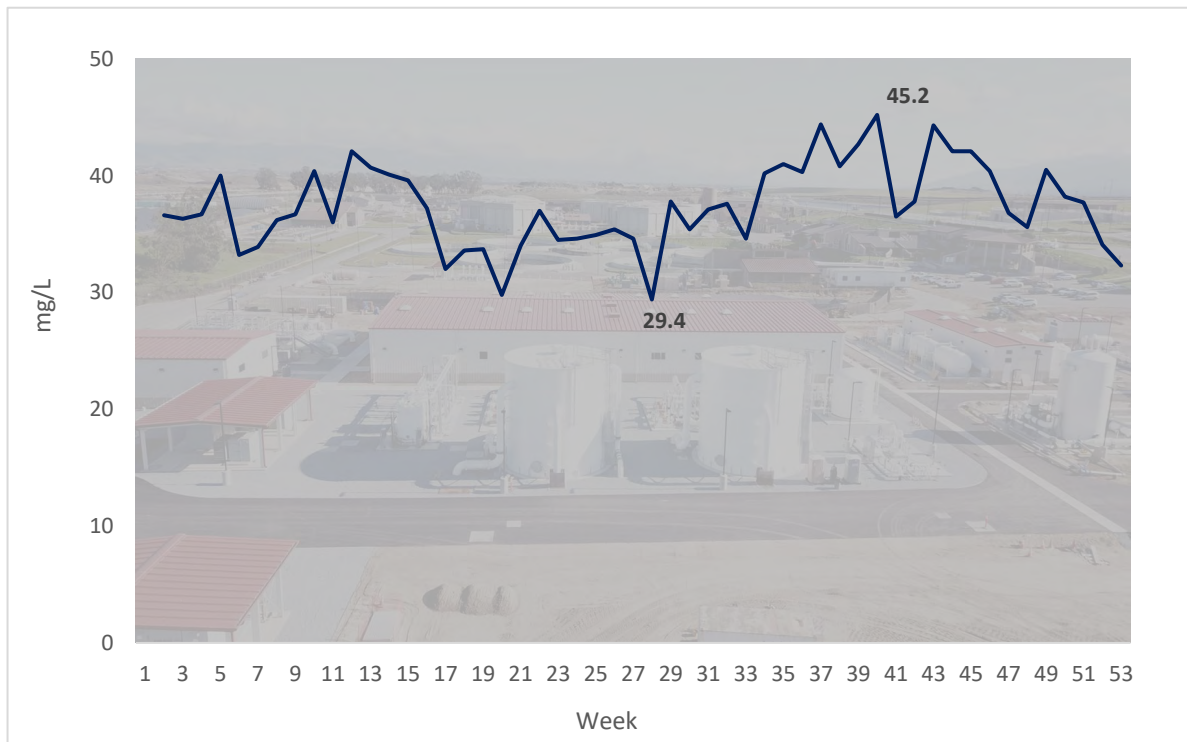
<sup>3</sup> For those pollutants that are continuously monitored, M1W shall report the monthly minimum and maximum, and daily average values.

<sup>4</sup> Total Nitrogen includes nitrate-N, nitrite-N, ammonia-N, and organic-N.

<sup>5</sup> May change to grab after M1W demonstrates that grab sampling is adequate.

**Table 6. AWPf Influent Monitoring – Weekly Ammonia-N (mg/L)<sup>6</sup>**

Week	Ammonia-N mg/L	Week	Ammonia-N mg/L	Week	Ammonia-N mg/L
1	-	18	33.6	36	40.3
2	36.6	19	33.7	37	44.4
3	36.3	20	29.8	38	40.8
4	36.7	21	34.0	39	42.7
5	40.0	22	37.0	40	45.2
6	33.2	23	34.5	41	36.5
7	33.9	24	34.6	42	37.8
8	36.2	25	34.9	43	44.3
9	36.7	26	35.4	44	42.1
10	40.4	27	34.6	45	42.1
11	36.0	28	29.4	46	40.4
12	42.1	29	37.8	47	36.8
13	40.7	30	35.4	48	35.6
14	40.1	31	37.1	49	40.5
15	39.6	32	37.6	50	38.2
16	37.2	33	34.6	51	37.7
17	32.0	34	40.2	52	34.1
		35	41.0	53	32.3

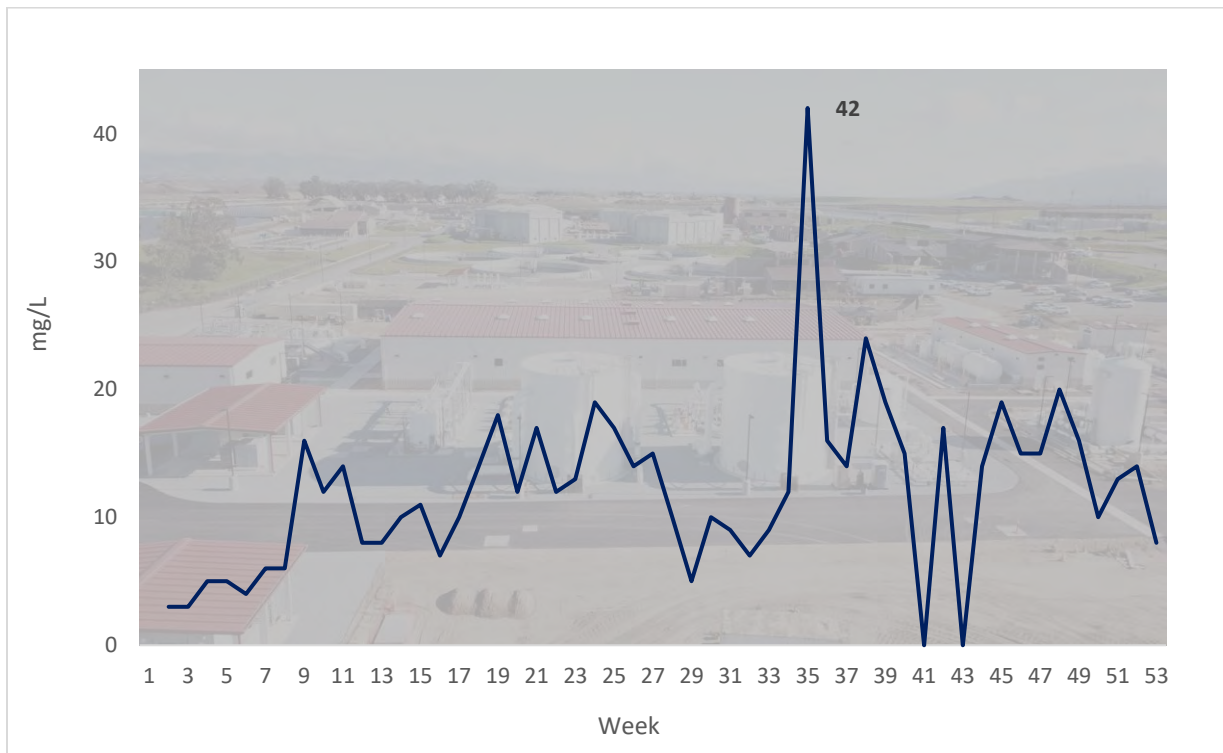


**Figure 6. AWPf Influent Monitoring – Weekly Ammonia-N (mg/L)**

<sup>6</sup> Note: Week 1 of 2021 spanned Sunday December 27, 2020, to Saturday January 2, 2021; representative sample was collected and reported in the 2020 Annual Summary Report as Week 53. This is applicable to all weekly monitoring.

**Table 7. AWPf Influent Monitoring – Weekly CBOD<sub>5</sub> (mg/L)**

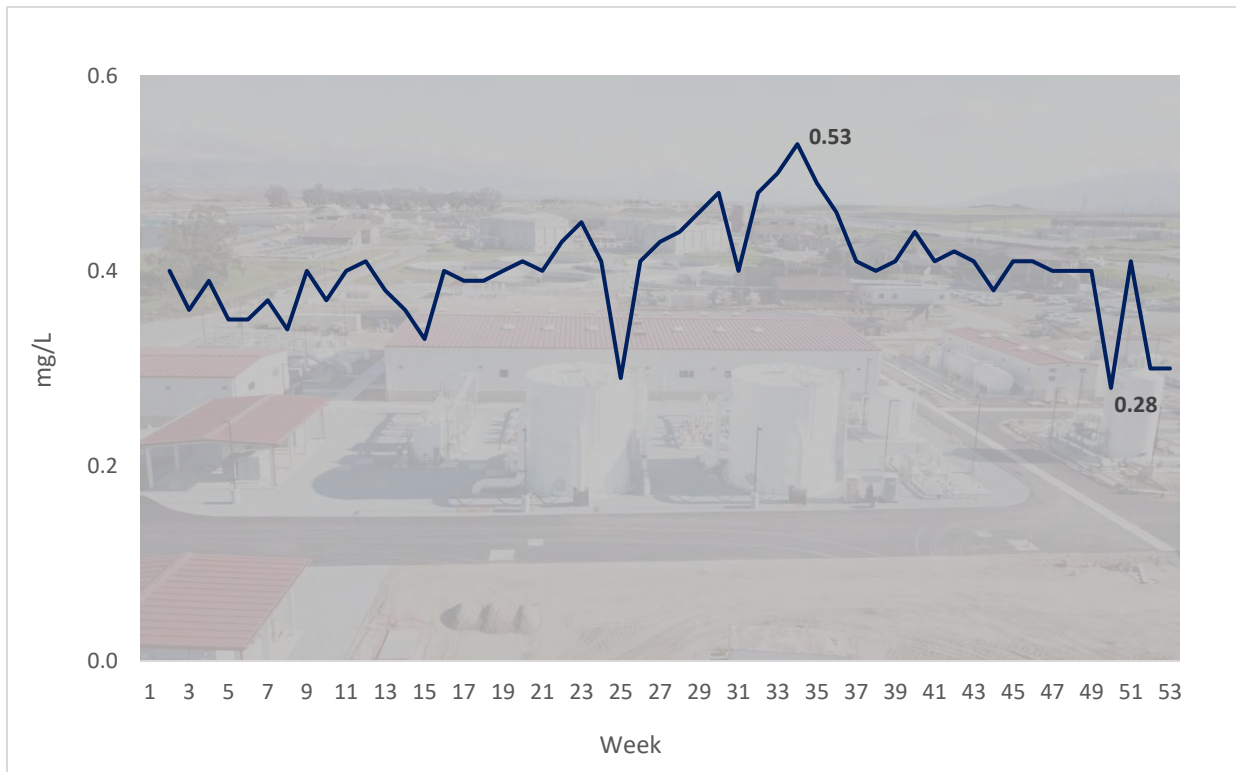
Week	CBOD <sub>5</sub> mg/L	Week	CBOD <sub>5</sub> mg/L	Week	CBOD <sub>5</sub> mg/L
1	-	18	14	36	16
2	3	19	18	37	14
3	3	20	12	38	24
4	5	21	17	39	19
5	5	22	12	40	15
6	4	23	13	41	3R
7	6	24	19	42	17
8	6	25	17	43	>26
9	16	26	14	44	14
10	12	27	15	45	19
11	14	28	10	46	15
12	8	29	5	47	15
13	8	30	10	48	20
14	10	31	9	49	16
15	11	32	7	50	10
16	7	33	9	51	13
17	10	34	12	52	14
		35	42	53	8



**Figure 7. AWPf Influent Monitoring – Weekly CBOD<sub>5</sub> (mg/L)**

**Table 8. AWPf Influent Monitoring – Weekly Boron (mg/L)**

Week	Boron mg/L	Week	Boron mg/L	Week	Boron mg/L
1	-	18	0.39	36	0.46
2	0.40	19	0.40	37	0.41
3	0.36	20	0.41	38	0.40
4	0.39	21	0.40	39	0.41
5	0.35	22	0.43	40	0.44
6	0.35	23	0.45	41	0.41
7	0.37	24	0.41	42	0.42
8	0.34	25	0.29	43	0.41
9	0.40	26	0.41	44	0.38
10	0.37	27	0.43	45	0.41
11	0.40	28	0.44	46	0.41
12	0.41	29	0.46	47	0.40
13	0.38	30	0.48	48	0.40
14	0.36	31	0.40	49	0.40
15	0.33	32	0.48	50	0.28
16	0.40	33	0.50	51	0.41
17	0.39	34	0.53	52	0.30
		35	0.49	53	0.30

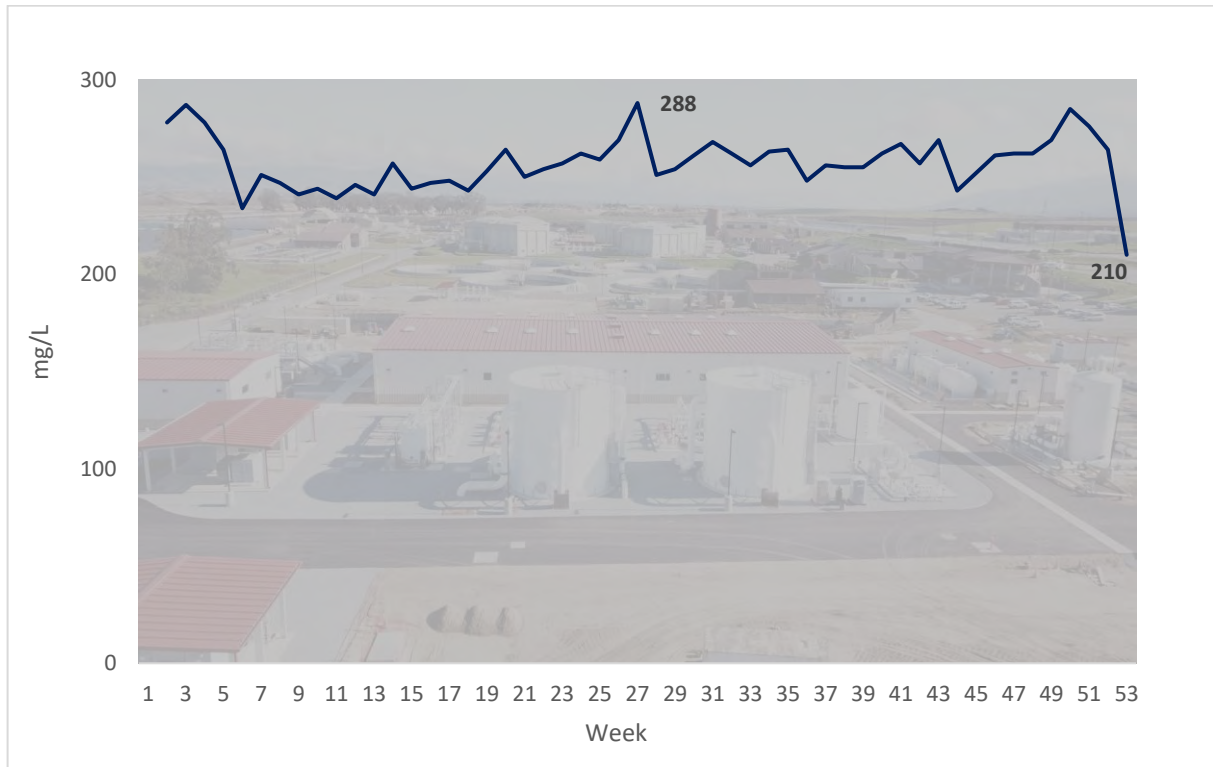


**Figure 8. AWPf Influent Monitoring – Weekly Boron (mg/L)**



**Table 9. AWPf Influent Monitoring – Weekly Chloride (mg/L)**

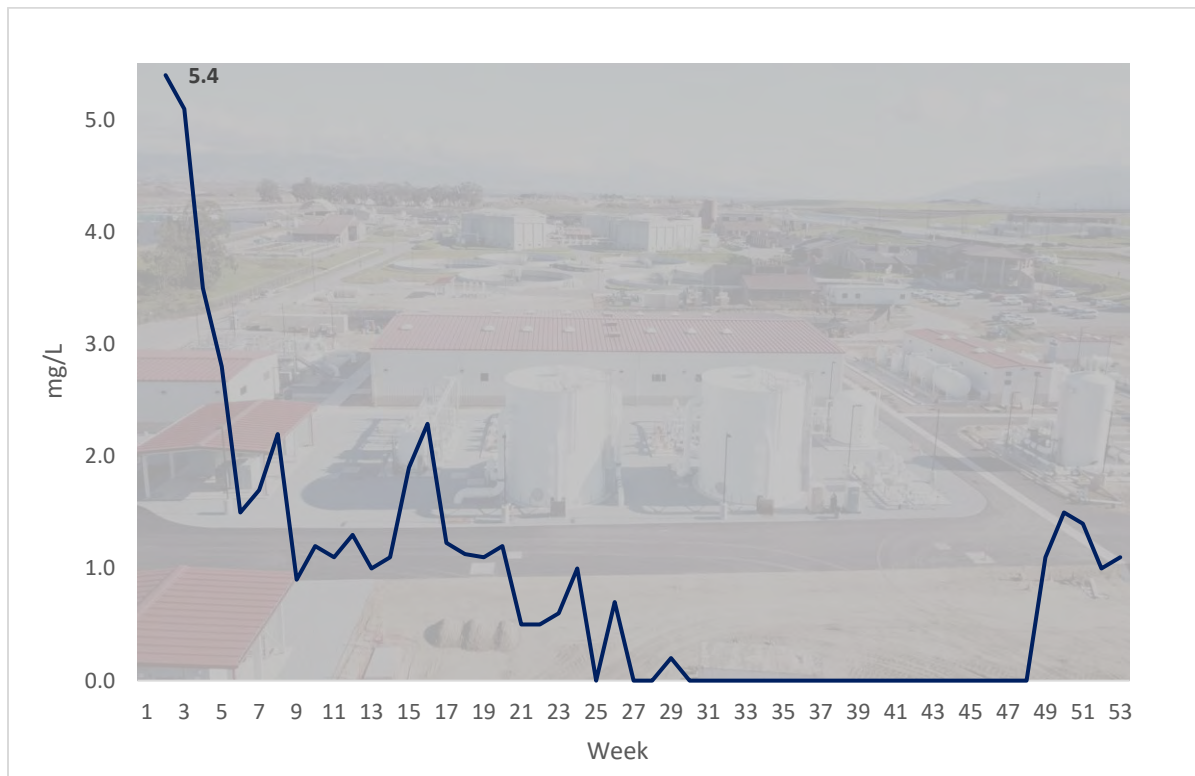
Week	Chloride mg/L	Week	Chloride mg/L	Week	Chloride mg/L
1	-	18	243	36	248
2	278	19	253	37	256
3	287	20	264	38	255
4	278	21	250	39	255
5	264	22	254	40	262
6	234	23	257	41	267
7	251	24	262	42	257
8	247	25	259	43	269
9	241	26	269	44	243
10	244	27	288	45	252
11	239	28	251	46	261
12	246	29	254	47	262
13	241	30	261	48	262
14	257	31	268	49	269
15	244	32	262	50	285
16	247	33	256	51	276
17	248	34	263	52	264
		35	264	53	210



**Figure 9. AWPf Influent Monitoring – Weekly Chloride (mg/L)**

**Table 10. AWPf Influent Monitoring – Weekly Nitrate-N (mg/L)**

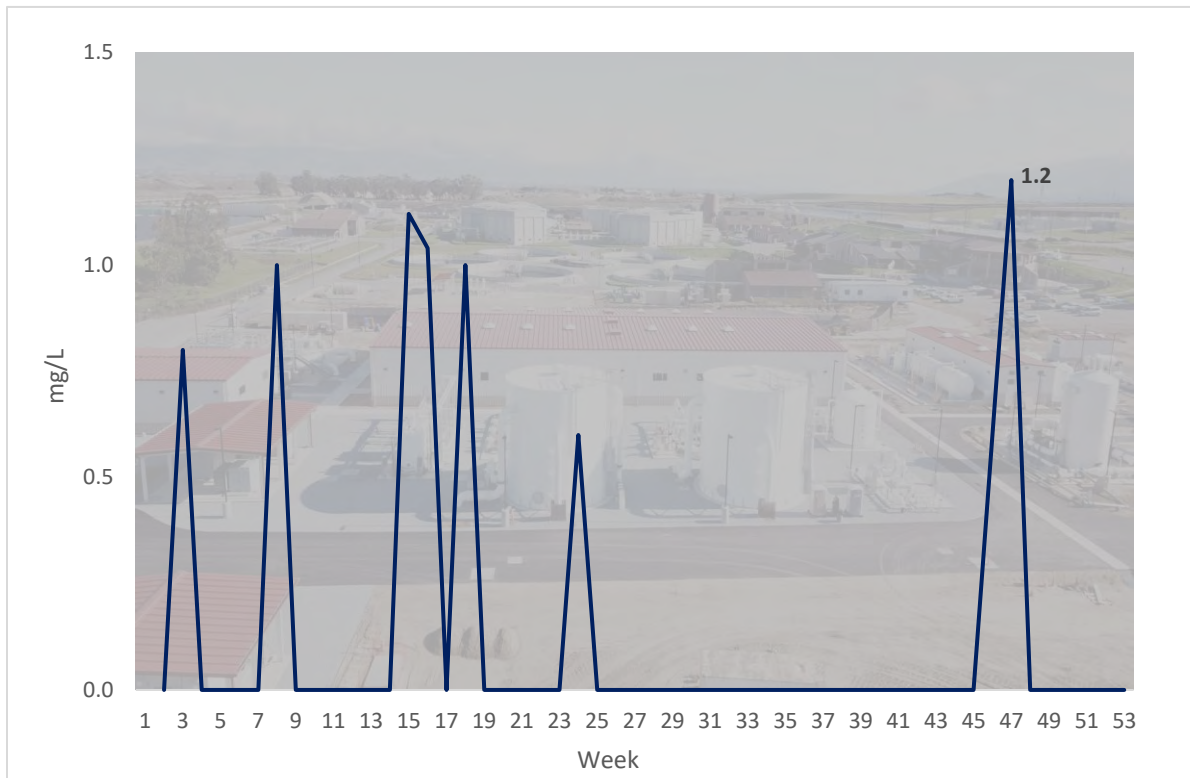
Week	Nitrate-N mg/L	Week	Nitrate-N mg/L	Week	Nitrate-N mg/L
1	-	18	1.13	36	ND 0.4
2	5.4	19	1.1	37	ND 0.4
3	5.1	20	1.2	38	ND 0.4
4	3.5	21	0.5	39	ND 0.4
5	2.8	22	0.5	40	ND 0.4
6	1.5	23	0.6	41	ND 0.05
7	1.7	24	1.0	42	ND 0.05
8	2.2	25	DNQ 0.39	43	ND 0.05
9	0.9	26	0.7	44	ND 0.05
10	1.2	27	ND 0.4	45	ND 0.05
11	1.1	28	ND 0.4	46	DNQ 0.07
12	1.3	29	0.2	47	ND 0.4
13	1.0	30	ND 0.4	48	ND 0.4
14	1.1	31	ND 0.4	49	1.1
15	1.90	32	ND 0.4	50	1.5
16	2.29	33	ND 0.4	51	1.4
17	1.23	34	ND 0.4	52	1.0
		35	ND 0.4	53	1.1



**Figure 10. AWPf Influent Monitoring – Weekly Nitrate-N (mg/L)**

**Table 11. APWF Influent Monitoring – Weekly Nitrite-N (mg/L)**

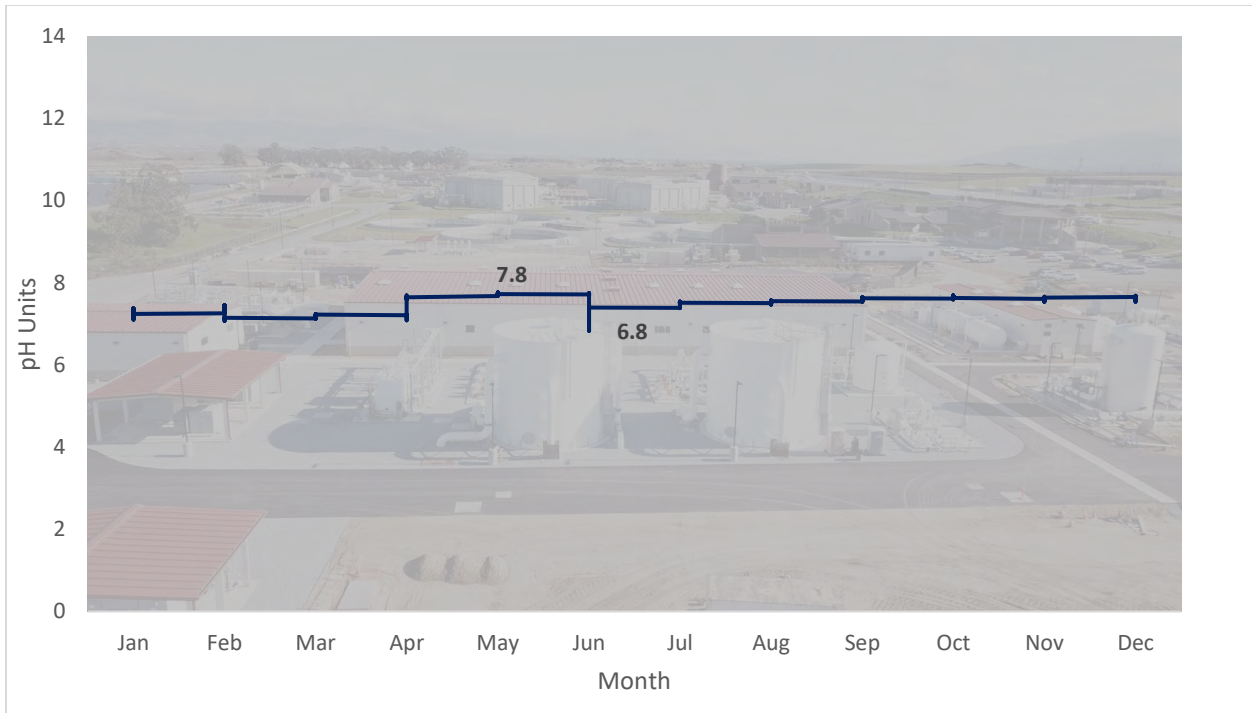
Week	Nitrite-N mg/L	Week	Nitrite-N mg/L	Week	Nitrite-N mg/L
1	-	18	1.0	36	ND 0.4
2	ND 0.4	19	ND 0.4	37	ND 0.4
3	0.8	20	ND 0.4	38	ND 0.4
4	ND 0.4	21	DNQ 0.07	39	ND 0.4
5	ND 0.4	22	ND 0.4	40	ND 0.4
6	ND 0.4	23	DNQ 0.3	41	ND 0.1
7	ND 0.4	24	0.6	42	ND 0.1
8	1.0	25	DNQ 0.2	43	ND 0.08
9	ND 0.4	26	ND 0.02	44	ND 0.02
10	ND 0.4	27	ND 0.4	45	DNQ 0.1
11	ND 0.4	28	ND 0.4	46	0.6
12	ND 0.4	29	ND 0.02	47	1.2
13	ND 0.4	30	ND 0.4	48	ND 0.4
14	ND 0.4	31	ND 0.4	49	ND 0.4
15	1.12	32	ND 0.4	50	ND 0.4
16	1.04	33	ND 0.4	51	ND 0.4
17	ND 0.4	34	ND 0.4	52	ND 0.4
		35	ND 0.4	53	ND 0.4



**Figure 11. APWF Influent Monitoring – Weekly Nitrite-N (mg/L)**

**Table 12. AWWP Influent Monitoring – Daily Average pH**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	7.3	7.3	7.1	7.2	7.7	7.7	7.4	7.5	7.5	7.6	7.6	7.7
2	7.4	7.3	7.2	7.2	7.7	7.7	7.4	7.5	7.5	7.6	7.6	7.7
3	7.3	7.3	7.1	7.2	7.7	7.7	7.4	7.5	7.5	7.6	7.6	7.7
4	7.4	7.3	7.2	7.2	7.7	7.7	7.4	7.5	7.6	7.7	7.6	7.6
5	7.3	7.3	7.2	7.2	7.7	7.7	7.4	7.5	7.6	7.6	7.6	7.6
6	7.3	7.3	7.1	7.2	7.7	7.7	7.4	7.5	7.6	7.6	7.6	7.6
7	7.3	7.3	7.1	7.2	7.7	7.7	7.4	7.5	7.6	7.6	7.6	7.6
8	7.3	7.3	7.1	7.1	7.7	7.7	7.4	7.5	7.6	7.6	7.6	7.6
9	7.4	7.4	7.2	7.4	7.7	7.7	7.5	7.5	7.6	7.6	7.5	7.6
10	7.3	7.4	7.2	7.6	7.7	7.7	7.5	7.5	7.6	7.6	7.6	7.6
11	7.3	7.4	7.1	7.6	7.7	7.7	7.5	7.5	7.6	7.7	7.6	7.6
12	7.3	7.4	7.2	7.6	7.7	7.7	7.5	7.5	7.6	7.7	7.6	7.7
13	7.2	7.4	7.2	7.6	7.7	7.7	7.5	7.5	7.6	7.6	7.5	7.5
14	7.3	7.4	7.2	7.6	7.7	7.7	7.5	7.5	7.6	7.7	7.6	7.6
15	7.2	7.4	7.2	7.6	7.7	7.7	7.5	7.5	7.6	7.6	7.6	7.6
16	7.2	7.3	7.2	7.6	7.7	7.7	7.5	7.6	7.6	7.6	7.6	7.6
17	7.2	7.4	7.2	7.6	7.7	7.7	7.5	7.6	7.6	7.7	7.6	7.6
18	7.2	7.4	7.2	7.6	7.7	7.7	7.5	7.6	7.6	7.7	7.6	7.6
19	7.2	7.4	7.2	7.6	7.8	7.7	7.5	7.5	7.6	7.7	7.6	7.7
20	7.3	7.5	7.2	7.6	7.8	7.7	7.5	7.5	7.6	7.7	7.6	7.6
21	7.2	7.4	7.2	7.6	7.7	7.7	7.5	7.5	7.6	7.7	7.6	7.7
22	7.2	7.3	7.2	7.7	7.7	7.3	7.5	7.5	7.6	7.7	7.6	7.7
23	7.2	7.1	7.2	7.6	7.7	6.8	7.5	7.6	7.6	7.7	7.6	7.6
24	7.2	7.1	7.2	7.7	7.7	6.8	7.5	7.5	7.6	7.7	7.6	7.6
25	7.3	7.1	7.2	7.7	7.7	7.2	7.5	7.5	7.6	7.6	7.6	7.7
26	7.3	7.1	7.2	7.7	7.7	7.4	7.5	7.5	7.6	7.6	7.7	7.7
27	7.3	7.2	7.2	7.7	7.7	7.4	7.5	7.5	7.6	7.6	7.7	7.6
28	7.1	7.1	7.2	7.7	7.7	7.4	7.5	7.5	7.6	7.6	7.7	7.7
29	7.1		7.2	7.7	7.7	7.4	7.5	7.5	7.6	7.6	7.7	7.7
30	7.2		7.2	7.6	7.7	7.4	7.5	7.6	7.6	7.6	7.6	7.7
31	7.2		7.2		7.7		7.5	7.5		7.6		7.7

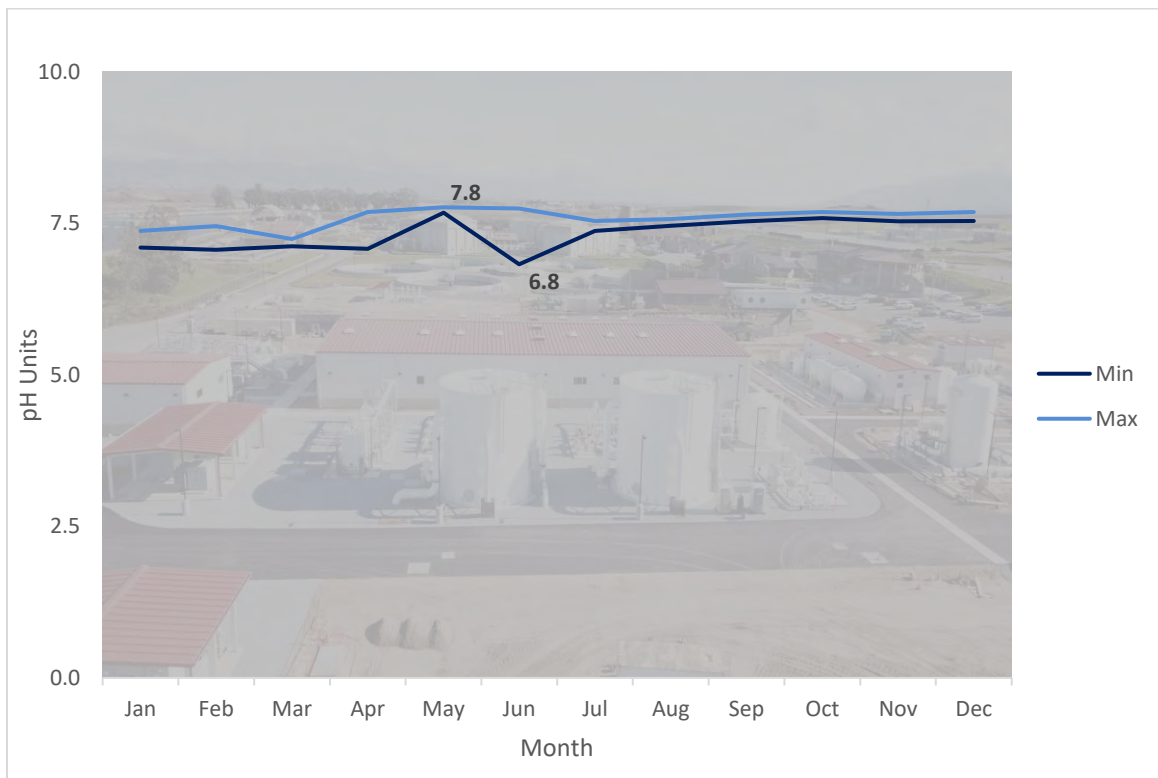


**Figure 12. AWPF Influent Monitoring – Daily Average pH (NTU)**

**Table 13. AWPf Influent Monitoring – Monthly Min and Max pH**

Month	Min	Max
January	7.1	7.4
February	7.1	7.5
March	7.1	7.2
April	7.1	7.7
May	7.7	7.8
June	6.8	7.7
July	7.4	7.5
August	7.5	7.6
September	7.5	7.6
October	7.6	7.7
November	7.5	7.7
December	7.5	7.7

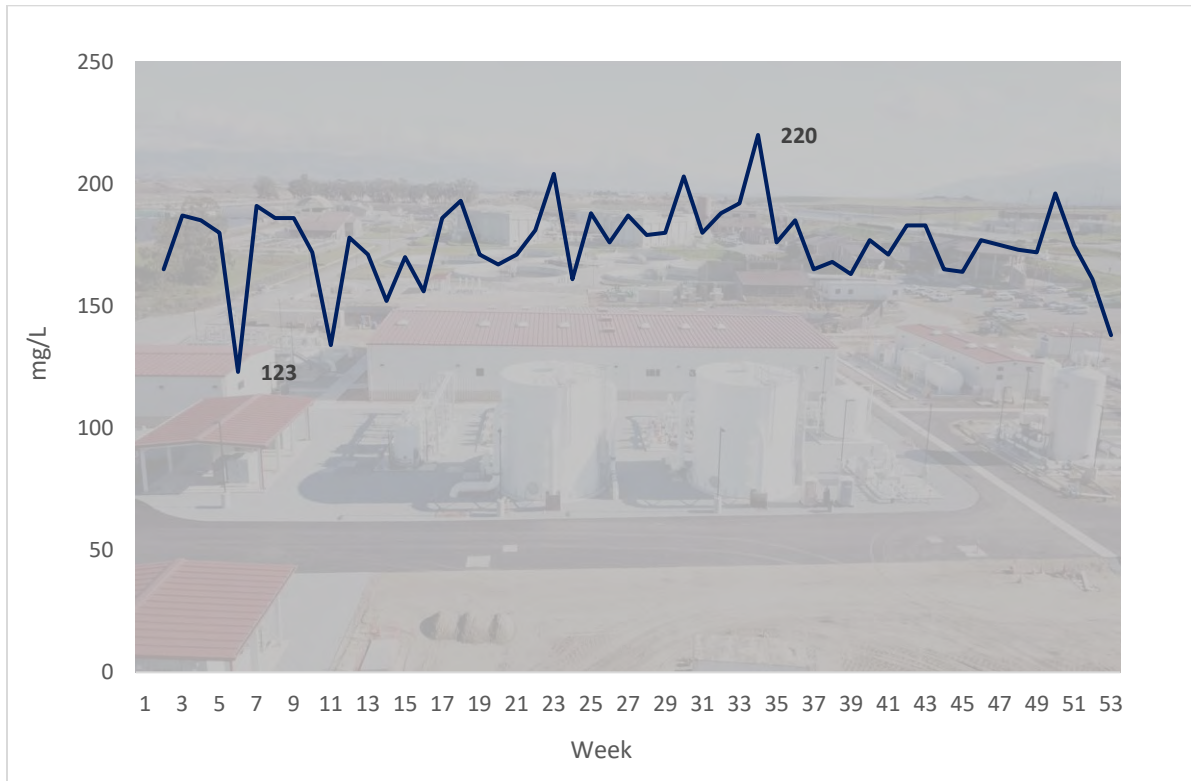
*Calculated*



**Figure 13. AWPf Influent Monitoring – Monthly Min and Max pH**

**Table 14. AWPf Influent Monitoring – Weekly Sodium (mg/L)**

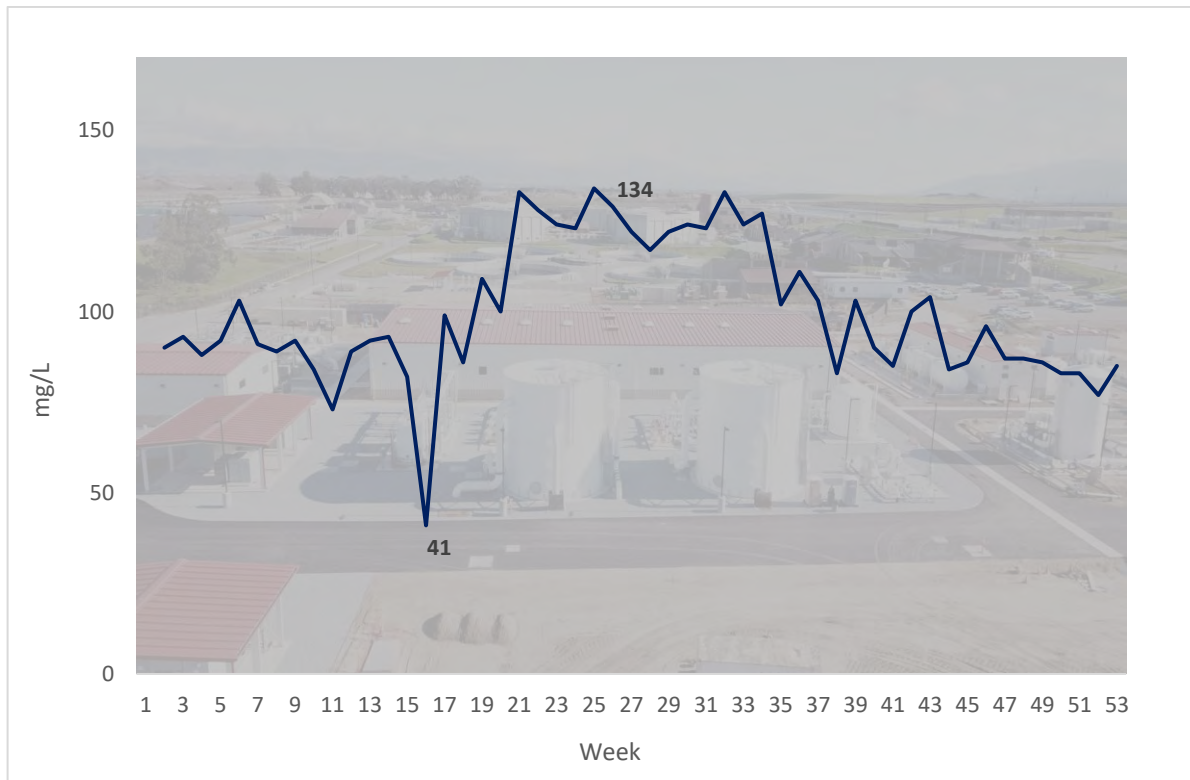
Week	Sodium mg/L	Week	Sodium mg/L	Week	Sodium mg/L
1	-	18	193	36	185
2	165	19	171	37	165
3	187	20	167	38	168
4	185	21	171	39	163
5	180	22	181	40	177
6	123	23	204	41	171
7	191	24	161	42	183
8	186	25	188	43	183
9	186	26	176	44	165
10	172	27	187	45	164
11	134	28	179	46	177
12	178	29	180	47	175
13	171	30	203	48	173
14	152	31	180	49	172
15	170	32	188	50	196
16	156	33	192	51	175
17	186	34	220	52	161
		35	176	53	138



**Figure 14. AWPf Influent Monitoring – Weekly Sodium (mg/L)**

**Table 15. AWPf Influent Monitoring – Weekly Sulfate (mg/L)**

Week	Sulfate mg/L	Week	Sulfate mg/L	Week	Sulfate mg/L
1	-	18	86	36	111
2	90	19	109	37	103
3	93	20	100	38	83
4	88	21	133	39	103
5	92	22	128	40	90
6	103	23	124	41	85
7	91	24	123	42	100
8	89	25	134	43	104
9	92	26	129	44	84
10	84	27	122	45	86
11	73	28	117	46	96
12	89	29	122	47	87
13	92	30	124	48	87
14	93	31	123	49	86
15	82	32	133	50	83
16	41	33	124	51	83
17	99	34	127	52	77
		35	102	53	85

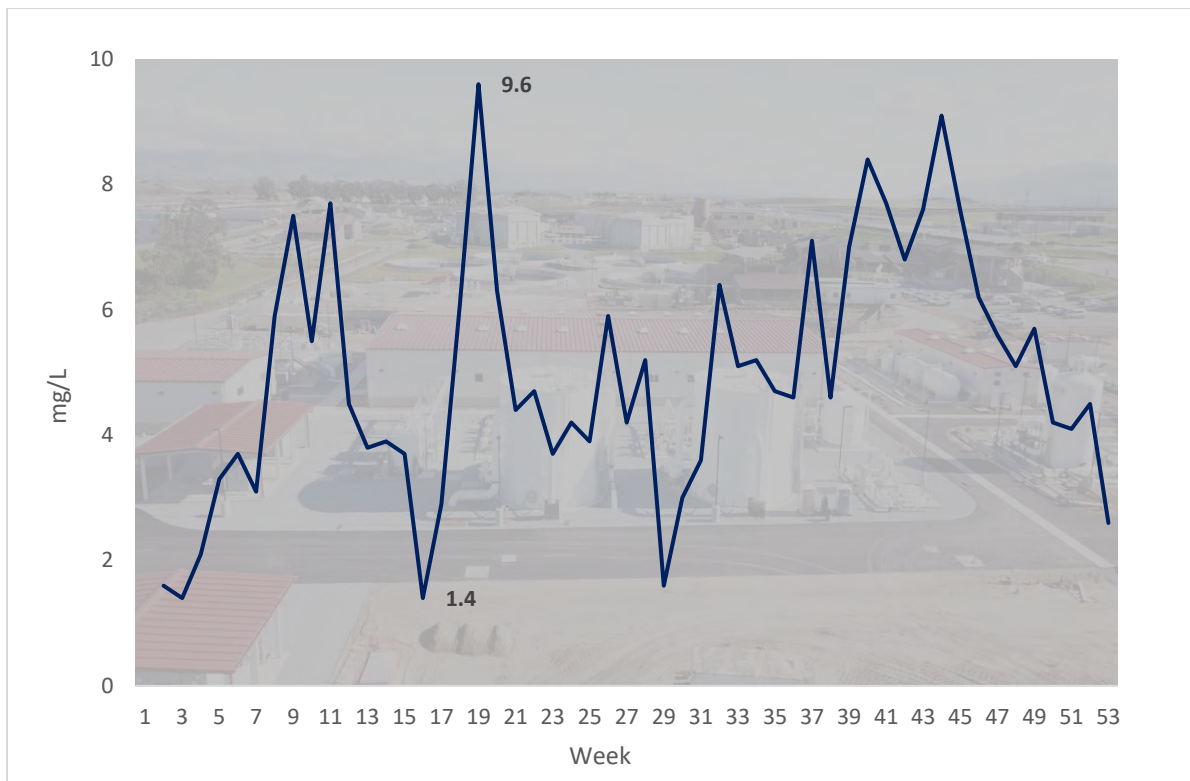


**Figure 15. AWPf Influent Monitoring – Sulfate (mg/L)**



**Table 16. AWPf Influent Monitoring – Weekly Total Suspended Solids (mg/L)**

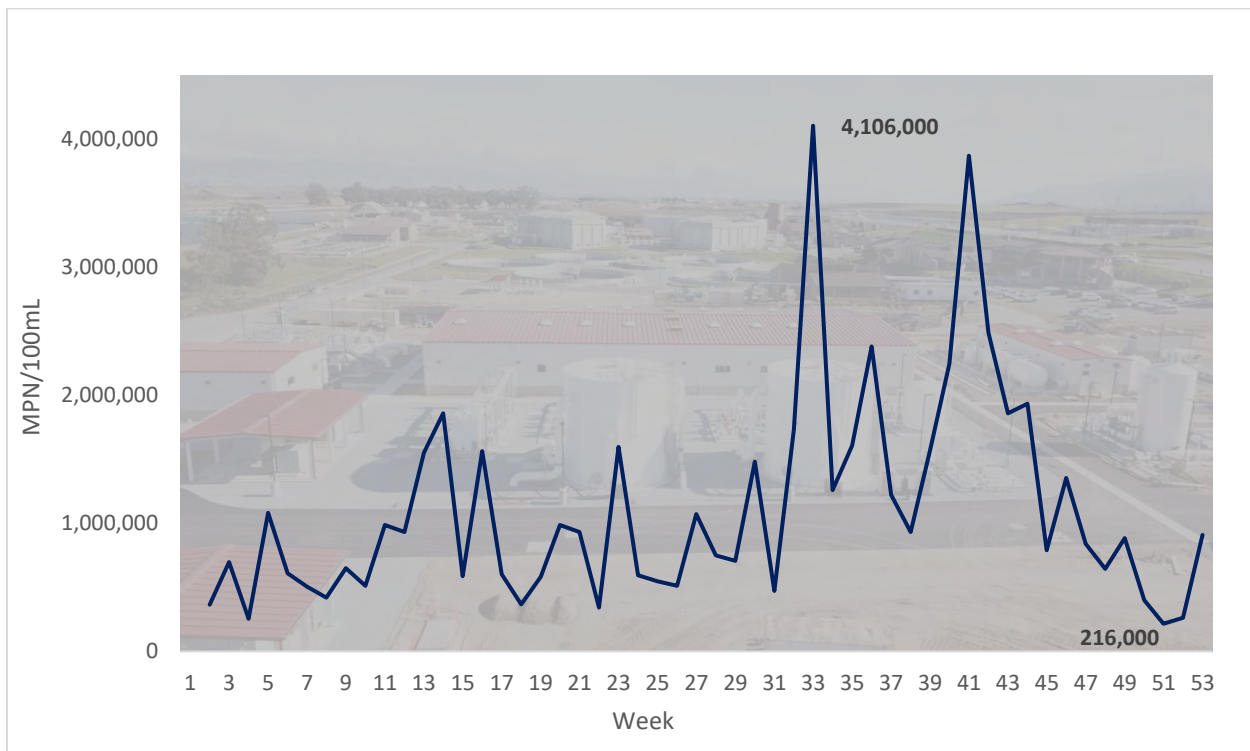
Week	TSS mg/L	Week	TSS mg/L	Week	TSS mg/L
1	-	18	6.1	36	4.6
2	1.6	19	9.6	37	7.1
3	1.4	20	6.3	38	4.6
4	2.1	21	4.4	39	7.0
5	3.3	22	4.7	40	8.4
6	3.7	23	3.7	41	7.7
7	3.1	24	4.2	42	6.8
8	5.9	25	3.9	43	7.6
9	7.5	26	5.9	44	9.1
10	5.5	27	4.2	45	7.6
11	7.7	28	5.2	46	6.2
12	4.5	29	1.6	47	5.6
13	3.8	30	3.0	48	5.1
14	3.9	31	3.6	49	5.7
15	3.7	32	6.4	50	4.2
16	1.4	33	5.1	51	4.1
17	2.9	34	5.2	52	4.5
		35	4.7	53	2.6



**Figure 16. AWPf Influent Monitoring – Weekly Total Suspended Solids (mg/L)**

**Table 17. AWPf Influent Monitoring – Weekly Total Coliform (MPN/100mL)**

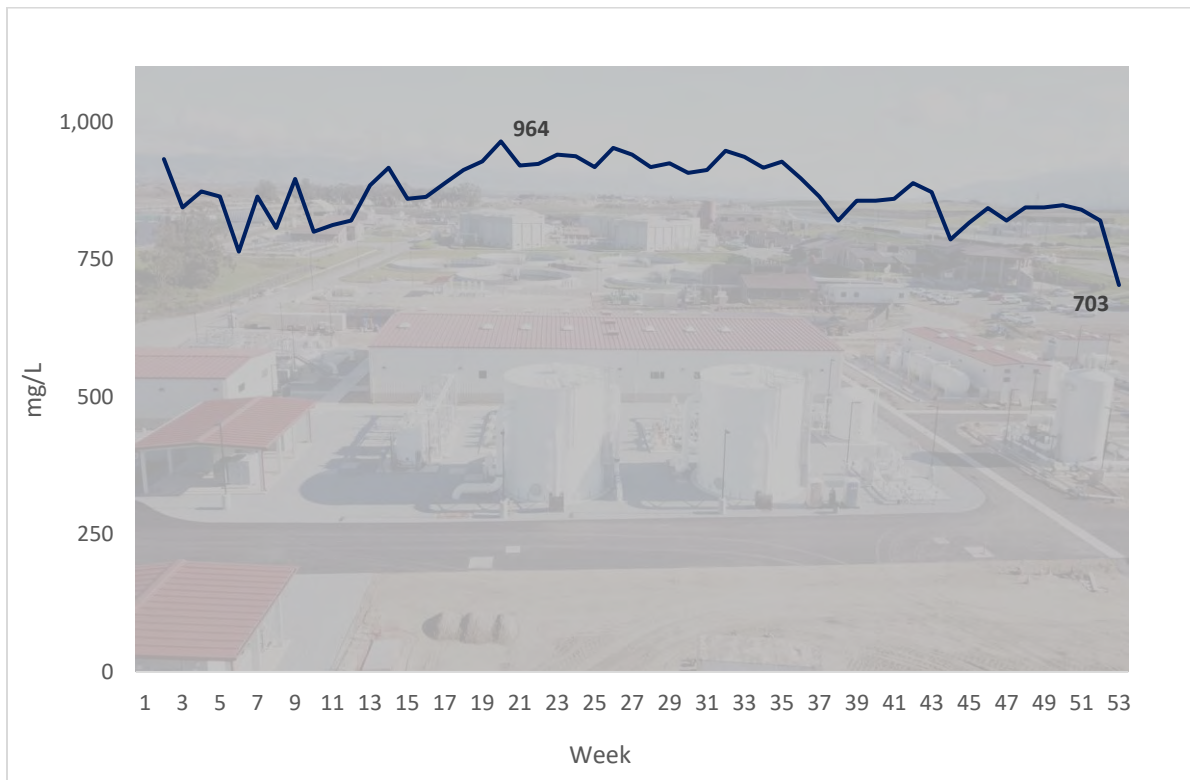
Week	Total Coliform MPN/100mL	Week	Total Coliform MPN/100mL	Week	Total Coliform MPN/100mL
1	-	18	368,000	36	2,382,000
2	364,000	19	583,000	37	1,223,000
3	697,000	20	988,000	38	932,000
4	256,000	21	933,000	39	1,565,000
5	1,081,000	22	341,000	40	2,247,000
6	609,000	23	1,597,000	41	3,873,000
7	504,000	24	594,000	42	2,489,000
8	420,000	25	548,000	43	1,860,000
9	650,000	26	512,000	44	1,935,000
10	512,000	27	1,071,000	45	789,000
11	987,000	28	749,000	46	1,354,000
12	932,000	29	708,000	47	839,000
13	1,553,000	30	1,483,000	48	644,000
14	1,860,000	31	471,000	49	884,000
15	586,000	32	1,732,000	50	399,000
16	1,565,000	33	4,106,000	51	216,000
17	602,000	34	1,259,000	52	262,000
		35	1,607,000	53	910,000



**Figure 17. AWPf Influent Monitoring – Weekly Total Coliform (MPN/100 mL)**

**Table 18. AWPf Influent Monitoring – Weekly Dissolved Solids (mg/L)**

Week	TDS mg/L	Week	TDS mg/L	Week	TDS mg/L
1	-	18	912	36	897
2	932	19	928	37	864
3	844	20	964	38	820
4	873	21	920	39	856
5	864	22	923	40	856
6	764	23	940	41	860
7	864	24	937	42	888
8	807	25	917	43	872
9	896	26	952	44	786
10	800	27	940	45	816
11	812	28	917	46	843
12	820	29	924	47	820
13	884	30	907	48	844
14	916	31	912	49	844
15	860	32	947	50	848
16	863	33	936	51	840
17	888	34	916	52	820
		35	927	53	703

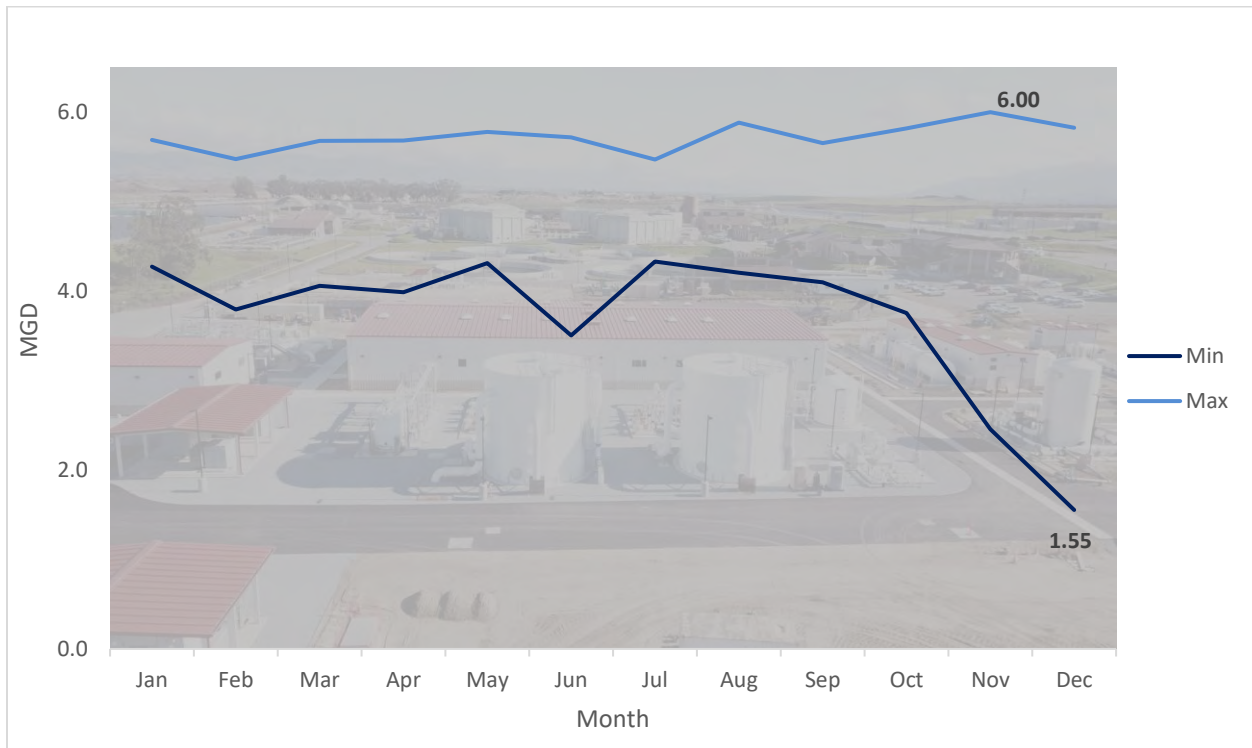


**Figure 18. AWPf Influent Monitoring – Weekly Dissolved Solids (mg/L)**

See Table 2 and Figure 2 for AWPf Influent Flow Monitoring – Daily Total Flow (MGD)

**Table 19. AWPf Influent Monitoring – Monthly Min and Max Flow (MGD)**

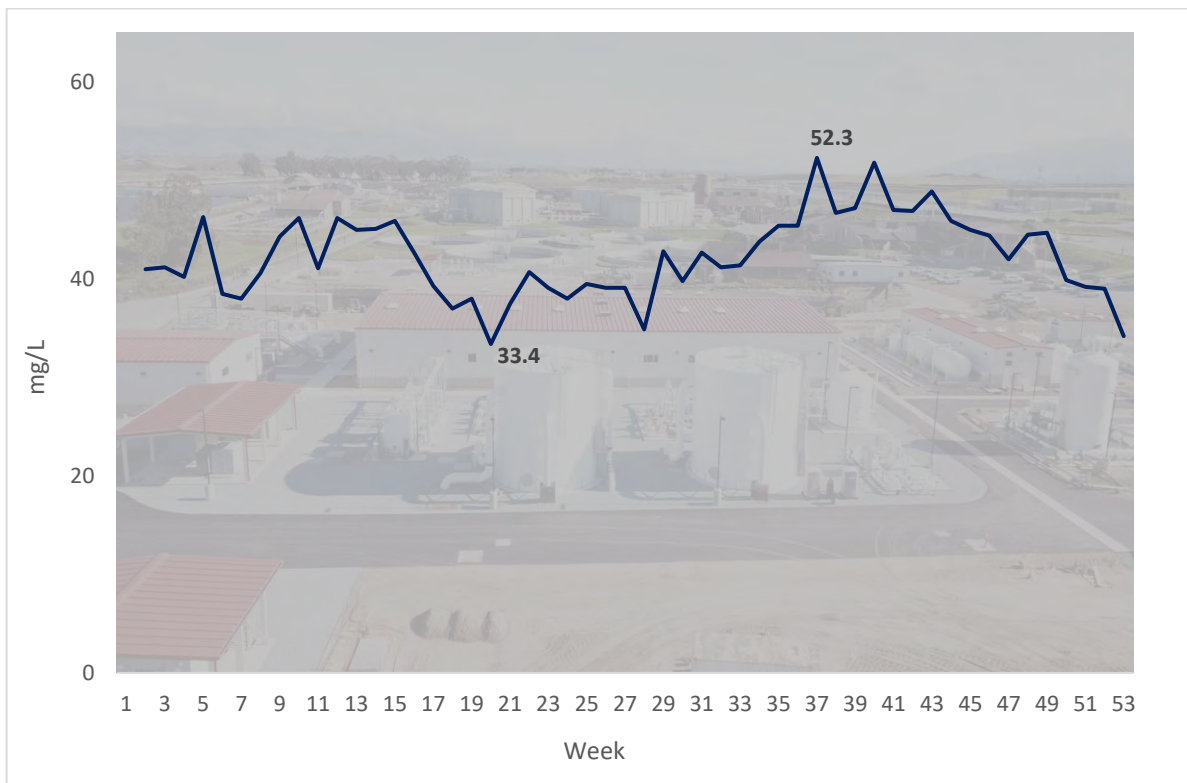
Month	Min	Max
January	4.27	5.69
February	3.79	5.47
March	4.06	5.68
April	3.98	5.68
May	4.31	5.78
June	3.50	5.72
July	4.33	5.47
August	4.21	5.88
September	4.10	5.65
October	3.75	5.82
November	2.46	6.00
December	1.55	5.82



**Figure 19. AWPf Influent Monitoring – Monthly Min and Max Flow (MGD)**

**Table 20. AWPf Influent Monitoring – Weekly Total Kjeldahl Nitrogen-N (mg/L)**

Week	TKN mg/L	Week	TKN mg/L	Week	TKN mg/L
1	-	18	37.0	36	45.4
2	41.0	19	38.0	37	52.3
3	41.2	20	33.4	38	46.7
4	40.2	21	37.5	39	47.2
5	46.3	22	40.7	40	51.8
6	38.5	23	39.1	41	47.0
7	38.0	24	38.0	42	46.9
8	40.6	25	39.5	43	48.9
9	44.3	26	39.1	44	45.9
10	46.2	27	39.1	45	45.0
11	41.1	28	34.9	46	44.4
12	46.2	29	42.8	47	42.0
13	45.0	30	39.8	48	44.5
14	45.1	31	42.7	49	44.7
15	45.9	32	41.2	50	39.9
16	42.7	33	41.4	51	39.2
17	39.3	34	43.8	52	39.0
		35	45.4	53	34.2

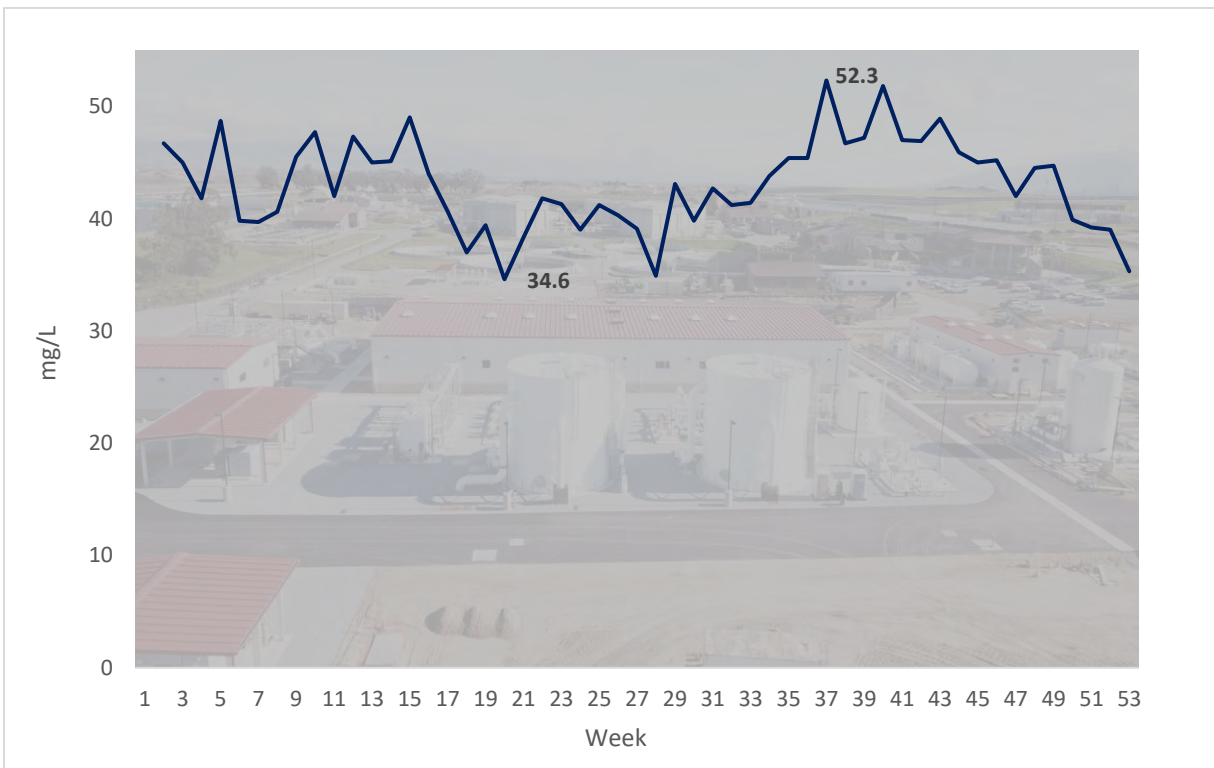


**Figure 20. AWPf Influent Monitoring – Weekly Total Kjeldahl Nitrogen-N (mg/L)**

**Table 21. AWPf Influent Monitoring – Weekly Total Nitrogen (mg/L)<sup>1</sup>**

Week	Total Nitrogen mg/L	Week	Total Nitrogen mg/L	Week	Total Nitrogen mg/L
1	-	18	37.0	36	45.4
2	46.7	19	39.4	37	52.3
3	45.0	20	34.6	38	46.7
4	41.8	21	38.3	39	47.2
5	48.7	22	41.8	40	51.8
6	39.8	23	41.3	41	47.0
7	39.7	24	39.0	42	46.9
8	40.6	25	41.2	43	48.9
9	45.5	26	40.3	44	45.9
10	47.7	27	39.1	45	45.0
11	42.0	28	34.9	46	45.2
12	47.3	29	43.1	47	42.0
13	45.0	30	39.8	48	44.5
14	45.1	31	42.7	49	44.7
15	49.0	32	41.2	50	39.9
16	44.0	33	41.4	51	39.2
17	40.6	34	43.8	52	39.0
		35	45.4	53	35.3

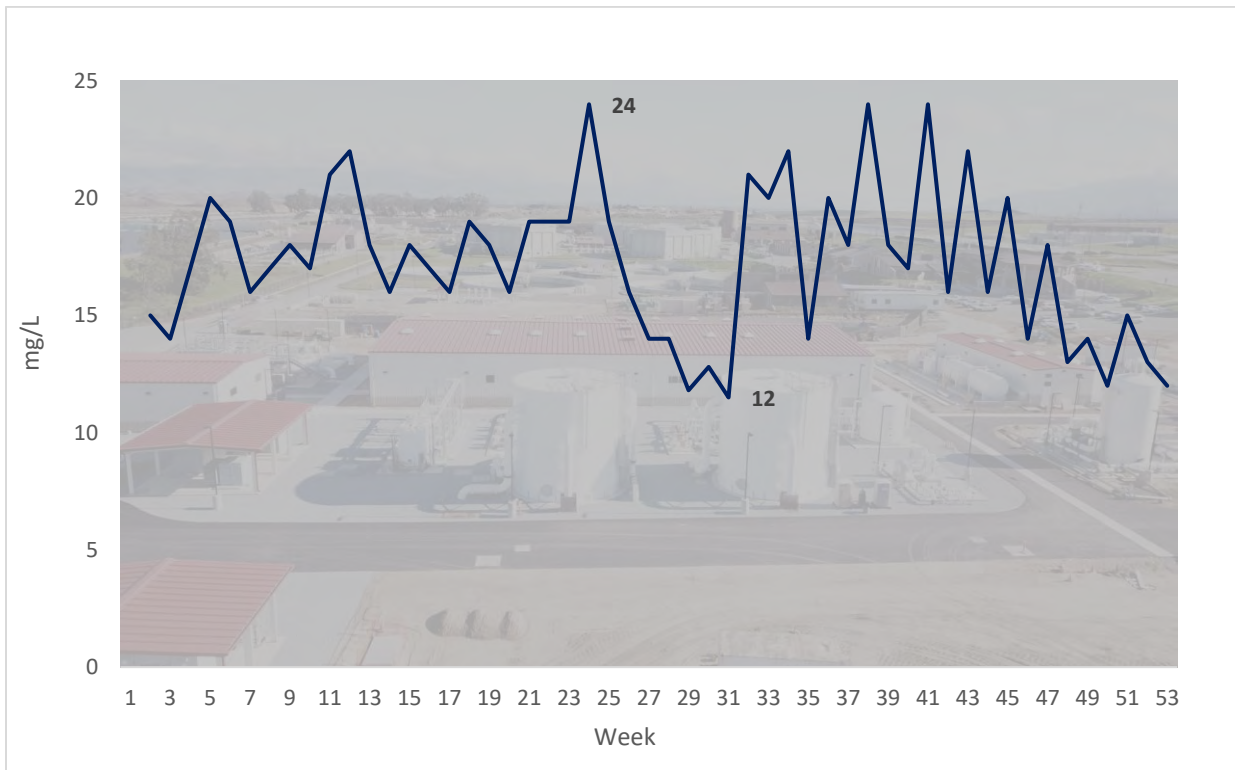
<sup>1</sup>Total Nitrogen includes Nitrate-N, Nitrite-N, Ammonia-N and Organic-N.



**Figure 21. AWPf Influent Monitoring – Weekly Total Nitrogen (mg/L)**

**Table 22. AWPf Influent Monitoring – Weekly Total Organic Carbon (TOC) (mg/L)**

Week	TOC mg/L	Week	TOC mg/L	Week	TOC mg/L
1	-	18	19	36	20
2	15	19	18	37	18
3	14	20	16	38	24
4	17	21	19	39	18
5	20	22	19	40	17
6	19	23	19	41	24
7	16	24	24	42	16
8	17	25	19	43	22
9	18	26	16	44	16
10	17	27	14	45	20
11	21	28	14	46	14
12	22	29	12	47	18
13	18	30	13	48	13
14	16	31	12	49	14
15	18	32	21	50	12
16	17	33	20	51	15
17	16	34	22	52	13
		35	14	53	12

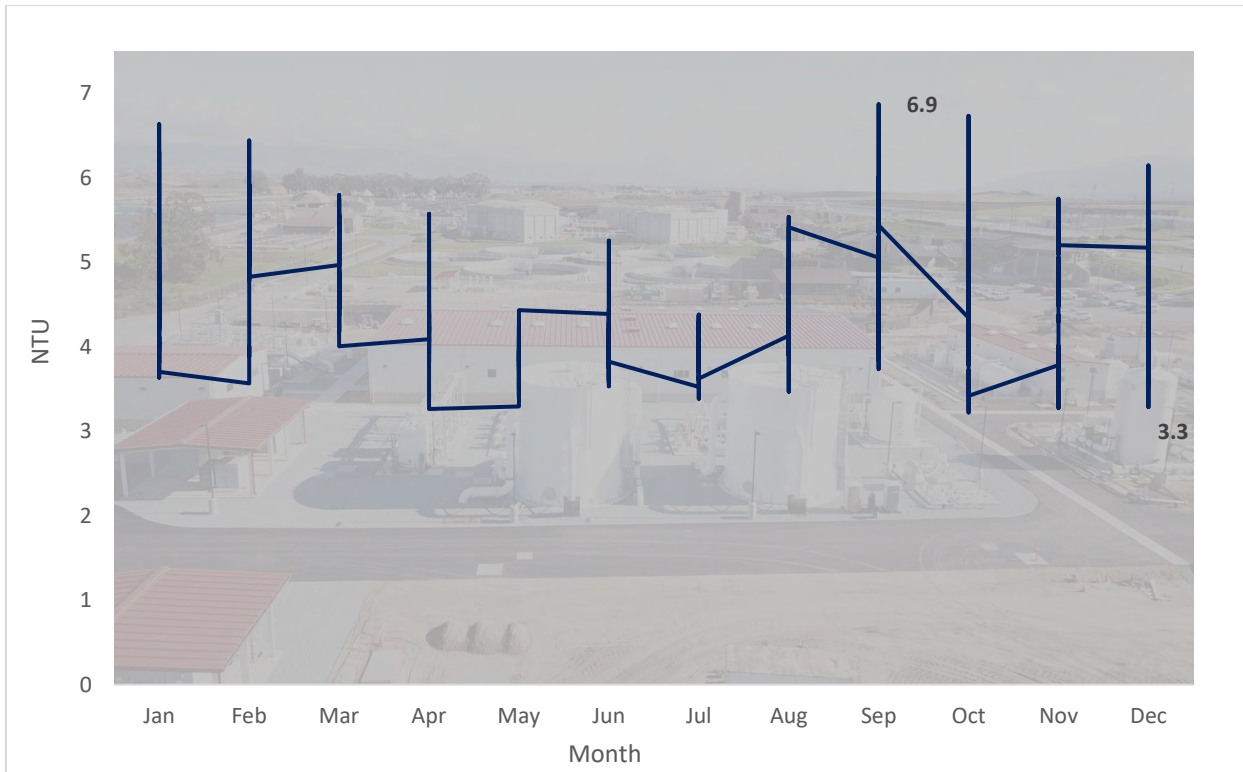


**Figure 22. AWPf Influent Monitoring – Weekly Total Organic Carbon (TOC) (mg/L)**

**Table 23. AWPf Influent Monitoring – Daily Average Turbidity (NTU)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3.9	3.6	5.0	4.1	3.3	4.4	3.5	4.1	5.1	4.3	3.8	5.2
2	4.1	4.0	5.5	4.4	3.9	4.1	3.7	3.9	4.1	4.2	3.8	5.2
3	4.0	3.9	5.8	4.2	3.8	4.1	3.9	4.8	4.8	4.8	3.9	5.5
4	3.6	4.0	5.4	4.2	3.9	3.8	4.0	5.5	5.3	3.8	3.8	5.1
5	4.0	4.2	5.7	3.8	3.8	4.4	3.9	4.2	5.2	4.2	3.7	5.0
6	4.1	4.3	5.5	4.5	3.4	3.8	4.1	4.0	4.7	4.4	3.3	4.6
7	4.0	4.4	5.5	3.9	4.0	4.2	4.4	4.3	4.6	4.6	4.0	4.4
8	4.4	4.4	4.9	4.0	3.7	4.1	4.0	4.2	4.7	4.8	3.6	3.7
9	3.8	5.4	5.3	4.0	3.9	5.3	3.6	4.0	4.9	5.4	3.6	4.2
10	4.0	5.6	5.6	4.1	3.8	4.0	4.1	4.7	3.8	4.8	4.0	4.4
11	4.7	5.9	4.8	4.4	4.0	4.3	3.7	4.4	4.6	4.9	4.0	4.5
12	4.2	5.1	4.7	4.3	3.7	4.2	3.7	4.2	4.6	5.2	4.1	5.3
13	6.3	5.1	4.6	4.4	3.6	3.6	4.4	4.1	3.7	5.4	4.3	6.1
14	4.7	5.1	4.9	5.2	3.4	3.8	4.0	4.1	4.5	4.6	4.4	3.6
15	4.4	4.8	4.5	4.5	4.2	3.7	4.1	4.0	4.8	4.8	4.3	3.7
16	4.2	5.9	4.8	4.1	4.1	4.0	3.9	4.1	5.6	5.5	4.9	3.3
17	4.6	5.9	4.4	5.6	3.8	4.0	3.9	4.4	5.4	5.1	4.6	3.7
18	5.2	5.4	4.8	4.2	4.1	3.5	4.3	4.5	5.3	4.9	4.5	3.9
19	4.5	5.4	4.9	4.3	3.9	4.2	4.0	4.8	5.4	6.7	5.1	4.1
20	4.4	5.2	4.5	4.4	4.1	3.8	3.9	4.4	5.4	5.6	4.7	4.2
21	4.8	5.0	4.4	4.2	4.3	3.8	3.9	4.8	6.0	5.0	5.2	4.3
22	4.6	5.1	4.2	4.2	4.2	4.0	3.8	4.0	5.9	4.7	5.2	4.9
23	4.7	5.5	4.6	4.0	3.8	3.8	4.1	3.5	5.7	4.1	5.5	4.7
24	5.0	5.1	5.4	4.1	3.8	3.7	4.0	4.1	6.0	4.2	5.8	3.5
25	5.1	6.4	4.2	3.8	4.0	3.6	4.1	4.7	5.6	4.8	5.1	4.0
26	5.3	5.6	5.6	4.1	3.4	3.8	3.9	4.7	5.8	3.7	5.4	4.2
27	5.6	5.3	4.6	4.0	3.8	4.1	3.7	4.7	5.6	3.4	5.3	4.2
28	6.6	4.8	4.6	4.3	3.5	3.9	3.7	4.9	6.9	3.7	5.1	3.6
29	4.4		4.6	4.3	3.8	4.0	3.4	5.1	6.7	3.2	5.3	3.8
30	3.9		4.9	3.3	4.1	3.8	3.6	4.8	5.4	3.6	5.2	3.8
31	3.7		4.0		4.4		3.6	5.4		3.4		3.6



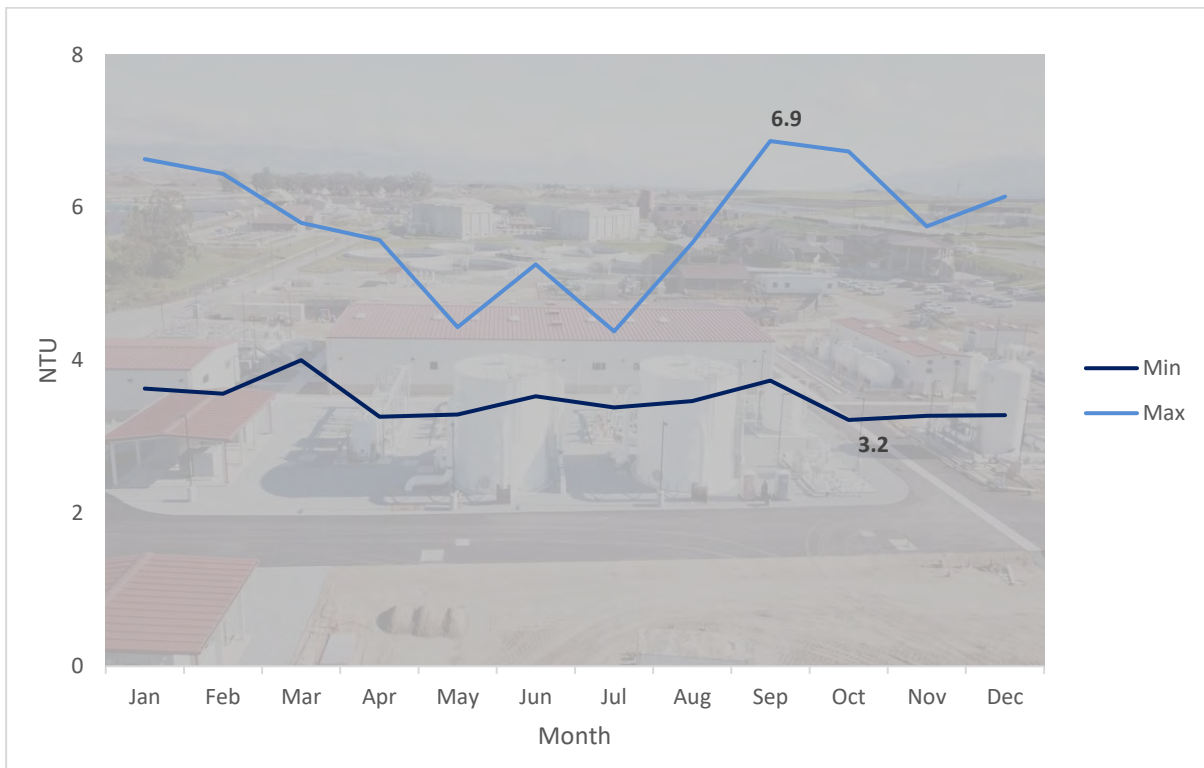


**Figure 23. AWPF Influent Monitoring – Daily Average Turbidity (NTU)**

**Table 24. AWPf Influent Monitoring – Monthly Min and Max Turbidity (NTU)**

Month	Min	Max
January	3.6	6.6
February	3.6	6.4
March	4.0	5.8
April	3.3	5.6
May	3.3	4.4
June	3.5	5.3
July	3.4	4.4
August	3.5	5.5
September	3.7	6.9
October	3.2	6.7
November	3.3	5.8
December	3.3	6.1

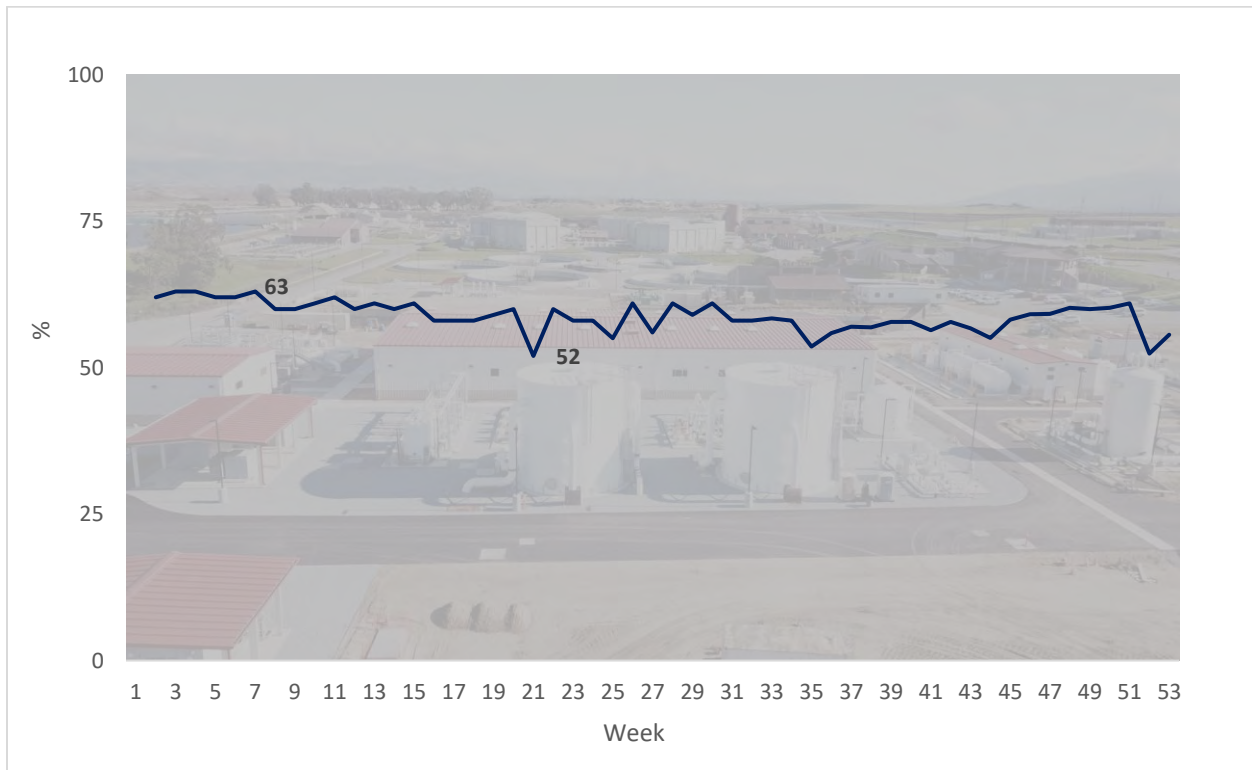
*Calculated*



**Figure 24. AWPf Influent Monitoring – Monthly Min and Max Turbidity (NTU)**

**Table 25. AWPf Influent Monitoring – Weekly UVT (%)**

Week	UVT %	Week	UVT %	Week	UVT %
1	-	18	58	36	56
2	62	19	59	37	57
3	63	20	60	38	57
4	63	21	52	39	58
5	62	22	60	40	58
6	62	23	58	41	56
7	63	24	58	42	58
8	60	25	55	43	57
9	60	26	61	44	55
10	61	27	56	45	58
11	62	28	61	46	59
12	60	29	59	47	59
13	61	30	61	48	60
14	60	31	58	49	60
15	61	32	58	50	60
16	58	33	58	51	61
17	58	34	58	52	52
		35	54	53	56



**Figure 25. AWPf Influent Monitoring – Weekly UVT (%)**

### 3.3.2 AWPf Recycled Water (Product Water)

*AWPF recycled water monitoring is required to:*

- i. Determine compliance with the conditions of the Order;*
- ii. Identify operational problems and aid in improving facility performance; and,*
- iii. Provide information on recycled water characteristics and flows for use in interpreting water quality and biological data. Samples shall be collected downstream of the last chemical injection point, with the exception of constituents specified in Tables M-12, M-12a, M-13 and M-13a. Should the need for a change in the sampling station(s) arise in the future, M1W shall seek approval of the proposed station by the Executive Officer prior to use.*

*Tables M-3a and Table M-3b shall constitute the recycled water monitoring program. After the first full year of monitoring, M1W shall compile results and may submit a proposed reduced monitoring program to DDW and the Central Coast Water Board for review and approval.*

Analytical results of samples collected during the monitoring period as outlined in M-3a through M-13 are included herein. Results of CEC monitoring per Tables M-13 and M-13a are provided consistent with the PWM Bioanalytical Quality Assurance Project Plan (QAPP). M1W received Regional Water Board approval of the QAPP on May 5, 2021, and subsequently initiated sampling for ER- $\alpha$  in Q2 2021.<sup>7</sup>

Throughout **Section 3.3.2** and **3.3.4** relevant water quality standards are called out in graphical representations of the data by way of solid, dashed, or dotted maroon lines meant to delineate the type of limit by which the AWPf Product Water or Groundwater data is analyzed for compliance. Note that compliance with drinking water standards is determined based on “compliance intervals” (e.g., running annual average) as stipulated by CCR Titles 17 and 22 and 40 CFR 141-143. Thus, in some instances while a single sample may exceed a water quality standard, it does not necessarily constitute a violation. See **Table 127a** and **Table 127c** for compliance intervals and an assessment of 2021 compliance.

See the following definitions as defined by the SWRCB<sup>8</sup> and the line type used to demarcate them.

- **Drinking Water Maximum Contaminant Level (MCL):** maximum permissible concentration of a contaminant established by DDW pursuant to H&SC §116275(c)(1) and (d) or the EPA pursuant to the Safe Drinking Water Act. Drinking Water MCLs are applicable to regulated water supply systems and at the tap, enforceable by DDW and local health departments. In California, MCLs, both primary and secondary, are applicable to groundwater and surface water resources when they are specifically referenced as Water Quality Objectives (see below).

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<sup>7</sup> As of the date of this report no US-based laboratory is approved for the use of the AhR bioassay. Once a US-based laboratory is approved for the use of the AhR bioassay, the Recycled Water Policy QAO is expected to contact M1W after which M1W will resubmit the QAPP for approval and subsequently initiate the Initial Monitoring Phase for AhR.

<sup>8</sup> “A Compilation of Water Quality Goals: 17<sup>th</sup> Edition, SWRCB (January 2016).

[https://www.waterboards.ca.gov/water\\_issues/programs/water\\_quality\\_goals/docs/wq\\_goals\\_text.pdf](https://www.waterboards.ca.gov/water_issues/programs/water_quality_goals/docs/wq_goals_text.pdf)

- **Primary MCL, *Solid Line*:** MCL established for the protection of human health
- **Secondary MCL, *Dashed Line*:** MCL established for consumer preferences/aesthetics
- **Notification Level (NL), *Dotted Line*:** formerly referred to as “Action Levels” represent the health-based concentration of a contaminant established by DDW pursuant to H&SC §16455. NLs are non-regulatory, health-based advisories established as precautionary measures for contaminants that may be considered candidates for establishment of MCLs but have not yet undergone/completed the regulatory standard setting process and are not drinking water standards.
- **Water Quality Objective (WQO), *Dotted Line*:** numeric limitations defined by the Water Quality Control Plan for the Central Coast Basin (“Basin Plan”)<sup>9</sup> to protect beneficial uses of water.
- **Permit Limit, *Dotted Line*:** water quality standard applicable to the Project by condition of the WDR/WRR or MRP, also referred to as “Recycled Water Discharge Limit (RWDL).”

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<sup>9</sup> Basin Plans are master policy documents that contain descriptions of the legal, technical and programmatic bases for water quality regulation in a region which include designation of beneficial uses and WQOs necessary to protect them.

**Table M-3a: Recycled Water Discharge Limits Monitoring**

Constituent/Parameters	Units	Type of Sample	Minimum Frequency of Analysis	Reference Table Number
Conductivity	umhos/cmmho/cm	Metered	Continuous <sup>5</sup>	M-3
Total chlorine residual	mg/L	Metered	Continuous	M-3
Total recycled water flow	mgd	Metered	Continuous	M-3
UV dose for each reactor	mJ/cm <sup>2</sup>	Metered	Continuous	-
UV Transmittance <sup>6</sup>	%	Metered	Continuous	-
pH	pH units	Metered	Continuous	M-3
Arsenic	µg/L	Grab	Monthly	M-3
Boron	µg/L	Grab	Monthly	M-3
Chloride	mg/L	Grab	Monthly	M-3
Chromium - Total	µg/L	Grab	Monthly	M-3
Total nitrogen <sup>7</sup>	mg/L	Grab	At least two samples per week at least 3 days apart	M-3
Nitrate-N	mg/L	Grab	Weekly	M-3
Total Kjeldahl Nitrogen-N	mg/L	Grab	Weekly	M-3
Sodium	mg/L	Grab	Monthly	M-3
Sulfate	mg/L	Grab	Monthly	M-3
Total Dissolved Solids - TDS	mg/L	Grab	Monthly	M-3
Total coliform	MPN/100 ml	Grab	Daily	M-3
Total Organic Carbon	mg/L	Metered <sup>9</sup>	Continuous <sup>9</sup>	M-3

<sup>5</sup> Samples shall be collected at the influent point to the UV system.  
<sup>6</sup> If no problem is detected, analysis of nitrogen can be reduced to weekly after 12 months of data collection.  
<sup>7</sup> May change to grab after M1W demonstrates that grab sampling is adequate.  
<sup>8</sup> Refer to DDW letter dated September 25, 2020. If the PWPS TOC analyzer is offline, hourly grab samples for 24 consecutive hours (collected once per week) will be accepted in lieu of continuous online TOC measurements. If the PWPS TOC analyzer is off-line for more than one (1) week, provide a discussion for the cause and steps taken to bring TOC analyzer back online in the required monthly and quarterly water quality monitoring reports.

**Table M-3b: Recycled Water Discharge Limits Monitoring**

Turbidity	NTU	Metered	Continuous	M-3
Inorganics with Primary MCLs	µg/L	Grab	Monthly	M-4
Constituent/Parameters with Secondary MCLs	Various	Grab	Monthly	M-5
Radioactivity	pCi/L	Grab	Monthly	M-6
Regulated organic chemicals	µg/L	Grab	Monthly	M-7
Disinfection byproducts	µg/L	Grab	Monthly	M-3
General physical	various	Grab	Quarterly	M-8
General minerals	µg/L	Grab	Quarterly	M-9
Constituents with Notification Levels	µg/L	Grab	Monthly	M-10
Remaining Priority Pollutants	µg/L	Grab	Annually	M-11
Constituents of Emerging Concern (CECs)	ng/L	Grab	Varies	M-12
Surrogates	various	Varies	Varies	M-13
Lead and Copper	mg/L	Grab	Quarterly	M-3

For those constituents that are continuously monitored, M1W shall report the daily minimum, maximum, and average values.

**Table M-4: Inorganics with Primary MCLs**

Constituents		
Aluminum	Cadmium	Nitrate (as nitrogen)
Antimony	Chromium (Total)	Nitrite (as nitrogen)
Arsenic	Cyanide	Nitrate + Nitrite
Asbestos	Fluoride	Perchlorate
Barium	Mercury	Selenium
Beryllium	Nickel	Thallium

**Table M-5: Constituents/parameters with Secondary MCLs**

Constituents		
Aluminum	Manganese	Thiobencarb
Chloride	Methyl-tert-butyl-ether (MTBE)	Total Dissolved Solids
Color	Odor – Threshold	Turbidity
Copper	Silver	Zinc
Foam Agents (MBAS)	Specific Conductance	
Iron	Sulfate	

Table M-6: Radioactivity		
Constituents		
Gross Alpha Particle Activity (Including Radium-226 but Excluding Radon and Uranium)	Combined Radium-226 and Radium-228	Tritium
Gross Beta Particle Activity		

Table M-7: Regulated Organics		
Constituents		
(a) Volatile Organic Chemicals	1,1,1-Trichloroethane	Diquat
Benzene	1,1,2-Trichloroethane	Endothal
Carbon Tetrachloride (CTC)	Trichloroethylene (TCE)	Endrin
1,2-Dichlorobenzene	Trichlorofluoromethane	Ethylene Dibromide (EDB)
1,4-Dichlorobenzene	1,1,2-Trichloro-1,2,2-Trifluoroethane	Glyphosate
1,1-Dichloroethane	Vinyl Chloride	Heptachlor
1,2-Dichloroethane (1,2-DCA)	Xylenes (o,m,p)	Heptachlor Epoxide
1,1-Dichloroethene (1,1-DCE)	(b) Synthetic Organic Chemicals	Hexachlorobenzene
cis-1,2-Dichloroethylene	1,2,3 Trichloropropane	Hexachlorocyclopentadiene
trans-1,2-Dichloroethylene	Alachlor	Lindane
Dichloromethane	Atrazine	Methoxychlor
1,2-Dichloropropane	Bentazon	Molinate
1,3-Dichloropropene	Benzo(a)pyrene	Oxamyl
Ethylbenzene	Carbofuran	Pentachlorophenol
Methyl-tert-butyl-ether (MTBE)	Chlordane	Picloram
Monochlorobenzene	Dalapon	Polychlorinated Biphenyls
Styrene	1,2-Dibromo-3-chloropropane (DBCP)	Simazine
1,1,2,2-Tetrachloroethane	2,4-Dichlorophenoxyacetic acid (2,4-D)	Thiobencarb
Tetrachloroethylene (PCE)	Di(2-ethylhexyl)adipate	Toxaphene
Toluene	Di(2-ethylhexyl)phthalate	2,3,7,8-TCDD (Dioxin)
1,2,4-Trichlorobenzene	Dinoseb	2,4,5-TP (Silvex)

Table M-8: Disinfection Byproducts		
Constituents		
Total Trihalomethanes <sup>9</sup> (TTHM)	Haloacetic Acid (five) (HAA5)	Bromate
Bromodichloromethane	Monochloroacetic acid	Chlorite
Bromoform	Dichloroacetic acid	
Chloroform	Trichloroacetic acid	
Dibromochloromethane	Monobromoacetic acid	
	Dibromoacetic acid	

<sup>9</sup> Laboratory must report bromoform, chloroform, dichlorobromomethane, and chlorodibromomethane individually to make up the total trihalomethanes for MCL compliance determination.

Table M-9: General Physical and General Minerals		
Constituents		
Asbestos	Potassium	Foaming Agents
Calcium	Sodium	Odor
Chloride	Sulfate	Specific Conductance
Copper	Zinc	Total Dissolved Solids
Iron	Color	Total Hardness
Manganese	Corrosivity	

Table M-10: Constituents with Notification Levels

Constituents	Units	Type of Sample	Minimum Frequency of Analysis
Boron	µg/L	Grab	Monthly
n-Butylbenzene	µg/L	Grab	Monthly
sec-Butylbenzene	µg/L	Grab	Monthly
tert-Butylbenzene	µg/L	Grab	Monthly
Carbon disulfide	µg/L	Grab	Monthly
Chlorate	µg/L	Grab	Monthly
2-Chlorotoluene	µg/L	Grab	Monthly
4-Chlorotoluene	µg/L	Grab	Monthly
Diazinon	µg/L	Grab	Monthly
Dichlorodifluoromethane (Freon)	µg/L	Grab	Monthly
1,4-Dioxane	µg/L	Grab	Monthly
Ethylene glycol	µg/L	Grab	Monthly
Formaldehyde	µg/L	Grab	Monthly
HMX	µg/L	Grab	Monthly
Isopropylbenzene	µg/L	Grab	Monthly
Manganese	µg/L	Grab	Monthly
Methyl isobutyl ketone (MIBK)	µg/L	Grab	Monthly
Naphthalene	µg/L	Grab	Monthly
n-Nitrosodiethylamine (NDEA)	µg/L	Grab	Monthly
n-Nitrosodimethylamine (NDMA)	µg/L	Grab	Monthly
n-Nitrosodi-n-propylamine (NDPA)	µg/L	Grab	Monthly
Perfluorooctane sulfonate (PFOS)	µg/L	Grab	Monthly
Perfluorooctanoic acid (PFOA)	µg/L	Grab	Monthly
Propachlor	µg/L	Grab	Monthly
n-Propylbenzene	µg/L	Grab	Monthly
RDX	µg/L	Grab	Monthly
Tertiary butyl alcohol (TBA)	µg/L	Grab	Monthly
1,2,4-Trimethylbenzene	µg/L	Grab	Monthly
1,3,5-Trimethylbenzene	µg/L	Grab	Monthly
2,4,6-Trinitrotoluene (TNT)	µg/L	Grab	Monthly
Vanadium	µg/L	Grab	Monthly

Table M-11: Remaining Priority Pollutants

Constituents		
Pesticides	Metals	Di-n-butyl phthalate
Aldrin	Chromium III	Di-n-octyl phthalate
Dieldrin		Diethyl phthalate
4,4'-DDT	Base/Neutral Extractables	Dimethyl phthalate
4,4'-DDE	Acenaphthene	Benzo(a)anthracene
4,4'-DDD	Benzidine	Benzo(a)fluoranthene
Alpha-endosulfan	Hexachloroethane	Benzo(k)fluoranthene
Beta-endosulfan	Bis(2-chloroethyl)ether	Chrysene
Endosulfan sulfate	2-chloronaphthalene	Acenaphthylene
Endrin aldehyde	1,3-dichlorobenzene	Anthracene
Alpha-BHC	3,3'-dichlorobenzidine	1,12-benzoperylene
Beta-BHC	2,4-dinitrotoluene	Fluorene
Delta-BHC	2,6-dinitrotoluene	Phenanthrene
Acid Extractables	1,2-diphenylhydrazine	1,2,5,6-dibenzanthracene
2,4,6-trichlorophenol	Fluoranthene	Indeno(1,2,3-cd)pyrene
P-chloro-m-cresol	4-chlorophenyl phenyl ether	Pyrene
2-chlorophenol	4-bromophenyl phenyl ether	Volatile Organics
2,4-dichlorophenol	<b>Bis(2-chloroisopropyl) ether</b>	Acrolein
2,4-dimethylphenol	Bis(2-chloroethoxy)methane	Acrylonitrile
2-nitrophenol	Hexachlorobutadiene	Chlorobenzene
4-nitrophenol	Isophorone	Chloroethane
2,4-dinitrophenol	Nitrobenzene	1,1-dichloroethylene
4,6-dinitro-o-cresol	N-nitrosodiphenylamine	Methyl chloride
Phenol	Bis(2-ethylhexyl)phthalate	Methyl bromide
2-chloroethyl vinyl ether	Butyl benzyl phthalate	

Priority pollutants to be sampled and analyzed quarterly in recycled water per Title 22 section 60320.220(a)



Table M-12: Constituents of Emerging Concern							
Constituent	Relevance/ Indicator Type	Type of Sample	Minimum Frequency	Monitoring Trigger Level (µg/L)	Reporting Limit (µg/L)	Monitoring Locations	
						Prior to RO	AWPF Recycled Water
1,4-Dioxane	Health	grab	Quarterly	1	0.1	-	X
n-Nitrosodimethylamine (NDMA)	Health & Performance	grab	Quarterly	0.010	0.002	X	X
Perfluorooctane sulfonate (PFOS)	Health	grab	Quarterly	0.013	0.0065	-	X
Perfluorooctanoic acid (PFOA)	Health	grab	Quarterly	0.014	0.007	-	X
n-Nitrosomorpholine (NMOR)	Health	grab	Quarterly	0.012	0.002	-	X
Sucralose	Performance	grab	Quarterly	-	0.1	X	X
Sulfamethoxazole	Performance	grab	Quarterly	-	0.01	X	X

Table M-12a: DDW Specified Chemicals					
Constituent	Type of Sample	Minimum Frequency	Monitoring Locations <sup>9</sup>		
			Prior to RO	Prior to AOP	AWPF Recycled Water
2,3,5,6-tetrachloroterephthalate (DCPA)	grab	Quarterly	X	X	X
Albuterol	grab	Quarterly	-	-	X
Caffeine	grab	Quarterly	-	-	X
Carbadox	grab	Quarterly	-	-	X
Chloropicrin	grab	Quarterly	X	X	X
Chloropyrifos	grab	Quarterly	-	-	X
Chlorothalonil	grab	Quarterly	-	-	X
Erythromycin	grab	Quarterly	-	-	X
Fluoxetine	grab	Quarterly	-	-	X
Iohexol	grab	Quarterly	-	-	X
Quinoline	grab	Quarterly	X	X	X
Triclosan	grab	Quarterly	-	-	X

<sup>9</sup> M1W may apply for reduced monitoring of these constituents after 1 year of data is collected

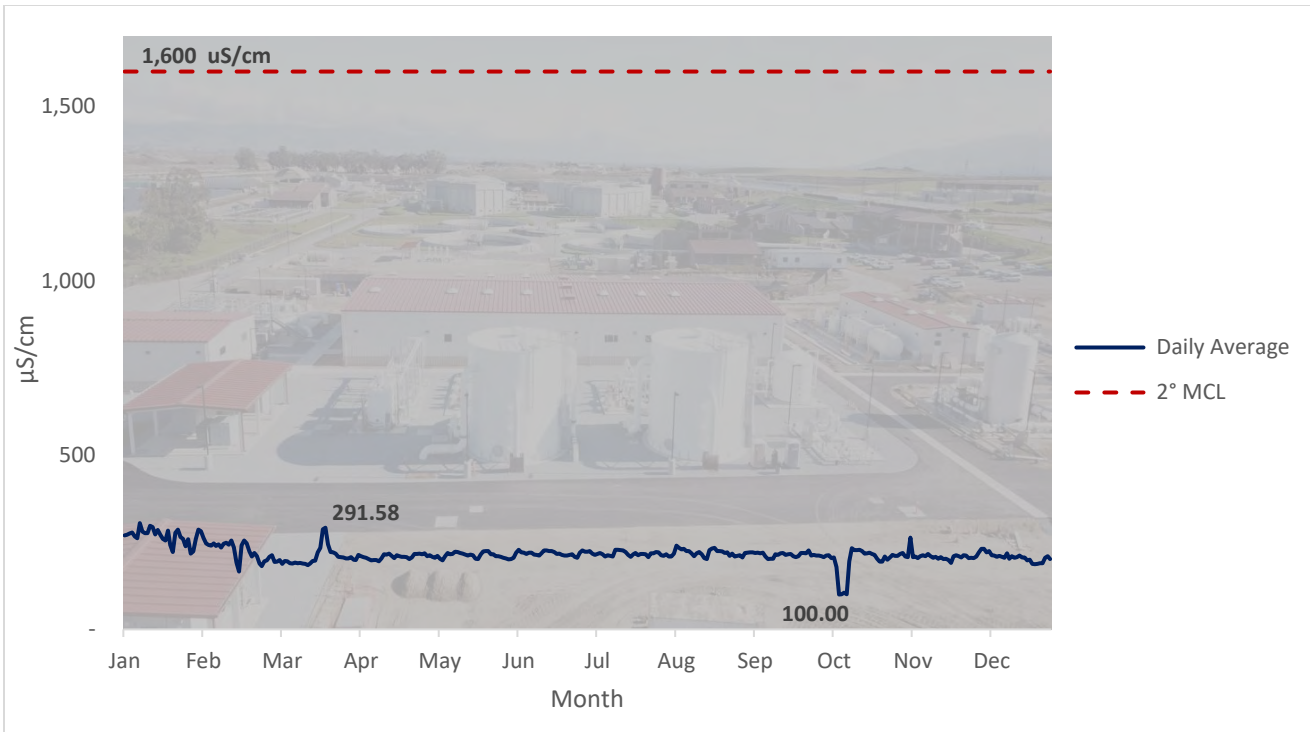
Table M-13 : Surrogates for CECs				
Constituent	Type of Sample	Minimum Frequency	Monitoring Locations	
			Prior to RO	AWPF Recycled Water
Electrical Conductivity	Online	Continuous	X	X
UV Absorbance	Grab	Quarterly	-	X
Total Organic Carbon (TOC)	Grab	Quarterly	-	X

Table M-13a : Bioanalytical Screening Tools				
Constituent	Minimum Frequency	Reporting Limit (ng/L)	Monitoring Trigger Level (ng/L)	Monitoring Locations
Estrogen receptor-α (ER-α)	Quarterly	0.5	3.5	AWPF Recycled Water.
Aryl hydrocarbon receptor (AhR)	Quarterly	0.5	0.5	AWPF Recycled Water.



**Table 26. AWPf Product Water Monitoring – Daily Average Conductivity ( $\mu\text{S}/\text{cm}$ )**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	269.29	262.06	193.65	199.52	212.68	200.39	223.00	211.00	206.00	212.00	211.00	204.00
2	271.18	246.98	194.72	199.10	208.32	201.83	223.00	215.00	219.00	210.00	216.00	209.00
3	275.00	242.14	198.54	213.17	205.45	205.69	225.00	209.00	220.00	207.00	219.00	221.00
4	277.71	240.26	187.84	209.61	210.92	220.43	217.00	209.00	221.00	212.00	209.00	231.00
5	266.39	246.56	196.11	206.83	202.33	228.21	214.00	217.00	221.00	213.00	207.00	231.00
6	261.29	239.46	195.60	205.22	198.11	221.20	216.00	240.00	219.00	204.00	263.00	221.00
7	304.81	243.44	190.08	201.32	209.79	219.79	219.00	234.00	220.00	206.00	207.00	225.00
8	280.57	234.51	188.84	197.94	218.78	216.03	215.00	229.00	218.00	179.00	209.00	213.00
9	275.61	245.71	191.32	198.61	215.83	220.26	209.00	231.00	220.00	100.00	204.00	212.00
10	275.94	248.22	189.49	198.73	216.15	219.91	213.00	225.00	209.00	101.00	210.00	208.00
11	297.49	242.77	190.71	194.92	222.52	214.66	211.00	225.00	202.00	105.00	213.00	211.00
12	293.65	254.56	189.11	203.28	221.71	214.01	209.00	218.00	203.00	101.00	210.00	208.00
13	272.42	234.98	188.23	215.21	219.24	212.19	228.00	210.00	203.00	195.00	216.00	205.00
14	284.89	191.74	184.19	214.42	217.27	218.92	228.00	218.00	215.00	233.00	210.00	218.00
15	271.13	166.19	188.67	217.59	214.77	226.59	227.00	222.00	214.00	227.00	205.00	203.00
16	259.70	241.18	196.08	210.98	211.59	226.55	226.00	215.00	218.00	227.00	208.00	210.00
17	254.68	255.16	197.49	204.70	214.20	224.29	222.00	204.00	219.00	228.00	203.00	205.00
18	283.39	246.85	221.24	213.02	212.76	224.24	214.00	202.00	214.00	225.00	207.00	207.00
19	241.99	224.75	234.07	210.35	202.70	221.54	208.00	227.00	215.00	217.00	202.00	212.00
20	221.51	208.84	287.40	208.32	201.30	216.69	215.00	232.00	216.00	218.00	203.00	206.00
21	276.77	219.44	291.58	208.49	214.55	217.11	219.00	234.00	210.00	220.00	199.00	206.00
22	285.72	209.52	244.03	206.79	223.36	213.19	213.00	225.00	207.00	216.00	191.00	198.00
23	264.64	188.62	221.49	201.53	224.23	212.21	216.00	225.00	210.00	214.00	210.00	200.00
24	259.34	181.82	220.80	206.51	224.32	211.89	216.00	224.00	219.00	203.00	213.00	188.00
25	238.76	195.39	217.58	216.80	215.47	213.30	215.00	219.00	219.00	194.00	210.00	187.00
26	258.98	198.03	207.80	216.49	215.17	215.57	207.00	221.00	218.00	194.00	206.00	188.00
27	217.35	207.69	206.96	216.99	210.16	207.99	218.00	211.00	226.00	209.00	213.00	190.00
28	223.43	213.08	205.85	215.42	209.52	205.13	218.00	217.00	212.00	200.00	212.00	190.00
29	259.54		203.63	218.14	208.28	219.97	222.00	209.00	214.00	206.00	204.00	205.00
30	285.78		203.61	210.27	205.08	226.09	221.00	211.00	212.00	214.00	205.00	210.00
31	281.70		206.90		203.30		213.00	213.00		211.00		202.00

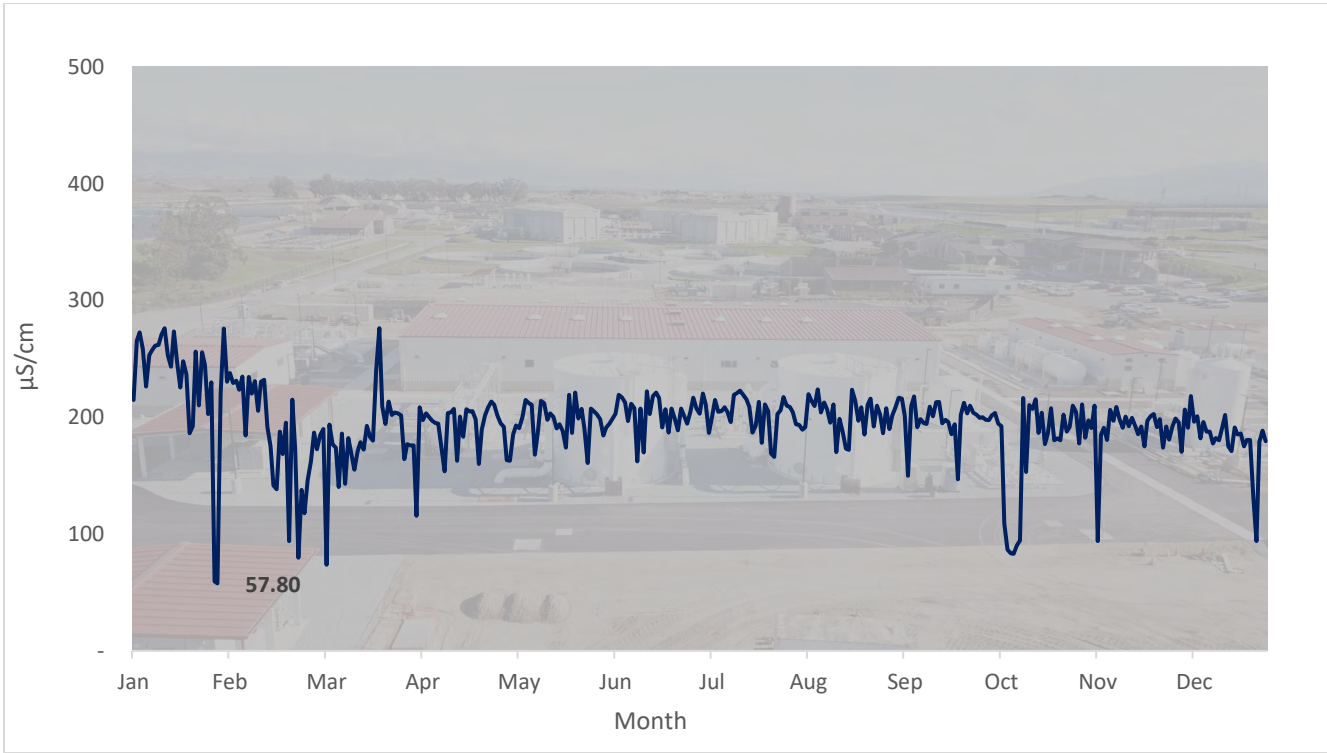


**Figure 26. AWPf Product Water Monitoring – Daily Average Conductivity ( $\mu\text{S}/\text{cm}$ )**



**Table 27. AWPf Product Water Monitoring –Daily Min Conductivity ( $\mu\text{S}/\text{cm}$ )**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	214.73	237.76	172.54	176.08	163.33	184.54	207.37	204.52	189.91	200.00	177.63	191.74
2	265.52	229.28	184.73	115.53	162.72	191.41	203.18	193.97	201.70	197.99	211.10	198.88
3	272.63	231.38	189.90	208.53	185.23	194.64	220.30	193.54	208.57	197.53	182.58	195.76
4	258.10	223.71	73.84	197.73	192.92	198.92	210.95	189.27	216.86	201.75	197.35	170.57
5	226.26	234.78	193.83	203.38	190.65	203.21	186.67	191.57	215.89	203.67	190.74	206.52
6	253.20	184.36	176.77	200.34	199.96	219.29	200.78	219.68	201.17	194.69	210.01	190.89
7	257.59	234.54	174.01	197.09	214.94	217.07	214.81	213.77	150.01	192.47	94.14	218.24
8	261.35	220.21	140.30	195.15	212.42	212.56	204.62	209.72	209.51	108.86	185.04	196.09
9	261.95	231.13	185.98	194.64	210.82	196.81	205.39	223.97	217.78	86.60	190.94	200.93
10	270.87	205.63	142.95	173.96	168.01	211.63	208.52	204.28	191.58	83.72	180.56	182.02
11	276.24	230.49	182.33	153.79	186.47	207.65	204.56	212.80	198.32	83.14	206.25	195.86
12	252.89	231.99	169.27	203.55	214.12	162.22	195.96	207.02	195.07	90.11	197.04	187.84
13	243.49	191.81	155.26	204.07	212.06	207.43	219.24	195.27	194.30	94.59	208.74	187.62
14	273.62	175.17	170.86	207.08	197.74	169.87	220.61	210.99	209.13	216.39	198.31	177.55
15	247.04	141.62	178.63	162.73	203.47	222.21	222.80	170.07	200.76	153.14	191.14	182.17
16	225.56	138.30	172.36	200.61	200.33	202.86	219.27	198.58	212.99	210.37	200.56	180.24
17	248.13	187.82	192.56	183.45	190.47	218.10	215.49	187.59	213.32	207.23	192.48	191.19
18	236.86	168.50	183.16	206.79	193.96	221.03	209.24	173.33	194.91	215.44	199.45	202.10
19	186.28	195.46	180.15	204.89	188.40	216.53	186.91	172.20	197.95	186.50	192.69	175.21
20	192.47	93.93	239.96	205.16	174.08	191.37	192.71	223.52	196.00	203.91	185.56	171.08
21	256.13	215.20	276.29	198.26	219.27	206.98	213.13	214.34	185.48	177.09	192.09	191.22
22	210.18	172.19	209.40	160.02	186.70	186.87	178.21	197.05	193.95	186.11	175.24	185.20
23	255.66	79.68	194.37	189.31	221.25	207.39	210.97	208.68	147.02	207.62	196.97	185.99
24	244.81	137.86	213.48	201.32	198.95	199.05	205.17	185.33	201.88	180.20	200.86	175.06
25	202.67	117.91	201.85	208.65	207.12	188.96	168.99	210.67	212.38	181.91	202.85	180.72
26	229.85	146.46	204.06	213.52	189.86	207.54	166.18	215.99	203.27	180.28	191.66	180.57
27	59.37	162.03	203.35	210.71	160.80	201.54	202.87	192.01	210.04	202.16	198.43	132.35
28	57.80	187.00	201.80	201.43	207.34	194.59	206.00	210.00	203.82	187.75	174.15	94.12
29	220.32		164.24	194.92	205.28	204.59	217.19	202.24	202.15	191.52	192.24	178.97
30	276.06		176.92	191.84	202.41	216.75	209.83	186.47	199.50	210.04	180.94	188.59
31	230.60		175.99		198.54		208.80	207.84		204.82		179.53

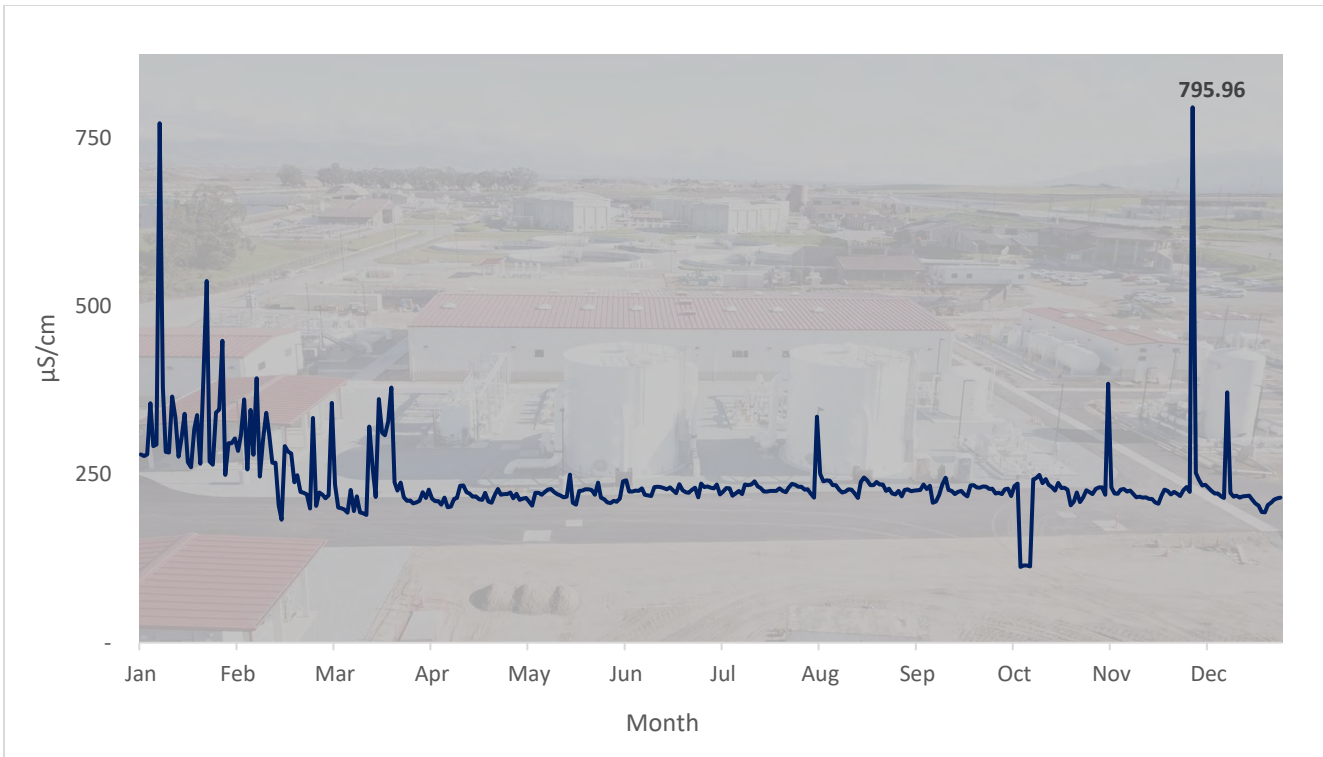


**Figure 27. AWP Product Water Monitoring – Daily Min Conductivity (µS/cm)**



**Table 28. AWPf Product Water Monitoring – Daily Max Conductivity ( $\mu\text{S}/\text{cm}$ )**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	279.80	285.08	214.68	223.69	221.28	210.94	232.27	227.64	217.77	222.05	221.02	231.38
2	277.43	308.91	219.11	215.37	212.48	209.57	230.49	228.19	227.18	222.97	228.43	224.12
3	279.82	361.55	356.41	227.66	214.24	214.16	229.34	221.15	228.26	220.85	230.77	795.96
4	355.81	257.43	234.61	214.04	215.05	239.73	235.10	215.63	225.03	228.18	231.13	252.12
5	292.03	346.04	201.09	210.41	210.00	241.19	220.41	336.24	225.96	229.08	220.16	241.94
6	294.72	279.20	199.95	210.32	203.85	224.76	224.59	251.11	226.39	218.11	385.17	233.82
7	772.40	392.96	198.04	205.32	222.73	224.66	229.93	240.10	227.23	232.82	231.02	234.89
8	379.42	247.10	193.29	215.55	222.97	226.34	229.59	241.50	235.03	236.52	221.62	230.49
9	283.92	301.78	227.13	201.61	220.01	225.61	218.76	240.69	228.51	112.70	221.55	225.62
10	282.55	341.87	195.69	202.36	223.60	229.55	221.94	234.20	233.33	114.82	227.34	221.68
11	366.11	310.76	217.42	213.83	227.40	219.86	225.70	234.07	207.84	114.98	228.50	221.67
12	335.07	267.32	193.87	215.34	228.34	218.97	220.69	227.59	210.14	113.22	224.82	217.77
13	276.60	267.32	192.44	233.23	223.62	217.99	234.97	223.09	219.86	242.72	226.07	215.39
14	303.31	203.80	190.13	233.89	221.12	231.33	234.05	224.92	235.68	244.72	220.82	372.17
15	340.40	183.01	321.44	223.65	218.87	231.84	234.98	227.84	245.03	249.60	216.16	222.92
16	268.66	292.27	263.01	221.88	216.11	231.34	240.09	227.62	227.05	237.12	216.94	217.16
17	260.74	284.17	216.51	216.93	217.10	230.17	232.36	221.98	225.68	243.05	215.73	218.68
18	316.92	281.45	362.13	217.70	249.77	227.98	229.77	214.97	221.10	234.49	216.06	215.67
19	338.47	238.35	312.10	213.23	207.85	230.76	224.93	238.96	224.17	231.44	213.97	217.73
20	266.15	249.17	308.28	212.19	204.98	226.56	224.63	245.87	225.58	225.98	213.55	218.06
21	397.73	224.07	328.62	222.61	225.62	222.38	225.88	241.30	221.13	237.38	208.39	218.41
22	537.69	222.67	379.29	210.17	226.05	235.62	225.78	234.02	217.59	229.89	206.67	212.94
23	269.44	220.52	238.56	207.89	227.90	226.48	225.77	234.28	233.77	230.33	218.84	207.23
24	264.83	199.70	225.98	219.41	228.13	224.00	229.58	238.97	234.25	227.51	227.51	203.69
25	342.07	334.31	237.81	228.64	227.23	222.75	225.58	235.02	231.12	204.24	225.73	194.41
26	346.70	203.43	216.08	220.13	219.82	227.19	223.67	235.14	230.49	209.92	220.49	193.95
27	448.89	223.15	210.84	220.76	238.01	230.35	230.80	225.56	232.26	223.28	224.46	204.87
28	249.53	219.80	211.45	220.92	215.74	215.92	236.15	228.86	231.61	208.90	221.30	207.92
29	296.32		206.97	223.08	213.10	236.81	234.62	222.01	228.52	216.13	218.01	212.78
30	296.63		208.46	214.85	208.51	231.18	231.68	220.30	228.91	226.69	226.42	214.65
31	303.73		211.00		207.61		231.86	225.61		223.57		215.60



**Figure 28. AWPF Product Water Monitoring – Daily Max Conductivity (µS/cm)**

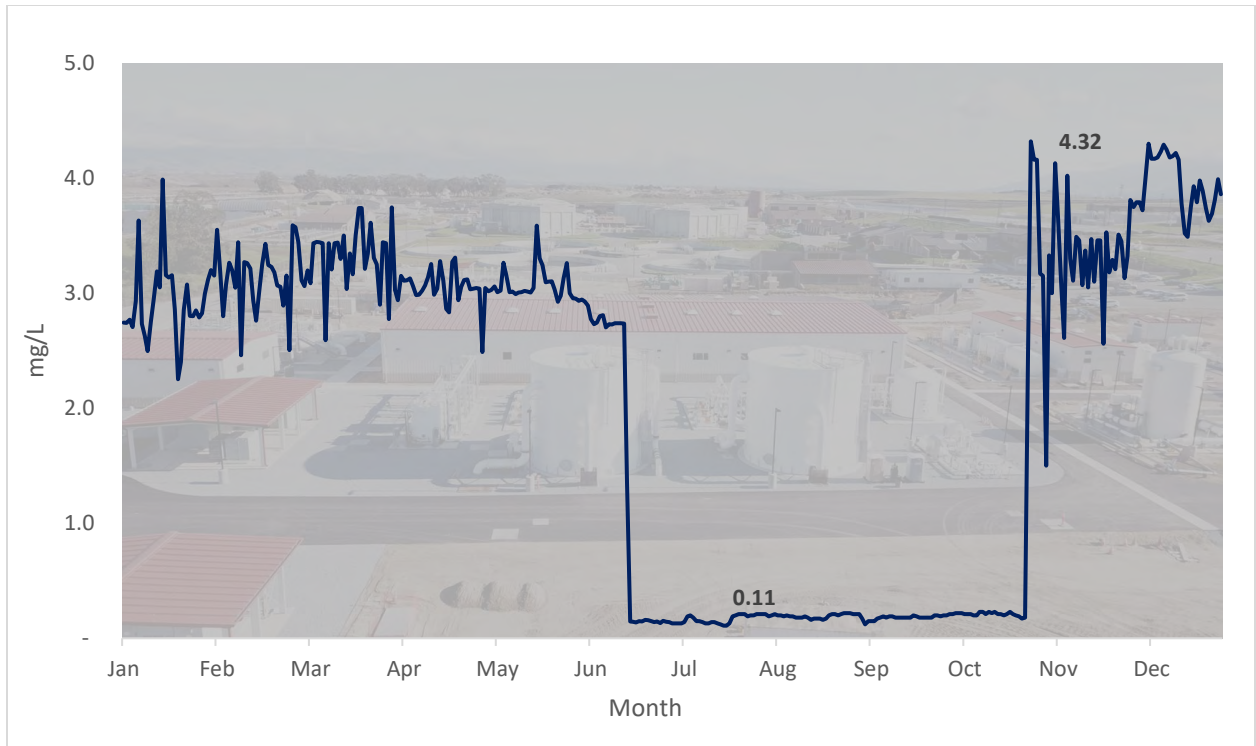


**Table 29. AWPf Product Water Monitoring – Daily Average Total Chlorine Residual (mg/L)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.74	3.55	3.11	3.03	3.05	2.93	0.14	0.21	0.21	0.20	3.17	3.81
2	2.74	3.22	3.06	2.94	3.02	2.95	0.13	0.21	0.21	0.21	3.15	3.75
3	2.77	2.80	3.20	3.15	3.03	2.93	0.13	0.19	0.17	0.21	1.50	3.79
4	2.70	3.08	3.09	3.11	3.06	2.89	0.13	0.20	0.12	0.22	3.33	3.79
5	2.93	3.27	3.44	3.11	3.01	2.77	0.13	0.21	0.15	0.22	3.00	3.72
6	3.63	3.20	3.44	3.13	3.02	2.73	0.14	0.20	0.15	0.22	4.13	3.99
7	2.73	3.05	3.44	3.06	3.26	2.74	0.19	0.20	0.15	0.21	3.66	4.30
8	2.63	3.44	3.44	2.98	3.15	2.80	0.20	0.19	0.17	0.21	3.07	4.17
9	2.50	2.46	2.59	2.99	3.01	2.81	0.18	0.20	0.18	0.21	2.61	4.17
10	2.75	3.27	3.43	3.02	3.02	2.70	0.15	0.19	0.19	0.20	4.02	4.18
11	2.95	3.26	3.21	3.07	2.99	2.73	0.15	0.19	0.18	0.20	3.30	4.23
12	3.19	3.21	3.43	3.14	3.01	2.73	0.14	0.18	0.19	0.23	3.11	4.29
13	3.05	2.94	3.44	3.25	3.01	2.74	0.13	0.18	0.19	0.23	3.49	4.25
14	3.99	2.76	3.30	2.99	3.02	2.74	0.13	0.18	0.18	0.21	3.46	4.18
15	3.15	3.02	3.50	3.04	3.01	2.74	0.14	0.19	0.18	0.23	3.07	4.19
16	3.14	3.25	3.04	3.28	3.01	2.74	0.14	0.18	0.18	0.22	3.37	4.22
17	3.16	3.43	3.35	3.11	3.05	1.36	0.13	0.16	0.18	0.23	3.05	4.16
18	2.86	3.25	3.16	2.86	3.59	0.15	0.12	0.17	0.18	0.21	3.47	3.78
19	2.25	3.23	3.50	2.83	3.30	0.14	0.11	0.17	0.18	0.21	3.10	3.52
20	2.40	3.18	3.74	3.27	3.24	0.14	0.11	0.17	0.20	0.20	3.46	3.49
21	2.86	3.07	3.74	3.31	3.10	0.15	0.13	0.16	0.19	0.21	3.46	3.75
22	3.08	3.06	3.21	2.94	3.10	0.15	0.19	0.17	0.18	0.23	2.56	3.93
23	2.80	2.89	3.34	3.06	3.10	0.16	0.20	0.20	0.18	0.21	3.53	3.79
24	2.80	3.15	3.61	3.11	3.03	0.16	0.21	0.21	0.18	0.20	3.18	3.98
25	2.85	2.50	3.31	3.12	2.93	0.15	0.21	0.21	0.18	0.19	3.29	3.89
26	2.79	3.59	3.25	3.03	2.98	0.14	0.21	0.20	0.18	0.17	3.21	3.74
27	2.82	3.57	2.90	3.04	3.13	0.15	0.19	0.21	0.20	0.18	3.51	3.63
28	3.00	3.44	3.44	3.04	3.26	0.13	0.20	0.22	0.20	2.43	3.45	3.69
29	3.12		3.44	3.04	3.00	0.15	0.20	0.22	0.19	4.32	3.13	3.81
30	3.20		2.77	2.49	2.96	0.14	0.21	0.22	0.20	4.16	3.32	3.99
31	3.15		3.75		2.95		0.21	0.21		4.16		3.86

**\*Note:**





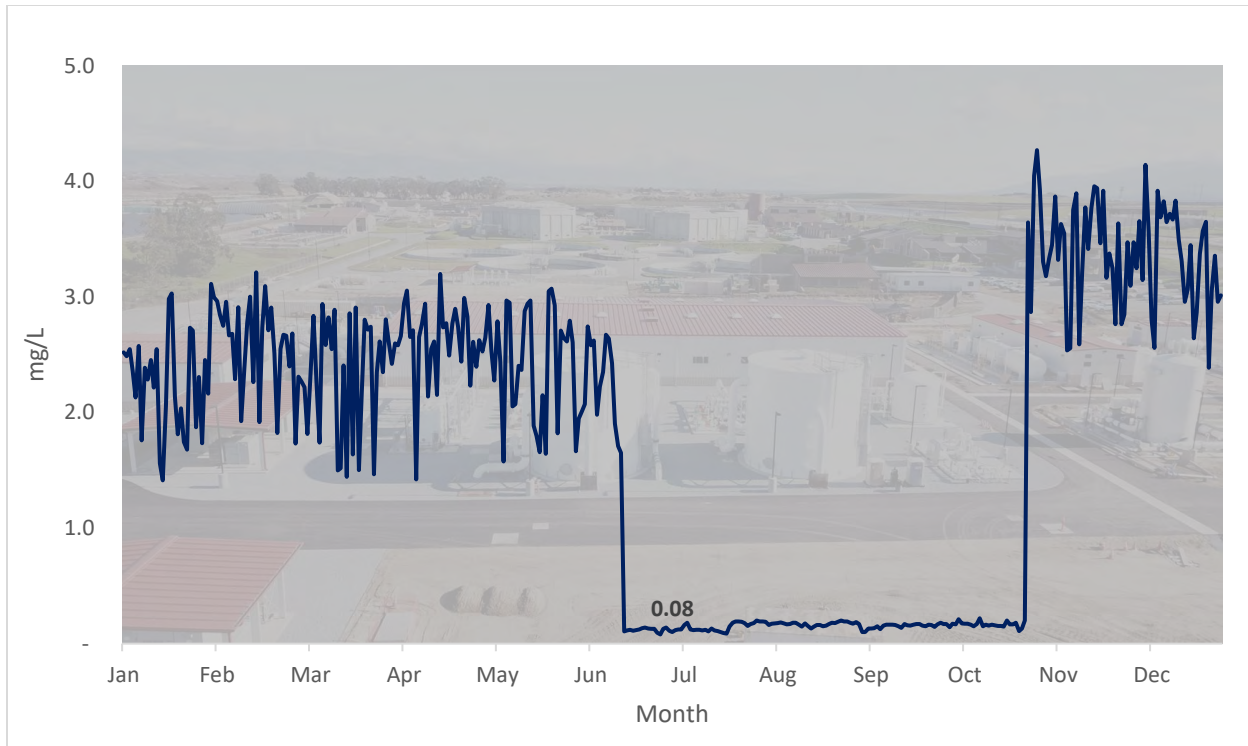
**Figure 29. AWP Product Water Monitoring – Daily Average Total Chlorine Residual (mg/L)<sup>10</sup>**

<sup>10</sup> Note: To explore breakpoint chlorination, the Product Water Pump Station chlorine residual analyzer was temporarily switched from total chlorine to free chlorine from mid-June to late October.



**Table 30. AWPf Product Water Monitoring – Daily Min Total Chlorine Residual (mg/L)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.52	2.96	2.27	2.60	2.65	1.95	0.11	0.19	0.19	0.17	3.93	3.10
2	2.49	2.84	2.22	2.58	2.93	2.01	0.10	0.19	0.17	0.14	3.30	3.47
3	2.55	2.75	1.82	2.66	2.53	2.07	0.12	0.16	0.10	0.17	3.18	3.25
4	2.36	2.96	2.34	2.94	2.28	2.75	0.12	0.17	0.10	0.17	3.33	3.65
5	2.13	2.67	2.84	3.05	2.79	2.58	0.12	0.18	0.13	0.21	3.45	3.15
6	2.58	2.68	2.23	2.65	2.44	2.62	0.16	0.18	0.13	0.17	3.87	4.14
7	1.76	2.29	1.74	2.71	1.57	1.98	0.18	0.18	0.13	0.17	3.32	3.56
8	2.39	2.91	2.94	1.42	2.97	2.23	0.12	0.17	0.15	0.17	3.63	2.80
9	2.28	1.93	2.59	2.65	2.95	2.35	0.12	0.17	0.12	0.16	3.55	2.56
10	2.45	2.38	2.82	2.77	2.05	2.67	0.12	0.17	0.16	0.15	2.54	3.92
11	2.22	2.78	2.55	2.94	2.07	2.64	0.12	0.18	0.16	0.17	2.56	3.69
12	2.55	3.00	2.89	2.14	2.40	2.43	0.11	0.18	0.16	0.22	3.75	3.83
13	1.56	2.26	1.50	2.55	2.37	1.90	0.12	0.16	0.16	0.15	3.90	3.65
14	1.41	3.21	1.52	2.61	2.88	1.71	0.11	0.15	0.16	0.17	2.59	3.72
15	2.06	1.92	2.41	2.15	2.94	1.65	0.13	0.17	0.15	0.16	3.21	3.67
16	2.98	2.73	1.44	3.20	2.97	0.11	0.11	0.15	0.14	0.16	3.78	3.83
17	3.03	3.09	2.86	2.74	1.89	0.12	0.11	0.13	0.17	0.16	3.42	3.50
18	2.14	2.71	1.64	2.77	1.80	0.12	0.10	0.15	0.16	0.15	3.77	3.31
19	1.81	2.91	2.91	2.49	1.66	0.11	0.09	0.16	0.16	0.15	3.96	2.96
20	2.04	2.51	1.50	2.77	2.15	0.12	0.09	0.16	0.16	0.15	3.94	3.07
21	1.75	1.82	2.18	2.90	1.64	0.12	0.15	0.15	0.17	0.20	3.46	3.45
22	1.68	2.55	2.80	2.74	3.05	0.13	0.18	0.16	0.17	0.17	3.92	2.64
23	2.73	2.67	2.72	2.44	3.07	0.14	0.19	0.17	0.15	0.17	3.16	2.86
24	2.71	2.66	2.74	2.99	2.93	0.13	0.19	0.18	0.15	0.18	3.38	3.37
25	1.87	2.40	1.46	2.83	1.82	0.13	0.19	0.18	0.16	0.11	3.25	3.57
26	2.31	2.68	2.35	2.23	2.71	0.13	0.18	0.19	0.16	0.13	2.76	3.65
27	1.73	1.73	2.61	2.61	2.65	0.10	0.15	0.20	0.15	0.20	3.64	2.39
28	2.46	2.31	2.35	2.40	2.61	0.08	0.17	0.19	0.17	3.64	2.77	3.05
29	2.16		2.81	2.62	2.80	0.13	0.18	0.19	0.18	2.87	2.85	3.36
30	3.11		2.59	2.53	2.61	0.14	0.20	0.18	0.17	4.05	3.47	2.96
31	3.00		2.42		1.66		0.19	0.17		4.27		3.01



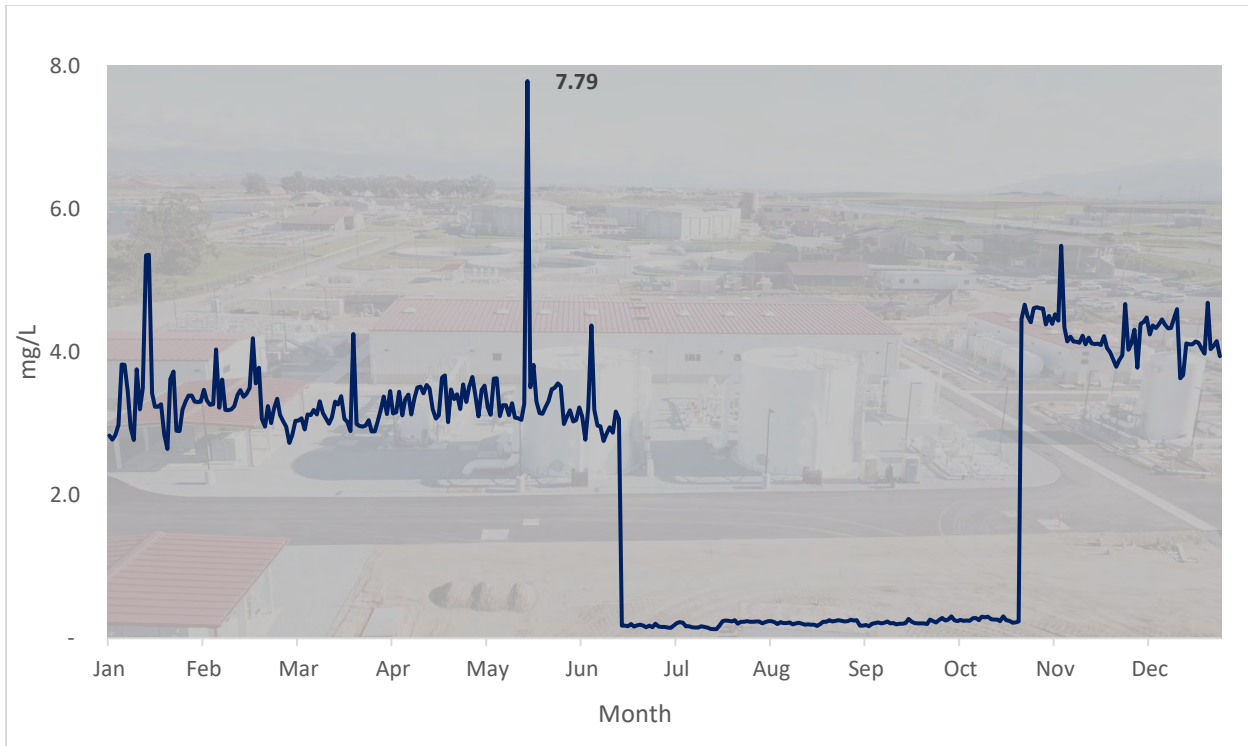
**Figure 30. AWPf Product Water Monitoring – Daily Min Total Chlorine Residual (mg/L)<sup>11</sup>**

<sup>11</sup> Note: To explore breakpoint chlorination, the Product Water Pump Station chlorine residual analyzer was temporarily switched from total chlorine to free chlorine from mid-June to late October.



**Table 31. AWPf Product Water Monitoring – Daily Max Total Chlorine Residual (mg/L)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.84	3.47	2.73	3.38	3.37	3.19	0.16	0.23	0.26	0.28	4.63	4.03
2	2.78	3.32	2.84	3.13	3.10	3.03	0.16	0.23	0.25	0.25	4.61	4.12
3	2.84	3.26	3.04	3.45	3.47	3.05	0.15	0.21	0.25	0.26	4.61	4.31
4	2.98	3.27	3.04	3.14	3.53	3.23	0.14	0.22	0.17	0.31	4.39	3.78
5	3.83	4.04	3.07	3.16	3.22	3.10	0.18	0.24	0.18	0.25	4.51	4.40
6	3.82	3.22	2.92	3.45	3.12	2.78	0.21	0.24	0.19	0.24	4.39	4.42
7	3.45	3.61	3.13	3.12	3.63	3.22	0.23	0.23	0.17	0.26	4.53	4.48
8	2.95	3.19	3.12	3.34	3.63	4.37	0.22	0.20	0.21	0.25	4.44	4.25
9	2.77	3.18	3.19	3.41	3.11	3.19	0.17	0.23	0.21	0.25	5.48	4.37
10	3.76	3.20	3.13	3.13	3.26	2.97	0.17	0.21	0.22	0.25	4.35	4.34
11	3.20	3.25	3.31	3.36	3.26	2.96	0.15	0.21	0.21	0.28	4.15	4.39
12	3.50	3.40	3.14	3.51	3.12	2.76	0.15	0.22	0.22	0.28	4.21	4.46
13	5.35	3.47	3.08	3.52	3.29	2.86	0.15	0.20	0.24	0.25	4.15	4.39
14	5.36	3.38	3.00	3.42	3.09	2.95	0.17	0.21	0.21	0.30	4.14	4.33
15	3.42	3.42	3.09	3.54	3.08	2.87	0.16	0.22	0.21	0.29	4.13	4.34
16	3.24	3.50	3.31	3.49	3.05	3.17	0.15	0.20	0.20	0.30	4.23	4.48
17	3.24	4.19	3.27	3.20	3.28	3.07	0.13	0.19	0.20	0.27	4.11	4.60
18	3.27	3.56	3.38	3.07	7.79	0.18	0.13	0.20	0.21	0.26	4.20	3.63
19	2.85	3.78	3.07	3.12	3.51	0.18	0.13	0.19	0.21	0.26	4.12	3.68
20	2.65	3.06	3.02	3.64	3.82	0.17	0.18	0.19	0.27	0.24	4.11	4.12
21	3.62	2.96	2.90	3.68	3.31	0.20	0.24	0.17	0.23	0.31	4.12	4.11
22	3.73	3.25	4.25	3.02	3.15	0.16	0.25	0.20	0.21	0.25	4.10	4.11
23	2.90	3.01	2.99	3.48	3.14	0.18	0.25	0.23	0.21	0.24	4.22	4.15
24	2.89	3.21	2.97	3.34	3.24	0.19	0.24	0.23	0.21	0.22	4.06	4.13
25	3.20	3.35	2.96	3.41	3.31	0.18	0.25	0.25	0.21	0.22	4.00	4.04
26	3.31	3.12	2.97	3.21	3.48	0.16	0.20	0.23	0.20	0.24	3.90	3.98
27	3.39	3.03	3.05	3.55	3.50	0.18	0.23	0.24	0.26	4.46	3.80	4.69
28	3.39	2.96	2.89	3.30	3.56	0.16	0.23	0.25	0.24	4.66	3.88	4.04
29	3.31		2.89	3.52	3.52	0.20	0.24	0.25	0.22	4.50	3.95	4.09
30	3.30		3.03	3.65	2.99	0.16	0.23	0.24	0.26	4.42	4.67	4.15
31	3.30		3.20		3.10		0.23	0.24		4.61		3.94



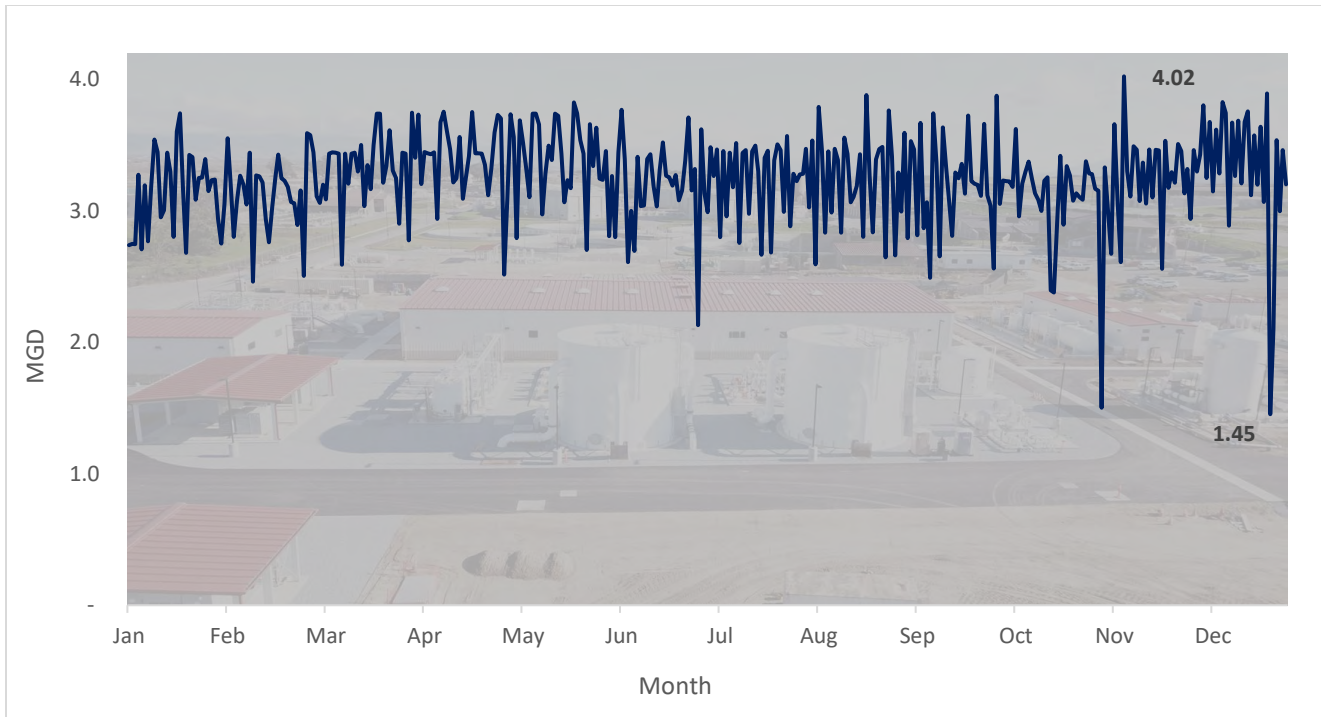
**Figure 31. AWPf Product Water Monitoring – Daily Max Total Chlorine Residual (mg/L)<sup>12</sup>**

<sup>12</sup> Note: To explore breakpoint chlorination, the Product Water Pump Station chlorine residual analyzer was temporarily switched from total chlorine to free chlorine from mid-June to late October.

**Table 32. AWPf Product Water Monitoring – Daily Average Total Recycled Water Flow (MGD)<sup>13</sup>**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.74	3.55	3.11	3.40	3.73	2.81	3.13	3.28	3.00	3.88	3.17	2.94
2	2.75	3.22	3.06	3.73	3.56	3.27	2.99	3.47	3.59	3.05	3.15	3.46
3	2.75	2.80	3.20	3.20	2.79	2.80	3.48	3.03	2.79	3.23	1.50	3.30
4	3.27	3.08	3.09	3.45	3.69	3.45	3.26	3.54	3.53	3.23	3.33	3.43
5	2.71	3.27	3.44	3.44	3.52	3.77	3.47	2.59	3.47	3.22	3.00	3.80
6	3.19	3.20	3.44	3.43	3.32	3.39	2.80	3.79	2.81	3.18	2.67	3.25
7	2.77	3.05	3.44	3.45	3.10	2.61	3.46	3.46	3.67	3.62	3.66	3.68
8	3.19	3.44	3.44	2.94	3.74	3.00	2.96	2.83	2.87	2.96	3.07	3.15
9	3.54	2.46	2.59	3.67	3.74	2.69	3.44	3.45	3.06	3.21	2.61	3.62
10	3.45	3.27	3.43	3.75	3.66	3.41	3.18	2.99	2.49	3.30	4.02	3.28
11	2.95	3.26	3.21	3.61	2.97	3.04	3.52	3.47	3.74	3.37	3.30	3.83
12	3.00	3.21	3.43	3.47	3.28	3.04	2.75	3.39	3.37	3.25	3.11	3.74
13	3.44	2.94	3.44	3.22	3.50	3.39	3.44	2.83	2.65	3.13	3.49	2.89
14	3.30	2.76	3.30	3.25	3.39	3.43	3.46	3.56	3.63	3.08	3.46	3.67
15	2.80	3.02	3.50	3.56	3.74	3.19	2.98	3.43	3.34	3.00	3.07	3.26
16	3.60	3.25	3.04	3.09	3.72	3.03	3.45	3.06	3.09	3.23	3.37	3.69
17	3.74	3.43	3.35	3.26	3.44	3.31	3.50	3.11	2.81	3.25	3.05	3.21
18	3.19	3.25	3.16	3.42	3.06	3.52	3.30	3.19	3.29	2.40	3.47	3.68
19	2.68	3.23	3.50	3.75	3.23	3.27	2.67	3.43	3.25	2.38	3.10	3.76
20	3.42	3.18	3.74	3.44	3.17	3.26	3.40	2.80	3.36	2.91	3.46	3.12
21	3.41	3.07	3.74	3.44	3.82	3.19	3.46	3.88	3.13	3.42	3.46	3.57
22	3.08	3.06	3.21	3.44	3.74	3.27	2.68	3.27	3.72	2.89	2.56	3.20
23	3.25	2.89	3.34	3.35	3.54	3.08	3.38	2.84	3.22	3.34	3.53	3.64
24	3.25	3.15	3.61	3.12	3.43	3.15	3.51	3.39	3.21	3.27	3.18	3.07
25	3.39	2.50	3.31	3.32	2.70	3.38	3.46	3.47	3.20	3.08	3.29	3.89
26	3.15	3.59	3.25	3.60	3.66	3.71	2.99	3.49	3.11	3.13	3.21	1.45
27	3.23	3.57	2.90	3.73	3.34	3.15	3.57	2.65	3.66	3.10	3.51	2.10
28	3.24	3.44	3.44	3.70	3.63	3.32	2.88	3.76	3.12	3.08	3.45	3.54
29	2.94		3.44	2.51	3.25	2.13	3.28	3.41	3.04	3.38	3.13	3.00
30	2.75		2.77	3.10	3.24	3.62	3.23	2.66	2.56	3.28	3.32	3.46
31	3.05		3.40		3.45		3.28	3.29		3.28		3.20

<sup>13</sup> Values based on average product water flowrate (GPM).



**Figure 32. AWPf Product Water Monitoring – Daily Average Total Recycled Water Flow (MGD)**

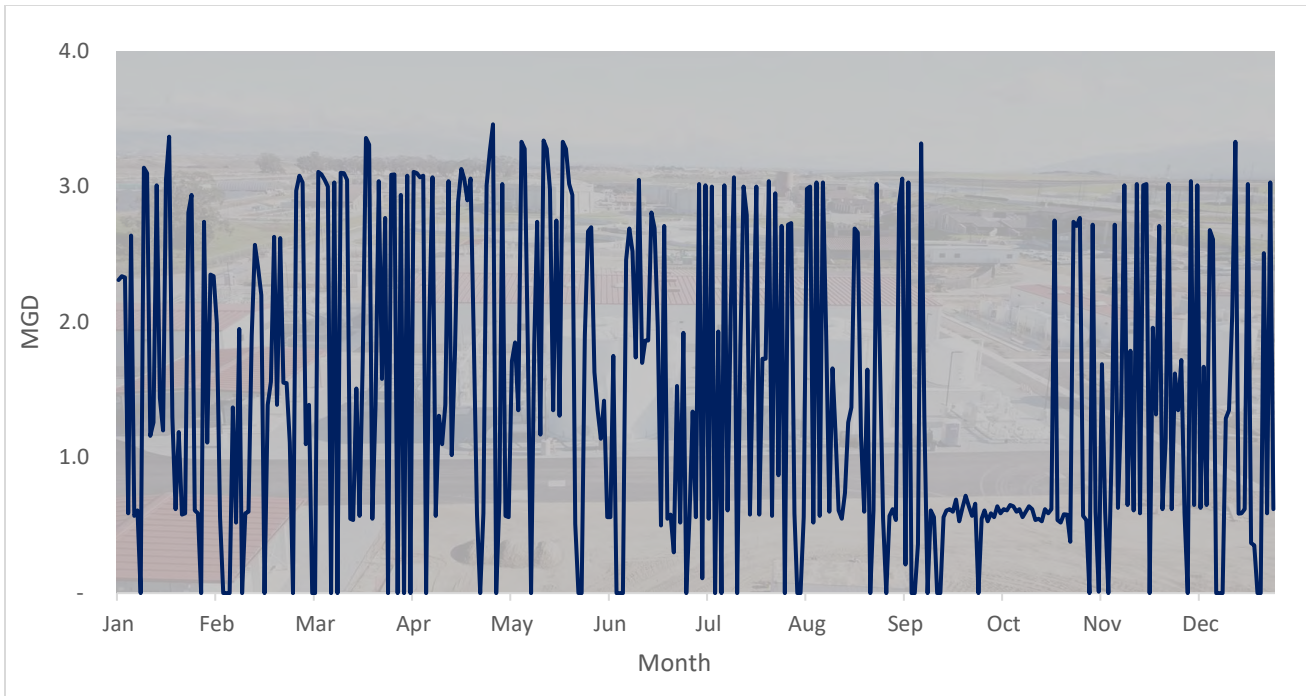


**Table 33. AWPf Product Water Monitoring – Daily Min Total Recycled Water Flow (MGD)<sup>14</sup>**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.59	-	-	3.11	0.56	0.56	0.11	-	2.87	0.56	2.72	0.65
2	2.64	-	3.11	3.10	1.71	0.56	3.01	0.56	3.06	0.64	0.60	2.68
3	0.57	1.37	3.09	3.07	1.85	1.75	0.55	2.98	0.21	0.59	0.01	2.61
4	0.61	0.52	3.05	3.08	1.35	-	3.00	3.00	3.03	0.62	1.69	-
5	-	1.95	3.00	-	3.33	-	-	0.52	-	0.61	0.60	-
6	3.14	-	-	2.01	3.28	-	1.93	3.03	-	0.65	-	-
7	3.10	0.59	3.03	3.07	1.80	2.46	-	0.57	0.36	0.64	1.01	1.29
8	1.16	0.60	-	0.57	-	2.69	3.01	3.03	3.32	0.60	2.72	1.35
9	1.26	1.90	3.10	1.31	1.85	2.52	0.61	1.93	1.30	0.62	0.63	2.05
10	3.01	2.57	3.10	1.10	2.74	1.74	2.09	0.60	-	0.56	1.36	3.33
11	1.44	2.40	3.05	1.39	1.17	3.05	3.07	1.66	0.61	0.60	3.01	0.59
12	1.20	2.20	0.55	3.04	3.34	1.70	-	1.20	0.56	0.64	0.65	0.59
13	3.05	-	0.54	1.02	3.28	1.87	1.82	0.61	-	0.62	1.79	0.62
14	3.37	1.39	1.51	1.76	2.98	1.87	3.00	0.55	-	0.54	0.61	3.02
15	1.30	1.56	0.57	2.89	1.35	2.81	2.79	0.74	0.56	0.55	3.02	0.37
16	0.62	2.63	1.73	3.13	2.75	2.69	0.58	1.26	0.61	0.53	0.59	0.35
17	1.19	1.39	3.36	3.06	1.31	1.96	1.80	1.37	0.62	0.62	3.01	-
18	0.58	2.62	3.31	2.90	3.33	0.50	3.00	2.69	0.60	0.59	3.02	-
19	0.59	1.55	0.55	3.06	3.28	2.71	0.58	2.66	0.69	0.62	-	2.51
20	2.81	1.55	1.39	1.87	3.02	0.55	1.73	1.16	0.53	2.75	1.96	0.59
21	2.94	1.11	3.04	0.58	2.94	0.58	1.73	0.60	0.63	0.54	1.32	3.03
22	0.61	-	1.58	-	0.51	0.30	3.04	1.65	0.72	0.52	2.71	0.62
23	0.59	2.97	2.77	0.59	-	1.53	0.57	-	0.64	0.58	0.62	0.65
24	-	3.08	-	3.01	-	0.52	2.95	0.61	0.57	0.58	1.12	2.68
25	2.74	3.03	3.09	3.26	1.90	1.92	0.87	3.02	0.66	0.38	3.02	2.61
26	1.11	3.08	3.09	3.46	2.67	-	2.71	1.75	-	2.74	0.62	-
27	2.35	3.03	-	-	2.70	0.56	-	0.55	0.55	2.71	1.62	-
28	2.34	1.10	2.94	3.11	1.63	0.56	2.72	-	2.87	2.77	2.72	-
29	0.59		-	3.10	0.56	0.56	0.11	-	3.06	0.56	0.60	1.29
30	2.64		3.11	3.07	1.71	1.75	3.01	0.56	0.21	0.64	0.01	1.35
31	0.57		3.09		1.85		0.55	2.98		0.59		2.05

<sup>14</sup> Values based on minimum product water flowrate (GPM).





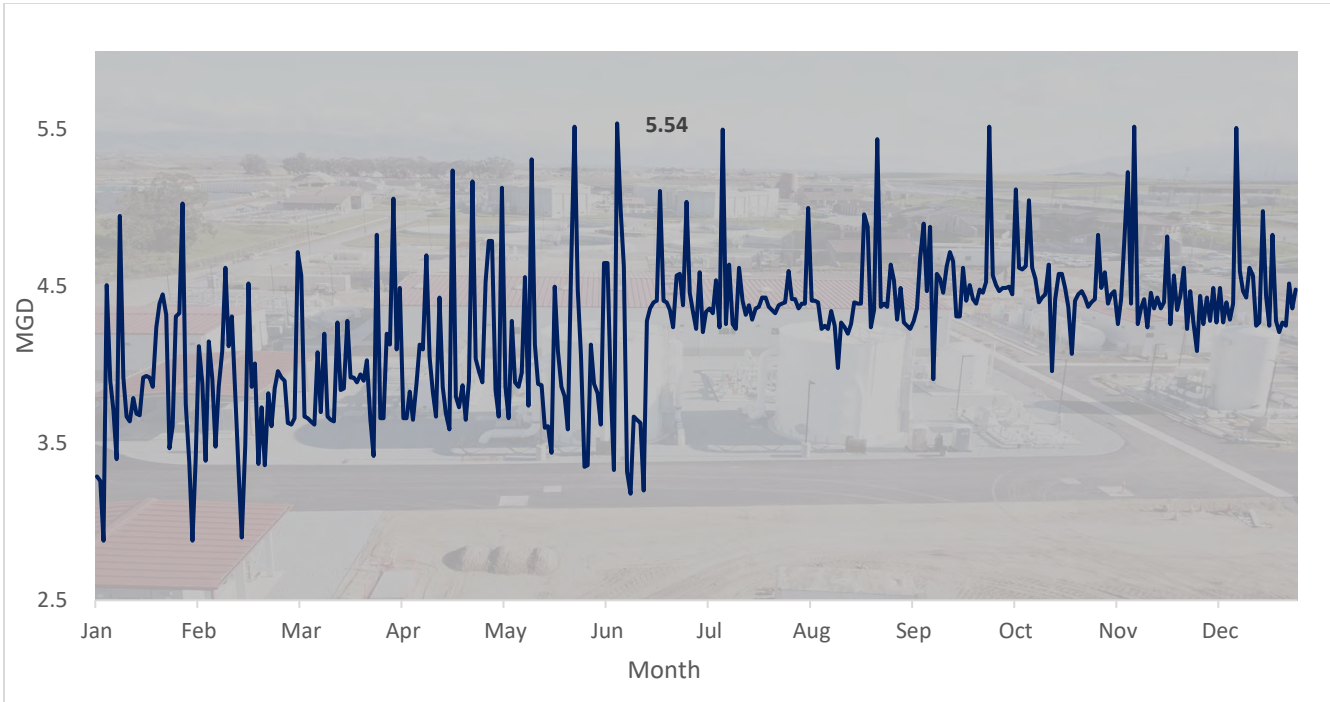
**Figure 33. AWPf Product Water Monitoring – Daily Min Total Recycled Water Flow (MGD)**



**Table 34. AWPf Product Water Monitoring – Daily Maximum Total Recycled Water Flow (MGD)<sup>15</sup>**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3.67	4.12	3.70	4.10	3.95	4.63	5.50	4.25	4.47	4.63	5.23	4.40
2	3.64	4.31	4.20	4.70	4.56	3.32	4.26	4.23	4.88	5.05	4.39	4.29
3	3.79	3.80	3.67	4.05	3.74	3.18	4.64	4.35	3.91	4.62	5.52	4.39
4	3.69	3.33	3.65	3.83	5.31	3.67	4.26	4.25	4.58	4.55	4.26	5.51
5	3.68	2.90	3.64	3.67	4.13	3.65	4.23	3.98	4.55	4.40	4.36	4.60
6	3.92	3.49	4.27	4.43	3.88	3.63	4.62	4.27	4.46	4.43	4.42	4.47
7	3.93	4.52	3.84	3.86	3.87	3.20	4.41	4.24	4.63	4.45	4.24	4.43
8	3.92	3.86	3.85	3.69	3.60	4.28	4.32	4.20	4.72	4.64	4.46	4.62
9	3.86	4.01	4.28	3.59	3.61	4.36	4.38	4.26	4.66	3.96	4.36	4.57
10	4.24	3.37	3.92	5.24	3.44	4.40	4.29	4.40	4.31	4.42	4.43	4.25
11	4.39	3.73	3.92	3.80	4.50	4.41	4.36	4.39	4.31	4.58	4.36	4.27
12	4.45	3.36	3.89	3.73	4.09	5.11	4.37	4.39	4.62	4.58	4.40	4.98
13	4.32	3.82	3.94	3.87	3.86	4.41	4.43	4.96	4.41	4.49	4.82	4.44
14	3.47	3.61	3.90	3.65	3.80	4.40	4.43	4.88	4.51	4.37	4.26	4.25
15	3.61	3.85	4.03	3.90	3.59	4.35	4.37	4.24	4.42	4.07	4.57	4.83
16	4.31	3.96	3.65	5.17	4.60	4.24	4.35	4.35	4.39	4.41	4.35	4.28
17	4.33	3.92	3.42	4.04	5.52	4.57	4.33	5.44	4.48	4.45	4.44	4.21
18	5.03	3.90	4.83	3.96	4.48	4.58	4.38	4.37	4.46	4.47	4.62	4.27
19	3.75	3.63	3.66	3.89	4.06	4.38	4.39	4.39	4.53	4.43	4.23	4.25
20	3.38	4.12	3.66	4.53	3.35	5.04	4.40	4.37	5.52	4.37	4.47	4.52
21	2.88	4.31	4.20	4.79	3.36	4.46	4.60	4.64	4.57	4.40	4.27	4.36
22	3.40	3.80	4.13	4.10	4.13	4.63	4.42	4.54	4.47	4.42	5.23	4.48
23	3.67	3.33	3.70	4.70	3.95	3.32	5.50	4.25	4.88	4.63	4.39	4.40
24	3.64	2.90	4.20	4.05	4.56	3.18	4.26	4.23	3.91	5.05	5.52	4.29
25	3.79	3.49	3.67	3.83	3.74	3.67	4.64	4.35	4.58	4.62	4.26	4.39
26	3.69	4.52	3.65	3.67	5.31	3.65	4.26	4.25	4.55	4.55	4.36	5.51
27	3.68	3.86	3.64	4.43	4.13	3.63	4.23	3.98	4.46	4.40	4.42	4.60
28	3.92	4.01	4.27	3.86	3.88	3.20	4.62	4.27	4.63	4.43	4.24	4.47
29	3.93		3.84	3.69	3.87	4.28	4.41	4.24	4.72	4.45	4.46	4.43
30	3.92		3.85	3.59	3.60	4.36	4.32	4.20	4.66	4.64	4.36	4.62
31	3.86		4.28		3.61		4.38	4.26		3.96		4.57

<sup>15</sup> Values based on maximum product water flowrate (GPM).



**Figure 34. AWPf Product Water Monitoring – Daily Max Total Recycled Water Flow (MGD)**



**Table 35. AWPf Product Water Monitoring – Daily Average UV Dose for Reactor 1 (mJ/cm<sup>2</sup>)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2,919	-	-	-	2,599	-	-	-	2,448	2,573	-	2,433
2	2,915	-	-	-	-	-	-	-	2,429	2,573	2,469	2,427
3	2,915	-	-	3,014	-	-	-	-	2,433	2,434	2,477	2,527
4	3,060	-	-	-	-	-	2,463	-	-	-	2,426	2,441
5	-	-	-	-	-	-	-	2,506	-	-	2,447	2,420
6	-	-	-	2,693	-	-	2,520	-	-	-	2,436	2,423
7	-	-	-	2,419	-	2,624	2,425	-	2,423	-	2,436	2,420
8	-	-	-	2,426	-	2,445	2,485	-	-	-	2,501	2,411
9	-	-	-	2,424	-	-	2,436	2,514	2,419	2,429	-	2,430
10	-	-	-	2,419	-	2,430	2,424	-	2,599	2,424	-	2,556
11	-	-	-	2,421	-	2,422	2,429	-	-	2,424	-	2,433
12	-	-	-	2,435	-	2,421	2,518	2,530	-	2,453	-	2,433
13	-	-	-	2,436	-	2,424	2,449	2,614	2,593	-	-	2,506
14	-	-	-	2,430	-	2,419	2,420	-	2,592	-	-	2,440
15	3,034	-	-	2,415	-	2,429	2,499	-	2,598	-	-	2,537
16	-	-	-	2,486	-	2,424	-	-	-	-	2,422	2,433
17	-	-	-	2,433	-	2,412	-	-	-	-	-	2,559
18	-	-	-	2,420	-	2,412	-	2,585	2,586	-	-	2,430
19	-	-	-	2,423	-	-	-	2,441	-	-	-	2,421
20	-	-	-	2,420	-	-	-	2,620	-	-	-	2,533
21	-	-	-	2,420	-	2,421	-	2,421	-	-	-	2,445
22	-	-	-	2,420	-	2,429	-	2,426	2,576	-	-	2,636
23	-	-	-	2,427	-	2,423	-	2,548	-	-	-	2,478
24	-	-	-	2,425	-	2,493	-	2,466	-	2,453	-	2,478
25	-	-	-	2,475	-	2,497	-	-	-	2,466	-	2,413
26	-	-	-	2,426	-	-	-	2,440	2,559	-	2,434	2,678
27	3,031	-	-	2,419	-	-	-	-	-	-	2,425	2,516
28	-	-	-	2,420	-	-	-	-	-	-	2,432	2,420
29	-	-	-	2,453	-	2,476	-	-	2,569	-	2,429	2,547
30	-	-	-	2,454	-	2,470	-	-	-	-	2,436	2,426
31	-	-	-	-	-	-	-	2,453	-	-	-	2,467



**Figure 35. AWPf Product Water Monitoring – Daily Average UV Dose for Reactor 1 (mJ/cm²)**



**Table 36. AWPf Product Water Monitoring – Daily Minimum UV Dose for Reactor 1 (mJ/cm<sup>2</sup>)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2,786	-	-	-	2,393	-	-	-	2,269	2,260	-	2,353
2	2,777	-	-	-	-	-	-	-	2,300	2,367	2,469	2,326
3	2,821	-	-	2,367	-	-	-	-	2,240	2,339	2,477	2,310
4	2,801	-	-	-	-	-	2,302	-	-	-	2,426	2,314
5	-	-	-	-	-	-	-	4,846	-	-	2,447	2,319
6	-	-	-	2,264	-	-	1,637	-	-	-	2,436	2,317
7	-	-	-	2,302	-	2,447	2,290	-	2,308	-	2,436	2,337
8	-	-	-	2,257	-	2,303	2,298	-	-	-	2,501	2,310
9	-	-	-	2,249	-	-	2,250	2,514	1,438	2,332	-	2,289
10	-	-	-	2,313	-	2,302	557	-	2,019	2,335	-	2,284
11	-	-	-	1,485	-	2,289	2,275	-	-	2,309	-	2,290
12	-	-	-	2,280	-	2,279	2,281	2,322	-	2,383	-	2,219
13	-	-	-	2,273	-	2,205	2,227	2,278	2,314	-	-	2,285
14	-	-	-	2,266	-	2,286	2,275	-	2,328	-	-	2,272
15	2,782	-	-	2,208	-	2,279	2,262	-	2,206	-	-	2,228
16	-	-	-	2,262	-	2,299	-	-	-	-	2,422	2,300
17	-	-	-	2,309	-	2,268	-	-	-	-	-	2,260
18	-	-	-	2,242	-	2,315	-	2,322	2,315	-	-	2,312
19	-	-	-	2,218	-	-	-	2,244	-	-	-	2,303
20	-	-	-	2,286	-	-	-	2,286	-	-	-	2,259
21	-	-	-	2,305	-	2,288	-	2,302	-	-	-	2,307
22	-	-	-	2,291	-	2,270	-	2,307	2,313	-	-	2,265
23	-	-	-	2,279	-	2,275	-	2,245	-	-	-	2,296
24	-	-	-	2,307	-	2,285	-	2,287	-	2,241	-	2,527
25	-	-	-	2,187	-	2,317	-	-	-	2,303	-	2,297
26	-	-	-	2,212	-	-	-	2,309	2,298	-	2,434	2,329
27	2,788	-	-	2,299	-	-	-	-	-	-	2,425	2,183
28	-	-	-	2,299	-	-	-	-	-	-	2,432	2,270
29	-	-	-	2,005	-	2,323	-	-	2,317	-	2,429	2,283
30	-	-	-	1,615	-	1,133	-	-	-	-	2,436	2,275
31	-	-	-	-	-	-	-	2,280	-	-	-	2,293



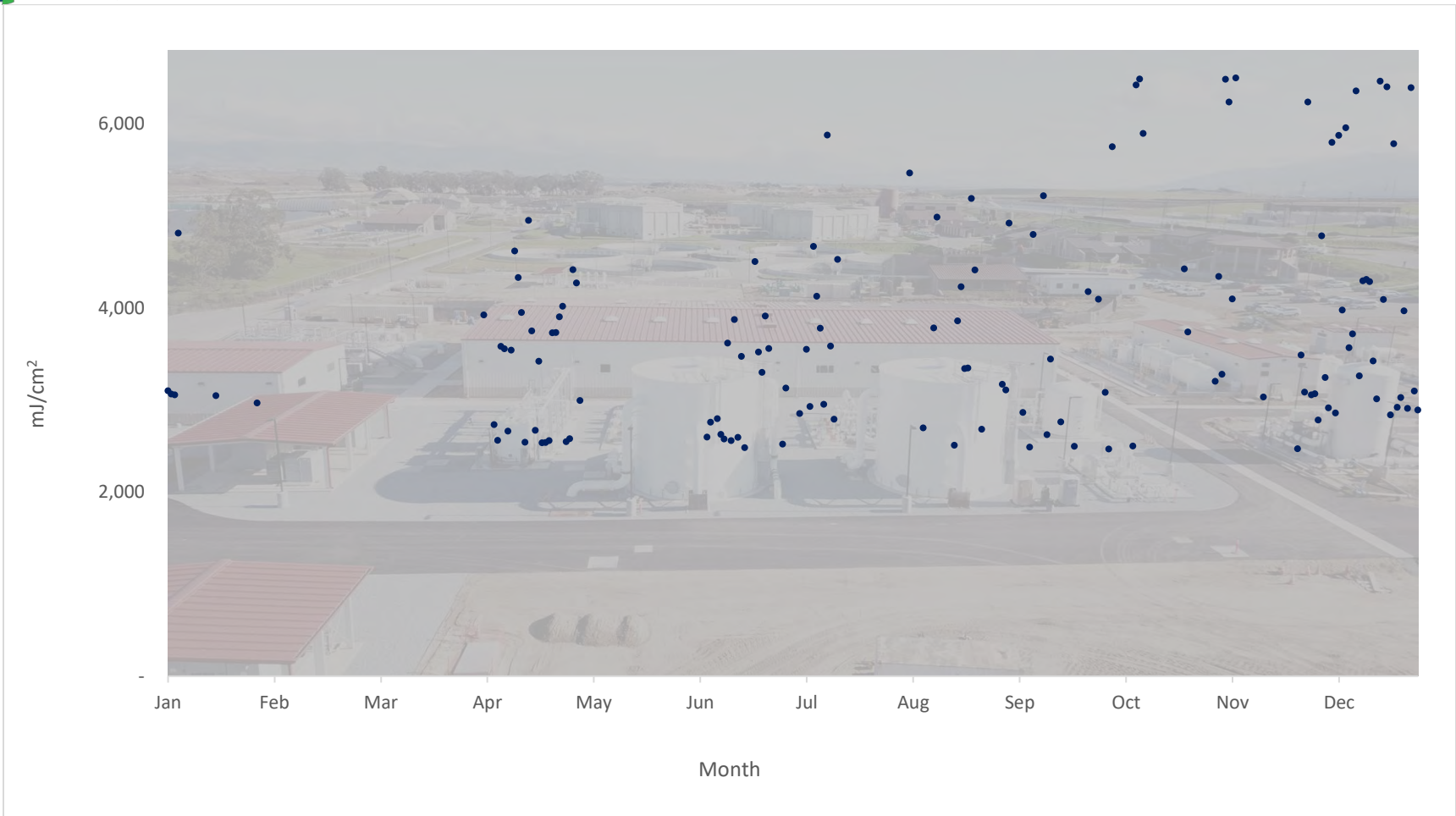
**Figure 36. AWPf Product Water Monitoring – Daily Minimum UV Dose for Reactor 1 (mJ/cm<sup>2</sup>)**



**Table 37. AWPf Product Water Monitoring – Daily Max UV Dose for Reactor 1 (mJ/cm<sup>2</sup>)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3,100	-	-	-	2,995	-	-	-	3,171	3,083	-	3,067
2	3,063	-	-	-	-	-	-	-	3,110	2,468	3,203	2,782
3	3,055	-	-	3,925	-	-	-	-	4,922	5,753	4,341	4,783
4	4,813	-	-	-	-	-	2,852	-	-	-	3,280	3,245
5	-	-	-	-	-	-	-	5,466	-	-	6,485	2,915
6	-	-	-	2,732	-	-	3,552	-	-	-	6,238	5,800
7	-	-	-	2,561	-	2,597	2,929	-	2,865	-	4,098	2,858
8	-	-	-	3,581	-	2,757	4,669	-	-	-	6,501	5,877
9	-	-	-	3,556	-	-	4,127	2,697	2,489	2,500	-	3,977
10	-	-	-	2,661	-	2,795	3,779	-	4,798	6,423	-	5,957
11	-	-	-	3,543	-	2,625	2,953	-	-	6,488	-	3,567
12	-	-	-	4,619	-	2,577	5,879	3,782	-	5,896	-	3,719
13	-	-	-	4,331	-	3,619	3,585	4,986	5,218	-	-	6,358
14	-	-	-	3,952	-	2,557	2,790	-	2,624	-	-	3,262
15	3,047	-	-	2,540	-	3,875	4,528	-	3,444	-	-	4,295
16	-	-	-	4,951	-	2,594	-	-	-	-	3,032	4,309
17	-	-	-	3,749	-	3,473	-	-	-	-	-	4,287
18	-	-	-	2,671	-	2,482	-	2,509	2,761	-	-	3,423
19	-	-	-	3,421	-	-	-	3,859	-	-	-	3,013
20	-	-	-	2,536	-	-	-	4,230	-	-	-	6,464
21	-	-	-	2,537	-	4,504	-	3,342	-	-	-	4,092
22	-	-	-	2,558	-	3,521	-	3,346	2,496	-	-	6,401
23	-	-	-	3,731	-	3,301	-	5,191	-	-	-	2,838
24	-	-	-	3,734	-	3,911	-	4,413	-	4,423	-	5,783
25	-	-	-	3,904	-	3,560	-	-	-	3,739	-	2,920
26	-	-	-	4,018	-	-	-	2,683	4,178	-	2,470	3,026
27	2,968	-	-	2,545	-	-	-	-	-	-	3,489	3,969
28	-	-	-	2,578	-	-	-	-	-	-	3,084	2,907
29	-	-	-	4,415	-	2,520	-	-	4,094	-	6,238	6,393
30	-	-	-	4,273	-	3,129	-	-	-	-	3,057	3,096
31	-	-	-	-	-	-	-	-	-	-	-	2,892





**Figure 37. AWPf Product Water Monitoring – Daily Max UV dose for Reactor 1 (mJ/cm<sup>2</sup>)**



**Table 38. AWPf Product Water Monitoring – Daily Average UV Dose for Reactor 2 (mJ/cm<sup>2</sup>)**

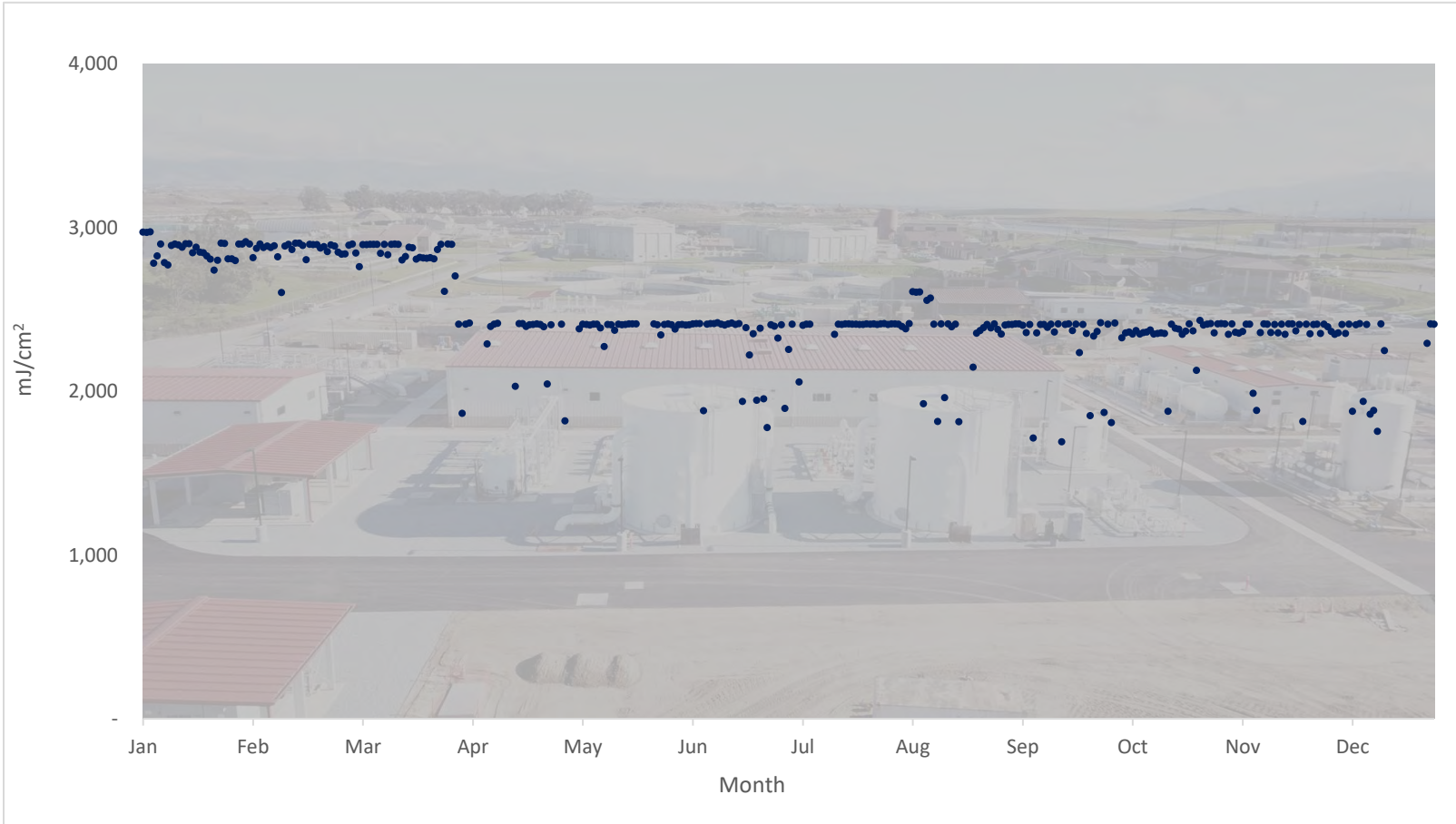
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3,025	2,898	2,922	2,477	-	2,617	2,426	2,433	2,478	2,444	2,480	2,558
2	3,001	2,955	2,918	2,420	-	2,441	2,424	2,497	2,466	2,419	2,437	2,428
3	2,997	2,932	2,911	2,420	-	2,601	2,423	2,466	2,497	-	2,522	2,466
4	3,066	2,912	2,919	-	2,423	2,520	-	2,427	2,425	2,440	2,427	2,460
5	3,058	2,927	2,913	-	2,427	2,434	2,423	2,800	2,436	2,557	2,609	2,422
6	2,920	2,934	2,913	-	2,429	2,425	2,451	2,690	2,544	2,483	2,481	2,452
7	2,942	2,941	2,912	-	2,553	2,444	2,427	2,624	2,420	2,544	2,421	2,420
8	2,919	2,910	2,913	2,426	2,421	2,447	2,436	2,630	2,437	2,535	2,609	2,577
9	2,913	2,923	2,920	2,425	2,420	2,444	-	2,624	2,411	2,510	2,453	2,430
10	2,913	2,918	2,912	2,420	2,428	2,460	-	2,624	2,554	2,502	2,444	2,428
11	2,957	2,920	2,910	2,422	2,429	2,443	-	2,622	2,420	2,509	2,425	2,430
12	2,930	2,917	2,913	-	2,426	2,453	-	2,525	2,527	2,520	2,566	2,432
13	2,913	2,913	2,913	-	2,426	2,426	-	2,514	2,502	2,557	2,441	2,425
14	2,918	2,913	2,913	-	2,439	2,420	-	2,449	2,459	2,531	2,426	2,453
15	3,000	2,916	2,891	-	2,420	2,453	2,563	2,439	2,442	2,431	2,448	2,435
16	2,911	2,954	2,950	2,434	2,420	2,453	2,428	2,521	2,419	2,414	2,427	2,420
17	2,905	2,926	2,917	2,448	2,419	2,435	2,427	2,446	2,423	2,449	2,433	2,511
18	2,940	2,934	2,931	2,421	2,508	2,555	2,430	2,443	2,449	2,600	2,426	-
19	3,072	2,913	2,893	2,427	2,420	2,421	2,524	2,461	2,451	2,443	2,492	-
20	2,903	2,933	2,860	2,420	2,423	2,529	2,429	-	2,453	2,426	2,422	-
21	2,917	2,913	2,858	2,420	-	2,632	2,427	-	2,453	2,433	2,427	-
22	2,950	2,953	2,908	2,420	-	2,434	2,528	-	2,479	2,547	2,649	-
23	2,913	2,975	2,913	2,428	-	2,585	2,435	2,461	2,505	2,423	2,429	-
24	2,913	2,931	2,888	2,426	-	2,448	2,425	2,461	2,489	2,443	2,455	-
25	2,916	2,916	2,917	2,468	2,550	2,450	2,428	2,417	2,502	2,438	2,429	-
26	2,981	2,905	2,912	2,420	2,477	2,426	2,550	2,428	2,585	2,552	2,417	-
27	2,925	2,900	2,861	-	2,455	2,447	2,428	2,535	2,464	2,504	2,449	-
28	2,913	2,910	2,913	-	2,425	2,500	2,499	2,426	2,973	2,574	2,424	-
29	2,974		2,912	2,436	2,420	2,544	2,434	2,430	2,606	2,421	2,465	2,476
30	2,974		2,912	2,420	2,421	2,434	2,440	2,525	2,441	2,437	2,437	2,436
31	2,942		2,628		2,429		2,447	2,453		2,428		2,589



**Figure 38. AWPf Product Water Monitoring – Daily Average UV Dose for reactor 2 (mJ/cm<sup>2</sup>)**

**Table 39. AWPf Product Water Monitoring – Daily Minimum UV Dose for Reactor 2 (mJ/cm<sup>2</sup>)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2,973	2,816	2,900	1,865	-	2,405	1,895	2,412	2,405	1,809	2,413	2,394
2	2,970	2,873	2,844	2,409	-	2,407	2,255	2,410	2,407	2,416	2,412	2,365
3	2,974	2,900	2,760	2,417	-	2,404	2,410	2,395	2,407	-	2,347	2,348
4	2,782	2,878	2,896	-	2,381	2,405	-	2,382	2,411	2,326	2,412	2,357
5	2,827	2,887	2,897	-	2,409	2,411	2,056	2,413	2,412	2,357	2,360	2,408
6	2,898	2,879	2,898	-	2,407	2,413	2,403	2,608	2,403	2,361	2,354	2,353
7	2,786	2,889	2,897	-	2,405	2,413	2,410	2,605	2,358	2,349	2,365	2,409
8	2,771	2,822	2,898	2,290	2,409	1,881	2,409	2,607	2,408	2,371	2,410	1,878
9	2,890	2,604	2,842	2,396	2,409	2,409	-	1,923	1,714	2,349	2,409	2,406
10	2,900	2,887	2,898	2,410	2,386	2,412	-	2,556	2,357	2,358	1,987	2,414
11	2,895	2,897	2,834	2,416	2,274	2,413	-	2,569	2,408	2,361	1,883	1,938
12	2,879	2,866	2,897	-	2,408	2,419	-	2,410	2,407	2,375	2,358	2,407
13	2,901	2,905	2,899	-	2,405	2,409	-	1,815	2,390	2,349	2,411	1,860
14	2,902	2,904	2,898	-	2,373	2,405	-	2,412	2,409	2,353	2,410	1,882
15	2,846	2,890	2,802	-	2,410	2,412	2,348	1,960	2,362	2,357	2,358	1,755
16	2,881	2,803	2,823	2,030	2,407	2,417	2,410	2,411	2,412	2,353	2,407	2,411
17	2,850	2,898	2,880	2,414	2,407	2,408	2,407	2,394	1,692	1,878	2,356	2,248
18	2,847	2,896	2,876	2,414	2,411	2,413	2,411	2,410	2,408	2,410	2,410	-
19	2,826	2,896	2,807	2,395	2,411	1,938	2,411	1,814	2,411	2,384	2,348	-
20	2,808	2,875	2,818	2,406	2,412	2,389	2,409	-	2,371	2,380	2,411	-
21	2,740	2,883	2,814	2,409	-	2,221	2,410	-	2,410	2,347	2,412	-
22	2,800	2,853	2,813	2,411	-	2,352	2,408	-	2,236	2,367	2,368	-
23	2,904	2,895	2,815	2,408	-	1,945	2,407	2,147	2,408	2,412	2,408	-
24	2,903	2,887	2,809	2,394	-	2,384	2,412	2,355	2,353	2,369	1,816	-
25	2,808	2,849	2,865	2,043	2,411	1,953	2,409	2,371	1,850	2,128	2,409	-
26	2,809	2,837	2,897	2,406	2,406	1,778	2,412	2,388	2,337	2,433	2,351	-
27	2,798	2,838	2,611	-	2,343	2,405	2,408	2,407	2,365	2,404	2,408	-
28	2,899	2,893	2,900	-	2,409	2,397	2,412	2,386	2,418	2,410	2,409	-
29	2,900		2,897	2,410	2,411	2,325	2,413	2,412	1,871	2,414	2,353	2,293
30	2,914		2,705	1,819	2,407	2,406	2,408	2,377	2,410	2,357	2,409	2,411
31	2,900		2,410		2,379		2,412	2,349		2,412		2,409

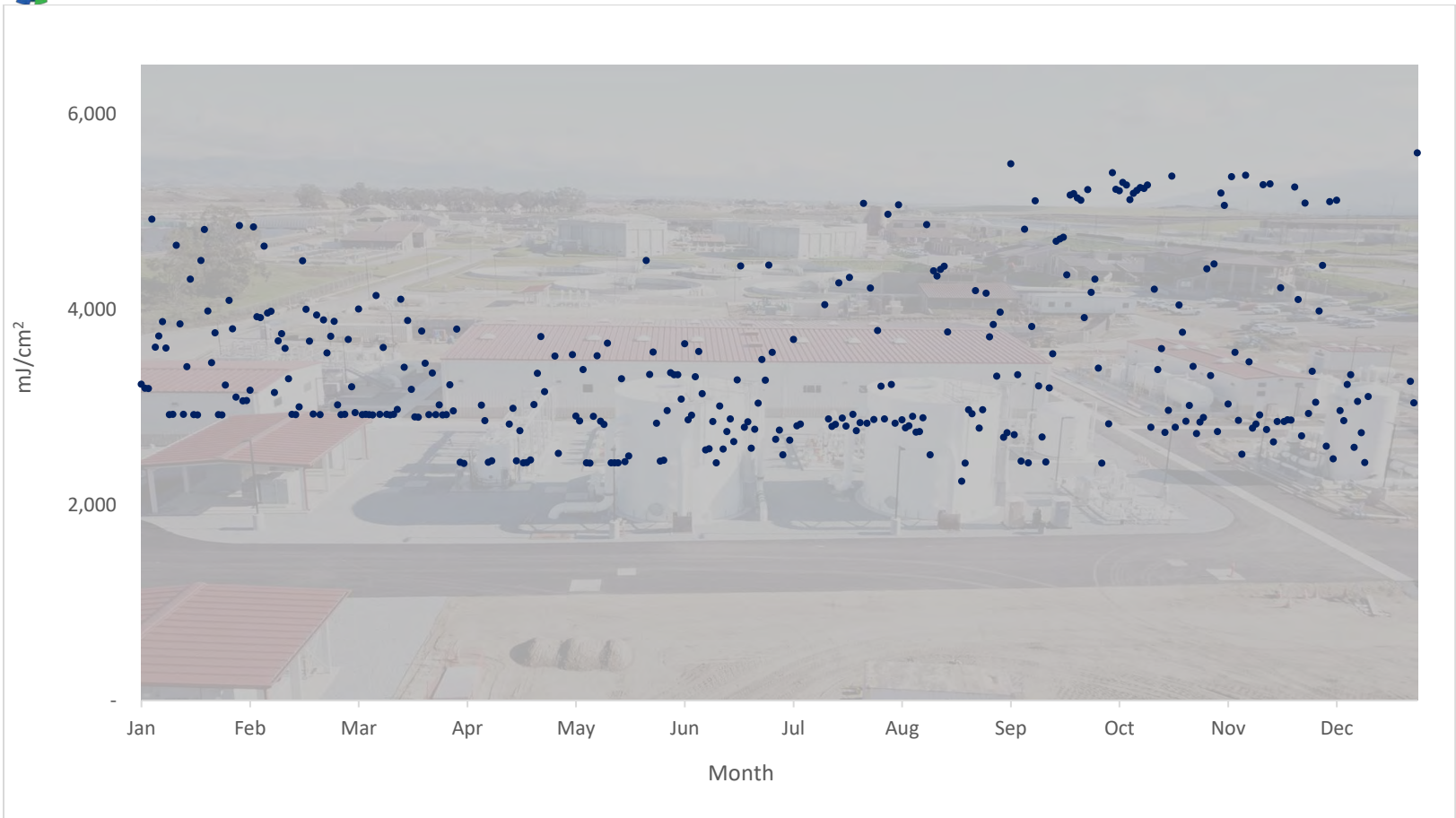


**Figure 39. AWPf Product Water Monitoring – Daily Minimum UV Dose for Reactor 2 (mJ/cm<sup>2</sup>)**



**Table 40. AWPf Product Water Monitoring – Daily Maximum UV Dose for Reactor 2 (mJ/cm<sup>2</sup>)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3,234	3,173	3,694	3,800	-	3,352	2,671	2,878	3,846	3,398	4,414	3,367
2	3,193	4,844	3,208	2,436	-	3,332	2,764	4,974	3,316	2,427	3,323	3,050
3	3,189	3,925	2,944	2,424	-	3,332	2,512	3,232	3,971	-	4,465	3,983
4	4,923	3,916	4,004	-	3,537	3,083	-	2,836	2,690	2,830	2,749	4,449
5	3,613	4,648	2,925	-	2,909	3,649	2,663	5,071	2,738	5,400	5,190	2,600
6	3,727	3,962	2,926	-	2,859	2,872	3,693	2,871	5,492	5,230	5,064	5,102
7	3,876	3,981	2,922	-	3,384	2,919	2,808	2,788	2,718	5,214	3,033	2,472
8	3,604	3,150	2,922	3,020	2,430	3,311	2,825	2,809	3,333	5,300	5,359	5,118
9	2,922	3,677	4,142	2,863	2,428	3,570	-	2,905	2,448	5,273	3,560	2,963
10	2,925	3,752	2,927	2,436	2,907	3,137	-	2,743	4,821	5,122	2,864	2,861
11	4,657	3,601	3,611	2,451	3,525	2,562	-	2,750	2,429	5,187	2,519	3,233
12	3,852	3,289	2,927	-	2,856	2,574	-	2,890	3,824	5,216	5,372	3,332
13	2,925	2,925	2,922	-	2,823	2,853	-	4,867	5,112	5,245	3,463	2,589
14	3,415	2,924	2,925	-	3,654	2,431	-	2,513	3,216	5,238	2,786	3,059
15	4,311	3,002	2,976	-	2,430	3,010	4,049	4,396	2,693	5,273	2,827	2,739
16	2,923	4,497	4,105	2,826	2,431	2,571	2,880	4,341	2,439	2,793	2,921	2,433
17	2,919	4,002	3,407	2,989	2,431	2,751	2,804	4,409	3,197	4,207	5,275	3,108
18	4,500	3,675	3,887	2,450	3,290	2,879	2,824	4,440	3,545	3,383	2,770	-
19	4,817	2,929	3,181	2,757	2,442	2,647	4,271	3,770	4,698	3,599	5,286	-
20	3,983	3,943	2,899	2,429	2,501	3,277	2,888	-	4,722	2,740	2,645	-
21	3,455	2,922	2,896	2,433	-	4,445	2,807	-	4,737	2,969	2,852	-
22	3,760	3,894	3,778	2,458	-	2,795	4,326	-	4,355	5,365	4,222	-
23	2,924	3,554	3,448	3,027	-	2,850	2,926	2,241	5,171	2,795	2,852	-
24	2,920	3,725	2,925	3,345	-	2,580	2,759	2,426	5,184	4,046	2,871	-
25	3,227	3,879	3,349	3,722	4,500	2,774	2,841	2,973	5,140	3,765	2,869	-
26	4,093	3,023	2,922	3,158	3,333	3,042	5,086	2,932	5,118	2,856	5,252	-
27	3,802	2,923	3,023	-	3,563	3,488	2,835	4,191	3,916	3,017	4,100	-
28	3,104	2,925	2,920	-	2,834	3,275	4,219	2,787	5,227	3,417	2,705	-
29	4,860		2,923	3,522	2,449	4,453	2,874	2,973	4,175	2,730	5,089	3,265
30	3,066		3,230	2,526	2,458	3,561	3,783	4,166	4,311	2,848	2,935	3,042
31	3,067		2,960		2,965		3,214	3,720		2,894		5,603



**Figure 40. AWPf Product Water Monitoring – Daily Maximum UV Dose for Reactor 2 (mJ/cm<sup>2</sup>)**



**Table 41. AWPf Product Water Monitoring – Daily Average UV Dose for Reactor 3 (mJ/cm<sup>2</sup>)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3,057	2,898	2,922	2,618	2,426	2,588	2,522	2,431	2,464	2,435	2,565	2,517
2	3,039	2,926	2,916	2,420	2,420	2,423	2,469	2,495	2,489	2,443	2,437	2,431
3	3,038	2,917	2,912	2,428	2,485	2,448	2,423	2,431	2,456	2,516	2,778	2,465
4	3,077	2,913	2,912	2,420	2,429	2,430	2,447	2,419	2,424	2,511	2,424	2,533
5	2,898	2,928	2,912	2,421	2,425	2,420	2,424	2,610	2,433	2,648	2,622	2,422
6	2,913	2,935	2,913	2,426	2,424	2,425	2,432	2,623	2,440	2,567	2,506	3,012
7	2,953	2,943	2,912	2,420	2,530	2,424	2,423	2,619	2,420	2,596	2,425	-
8	2,916	2,916	2,913	2,423	2,420	2,422	2,436	2,624	2,429	2,498	2,519	-
9	2,912	2,915	2,922	-	2,420	2,425	2,427	2,621	2,444	2,502	2,420	-
10	2,913	2,913	2,912	-	2,430	2,446	2,444	2,627	2,494	2,438	2,462	-
11	2,963	2,919	2,911	2,421	2,421	-	2,426	2,602	-	2,474	2,430	-
12	2,935	2,917	-	2,434	-	-	2,422	2,612	2,476	2,528	2,470	-
13	2,913	2,913	-	2,435	2,424	-	2,438	2,537	2,433	2,565	2,433	-
14	2,919	2,913	-	2,431	2,424	-	2,418	2,418	2,467	2,702	2,491	2,960
15	2,976	2,913	-	2,420	2,419	-	2,531	2,443	2,471	2,481	2,513	2,494
16	2,904	2,952	3,000	2,431	2,420	-	2,426	2,489	2,420	2,726	2,426	2,431
17	2,870	2,926	-	-	2,420	-	2,427	2,440	2,435	2,505	2,475	2,463
18	2,925	2,917	2,997	-	2,421	2,427	2,428	2,435	2,436	-	2,426	2,424
19	3,048	2,915	-	-	-	2,424	2,526	2,424	2,420	2,479	2,500	2,419
20	3,043	2,933	2,958	-	2,421	2,424	2,426	2,459	2,421	2,620	2,423	2,516
21	3,042	2,912	2,952	-	2,420	2,616	2,426	2,421	2,420	2,439	2,425	2,446
22	3,071	2,918	2,940	-	2,420	2,431	2,441	2,425	2,422	2,423	2,577	2,552
23	-	2,914	2,940	-	2,420	2,440	2,428	2,447	2,515	2,424	2,428	2,464
24	-	2,923	-	2,423	2,420	2,476	2,429	2,432	2,574	2,433	2,556	2,514
25	-	2,906	-	2,421	2,441	2,455	2,423	2,432	2,566	2,471	2,429	2,510
26	-	2,902	-	2,420	2,466	2,424	2,480	2,422	2,552	2,435	2,519	2,629
27	-	2,904	-	2,420	2,448	2,450	2,425	2,486	2,429	2,421	2,446	2,499
28	-	2,912	-	2,420	2,423	2,434	2,434	2,470	2,573	2,428	2,424	2,421
29	3,004		-	2,445	2,420	2,573	2,482	2,424	2,551	2,425	2,563	2,554
30	2,923		2,930	3,416	2,420	2,427	2,438	2,477	2,428	2,435	2,433	2,425
31	2,917		2,913		2,429		2,441	2,459		2,426		2,429





**Figure 41. AWPf Product Water Monitoring – Daily Average UV Dose for Reactor 3 (mJ/cm<sup>2</sup>)**

**Table 42. AWPf Product Water Monitoring – Daily Minimum UV Dose for Reactor 3 (mJ/cm<sup>2</sup>)**

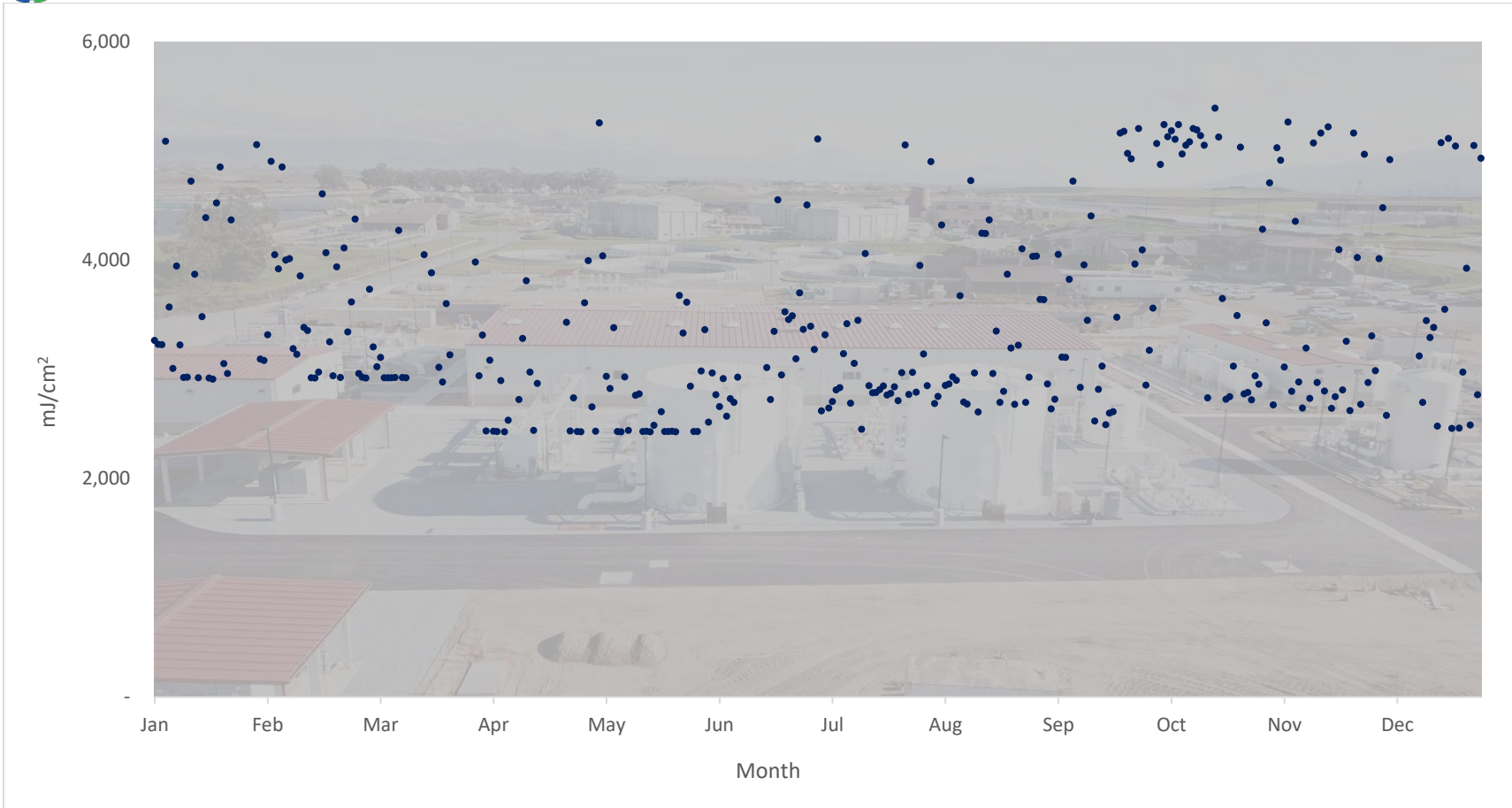
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3,015	2,821	2,902	2,408	2,409	2,410	2,405	2,413	2,375	2,356	2,378	2,362
2	3,009	2,829	2,841	2,409	2,412	2,406	2,406	2,406	2,407	2,353	2,377	2,389
3	3,006	2,896	2,714	2,409	2,410	2,407	2,406	2,378	2,410	2,345	2,393	2,348
4	2,770	2,823	2,741	2,411	2,382	2,393	2,410	2,366	2,409	2,369	2,413	2,359
5	2,822	2,781	2,880	2,412	2,410	2,410	2,410	2,414	2,412	2,362	2,369	2,411
6	2,900	2,879	2,901	2,407	2,402	2,408	2,411	2,608	2,256	2,149	2,344	2,413
7	2,895	2,906	2,899	2,408	2,403	2,408	2,407	2,594	2,371	2,357	2,388	-
8	2,779	2,823	2,896	2,406	2,410	2,401	2,412	2,596	2,410	2,368	2,366	-
9	2,883	2,902	2,849	-	2,408	2,411	2,407	2,585	2,338	2,349	2,415	-
10	2,901	2,827	2,893	-	2,393	2,413	2,406	2,509	2,410	2,348	2,409	-
11	2,904	2,897	2,887	2,389	2,407	-	2,403	2,548	-	2,400	2,411	-
12	2,896	2,895	-	2,409	-	-	2,406	2,489	2,411	2,359	2,375	-
13	2,902	2,905	-	2,407	2,402	-	2,386	2,392	2,401	2,417	2,413	-
14	2,902	2,905	-	2,408	2,376	-	2,414	2,366	2,350	2,362	2,411	2,560
15	2,845	2,872	-	2,387	2,405	-	2,350	2,415	2,351	2,377	2,343	2,137
16	2,857	2,851	3,104	2,404	2,405	-	2,409	2,172	2,404	2,355	2,411	2,407
17	2,822	2,895	-	-	2,407	-	2,410	2,361	2,410	2,357	2,354	2,283
18	2,821	2,900	2,886	-	2,408	2,407	2,413	2,408	2,482	-	2,406	2,351
19	2,900	2,892	-	-	-	2,404	2,419	2,409	2,411	2,366	2,350	2,397
20	2,818	2,869	2,743	-	2,401	2,399	2,409	2,410	2,411	2,337	2,412	2,353
21	2,667	2,886	2,813	-	2,399	2,394	2,405	2,410	2,411	2,408	2,411	2,355
22	3,093	2,838	2,845	-	2,410	2,412	2,411	2,411	2,346	2,355	2,349	2,356
23	-	2,899	2,930	-	2,409	2,407	2,408	2,406	2,408	2,412	2,379	2,355
24	-	2,895	-	2,412	2,406	2,387	2,416	2,344	2,346	2,372	2,364	2,353
25	-	2,818	-	2,414	2,406	2,394	2,409	2,416	2,349	2,409	2,257	2,346
26	-	2,817	-	2,402	2,396	2,408	2,411	2,353	2,311	2,356	2,349	2,282
27	-	2,820	-	2,410	2,347	2,399	2,406	2,399	2,350	2,353	2,407	2,378
28	-	2,899	-	2,406	2,374	2,404	2,407	2,415	2,342	2,409	2,412	2,407
29	2,908		-	2,408	2,407	2,367	2,417	2,409	2,327	2,410	2,350	2,312
30	2,908		2,881	2,401	2,408	2,399	2,388	2,353	2,412	2,413	2,407	2,409
31	2,884		2,889		2,359		2,407	2,351		2,412		2,344



**Figure 42. AWP Product Water Monitoring – Daily Minimum UV Dose for Reactor 3 (mJ/cm<sup>2</sup>)**

**Table 43. AWPf Product Water Monitoring – Daily Maximum UV Dose for Reactor 3 (mJ/cm<sup>2</sup>)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3,266	3,317	3,734	3,313	2,657	3,364	3,182	2,850	3,640	3,175	4,284	3,307
2	3,229	4,905	3,206	2,437	2,433	2,517	5,111	4,903	3,638	3,560	3,427	2,989
3	3,226	4,050	3,024	3,084	5,257	2,967	2,620	2,688	2,865	5,069	4,708	4,014
4	5,089	3,921	3,109	2,434	4,041	2,768	3,317	2,752	2,637	4,876	2,674	4,479
5	3,571	4,853	2,923	2,431	2,936	2,660	2,646	4,322	2,727	5,243	5,031	2,578
6	3,009	4,000	2,922	2,898	2,825	2,915	2,706	2,853	4,054	5,131	4,917	4,921
7	3,946	4,014	2,923	2,429	3,382	2,571	2,811	2,867	3,112	5,184	3,020	-
8	3,223	3,189	2,926	2,533	2,430	2,732	2,831	2,931	3,109	5,107	5,266	-
9	2,927	3,139	4,275	-	2,429	2,697	3,144	2,901	3,826	5,243	2,800	-
10	2,927	3,855	2,925	-	2,931	2,928	3,418	3,675	4,723	4,974	4,356	-
11	4,724	3,385	2,922	2,722	2,442	-	2,689	2,701	-	5,053	2,885	-
12	3,872	3,355	-	3,283	-	-	3,056	2,682	2,834	5,085	2,646	-
13	2,923	2,924	-	3,812	2,762	-	3,450	4,729	3,958	5,207	3,195	-
14	3,483	2,921	-	2,975	2,775	-	2,451	2,967	3,450	5,193	2,735	3,124
15	4,389	2,976	-	2,442	2,430	-	4,062	2,610	4,404	5,142	5,074	2,699
16	2,922	4,608	4,050	2,872	2,432	-	2,850	4,249	2,528	5,054	2,879	3,445
17	2,911	4,069	-	-	2,429	-	2,787	4,245	2,817	2,739	5,166	3,291
18	4,524	3,251	3,886	-	2,487	3,016	2,788	4,368	3,029	-	2,802	3,385
19	4,853	2,941	-	-	-	2,724	2,814	2,962	2,494	5,393	5,223	2,481
20	3,053	3,938	3,020	-	2,612	3,349	2,848	3,350	2,600	5,128	2,643	5,076
21	2,962	2,925	2,883	-	2,430	4,553	2,766	2,699	2,611	3,648	2,749	3,551
22	4,369	4,114	3,601	-	2,430	2,950	2,782	2,798	3,478	2,726	4,098	5,114
23	-	3,344	3,133	-	2,432	3,526	2,840	3,872	5,164	2,750	2,811	2,460
24	-	3,618	-	3,432	2,429	3,458	2,713	3,194	5,180	3,029	3,258	5,045
25	-	4,376	-	2,437	3,678	3,490	2,969	2,681	4,978	3,493	2,624	2,463
26	-	2,962	-	2,738	3,332	3,096	5,056	3,220	4,929	5,035	5,165	2,976
27	-	2,929	-	2,430	3,616	3,701	2,770	4,105	3,965	2,774	4,026	3,927
28	-	2,922	-	2,428	2,846	3,365	2,973	2,698	5,206	2,788	2,679	2,490
29	5,059		-	3,611	2,430	4,505	2,790	2,928	4,095	2,721	4,971	5,052
30	3,095		3,982	3,997	2,430	3,394	3,953	4,036	2,856	2,941	2,880	2,768
31	3,082		2,942		2,985		3,142	4,037		2,864		4,933



**Figure 43. AWPf Product Water Monitoring – Daily Maximum UV Dose for Reactor 3 (mJ/cm²)**



**Table 44. AWPf Product Water Monitoring – Daily Average UV Dose for Reactor 4 (mJ/cm<sup>2</sup>)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	-	2,904	-	2,496	2,426	2,438	2,591	2,430	2,444	2,422	2,449	2,545
2	-	2,920	-	2,467	2,420	2,445	2,458	2,427	2,442	2,422	-	2,435
3	-	2,913	-	2,449	2,422	2,427	2,422	2,428	2,493	2,483	-	2,427
4	3,187	2,913	-	2,422	2,434	2,426	2,435	2,542	2,424	2,477	-	2,453
5	3,130	2,930	-	2,425	2,431	2,423	2,427	2,826	2,433	2,420	-	2,422
6	2,929	-	-	2,433	2,435	-	2,451	2,711	2,473	2,478	-	2,506
7	2,983	2,951	-	2,421	2,423	2,432	2,597	2,625	2,440	2,428	-	2,420
8	2,921	2,919	-	2,458	-	2,470	2,490	2,689	2,433	2,518	2,541	2,490
9	2,913	2,913	-	2,430	-	2,442	2,436	2,630	2,433	2,428	2,483	2,429
10	2,913	2,913	-	2,421	-	2,483	2,431	2,629	2,625	-	2,482	2,483
11	3,097	2,913	2,914	2,422	2,437	2,454	2,476	2,622	2,420	-	2,432	2,435
12	3,056	2,919	2,913	2,450	2,428	2,456	2,463	2,526	2,488	2,428	2,531	2,435
13	2,912	2,966	2,913	2,473	2,434	2,426	2,442	2,564	2,546	2,491	2,446	2,497
14	2,925	3,046	2,913	2,473	2,449	2,420	2,420	2,428	2,441	2,498	2,428	2,445
15	3,050	2,926	2,908	2,421	2,420	2,448	2,422	2,438	2,475	2,500	2,518	2,564
16	2,913	2,921	3,125	2,491	2,420	2,453	2,422	2,421	2,425	2,497	2,430	2,432
17	2,913	2,915	2,918	-	2,422	2,443	2,423	2,466	2,430	2,514	2,509	2,549
18	3,063	2,916	2,938	-	2,512	2,427	2,429	2,436	2,462	2,629	2,427	2,430
19	3,124	-	2,903	2,475	2,422	2,469	2,438	2,442	2,464	2,434	2,522	2,422
20	2,941	-	2,901	-	2,515	2,423	2,429	2,432	2,467	2,529	2,422	2,470
21	2,943	-	-	-	2,420	2,715	2,491	2,421	2,467	2,438	2,427	2,448
22	3,043	-	2,920	-	2,420	2,619	2,505	2,534	2,482	2,556	2,651	2,448
23	2,913	-	2,940	-	2,420	2,448	2,435	2,511	2,480	2,423	2,430	2,460
24	2,913	2,922	2,918	2,431	2,421	2,537	2,423	2,435	2,482	2,439	2,549	2,885
25	2,918	2,926	2,919	2,491	2,420	2,470	2,532	2,418	-	2,472	2,429	2,849
26	2,907	2,916	2,913	2,443	2,498	2,431	2,524	2,431	-	2,502	2,499	3,482
27	2,916	-	2,917	2,420	2,445	2,813	2,425	2,621	2,427	2,430	2,450	2,484
28	2,913	-	2,913	2,420	2,430	2,428	2,437	2,423	2,478	2,559	2,426	2,420
29	2,915		2,913	2,422	2,424	2,872	2,429	2,430	2,622	2,424	2,506	2,585
30	-		2,925	2,420	2,430	-	2,429	2,443	2,465	2,525	2,442	-
31	-		2,630		2,435		2,443	2,441		2,428		-



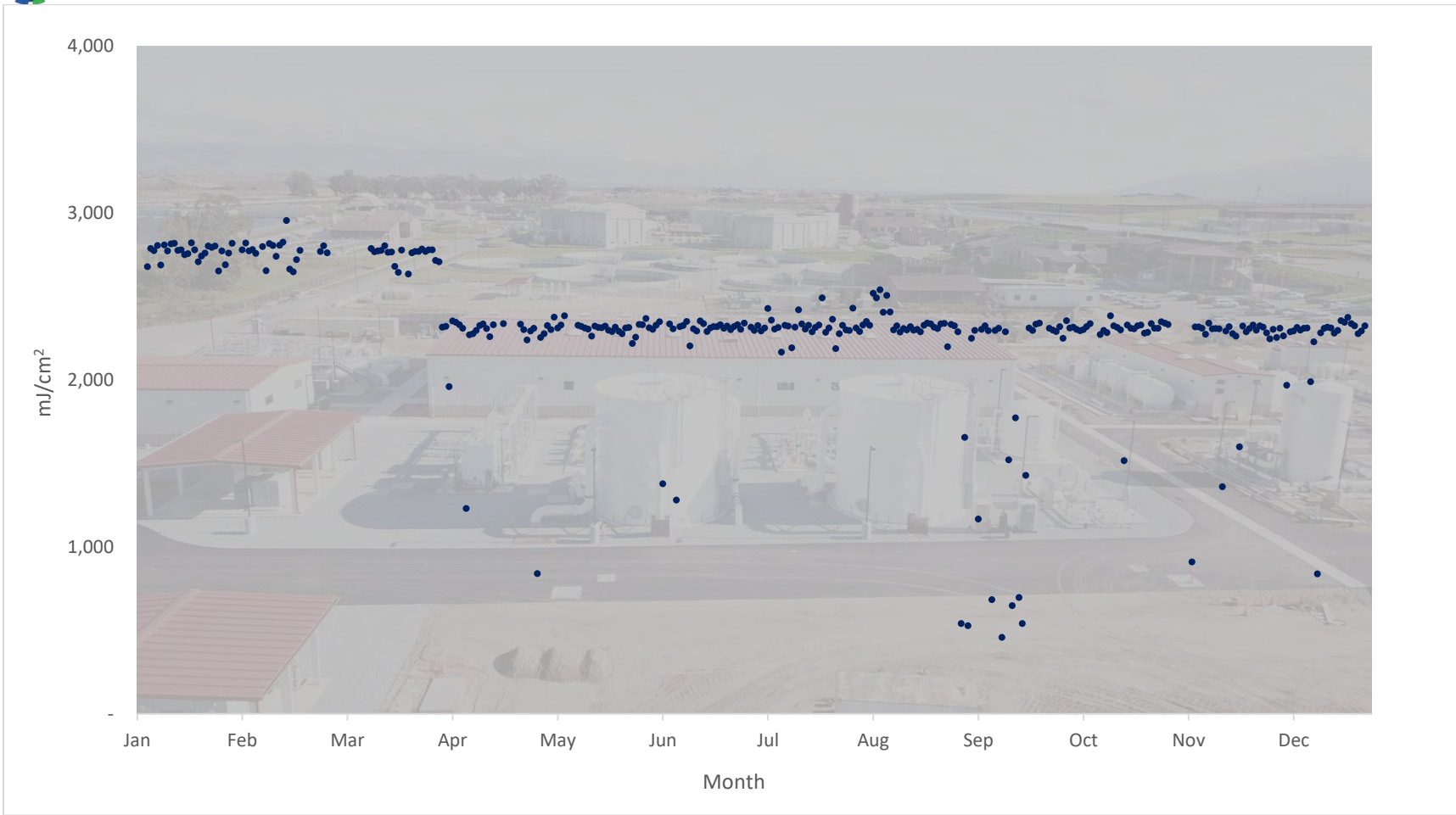
**Figure 44. AWPf Product Water Monitoring – Daily Average UV Dose for Reactor 4 (mJ/cm<sup>2</sup>)**



**Table 45. AWPf Product Water Monitoring – Daily Minimum UV Dose for Reactor 4 (mJ/cm<sup>2</sup>)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	-	2,779	-	2,316	2,277	2,312	2,316	2,310	540	2,249	2,332	2,245
2	-	2,819	-	2,320	2,325	2,303	2,295	2,290	1,656	2,354	-	2,303
3	-	2,773	-	1,959	2,300	2,326	2,325	2,329	528	2,310	-	2,254
4	2,677	2,779	-	2,352	2,376	2,348	2,293	2,350	2,248	2,315	-	2,308
5	2,787	2,757	-	2,344	2,311	1,377	2,311	2,327	2,296	2,303	-	2,264
6	2,773	-	-	2,330	2,328	-	2,427	2,519	1,166	2,294	-	1,967
7	2,805	2,797	-	2,308	2,384	2,335	2,357	2,490	2,302	2,300	-	2,288
8	2,687	2,654	-	1,230	-	2,305	2,304	2,540	2,323	2,318	909	2,292
9	2,808	2,816	-	2,270	-	1,280	2,314	2,405	2,294	2,337	2,317	2,314
10	2,772	2,804	-	2,277	-	2,319	2,166	2,506	684	-	2,317	2,297
11	2,815	2,739	2,787	2,295	2,327	2,324	2,326	2,406	2,296	-	2,309	2,308
12	2,818	2,807	2,767	2,325	2,320	2,349	2,322	2,299	2,309	2,272	2,273	2,311
13	2,775	2,825	2,772	2,335	2,310	2,203	2,191	2,323	457	2,296	2,339	1,988
14	2,778	2,954	2,775	2,307	2,304	2,306	2,316	2,286	2,287	2,282	2,305	2,227
15	2,749	2,663	2,802	2,258	2,261	2,292	2,420	2,307	1,521	2,383	2,307	838
16	2,756	2,647	2,764	2,330	2,322	2,352	2,335	2,299	648	2,323	2,305	2,281
17	2,821	2,720	2,766	-	2,313	2,336	2,304	2,318	1,772	2,313	1,360	2,308
18	2,779	2,776	2,679	-	2,312	2,290	2,326	2,298	696	2,299	2,293	2,316
19	2,707	-	2,644	2,336	2,321	2,310	2,287	2,302	541	1,515	2,318	2,311
20	2,741	-	2,777	-	2,297	2,319	2,314	2,288	1,428	2,328	2,276	2,280
21	2,760	-	-	-	2,290	2,318	2,329	2,327	2,310	2,309	2,261	2,295
22	2,802	-	2,634	-	2,315	2,330	2,491	2,339	2,296	2,306	1,599	2,355
23	2,792	-	2,761	-	2,290	2,309	2,285	2,334	2,333	2,323	2,321	2,344
24	2,800	2,769	2,768	2,332	2,277	2,322	2,310	2,316	2,339	2,329	2,287	2,373
25	2,652	2,803	2,769	2,301	2,310	2,300	2,362	2,307	-	2,280	2,307	2,337
26	2,772	2,760	2,784	2,239	2,314	2,319	2,186	2,334	-	2,284	2,329	2,324
27	2,690	-	2,768	2,293	2,217	2,329	2,276	2,338	2,309	2,336	2,298	2,277
28	2,758	-	2,778	2,309	2,254	2,302	2,326	2,198	2,298	2,308	2,324	2,293
29	2,817		2,779	839	2,332	2,340	2,299	2,331	2,290	2,308	2,316	2,324
30	-		2,715	2,253	2,330	-	2,295	2,324	2,318	2,347	2,281	-
31	-		2,707		2,367		2,429	2,288		2,339		-



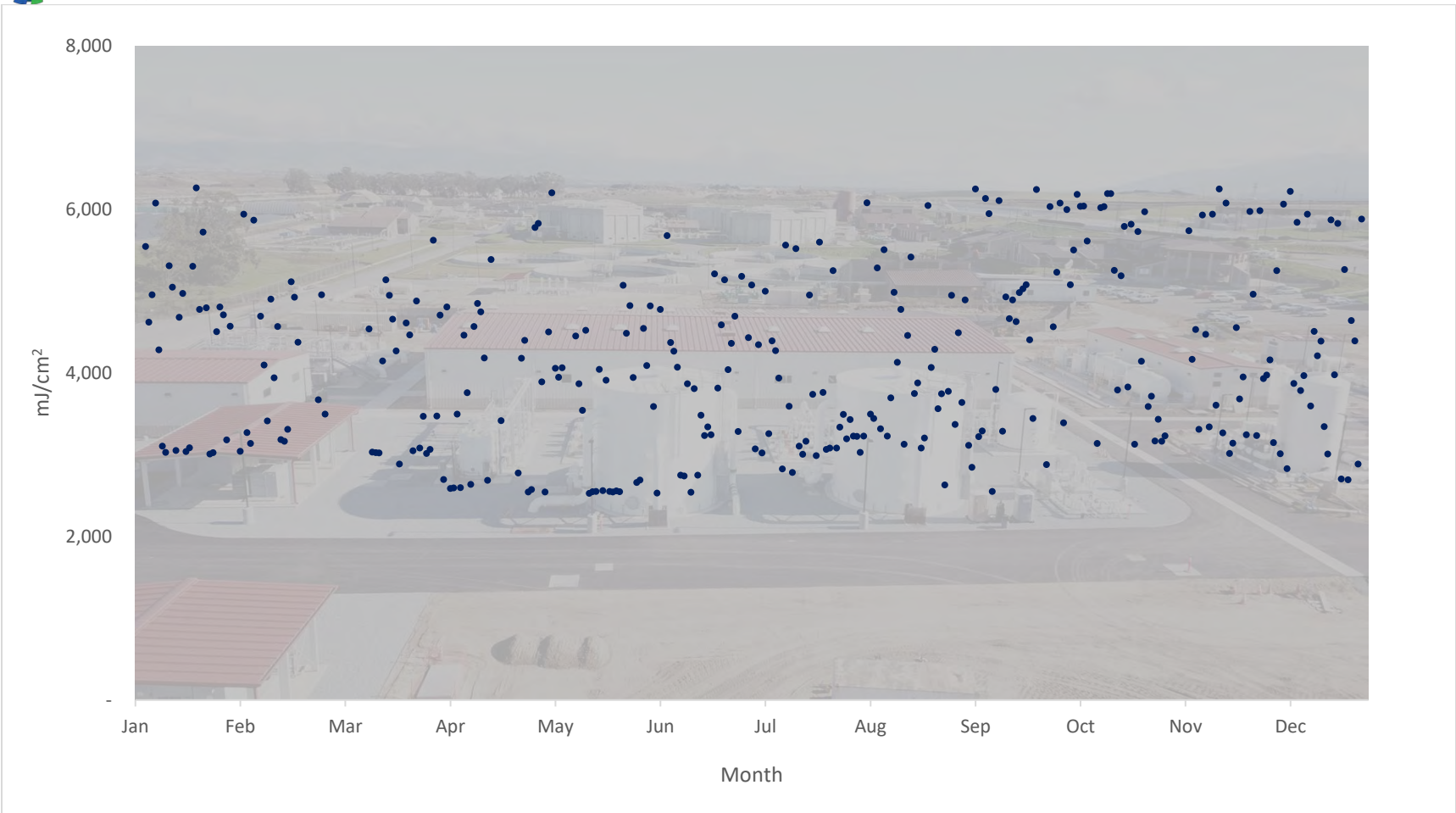


**Figure 45. AWPf Product Water Monitoring – Daily Minimum UV Dose for Reactor 4 (mJ/cm<sup>2</sup>)**



**Table 46. AWPf Product Water Monitoring – Daily Maximum UV Dose for Reactor 4 (mJ/cm<sup>2</sup>)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	-	3,042	-	4,708	3,890	4,090	4,430	3,227	4,492	6,076	3,230	3,974
2	-	5,941	-	2,694	2,543	4,821	5,076	3,224	3,637	3,388	-	4,159
3	-	3,269	-	4,807	4,501	3,589	3,071	3,026	4,892	5,996	-	3,147
4	5,547	3,139	-	2,587	6,204	2,529	4,345	3,225	3,113	5,077	-	5,252
5	4,621	5,869	-	2,594	4,057	4,777	3,020	6,079	2,844	5,503	-	3,012
6	4,957	-	-	3,495	3,947	-	4,998	3,495	6,248	6,184	-	6,063
7	6,077	4,693	-	2,596	4,062	5,680	3,258	3,443	3,220	6,036	-	2,829
8	4,281	4,096	-	4,461	-	4,371	4,391	5,285	3,289	6,041	5,737	6,221
9	3,104	3,411	-	3,756	-	4,265	4,273	3,316	6,134	5,614	4,164	3,869
10	3,026	4,904	-	2,635	-	4,070	3,938	5,505	5,948	-	4,532	5,840
11	5,311	3,941	4,538	4,569	4,449	2,750	2,825	3,228	2,549	-	3,309	3,785
12	5,049	4,568	3,032	4,850	3,868	2,739	5,564	3,693	3,797	3,139	5,932	3,968
13	3,052	3,182	3,025	4,747	3,540	3,868	3,591	4,987	6,107	6,020	4,470	5,940
14	4,680	3,163	3,019	4,184	4,522	2,540	2,781	4,130	3,287	6,034	3,340	3,595
15	4,973	3,311	4,147	2,684	2,525	3,807	5,520	4,775	4,929	6,193	5,942	4,509
16	3,037	5,114	5,138	5,388	2,547	2,748	3,103	3,127	4,665	6,193	3,606	4,207
17	3,083	4,926	4,950	-	2,551	3,482	3,003	4,459	4,894	5,253	6,251	4,387
18	5,303	4,375	4,656	-	4,041	3,233	3,165	5,415	4,625	3,791	3,265	3,341
19	6,263	-	4,267	3,417	2,560	3,340	4,951	3,746	4,981	5,187	6,077	3,009
20	4,778	-	2,883	-	3,910	3,242	3,737	3,878	5,028	5,790	3,013	5,871
21	5,722	-	-	-	2,551	5,211	2,986	3,079	5,079	3,828	3,139	3,977
22	4,795	-	4,609	-	2,544	3,813	5,598	3,204	4,403	5,818	4,555	5,829
23	3,008	-	4,465	-	2,556	4,586	3,761	6,048	3,442	3,127	3,681	2,702
24	3,025	3,673	3,049	2,777	2,546	5,139	3,065	4,065	6,244	5,729	3,950	5,265
25	4,504	4,954	4,879	4,179	5,072	4,039	3,080	4,289	-	4,141	3,243	2,692
26	4,807	3,495	3,081	4,397	4,486	4,363	5,250	3,562	-	5,971	5,975	4,639
27	4,709	-	3,468	2,543	4,821	4,692	3,082	3,746	2,877	3,589	4,961	4,390
28	3,179	-	3,016	2,573	3,942	3,285	3,335	2,628	6,033	3,713	3,234	2,884
29	4,570		3,065	5,779	2,660	5,182	3,491	3,775	4,565	3,166	5,986	5,882
30	-		5,624	5,829	2,690	-	3,192	4,949	5,229	3,433	3,931	-
31	-		3,473		4,545		3,429	3,370		3,162		-

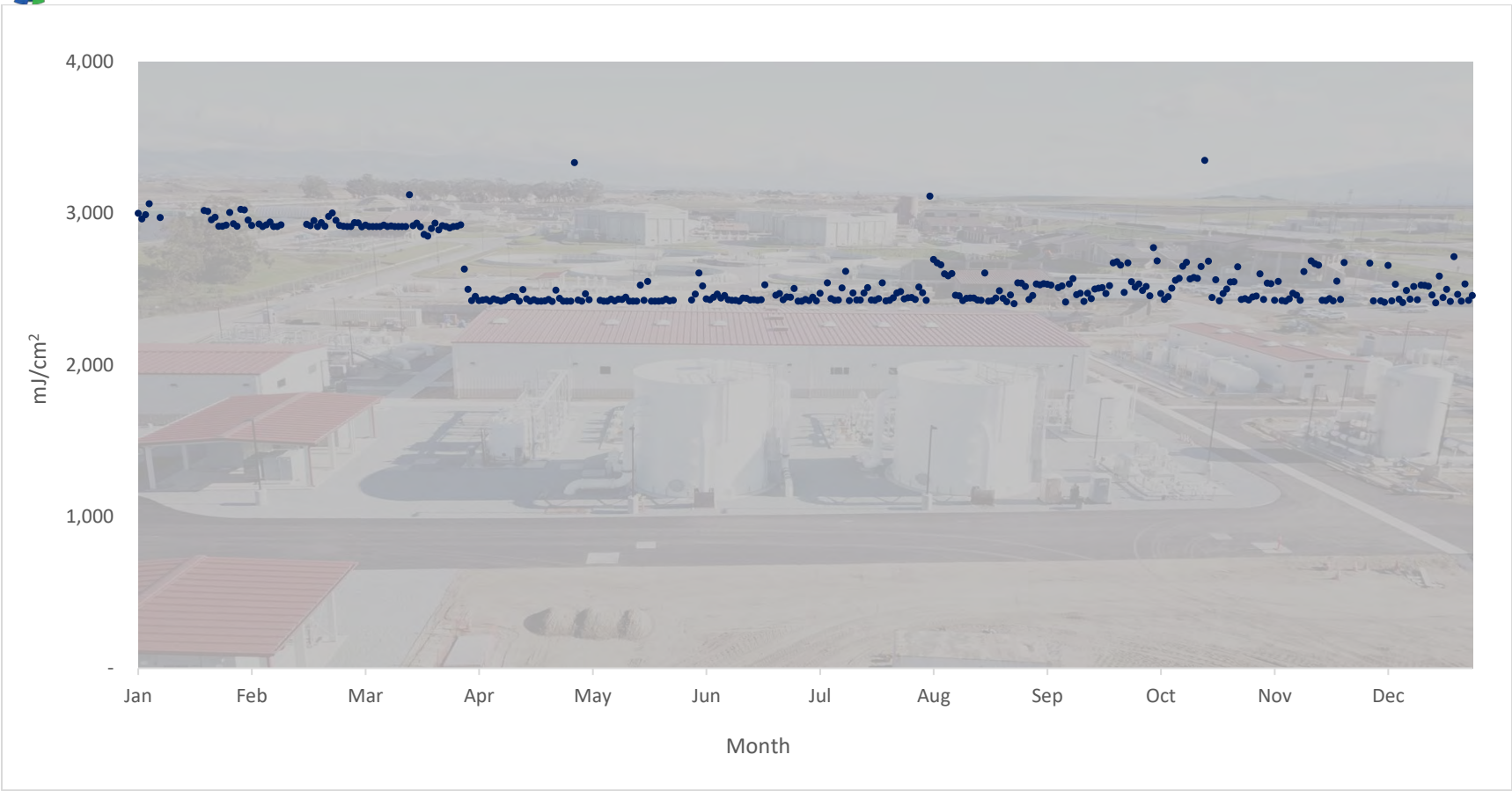


**Figure 46. AWPf Product Water Monitoring – Daily Maximum UV Dose for Reactor 4 (mJ/cm<sup>2</sup>)**



**Table 47. AWPf Product Water Monitoring – Daily Average UV Dose for Reactor 5 (mJ/cm<sup>2</sup>)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2,998	2,920	2,938	2,497	2,428	2,427	2,421	2,432	2,430	2,533	2,447	-
2	2,963	-	2,935	2,424	2,420	2,467	2,431	2,513	2,458	2,491	2,452	-
3	2,990	2,929	2,910	2,452	2,468	2,606	2,424	2,475	2,533	2,516	2,599	2,670
4	3,061	2,913	2,920	2,423	2,429	2,520	2,446	2,425	2,528	2,454	2,431	2,421
5	-	2,923	2,912	2,427	-	2,435	2,422	3,111	2,536	2,773	2,539	-
6	-	2,941	2,913	2,430	-	2,430	2,472	2,695	2,532	2,686	2,535	2,422
7	2,971	2,913	2,912	2,420	2,426	2,446	-	2,672	2,526	2,469	2,426	2,413
8	-	2,912	2,913	2,435	2,420	2,465	2,540	2,660	-	2,431	2,550	2,656
9	-	2,923	2,921	2,427	2,420	2,440	2,436	2,601	2,510	2,450	2,424	2,422
10	-	-	2,912	2,421	2,433	2,456	2,425	2,587	2,520	2,505	2,420	2,531
11	-	-	2,916	2,426	2,422	2,430	2,427	2,602	2,415	2,557	2,434	2,433
12	-	-	2,912	2,441	2,433	2,426	2,507	2,459	2,534	2,570	2,471	2,410
13	-	-	2,913	2,451	2,432	2,425	2,616	2,455	2,568	2,650	2,458	2,490
14	-	-	2,912	2,448	2,445	2,420	2,423	2,423	2,463	2,676	2,426	2,433
15	-	-	2,912	2,420	2,420	2,441	2,474	2,439	2,472	2,567	2,614	2,516
16	-	2,927	3,122	2,495	2,420	2,439	2,426	2,440	2,419	2,576	-	2,429
17	-	2,918	2,918	2,434	2,421	2,428	2,426	2,440	2,472	2,571	2,685	2,527
18	-	2,950	2,935	2,420	2,525	2,430	2,474	2,426	2,437	2,647	2,667	2,523
19	3,017	2,913	2,910	2,429	2,426	2,425	2,510	2,426	2,500	3,348	2,658	2,518
20	3,012	2,938	2,861	2,420	2,550	2,429	2,426	2,606	2,504	2,683	2,426	2,460
21	2,956	2,914	2,849	2,420	2,420	2,528	2,425	2,420	2,508	2,444	2,424	2,408
22	2,973	2,979	2,900	2,421	2,420	-	2,437	2,422	2,471	2,561	2,437	2,586
23	2,913	3,000	2,934	2,431	2,421	-	2,540	2,441	2,521	2,422	2,421	2,444
24	2,913	2,953	2,890	2,419	2,422	2,460	2,422	2,489	2,673	2,469	2,552	2,498
25	2,920	2,920	2,918	2,492	2,433	2,470	2,426	2,439	2,680	2,501	2,430	2,419
26	3,004	2,913	2,912	2,438	2,421	2,429	2,442	2,417	2,657	2,546	2,675	2,714
27	2,931	2,911	2,902	2,419	2,426	2,448	2,474	2,460	2,477	2,548	-	2,464
28	2,913	2,913	2,913	2,420	-	2,446	2,484	2,403	2,673	2,647	-	2,420
29	3,025		2,913	2,420	-	2,504	2,435	2,541	2,548	2,431	-	2,533
30	3,021		2,923	3,334	-	2,420	2,442	2,539	2,513	2,437	-	2,426
31	2,955		2,631		-		2,444	2,516		2,428		2,458

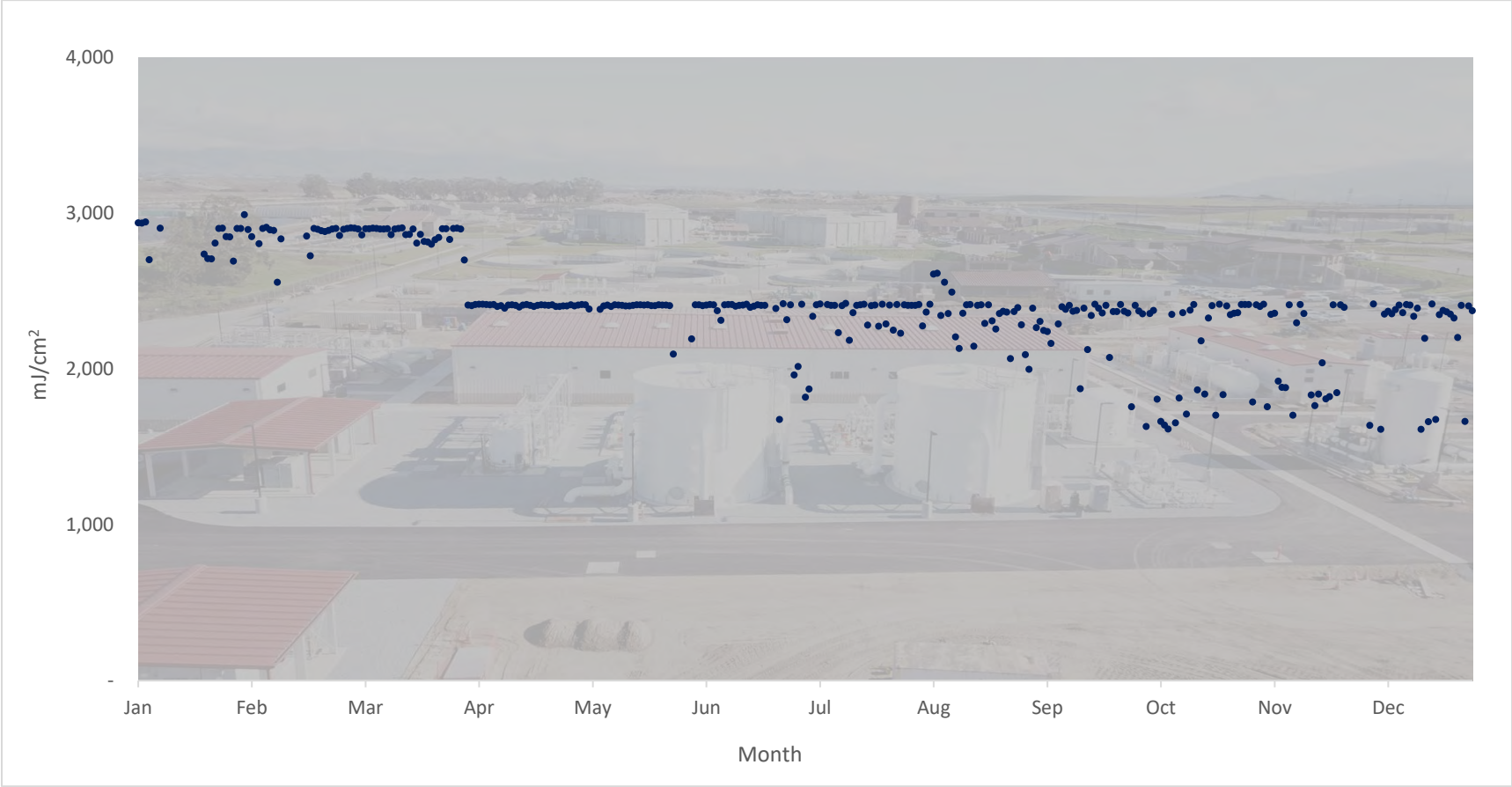


**Figure 47. AWP Product Water Monitoring – Daily Average UV Dose for Reactor 5 (mJ/cm²)**



**Table 48. AWPf Product Water Monitoring – Daily Minimum UV Dose for Reactor 5 (mJ/cm<sup>2</sup>)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2,937	2,848	2,903	2,409	2,409	2,192	2,415	2,408	1,997	2,371	1,788	-
2	2,935	-	2,898	2,406	2,412	2,412	1,817	2,412	2,389	2,353	2,411	-
3	2,943	2,803	2,860	2,412	2,410	2,411	1,870	2,275	2,265	1,630	2,400	1,637
4	2,701	2,900	2,899	2,414	2,384	2,406	2,337	2,363	2,305	2,354	2,414	2,417
5	-	2,907	2,899	2,414	-	2,410	2,411	2,415	2,247	2,375	1,756	-
6	-	2,892	2,903	2,412	-	2,413	2,416	2,608	2,239	1,806	2,349	1,612
7	2,903	2,888	2,901	2,412	2,382	2,411	-	2,614	2,164	1,663	2,357	2,352
8	-	2,556	2,898	2,412	2,403	2,372	2,412	2,342	-	1,639	1,921	2,370
9	-	2,833	2,898	2,400	2,408	2,312	2,407	2,556	2,288	1,613	1,882	2,353
10	-	-	2,899	2,406	2,400	2,411	2,408	2,355	2,398	2,350	1,879	2,380
11	-	-	2,861	2,390	2,410	2,412	2,231	2,493	2,382	1,654	2,411	2,409
12	-	-	2,898	2,409	2,409	2,413	2,405	2,204	2,408	1,813	1,703	2,361
13	-	-	2,901	2,412	2,408	2,402	2,419	2,131	2,370	2,361	2,296	2,412
14	-	-	2,904	2,408	2,403	2,406	2,183	2,356	2,374	1,710	2,412	2,409
15	-	-	2,861	2,397	2,404	2,409	2,360	2,411	1,873	2,376	2,354	2,337
16	-	2,852	2,862	2,409	2,406	2,415	2,408	2,412	2,390	2,413	-	2,389
17	-	2,725	2,897	2,412	2,411	2,395	2,410	2,146	2,124	1,865	1,832	1,611
18	-	2,902	2,806	2,407	2,412	2,402	2,415	2,408	2,342	2,180	1,764	2,196
19	2,736	2,895	2,863	2,400	2,409	2,411	2,280	2,411	2,414	1,838	1,837	1,661
20	2,708	2,886	2,817	2,407	2,410	2,407	2,405	2,292	2,390	2,325	2,039	2,416
21	2,706	2,881	2,814	2,411	2,405	2,407	2,409	2,410	2,359	2,406	1,807	1,675
22	2,806	2,889	2,800	2,410	2,405	-	2,274	2,307	2,407	1,703	1,822	2,348
23	2,901	2,897	2,829	2,408	2,410	-	2,414	2,256	2,072	2,415	2,411	2,375
24	2,902	2,900	2,844	2,411	2,409	2,388	2,288	2,354	2,367	1,835	1,846	2,366
25	2,849	2,855	2,899	2,400	2,410	1,674	2,409	2,370	2,368	2,404	2,410	2,351
26	2,847	2,896	2,899	2,401	2,405	2,419	2,248	2,364	2,412	2,348	2,395	2,326
27	2,691	2,901	2,830	2,404	2,094	2,314	2,413	2,066	2,369	2,357	-	2,201
28	2,901	2,904	2,900	2,403	-	2,411	2,228	2,367	2,359	2,361	-	2,407
29	2,901		2,902	2,411	-	1,961	2,410	2,393	1,756	2,413	-	1,662
30	2,989		2,897	2,404	-	2,015	2,407	2,283	2,408	2,412	-	2,403
31	2,894		2,699		-		2,407	2,090		2,413		2,373



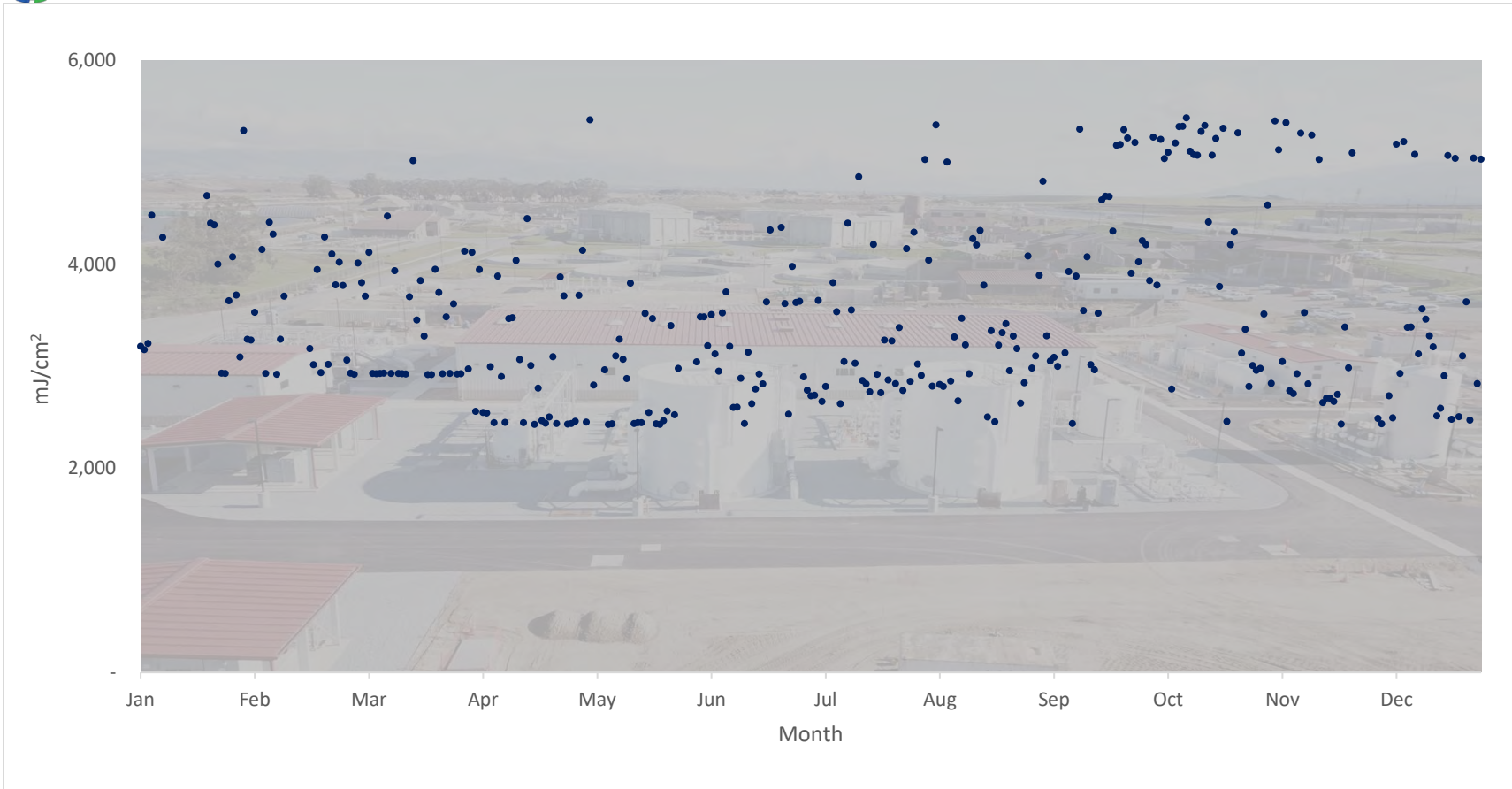
**Figure 48. AWPf Product Water Monitoring – Daily Minimum UV Dose for Reactor 5 (mJ/cm²)**



**Table 49. AWPf Product Water Monitoring – Daily Maximum UV Dose for Reactor 5 (mJ/cm<sup>2</sup>)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3,196	3,526	4,011	4,115	4,137	3,043	2,764	2,908	3,100	4,191	2,977	-
2	3,161	-	3,819	2,556	2,451	3,483	2,711	5,025	3,891	3,839	3,512	-
3	3,222	4,143	3,687	3,948	5,413	3,483	2,715	4,039	4,811	5,244	4,579	2,487
4	4,479	2,927	4,116	2,545	2,815	3,200	3,643	2,805	3,298	3,795	2,831	2,435
5	-	4,411	2,929	2,541	-	3,505	2,653	5,365	3,049	5,224	5,404	-
6	-	4,293	2,925	2,994	-	3,119	2,801	2,820	3,087	5,034	5,121	2,710
7	4,264	2,922	2,929	2,445	2,966	2,950	-	2,800	2,998	5,094	3,045	2,494
8	-	3,265	2,930	3,884	2,431	3,522	3,819	5,001	-	2,777	5,386	5,176
9	-	3,686	4,472	2,898	2,434	3,726	3,533	2,854	3,131	5,187	2,759	2,930
10	-	-	2,929	2,448	3,100	3,195	2,631	3,286	3,926	5,349	2,731	5,200
11	-	-	3,936	3,468	3,264	2,595	3,045	2,660	2,439	5,350	2,925	3,381
12	-	-	2,928	3,475	3,066	2,599	4,401	3,469	3,883	5,434	5,285	3,383
13	-	-	2,927	4,036	2,880	2,881	3,551	3,208	5,322	5,107	3,525	5,077
14	-	-	2,923	3,063	3,813	2,437	3,028	2,925	3,545	5,072	2,825	3,121
15	-	-	3,680	2,446	2,436	3,136	4,857	4,249	4,071	5,068	5,265	3,562
16	-	3,173	5,016	4,447	2,445	2,631	2,860	4,189	3,016	5,301	-	3,462
17	-	3,014	3,454	3,005	2,447	2,776	2,825	4,330	2,965	5,359	5,026	3,299
18	-	3,948	3,838	2,431	3,518	2,923	2,748	3,795	3,519	4,412	2,642	3,189
19	4,672	2,938	3,294	2,784	2,545	2,826	4,193	2,502	4,629	5,067	2,688	2,513
20	4,401	4,265	2,918	2,466	3,468	3,630	2,919	3,349	4,665	5,230	2,684	2,587
21	4,384	3,017	2,918	2,439	2,435	4,336	2,740	2,453	4,662	3,781	2,655	2,906
22	4,001	4,099	3,948	2,501	2,431	-	3,255	3,205	4,324	5,332	2,723	5,064
23	2,932	3,796	3,721	3,092	2,464	-	2,864	3,329	5,164	2,458	2,431	2,480
24	2,930	4,018	2,926	2,438	2,561	4,361	3,247	3,416	5,172	4,192	3,383	5,036
25	3,640	3,793	3,485	3,873	3,398	3,613	2,828	2,956	5,318	4,317	2,983	2,505
26	4,072	3,060	2,929	3,688	2,525	2,528	3,377	3,296	5,238	5,288	5,089	3,101
27	3,697	2,931	3,610	2,433	2,978	3,978	2,761	3,172	3,912	3,128	-	3,630
28	3,088	2,921	2,922	2,437	-	3,625	4,152	2,637	5,193	3,362	-	2,470
29	5,308		2,926	2,460	-	3,636	2,850	2,836	4,023	2,801	-	5,039
30	3,265		4,128	3,695	-	2,896	4,313	4,081	4,230	3,006	-	2,828
31	3,256		2,972		-		3,020	2,981		2,959		5,028



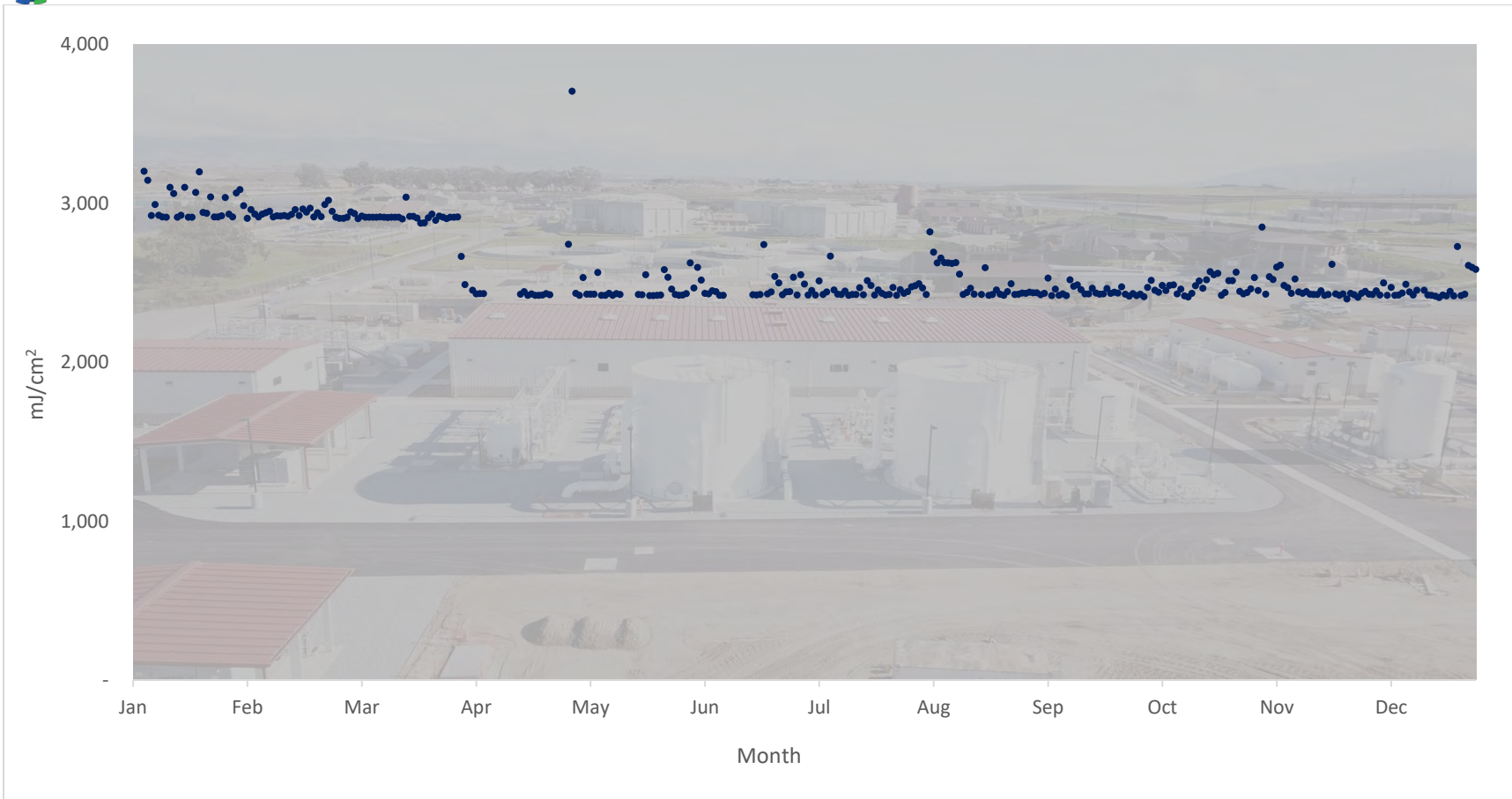


**Figure 49. AWPf Product Water Monitoring – Daily Maximum UV Dose for Reactor 5 (mJ/cm<sup>2</sup>)**



**Table 50. AWPf Product Water Monitoring – Daily Average UV Dose for Reactor 6 (mJ/cm<sup>2</sup>)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	-	2,905	2,946	2,488	2,434	2,626	2,551	2,482	2,440	2,428	2,532	2,445
2	-	2,960	2,935	-	2,421	2,467	2,493	2,494	2,437	2,412	2,452	2,428
3	-	2,933	2,904	2,452	2,532	2,597	2,423	2,467	2,437	2,470	2,850	2,426
4	3,201	2,914	2,919	2,429	2,427	2,517	2,451	2,427	2,423	2,515	2,429	2,449
5	3,145	2,932	2,913	2,431	2,427	2,434	2,422	2,820	2,433	2,453	2,538	2,422
6	2,923	2,941	2,913	2,431	2,427	2,429	2,511	2,693	2,529	2,440	2,520	2,500
7	2,993	2,949	2,912	-	2,564	2,450	2,426	2,624	2,418	2,482	2,598	2,421
8	2,925	2,914	2,913	-	2,420	2,445	2,441	2,654	2,459	2,450	2,610	2,471
9	2,913	2,921	2,913	-	2,420	2,420	2,667	2,627	2,421	2,482	2,483	2,421
10	2,913	2,920	2,913	-	2,433	2,420	2,454	2,624	2,430	2,487	2,469	2,423
11	3,100	2,923	2,911	-	2,422	-	2,428	2,622	2,420	2,429	2,433	2,434
12	3,061	2,918	2,913	-	2,431	-	2,427	2,626	2,519	2,460	2,524	2,489
13	2,913	2,930	2,913	-	2,426	-	2,447	2,553	2,478	2,417	2,443	2,441
14	2,925	2,960	2,913	-	-	-	2,420	2,427	2,487	2,411	2,433	2,423
15	3,100	2,923	2,901	-	-	-	2,426	2,439	2,455	2,434	2,444	2,452
16	2,913	2,965	3,039	2,428	-	-	2,425	2,466	2,429	2,480	2,427	-
17	2,913	2,944	2,918	2,444	-	-	2,468	2,428	2,430	2,512	2,426	2,453
18	3,069	2,969	2,918	2,420	2,426	2,423	2,424	-	2,465	2,465	2,426	2,423
19	3,198	2,913	2,907	2,429	2,425	2,422	2,512	2,426	2,436	2,519	2,450	2,421
20	2,943	2,941	2,875	2,421	2,550	2,427	2,483	2,595	2,427	2,570	2,422	2,415
21	2,937	2,915	2,877	2,421	2,420	2,740	2,423	2,420	2,429	2,551	2,426	2,407
22	3,040	2,992	2,909	2,422	2,420	2,430	2,455	2,425	2,464	2,559	2,616	2,423
23	2,914	3,018	2,932	2,432	2,421	2,442	2,433	2,454	2,434	2,422	2,429	2,417
24	2,914	2,949	2,893	2,425	2,422	2,540	2,423	2,429	2,440	2,439	2,422	2,445
25	2,921	2,912	2,919	-	2,583	2,499	2,426	2,420	2,434	2,514	2,429	2,418
26	3,036	2,906	2,913	-	2,534	2,425	2,471	2,444	2,474	2,513	2,397	2,727
27	2,931	2,905	2,903	-	2,459	2,442	2,422	2,493	2,427	2,566	2,433	2,420
28	2,914	2,912	2,912	-	2,426	2,443	2,457	2,426	2,416	2,446	2,425	2,428
29	3,065		2,913	2,743	2,421	2,534	2,433	2,428	2,432	2,431	2,408	2,609
30	3,086		2,913	3,705	2,423	2,422	2,444	2,435	2,420	2,438	2,434	2,596
31	2,985		2,666		2,432		2,474	2,433		2,462		2,583

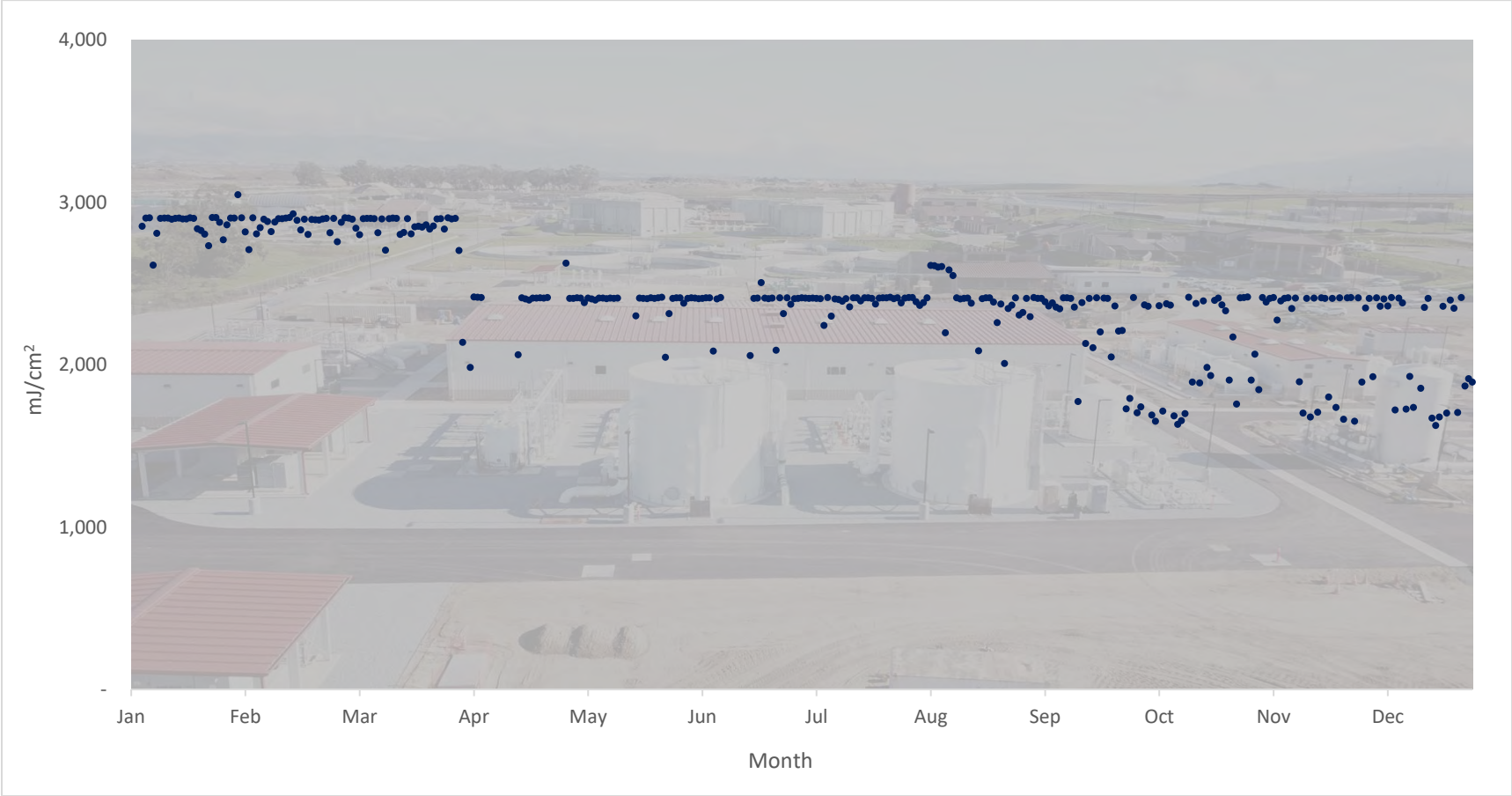


**Figure 50. AWPf Product Water Monitoring – Daily Average UV Dose for Reactor 6 (mJ/cm²)**



**Table 51. AWPf Product Water Monitoring – Daily Minimum UV Dose for Reactor 6 (mJ/cm<sup>2</sup>)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	-	2,818	2,903	2,137	2,407	2,408	2,409	2,414	2,408	1,703	1,904	1,892
2	-	2,709	2,896	-	2,412	2,411	2,411	2,387	2,296	1,740	2,065	2,349
3	-	2,905	2,840	1,983	2,410	2,410	2,410	2,365	2,413	2,369	1,846	2,408
4	2,853	2,805	2,800	2,416	2,383	2,406	2,409	2,383	2,409	2,359	2,413	1,925
5	2,903	2,844	2,900	2,415	2,411	2,409	2,410	2,412	2,408	1,690	2,386	2,411
6	2,904	2,897	2,901	2,414	2,405	2,413	2,409	2,612	2,387	1,652	2,409	2,360
7	2,613	2,883	2,902	-	2,398	2,412	2,407	2,610	2,362	2,363	2,413	2,404
8	2,810	2,819	2,900	-	2,410	2,084	2,241	2,601	2,380	1,714	2,275	2,361
9	2,902	2,878	2,812	-	2,410	2,404	2,413	2,604	2,355	2,376	2,392	2,413
10	2,903	2,899	2,898	-	2,407	2,413	2,299	2,196	2,344	2,367	2,408	1,720
11	2,902	2,899	2,705	-	2,409	-	2,405	2,583	2,412	1,685	2,412	2,410
12	2,896	2,903	2,899	-	2,408	-	2,401	2,549	2,411	1,633	2,346	2,380
13	2,900	2,906	2,903	-	2,409	-	2,391	2,412	2,408	1,655	2,410	1,726
14	2,903	2,928	2,900	-	-	-	2,407	2,405	2,355	1,698	1,894	1,928
15	2,897	2,889	2,803	-	-	-	2,356	2,409	1,773	2,415	1,701	1,736
16	2,898	2,831	2,815	2,060	-	-	2,411	2,410	2,382	1,892	2,409	-
17	2,904	2,896	2,900	2,412	-	-	2,411	2,378	2,131	2,377	1,678	1,854
18	2,901	2,803	2,806	2,405	2,301	2,056	2,393	-	2,408	1,887	2,410	2,352
19	2,837	2,894	2,849	2,399	2,410	2,409	2,411	2,085	2,105	2,393	1,707	2,409
20	2,826	2,893	2,852	2,411	2,408	2,410	2,412	2,406	2,412	1,983	2,412	1,671
21	2,805	2,891	2,848	2,410	2,406	2,505	2,408	2,412	2,201	1,932	2,409	1,625
22	2,732	2,898	2,861	2,411	2,412	2,409	2,373	2,411	2,410	2,396	1,800	1,678
23	2,907	2,901	2,835	2,410	2,408	2,407	2,410	2,386	2,408	2,410	2,409	2,359
24	2,907	2,813	2,854	2,414	2,411	2,410	2,411	2,259	2,047	2,369	1,737	1,702
25	2,877	2,901	2,897	-	2,414	2,088	2,411	2,374	2,362	2,331	2,411	2,397
26	2,769	2,757	2,900	-	2,045	2,411	2,415	2,008	2,206	1,904	1,664	2,347
27	2,861	2,877	2,835	-	2,314	2,314	2,406	2,346	2,211	2,170	2,411	1,705
28	2,903	2,904	2,905	-	2,408	2,411	2,412	2,366	1,727	1,757	2,413	2,413
29	2,903		2,898	2,626	2,411	2,372	2,381	2,411	1,792	2,412	1,652	1,869
30	3,047		2,901	2,408	2,412	2,406	2,410	2,305	2,413	2,413	2,411	1,913
31	2,905		2,704		2,378		2,413	2,322		2,417		1,893

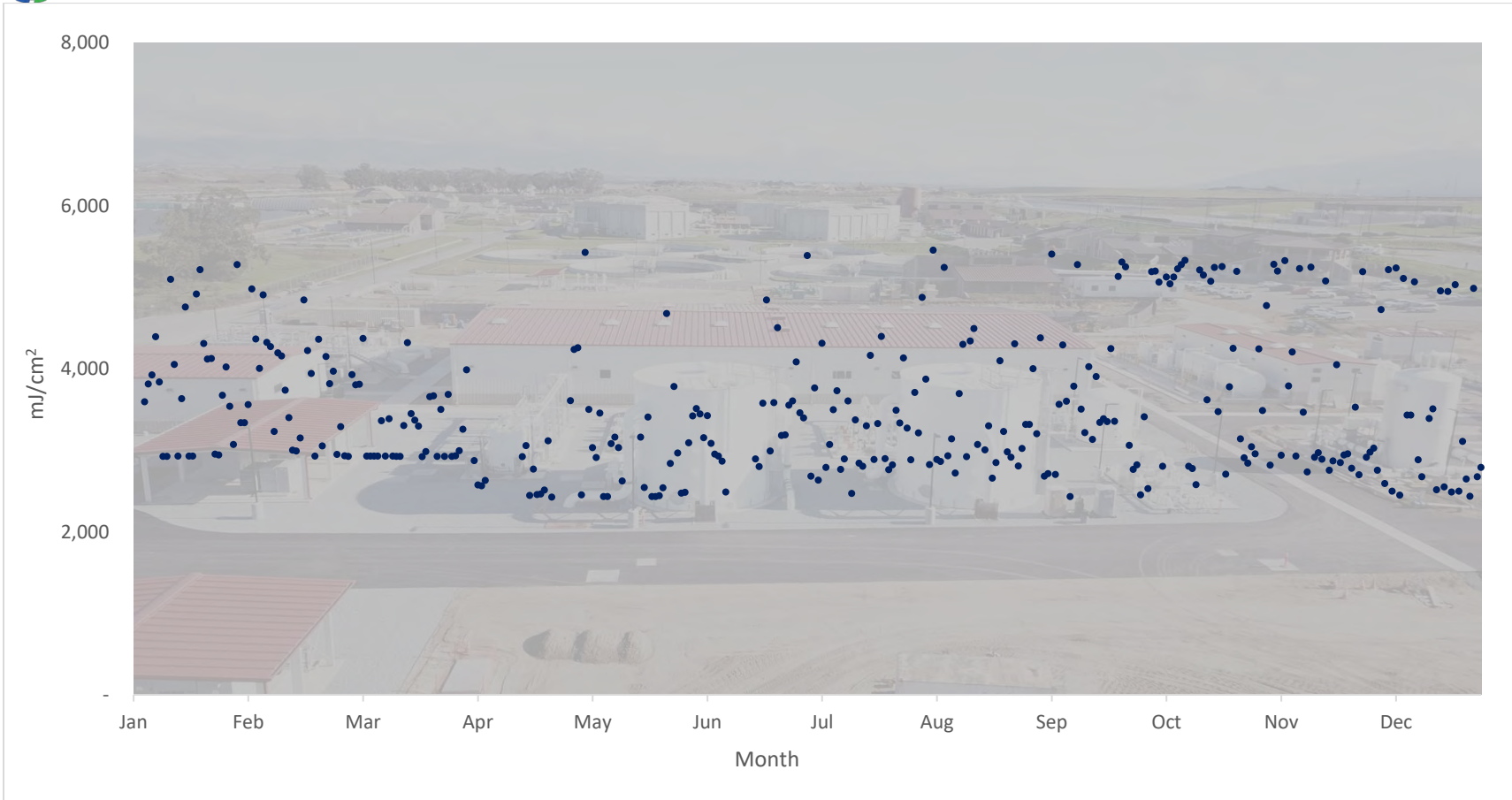


**Figure 51. AWPf Product Water Monitoring – Daily Minimum UV Dose for Reactor 6 (mJ/cm²)**



**Table 52. AWPf Product Water Monitoring – Daily Maximum UV Dose for Reactor 6 (mJ/cm<sup>2</sup>)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	-	3,561	3,928	3,987	4,258	3,420	3,396	3,214	4,002	3,410	4,244	2,976
2	-	4,980	3,802	-	2,450	3,512	5,390	4,876	3,204	2,529	3,487	3,026
3	-	4,365	3,808	2,872	5,426	3,444	2,682	3,873	4,378	5,191	4,776	2,754
4	3,596	4,002	4,373	2,575	3,502	3,154	3,763	2,825	2,679	5,198	2,817	4,725
5	3,814	4,906	2,926	2,565	3,033	3,424	2,634	5,456	2,711	5,064	5,281	2,592
6	3,924	4,323	2,927	2,629	2,909	3,083	4,312	2,886	5,406	2,803	5,199	5,216
7	4,393	4,270	2,927	-	3,455	2,951	2,788	2,861	2,702	5,127	2,937	2,498
8	3,837	3,231	2,928	-	2,431	2,929	3,070	5,245	3,564	5,043	5,328	5,235
9	2,925	4,194	3,360	-	2,431	2,866	3,498	2,931	4,292	5,125	3,787	2,449
10	2,924	4,157	2,928	-	3,079	2,485	3,730	3,141	3,601	5,226	4,205	5,109
11	5,097	3,738	3,385	-	3,161	-	2,764	2,718	2,431	5,278	2,927	3,431
12	4,051	3,398	2,928	-	3,031	-	2,894	3,696	3,785	5,331	5,231	3,432
13	2,926	3,001	2,924	-	2,621	-	3,604	4,299	5,278	2,803	3,467	5,067
14	3,633	2,990	2,923	-	-	-	2,468	2,919	3,505	2,773	2,732	2,881
15	4,756	3,149	3,303	-	-	-	3,374	4,340	3,215	2,578	5,246	2,675
16	2,928	4,846	4,321	2,922	-	-	2,842	4,492	4,024	5,213	2,914	-
17	2,928	4,223	3,447	3,055	-	-	2,804	3,070	3,133	5,150	2,968	3,390
18	4,917	3,940	3,368	2,445	3,162	2,894	3,298	-	3,903	3,620	2,891	3,507
19	5,216	2,927	3,295	2,767	2,541	2,800	4,162	3,003	3,342	5,075	5,075	2,515
20	4,311	4,363	2,920	2,455	3,407	3,578	2,887	3,299	3,386	5,242	2,755	4,957
21	4,118	3,053	2,983	2,461	2,431	4,842	3,328	2,658	3,352	3,474	2,867	2,549
22	4,125	4,151	3,657	2,513	2,431	2,991	4,396	2,849	4,245	5,254	4,050	4,949
23	2,953	3,816	3,666	3,116	2,442	3,585	2,896	4,096	3,353	2,705	2,847	2,487
24	2,943	3,968	2,926	2,424	2,540	4,504	2,762	3,229	5,133	3,779	2,942	5,032
25	3,676	2,947	3,502	-	4,676	3,181	2,819	2,978	5,308	4,249	2,954	2,497
26	4,022	3,290	2,923	-	2,839	3,187	3,489	2,915	5,249	5,196	2,777	3,107
27	3,539	2,932	3,685	-	3,780	3,552	3,333	4,305	3,060	3,140	3,530	2,648
28	3,070	2,924	2,925	-	2,966	3,605	4,132	2,807	2,766	2,907	2,697	2,435
29	5,277		2,930	3,607	2,474	4,085	3,272	3,022	2,819	2,841	5,192	4,986
30	3,337		2,994	4,235	2,484	3,458	2,884	3,317	2,451	3,042	2,912	2,673
31	3,337		3,256		3,090		3,710	3,316		2,957		2,789



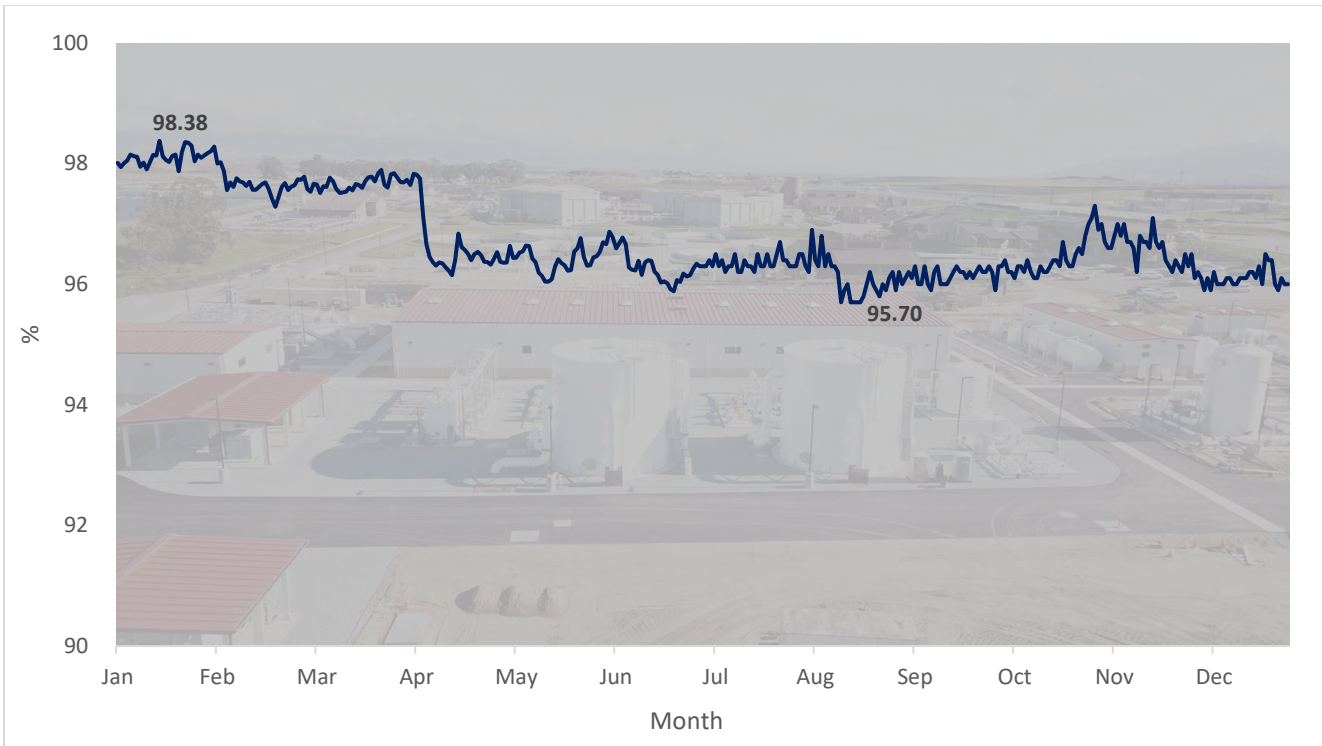
**Figure 52. AWPf Product Water Monitoring – Daily Maximum UV Dose for Reactor 6 (mJ/cm<sup>2</sup>)**



**Table 53. AWPf Product Water Monitoring – Daily Average UV Transmittance (%)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	98.01	98.00	97.58	97.73	96.35	96.69	96.30	96.50	96.20	95.90	97.30	96.50
2	97.94	98.02	97.54	97.64	96.36	96.66	96.30	96.50	96.00	96.30	96.90	96.10
3	98.00	97.88	97.67	97.83	96.64	96.87	96.30	96.30	96.10	96.30	97.00	96.20
4	98.05	97.56	97.65	97.81	96.44	96.78	96.40	96.20	96.20	96.40	96.70	96.10
5	98.15	97.69	97.52	97.75	96.44	96.59	96.30	96.90	96.10	96.20	96.60	95.90
6	98.12	97.62	97.62	97.12	96.52	96.68	96.50	96.40	96.30	96.20	96.60	96.10
7	98.11	97.75	97.61	96.67	96.54	96.78	96.30	96.30	96.00	96.10	96.80	95.90
8	97.95	97.70	97.77	96.45	96.64	96.67	96.40	96.80	96.00	96.30	97.00	96.20
9	98.02	97.69	97.71	96.36	96.63	96.28	96.20	96.30	96.30	96.30	96.80	96.00
10	97.91	97.63	97.58	96.31	96.43	96.24	96.30	96.50	96.00	96.20	97.00	96.00
11	98.02	97.70	97.51	96.36	96.37	96.23	96.30	96.30	95.90	96.40	96.70	96.00
12	98.15	97.56	97.52	96.34	96.19	96.39	96.50	96.30	96.20	96.20	96.70	96.10
13	98.14	97.57	97.54	96.28	96.14	96.15	96.20	96.20	96.30	96.10	96.60	96.10
14	98.38	97.61	97.60	96.22	96.04	96.36	96.20	95.70	96.00	96.10	96.20	96.00
15	98.12	97.66	97.55	96.15	96.04	96.40	96.40	95.90	96.00	96.30	96.80	96.00
16	98.06	97.69	97.66	96.41	96.09	96.39	96.30	96.00	96.00	96.20	96.70	96.10
17	98.03	97.58	97.64	96.84	96.29	96.21	96.30	95.70	96.10	96.20	96.70	96.10
18	98.13	97.41	97.60	96.62	96.42	96.16	96.20	95.70	96.20	96.30	96.60	96.10
19	98.15	97.28	97.71	96.57	96.35	96.03	96.50	95.70	96.30	96.40	97.10	96.20
20	97.87	97.44	97.77	96.50	96.31	96.05	96.30	95.70	96.20	96.40	96.70	96.20
21	98.19	97.61	97.79	96.40	96.23	96.02	96.30	95.80	96.20	96.30	96.60	96.10
22	98.36	97.68	97.71	96.50	96.23	95.91	96.50	96.00	96.10	96.70	96.70	96.30
23	98.35	97.56	97.83	96.54	96.54	95.89	96.30	96.20	96.20	96.40	96.40	96.00
24	98.30	97.62	97.89	96.48	96.60	96.07	96.30	96.00	96.10	96.30	96.30	96.50
25	98.04	97.64	97.65	96.37	96.76	96.04	96.50	95.90	96.20	96.30	96.20	96.40
26	98.15	97.74	97.60	96.37	96.45	96.17	96.70	95.80	96.30	96.50	96.40	96.40
27	98.10	97.73	97.82	96.33	96.31	96.13	96.40	96.00	96.20	96.60	96.30	96.00
28	98.14	97.78	97.84	96.42	96.31	96.15	96.40	95.90	96.20	96.50	96.20	95.90
29	98.17		97.77	96.53	96.45	96.26	96.30	96.10	96.30	96.80	96.50	96.10
30	98.21		97.70	96.37	96.46	96.34	96.30	96.20	96.20	97.00	96.30	96.00
31	98.28		97.69		96.54		96.30	95.90		97.10		96.00



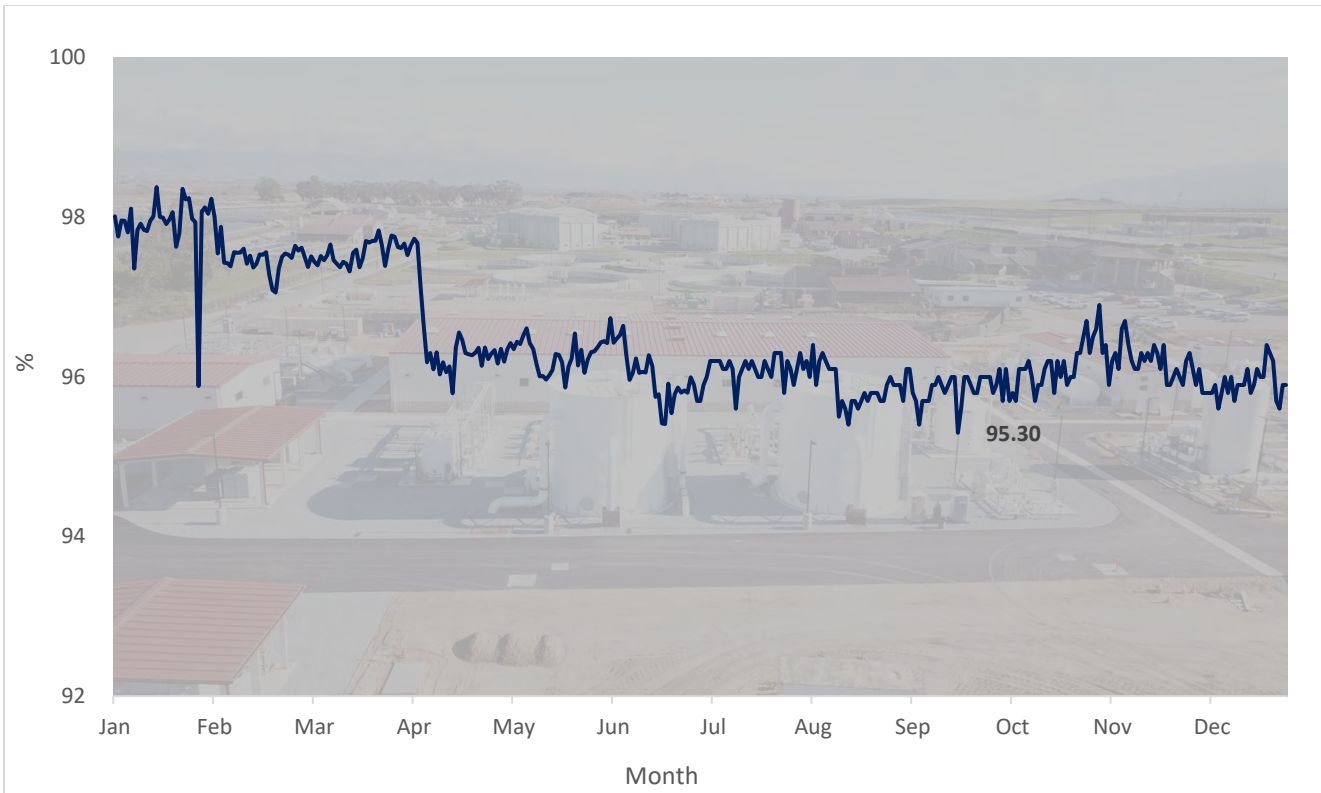


**Figure 53. AWPf Product Water Monitoring – Daily Average UV Transmittance (%)**



**Table 54. AWPf Product Water Monitoring – Daily Minimum UV Transmittance (%)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	98.01	98.00	97.50	97.67	96.35	96.43	95.70	96.10	95.90	95.80	96.50	96.30
2	97.76	97.55	97.38	97.53	96.19	96.45	95.70	96.30	95.90	95.90	96.60	96.10
3	97.96	97.88	97.51	97.64	96.35	96.42	95.90	96.10	95.70	96.10	96.90	95.90
4	97.95	97.43	97.44	97.73	96.42	96.74	96.00	96.20	96.10	95.70	96.30	96.10
5	97.81	97.43	97.40	97.68	96.35	96.43	96.20	96.00	96.10	96.10	96.40	95.80
6	98.11	97.39	97.52	97.12	96.44	96.48	96.20	96.40	95.80	95.70	95.90	95.80
7	97.36	97.56	97.46	96.63	96.41	96.53	96.20	95.90	95.70	95.80	96.20	95.80
8	97.84	97.55	97.52	96.18	96.52	96.64	96.20	96.20	95.40	95.70	96.30	95.80
9	97.92	97.56	97.66	96.30	96.61	96.26	96.10	96.30	95.70	96.10	96.10	95.90
10	97.84	97.60	97.46	96.09	96.42	95.96	96.10	96.20	95.70	96.10	96.60	95.60
11	97.83	97.42	97.42	96.31	96.35	96.05	96.20	96.10	95.70	96.10	96.70	95.80
12	97.95	97.52	97.37	96.03	96.16	96.23	96.10	96.10	95.90	96.20	96.40	96.00
13	98.01	97.37	97.44	96.18	96.01	96.05	95.60	96.10	95.90	96.00	96.20	95.80
14	98.38	97.42	97.42	96.06	96.01	96.06	96.00	95.50	96.00	95.70	96.10	96.00
15	98.00	97.53	97.32	96.13	95.97	96.05	96.10	95.70	95.90	95.90	96.10	95.70
16	98.00	97.53	97.55	95.79	96.02	96.27	96.20	95.60	95.80	95.90	96.30	95.90
17	97.92	97.56	97.59	96.37	96.09	96.13	96.10	95.40	95.90	96.10	96.20	95.90
18	97.97	97.28	97.37	96.55	96.29	95.75	96.20	95.70	96.00	96.20	96.30	95.90
19	98.06	97.09	97.49	96.46	96.28	95.78	96.10	95.70	96.00	96.20	96.20	96.10
20	97.63	97.06	97.70	96.30	96.18	95.42	96.00	95.60	95.30	95.80	96.40	95.80
21	97.80	97.36	97.68	96.28	95.87	95.41	96.00	95.70	95.60	96.20	96.30	95.90
22	98.36	97.51	97.70	96.27	96.13	95.91	96.20	95.80	96.00	96.00	96.10	96.10
23	98.23	97.55	97.71	96.30	96.23	95.55	96.10	95.70	96.00	96.20	96.40	96.00
24	98.24	97.53	97.83	96.36	96.54	95.78	96.00	95.80	95.90	95.90	95.90	96.00
25	97.98	97.49	97.65	96.14	96.14	95.87	96.30	95.80	95.80	96.00	95.90	96.40
26	97.94	97.64	97.39	96.37	96.34	95.80	96.30	95.80	95.80	96.00	96.00	96.30
27	95.89	97.58	97.60	96.22	96.05	95.83	96.30	95.70	96.00	96.30	96.10	96.20
28	98.07	97.62	97.77	96.29	96.22	95.80	95.80	95.70	96.00	96.30	96.00	95.70
29	98.12		97.76	96.34	96.31	96.00	96.20	95.90	96.00	96.50	95.90	95.60
30	98.04		97.63	96.17	96.32	95.90	96.10	96.00	96.00	96.70	96.20	95.90
31	98.23		97.62		96.37		95.90	95.90		96.30		95.90

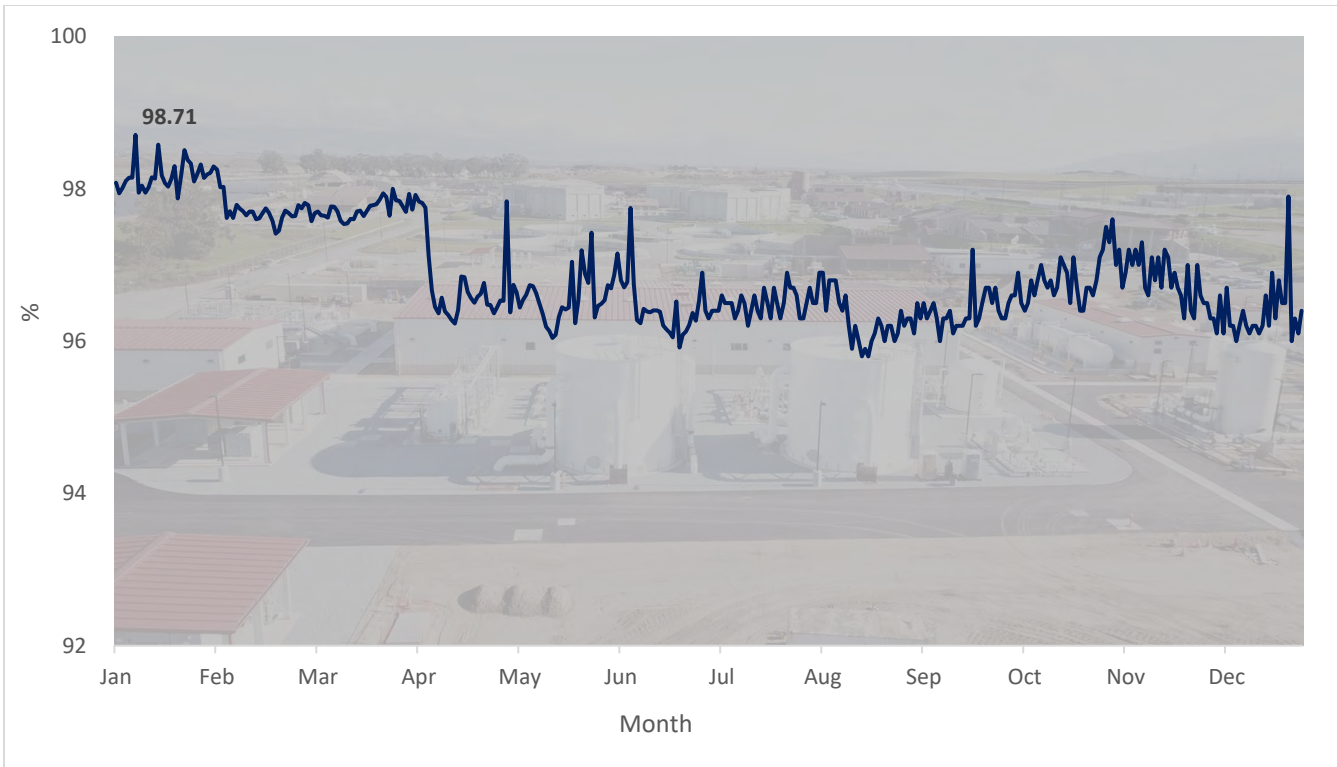


**Figure 54. AWPf Product Water Monitoring – Daily Minimum UV Transmittance (%)**



**Table 55. AWPf Product Water Monitoring – Daily Maximum UV Transmittance (%)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	98.08	98.25	97.78	97.93	97.84	96.73	96.40	96.50	96.30	96.30	97.50	96.50
2	97.94	98.02	97.58	97.73	96.38	96.69	96.30	96.70	96.30	96.50	97.30	96.50
3	98.01	98.03	97.68	97.92	96.74	96.87	96.40	96.50	96.10	96.60	97.60	96.30
4	98.11	97.62	97.70	97.83	96.64	97.15	96.40	96.50	96.50	96.60	97.00	96.30
5	98.15	97.71	97.65	97.81	96.44	96.80	96.40	96.90	96.30	96.90	97.20	96.10
6	98.15	97.62	97.65	97.75	96.54	96.71	96.60	96.90	96.50	96.50	96.70	96.60
7	98.71	97.79	97.62	97.12	96.61	96.78	96.50	96.40	96.30	96.40	96.90	96.10
8	97.95	97.74	97.77	96.67	96.74	97.75	96.50	96.80	96.40	96.50	97.20	96.70
9	98.04	97.71	97.77	96.45	96.72	96.75	96.50	96.80	96.50	96.80	97.00	96.20
10	97.95	97.65	97.71	96.36	96.63	96.28	96.30	96.80	96.30	96.60	97.20	96.20
11	98.02	97.70	97.58	96.57	96.49	96.24	96.40	96.50	96.00	96.80	97.00	96.00
12	98.15	97.70	97.54	96.39	96.37	96.43	96.60	96.40	96.30	97.00	97.30	96.20
13	98.14	97.60	97.55	96.34	96.19	96.39	96.50	96.60	96.30	96.80	96.70	96.40
14	98.58	97.61	97.61	96.28	96.14	96.38	96.20	96.20	96.40	96.70	96.60	96.20
15	98.18	97.68	97.60	96.23	96.04	96.40	96.40	95.90	96.10	96.80	97.10	96.10
16	98.07	97.74	97.70	96.41	96.09	96.40	96.60	96.20	96.20	96.60	96.80	96.20
17	98.03	97.69	97.71	96.85	96.32	96.39	96.40	96.00	96.20	96.70	97.10	96.20
18	98.13	97.58	97.64	96.84	96.45	96.21	96.30	95.80	96.20	97.10	96.70	96.10
19	98.30	97.41	97.71	96.65	96.42	96.16	96.70	95.90	96.30	97.00	97.20	96.20
20	97.87	97.45	97.78	96.57	96.44	96.12	96.50	95.80	96.30	96.90	97.10	96.60
21	98.19	97.62	97.79	96.50	97.04	96.05	96.30	96.00	97.20	96.50	96.70	96.20
22	98.51	97.71	97.80	96.58	96.23	96.52	96.70	96.10	96.20	97.10	96.90	96.90
23	98.38	97.68	97.86	96.62	96.54	95.91	96.50	96.30	96.30	96.70	96.70	96.30
24	98.33	97.64	97.94	96.77	97.19	96.08	96.30	96.20	96.50	96.40	96.60	96.80
25	98.10	97.64	97.89	96.48	96.88	96.13	96.50	96.00	96.70	96.40	96.30	96.50
26	98.19	97.79	97.65	96.48	96.76	96.21	96.90	96.20	96.70	96.70	97.00	96.50
27	98.32	97.75	98.00	96.37	97.42	96.37	96.70	96.20	96.50	96.70	96.40	97.90
28	98.14	97.82	97.85	96.45	96.31	96.27	96.70	96.00	96.70	96.60	96.30	96.00
29	98.19		97.84	96.53	96.46	96.53	96.60	96.10	96.40	96.80	97.00	96.30
30	98.21		97.77	96.53	96.49	96.90	96.30	96.40	96.30	97.10	96.60	96.10
31	98.30		97.70		96.54		96.30	96.20		97.20		96.40

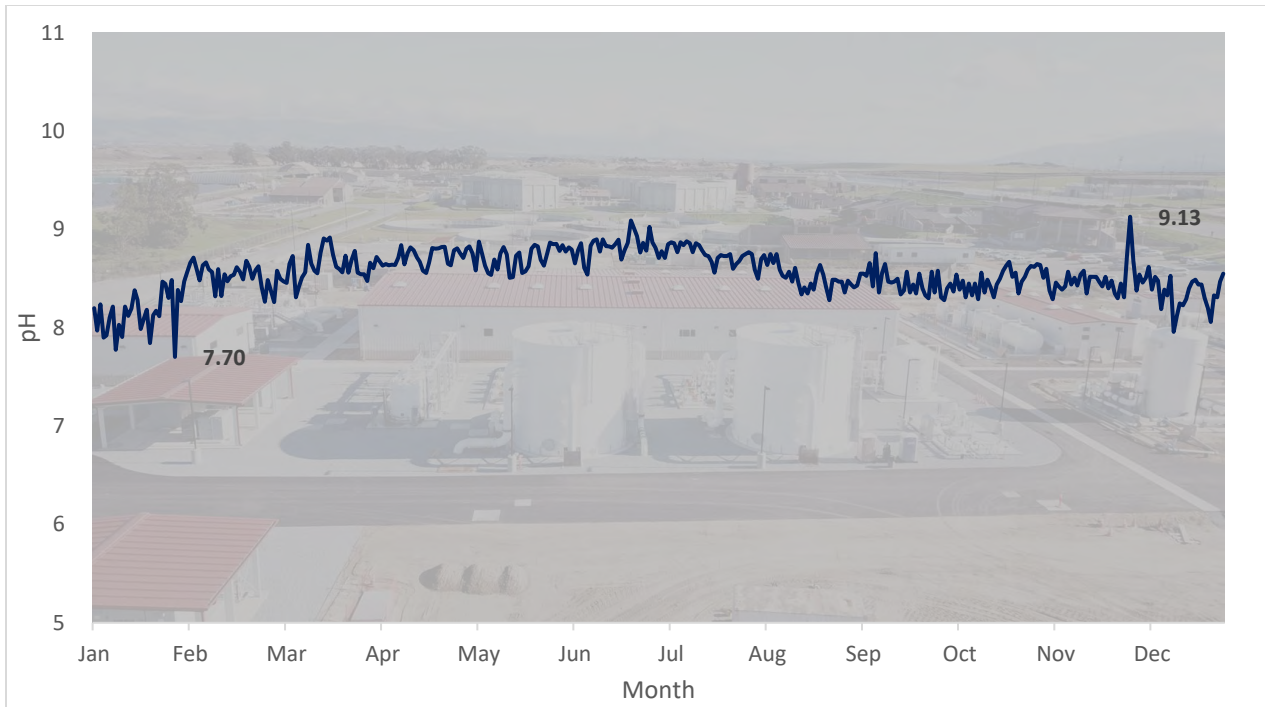


**Figure 55. AWPf Product Water Monitoring – Daily Maximum UV Transmittance (%)**



**Table 56. AWPf Product Water Monitoring – Daily Average pH**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	8.20	8.66	8.58	8.60	8.80	8.84	8.81	8.75	8.48	8.31	8.65	9.13
2	7.97	8.71	8.50	8.72	8.83	8.78	8.71	8.59	8.44	8.28	8.64	8.68
3	8.24	8.61	8.47	8.68	8.75	8.82	8.78	8.50	8.41	8.40	8.51	8.38
4	7.90	8.48	8.46	8.63	8.58	8.80	8.71	8.70	8.43	8.45	8.60	8.54
5	7.92	8.64	8.65	8.65	8.88	8.66	8.85	8.74	8.55	8.37	8.38	8.46
6	8.11	8.66	8.73	8.64	8.76	8.79	8.87	8.64	8.55	8.54	8.29	8.51
7	8.22	8.59	8.31	8.64	8.63	8.86	8.86	8.75	8.53	8.39	8.46	8.62
8	7.78	8.57	8.41	8.64	8.55	8.61	8.77	8.66	8.66	8.48	8.42	8.39
9	8.03	8.32	8.51	8.71	8.54	8.54	8.87	8.75	8.42	8.31	8.39	8.52
10	7.91	8.60	8.56	8.84	8.69	8.84	8.84	8.59	8.76	8.45	8.42	8.48
11	8.22	8.32	8.84	8.64	8.59	8.89	8.88	8.53	8.36	8.33	8.57	8.19
12	8.12	8.54	8.65	8.76	8.76	8.90	8.86	8.51	8.56	8.45	8.44	8.39
13	8.20	8.47	8.58	8.82	8.82	8.78	8.77	8.57	8.65	8.29	8.51	8.33
14	8.38	8.52	8.56	8.79	8.75	8.90	8.86	8.47	8.47	8.56	8.43	8.53
15	8.28	8.54	8.76	8.72	8.51	8.83	8.84	8.61	8.46	8.36	8.54	7.96
16	7.99	8.62	8.91	8.67	8.51	8.83	8.79	8.46	8.47	8.49	8.58	8.12
17	8.10	8.57	8.89	8.58	8.73	8.82	8.74	8.34	8.50	8.41	8.35	8.25
18	8.18	8.49	8.92	8.56	8.77	8.85	8.73	8.41	8.34	8.31	8.52	8.23
19	7.84	8.68	8.74	8.66	8.56	8.90	8.67	8.35	8.38	8.44	8.52	8.29
20	8.13	8.62	8.62	8.81	8.57	8.69	8.56	8.45	8.57	8.50	8.52	8.40
21	8.17	8.50	8.60	8.81	8.63	8.79	8.71	8.39	8.36	8.58	8.47	8.47
22	8.12	8.59	8.56	8.81	8.80	8.86	8.74	8.55	8.44	8.63	8.42	8.49
23	8.47	8.63	8.73	8.82	8.85	9.09	8.73	8.64	8.35	8.67	8.52	8.44
24	8.45	8.41	8.56	8.83	8.83	9.02	8.73	8.54	8.55	8.52	8.40	8.44
25	8.30	8.27	8.69	8.65	8.69	8.93	8.75	8.41	8.40	8.56	8.48	8.30
26	8.49	8.49	8.78	8.63	8.63	8.77	8.60	8.28	8.33	8.35	8.35	8.20
27	7.70	8.37	8.56	8.79	8.75	8.86	8.65	8.49	8.30	8.47	8.30	8.06
28	8.38	8.26	8.54	8.81	8.87	8.78	8.68	8.49	8.57	8.52	8.45	8.33
29	8.27		8.55	8.76	8.85	9.03	8.73	8.47	8.36	8.59	8.31	8.31
30	8.47		8.48	8.71	8.85	8.87	8.75	8.47	8.58	8.63	8.73	8.47
31	8.57		8.66		8.78		8.77	8.36		8.62		8.55



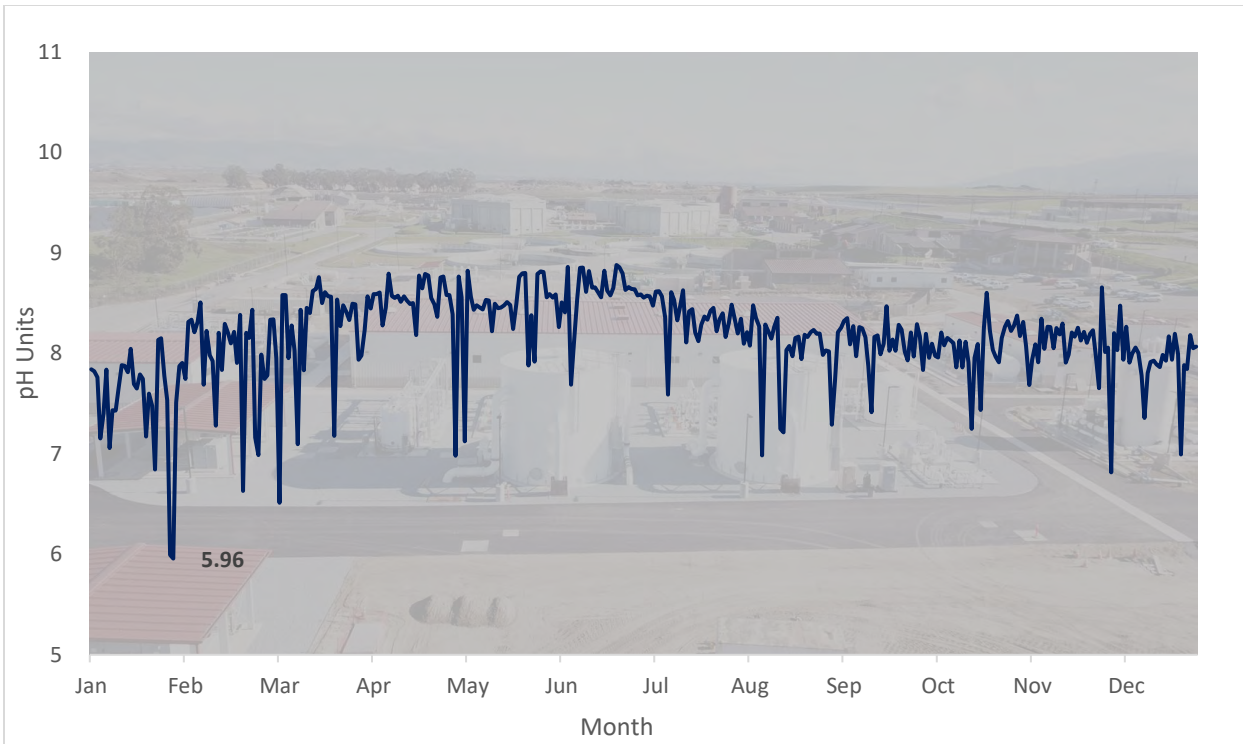
**Figure 56. AWP Product Water Monitoring – Daily Average pH**



**Table 57. AWPf Product Water Monitoring – Daily Minimum pH**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	7.84	7.75	8.34	8.23	8.77	8.59	8.59	8.34	8.02	8.17	8.27	8.01
2	7.82	8.31	8.34	8.57	8.56	8.56	8.55	8.20	7.29	7.84	8.38	8.06
3	7.76	8.34	7.95	8.45	7.12	8.59	8.57	8.34	7.73	8.20	8.17	6.81
4	7.15	8.21	6.51	8.59	8.82	8.26	8.57	8.10	8.21	7.96	8.31	8.20
5	7.40	8.31	8.58	8.59	8.56	8.51	8.48	8.21	8.26	8.10	8.07	8.03
6	7.84	8.51	8.58	8.61	8.43	8.41	8.62	8.08	8.32	7.97	7.69	8.47
7	7.06	7.69	7.95	8.28	8.48	8.86	8.62	8.48	8.35	7.96	7.94	7.94
8	7.43	8.23	8.28	8.45	8.46	7.69	8.57	8.35	8.09	8.21	8.09	8.27
9	7.43	7.98	8.03	8.79	8.44	8.10	8.36	8.27	8.27	8.08	7.91	7.91
10	7.65	7.92	7.10	8.57	8.53	8.53	7.59	6.98	7.97	8.15	8.34	8.00
11	7.88	7.28	8.44	8.55	8.53	8.85	8.61	8.29	8.26	8.13	8.05	8.06
12	7.88	8.20	7.83	8.57	8.22	8.85	8.53	8.22	8.25	8.10	8.26	8.00
13	7.81	7.84	8.45	8.51	8.49	8.61	8.33	8.15	8.16	7.86	8.26	7.78
14	8.04	8.30	8.40	8.57	8.45	8.82	8.47	8.26	7.87	8.13	8.05	7.36
15	7.69	8.21	8.62	8.53	8.46	8.66	8.63	8.36	7.41	7.86	8.25	7.80
16	7.65	8.10	8.64	8.49	8.48	8.66	8.11	7.25	8.16	8.12	8.19	7.92
17	7.79	8.21	8.76	8.50	8.51	8.61	8.42	7.21	8.18	7.91	8.30	7.93
18	7.75	7.90	8.50	8.18	8.48	8.56	8.44	8.03	7.99	7.25	7.91	7.89
19	7.17	8.38	8.61	8.78	8.24	8.82	8.21	8.08	8.10	7.96	7.99	7.87
20	7.60	6.63	8.57	8.65	8.49	8.62	8.12	7.97	8.47	8.09	8.21	7.98
21	7.48	8.21	8.56	8.79	8.76	8.58	8.28	8.16	8.03	7.44	8.17	7.93
22	6.85	8.15	7.18	8.78	8.80	8.65	8.37	8.17	8.14	8.25	8.26	8.17
23	8.13	8.43	8.54	8.55	8.80	8.88	8.34	7.94	8.03	8.60	8.13	7.94
24	8.15	7.16	8.27	8.49	7.88	8.86	8.43	8.19	8.28	8.22	8.21	8.19
25	7.78	6.99	8.48	8.36	8.38	8.80	8.45	8.16	8.24	8.04	8.11	7.99
26	7.54	7.99	8.41	8.76	7.92	8.63	8.22	8.21	8.02	7.97	8.19	6.99
27	6.00	7.75	8.33	8.77	8.79	8.66	8.34	8.24	7.93	7.91	8.23	7.88
28	5.96	7.78	8.49	8.58	8.82	8.64	8.40	8.20	8.21	8.15	7.98	7.85
29	7.51		8.49	8.58	8.81	8.64	8.16	8.20	7.97	8.27	7.65	8.18
30	7.87		7.94	8.39	8.56	8.58	8.30	7.98	8.29	8.32	8.66	8.05
31	7.90		7.98		8.59		8.49	8.03		8.22		8.07



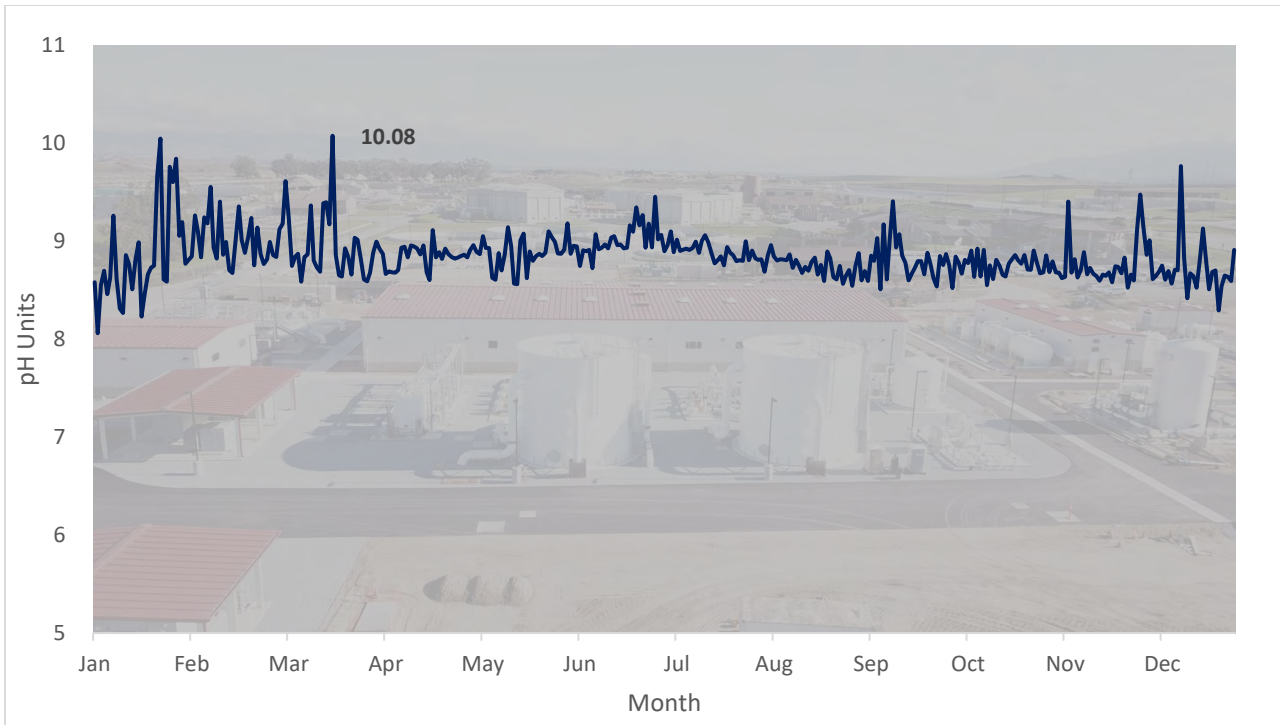


**Figure 57. AWP Product Water Monitoring – Daily Minimum pH**



**Table 58. AWPf Product Water Monitoring – Daily Maximum pH**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	8.58	8.85	9.13	9.00	8.91	9.19	9.07	8.81	8.75	8.76	8.86	9.48
2	8.06	9.27	9.18	8.92	8.96	8.87	8.90	8.82	8.88	8.53	8.69	9.14
3	8.55	9.10	9.62	8.87	8.90	8.96	8.96	8.69	8.60	8.85	8.80	8.86
4	8.70	8.84	9.24	8.67	8.87	8.95	9.10	8.86	8.70	8.78	8.68	9.01
5	8.46	9.25	8.75	8.70	9.05	8.75	8.89	8.96	8.60	8.67	8.68	8.62
6	8.63	9.18	8.84	8.68	8.93	8.91	9.02	8.85	8.85	8.81	8.63	8.65
7	9.26	9.56	8.87	8.68	8.93	8.90	8.90	8.81	8.80	8.78	8.64	8.69
8	8.62	8.94	8.59	8.71	8.63	8.91	8.92	8.82	9.03	8.91	9.41	8.75
9	8.31	8.83	8.84	8.93	8.61	8.73	8.93	8.82	8.51	8.64	8.68	8.61
10	8.27	9.41	8.87	8.95	8.88	9.07	8.91	8.81	9.17	8.93	8.82	8.70
11	8.86	8.87	9.37	8.84	8.70	8.92	8.93	8.87	8.61	8.64	8.63	8.57
12	8.77	8.99	8.81	8.96	8.87	8.94	9.00	8.73	9.02	8.91	8.71	8.71
13	8.51	8.71	8.73	8.95	9.14	8.97	8.88	8.81	9.41	8.56	8.89	8.71
14	8.82	8.68	8.69	8.93	8.95	8.93	9.01	8.75	8.94	8.76	8.66	9.77
15	8.99	9.01	9.39	8.87	8.57	9.04	9.06	8.68	9.07	8.62	8.73	8.83
16	8.23	9.36	9.40	8.96	8.56	9.05	8.99	8.74	8.85	8.81	8.67	8.42
17	8.47	9.01	9.17	8.68	9.01	8.96	8.88	8.70	8.78	8.75	8.65	8.68
18	8.66	8.88	10.08	8.61	9.08	8.97	8.78	8.79	8.60	8.66	8.60	8.65
19	8.73	9.04	8.86	9.11	8.62	8.93	8.81	8.83	8.67	8.64	8.66	8.53
20	8.75	9.24	8.66	8.84	8.90	8.94	8.85	8.66	8.74	8.77	8.65	8.81
21	9.67	8.76	8.64	8.89	8.80	9.17	8.76	8.76	8.80	8.82	8.69	9.13
22	10.05	9.14	8.93	8.82	8.85	9.10	8.94	8.60	8.80	8.86	8.58	8.83
23	8.61	8.87	8.84	8.93	8.87	9.35	8.89	8.90	8.67	8.81	8.75	8.51
24	8.59	8.77	8.66	8.87	8.85	9.17	8.86	8.83	8.88	8.77	8.74	8.69
25	9.76	8.82	9.04	8.84	8.88	9.27	8.80	8.64	8.76	8.86	8.68	8.70
26	9.61	8.99	9.02	8.83	9.10	8.94	8.81	8.61	8.62	8.71	8.84	8.29
27	9.84	8.86	8.82	8.83	9.04	9.18	8.80	8.75	8.54	8.71	8.53	8.54
28	9.06	8.84	8.61	8.85	8.99	8.94	9.00	8.57	8.85	8.91	8.66	8.65
29	9.20		8.59	8.86	8.88	9.46	8.81	8.65	8.76	8.78	8.60	8.64
30	8.77		8.68	8.84	8.87	9.02	8.91	8.71	8.87	8.68	9.12	8.60
31	8.81		8.89		8.92		8.83	8.55		8.68		8.91



**Figure 58. AWPf Product Water Monitoring – Daily Maximum pH**

**Table 59. AWPf Product Water Monitoring –Monthly Arsenic (µg/L)**

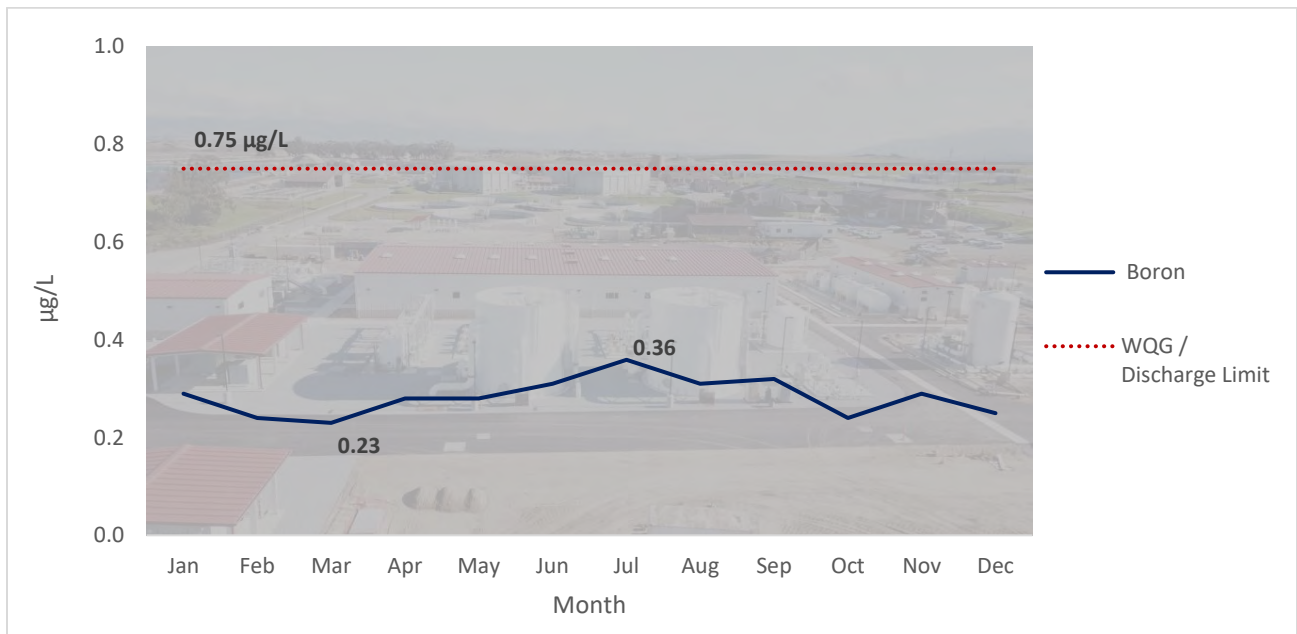
Month	Arsenic µg/L
January	ND 1.00
February	ND 1.00
March	ND 1.00
April	ND 1.00
May	ND 1.00
June	ND 1.00
July	ND 1.00
August	ND 1.00
September	ND 1.00
October	ND 1.00
November	ND 1.00
December	ND 1.00

**Figure 59. AWPf Product Water Monitoring –Monthly Arsenic (µg/L) – N/A**

*All monitoring results were ND.*

**Table 60. AWPf Product Water Monitoring – Monthly Boron ( $\mu\text{g/L}$ )**

Month	Boron $\mu\text{g/L}$
January	0.29
February	0.24
March	0.23
April	0.28
May	0.28
June	0.31
July	0.36
August	0.31
September	0.32
October	0.24
November	0.29
December	0.25

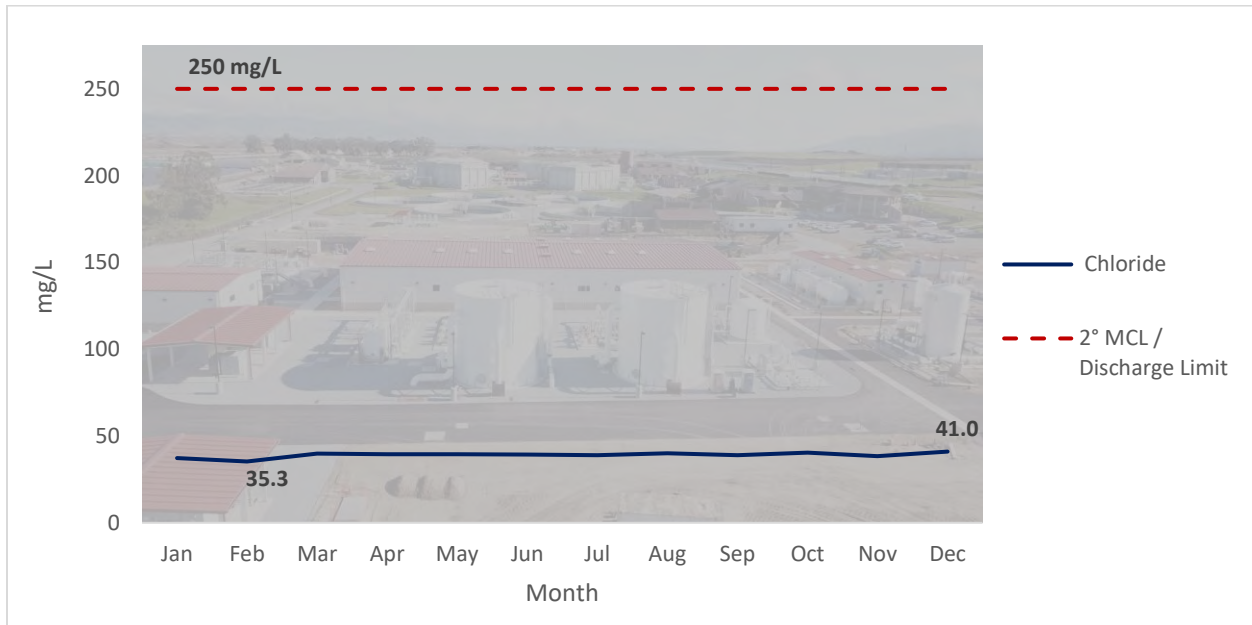


**Figure 60. AWPf Product Water Monitoring – Monthly Boron ( $\mu\text{g/L}$ )<sup>16</sup>**

<sup>16</sup> “Discharge Limit” refers to established limits per the WDR/WRR.

**Table 61. AWPf Product Water Monitoring – Monthly Chloride (mg/L)**

Month	Chloride mg/L
January	37.4
February	35.5
March	39.6
April	39.5
May	39.4
June	39.2
July	39.0
August	40.0
September	39.0
October	40.3
November	38.3
December	41.0



**Figure 61. AWPf Product Water Monitoring – Monthly Chloride (mg/L)<sup>17</sup>**

<sup>17</sup> “Discharge Limit” refers to established limits per the WDR/WRR.

**Table 62. AWPf Product Water Monitoring – Monthly Chromium – Total (µg/L)**

Month	Chromium µg/L
January	ND 1.00
February	ND 1.00
March	ND 1.00
April	ND 1.00
May	ND 1.00
June	ND 1.00
July	ND 1.00
August	ND 1.00
September	ND 1.00
October	ND 1.00
November	ND 1.00
December	ND 1.00

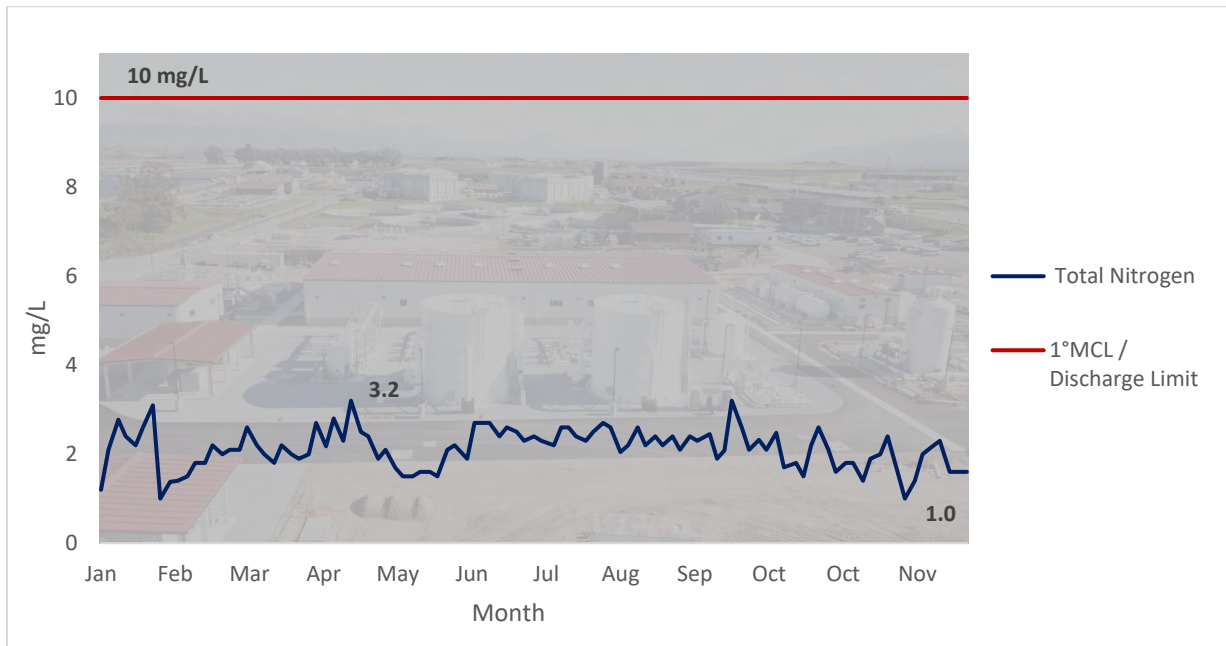
**Figure 62. AWPf Product Water Monitoring – Monthly Chromium – Total (µg/L) – N/A**

*All monitoring results were ND.*

**Table 63. AWPf Product Water Monitoring – Bi-Weekly Total Nitrogen<sup>1</sup>**

Week	Total Nitrogen mg/L		Week	Total Nitrogen mg/L		Week	Total Nitrogen mg/L	
1	-	-	19	1.7	1.5	37	2.5	1.9
2	1.2	2.1	20	1.5	1.6	38	2.1	3.2
3	2.8	2.4	21	1.6	1.5	39	2.6	2.1
4	2.2	2.6	22	2.1	2.2	40	2.3	2.1
5	3.1	1.0	23	1.9	2.7	41	2.5	1.7
6	1.4	1.4	24	2.7	2.7	42	1.8	1.5
7	1.5	1.8	25	2.4	2.6	43	2.2	2.6
8	1.8	2.2	26	2.5	2.3	44	2.1	1.6
9	2.0	2.1	27	2.4	2.3	45	1.8	1.8
10	2.1	2.6	28	2.2	2.6	46	1.4	1.9
11	2.2	2.0	29	2.6	2.4	47	2.0	2.4
12	1.8	2.2	30	2.3	2.5	48	1.6	1.0
13	2.0	1.9	31	2.7	2.6	49	1.4	2.0
14	2.0	2.7	32	2.1	2.2	50	2.2	2.3
15	2.2	2.8	33	2.6	2.2	51	1.6	1.6
16	2.3	3.2	34	2.4	2.2	52	1.6	2.0
17	2.5	2.4	35	2.4	2.1	53	1.6	1.3
18	1.9	2.1	36	2.4	2.3			

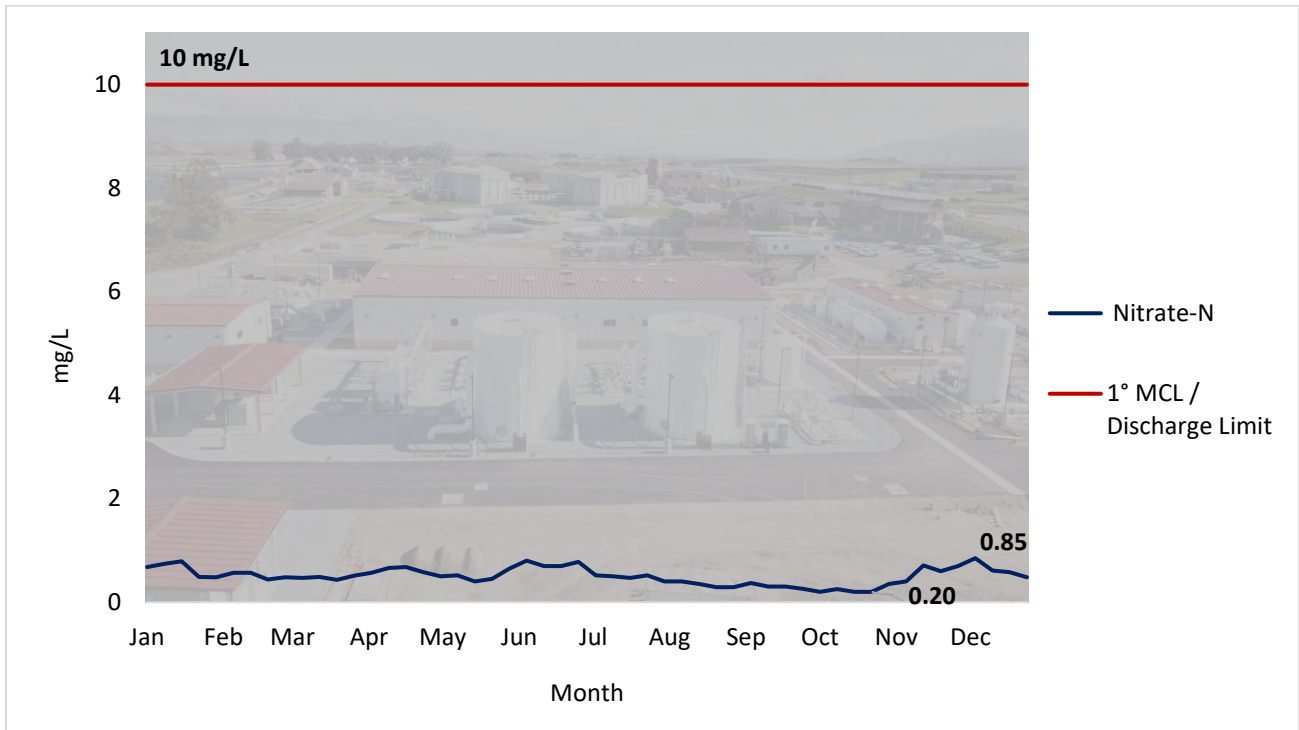
<sup>1</sup>Total Nitrogen includes nitrate-N, nitrite-N, ammonia-N and organic-N


**Figure 63. AWPf Product Water Monitoring – Bi-Weekly Total Nitrogen<sup>18</sup>**

<sup>18</sup> “Discharge Limit” refers to established limits per the WDR/WRR.

**Table 64. AWPf Product Water Monitoring – Weekly Nitrate-N (mg/L)**

Week	Nitrate-N mg/L	Week	Nitrate-N mg/L	Week	Nitrate-N mg/L
1	-	18	0.58	36	0.29
2	0.68	19	0.50	37	0.37
3	0.74	20	0.52	38	0.30
4	0.79	21	0.40	39	0.30
5	0.49	22	0.45	40	0.26
6	0.48	23	0.65	41	0.20
7	0.57	24	0.80	42	0.25
8	0.57	25	0.70	43	0.20
9	0.44	26	0.70	44	0.20
10	0.48	27	0.78	45	0.35
11	0.47	28	0.52	46	0.40
12	0.49	29	0.50	47	0.71
13	0.43	30	0.47	48	0.60
14	0.51	31	0.52	49	0.70
15	0.57	32	0.40	50	0.85
16	0.66	33	0.40	51	0.61
17	0.68	34	0.35	52	0.58
		35	0.29	53	0.48



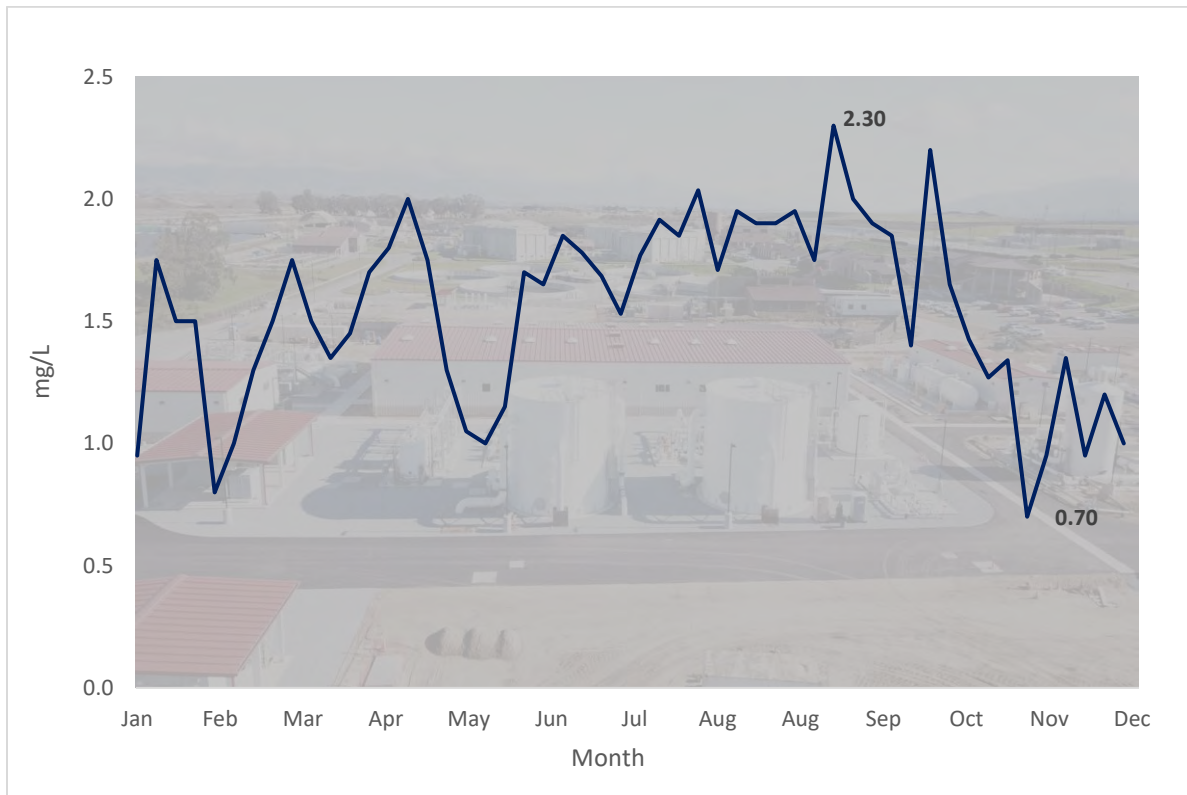
**Figure 64. AWPf Product Water Monitoring – Weekly Nitrate-N (mg/L)<sup>19</sup>**

<sup>19</sup> “Discharge Limit” refers to established limits per the WDR/WRR.



**Table 65. AWPf Product Water Monitoring – Weekly Total Kjeldahl Nitrogen-N (mg/L)**

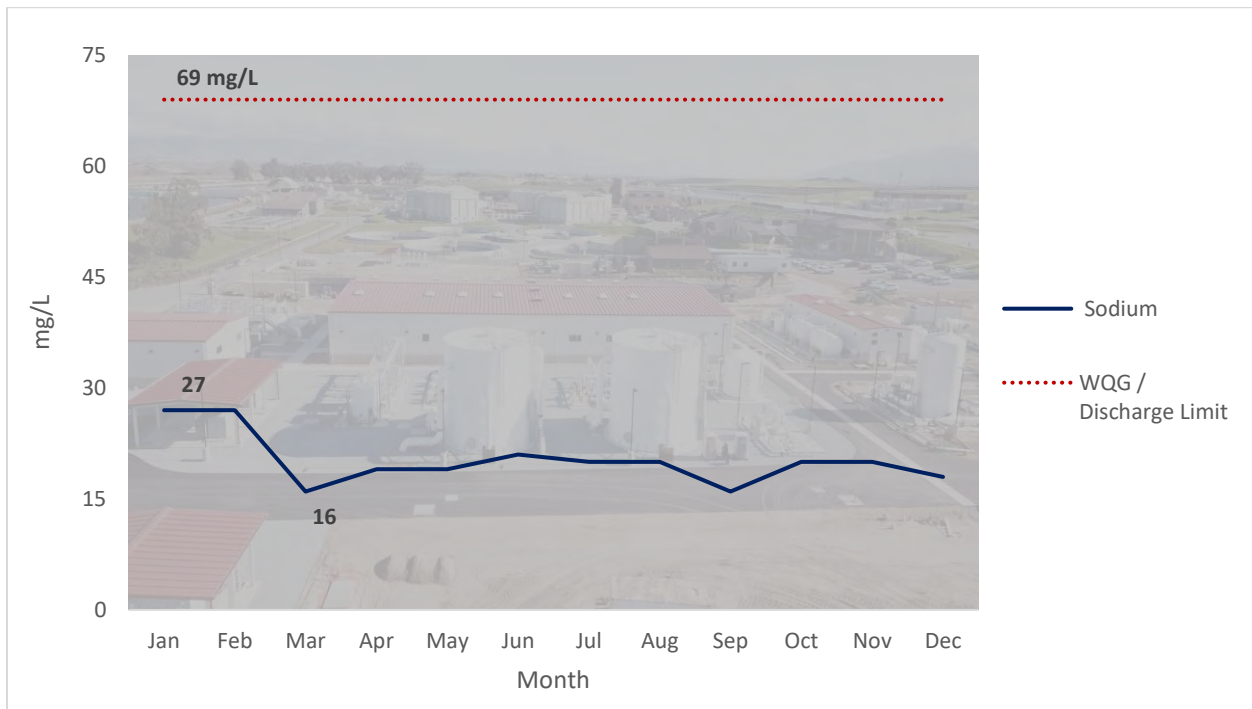
Week	TKN mg/L	Week	TKN mg/L	Week	TKN mg/L
1	-	18	1.3	36	2.0
2	1.0	19	1.1	37	1.8
3	1.8	20	1.0	38	2.3
4	1.5	21	1.2	39	2.0
5	1.5	22	1.7	40	1.9
6	0.8	23	1.7	41	1.9
7	1.0	24	1.9	42	1.4
8	1.3	25	1.8	43	2.2
9	1.5	26	1.7	44	1.7
10	1.8	27	1.5	45	1.4
11	1.5	28	1.8	46	1.3
12	1.4	29	1.9	47	1.3
13	1.5	30	1.9	48	0.7
14	1.7	31	2.0	49	1.0
15	1.8	32	1.7	50	1.4
16	2.0	33	2.0	51	1.0
17	1.8	34	1.9	52	1.2
		35	1.9	53	1.0



**Figure 65. AWPf Product Water Monitoring – Weekly Total Kjeldahl Nitrogen-N (mg/L)**

**Table 66. AWPf Product Water Monitoring – Monthly Sodium (mg/L)**

Month	Sodium mg/L
January	27
February	27
March	16
April	19
May	19
June	21
July	20
August	20
September	16
October	20
November	20
December	18

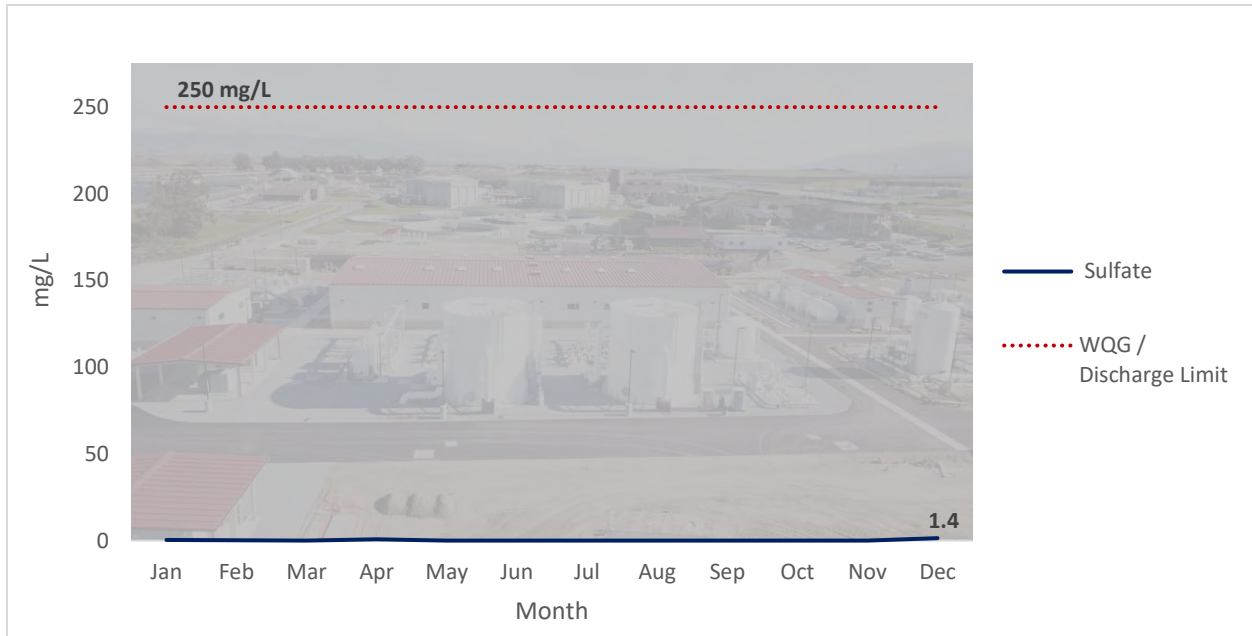


**Figure 66. AWPf Product Water Monitoring – Monthly Sodium (mg/L)<sup>20</sup>**

<sup>20</sup> “Discharge Limit” refers to established limits per the WDR/WRR.

**Table 67. AWPf Product Water Monitoring – Monthly Sulfate (mg/L)**

Month	Sulfate mg/L
January	0.37
February	0.16
March	ND 0.15
April	1.38
May	DNQ 0.10
June	DNQ 0.10
July	ND 0.50
August	ND 0.50
September	ND 0.50
October	DNQ 0.10
November	ND 0.10
December	1.4

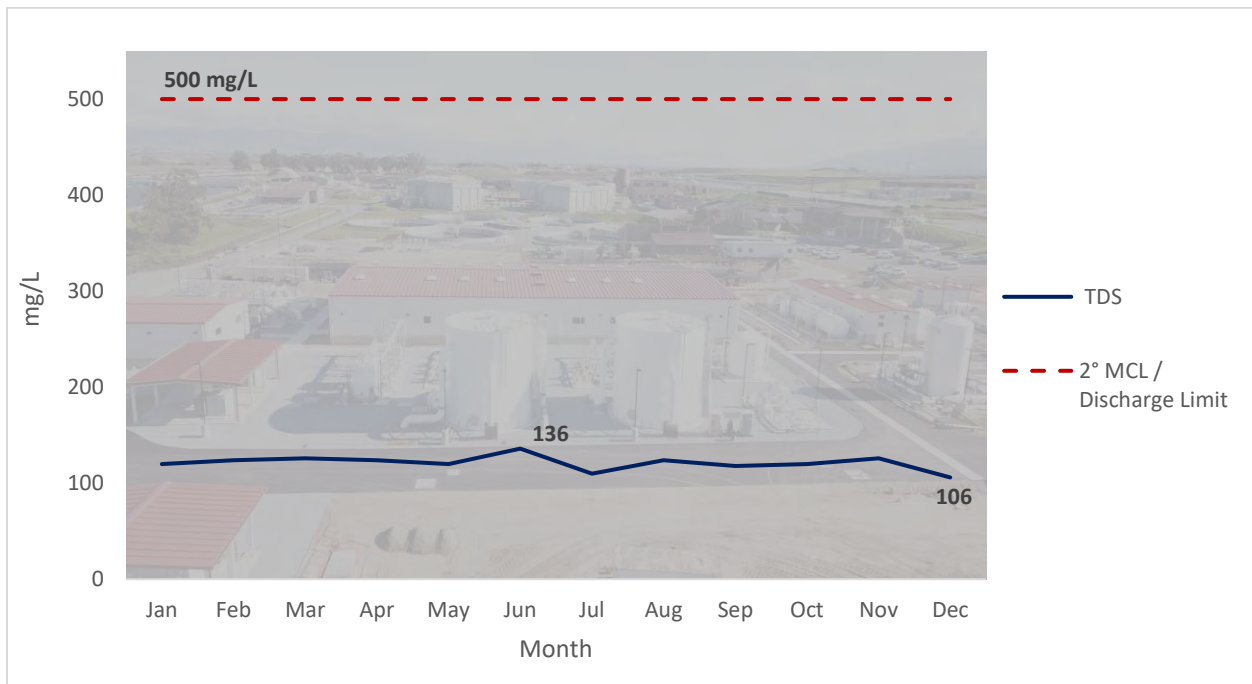


**Figure 67. AWPf Product Water Monitoring – Monthly Sulfate (mg/L) <sup>21</sup>**

<sup>21</sup> “Discharge Limit” refers to established limits per the WDR/WRR.

**Table 68. AWPf Product Water Monitoring – Monthly TDS (mg/L)**

Month	TDS mg/L
January	120
February	124
March	126
April	124
May	120
June	136
July	110
August	124
September	118
October	120
November	126
December	106



**Figure 68. AWPf Product Water Monitoring – Monthly TDS (mg/L)<sup>22</sup>**

<sup>22</sup> “Discharge Limit” refers to established limits per the WDR/WRR.

**Table 69. AWPf Product Water Monitoring – Daily Total Coliform (MPN/100mL)**

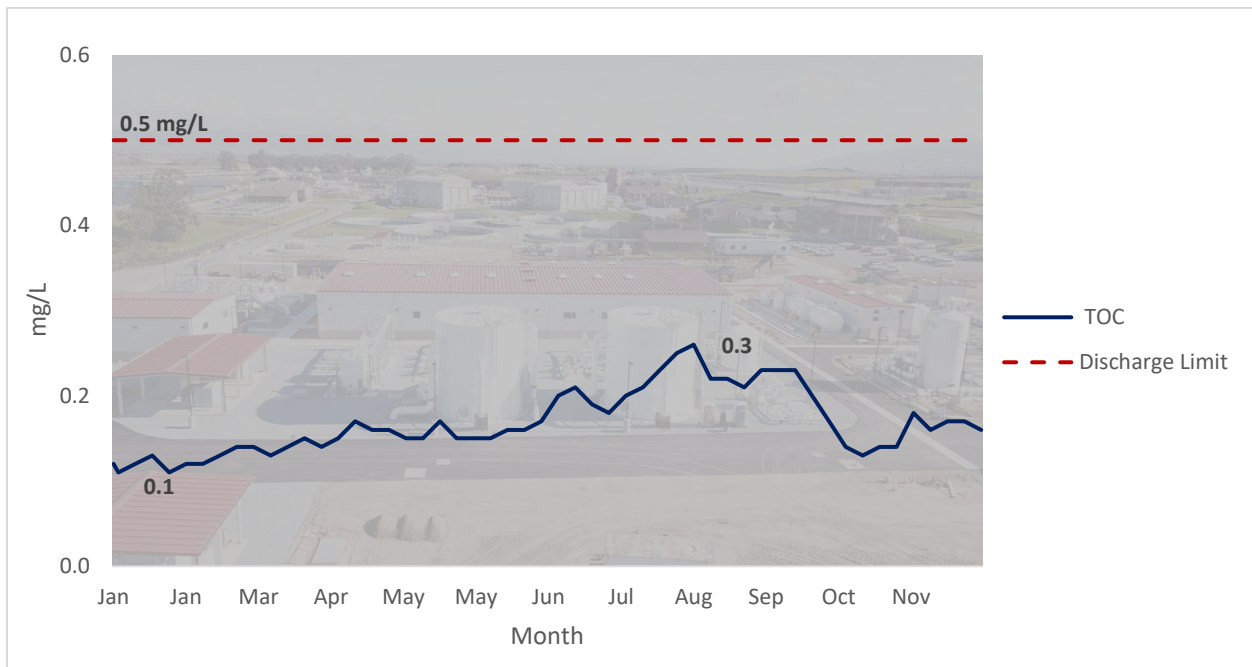
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
6	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
7	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
8	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
11	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
12	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
13	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
14	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
15	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
16	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
17	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
18	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
19	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
20	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
21	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
22	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
23	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
24	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
26	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
27	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
28	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
29	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
30	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
31	<1		<1		<1		<1	<1		<1		<1

**Figure 69. AWPf Product Water Monitoring – Daily Total Coliform (MPN/100mL) – N/A**

*All monitoring results were ND.*

**Table 70. AWPf Product Water Monitoring – Weekly TOC (mg/L)**

Week	TOC mg/L	Week	TOC mg/L	Week	TOC mg/L
1	0.1	18	0.2	36	0.3
2	0.1	19	0.2	37	0.2
3	0.1	20	0.2	38	0.2
4	0.1	21	0.2	39	0.2
5	0.1	22	0.2	40*	0.2
6	0.1	23	0.2	41	0.2
7	0.1	24	0.2	42	0.2
8	0.1	25	0.2	43	0.2
9	0.1	26	0.2	44	0.2
10	0.1	27	0.2	45	0.1
11	0.1	28	0.2	46	0.1
12	0.1	29	0.2	47	0.1
13	0.2	30	0.2	48	0.1
14	0.1	31	0.2	49	0.2
15	0.2	32	0.2	50	0.2
16	0.2	33	0.2	51	0.2
17	0.2	34	0.2	52	0.2
		35	0.3	53	0.2

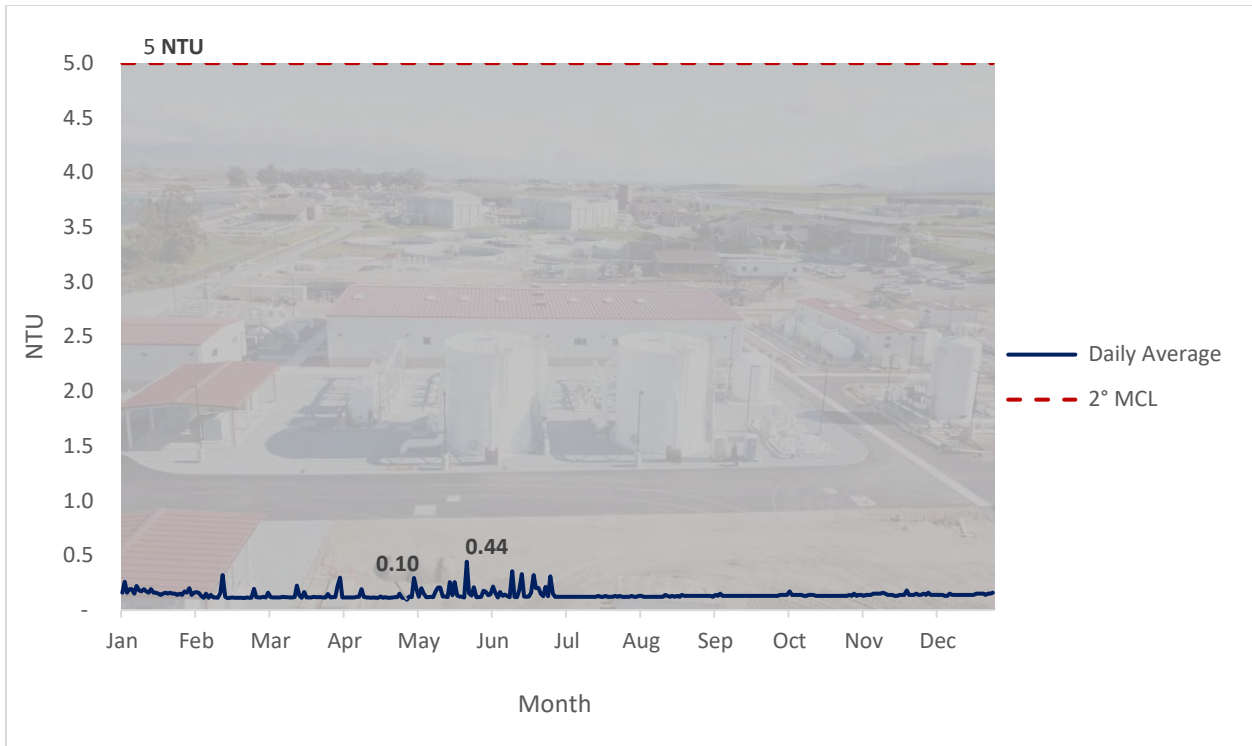


**Figure 70. AWPf Product Water Monitoring – Weekly TOC (mg/L)<sup>23</sup>**

<sup>23</sup> “Discharge Limit” refers to established limits per the WDR/WRR.

**Table 71. AWPf Product Water Monitoring – Daily Average Turbidity (NTU)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.16	0.16	0.12	0.22	0.12	0.18	0.12	0.12	0.13	0.13	0.14	0.14
2	0.26	0.16	0.12	0.30	0.12	0.17	0.12	0.13	0.13	0.13	0.13	0.15
3	0.16	0.13	0.16	0.12	0.29	0.14	0.12	0.12	0.13	0.14	0.15	0.14
4	0.19	0.11	0.12	0.11	0.19	0.14	0.12	0.12	0.13	0.14	0.13	0.16
5	0.19	0.15	0.12	0.11	0.12	0.21	0.12	0.13	0.12	0.14	0.14	0.14
6	0.15	0.11	0.11	0.12	0.20	0.16	0.12	0.13	0.14	0.14	0.14	0.14
7	0.22	0.14	0.12	0.12	0.15	0.12	0.12	0.12	0.13	0.17	0.13	0.14
8	0.18	0.12	0.11	0.12	0.12	0.16	0.12	0.12	0.15	0.14	0.14	0.14
9	0.17	0.12	0.12	0.12	0.12	0.13	0.12	0.12	0.13	0.14	0.14	0.14
10	0.19	0.11	0.12	0.12	0.12	0.14	0.12	0.12	0.13	0.14	0.14	0.14
11	0.17	0.16	0.12	0.19	0.12	0.13	0.12	0.12	0.13	0.14	0.15	0.13
12	0.16	0.32	0.12	0.12	0.17	0.12	0.12	0.12	0.13	0.14	0.15	0.13
13	0.19	0.12	0.12	0.11	0.21	0.36	0.12	0.12	0.13	0.13	0.15	0.15
14	0.16	0.11	0.12	0.11	0.21	0.12	0.12	0.12	0.13	0.13	0.15	0.14
15	0.16	0.11	0.22	0.11	0.12	0.12	0.12	0.12	0.13	0.14	0.16	0.14
16	0.15	0.12	0.13	0.11	0.12	0.18	0.12	0.14	0.13	0.14	0.15	0.14
17	0.14	0.11	0.11	0.11	0.12	0.33	0.12	0.13	0.13	0.14	0.14	0.14
18	0.15	0.11	0.17	0.11	0.26	0.12	0.12	0.12	0.13	0.13	0.14	0.14
19	0.16	0.11	0.12	0.12	0.14	0.12	0.13	0.13	0.13	0.13	0.14	0.14
20	0.15	0.11	0.12	0.11	0.26	0.12	0.12	0.12	0.13	0.13	0.13	0.14
21	0.16	0.11	0.12	0.12	0.13	0.16	0.12	0.13	0.13	0.13	0.13	0.14
22	0.15	0.11	0.12	0.11	0.12	0.32	0.13	0.12	0.13	0.13	0.14	0.14
23	0.15	0.11	0.12	0.11	0.12	0.20	0.12	0.14	0.13	0.13	0.14	0.14
24	0.14	0.11	0.12	0.12	0.12	0.20	0.12	0.13	0.13	0.13	0.14	0.15
25	0.15	0.19	0.12	0.12	0.44	0.15	0.12	0.13	0.13	0.13	0.18	0.15
26	0.14	0.12	0.11	0.12	0.15	0.13	0.13	0.13	0.13	0.13	0.14	0.15
27	0.17	0.12	0.12	0.15	0.13	0.21	0.12	0.13	0.13	0.13	0.14	0.15
28	0.16	0.11	0.15	0.11	0.21	0.13	0.13	0.13	0.13	0.13	0.14	0.14
29	0.20		0.12	0.12	0.12	0.31	0.12	0.13	0.13	0.13	0.15	0.15
30	0.14		0.12	0.10	0.12	0.15	0.12	0.13	0.13	0.13	0.14	0.15
31	0.16		0.12		0.12		0.12	0.13		0.13		0.16



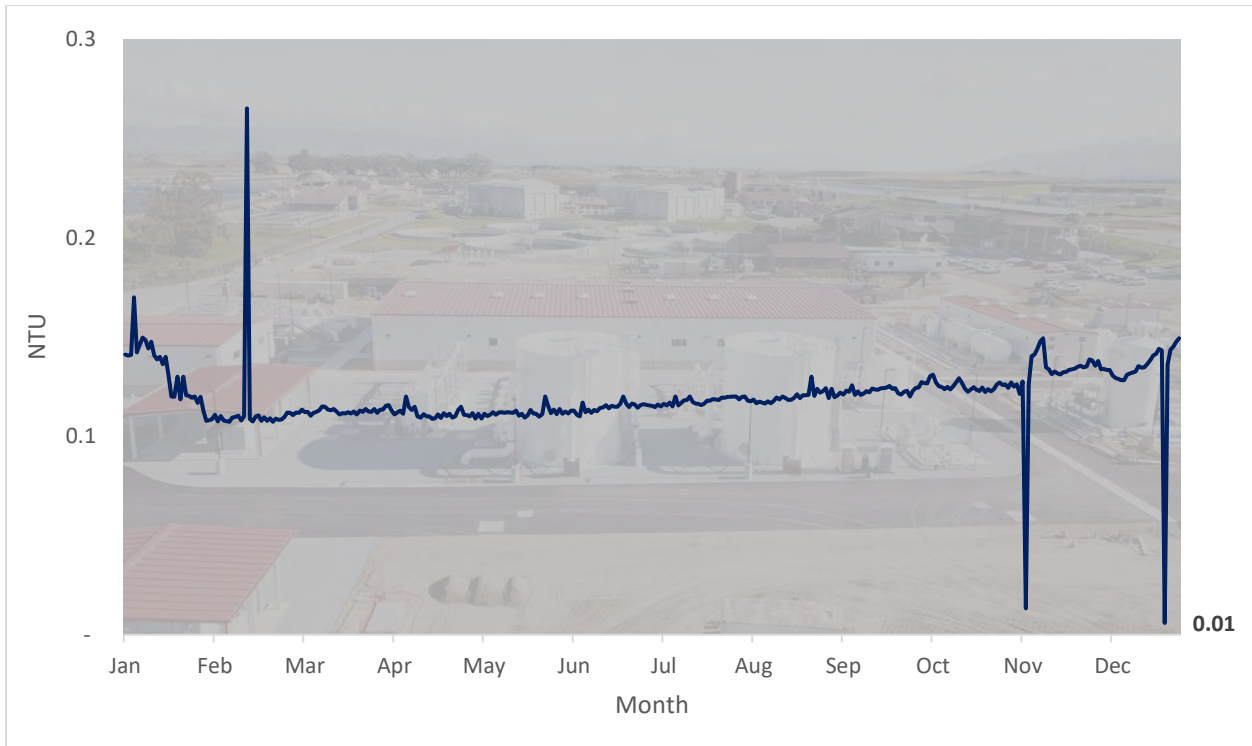
**Figure 71. AWPf Product Water Monitoring – Daily Average Turbidity (NTU)**





**Table 72. AWPf Product Water Monitoring – Daily Minimum Turbidity (NTU)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.14	0.11	0.11	0.12	0.11	0.11	0.12	0.12	0.12	0.12	0.13	0.14
2	0.14	0.11	0.11	0.12	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.14
3	0.14	0.11	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.13	0.13	0.14
4	0.17	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.13	0.13	0.13
5	0.14	0.11	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.13	0.13	0.13
6	0.15	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.13	0.12	0.13
7	0.15	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.13	0.13	0.13
8	0.15	0.11	0.11	0.12	0.11	0.12	0.12	0.12	0.12	0.13	0.01	0.13
9	0.14	0.11	0.11	0.11	0.11	0.11	0.11	0.12	0.13	0.13	0.13	0.13
10	0.15	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.14	0.13
11	0.14	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.14	0.13
12	0.14	0.27	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.14	0.13
13	0.14	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.15	0.13
14	0.14	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.13	0.15	0.13
15	0.14	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.13	0.13	0.13
16	0.13	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.13	0.13	0.13
17	0.12	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.13	0.13	0.14
18	0.12	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.13	0.13
19	0.13	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.13	0.13
20	0.12	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.13	0.14
21	0.13	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.13	0.14
22	0.12	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.13	0.12	0.13	0.14
23	0.12	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.13	0.14
24	0.12	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.13	0.14
25	0.12	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.13	0.14
26	0.12	0.11	0.11	0.11	0.12	0.12	0.12	0.13	0.12	0.12	0.14	0.01
27	0.12	0.11	0.11	0.11	0.12	0.11	0.12	0.12	0.12	0.12	0.14	0.14
28	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.13	0.14
29	0.11		0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.13	0.14	0.15
30	0.11		0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.13	0.14	0.15
31	0.11		0.11		0.11		0.12	0.12		0.13		0.15

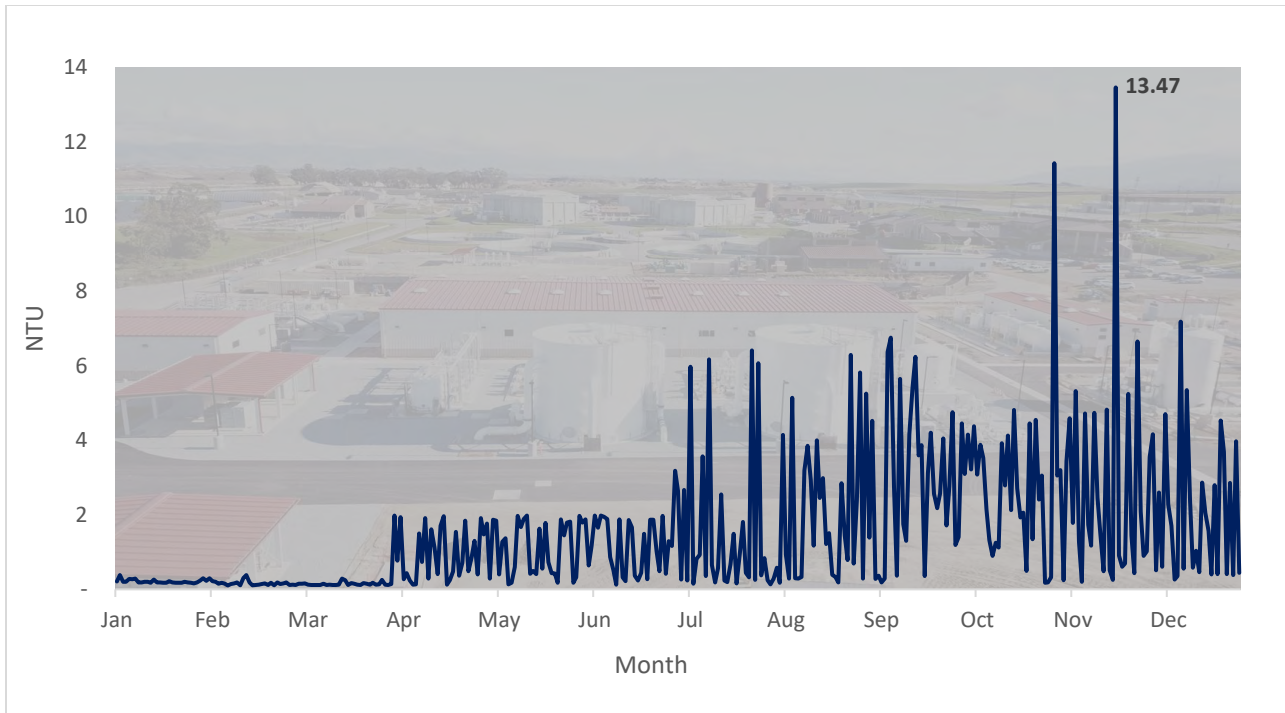


**Figure 72. AWP Product Water Monitoring – Daily Minimum Turbidity (NTU)**



**Table 73. AWPf Product Water Monitoring – Daily Maximum Turbidity (NTU)**

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.21	0.22	0.15	1.98	1.77	1.79	3.18	0.13	5.25	1.41	11.43	1.02
2	0.38	0.20	0.15	0.77	0.29	1.88	2.64	0.29	1.39	4.46	3.05	3.55
3	0.20	0.15	0.16	1.94	1.87	0.64	0.27	0.58	4.52	3.10	3.20	4.16
4	0.20	0.18	0.12	0.27	1.84	1.16	2.66	0.18	0.28	4.15	0.25	0.52
5	0.28	0.15	0.12	0.43	0.40	1.98	0.24	4.15	0.37	3.22	3.44	2.60
6	0.27	0.10	0.12	0.24	1.28	1.66	5.98	0.95	0.19	4.38	4.59	0.61
7	0.29	0.14	0.12	0.12	1.37	1.98	0.15	0.29	0.29	3.08	1.79	4.70
8	0.19	0.16	0.12	0.13	0.13	1.95	0.82	5.14	6.37	3.88	5.32	2.28
9	0.19	0.19	0.15	1.50	0.17	1.89	0.92	0.30	6.76	3.53	1.29	1.71
10	0.20	0.11	0.12	0.73	0.60	0.86	3.57	0.29	2.75	2.15	0.20	0.26
11	0.20	0.31	0.12	1.91	1.97	0.52	0.36	0.33	0.37	1.32	4.72	0.36
12	0.18	0.38	0.12	0.29	1.67	0.12	6.17	3.19	5.65	0.90	1.73	7.18
13	0.26	0.19	0.12	1.61	1.89	1.88	0.65	3.85	1.75	1.25	1.18	0.56
14	0.19	0.11	0.12	1.13	1.98	0.32	0.19	2.93	1.30	1.12	4.73	5.34
15	0.19	0.12	0.29	0.41	0.42	0.22	0.56	1.17	4.16	3.92	2.45	2.41
16	0.18	0.13	0.24	1.71	0.50	1.86	2.54	4.00	5.42	2.78	1.47	0.58
17	0.18	0.14	0.12	1.96	0.41	1.66	0.24	2.45	6.24	4.12	0.49	1.03
18	0.22	0.16	0.17	0.12	1.63	0.36	0.20	2.98	3.60	2.13	4.82	0.46
19	0.19	0.12	0.15	0.25	0.56	0.23	0.67	1.21	3.87	4.82	0.51	2.86
20	0.18	0.18	0.12	0.48	1.78	0.45	1.49	1.51	0.36	2.71	0.26	2.05
21	0.18	0.11	0.12	1.54	0.73	1.49	0.16	0.39	3.13	1.93	13.47	1.57
22	0.18	0.19	0.17	0.36	0.44	0.27	0.94	0.33	4.20	2.06	0.90	0.40
23	0.20	0.14	0.15	0.71	0.43	1.87	1.81	0.19	2.56	0.49	0.61	2.80
24	0.19	0.16	0.12	1.84	0.18	1.87	0.44	2.84	2.18	4.46	0.69	0.41
25	0.18	0.19	0.18	0.49	1.88	1.03	0.32	1.45	2.58	1.34	5.24	4.53
26	0.16	0.12	0.13	0.86	1.45	0.48	6.41	0.79	4.05	4.55	1.44	3.69
27	0.19	0.12	0.13	1.30	1.79	1.97	0.26	6.29	1.72	2.41	0.43	0.41
28	0.24	0.12	0.26	0.40	1.82	0.42	6.06	0.69	2.77	3.06	6.65	2.86
29	0.30		0.12	1.91	0.18	1.29	0.37	2.39	4.75	0.18	2.08	0.39
30	0.23		0.12	1.47	0.32	1.17	0.84	5.82	1.19	0.18	0.90	3.97
31	0.30		0.14		1.97		0.24	0.29		0.32		0.44



**Figure 73. AWP Product Water Monitoring – Daily Maximum Turbidity (NTU)**

**Table 74. AWP Product Water Monitoring – Monthly Lead (µg/L)**

Month	Lead µg/L
January	ND 1.00
February	ND 1.00
March	ND 1.00
April	ND 1.00
May	ND 1.00
June	ND 1.00
July	ND 1.00
August	ND 1.00
September	ND 1.00
October	ND 1.00
November	ND 1.00
December	ND 1.00

**Figure 74. AWP Product Water Monitoring – Monthly Lead (µg/L) – N/A**

*All monitoring results were ND.*

**Table 75. AWPf Product Water Monitoring – Monthly Copper (µg/L)**

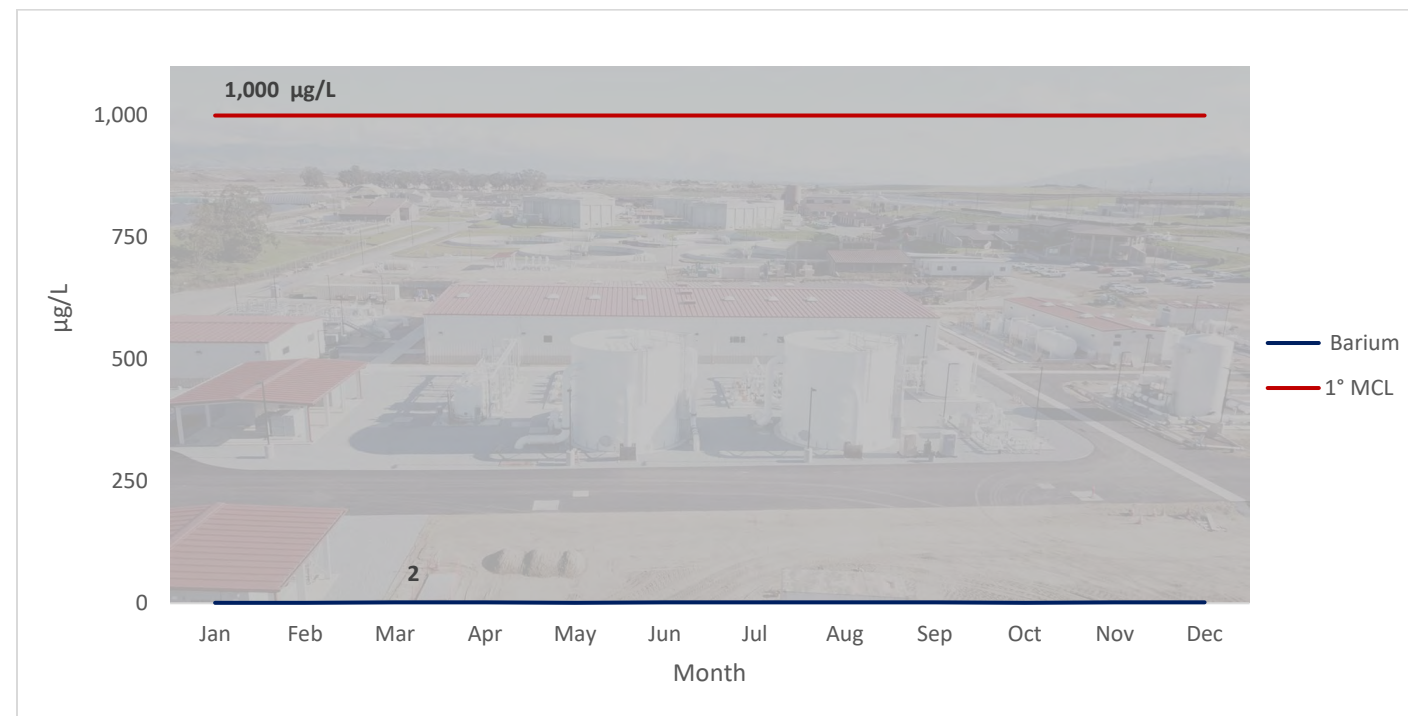
Month	Copper µg/L
January	ND 5.00
February	ND 5.00
March	ND 5.00
April	ND 5.00
May	ND 5.00
June	ND 5.00
July	ND 5.00
August	ND 5.00
September	ND 5.00
October	ND 5.00
November	ND 5.00
December	ND 5.00

**Figure 75. AWPf Product Water Monitoring – Monthly Copper (µg/L) – N/A**

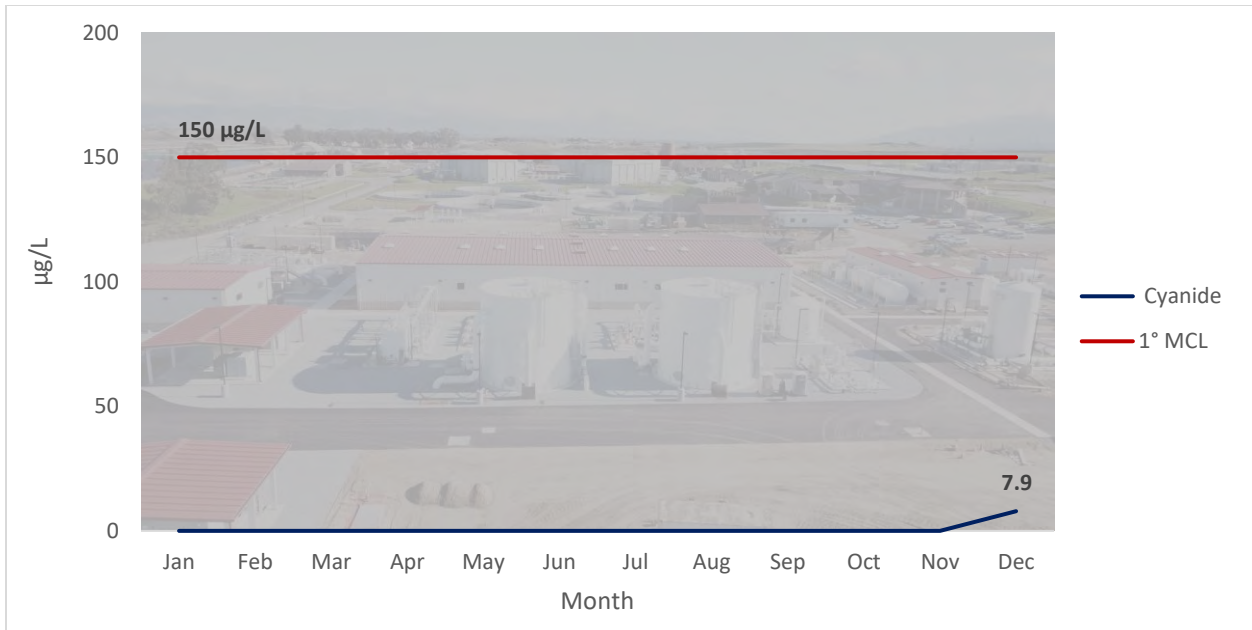
*All monitoring results were ND.*

**Table 76. AWPf Product Water Monitoring – Inorganics with Primary MCLs**

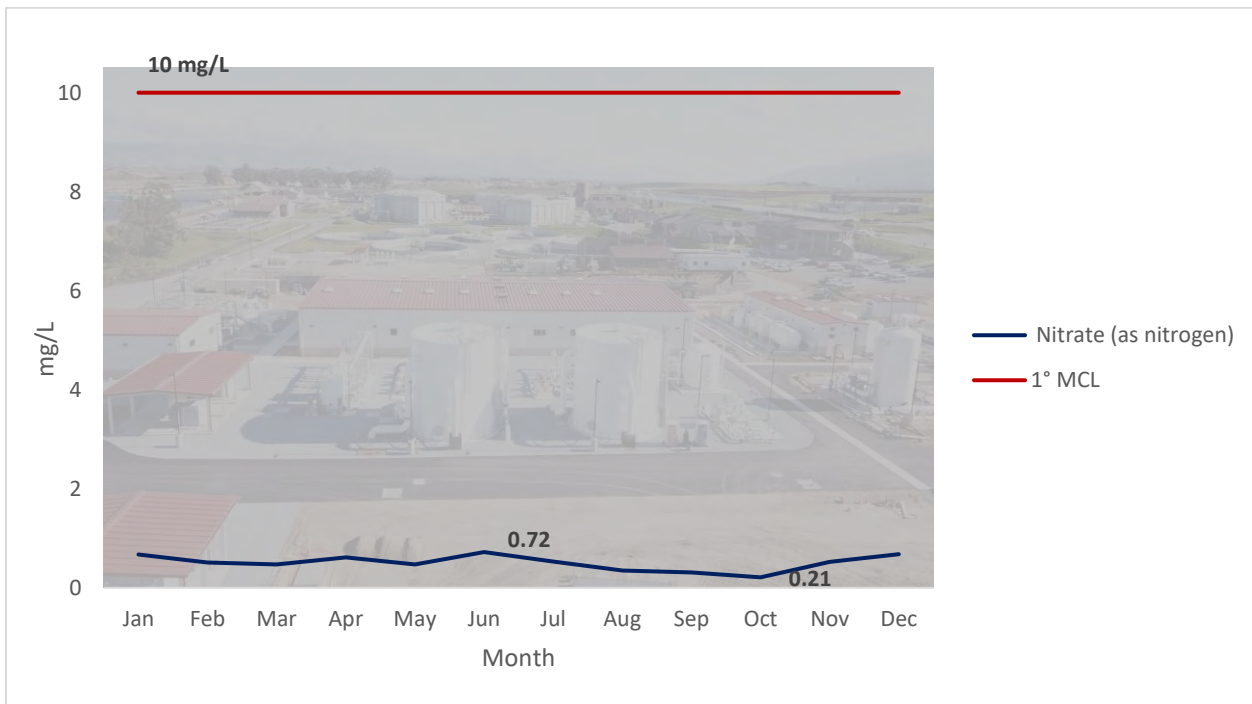
Month	Aluminum µg/L	Antimony µg/L	Arsenic µg/L	Asbestos MFL	Barium µg/L	Beryllium µg/L	Cadmium µg/L	Chromium (Total) µg/L	Cyanide µg/L	Fluoride mg/L	Mercury µg/L	Nickel µg/L	Nitrate (as Nitrogen) mg/L	Nitrite (as Nitrogen) mg/L	Nitrate + Nitrite mg/L	Perchlorate µg/L	Selenium µg/L	Thallium µg/L
January	ND 5.00	ND 1.00	ND 1.00	ND 0.20	1	ND 1.00	ND 1.00	ND 1.00	ND 2.20	ND 0.10	ND 1.00	ND 1.00	0.67	0.09	0.76	ND 4.00	ND 2.50	ND 1.00
February	ND 5.00	ND 1.00	ND 1.00	ND 0.20	1	ND 1.00	ND 1.00	ND 1.00	ND 2.20	ND 0.10	ND 1.00	ND 1.00	0.51	0.11	0.62	DNQ 1.50	ND 2.50	ND 1.00
March	ND 5.00	ND 1.00	ND 1.00	ND 0.20	2	ND 1.00	ND 1.00	ND 1.00	ND 2.20	ND 0.10	ND 1.00	ND 1.00	0.47	0.1	0.57	ND 1.00	ND 2.50	ND 1.00
April	ND 5.00	ND 1.00	ND 1.00	ND 0.20	2	ND 1.00	ND 1.00	ND 1.00	ND 2.20	ND 0.10	ND 1.00	ND 1.00	0.61	0.11	0.72	ND 1.00	ND 2.50	ND 1.00
May	ND 5.00	ND 1.00	ND 1.00	ND 0.20	1	ND 1.00	ND 1.00	ND 1.00	ND 2.20	ND 0.10	ND 1.00	ND 1.00	0.47	0.08	0.49	ND 1.00	ND 2.50	ND 1.00
June	ND 5.00	ND 1.00	ND 1.00	ND 0.20	2	ND 1.00	ND 1.00	ND 1.00	ND 2.20	ND 0.10	ND 1.00	ND 1.00	0.72	0.08	0.78	ND 1.00	ND 2.50	ND 1.00
July	ND 5.00	ND 1.00	ND 1.00	ND 0.20	2	ND 1.00	ND 1.00	ND 1.00	ND 2.20	ND 0.10	ND 1.00	ND 1.00	0.53	0.11	0.6	ND 1.00	ND 2.50	ND 1.00
August	ND 5.00	ND 1.00	ND 1.00	ND 0.20	2	ND 1.00	ND 1.00	ND 1.00	DNQ 4.20	ND 0.10	ND 1.00	ND 1.00	0.35	0.1	0.4	ND 1.00	ND 2.50	ND 1.00
September	ND 5.00	ND 1.00	ND 1.00	ND 0.20	2	ND 1.00	ND 1.00	ND 1.00	ND 2.20	ND 0.10	ND 1.00	ND 1.00	0.31	0.1	0.36	ND 1.00	ND 2.50	ND 1.00
October	ND 5.00	ND 1.00	ND 1.00	ND 0.20	1	ND 1.00	ND 1.00	ND 1.00	ND 2.20	ND 0.10	ND 1.00	ND 1.00	0.21	0.07	0.22	ND 0.50	ND 2.50	ND 1.00
November	ND 5.00	ND 1.00	ND 1.00	ND 0.20	2	ND 1.00	ND 1.00	ND 1.00	ND 2.20	ND 0.10	ND 1.00	ND 1.00	0.52	0.09	0.57	ND 1.00	ND 2.50	ND 1.00
December	ND 5.00	ND 1.00	ND 1.00	ND 0.20	2	ND 1.00	ND 1.00	ND 1.00	7.9	ND 0.10	ND 1.00	ND 1.00	0.68	0.11	0.67	ND 1.00	ND 2.50	ND 1.00



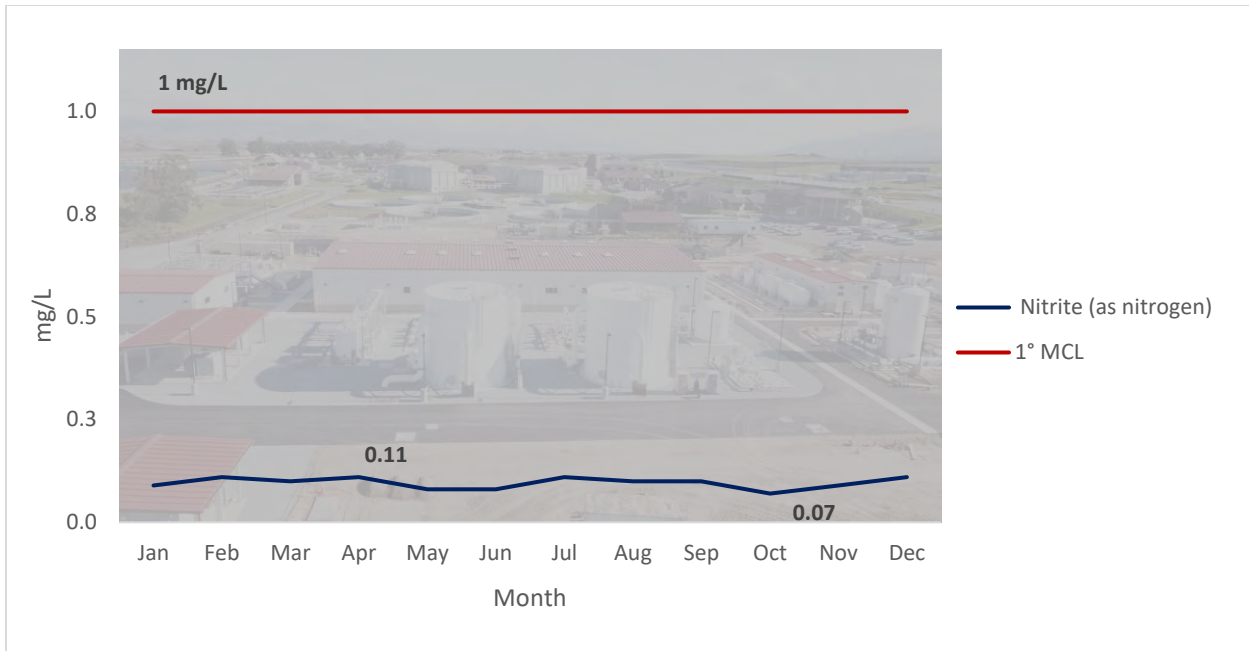
**Figure 76a. AWPf Product Water Monitoring – Inorganics with Primary MCLs – Monthly Barium (µg/L)**



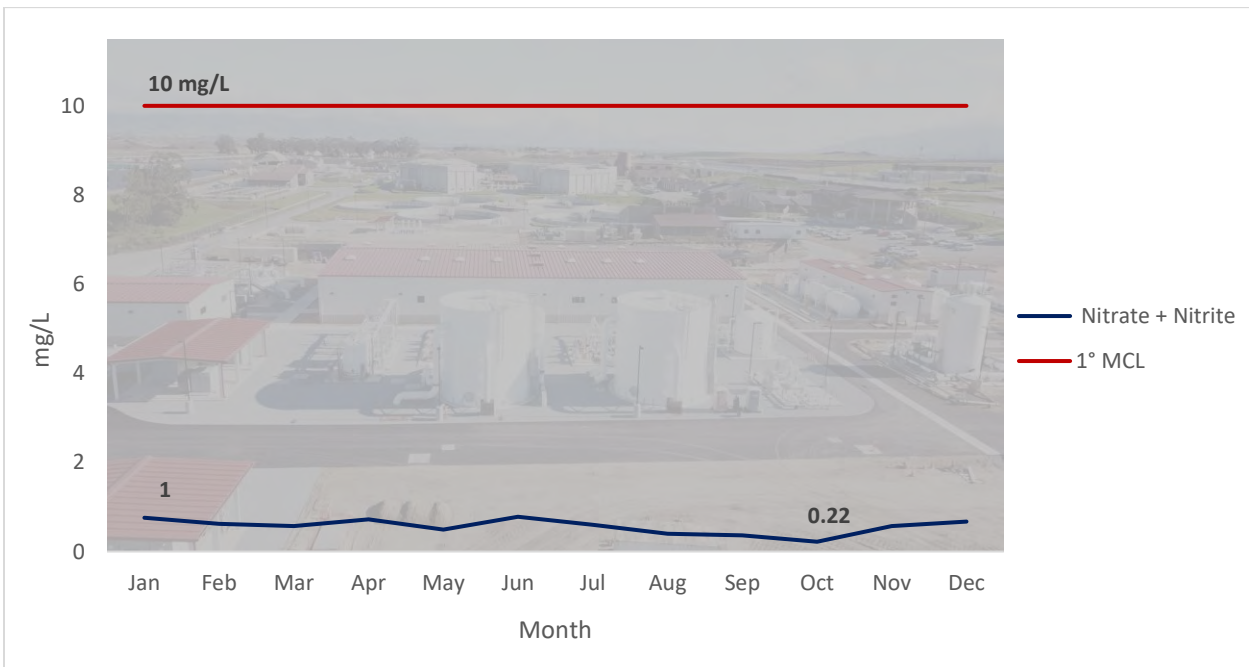
**Figure 76b. AWPf Product Water Monitoring – Inorganics with Primary MCL – Monthly Cyanide (µg/L)**



**Figure 76c. AWPf Product Water Monitoring –Monthly Nitrate (as Nitrogen) (mg/L)**



**Figure 76d. AWPf Product Water Monitoring – Monthly Nitrite (as Nitrogen) (mg/L)**



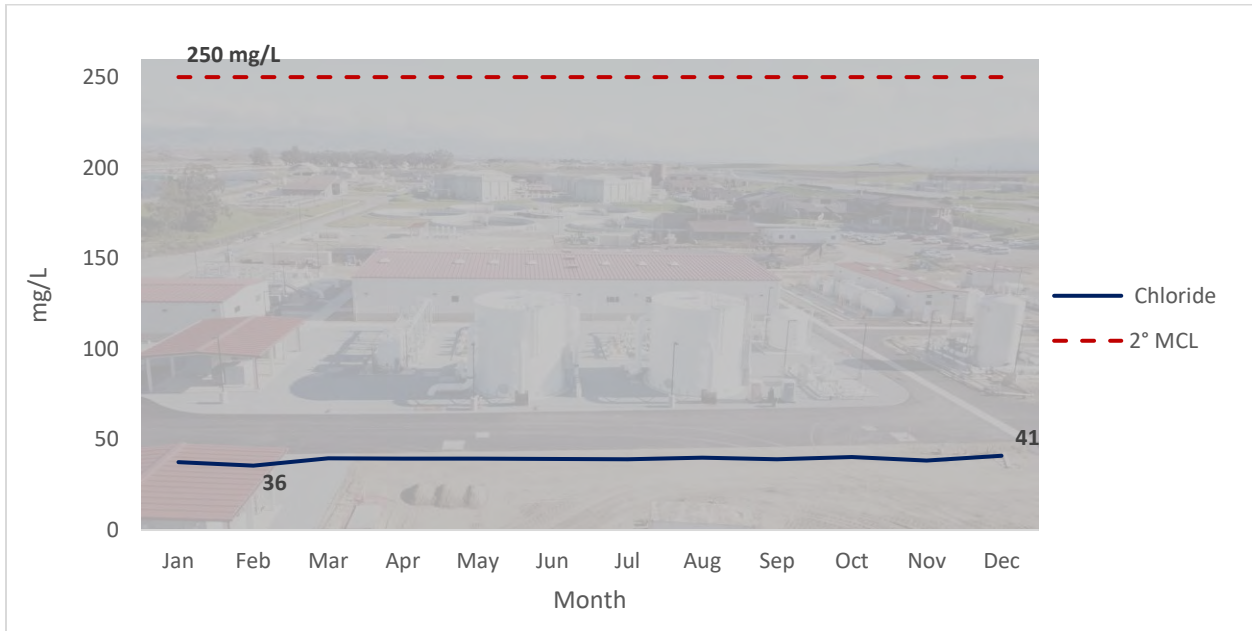
**Figure 76e. AWPf Product Water Monitoring – Monthly Nitrate + Nitrite (mg/L)**



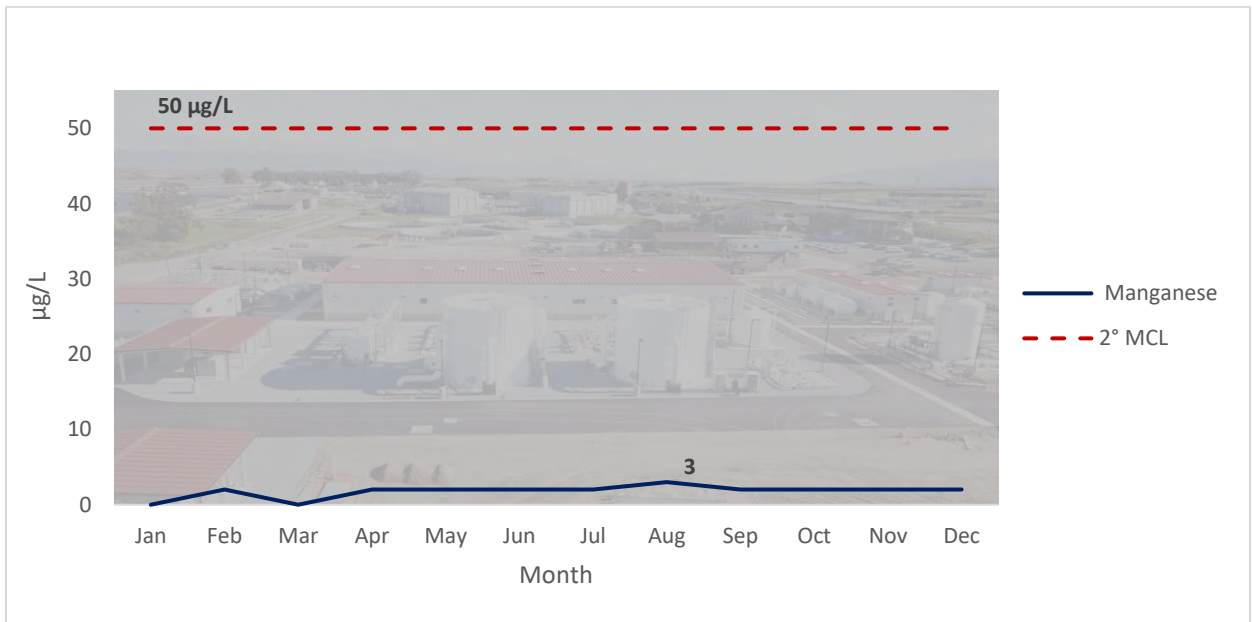


**Table 77. AWPf Product Water Monitoring – Constituents/Parameters with Secondary MCLs**

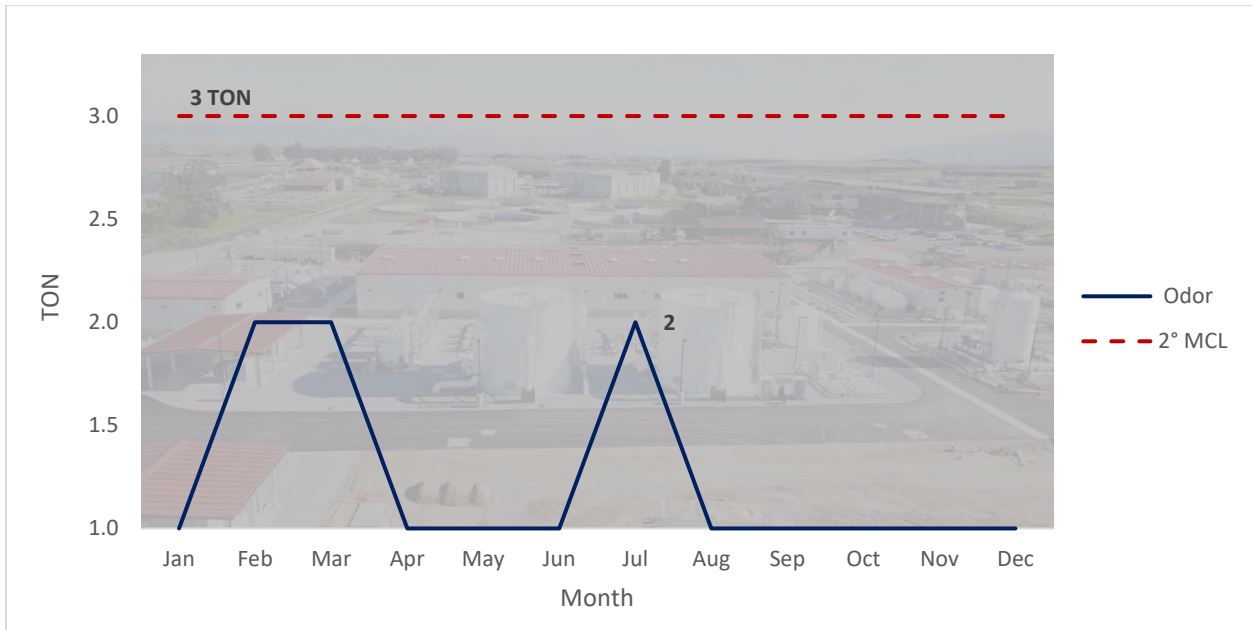
Month	Aluminum µg/L	Chloride mg/L	Color	Copper µg/L	Foam Agents (MBAS) mg/L	Iron mg/L	Manganese µg/L	Methyl-tert-butyl- ether (MTBE) µg/L	Odor- Threshold TON	Silver µg/L	Specific Conductance µS/cm	Sulfate mg/L	Thiobencarb µg/L	TDS mg/L	Turbidity NTU	Zinc µg/L
January	ND 5.00	37.41	ND 2.00	ND 5.00	ND 0.05	ND 0.01	ND 1.00	ND 0.07	1	ND 10.00	239	0.37	ND 8.30E-03	120	0.05	ND 5.00
February	ND 5.00	35.53	ND 2.00	ND 5.00	ND 0.05	ND 0.01	2	ND 0.07	2	ND 10.00	233	0.16	ND 8.30E-03	124	0.05	ND 5.00
March	ND 5.00	39.58	ND 2.00	ND 5.00	ND 0.05	ND 0.01	ND 1.00	ND 0.07	2	ND 10.00	199	ND 0.15	ND 8.30E-03	126	0.05	ND 5.00
April	ND 5.00	39.45	ND 2.00	ND 5.00	ND 0.05	ND 0.01	2	ND 0.07	1	ND 10.00	209	1.38	ND 8.30E-03	124	0.05	5
May	ND 5.00	39.41	ND 2.00	ND 5.00	ND 0.05	ND 0.01	2	ND 0.07	1	ND 10.00	206	DNQ 0.10	ND 8.30E-03	120	0.05	ND 5.00
June	ND 5.00	39.23	ND 2.00	ND 5.00	ND 0.05	ND 0.01	2	ND 0.07	1	ND 10.00	223	DNQ 0.10	ND 8.30E-03	136	0.05	ND 5.00
July	ND 5.00	39	ND 2.00	ND 5.00	ND 0.05	ND 0.01	2	ND 0.07	2	ND 10.00	213	ND 0.50	ND 8.30E-03	110	0.05	ND 5.00
August	ND 5.00	40	ND 2.00	ND 5.00	ND 0.05	ND 0.01	3	ND 0.07	1	ND 10.00	211	ND 0.50	ND 8.30E-03	124	0.05	ND 5.00
September	ND 5.00	39	ND 2.00	ND 5.00	ND 0.05	ND 0.01	2	ND 0.07	1	ND 10.00	199	ND 0.50	ND 8.30E-03	118	0.05	ND 5.00
October	ND 5.00	40.33	ND 2.00	ND 5.00	ND 0.05	ND 0.01	2	ND 0.07	1	ND 10.00	210	DNQ 0.10	ND 8.30E-03	120	0.05	ND 5.00
November	ND 5.00	38.3	ND 2.00	ND 5.00	ND 0.05	ND 0.01	2	ND 0.07	1	ND 10.00	208	ND 0.10	ND 0.05	126	0.05	ND 5.00
December	ND 5.00	41	ND 2.00	ND 5.00	ND 0.05	ND 0.01	2	ND 0.07	1	ND 10.00	204	1.4	ND 0.05	106	0.05	ND 5.00



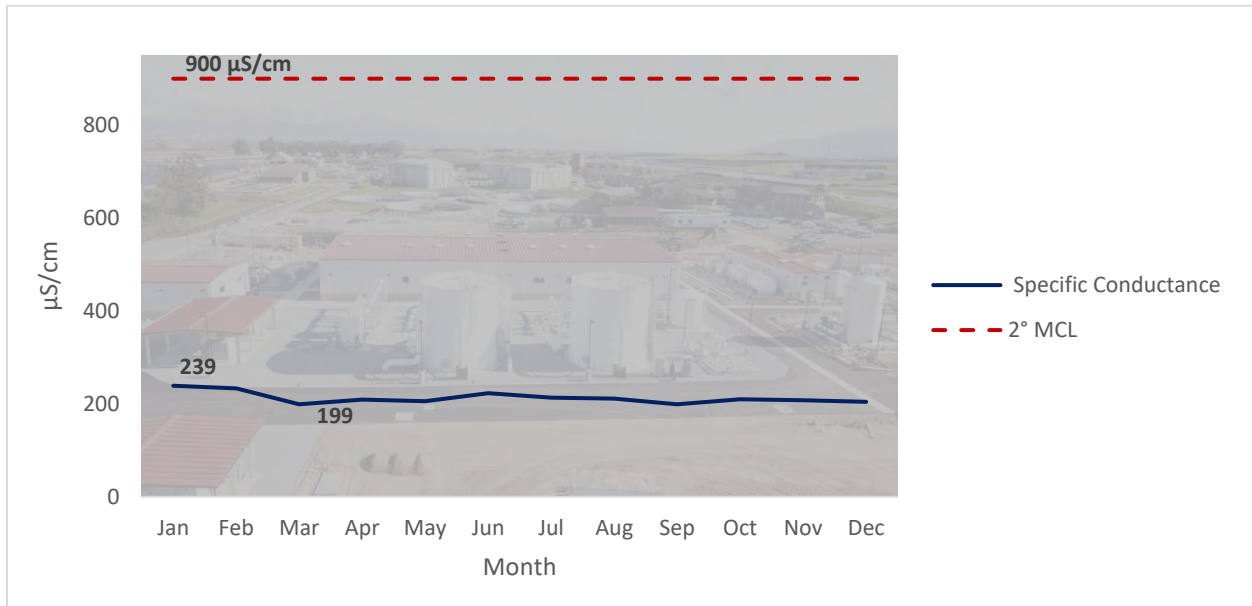
**Figure 77a. AWPf Product Water Monitoring – Monthly Chloride (mg/L)**



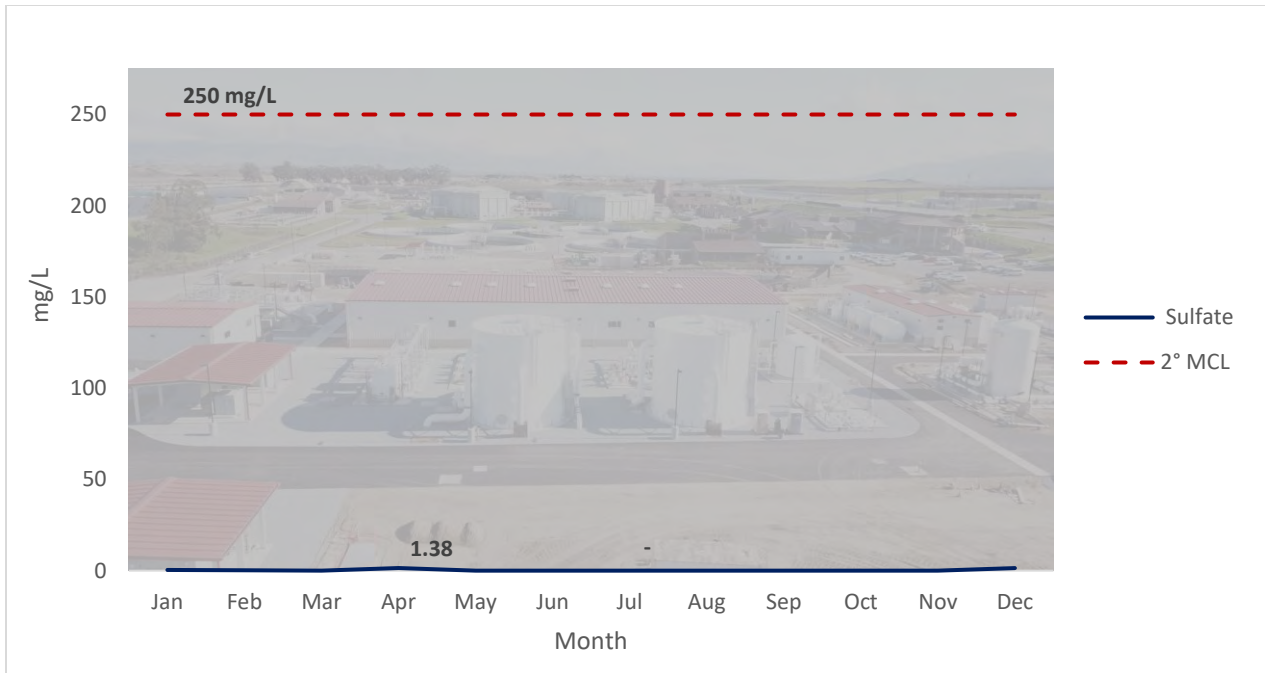
**Figure 77b. AWPf Product Water Monitoring – Monthly Manganese (µg/L)**



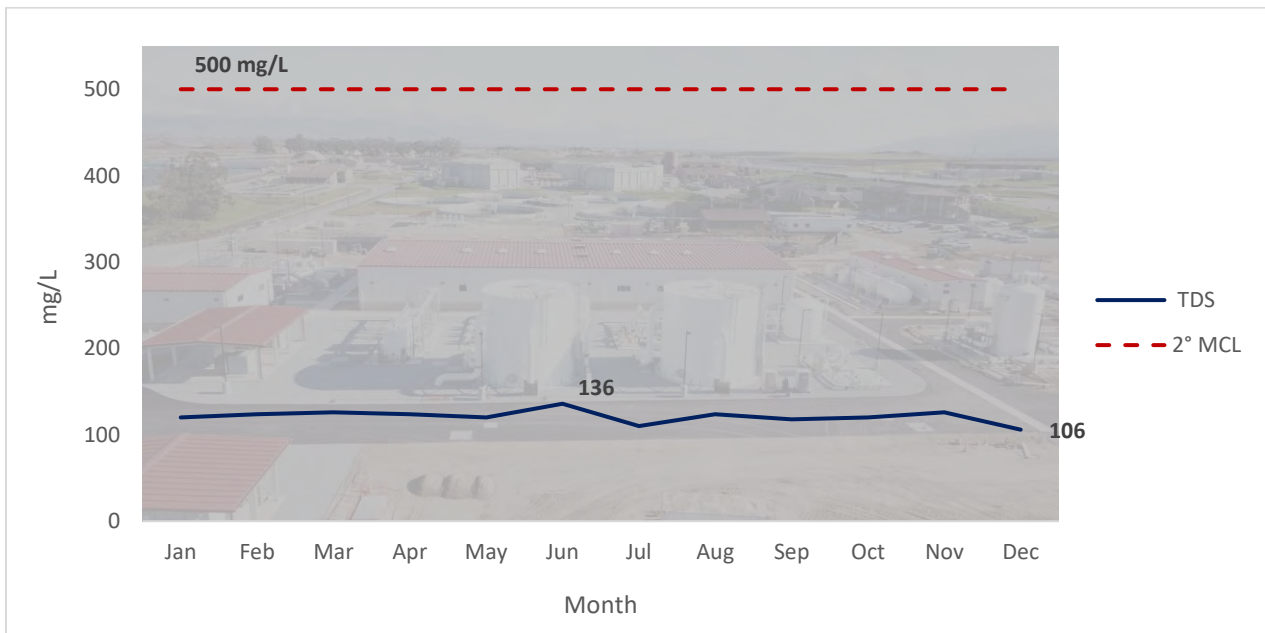
**Figure 77c. AWPf Product Water Monitoring – Monthly Color (TON)**



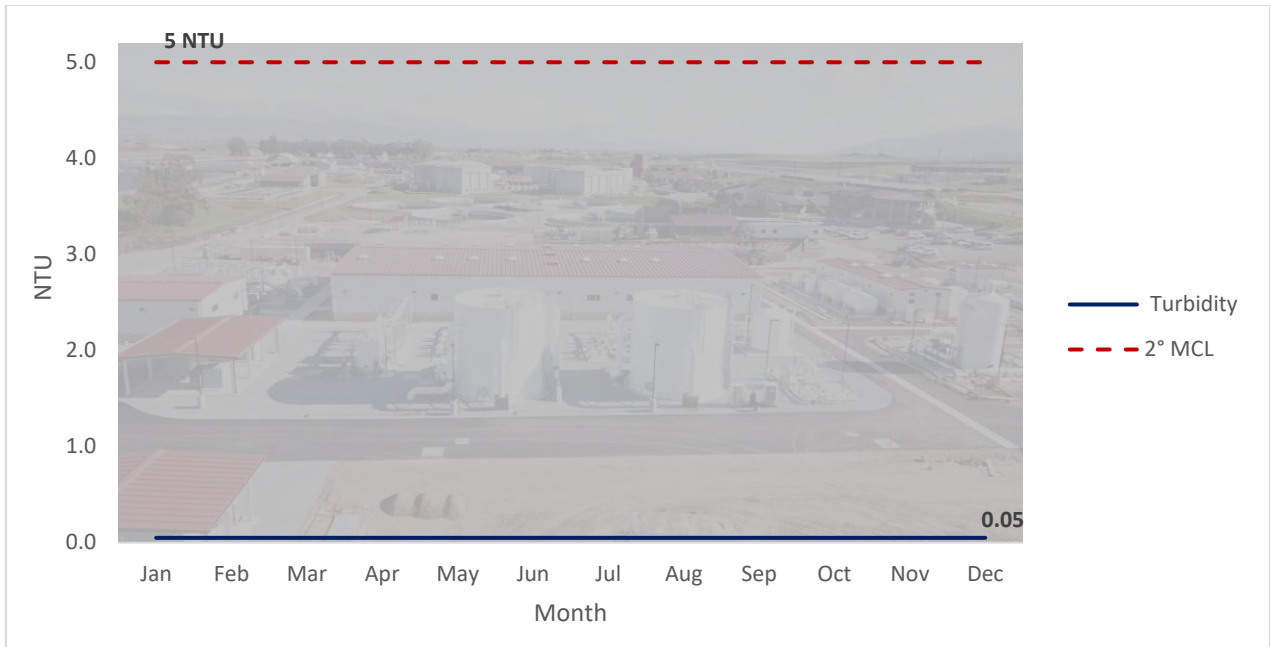
**Figure 77d. AWPf Product Water Monitoring – Monthly Specific Conductance (µS/cm)**



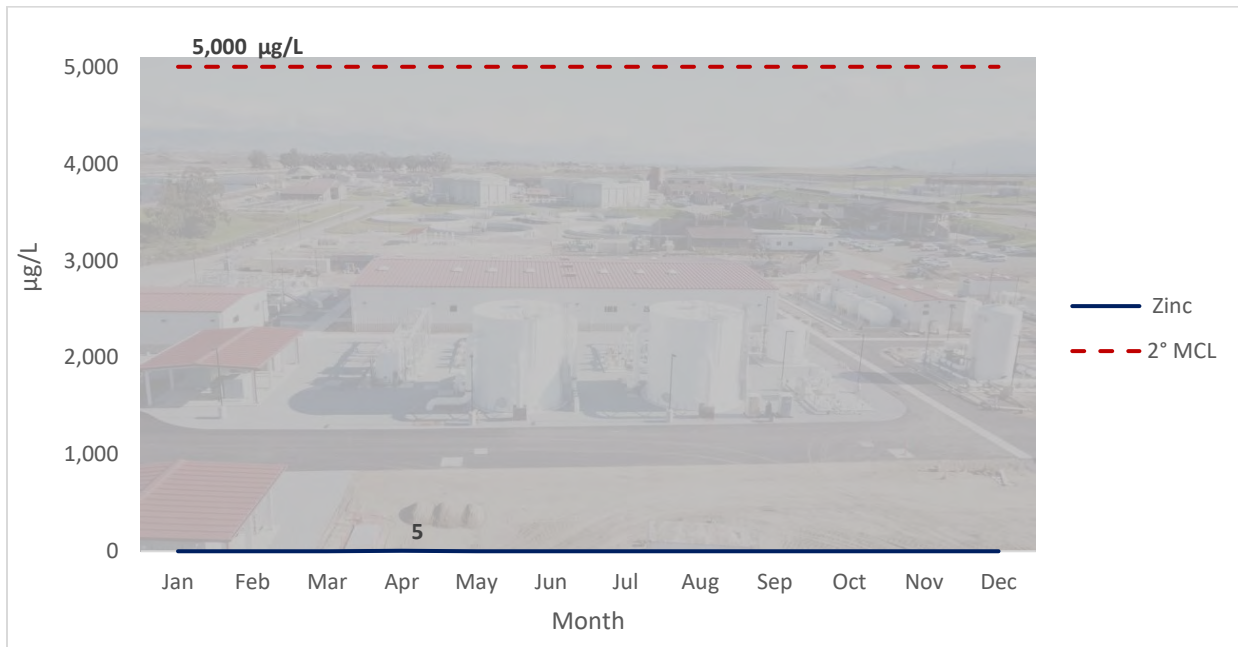
**Figure 77e. AWPf Product Water Monitoring – Monthly Sulfate (mg/L)**



**Figure 77f. AWPf Product Water Monitoring – Monthly TDS (mg/L)**



**Figure 77g. AWPf Product Water Monitoring – Monthly Turbidity (NTU)**

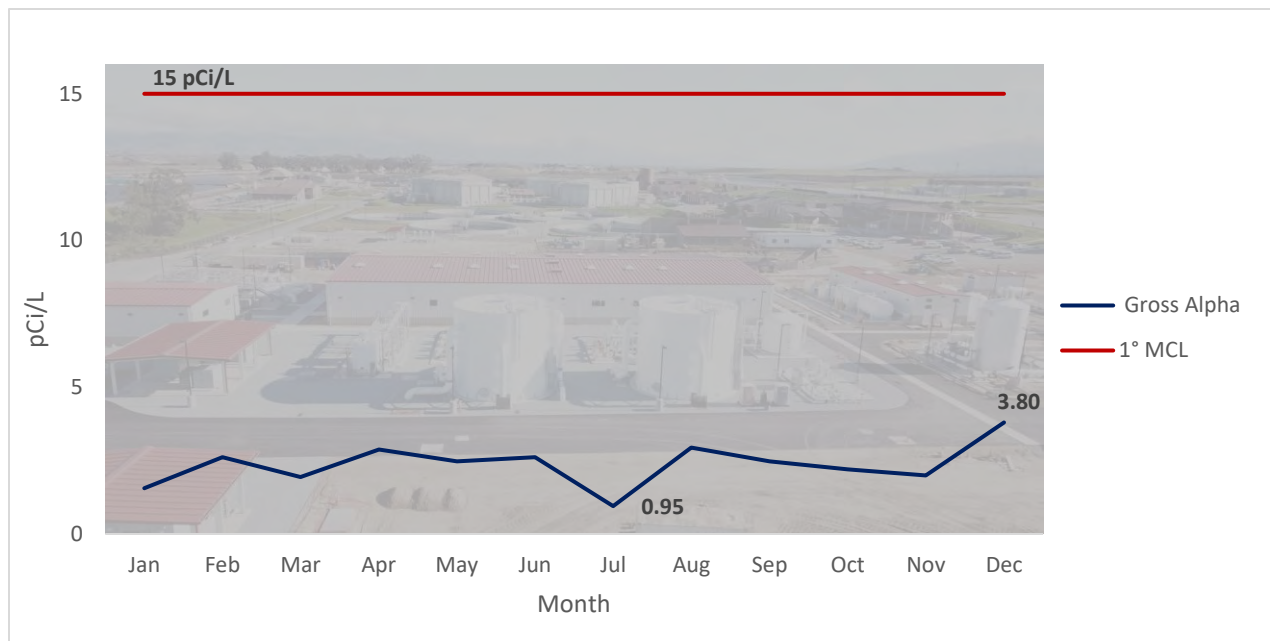


**Figure 77h. AWPf Product Water Monitoring – Monthly Zinc (µg/L)**

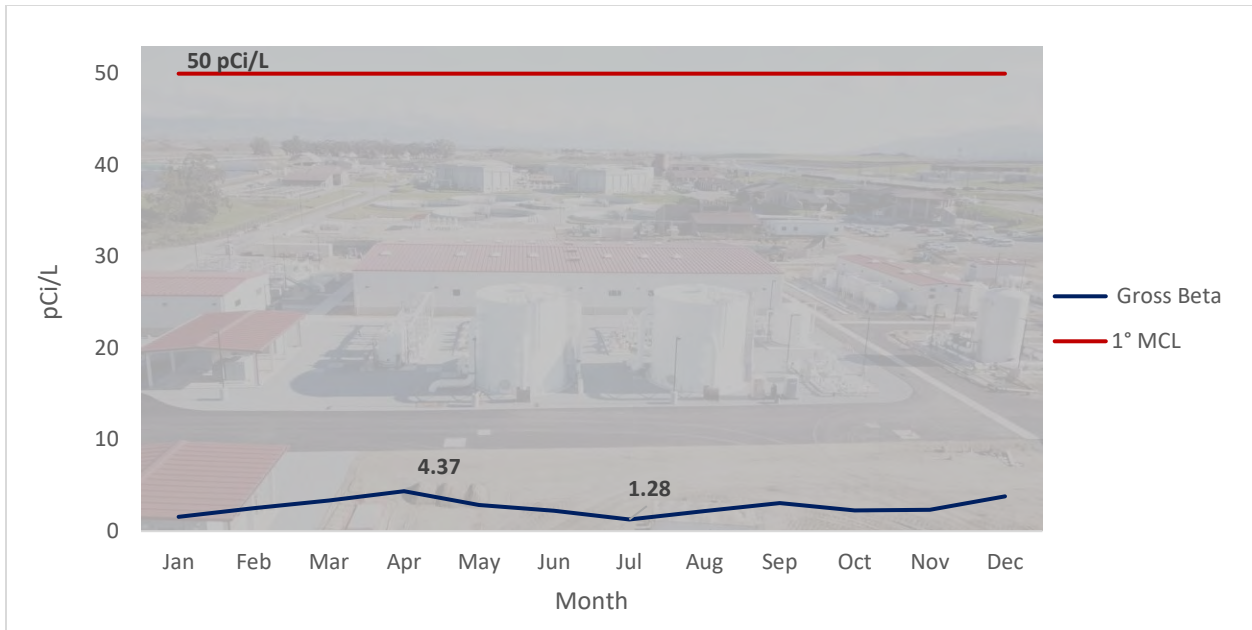
**Table 78. AWPf Product Water Monitoring – Radioactivity**

Month	Gross Alpha Particle Activity pCi/L	Gross Beta Particle Activity pCi/L	Combined Radium-226 and Radium-228 pCi/L	Strontium-90 pCi/L*	Tritium pCi/L	Uranium pCi/L*
January	1.56	1.56	0.57	0.08	476	ND 0.67
February	2.62	2.51	0.23	ND 0.07	239	ND 0.67
March	1.94	3.35	0.95	0.22	218	ND 0.67
April	2.88	4.37	0.3	-0.36	207	ND 0.67
May	2.47	2.86	0.17	-0.12	156	ND 0.67
June	2.62	2.22	0.2	-0.4	351	ND 0.30
July	0.95	1.28	0.59	-0.78	116	ND 0.30
August	2.94	2.19	0.27	-	312	-
September	2.47	3.07	0.3	-	314	-
October	2.2	2.28	0.7	-	135	-
November	1.99	2.34	0.26	-	195	-
December	3.8	3.8	0.6	-	214	-

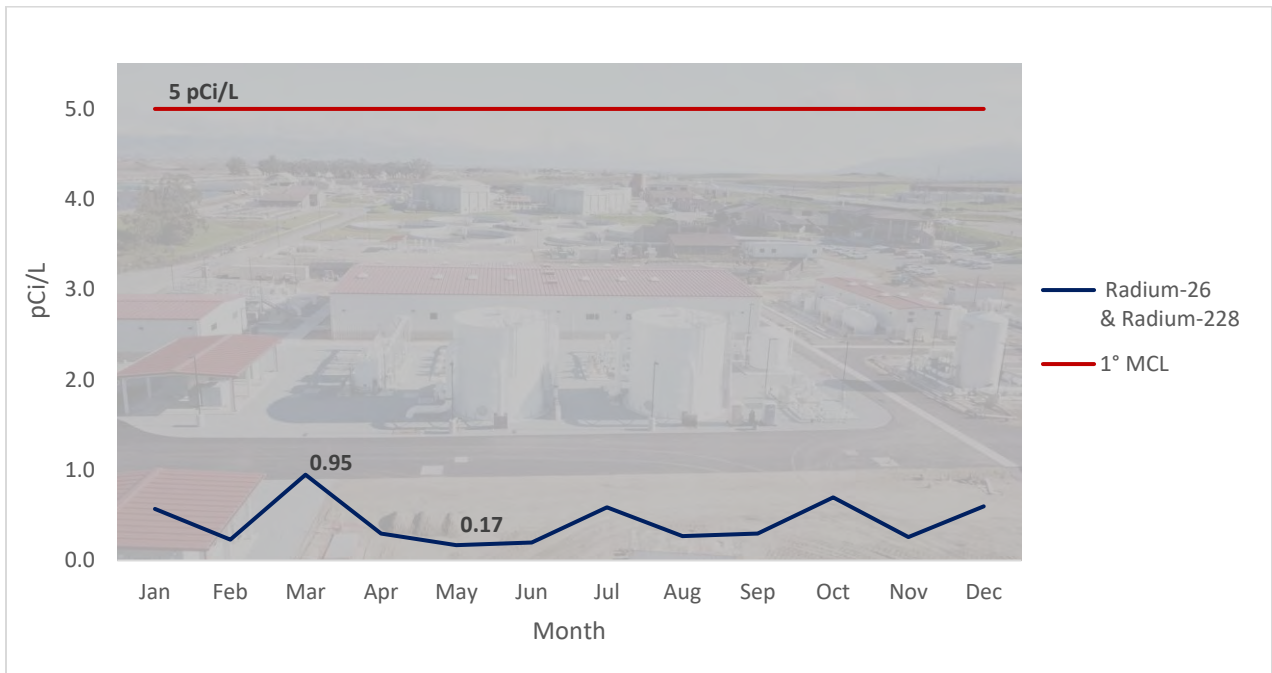
\*Note: MRP No. R3-2020-0122, which replaced MRP No. R3-2019-0119, eliminated required monitoring for both Strontium-90 and Uranium. M1W implemented revisions to the monitoring program accordingly.



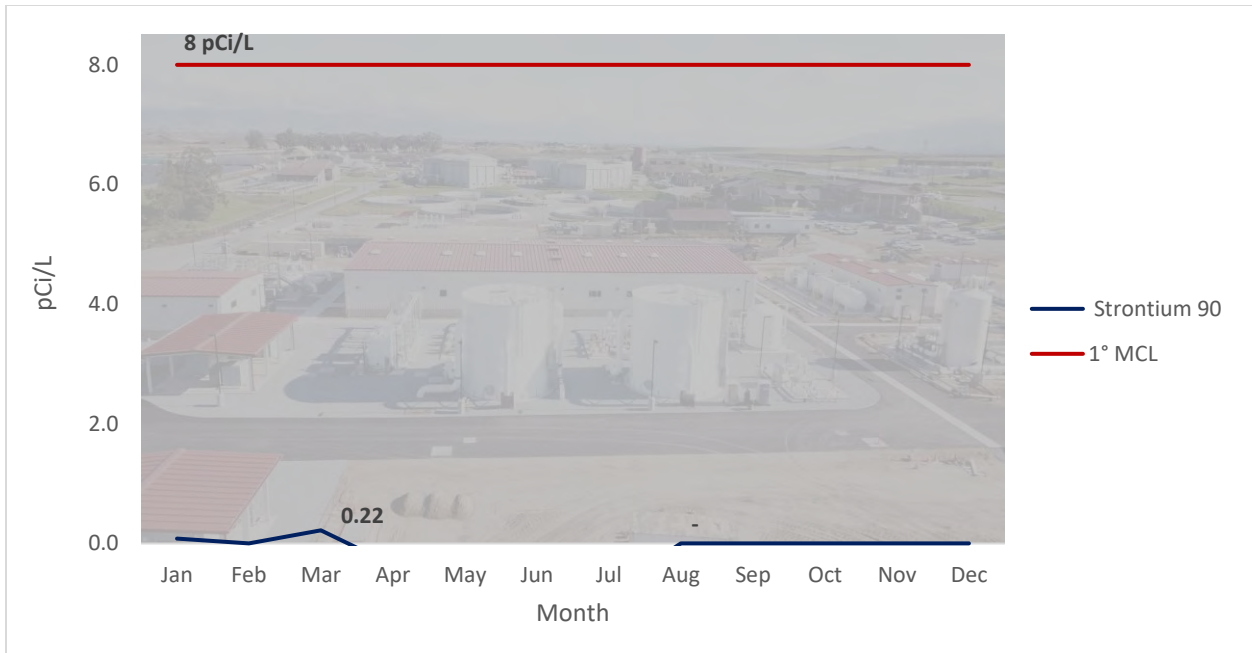
**Figure 78a. AWPf Product Water Monitoring – Monthly Gross Alpha Particle Activity (pCi/L)**



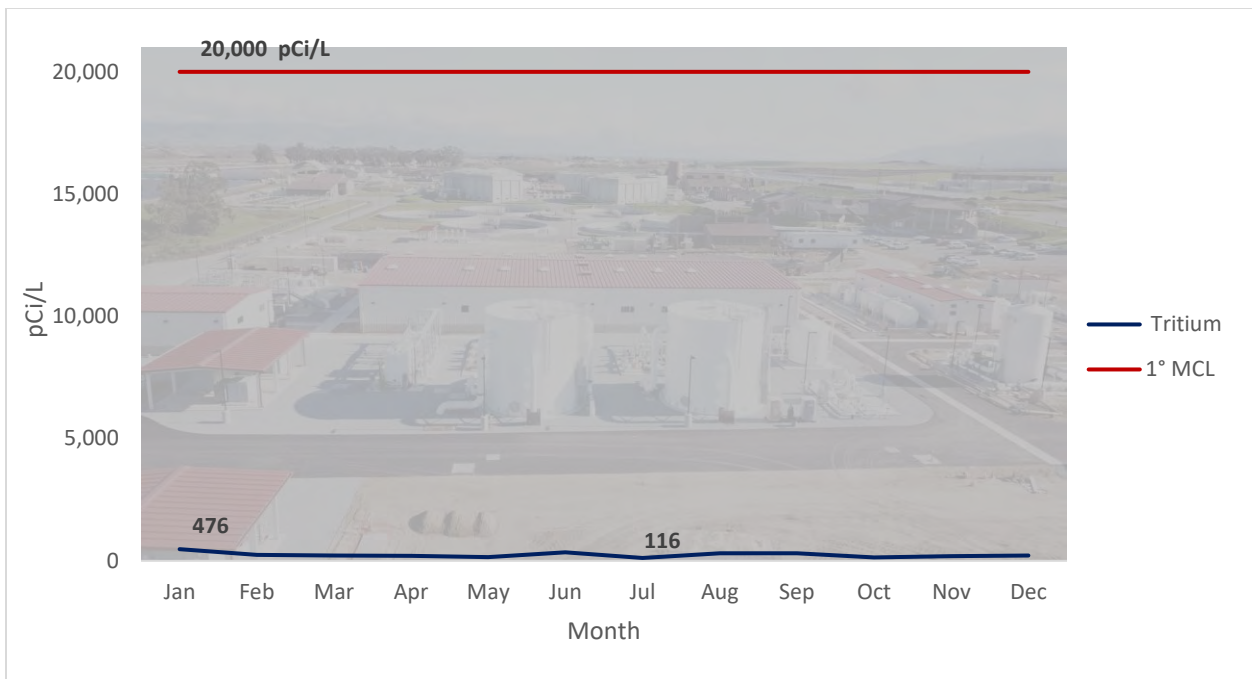
**Figure 78b. AWPB Product Water Monitoring – Monthly Gross Beta Particle Activity (pCi/L)**



**Figure 78c. AWPB Product Water Monitoring – Monthly Combined Radium-226 and Radium-228 (pCi/L)**



**Figure 78d. AWPf Product Water Monitoring – Monthly Strontium-90 (pCi/L)**



**Figure 78e. AWPf Product Water Monitoring – Monthly Tritium (pCi/L)**



Table 79. AWP Product Water Monitoring – Regulated Organics

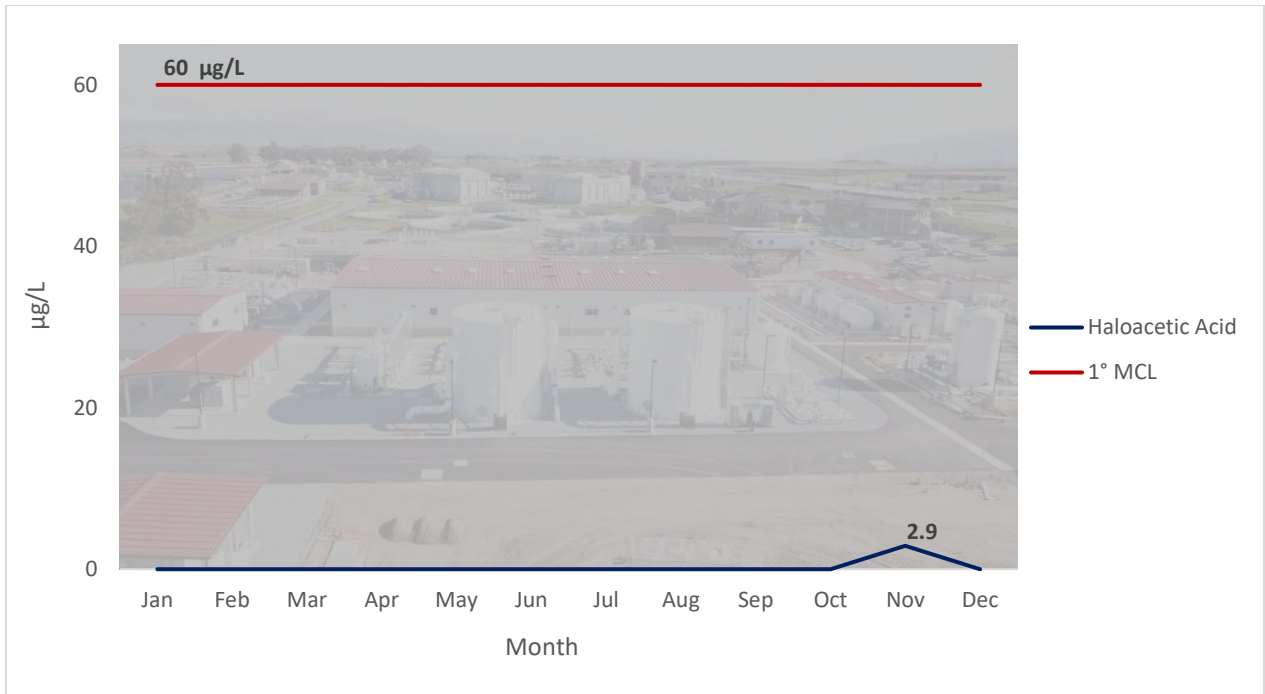
Pollutant (Monthly)	UOM	Result:											
		January	February	March	April	May	June	July	August	September	October	November	December
<b>Volatile Organic Chemicals</b>													
Benzene	µg/L	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12
Carbon Tetrachloride (CTC)	µg/L	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09
1,2-Dichlorobenzene	µg/L	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08
1,4-Dichlorobenzene	µg/L	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09
1,1-Dichloroethane	µg/L	ND 0.13	ND 0.13	ND 0.13	ND 0.13	ND 0.13	ND 0.13	ND 0.13	ND 0.13	ND 0.13	ND 0.13	ND 0.13	ND 0.13
1,2-Dichloroethane (1,2-DCA)	µg/L	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12
1,1-Dichloroethene (1,1-DCA)	µg/L	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11
cis-1,2-Dichloroethylene	µg/L	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14
trans-1,2-Dichloroethylene	µg/L	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11
Dichloromethane	µg/L	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07
1,2-Dichloropropane	µg/L	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07
1,3-Dichloropropane	µg/L	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11
Ethylbenzene	µg/L	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11
Methyl-tert-butyl-ether (MTBE)	µg/L	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07
Monochlorobenzene	µg/L	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07
Styrene	µg/L	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11
1,1,2,2-Tetrachloroethane	µg/L	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10
Tetrachloroethylene (PCE)	µg/L	ND 0.28	ND 0.28	ND 0.28	ND 0.28	ND 0.28	ND 0.28	ND 0.28	ND 0.28	ND 0.28	ND 0.28	ND 0.28	ND 0.28
Toluene	µg/L	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06
1,2,4-Trichlorobenzene	µg/L	ND 0.07	ND 0.19	ND 0.07	ND 0.07	ND 0.20	ND 0.07	ND 0.07	ND 0.19	ND 0.07	ND 0.07	ND 0.07	ND 0.07
1,1,1-Trichloroethane	µg/L	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08
1,1,2-Trichloroethane	µg/L	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08
Trichloroethylene (TCE)	µg/L	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10
Trichlorofluoromethane	µg/L	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18
1,1,2-Trichloro- 1,2,2-Trifluoroethane	µg/L	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14
Vinyl Chloride	µg/L	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08
Xylenes (o,m,p)	µg/L	ND 0.50	ND 0.30	ND 0.30	ND 0.30	ND 0.30	ND 0.30	ND 0.30	ND 0.30	ND 0.30	ND 0.30	ND 0.30	ND 0.30
<b>Synthetic Organic Chemicals</b>													
1,2,3-Trichloropropane	µg/L	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05
Alachlor	µg/L	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02
Atrazine	µg/L	ND 7.60E-03	ND 7.60E-03	ND 7.60E-03	ND 7.60E-03	ND 7.60E-03	ND 7.60E-03	ND 7.60E-03	ND 7.60E-03	ND 7.60E-03	ND 7.60E-03	ND 7.60E-03	ND 0.02
Bentazon	µg/L	ND 1.30	ND 1.30	ND 1.30	ND 1.30	ND 1.30	ND 1.30	ND 1.30	ND 1.30	ND 1.30	ND 1.30	ND 1.30	ND 1.30
Benzo(a)pyrene	µg/L	ND 1.90E-03	ND 1.90E-03	ND 1.90E-03	ND 1.90E-03	ND 1.90E-03	ND 1.90E-03	ND 1.90E-03	ND 1.90E-03	ND 1.90E-03	ND 1.90E-03	ND 2.30E-03	ND 2.30E-03
Carbofuran	µg/L	ND 0.30	ND 0.30	ND 0.30	ND 0.30	ND 0.30	ND 0.30	ND 0.30	ND 0.30	ND 0.22	ND 0.22	ND 0.22	ND 0.22

Pollutant (Monthly)	UOM	Result:											
		January	February	March	April	May	June	July	August	September	October	November	December
<i>Synthetic Organic Chemicals (Cont.)</i>													
Chlordane	µg/L	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09
Dalapon	µg/L	ND 0.58	ND 0.58	ND 0.58	ND 0.58	ND 0.58	ND 0.58	ND 0.58	ND 0.58	ND 0.58	ND 0.58	ND 0.58	ND 0.58
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	ND 6.00E-03	ND 6.00E-03	ND 6.00E-03	ND 6.00E-03	ND 6.00E-03	ND 6.00E-03	ND 6.00E-03	ND 3.50E-03	ND 3.50E-03	ND 3.50E-03	ND 3.50E-03	ND 3.50E-03
2,4-Dichlorophenoxyacetic acid (2,4-D)	µg/L	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07
Di(2-ethylhexyl)adipate	µg/L	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.06	ND 0.06
Di(2-ethylhexyl)phthalate	µg/L	ND 0.11	DNQ 0.21	ND 0.11	DNQ 0.22	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.60	ND 0.60	ND 0.50	ND 0.50
Dinoseb	µg/L	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03
Diquat	µg/L	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.25	ND 0.25
Endothal	µg/L	ND 1.60	ND 1.60	ND 1.60	ND 1.60	ND 1.60	ND 1.60	ND 1.60	ND 1.60	ND 0.77	ND 0.77	ND 0.77	ND 0.77
Endrin	µg/L	ND 3.70E-03	ND 3.70E-03	ND 3.70E-03	ND 3.70E-03	ND 3.70E-03	ND 3.70E-03	ND 3.70E-03	ND 3.70E-03	ND 3.70E-03	ND 3.70E-03	ND 3.70E-03	ND 3.70E-03
Ethylene Dibromide (EDB)	µg/L	ND 5.00E-03	ND 5.00E-03	ND 5.00E-03	ND 5.00E-03	ND 5.00E-03	ND 5.00E-03	ND 3.40E-03	ND 3.40E-03	ND 3.40E-03	ND 3.40E-03	ND 3.40E-03	ND 3.40E-03
Glyphosate	µg/L	ND 2.10	ND 2.10	ND 2.10	ND 2.10	ND 2.10	ND 2.10	ND 2.10	ND 2.10	ND 2.10	ND 2.10	ND 2.10	ND 2.10
Heptachlor	µg/L	ND 5.20E-03	ND 5.20E-03	ND 5.20E-03	ND 5.20E-03	ND 5.20E-03	ND 5.20E-03	ND 2.90E-03	ND 2.90E-03	ND 2.90E-03	ND 2.90E-03	ND 2.90E-03	ND 2.90E-03
Heptachlor Epoxide	µg/L	ND 4.80E-03	ND 4.80E-03	ND 4.80E-03	ND 4.80E-03	ND 4.80E-03	ND 4.80E-03	ND 3.40E-03	ND 3.40E-03	ND 3.40E-03	ND 3.40E-03	ND 3.40E-03	ND 3.40E-03
Hexachlorobenzene	µg/L	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03
Hexachlorocyclopentadiene	µg/L	ND 0.04	ND 0.04	ND 0.04	ND 0.04	ND 0.04	ND 0.04	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06
Lindane	µg/L	ND 5.90E-03	ND 5.90E-03	ND 5.90E-03	ND 5.90E-03	ND 5.90E-03	ND 5.90E-03	ND 4.70E-03	ND 4.70E-03	ND 4.70E-03	ND 4.70E-03	ND 4.70E-03	ND 4.70E-03
Metoxychlor	µg/L	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03
Molinate	µg/L	ND 6.10E-03	ND 6.10E-03	ND 6.10E-03	ND 6.10E-03	ND 6.10E-03	ND 6.10E-03	ND 6.10E-03	ND 6.10E-03	ND 6.10E-03	ND 6.10E-03	ND 0.01	ND 0.01
Oxamyl	µg/L	ND 0.33	ND 0.33	ND 0.33	ND 0.33	ND 0.33	ND 0.33	ND 0.33	ND 0.33	ND 0.19	ND 0.19	ND 0.19	ND 0.19
Pentachlorophenol	µg/L	ND 0.01	ND 0.01	ND 0.01	ND 0.01	ND 0.01	ND 0.01	ND 0.01	ND 0.01	ND 0.01	ND 0.01	ND 0.01	ND 0.01
Picloram	µg/L	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08
Polychlorinated Biphenyls	µg/L	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08
Simazine	µg/L	ND 4.90E-03	ND 4.90E-03	ND 4.90E-03	ND 4.90E-03	ND 4.90E-03	ND 4.90E-03	ND 4.90E-03	ND 4.90E-03	ND 4.90E-03	ND 4.90E-03	ND 0.01	ND 0.01
Thiobencarb	µg/L	ND 8.30E-03	ND 8.30E-03	ND 8.30E-03	ND 8.30E-03	ND 8.30E-03	ND 8.30E-03	ND 8.30E-03	ND 8.30E-03	ND 8.30E-03	ND 8.30E-03	ND 0.05	ND 0.05
Toxaphene	µg/L	ND 0.33	ND 0.33	ND 0.33	ND 0.33	ND 0.33	ND 0.33	ND 0.33	ND 0.33	ND 0.33	ND 0.33	ND 0.33	ND 0.33
2,3,7,8-TCDD (Dioxin)	µg/L	ND 3.33	ND 1.32	ND 3.84	ND 3.57	ND 2.98	ND 3.56	ND 1.27	ND 1.69	ND 4.54	ND 2.65	ND 2.23	ND 4.13
2,4,5-TP (Silvex)	µg/L	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02

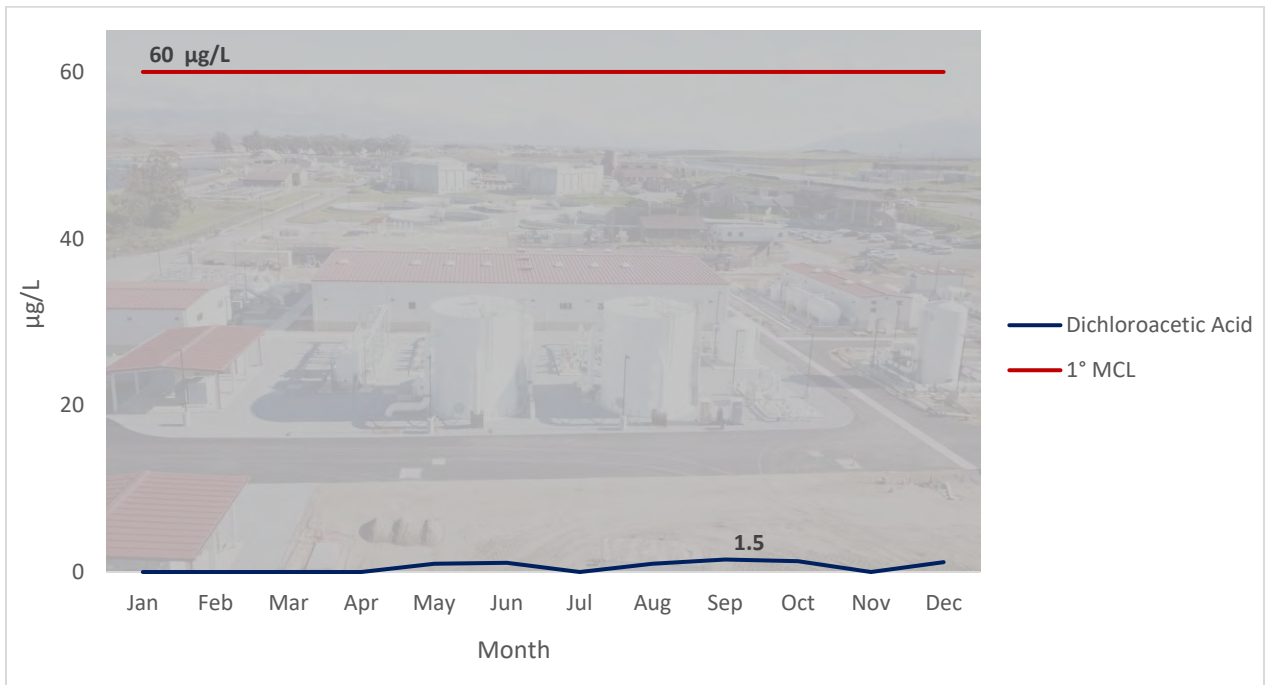
**Table 80. AWPf Product Water Monitoring – Disinfection Byproducts**

Pollutant (Monthly)	UOM	Result:											
		January	February	March	April	May	June	July	August	September	October	November	December
<b>Disinfection Byproducts</b>													
<b>Total Trihalomethanes (TTHM)</b>	µg/L	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06
<b>Bromate</b>	µg/L	ND 0.40	ND 0.40	ND 0.40	ND 0.40	ND 0.40	DNQ 0.50	ND 0.40	DNQ 0.50	DNQ 0.90	ND 0.40	ND 0.40	ND 0.40
<b>Bromodichloromethane</b>	µg/L	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12
<b>Bromoform</b>	µg/L	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14
<b>Chlorite</b>	µg/L	ND 2.60	ND 10.40	ND 10.00	ND 5.20	ND 2.60	ND 2.60	ND 2.60	ND 2.60	ND 2.60	ND 5.20	ND 2.60	ND 5.20
<b>Chloroform</b>	µg/L	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11
<b>Dibromoacetic Acid</b>	µg/L	ND 0.22	ND 0.32	DNQ 0.49	ND 0.32	ND 0.32	ND 0.32	ND 0.32	ND 0.32	ND 0.32	ND 0.32	ND 0.32	ND 0.32
<b>Dibromochloromethane</b>	µg/L	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06
<b>Dichloroacetic Acid</b>	µg/L	DNQ 0.53	DNQ 0.89	DNQ 0.81	DNQ 0.76	1.000	1.100	DNQ 1.00	1.000	1.500	1.300	DNQ 0.88	1.200
<b>Haloacetic Acid (five) (HAA5)</b>	µg/L	ND 2.00	ND 1.40	ND 1.40	ND 1.40	ND 1.40	ND 1.40	ND 1.40	DNQ 1.00	ND 2.00	ND 2.00	2.900	ND 2.00
<b>Monobromoacetic Acid</b>	µg/L	ND 0.32	ND 0.85	ND 0.85	ND 0.85	ND 0.85	ND 0.85	ND 0.85	ND 0.85	ND 0.85	ND 0.85	ND 0.85	ND 0.85
<b>Monochloroacetic Acid</b>	µg/L	DNQ 0.53	ND 1.40	ND 1.40	ND 1.40	ND 1.40	ND 1.40	ND 1.40	ND 1.40	ND 1.40	ND 1.40	2.000	ND 1.40
<b>Trichloroacetic Acid</b>	µg/L	ND 0.26	ND 0.41	ND 0.41	ND 0.41	ND 0.41	ND 0.41	ND 0.41	ND 0.41	ND 0.41	ND 0.41	ND 0.41	ND 0.41

*\*Laboratory must report bromofom, chloroform, dichlorobromomethane, and dichlorodibromomethane to make up the total trihalomethanes for MCL determination.*



**Figure 79a. AWPf Product Water Monitoring – Monthly Haloacetic Acid (µg/L)**



**Figure 80b. AWPf Product Water Monitoring – Monthly Dichloroacetic Acid (µg/L)**

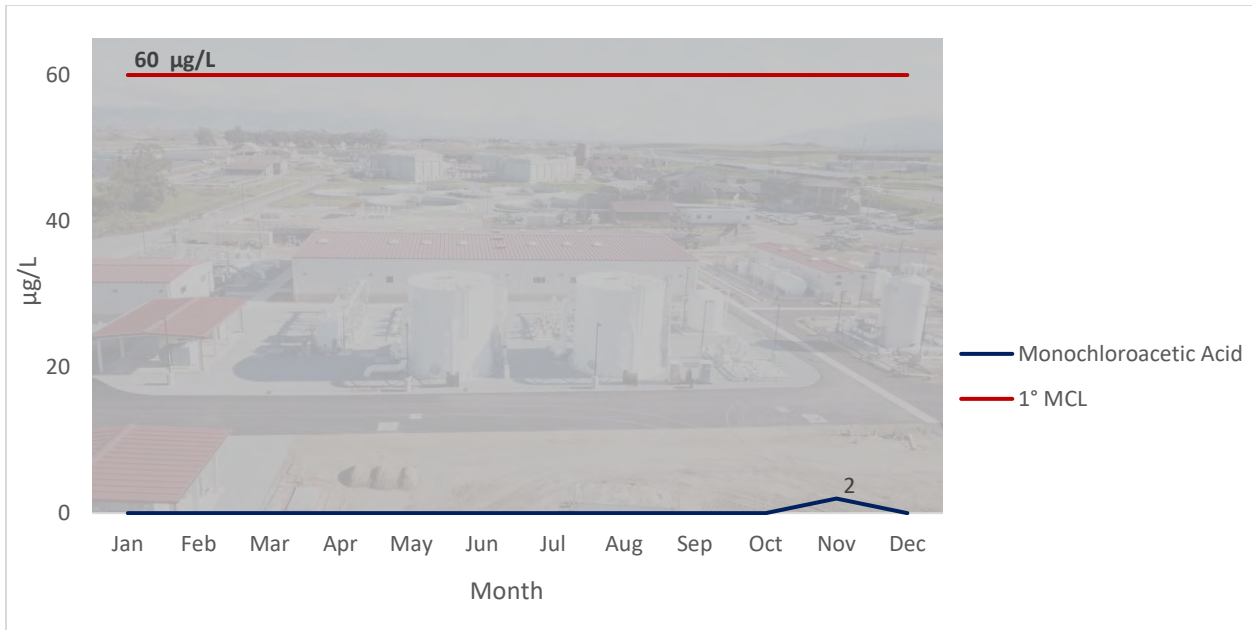
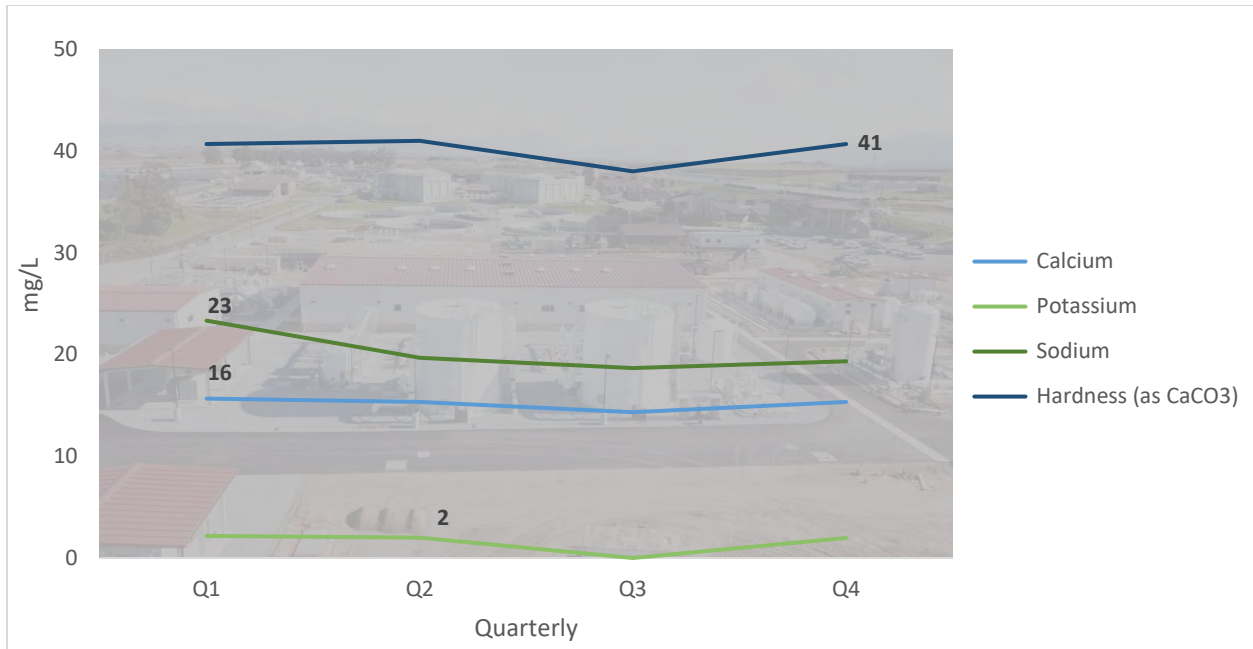


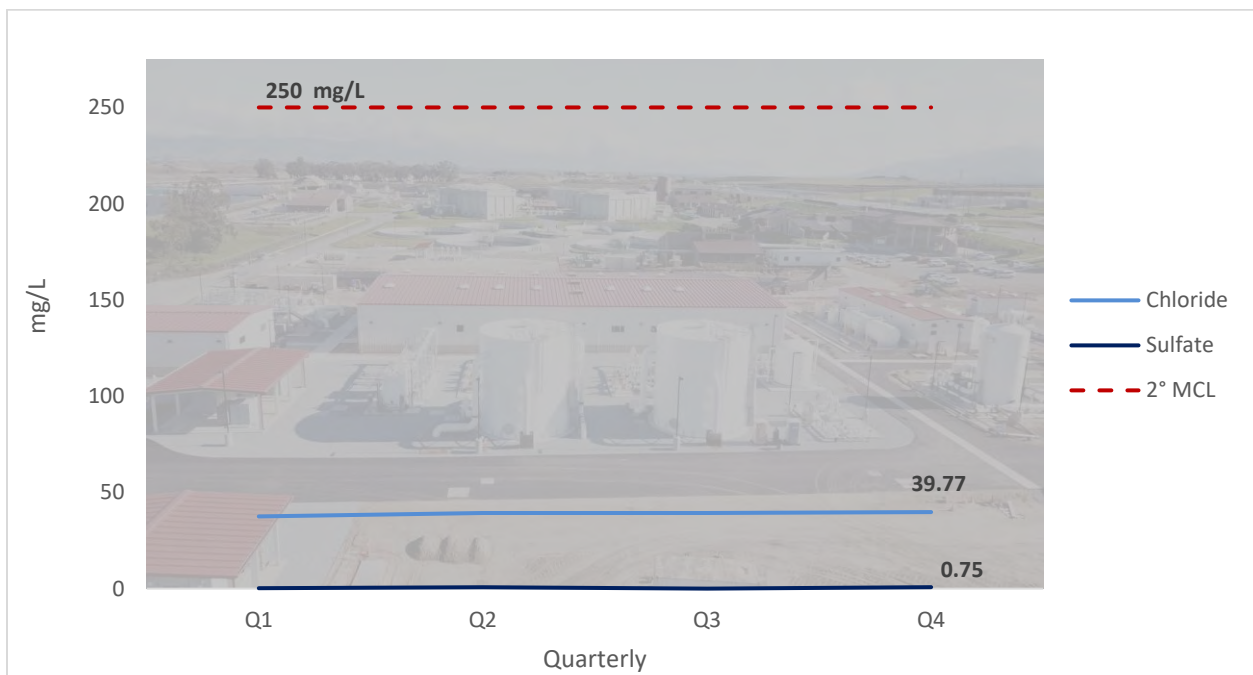
Figure 80c. AWPf Product Water Monitoring – Monthly Monochloroacetic Acid (µg/L)

Table 81. AWPf Product Water Monitoring – General Physical and General Minerals

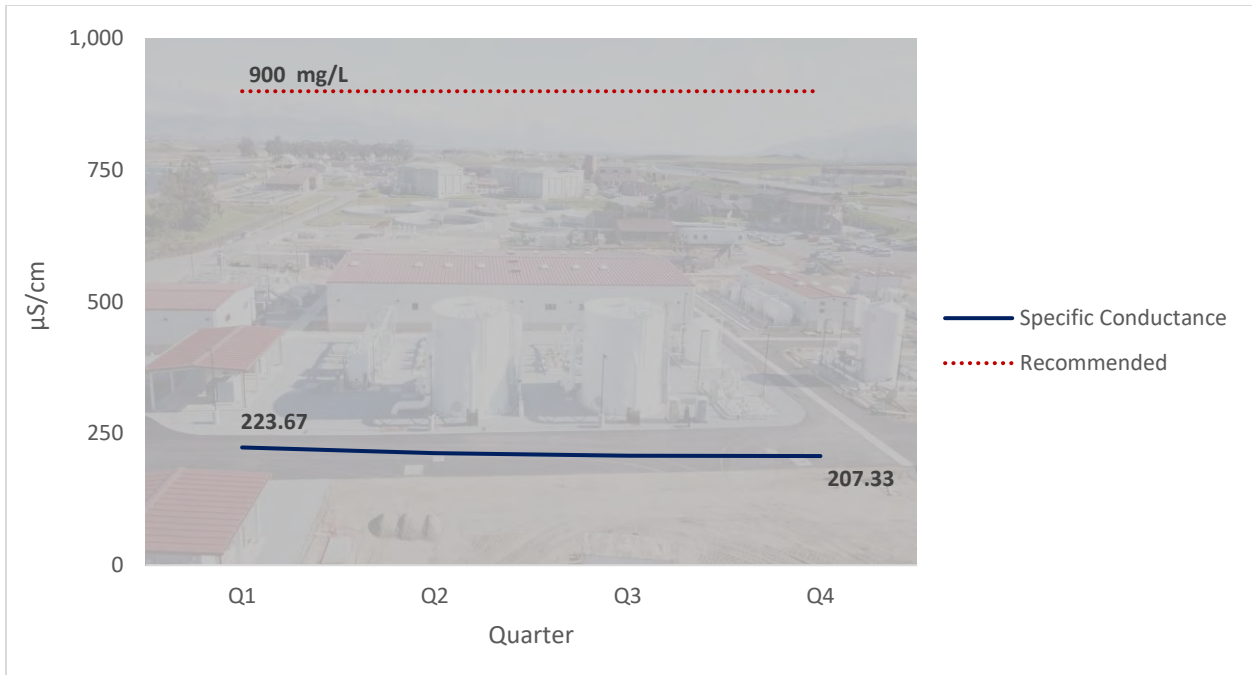
Pollutant (4x/Year)	UOM	Result:			
		Q1	Q2	Q3	Q4
<b>General Physical and General Minerals</b>					
Asbestos	MFL	ND 0.20	ND 0.20	ND 0.20	ND 0.20
Calcium	mg/L	15.7	15.3	14.3	15.3
Chloride	mg/L	37.5	39.4	39.3	39.8
Copper	µg/L	ND 5.00	ND 5.00	ND 5.00	ND 5.00
Iron	mg/L	ND 0.01	ND 0.01	ND 14.00	ND 14.00
Manganese	µg/L	2.0	2.0	2.3	2.0
Potassium	mg/L	2.2	2.0	DNQ 1.80	2.0
Sodium	mg/L	23.3	19.7	18.7	19.3
Sulfate	mg/L	0.3	0.7	ND 0.50	0.8
Zinc	µg/L	ND 5.00	5.0	ND 5.00	ND 5.00
Color	Units	ND 2.00	ND 2.00	ND 2.00	ND 2.00
Corrosivity	--	0.34	0.55	0.16	-0.39
Foaming Agents	mg/L	ND 0.05	ND 0.05	ND 0.05	ND 0.05
Odor	Ton	1.7	1.0	1.3	1.0
Specific Conductance	µS/cm	223.7	212.7	207.7	207.3
Total Dissolved Solids	mg/L	123.3	126.7	117.3	117.3
Total Hardness	mg/L	40.7	41.0	38.0	40.7



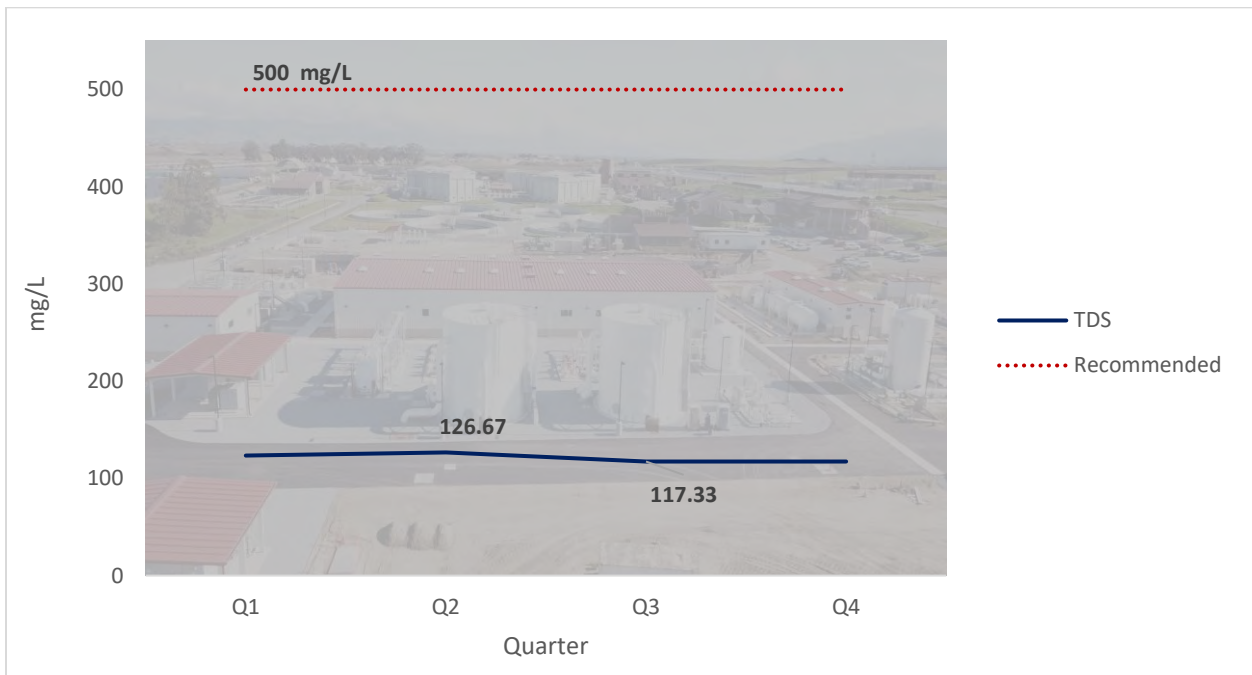
**Figure 81a. AWPf Product Water Monitoring – Quarterly Calcium, Potassium, Sodium & Hardness (mg/L)**



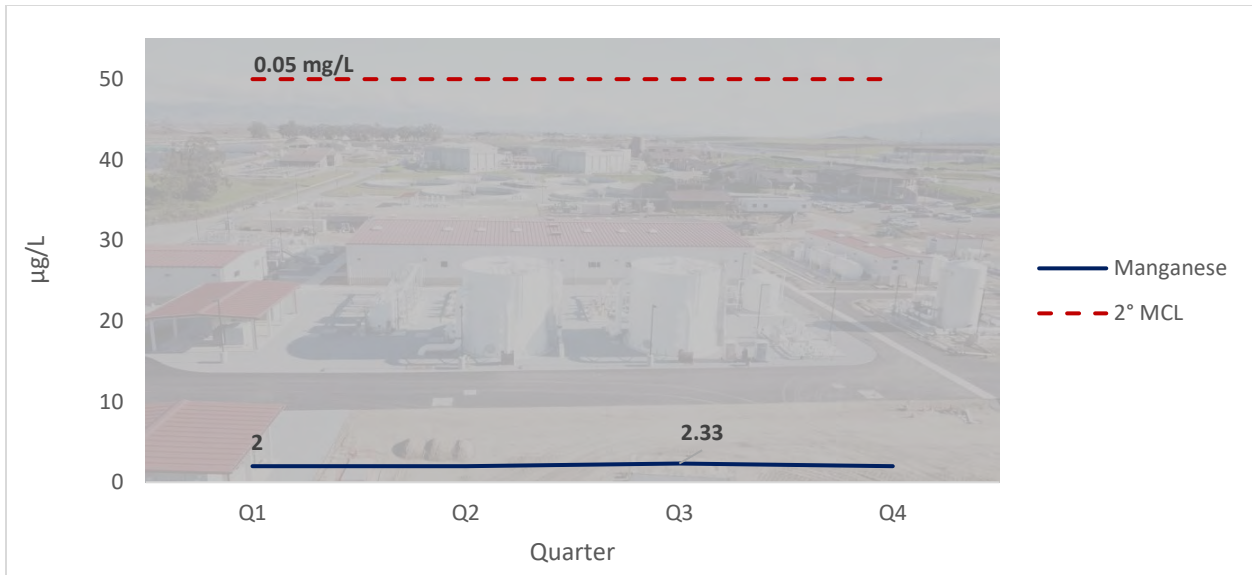
**Figure 81b. AWPf Product Water Monitoring – Quarterly Chloride & Sulfate (mg/L)**



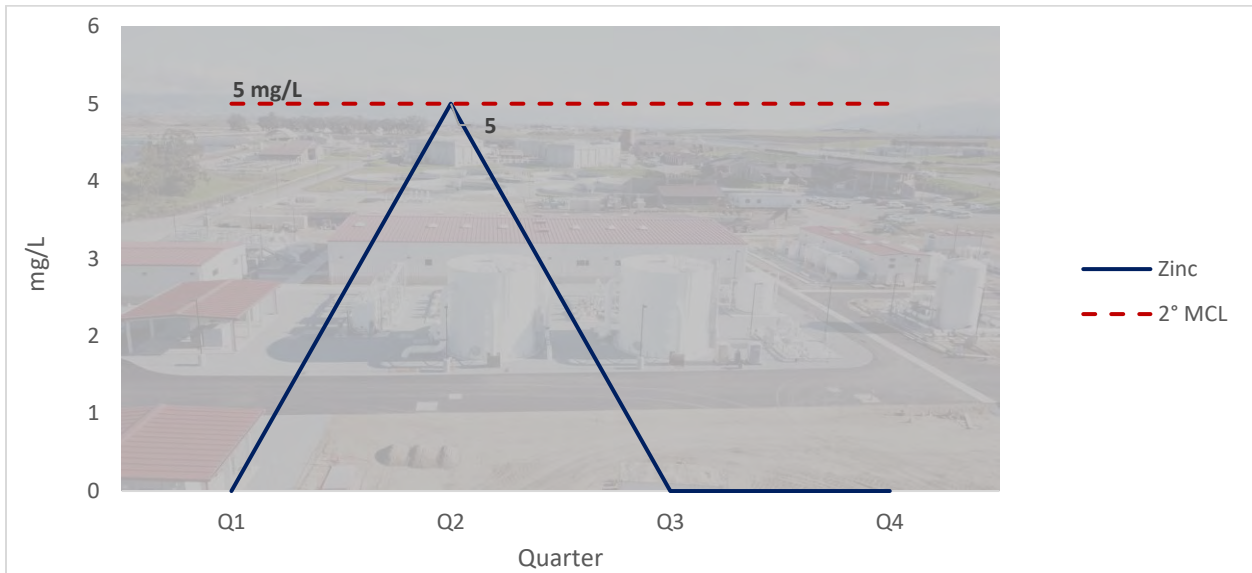
**Figure 81c. AWPf Product Water Monitoring – Quarterly Specific Conductance (µS/cm)**



**Figure 81d. AWPf Product Water Monitoring – Quarterly TDS (mg/L)**



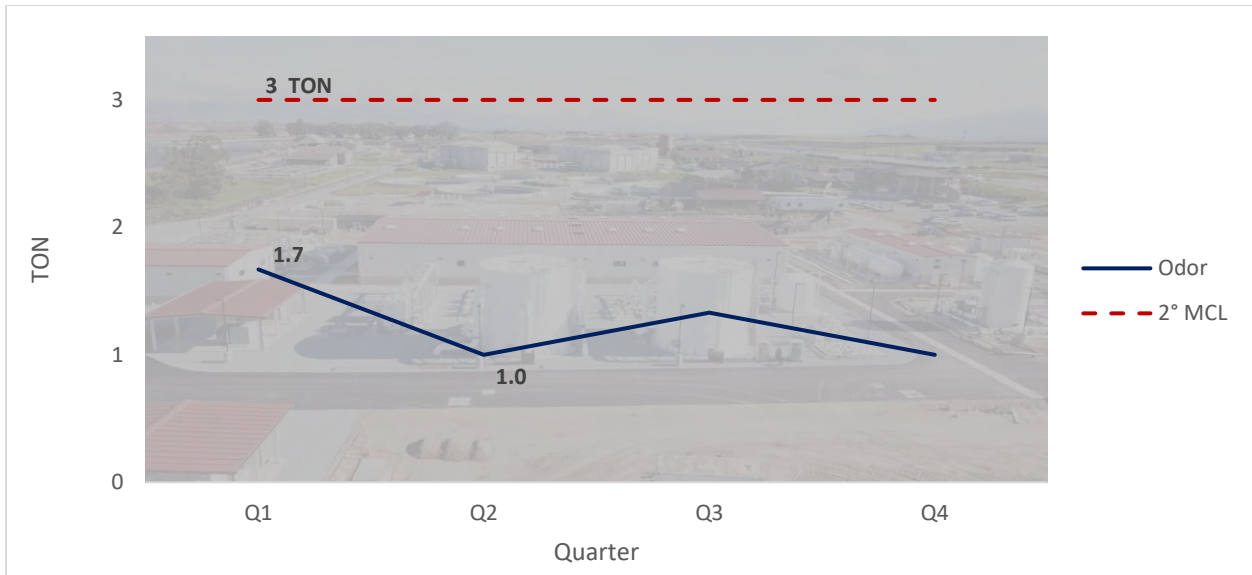
**Figure 81e. AWPf Product Water Monitoring – Quarterly Manganese (µg/L)**



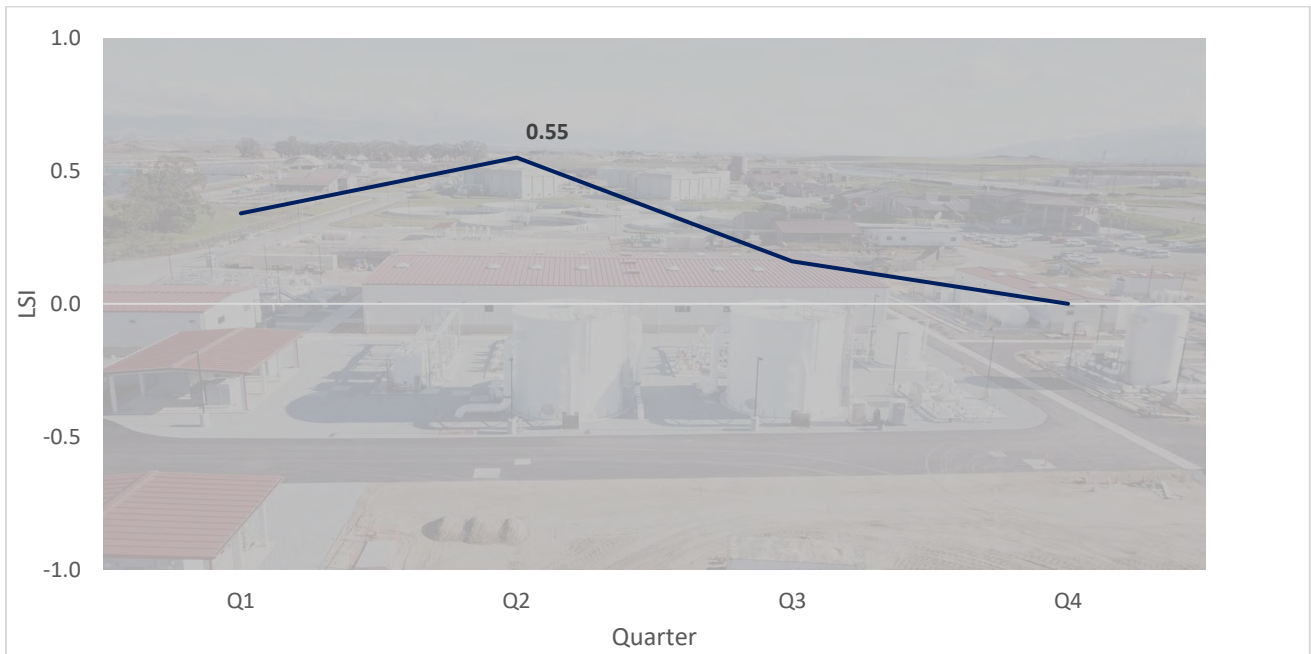
**Figure 81f. AWPf Product Water Monitoring – Quarterly Zinc (mg/L)<sup>24</sup>**

<sup>24</sup> Note: Q2 2021 result did not exceed of the secondary MCL; also note that compliance is based on a running annual average of the quarterly samples.





**Figure 81e. AWPf Product Water Monitoring – Quarterly Odor (TON)**

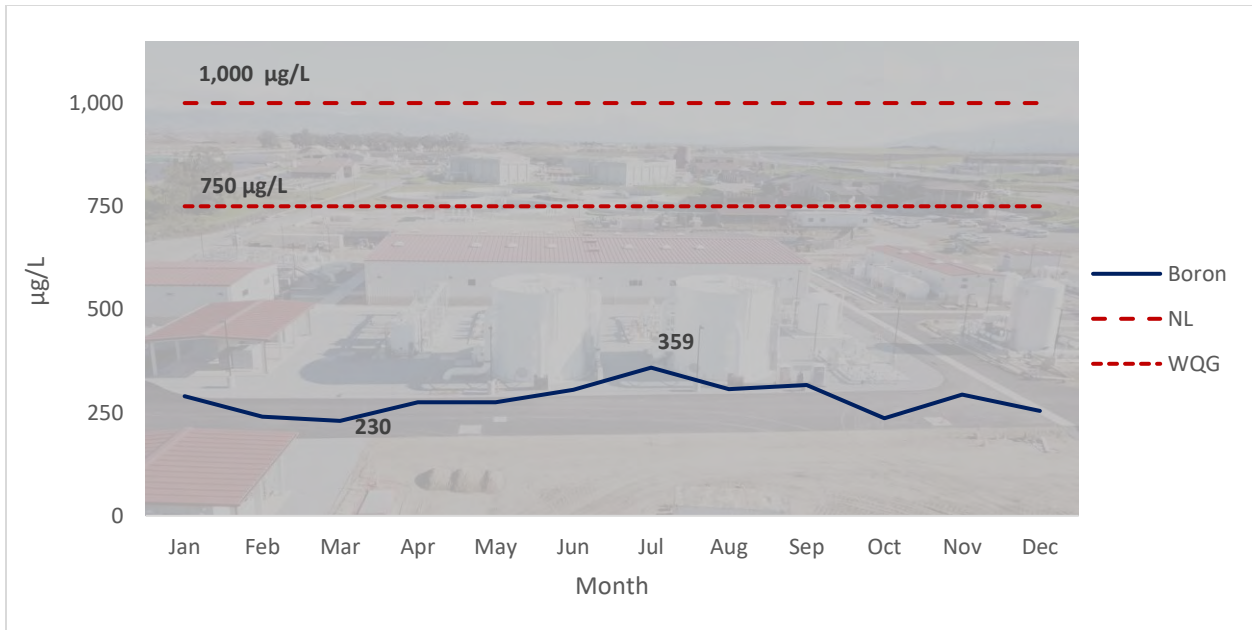


**Figure 81f. AWPf Product Water Monitoring – Quarterly Corrosivity (LSI)**

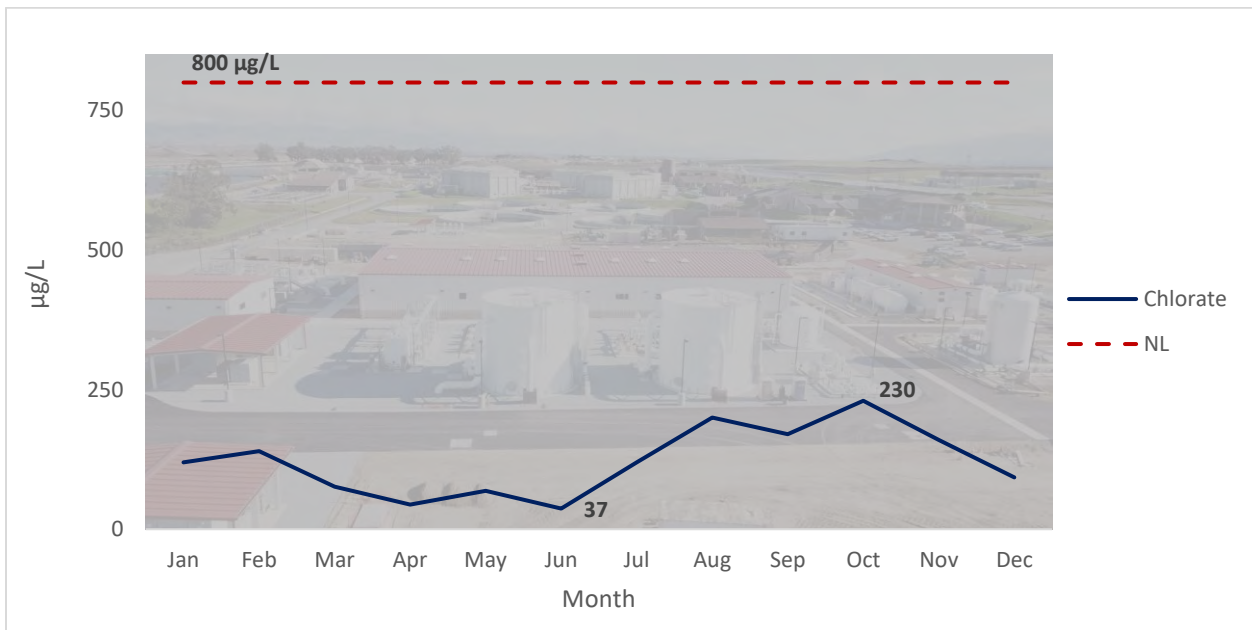


**Table 82. AWP Product Water Monitoring – Constituents with Notification Levels**

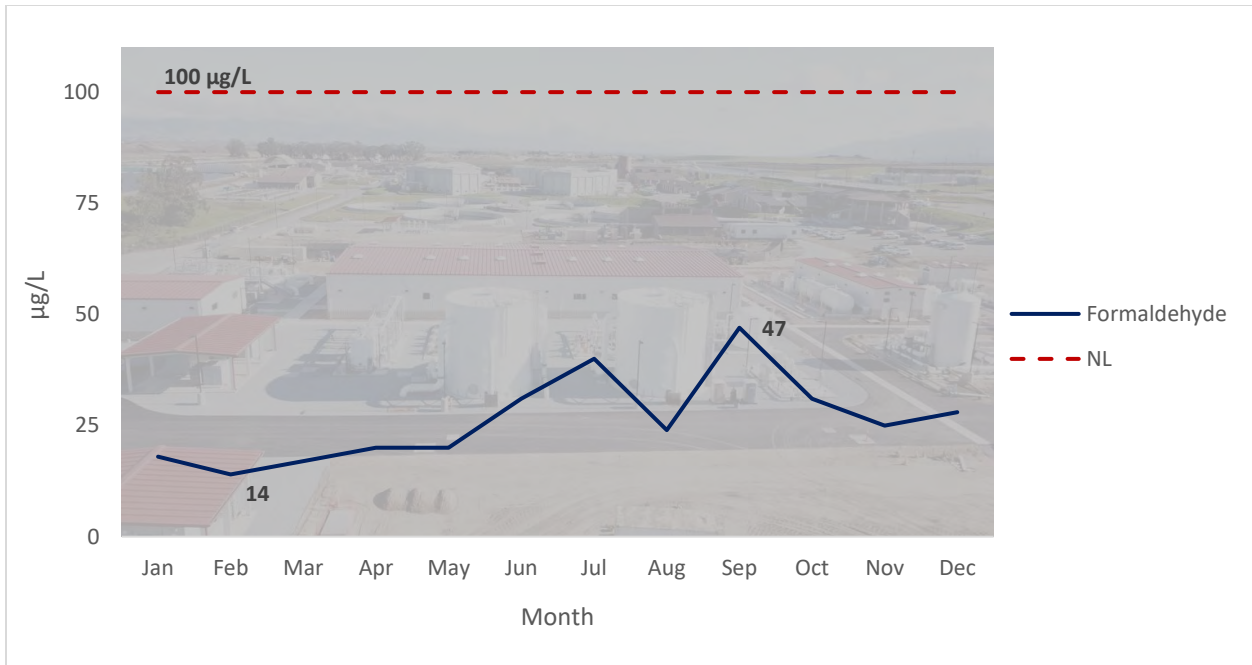
Pollutant (Monthly)	UOM	Result:											
		January	February	March	April	May	June	July	August	September	October	November	December
<b>Constituents with Notification Levels</b>													
Boron	µg/L	290	240	230	275	275	305	359	307	317	236	294	254
n-Butylbenzene	µg/L	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06
sec-Butylbenzene	µg/L	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10
tert-Butylbenzene	µg/L	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09
Carbon disulfide	µg/L	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09
Chlorate	µg/L	120	140	76	44	69	37	120	200	170	230	160	93
2-Chlorotoluene	µg/L	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06	ND 0.06
4-Chlorotoluene	µg/L	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.12
Diazinon	µg/L	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 3.80E-03	ND 3.80E-03
Dichlorodifluoromethane (Freon 12)	µg/L	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.10
1,4-Dioxane	µg/L	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09
Ethylene glycol	µg/L	ND 1200.00	ND 1200.00	ND 1200.00	ND 1200.00	ND 1200.00	ND 1200.00	ND 1200.00	ND 1200.00	ND 1200.00	ND 1200.00	ND 1200.00	ND 1200.00
Formaldehyde	µg/L	18	14	17	20	20	31	40	24	47	31	25	28
HMX	µg/L	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05
Isopropylbenzene	µg/L	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08	ND 0.08
Manganese	µg/L	ND 1.00	2.00	ND 1.00	2.00	2.00	2.00	2.00	3.00	2.00	2.00	2.00	2.00
Methyl isobutyl ketone (MIBK)	µg/L	ND 0.68	ND 0.68	ND 0.68	ND 0.68	ND 0.68	ND 0.68	ND 0.68	ND 0.68	ND 0.68	ND 0.68	ND 0.68	ND 0.68
Naphthalene	µg/L	ND 0.15	ND 0.01	ND 0.15	ND 0.15	ND 0.01	ND 0.15	ND 0.15	ND 0.01	ND 0.15	ND 0.15	ND 0.20	ND 0.15
N-Nitrosodiethylamine (NDEA)	µg/L	ND 1.49E-03	ND 1.49E-03	ND 1.49E-03	ND 1.49E-03	ND 1.49E-03	ND 1.60E-03	ND 1.49E-03	ND 1.49E-03	ND 1.49E-03	ND 1.49E-03	ND 1.49E-03	ND 1.49E-03
n-Nitrosodimethylamine (NDMA)	µg/L	ND 9.62E-04	ND 9.62E-04	ND 9.62E-04	ND 9.62E-04	ND 9.62E-04	ND 1.03E-03	ND 9.62E-04	ND 9.62E-04	ND 9.62E-04	ND 9.62E-04	ND 9.62E-04	ND 9.62E-04
N-Nitrosodi-n-propylamine (NDPA)	µg/L	ND 8.43E-04	ND 8.43E-04	ND 8.43E-04	ND 8.43E-04	ND 8.43E-04	ND 9.02E-04	ND 8.43E-04	ND 8.43E-04	ND 8.43E-04	ND 8.43E-04	ND 8.43E-04	ND 8.43E-04
Perfluorooctane sulfonate (PFOS)	µg/L	ND 4.30E-04	ND 4.30E-04	ND 4.30E-04	ND 4.30E-04	ND 4.30E-04	ND 4.30E-04	ND 4.30E-04	ND 4.30E-04	ND 4.30E-04	ND 4.30E-04	ND 4.30E-04	ND 4.30E-04
Perfluorooctanoic acid (PFOA)	µg/L	ND 3.80E-04	ND 3.80E-04	ND 3.80E-04	ND 3.80E-04	ND 3.80E-04	ND 3.80E-04	ND 3.80E-04	ND 3.80E-04	ND 3.80E-04	ND 3.80E-04	ND 3.80E-04	ND 3.80E-04
Propachlor	µg/L	ND 5.60E-03	ND 5.60E-03	ND 5.60E-03	ND 5.60E-03	ND 5.60E-03	ND 5.60E-03	ND 5.60E-03	ND 5.60E-03	ND 5.60E-03	ND 5.60E-03	ND 0.02	ND 0.02
n-Propylbenzene	µg/L	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09	ND 0.09
RDX	µg/L	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05
Tertiary butyl alcohol (TBA)	µg/L	ND 0.88	ND 0.88	ND 0.88	ND 0.88	ND 0.88	ND 0.88	ND 0.88	ND 0.88	ND 0.88	ND 0.88	ND 0.88	ND 0.88
1,2,4-Trimethylbenzene	µg/L	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11	ND 0.11
1,3,5-Trimethylbenzene	µg/L	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07	ND 0.07
2,4,6-Trinitrotoluene (TNT)	µg/L	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05
Vanadium	µg/L	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03



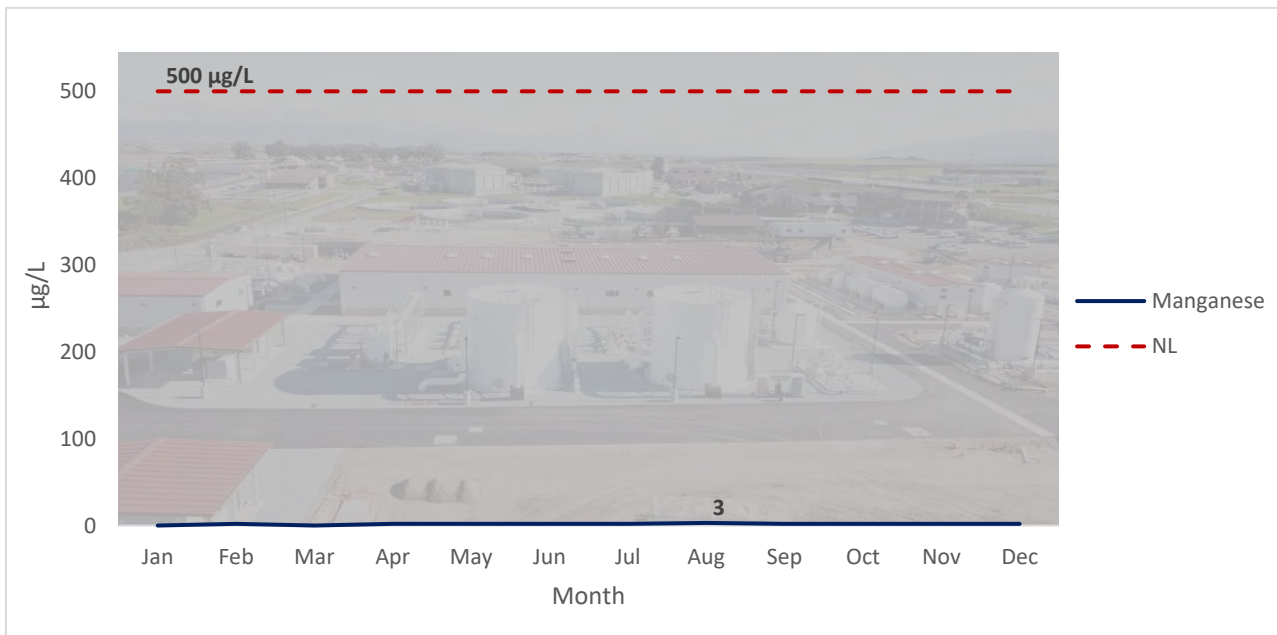
**Figure 82a. AWPf Product Water Monitoring – Monthly Boron (µg/L)**



**Figure 82b. AWPf Product Water Monitoring – Monthly Chlorate (µg/L)**



**Figure 82c. AWPf Product Water Monitoring – Monthly Formaldehyde (µg/L)**



**Figure 82d. AWPf Product Water Monitoring – Monthly Manganese (µg/L)**

**Table 83. AWPFP Product Water Monitoring – Remaining Priority Pollutants**

Pollutant (4/Year)	UOM	Result:			
		Q1	Q2	Q3	Q4
<b>Pesticides</b>					
Aldrin	µg/L	ND 0.02	ND 0.02	ND 5.00E-04	ND 0.04
Dieldrin	µg/L	ND 0.02	ND 4.20E-03	ND 4.60E-03	ND 4.60E-03
4,4'DDT	µg/L	ND 0.03	ND 0.03	ND 0.03	ND 0.02
4,4'DDE	µg/L	ND 0.02	ND 0.02	ND 0.02	ND 0.03
4,4'DDD	µg/L	ND 0.02	ND 0.02	ND 0.02	ND 0.03
Endosulfan I (-alpha)	µg/L	ND 0.06	ND 0.06	ND 0.06	ND 0.07
Endosulfan II (-beta)	µg/L	ND 0.05	ND 0.05	ND 0.05	ND 0.09
Endosulfan Sulfate	µg/L	ND 0.04	ND 0.04	ND 0.04	ND 0.03
Endrin aldehyde	µg/L	ND 0.08	ND 0.08	ND 0.08	ND 0.07
Alpha-BHC	µg/L	ND 0.02	ND 0.02	ND 0.02	ND 0.02
Beta-BHC	µg/L	ND 0.02	ND 0.02	ND 0.02	ND 0.03
Delta-BHC	µg/L	ND 0.03	ND 0.03	ND 0.03	ND 0.03
<b>Acid Extractables</b>					
2,4,6-Trichlorophenol	µg/L	ND 0.96	ND 0.98	ND 0.96	ND 1.00
P-Chloro-M-Cresol/4-Chloro-3-methylphenol	µg/L	ND 0.96	ND 0.98	ND 0.96	ND 1.00
2-Chlorophenol	µg/L	ND 0.19	ND 0.20	ND 0.19	ND 0.20
2,4-Dichlorophenol	µg/L	ND 0.96	ND 0.98	ND 0.96	ND 1.00
2,4-Dimethylphenol	µg/L	ND 0.19	ND 0.20	ND 0.19	ND 0.20
2-Nitrophenol	µg/L	ND 4.80	ND 4.90	ND 4.80	ND 5.10
4-Nitrophenol	µg/L	ND 4.80	ND 4.90	ND 4.80	ND 5.10
2,4-Dinitrophenol	µg/L	ND 4.80	ND 4.90	ND 4.80	ND 5.10
4,6-Dinitro-O-Cresol	µg/L	ND 0.88	ND 0.88	ND 0.88	ND 0.88
Phenol	µg/L	ND 0.19	ND 0.20	ND 0.19	ND 0.20
<b>Metals</b>					
Chromium (III)	µg/L	ND 1.00	ND 1.00	ND 1.00	ND 1.00
<b>Base/Neutral, Extractables</b>					
Acenaphthene	µg/L	ND 0.02	ND 0.02	ND 0.02	ND 0.01
Benzidine	µg/L	ND 4.80	ND 4.90	ND 4.80	ND 5.10
Hexachloroethane	µg/L	ND 0.19	ND 0.20	ND 0.19	ND 0.20
Bis(2-chloroethyl)ether	µg/L	ND 0.19	ND 0.20	ND 0.19	ND 0.20
2-Chloronaphthalene	µg/L	ND 0.19	ND 0.20	ND 0.19	ND 0.20
1,3-Dichlorobenzene	µg/L	ND 0.19	ND 0.20	ND 0.19	ND 0.20
3,3-Dichlorobenzidine	µg/L	ND 4.80	ND 4.90	ND 4.80	ND 5.10
2,4-Dinitrotoluene	µg/L	ND 0.01	ND 0.01	ND 0.01	ND 0.03
2,6-Dinitrotoluene	µg/L	ND 0.04	ND 0.04	ND 0.04	ND 0.07
1,2-Diphenylhydrazine (azobenzene)	µg/L	ND 0.19	ND 0.20	ND 0.19	ND 0.20
Fluoranthene	µg/L	ND 0.01	ND 0.01	ND 0.01	ND 0.01
4-Chlorophenyl Phenyl Ether	µg/L	ND 0.05	ND 0.05	ND 0.05	ND 0.05
4-Bromophenyl Phenyl Ether	µg/L	ND 0.05	ND 0.05	ND 0.05	ND 0.05
Bis (2-chloroisopropyl) ether	µg/L	ND 0.19	ND 0.20	ND 0.19	ND 0.20
Bis (2-chloroethoxy) methane	µg/L	ND 0.19	ND 0.20	ND 0.19	ND 0.20
Hexachlorobutadiene	µg/L	ND 0.19	ND 0.20	ND 0.19	ND 0.20
Isophorone	µg/L	ND 0.02	ND 0.02	ND 0.02	ND 0.02
Nitrobenzene	µg/L	ND 0.19	ND 0.20	ND 0.19	ND 0.20
N-Nitrosodiphenylamine	µg/L	ND 0.05	ND 0.05	ND 0.05	ND 0.05
Bis(2-ethyl-hexyl)phthalate	µg/L	ND 3.40	ND 0.11	ND 0.11	ND 3.40
Butyl Benzyl Phthalate	µg/L	ND 0.06	ND 0.06	ND 0.06	ND 0.05
Di-n-butyl phthalate	µg/L	ND 0.07	ND 0.07	ND 0.07	ND 0.08
Di-N-Octyl Phthalate	µg/L	ND 0.03	ND 0.03	ND 0.03	ND 0.04
Diethyl phthalate	µg/L	ND 1.60	ND 1.60	ND 1.60	ND 1.60
Dimethyl phthalate	µg/L	ND 0.04	ND 0.04	ND 0.04	ND 0.04
Benzo(A)Anthracene	µg/L	ND 0.19	ND 0.20	ND 0.19	ND 0.20
Benzo(B)Fluoranthene	µg/L	ND 0.01	ND 0.01	ND 0.01	ND 0.01

Pollutant (4/Year)	UOM	Result:			
		Q1	Q2	Q3	Q4
<b>Base/Neutral, Extractables (cont.)</b>					
Benzo(K)Fluoranthene	µg/L	ND 0.02	ND 0.02	ND 0.02	ND 8.00E-03
Chrysene	µg/L	ND 0.01	ND 0.01	ND 0.01	ND 5.00E-03
Acenaphthylene	µg/L	ND 0.01	ND 0.01	ND 0.01	ND 0.04
Anthracene	µg/L	ND 0.02	ND 0.02	ND 0.02	ND 4.00E-03
Benzo(ghi)Perylene	µg/L	ND 0.19	ND 0.20	ND 0.19	ND 0.20
Fluorene	µg/L	ND 0.01	ND 0.01	ND 0.01	ND 0.01
Phenanthrene	µg/L	ND 8.00E-03	ND 8.00E-03	ND 8.00E-03	ND 6.00E-03
Dibenzo(A,H)Anthracene	µg/L	ND 0.04	ND 0.04	ND 0.04	ND 0.04
Indeno(1,2,3-CD)Pyrene	µg/L	ND 0.05	ND 0.05	ND 0.05	ND 0.05
Pyrene	µg/L	ND 0.19	ND 0.20	ND 0.19	ND 0.20
<b>Volatile Organics</b>					
Acrolein	µg/L	ND 2.20	ND 2.20	ND 2.20	ND 2.20
Acrylonitrile	µg/L	ND 1.30	ND 1.30	ND 1.30	ND 1.30
Chlorobenzene	µg/L	ND 0.07	ND 0.07	ND 0.07	ND 0.07
Chloroethane	µg/L	ND 0.08	ND 0.08	ND 0.08	ND 0.08
1,1-Dichloroethylene	µg/L	ND 0.11	ND 0.11	ND 0.11	ND 0.11
Methyl chloride	µg/L	ND 0.11	ND 0.11	ND 0.11	ND 0.11
Methyl bromide	µg/L	ND 0.12	ND 0.12	ND 0.12	ND 0.12
2-Chloroethyl Vinyl Ether	µg/L	ND 0.80	ND 0.80	ND 0.80	ND 0.80

**Figure 83. AWPf Product Water Monitoring – Remaining Priority Pollutants – N/A**

*All monitoring results were ND.*

### 3.3.3 RO Feed Water (Prior to RO)

**Table 84a. AWPf Product Water Monitoring – Constituents of Emerging Concern (CEC)**

Pollutant (4/Year)	UOM	Relevance/ Indicator Type	Type of Sample	Frequency	Result:							
					Q1		Q2		Q3		Q4	
					Prior to RO	AWPF Recycled Water	Prior to RO	AWPF Recycled Water	Prior to RO	AWPF Recycled Water	Prior to RO	AWPF Recycled Water
1,4-Dioxane	µg/L	Health	Grab	Quarterly	NA	ND 0.09	NA	ND 0.09	NA	ND 0.09	NA	ND 0.09
n-Nitrosodimethylamine (NDMA)	ng/L	Health & Performance	Grab	Quarterly	0.1	ND 9.62E-04	0.1	ND 1.03E-03	0.1	ND 9.62E-04	0.06	ND 9.62E-04
Perfluorooctane sulfonate (PFOS)	µg/L	Health	Grab	Quarterly	NA	ND 4.30E-04	NA	ND 4.30E-04	NA	ND 4.30E-04	NA	ND 4.30E-04
Perfluorooctanoic acid (PFOA)	µg/L	Health	Grab	Quarterly	NA	ND 3.80E-04	NA	ND 3.80E-04	NA	ND 3.80E-04	NA	ND 3.80E-04
n-Nitrosomorpholine (NMOR)	ng/L	Health	Grab	Quarterly	NA	ND 6.09E-04	NA	ND 6.09E-04	NA	ND 6.09E-04	NA	ND 6.09E-04
Sucralose	ng/L	Performance	Grab	Quarterly	60	ND 0.05	48	ND 0.05	53	ND 0.05	62	ND 0.05
Sulfamethoxazole	ng/L	Performance	Grab	Quarterly	0.27	ND 3.21E-03	ND 3.21E-03	ND 3.21E-03	0.0059	ND 3.21E-03	0.21	ND 3.21E-03

**Table 84b. AWP Product Water Monitoring – CEC Removal Efficiency**

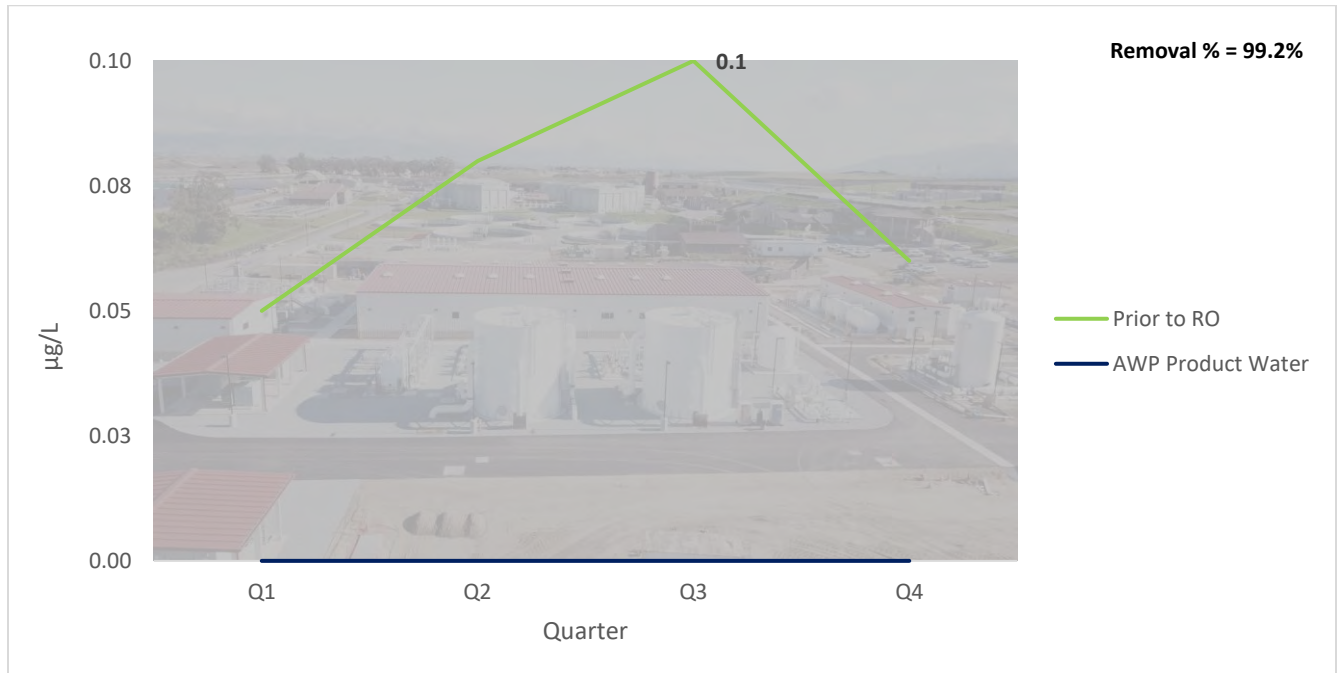
Pollutant (4/Year)	UOM	Relevance/ Indicator Type	Type of Sample	Frequency	Removal Percentage
					Annual
					Removal %*
n-Nitrosodimethylamine (NDMA)	µg/L	Health & Performance	Grab	Quarterly	99.2
Sucralose	µg/L	Performance	Grab	Quarterly	99.9
Sulfamethoxazole	µg/L	Performance	Grab	Quarterly	97.3

Removal Percentage =  $([X_{in}-X_{out}]/X_{in})(100)$

X<sub>in</sub> - Concentration in recycled water prior to a treatment process

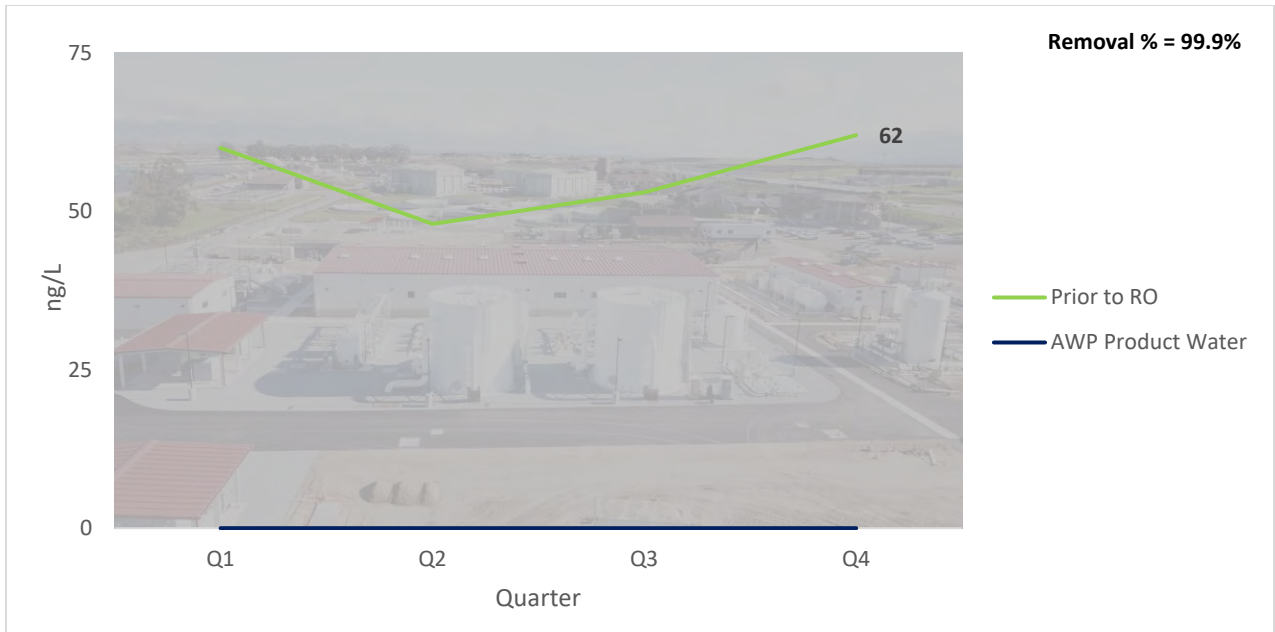
X<sub>out</sub> - Concentration in recycled water after a treatment process

\*For ND results, the MDL was used in calculations.

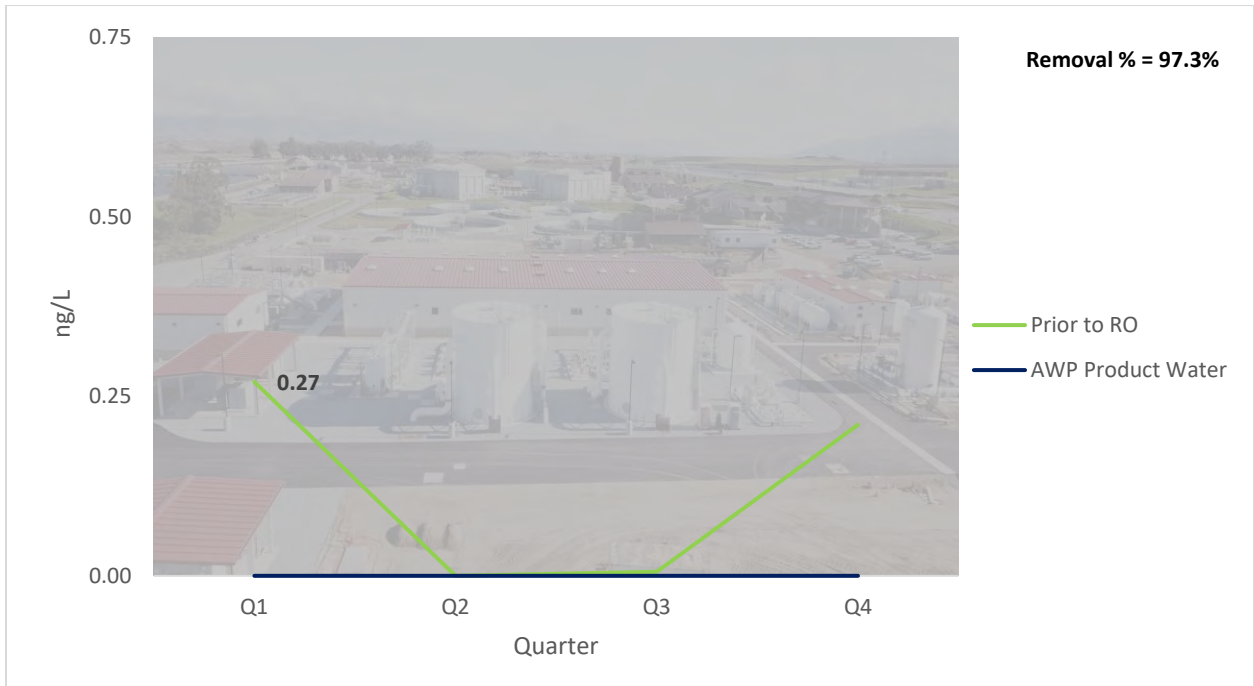


**Figure 84a. AWP Product Water Monitoring – Quarterly NDMA (ng/L)**





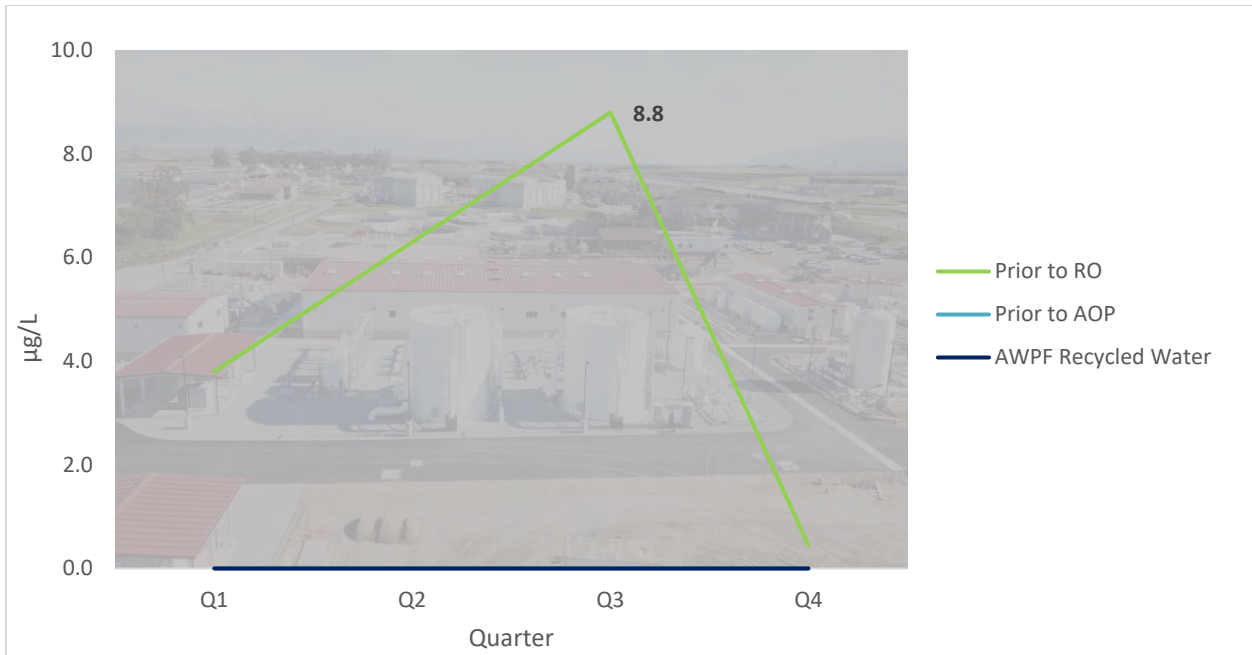
**Figure 84b. AWP Product Water Monitoring – Quarterly Sucralose (ng/L)**



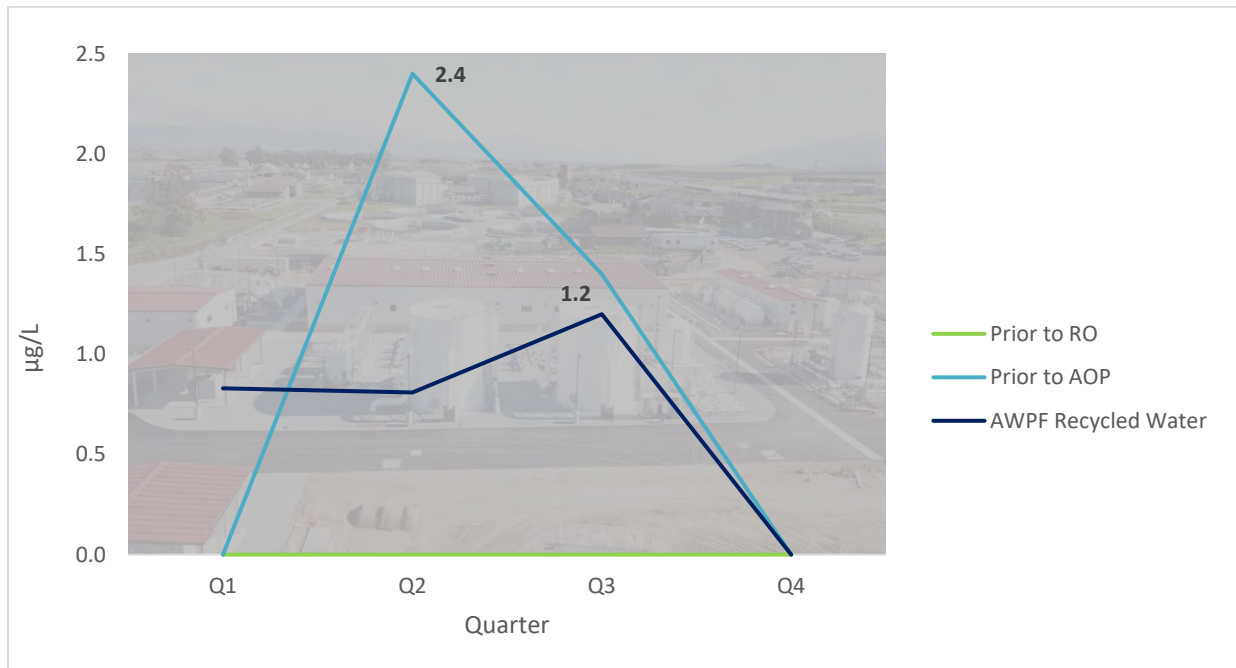
**Figure 84c. AWP Product Water Monitoring – Quarterly Sulfamethoxazole (ng/L)**

**Table 85. AWPf Product Water Monitoring – DDW Specified Chemicals**

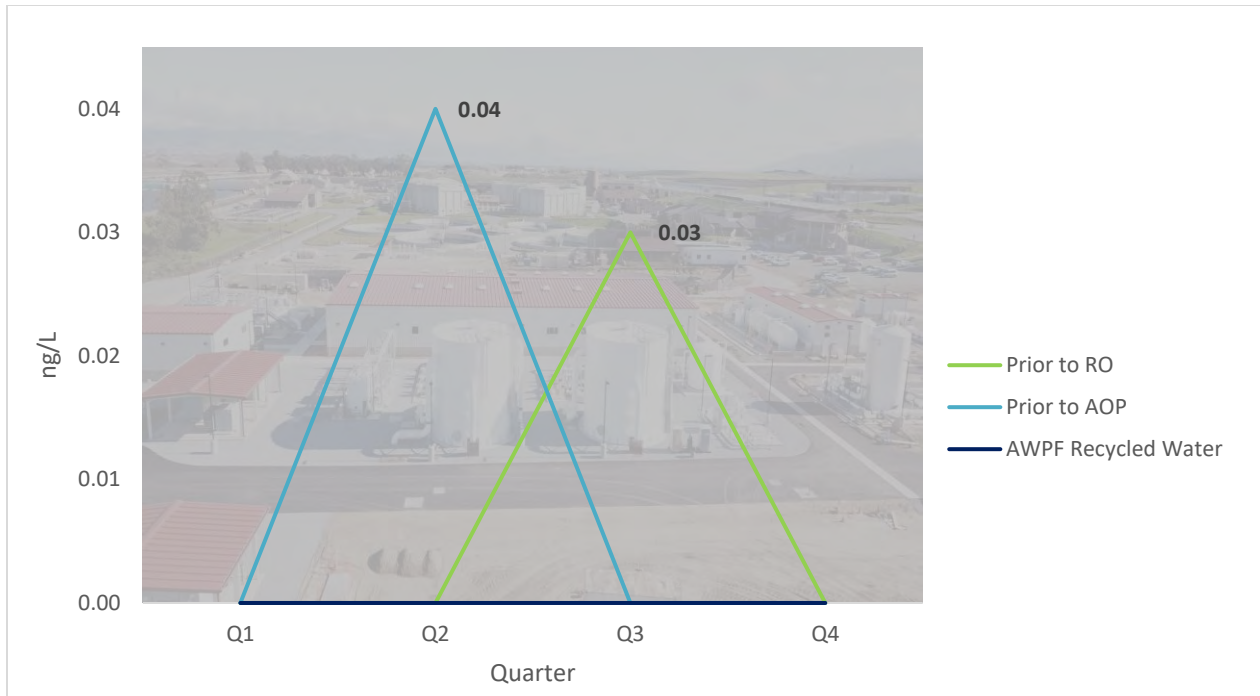
Constituent (4/Year)	UOM	Type of Sample	Minimum Frequency	Result:											
				Q1			Q2			Q3			Q4		
				Prior to RO	Prior to AOP	AWPF Recycled Water	Prior to RO	Prior to AOP	AWPF Recycled Water	Prior to RO	Prior to AOP	AWPF Recycled Water	Prior to RO	Prior to AOP	AWPF Recycled Water
DCPA	µg/L	Grab	Quarterly	3.8	ND 0.02	ND 0.02	6.3	ND 0.02	ND 0.02	8.8	ND 0.02	ND 0.02	0.45	ND 0.02	ND 0.02
Albuterol	µg/L	Grab	Quarterly	NA	NA	ND 2.54E-03	NA	NA	ND 2.54E-03	NA	NA	ND 2.54E-03	NA	NA	ND 2.54E-03
Caffeine	µg/L	Grab	Quarterly	NA	NA	ND 3.85E-03	NA	NA	ND 3.85E-03	NA	NA	ND 3.85E-03	NA	NA	ND 3.85E-03
Carbadox	µg/L	Grab	Quarterly	NA	NA	ND 2.10E-03	NA	NA	ND 2.10E-03	NA	NA	ND 2.10E-03	NA	NA	ND 2.10E-03
Chloropicrin	µg/L	Grab	Quarterly	ND 0.07	ND 0.07	0.83	ND 0.07	2.4	0.81	ND 0.07	1.4	1.2	ND 0.07	ND 0.07	ND 0.07
Chloropyrifos	µg/L	Grab	Quarterly	NA	NA	ND 0.02	NA	NA	ND 0.02	NA	NA	ND 0.02	NA	NA	ND 0.02
Chlorothalonil	µg/L	Grab	Quarterly	NA	NA	ND 0.02	NA	NA	ND 0.02	NA	NA	ND 0.02	NA	NA	ND 0.02
Erythromycin	µg/L	Grab	Quarterly	NA	NA	ND 0.04	NA	NA	ND 3.59E-03	NA	NA	ND 3.59E-03	NA	NA	ND 3.59E-03
Fluoxetine	µg/L	Grab	Quarterly	NA	NA	ND 3.34E-03	NA	NA	ND 3.34E-03	NA	NA	ND 3.34E-03	NA	NA	ND 3.34E-03
Iohexol	µg/L	Grab	Quarterly	NA	NA	ND 8.93E-03	NA	NA	ND 8.93E-03	NA	NA	ND 8.93E-03	NA	NA	ND 8.93E-03
Quinoline	µg/L	Grab	Quarterly	ND 2.50E-03	ND 2.50E-03	ND 2.50E-03	ND 2.50E-03	0.04	ND 2.50E-03	0.03	ND 2.50E-03	ND 2.50E-03	ND 2.50E-03	ND 2.50E-03	ND 2.50E-03
Triclosan	µg/L	Grab	Quarterly	NA	NA	ND 0.01	NA	NA	ND 0.01	NA	NA	ND 0.01	NA	NA	ND 0.01



**Figure 85a. AWPf Product Water Monitoring – Quarterly DCPA (µg/L)**



**Figure 85b. AWPf Product Water Monitoring – Quarterly Chloropicrin (µg/L)**



**Figure 85c. AWPF Product Water Monitoring –Quarterly Quinoline ( $\mu\text{g/L}$ )**

**Table 86a. AWPf Product Water Monitoring – Surrogates for CECs (Initial Assessment Phase)**

Pollutant (4/Year)	UOM	Type of Sample	Minimum Frequency	Result:							
				Q1		Q2		Q3		Q4	
				Prior to RO	AWPF Recycled Water	Prior to RO	AWPF Recycled Water	Prior to RO	AWPF Recycled Water	Prior to RO	AWPF Recycled Water
Electrical Conductivity	μS/cm	Online	Continuous	1750.3	233.9	1819.9	212.4	1810.0	217.2	1762.1	204.6
UV Absorbance	cm-1	Grab	Quarterly	NA	0.013	NA	0.012	NA	0.016	NA	0.017
Total Organic Carbon (TOC)	mg/L	Grab	Quarterly	NA	0.11	NA	0.20	NA	0.23	NA	0.20

**Table 86b. AWPf Product Water Monitoring – Removal Efficiency for Surrogates for CECs (Initial Assessment Phase)**

Pollutant (4/Year)	UOM	Type of Sample	Minimum Frequency	Removal Percentage
				Annual Average
				Removal %
Electrical Conductivity	μS/cm	Online	Continuous*	87.9
UV Absorbance	cm-1	Grab	Quarterly	NA
Total Organic Carbon (TOC)	mg/L	Grab	Quarterly	NA

\*Based on Daily Average values

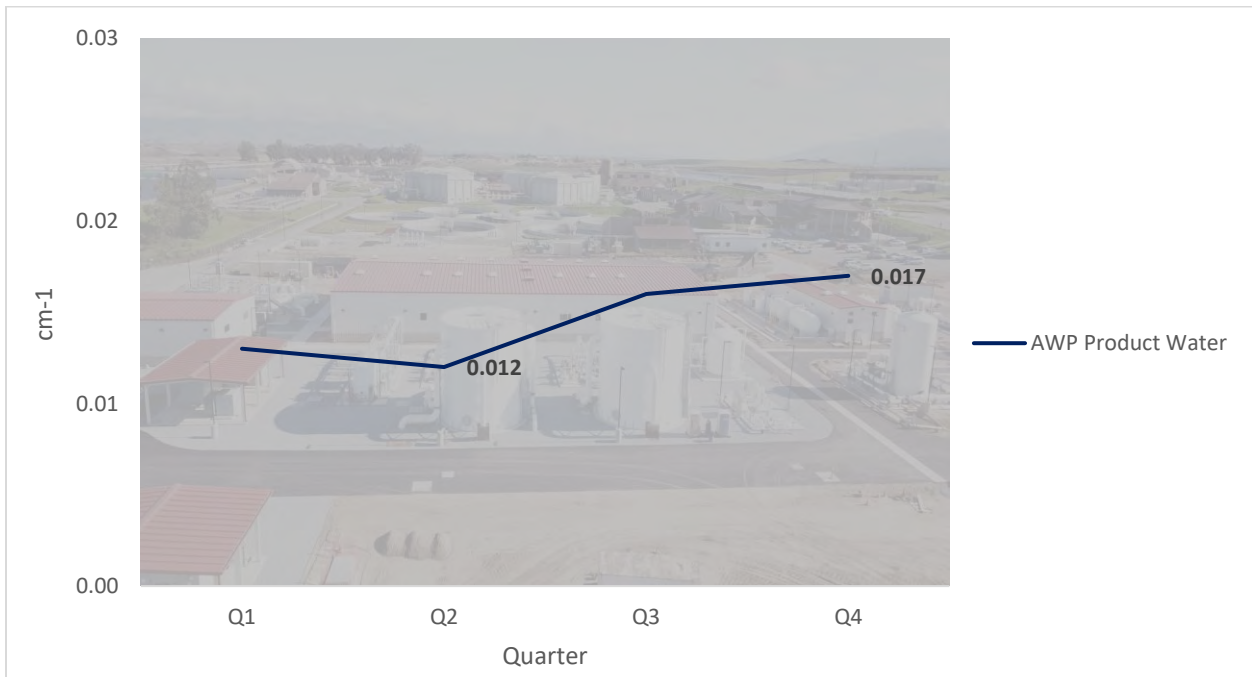
$$\text{Removal Percentage} = \left( \frac{X_{in} - X_{out}}{X_{in}} \right) (100)$$

$X_{in}$  - Concentration in recycled water prior to a treatment process

$X_{out}$  - Concentration in recycled water after a treatment process



**Figure 86a. AWP Product Water Monitoring – Quarterly Electrical Conductivity (µS/cm)**



**Figure 86b. AWP Product Water Monitoring – Quarterly UV Absorbance (cm-1)**



**Figure 86c. AWP Product Water Monitoring – Quarterly TOC (mg/L)**

**Table 87. AWPf Product Water Monitoring – Bioanalytical Screening Tools**

Constituent (4/Year)	UOM	Type of Sample	Frequency	Reporting Limit ng/L	Monitoring Trigger Level ng/L	Result:			
						Q1	Q2	Q3	Q4
						AWPF Recycled Water	AWPF Recycled Water	AWPF Recycled Water	AWPF Recycled Water
Estrogen receptor- $\alpha$ (ER- $\alpha$ )	N/A	Grab	Quarterly	0.5	3.5	NA*	ND 0.15	ND 0.14	ND 0.08
Aryl-hydrocarbon receptor (AhR)*	N/A	Grab	Quarterly	0.5	0.5	NA*	NA*	NA*	NA*

\*No data. QAPP approval received May 5, 2021. See **Section 3.3.2** for more information.

\*\* As of the date of this report no US-based laboratory is approved for the use of the AhR bioassay. Once a US-based laboratory is approved for the use of the AhR bioassay, the Recycled Water Policy QAO is expected to contact M1W after which M1W will resubmit the QAPP for approval and subsequently initiate the Initial Monitoring Phase for AhR.

**Figure 87. AWPf Product Water Monitoring – Bioanalytical Screening Tools – N/A**

*All parameters ND.*



### 3.3.4 Groundwater

Analytical results of compliance samples collected during the monitoring period as outlined in Tables M-14 through M-16 are presented herein. See **Section 6.0** for a discussion of detections of monitored chemicals or contaminants, observed trends in the monitoring wells, and historic water quality in the Seaside Basin. Note: groundwater sample analyses are conducted by outside laboratories contracted by M1W. Additionally, per the MRP:

*If any of the monitoring results indicate that an MCL has been exceeded or coliforms are present in the monitoring wells at the M1W groundwater injection project as a result of the use of the recycled water, M1W shall notify the DDW and Central Coast Water Board within 72 hours of receiving the results and make note of any positive finding in the next monitoring report submitted to the Central Coast Water Board.*

Note: Per the MRP regarding reporting analytical data (only providing quantifiable results in graphical format; for parameters with mixed results, ND and DNQ results treated as zero):

- j. For the purpose of reporting compliance with numerical limitations, analytical data shall be reported using the following reporting protocols:*
  - i. Sample results greater than or equal to the MRL must be reported “as measured” by the laboratory (i.e., the measured chemical concentration in the sample); or*
  - ii. Sample results less than the MRL, but greater than or equal to the laboratory’s Minimum Detection Limit (MDL), shall be reported as “Detected, but Not Quantified”, “DNQ”. The laboratory shall write the estimated chemical concentration of the sample next to “DNQ”; or*
  - iii. Sample results less than the laboratory’s MDL shall be reported as “Not- Detected”, or ND.*

Table M-14: Groundwater Monitoring				
Constituents/Parameters	Units	Type of Sample	Minimum Frequency of Analysis	Reference Table Number
Water level elevation <sup>10</sup>	Feet	---	Quarterly	M-14
Chlorine residual	mg/L	Grab	Quarterly	M-14
Chloride	mg/L	Grab	Quarterly	M-14
Nitrate-N	mg/L	Grab	Quarterly	M-14
Nitrite-N	mg/L	Grab	Quarterly	M-14
Nitrate plus Nitrite	mg/L	Grab	Quarterly	M-14
pH	pH units	Grab	Quarterly	M-14
Sodium	mg/L	Grab	Quarterly	M-14
Sulfate	mg/L	Grab	Quarterly	M-14
TOC	mg/L	Grab	Quarterly	M-14
Total coliform	MPN/100ml	Grab	Quarterly	M-14
BOD <sub>5</sub> 20°C	mg/L	Grab	Semi-annually	M-14
Oil and grease	mg/L	Grab	Quarterly	M-14
Total nitrogen	mg/L	Grab	Quarterly	M-14
Total Suspended Solids	mg/L	Grab	Semi-annually	M-14
Turbidity	NTU	Grab	Quarterly	M-14
Inorganics with primary MCLs	µg/L	Grab	Monthly	M-4
Radioactivity	pCi/L	Grab	Quarterly	M-15
Regulated organics	µg/L	Grab	Quarterly	M-15
Disinfection byproducts (DBPs)	µg/L	Grab	Quarterly	M-15
General physical		Grab	Monthly	M-16
General minerals	µg/L	Grab	Monthly	M-16
Chemicals with NLS	µg/L	Grab	Quarterly	M-15
N-Nitrosopyrrolidine	µg/L	Grab	Annually	M-14
Remaining priority pollutants	µg/L	Grab	Quarterly	M-15
Silver	mg/L	Grab	Quarterly	M-14

<sup>10</sup>Water level elevations shall be measured to the nearest 0.01 feet, and referenced to mean sea level.



Table M-15: Groundwater Monitoring Frequency	
Constituent	Frequency
<b>Radioactivity</b>	
Gross Alpha Particle Activity (including Radium-226 but excluding radon and uranium)	Quarterly
Gross Beta Particle Activity	Quarterly
Radium-226	Quarterly
Radium-226 & Radium-228 (Combined)	Quarterly
Radium-228	Quarterly
Strontium-90	Quarterly
Tritium	Quarterly
Uranium	Quarterly
<b>Organic Chemicals</b>	
<b>(a) Volatile Organic Chemicals</b>	
1,1,1-Trichloroethane	Quarterly
1,1,2,2-Tetrachloroethane	Quarterly
1,1,2-Trichloro-1,2,2- Trifluoroethane	Quarterly
1,1,2-Trichloroethane	Quarterly
1,1-Dichloroethane	Quarterly
1,1-Dichloroethene (1,1 DCE)	Quarterly
1,2,4-Trichlorobenzene	Quarterly
1,2-Dichlorobenzene	Quarterly
1,2-Dichloroethane (1,2 DCA)	Quarterly
1,2-Dichloropropane	Quarterly
1,3-Dichloropropene	Quarterly
1,4-Dichlorobenzene	Quarterly
Benzene	Quarterly
Carbon Tetrachloride (CTC)	Quarterly
cis-1,2-Dichloroethylene	Quarterly
Dichloromethane	Quarterly
Ethylbenzene	Quarterly
Methyl-tert-butyl-ether (MTBE)	Quarterly
Monochlorobenzene	Quarterly
Styrene	Quarterly

Table M-15: Groundwater Monitoring Frequency	
Tetrachloroethylene (PCE)	Quarterly
Toluene	Quarterly
trans-1,2-Dichloroethylene	Quarterly
Trichloroethylene (TCE)	Quarterly
Trichlorofluoro-methane	Quarterly
Vinyl Chloride	Quarterly
Xylenes (m, p)	Quarterly
<b>(b) Synthetic organic chemical</b>	
1,2-Dibromo-3-Chloropropane (DBCP)	Quarterly
1,2,3-Trichloropropane	Quarterly
2,3,7,8-TCDD (Dioxin)	Quarterly
2,4,5-TP (Silvex)	Quarterly
2,4-Dichlorophenoxyacetic acid (2,4-D)	Quarterly
2,3,5,6-tetrachloroterephthalate (DCPA)	Quarterly
Alachlor	Quarterly
Albuterol	Quarterly
Atrazine	Quarterly
Bentazon	Quarterly
Benzo (a) pyrene	Quarterly
Caffeine	Quarterly
Carbadox	Quarterly
Carbofuran	Quarterly
Chlordane	Quarterly
Chloropicrin	Quarterly
Dalapon	Quarterly
Di (2-ethylhexyl) adipate	Quarterly
Di (2-ethylhexyl) phthalate	Quarterly
Dinoseb	Quarterly
Diquat	Quarterly
Endothal	Quarterly
Endrin	Quarterly
Erythromycin	Quarterly
Ethylene Dibromide (EDB)	Quarterly
Fluoxetine	Quarterly
Glyphosate	Quarterly
Heptachlor	Quarterly
Heptachlor Epoxide	Quarterly
Hexachlorobenzene	Quarterly

Table M-15: Groundwater Monitoring Frequency	
Hexachlorocyclo-pentadiene	Quarterly
Iohexol	Quarterly
Lindane (Gamma BHC)	Quarterly
Methoxychlor	Quarterly
Molinate	Quarterly
Oxamyl	Quarterly
PCB 1016	Quarterly
PCB 1221	Quarterly
PCB 1232	Quarterly
PCB 1242	Quarterly
PCB 1248	Quarterly
PCB 1254	Quarterly
PCB 1260	Quarterly
Pentachlorophenol	Quarterly
Picloram	Quarterly
Quinoline	Quarterly
Simazine	Quarterly
Thiobencarb	Quarterly
Toxaphene	Quarterly
Triclosan	Quarterly
<b>Disinfection Byproducts</b>	
Bromate	Quarterly
Bromodichloro-methane	Quarterly
Bromoform	Quarterly
Chlorite	Quarterly
Chloroform	Quarterly
Dibromoacetic Acid	Quarterly
Dibromochloro-methane	Quarterly
Dichloroacetic Acid	Quarterly
Haloacetic Acid (Five) (HAA5)	Quarterly
Monobromoacetic Acid	Quarterly
Monochloroacetic Acid	Quarterly
Total Trihalomethanes	Quarterly
Trichloroacetic Acid	Quarterly

Table M-15: Groundwater Monitoring Frequency	
Chemicals with Notification Levels	
1,2,4-Trimethylbenzene	Quarterly
1,3,5-Trimethylbenzene	Quarterly
1,4-Dioxane	Quarterly
2-Chlorotoluene	Quarterly
2,4,6-Trinitrotoluene (TNT)	Quarterly
4-Chlorotoluene	Quarterly
Boron	Quarterly
Carbon Disulfide	Quarterly
Chlorate	Quarterly
Diazinon	Quarterly
Dichlorodifluoro-methane (Freon 12)	Quarterly
Ethylene Glycol	Quarterly
Formaldehyde	Quarterly
HMX	Quarterly
Isopropylbenzene	Quarterly
Manganese	Quarterly
Methyl-isobutyl-keytone (MIBK)	Quarterly
Naphthalene	Quarterly
n-Butylbenzene	Quarterly
n-Nitrosodiethyl-amine (NDEA)	Quarterly
n-Nitrosodimethylamine (NDMA)	Quarterly
n-Nitrosodi-n-propylamine (NDPA)	Quarterly
Perfluorooctanoic acid (PFOA)	Quarterly
Perfluorooctane sulfonate (PFOS)	Quarterly
n-Propylbenzene	Quarterly
Propachlor	Quarterly
RDX	Quarterly
sec-Butylbenzene	Quarterly
tert-Butylbenzene	Quarterly
Tertiary-butyl-alcohol (TBA)	Quarterly
Vanadium	Quarterly

Table M-15: Groundwater Monitoring Frequency	
Remaining Priority Pollutants	
Pesticides	
4,4,4'-DDD	Quarterly
4,4,4'-DDE	Quarterly
4,4,4'-DDT	Quarterly
Aldrin	Quarterly
Alpha BHC	Quarterly
Alpha Endosulfan	Quarterly
Beta BHC	Quarterly
Beta Endosulfan	Quarterly
Chloropyrifos	Quarterly
Chlorothalonil	Quarterly
Chromium III	Quarterly
Chromium VI	Quarterly
Delta BHC	Quarterly
Dieldrin	Quarterly
Endosulfan Sulfate	Quarterly
Endrin Aldehyde	Quarterly
Acid Extractables	
2,4,6-Trichlorophenol	Quarterly
2,4-Dichlorophenol	Quarterly
2,4-Dimethylphenol	Quarterly
2,4-Dinitrophenol	Quarterly
2-Chlorophenol	Quarterly
2-Nitrophenol	Quarterly
4,6-Dinitro-o-Cresol (2-Methyl-4,6-Dinitrophenol)	Quarterly
4-Nitrophenol	Quarterly
p-Chloro-m-Cresol (3-Methyl-4-Chlorophenol)	Quarterly
Phenol	Quarterly
Base/Neutral Extractables	
1,12-Benzoperylene (Benzo(g,h,i)-perylene)	Quarterly
1,2,5,6-Dibenzanthracene (Dibenzo(a,h) anthracene)	Quarterly
1,2-Diphenylhydrazine	Quarterly
1,3-Dichlorobenzene	Quarterly
2,4-Dinitrotoluene	Quarterly
2,6-Dinitrotoluene	Quarterly
2-Chloronaphthalene	Quarterly
3,3'-Dichlorobenzidine	Quarterly

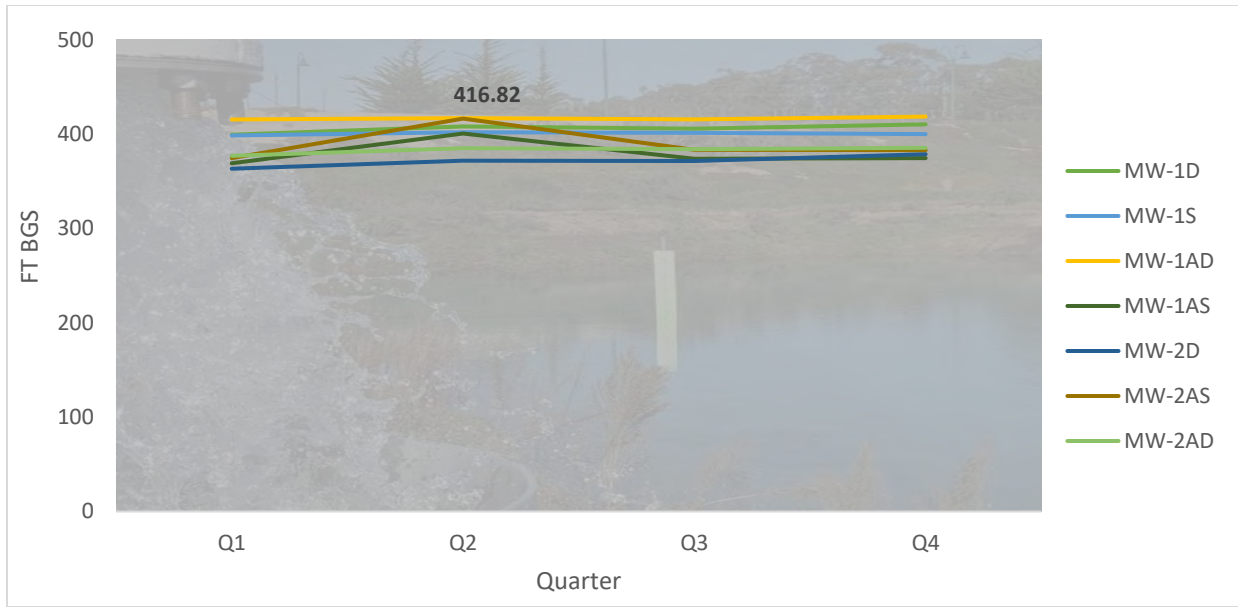
Table M-15: Groundwater Monitoring Frequency	
4-Bromophenyl phenyl ether	Quarterly
4-Chlorophenyl phenyl ether	Quarterly
Acenaphthene	Quarterly
Acenaphthylene	Quarterly
Anthracene	Quarterly
Benzidine	Quarterly
Benzo(a)anthracene	Quarterly
Benzo(b)fluoranthene	Quarterly
Benzo(k)fluoranthene	Quarterly
Bis(2-chloroethoxy)-methane	Quarterly
Bis(2-chloroethyl)ether	Quarterly
Bis(2-chloroisopropyl)ether	Quarterly
Butyl benzyl phthalate	Quarterly
Chrysene	Quarterly
Di(2-ethylhexyl) phthalate	Quarterly
Dimethyl phthalate	Quarterly
Di-n-butyl phthalate	Quarterly
Di-n-octyl phthalate	Quarterly
Fluoranthene	Quarterly
Fluorene	Quarterly
Hexachlorobutadiene	Quarterly
Hexachloroethane	Quarterly
Indeno(1,2,3-cd) pyrene	Quarterly
Isophorone	Quarterly
Nitrobenzene	Quarterly
n-Nitrosodi-n-propylamine	Quarterly
n-Nitrosodiphenylamine	Quarterly
Phenanthrene	Quarterly
Pyrene	Quarterly
1,1-Dichloroethylene	Quarterly
2-Chloroethyl vinyl ether	Quarterly
Acrolein	Quarterly
Acrylonitrile	Quarterly
Chlorobenzene	Quarterly
Chloroethane	Quarterly
Methyl bromide	Quarterly
Methyl chloride	Quarterly

Table M-16: General Physical and General Minerals		
Constituents		
Asbestos	Potassium	Foaming Agents
Calcium	Sodium	Odor
Chloride	Sulfate	Specific Conductance
Copper	Zinc	Total Dissolved Solids
Iron	Color	Total Hardness
Manganese	Corrosivity	

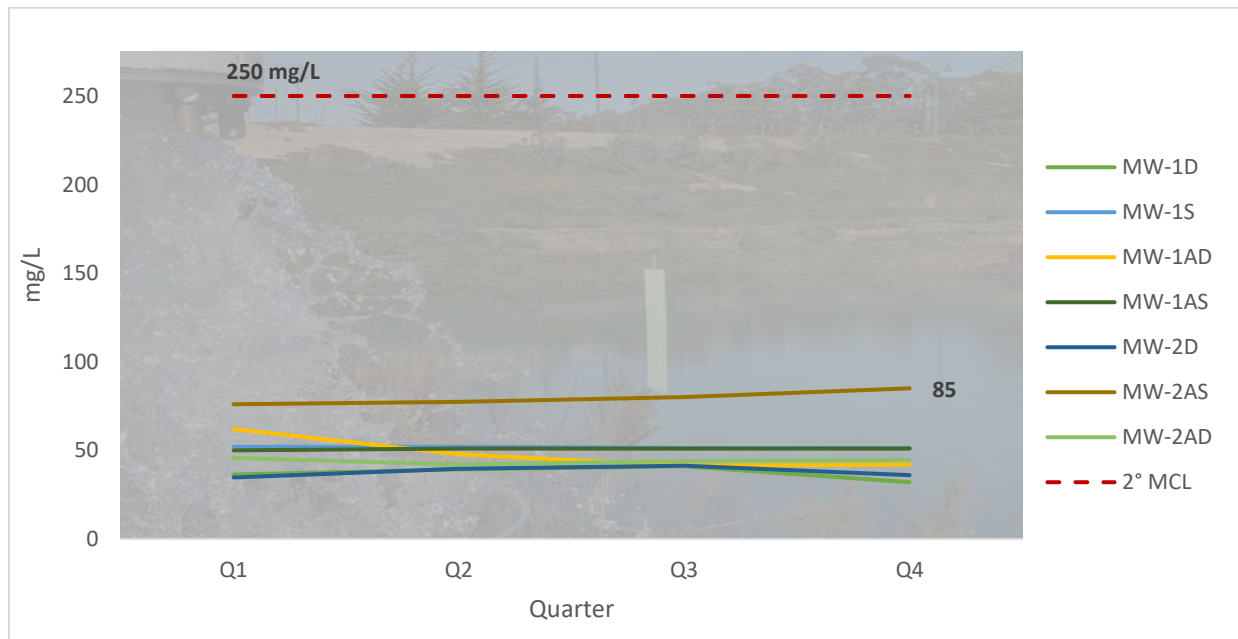


Table 88. Groundwater Monitoring – Quarterly Monitoring

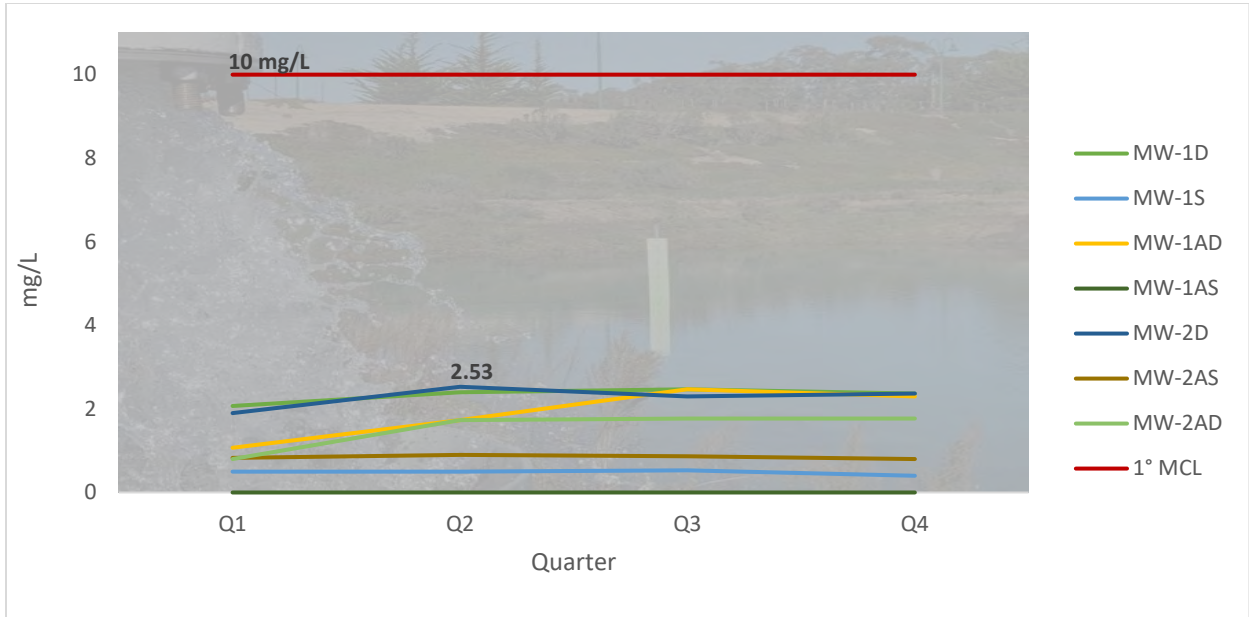
Constituents/ Parameters (4x/Year)	UOM	Q1							Q2							Q3							Q4						
		MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
Distance to Water (DTW)	ft-bgs	399.4	398.5	415.5	369.1	363.3	374.6	377.0	408.2	402.0	416.8	400.6	371.7	416.5	385.0	405.7	401.4	415.5	373.9	371.7	383.2	384.2	410.4	400.0	418.6	374.5	378.7	382.9	385.5
Chlorine Residual, DPD	mg/L	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05
Chloride	mg/L	36.3	52.0	62.0	50.0	34.7	76.0	45.7	39.3	52.0	47.7	51.0	39.7	77.3	42.0	41.0	51.3	41.3	51.0	41.3	80.0	44.0	32.0	51.3	42.0	51.0	36.0	85.0	44.7
Nitrate (as N)	mg/L	2.1	0.5	1.1	ND 0.10	1.9	0.8	0.8	2.4	0.5	1.7	ND 0.10	2.5	0.9	1.7	2.5	0.5	2.5	ND 0.10	2.3	0.9	1.8	2.4	0.4	2.3	ND 0.10	2.4	0.8	1.8
Nitrite (as N)	mg/L	ND 0.05	ND 0.05	0.1	ND 0.05	0.1	ND 0.05	ND 0.05	0.2	ND 0.05	0.1	ND 0.05	0.1	ND 0.05	0.1	ND 0.05	ND 0.05	0.4	ND 0.05	0.4	ND 0.05	0.1	ND 0.05	ND 0.05	0.3	ND 0.05	ND 0.05	ND 0.05	0.1
Nitrate+Nitrite (as N)	mg/L	2.1	0.5	1.1	ND 0.10	1.9	0.8	0.8	2.5	0.5	1.8	ND 0.10	2.6	0.9	1.8	2.5	0.5	2.9	ND 0.10	2.5	0.9	1.9	2.4	0.4	2.6	ND 0.10	2.4	0.8	1.8
pH	Units	7.0	7.4	7.3	7.6	6.8	6.9	7.8	6.6	7.0	7.1	7.2	6.6	7.7	7.3	6.3	6.9	7.5	7.2	6.5	7.7	7.4	6.7	7.4	7.9	7.7	6.8	8.0	7.9
Sodium	mg/L	21.0	37.0	41.3	38.0	22.3	55.0	44.3	21.0	36.0	32.3	37.7	20.0	55.3	26.0	19.7	36.0	24.7	37.3	20.3	54.7	23.7	18.7	37.0	24.7	39.3	19.7	60.3	25.3
Sulfate	mg/L	0.7	6.0	21.0	16.3	2.1	12.7	27.3	1.6	6.1	12.7	17.0	1.0	13.3	8.4	1.0	7.7	4.9	17.0	0.7	14.3	6.2	0.8	7.7	3.8	18.0	0.8	15.7	5.7
TOC	mg/L	DNQ 0.10	DNQ 0.20	DNQ 0.30	0.4	DNQ 0.10	1.4	0.3	DNQ 0.20	DNQ 0.20	DNQ 0.20	0.4	DNQ 0.10	0.3	DNQ 0.20	DNQ 0.20	0.5	DNQ 0.20	0.3	DNQ 0.10	DNQ 0.20	DNQ 0.30	DNQ 0.20	0.3	0.2	0.3	DNQ 0.20	0.4	0.3
Total Coliform	MPN/100ml	ND 1.00	ND 1.00	ND 1.00	ND 1.00	2.0	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	1.0	6.8	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	
Oil and Grease	mg/L	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00
Total Nitrogen (as N)	mg/L	1.9	DNQ 0.50	1.2	ND 0.10	1.9	0.9	0.7	2.1	0.5	1.9	ND 0.10	2.5	0.9	1.7	2.2	0.5	2.8	ND 0.10	2.3	0.9	2.4	2.5	0.4	2.4	ND 0.10	2.2	0.8	1.9
Turbidity	NTU	ND 0.10	0.1	0.1	0.7	0.5	5.3	0.2	0.1	0.1	0.1	3.1	0.2	0.9	0.8	0.1	0.1	0.1	0.7	0.2	0.2	0.3	0.7	0.1	0.1	2.5	0.6	0.5	0.3



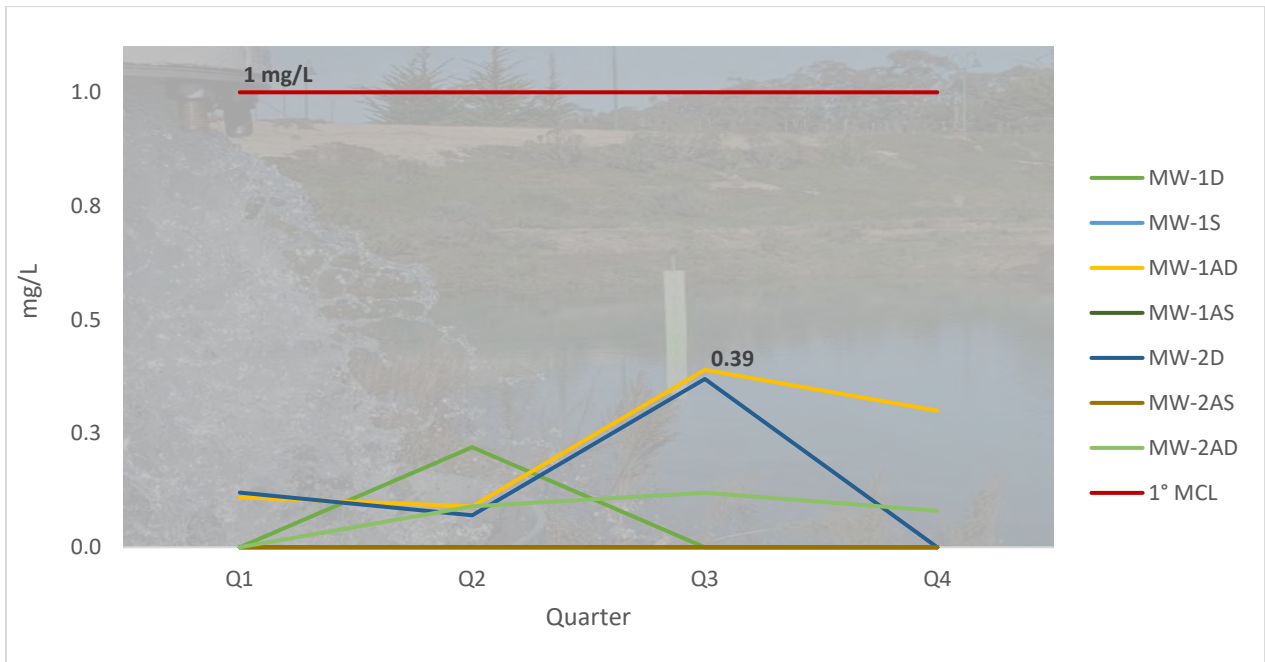
**Figure 88a. Groundwater Monitoring – Quarterly Water Level Elevation (ft-bgs)**



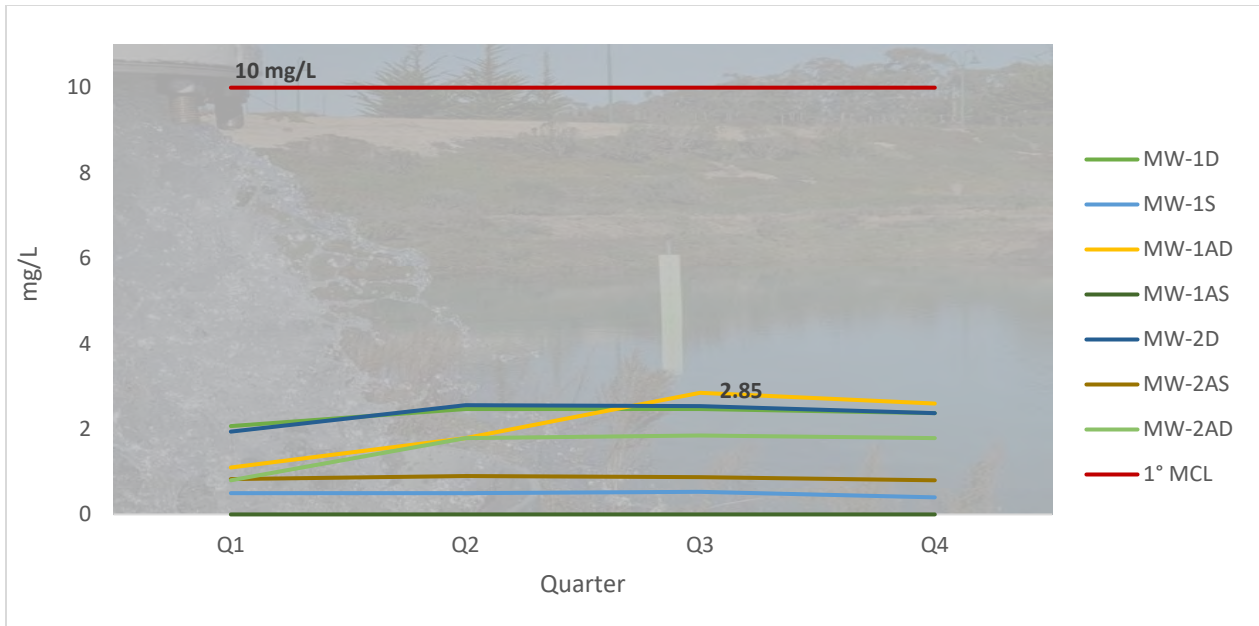
**Figure 88b. Groundwater Monitoring – Quarterly Chloride (mg/L)**



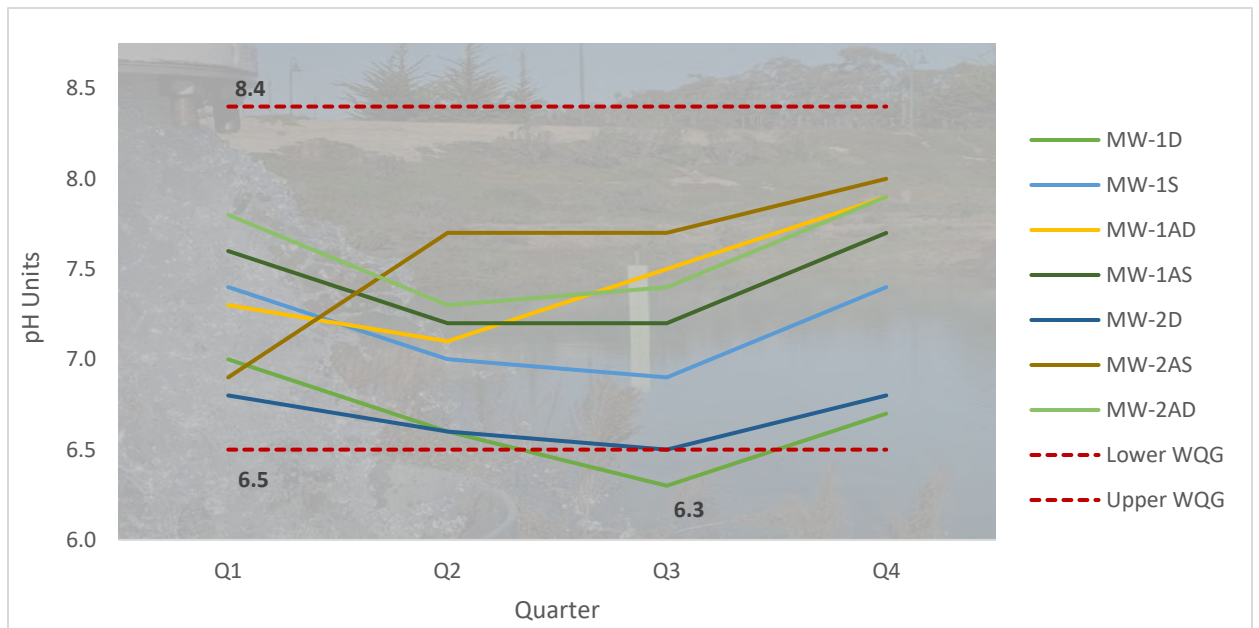
**Figure 88c. Groundwater Monitoring – Quarterly Nitrate-N (mg/L)**



**Figure 88d. Groundwater Monitoring – Quarterly Nitrite-N (mg/L)**

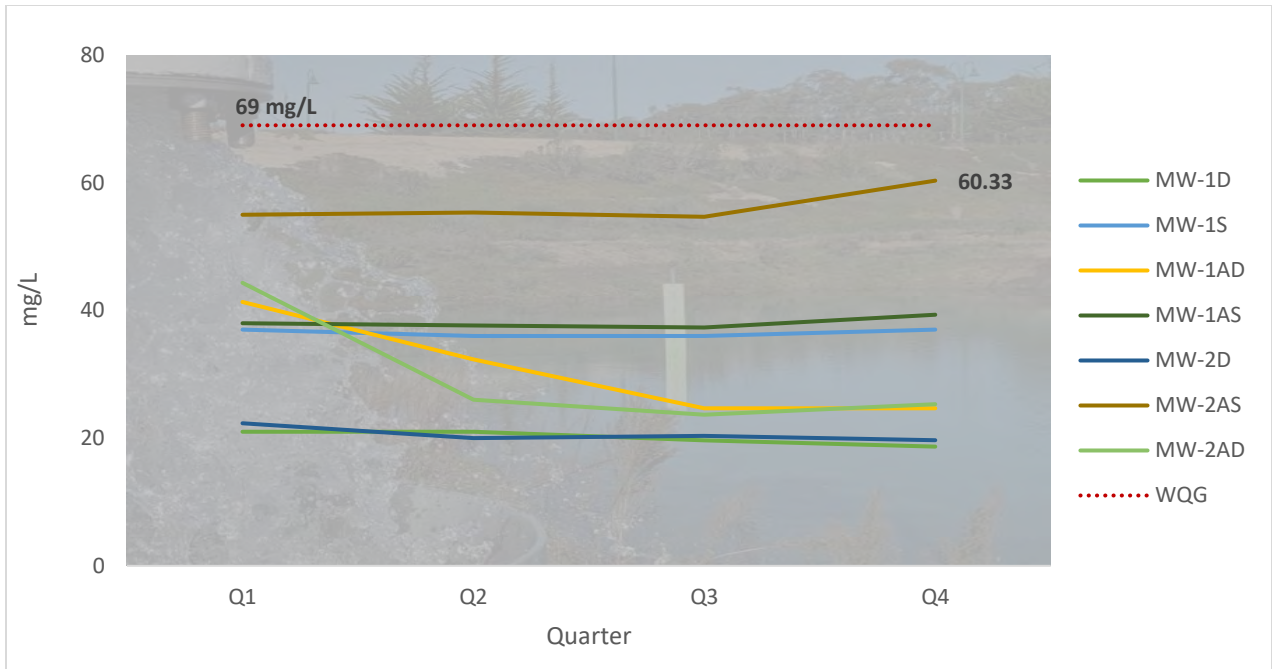


**Figure 88e. Groundwater Monitoring – Quarterly Nitrate+Nitrite (mg/L)**

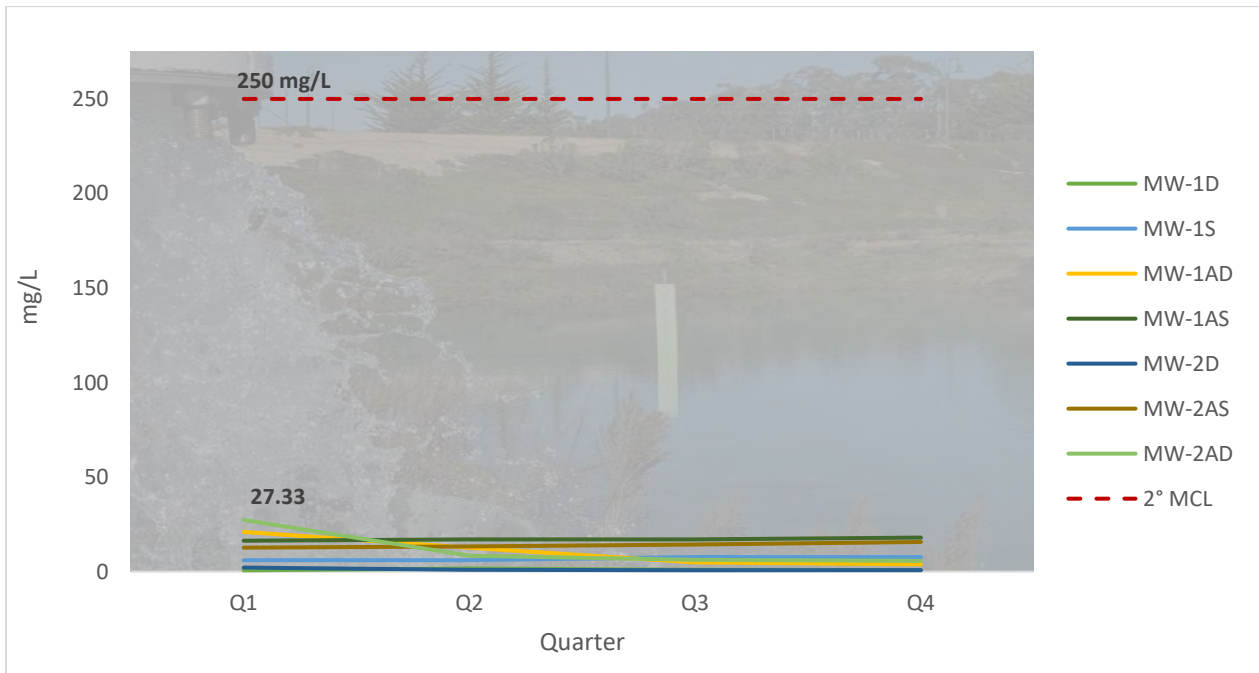


**Figure 88f. Groundwater Monitoring – Quarterly pH<sup>25</sup>**

<sup>25</sup> The Q3 MW-2AD pH did not constitute a violation of the secondary MCL lower WQG. See **Section 6.2.3** MW-2AD for a discussion of water quality detection trends in this MW.

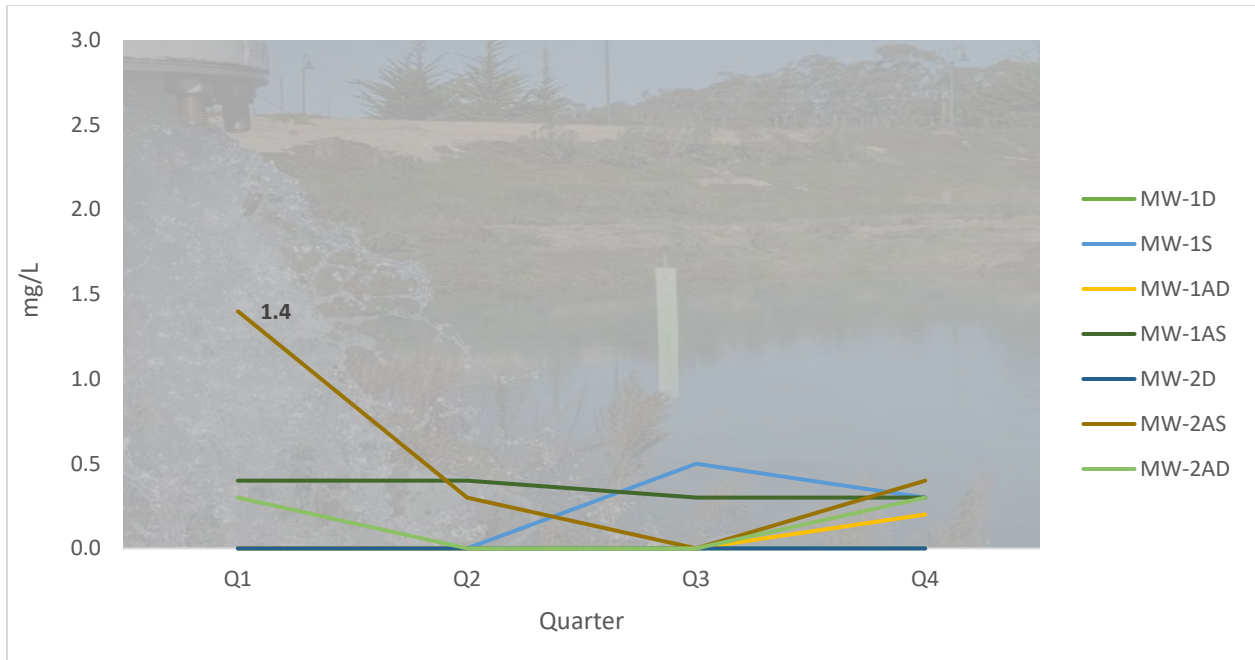


**Figure 88g. Groundwater Monitoring – Quarterly Sodium (mg/L)**

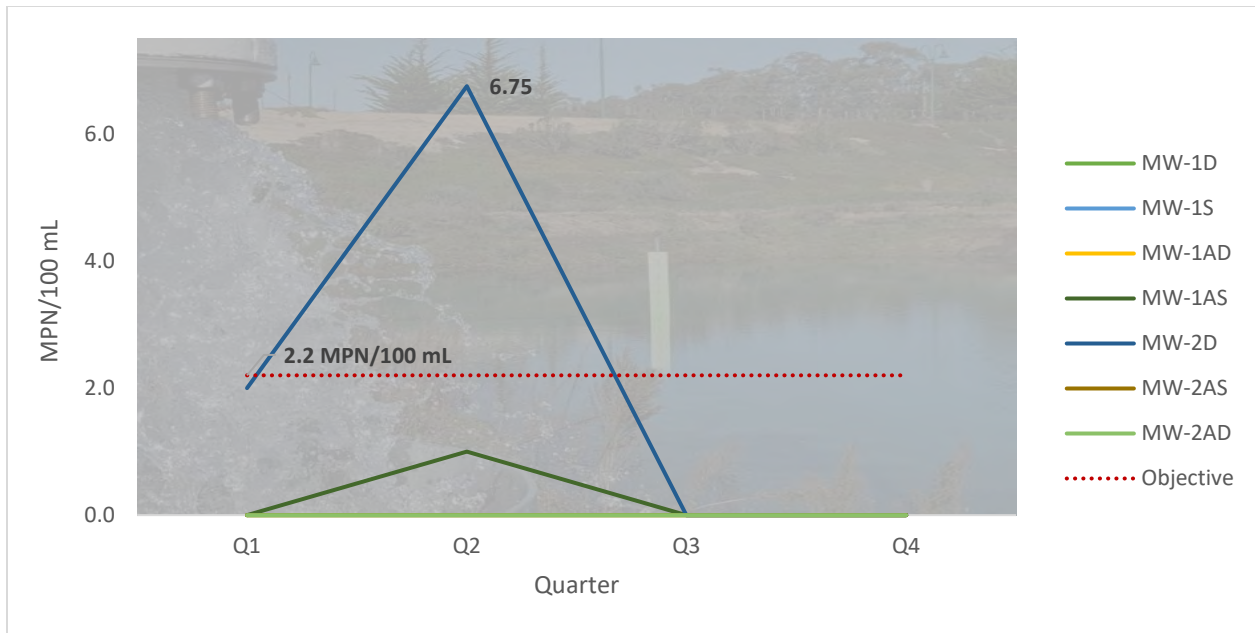


**Figure 88h. Groundwater Monitoring – Quarterly Sulfate (mg/L)**



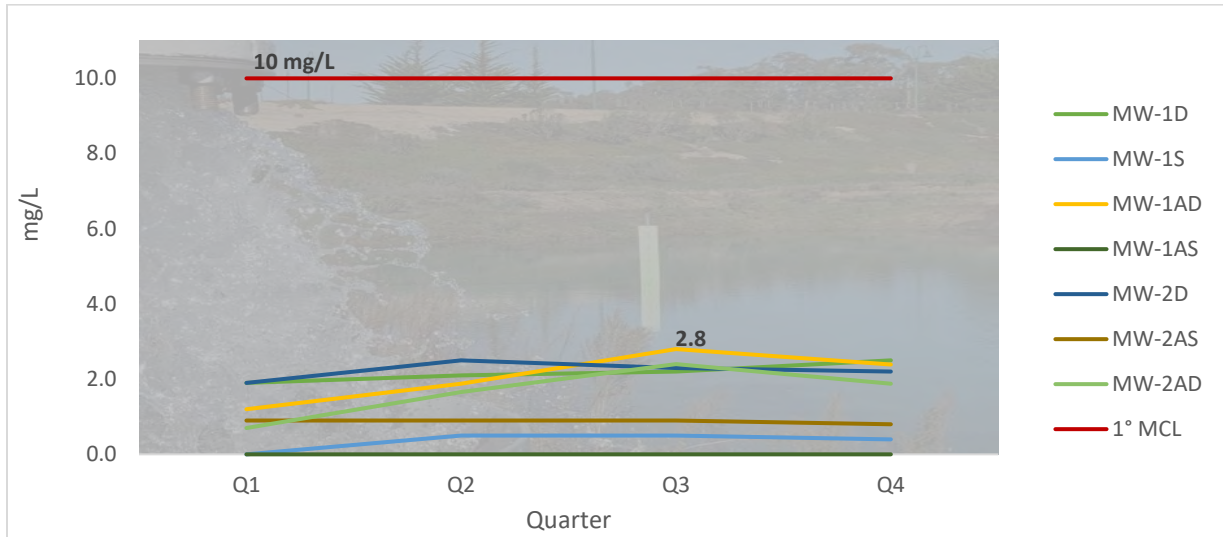


**Figure 88i. Groundwater Monitoring – Quarterly TOC (mg/L)**

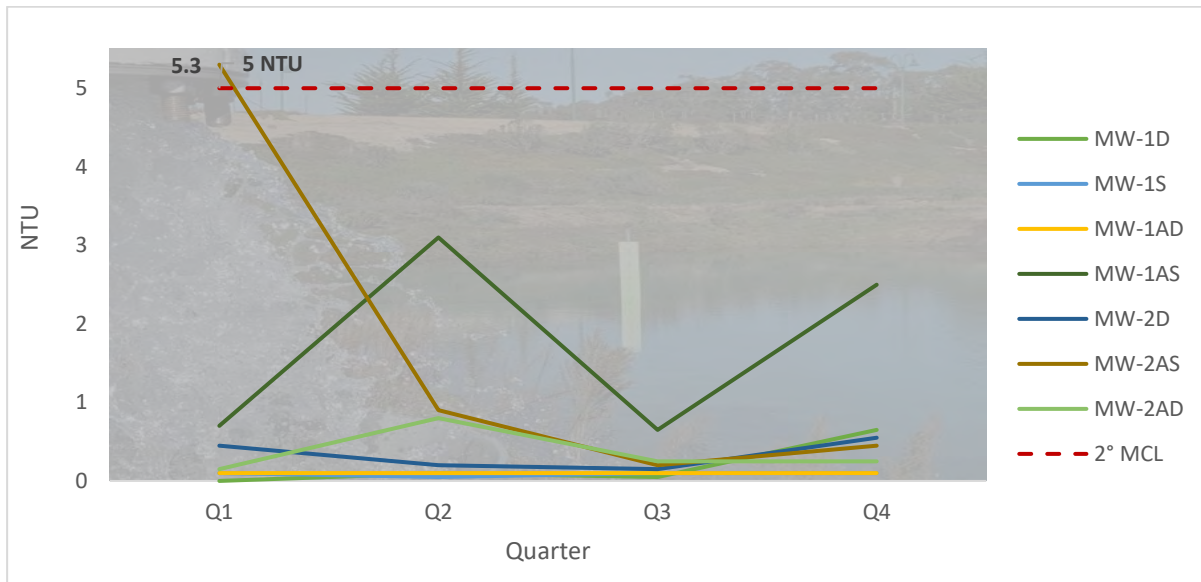


**Figure 88j. Groundwater Monitoring – Quarterly Total Coliform (MPN/100 mL)<sup>26</sup>**

<sup>26</sup> Note: Q2 coliform detection at MW-2D was not associated with the application of recycled water. A disinfection procedure was subsequently carried out at the well. See **Section** Error! Reference source not found. for more information.



**Figure 88k. Groundwater Monitoring – Quarterly Total Nitrogen (mg/L)**



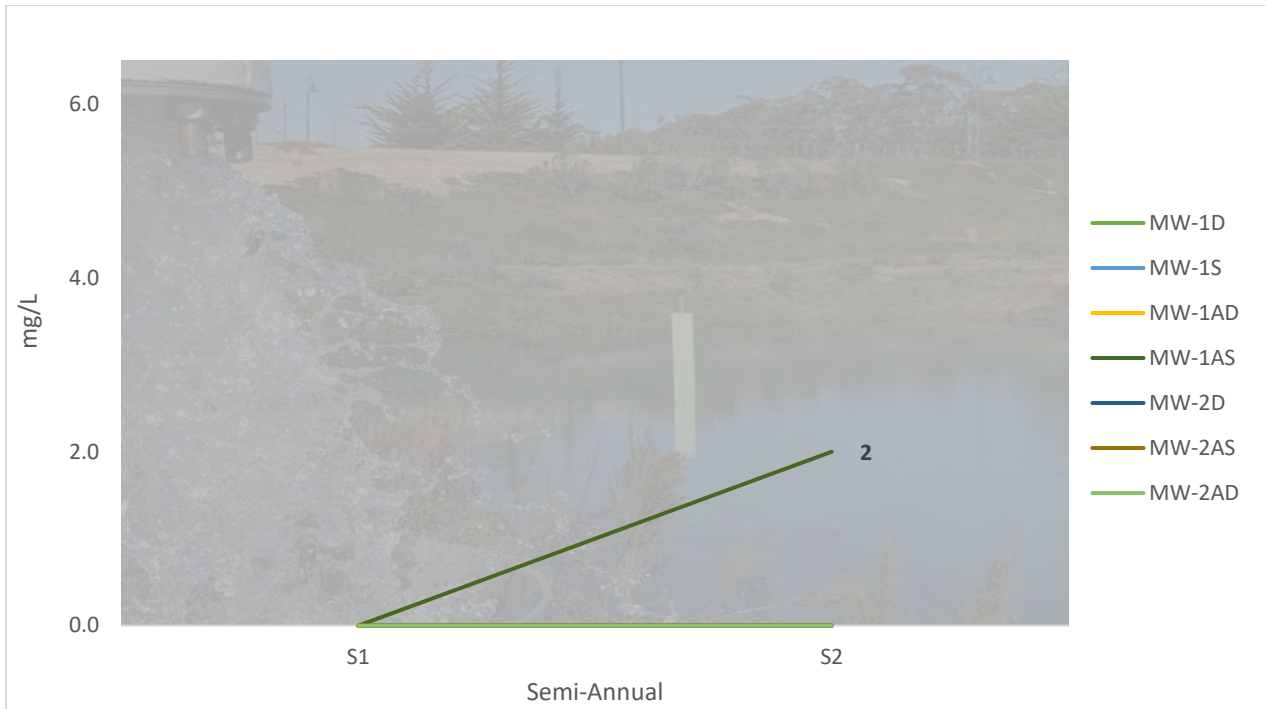
**Figure 88l. Groundwater Monitoring – Turbidity (NTU)<sup>27</sup>**

<sup>27</sup> **Note:** Q1 MW-2AS turbidity did not constitute a violation of the secondary MCL, as compliance is determined based on an average of the initial result and confirmation sample. See **Section 6.2.7 MW-2AS** for more information on water quality detections at this MW as well as **Section 7.0** for a discussion of the Tracer Study, including hydrogeologist’s estimated travel time from VZWs to offsite shallow MWs which confirms that exceedances in offsite shallow MWs are not associated with the application of recycled water.

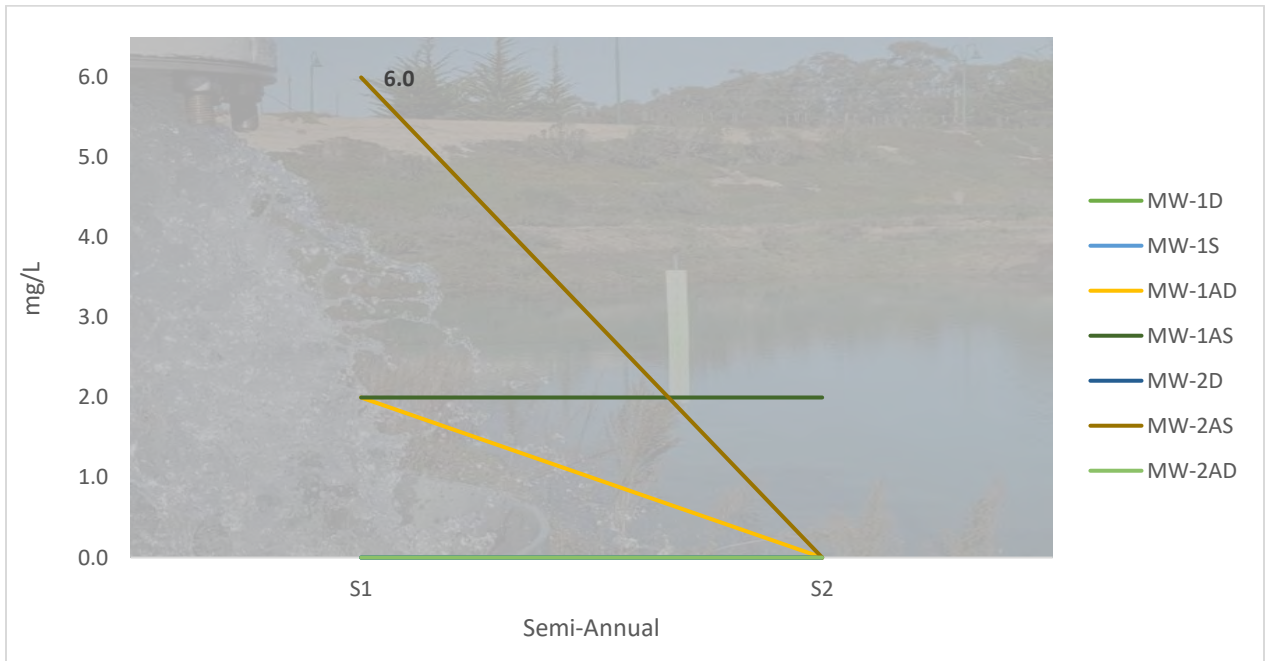


**Table 89. Groundwater Monitoring –Semi-Annual Monitoring**

Constituents/Parameters (2x/Year)	UOM	Semi-1							Semi-2						
		MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
BOD <sub>5</sub> 20°C	mg/L	ND 2.00	ND 2.00	ND 2.00	ND 2.00	ND 2.00	ND 2.00	ND 2.00	ND 2.00	ND 2.00	2	2	ND 2.00	ND 2.00	ND 2.00
TSS	mg/L	ND 2.00	ND 2.00	2.0	2.0	ND 2.00	6.0	ND 2.00	ND 2.00	ND 2.00	ND 2.00	2.0	ND 2.00	ND 2.00	ND 2.00



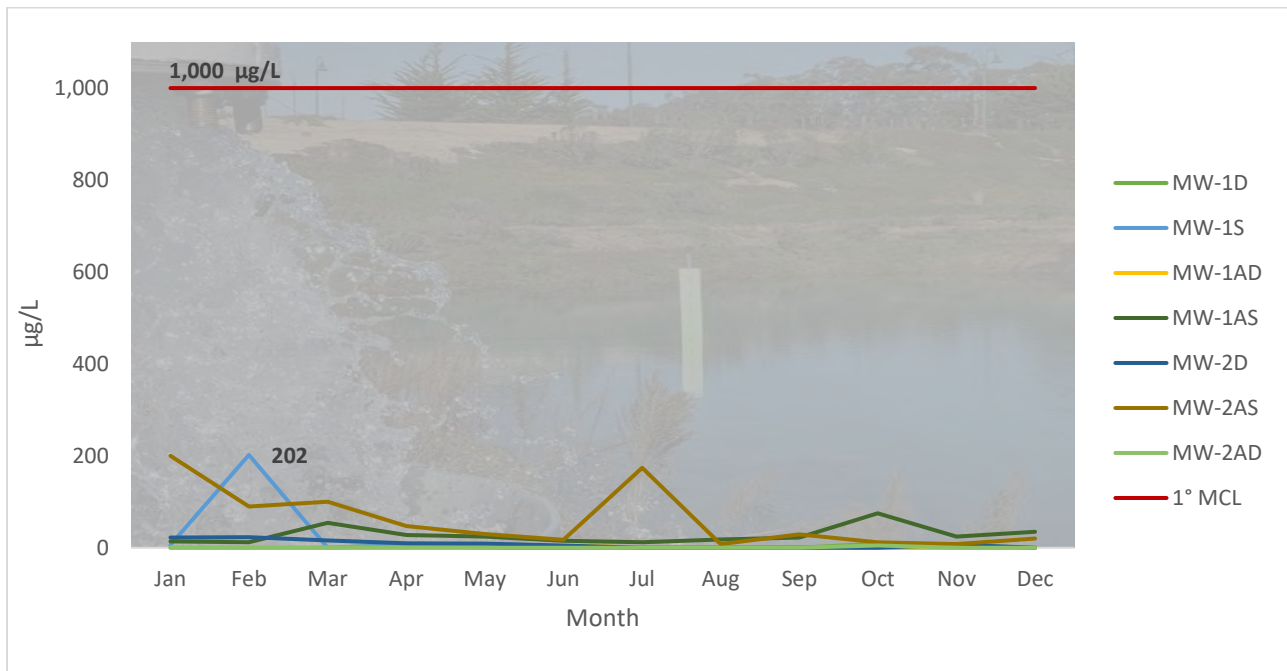
**Figure 89a. Groundwater Monitoring – Semi-Annual BOD<sub>5</sub> 20° C (mg/L)**



**Figure 89b. Groundwater Monitoring – Semi-Annual TSS (mg/L)**

**Table 90. Groundwater Monitoring – Monthly Aluminum (µg/L)**

Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	ND 5.00	6	ND 5.00	14	22	200	ND 5.00
February	ND 5.00	202	ND 5.00	12	23	90	ND 5.00
March	ND 5.00	ND 5.00	ND 5.00	54	16	100	ND 5.00
April	6	6	ND 5.00	28	10	47	ND 5.00
May	ND 5.00	ND 5.00	ND 5.00	24	9	30	ND 5.00
June	ND 5.00	ND 5.00	6	15	5	17	ND 5.00
July	ND 5.00	ND 5.00	ND 5.00	12	ND 5.00	174	ND 5.00
August	ND 5.00	ND 5.00	ND 5.00	18	ND 5.00	8	ND 5.00
September	ND 5.00	ND 5.00	ND 5.00	22	ND 5.00	29	ND 5.00
October	9	ND 5.00	ND 5.00	75	ND 5.00	12	5
November	ND 5.00	ND 5.00	ND 5.00	24	7	8	ND 5.00
December	ND 5.00	ND 5.00	ND 5.00	35	ND 5.00	20	ND 5.00



**Figure 90. Groundwater Monitoring – Monthly Aluminum (µg/L)**

**Table 91. Groundwater Monitoring – Monthly Antimony (µg/L)**

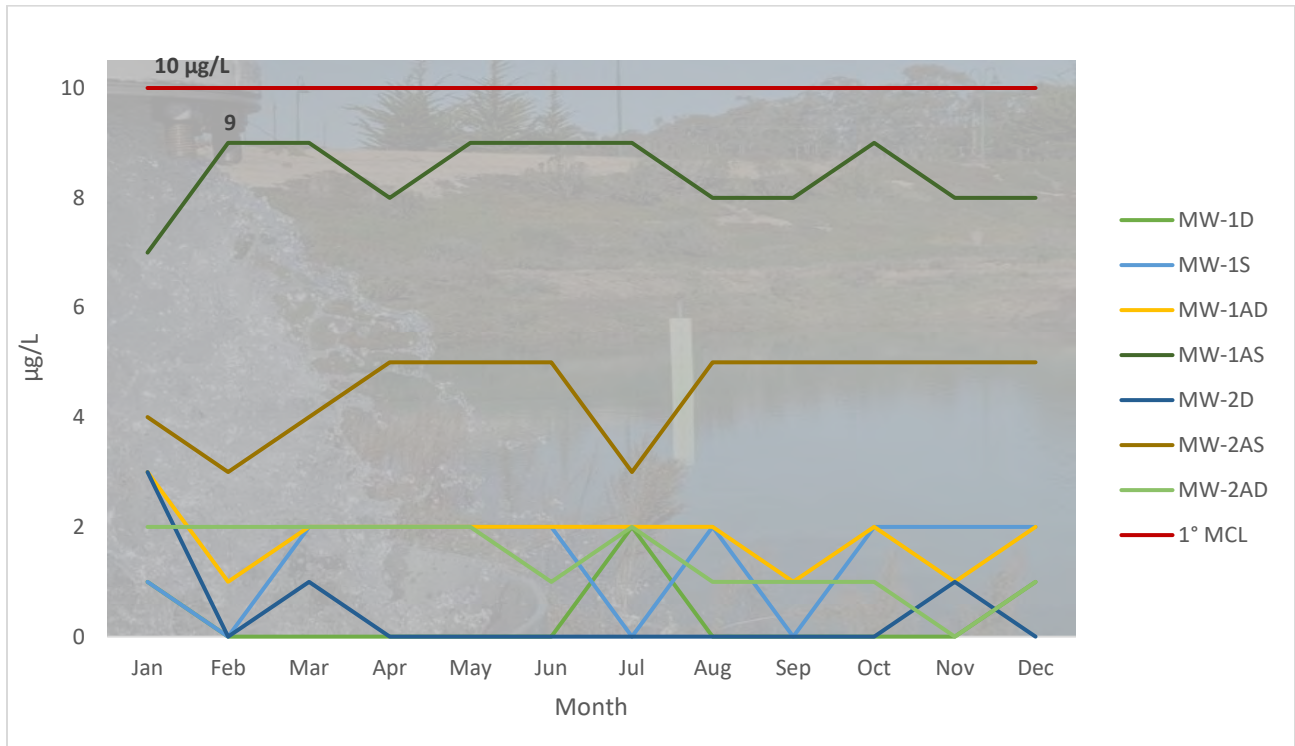
Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
February	ND 1.00	ND 2.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
March	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
April	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
May	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
June	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
July	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 2.00	ND 1.00
August	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
September	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
October	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
November	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
December	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00

**Figure 91. Groundwater Monitoring – Monthly Antimony (µg/L) – N/A**

*All monitoring results were ND.*

**Table 92. Groundwater Monitoring – Monthly Arsenic (µg/L)**

Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	1	1	3	7	3	4	2
February	ND 1.00	ND 2.00	1	9	ND 1.00	3	2
March	ND 1.00	2	2	9	1	4	2
April	ND 1.00	2	2	8	ND 1.00	5	2
May	ND 1.00	2	2	9	ND 1.00	5	2
June	ND 1.00	2	2	9	ND 1.00	5	1
July	2	ND 1.00	2	9	ND 1.00	3	2
August	ND 1.00	2	2	8	ND 1.00	5	1
September	ND 1.00	ND 1.00	1	8	ND 1.00	5	1
October	ND 1.00	2	2	9	ND 1.00	5	1
November	ND 1.00	2	1	8	1	5	ND 1.00
December	1	2	2	8	ND 1.00	5	1



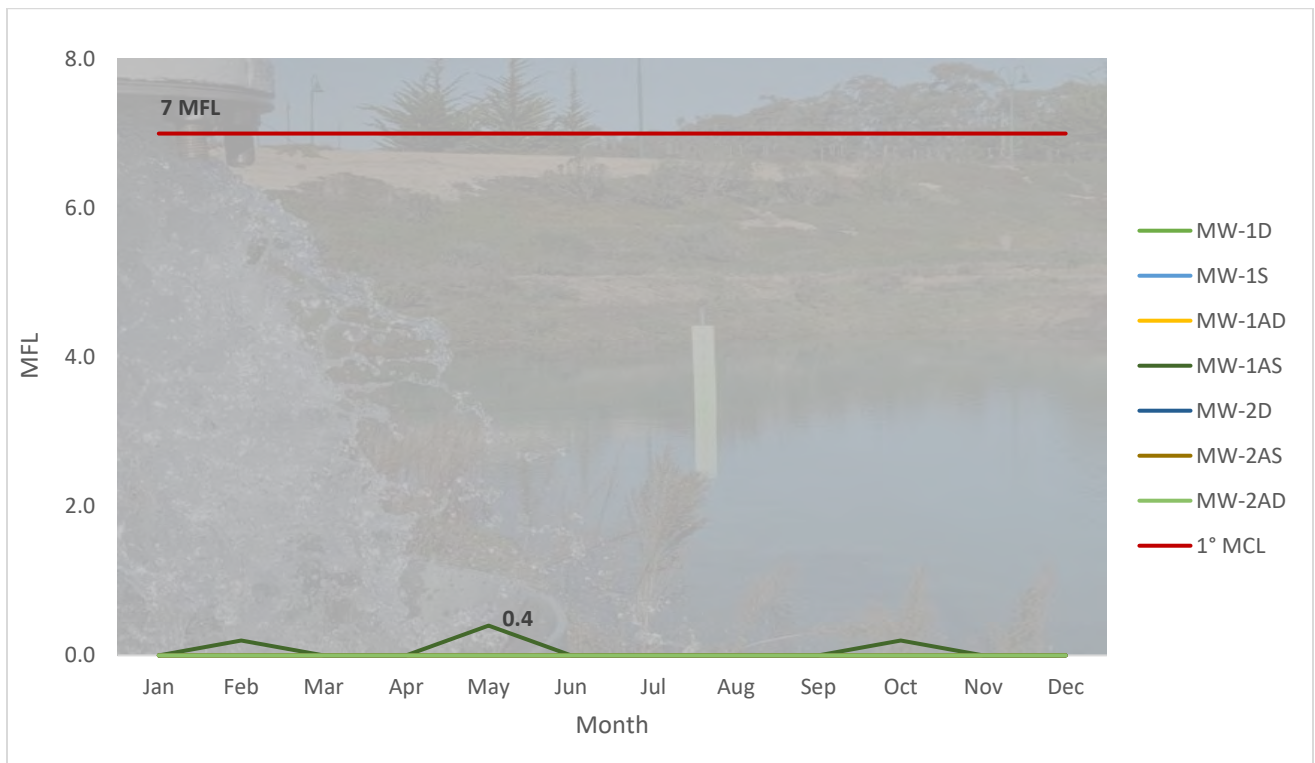
**Figure 92. Groundwater Monitoring – Monthly Arsenic (µg/L)<sup>28</sup>**

<sup>28</sup> Note: see **Section 5.0** for a discussion of ongoing coordination with DDW and Regional Board to study the potential impacts to arsenic mobilization in the Basin resulting from end-of-project cessation of injection activities.



**Table 93. Groundwater Monitoring – Monthly Asbestos (MFL)**

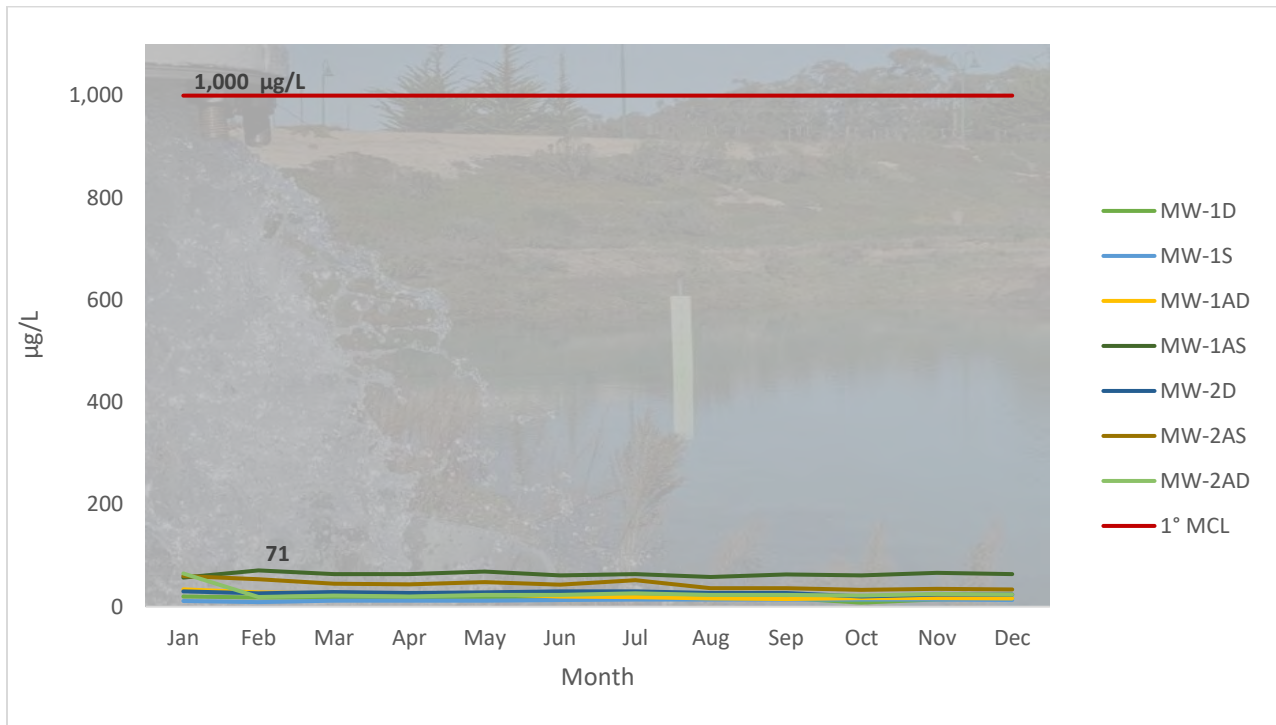
Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.19	ND 0.19	ND 0.20
February	ND 0.20	ND 0.19	ND 0.20	0.2	ND 0.19	ND 0.19	ND 0.20
March	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20
April	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20
May	ND 0.20	ND 0.20	ND 0.20	0.4	ND 0.20	ND 0.20	ND 0.20
June	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20
July	ND 0.20	ND 0.20	ND 0.20	ND 0.19	ND 0.20	ND 0.20	ND 0.20
August	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20
September	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20
October	ND 0.20	ND 0.20	ND 0.20	0.2	ND 0.20	ND 0.20	ND 0.20
November	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20
December	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20



**Figure 93. Groundwater Monitoring – Monthly Asbestos (MFL)**

**Table 94. Groundwater Monitoring – Monthly Barium (µg/L)**

Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	20	11	34	57	30	60	65
February	18	9	28	71	26	54	19
March	18	12	26	64	29	45	22
April	17	12	26	64	27	44	20
May	18	12	25	69	28	48	23
June	17	13	20	61	30	43	23
July	20	14	19	64	30	52	26
August	18	14	16	58	27	36	23
September	17	14	15	63	27	36	23
October	8	14	17	61	20	33	22
November	14	14	17	66	24	35	25
December	16	13	16	64	24	34	24



**Figure 94. Groundwater Monitoring – Monthly Barium (µg/L)**

**Table 95. Groundwater Monitoring – Monthly Beryllium (µg/L)**

Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
February	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
March	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
April	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
May	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
June	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
July	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
August	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
September	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
October	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
November	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
December	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00

**Figure 95. Groundwater Monitoring – Monthly Beryllium (µg/L) – N/A**

*All monitoring results were ND.*

**Table 96. Groundwater Monitoring – Monthly Cadmium (µg/L)**

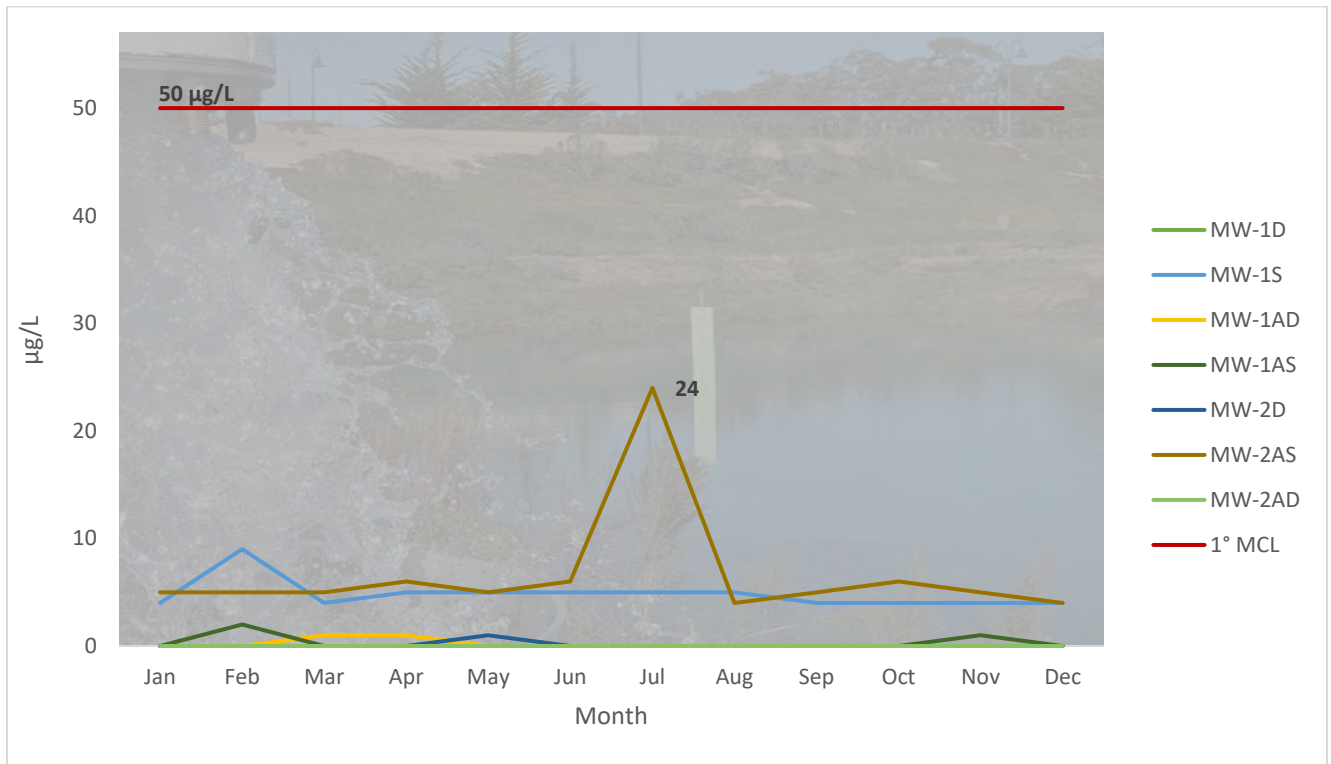
Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
February	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
March	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
April	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
May	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
June	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
July	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
August	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
September	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
October	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
November	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
December	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00

**Figure 96. Groundwater Monitoring – Monthly Cadmium (µg/L) – N/A**

*All monitoring results were ND.*

**Table 97. Groundwater Monitoring – Monthly Chromium (Total) (µg/L)**

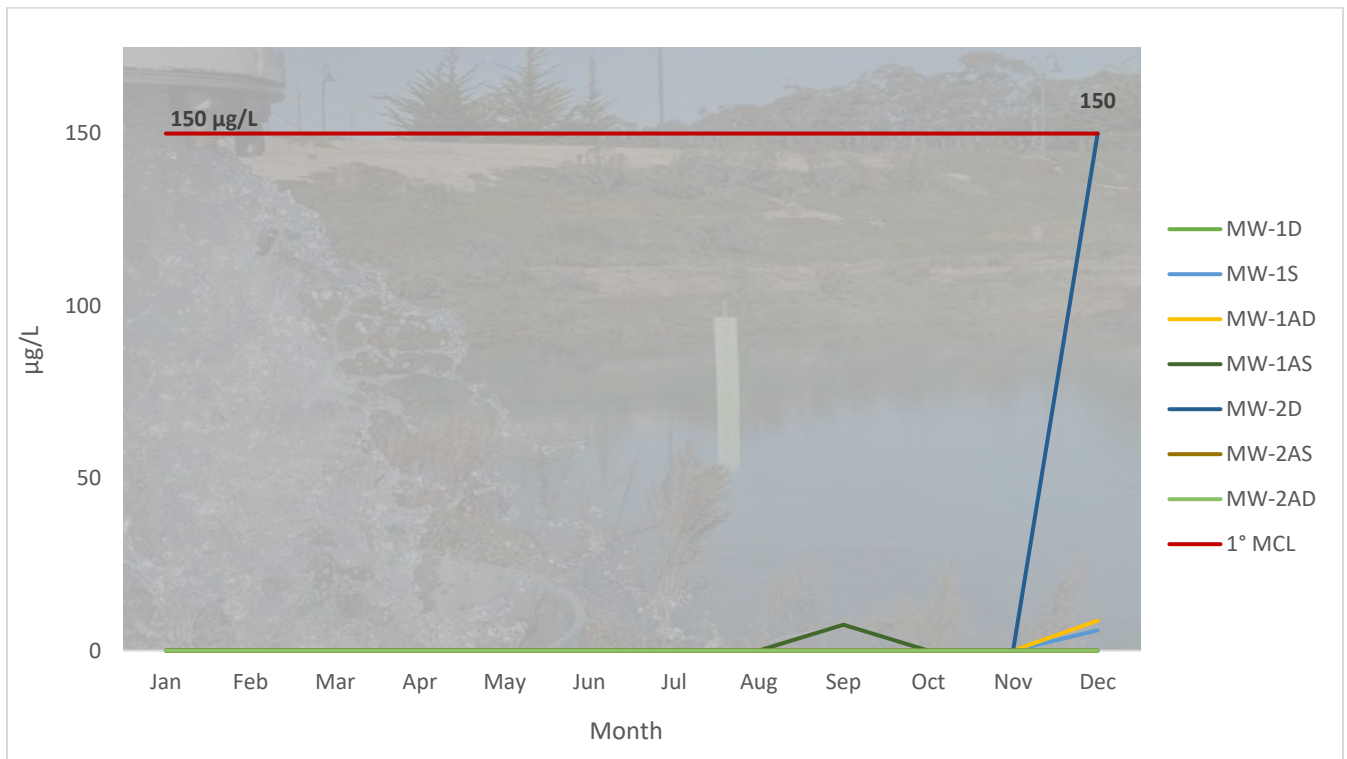
Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	ND 1.00	4	ND 1.00	ND 1.00	ND 1.00	5	ND 1.00
February	ND 1.00	9	ND 1.00	2	ND 1.00	5	ND 1.00
March	ND 1.00	4	1	ND 1.00	ND 1.00	5	ND 1.00
April	ND 1.00	5	1	ND 1.00	ND 1.00	6	ND 1.00
May	ND 1.00	5	ND 1.00	ND 1.00	1	5	ND 1.00
June	ND 1.00	5	ND 1.00	ND 1.00	ND 1.00	6	ND 1.00
July	ND 1.00	5	ND 1.00	ND 1.00	ND 1.00	24	ND 1.00
August	ND 1.00	5	ND 1.00	ND 1.00	ND 1.00	4	ND 1.00
September	ND 1.00	4	ND 1.00	ND 1.00	ND 1.00	5	ND 1.00
October	ND 1.00	4	ND 1.00	ND 1.00	ND 1.00	6	ND 1.00
November	ND 1.00	4	ND 1.00	1	ND 1.00	5	ND 1.00
December	ND 1.00	4	ND 1.00	ND 1.00	ND 1.00	4	ND 1.00



**Figure 97. Groundwater Monitoring – Monthly Chromium (Total) (µg/L)**

**Table 98. Groundwater Monitoring – Monthly Cyanide (µg/L)**

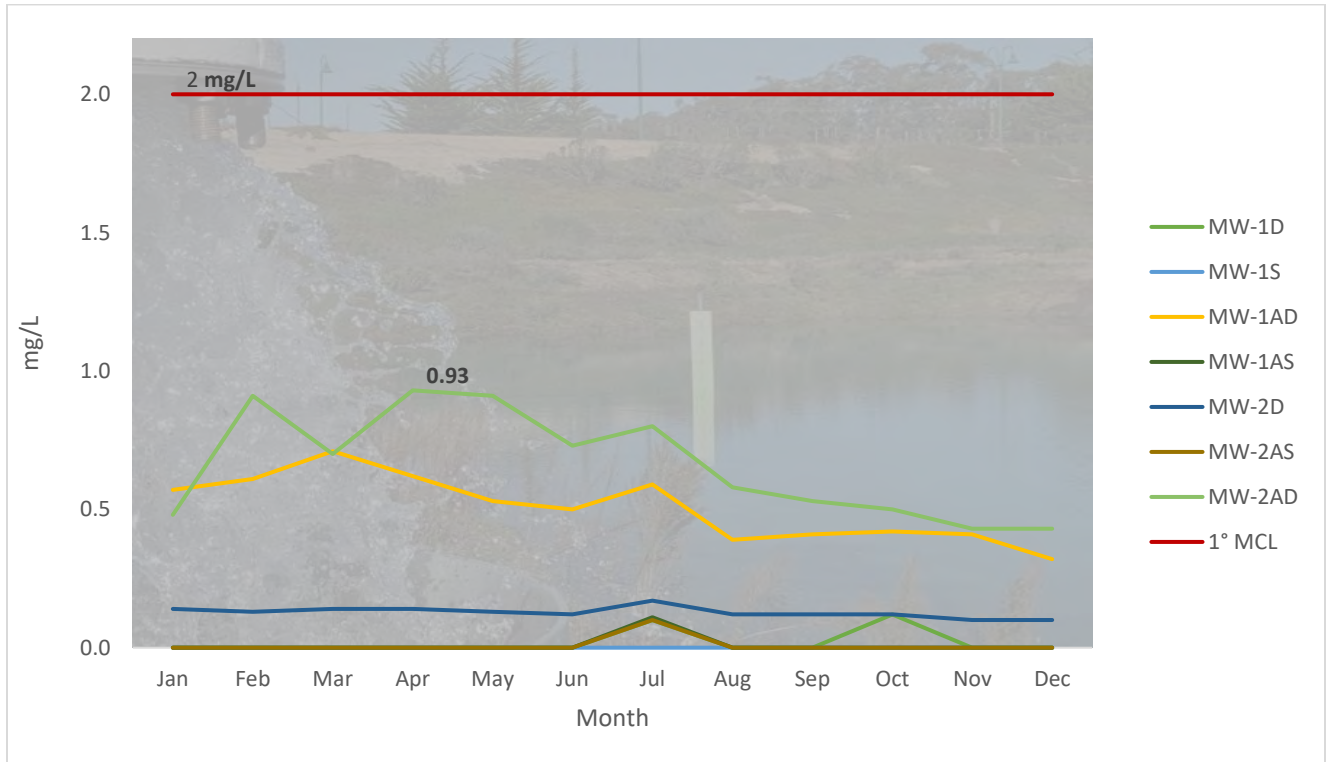
Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	DNQ 4.70E-03
February	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	DNQ 3.80E-03	ND 2.20E-03	0.01
March	DNQ 2.40E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	DNQ 2.20E-03	ND 2.20E-03	DNQ 2.20E-03
April	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03
May	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	DNQ 4.00E-03
June	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03
July	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03
August	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03	ND 2.20E-03
September	DNQ 3.60	ND 2.20	ND 2.20	7.5	ND 2.20	ND 2.20	ND 2.20
October	ND 2.20	ND 2.20	ND 2.20	ND 2.20	ND 2.20	ND 2.20	ND 2.20
November	ND 2.20	ND 2.20	ND 2.20	ND 2.20	ND 2.20	ND 2.20	ND 2.20
December	DNQ 4.50	5.9	8.7	DNQ 2.30	150	DNQ 2.70	DNQ 2.20


**Figure 98. Groundwater Monitoring – Monthly Cyanide (µg/L)<sup>29</sup>**

<sup>29</sup> Note: November MW-1S detection did not exceed the MCL nor constitute a violation of the MCL, as compliance is determined based on a running annual average. See **Section 6.2.4** MW-2D for more information on detections in this MW.

**Table 99. Groundwater Monitoring – Monthly Fluoride (mg/L)**

Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	ND 0.10	ND 0.10	0.57	ND 0.10	0.14	ND 0.10	0.48
February	ND 0.10	ND 0.10	0.61	ND 0.10	0.13	ND 0.10	0.91
March	ND 0.10	ND 0.10	0.71	ND 0.10	0.14	ND 0.10	0.7
April	ND 0.10	ND 0.10	0.62	ND 0.10	0.14	ND 0.10	0.93
May	ND 0.10	ND 0.10	0.53	ND 0.10	0.13	ND 0.10	0.91
June	ND 0.10	ND 0.10	0.5	ND 0.10	0.12	ND 0.10	0.73
July	0.1	ND 0.10	0.59	0.11	0.17	0.1	0.8
August	ND 0.10	ND 0.10	0.39	ND 0.10	0.12	ND 0.10	0.58
September	ND 0.10	ND 0.10	0.41	ND 0.10	0.12	ND 0.10	0.53
October	0.12	ND 0.10	0.42	ND 0.10	0.12	ND 0.10	0.5
November	ND 0.10	ND 0.10	0.41	ND 0.10	0.1	ND 0.10	0.43
December	ND 0.10	ND 0.10	0.32	ND 0.10	0.1	ND 0.10	0.43



**Figure 99. Groundwater Monitoring – Monthly Fluoride (mg/L)**

**Table 100. Groundwater Monitoring – Monthly Mercury (µg/L)**

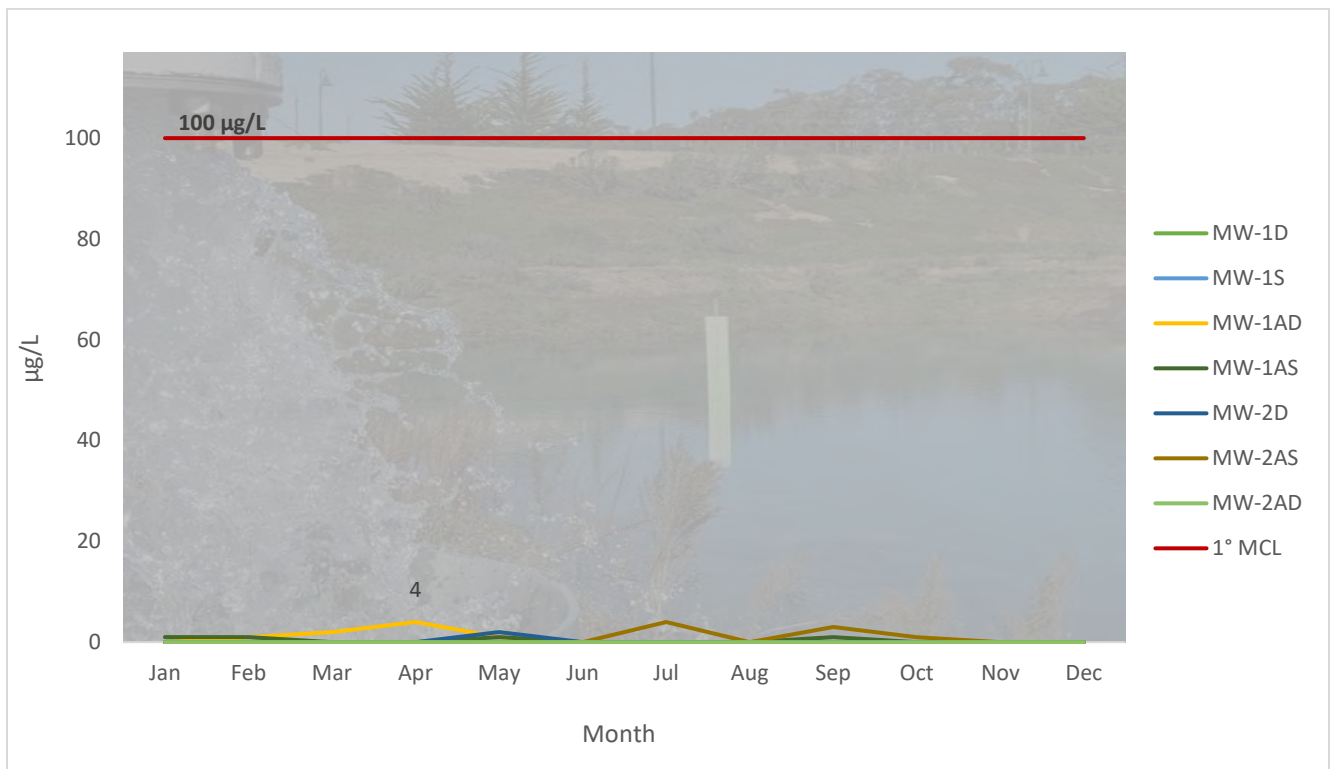
Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
February	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
March	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
April	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
May	ND 1.00	ND 1.00	ND 1.00	ND 0.50	ND 1.00	ND 1.00	ND 1.00
June	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
July	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
August	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
September	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
October	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
November	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
December	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00

**Figure 100. Groundwater Monitoring – Monthly Mercury (µg/L) – N/A**

*All monitoring results were ND.*

**Table 101. Groundwater Monitoring – Monthly Nickel (µg/L)**

Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	1	ND 1.00	ND 1.00	1	ND 1.00	ND 1.00	ND 1.00
February	ND 1.00	ND 2.00	1	1	ND 1.00	ND 1.00	ND 1.00
March	ND 1.00	ND 1.00	2	ND 1.00	ND 1.00	ND 1.00	ND 1.00
April	ND 1.00	ND 1.00	4	ND 1.00	ND 1.00	ND 1.00	ND 1.00
May	ND 1.00	ND 1.00	1	1	2	ND 1.00	ND 1.00
June	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
July	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	4	ND 1.00
August	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
September	ND 1.00	ND 1.00	ND 1.00	1	ND 1.00	3	ND 1.00
October	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	1	ND 1.00
November	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
December	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00

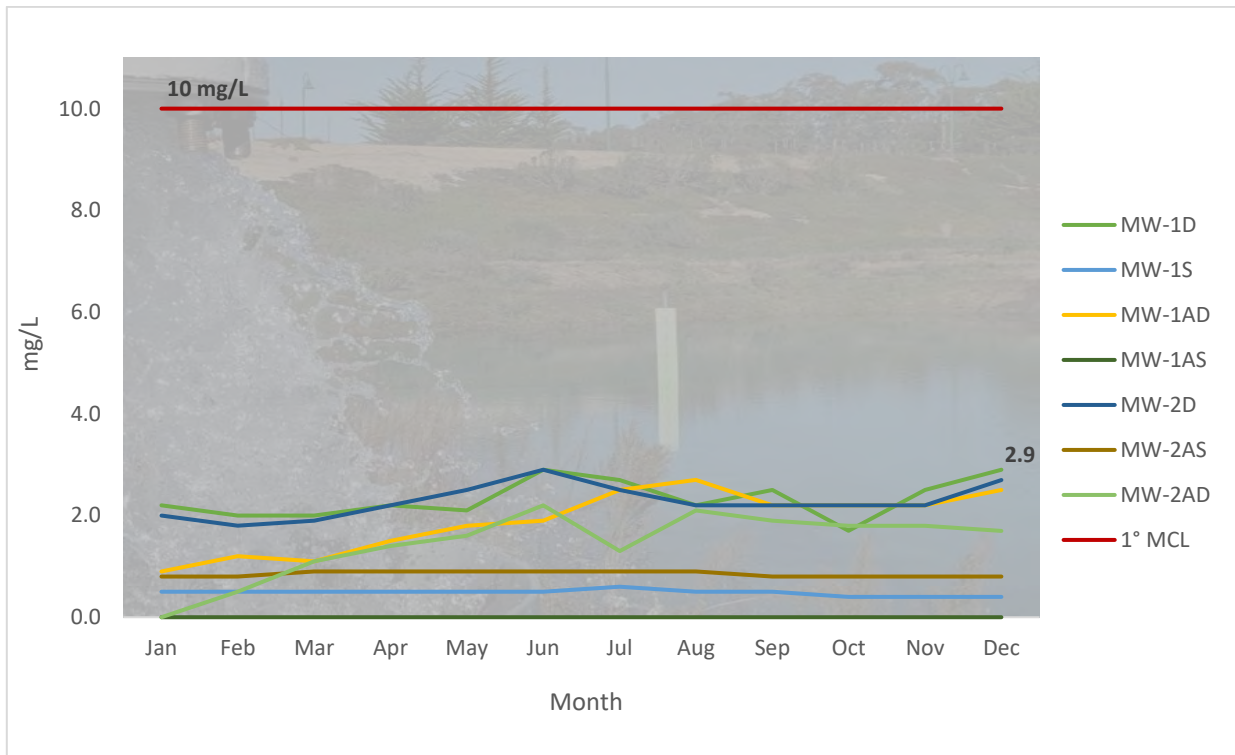


**Figure 101. Groundwater Monitoring – Monthly Nickel (µg/L)**



**Table 102. Groundwater Monitoring– Monthly Nitrate (as Nitrogen) (mg/L)**

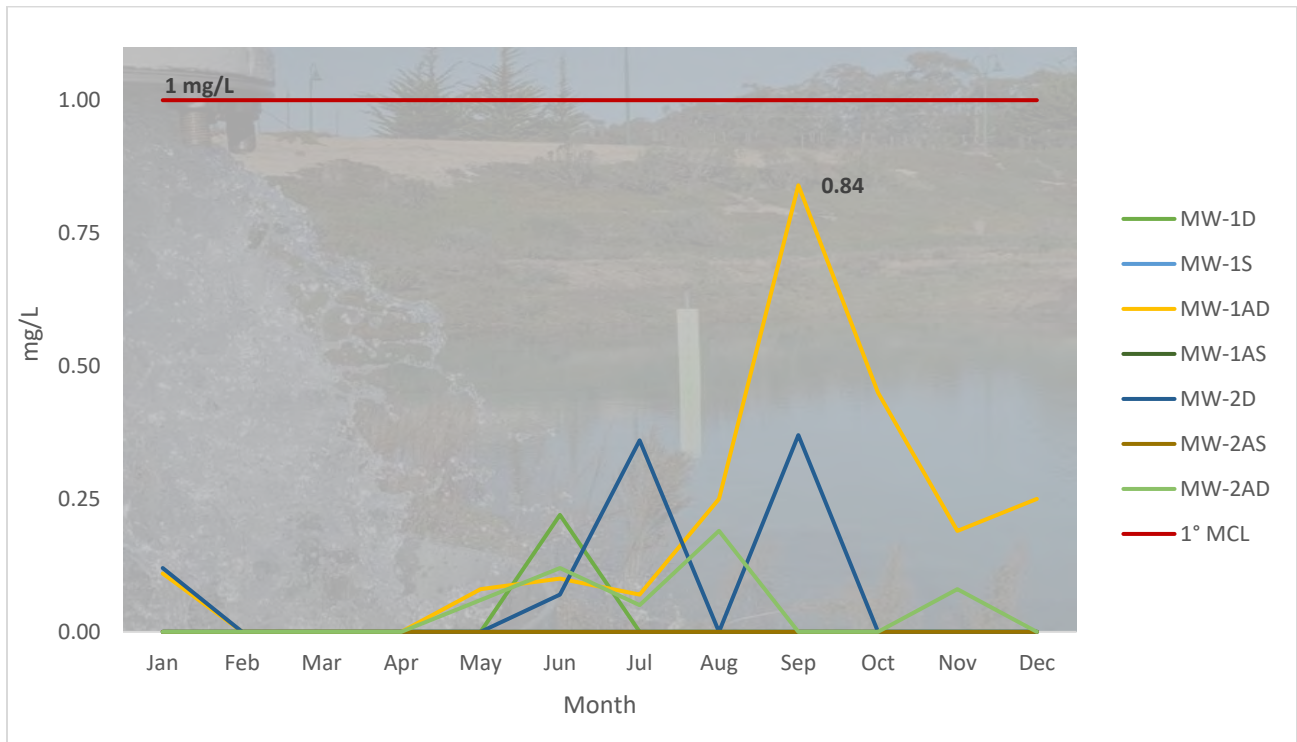
Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	2.2	0.5	0.9	ND 0.10	2	0.8	ND 0.10
February	2	0.5	1.2	ND 0.10	1.8	0.8	0.5
March	2	0.5	1.1	ND 0.10	1.9	0.9	1.1
April	2.2	0.5	1.5	ND 0.10	2.2	0.9	1.4
May	2.1	0.5	1.8	ND 0.10	2.5	0.9	1.6
June	2.9	0.5	1.9	ND 0.10	2.9	0.9	2.2
July	2.7	0.6	2.5	ND 0.10	2.5	0.9	1.3
August	2.2	0.5	2.7	ND 0.10	2.2	0.9	2.1
September	2.5	0.5	2.2	ND 0.10	2.2	0.8	1.9
October	1.7	0.4	2.2	ND 0.10	2.2	0.8	1.8
November	2.5	0.4	2.2	ND 0.10	2.2	0.8	1.8
December	2.9	0.4	2.5	ND 0.10	2.7	0.8	1.7



**Figure 102. Groundwater Monitoring– Monthly Nitrate (as Nitrogen) (mg/L)**

**Table 103. Groundwater Monitoring – Monthly Nitrite (as Nitrogen) (mg/L)**

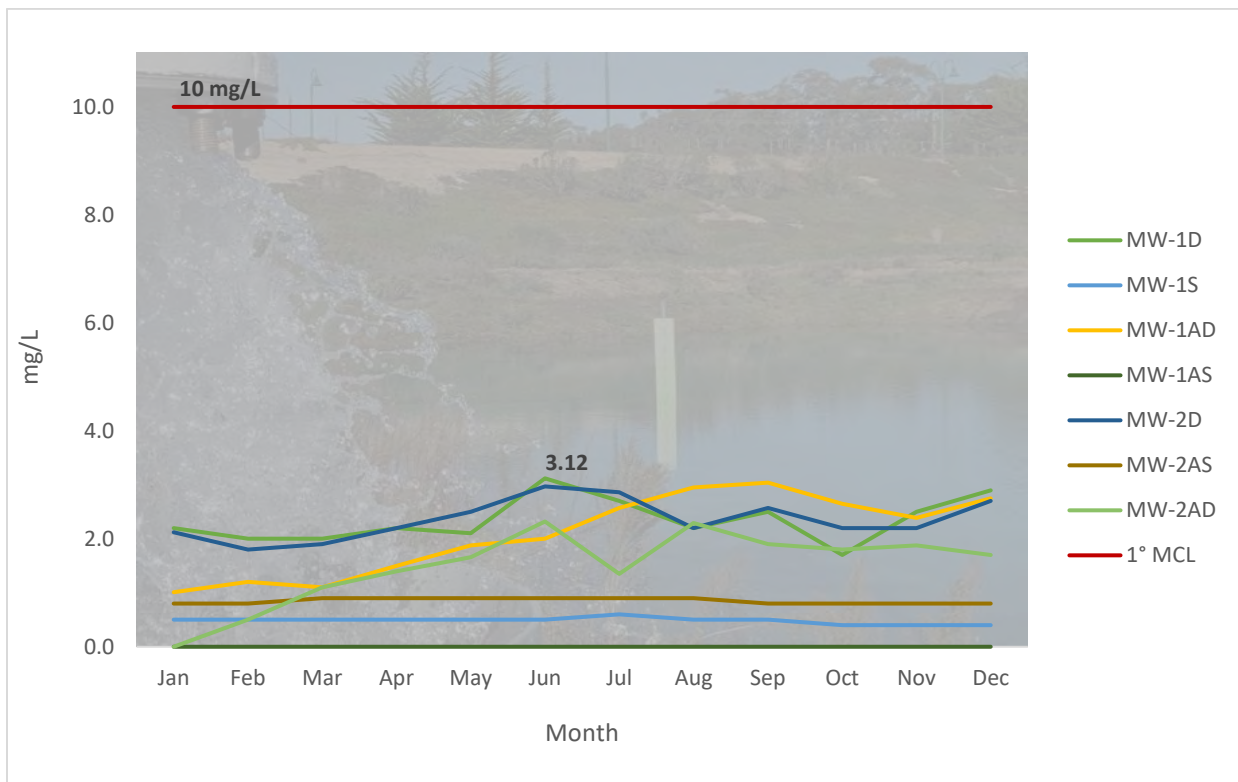
Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	ND 0.05	ND 0.05	0.11	ND 0.05	0.12	ND 0.05	ND 0.05
February	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05
March	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05
April	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05
May	ND 0.05	ND 0.05	0.08	ND 0.05	ND 0.05	ND 0.05	0.06
June	0.22	ND 0.05	0.1	ND 0.05	0.07	ND 0.05	0.12
July	ND 0.05	ND 0.05	0.07	ND 0.05	0.36	ND 0.05	0.05
August	ND 0.05	ND 0.05	0.25	ND 0.05	ND 0.05	ND 0.05	0.19
September	ND 0.05	ND 0.05	0.84	ND 0.05	0.37	ND 0.05	ND 0.05
October	ND 0.05	ND 0.05	0.45	ND 0.05	ND 0.05	ND 0.05	ND 0.05
November	ND 0.05	ND 0.05	0.19	ND 0.05	ND 0.05	ND 0.05	0.08
December	ND 0.05	ND 0.05	0.25	ND 0.05	ND 0.05	ND 0.05	ND 0.05



**Figure 103. Groundwater Monitoring – Monthly Nitrite (as Nitrogen) (mg/L)**

**Table 104. Groundwater Monitoring – Monthly Nitrate + Nitrite (mg/L)**

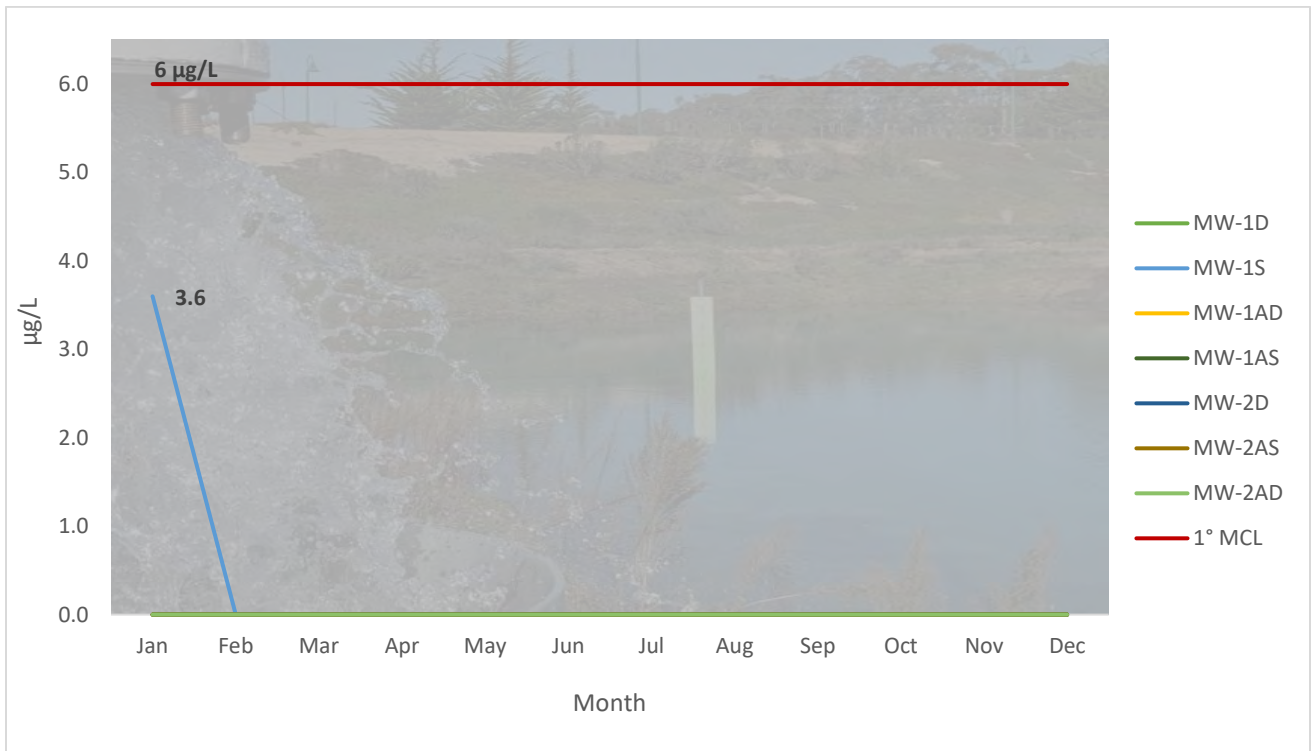
Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	2.2	0.5	1.01	ND 0.10	2.12	0.8	ND 0.10
February	2	0.5	1.2	ND 0.10	1.8	0.8	0.5
March	2	0.5	1.1	ND 0.10	1.9	0.9	1.1
April	2.2	0.5	1.5	ND 0.15	2.2	0.9	1.4
May	2.1	0.5	1.88	ND 0.10	2.5	0.9	1.66
June	3.12	0.5	2	ND 0.10	2.97	0.9	2.32
July	2.7	0.6	2.57	ND 0.10	2.86	0.9	1.35
August	2.2	0.5	2.95	ND 0.15	2.2	0.9	2.29
September	2.5	0.5	3.04	ND 0.10	2.57	0.8	1.9
October	1.7	0.4	2.65	ND 0.15	2.2	0.8	1.8
November	2.5	0.4	2.39	ND 0.10	2.2	0.8	1.88
December	2.9	0.4	2.75	ND 0.10	2.7	0.8	1.7



**Figure 104. Groundwater Monitoring – Monthly Nitrate + Nitrite (mg/L)**

**Table 105. Groundwater Monitoring – Monthly Perchlorate (µg/L)**

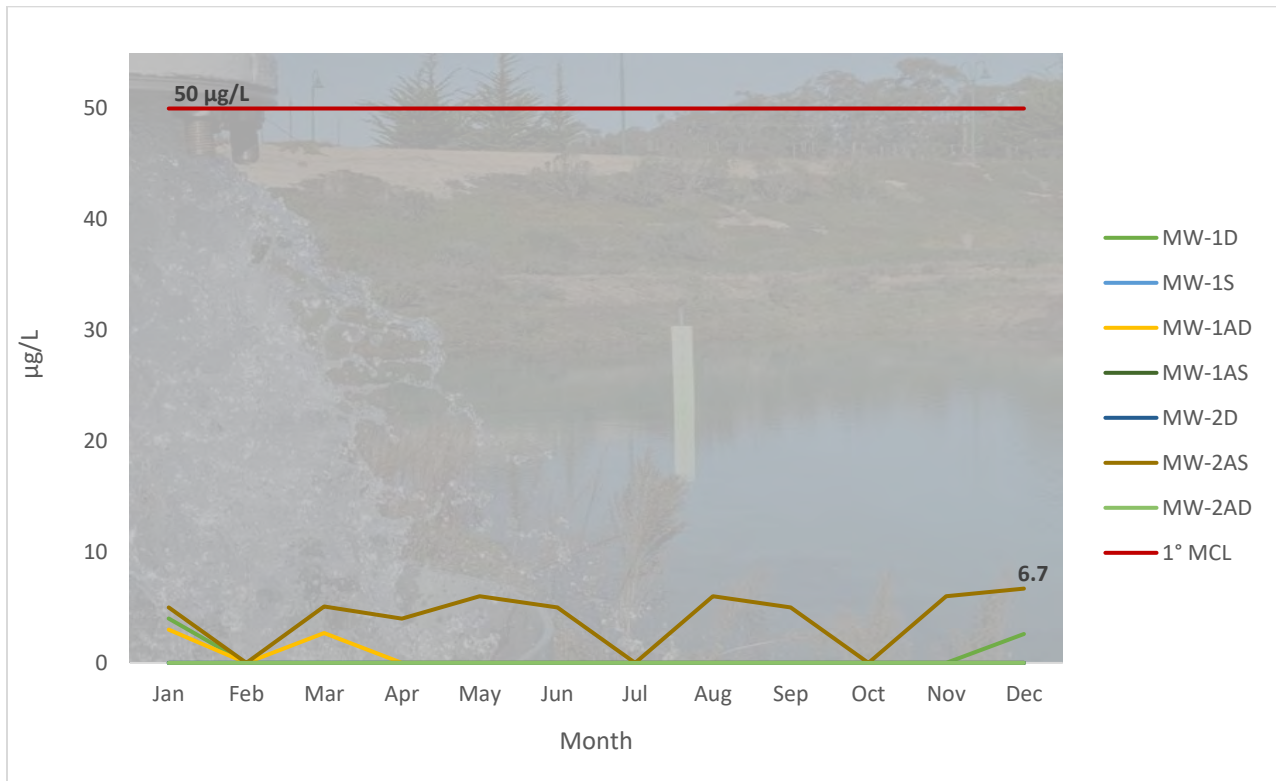
Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	ND 0.61	3.6	ND 0.61	ND 0.61	ND 0.61	DNQ 0.69	ND 0.61
February	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
March	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
April	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
May	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
June	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
July	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
August	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
September	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
October	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27
November	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
December	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00



**Figure 105. Groundwater Monitoring – Monthly Perchlorate (µg/L)**

**Table 106. Groundwater Monitoring – Monthly Selenium (µg/L)**

Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	4	ND 2.50	3	ND 2.50	ND 2.50	5	ND 2.50
February	ND 2.50	ND 5.00	ND 2.50	ND 2.50	ND 2.50	ND 2.50	ND 2.50
March	ND 2.50	ND 2.50	2.7	ND 2.50	ND 2.50	5.1	ND 2.50
April	ND 2.50	ND 2.50	ND 2.50	ND 2.50	ND 2.50	4	ND 2.50
May	ND 2.50	ND 2.50	ND 2.50	ND 2.50	ND 2.50	6	ND 2.50
June	ND 2.50	ND 2.50	ND 2.50	ND 2.50	ND 2.50	5	ND 2.50
July	ND 2.50	ND 2.50	ND 2.50	ND 2.50	ND 2.50	ND 5.00	ND 2.50
August	ND 2.50	ND 2.50	ND 2.50	ND 2.50	ND 2.50	6	ND 2.50
September	ND 2.50	ND 2.50	ND 2.50	ND 2.50	ND 2.50	5	ND 2.50
October	ND 2.50	ND 2.50	ND 2.50	ND 2.50	ND 2.50	ND 2.50	ND 2.50
November	ND 2.50	ND 2.50	ND 2.50	ND 2.50	ND 2.50	6	ND 2.50
December	2.6	ND 2.50	ND 2.50	ND 2.50	ND 2.50	6.7	ND 2.50



**Figure 106. Groundwater Monitoring – Monthly Selenium (µg/L)**

**Table 107 Groundwater Monitoring – Monthly Thallium (µg/L)**

Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
February	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
March	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
April	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
May	ND 1.00	ND 1.00	ND 0.50	ND 1.00	ND 1.00	ND 1.00	ND 1.00
June	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
July	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
August	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
September	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
October	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
November	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00
December	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00	ND 1.00

**Figure 107. Groundwater Monitoring – Monthly Thallium (µg/L) – N/A**

*All monitoring results were ND.*









Constituents/Parameters (4x/Year)	UOM	Q1						Q2						Q3						Q4																
		MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD							
																													0.40	0.44			0.40			0.40

<i>Organic Chemicals, Chemicals with Notification Levels</i>																														
1,2,4-Trimethylbenzene	µg/L	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20
1,3,5-Trimethylbenzene	µg/L	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17
1,4-Dioxane	µg/L	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03	ND 0.03
2-Chlorotoluene	µg/L	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15
2,4,6-Trinitrotoluene (TNT)	µg/L	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15
4-Chlorotoluene	µg/L	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15
Boron	mg/L	240.0	ND 50.00	130.0	ND 50.00	210.0	DNQ 60.00	150.0	240.0	ND 50.00	150.0	ND 50.00	250.0	DNQ 70.00	180.0	280.0	ND 50.00	250.0	ND 300.0	DNQ 80.00	290.0	230.0	ND 50.00	240.0	ND 50.00	230.0	DNQ 50.00	230.0	DNQ 50.00	310.0
Carbon disulfide	µg/L	ND 0.13	ND 0.13	ND 0.13	ND 0.13	ND 0.13	ND 0.13	ND 0.13	ND 0.13	ND 0.13	ND 0.13	ND 0.13	ND 0.13	ND 0.13	ND 0.13	ND 0.25	ND 0.25	ND 0.25	ND 0.25	ND 0.25	ND 0.25	ND 0.25	ND 0.25	ND 0.25	ND 0.25	ND 0.25	ND 0.25	ND 0.25	ND 0.25	ND 0.25
Chlorate	µg/L	140.0	ND 1.70	230.0	DNQ 7.90	140.0	ND 1.70	340.0	130	ND 1.70	140.0	ND 1.70	130	ND 1.70	81.0	130	41.0	85.0	ND 1.70	160	ND 1.70	46	150	57.0	150	ND 1.70	150	ND 1.70	130	
Diazinon	µg/L	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05
Dichlorodifluoromethane (Freon 12)	µg/L	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45
Ethylene glycol	mg/L	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00	ND 4700.00
Formaldehyde	µg/L	ND 0.86	ND 0.86	ND 0.86	ND 0.86	ND 0.86	ND 0.86	ND 0.86	ND 0.86	ND 0.86	ND 0.86	ND 0.86	ND 0.86	ND 0.86	ND 0.86	ND 0.86	ND 0.86	ND 0.86	ND 0.86	ND 0.86	ND 0.86	ND 0.86	ND 0.86	ND 0.86	ND 0.86	ND 0.86	ND 0.86	ND 0.86	ND 0.86	ND 0.86
HMX	µg/L	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19
Isopropylbenzene	µg/L	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18
Manganese	µg/L	1.7	5.0	14.0	54.7	2.7	1.5	10.7	2.0	ND 1.00	13.7	38.3	1.0	ND 1.00	5.0	1.3	ND 1.00	5.0	31.7	2.0	5.0	4.7	2.0	ND 1.00	4.3	31.0	1.0	ND 1.00	4.0	
Methyl isobutyl ketone (MIBK)	µg/L	ND 1.80	ND 1.80	ND 1.80	ND 1.80	ND 1.80	ND 1.80	ND 1.80	ND 1.80	ND 1.80	ND 1.80	ND 1.80	ND 1.80	ND 1.80	ND 1.80	ND 1.80	ND 1.80	ND 1.80	ND 1.80	ND 1.80	ND 1.80	ND 1.80	ND 1.80	ND 1.80	ND 1.80	ND 1.80	ND 1.80	ND 1.80	ND 1.80	ND 1.80
Naphthalene	µg/L	ND 0.35	ND 0.35	ND 0.35	ND 0.35	ND 0.35	ND 0.35	ND 0.35	ND 0.35	ND 0.35	ND 0.35	ND 0.35	ND 0.35	ND 0.35	ND 0.35	ND 0.35	ND 0.35	ND 0.35	ND 0.35	ND 0.35	ND 0.35	ND 0.35	ND 0.35	ND 0.35	ND 0.35	ND 0.35	ND 0.35	ND 0.35	ND 0.35	ND 0.35
n-Butylbenzene	µg/L	ND 0.29	ND 0.29	ND 0.29	ND 0.29	ND 0.29	ND 0.29	ND 0.29	ND 0.29	ND 0.29	ND 0.29	ND 0.29	ND 0.29	ND 0.29	ND 0.29	ND 0.29	ND 0.29	ND 0.29	ND 0.29	ND 0.29	ND 0.29	ND 0.29	ND 0.29	ND 0.29	ND 0.29	ND 0.29	ND 0.29	ND 0.29	ND 0.29	ND 0.29
N-Nitrosodiethylamine (NDEA)	ng/L	DNQ 1.80E-03	ND 6.60E-04	DNQ 6.80E-04	ND 6.60E-04	ND 6.60E-04	ND 6.60E-04	ND 6.60E-04	ND 6.60E-04	ND 6.60E-04	ND 6.60E-04	ND 6.60E-04	ND 6.60E-04	ND 6.60E-04	ND 6.60E-04	ND 6.60E-04	ND 6.60E-04	ND 6.60E-04	ND 6.60E-04	ND 6.60E-04	ND 6.60E-04	ND 6.60E-04	ND 6.60E-04	ND 6.60E-04	ND 6.60E-04	ND 6.60E-04	ND 6.60E-04	ND 6.60E-04	ND 6.60E-04	ND 6.60E-04
n-Nitrosodimethylamine (NDMA)	ng/L	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04	ND 6.30E-04
N-Nitrosodi-n-propylamine (NDPA)	ng/L	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04	ND 8.00E-04
Perfluorooctanoic acid (PFOA)	µg/L	ND 3.40E-04	ND 3.40E-04	ND 3.30E-04	ND 3.40E-04	ND 3.40E-04	ND 3.40E-04	ND 3.50E-04	ND 0.34	ND 0.35	ND 0.34	ND 0.34	ND 0.33	ND 0.39	ND 0.35	ND 0.34	ND 0.34	ND 0.34	ND 0.34	ND 0.34	ND 0.34	ND 0.39	ND 0.60	ND 0.60	ND 0.39	ND 0.34	ND 0.67	ND 0.35	ND 0.34	
Perfluorooctane sulfonate (PFOS)	µg/L	ND 4.80E-04	ND 4.80E-04	ND 4.70E-04	ND 4.70E-04	ND 4.70E-04	ND 4.90E-04	ND 4.90E-04	ND 0.48	ND 0.50	ND 0.48	ND 0.49	ND 0.47	ND 0.55	ND 0.49	ND 0.48	ND 0.49	ND 0.48	ND 0.48	ND 0.48	ND 0.48	ND 0.55	ND 0.47	ND 0.48	ND 0.55	ND 0.48	ND 0.53	ND 0.50	ND 0.48	
n-Propylbenzene	µg/L	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18
Propachlor	µg/L	ND 4.00E-03	ND 4.00E-03	ND 4.00E-03	ND 4.00E-03	ND 4.00E-03	ND 4.00E-03	ND 4.00E-03	ND 0.05	ND 4.00E-03	ND 4.00E-03	ND 4.00E-03	ND 4.00E-03	ND 4.00E-03	ND 4.00E-03	ND 4.00E-03	ND 4.00E-03	ND 4.00E-03	ND 4.00E-03	ND 4.00E-03	ND 4.00E-03	ND 4.00E-03	ND 4.00E-03	ND 4.00E-03	ND 4.00E-03	ND 4.00E-03	ND 4.00E-03	ND 4.00E-03	ND 4.00E-03	
RDX	µg/L	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14	ND 0.14
sec-Butylbenzene	µg/L	ND 0.24	ND 0.24	ND 0.24	ND 0.24	ND 0.24	ND 0.24	ND 0.24	ND 0.24	ND 0.24	ND 0.24	ND 0.24	ND 0.24	ND 0.24	ND 0.24	ND 0.24	ND 0.24	ND 0.24	ND 0.24	ND 0.24	ND 0.24	ND 0.24	ND 0.24	ND 0.24	ND 0.24	ND 0.24	ND 0.24	ND 0.24	ND 0.24	ND 0.24
tert-Butylbenzene	µg/L	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18	ND 0.18
Tertiary butyl alcohol (TBA)	µg/L	ND 0.45	ND 0.45	DNQ 0.46	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	ND 0.45	DNQ 0.58	ND 0.45	ND 0.45	ND 0.45	ND 0.45
Vanadium	µg/L	ND 0.50	4.2	DNQ 0.90	ND 0.50	ND 0.50	15.6	ND 0.50	ND 0.50	4.8	ND 0.50	ND 0.50	ND 0.50	4.4	ND 0.50	ND 0.50	5.0	DNQ 1.20	ND 0.50	ND 0.50	6.0	ND 0.50	ND 0.50	4.0	ND 0.50	ND 0.50	ND 0.50	5.2	ND 0.50	
4,4'DDD	µg/L	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20

<i>Remaining Priority Pollutants, (</i>																											
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Constituents/Parameters (4x/Year)	UOM	Q1						Q2						Q3						Q4								
		MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS
1,1-Dichloroethylene	µg/L	ND 0.16	ND 0.16	ND 0.16	ND 0.16	ND 0.16	ND 0.16	ND 0.16	ND 0.16	ND 0.16	ND 0.16	ND 0.16	ND 0.16	ND 0.16	ND 0.16	ND 0.16	ND 0.16	ND 0.16	ND 0.16	ND 0.16	ND 0.16	ND 0.16	ND 0.16	ND 0.16	ND 0.16	ND 0.16	ND 0.16	ND 0.16
2-Chloroethyl Vinyl Ether	µg/L	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19	ND 0.19
Acrolein	µg/L	ND 1.20	ND 1.20	ND 1.20	ND 1.20	ND 1.20	ND 1.20	ND 1.20	ND 1.20	ND 1.20	ND 1.20	ND 1.20	ND 1.20	ND 1.20	ND 1.20	ND 1.20	ND 1.20	ND 1.20	ND 1.20	ND 1.20	ND 1.20	ND 1.20	ND 1.20	ND 1.20	ND 1.20	ND 1.20	ND 1.20	ND 1.20
Acrylonitrile	µg/L	ND 0.55	ND 0.55	ND 0.55	ND 0.55	ND 0.55	ND 0.55	ND 0.55	ND 0.63	ND 0.63	ND 0.63	ND 0.63	ND 0.63	ND 0.63	ND 0.63	ND 1.50	ND 1.50	ND 1.50	ND 1.50	ND 1.50	ND 1.50	ND 1.50	ND 1.50	ND 1.50	ND 1.50	ND 1.50	ND 1.50	ND 1.50
<i>Remaining Priority Pollutants, (c) Base/Neutral Extractables (cont.)</i>																												
Monochlorobenzene	µg/L	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15	ND 0.15
Chloroethane	µg/L	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17	ND 0.17
Methyl Bromide/BromoMethane	µg/L	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27	ND 0.27
Methyl Chloride	µg/L	ND 0.23	ND 0.23	ND 0.23	ND 0.23	ND 0.23	ND 0.23	ND 0.23	ND 0.23	ND 0.23	ND 0.23	ND 0.23	ND 0.23	ND 0.23	ND 0.23	ND 0.23	ND 0.23	ND 0.23	ND 0.23	ND 0.23	ND 0.23	ND 0.23	ND 0.23	ND 0.23	ND 0.23	ND 0.23	ND 0.23	ND 0.23
<i>Silver</i>																												
Silver	µg/L	ND 0.50	ND 0.50	ND 0.50	ND 0.50	ND 0.50	ND 0.50	ND 0.50	ND 10.00	ND 10.00	ND 10.00	ND 10.00	ND 10.00	ND 10.00	ND 10.00	ND 10.00	ND 10.00	ND 10.00	ND 10.00	ND 10.00	ND 10.00	ND 10.00	ND 10.00	ND 10.00	ND 10.00	ND 10.00	ND 10.00	ND 10.00

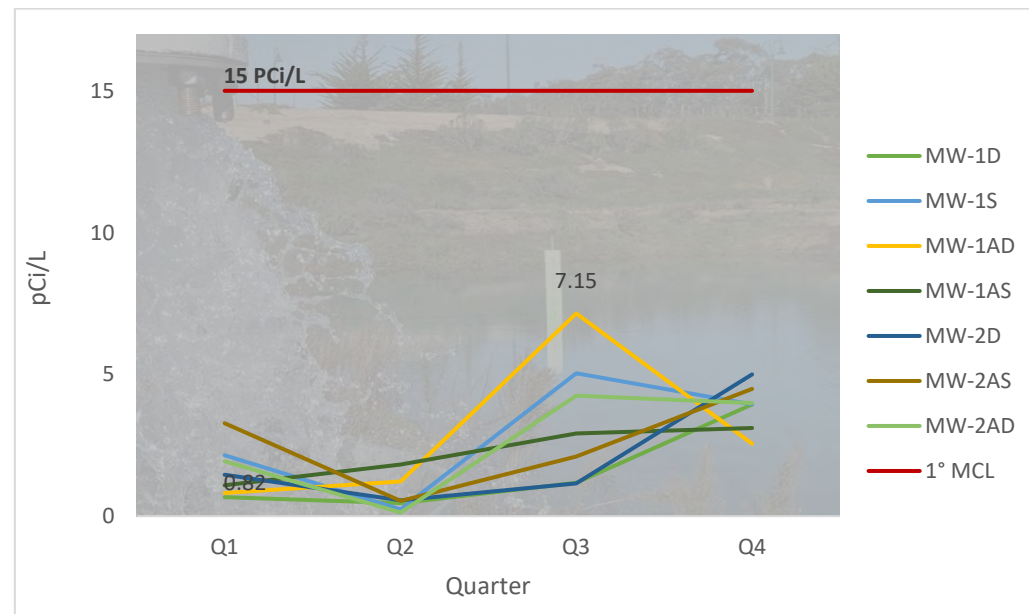


Figure 108a. Groundwater Monitoring – Quarterly Gross Alpha (pCi/L)

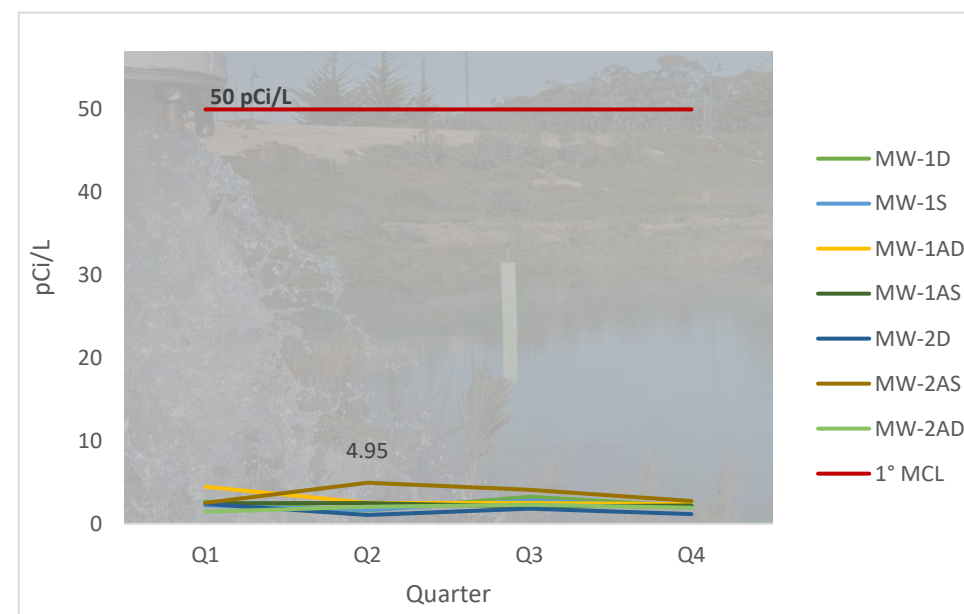


Figure 108b. Groundwater Monitoring – Gross Beta (pCi/L)

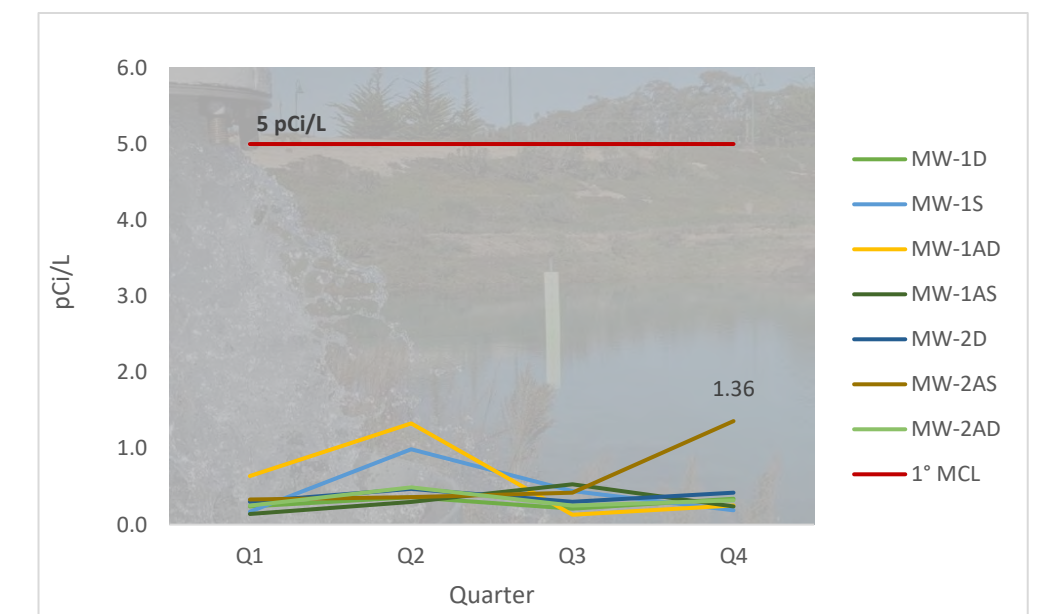


Figure 108c. Groundwater Monitoring – Quarterly Combined Radium-226 and Radium-228 (pCi/L)

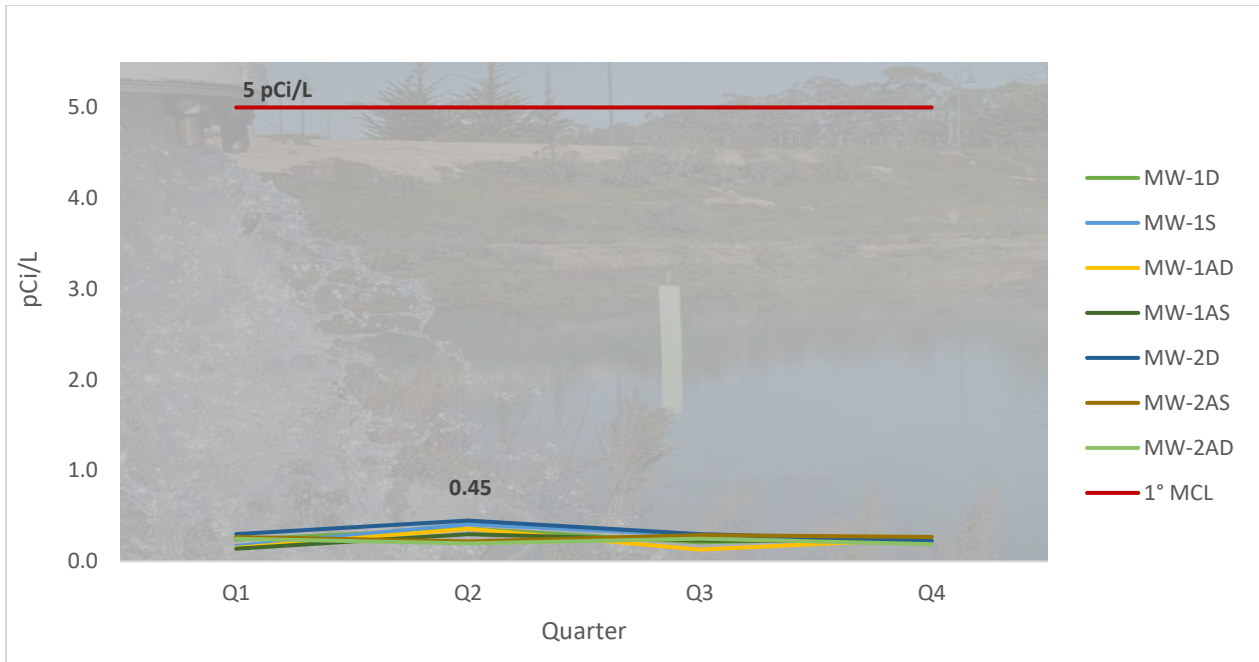


Figure 108d. Groundwater Monitoring – Quarterly Radium-226 (pCi/L)

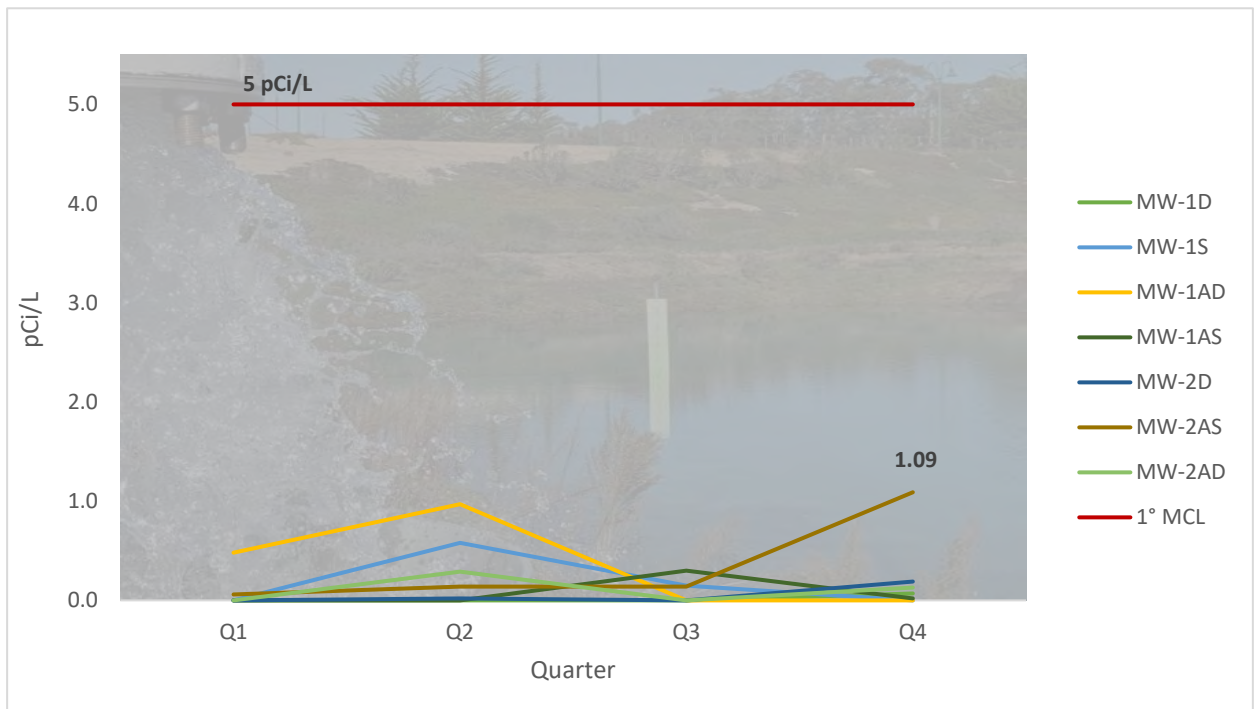
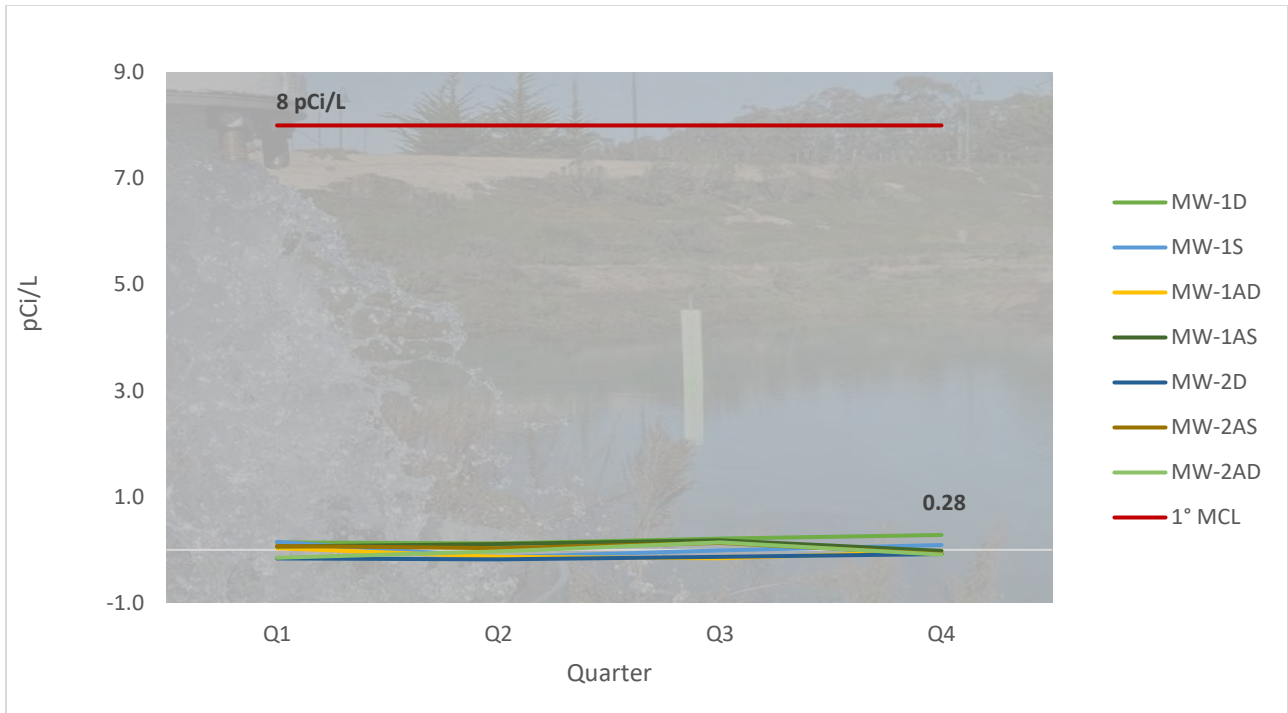
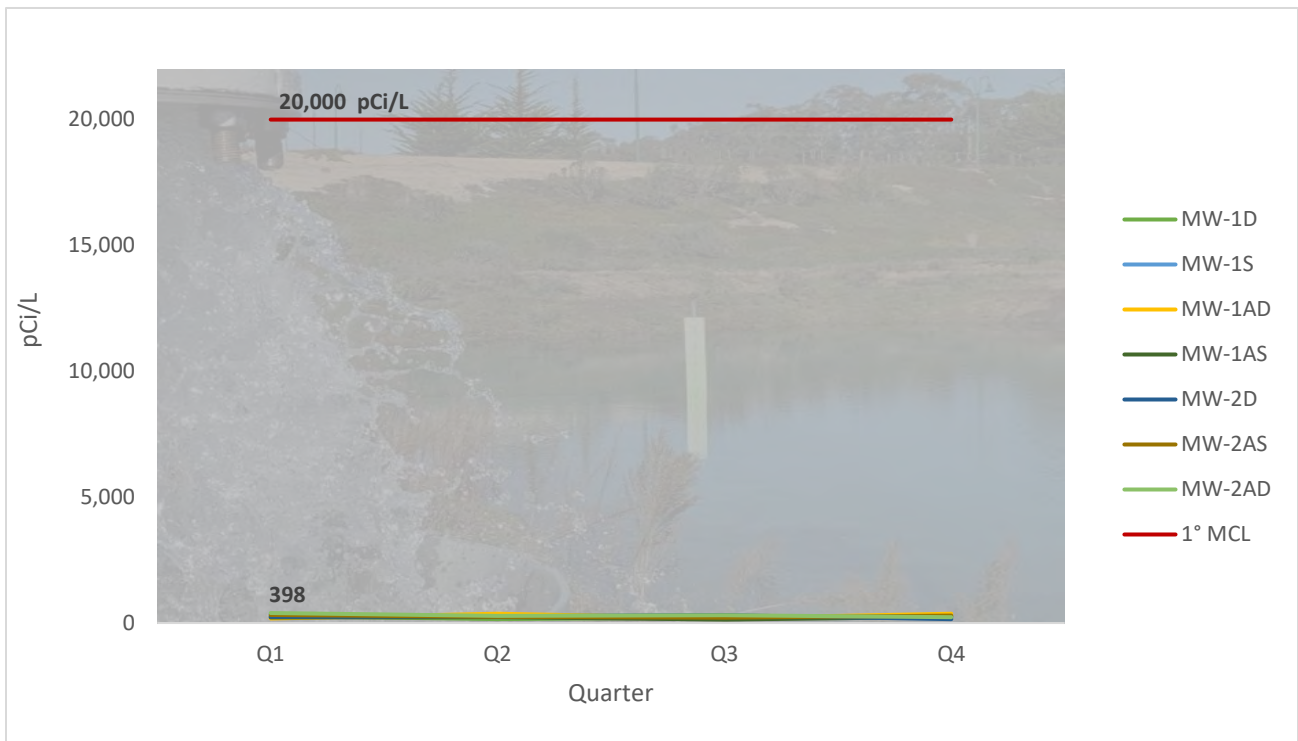


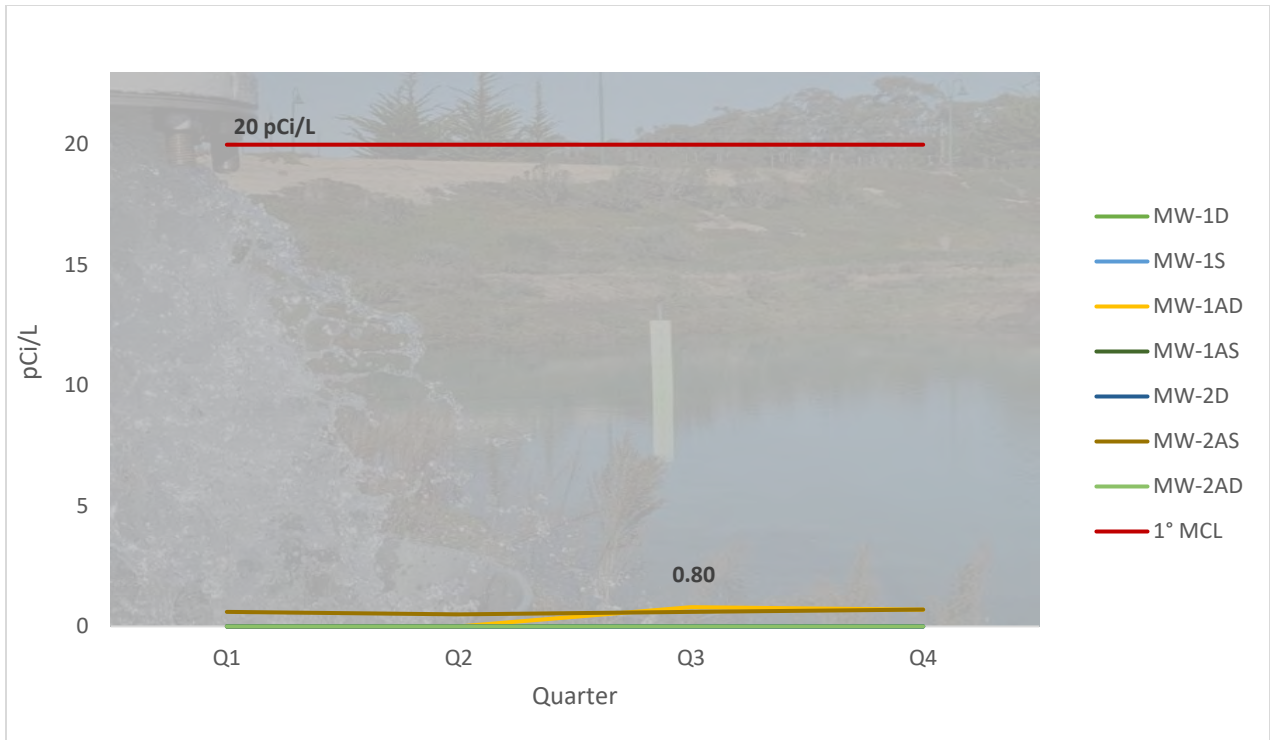
Figure 108e. Groundwater Monitoring- Quarterly Radium-228 (pCi/L)



**Figure 108f. Groundwater Monitoring – Quarterly Strontium-90 (pCi/L)**



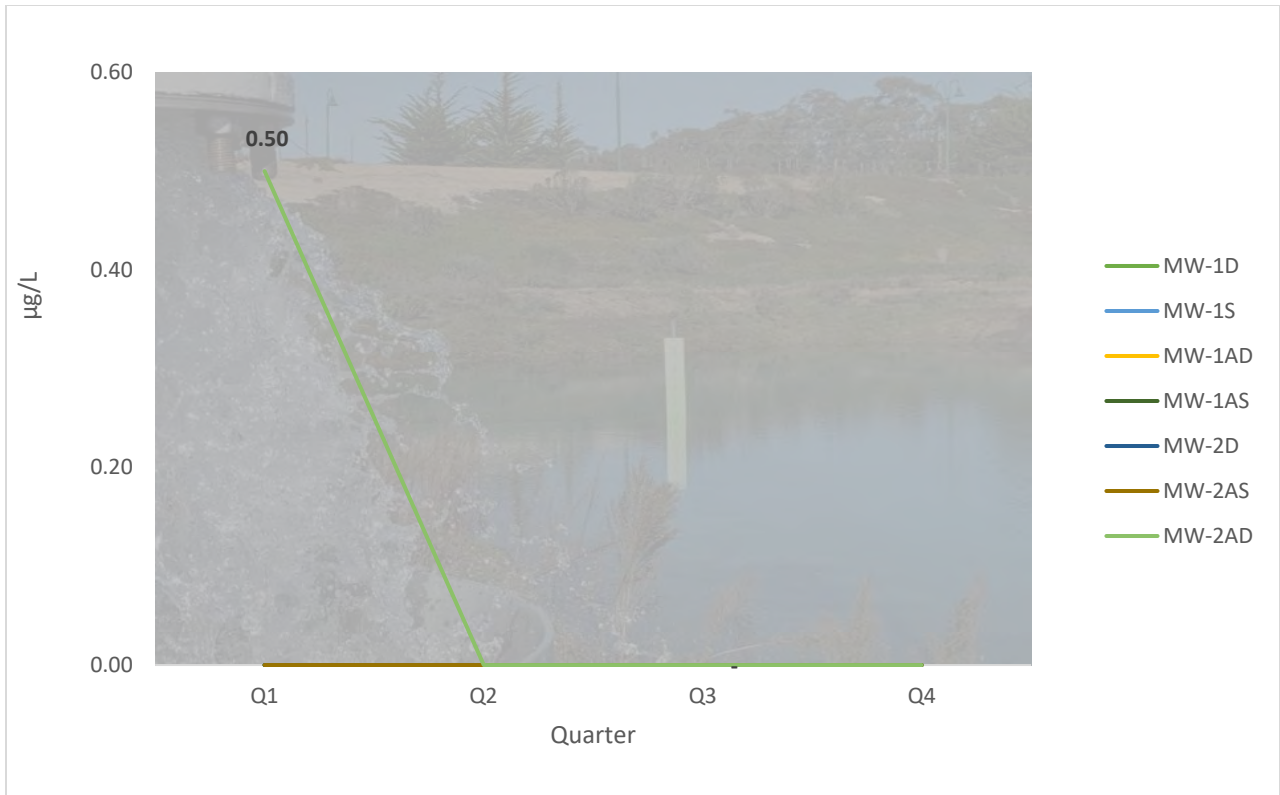
**Figure 108g. Groundwater Monitoring – Quarterly Tritium (pCi/L)**



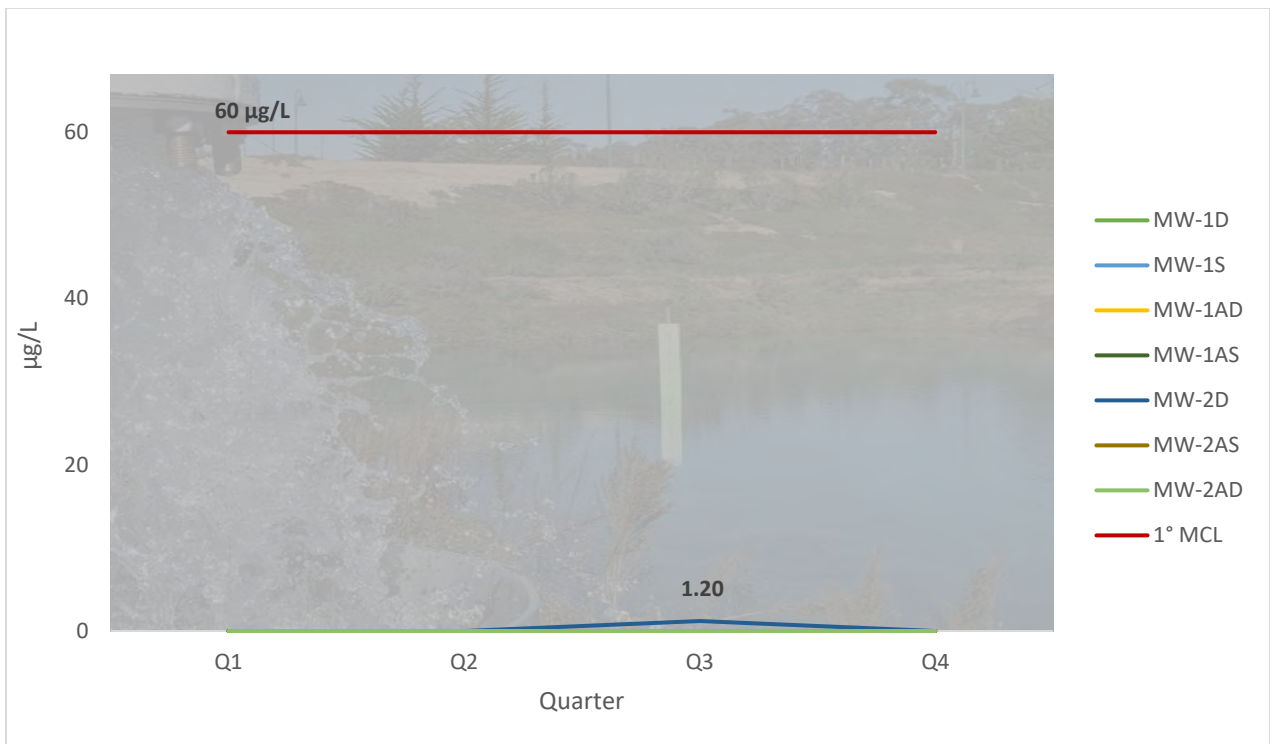
**Figure 108h. Groundwater Monitoring – Quarterly Uranium (pCi/L)**



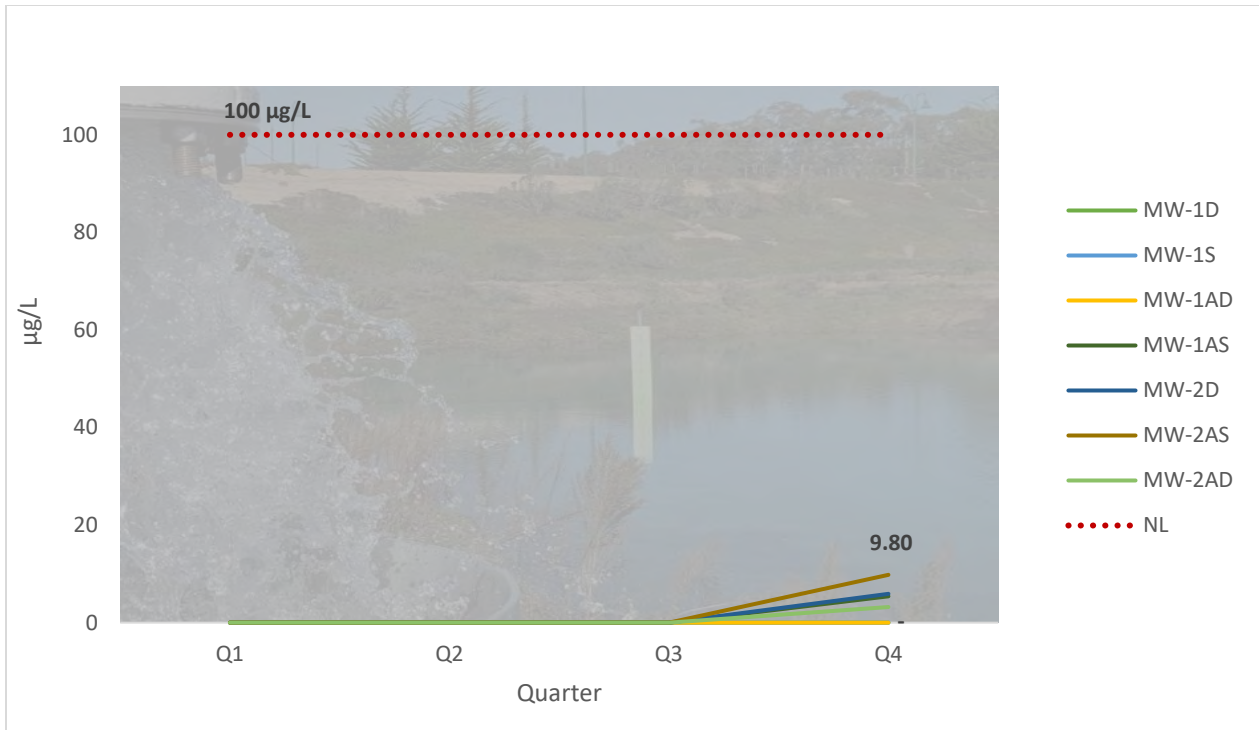
**Figure 108i. Groundwater Monitoring – Quarterly Caffeine (µg/L)**



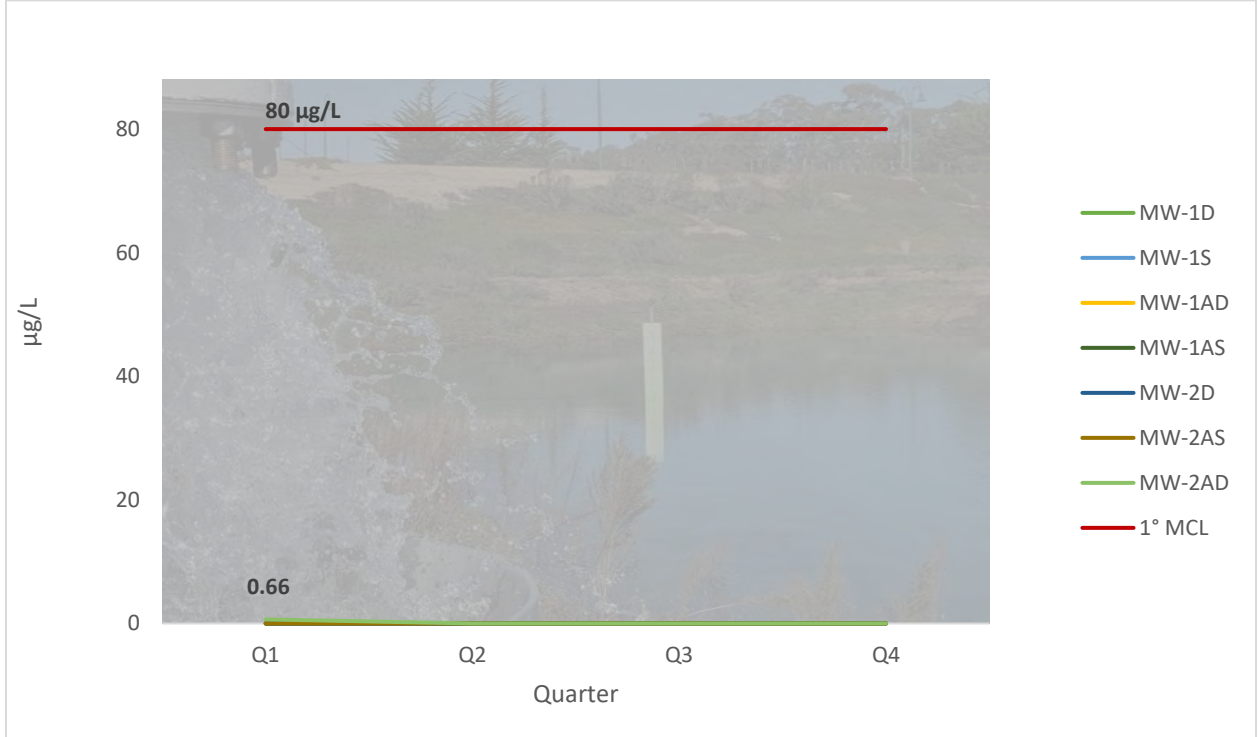
**Figure 108j. Groundwater Monitoring –Quarterly Chloropicrin (µg/L)**



**Figure 108k. Groundwater Monitoring –Quarterly Haloacetic Acid (Five) (HAA5) (µg/L)**

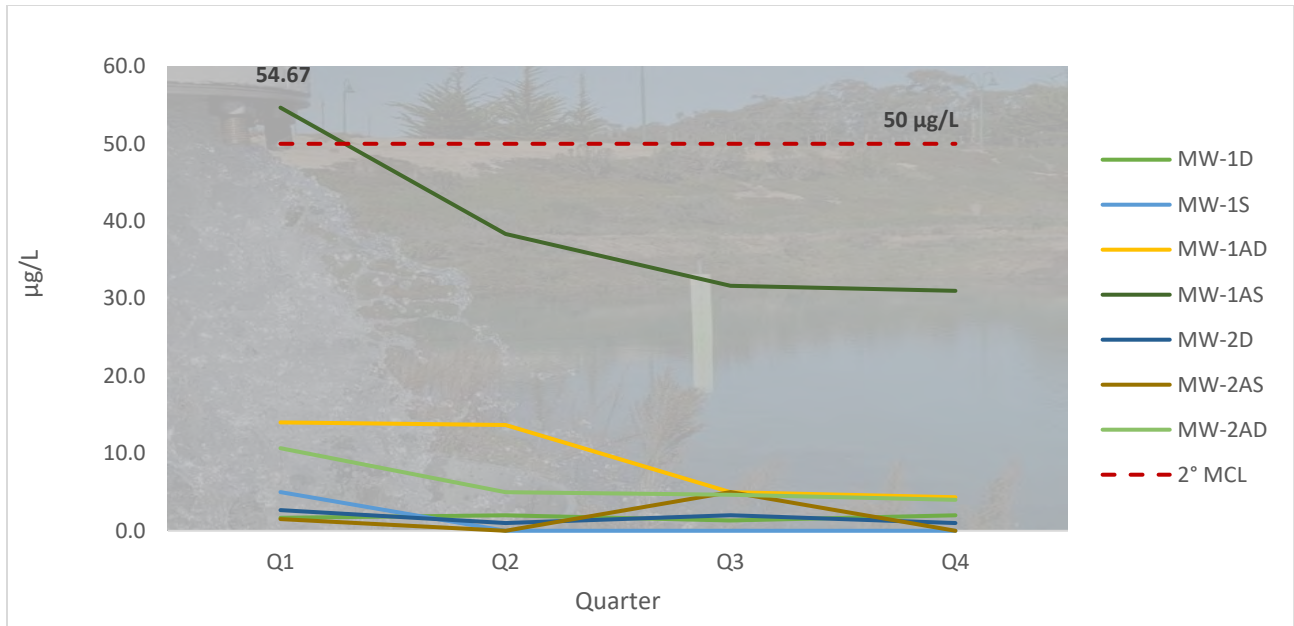


**Figure 108l. Groundwater Monitoring – Quarterly Formaldehyde (µg/L)**

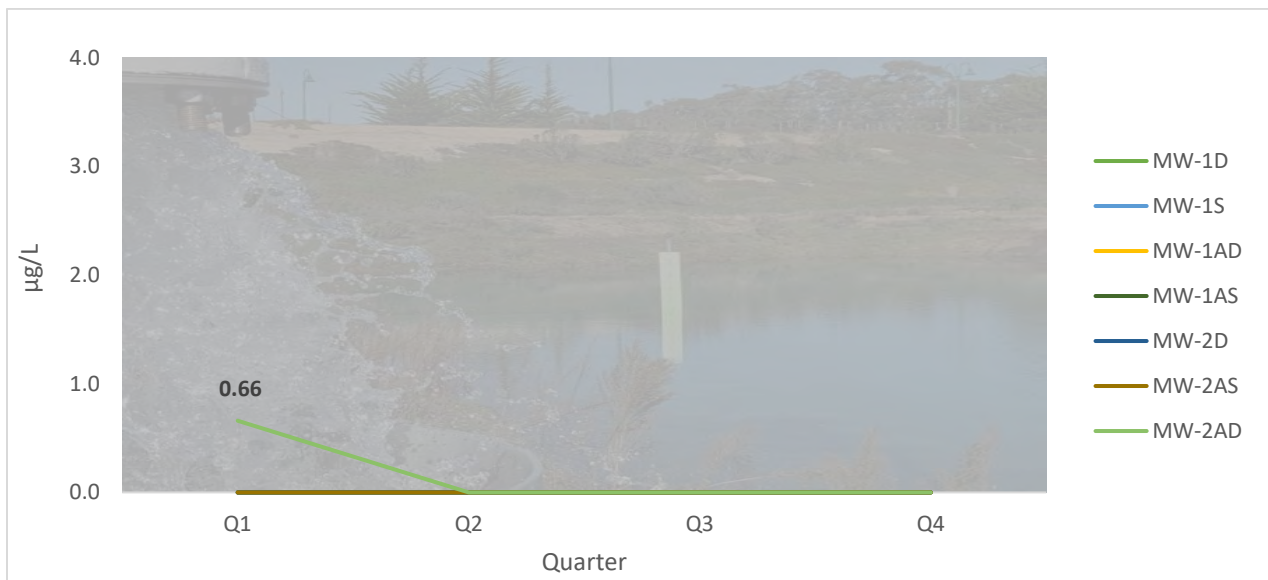


**Figure 108m. Groundwater Monitoring – Quarterly Total Trihalomethanes (µg/L)**



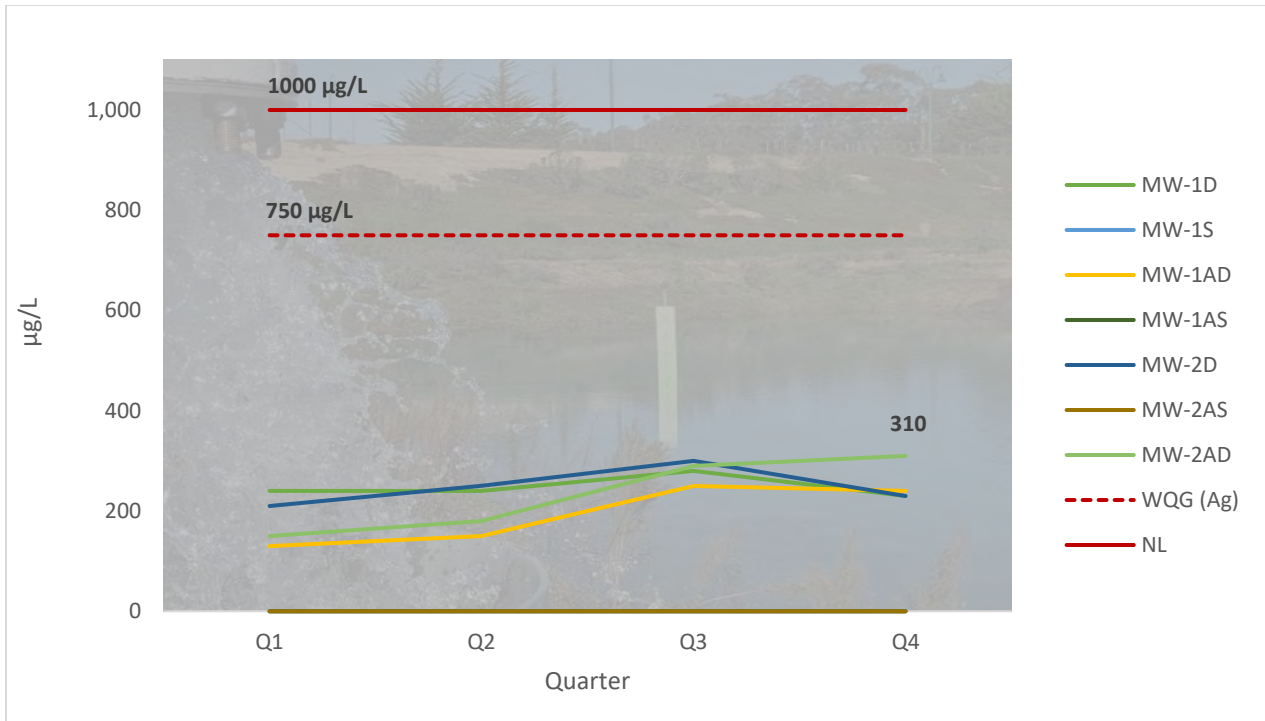


**Figure 108n. Groundwater Monitoring – Quarterly Manganese (µg/L)<sup>30</sup>**

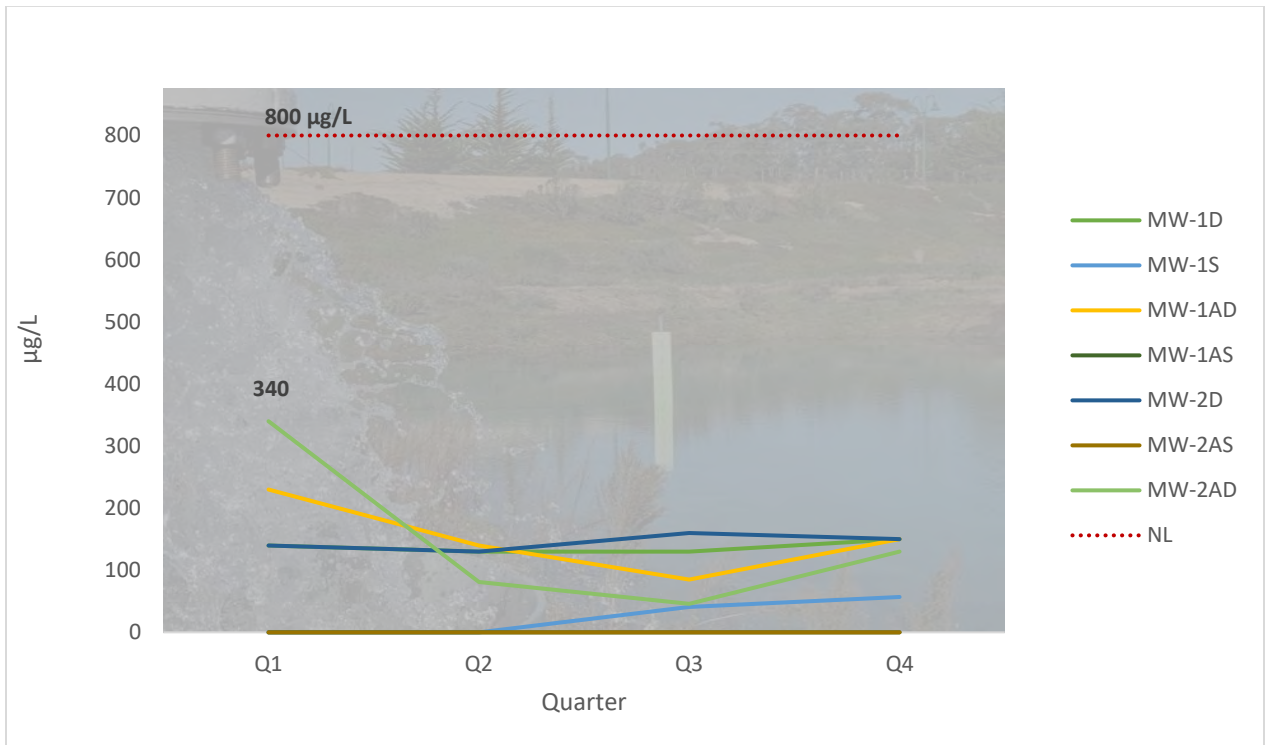


**Figure 108o. Groundwater Monitoring – Quarterly Chloroform (µg/L)**

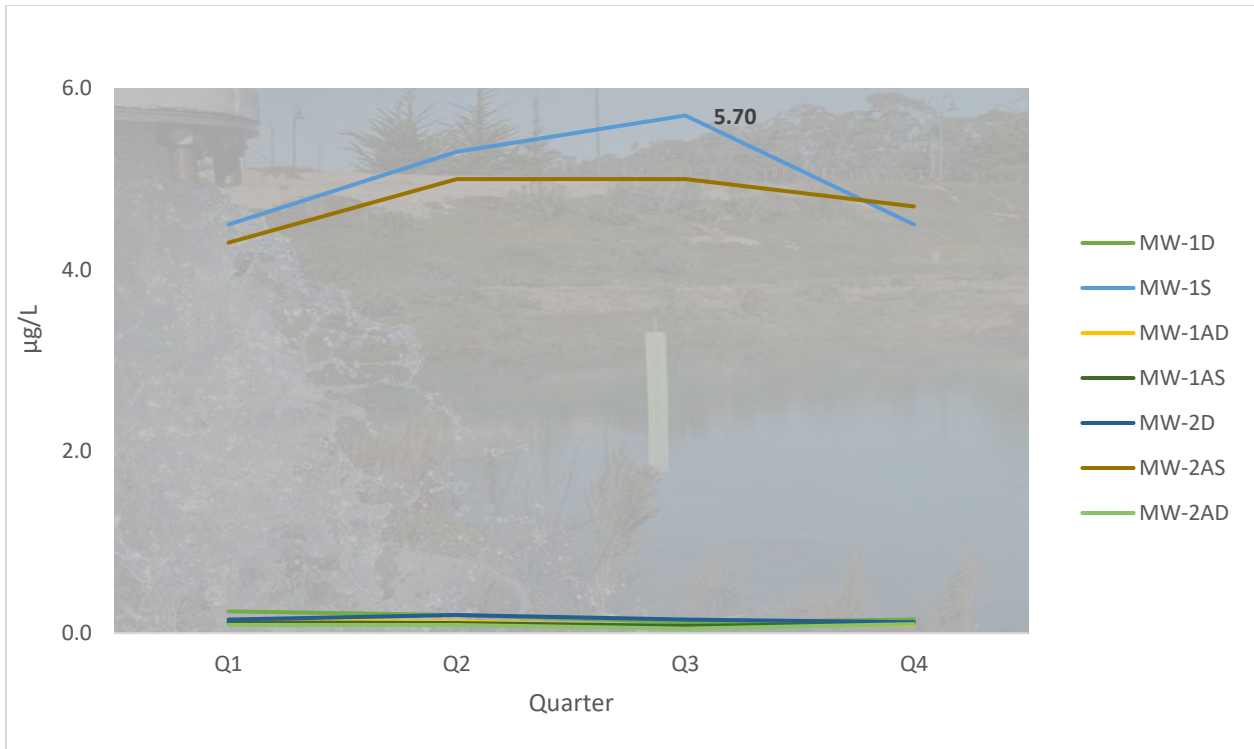
<sup>30</sup> Note: Q1 MW-1AS Manganese detection did not constitute a violation of the MCL, as compliance is determined based on a running annual average. Also note per **Table 128**, the Seaside Basin has experienced historic water quality exceedances for this constituent that predate Project operation. See **Section 6.2.5 MW-1AS** for more information on detections in this MW as well as **Section 7.0** for a discussion of the Tracer Study findings, including hydrogeologist’s estimated travel time from VZWs to offsite shallow MWs which confirms that exceedances in offsite shallow MWs are not associated with the application of recycled water.



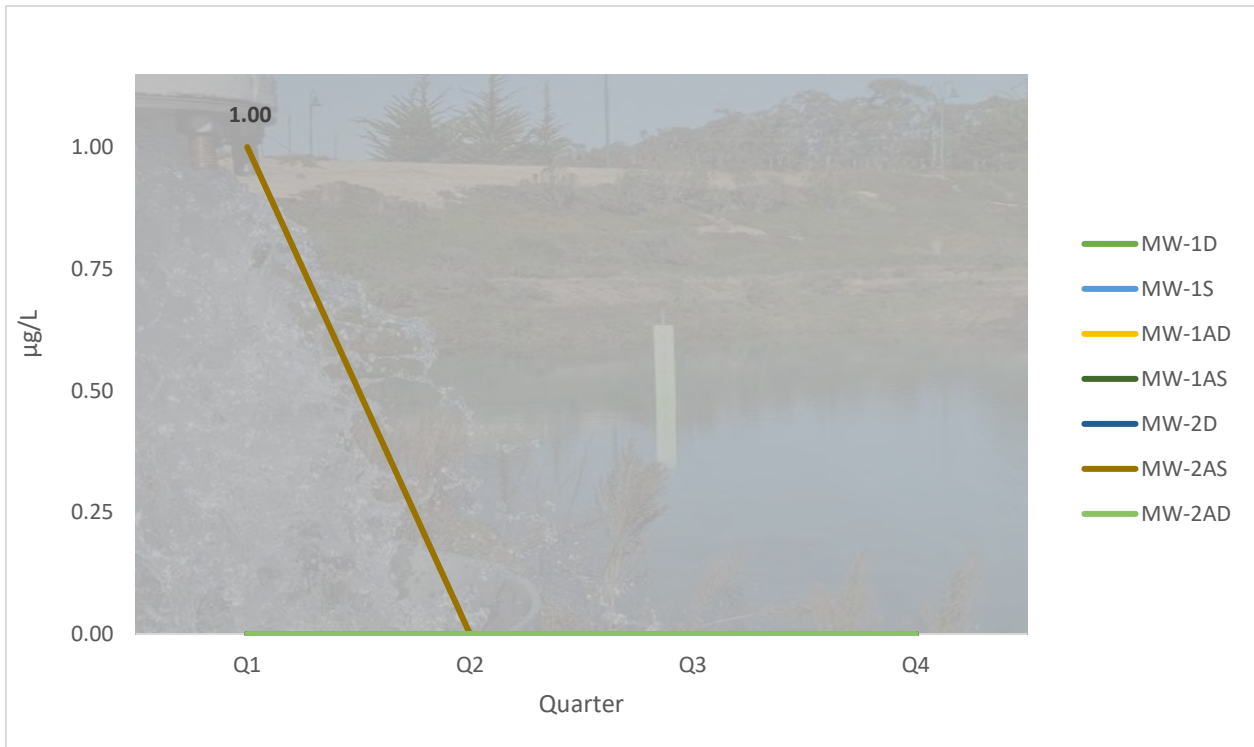
**Figure 108p. Groundwater Monitoring – Quarterly Boron (µg/L)**



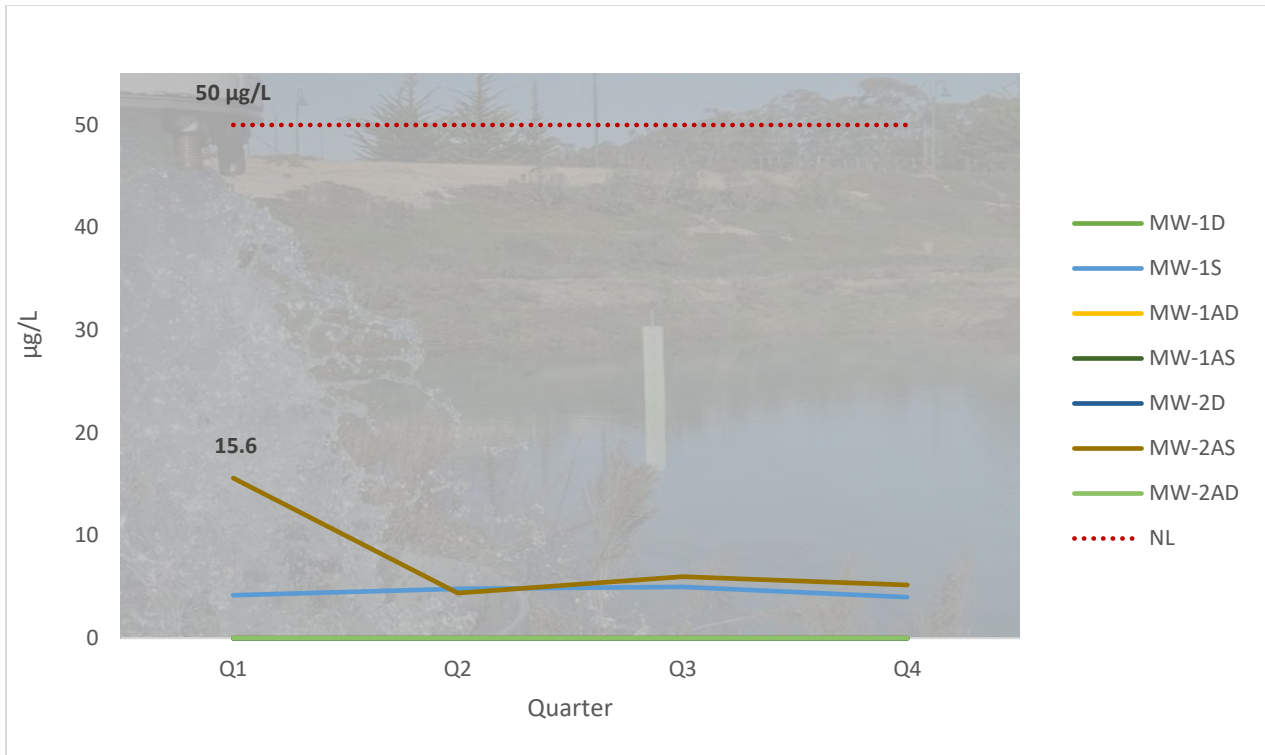
**Figure 108q. Groundwater Monitoring – Quarterly Chlorate (µg/L)**



**Figure 108r. Groundwater Monitoring – Quarterly Hexavalent Chromium (µg/L)**



**Figure 108s. Groundwater Monitoring – Quarterly Chromium (III) (µg/L)**



**Figure 108t. Groundwater Monitoring – Quarterly Vanadium (µg/L)**

**Table 109. Groundwater Monitoring – Annual N-Nitrosopyrrolidine (µg/L)**

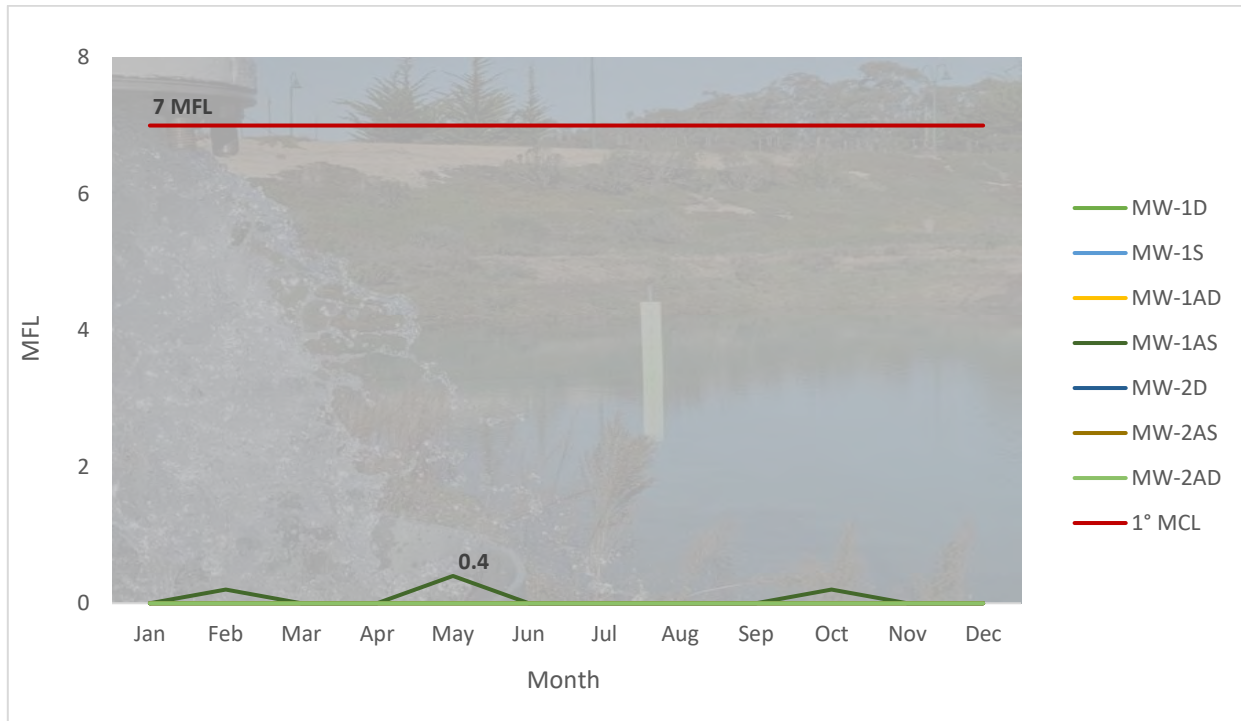
Monitoring well	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
Date	11/17/2020	11/17/2020	11/3/2020	11/3/2020	11/17/2020	11/3/2020	11/16/2020
Result	ND 0.26	ND 0.26	ND 0.26	ND 0.26	ND 0.26	ND 0.26	ND 0.26

**Figure 109. Groundwater Monitoring – Annual N-Nitrosopyrrolidine (µg/L)**

*All monitoring results were ND.*

**Table 110. Groundwater Monitoring – Monthly Asbestos (MFL)**

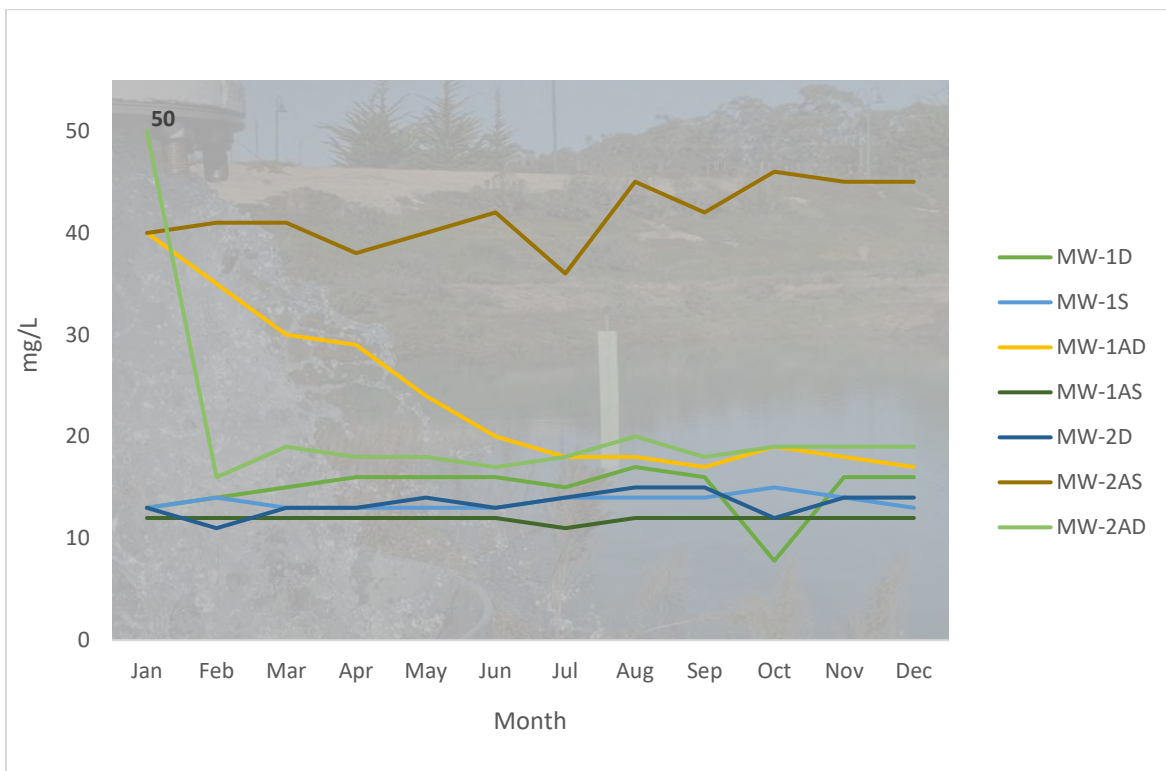
Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.19	ND 0.19	ND 0.20
February	ND 0.20	ND 0.19	ND 0.20	0.2	ND 0.19	ND 0.19	ND 0.20
March	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20
April	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20
May	ND 0.20	ND 0.20	ND 0.20	0.4	ND 0.20	ND 0.20	ND 0.20
June	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20
July	ND 0.20	ND 0.20	ND 0.20	ND 0.19	ND 0.20	ND 0.20	ND 0.20
August	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20
September	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20
October	ND 0.20	ND 0.20	ND 0.20	0.2	ND 0.20	ND 0.20	ND 0.20
November	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20
December	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20	ND 0.20



**Figure 110. Groundwater Monitoring – Monthly Asbestos (MFL)**

**Table 111. Groundwater Monitoring – Monthly Calcium (mg/L)**

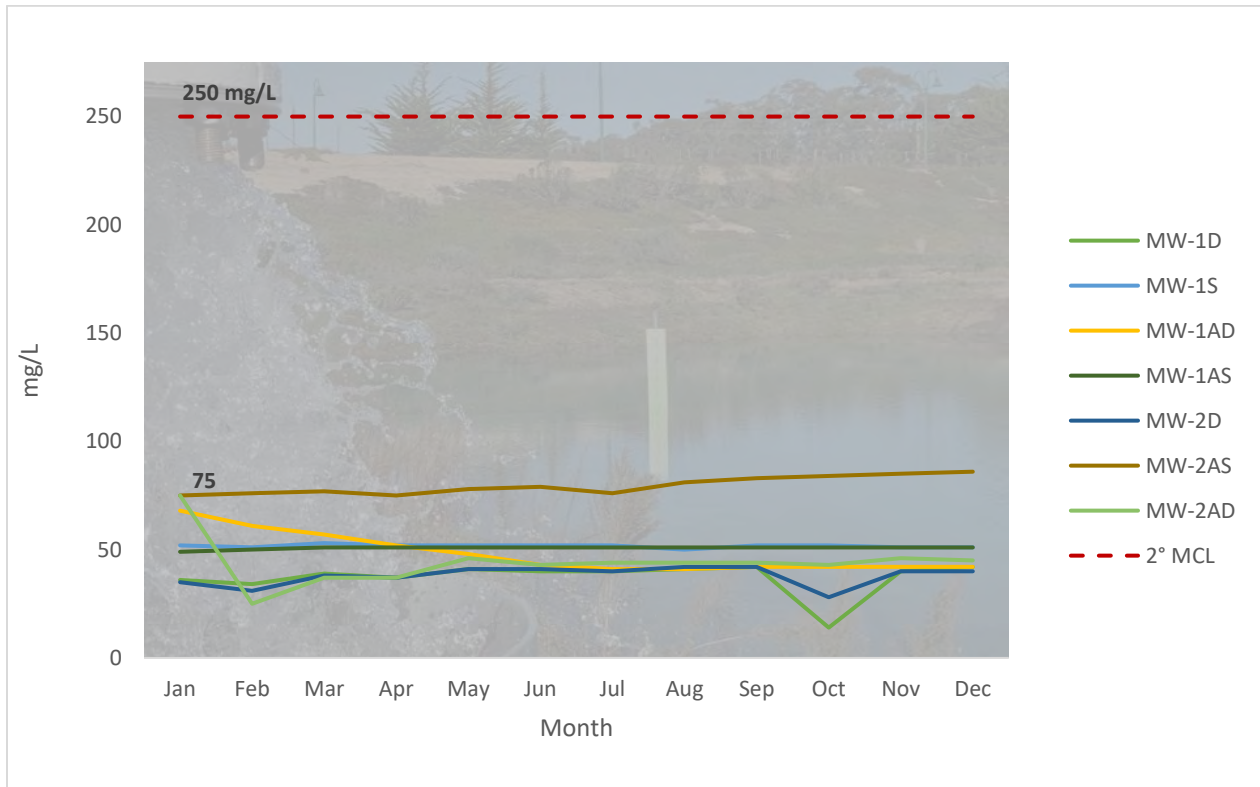
Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	13	13	40	12	13	40	50
February	14	14	35	12	11	41	16
March	15	13	30	12	13	41	19
April	16	13	29	12	13	38	18
May	16	13	24	12	14	40	18
June	16	13	20	12	13	42	17
July	15	14	18	11	14	36	18
August	17	14	18	12	15	45	20
September	16	14	17	12	15	42	18
October	7.8	15	19	12	12	46	19
November	16	14	18	12	14	45	19
December	16	13	17	12	14	45	19



**Figure 111. Groundwater Monitoring – Monthly Calcium (mg/L)**

**Table 112. Groundwater Monitoring – Monthly Chloride (mg/L)**

Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	36	52	68	49	35	75	75
February	34	51	61	50	31	76	25
March	39	53	57	51	38	77	37
April	37	52	52	51	37	75	37
May	41	52	48	51	41	78	46
June	40	52	43	51	41	79	43
July	40	52	41	51	40	76	44
August	41	50	41	51	42	81	44
September	42	52	42	51	42	83	44
October	14	52	42	51	28	84	43
November	40	51	42	51	40	85	46
December	42	51	42	51	40	86	45



**Figure 112. Groundwater Monitoring – Monthly Chloride (mg/L)**

**Table 113. Groundwater Monitoring – Monthly Copper ( $\mu\text{g/L}$ )**

Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00
February	ND 5.00	ND 10.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00
March	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00
April	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00
May	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00
June	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00
July	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 10.00	ND 5.00
August	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00
September	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00
October	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00
November	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00
December	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00

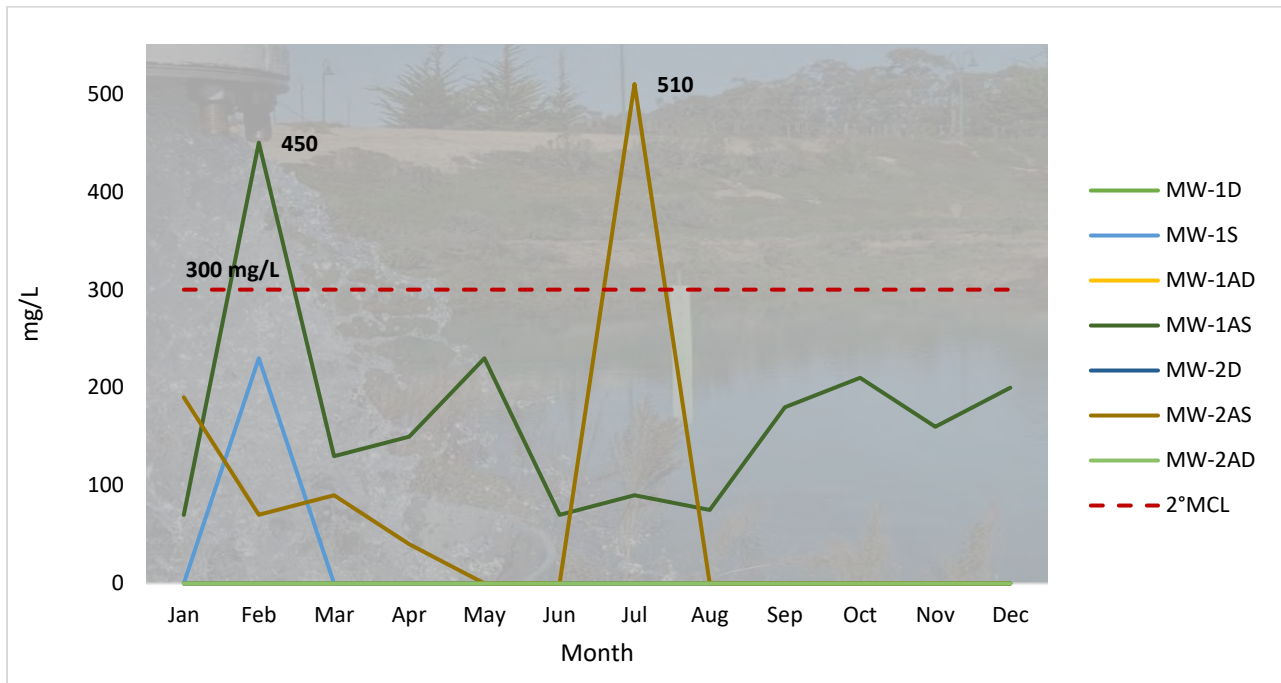
**Figure 113. Groundwater Monitoring – Monthly Copper ( $\mu\text{g/L}$ )**

*All monitoring results were ND.*



**Table 114. Groundwater Monitoring – Monthly Iron (mg/L)**

Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	ND 14	ND 14	ND 14	70	ND 14	190	ND 14
February	ND 14	230	ND 14	450	ND 14	70	ND 14
March	ND 14	ND 14	DNQ 20	130	ND 14	90	ND 14
April	ND 14	ND 14	ND 14	150	ND 14	40	ND 14
May	ND 14	ND 14	ND 14	230	ND 14	DNQ 30	ND 14
June	ND 14	ND 14	ND 14	70	ND 14	DNQ 20	ND 14
July	ND 14	ND 14	ND 14	90	ND 14	510	ND 14
August	ND 14	DNQ 28	ND 14	75	ND 14	ND 14	ND 14
September	ND 14	DNQ 16	ND 14	180	ND 14	DNQ 28	ND 14
October	ND 14	ND 14	ND 14	210	ND 14	DNQ 24	ND 14
November	ND 14	ND 14	ND 14	160	ND 14	ND 14	ND 14
December	ND 14	ND 14	ND 14	200	ND 14	DNQ 14	ND 14

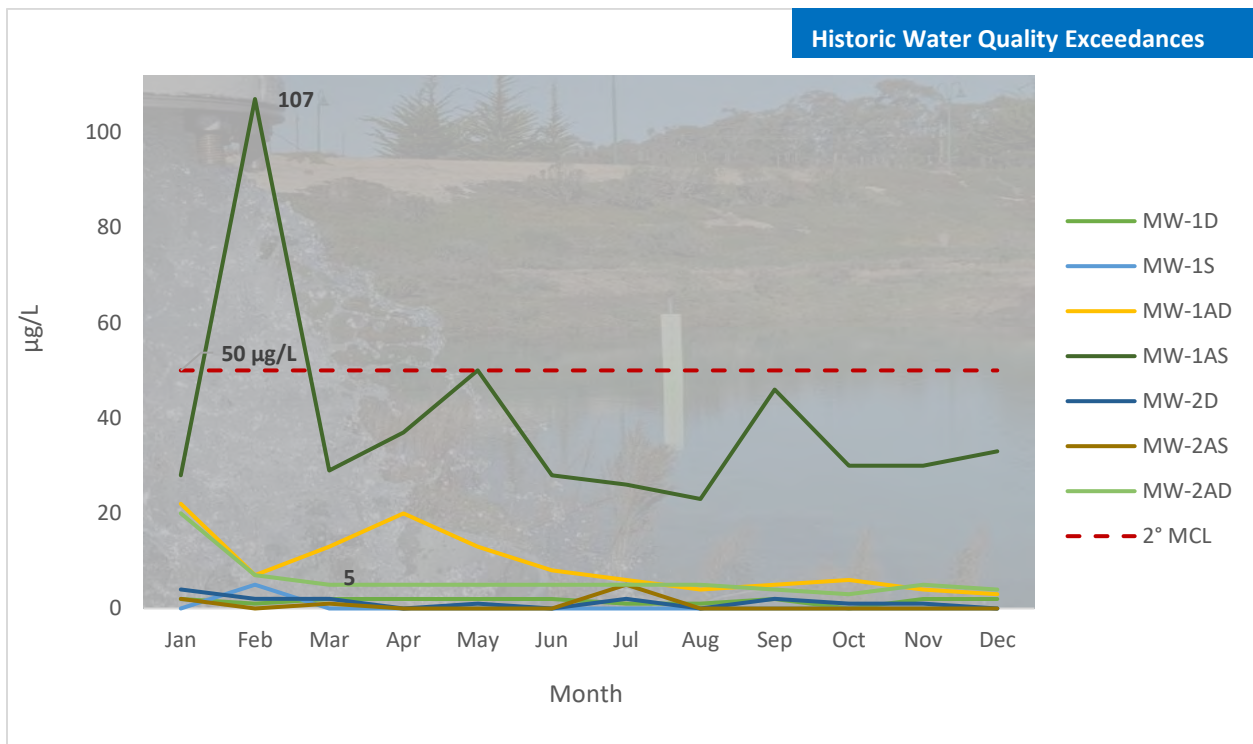


**Figure 114. Groundwater Monitoring – Monthly Iron (mg/L)<sup>31</sup>**

<sup>31</sup> **Note:** Short-term exceedances at MW-2AS and MW-1AS did not constitute violations of the secondary MCL, as it is determined based on a running annual average. See **Sections 6.2.7 MW-2AS** and **6.2.5 MW-1AS** for more information on detections in these MWs as well as **Section 7.0** for a discussion of the Tracer Study, including hydrogeologist’s estimated travel time from VZWs to offsite shallow MWs which confirms that exceedances in offsite shallow MWs are not associated with the application of recycled water.

**Table 115. Groundwater Monitoring – Monthly Manganese ( $\mu\text{g/L}$ )**

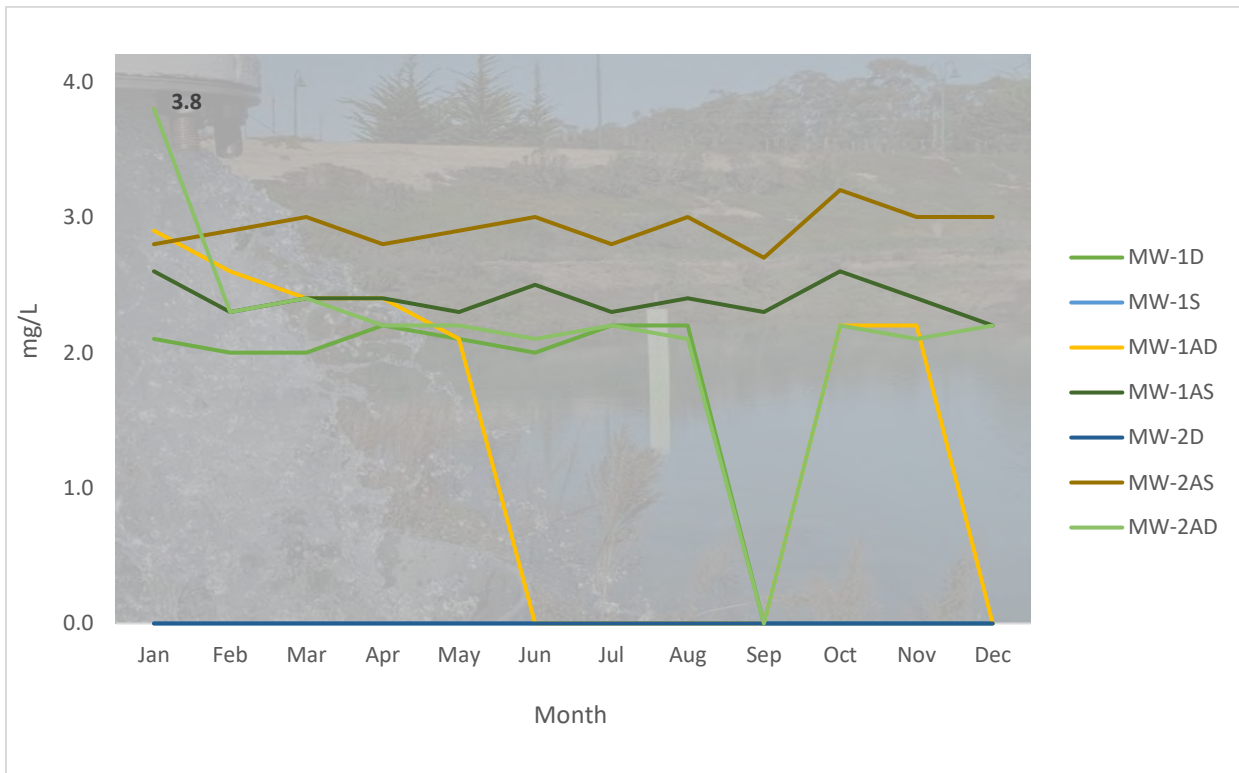
Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	2	ND 1.00	22	28	4	2	20
February	1	5	7	107	2	ND 1.00	7
March	2	ND 1.00	13	29	2	1	5
April	2	ND 1.00	20	37	ND 1.00	ND 1.00	5
May	2	ND 1.00	13	50	1	ND 1.00	5
June	2	ND 1.00	8	28	ND 1.00	ND 1.00	5
July	1	ND 1.00	6	26	2	5	5
August	1	ND 1.00	4	23	ND 1.00	ND 1.00	5
September	2	ND 1.00	5	46	2	ND 1.00	4
October	ND 1.00	ND 1.00	6	30	1	ND 1.00	3
November	2	ND 1.00	4	30	1	ND 1.00	5
December	2	ND 1.00	3	33	ND 1.00	ND 1.00	4


**Figure 115. Groundwater Monitoring – Monthly Manganese ( $\mu\text{g/L}$ )<sup>32</sup>**

<sup>32</sup> Note: Q1 MW-1AS Manganese detection did not constitute a violation of the MCL, as compliance is determined based on a running annual average. Also note per **Table 128**, the Seaside Basin has experienced historic water quality exceedances for this constituent that predate Project operation. See **Section 6.2.5** MW-1AS for more information on detections in this as well as **Section 7.0** for a discussion of the Tracer Study findings, including hydrogeologist’s estimated travel time from VZWs to offsite shallow MWs which confirms that exceedances in offsite shallow MWs are not associated with the application of recycled water.

**Table 116. Groundwater Monitoring – Monthly Potassium (mg/L)**

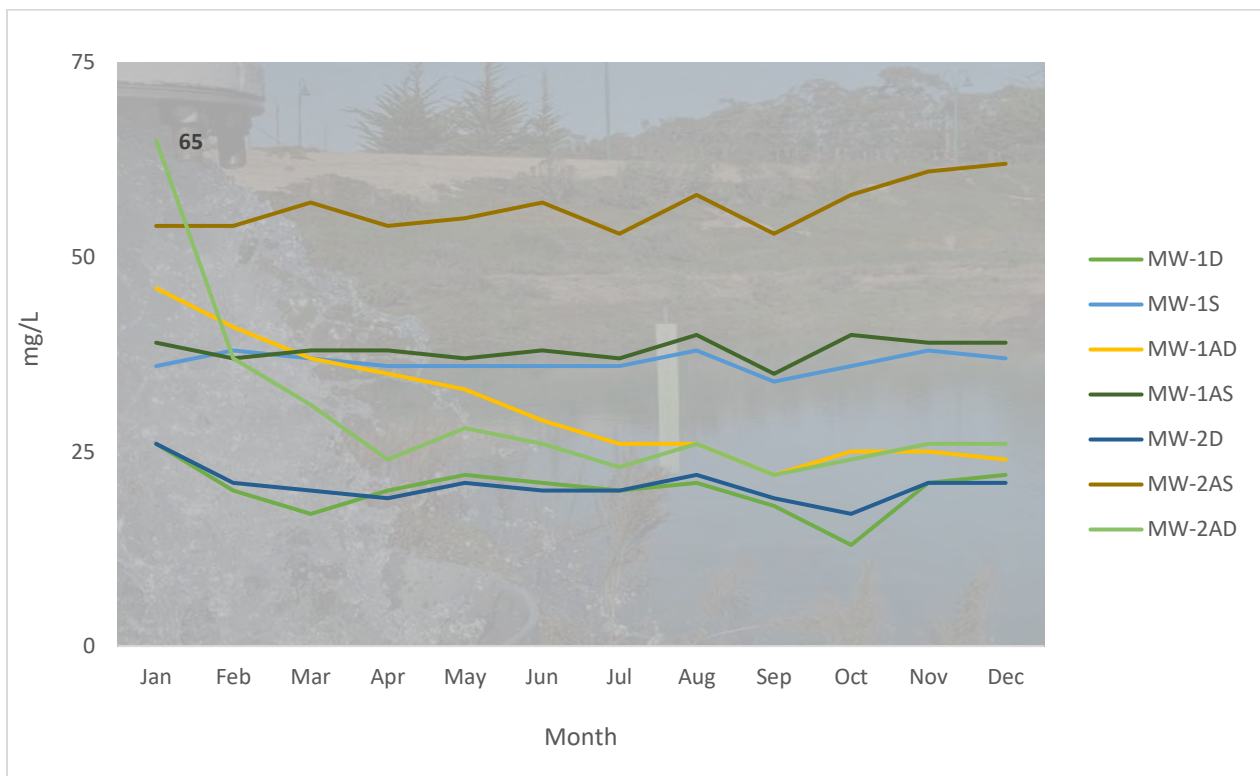
Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	2.1	DNQ 1.80	2.9	2.6	DNQ 1.60	2.8	3.8
February	2	DNQ 2.00	2.6	2.3	DNQ 1.40	2.9	2.3
March	2	DNQ 1.80	2.4	2.4	DNQ 1.80	3	2.4
April	2.2	DNQ 1.70	2.4	2.4	DNQ 1.70	2.8	2.2
May	2.1	DNQ 1.80	2.1	2.3	DNQ 1.80	2.9	2.2
June	2	DNQ 1.80	DNQ 2.00	2.5	DNQ 1.80	3	2.1
July	2.2	DNQ 1.80	DNQ 1.90	2.3	DNQ 2.00	2.8	2.2
August	2.2	DNQ 1.80	DNQ 1.90	2.4	DNQ 2.00	3	2.1
September	DNQ 2.00	DNQ 1.60	DNQ 1.90	2.3	DNQ 1.80	2.7	DNQ 1.80
October	DNQ 1.60	DNQ 1.90	2.2	2.6	DNQ 1.80	3.2	2.2
November	DNQ 2.00	DNQ 1.70	2.2	2.4	DNQ 1.80	3	2.1
December	DNQ 1.80	DNQ 1.70	DNQ 2.00	2.2	DNQ 1.80	3	2.2



**Figure 116. Groundwater Monitoring – Monthly Potassium (mg/L)**

**Table 117. Groundwater Monitoring – Monthly Sodium (mg/L)**

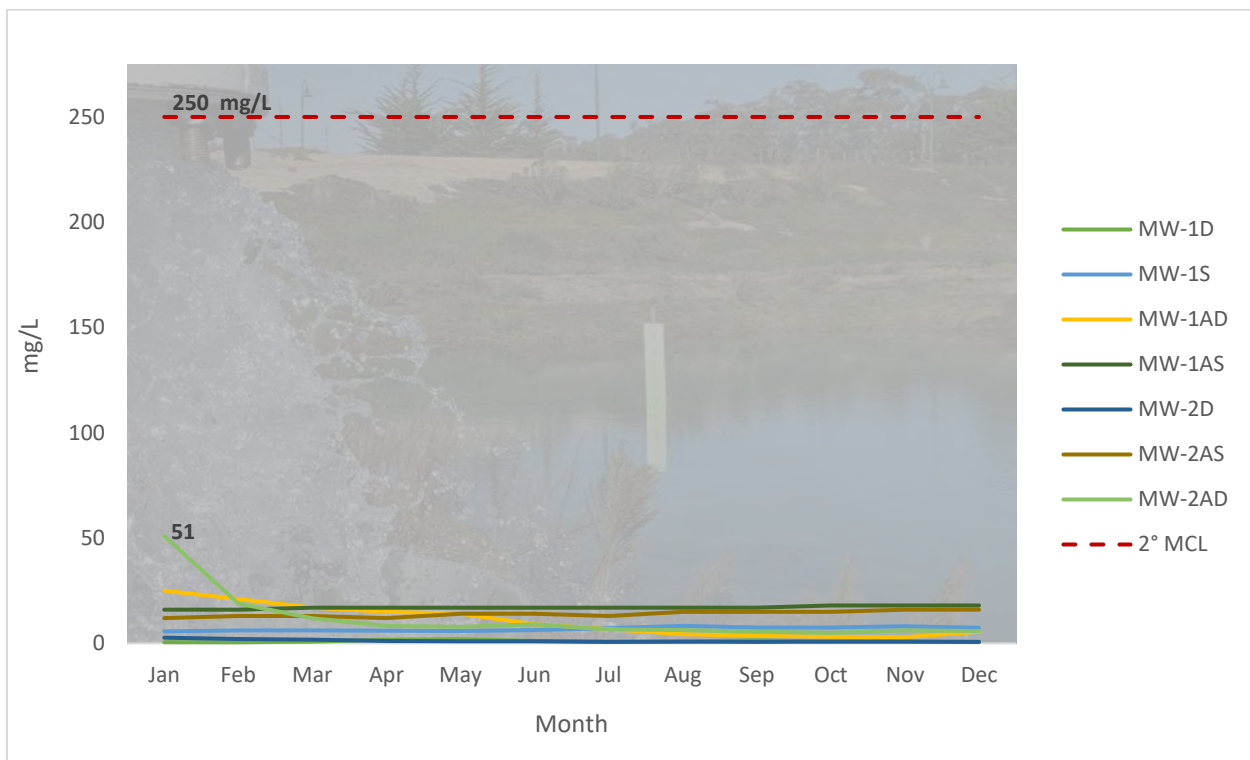
Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	26	36	46	39	26	54	65
February	20	38	41	37	21	54	37
March	17	37	37	38	20	57	31
April	20	36	35	38	19	54	24
May	22	36	33	37	21	55	28
June	21	36	29	38	20	57	26
July	20	36	26	37	20	53	23
August	21	38	26	40	22	58	26
September	18	34	22	35	19	53	22
October	13	36	25	40	17	58	24
November	21	38	25	39	21	61	26
December	22	37	24	39	21	62	26



**Figure 117. Groundwater Monitoring – Monthly Sodium (mg/L)**

**Table 118. Groundwater Monitoring – Monthly Sulfate (mg/L)**

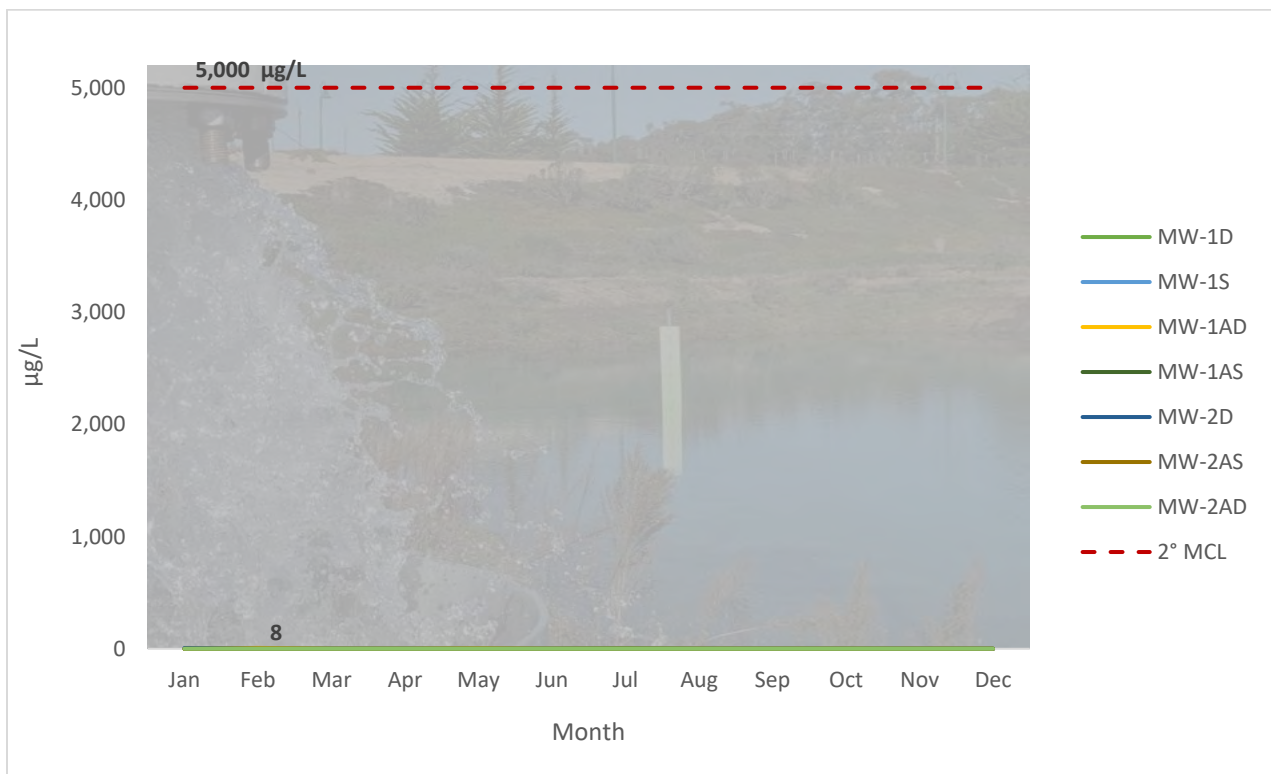
Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	0.6	5.7	25	16	2.7	12	51
February	0.5	6.2	21	16	2	13	19
March	0.9	6.2	17	17	1.7	13	12
April	1.8	6	15	17	1.1	12	8.3
May	1.9	5.9	14	17	1	14	7.9
June	1.2	6.3	9.1	17	1	14	9
July	0.8	7.2	6.8	17	0.7	13	6.6
August	0.8	8.3	4.4	17	0.8	15	6.3
September	1.4	7.6	3.6	17	0.7	15	5.6
October	0.9	7.6	3.1	18	0.8	15	5
November	0.8	8.1	2.9	18	0.9	16	6.2
December	0.7	7.4	5.5	18	0.7	16	5.9



**Figure 118. Groundwater Monitoring – Monthly Sulfate (mg/L)**

**Table 119. Groundwater Monitoring – Monthly Zinc (µg/L)**

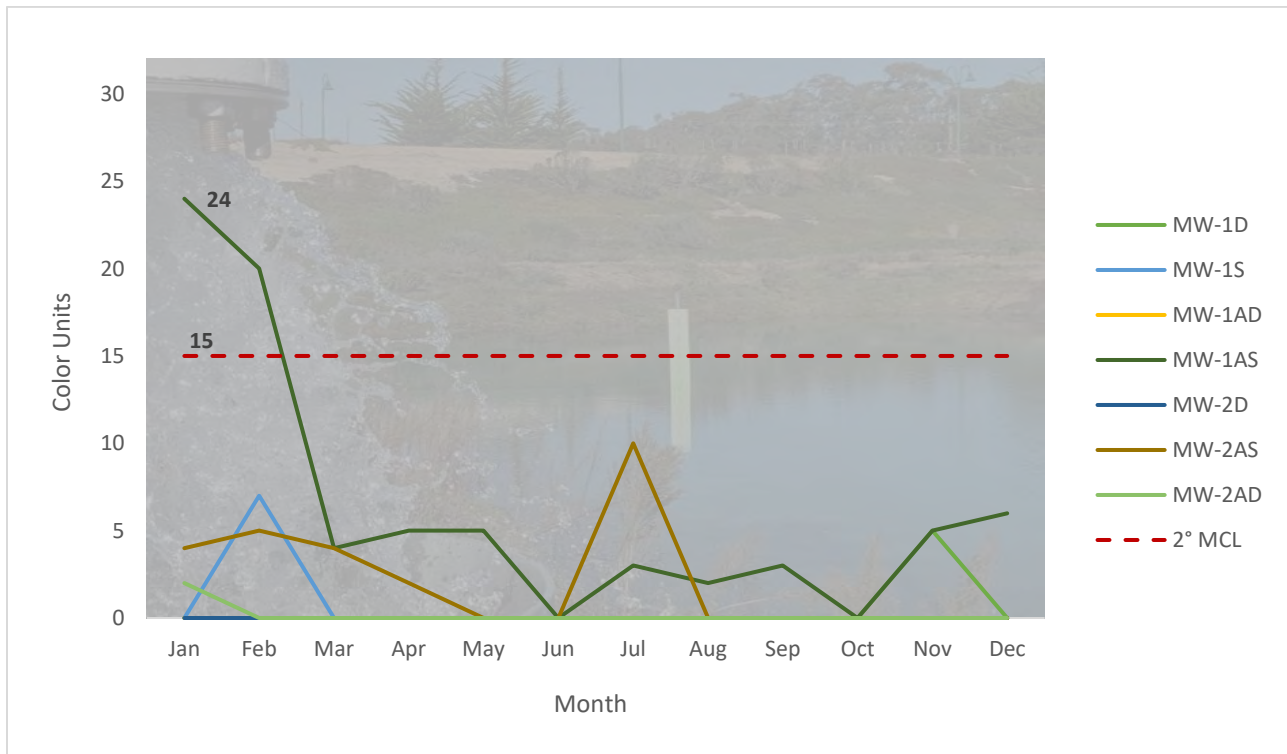
Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	ND 5.00	ND 5.00	ND 5.00	ND 5.00	7	ND 5.00	ND 5.00
February	ND 5.00	ND 10.00	8	ND 5.00	ND 5.00	ND 5.00	ND 5.00
March	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00
April	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00
May	ND 5.00	ND 5.00	5	ND 5.00	ND 5.00	ND 5.00	ND 5.00
June	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00
July	6	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 10.00	ND 5.00
August	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00
September	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00
October	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00
November	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00
December	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00	ND 5.00



**Figure 119. Groundwater Monitoring – Monthly Zinc (µg/L)**

**Table 120. Groundwater Monitoring – Monthly Color**

Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	ND 2.00	ND 2.00	ND 2.00	24	ND 2.00	4	2
February	ND 2.00	7	ND 2.00	20	ND 2.00	5	ND 2.00
March	ND 2.00	ND 2.00	ND 2.00	4	ND 2.00	4	ND 2.00
April	ND 2.00	ND 2.00	ND 2.00	5	ND 2.00	2	ND 2.00
May	ND 2.00	ND 2.00	ND 2.00	5	ND 2.00	ND 2.00	ND 2.00
June	ND 2.00	ND 2.00	ND 2.00	ND 2.00	ND 2.00	ND 2.00	ND 2.00
July	ND 2.00	ND 2.00	ND 2.00	3	ND 2.00	10	ND 2.00
August	ND 2.00	ND 2.00	ND 2.00	2	ND 2.00	ND 2.00	ND 2.00
September	ND 2.00	ND 2.00	ND 2.00	3	ND 2.00	ND 2.00	ND 2.00
October	ND 2.00	ND 2.00	ND 2.00	ND 2.00	ND 2.00	ND 2.00	ND 2.00
November	5	ND 2.00	ND 2.00	5	ND 2.00	ND 2.00	ND 2.00
December	ND 2.00	ND 2.00	ND 2.00	6	ND 2.00	ND 2.00	ND 2.00

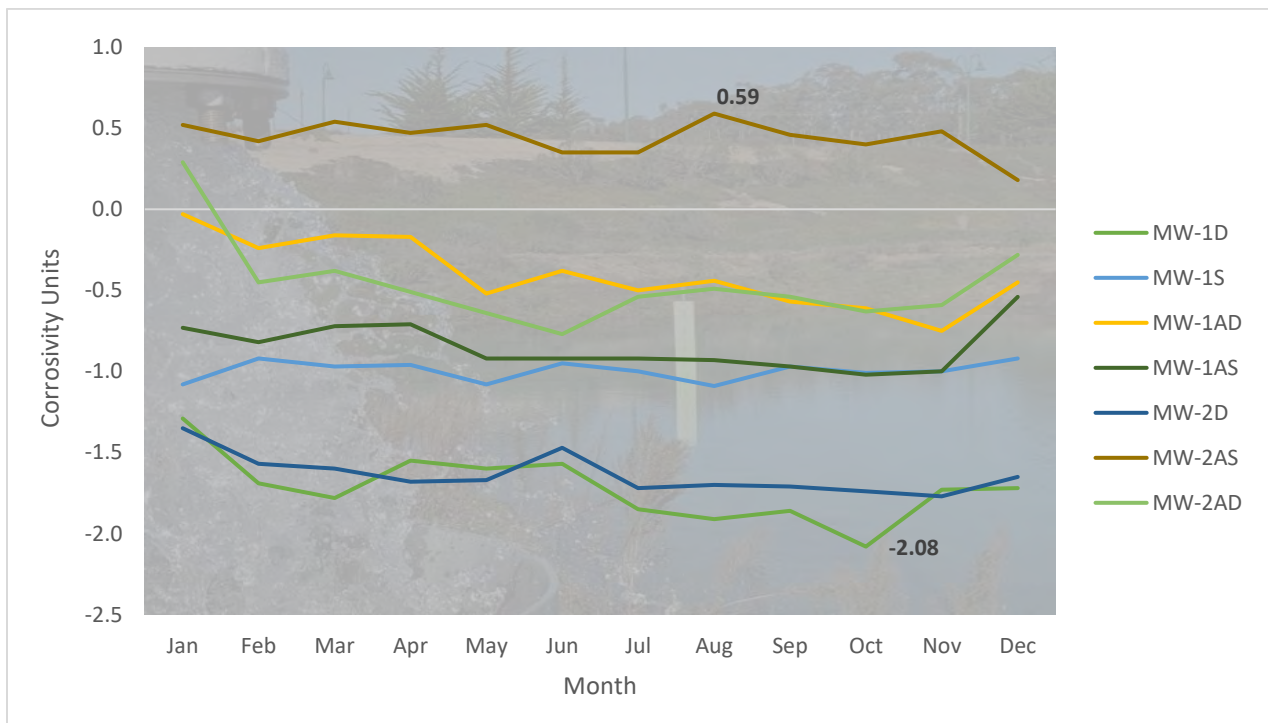


**Figure 120. Groundwater Monitoring – Monthly Color<sup>33</sup>**

<sup>33</sup> Note: January MW-1AS detection of color did not constitute a violation of the secondary MCL, as it is determined based on an average of the initial result and confirmation sample. See **Section 6.2.5** MW-1AS for more information on this detection as well as **Section 7.0** for a discussion of the Tracer Study findings, including hydrogeologist’s estimated travel time from VZWs to offsite shallow MWs which confirms that exceedances in offsite shallow MWs are not associated with the application of recycled water.

**Table 121. Groundwater Monitoring – Monthly Corrosivity**

Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	-1.29	-1.08	-0.03	-0.73	-1.35	0.52	0.29
February	-1.69	-0.92	-0.24	-0.82	-1.57	0.42	-0.45
March	-1.78	-0.97	-0.16	-0.72	-1.6	0.54	-0.38
April	-1.55	-0.96	-0.17	-0.71	-1.68	0.47	-0.51
May	-1.6	-1.08	-0.52	-0.92	-1.67	0.52	-0.64
June	-1.57	-0.95	-0.38	-0.92	-1.47	0.35	-0.77
July	-1.85	-1	-0.5	-0.92	-1.72	0.35	-0.54
August	-1.91	-1.09	-0.44	-0.93	-1.7	0.59	-0.49
September	-1.86	-0.97	-0.57	-0.97	-1.71	0.46	-0.54
October	-2.08	-1.01	-0.61	-1.02	-1.74	0.4	-0.63
November	-1.73	-1	-0.75	-1	-1.77	0.48	-0.59
December	-1.72	-0.92	-0.45	-0.54	-1.65	0.18	-0.28



**Figure 121. Groundwater Monitoring – Monthly Corrosivity**



**Table 122. Groundwater Monitoring – Monthly Foaming Agents (mg/L)**

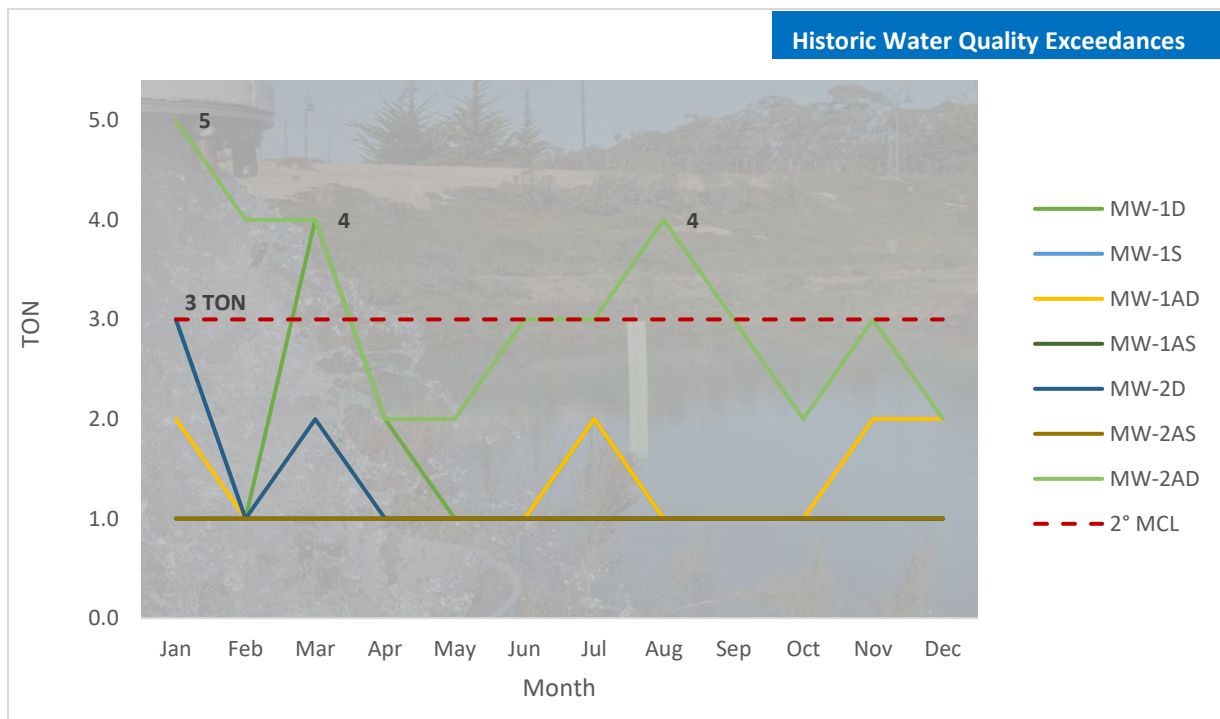
Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05
February	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05
March	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05
April	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05
May	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05
June	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05
July	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05
August	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05
September	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05
October	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05
November	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05
December	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05	ND 0.05

**Figure 122. Groundwater Monitoring – Monthly Foaming Agents (mg/L)**

*All monitoring results were ND.*

**Table 123. Groundwater Monitoring – Monthly Odor (TON)**

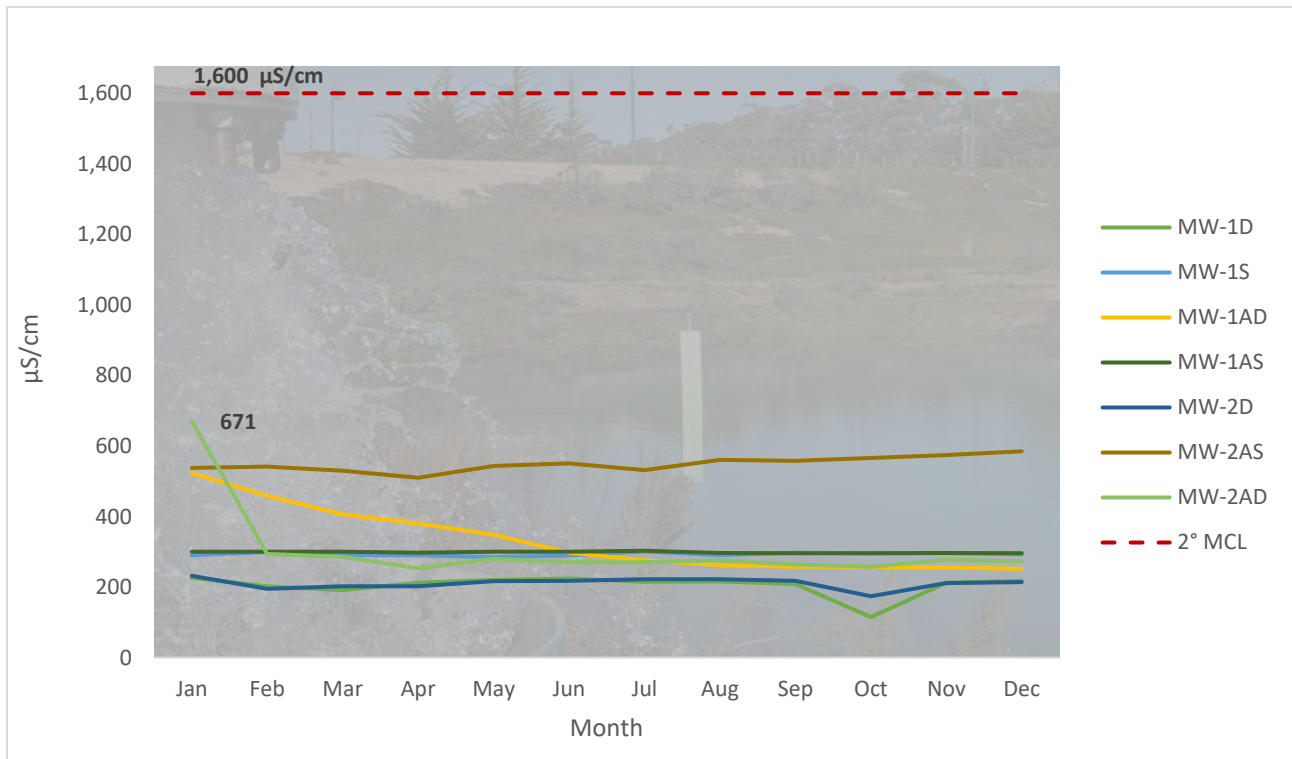
Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	3	1	2	1	3	1	5
February	1	1	1	1	1	1	4
March	4	1	2	1	2	1	4
April	2	1	1	1	1	1	2
May	1	1	1	1	1	1	2
June	1	1	1	1	1	1	3
July	2	1	2	1	1	1	3
August	1	1	1	1	1	1	4
September	1	1	1	1	1	1	3
October	1	1	1	1	1	1	2
November	1	1	2	1	1	1	3
December	1	1	2	1	1	1	2


**Figure 123. Groundwater Monitoring – Monthly Odor (TON)<sup>34</sup>**

<sup>34</sup> **Note:** Exceedances in MW-1D and MW-2AD did not constitute violations of the secondary MCL, as compliance is determined based on a running annual average. See **Sections 6.2.2 MW-1D** and **6.2.3 MW-2AD** for more information on detections in these MWs as well as **Section 7.0** for a discussion on the Tracer Study findings. Additionally, per WDR/WRR Table 2, the Seaside Basin has documented water quality exceedances for this parameter that predate Project operation.

**Table 124. Groundwater Monitoring – Monthly Specific Conductance (µS/cm)**

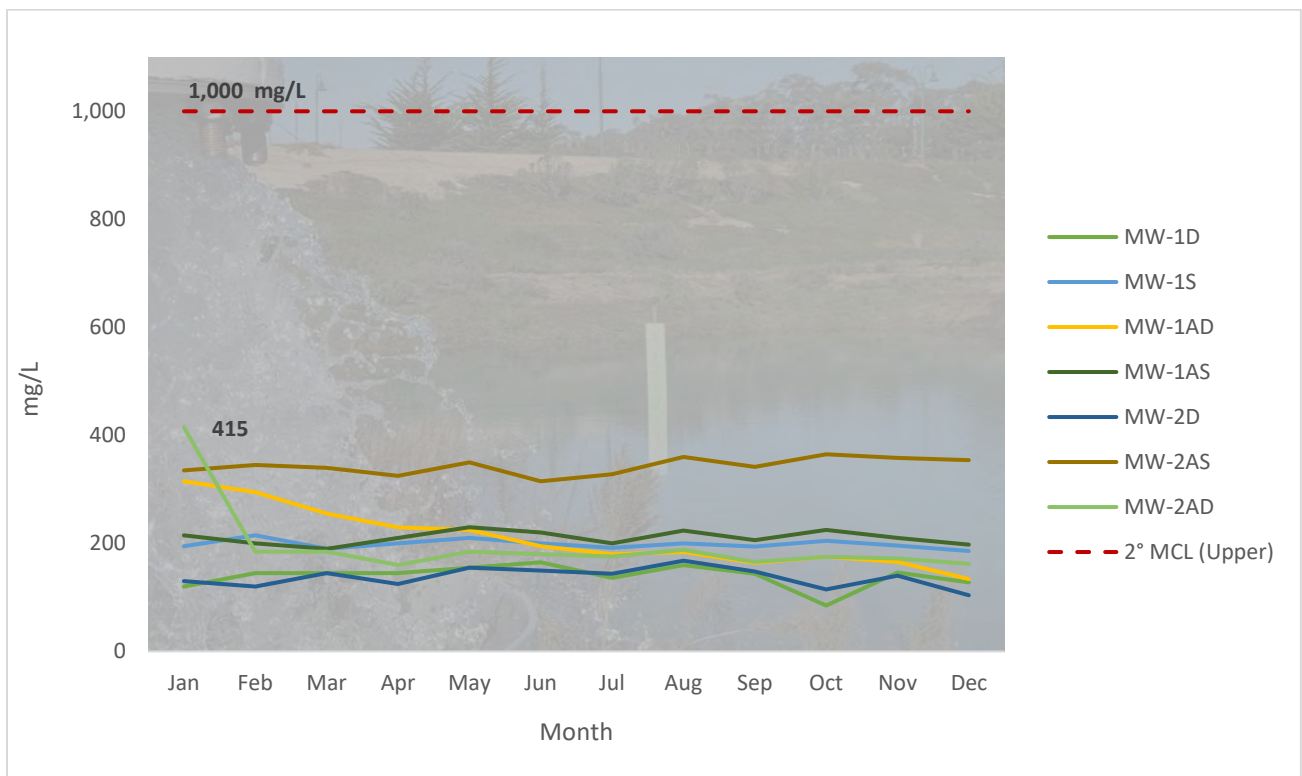
Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	226	290	523	300	232	538	671
February	202	299	459	300	195	542	294
March	191	290	406	300	202	530	286
April	212	290	380	298	202	510	253
May	220	285	348	300	217	543	280
June	224	289	298	300	218	551	270
July	215	301	276	303	222	532	270
August	216	290	262	297	222	561	276
September	209	298	258	296	218	558	264
October	115	296	258	296	174	566	258
November	212	297	255	297	211	574	278
December	218	293	252	296	214	585	273



**Figure 124. Groundwater Monitoring – Monthly Specific Conductance (µS/cm)**

**Table 125. Groundwater Monitoring – Monthly TDS (mg/L)**

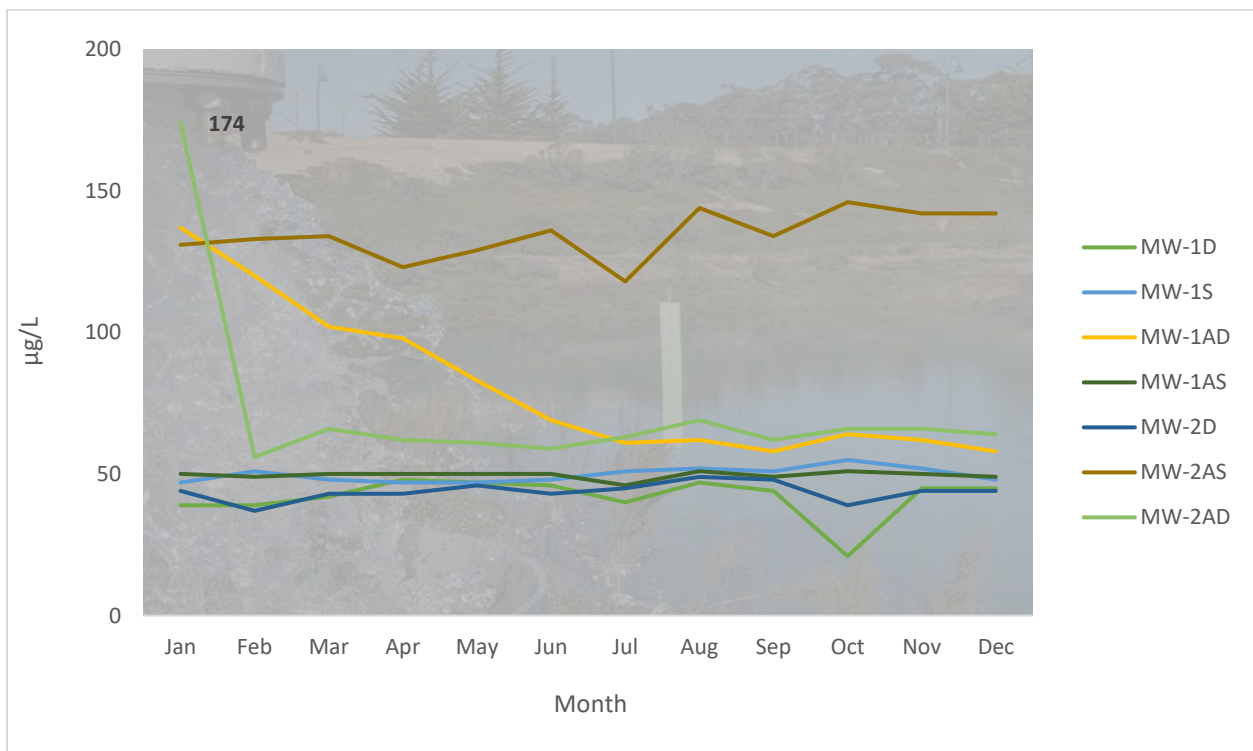
Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	120	195	315	215	130	335	415
February	145	215	295	200	120	345	185
March	145	190	255	190	145	340	185
April	145	200	230	210	125	325	160
May	155	210	225	230	155	350	185
June	165	200	195	220	150	315	180
July	136	192	180	200	144	328	176
August	160	200	184	224	168	360	188
September	144	194	164	206	148	342	166
October	85	205	175	225	115	365	175
November	146	196	166	210	140	358	172
December	128	186	134	198	104	354	162



**Figure 125. Groundwater Monitoring – Monthly TDS (mg/L)**

**Table 126. Groundwater Monitoring – Monthly Hardness (µg/L)**

Month	MW-1D	MW-1S	MW-1AD	MW-1AS	MW-2D	MW-2AS	MW-2AD
January	39	47	137	50	44	131	174
February	39	51	120	49	37	133	56
March	42	48	102	50	43	134	66
April	48	47	98	50	43	123	62
May	47	47	83	50	46	129	61
June	46	48	69	50	43	136	59
July	40	51	61	46	45	118	63
August	47	52	62	51	49	144	69
September	44	51	58	49	48	134	62
October	21	55	64	51	39	146	66
November	45	52	62	50	44	142	66
December	45	48	58	49	44	142	64



**Figure 126. Groundwater Monitoring – Monthly Hardness (µg/L)**

## 4.0 SUMMARY OF COMPLIANCE

*A summary of compliance status with all monitoring requirements during the previous calendar year...*

### 4.1 General Performance

AWPF was on-line 365 days in calendar year 2021, using an average of 5.0 MGD influent with a low of 1.6 MGD and a high of 6.0 MGD. AWPf experienced several short-lived, unexpected power outages because of PG&E power bumps or PG&E planned maintenance activities, both causing plant shutdowns. Additionally, throughout the year, the AWPf was off-line for short periods of time pertaining to planned maintenance, and/or vendors requests for on-site inspection(s). Overall, the APWF operated well during its second year and produced 1,185 MG of purified recycled water averaging 3.25 MGD. On average, 0.79 MGD of RO concentrate was sent to the Ocean Outfall.

### 4.2 Monitoring Program

The following sections provide a summary of compliance with applicable standards and water quality conditions. Note that drinking water standards (MCLs, NLS, etc.), which are applicable to AWPf product water and groundwater, are determined based on “compliance intervals” (e.g., running annual average) as stipulated by CCR Titles 17 and 22 and 40 CFR 141-143. Thus, in some instances while a single sample may exceed a water quality standard, it does not necessarily constitute a violation.

#### 4.2.1 AWPf Influent

The AWPf Influent Monitoring requirements are not associated with any regulatory limits. M1W performed all required sampling and analysis in compliance with provisions of the WDR/WRR and MRP.



## 4.2.2 AWPf Recycled Water

All constituent parameters were in compliance during 2021.

**Table 127a. 2021 AWPf Recycled Water Compliance Summary**

Constituent Parameters	Units	Type	Compliance Interval	Requirement	Compliant?
<b>Table M-3a: Recycled Water Discharge Limits Monitoring</b>					
Conductivity	umhos/cmmho/cm	2° MCL	-	1,600 µS/cm or <	Yes
Total Chlorine Residual	mg/L	Process Control	N/A	N/A	N/A
Total Recycled Water Flow	MGD	N/A	N/A	N/A	N/A
UV Dose Reactor 1	mJ/cm3	Permit Requirement	Daily Minimum	14,300 daily minimum for all on-line UV Reactors	Yes
UV Dose Reactor 2	mJ/cm3				
UV Dose Reactor 3	mJ/cm3				
UV Dose Reactor 4	mJ/cm3				
UV Dose Reactor 5	mJ/cm3				
UV Dose Reactor 6	mJ/cm3				
UV Transmittance	%	Permit Requirement	Daily Minimum	95	Yes
pH	pH Units	2° MCL	-	6.5 - 8.5	N/A
Arsenic	µg/L	1° MCL	Running Annual Average	10	Yes
Boron	µg/L	WQG	Average of Initial + Confirmation	0.75 or <	Yes
Chloride	mg/L	2° MCL	Average of Initial + Confirmation	250 or <	Yes
Chromium-Total	µg/L	1° MCL	Running Annual Average	50 or <	Yes
Total Nitrogen	mg/L	1° MCL	Average of Initial + Confirmation	10 or <	Yes
Nitrate-N	mg/L	1° MCL	Average of Initial + Confirmation	10 or <	Yes
Total Kjeldahl Nitrogen-N	mg/L	N/A	N/A	N/A	N/A
Sodium	mg/L	WQG	-	69 mg/L	Yes
Sulfate	mg/L	WQG	-	250 or <	Yes
TDS	mg/L	2° MCL	-	500 or <	Yes
Total Coliform	MPN/100 mL	Reinjection Discharge Limit	Detection	2.2	Yes
TOC	mg/L	Reinjection Discharge Limit	Daily Average	0.5 or <	Yes
<b>Table M-3b: Recycled Water Discharge Limits Monitoring</b>					
Turbidity	NTU	2° MCL	Running Annual Average	5 NTU or < (15 min rolling average)	Yes
Lead	µg/L	1° MCL	Average of Samples Collected in Monitoring Period	15 or <	Yes
Copper	µg/L	1° MCL		1300 or <	Yes
<b>Table M-4: Inorganics with Primary MCLs</b>					
Aluminum	µg/L	1° MCL	Running Annual Average	1,000 or <	Yes
Antimony	µg/L	1° MCL	Running Annual Average	6 or <	Yes
Arsenic	µg/L	1° MCL	Running Annual Average	10 or <	Yes
Asbestos	MFL	1° MCL	Running Annual Average	7 or <	Yes
Barium	µg/L	1° MCL	Running Annual Average	1,000 or <	Yes
Beryllium	µg/L	1° MCL	Running Annual Average	4 or <	Yes
Cadmium	µg/L	1° MCL	Running Annual Average	5 or <	Yes
Chromium	µg/L	1° MCL	Running Annual Average	50 or <	Yes
Cyanide	µg/L	1° MCL	Running Annual Average	150 or <	Yes
Fluoride	mg/L	1° MCL	Running Annual Average	2 or <	Yes

Mercury	µg/L	1° MCL	Running Annual Average	2 or <	Yes
Nickel	µg/L	1° MCL	Running Annual Average	100 or <	Yes
Nitrate as Nitrogen	mg/L	1° MCL	Average of Initial + Confirmation	10 or <	Yes
Nitrite as Nitrogen	mg/L	1° MCL	Average of Initial + Confirmation	1 or <	Yes
Nitrate + Nitrite	mg/L	1° MCL	Average of Initial + Confirmation	10 or <	Yes
Perchlorate	µg/L	1° MCL	Average of Initial + Confirmation	6 or <	Yes
Selenium	µg/L	1° MCL	Running Annual Average	50 or <	Yes
Thallium	µg/L	1° MCL	Running Annual Average	2 or <	Yes
<b>Table M-5: Constituents/Parameters with Secondary MCLs</b>					
Aluminum	µg/L	2° MCL	Running Annual Average	200 or <	Yes
Chloride	mg/L	2° MCL	-	250 or <	Yes
Color	Units	2° MCL	Running Annual Average	15 or <	Yes
Copper	µg/L	2° MCL	Running Annual Average	1,000 or <	Yes
Foaming Agents	mg/L	2° MCL	Running Annual Average	0.5 or <	Yes
Iron	mg/L	2° MCL	Running Annual Average	0.3 or <	Yes
Manganese	µg/L	2° MCL	Running Annual Average	50 or <	Yes
MTBE	µg/L	2° MCL	Running Annual Average	5 or <	Yes
Odor	Ton	2° MCL	Running Annual Average	3 or <	Yes
Silver	µg/L	2° MCL	Running Annual Average	100 or <	Yes
Specific Conductance	µS/cm	2° MCL	-	1,600 µS/cm or <	Yes
Thiobencarb	µg/L	2° MCL	Running Annual Average	1 or <	Yes
Sulfate	mg/L	2° MCL	-	250 or <	Yes
TDS	mg/L	2° MCL	-	500 or <	Yes
Turbidity	NTU	2° MCL	Running Annual Average	5 or <	Yes
Zinc	µg/L	2° MCL	Running Annual Average	5,000 or <	Yes
<b>Table M-6: Radioactivity</b>					
Gross Alpha	pCi/L	1° MCL	Running Annual Average	15 or <	Yes
Gross Beta	pCi/L	1° MCL	Running Annual Average	50 or <	Yes
Radium 226 & 228	pCi/L	1° MCL	Running Annual Average	5 or <	Yes
Strontium 90	pCi/L	1° MCL	Running Annual Average	8 or <	Yes
Tritium	pCi/L	1° MCL	Running Annual Average	20,000 or <	Yes
Uranium	pCi/L	1° MCL	Running Annual Average	20 or <	Yes
<b>Table M-7: Regulated Organics</b>					
See Table 79					Yes
<b>Table M-8: Disinfection Byproducts</b>					
See Table 80					Yes
<b>Table M-9: General Physical and General Minerals</b>					
See Table 81					Yes
<b>Table M-10: Constituents with Notification Levels</b>					
See Table 82					Yes
<b>Table M-11: Remaining Priority Pollutants</b>					
See Table 83					Yes





### 4.2.3 RO Feed Water (Prior to RO)

A summary of RO Feed Water Compliance is as follows:

**Table 127b. 2021 RO Feed Water Compliance Summary**

Constituent Parameters	Units	Type	Requirement	Compliant?
<b>Table M-12: Constituents of Emerging Concern (CEC Removal Efficiency)</b>				
NDMA	µg/L	Monitoring Trigger Level / NL	0.010	Yes
Sucralose	µg/L	N/A	N/A	N/A
Sulfamethoxazole	ng/L	N/A	N/A	N/A
<b>Table M-12a: DDW Specified Chemicals</b>				
See Table 85				N/A
<b>Table M-13: Surrogates for CECs</b>				
Electrical Conductivity	µS/cm	2° MCL	1,600 or <	Yes*
UV Absorbance	cm-1	Permit Requirement	N/A	N/A
TOC	mg/L	Permit Requirement	0.5	Yes*
<b>Table M-13a: Bioanalytical Screening Tools</b>				
See Table 87				

\* Compliance point is Product Water "Associated AWPf"



#### 4.2.4 Groundwater

A summary of Groundwater Monitoring compliance is as follows. All constituent parameters were in compliance, however short-term exceedances and detections not constituting violations occurred as further discussed in **Section 6.0**:

**Table 127c. 2021 Groundwater Monitoring Compliance Summary**

Constituent Parameters	Units	Type	Compliance Interval	Requirements	Compliant?
<b>Table M-14: Groundwater Monitoring</b>					
Water Level Elevation	Feet bgs	N/A	N/A	N/A	N/A
Chlorine Residual	mg/L	Process Control	N/A	N/A	N/A
Chloride	mg/L	2° MCL	Running Annual Average	250 or <	Yes
Nitrate as N	mg/L	1° MCL	Average of Initial + Confirmation	10	Yes
Nitrite as N	mg/L	1° MCL	Average of Initial + Confirmation	1	Yes
Nitrate plus Nitrite as N	mg/L	1° MCL	Average of Initial + Confirmation	10	Yes
pH	pH Units	WQG / 2° MCL	-	Between 6.5 and 8.5	Yes
Sodium	mg/L	WQG	-	69	N/A
Sulfate	mg/L	2° MCL	Average of Initial + Confirmation	250 or <	Yes
TOC	mg/L	N/A	N/A	N/A	Yes
Total Coliform	MPN/100 mL	N/A	N/A	2.2	N/A
BOD5 20C	mg/L	N/A	N/A	N/A	N/A
Oil and Grease	mg/L	N/A	N/A	N/A	N/A
Total Nitrogen	mg/L	1° MCL	Average of Initial + Confirmation	10	Yes
TSS	mg/L	N/A	N/A	N/A	N/A
Turbidity	NTU	2° MCL	Running Annual Average	5	Yes*
<b>Inorganics with Primary MCLs</b>					
Aluminum	µg/L	1° MCL	Running Annual Average	1,000 or <	Yes
Antimony	µg/L	1° MCL	Running Annual Average	6 or <	Yes
Arsenic	µg/L	1° MCL	Running Annual Average	10 or <	Yes
Asbestos	MFL	1° MCL	Running Annual Average	7 or <	Yes
Barium	µg/L	1° MCL	Running Annual Average	1,000 or <	Yes
Beryllium	µg/L	1° MCL	Running Annual Average	4 or <	Yes
Cadmium	µg/L	1° MCL	Running Annual Average	5 or <	Yes
Chromium	µg/L	1° MCL	Running Annual Average	50 or <	Yes
Cyanide	µg/L	1° MCL	Running Annual Average	150	Yes
Fluoride	mg/L	1° MCL	Running Annual Average	2 or <	Yes
Mercury	µg/L	1° MCL	Running Annual Average	2 or <	Yes
Nickel	µg/L	1° MCL	Running Annual Average	100 or <	Yes
Nitrate as Nitrogen	mg/L	1° MCL	Average of Initial + Confirmation	10 or <	Yes
Nitrite as Nitrogen	mg/L	1° MCL	Average of Initial + Confirmation	1 or <	Yes
Nitrate + Nitrite	mg/L	1° MCL	Average of Initial + Confirmation	10 or <	Yes
Perchlorate	µg/L	1° MCL	Average of Initial + Confirmation	6 or <	Yes
Selenium	µg/L	1° MCL	Running Annual Average	50 or <	Yes
Thallium	µg/L	1° MCL	Running Annual Average	2 or <	Yes

<b>Radioactivity</b>					
Gross Alpha	pCi/L	1° MCL	Running Annual Average	15 or <	Yes
Gross Beta	pCi/L	1° MCL	Running Annual Average	50 or <	Yes
Radium 226 & 228	pCi/L	1° MCL	Running Annual Average	5 or <	Yes
Radium 226	pCi/L	1° MCL	Running Annual Average	5 or <	Yes
Radium 228	pCi/L	1° MCL	Running Annual Average	5 or <	Yes
Strontium 90	pCi/L	1° MCL	Running Annual Average	8 or <	Yes
Tritium	pCi/L	1° MCL	Running Annual Average	20,000 or <	Yes
Uranium	pCi/L	1° MCL	Running Annual Average	20 or <	Yes
<b>Regulated Organics</b>					
Caffeine	µg/L	N/A	N/A	N/A	N/A
Chloropicrin	µg/L	N/A	N/A	N/A	N/A
Iohexol	µg/L	N/A	N/A	N/A	N/A
<b>Disinfection Byproducts</b>					
Chloroform	µg/L	1° MCL	Running Annual Average	80	Yes
Haloacetic acids (HAA5)	µg/L	1° MCL	Running Annual Average	60	Yes
Total Trihalomethanes	µg/L	1° MCL	Running Annual Average	80	Yes
<b>Chemicals with Notification Levels</b>					
Boron	µg/L	NL	Average of Initial + Confirmation	1,000	Yes
Chlorate	µg/L	NL	Average of Initial + Confirmation	800	Yes
Formaldehyde	µg/L	NL	Average of Initial + Confirmation	100	Yes
Manganese	µg/L	NL	Average of Initial + Confirmation	500	Yes*
Vanadium	µg/L	NL	Average of Initial + Confirmation	50	Yes
<b>Pesticides</b>					
Chromium (III)	µg/L	N/A	N/A	N/A	N/A
Hexavalent Chromium	µg/L	N/A	N/A	N/A	Yes
<b>Regulated Organic Chemicals</b>					
See Table XX					Yes
<b>Constituents with Secondary MCLs</b>					
Boron	µg/L	2° MCL	Average of Initial + Confirmation	750 or <	Yes
Chlorate	µg/L	NL	Average of Initial + Confirmation	800 of <	Yes
N-Nitrosopyrrolidine	µg/L	N/A	N/A	N/A	Yes
<b>General Physical and General Minerals</b>					
Asbestos	MFL	1° MCL	Running Annual Average	7 or <	Yes
Calcium	mg/L	N/A	N/A	N/A	N/A
Chloride	mg/L	2° MCL	Running Annual Average	250 or <	Yes
Copper	µg/L	1° MCL/2° MCL	Average of Samples Collected in Monitoring Period	1,300 or </1,000 or <	Yes
Iron	mg/L	2° MCL	Running Annual Average	0.3 or <	Yes*
Manganese	µg/L	2° MCL	Running Annual Average	50 or <	Yes*
Potassium	mg/L	N/A	N/A	N/A	N/A
Sodium	mg/L	WQG	Running Annual Average	69 or <	N/A

<b>General Physical and General Minerals (cont.)</b>					
Sulfate	mg/L	2° MCL	Running Annual Average	250 or <	Yes
Zinc	µg/L	2° MCL	Running Annual Average	5,000 or <	Yes
Color	mg/L	2° MCL	Running Annual Average	15 or <	Yes*, **
Corrosivity	mg/L	N/A	N/A	N/A	N/A
Foaming Agents	mg/L	2° MCL	Running Annual Average	0.5 or <	Yes
Odor	TON	2° MCL	Running Annual Average	3 or <	Yes**
Specific Conductance	µS/cm	2° MCL	Running Annual Average	1,600 or <	Yes
TDS	mg/L	2° MCL (Upper)	Running Annual Average	1,000 or <	Yes
Hardness	mg/L	N/A	N/A	N/A	N/A
<b>Remaining Priority Pollutants</b>					
See Table 108					Yes
Silver	µg/L	2° MCL	Running Annual Average	100 or <	Yes
*Elevated results are not attributed to the Project; see <b>Section 7.0</b> for a discussion of the Tracer Study, including hydrogeologist's estimated travel time from VZWs to offsite shallow MWs which confirms that exceedances in offsite shallow MWs are not associated with the application of recycled water.					
** Elevated results are within historical levels, therefore, not attributed to the Project.					

**Figure 127. Summary of Compliance- N/A**

## 5.0 SUMMARY OF NON-COMPLIANCE

*For any non-compliance during the previous calendar year, a description of:*

- i. The date, duration, and nature of the violation;*
- ii. A summary of any corrective actions and/or suspensions of subsurface application of recycled water resulting from a violation; and*
- iii. If uncorrected, a schedule for and summary of all pending and completed remedial actions.*

The narrative section below provides an overview of instances of non-compliance during calendar year 2021 AWPf and subsurface application operations including date, duration, and nature of the violations; summary of the corrective actions completed; and pending and completed remedial actions.

### 5.1 Date, Duration, and Nature of Non-Compliance

There were no instances of non-compliance in 2021, however short-term exceedances not constituting violations and detections warranting further investigation and/or corrective action occurred. See **Section 6.0** for a discussion of these incidences and ongoing studies related to Project operations, as well **Section 7.0** for a discussion of the Tracer Study findings as they pertain to underground travel time.

## 6.0 DETECTIONS OF MONITORING CHEMICALS AND CONSTITUENTS IN GROUNDWATER MONITORING WELLS

Any detections of monitored chemicals or contaminants, and any observed trends in the monitoring wells...

### 6.1 Existing Groundwater Quality in the Seaside Basin

**Table 128** and **Figure 129** demonstrate that background water quality in the Seaside Basin has experienced documented historical exceedances that predate Project operations. Where applicable, these historical exceedances are noted in relation to detections experienced at Project MWs.

**Table 2 - Existing Groundwater Quality in the Seaside Basin**

Constituent	City of Seaside No.4	ASR-1	Ord Grove No. 2	Paralita	Basin-Wide Averages
Aluminum	50	50	26	50	42
Arsenic	1.2	1.8	2.0	2.5	2.1
Barium	28	100	100	100	94
Boron	46	95	132	96	108
Chloride	72	63	129	94	103
Chromium-total	3.6	9.3	10	10	9.1
Chromium VI	-	1.0	0.8	2.3	1.4
Lead	5	3.7	5.0	5.0	4.5
Nitrate as N	1.9	0.1	1.7	0.5	1.1
Sodium	50	60	94	79	79.7
Sulfate	13	77	63	58	54.9
TDS	237	406	524	435	449
TOC	0.5	1.0	0.6	0.6	0.7

\*Source: averages of well water quality data submitted by MRPCA on November 9, 2016

\*Concentrations are in µg/L except chloride, nitrate, sodium, sulfate, TDS, and TOC, which are mg/L.

**Figure 128. MRP R3-2019-0116 Table 2.**

### 6.2 Detections and Trends

**Table 128. Historic Seaside Basin Water Quality Exceedances**

Site	Group/Constituent Identification	Sampling Date	Result	MCL	Unit
MW-1AD	Odor Threshold @ 60 C	2018-12-13	40	3	Ton
MW-1AD	Manganese	2020-02-26	55	50	µg/L
MW-1AD	Heptachlor	2019-02-26	0.015	0.01	µg/L
MW-1D	Odor Threshold @ 60 C	2018-12-06	32	3	Ton
MW-1D	Odor Threshold @ 60 C	2019-02-25	67	3	Ton
MW-1D	Odor Threshold @ 60 C	2020-02-27	4	3	Ton
MW-1D	Nitrate (As N)	2018-12-06	17	10	mg/L
MW-1D	Nitrate + Nitrite (As N)	2018-12-06	17	10	mg/L
MW-2AD	Odor Threshold @ 60 C	2018-12-12	40	3	Ton
MW-2AD	Odor Threshold @ 60 C	2019-02-26	100	3	Ton
MW-2D	Odor Threshold @ 60 C	2018-07-09	8	3	Ton
MW-2D	Odor Threshold @ 60 C	2019-02-28	40	3	Ton
MW-2D	Odor Threshold @ 60 C	2020-02-26	4	3	Ton
MW-2D	Manganese	2020-02-26	66	50	µg/L
MW-2D	Toluene	2018-07-09	290	150	µg/L
MW-2D	Turbidity, Laboratory	2018-07-09	46	5	NTU
MW-2D	Turbidity, Laboratory	2020-02-26	11	5	NTU

### 6.2.1 MW-1AD

MW-1AD, one of the offsite, deep MWs, experienced various detections of constituents in the course of 2021. None of these detections resulted in a violation of applicable water quality standards, as shown below.

Constituents with Primary MCLs: MW-1AD exhibited the highest detections of the following constituents with primary MCLs. All detections, while the highest of all MWs, were below the primary MCLs:

- **Nitrite-N**, 0.84 mg/L (September 2021) < primary MCL (1 mg/L)
- **Total Nitrogen**, 2.8 mg/L (Q3 August 2021) < primary MCL (10 mg/L)

The Seaside Basin has experienced historical detections of Nitrate and Nitrate + Nitrite above the Primary MCL of 10 mg/L that predate Project operations. AWPf Product Water remained well below the primary MCLs for nitrogen compounds. For comparison, relevant running annual averages for AWPf Product Water are as follows:

- 2021 AWPf Product Water **Nitrite-N** (running annual average) – 0.1 mg/L
- 2021 AWPf Product Water **Nitrate+Nitrite** (running annual average) – 0.6 mg/L
- **Uranium**, 0.80 pCi/L (Q3 August 2021) < primary MCL (20 pCi/L)
- **Gross Alpha**, 7.15 pCi/L (Q3 August 2021) < primary MCL (15 pCi/L)
- **Nickel**, 4 µg/L (April 2021) < primary MCL (200 µg/L).

Constituents with Secondary MCLs: Additionally, MW-1AD had the highest detection of Zinc in February 2021 at 8 µg/L, well below its secondary MCL of 5,000 µg/L.

### 6.2.2 MW-1D

Various constituents were detected at MW-1D, one of the offsite, deep monitoring wells. As further detailed below, none of these detections resulted in a violation of their applicable water quality standard.

Constituents with Primary MCLs: MW-1D exhibited the highest monthly detections of Nitrate-N, and Nitrate + Nitrite in 2021:

- **Nitrate (as Nitrogen)**, 2.9 mg/L (June and December 2021) < primary MCL (10 mg/L)
- **Nitrate + Nitrite**, 3.12 mg/L (June 2021) < primary MCL (10 mg/L)
- **Strontium-90**, 0.28 pCi/L (Q4 2021) < primary MCL (8 pCi/L)

The Seaside Basin has experienced historical detections of Nitrate and Nitrate + Nitrite above the Primary MCL of 10 mg/L that predate Project operations. AWPf Product Water remained well below the primary MCLs for nitrogen compounds. For comparison, relevant running annual averages for AWPf Product Water are as follows:

- 2021 AWPf Product Water **Nitrate-N** (running annual average) – 0.5 mg/L
- 2021 AWPf Product Water **Nitrate+Nitrite** (running annual average) – 0.6 mg/L

Constituents with Secondary MCLs: Similarly, the Seaside Basin has documented exceedances of the **odor** secondary MCL that predate Project operations. MW-1D experienced one detection of odor that exceeded the secondary MCL in March 2021 at 4 TON; however, this exceedance did not cause a violation of the secondary MCL, as compliance is determined based on a running annual average

- **pH**, 6.3 (Q3 November 2021) < lower secondary MCL/WQG (6.5 µg/L)

Also of note, MW-1D exhibited the lowest of all monthly **corrosivity @ 60°C** calculations in October 2021 at -2.08.

### 6.2.3 MW-2AD

MW-2AD, one of the offsite, deep MWs, experienced the highest detections of various constituents throughout the year. As detailed further below, none of these detections resulted in a violation of their respective water quality standards.

Constituents with Primary MCLs:

- **Chloroform**, 0.66 µg/L (Q1 February 2021) < primary MCL (80 µg/L)
- **Trihalomethanes**, 0.66 µg/L (Q1 February 2021) < primary MCL (80 µg/L)
- **Tritium**, 398 pCi/L (Q1 February 2021) < primary MCL (20,000 pCi/L)
- **Fluoride**, 0.93 mg/L (April 2021) < primary MCL (2 mg/L)

*Previous Fluoride Detections at MW-2AD:* As reported in the 2020 Annual Summary Report, MW-2AD experienced a maximum fluoride concentration of 1.02 mg/L in 2020 but remained below the primary MCL of 2 mg/L throughout the year.

- **Chlorate**, 340 µg/L (Q1 February 2021) < primary MCL (800 µg/L)
- **Boron**, 310 µg/L (Q4 November 2021) < primary MCL (1,000 µg/L) and < WQG for ag (750 µg/L)

Constituents with Secondary MCLs:

- **Chloride**, 75 mg/L (January 2021) < secondary MCL (250 mg/L). Note: MW-2AS also experienced a detection of 75 mg/L as detailed below.

*Previous Trends of Chloride at MW-2AD:* As reported in the 2020 Annual Summary Report, initial chloride concentrations at this MW were above the Seaside Basin average of 103 mg/L but did not exceed the WQG of 250 mg/L. Data demonstrates that concentrations of chloride appear to be stabilizing as Project injected water influences this well.

- **Specific Conductance**, 671 µS/cm (January 2021) < secondary MCL (1,600 µS/cm)
- **TDS**, 415 mg/L (January 2021) < secondary MCL (1,000 mg/L)

*Previous TDS Trends at MW-2AD:* As noted in the 2020 Annual Summary Report, 2020 data indicated a downward trend in TDS at this MW as Project injected recycled water reached the well. 2021 data continues to indicate a downward trend, with concentrations starting the year at 415 mg/L and ending at 162 mg/L.



- **Odor**, 5 TON (January 2021) and 4 TON (August 2021) > secondary MCL (3 TON)

These exceedances do not constitute a violation of the secondary MCL, as compliance is determined based on a running annual average. As noted previously, the Seaside Basin has documented historical exceedances odor's secondary MCL that predate Project operations. Data does not indicate that injected purified recycled water is causing these exceedances.

- **Sulfate**, 51 mg/L (January 2021) < secondary MCL (250 mg/L)

*Previous Trends of Sulfate at MW-2AD:* As noted in the 2020 Annual Summary Report, 2020 data showed a downward trend in concentrations of sulfate at this MW as Project injected water reached the well. 2021 data continues to indicate that downward trend.

Constituents with NLS or Other Water Quality Standards:

- **Sodium**, 65 mg/L (January 2021) < WQG (250 mg/L)

*Previous Trends at MW-2AD:* As noted in the 2020 Annual Summary Report, data continues to indicate a downward trend to below the WQG as Project injected water reached this well.

- **Hardness**, 174 mg/L (January 2021). Note: aside from this detection, MW-2AS consistently exhibited the highest detections of hardness.

Constituents with no Applicable Water Quality Standards:

- **Calcium**, 50 mg/L (January 2021)
- **Potassium**, 3.8 mg/L (January 2021)
- **Chloropicrin**, 0.5 µg/L (Q1 February 2021)
- **Chloroform**, 0.66 µg/L (Q1 February 2021) < MCL (80 µg/L for TTHM)

## 6.2.4 MW-2D

MW-2D, one of the onsite, deep MWs, experienced the highest detections of various constituents throughout the year. As detailed further below, none of these detections resulted in a violation of their respective water quality standards.

Constituents with Primary MCLs:

- **Radium 226**, 0.45 pCi/L (Q2 May 2021) < primary MCL (5 pCi/L)
- **Haloacetic Acid**, 1.2 µg/L (Q3 August 2021) < primary MCL (60 µg/L)
- **Cyanide**, 150 µg/L (December 2021) = primary MCL (150 µg/L)

This detection met but did not exceed the 150 µg/L primary MCL, however further investigation was requested by DDW and the Regional Board, as described below.

On 1/4/2022, M1W was notified of an elevated cyanide result at the primary drinking water MCL of 150 µg/L (0.15 mg/L) at MW-2D from a sample collected on 12/7/2021. Per 17 CCR §64432, compliance with the cyanide MCL is determined based on a running annual average

of monitoring results. As demonstrated by **Table 129** below, the elevated result at the MCL appeared to be anomalous; however, despite this, M1W included the reported elevated 12/7/2021 result in the running annual average for determining compliance resulting in a calculated running annual average of 0.01 mg/L, well below the MCL of 0.15 mg/L.

**Table 129. MW-2D Cyanide Monitoring Results (µg/L)**

Sample Date	Result (µg/L)	Qualifier
1/20/2021	2.2	ND
2/17/2021	3.8	DNQ
3/16/2021	2.2	DNQ, B
4/13/2021	2.2	ND
5/18/2021	2.2	ND
6/14/2021	2.2	ND
7/13/2021	2.2	ND
8/17/2021	2.2	ND
9/14/2021	2.2	ND
10/13/2021	2.2	ND
11/3/2021	2.2	ND
12/7/2021	150	
1/4/2022	2.2	ND
1/6/2022	2.2	ND

*ND: Non-Detect*

*DNQ: Detected but not quantifiable*

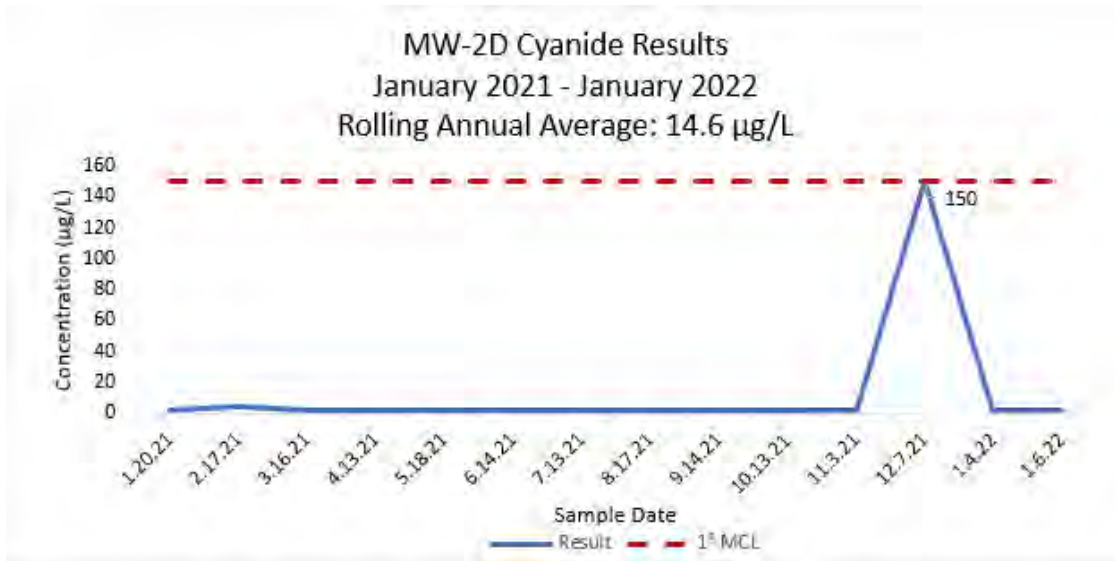
*B: Analyte detected in associated method blank below the reporting limit. Sample result may be, in part, attributable to ambient laboratory background. The associated blank result was 4.3 µg/L.*

Once compliance status was determined, M1W implemented the following action plan:

1. 12/7/2021: Requested contract lab reanalyze the 12/7/2021 sample as a confirmation
2. 1/4/2022: Requested a rush on the January routine monitoring event for comparison
3. 1/6/2022: Collected a confirmation sample and rushed analysis for comparison

Results from those efforts were as follows.

1. 12/7/2021: reanalysis bore a result of 5.4 µg/L, significantly less than originally detected. However, the sample was reanalyzed outside of holding time.
2. 1/4/2022: Cyanide was non-detect
3. 1/6/2022: Cyanide was non-detect



**Figure 129. Cyanide Concentrations at MW-2D (January 2021 - January 2022)**

For comparison, staff subsequently reviewed the cyanide results for the APWF Product Water. As demonstrated by **Table 130** and **Figure 130**, all APWF Product Water samples collected in 2021 were consistently well below the primary MCL.

**Table 130. Cyanide Results at APWF (µg/L)**

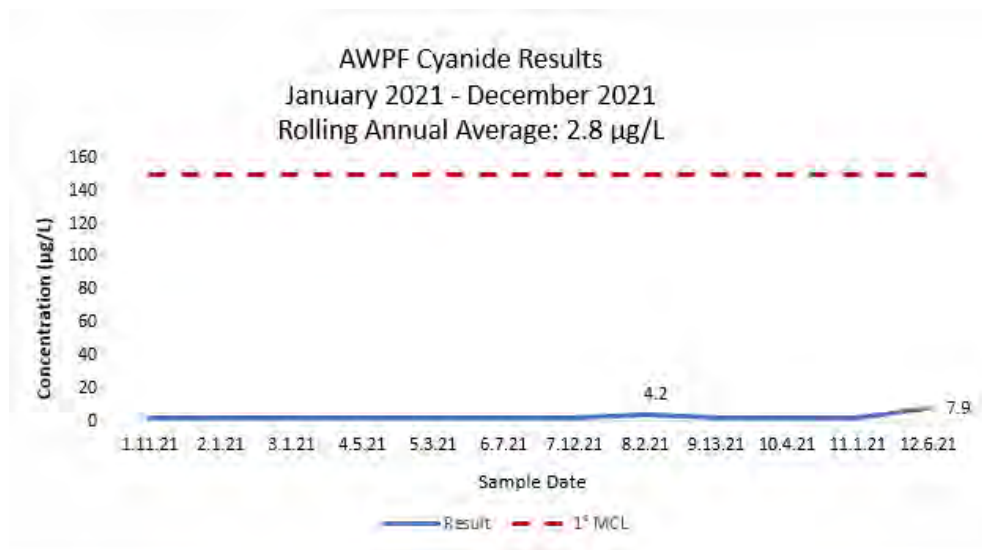
Sample Date	Result (µg/L)	Qualifier
1/11/2021	2.2	ND
2/1/2021	2.2	ND
3/1/2021	2.2	ND, J3
4/5/2021	2.2	ND
5/3/2021	2.2	ND
6/7/2021	2.2	ND
7/12/2021	2.2	ND
8/2/2021	4.2	DNQ
9/13/2021	2.2	ND
10/4/2021	2.2	ND
11/1/2021	2.2	ND
12/6/2021	7.9	B

ND: Non-detect

J3: LCS/LFB failed to meet QC criteria for either precision or accuracy

DNQ: Detected but not quantifiable

B: Analyte detected in associated method blank below reporting limit. Sample result may be, in part, attributable to ambient laboratory background. The associated blank result is 3.8 µg/L.



**Figure 130. Cyanide Concentrations at AWPf (January 2021 - December 2021)**

M1W reviewed logbooks and spoke with staff, confirming that there were no abnormal operations at the AWPf nor RTP in the week prior to the 12/7/2021 sample collection. Similarly, per discussion with MCWD’s Operations Manager, M1W verified that there were no abnormal operations at Blackhorse Reservoir during this timeframe.

Staff confirmed that there are no known Significant Industrial Classification (SIC) Codes commonly associated with cyanide within a ½ mile radius of the Monitoring Well, nor in M1W’s service area. Industrial dischargers within M1W’s service area are required to meet M1W Local Limits, and while it is possible that an illegal industrial discharge could have taken place, each of M1W’s member entities manages its collection system. M1W’s Source Control Department continues to work with member entities to ensure proper source tracking is conducted in cases of suspected illicit discharges.

Lastly, M1W reviewed historical Priority Pollutant Monitoring (PPM) data (2018-2021) for secondary effluent (APWF source water). At the request of DDW, historic PPM was reviewed for both arsenic and cyanide. This review showed arsenic concentrations ranging from 2.3 – 3.3 µg/L, while cyanide was non-detect. Based on this information and data trends reviewed, staff does not believe the elevated arsenic and cyanide results and MW-2D are related.

To prevent this from occurring in the future, M1W reiterated its expectation that its contract lab(s) notify staff immediately of an elevated concentration and/or an exceedance of all parameters with primary MCLs so additional analyses/re-analyses may be requested within holding times to verify results and initiate follow-up actions required by regulation

- **Arsenic**, 3 µg/L (January 2021) < primary MCL (10 µg/L). Note: MW-2D did not exhibit the highest detections of arsenic throughout 2021. MW-1AS and MW-2AS consistently showed the highest concentrations of arsenic but were still well below the primary MCL throughout

2021. MW-2D arsenic is listed due to previous detections as described in the 2020 Annual Summary Report. The running annual average at MW-2D for 2021 was 1.5 µg/L.

As demonstrated by the observed abrupt upward trend and equally abrupt subsequent downward trend, M1W suspects that this was a discrete short-term event. This is related to the dissolution and subsequent reabsorption of arsenic in the geological formation due to the introduction of oxygenated recycled water. It is important to note that MW-2D is located directly adjacent to DIW #2, with an estimated recycled water travel time of 4 days. Due to natural diffusion and mixing with existing groundwater, it is highly unlikely for similar arsenic levels to be observed in any well located outside the zone of direct influence of the recycled water signal.<sup>35</sup>

M1W has continued to work with DDW, the Regional Board and consultants to conduct further studies to ensure the protection of public health and safety. Milestones thus far include:

- **August 8, 2021** – M1W submitted an arsenic geochemical interaction analysis technical memorandum (TM) to the Regional Water Board, performed by Dr. Scott Fendorf of Stanford University on behalf of M1W (dated December 11, 2020).
- **November 5, 2021** – Regional Board provided comments on the contents of the TM, requesting further investigation regarding the potential implications of the “End of Life” scenario (cessation of AWPf injection operations in the Seaside Basin).
- **January 26, 2022** – M1W received approval of a scope of analysis to complete to address the “End of Life” scenario for PWM to investigate the possibility of a release of Arsenic at the halt of PWM operations.
- **March 9, 2022** – MPWMD Hydrogeologic Consultant contracted with Dr. Fendorf to complete the approved scope of work. Results will be presented in future monitoring reports as they become available.

Constituents with NLS or Other Water Quality Standards:

- **Total Coliform**, 6.75 MPN/100 mL (Q2 May 2021) > 2.2 MPN/100 mL WQO

The Basin Plan establishes a WQO requiring the 7-day median total coliform concentration to be < 2.2. MPN/100 mL for the protection of its designated municipal, domestic, and agricultural beneficial uses. Per the WDR/WRR p. MRP-23, M1W shall notify DDW and the Regional Water Board within 72 hours of receiving a result indicating that coliforms are present in the monitoring wells *as a result of the use of recycled water*.

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<sup>35</sup> Fakhreddine, S.; Prommer H.; Gorelick, S.M., Dadakis, J.; and Fendorf, S.; Controlling Arsenic Mobilization during Managed Aquifer Recharge: The Role of Sediment Heterogeneity, *Environ. Sci. Technol.* 2020, 54, 8728-8738.

M1W monitors for total coliform according to the frequencies specified in **Table 131** below:

**Table 131. WDR/WRR Monitoring Frequencies – Total Coliform**

Site	Sample Type	Frequency	MRP Table
AWPF Influent	Grab	Weekly	M-2
AWPF Product Water	Grab	Daily	M-3a
Groundwater	Grab	Quarterly	M-14

**Figure 131. WDR/WRR Monitoring Frequencies – Total Coliform (N/A)**

On May 19, 2021, staff became aware that the quarterly sample collected at MW-2D exceeded 2.2 MPN/100 mL. Staff immediately conducted resampling at the well to confirm the result and began an investigation. After reviewing data and conferring with consultants and MPWMD staff, M1W determined that the exceedance was not the result of application of recycled water and a disinfection protocol was subsequently enacted at the affected well. Following disinfection, the total coliform measurements returned to below the WQG.

Constituents with Secondary MCLs:

- **pH**, 6.5 (Q3 August 2021) at lower WQG / secondary MCL (8.5 - 6.5)

### 6.2.5 MW-1AS

MW-1AS, one of the offsite, shallow MWs, experienced the highest detections of various constituents throughout the year. As detailed below, none of these detections resulted in a violation of their respective water quality standards. In addition, as noted throughout this report and detailed in **Section 7.2**, hydrogeologist's estimated travel time from VZWs to offsite shallow MWs which confirms that detections and exceedances in offsite shallow MWs are not associated with the application of recycled water but are associated with background concentrations in native Seaside Basin groundwater.

Constituents with Primary MCLs:

- **Arsenic**, 9 µg/L (February, March, May, July and October 2021) < primary MCL (10 µg/L)

As explained in **Table 127c**, compliance with the arsenic primary MCL is determined based on a running annual average. The running annual average arsenic concentration measured in samples at MW-1AS is 8.4 µg/L, below the 10 µg/L primary MCL. M1W continues to work with the Regional Board, DDW, and consultants to study the arsenic mobilization under a variety of scenarios as explained above. In addition, as noted throughout this report and detailed in **Section 7.2**, hydrogeologist's estimated travel time from the VZWs to offsite shallow MWs confirms detections and exceedances in offsite shallow MWs are not associated with the application of recycled water, but are associated with background concentrations in native Seaside Basin groundwater.

- **Barium**, 71 µg/L (February 2021) < primary MCL (1,000 µg/L)
- **Asbestos**, 0.4 MFL (May 2021) < primary MCL (7 MFL)

#### Constituents with Secondary MCLs:

- **Manganese**, 107 µg/L (February 2021) > secondary MCL (50 µg/L)
- **Iron**, 450 µg/L (February 2021) < secondary MCL (300 µg/L), 2<sup>nd</sup> highest after MW-2AS

While these manganese and iron detections exceed the secondary MCLs, they did not constitute a violation of the secondary MCL, as compliance with the standards is determined based on a running annual average. Additionally, as the MWs age minerals including manganese and iron can precipitate onto the pump and metal column pipes that remain submerged in the wells. Pumps in these MWs are hung on a combination of metal and PVC column pipes that allow movement of the pumps when they are started that could allow for some of the precipitate to come free from the pumps and column pipes. Therefore, detections from raw water samples such as these may not be associated with groundwater quality.

- **Color**, 24 (January 2021) > secondary MCL (15)

As with iron and manganese, compliance with the secondary MCL for color is determined based on running annual average. This exceedance did not cause the running annual average to exceed the running annual average and therefore does not constitute a violation of the secondary MCL. Data indicates a downward trend through 2021.

#### **6.2.6 MW-1S**

MW-1S, one of the onsite, shallow MWs, showed three detections of constituents with primary MCLs and one detection of constituents with a public health goal (PHG).

#### Constituents with Primary MCLs:

- **Perchlorate**, 3.6 µg/L (January 2021) < primary MCL (6 µg/L). Note: this was the only detection in the monitoring wells for 2021
- **Aluminum**, 202 µg/L (February 2021) < primary MCL (1,000 µg/L)

#### **6.2.7 MW-2AS**

MW-2AS, one of the two offsite, shallow MWs, experienced several constituent detections in 2021. As detailed below, none of these detections constituted a violation of their associated water quality standard. In addition, as noted throughout this report and detailed further in **Section 7.2**, hydrogeologist's estimated travel time from VZWs to offsite shallow MWs which confirms that detections and exceedances in offsite shallow MWs are not associated with the application of recycled water but are associated with background concentrations in native Seaside Basin groundwater.

#### Constituents with Primary MCLs:

- **Gross Beta**, 4.95 pCi/L (Q2 May 2021) < primary MCL (50 pCi/L)
- **Chromium (Total)**, 24 µg/L (July 2021) < primary MCL (50 µg/L)
- **Radium-226 & Radium-228**, 1.36 pCi/L (Q4 August 2021) < primary MCL (5 pCi/L)
- **Radium-228**, 1.09 pCi/L (Q4 November 2021) < primary MCL (5 pCi/L)
- **Selenium**, 6.7 µg/L (December 2021) < primary MCL (50 µg/L)

#### Constituents with Secondary MCLs:

- **Turbidity**, 5.3 NTU (Q1 February 2021) > secondary MCL (5 NTU)

While this detection did exceed the secondary MCL, compliance is determined based on a running annual average and therefore did not constitute a violation.

- **Chloride**, 86 mg/L (December 2021) < secondary MCL (250 mg/L)
- **Iron**, 510 µg/L (July 2021) > secondary MCL (300 µg/L)

With variable detections of iron throughout 2021, the running annual average of iron concentrations at MW-2AS did not result in a violation of the secondary MCL. In addition, as noted previously, as the MWs age minerals including manganese and iron can precipitate onto the pump and metal column pipes that remain submerged in the wells. Pumps in these MWs are hung on a combination of metal and PVC column pipes that allow movement of the pumps when they are started that could allow for some of the precipitate to come free from the pumps and column pipes. Therefore, detections from raw water samples such as these may not be associated with groundwater quality.

#### Constituents with NLS or Other Water Quality Standards:

- **Vanadium**, 15.6 µg/L (Q1 February 2021) < NL (50 µg/L)
- **Formaldehyde**, 9.80 µg/L (Q4 November 2021) < NL (µg/L)
- **Sodium**, 62 mg/L (December 2021) < WQG (250 mg/L)

#### Constituents with no Associated Water Quality Standard:

- **Chromium (III)**, 1.0 µg/L (Q1 February 2021)
- **TOC**, 1.4 mg/L (Q1 February 2021)
- **TSS**, 6 mg/L (Semiannual February 2021)
- **Corrosivity**, 0.59 (August 2021)

### 6.3 Explanation of Sampling Schedule Variance

Per MRP R3-2019-0116, p. MRP-7:

*“Quarterly monitoring for recycled water and groundwater must be performed during the months of February, May, August, and November... Should there be instances when monitoring cannot be done during these specified months, M1W must conduct the monitoring as soon as it can and state in the monitoring report the reason monitoring could not be conducted during the specified month.”*

All quarterly monitoring for recycled water and groundwater were performed within the quarter, but not necessarily within the designated month. Accordingly, please note the following quarterly sampling schedule variances:



- Q1 DTW for MW-1D measured 3/15/2021 and MW-2D measured 3/16/2021 due to SCADA system issues with data collection tags.
- Q3 Formaldehyde for MW-1D, MW-2D and MW-1S sampled 9/14/2021 due to contract lab QC failure. M1W was notified 9/8/2021 and re-sampled with the September Monthly sampling event and within the quarter.
- Q3 EPA 508 Pesticides for MW-1D, MW-2D and MW-1S sampled 9/27/2021 due to contract lab oversight and hold time expired. M1W was notified 9/22/2021 and re-sampled as soon as possible within the quarter.

#### 6.4 2021 Non-Detect or Detected but not Quantified Parameters

Table 132 below denotes all parameters for which all 2021 monitoring results were ND or DNQ.

**Table 132. MRP No. R3-2020-0122 Non-Detect Parameters and Frequencies**

ND Params				
Permit Table	Sampling Location	Description	Sampling Frequency	Parameter
M-3B	AWPF PW	Recycled Water ReInjection Limits	Quarterly	Lead
M-4	AWPF PW	Inorganics with Primary MCLS	Monthly	Arsenic
M-4	AWPF PW	Inorganics with Primary MCLS	Monthly	Antimony
				Arsenic
				Asbestos
				Beryllium
				Cadmium
				Chromium
				Fluoride
				Mercury
				Nickel
				Perchlorate
				Selenium
Thallium				
M-5	AWPF PW	Constituents/Parameters with Secondary MCLS	Monthly	Aluminum
				Color
				Copper
				Foaming Agents
				Iron
				MTBE
				Silver
Thiobencarb				
M-6	AWPF PW	Radioactivity	Monthly	Uranium
M-7	AWPF PW	Regulated Organics	Monthly	<b>All params ND/DNQ.</b>
M-8	AWPF PW	Disinfection Byproducts	Monthly	Total Trihalomethanes
				Bromate
				Bromodichloromethane
				Bromoform
				Chlorite
				Chloroform
				Dibromoacetic Acid
				Dibromochloromethane
				Monobromoacetic Acid
				Trichloroacetic Acid
M-9	AWPF PW	General Physical and General Minerals	Quarterly	Asbestos
				Copper
				Iron
				Color
				Foaming Agents

M-10	AWPF PW	Constituents with Notification Levels	Monthly	n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon disulfide 2-Chlorotoluene 4-Chlorotoluene Diazinon Dichlorodifluoromethane (Freon 12) 1,4-Dioxane Ethylene glycol HMX Isopropylbenzene Methyl isobutyl ketone (MIBK) Naphthalene N-Nitrosodiethylamine (NDEA) n-Nitrosodimethylamine (NDMA) N-Nitrosodi-n-propylamine (NDPA) Perfluorooctane sulfonate (PFOS) Perfluorooctanoic acid (PFOA) Propachlor n-Propylbenzene RDX Tertiary butyl alcohol (TBA) 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene 2,4,6-Trinitrotoluene (TNT) Vanadium
M-11	AWPF PW	Remaining Priority Pollutants	Quarterly	<b>All params ND.</b>
M-14	GW	Groundwater Monitoring	Quarterly	Chlorine Residual, DPD Oil and Grease
		Inorganics with Primary MCLS	Monthly	Beryllium <b>Cadmium</b> <b>Mercury</b> <b>Thallium</b>
M-15	GW	Remaining Priority Pollutants, (a) Volatile Organic Chemicals	Quarterly	<b>All sub-group params ND.</b>
		Remaining Priority Pollutants, (b) Acid Extractables	Quarterly	<b>All sub-group params ND.</b>
		Organic Chemicals, Disinfection Byproducts	Quarterly	<b>All sub-group params ND/DNQ, except Chloroform, HAA5, TTHMs</b>
		Organic Chemicals, Chemicals with Notification Levels	Quarterly	1,3,5-Trimethylbenzene 1,4-Dioxane 2-Chlorotoluene 2,4,6-Trinitrotoluene (TNT) 4-Chlorotoluene Carbon disulfide Diazinon Dichlorodifluoromethane (Freon 12) Ethylene glycol HMX Isopropylbenzene Methyl isobutyl ketone (MIBK) Naphthalene n-Butylbenzene N-Nitrosodiethylamine (NDEA) n-Nitrosodimethylamine (NDMA) N-Nitrosodi-n-propylamine (NDPA) Perfluorooctanoic acid (PFOA) Perfluorooctane sulfonate (PFOS)

				n-Propylbenzene
				Propachlor
				RDX
				sec-Butylbenzene
				tert-Butylbenzene
M-16	GW	General Physical and General Minerals	Monthly	Copper
				Foaming Agents

**Figure 132. MRP No. R3-2020-0122 Non-Detect Parameters and Frequencies- N/A**

## 7.0 DISCUSSION OF RECHARGE WATER MIGRATION PATTERNS

*Information pertaining to the vertical and horizontal migration of the recharge in the monitoring wells...*

In accordance with Title 22, California Code of Regulations (CCR) §60320.208(b), the Project can be credited with up to 1-log virus reduction for each month the injected recycled water is retained underground, depending on how the underground retention time is determined. Section 60320.208(d) of Title 22 CCR allows groundwater replenishment projects with subsurface application of recycled water projects to demonstrate the retention time underground through a tracer study utilizing either an intrinsic tracer or an extrinsic (added) tracer. Table 60320.208 therein specifies that a tracer study conducted using an intrinsic tracer will receive 0.67-log virus reduction per month and a tracer study conducted using an added tracer will receive 1-log.

M1W conducted an Intrinsic Tracer Study in 2020 - 2021 to demonstrate underground retention in the Santa Margarita Aquifer. During the Intrinsic Tracer Study, M1W submitted quarterly status reports to DDW and the RWQCB, including on August 27, 2020 (dated August 19<sup>th</sup>), November 6, 2020 (dated November 5<sup>th</sup>), and February 1, 2021 (dated January 27<sup>th</sup>). On July 6, 2021, M1W presented the results of Intrinsic Tracer Study and predictive future modeling to the Regional Water Board and DDW, and on July 7, 2021, M1W submitted the 4<sup>th</sup> quarterly report dated June 30, 2021. On July 9, 2021, M1W also submitted a letter confirming that the groundwater modeling calibrated by the Intrinsic Tracer Study showed a conservative future condition with an underground retention time of 2.4 months and associated 2.4 logs of virus reduction credit for underground retention (using a factor of 0.67 allowed for intrinsic tracer studies). M1W clarified in a July 14, 2021 meeting that the credited modeled underground retention time was 2.2 months. In the July 9 letter, M1W proposed corrective actions to meet 12 logs of virus credit in the future. M1W proposed to conduct an Added Tracer Study and to seek approval of virus credits for existing operations that result in chloramines to be present in the product water while it is conveyed to injection resulting in chlorine contact time and residual to deactivate virus. With an accepted Added Tracer Study, M1W is now seeking to obtain the full 1-log virus reduction for each month of underground retention.

On August 3, 2021, M1W submitted the *Pure Water Monterey Groundwater Replenishment Reuse Project, Added Tracer Study Work Plan* (hereafter Work Plan) prepared by Todd Groundwater. On September 15, 2021, the Division of Drinking Water (DDW) provided comments on the Work Plan and requested M1W address the comments in a revised report. M1W submitted a revised report on September 28, 2021 (Revised Work Plan). On October 20, 2021, DDW conditionally accepted the Revised Work Plan, including a requirement for M1W to “[d]escribe how Carmel River injection at ASR-1 and/or ASR-2 affects underground retention time of recycled water to Ord Grove #2 and how this will be accounted for in the updated model. Include parameters for a worst-case scenario.” On October 21, 2021, the RWQCB issued an enrollment letter for coverage under the General Waiver for Specific Types of Discharges (R3-2019-0089) for Injected Tracer Study Compounds.

The Added Tracer Study began on October 26, 2021, with injection of fluorescein dye into DIW-1 and eosine dye into DIW-2 to calculate underground retention times for each well. Preliminary results indicate that the time for 10% of peak concentration to arrive at the nearest active extraction well (“t<sub>10</sub>”) for water injected during the tracer study is over 4½ months.<sup>36</sup>

## 7.1 Underground Travel Time

Based on the Intrinsic Tracer Study completed in 2021, M1W staff became aware that underground retention time was less than predicted by initial modeling. M1W and consultants continue to work with DDW and the Regional Water Board to determine and approve the new LRV value for underground retention time. In response, M1W initiated daily Strontium sampling on May 18, 2021 for improved log removal value (LRV) crediting. M1W submitted the Intrinsic Tracer Study Modeling Report to DDW and the Regional Water Board on August 13, 2021 for underground retention time approval. See **Section 7.0** above for more information regarding the tracer studies conducted for the Project and **Section 7.2** below for a summary of travel times specifically as they relate to travel times between injection and the offsite shallow MWs.

## 7.2 Absence of AWPf Water at Offsite, Monitoring Wells

Project hydrogeologists have confirmed that it is highly unlikely that the purified recycled water injected in the shallow vadose zone wells has arrived at the offsite shallow monitoring wells (MW-1AS and MW-2AS) in 2021. Pascual Benito, Ph.D. of Montgomery & Associates, provided an analysis of conservative estimates for very fast travel times from VZWs to offsite shallow MWs and determined that underground travel time would be over two years (conservatively arriving no sooner than 2023).

- Purified recycled water injected in the VZWs percolates vertically through approximately 260-300 feet of unsaturated Aromas Sands and Paso Robles Formation above the water table for between 4 months and several years.
- The fastest (4 month) vertical travel time estimate represents a scenario where injection has been ongoing for multiple years and there is a column of saturated sediments beneath the VZW wells (the fastest possible rate), and also a scenario in which there are no silt or clay layers in the sediment profile to impede the vertical movement.
- The initial vertical movement of the first injected purified recycled water, however, will be slower as the wetting front develops and migrates downward, travelling more slowly initially as it moves into previously unsaturated areas of the formation.
- Well logs indicate the presence of very fine grained silt and clay layers in the sediment column above the water table that would likely further impede and delay vertical transport.

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<sup>36</sup> Montgomery & Associates, *Technical Memorandum, SUBJECT: Pure Water Monterey Project Wellfield Design Modeling Results With Updated Local Santa Margarita Aquifer Properties and 70/30 Deep/Shallow Recharge Split* March 25, 2019, which was included in the Final PWM Project Engineering Report (April 2019) as Appendix D.

- Once the water makes it to the water table, given the now very low VZW injection rates, a conservative estimate for the horizontal travel time to the offsite shallow MWs is on the order of around 750 to 1,000 days. Thus, under these very conservative assumptions, this would have the first injected purified recycled water arriving at the offsite MWs sometime in mid-2022.
- However, the almost 7-month pause in injection in the VZWs between the brief initial injection period in February and March 2020 and the resumption in October 2020 would make it even more likely that water transport would be delayed, and so would not arrive at the offsite MWs until 2023 at the soonest, under very conservative assumptions.

The water chemistry and water level data to date at MW-1AS and MW-2AS do not appear to show any of the changes that we would expect to see with arrival of the purified recycled water. The observed water chemistry and water levels appear to be consistent with the range of background variability observed prior to the beginning of Project injections in the Basin. This would be consistent with the estimates of very long travel times to those wells. With the greatly reduced injection volumes, it might take a very long time to see a significant signal of purified water at these MWs.<sup>37</sup>

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<sup>37</sup> Benito, Pascual PhD, personal communications, April 22, 2022.

## 8.0 NEAREST DRINKING WATER SUPPLY WELL TITLE 22 DRINKING WATER QUALITY DATA

*Title 22 drinking water quality data for the nearest drinking water supply well...*

On June 15, 2019, the Monterey Peninsula Water Management District (MPWMD) enacted Ordinance No. 183 which added Rule 20-E, establishing a zone of controlled drinking water well construction and a zone of potential controlled drinking water well construction related to the Project's injection of highly-purified water. The ordinance is available via MPWMD's website at the following link:

[www.mpwmd.net/ordinances/final/ord183/Ordinance183.pdf](http://www.mpwmd.net/ordinances/final/ord183/Ordinance183.pdf).

The nearest drinking water supply well to the AWPJ Injection Wells Facilities is operated by California American (CalAm) Water to supply Public Water System (PWS) 2710004. See **Appendix C** for a copy of the 2020 CalAm Water System Annual Consumer Confidence Report (CCR), an annual water quality report containing data that CalAm Water and all associated water suppliers collected during 2020. CCRs disclose what contaminants, if any, are detected in their drinking water as well as related health effects. CCRs also provide information on water sources and treatments applied. CCRs are due annually by July 1<sup>st</sup> of the year following the reporting year, thus the 2021 CalAm Water System CCR had yet to be published as of the date of this report. See also **Section 7.0** for a discussion of the vertical and horizontal migration of the recharge water plume.

## 9.0 OPERATIONAL CHANGES OF UNIT PROCESSES AND FACILITIES

*A description of any changes in the operation of any unit processes or facilities...*

There were no changes in the operation of any unit process or facility in 2021.



## 10.0 QUANTITY AND QUALITY OF RECYCLED WATER TO BE UTILIZED IN 2022

*The estimated quantity and quality of the recycled water to be utilized for the next calendar year...*

The AWP is anticipated to produce 3,700 acre-feet/year of recycled water meeting or exceeding Title 22 drinking water standards and requirements of WDR/WRR Order No. R3-2017-0003 and MRP No. R3-2020-0122 for injection to the Seaside Basin to meet contract obligations. This may increase to up to 4,300 acre feet/year if the requested WDR/WRR amendment is issued by the Regional Water Board in October or December. M1W has submitted a Report of Waste Discharge to the Regional Board to increase injection to 4,300 AFY; however, at this time, the associated Engineering Report Addendum is pending DDW acceptance. There is no anticipated urban landscape irrigation demand to be served by the Regional Urban Water Augmentation Project (RUWAP) system as supplied by the shared product water pipeline in 2022.

## 11.0 LABORATORY INFORMATION

A list of analytical methods used for each test and associated laboratory quality assurance/quality control procedures. Identification of the laboratories used by M1W to monitor compliance with Order No. R3-2017-0003, their status of certification, and a summary of proficiency test...

### 11.1 Analytical Methods and Laboratory QA/QC Procedures

Table 133 below provides a list of analytical methods used for each test, as well as associated laboratory QA/QC procedures.

**Table 133. Analytical Methods and Laboratory QA/QC Procedures**

Laboratory	Method	QA/QC Parameter				
		Blank	Dup	LCS	MS/MSD	Sur/IS
BC Labs	EPA 314.0					
BSK	EPA 200.7	X	X	X	X	
BSK	EPA 200.8	X	X	X	X	
BSK	EPA 300.1	X	X	X	X	
BSK	EPA 314.0	X		X	X	
BSK	EPA 317.0	X			X	
BSK	EPA 504.1	X	X	X	X	X
BSK	EPA 505	X	X	X	X	X
BSK	EPA 515.4	X	X	X	X	X
BSK	EPA 525	X	X	X	X	X
BSK	EPA 531.1	X	X	X	X	
BSK	EPA 547	X	X	X	X	X
BSK	EPA 548.1	X	X	X	X	
BSK	EPA 549.2	X	X	X	X	
BSK	EPA 552	X	X		X	X
BSK	SM 4500-CN F	X	X	X	X	
Ceres	EPA 1613B	X		X		X
Eurofins	EPA 200.8	X	X	X	X	
Eurofins	EPA 218.6	X	X	X	X	
Eurofins	EPA 300.1	X	X	X	X	
Eurofins	EPA 515.4	X		X	X	X
Eurofins	EPA 521	X	X	X	X	X
Eurofins	EPA 522	X		X	X	
Eurofins	EPA 524.2	X	X	X		X
Eurofins	EPA 525.2	X	X	X	X	X
Eurofins	EPA 537.1	X	X	X	X	X
Eurofins	EPA 551.1	X	X	X	X	X
Eurofins	EPA 556	X	X	X	X	X
Eurofins	EPA 624	X	X	X	X	X
Eurofins	EPA 625	X	X	X		X
Eurofins	EPA 8015B	X	X	X	X	
Eurofins	LC-MS-MS	X	X	X	X	
FGL	EPA 900	X		X	X	
FGL	EPA 903/EPA 904	X	X	X		
FGL	EPA 906	X	X	X		
LA Testing/EMSL	EPA 100.2	X				

Laboratory	Method	QA/QC Parameter				
		Blank	Dup	LCS	MS/MSD	Sur/IS
MBAS	EPA 180.1	x	x	x		
MBAS	EPA 200.7	X	X	X	X	
MBAS	EPA 200.8	x	x	x	x	
MBAS	EPA 300.0	x	x	x	x	
MBAS	EPA 351.2	x	x	x	x	
MBAS	EPA 1664B	x		x	x	
MBAS	SM 2540 D	x	x			
MBAS	SM 4500-Cl G	x	x	x		
MBAS	SM 4500-H+ B		x	x		
MBAS	SM 5210 B	x		x		
MBAS	SM 5310 C	x	x	x	x	
MBAS	SM 5910 B	X	X	X		
MBAS	SM 9223 B					
M1W	SM 4500-NH3 C	X	X	X	X	
M1W	EPA 300.0	x	x	x	x	
M1W	SM 2510 B		x	x		
M1W	SM 2540 C	x	x	x		
M1W	SM 2540 D	x	x			
M1W	SM 4500-H+ B			x		
M1W	SM 4500-N org C	x	x	x	x	
M1W	SM 4500-NH3 C	x	x	x	x	
M1W	SM 5210 B	x		x		
M1W	SM 5310 B	X	X	X	X	
M1W	SM 5910 B	x	x	x		
M1W	SM 9223 B	x	x	x		
McC Campbell	EPA 314.0	x	x	x		
MCHD	EPA200.8 REV 5.4	X		X	X	
MCHD	EPA300.0 REV 2.1	X	X	X	X	
MCHD	SM 2120B	X	X	X		
MCHD	SM 2130B	X	X	X		
MCHD	SM 2510B	X	X	X		
MCHD	SM 2320 B	x	x	x		
MCHD	SM 2510 B	x	x	x		
MCHD	SM 2540C	X	X	X		
MCHD	SM 5540C	X		X	X	
MCHD	SM4500 NO2 B	X	X	X	X	
MCHD	SM4500H+ B-2000		X	X		
Pace	EPA 905.0	x				
Trussell Tech	PrestoBlue	X	X		X	
Weck	EPA 1613B	x		x	x	
Weck	EPA 218.6	x		x	x	
Weck	EPA 300.1	x		x	x	x
Weck	EPA 508	x	x	x		
Weck	EPA 515.4	x		x	x	x
Weck	EPA 521	x		x	x	x
Weck	EPA 522	x	x	x		x
Weck	EPA 524.2	x	x	x		x
Weck	EPA 524.3	x		x		
Weck	EPA 525	x	x	x		x
Weck	EPA 531	x		x	x	x
Weck	EPA 537.1	x	x	x		x
Weck	EPA 547	x		x	x	
Weck	EPA 548.1	x		x	x	

Laboratory	Method	QA/QC Parameter				
		Blank	Dup	LCS	MS/MSD	Sur/IS
Weck	EPA 549.2	x		x	x	
Weck	EPA 551.1	x	x	x		x
Weck	EPA 552	x		x	x	
Weck	EPA 556	x	x	x		x
Weck	EPA 624	x	x	x	x	x
Weck	EPA 625	x		x	x	x
Weck	EPA 8015 B	x		x	x	
Weck	EPA 8330A	x	x	x		
Weck	LC-MS-MS	x	x	x		
Weck	SM 7110C	x		x	x	
<i>Dup = Sample Dup, LCS Dup or Rep</i>						
<i>LCS = LFB, SB, ICV or CCV</i>						
<i>MS/MSD = MS or MS/MSD</i>						
<i>Sur/IS= Surrogate and/or Internal Standard</i>						

**Figure 133. Analytical Methods and Laboratory QA/QC Procedures – N/A**

### 11.3 Laboratories Utilized

**Table 134**, below provides a list of the laboratories used by M1W to monitor compliance with Order No. RE-2017-0003. See **Appendix B** for laboratory ELAP certifications.

**Table 134. Laboratories Utilized**

BC Laboratories Inc. ELAP #1186 4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911	FGL ELAP # 1573 853 Corporation Street Santa Paula, CA 93060 (805) 392-2000
BSK Associates ELAP #1180 1414 Stanislaus Street Fresno, CA 93706-1623 (559) 497-2888	Monterey Bay Analytical Services ELAP #2385 4 Justin Court, Suite D Monterey, CA 93940 (831) 375-6227
Ceres Analytical Laboratory, Inc. ELAP #3046 4919 Windplay Drive, Suite 1 El Dorado Hills, CA 95762 (916) 932-5011	McC Campbell Analytical, Inc. ELAP # 1644 1534 Willow Pass Road Pittsburg, CA 94565 (925) 252-9262
EMSL Analytical, Inc. ELAP #2283 520 Mission Street South Pasadena, CA 91030 (800) 303-0047	Monterey County Consolidated Environmental Laboratory ELAP # 1395 1270 Natividad Road, Room A15 Salinas, CA 93906 (831) 755-4516
Eurofins Calscience, LLC ELAP #2944 7440 Lincoln Way Garden Grove, CA 92841-1427 (714) 895-5494	Monterey One Water ELAP #1195 14811 Del Monte Boulevard Marina, CA 93933 (831) 883-6131
Eurofins Calscience ELAP #2706 17461 Derian Avenue Irvine, CA 92614-5817 (949) 261-1022	Pace Analytical Services ELAP #2950 1638 Roseytown Road Greensburg, PA 15601 (724) 850-5600
Eurofins Eaton Analytical, LLC – Monrovia ELAP #2813 750 Royal Oaks Drive, Suite 100 Monrovia, CA 91016 (626) 386-1100	Trussell Technologies, Inc. 232 North Lake Avenue Suite 300 Pasadena, CA 91101 (626) 485-0560
Eurofins TestAmerica Savannah ELAP #2939 5102 LaRoche Avenue Savannah, CA 31404 (912) 354-7858	Weck Laboratories ELAP #1132 14859 East Clark Avenue City of Industry, CA 91745 (626) 336-2139

## 11.4 Proficiency Tests

Once per year laboratories are required to obtain an “Acceptable” PT score for each Field of Testing (FOT) the laboratory is applying for or currently accredited for. See **Appendix A** which provides a OneDrive link to access proficiency test documentation for laboratories utilized for compliance with WDR/WRR Order No. R3-2017-0003 and MRP R3-2020-0122.

## 12.0 STAFFING

*A list of current operating personnel, their responsibilities, and their corresponding grade certification.*

The AWPf is located on the RTP property, where M1W's existing operations staff are based. The RTP serves as the operations and maintenance hub for the AWPf. The existing control room at the RTP has human-machine interface (HMI) screens used to monitor and operate the AWPf. There is also a local HMI in the AWPf Membrane Process Building and Operators at the AWPf have mobile tablets and laptop computers to remotely access the supervisory control and data acquisition (SCADA) system screens to monitor and control the facility.

The AWPf is operated and monitored 24 hours per day, 7 days per week. MCWD staff operate and maintain the conveyance pipeline and reservoir. **Table 135** lists the staff responsible for operating the RTP and the AWPf including their names, titles, and certifications.

**Table 135. Operational Personnel, Responsibilities, and Certifications**

Title	Name	Certificate #	Certification Type
Chief Plant Operator	Jose Guzman	V-28470	WWTP Operator
Operations Supervisor	Nathan Clark	V-28858	WWTP Operator
		AWT3-185	Advanced Water Treatment Operator
Operations Supervisor	David Bradley	V-29017	WWTP Operator
		AWT5-123	Advanced Water Treatment Operator
Sr. WWTP Operator	Neil Steiner	V-42403	WWTP Operator
		II-T2-40374	Water Treatment Operator
Sr. WWTP Operator	Garon Goularte	V-28342	WWTP Operator
		AWT3-159	Advanced Water Treatment Operator
WWTP Operator III	Robert Locke	V-8477	WWTP Operator
WWTP Operator III	Mike Swearingen	III-10926	WWTP Operator
WWTP Operator III	Jaime Hernandez	V-10382	WWTP Operator
WWTP Operator III	Ilya Levitin	V-40970	WWTP Operator
WWTP Operator III	Lucas Martin	III-43531	WWTP Operator
WWTP Operator III	Nicholas Norman	III-43479	WWTP Operator
WWTP Operator III	Javier Robledo	III-43631	WWTP Operator
WWTP Operator III	Juan Carlos Rocha	III-42675	WWTP Operator
		II-D2-45020	Water Treatment Operator
		II-T2-36682	Water Distribution Operator
WWTP Operator III	Freddy Mendez	III-39834	WWTP Operator
WWTP Operator III	Stefan Wilson	III-42213	WWTP Operator
WWTP Operator II	Milton Alcon	II- 41352	WWTP Operator
		I-T1-40177	Water Treatment Operator
WWTP Operator II	Sean Huang	III-44009	WWTP Operator
		II-D2-50606	Water Distribution Operator
		II-T2-41828	Water Treatment Operator
WWTP Operator II	Derrick Treur	II-44249	WWTP Operator
WWTP Operator II	Josh Meininger	II-44926	WWTP Operator
WWTP Operator II	Jose Miguel Rosas	V-41267	WWTP Operator
WWTP Operator II	Jacob Register	II-45181	WWTP Operator
Sr. Maintenance Mechanic	Roman Podolkhov	IV-1308217399	Mechanical Technologist

Title	Name	Certificate #	Certification Type
Maintenance Mechanic II	Tony Ace	IV-1308217388	Mechanical Technologist
Maintenance Mechanic II	Nicholas Faro	III- 1308217245	Mechanical Technologist
Maintenance Mechanic II	Luis Gutierrez	IV- 1308218083	Mechanical Technologist
Maintenance Mechanic II	Daniel Huston	II- 110862002	Mechanical Technologist
Maintenance Mechanic I	Hugo Morales	I- 1308213335	Mechanical Technologist
Maintenance Mechanic II	John Serrato	II-247	Mechanical Technologist
Maintenance Mechanic II	Kyle Snyder	IV- 1308217406	Mechanical Technologist
Preventative Maintenance Mechanic	Michael Lamont	I-801510034	Plant Mechanical Technologist
Electrician Instrumentation Technician II	Sean Curry	III-1308215029	CWEA Electrical/ Instrumentation
Sr. Instrumentation and Electrician Technician	Barbara Wilborn	III-1308218668	CWEA Electrical/ Instrumentation
Electrician Instrumentation Technician II	Juan Hernandez	II- 1308232565	CWEA Electrical/ Instrumentation

### 13.0 REPORT PREPARERS

*The Annual Report must be prepared by a properly qualified engineer registered and licensed in California and experienced in the field of wastewater treatment.*

**Table 136** below lists the staff who contributed to the preparation of this Annual Summary Report, including properly qualified engineers registered and licensed in California and field experts consulted.

**Table 136. Report Preparers**

<b>Name</b>	<b>Title</b>
Tamsen McNarie	Assistant General Manager
Jose Guzman	Chief Plant Operator
Joanne Y. Le	Lab & Environmental Services Manager
Jennifer Gonzalez, P.E.	Engineering Manager
Jonathan Mungcal	Utilities & Maintenance Services Manager
Alison Imamura, P.E.	Principal Engineer
Tom Kouretas, P.E.	Associate Engineer
Sarah McGinnis	QA/QC Analyst
Sarah Stevens	Compliance Analyst
<b>Experts Consulted</b>	
<b>Name</b>	<b>Title, Entity</b>
Jonathan Lear, P.G., CHG	Water Resources Division Manager, MPWMD
John Kenny, P.E.	Trussell Technologies
Gus Yates, P.G., CHG	Todd Groundwater, Senior Hydrogeologist
Pascual Benito, P.G., CHG	Montgomery & Associates



## 14.0 SUMMARY OF MONITORING REPORTS, REPORTING, AND TREND ANALYSES

*A summary of monitoring reports, reporting, and trend analysis, to describe the changes in water quality and contrast them to background measurements for all constituents exceeding MCLs or where concentration trends increase after the addition of recycled water. Specifically describe studies or investigations made to identify the source, fate and transport path of constituents which exceed the MCL at monitoring wells.*

See **Section 6.0** for a summary of trend analysis describing the changes in water quality and contrasting them to background concentrations which predate Project injections.

Monitoring reports have been successfully submitted by M1W and associated contractors on a monthly and quarterly basis throughout 2021. Quarterly reports of the intrinsic tracer study on the MWs have been submitted to the Regional Board by Todd Groundwater and are discussed in **Section 7.0**. Results of the extrinsic tracer study are still pending as of the date of this report. The final report will be submitted to DDW and the Regional Board when available.

Any MCL exceedances associated with the application of recycled water were reported to DDW and the Regional Board via email when M1W became aware of them. In addition, were discussed in the quarterly reports and in **Section 6.0** of this report. While there were noteworthy detections and short-term exceedances of various water quality standards as discussed in **Section 6.0**, none of those detections or short-term exceedances resulted in a violation. Historical MCL exceedances have been documented in the Seaside Basin for odor, manganese, turbidity, nitrate, heptachlor, and toluene. Changes in water quality, in regards to these parameters, are also discussed in **Section 6.0**.

## 15.0 INTER-AGENCY COORDINATION

*M1W must submit to DDW and the Central Coast Water board a summary of coordination activities with Marina Coast Water District on the operation and maintenance of the Product Water Pipeline and the Purified Water Reservoir necessary for the protection of the product water for injection. At a minimum, M1W must be kept informed of the status of testing and maintenance of backflow preventers on the Product Water Pipeline, occurrence of backflow incidents (if any), and maintenance activities of the Purified Water Reservoir.*

### 15.1 Seaside Water Quality & Operations Committee

In November 2020, M1W established the Seaside Water Quality and Operations Committee to share Project updates with stakeholders and interested members of the community. The group meets regularly and includes representatives from the following entities:

- M1W
- MPWMD
- CalAm
- MCWD
- City of Seaside
- MCWRA
- Seaside Basin Watermaster
- Regional Board
- SWRCB, DDW
- Local DDW District 05

Meeting agendas typically include an overview of AWPf operations, injection volume report, IWF status update, MW water quality overview, and aquifer storage and recovery (ASR) operations update with opportunities for a discussion of other topics as necessary.

### 15.2 Coordination with MCWD

M1W and MCWD initiated a separate monthly meeting to discuss the conveyance pipeline and Blackhorse Reservoir operations.

#### 15.2.1 Testing and Maintenance of Backflow Preventers

No backflow testing was performed in 2021.

#### 15.2.2 Occurrences of Backflow Incidents

No backflow incidents occurred in 2021.

#### 15.2.3 Maintenance Activities of the Purified Recycled Water Reservoir


MCWD performs quarterly inspections of the recycled water reservoir. These inspection schedules are incorporated into MCWD's Computerized Maintenance Management System (CMMS).



## 16.0 CERTIFICATION STATEMENT

*I certify under penalty of law that this document, including all attachments and supplemental information, was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.*

Executed on the 29<sup>th</sup> day of April 2022 at 3:30pm

 (Signature)

Jose O. Guzman  
Chief Plant Operator

## **Appendix A. Laboratory Proficiency Test Documentation**

Laboratory Proficiency Test Documentation can be accessed via OneDrive below:

<https://mrwpca1.sharepoint.com/:f:/s/Compliance/EtKbII3aNPdOpJOeBnOviDsBTGG4hq6Dy2D1Q2Bq7bXo7w?e=ZmlGRg>

## Appendix B. Laboratory ELAP Certificates



STATE WATER RESOURCES CONTROL BOARD  
REGIONAL WATER QUALITY CONTROL BOARDS



CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

**CERTIFICATE OF  
ENVIRONMENTAL LABORATORY ACCREDITATION**

Is hereby granted to

**Fruit Growers Laboratory, Inc.**

**Santa Paula**

853 Corporation Street

Santa Paula, CA 93060

Scope of the certificate is limited to the  
"Fields of Accreditation"  
which accompany this Certificate.

Continued accredited status depends on compliance with applicable laws and regulations,  
proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of  
Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **1573**

Effective Date: **8/1/2021**

Expiration Date: **7/31/2023**

A handwritten signature in blue ink, appearing to read "Christine Sotelo".

Sacramento, California  
subject to forfeiture or revocation

Christine Sotelo, Chief  
Environmental Laboratory Accreditation Program



**CALIFORNIA STATE  
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM  
Fields of Accreditation**



**Fruit Growers Laboratory, Inc.**

Santa Paula  
853 Corporation Street  
Santa Paula, CA 93060  
Phone: 8053922000

**Certificate Number: 1573  
Expiration Date: 7/31/2023**

**Field of Accreditation:101 - Microbiology of Drinking Water**

101.010	001	Heterotrophic Bacteria	SM 9215 B
101.020	001	Total Coliform P/A	SM 9221 B
101.020	002	Fecal Coliform P/A	SM 9221 B,E
101.020	004	Total Coliform (Enumeration)	SM 9221 B,C
101.020	005	Fecal Coliform (Enumeration)	SM 9221 B,E
101.050	001	Total Coliform P/A	SM 9223 B Colilert
101.050	002	E. coli P/A	SM 9223 B Colilert
101.050	003	Total Coliform (Enumeration)	SM 9223 B Colilert
101.050	004	E. coli (Enumeration)	SM 9223 B Colilert
101.050	005	Total Coliform P/A	SM 9223 B Colilert 18
101.050	006	E. coli P/A	SM 9223 B Colilert 18
101.050	007	Total Coliform (Enumeration)	SM 9223 B Colilert 18
101.050	008	E. coli (Enumeration)	SM 9223 B Colilert 18
101.050	009	Total Coliform P/A	SM 9223 B Colisure
101.050	010	E. coli P/A	SM 9223 B Colisure
101.050	011	Total Coliform (Enumeration)	SM 9223 B Colisure
101.050	012	E. coli (Enumeration)	SM 9223 B Colisure
101.170	001	Enterococci	Enterolert

**Field of Accreditation:102 - Inorganic Chemistry of Drinking Water**

102.026	001	Calcium	EPA 200.7
102.026	002	Magnesium	EPA 200.7
102.026	003	Potassium	EPA 200.7
102.026	004	Silica	EPA 200.7
102.026	005	Sodium	EPA 200.7
102.026	006	Hardness (Calculation)	EPA 200.7
102.030	001	Bromide	EPA 300.0
102.030	003	Chloride	EPA 300.0
102.030	005	Fluoride	EPA 300.0
102.030	006	Nitrate (as N)	EPA 300.0
102.030	007	Nitrite (as N)	EPA 300.0
102.030	008	Phosphate,Ortho (as P)	EPA 300.0
102.030	009	Sulfate (as SO4)	EPA 300.0
102.045	001	Perchlorate	EPA 314.0

As of 7/16/2021 , this list supersedes all previous lists for this certificate number.  
Customers: Please verify the current accreditation standing with the State.

102.095	001	Turbidity	SM 2130 B-2001
102.100	001	Alkalinity	SM 2320 B-1997
102.130	001	Specific Conductance	SM 2510 B-1997
102.140	001	Residue, Filterable TDS	SM 2540 C-1997
102.175	002	Chlorine, Total Residual	SM 4500-Cl G-2000
102.190	001	Cyanide, Total	SM 4500-CN E-1999
102.203	001	Hydrogen Ion (pH)	SM 4500-H+ B-2000
102.220	001	Nitrite (as N)	SM 4500-NO2 B-2000
102.234	001	Nitrite (as N)	SM 4500-NO3 F-2000
102.234	002	Nitrate (as N)	SM 4500-NO3 F-2000
102.240	001	Phosphate, Ortho (as P)	SM 4500-P E-1999
102.262	001	Organic Carbon-Total (TOC)	SM 5310 C-2000
102.263	001	Dissolved Organic Carbon (DOC)	SM 5310 C-2000
102.270	001	Surfactants	SM 5540 C-2000

**Field of Accreditation: 103 - Toxic Chemical Elements of Drinking Water**

103.130	001	Aluminum	EPA 200.7
103.130	003	Barium	EPA 200.7
103.130	004	Beryllium	EPA 200.7
103.130	007	Chromium	EPA 200.7
103.130	008	Copper	EPA 200.7
103.130	009	Iron	EPA 200.7
103.130	011	Manganese	EPA 200.7
103.130	012	Nickel	EPA 200.7
103.130	015	Silver	EPA 200.7
103.130	017	Zinc	EPA 200.7
103.130	018	Boron	EPA 200.7
103.140	001	Aluminum	EPA 200.8
103.140	002	Antimony	EPA 200.8
103.140	003	Arsenic	EPA 200.8
103.140	004	Barium	EPA 200.8
103.140	005	Beryllium	EPA 200.8
103.140	006	Cadmium	EPA 200.8
103.140	007	Chromium	EPA 200.8
103.140	008	Copper	EPA 200.8
103.140	009	Lead	EPA 200.8
103.140	010	Manganese	EPA 200.8
103.140	012	Nickel	EPA 200.8
103.140	013	Selenium	EPA 200.8
103.140	014	Silver	EPA 200.8
103.140	015	Thallium	EPA 200.8
103.140	016	Zinc	EPA 200.8
103.140	017	Boron	EPA 200.8



103.140	018	Vanadium	EPA 200.8
103.160	001	Mercury	EPA 245.1
103.310	001	Chromium VI (Hexavalent Chromium)	EPA 218.6

**Field of Accreditation: 104 - Volatile Organic Chemistry of Drinking Water**

104.035	001	1,2,3-Trichloropropane (TCP)	SRL 524M-TCP
104.040	001	Benzene	EPA 524.2
104.040	007	n-Butylbenzene	EPA 524.2
104.040	008	sec-Butylbenzene	EPA 524.2
104.040	009	tert-Butylbenzene	EPA 524.2
104.040	010	Carbon Tetrachloride	EPA 524.2
104.040	011	Chlorobenzene	EPA 524.2
104.040	015	2-Chlorotoluene	EPA 524.2
104.040	016	4-Chlorotoluene	EPA 524.2
104.040	019	1,3-Dichlorobenzene	EPA 524.2
104.040	020	1,2-Dichlorobenzene	EPA 524.2
104.040	021	1,4-Dichlorobenzene	EPA 524.2
104.040	022	Dichlorodifluoromethane	EPA 524.2
104.040	023	1,1-Dichloroethane	EPA 524.2
104.040	024	1,2-Dichloroethane (Ethylene Dichloride)	EPA 524.2
104.040	025	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 524.2
104.040	026	cis-1,2-Dichloroethylene (cis 1,2 Dichloroethene)	EPA 524.2
104.040	027	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 524.2
104.040	028	Dichloromethane (Methylene Chloride)	EPA 524.2
104.040	029	1,2-Dichloropropane	EPA 524.2
104.040	033	cis-1,3-Dichloropropylene (cis 1,3 Dichloropropene)	EPA 524.2
104.040	034	trans-1,3-Dichloropropylene (trans-1,3 Dichloropropene)	EPA 524.2
104.040	035	Ethylbenzene	EPA 524.2
104.040	037	Isopropylbenzene	EPA 524.2
104.040	039	Naphthalene	EPA 524.2
104.040	041	N-propylbenzene	EPA 524.2
104.040	042	Styrene	EPA 524.2
104.040	043	1,1,1,2-Tetrachloroethane	EPA 524.2
104.040	044	1,1,2,2-Tetrachloroethane	EPA 524.2
104.040	045	Tetrachloroethylene (Tetrachloroethene)	EPA 524.2
104.040	046	Toluene	EPA 524.2
104.040	047	1,2,3-Trichlorobenzene	EPA 524.2
104.040	048	1,2,4-Trichlorobenzene	EPA 524.2
104.040	049	1,1,1-Trichloroethane	EPA 524.2
104.040	050	1,1,2-Trichloroethane	EPA 524.2
104.040	051	Trichloroethylene (Trichloroethene)	EPA 524.2
104.040	052	Trichlorofluoromethane	EPA 524.2
104.040	054	1,2,4-Trimethylbenzene	EPA 524.2

104.040	055	1,3,5-Trimethylbenzene	EPA 524.2
104.040	056	Vinyl Chloride	EPA 524.2
104.040	059	o-Xylene	EPA 524.2
104.040	063	m+p-Xylene	EPA 524.2
104.045	001	Bromodichloromethane	EPA 524.2
104.045	002	Bromoform	EPA 524.2
104.045	003	Chloroform	EPA 524.2
104.045	004	Dibromochloromethane (Chlorodibromomethane)	EPA 524.2
104.050	002	Methyl tert-butyl Ether (MTBE)	EPA 524.2
104.050	003	tert-Amyl Methyl Ether (TAME)	EPA 524.2
104.050	004	Ethyl tert-butyl Ether (ETBE)	EPA 524.2
104.050	005	Trichlorotrifluoroethane (Freon 113)	EPA 524.2
104.050	006	t-Butyl alcohol (2-Methyl-2-propanol)	EPA 524.2

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**Field of Accreditation: 105 - Semi-volatile Organic Chemistry of Drinking Water**


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105.010	002	Alachlor	EPA 505
105.010	004	Chlordane	EPA 505
105.010	006	Endrin	EPA 505
105.010	007	Heptachlor	EPA 505
105.010	008	Heptachlor Epoxide	EPA 505
105.010	009	Hexachlorobenzene	EPA 505
105.010	010	Hexachlorocyclopentadiene	EPA 505
105.010	011	Lindane (HCH-gamma)	EPA 505
105.010	012	Methoxychlor	EPA 505
105.010	014	Toxaphene	EPA 505
105.010	015	PCBs as Aroclors (screen)	EPA 505
105.030	001	Alachlor	EPA 507
105.030	002	Atrazine	EPA 507
105.030	003	Butachlor	EPA 507
105.030	005	Metolachlor	EPA 507
105.030	006	Metribuzin	EPA 507
105.030	007	Molinate	EPA 507
105.030	008	Prometryn	EPA 507
105.030	009	Simazine	EPA 507
105.082	001	2,4-D	EPA 515.3
105.082	002	Dinoseb	EPA 515.3
105.082	003	Pentachlorophenol	EPA 515.3
105.082	004	Picloram	EPA 515.3
105.082	005	2,4,5-TP (Silvex)	EPA 515.3
105.082	006	Bentazon	EPA 515.3
105.082	007	Dalapon	EPA 515.3
105.082	008	Dicamba	EPA 515.3
105.100	001	Aldicarb (Temik)	EPA 531.1

105.100	002	Aldicarb Sulfone	EPA 531.1
105.100	003	Aldicarb Sulfoxide	EPA 531.1
105.100	004	Carbaryl (Sevin)	EPA 531.1
105.100	005	Carbofuran (Furadan)	EPA 531.1
105.100	006	3-Hydroxycarbofuran	EPA 531.1
105.100	007	Methomyl (Lannate)	EPA 531.1
105.100	008	Oxamyl	EPA 531.1
105.120	001	Glyphosate	EPA 547
105.140	001	Endothall	EPA 548.1
105.150	001	Diquat	EPA 549.2
105.175	001	Bromodichloromethane	EPA 551.1
105.175	002	Bromoform	EPA 551.1
105.175	003	Chloroform	EPA 551.1
105.175	004	Dibromochloromethane (Chlorodibromomethane)	EPA 551.1
105.200	001	Bromoacetic Acid	EPA 552.2
105.200	003	Chloroacetic Acid	EPA 552.2
105.200	005	Dibromoacetic Acid	EPA 552.2
105.200	006	Dichloroacetic Acid	EPA 552.2
105.200	007	Trichloroacetic Acid	EPA 552.2

**Field of Accreditation:106 - Radionuclides in Drinking Water**

106.010	001	Gross Alpha	EPA 900.0
106.010	002	Gross Beta	EPA 900.0
106.050	001	Total Alpha Radium	EPA 903.0
106.050	002	Radium-226	EPA 903.0
106.080	001	Tritium	EPA 906.0
106.092	001	Uranium	EPA 200.8
106.170	001	Radium-228	EPA Ra-05
106.270	001	Gross Alpha	SM 7110 C
106.610	001	Radon-222	SM 7500-Rn

**Field of Accreditation:107 - Microbiological Methods for Non-Potable Water and Sewage Sludge**

107.001	001	Total Coliform (Enumeration)	SM 9221 B,C-2006
107.001	002	Fecal Coliform (Enumeration)	SM 9221 C,E-2006
107.013	001	E. coli (Enumeration)	SM 9223 B-2004 Collilert
107.015	001	E. coli (Enumeration)	SM 9223 B-2004 Collilert 18
107.017	001	Enterococci	Enterolert

**Field of Accreditation:108 - Inorganic Constituents in Non-Potable Water**

108.007	001	Residue, Volatile	EPA 160.4 (1971)
108.013	001	Calcium	EPA 200.7 (1994 Rev. 4.4)
108.013	002	Magnesium	EPA 200.7 (1994 Rev. 4.4)
108.013	003	Phosphorus, Total	EPA 200.7 (1994 Rev. 4.4)
108.013	004	Potassium	EPA 200.7 (1994 Rev. 4.4)
108.013	005	Silica, Dissolved	EPA 200.7 (1994 Rev. 4.4)

108.013	006	Sodium	EPA 200.7 (1994 Rev. 4.4)
108.017	001	Bromide	EPA 300.0 (1993 Rev. 2.1)
108.017	002	Chloride	EPA 300.0 (1993 Rev. 2.1)
108.017	003	Fluoride	EPA 300.0 (1993 Rev. 2.1)
108.017	004	Nitrate (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	005	Nitrate-Nitrite (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	006	Nitrite (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	007	Phosphate,Ortho (as P)	EPA 300.0 (1993 Rev. 2.1)
108.017	008	Sulfate (as SO4)	EPA 300.0 (1993 Rev. 2.1)
108.029	001	Kjeldahl Nitrogen,Total (as N)	EPA 351.2 (1993 Rev. 2.0)
108.047	001	Phenols, Total	EPA 420.1 (1978 Rev. 1.0)
108.053	001	Oil & Grease Total	EPA 1664 A
108.059	001	Turbidity	SM 2130 B-2011
108.063	001	Alkalinity	SM 2320 B-2011
108.069	001	Specific Conductance	SM 2510 B-2011
108.071	001	Residue, Total	SM 2540 B-2011
108.073	001	Residue, Filterable TDS	SM 2540 C-2011
108.075	001	Residue, Non-filterable TSS	SM 2540 D-2011
108.079	001	Residue, Settleable	SM 2540 F-2011
108.114	001	Chlorine, Total Residual	SM 4500-Cl G-2011
108.125	001	Cyanide, Total	SM 4500-CN E-2011
108.147	001	Ammonia (as N)	SM 4500-NH3 G-2011
108.153	001	Nitrite (as N)	SM 4500-NO2 B-2011
108.159	001	Nitrate-Nitrite (as N)	SM 4500-NO3 F-2011
108.159	002	Nitrite (as N)	SM 4500-NO3 F-2011
108.175	001	Phosphate,Ortho (as P)	SM 4500-P E-2011
108.175	002	Phosphorus,Total	SM 4500-P E-2011
108.201	001	Sulfide (as S)	SM 4500-S D-2011
108.207	001	Biochemical Oxygen Demand	SM 5210 B-2011
108.207	002	Carbonaceous BOD	SM 5210 B-2011
108.213	001	Chemical Oxygen Demand	SM 5220 D-2011
108.217	001	Organic Carbon-Total (TOC)	SM 5310 C-2011
108.225	001	Surfactants	SM 5540 C-2011

**Field of Accreditation:109 - Metals and Trace Elements in Non-Potable Water**

109.623	001	Aluminum	EPA 200.7 (1994 Rev. 4.4)
109.623	002	Antimony	EPA 200.7 (1994 Rev. 4.4)
109.623	003	Arsenic	EPA 200.7 (1994 Rev. 4.4)
109.623	004	Barium	EPA 200.7 (1994 Rev. 4.4)
109.623	005	Beryllium	EPA 200.7 (1994 Rev. 4.4)
109.623	006	Boron	EPA 200.7 (1994 Rev. 4.4)
109.623	007	Cadmium	EPA 200.7 (1994 Rev. 4.4)
109.623	008	Chromium	EPA 200.7 (1994 Rev. 4.4)

109.623	009	Cobalt	EPA 200.7 (1994 Rev. 4.4)
109.623	010	Copper	EPA 200.7 (1994 Rev. 4.4)
109.623	011	Iron	EPA 200.7 (1994 Rev. 4.4)
109.623	012	Lead	EPA 200.7 (1994 Rev. 4.4)
109.623	013	Manganese	EPA 200.7 (1994 Rev. 4.4)
109.623	014	Molybdenum	EPA 200.7 (1994 Rev. 4.4)
109.623	015	Nickel	EPA 200.7 (1994 Rev. 4.4)
109.623	016	Selenium	EPA 200.7 (1994 Rev. 4.4)
109.623	017	Silver	EPA 200.7 (1994 Rev. 4.4)
109.623	018	Thallium	EPA 200.7 (1994 Rev. 4.4)
109.623	019	Tin	EPA 200.7 (1994 Rev. 4.4)
109.623	020	Titanium	EPA 200.7 (1994 Rev. 4.4)
109.623	021	Vanadium	EPA 200.7 (1994 Rev. 4.4)
109.623	022	Zinc	EPA 200.7 (1994 Rev. 4.4)
109.625	001	Aluminum	EPA 200.8 (1994 Rev. 5.4)
109.625	002	Antimony	EPA 200.8 (1994 Rev. 5.4)
109.625	003	Arsenic	EPA 200.8 (1994 Rev. 5.4)
109.625	004	Barium	EPA 200.8 (1994 Rev. 5.4)
109.625	005	Beryllium	EPA 200.8 (1994 Rev. 5.4)
109.625	006	Boron	EPA 200.8 (1994 Rev. 5.4)
109.625	007	Cadmium	EPA 200.8 (1994 Rev. 5.4)
109.625	008	Chromium	EPA 200.8 (1994 Rev. 5.4)
109.625	009	Cobalt	EPA 200.8 (1994 Rev. 5.4)
109.625	010	Copper	EPA 200.8 (1994 Rev. 5.4)
109.625	012	Iron	EPA 200.8 (1994 Rev. 5.4)
109.625	013	Lead	EPA 200.8 (1994 Rev. 5.4)
109.625	014	Manganese	EPA 200.8 (1994 Rev. 5.4)
109.625	015	Molybdenum	EPA 200.8 (1994 Rev. 5.4)
109.625	016	Nickel	EPA 200.8 (1994 Rev. 5.4)
109.625	017	Selenium	EPA 200.8 (1994 Rev. 5.4)
109.625	018	Silver	EPA 200.8 (1994 Rev. 5.4)
109.625	019	Thallium	EPA 200.8 (1994 Rev. 5.4)
109.625	022	Vanadium	EPA 200.8 (1994 Rev. 5.4)
109.625	023	Zinc	EPA 200.8 (1994 Rev. 5.4)
109.629	001	Chromium VI (Hexavalent Chromium)	EPA 218.6 (1994 Rev. 3.3)
109.635	001	Mercury	EPA 245.1 (1994 Rev. 3.0)

**Field of Accreditation: 110 - Volatile Organic Constituents in Non-Potable Water**

110.040	001	Acetone	EPA 624.1
110.040	003	Acrolein	EPA 624.1
110.040	004	Acrylonitrile	EPA 624.1
110.040	005	Benzene	EPA 624.1
110.040	006	Bromodichloromethane	EPA 624.1

110.040	007	Bromoform	EPA 624.1
110.040	008	Bromomethane (Methyl Bromide)	EPA 624.1
110.040	010	Carbon Tetrachloride	EPA 624.1
110.040	011	Chlorobenzene	EPA 624.1
110.040	012	Chloroethane	EPA 624.1
110.040	013	2-Chloroethyl vinyl Ether	EPA 624.1
110.040	014	Chloroform	EPA 624.1
110.040	015	Chloromethane (Methyl Chloride)	EPA 624.1
110.040	016	Dibromochloromethane (Chlorodibromomethane)	EPA 624.1
110.040	017	1,2-Dichlorobenzene	EPA 624.1
110.040	018	1,3-Dichlorobenzene	EPA 624.1
110.040	019	1,4-Dichlorobenzene	EPA 624.1
110.040	020	1,1-Dichloroethane	EPA 624.1
110.040	021	1,2-Dichloroethane (Ethylene Dichloride)	EPA 624.1
110.040	022	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 624.1
110.040	023	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 624.1
110.040	024	1,2-Dichloropropane	EPA 624.1
110.040	025	cis-1,3-Dichloropropylene (cis 1,3 Dichloropropene)	EPA 624.1
110.040	026	trans-1,3-Dichloropropylene (trans-1,3 Dichloropropene)	EPA 624.1
110.040	029	Ethylbenzene	EPA 624.1
110.040	031	Methylene Chloride (Dichloromethane)	EPA 624.1
110.040	032	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	EPA 624.1
110.040	034	1,1,2,2-Tetrachloroethane	EPA 624.1
110.040	035	Tetrachloroethylene (Tetrachloroethene)	EPA 624.1
110.040	037	Toluene	EPA 624.1
110.040	038	1,1,1-Trichloroethane	EPA 624.1
110.040	039	1,1,2-Trichloroethane	EPA 624.1
110.040	040	Trichloroethylene (Trichloroethene)	EPA 624.1
110.040	041	Vinyl Chloride	EPA 624.1
110.040	043	o-Xylene	EPA 624.1
110.040	045	Trichlorofluoromethane	EPA 624.1
110.040	046	m+p-Xylene	EPA 624.1
110.040	047	2-Butanone (MEK)	EPA 624.1

**Field of Accreditation: 111 - Semi-volatile Organic Constituents in Non-Potable Water**

111.055	001	Aldrin	EPA 608.3
111.055	002	alpha-BHC	EPA 608.3
111.055	003	beta-BHC	EPA 608.3
111.055	004	delta-BHC	EPA 608.3
111.055	005	gamma-BHC (Lindane)	EPA 608.3
111.055	006	Chlordane	EPA 608.3
111.055	007	4,4'-DDD	EPA 608.3
111.055	008	4,4'-DDE	EPA 608.3

111.055	009	4,4'-DDT	EPA 608.3
111.055	010	Dieldrin	EPA 608.3
111.055	011	Endosulfan I	EPA 608.3
111.055	012	Endosulfan II	EPA 608.3
111.055	013	Endosulfan Sulfate	EPA 608.3
111.055	014	Endrin	EPA 608.3
111.055	015	Endrin Aldehyde	EPA 608.3
111.055	016	Heptachlor	EPA 608.3
111.055	017	Heptachlor Epoxide	EPA 608.3
111.055	019	PCB-1016 (Aroclor-1016)	EPA 608.3
111.055	020	PCB-1221 (Aroclor-1221)	EPA 608.3
111.055	021	PCB-1232 (Aroclor-1232)	EPA 608.3
111.055	022	PCB-1242 (Aroclor-1242)	EPA 608.3
111.055	023	PCB-1248 (Aroclor-1248)	EPA 608.3
111.055	024	PCB-1254 (Aroclor-1254)	EPA 608.3
111.055	025	PCB-1260 (Aroclor-1260)	EPA 608.3
111.055	046	Methoxychlor	EPA 608.3
111.055	060	Toxaphene	EPA 608.3
111.160	001	Acenaphthene	EPA 625.1
111.160	002	Acenaphthylene	EPA 625.1
111.160	003	Anthracene	EPA 625.1
111.160	004	Benzidine	EPA 625.1
111.160	005	Benzo(a)anthracene	EPA 625.1
111.160	006	Benzo(a)pyrene	EPA 625.1
111.160	007	Benzo(b)fluoranthene	EPA 625.1
111.160	008	Benzo(g,h,i)perylene	EPA 625.1
111.160	009	Benzo(k)fluoranthene	EPA 625.1
111.160	010	Bis(2-chloroethoxy) Methane	EPA 625.1
111.160	011	Bis(2-chloroethyl) Ether	EPA 625.1
111.160	012	bis(2-Chloroisopropyl) ether (2,2'-Oxybis[1-chloropropane])	EPA 625.1
111.160	013	Bis(2-ethylhexyl)phthalate (Di(2-ethylhexyl) phthalate)	EPA 625.1
111.160	014	4-Bromophenyl Phenyl Ether	EPA 625.1
111.160	015	Butyl Benzyl Phthalate	EPA 625.1
111.160	016	2-Chloronaphthalene	EPA 625.1
111.160	017	4-Chlorophenyl Phenyl Ether	EPA 625.1
111.160	018	Chrysene	EPA 625.1
111.160	019	Dibenz(a,h)anthracene	EPA 625.1
111.160	020	3,3'-Dichlorobenzidine	EPA 625.1
111.160	021	Diethyl Phthalate	EPA 625.1
111.160	022	Dimethyl Phthalate	EPA 625.1
111.160	023	Di-n-butyl Phthalate	EPA 625.1
111.160	024	2,4-Dinitrotoluene	EPA 625.1

111.160	025	2,6-Dinitrotoluene	EPA 625.1
111.160	026	Di-n-octyl Phthalate	EPA 625.1
111.160	027	Fluoranthene	EPA 625.1
111.160	028	Fluorene	EPA 625.1
111.160	029	Hexachlorobenzene	EPA 625.1
111.160	030	Hexachlorobutadiene	EPA 625.1
111.160	031	Hexachloroethane	EPA 625.1
111.160	032	Indeno(1,2,3-c,d)pyrene	EPA 625.1
111.160	033	Isophorone	EPA 625.1
111.160	034	Naphthalene	EPA 625.1
111.160	035	Nitrobenzene	EPA 625.1
111.160	036	N-nitroso-di-n-propylamine	EPA 625.1
111.160	037	Phenanthrene	EPA 625.1
111.160	038	Pyrene	EPA 625.1
111.160	039	1,2,4-Trichlorobenzene	EPA 625.1
111.160	040	4-Chloro-3-methylphenol	EPA 625.1
111.160	041	2-Chlorophenol	EPA 625.1
111.160	042	2,4-Dichlorophenol	EPA 625.1
111.160	043	2,4-Dimethylphenol	EPA 625.1
111.160	044	2,4-Dinitrophenol	EPA 625.1
111.160	045	2-Methyl-4,6-dinitrophenol	EPA 625.1
111.160	046	2-Nitrophenol	EPA 625.1
111.160	047	4-Nitrophenol	EPA 625.1
111.160	048	Pentachlorophenol	EPA 625.1
111.160	049	Phenol	EPA 625.1
111.160	050	2,4,6-Trichlorophenol	EPA 625.1
111.160	052	Aldrin	EPA 625.1
111.160	055	Atrazine	EPA 625.1
111.160	058	alpha-BHC	EPA 625.1
111.160	059	beta-BHC	EPA 625.1
111.160	060	delta-BHC	EPA 625.1
111.160	061	gamma-BHC (Lindane)	EPA 625.1
111.160	073	Chlorpyrifos	EPA 625.1
111.160	076	4,4'-DDD	EPA 625.1
111.160	077	4,4'-DDE	EPA 625.1
111.160	078	4,4'-DDT	EPA 625.1
111.160	081	Diazinon	EPA 625.1
111.160	083	Dieldrin	EPA 625.1
111.160	085	Disulfoton	EPA 625.1
111.160	086	Endosulfan I	EPA 625.1
111.160	087	Endosulfan II	EPA 625.1
111.160	088	Endosulfan Sulfate	EPA 625.1



111.160	089	Endrin	EPA 625.1
111.160	090	Endrin Aldehyde	EPA 625.1
111.160	096	Heptachlor	EPA 625.1
111.160	097	Heptachlor Epoxide	EPA 625.1
111.160	098	Hexachlorocyclopentadiene	EPA 625.1
111.160	100	Malathion	EPA 625.1
111.160	102	Methoxychlor	EPA 625.1
111.160	108	N-nitrosodimethylamine	EPA 625.1
111.160	110	N-nitrosodiphenylamine	EPA 625.1
111.160	129	Simazine	EPA 625.1
111.160	138	Trifluralin	EPA 625.1
111.160	145	Pyridine	EPA 625.1
111.160	151	2,4,5-Trichlorophenol	EPA 625.1

**Field of Accreditation: 112 - Radionuclides in Non-Potable Water**

112.001	001	Gross Alpha	EPA 900.0
112.001	002	Gross Beta	EPA 900.0
112.003	001	Total Alpha Radium	EPA 903.0

**Field of Accreditation: 114 - Inorganic Constituents in Hazardous Waste**

114.315	002	Antimony	EPA 6010 B
114.315	003	Arsenic	EPA 6010 B
114.315	004	Barium	EPA 6010 B
114.315	005	Beryllium	EPA 6010 B
114.315	007	Cadmium	EPA 6010 B
114.315	009	Chromium	EPA 6010 B
114.315	010	Cobalt	EPA 6010 B
114.315	011	Copper	EPA 6010 B
114.315	013	Lead	EPA 6010 B
114.315	016	Molybdenum	EPA 6010 B
114.315	017	Nickel	EPA 6010 B
114.315	019	Selenium	EPA 6010 B
114.315	020	Silver	EPA 6010 B
114.315	023	Thallium	EPA 6010 B
114.315	026	Vanadium	EPA 6010 B
114.315	027	Zinc	EPA 6010 B
114.335	003	Arsenic	EPA 6020
114.335	005	Beryllium	EPA 6020
114.335	006	Cadmium	EPA 6020
114.335	007	Chromium	EPA 6020
114.335	008	Cobalt	EPA 6020
114.335	010	Lead	EPA 6020
114.335	012	Nickel	EPA 6020
114.335	014	Thallium	EPA 6020

**Field of Accreditation:115 - Leaching/Extraction Tests and Physical Characteristics of Hazardous Waste**

115.055	001	Waste Extraction Test (WET)	CCR Chapter11, Article 5, Appendix II
115.135	001	Corrosivity - pH Determination	EPA 9045 C

**Field of Accreditation:116 - Volatile Organic Compounds in Hazardous Waste**

116.265	001	Benzene	EPA 8260 B
116.265	002	Bromobenzene	EPA 8260 B
116.265	003	Bromochloromethane	EPA 8260 B
116.265	004	Bromodichloromethane	EPA 8260 B
116.265	005	Bromoform	EPA 8260 B
116.265	006	Bromomethane (Methyl Bromide)	EPA 8260 B
116.265	007	n-Butylbenzene	EPA 8260 B
116.265	008	sec-Butylbenzene	EPA 8260 B
116.265	009	tert-Butylbenzene	EPA 8260 B
116.265	010	Carbon Disulfide	EPA 8260 B
116.265	011	Carbon Tetrachloride	EPA 8260 B
116.265	012	Chlorobenzene	EPA 8260 B
116.265	013	Chlorodibromomethane (Dibromochloromethane)	EPA 8260 B
116.265	014	Chloroethane	EPA 8260 B
116.265	015	Chloroform	EPA 8260 B
116.265	016	Chloromethane (Methyl Chloride)	EPA 8260 B
116.265	017	Dibromomethane	EPA 8260 B
116.265	018	Dichlorodifluoromethane (Freon 12)	EPA 8260 B
116.265	019	cis-1,2-Dichloroethylene (cis 1,2 Dichloroethene)	EPA 8260 B
116.265	020	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 8260 B
116.265	021	cis-1,3-Dichloropropylene (cis 1,3 Dichloropropene)	EPA 8260 B
116.265	022	trans-1,3-Dichloropropylene (trans-1,3 Dichloropropene)	EPA 8260 B
116.265	023	Ethylbenzene	EPA 8260 B
116.265	024	Hexachlorobutadiene	EPA 8260 B
116.265	025	Methyl tert-butyl Ether (MTBE)	EPA 8260 B
116.265	026	Methylene Chloride (Dichloromethane)	EPA 8260 B
116.265	029	N-propylbenzene	EPA 8260 B
116.265	030	Styrene	EPA 8260 B
116.265	031	Tetrachloroethylene (Tetrachloroethene)	EPA 8260 B
116.265	032	Toluene	EPA 8260 B
116.265	033	Trichloroethylene (Trichloroethene)	EPA 8260 B
116.265	034	Trichlorofluoromethane	EPA 8260 B
116.265	035	Vinyl Chloride	EPA 8260 B
116.265	036	m+p-Xylene	EPA 8260 B
116.265	037	o-Xylene	EPA 8260 B
116.265	038	m-Xylene	EPA 8260 B
116.265	039	p-Xylene	EPA 8260 B
116.265	040	1,1-Dichloroethane	EPA 8260 B

116.265	041	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 8260 B
116.265	042	1,1,1-Trichloroethane	EPA 8260 B
116.265	043	1,1,1,2-Tetrachloroethane	EPA 8260 B
116.265	044	1,1,2,2-Tetrachloroethane	EPA 8260 B
116.265	045	1,1,2-Trichloroethane	EPA 8260 B
116.265	046	1,2-Dichlorobenzene	EPA 8260 B
116.265	047	1,2-Dichloroethane (Ethylene Dichloride)	EPA 8260 B
116.265	048	1,2-Dibromoethane (EDB)	EPA 8260 B
116.265	049	1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260 B
116.265	050	1,2-Dichloropropane	EPA 8260 B
116.265	051	1,2,3-Trichloropropane (TCP)	EPA 8260 B
116.265	052	1,2,4-Trichlorobenzene	EPA 8260 B
116.265	053	1,3-Dichlorobenzene	EPA 8260 B
116.265	054	1,4-Dichlorobenzene	EPA 8260 B
116.265	055	2-Chloroethyl vinyl Ether	EPA 8260 B
116.265	056	4-Chlorotoluene	EPA 8260 B
116.265	057	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	EPA 8260 B

**Field of Accreditation:117 - Semi-volatile Organic Chemistry of Hazardous Waste**

117.235	002	Diesel Range Organics (DRO)	EPA 8015 B
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**Field of Accreditation:126 - Microbiological Methods for Ambient Water**

126.003	001	Total Coliform (Enumeration)	SM 9221 B,C-2006
126.003	002	Fecal Coliform (Enumeration)	SM 9221 C,E-2006
126.015	001	E. coli (Enumeration)	SM 9223 B-2004 Colilert
126.017	001	E. coli (Enumeration)	SM 9223 B-2004 Colilert 18
126.019	001	Enterococci	Enterolert

**Field of Accreditation:130 - Inorganic constituents in Hazardous waste (Matrix Aqueous)**

130.010	002	Antimony	EPA 6010 B
130.010	003	Arsenic	EPA 6010 B
130.010	004	Barium	EPA 6010 B
130.010	005	Beryllium	EPA 6010 B
130.010	007	Cadmium	EPA 6010 B
130.010	009	Chromium	EPA 6010 B
130.010	010	Cobalt	EPA 6010 B
130.010	011	Copper	EPA 6010 B
130.010	013	Lead	EPA 6010 B
130.010	016	Molybdenum	EPA 6010 B
130.010	017	Nickel	EPA 6010 B
130.010	019	Selenium	EPA 6010 B
130.010	020	Silver	EPA 6010 B
130.010	023	Thallium	EPA 6010 B
130.010	026	Vanadium	EPA 6010 B
130.010	027	Zinc	EPA 6010 B

130.030	003	Arsenic	EPA 6020
130.030	005	Beryllium	EPA 6020
130.030	006	Cadmium	EPA 6020
130.030	007	Chromium	EPA 6020
130.030	008	Cobalt	EPA 6020
130.030	010	Lead	EPA 6020
130.030	012	Nickel	EPA 6020
130.030	014	Thallium	EPA 6020

**Field of Accreditation:131 - Leaching/Extraction, Physical Characteristics in Hazardous Waste (Matrix Aqueous)**

131.010	001	Waste Extraction Test (WET)	CCR Chapter11, Article 5, Appendix II
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**Field of Accreditation:132 - Volatile Organic Compounds in Hazardous Waste (Matrix Aqueous)**

132.060	001	Benzene	EPA 8260 B
132.060	002	Bromobenzene	EPA 8260 B
132.060	003	Bromochloromethane	EPA 8260 B
132.060	004	Bromodichloromethane	EPA 8260 B
132.060	005	Bromoform	EPA 8260 B
132.060	006	Bromomethane (Methyl Bromide)	EPA 8260 B
132.060	007	n-Butylbenzene	EPA 8260 B
132.060	008	sec-Butylbenzene	EPA 8260 B
132.060	009	tert-Butylbenzene	EPA 8260 B
132.060	010	Carbon Disulfide	EPA 8260 B
132.060	011	Carbon Tetrachloride	EPA 8260 B
132.060	012	Chlorobenzene	EPA 8260 B
132.060	013	Chlorodibromomethane (Dibromochloromethane)	EPA 8260 B
132.060	014	Chloroethane	EPA 8260 B
132.060	015	Chloroform	EPA 8260 B
132.060	016	Chloromethane (Methyl Chloride)	EPA 8260 B
132.060	017	Dibromomethane	EPA 8260 B
132.060	018	Dichlorodifluoromethane (Freon 12)	EPA 8260 B
132.060	019	cis-1,2-Dichloroethylene (cis 1,2 Dichloroethene)	EPA 8260 B
132.060	020	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 8260 B
132.060	021	cis-1,3-Dichloropropylene (cis 1,3 Dichloropropene)	EPA 8260 B
132.060	022	trans-1,3-Dichloropropylene (trans-1,3 Dichloropropene)	EPA 8260 B
132.060	023	Ethylbenzene	EPA 8260 B
132.060	024	Hexachlorobutadiene	EPA 8260 B
132.060	025	Methyl tert-butyl Ether (MTBE)	EPA 8260 B
132.060	026	Methylene Chloride (Dichloromethane)	EPA 8260 B
132.060	027	Naphthalene	EPA 8260 B
132.060	029	N-propylbenzene	EPA 8260 B
132.060	030	Styrene	EPA 8260 B
132.060	031	Tetrachloroethylene (Tetrachloroethene)	EPA 8260 B
132.060	032	Toluene	EPA 8260 B

132.060	033	Trichloroethylene (Trichloroethene)	EPA 8260 B
132.060	034	Trichlorofluoromethane	EPA 8260 B
132.060	035	Vinyl Chloride	EPA 8260 B
132.060	036	m+p-Xylene	EPA 8260 B
132.060	037	o-Xylene	EPA 8260 B
132.060	038	m-Xylene	EPA 8260 B
132.060	039	p-Xylene	EPA 8260 B
132.060	040	1,1-Dichloroethane	EPA 8260 B
132.060	041	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 8260 B
132.060	042	1,1,1-Trichloroethane	EPA 8260 B
132.060	043	1,1,1,2-Tetrachloroethane	EPA 8260 B
132.060	044	1,1,2,2-Tetrachloroethane	EPA 8260 B
132.060	045	1,1,2-Trichloroethane	EPA 8260 B
132.060	046	1,2-Dichlorobenzene	EPA 8260 B
132.060	047	1,2-Dichloroethane (Ethylene Dichloride)	EPA 8260 B
132.060	048	1,2-Dibromoethane (EDB)	EPA 8260 B
132.060	049	1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260 B
132.060	050	1,2-Dichloropropane	EPA 8260 B
132.060	051	1,2,3-Trichloropropane (TCP)	EPA 8260 B
132.060	052	1,2,4-Trichlorobenzene	EPA 8260 B
132.060	053	1,3-Dichlorobenzene	EPA 8260 B
132.060	054	1,4-Dichlorobenzene	EPA 8260 B
132.060	055	2-Chloroethyl vinyl Ether	EPA 8260 B
132.060	056	4-Chlorotoluene	EPA 8260 B
132.060	057	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	EPA 8260 B

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**Field of Accreditation: 133 - Semi-Volatile Organic Chemistry in Hazardous Waste (Matrix Aqueous)**

133.010	002	Diesel Range Organics (DRO)	EPA 8015 B
133.090	001	Aldrin	EPA 8081 A
133.090	002	alpha-BHC	EPA 8081 A
133.090	003	beta-BHC	EPA 8081 A
133.090	004	delta-BHC	EPA 8081 A
133.090	005	gamma-BHC (Lindane)	EPA 8081 A
133.090	007	trans-Chlordane	EPA 8081 A
133.090	008	4,4'-DDD	EPA 8081 A
133.090	009	4,4'-DDE	EPA 8081 A
133.090	010	4,4'-DDT	EPA 8081 A
133.090	011	Dieldrin	EPA 8081 A
133.090	012	Endosulfan I	EPA 8081 A
133.090	013	Endosulfan II	EPA 8081 A
133.090	014	Endosulfan Sulfate	EPA 8081 A
133.090	015	Endrin	EPA 8081 A
133.090	016	Endrin Aldehyde	EPA 8081 A

133.090	017	Endrin Ketone	EPA 8081 A
133.090	018	Heptachlor	EPA 8081 A
133.090	019	Heptachlor Epoxide	EPA 8081 A
133.090	020	Methoxychlor	EPA 8081 A
133.090	021	Toxaphene	EPA 8081 A
133.120	001	Aroclor 1016	EPA 8082
133.120	002	Aroclor 1221	EPA 8082
133.120	003	Aroclor 1232	EPA 8082
133.120	004	Aroclor 1242	EPA 8082
133.120	005	Aroclor 1248	EPA 8082
133.120	006	Aroclor 1254	EPA 8082
133.120	007	Aroclor 1260	EPA 8082
133.190	001	Azinphos Methyl	EPA 8141 A
133.190	002	Chlorpyrifos	EPA 8141 A
133.190	003	Demeton-O	EPA 8141 A
133.190	004	Demeton-S	EPA 8141 A
133.190	005	Diazinon	EPA 8141 A
133.190	006	Dichlorvos (DDVP)	EPA 8141 A
133.190	007	Disulfoton	EPA 8141 A
133.190	008	Malathion	EPA 8141 A
133.190	009	Parathion Ethyl	EPA 8141 A
133.190	010	Parathion Methyl	EPA 8141 A
133.190	011	Phorate	EPA 8141 A
133.190	012	Ronnel	EPA 8141 A
133.190	013	Stirophos (Tetrachlorovinphos)	EPA 8141 A
133.230	001	Acenaphthene	EPA 8270 C
133.230	002	Acenaphthylene	EPA 8270 C
133.230	003	Aniline	EPA 8270 C
133.230	004	Anthracene	EPA 8270 C
133.230	005	Benzidine	EPA 8270 C
133.230	006	Benzoic Acid	EPA 8270 C
133.230	007	Benzo(a)anthracene	EPA 8270 C
133.230	008	Benzo(b)fluoranthene	EPA 8270 C
133.230	009	Benzo(k)fluoranthene	EPA 8270 C
133.230	010	Benzo(g,h,i)perylene	EPA 8270 C
133.230	011	Benzo(a)pyrene	EPA 8270 C
133.230	012	Benzyl Alcohol	EPA 8270 C
133.230	013	Bis(2-chloroethoxy) Methane	EPA 8270 C
133.230	014	Bis(2-chloroethyl) Ether	EPA 8270 C
133.230	015	Bis(2-ethylhexyl)phthalate (Di(2-ethylhexyl) phthalate)	EPA 8270 C
133.230	016	Butyl Benzyl Phthalate	EPA 8270 C
133.230	017	Chrysene	EPA 8270 C

133.230	018	Dibenz(a,h)anthracene	EPA 8270 C
133.230	019	Dibenzofuran	EPA 8270 C
133.230	020	Di-n-butyl Phthalate	EPA 8270 C
133.230	021	Diethyl Phthalate	EPA 8270 C
133.230	022	Dimethyl Phthalate	EPA 8270 C
133.230	023	Di-n-octyl Phthalate	EPA 8270 C
133.230	024	Fluoranthene	EPA 8270 C
133.230	025	Fluorene	EPA 8270 C
133.230	026	Naphthalene	EPA 8270 C
133.230	027	Nitrobenzene	EPA 8270 C
133.230	029	Pentachlorophenol	EPA 8270 C
133.230	031	1,2-Dichlorobenzene	EPA 8270 C
133.230	032	1,3-Dichlorobenzene	EPA 8270 C
133.230	033	1,4-Dichlorobenzene	EPA 8270 C
133.230	034	2-Chloronaphthalene	EPA 8270 C
133.230	035	2-Chlorophenol	EPA 8270 C
133.230	036	2,4-Dichlorophenol	EPA 8270 C
133.230	037	2,4-Dimethylphenol	EPA 8270 C
133.230	038	2,4-Dinitrophenol	EPA 8270 C
133.230	039	2,4-Dinitrotoluene	EPA 8270 C
133.230	041	2,6-Dinitrotoluene	EPA 8270 C
133.230	042	2-Nitroaniline	EPA 8270 C
133.230	043	2-Nitrophenol	EPA 8270 C
133.230	044	3-Nitroaniline	EPA 8270 C
133.230	045	3,3'-Dichlorobenzidine	EPA 8270 C
133.230	046	4-Chloroaniline	EPA 8270 C
133.230	047	4-Chloro-3-methylphenol	EPA 8270 C
133.230	048	4-Bromophenyl Phenyl Ether	EPA 8270 C
133.230	049	4-Chlorophenyl Phenyl Ether	EPA 8270 C
133.230	050	4-Nitroaniline	EPA 8270 C
133.230	051	4-Nitrophenol	EPA 8270 C



**CALIFORNIA STATE  
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM  
Fields of Accreditation**



**McCampbell Analytical, Inc.**

1534 Willow Pass Road  
Pittsburg, CA 94565  
Phone: 9252529262

**Certificate Number: 1644  
Expiration Date: 10/31/2022  
INTERIM**

**Field of Accreditation:101 - Microbiology of Drinking Water**

101.010 001	Heterotrophic Bacteria	SM 9215 B
101.010 002	Heterotrophic Bacteria	SimPlate
101.020 001	Total Coliform P/A	SM 9221 B
101.020 002	Fecal Coliform P/A	SM 9221 B,E
101.020 003	E. coli P/A	SM 9221 B,F
101.020 004	Total Coliform (Enumeration)	SM 9221 B,C
101.020 005	Fecal Coliform (Enumeration)	SM 9221 B,E
101.020 006	E. coli (Enumeration)	SM 9221 B,F
101.040 001	Total Coliform P/A	SM 9222 B
101.040 002	Fecal Coliform P/A	SM 9222 D
101.040 005	Total Coliform (Enumeration)	SM 9222 B
101.040 006	Fecal Coliform (Enumeration)	SM 9222 D
101.050 001	Total Coliform P/A	SM 9223 B Colilert
101.050 002	E. coli P/A	SM 9223 B Colilert
101.050 003	Total Coliform (Enumeration)	SM 9223 B Colilert
101.050 004	E. coli (Enumeration)	SM 9223 B Colilert
101.140 001	Enterococci	SM 9230 B
101.170 001	Enterococci	Enterolert

**Field of Accreditation:102 - Inorganic Chemistry of Drinking Water**

102.015 001	Hydrogen Ion (pH)	EPA 150.1
102.020 001	Turbidity	EPA 180.1
102.026 001	Calcium	EPA 200.7
102.026 002	Magnesium	EPA 200.7
102.026 003	Potassium	EPA 200.7
102.026 004	Silica	EPA 200.7
102.026 005	Sodium	EPA 200.7
102.026 006	Hardness (Calculation)	EPA 200.7
102.040 001	Bromide	EPA 300.1
102.040 002	Chlorite	EPA 300.1
102.040 003	Chlorate	EPA 300.1
102.040 004	Bromate	EPA 300.1
102.040 005	Chloride	EPA 300.1
102.040 006	Fluoride	EPA 300.1

As of 1/27/2022 , this list supersedes all previous lists for this certificate number.  
Customers: Please verify the current accreditation standing with the State.



102.040	007	Nitrate (as N)	EPA 300.1
102.040	008	Nitrite (as N)	EPA 300.1
102.040	009	Phosphate,Ortho (as P)	EPA 300.1
102.040	010	Sulfate (as SO4)	EPA 300.1
102.045	001	Perchlorate	EPA 314.0
102.050	001	Cyanide, Total	EPA 335.4
102.086	001	Dissolved Organic Carbon (DOC)	EPA 415.3 Revision 1.2
102.086	003	Organic Carbon-Total (TOC)	EPA 415.3 Revision 1.2
102.095	001	Turbidity	SM 2130 B-2001
102.100	001	Alkalinity	SM 2320 B-1997
102.120	001	Hardness (Calculation)	SM 2340 B-1997
102.121	001	Hardness	SM 2340 C-1997
102.130	001	Specific Conductance	SM 2510 B-1997
102.140	001	Residue, Filterable TDS	SM 2540 C-1997
102.175	001	Chlorine, Free	SM 4500-Cl G-2000
102.175	002	Chlorine, Total Residual	SM 4500-Cl G-2000
102.190	001	Cyanide, Total	SM 4500-CN E-1999
102.192	001	Cyanide, Amenable	SM 4500-CN G-1999
102.203	001	Hydrogen Ion (pH)	SM 4500-H+ B-2000
102.243	001	Silica	SM 4500-SiO2 D-1997
102.260	001	Organic Carbon-Total (TOC)	SM 5310 B-2000
102.261	001	Dissolved Organic Carbon (DOC)	SM 5310 B-2000
102.270	001	Surfactants	SM 5540 C-2000
102.280	001	UV254	SM 5910 B-2011
102.564	001	Cyanide, Total	Kelada-01

**Field of Accreditation:103 - Toxic Chemical Elements of Drinking Water**

103.130	001	Aluminum	EPA 200.7
103.130	009	Iron	EPA 200.7
103.130	011	Manganese	EPA 200.7
103.140	001	Aluminum	EPA 200.8
103.140	002	Antimony	EPA 200.8
103.140	003	Arsenic	EPA 200.8
103.140	004	Barium	EPA 200.8
103.140	005	Beryllium	EPA 200.8
103.140	006	Cadmium	EPA 200.8
103.140	007	Chromium	EPA 200.8
103.140	008	Copper	EPA 200.8
103.140	009	Lead	EPA 200.8
103.140	010	Manganese	EPA 200.8
103.140	011	Mercury	EPA 200.8
103.140	012	Nickel	EPA 200.8
103.140	013	Selenium	EPA 200.8

103.140	014	Silver	EPA 200.8
103.140	015	Thallium	EPA 200.8
103.140	016	Zinc	EPA 200.8
103.140	017	Boron	EPA 200.8
103.140	018	Vanadium	EPA 200.8
103.140	019	Strontium	EPA 200.8
103.160	001	Mercury	EPA 245.1
103.161	001	Mercury	EPA 245.2
103.310	001	Chromium VI (Hexavalent Chromium)	EPA 218.6
103.311	001	Chromium VI (Hexavalent Chromium)	EPA 218.7

**Field of Accreditation: 104 - Volatile Organic Chemistry of Drinking Water**

104.035	001	1,2,3-Trichloropropane (TCP)	SRL 524M-TCP
104.040	001	Benzene	EPA 524.2
104.040	007	n-Butylbenzene	EPA 524.2
104.040	008	sec-Butylbenzene	EPA 524.2
104.040	009	tert-Butylbenzene	EPA 524.2
104.040	010	Carbon Tetrachloride	EPA 524.2
104.040	011	Chlorobenzene	EPA 524.2
104.040	015	2-Chlorotoluene	EPA 524.2
104.040	016	4-Chlorotoluene	EPA 524.2
104.040	019	1,3-Dichlorobenzene	EPA 524.2
104.040	020	1,2-Dichlorobenzene	EPA 524.2
104.040	021	1,4-Dichlorobenzene	EPA 524.2
104.040	022	Dichlorodifluoromethane	EPA 524.2
104.040	023	1,1-Dichloroethane	EPA 524.2
104.040	024	1,2-Dichloroethane (Ethylene Dichloride)	EPA 524.2
104.040	025	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 524.2
104.040	026	cis-1,2-Dichloroethylene (cis 1,2 Dichloroethene)	EPA 524.2
104.040	027	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 524.2
104.040	028	Dichloromethane (Methylene Chloride)	EPA 524.2
104.040	029	1,2-Dichloropropane	EPA 524.2
104.040	033	cis-1,3-Dichloropropylene (cis 1,3 Dichloropropene)	EPA 524.2
104.040	034	trans-1,3-Dichloropropylene (trans-1,3 Dichloropropene)	EPA 524.2
104.040	035	Ethylbenzene	EPA 524.2
104.040	037	Isopropylbenzene	EPA 524.2
104.040	039	Naphthalene	EPA 524.2
104.040	041	N-propylbenzene	EPA 524.2
104.040	042	Styrene	EPA 524.2
104.040	043	1,1,1,2-Tetrachloroethane	EPA 524.2
104.040	044	1,1,2,2-Tetrachloroethane	EPA 524.2
104.040	045	Tetrachloroethylene (Tetrachloroethene)	EPA 524.2
104.040	046	Toluene	EPA 524.2

104.040	047	1,2,3-Trichlorobenzene	EPA 524.2
104.040	048	1,2,4-Trichlorobenzene	EPA 524.2
104.040	049	1,1,1-Trichloroethane	EPA 524.2
104.040	050	1,1,2-Trichloroethane	EPA 524.2
104.040	051	Trichloroethylene (Trichloroethene)	EPA 524.2
104.040	052	Trichlorofluoromethane	EPA 524.2
104.040	054	1,2,4-Trimethylbenzene	EPA 524.2
104.040	055	1,3,5-Trimethylbenzene	EPA 524.2
104.040	056	Vinyl Chloride	EPA 524.2
104.040	061	Carbon Disulfide	EPA 524.2
104.045	001	Bromodichloromethane	EPA 524.2
104.045	002	Bromoform	EPA 524.2
104.045	003	Chloroform	EPA 524.2
104.045	004	Dibromochloromethane (Chlorodibromomethane)	EPA 524.2
104.050	002	Methyl tert-butyl Ether (MTBE)	EPA 524.2
104.050	003	tert-Amyl Methyl Ether (TAME)	EPA 524.2
104.050	004	Ethyl tert-butyl Ether (ETBE)	EPA 524.2
104.050	005	Trichlorotrifluoroethane (Freon 113)	EPA 524.2
104.050	006	t-Butyl alcohol (2-Methyl-2-propanol)	EPA 524.2
104.055	001	Benzene	EPA 524.3
104.055	002	Carbon Tetrachloride	EPA 524.3
104.055	003	Chlorobenzene	EPA 524.3
104.055	004	1,2-Dichlorobenzene	EPA 524.3
104.055	005	1,4-Dichlorobenzene	EPA 524.3
104.055	006	1,2-Dichloroethane (Ethylene Dichloride)	EPA 524.3
104.055	007	cis-1,2-Dichloroethylene (cis 1,2 Dichloroethene)	EPA 524.3
104.055	008	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 524.3
104.055	009	Dichloromethane (Methylene Chloride)	EPA 524.3
104.055	010	1,2-Dichloropropane	EPA 524.3
104.055	011	Ethylbenzene	EPA 524.3
104.055	012	Styrene	EPA 524.3
104.055	013	Tetrachloroethylene (Tetrachloroethene)	EPA 524.3
104.055	014	1,1,1-Trichloroethane	EPA 524.3
104.055	015	Trichloroethylene (Trichloroethene)	EPA 524.3
104.055	016	Toluene	EPA 524.3
104.055	017	1,2,4-Trichlorobenzene	EPA 524.3
104.055	018	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 524.3
104.055	019	1,1,2-Trichloroethane	EPA 524.3
104.055	020	Vinyl Chloride	EPA 524.3
104.055	022	1,2-Dibromo-3-chloropropane (DBCP)	EPA 524.3
104.055	023	1,2-Dibromoethane (EDB)	EPA 524.3
104.056	001	Bromodichloromethane	EPA 524.3

104.056	002	Bromoform	EPA 524.3
104.056	003	Chloroform	EPA 524.3
104.056	004	Dibromochloromethane (Chlorodibromomethane)	EPA 524.3
104.057	001	Di-isopropyl Ether (DIPE)	EPA 524.3
104.057	002	Methyl tert-butyl Ether (MTBE)	EPA 524.3
104.057	003	tert-Amyl Methyl Ether (TAME)	EPA 524.3
104.057	004	Ethyl tert-butyl Ether (ETBE)	EPA 524.3
104.057	005	Trichlorofluoromethane (Freon 11)	EPA 524.3
104.057	006	t-Butyl alcohol (2-Methyl-2-propanol)	EPA 524.3
104.057	007	Trichlorotrifluoroethane (Freon 113)	EPA 524.3

**Field of Accreditation:** 105 - Semi-volatile Organic Chemistry of Drinking Water

105.010	004	Chlordane	EPA 505
105.010	006	Endrin	EPA 505
105.010	007	Heptachlor	EPA 505
105.010	008	Heptachlor Epoxide	EPA 505
105.010	009	Hexachlorobenzene	EPA 505
105.010	010	Hexachlorocyclopentadiene	EPA 505
105.010	011	Lindane (HCH-gamma)	EPA 505
105.010	012	Methoxychlor	EPA 505
105.010	014	Toxaphene	EPA 505
105.010	015	PCBs as Aroclors (screen)	EPA 505
105.082	001	2,4-D	EPA 515.3
105.082	002	Dinoseb	EPA 515.3
105.082	003	Pentachlorophenol	EPA 515.3
105.082	004	Picloram	EPA 515.3
105.082	005	2,4,5-TP (Silvex)	EPA 515.3
105.082	006	Bentazon	EPA 515.3
105.082	007	Dalapon	EPA 515.3
105.082	008	Dicamba	EPA 515.3
105.090	001	Alachlor	EPA 525.2
105.090	003	Atrazine	EPA 525.2
105.090	004	Benzo(a)pyrene	EPA 525.2
105.090	008	Di(2-ethylhexyl) Adipate	EPA 525.2
105.090	009	Di(2-ethylhexyl) Phthalate	EPA 525.2
105.090	016	Hexachlorobenzene	EPA 525.2
105.090	017	Hexachlorocyclopentadiene	EPA 525.2
105.090	022	Molinate	EPA 525.2
105.090	023	Pentachlorophenol	EPA 525.2
105.090	025	Simazine	EPA 525.2
105.091	001	Alachlor	EPA 525.3
105.091	002	Aldrin	EPA 525.3
105.091	003	Atrazine	EPA 525.3

105.091	004	Bromacil	EPA 525.3
105.091	005	Benzo(a)pyrene	EPA 525.3
105.091	006	Butachlor	EPA 525.3
105.091	007	Chlordane	EPA 525.3
105.091	008	Diazinon	EPA 525.3
105.091	009	Di(2-ethylhexyl) Adipate	EPA 525.3
105.091	010	Di(2-ethylhexyl) Phthalate	EPA 525.3
105.091	011	Endrin	EPA 525.3
105.091	012	Heptachlor	EPA 525.3
105.091	013	Heptachlor Epoxide	EPA 525.3
105.091	014	Hexachlorobenzene	EPA 525.3
105.091	015	Hexachlorocyclopentadiene	EPA 525.3
105.091	016	Lindane (HCH-gamma)	EPA 525.3
105.091	017	Methoxychlor	EPA 525.3
105.091	018	Metolachlor	EPA 525.3
105.091	019	Metribuzin	EPA 525.3
105.091	020	Molinate	EPA 525.3
105.091	021	Pentachlorophenol	EPA 525.3
105.091	022	Propachlor	EPA 525.3
105.091	023	Simazine	EPA 525.3
105.091	024	Thiobencarb	EPA 525.3
105.091	025	Toxaphene	EPA 525.3
105.091	027	Dieldrin	EPA 525.3
105.100	001	Aldicarb (Temik)	EPA 531.1
105.100	002	Aldicarb Sulfone	EPA 531.1
105.100	003	Aldicarb Sulfoxide	EPA 531.1
105.100	004	Carbaryl (Sevin)	EPA 531.1
105.100	005	Carbofuran (Furadan)	EPA 531.1
105.100	006	3-Hydroxycarbofuran	EPA 531.1
105.100	007	Methomyl (Lannate)	EPA 531.1
105.100	008	Oxamyl	EPA 531.1
105.106	001	11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	EPA 537.1
105.106	002	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	EPA 537.1
105.106	003	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	EPA 537.1
105.106	004	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	EPA 537.1
105.106	005	N-Ethylperfluorooctane Sulfonamido Acetic Acid (NEtFOSAA)	EPA 537.1
105.106	006	N-Methylperfluorooctane Sulfonamido Acetic Acid (NMeFOSAA)	EPA 537.1
105.106	007	Perfluorobutane Sulfonic Acid (PFBS)	EPA 537.1
105.106	008	Perfluorodecanoic Acid (PFDA)	EPA 537.1
105.106	009	Perfluorododecanoic Acid (PFDoA)	EPA 537.1
105.106	010	Perfluoroheptanoic Acid (PFHpA)	EPA 537.1
105.106	011	Perfluorohexane Sulfonic Acid (PFHxS)	EPA 537.1

105.106	012	Perfluorohexanoic Acid (PFHxA)	EPA 537.1
105.106	013	Perfluorononanoic Acid (PFNA)	EPA 537.1
105.106	014	Perfluorooctanoic Acid (PFOA)	EPA 537.1
105.106	015	Perfluorooctane Sulfonic Acid (PFOS)	EPA 537.1
105.106	016	Perfluorotetradecanoic Acid (PFTDA)	EPA 537.1
105.106	017	Perfluorotridecanoic Acid (PFTrDA)	EPA 537.1
105.106	018	Perfluoroundecanoic Acid (PFUnDA)	EPA 537.1
105.120	001	Glyphosate	EPA 547
105.140	001	Endothall	EPA 548.1
105.150	001	Diquat	EPA 549.2
105.200	001	Bromoacetic Acid	EPA 552.2
105.200	003	Chloroacetic Acid	EPA 552.2
105.200	005	Dibromoacetic Acid	EPA 552.2
105.200	006	Dichloroacetic Acid	EPA 552.2
105.200	007	Trichloroacetic Acid	EPA 552.2
105.230	001	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	EPA 1613 B
105.230	002	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) Screening Only	EPA 1613 B

**Field of Accreditation:107 - Microbiological Methods for Non-Potable Water and Sewage Sludge**

107.001	001	Total Coliform (Enumeration)	SM 9221 B,C-2006
107.001	002	Fecal Coliform (Enumeration)	SM 9221 C,E-2006
107.001	003	E. coli (Enumeration)	SM 9221 C,F-2006
107.003	001	Total Coliform (Enumeration)	SM 9222 B-2006
107.003	002	Fecal Coliform (Enumeration)	SM 9222 D-2006
107.007	001	Enterococci	SM 9230 B-2007
107.013	001	E. coli (Enumeration)	SM 9223 B-2004 Colilert
107.017	001	Enterococci	Enterolert

**Field of Accreditation:108 - Inorganic Constituents in Non-Potable Water**

108.001	001	Specific Conductance	EPA 120.1 (1982 Rev.1.0)
108.007	001	Residue, Volatile	EPA 160.4
108.009	001	Turbidity	EPA 180.1
108.009	001	Turbidity	EPA 180.1 (1993 Rev. 2.0)
108.013	001	Calcium	EPA 200.7 (1994 Rev. 4.4)
108.013	002	Magnesium	EPA 200.7 (1994 Rev. 4.4)
108.013	003	Phosphorus, Total	EPA 200.7 (1994 Rev. 4.4)
108.013	004	Potassium	EPA 200.7 (1994 Rev. 4.4)
108.013	006	Sodium	EPA 200.7 (1994 Rev. 4.4)
108.019	001	Bromide	EPA 300.1 (1997 Rev.1.0)
108.019	002	Chloride	EPA 300.1 (1997 Rev.1.0)
108.019	003	Fluoride	EPA 300.1 (1997 Rev.1.0)
108.019	004	Nitrate (as N)	EPA 300.1 (1997 Rev.1.0)
108.019	005	Nitrate-Nitrite (as N)	EPA 300.1 (1997 Rev.1.0)
108.019	006	Nitrite (as N)	EPA 300.1 (1997 Rev.1.0)

108.019	007	Phosphate,Ortho (as P)	EPA 300.1 (1997 Rev.1.0)
108.019	008	Sulfate (as SO4)	EPA 300.1 (1997 Rev.1.0)
108.023	001	Cyanide, Total	EPA 335.4 (1993 Rev. 1.0)
108.025	001	Ammonia (as N)	EPA 350.1 (1993 Rev. 2.0)
108.029	001	Kjeldahl Nitrogen,Total (as N)	EPA 351.2 (1993 Rev. 2.0)
108.033	001	Nitrate-Nitrite (as N)	EPA 353.2 (1993 Rev. 2.0)
108.035	002	Phosphorus,Total	EPA 365.1 (1993 Rev. 2.0)
108.037	001	Phosphate,Ortho (as P)	EPA 365.3 (1978)
108.045	001	Chemical Oxygen Demand	EPA 410.4 (1993 Rev. 2.0)
108.047	001	Phenols, Total	EPA 420.1 (1978 Rev. 1.0)
108.049	001	Phenols, Total	EPA 420.4 (1993 Rev. 2.0)
108.053	001	Oil & Grease, Total Recoverable	EPA 1664 A
108.063	001	Alkalinity	SM 2320 B-2011
108.065	001	Hardness (Calculation)	SM 2340 B-2011
108.067	001	Hardness	SM 2340 C-2011
108.069	001	Specific Conductance	SM 2510 B-2011
108.071	001	Residue, Total	SM 2540 B-2011
108.075	001	Residue, Non-filterable TSS	SM 2540 D-2011
108.077	001	Residue, Volatile	SM 2540 E-2011
108.079	001	Residue, Settleable	SM 2540 F-2011
108.108	001	Chlorine, Total Residual	SM 4500-Cl E-2011
108.114	001	Chlorine, Total Residual	SM 4500-Cl G-2011
108.114	002	Chlorine, Free	SM 4500-Cl G-2011
108.125	001	Cyanide, Total	SM 4500-CN E-2011
108.129	001	Cyanide, Available	SM 4500-CN G-2011
108.137	001	Hydrogen Ion (pH)	SM 4500-H+ B-2011
108.147	001	Ammonia (as N)	SM 4500-NH3 G-2011
108.159	001	Nitrate-Nitrite (as N)	SM 4500-NO3 F-2011
108.173	001	Oxygen, Dissolved	SM 4500-O G-2011
108.207	001	Biochemical Oxygen Demand	SM 5210 B-2011
108.207	002	Carbonaceous BOD	SM 5210 B-2011
108.213	001	Chemical Oxygen Demand	SM 5220 D-2011
108.215	001	Organic Carbon-Total (TOC)	SM 5310 B-2011
108.225	001	Surfactants	SM 5540 C-2011
108.335	001	Cyanide, Total	Kelada-01
108.335	002	Cyanide, Available	Kelada-01

**Field of Accreditation:109 - Metals and Trace Elements in Non-Potable Water**

109.623	001	Aluminum	EPA 200.7 (1994 Rev. 4.4)
109.623	006	Boron	EPA 200.7 (1994 Rev. 4.4)
109.623	011	Iron	EPA 200.7 (1994 Rev. 4.4)
109.623	013	Manganese	EPA 200.7 (1994 Rev. 4.4)
109.625	001	Aluminum	EPA 200.8 (1994 Rev. 5.4)

109.625	002	Antimony	EPA 200.8 (1994 Rev. 5.4)
109.625	003	Arsenic	EPA 200.8 (1994 Rev. 5.4)
109.625	004	Barium	EPA 200.8 (1994 Rev. 5.4)
109.625	005	Beryllium	EPA 200.8 (1994 Rev. 5.4)
109.625	006	Boron	EPA 200.8 (1994 Rev. 5.4)
109.625	007	Cadmium	EPA 200.8 (1994 Rev. 5.4)
109.625	008	Chromium	EPA 200.8 (1994 Rev. 5.4)
109.625	009	Cobalt	EPA 200.8 (1994 Rev. 5.4)
109.625	010	Copper	EPA 200.8 (1994 Rev. 5.4)
109.625	012	Iron	EPA 200.8 (1994 Rev. 5.4)
109.625	013	Lead	EPA 200.8 (1994 Rev. 5.4)
109.625	014	Manganese	EPA 200.8 (1994 Rev. 5.4)
109.625	015	Molybdenum	EPA 200.8 (1994 Rev. 5.4)
109.625	016	Nickel	EPA 200.8 (1994 Rev. 5.4)
109.625	017	Selenium	EPA 200.8 (1994 Rev. 5.4)
109.625	018	Silver	EPA 200.8 (1994 Rev. 5.4)
109.625	019	Thallium	EPA 200.8 (1994 Rev. 5.4)
109.625	020	Tin	EPA 200.8 (1994 Rev. 5.4)
109.625	021	Titanium	EPA 200.8 (1994 Rev. 5.4)
109.625	022	Vanadium	EPA 200.8 (1994 Rev. 5.4)
109.625	023	Zinc	EPA 200.8 (1994 Rev. 5.4)
109.629	001	Chromium VI (Hexavalent Chromium)	EPA 218.6 (1994 Rev. 3.3)
109.635	001	Mercury	EPA 245.1 (1994 Rev. 3.0)
109.637	001	Mercury	EPA 245.2 (1974)
109.657	001	Mercury	EPA 1631 E (2002)

**Field of Accreditation: 110 - Volatile Organic Constituents in Non-Potable Water**

110.040	001	Acetone	EPA 624.1
110.040	003	Acrolein	EPA 624.1
110.040	004	Acrylonitrile	EPA 624.1
110.040	005	Benzene	EPA 624.1
110.040	006	Bromodichloromethane	EPA 624.1
110.040	007	Bromoform	EPA 624.1
110.040	008	Bromomethane (Methyl Bromide)	EPA 624.1
110.040	010	Carbon Tetrachloride	EPA 624.1
110.040	011	Chlorobenzene	EPA 624.1
110.040	012	Chloroethane	EPA 624.1
110.040	013	2-Chloroethyl vinyl Ether	EPA 624.1
110.040	014	Chloroform	EPA 624.1
110.040	015	Chloromethane (Methyl Chloride)	EPA 624.1
110.040	016	Dibromochloromethane (Chlorodibromomethane)	EPA 624.1
110.040	017	1,2-Dichlorobenzene	EPA 624.1
110.040	018	1,3-Dichlorobenzene	EPA 624.1



110.040	019	1,4-Dichlorobenzene	EPA 624.1
110.040	020	1,1-Dichloroethane	EPA 624.1
110.040	021	1,2-Dichloroethane (Ethylene Dichloride)	EPA 624.1
110.040	022	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 624.1
110.040	024	1,2-Dichloropropane	EPA 624.1
110.040	025	cis-1,3-Dichloropropylene (cis 1,3 Dichloropropene)	EPA 624.1
110.040	026	trans-1,3-Dichloropropylene (trans-1,3 Dichloropropene)	EPA 624.1
110.040	029	Ethylbenzene	EPA 624.1
110.040	031	Methylene Chloride (Dichloromethane)	EPA 624.1
110.040	032	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	EPA 624.1
110.040	034	1,1,2,2-Tetrachloroethane	EPA 624.1
110.040	035	Tetrachloroethylene (Tetrachloroethene)	EPA 624.1
110.040	037	Toluene	EPA 624.1
110.040	038	1,1,1-Trichloroethane	EPA 624.1
110.040	039	1,1,2-Trichloroethane	EPA 624.1
110.040	040	Trichloroethylene (Trichloroethene)	EPA 624.1
110.040	041	Vinyl Chloride	EPA 624.1
110.040	043	o-Xylene	EPA 624.1
110.040	045	Trichlorofluoromethane	EPA 624.1
110.040	046	m+p-Xylene	EPA 624.1

**Field of Accreditation: 111 - Semi-volatile Organic Constituents in Non-Potable Water**

111.055	001	Aldrin	EPA 608.3
111.055	002	alpha-BHC	EPA 608.3
111.055	003	beta-BHC	EPA 608.3
111.055	004	delta-BHC	EPA 608.3
111.055	005	gamma-BHC (Lindane)	EPA 608.3
111.055	006	Chlordane	EPA 608.3
111.055	007	4,4'-DDD	EPA 608.3
111.055	008	4,4'-DDE	EPA 608.3
111.055	009	4,4'-DDT	EPA 608.3
111.055	010	Dieldrin	EPA 608.3
111.055	011	Endosulfan I	EPA 608.3
111.055	012	Endosulfan II	EPA 608.3
111.055	013	Endosulfan Sulfate	EPA 608.3
111.055	014	Endrin	EPA 608.3
111.055	015	Endrin Aldehyde	EPA 608.3
111.055	016	Heptachlor	EPA 608.3
111.055	017	Heptachlor Epoxide	EPA 608.3
111.055	019	PCB-1016 (Aroclor-1016)	EPA 608.3
111.055	020	PCB-1221 (Aroclor-1221)	EPA 608.3
111.055	021	PCB-1232 (Aroclor-1232)	EPA 608.3
111.055	022	PCB-1242 (Aroclor-1242)	EPA 608.3

111.055	023	PCB-1248 (Aroclor-1248)	EPA 608.3
111.055	024	PCB-1254 (Aroclor-1254)	EPA 608.3
111.055	025	PCB-1260 (Aroclor-1260)	EPA 608.3
111.055	046	Methoxychlor	EPA 608.3
111.055	060	Toxaphene	EPA 608.3
111.070	001	Acenaphthene	EPA 610
111.070	002	Acenaphthylene	EPA 610
111.070	003	Anthracene	EPA 610
111.070	004	Benzo(a)anthracene	EPA 610
111.070	005	Benzo(a)pyrene	EPA 610
111.070	006	Benzo(b)fluoranthene	EPA 610
111.070	007	Benzo(g,h,i)perylene	EPA 610
111.070	008	Benzo(k)fluoranthene	EPA 610
111.070	009	Chrysene	EPA 610
111.070	010	Dibenz(a,h)anthracene	EPA 610
111.070	011	Fluoranthene	EPA 610
111.070	012	Fluorene	EPA 610
111.070	013	Indeno(1,2,3-c,d)pyrene	EPA 610
111.070	014	Naphthalene	EPA 610
111.070	015	Phenanthrene	EPA 610
111.070	016	Pyrene	EPA 610
111.110	001	Azinphos Methyl	EPA 614
111.110	004	Diazinon	EPA 614
111.110	005	Disulfoton	EPA 614
111.110	006	Ethion	EPA 614
111.110	007	Malathion	EPA 614
111.110	008	Parathion Ethyl	EPA 614
111.110	009	Parathion Methyl	EPA 614
111.160	001	Acenaphthene	EPA 625.1
111.160	002	Acenaphthylene	EPA 625.1
111.160	003	Anthracene	EPA 625.1
111.160	004	Benzidine	EPA 625.1
111.160	005	Benzo(a)anthracene	EPA 625.1
111.160	006	Benzo(a)pyrene	EPA 625.1
111.160	007	Benzo(b)fluoranthene	EPA 625.1
111.160	008	Benzo(g,h,i)perylene	EPA 625.1
111.160	009	Benzo(k)fluoranthene	EPA 625.1
111.160	010	Bis(2-chloroethoxy) Methane	EPA 625.1
111.160	011	Bis(2-chloroethyl) Ether	EPA 625.1
111.160	013	Bis(2-ethylhexyl)phthalate (Di(2-ethylhexyl) phthalate)	EPA 625.1
111.160	014	4-Bromophenyl Phenyl Ether	EPA 625.1
111.160	015	Butyl Benzyl Phthalate	EPA 625.1

111.160	016	2-Chloronaphthalene	EPA 625.1
111.160	017	4-Chlorophenyl Phenyl Ether	EPA 625.1
111.160	018	Chrysene	EPA 625.1
111.160	019	Dibenz(a,h)anthracene	EPA 625.1
111.160	020	3,3'-Dichlorobenzidine	EPA 625.1
111.160	021	Diethyl Phthalate	EPA 625.1
111.160	022	Dimethyl Phthalate	EPA 625.1
111.160	023	Di-n-butyl Phthalate	EPA 625.1
111.160	024	2,4-Dinitrotoluene	EPA 625.1
111.160	025	2,6-Dinitrotoluene	EPA 625.1
111.160	026	Di-n-octyl Phthalate	EPA 625.1
111.160	027	Fluoranthene	EPA 625.1
111.160	028	Fluorene	EPA 625.1
111.160	029	Hexachlorobenzene	EPA 625.1
111.160	030	Hexachlorobutadiene	EPA 625.1
111.160	031	Hexachloroethane	EPA 625.1
111.160	032	Indeno(1,2,3-c,d)pyrene	EPA 625.1
111.160	033	Isophorone	EPA 625.1
111.160	034	Naphthalene	EPA 625.1
111.160	035	Nitrobenzene	EPA 625.1
111.160	036	N-nitroso-di-n-propylamine	EPA 625.1
111.160	037	Phenanthrene	EPA 625.1
111.160	038	Pyrene	EPA 625.1
111.160	039	1,2,4-Trichlorobenzene	EPA 625.1
111.160	040	4-Chloro-3-methylphenol	EPA 625.1
111.160	041	2-Chlorophenol	EPA 625.1
111.160	042	2,4-Dichlorophenol	EPA 625.1
111.160	043	2,4-Dimethylphenol	EPA 625.1
111.160	044	2,4-Dinitrophenol	EPA 625.1
111.160	045	2-Methyl-4,6-dinitrophenol	EPA 625.1
111.160	046	2-Nitrophenol	EPA 625.1
111.160	047	4-Nitrophenol	EPA 625.1
111.160	048	Pentachlorophenol	EPA 625.1
111.160	049	Phenol	EPA 625.1
111.160	050	2,4,6-Trichlorophenol	EPA 625.1
111.160	056	Azinphos Methyl	EPA 625.1
111.160	073	Chlorpyrifos	EPA 625.1
111.160	081	Diazinon	EPA 625.1
111.160	082	Dichlorvos (DDVP)	EPA 625.1
111.160	085	Disulfoton	EPA 625.1
111.160	091	Ethion	EPA 625.1
111.160	092	Ethoprop	EPA 625.1

111.160	098	Hexachlorocyclopentadiene	EPA 625.1
111.160	100	Malathion	EPA 625.1
111.160	110	N-nitrosodiphenylamine	EPA 625.1
111.160	112	Parathion Methyl	EPA 625.1
111.160	122	Phorate	EPA 625.1
111.160	130	Stirophos (Tetrachlorovinphos)	EPA 625.1
111.160	134	Terbufos	EPA 625.1
111.160	140	Carbazole	EPA 625.1
111.160	141	o-Cresol	EPA 625.1
111.160	145	Pyridine	EPA 625.1
111.160	147	m+p-Cresol	EPA 625.1
111.160	148	2-Methylnaphthalene	EPA 625.1
111.160	149	1-Methylphenanthrene	EPA 625.1
111.160	901	Bifenthrin	EPA 625.1
111.160	902	Cyfluthrin	EPA 625.1
111.160	903	Cypermethrin	EPA 625.1
111.160	904	Esfenvalerate	EPA 625.1
111.160	905	Lambda-Cyhalothrin	EPA 625.1
111.160	906	Permethrin (total)	EPA 625.1
111.250	001	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	EPA 1613 B
111.250	002	Total Tetrachlorodibenzo-p-dioxin (TCDD)	EPA 1613 B
111.250	003	2,3,7,8-Tetrachlorodibenzofuran (TCDF)	EPA 1613 B
111.250	004	Total Tetrachlorodibenzofuran (TCDF)	EPA 1613 B
111.250	005	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	EPA 1613 B
111.250	006	Total Pentachlorodibenzo-p-dioxin (PeCDD)	EPA 1613 B
111.250	007	1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	EPA 1613 B
111.250	008	2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	EPA 1613 B
111.250	009	Total Pentachlorodibenzofuran (PeCDF)	EPA 1613 B
111.250	010	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	EPA 1613 B
111.250	011	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	EPA 1613 B
111.250	012	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	EPA 1613 B
111.250	013	Total Hexachlorodibenzo-p-dioxin (HxCDD)	EPA 1613 B
111.250	014	1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	EPA 1613 B
111.250	015	1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	EPA 1613 B
111.250	016	1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	EPA 1613 B
111.250	017	2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	EPA 1613 B
111.250	018	Total Hexachlorodibenzofuran (HxCDF)	EPA 1613 B
111.250	019	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	EPA 1613 B
111.250	020	Total Heptachlorodibenzo-p-dioxin (HpCDD)	EPA 1613 B
111.250	021	1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	EPA 1613 B
111.250	022	1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	EPA 1613 B
111.250	023	Total Heptachlorodibenzofuran (HpCDF)	EPA 1613 B

111.250	024	OCDD	EPA 1613 B
111.250	025	OCDF	EPA 1613 B
111.345	001	N-Ethylperfluorooctane Sulfonamido Acetic Acid (NEtFOSAA)	DoD QSM Version 5.1 (or newe
111.345	002	4:2 Fluorotelomer Sulfonic Acid (4:2 FTS)	DoD QSM Version 5.1 (or newe
111.345	003	6:2 Fluorotelomer Sulfonic Acid (6:2 FTS)	DoD QSM Version 5.1 (or newe
111.345	004	8:2 Fluorotelomer Sulfonic Acid (8:2 FTS)	DoD QSM Version 5.1 (or newe
111.345	005	N-Methylperfluorooctane Sulfonamido Acetic Acid (NMeFOSAA)	DoD QSM Version 5.1 (or newe
111.345	006	Perfluorobutanoic Acid (PFBA)	DoD QSM Version 5.1 (or newe
111.345	007	Perfluorobutane Sulfonic Acid (PFBS)	DoD QSM Version 5.1 (or newe
111.345	008	Perfluorodecanoic Acid (PFDA)	DoD QSM Version 5.1 (or newe
111.345	009	Perfluorododecanoic Acid (PFDoA)	DoD QSM Version 5.1 (or newe
111.345	010	Perfluorodecane Sulfonic Acid (PFDS)	DoD QSM Version 5.1 (or newe
111.345	011	Perfluoroheptanoic Acid (PFHpA)	DoD QSM Version 5.1 (or newe
111.345	012	Perfluoroheptane Sulfonic Acid (PFHpS)	DoD QSM Version 5.1 (or newe
111.345	013	Perfluorohexane Sulfonic Acid (PFHxS)	DoD QSM Version 5.1 (or newe
111.345	014	Perfluorohexanoic Acid (PFHxA)	DoD QSM Version 5.1 (or newe
111.345	015	Perfluorononanoic Acid (PFNA)	DoD QSM Version 5.1 (or newe
111.345	016	Perfluorooctanoic Acid (PFOA)	DoD QSM Version 5.1 (or newe
111.345	017	Perfluorooctane Sulfonic Acid (PFOS)	DoD QSM Version 5.1 (or newe
111.345	018	Perfluorooctane Sulfonamide (PFOSAm)	DoD QSM Version 5.1 (or newe
111.345	019	Perfluoropentanoic Acid (PFPeA)	DoD QSM Version 5.1 (or newe
111.345	020	Perfluoropentane Sulfonic Acid (PFPeS)	DoD QSM Version 5.1 (or newe
111.345	021	Perfluorotetradecanoic Acid (PFTDA)	DoD QSM Version 5.1 (or newe
111.345	022	Perfluorotridecanoic Acid (PFTrDA)	DoD QSM Version 5.1 (or newe
111.345	023	Perfluoroundecanoic Acid (PFUnDA)	DoD QSM Version 5.1 (or newe
111.345	024	11-Chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	DoD QSM Version 5.1 (or newe
111.345	025	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	DoD QSM Version 5.1 (or newe
111.345	026	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	DoD QSM Version 5.1 (or newe
111.345	027	N-Ethylperfluorooctane Sulfonamide (EtFOSAm)	DoD QSM Version 5.1 (or newe
111.345	028	N-Ethylperfluorooctane Sulfonamido Ethanol (EtFOSE)	DoD QSM Version 5.1 (or newe
111.345	030	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	DoD QSM Version 5.1 (or newe
111.345	031	N-Methylperfluorooctane Sulfonamide (NMeFOSA)	DoD QSM Version 5.1 (or newe
111.345	032	N-Methylperfluorooctane Sulfonamido Ethanol (NMeFOSE)	DoD QSM Version 5.1 (or newe
111.345	033	Perfluorohexadecanoic Acid (PFHxDA)	DoD QSM Version 5.1 (or newe
111.345	034	Perfluorononane Sulfonic Acid (PFNS)	DoD QSM Version 5.1 (or newe
111.345	035	Perfluorooctadecanoic Acid (PFODA)	DoD QSM Version 5.1 (or newe

**Field of Accreditation:** 113 - Environmental Toxicity Methods

113.010	001	Fathead Minnow ( <i>P. promelas</i> )	Polisini & Miller (CDFG 1988)
113.010	003	Rainbow trout ( <i>O. mykiss</i> )	Polisini & Miller (CDFG 1988)
113.011	001A	Fathead Minnow ( <i>P. promelas</i> )	EPA 2000.0, Static
113.011	001B	Fathead Minnow ( <i>P. promelas</i> )	EPA 2000.0, Static Renewal
113.011	001C	Fathead Minnow ( <i>P. promelas</i> )	EPA 2000.0, Continuous Flow

113.012	011A	Daphnid ( <i>C. dubia</i> )	EPA 2002.0, Static
113.012	011B	Daphnid ( <i>C. dubia</i> )	EPA 2002.0, Static Renewal
113.013	003A	Rainbow trout ( <i>O. mykiss</i> )	EPA 2019.0, Static
113.013	003B	Rainbow trout ( <i>O. mykiss</i> )	EPA 2019.0, Static Renewal
113.013	003C	Rainbow trout ( <i>O. mykiss</i> )	EPA 2019.0, Continuous Flow
113.014	012A	Daphnids ( <i>Daphnia</i> spp.)	EPA 2021.0, Static
113.014	012B	Daphnids ( <i>Daphnia</i> spp.)	EPA 2021.0, Static Renewal
113.015	008A	Midge ( <i>C. tentans</i> )	EPA-821-R-02-012, Static
113.015	008B	Midge ( <i>C. tentans</i> )	EPA-821-R-02-012, Static Rene
113.015	017A	Amphipod ( <i>Hyalella</i> spp.)	EPA-821-R-02-012, Static
113.015	017B	Amphipod ( <i>Hyalella</i> spp.)	EPA-821-R-02-012, Static Rene
113.020	002A	Sheepshead minnow ( <i>C. variegatus</i> )	EPA 2004.0, Static
113.020	002B	Sheepshead minnow ( <i>C. variegatus</i> )	EPA 2004.0, Static Renewal
113.020	002C	Sheepshead minnow ( <i>C. variegatus</i> )	EPA 2004.0, Continuous Flow
113.021	006A	Silverside ( <i>Menidia</i> spp.)	EPA 2006.0, Static
113.021	006B	Silverside ( <i>Menidia</i> spp.)	EPA 2006.0, Static Renewal
113.021	006C	Silverside ( <i>Menidia</i> spp.)	EPA 2006.0, Continuous Flow
113.022	009A	Mysid ( <i>M. bahia</i> )	EPA 2007.0, Static
113.022	009B	Mysid ( <i>M. bahia</i> )	EPA 2007.0, Static Renewal
113.022	009C	Mysid ( <i>M. bahia</i> )	EPA 2007.0, Continuous Flow
113.023	007A	Topsmelt ( <i>A. affinis</i> )	EPA-821-R-02-012, Static
113.023	007B	Topsmelt ( <i>A. affinis</i> )	EPA-821-R-02-012, Static Rene
113.023	007C	Topsmelt ( <i>A. affinis</i> )	EPA-821-R-02-012, Continuous
113.030	001	Fathead Minnow ( <i>P. promelas</i> )	EPA 1000.0
113.032	011	Daphnid ( <i>C. dubia</i> )	EPA 1002.0
113.033	025	Green algae ( <i>S. capricornutum</i> )	EPA 1003.0
113.034	025	Green algae ( <i>S. capricornutum</i> )	ASTM E1218-04
113.040	002	Sheepshead minnow ( <i>C. variegatus</i> )	EPA 1004.0
113.042	006	Silverside ( <i>Menidia</i> spp.)	EPA 1006.0
113.043	009	Mysid ( <i>M. bahia</i> )	EPA 1007.0
113.045	007	Topsmelt ( <i>A. affinis</i> )	EPA 600/R-95/136
113.045	019A	Sand dollar ( <i>D. excentricus</i> )	EPA 600/R-95/136, Fertilization
113.045	019B	Sand dollar ( <i>D. excentricus</i> )	EPA 600/R-95/136, Developme
113.045	021A	Purple sea urchin ( <i>S. purpuratus</i> )	EPA 600/R-95/136, Fertilization
113.045	021B	Purple sea urchin ( <i>S. purpuratus</i> )	EPA 600/R-95/136, Developme
113.045	023	Mussels ( <i>Mytilus</i> spp.)	EPA 600/R-95/136
113.045	024	Giant Kelp ( <i>M. pyrifera</i> )	EPA 600/R-95/136
113.046	026	Diatom ( <i>T. pseudonana</i> )	ASTM E1218-04
113.050	013	Amphipod ( <i>H. azteca</i> )	EPA 600/R-99/064, EPA 100.1
113.051	008	Midge ( <i>C. tentans</i> )	EPA 600/R-99/064, EPA 100.2
113.060	014	Amphipod ( <i>E. estuarius</i> )	EPA 600/R-94/025, EPA 100.4
113.060	015	Amphipod ( <i>L. plumulosus</i> )	EPA 600/R-94/025, EPA 100.4

113.060	016	Amphipod (R. abronius)	EPA 600/R-94/025, EPA 100.4
113.060	028	Amphipod (A. abdita)	EPA 600/R-94/025, EPA 100.4

**Field of Accreditation: 114 - Inorganic Constituents in Hazardous Waste**

114.315	001	Aluminum	EPA 6010 B
114.315	002	Antimony	EPA 6010 B
114.315	003	Arsenic	EPA 6010 B
114.315	004	Barium	EPA 6010 B
114.315	005	Beryllium	EPA 6010 B
114.315	006	Boron	EPA 6010 B
114.315	007	Cadmium	EPA 6010 B
114.315	008	Calcium	EPA 6010 B
114.315	009	Chromium	EPA 6010 B
114.315	010	Cobalt	EPA 6010 B
114.315	011	Copper	EPA 6010 B
114.315	012	Iron	EPA 6010 B
114.315	013	Lead	EPA 6010 B
114.315	014	Magnesium	EPA 6010 B
114.315	015	Manganese	EPA 6010 B
114.315	016	Molybdenum	EPA 6010 B
114.315	017	Nickel	EPA 6010 B
114.315	018	Potassium	EPA 6010 B
114.315	019	Selenium	EPA 6010 B
114.315	020	Silver	EPA 6010 B
114.315	021	Sodium	EPA 6010 B
114.315	022	Strontium	EPA 6010 B
114.315	023	Thallium	EPA 6010 B
114.315	026	Vanadium	EPA 6010 B
114.315	027	Zinc	EPA 6010 B
114.335	001	Aluminum	EPA 6020
114.335	002	Antimony	EPA 6020
114.335	003	Arsenic	EPA 6020
114.335	004	Barium	EPA 6020
114.335	005	Beryllium	EPA 6020
114.335	006	Cadmium	EPA 6020
114.335	007	Chromium	EPA 6020
114.335	008	Cobalt	EPA 6020
114.335	009	Copper	EPA 6020
114.335	010	Lead	EPA 6020
114.335	011	Manganese	EPA 6020
114.335	012	Nickel	EPA 6020
114.335	013	Silver	EPA 6020
114.335	014	Thallium	EPA 6020

114.335	015	Zinc	EPA 6020
114.335	016	Molybdenum	EPA 6020
114.335	017	Selenium	EPA 6020
114.335	018	Vanadium	EPA 6020
114.345	015	Mercury	EPA 6020 B
114.465	001	Chromium VI (Hexavalent Chromium)	EPA 7199
114.545	001	Mercury	EPA 7471 B
114.765	001	Organic Carbon-Total (TOC)	EPA 9060 A
114.805	001	Oil & Grease (n-Hexane Extractable Materials)	EPA 9071 B

**Field of Accreditation: 115 - Leaching/Extraction Tests and Physical Characteristics of Hazardous Waste**

115.055	001	Waste Extraction Test (WET)	CCR Chapter 11, Article 5, Appe
115.085	001	Toxicity Characteristic Leaching Procedure (TCLP)	EPA 1311
115.095	001	Synthetic Precipitation Leaching Procedure (SPLP)	EPA 1312
115.105	001	Ignitability	EPA 1030
115.135	001	Corrosivity - pH Determination	EPA 9045 C

**Field of Accreditation: 116 - Volatile Organic Compounds in Hazardous Waste**

116.220	001	Gasoline Range Organics (GRO)	EPA 8015 B
116.225	001	Benzene	EPA 8021 B
116.225	017	Ethylbenzene	EPA 8021 B
116.225	023	Toluene	EPA 8021 B
116.225	028	m+p-Xylene	EPA 8021 B
116.225	029	o-Xylene	EPA 8021 B
116.265	001	Benzene	EPA 8260 B
116.265	002	Bromobenzene	EPA 8260 B
116.265	003	Bromochloromethane	EPA 8260 B
116.265	004	Bromodichloromethane	EPA 8260 B
116.265	005	Bromoform	EPA 8260 B
116.265	006	Bromomethane (Methyl Bromide)	EPA 8260 B
116.265	007	n-Butylbenzene	EPA 8260 B
116.265	008	sec-Butylbenzene	EPA 8260 B
116.265	009	tert-Butylbenzene	EPA 8260 B
116.265	010	Carbon Disulfide	EPA 8260 B
116.265	011	Carbon Tetrachloride	EPA 8260 B
116.265	012	Chlorobenzene	EPA 8260 B
116.265	013	Chlorodibromomethane (Dibromochloromethane)	EPA 8260 B
116.265	014	Chloroethane	EPA 8260 B
116.265	015	Chloroform	EPA 8260 B
116.265	016	Chloromethane (Methyl Chloride)	EPA 8260 B
116.265	017	Dibromomethane	EPA 8260 B
116.265	018	Dichlorodifluoromethane (Freon 12)	EPA 8260 B
116.265	019	cis-1,2-Dichloroethylene (cis 1,2 Dichloroethene)	EPA 8260 B
116.265	020	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 8260 B



116.265	021	cis-1,3-Dichloropropylene (cis 1,3 Dichloropropene)	EPA 8260 B
116.265	022	trans-1,3-Dichloropropylene (trans-1,3 Dichloropropene)	EPA 8260 B
116.265	023	Ethylbenzene	EPA 8260 B
116.265	024	Hexachlorobutadiene	EPA 8260 B
116.265	025	Methyl tert-butyl Ether (MTBE)	EPA 8260 B
116.265	026	Methylene Chloride (Dichloromethane)	EPA 8260 B
116.265	027	Naphthalene	EPA 8260 B
116.265	029	N-propylbenzene	EPA 8260 B
116.265	030	Styrene	EPA 8260 B
116.265	031	Tetrachloroethylene (Tetrachloroethene)	EPA 8260 B
116.265	032	Toluene	EPA 8260 B
116.265	033	Trichloroethylene (Trichloroethene)	EPA 8260 B
116.265	034	Trichlorofluoromethane	EPA 8260 B
116.265	035	Vinyl Chloride	EPA 8260 B
116.265	036	m+p-Xylene	EPA 8260 B
116.265	037	o-Xylene	EPA 8260 B
116.265	040	1,1-Dichloroethane	EPA 8260 B
116.265	041	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 8260 B
116.265	042	1,1,1-Trichloroethane	EPA 8260 B
116.265	043	1,1,1,2-Tetrachloroethane	EPA 8260 B
116.265	044	1,1,2,2-Tetrachloroethane	EPA 8260 B
116.265	045	1,1,2-Trichloroethane	EPA 8260 B
116.265	046	1,2-Dichlorobenzene	EPA 8260 B
116.265	047	1,2-Dichloroethane (Ethylene Dichloride)	EPA 8260 B
116.265	048	1,2-Dibromoethane (EDB)	EPA 8260 B
116.265	049	1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260 B
116.265	050	1,2-Dichloropropane	EPA 8260 B
116.265	051	1,2,3-Trichloropropane (TCP)	EPA 8260 B
116.265	052	1,2,4-Trichlorobenzene	EPA 8260 B
116.265	053	1,3-Dichlorobenzene	EPA 8260 B
116.265	054	1,4-Dichlorobenzene	EPA 8260 B
116.265	055	2-Chloroethyl vinyl Ether	EPA 8260 B
116.265	056	4-Chlorotoluene	EPA 8260 B
116.265	057	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	EPA 8260 B
116.265	059	Diisopropyl ether (DIPE)	EPA 8260 B
116.265	060	1,4-Dioxane	EPA 8260 B
116.265	062	tert-Amyl Methyl Ether (TAME)	EPA 8260 B

**Field of Accreditation: 117 - Semi-volatile Organic Chemistry of Hazardous Waste**

117.235	002	Diesel Range Organics (DRO)	EPA 8015 B
117.235	003	Diesel Range Organics (DRO) [LUFT Range]	EPA 8015 B
117.315	001	Aldrin	EPA 8081 A
117.315	002	alpha-BHC	EPA 8081 A

117.315	003	beta-BHC	EPA 8081 A
117.315	004	delta-BHC	EPA 8081 A
117.315	005	gamma-BHC (Lindane)	EPA 8081 A
117.315	006	Chlordane (total)	EPA 8081 A
117.315	008	4,4'-DDD	EPA 8081 A
117.315	009	4,4'-DDE	EPA 8081 A
117.315	010	4,4'-DDT	EPA 8081 A
117.315	011	Dieldrin	EPA 8081 A
117.315	012	Endosulfan I	EPA 8081 A
117.315	013	Endosulfan II	EPA 8081 A
117.315	014	Endosulfan Sulfate	EPA 8081 A
117.315	015	Endrin	EPA 8081 A
117.315	016	Endrin Aldehyde	EPA 8081 A
117.315	017	Endrin Ketone	EPA 8081 A
117.315	018	Heptachlor	EPA 8081 A
117.315	019	Heptachlor Epoxide	EPA 8081 A
117.315	020	Methoxychlor	EPA 8081 A
117.315	021	Toxaphene	EPA 8081 A
117.335	001	Aroclor 1016	EPA 8082
117.335	002	Aroclor 1221	EPA 8082
117.335	003	Aroclor 1232	EPA 8082
117.335	004	Aroclor 1242	EPA 8082
117.335	005	Aroclor 1248	EPA 8082
117.335	006	Aroclor 1254	EPA 8082
117.335	007	Aroclor 1260	EPA 8082
117.425	001	2,4-D	EPA 8151 A
117.425	002	2,4-DB	EPA 8151 A
117.425	003	2,4,5-TP (Silvex)	EPA 8151 A
117.425	004	2,4,5-T	EPA 8151 A
117.425	005	Dalapon	EPA 8151 A
117.425	006	Dicamba	EPA 8151 A
117.425	007	Dichloroprop	EPA 8151 A
117.425	008	Dinoseb	EPA 8151 A
117.425	009	MCPA	EPA 8151 A
117.425	010	MCPP	EPA 8151 A
117.425	011	4-Nitrophenol	EPA 8151 A
117.425	012	Pentachlorophenol	EPA 8151 A
117.435	001	Acenaphthene	EPA 8270 C
117.435	002	Acenaphthylene	EPA 8270 C
117.435	003	Aniline	EPA 8270 C
117.435	004	Anthracene	EPA 8270 C
117.435	005	Benzidine	EPA 8270 C

117.435	006	Benzoic Acid	EPA 8270 C
117.435	007	Benzo(a)anthracene	EPA 8270 C
117.435	008	Benzo(b)fluoranthene	EPA 8270 C
117.435	009	Benzo(k)fluoranthene	EPA 8270 C
117.435	010	Benzo(g,h,i)perylene	EPA 8270 C
117.435	011	Benzo(a)pyrene	EPA 8270 C
117.435	012	Benzyl Alcohol	EPA 8270 C
117.435	013	Bis(2-chloroethoxy) Methane	EPA 8270 C
117.435	014	Bis(2-chloroethyl) Ether	EPA 8270 C
117.435	015	Bis(2-ethylhexyl)phthalate (Di(2-ethylhexyl) phthalate)	EPA 8270 C
117.435	016	Butyl Benzyl Phthalate	EPA 8270 C
117.435	017	Chrysene	EPA 8270 C
117.435	018	Dibenz(a,h)anthracene	EPA 8270 C
117.435	019	Dibenzofuran	EPA 8270 C
117.435	020	Di-n-butyl Phthalate	EPA 8270 C
117.435	021	Diethyl Phthalate	EPA 8270 C
117.435	022	Dimethyl Phthalate	EPA 8270 C
117.435	023	Di-n-octyl Phthalate	EPA 8270 C
117.435	024	Fluoranthene	EPA 8270 C
117.435	025	Fluorene	EPA 8270 C
117.435	026	Naphthalene	EPA 8270 C
117.435	027	Nitrobenzene	EPA 8270 C
117.435	028	Pentachlorobenzene	EPA 8270 C
117.435	029	Pentachlorophenol	EPA 8270 C
117.435	030	1-Chloronaphthalene	EPA 8270 C
117.435	031	1,2-Dichlorobenzene	EPA 8270 C
117.435	032	1,3-Dichlorobenzene	EPA 8270 C
117.435	033	1,4-Dichlorobenzene	EPA 8270 C
117.435	034	2-Chloronaphthalene	EPA 8270 C
117.435	035	2-Chlorophenol	EPA 8270 C
117.435	036	2,4-Dichlorophenol	EPA 8270 C
117.435	037	2,4-Dimethylphenol	EPA 8270 C
117.435	038	2,4-Dinitrophenol	EPA 8270 C
117.435	039	2,4-Dinitrotoluene	EPA 8270 C
117.435	041	2,6-Dinitrotoluene	EPA 8270 C
117.435	042	2-Nitroaniline	EPA 8270 C
117.435	043	2-Nitrophenol	EPA 8270 C
117.435	044	3-Nitroaniline	EPA 8270 C
117.435	045	3,3'-Dichlorobenzidine	EPA 8270 C
117.435	046	4-Chloroaniline	EPA 8270 C
117.435	047	4-Chloro-3-methylphenol	EPA 8270 C
117.435	048	4-Bromophenyl Phenyl Ether	EPA 8270 C

117.435	049	4-Chlorophenyl Phenyl Ether	EPA 8270 C
117.435	050	4-Nitroaniline	EPA 8270 C
117.435	051	4-Nitrophenol	EPA 8270 C
117.435	073	Dichlorvos (DDVP)	EPA 8270 C
117.435	074	Disulfoton	EPA 8270 C
117.435	075	Malathion	EPA 8270 C
117.435	076	Parathion Ethyl	EPA 8270 C
117.435	077	Parathion Methyl	EPA 8270 C
117.435	078	Phorate	EPA 8270 C
117.435	079	Terbufos	EPA 8270 C
117.435	088	N-nitrosodimethylamine	EPA 8270 C
117.435	089	N-nitrosodiphenylamine	EPA 8270 C
117.435	090	N-nitroso-di-n-propylamine	EPA 8270 C
117.435	091	Indeno(1,2,3-c,d)pyrene	EPA 8270 C
117.435	092	Isophorone	EPA 8270 C
117.435	093	2-Methylnaphthalene	EPA 8270 C
117.435	094	Phenanthrene	EPA 8270 C
117.470	001	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	EPA 8290
117.470	002	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	EPA 8290
117.470	003	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	EPA 8290
117.470	004	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	EPA 8290
117.470	005	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	EPA 8290
117.470	006	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	EPA 8290
117.470	007	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin (OCDD)	EPA 8290
117.470	008	2,3,7,8-Tetrachlorodibenzofuran (TCDF)	EPA 8290
117.470	009	1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	EPA 8290
117.470	010	2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	EPA 8290
117.470	011	1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	EPA 8290
117.470	012	1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	EPA 8290
117.470	013	1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	EPA 8290
117.470	014	2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	EPA 8290
117.470	015	1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	EPA 8290
117.470	016	1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	EPA 8290
117.470	017	1,2,3,4,5,6,7,8-Octachlorodibenzofuran (OCDF)	EPA 8290
117.470	018	Total Tetrachlorodibenzo-p-dioxin (TCDD)	EPA 8290
117.470	019	Total Pentachlorodibenzo-p-dioxin (PeCDD)	EPA 8290
117.470	020	Total Hexachlorodibenzo-p-dioxin (HxCDD)	EPA 8290
117.470	021	Total Heptachlorodibenzo-p-dioxin (HpCDD)	EPA 8290
117.470	022	Total Tetrachlorodibenzofuran (TCDF)	EPA 8290
117.470	023	Total Pentachlorodibenzofuran (PeCDF)	EPA 8290
117.470	024	Total Hexachlorodibenzofuran (HxCDF)	EPA 8290
117.470	025	Total Heptachlorodibenzofuran (HpCDF)	EPA 8290

117.475 001	Acenaphthene	EPA 8310
117.475 002	Acenaphthylene	EPA 8310
117.475 003	Anthracene	EPA 8310
117.475 004	Benzo(a)anthracene	EPA 8310
117.475 005	Benzo(a)pyrene	EPA 8310
117.475 006	Benzo(b)fluoranthene	EPA 8310
117.475 007	Benzo(g,h,i)perylene	EPA 8310
117.475 008	Benzo(k)fluoranthene	EPA 8310
117.475 009	Chrysene	EPA 8310
117.475 010	Dibenz(a,h)anthracene	EPA 8310
117.475 011	Fluoranthene	EPA 8310
117.475 012	Fluorene	EPA 8310
117.475 013	Indeno(1,2,3-c,d)pyrene	EPA 8310
117.475 014	Naphthalene	EPA 8310
117.475 015	Phenanthrene	EPA 8310
117.475 016	Pyrene	EPA 8310
117.485 005	Butanal (Butyraldehyde)	EPA 8315 A
117.485 006	Crotonaldehyde	EPA 8315 A
117.485 008	Decanal	EPA 8315 A
117.485 011	Heptanal	EPA 8315 A
117.485 012	Hexanal (Hexaldehyde)	EPA 8315 A
117.485 014	Nonanal	EPA 8315 A
117.485 015	Octanal	EPA 8315 A
117.485 016	Pentanal (Valeraldehyde)	EPA 8315 A
117.485 017	Propanal (Propionaldehyde)	EPA 8315 A
117.495 001	Aldicarb (Temik)	EPA 8318
117.495 002	Aldicarb Sulfone	EPA 8318
117.495 003	Carbaryl (Sevin)	EPA 8318
117.495 004	Carbofuran (Furadan)	EPA 8318
117.495 006	3-Hydroxycarbofuran	EPA 8318
117.495 007	Methiocarb (Mesuro)	EPA 8318
117.495 008	Methomyl (Lannate)	EPA 8318
117.495 009	Oxamyl	EPA 8318
117.495 011	Propoxur (Baygon)	EPA 8318
117.545 001	1,3,5-Trinitrobenzene	EPA 8330 A
117.545 002	1,3-Dinitrobenzene	EPA 8330 A
117.545 003	Nitrobenzene	EPA 8330 A
117.545 004	2,4,6-Trinitrotoluene	EPA 8330 A
117.545 005	2,4-Dinitrotoluene	EPA 8330 A
117.545 006	2,6-Dinitrotoluene	EPA 8330 A
117.545 007	2-Nitrotoluene	EPA 8330 A
117.545 008	3-Nitrotoluene	EPA 8330 A

117.545	009	4-Nitrotoluene	EPA 8330 A
117.575	001	N-Ethylperfluorooctane Sulfonamide (EtFOSAm)	DoD QSM Version 5.1 (or newe
117.575	002	N-Ethylperfluorooctane Sulfonamido Acetic Acid (NEtFOSAA)	DoD QSM Version 5.1 (or newe
117.575	003	N-Ethylperfluorooctane Sulfonamido Ethanol (EtFOSE)	DoD QSM Version 5.1 (or newe
117.575	004	4:2 Fluorotelomer Sulfonic Acid (4:2 FTS)	DoD QSM Version 5.1 (or newe
117.575	005	6:2 Fluorotelomer Sulfonic Acid (6:2 FTS)	DoD QSM Version 5.1 (or newe
117.575	006	8:2 Fluorotelomer Sulfonic Acid (8:2 FTS)	DoD QSM Version 5.1 (or newe
117.575	007	11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	DoD QSM Version 5.1 (or newe
117.575	008	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	DoD QSM Version 5.1 (or newe
117.575	009	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	DoD QSM Version 5.1 (or newe
117.575	010	N-Methylperfluorooctane Sulfonamide (NMeFOSA)	DoD QSM Version 5.1 (or newe
117.575	011	N-Methylperfluorooctane Sulfonamido Acetic Acid (NMeFOSAA)	DoD QSM Version 5.1 (or newe
117.575	012	N-Methylperfluorooctane Sulfonamido Ethanol (NMeFOSE)	DoD QSM Version 5.1 (or newe
117.575	013	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	DoD QSM Version 5.1 (or newe
117.575	014	Perfluorobutanoic Acid (PFBA)	DoD QSM Version 5.1 (or newe
117.575	015	Perfluorobutane Sulfonic Acid (PFBS)	DoD QSM Version 5.1 (or newe
117.575	016	Perfluorodecanoic Acid (PFDA)	DoD QSM Version 5.1 (or newe
117.575	017	Perfluorododecanoic Acid (PFDoA)	DoD QSM Version 5.1 (or newe
117.575	018	Perfluorodecane Sulfonic Acid (PFDS)	DoD QSM Version 5.1 (or newe
117.575	019	Perfluoroheptanoic Acid (PFHpA)	DoD QSM Version 5.1 (or newe
117.575	020	Perfluoroheptane Sulfonic Acid (PFHpS)	DoD QSM Version 5.1 (or newe
117.575	021	Perfluorohexane Sulfonic Acid (PFHxS)	DoD QSM Version 5.1 (or newe
117.575	022	Perfluorohexanoic Acid (PFHxA)	DoD QSM Version 5.1 (or newe
117.575	023	Perfluorononanoic Acid (PFNA)	DoD QSM Version 5.1 (or newe
117.575	024	Perfluorooctanoic Acid (PFOA)	DoD QSM Version 5.1 (or newe
117.575	025	Perfluorooctane Sulfonic Acid (PFOS)	DoD QSM Version 5.1 (or newe
117.575	026	Perfluorooctane Sulfonamide (PFOSAm)	DoD QSM Version 5.1 (or newe
117.575	027	Perfluoropentanoic Acid (PFPeA)	DoD QSM Version 5.1 (or newe
117.575	028	Perfluoropentane Sulfonic Acid (PFPeS)	DoD QSM Version 5.1 (or newe
117.575	029	Perfluorotetradecanoic Acid (PFTDA)	DoD QSM Version 5.1 (or newe
117.575	030	Perfluorotridecanoic Acid (PFTrDA)	DoD QSM Version 5.1 (or newe
117.575	031	Perfluoroundecanoic Acid (PFUnDA)	DoD QSM Version 5.1 (or newe
117.575	033	Perfluorohexadecanoic Acid (PFHxDA)	DoD QSM Version 5.1 (or newe
117.575	034	Perfluorononane Sulfonic Acid (PFNS)	DoD QSM Version 5.1 (or newe
117.575	035	Perfluorooctadecanoic Acid (PFODA)	DoD QSM Version 5.1 (or newe

**Field of Accreditation: 126 - Microbiological Methods for Ambient Water**

126.003	001	Total Coliform (Enumeration)	SM 9221 B,C-2006
126.003	002	Fecal Coliform (Enumeration)	SM 9221 C,E-2006
126.003	003	E. coli (Enumeration)	SM 9221 C,F-2006
126.005	001	Total Coliform (Enumeration)	SM 9222 B-2006
126.005	003	Fecal Coliform (Enumeration)	SM 9222 D-2006
126.009	001	Fecal Streptococci	SM 9230 B-2007

126.015	001	E. coli (Enumeration)	SM 9223 B-2004 Colilert
126.019	001	Enterococci	Enterolert

**Field of Accreditation:130 - Inorganic constituents in Hazardous waste (Matrix Aqueous)**

130.030	001	Aluminum	EPA 6020
130.030	002	Antimony	EPA 6020
130.030	003	Arsenic	EPA 6020
130.030	004	Barium	EPA 6020
130.030	005	Beryllium	EPA 6020
130.030	006	Cadmium	EPA 6020
130.030	007	Chromium	EPA 6020
130.030	008	Cobalt	EPA 6020
130.030	009	Copper	EPA 6020
130.030	010	Lead	EPA 6020
130.030	011	Manganese	EPA 6020
130.030	012	Nickel	EPA 6020
130.030	013	Silver	EPA 6020
130.030	014	Thallium	EPA 6020
130.030	015	Zinc	EPA 6020
130.030	016	Molybdenum	EPA 6020
130.030	017	Selenium	EPA 6020
130.030	018	Vanadium	EPA 6020
130.040	015	Mercury	EPA 6020 B
130.250	001	Mercury	EPA 7470 A
130.550	001	Total Chlorine	EPA 9075

**Field of Accreditation:131 - Leaching/Extraction, Physical Chacterstics in Hazardous Waste (Matrix Aqueous)**

131.010	001	Waste Extraction Test (WET)	CCR Chapter11, Article 5, Appe
131.040	001	Toxicity Characteristic Leaching Procedure (TCLP)	EPA 1311
131.050	001	Synthetic Precipitation Leaching Procedure (SPLP)	EPA 1312
131.060	001	Ignitability	EPA 1010
131.110	001	Corrosivity - pH Determination	EPA 9040 B

**Field of Accreditation:132 - Volatile Organic Compounds in Hazardous Waste (Matrix Aqueous)**

132.015	001	Gasoline Range Organics (GRO)	EPA 8015 B
132.015	001	Gasoline Range Organics (GRO)	EPA 8015 B
132.020	001	Benzene	EPA 8021 B
132.020	017	Ethylbenzene	EPA 8021 B
132.020	023	Toluene	EPA 8021 B
132.020	028	m+p-Xylene	EPA 8021 B
132.020	029	o-Xylene	EPA 8021 B
132.060	001	Benzene	EPA 8260 B
132.060	002	Bromobenzene	EPA 8260 B
132.060	003	Bromochloromethane	EPA 8260 B
132.060	004	Bromodichloromethane	EPA 8260 B

132.060	005	Bromoform	EPA 8260 B
132.060	006	Bromomethane (Methyl Bromide)	EPA 8260 B
132.060	007	n-Butylbenzene	EPA 8260 B
132.060	008	sec-Butylbenzene	EPA 8260 B
132.060	009	tert-Butylbenzene	EPA 8260 B
132.060	010	Carbon Disulfide	EPA 8260 B
132.060	011	Carbon Tetrachloride	EPA 8260 B
132.060	012	Chlorobenzene	EPA 8260 B
132.060	013	Chlorodibromomethane (Dibromochloromethane)	EPA 8260 B
132.060	014	Chloroethane	EPA 8260 B
132.060	015	Chloroform	EPA 8260 B
132.060	016	Chloromethane (Methyl Chloride)	EPA 8260 B
132.060	017	Dibromomethane	EPA 8260 B
132.060	018	Dichlorodifluoromethane (Freon 12)	EPA 8260 B
132.060	019	cis-1,2-Dichloroethylene (cis 1,2 Dichloroethene)	EPA 8260 B
132.060	020	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 8260 B
132.060	021	cis-1,3-Dichloropropylene (cis 1,3 Dichloropropene)	EPA 8260 B
132.060	022	trans-1,3-Dichloropropylene (trans-1,3 Dichloropropene)	EPA 8260 B
132.060	023	Ethylbenzene	EPA 8260 B
132.060	024	Hexachlorobutadiene	EPA 8260 B
132.060	025	Methyl tert-butyl Ether (MTBE)	EPA 8260 B
132.060	026	Methylene Chloride (Dichloromethane)	EPA 8260 B
132.060	027	Naphthalene	EPA 8260 B
132.060	029	N-propylbenzene	EPA 8260 B
132.060	030	Styrene	EPA 8260 B
132.060	031	Tetrachloroethylene (Tetrachloroethene)	EPA 8260 B
132.060	032	Toluene	EPA 8260 B
132.060	033	Trichloroethylene (Trichloroethene)	EPA 8260 B
132.060	034	Trichlorofluoromethane	EPA 8260 B
132.060	035	Vinyl Chloride	EPA 8260 B
132.060	036	m+p-Xylene	EPA 8260 B
132.060	037	o-Xylene	EPA 8260 B
132.060	040	1,1-Dichloroethane	EPA 8260 B
132.060	041	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 8260 B
132.060	042	1,1,1-Trichloroethane	EPA 8260 B
132.060	043	1,1,1,2-Tetrachloroethane	EPA 8260 B
132.060	044	1,1,2,2-Tetrachloroethane	EPA 8260 B
132.060	045	1,1,2-Trichloroethane	EPA 8260 B
132.060	046	1,2-Dichlorobenzene	EPA 8260 B
132.060	047	1,2-Dichloroethane (Ethylene Dichloride)	EPA 8260 B
132.060	048	1,2-Dibromoethane (EDB)	EPA 8260 B
132.060	049	1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260 B



132.060	050	1,2-Dichloropropane	EPA 8260 B
132.060	051	1,2,3-Trichloropropane (TCP)	EPA 8260 B
132.060	052	1,2,4-Trichlorobenzene	EPA 8260 B
132.060	053	1,3-Dichlorobenzene	EPA 8260 B
132.060	054	1,4-Dichlorobenzene	EPA 8260 B
132.060	055	2-Chloroethyl vinyl Ether	EPA 8260 B
132.060	056	4-Chlorotoluene	EPA 8260 B
132.060	057	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	EPA 8260 B
132.060	058	t-Butyl alcohol (2-Methyl-2-propanol)	EPA 8260 B
132.060	059	Diisopropyl ether (DIPE)	EPA 8260 B
132.060	061	Ethyl tert-butyl Ether (ETBE)	EPA 8260 B
132.060	062	tert-Amyl Methyl Ether (TAME)	EPA 8260 B

**Field of Accreditation: 133 - Semi-Volatile Organic Chemistry in Hazardous Waste (Matrix Aqueous)**

133.010	002	Diesel Range Organics (DRO)	EPA 8015 B
133.090	001	Aldrin	EPA 8081 A
133.090	002	alpha-BHC	EPA 8081 A
133.090	003	beta-BHC	EPA 8081 A
133.090	004	delta-BHC	EPA 8081 A
133.090	005	gamma-BHC (Lindane)	EPA 8081 A
133.090	006	Chlordane	EPA 8081 A
133.090	008	4,4'-DDD	EPA 8081 A
133.090	009	4,4'-DDE	EPA 8081 A
133.090	010	4,4'-DDT	EPA 8081 A
133.090	011	Dieldrin	EPA 8081 A
133.090	012	Endosulfan I	EPA 8081 A
133.090	013	Endosulfan II	EPA 8081 A
133.090	014	Endosulfan Sulfate	EPA 8081 A
133.090	015	Endrin	EPA 8081 A
133.090	016	Endrin Aldehyde	EPA 8081 A
133.090	017	Endrin Ketone	EPA 8081 A
133.090	018	Heptachlor	EPA 8081 A
133.090	019	Heptachlor Epoxide	EPA 8081 A
133.090	020	Methoxychlor	EPA 8081 A
133.090	021	Toxaphene	EPA 8081 A
133.120	001	Aroclor 1016	EPA 8082
133.120	002	Aroclor 1221	EPA 8082
133.120	003	Aroclor 1232	EPA 8082
133.120	004	Aroclor 1242	EPA 8082
133.120	005	Aroclor 1248	EPA 8082
133.120	006	Aroclor 1254	EPA 8082
133.120	007	Aroclor 1260	EPA 8082
133.220	001	2,4-D	EPA 8151 A

133.220	002	2,4-DB	EPA 8151 A
133.220	003	2,4,5-TP (Silvex)	EPA 8151 A
133.220	004	2,4,5-T	EPA 8151 A
133.220	005	Dalapon	EPA 8151 A
133.220	006	Dicamba	EPA 8151 A
133.220	007	Dichloroprop	EPA 8151 A
133.220	008	Dinoseb	EPA 8151 A
133.220	009	MCPA	EPA 8151 A
133.220	010	MCPP	EPA 8151 A
133.220	011	4-Nitrophenol	EPA 8151 A
133.220	012	Pentachlorophenol	EPA 8151 A
133.230	001	Acenaphthene	EPA 8270 C
133.230	002	Acenaphthylene	EPA 8270 C
133.230	004	Anthracene	EPA 8270 C
133.230	005	Benzidine	EPA 8270 C
133.230	007	Benzo(a)anthracene	EPA 8270 C
133.230	008	Benzo(b)fluoranthene	EPA 8270 C
133.230	009	Benzo(k)fluoranthene	EPA 8270 C
133.230	010	Benzo(g,h,i)perylene	EPA 8270 C
133.230	011	Benzo(a)pyrene	EPA 8270 C
133.230	012	Benzyl Alcohol	EPA 8270 C
133.230	013	Bis(2-chloroethoxy) Methane	EPA 8270 C
133.230	014	Bis(2-chloroethyl) Ether	EPA 8270 C
133.230	015	Bis(2-ethylhexyl)phthalate (Di(2-ethylhexyl) phthalate)	EPA 8270 C
133.230	016	Butyl Benzyl Phthalate	EPA 8270 C
133.230	017	Chrysene	EPA 8270 C
133.230	018	Dibenz(a,h)anthracene	EPA 8270 C
133.230	019	Dibenzofuran	EPA 8270 C
133.230	020	Di-n-butyl Phthalate	EPA 8270 C
133.230	021	Diethyl Phthalate	EPA 8270 C
133.230	022	Dimethyl Phthalate	EPA 8270 C
133.230	023	Di-n-octyl Phthalate	EPA 8270 C
133.230	024	Fluoranthene	EPA 8270 C
133.230	025	Fluorene	EPA 8270 C
133.230	026	Naphthalene	EPA 8270 C
133.230	027	Nitrobenzene	EPA 8270 C
133.230	029	Pentachlorophenol	EPA 8270 C
133.230	031	1,2-Dichlorobenzene	EPA 8270 C
133.230	032	1,3-Dichlorobenzene	EPA 8270 C
133.230	033	1,4-Dichlorobenzene	EPA 8270 C
133.230	034	2-Chloronaphthalene	EPA 8270 C
133.230	035	2-Chlorophenol	EPA 8270 C

133.230	036	2,4-Dichlorophenol	EPA 8270 C
133.230	037	2,4-Dimethylphenol	EPA 8270 C
133.230	038	2,4-Dinitrophenol	EPA 8270 C
133.230	039	2,4-Dinitrotoluene	EPA 8270 C
133.230	041	2,6-Dinitrotoluene	EPA 8270 C
133.230	042	2-Nitroaniline	EPA 8270 C
133.230	043	2-Nitrophenol	EPA 8270 C
133.230	044	3-Nitroaniline	EPA 8270 C
133.230	045	3,3'-Dichlorobenzidine	EPA 8270 C
133.230	046	4-Chloroaniline	EPA 8270 C
133.230	047	4-Chloro-3-methylphenol	EPA 8270 C
133.230	048	4-Bromophenyl Phenyl Ether	EPA 8270 C
133.230	049	4-Chlorophenyl Phenyl Ether	EPA 8270 C
133.230	050	4-Nitroaniline	EPA 8270 C
133.230	051	4-Nitrophenol	EPA 8270 C
133.230	088	N-nitrosodimethylamine	EPA 8270 C
133.230	089	N-nitrosodiphenylamine	EPA 8270 C
133.230	090	N-nitroso-di-n-propylamine	EPA 8270 C
133.230	091	Indeno(1,2,3-c,d)pyrene	EPA 8270 C
133.230	092	Isophorone	EPA 8270 C
133.230	093	2-Methylnaphthalene	EPA 8270 C
133.230	094	Phenanthrene	EPA 8270 C
133.270	001	Acenaphthene	EPA 8310
133.270	002	Acenaphthylene	EPA 8310
133.270	003	Anthracene	EPA 8310
133.270	004	Benzo(a)anthracene	EPA 8310
133.270	005	Benzo(a)pyrene	EPA 8310
133.270	006	Benzo(b)fluoranthene	EPA 8310
133.270	007	Benzo(g,h,i)perylene	EPA 8310
133.270	008	Benzo(k)fluoranthene	EPA 8310
133.270	009	Chrysene	EPA 8310
133.270	010	Dibenz(a,h)anthracene	EPA 8310
133.270	011	Fluoranthene	EPA 8310
133.270	012	Fluorene	EPA 8310
133.270	013	Indeno(1,2,3-c,d)pyrene	EPA 8310
133.270	014	Naphthalene	EPA 8310
133.270	015	Phenanthrene	EPA 8310
133.270	016	Pyrene	EPA 8310
133.280	005	Butanal (Butyraldehyde)	EPA 8315 A
133.280	006	Crotonaldehyde	EPA 8315 A
133.280	008	Decanal	EPA 8315 A
133.280	011	Heptanal	EPA 8315 A

133.280	012	Hexanal (Hexaldehyde)	EPA 8315 A
133.280	014	Nonanal	EPA 8315 A
133.280	015	Octanal	EPA 8315 A
133.280	016	Pentanal (Valeraldehyde)	EPA 8315 A
133.280	017	Propanal (Propionaldehyde)	EPA 8315 A
133.290	001	Aldicarb (Temik)	EPA 8318
133.290	002	Aldicarb Sulfone	EPA 8318
133.290	003	Carbaryl (Sevin)	EPA 8318
133.290	004	Carbofuran (Furadan)	EPA 8318
133.290	006	3-Hydroxycarbofuran	EPA 8318
133.290	007	Methiocarb (Mesuro)	EPA 8318
133.290	008	Methomyl (Lannate)	EPA 8318
133.290	009	Oxamyl	EPA 8318
133.290	011	Propoxur (Baygon)	EPA 8318
133.350	001	1,3,5-Trinitrobenzene	EPA 8330 A
133.350	002	1,3-Dinitrobenzene	EPA 8330 A
133.350	003	Nitrobenzene	EPA 8330 A
133.350	004	2,4,6-Trinitrotoluene	EPA 8330 A
133.350	005	2,4-Dinitrotoluene	EPA 8330 A
133.350	006	2,6-Dinitrotoluene	EPA 8330 A
133.350	007	2-Nitrotoluene	EPA 8330 A
133.350	008	3-Nitrotoluene	EPA 8330 A
133.350	009	4-Nitrotoluene	EPA 8330 A

**CALIFORNIA STATE  
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM  
Accredited Fields of Testing**

**EMSL Analytical, Inc.**

South Pasadena, CA

520 Mission Street

South Pasadena, CA 91030

Phone: (323) 254-9960

**Certificate No. 2283**

**Expiration Date 12/31/2021**

**\*As of 12/28/2020, this list supersedes all previous lists for this certificate number.**

**Customers: Please verify the current accreditation standing with the State.**

**Field of Testing: 101 – Microbiology of Drinking Water**

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
101.010	001	Heterotrophic Bacteria	SM 9215 B
101.050	001	Total Coliform P/A	SM 9223 B Colilert
101.050	002	E. coli P/A	SM 9223 B Colilert
101.050	003	Total Coliform (Enumeration)	SM 9223 B Colilert

**Field of Testing: 103 – Toxic Chemical Elements of Drinking Water**

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
103.301	001	Asbestos	EPA 100.2

**Field of Testing: 107 – Microbiological Methods for Non-Potable Water and Sewage Sludge**

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
107.003	002	Fecal Coliform (Enumeration)	SM 9222 D-2006

**Field of Testing:** 121 – Bulk Asbestos Analysis of Hazardous Waste

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
121.010	001	Bulk Asbestos	EPA 600/M4-82-020

**Field of Testing:** 126 – Microbiological Methods for Ambient Water

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
126.005	003	Fecal Coliform (Enumeration)	SM 9222 D-2006
126.019	001	Enterococci	Enterolert



STATE WATER RESOURCES CONTROL BOARD  
REGIONAL WATER QUALITY CONTROL BOARDS

**Interim**

CALIFORNIA STATE



ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

**CERTIFICATE OF  
ENVIRONMENTAL LABORATORY ACCREDITATION**

Is hereby granted to

**Monterey Bay Analytical Services, Inc.**

4 Justin Court, Suite D

Monterey, CA 93940

Scope of the certificate is limited to the  
"Fields of Accreditation"  
which accompany this Certificate.

Continued accredited status depends on compliance with applicable laws and regulations,  
proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of  
Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **2385**

Effective Date: **11/1/2021**

Expiration Date: **10/31/2022**

A handwritten signature in blue ink, appearing to read "Christine Sotelo".

Sacramento, California  
subject to forfeiture or revocation

Christine Sotelo, Chief  
Environmental Laboratory Accreditation Program



**CALIFORNIA STATE  
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM  
Fields of Accreditation**



**Monterey Bay Analytical Services, Inc.**

4 Justin Court, Suite D  
Monterey, CA 93940  
Phone: 8313756227

**Certificate Number: 2385  
Expiration Date: 10/31/2022  
INTERIM**

**Field of Accreditation:101 - Microbiology of Drinking Water**

101.010 001	Heterotrophic Bacteria	SM 9215 B
101.010 002	Heterotrophic Bacteria	SimPlate
101.050 001	Total Coliform P/A	SM 9223 B Colilert
101.050 002	E. coli P/A	SM 9223 B Colilert
101.050 003	Total Coliform (Enumeration)	SM 9223 B Colilert
101.050 004	E. coli (Enumeration)	SM 9223 B Colilert
101.050 005	Total Coliform P/A	SM 9223 B Colilert 18
101.050 006	E. coli P/A	SM 9223 B Colilert 18
101.050 007	Total Coliform (Enumeration)	SM 9223 B Colilert 18
101.050 008	E. coli (Enumeration)	SM 9223 B Colilert 18

**Field of Accreditation:102 - Inorganic Chemistry of Drinking Water**

102.020 001	Turbidity	EPA 180.1
102.026 001	Calcium	EPA 200.7
102.026 002	Magnesium	EPA 200.7
102.026 003	Potassium	EPA 200.7
102.026 004	Silica	EPA 200.7
102.026 005	Sodium	EPA 200.7
102.026 006	Hardness (Calculation)	EPA 200.7
102.030 001	Bromide	EPA 300.0
102.030 003	Chloride	EPA 300.0
102.030 005	Fluoride	EPA 300.0
102.030 006	Nitrate (as N)	EPA 300.0
102.030 007	Nitrite (as N)	EPA 300.0
102.030 008	Phosphate,Ortho (as P)	EPA 300.0
102.030 009	Sulfate (as SO4)	EPA 300.0
102.045 001	Perchlorate	EPA 314.0
102.061 001	Nitrite (as N)	EPA 353.2
102.070 001	Phosphate,Ortho (as P)	EPA 365.1
102.100 001	Alkalinity	SM 2320 B-1997
102.130 001	Specific Conductance	SM 2510 B-1997
102.140 001	Residue, Filterable TDS	SM 2540 C-1997
102.175 001	Chlorine, Free	SM 4500-Cl G-2000
102.175 002	Chlorine, Total Residual	SM 4500-Cl G-2000

As of 11/17/2021, this list supersedes all previous lists for this certificate number.  
Customers: Please verify the current accreditation standing with the State.



102.203	001	Hydrogen Ion (pH)	SM 4500-H+ B-2000
102.262	001	Organic Carbon-Total (TOC)	SM 5310 C-2000
102.263	001	Dissolved Organic Carbon (DOC)	SM 5310 C-2000
102.270	001	Surfactants	SM 5540 C-2000
102.280	001	UV254	SM 5910 B-2011
102.570	001	Cyanide, Free	OIA-1677, DW

**Field of Accreditation:103 - Toxic Chemical Elements of Drinking Water**

103.130	008	Copper	EPA 200.7
103.130	009	Iron	EPA 200.7
103.130	011	Manganese	EPA 200.7
103.130	017	Zinc	EPA 200.7
103.130	018	Boron	EPA 200.7
103.140	001	Aluminum	EPA 200.8
103.140	002	Antimony	EPA 200.8
103.140	003	Arsenic	EPA 200.8
103.140	004	Barium	EPA 200.8
103.140	005	Beryllium	EPA 200.8
103.140	006	Cadmium	EPA 200.8
103.140	007	Chromium	EPA 200.8
103.140	008	Copper	EPA 200.8
103.140	009	Lead	EPA 200.8
103.140	010	Manganese	EPA 200.8
103.140	011	Mercury	EPA 200.8
103.140	012	Nickel	EPA 200.8
103.140	013	Selenium	EPA 200.8
103.140	014	Silver	EPA 200.8
103.140	015	Thallium	EPA 200.8
103.140	016	Zinc	EPA 200.8
103.140	018	Vanadium	EPA 200.8
103.140	019	Strontium	EPA 200.8

**Field of Accreditation:106 - Radionuclides in Drinking Water**

106.092	001	Uranium	EPA 200.8
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**Field of Accreditation:107 - Microbiological Methods for Non-Potable Water and Sewage Sludge**

107.001	001	Total Coliform (Enumeration)	SM 9221 B,C-2006
107.001	002	Fecal Coliform (Enumeration)	SM 9221 C,E-2006
107.001	003	E. coli (Enumeration)	SM 9221 C,F-2006
107.013	001	E. coli (Enumeration)	SM 9223 B-2004 Colilert
107.015	001	E. coli (Enumeration)	SM 9223 B-2004 Colilert 18
107.015	002	Fecal Coliform (Enumeration)	SM 9223 B-2004 Colilert 18
107.017	001	Enterococci	Enterolert

**Field of Accreditation:108 - Inorganic Constituents in Non-Potable Water**

108.009	001	Turbidity	EPA 180.1 (1993 Rev. 2.0)
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108.013	001	Calcium	EPA 200.7 (1994 Rev. 4.4)
108.013	002	Magnesium	EPA 200.7 (1994 Rev. 4.4)
108.013	004	Potassium	EPA 200.7 (1994 Rev. 4.4)
108.013	005	Silica, Dissolved	EPA 200.7 (1994 Rev. 4.4)
108.013	006	Sodium	EPA 200.7 (1994 Rev. 4.4)
108.017	001	Bromide	EPA 300.0 (1993 Rev. 2.1)
108.017	002	Chloride	EPA 300.0 (1993 Rev. 2.1)
108.017	003	Fluoride	EPA 300.0 (1993 Rev. 2.1)
108.017	004	Nitrate (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	005	Nitrate-Nitrite (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	006	Nitrite (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	007	Phosphate,Ortho (as P)	EPA 300.0 (1993 Rev. 2.1)
108.017	008	Sulfate (as SO4)	EPA 300.0 (1993 Rev. 2.1)
108.025	001	Ammonia (as N)	EPA 350.1 (1993 Rev. 2.0)
108.029	001	Kjeldahl Nitrogen,Total (as N)	EPA 351.2 (1993 Rev. 2.0)
108.035	001	Phosphate,Ortho (as P)	EPA 365.1 (1993 Rev. 2.0)
108.035	002	Phosphorus,Total	EPA 365.1 (1993 Rev. 2.0)
108.053	002	Oil & Grease, Total Recoverable	EPA 1664 B
108.063	001	Alkalinity	SM 2320 B-2011
108.065	001	Hardness (Calculation)	SM 2340 B-2011
108.069	001	Specific Conductance	SM 2510 B-2011
108.071	001	Residue, Total	SM 2540 B-2011
108.073	001	Residue, Filterable TDS	SM 2540 C-2011
108.075	001	Residue, Non-filterable TSS	SM 2540 D-2011
108.077	001	Residue, Volatile	SM 2540 E-2011
108.079	001	Residue, Settleable	SM 2540 F-2011
108.114	001	Chlorine, Total Residual	SM 4500-Cl G-2011
108.114	002	Chlorine, Free	SM 4500-Cl G-2011
108.137	001	Hydrogen Ion (pH)	SM 4500-H+ B-2011
108.173	001	Oxygen, Dissolved	SM 4500-O G-2011
108.207	001	Biochemical Oxygen Demand	SM 5210 B-2011
108.207	002	Carbonaceous BOD	SM 5210 B-2011
108.213	001	Chemical Oxygen Demand	SM 5220 D-2011
108.217	001	Organic Carbon-Total (TOC)	SM 5310 C-2011
108.321	001	Cyanide, Total	ASTM D7511-12

**Field of Accreditation: 109 - Metals and Trace Elements in Non-Potable Water**

109.623	006	Boron	EPA 200.7 (1994 Rev. 4.4)
109.623	010	Copper	EPA 200.7 (1994 Rev. 4.4)
109.623	011	Iron	EPA 200.7 (1994 Rev. 4.4)
109.623	013	Manganese	EPA 200.7 (1994 Rev. 4.4)
109.623	022	Zinc	EPA 200.7 (1994 Rev. 4.4)
109.625	001	Aluminum	EPA 200.8 (1994 Rev. 5.4)

109.625	002	Antimony	EPA 200.8 (1994 Rev. 5.4)
109.625	003	Arsenic	EPA 200.8 (1994 Rev. 5.4)
109.625	004	Barium	EPA 200.8 (1994 Rev. 5.4)
109.625	005	Beryllium	EPA 200.8 (1994 Rev. 5.4)
109.625	007	Cadmium	EPA 200.8 (1994 Rev. 5.4)
109.625	008	Chromium	EPA 200.8 (1994 Rev. 5.4)
109.625	009	Cobalt	EPA 200.8 (1994 Rev. 5.4)
109.625	010	Copper	EPA 200.8 (1994 Rev. 5.4)
109.625	012	Iron	EPA 200.8 (1994 Rev. 5.4)
109.625	013	Lead	EPA 200.8 (1994 Rev. 5.4)
109.625	014	Manganese	EPA 200.8 (1994 Rev. 5.4)
109.625	015	Molybdenum	EPA 200.8 (1994 Rev. 5.4)
109.625	016	Nickel	EPA 200.8 (1994 Rev. 5.4)
109.625	017	Selenium	EPA 200.8 (1994 Rev. 5.4)
109.625	018	Silver	EPA 200.8 (1994 Rev. 5.4)
109.625	019	Thallium	EPA 200.8 (1994 Rev. 5.4)
109.625	022	Vanadium	EPA 200.8 (1994 Rev. 5.4)
109.625	023	Zinc	EPA 200.8 (1994 Rev. 5.4)
109.685	002	Chromium VI (Hexavalent Chromium)	SM 3500-Cr B-2011

**Field of Accreditation:** 126 - Microbiological Methods for Ambient Water

126.003	001	Total Coliform (Enumeration)	SM 9221 B,C-2006
126.003	002	Fecal Coliform (Enumeration)	SM 9221 C,E-2006
126.003	003	E. coli (Enumeration)	SM 9221 C,F-2006
126.015	001	E. coli (Enumeration)	SM 9223 B-2004 Colilert
126.017	001	E. coli (Enumeration)	SM 9223 B-2004 Colilert 18
126.019	001	Enterococci	Enterolert



STATE WATER RESOURCES CONTROL BOARD  
REGIONAL WATER QUALITY CONTROL BOARDS



CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

**CERTIFICATE OF  
ENVIRONMENTAL LABORATORY ACCREDITATION**

Is hereby granted to

**Eurofins Calscience**

**Irvine**

17461 Derian Avenue

Irvine, CA 92614-5817

Scope of the certificate is limited to the  
"Fields of Accreditation"  
which accompany this Certificate.

Continued accredited status depends on compliance with applicable laws and regulations,  
proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of  
Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **2706**

Effective Date: **7/1/2020**

Expiration Date: **6/30/2022**

A handwritten signature in blue ink, appearing to read "Christine Sotelo".

Sacramento, California  
subject to forfeiture or revocation

Christine Sotelo, Chief  
Environmental Laboratory Accreditation Program



**CALIFORNIA STATE  
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM  
Fields of Accreditation**



**Eurofins Calscience**

Irvine  
17461 Derian Avenue  
Irvine, CA 92614-5817  
Phone: 9492611022

**Certificate Number: 2706  
Expiration Date: 6/30/2022**

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**Field of Accreditation: 102 - Inorganic Chemistry of Drinking Water**

102.015	001	Hydrogen Ion (pH)	EPA 150.1
102.020	001	Turbidity	EPA 180.1
102.026	001	Calcium	EPA 200.7
102.026	002	Magnesium	EPA 200.7
102.026	003	Potassium	EPA 200.7
102.026	004	Silica	EPA 200.7
102.026	005	Sodium	EPA 200.7
102.026	006	Hardness (Calculation)	EPA 200.7
102.030	003	Chloride	EPA 300.0
102.030	005	Fluoride	EPA 300.0
102.030	006	Nitrate (as N)	EPA 300.0
102.030	007	Nitrite (as N)	EPA 300.0
102.030	008	Phosphate, Ortho (as P)	EPA 300.0
102.030	009	Sulfate (as SO <sub>4</sub> )	EPA 300.0
102.040	001	Bromide	EPA 300.1
102.040	002	Chlorite	EPA 300.1
102.040	003	Chlorate	EPA 300.1
102.040	004	Bromate	EPA 300.1
102.045	001	Perchlorate	EPA 314.0
102.095	001	Turbidity	SM 2130 B-2001
102.100	001	Alkalinity	SM 2320 B-1997
102.120	001	Hardness (Calculation)	SM 2340 B-1997
102.121	001	Hardness	SM 2340 C-1997
102.130	001	Specific Conductance	SM 2510 B-1997
102.140	001	Residue, Filterable TDS	SM 2540 C-1997
102.175	001	Chlorine, Free	SM 4500-Cl G-2000
102.175	002	Chlorine, Total Residual	SM 4500-Cl G-2000
102.190	001	Cyanide, Total	SM 4500-CN E-1999
102.200	001	Fluoride	SM 4500-F C-1997
102.203	001	Hydrogen Ion (pH)	SM 4500-H+ B-2000
102.262	001	Organic Carbon-Total (TOC)	SM 5310 C-2000
102.263	001	Dissolved Organic Carbon (DOC)	SM 5310 C-2000
102.270	001	Surfactants	SM 5540 C-2000

102.564 001 Cyanide, Total Kelada-01

**Field of Accreditation:103 - Toxic Chemical Elements of Drinking Water**

103.130 001 Aluminum EPA 200.7

103.130 003 Barium EPA 200.7

103.130 004 Beryllium EPA 200.7

103.130 005 Cadmium EPA 200.7

103.130 007 Chromium EPA 200.7

103.130 008 Copper EPA 200.7

103.130 009 Iron EPA 200.7

103.130 011 Manganese EPA 200.7

103.130 012 Nickel EPA 200.7

103.130 015 Silver EPA 200.7

103.130 017 Zinc EPA 200.7

103.130 018 Boron EPA 200.7

103.140 001 Aluminum EPA 200.8

103.140 002 Antimony EPA 200.8

103.140 003 Arsenic EPA 200.8

103.140 004 Barium EPA 200.8

103.140 005 Beryllium EPA 200.8

103.140 006 Cadmium EPA 200.8

103.140 007 Chromium EPA 200.8

103.140 008 Copper EPA 200.8

103.140 009 Lead EPA 200.8

103.140 010 Manganese EPA 200.8

103.140 012 Nickel EPA 200.8

103.140 013 Selenium EPA 200.8

103.140 014 Silver EPA 200.8

103.140 015 Thallium EPA 200.8

103.140 016 Zinc EPA 200.8

103.140 018 Vanadium EPA 200.8

103.160 001 Mercury EPA 245.1

103.310 001 Chromium VI (Hexavalent Chromium) EPA 218.6

103.311 001 Chromium VI (Hexavalent Chromium) EPA 218.7

**Field of Accreditation:104 - Volatile Organic Chemistry of Drinking Water**

104.035 001 1,2,3-Trichloropropane (TCP) SRL 524M-TCP

104.040 001 Benzene EPA 524.2

104.040 007 n-Butylbenzene EPA 524.2

104.040 008 sec-Butylbenzene EPA 524.2

104.040 009 tert-Butylbenzene EPA 524.2

104.040 010 Carbon Tetrachloride EPA 524.2

104.040 011 Chlorobenzene EPA 524.2

104.040 015 2-Chlorotoluene EPA 524.2

104.040	016	4-Chlorotoluene	EPA 524.2
104.040	019	1,3-Dichlorobenzene	EPA 524.2
104.040	020	1,2-Dichlorobenzene	EPA 524.2
104.040	021	1,4-Dichlorobenzene	EPA 524.2
104.040	022	Dichlorodifluoromethane	EPA 524.2
104.040	023	1,1-Dichloroethane	EPA 524.2
104.040	024	1,2-Dichloroethane (Ethylene Dichloride)	EPA 524.2
104.040	025	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 524.2
104.040	026	cis-1,2-Dichloroethylene (cis 1,2 Dichloroethene)	EPA 524.2
104.040	027	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 524.2
104.040	028	Dichloromethane (Methylene Chloride)	EPA 524.2
104.040	029	1,2-Dichloropropane	EPA 524.2
104.040	033	cis-1,3-Dichloropropylene (cis 1,3 Dichloropropene)	EPA 524.2
104.040	034	trans-1,3-Dichloropropylene (trans-1,3 Dichloropropene)	EPA 524.2
104.040	035	Ethylbenzene	EPA 524.2
104.040	037	Isopropylbenzene	EPA 524.2
104.040	039	Naphthalene	EPA 524.2
104.040	041	N-propylbenzene	EPA 524.2
104.040	042	Styrene	EPA 524.2
104.040	043	1,1,1,2-Tetrachloroethane	EPA 524.2
104.040	044	1,1,2,2-Tetrachloroethane	EPA 524.2
104.040	045	Tetrachloroethylene (Tetrachloroethene)	EPA 524.2
104.040	046	Toluene	EPA 524.2
104.040	047	1,2,3-Trichlorobenzene	EPA 524.2
104.040	048	1,2,4-Trichlorobenzene	EPA 524.2
104.040	049	1,1,1-Trichloroethane	EPA 524.2
104.040	050	1,1,2-Trichloroethane	EPA 524.2
104.040	051	Trichloroethylene (Trichloroethene)	EPA 524.2
104.040	052	Trichlorofluoromethane	EPA 524.2
104.040	054	1,2,4-Trimethylbenzene	EPA 524.2
104.040	055	1,3,5-Trimethylbenzene	EPA 524.2
104.040	056	Vinyl Chloride	EPA 524.2
104.040	059	o-Xylene	EPA 524.2
104.040	061	Carbon Disulfide	EPA 524.2
104.040	062	Methyl isobutyl ketone (MIBK, 4-Methyl-2-pentanone)	EPA 524.2
104.040	063	m+p-Xylene	EPA 524.2
104.045	001	Bromodichloromethane	EPA 524.2
104.045	002	Bromoform	EPA 524.2
104.045	003	Chloroform	EPA 524.2
104.045	004	Dibromochloromethane (Chlorodibromomethane)	EPA 524.2
104.050	002	Methyl tert-butyl Ether (MTBE)	EPA 524.2
104.050	003	tert-Amyl Methyl Ether (TAME)	EPA 524.2

104.050	004	Ethyl tert-butyl Ether (ETBE)	EPA 524.2
104.050	005	Trichlorotrifluoroethane (Freon 113)	EPA 524.2
104.050	006	t-Butyl alcohol (2-Methyl-2-propanol)	EPA 524.2

**Field of Accreditation:106 - Radionuclides in Drinking Water**

106.092	001	Uranium	EPA 200.8
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**Field of Accreditation:108 - Inorganic Constituents in Non-Potable Water**

108.001	001	Specific Conductance	EPA 120.1 (1982 Rev.1.0)
108.007	001	Residue, Volatile	EPA 160.4 (1971)
108.009	001	Turbidity	EPA 180.1 (1993 Rev. 2.0)
108.013	001	Calcium	EPA 200.7 (1994 Rev. 4.4)
108.013	002	Magnesium	EPA 200.7 (1994 Rev. 4.4)
108.013	003	Phosphorus, Total	EPA 200.7 (1994 Rev. 4.4)
108.013	004	Potassium	EPA 200.7 (1994 Rev. 4.4)
108.013	005	Silica, Dissolved	EPA 200.7 (1994 Rev. 4.4)
108.013	006	Sodium	EPA 200.7 (1994 Rev. 4.4)
108.017	001	Bromide	EPA 300.0 (1993 Rev. 2.1)
108.017	002	Chloride	EPA 300.0 (1993 Rev. 2.1)
108.017	003	Fluoride	EPA 300.0 (1993 Rev. 2.1)
108.017	004	Nitrate (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	005	Nitrate-Nitrite (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	006	Nitrite (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	007	Phosphate, Ortho (as P)	EPA 300.0 (1993 Rev. 2.1)
108.017	008	Sulfate (as SO <sub>4</sub> )	EPA 300.0 (1993 Rev. 2.1)
108.025	001	Ammonia (as N)	EPA 350.1 (1993 Rev. 2.0)
108.029	001	Kjeldahl Nitrogen, Total (as N)	EPA 351.2 (1993 Rev. 2.0)
108.037	001	Phosphate, Ortho (as P)	EPA 365.3 (1978)
108.037	002	Phosphorus, Total	EPA 365.3 (1978)
108.045	001	Chemical Oxygen Demand	EPA 410.4 (1993 Rev. 2.0)
108.053	001	Oil & Grease Total	EPA 1664 A
108.053	002	Oil & Grease Total	EPA 1664 B
108.055	001	Color	SM 2120 B-2011
108.059	001	Turbidity	SM 2130 B-2011
108.061	001	Acidity	SM 2310 B-2011
108.063	001	Alkalinity	SM 2320 B-2011
108.065	001	Hardness (Calculation)	SM 2340 B-2011
108.067	001	Hardness	SM 2340 C-2011
108.069	001	Specific Conductance	SM 2510 B-2011
108.071	001	Residue, Total	SM 2540 B-2011
108.073	001	Residue, Filterable TDS	SM 2540 C-2011
108.075	001	Residue, Non-filterable TSS	SM 2540 D-2011
108.077	001	Residue, Volatile	SM 2540 E-2011
108.079	001	Residue, Settleable	SM 2540 F-2011



108.114	001	Chlorine, Total Residual	SM 4500-Cl G-2011
108.114	002	Chlorine, Free	SM 4500-Cl G-2011
108.125	001	Cyanide, Total	SM 4500-CN E-2011
108.129	001	Cyanide, Available	SM 4500-CN G-2011
108.131	001	Fluoride	SM 4500-F C-2011
108.137	001	Hydrogen Ion (pH)	SM 4500-H+ B-2011
108.140	001	Ammonia (as N)	SM 4500-NH3 D-2011
108.147	001	Ammonia (as N)	SM 4500-NH3 G-2011
108.173	001	Oxygen, Dissolved	SM 4500-O G-2011
108.201	001	Sulfide (as S)	SM 4500-S D-2011
108.207	001	Biochemical Oxygen Demand	SM 5210 B-2011
108.207	002	Carbonaceous BOD	SM 5210 B-2011
108.213	001	Chemical Oxygen Demand	SM 5220 D-2011
108.215	001	Organic Carbon-Total (TOC)	SM 5310 B-2011
108.225	001	Surfactants	SM 5540 C-2011
108.335	001	Cyanide, Total	Kelada-01

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**Field of Accreditation: 109 - Metals and Trace Elements in Non-Potable Water**

109.623	001	Aluminum	EPA 200.7 (1994 Rev. 4.4)
109.623	002	Antimony	EPA 200.7 (1994 Rev. 4.4)
109.623	003	Arsenic	EPA 200.7 (1994 Rev. 4.4)
109.623	004	Barium	EPA 200.7 (1994 Rev. 4.4)
109.623	005	Beryllium	EPA 200.7 (1994 Rev. 4.4)
109.623	006	Boron	EPA 200.7 (1994 Rev. 4.4)
109.623	007	Cadmium	EPA 200.7 (1994 Rev. 4.4)
109.623	008	Chromium	EPA 200.7 (1994 Rev. 4.4)
109.623	009	Cobalt	EPA 200.7 (1994 Rev. 4.4)
109.623	010	Copper	EPA 200.7 (1994 Rev. 4.4)
109.623	011	Iron	EPA 200.7 (1994 Rev. 4.4)
109.623	012	Lead	EPA 200.7 (1994 Rev. 4.4)
109.623	013	Manganese	EPA 200.7 (1994 Rev. 4.4)
109.623	014	Molybdenum	EPA 200.7 (1994 Rev. 4.4)
109.623	015	Nickel	EPA 200.7 (1994 Rev. 4.4)
109.623	016	Selenium	EPA 200.7 (1994 Rev. 4.4)
109.623	017	Silver	EPA 200.7 (1994 Rev. 4.4)
109.623	018	Thallium	EPA 200.7 (1994 Rev. 4.4)
109.623	019	Tin	EPA 200.7 (1994 Rev. 4.4)
109.623	020	Titanium	EPA 200.7 (1994 Rev. 4.4)
109.623	021	Vanadium	EPA 200.7 (1994 Rev. 4.4)
109.623	022	Zinc	EPA 200.7 (1994 Rev. 4.4)
109.625	001	Aluminum	EPA 200.8 (1994 Rev. 5.4)
109.625	002	Antimony	EPA 200.8 (1994 Rev. 5.4)
109.625	003	Arsenic	EPA 200.8 (1994 Rev. 5.4)

109.625	004	Barium	EPA 200.8 (1994 Rev. 5.4)
109.625	005	Beryllium	EPA 200.8 (1994 Rev. 5.4)
109.625	007	Cadmium	EPA 200.8 (1994 Rev. 5.4)
109.625	008	Chromium	EPA 200.8 (1994 Rev. 5.4)
109.625	009	Cobalt	EPA 200.8 (1994 Rev. 5.4)
109.625	010	Copper	EPA 200.8 (1994 Rev. 5.4)
109.625	012	Iron	EPA 200.8 (1994 Rev. 5.4)
109.625	013	Lead	EPA 200.8 (1994 Rev. 5.4)
109.625	014	Manganese	EPA 200.8 (1994 Rev. 5.4)
109.625	015	Molybdenum	EPA 200.8 (1994 Rev. 5.4)
109.625	016	Nickel	EPA 200.8 (1994 Rev. 5.4)
109.625	017	Selenium	EPA 200.8 (1994 Rev. 5.4)
109.625	018	Silver	EPA 200.8 (1994 Rev. 5.4)
109.625	019	Thallium	EPA 200.8 (1994 Rev. 5.4)
109.625	020	Tin	EPA 200.8 (1994 Rev. 5.4)
109.625	022	Vanadium	EPA 200.8 (1994 Rev. 5.4)
109.625	023	Zinc	EPA 200.8 (1994 Rev. 5.4)
109.629	001	Chromium VI (Hexavalent Chromium)	EPA 218.6 (1994 Rev. 3.3)
109.635	001	Mercury	EPA 245.1 (1994 Rev. 3.0)
109.685	002	Chromium VI (Hexavalent Chromium)	SM 3500-Cr B-2011

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**Field of Accreditation: 110 - Volatile Organic Constituents in Non-Potable Water**


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110.040	001	Acetone	EPA 624.1
110.040	002	Acetonitrile	EPA 624.1
110.040	003	Acrolein	EPA 624.1
110.040	004	Acrylonitrile	EPA 624.1
110.040	005	Benzene	EPA 624.1
110.040	006	Bromodichloromethane	EPA 624.1
110.040	007	Bromoform	EPA 624.1
110.040	008	Bromomethane (Methyl Bromide)	EPA 624.1
110.040	009	t-Butyl alcohol (2-Methyl-2-propanol)	EPA 624.1
110.040	010	Carbon Tetrachloride	EPA 624.1
110.040	011	Chlorobenzene	EPA 624.1
110.040	012	Chloroethane	EPA 624.1
110.040	013	2-Chloroethyl vinyl Ether	EPA 624.1
110.040	014	Chloroform	EPA 624.1
110.040	015	Chloromethane (Methyl Chloride)	EPA 624.1
110.040	016	Dibromochloromethane (Chlorodibromomethane)	EPA 624.1
110.040	017	1,2-Dichlorobenzene	EPA 624.1
110.040	018	1,3-Dichlorobenzene	EPA 624.1
110.040	019	1,4-Dichlorobenzene	EPA 624.1
110.040	020	1,1-Dichloroethane	EPA 624.1
110.040	021	1,2-Dichloroethane (Ethylene Dichloride)	EPA 624.1

110.040	022	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 624.1
110.040	023	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 624.1
110.040	024	1,2-Dichloropropane	EPA 624.1
110.040	025	cis-1,3-Dichloropropylene (cis 1,3 Dichloropropene)	EPA 624.1
110.040	026	trans-1,3-Dichloropropylene (trans-1,3 Dichloropropene)	EPA 624.1
110.040	029	Ethylbenzene	EPA 624.1
110.040	031	Methylene Chloride (Dichloromethane)	EPA 624.1
110.040	032	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	EPA 624.1
110.040	034	1,1,2,2-Tetrachloroethane	EPA 624.1
110.040	035	Tetrachloroethylene (Tetrachloroethene)	EPA 624.1
110.040	037	Toluene	EPA 624.1
110.040	038	1,1,1-Trichloroethane	EPA 624.1
110.040	039	1,1,2-Trichloroethane	EPA 624.1
110.040	040	Trichloroethylene (Trichloroethene)	EPA 624.1
110.040	041	Vinyl Chloride	EPA 624.1
110.040	043	o-Xylene	EPA 624.1
110.040	045	Trichlorofluoromethane	EPA 624.1
110.040	046	m+p-Xylene	EPA 624.1
110.040	047	2-Butanone (MEK)	EPA 624.1

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**Field of Accreditation: 111 - Semi-volatile Organic Constituents in Non-Potable Water**

111.055	001	Aldrin	EPA 608.3
111.055	002	alpha-BHC	EPA 608.3
111.055	003	beta-BHC	EPA 608.3
111.055	004	delta-BHC	EPA 608.3
111.055	005	gamma-BHC (Lindane)	EPA 608.3
111.055	006	Chlordane	EPA 608.3
111.055	007	4,4'-DDD	EPA 608.3
111.055	008	4,4'-DDE	EPA 608.3
111.055	009	4,4'-DDT	EPA 608.3
111.055	010	Dieldrin	EPA 608.3
111.055	011	Endosulfan I	EPA 608.3
111.055	012	Endosulfan II	EPA 608.3
111.055	013	Endosulfan Sulfate	EPA 608.3
111.055	014	Endrin	EPA 608.3
111.055	015	Endrin Aldehyde	EPA 608.3
111.055	016	Heptachlor	EPA 608.3
111.055	017	Heptachlor Epoxide	EPA 608.3
111.055	019	PCB-1016 (Aroclor-1016)	EPA 608.3
111.055	020	PCB-1221 (Aroclor-1221)	EPA 608.3
111.055	021	PCB-1232 (Aroclor-1232)	EPA 608.3
111.055	022	PCB-1242 (Aroclor-1242)	EPA 608.3
111.055	023	PCB-1248 (Aroclor-1248)	EPA 608.3

111.055	024	PCB-1254 (Aroclor-1254)	EPA 608.3
111.055	025	PCB-1260 (Aroclor-1260)	EPA 608.3
111.055	046	Methoxychlor	EPA 608.3
111.055	060	Toxaphene	EPA 608.3
111.160	001	Acenaphthene	EPA 625.1
111.160	002	Acenaphthylene	EPA 625.1
111.160	003	Anthracene	EPA 625.1
111.160	004	Benzidine	EPA 625.1
111.160	005	Benzo(a)anthracene	EPA 625.1
111.160	006	Benzo(a)pyrene	EPA 625.1
111.160	007	Benzo(b)fluoranthene	EPA 625.1
111.160	008	Benzo(g,h,i)perylene	EPA 625.1
111.160	009	Benzo(k)fluoranthene	EPA 625.1
111.160	010	Bis(2-chloroethoxy) Methane	EPA 625.1
111.160	011	Bis(2-chloroethyl) Ether	EPA 625.1
111.160	012	bis(2-Chloroisopropyl) ether (2,2'-Oxybis[1-chloropropane])	EPA 625.1
111.160	013	Bis(2-ethylhexyl)phthalate (Di(2-ethylhexyl) phthalate)	EPA 625.1
111.160	014	4-Bromophenyl Phenyl Ether	EPA 625.1
111.160	015	Butyl Benzyl Phthalate	EPA 625.1
111.160	016	2-Chloronaphthalene	EPA 625.1
111.160	017	4-Chlorophenyl Phenyl Ether	EPA 625.1
111.160	018	Chrysene	EPA 625.1
111.160	019	Dibenz(a,h)anthracene	EPA 625.1
111.160	020	3,3'-Dichlorobenzidine	EPA 625.1
111.160	021	Diethyl Phthalate	EPA 625.1
111.160	022	Dimethyl Phthalate	EPA 625.1
111.160	023	Di-n-butyl Phthalate	EPA 625.1
111.160	024	2,4-Dinitrotoluene	EPA 625.1
111.160	025	2,6-Dinitrotoluene	EPA 625.1
111.160	026	Di-n-octyl Phthalate	EPA 625.1
111.160	027	Fluoranthene	EPA 625.1
111.160	028	Fluorene	EPA 625.1
111.160	029	Hexachlorobenzene	EPA 625.1
111.160	030	Hexachlorobutadiene	EPA 625.1
111.160	031	Hexachloroethane	EPA 625.1
111.160	032	Indeno(1,2,3-c,d)pyrene	EPA 625.1
111.160	033	Isophorone	EPA 625.1
111.160	034	Naphthalene	EPA 625.1
111.160	035	Nitrobenzene	EPA 625.1
111.160	036	N-nitroso-di-n-propylamine	EPA 625.1
111.160	037	Phenanthrene	EPA 625.1
111.160	038	Pyrene	EPA 625.1

111.160	039	1,2,4-Trichlorobenzene	EPA 625.1
111.160	040	4-Chloro-3-methylphenol	EPA 625.1
111.160	041	2-Chlorophenol	EPA 625.1
111.160	042	2,4-Dichlorophenol	EPA 625.1
111.160	043	2,4-Dimethylphenol	EPA 625.1
111.160	044	2,4-Dinitrophenol	EPA 625.1
111.160	045	2-Methyl-4,6-dinitrophenol	EPA 625.1
111.160	046	2-Nitrophenol	EPA 625.1
111.160	047	4-Nitrophenol	EPA 625.1
111.160	048	Pentachlorophenol	EPA 625.1
111.160	049	Phenol	EPA 625.1
111.160	050	2,4,6-Trichlorophenol	EPA 625.1
111.160	098	Hexachlorocyclopentadiene	EPA 625.1
111.160	108	N-nitrosodimethylamine	EPA 625.1
111.160	110	N-nitrosodiphenylamine	EPA 625.1
111.160	141	o-Cresol	EPA 625.1
111.160	145	Pyridine	EPA 625.1
111.260	041	N-nitrosodimethylamine	EPA 1625 B

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**Field of Accreditation: 114 - Inorganic Constituents in Hazardous Waste**

114.010	001	Antimony	EPA 6010 B
114.010	002	Arsenic	EPA 6010 B
114.010	003	Barium	EPA 6010 B
114.010	004	Beryllium	EPA 6010 B
114.010	005	Cadmium	EPA 6010 B
114.010	006	Chromium	EPA 6010 B
114.010	007	Cobalt	EPA 6010 B
114.010	008	Copper	EPA 6010 B
114.010	009	Lead	EPA 6010 B
114.010	010	Molybdenum	EPA 6010 B
114.010	011	Nickel	EPA 6010 B
114.010	012	Selenium	EPA 6010 B
114.010	013	Silver	EPA 6010 B
114.010	014	Thallium	EPA 6010 B
114.010	015	Vanadium	EPA 6010 B
114.010	016	Zinc	EPA 6010 B
114.020	001	Antimony	EPA 6020
114.020	002	Arsenic	EPA 6020
114.020	003	Barium	EPA 6020
114.020	004	Beryllium	EPA 6020
114.020	005	Cadmium	EPA 6020
114.020	006	Chromium	EPA 6020
114.020	007	Cobalt	EPA 6020

114.020	008	Copper	EPA 6020
114.020	009	Lead	EPA 6020
114.020	010	Molybdenum	EPA 6020
114.020	011	Nickel	EPA 6020
114.020	012	Selenium	EPA 6020
114.020	013	Silver	EPA 6020
114.020	014	Thallium	EPA 6020
114.020	015	Vanadium	EPA 6020
114.020	016	Zinc	EPA 6020
114.103	001	Chromium VI (Hexavalent Chromium)	EPA 7196 A
114.106	001	Chromium VI (Hexavalent Chromium)	EPA 7199
114.140	001	Mercury	EPA 7470 A
114.141	001	Mercury	EPA 7471 A
114.222	001	Cyanide, Total	EPA 9014
114.230	001	Sulfides	EPA 9034
114.240	001	Corrosivity - pH Determination	EPA 9040 B
114.241	001	Corrosivity - pH Determination	EPA 9045 C
114.250	001	Fluoride	EPA 9056
114.270	001	Fluoride	EPA 9214

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**Field of Accreditation:115 - Leaching/Extraction Tests and Physical Characteristics of Hazardous Waste**


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115.020	001	Toxicity Characteristic Leaching Procedure (TCLP)	EPA 1311
115.021	001	TCLP Inorganics	EPA 1311
115.022	001	TCLP Extractables	EPA 1311
115.023	001	TCLP Volatiles	EPA 1311
115.030	001	Waste Extraction Test (WET)	CCR Chapter11, Article 5, Appendix II
115.040	001	Synthetic Precipitation Leaching Procedure (SPLP)	EPA 1312

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**Field of Accreditation:116 - Volatile Organic Compounds in Hazardous Waste**


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116.030	001	Gasoline Range Organics (GRO)	EPA 8015 B
116.080	000	Volatile Organic Compounds	EPA 8260 B
116.080	120	Oxygenates	EPA 8260 B
116.100	001	Total Petroleum Hydrocarbons - Gasoline (GRO)	LUFT GC/MS
116.110	001	Total Petroleum Hydrocarbons - Gasoline (GRO)	LUFT

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**Field of Accreditation:117 - Semi-volatile Organic Chemistry of Hazardous Waste**


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117.010	001	Diesel Range Organics (DRO)	EPA 8015 B
117.110	000	Extractable Organics	EPA 8270 C
117.150	000	Carbonyl Compounds	EPA 8315 A
117.210	000	Organochlorine Pesticides	EPA 8081 A
117.220	000	PCBs	EPA 8082

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**Field of Accreditation:120 - Physical Properties of Hazardous Waste**


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120.010	001	Ignitability	EPA 1010
120.020	001	Ignitability	EPA 1020 A
120.070	001	Corrosivity - pH Determination	EPA 9040 B

120.080 001 Corrosivity - pH Determination

EPA 9045 C

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State Water Resources Control Board

May 20, 2021

Elizabeth Winger
Eurofins Calscience
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5817

Dear Elizabeth Winger:

Certificate No. 2706

Congratulations! This notice advises that the laboratory named above has been accredited as an environmental testing laboratory pursuant to the provisions of the California Health and Safety Code (HSC) Sections 100825-100920. The analyses for which this laboratory is accredited are shown on the enclosed "Fields of Accreditation" List.

The laboratory's accreditation begins on the date printed on the enclosed certificate. If you did not submit your application by the renewal deadline, there may be a lapse in your accreditation. You are responsible for ensuring no data is submitted for regulatory purposes during a period the laboratory is not accredited.

Be advised, the laboratory may have been denied accreditation for one or more analyses for which it applied due to failure to comply with regulatory requirements for application or accreditation. It is the laboratory's responsibility to review the enclosed documents and know which methods it has been accredited for. This accreditation is a final action of the State Water Resources Control Board subject to petition under HSC Section 116701 within 30 days. However, if you believe that an FOA has been left off of your accreditation in error, before you file a petition you may submit to ELAP within 30 days of this letter, an "Accreditation Inquiry Request Form" located at www.waterboards.ca.gov/elap identifying any mistakes or errors you believe occurred in your accreditation. ELAP will then review all timely submitted "Accreditation Inquiry Request Forms" and will make a final determination, which could then be petitioned to the State Water Resources Control Board. Failure to submit an "Accreditation Inquiry Request Form" to ELAP within 30 days of this letter or to timely petition ELAP's final decision to the State Water Resources Control Board will prohibit you from obtaining any further review of your accreditation. HSC Section 100890 lists the civil penalties for environmental laboratories that perform analyses for state regulatory purposes without a valid certificate.

Continued accreditation is contingent upon compliance with HSC Sections 100825-100920 and California Code of Regulations, Title 22, Division 4, Chapter 19, Certification of Environmental Laboratories. ELAP reserves the right to take enforcement action, including issuance of civil penalties, or suspension and revocation of the laboratory's ELAP certificate, for failure to comply with all applicable regulations, statutes and orders.

E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

1001 I Street, Sacramento, CA 95814 | Mailing Address: P.O. Box 100, Sacramento, CA 95812-0100 | www.waterboards.ca.gov





Thank you,



Christine Sotelo, Chief  
California Environmental Laboratory Accreditation Program (CA ELAP)

---

E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

1001 | Street, Sacramento, CA 95814 | Mailing Address: P.O. Box 100, Sacramento, CA 95812-0100 | [www.waterboards.ca.gov](http://www.waterboards.ca.gov)





STATE WATER RESOURCES CONTROL BOARD  
REGIONAL WATER QUALITY CONTROL BOARDS

CALIFORNIA STATE



ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

**CERTIFICATE OF  
ENVIRONMENTAL LABORATORY ACCREDITATION**

Is hereby granted to

**Eurofins Eaton Analytical, LLC - Monrovia**

750 Royal Oaks Drive, Suite 100

Monrovia, CA 91016

Scope of the certificate is limited to the  
"Fields of Accreditation"  
which accompany this Certificate.

Continued accredited status depends on compliance with applicable laws and regulations,  
proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of  
Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **2813**

Effective Date: **2/2/2021**

Expiration Date: **2/1/2023**

A handwritten signature in blue ink, appearing to read "Christine Sotelo".

Sacramento, California  
subject to forfeiture or revocation

Christine Sotelo, Chief  
Environmental Laboratory Accreditation Program



**CALIFORNIA STATE  
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM  
Accredited Fields of Testing**



**Eurofins Eaton Analytical, LLC - Monrovia**

750 Royal Oaks Drive, Suite 100  
Monrovia, CA 91016  
Phone: 6263861100

**Certificate No. 2813  
Expiration Date 2/1/2023**

**Field of Testing: 101 - Microbiology of Drinking Water**

101.010 001	Heterotrophic Bacteria	SM 9215 B
101.020 001	Total Coliform P/A	SM 9221 B
101.020 002	Fecal Coliform P/A	SM 9221 B,E
101.020 003	E. coli P/A	SM 9221 B,F
101.020 004	Total Coliform (Enumeration)	SM 9221 B,C
101.020 005	Fecal Coliform (Enumeration)	SM 9221 B,E
101.020 006	E. coli (Enumeration)	SM 9221 B,F
101.050 001	Total Coliform P/A	SM 9223 B Colilert
101.050 002	E. coli P/A	SM 9223 B Colilert
101.050 003	Total Coliform (Enumeration)	SM 9223 B Colilert
101.050 004	E. coli (Enumeration)	SM 9223 B Colilert
101.050 005	Total Coliform P/A	SM 9223 B Colilert 18
101.050 006	E. coli P/A	SM 9223 B Colilert 18
101.050 007	Total Coliform (Enumeration)	SM 9223 B Colilert 18
101.050 008	E. coli (Enumeration)	SM 9223 B Colilert 18
101.050 009	Total Coliform P/A	SM 9223 B Colisure
101.050 010	E. coli P/A	SM 9223 B Colisure
101.140 001	Enterococci	SM 9230 B
101.170 001	Enterococci	Enterolert

**Field of Testing: 102 - Inorganic Chemistry of Drinking Water**

102.015 001	Hydrogen Ion (pH)	EPA 150.1
102.020 001	Turbidity	EPA 180.1
102.026 001	Calcium	EPA 200.7
102.026 002	Magnesium	EPA 200.7
102.026 003	Potassium	EPA 200.7
102.026 004	Silica	EPA 200.7
102.026 005	Sodium	EPA 200.7
102.026 006	Hardness (Calculation)	EPA 200.7
102.030 001	Bromide	EPA 300.0
102.030 002	Chlorate	EPA 300.0
102.030 003	Chloride	EPA 300.0
102.030 004	Chlorite	EPA 300.0
102.030 006	Nitrate (as N)	EPA 300.0

As of 3/24/2021 , this list supersedes all previous lists for this certificate number.  
Customers: Please verify the current accreditation standing with the State.

102.030	007	Nitrite (as N)	EPA 300.0
102.030	009	Sulfate (as SO4)	EPA 300.0
102.040	001	Bromide	EPA 300.1
102.040	003	Chlorate	EPA 300.1
102.040	004	Bromate	EPA 300.1
102.040	008	Nitrite (as N)	EPA 300.1
102.044	001	Bromate	EPA 317.0
102.045	001	Perchlorate	EPA 314.0
102.047	001	Perchlorate	EPA 331.0
102.050	001	Cyanide, Total	EPA 335.4
102.060	001	Nitrate (as N) (Calculation)	EPA 353.2
102.061	001	Nitrite (as N)	EPA 353.2
102.100	001	Alkalinity	SM 2320 B-1997
102.120	001	Hardness (Calculation)	SM 2340 B-1997
102.130	001	Specific Conductance	SM 2510 B-1997
102.140	001	Residue, Filterable TDS	SM 2540 C-1997
102.175	001	Chlorine, Free	SM 4500-Cl G-2000
102.175	002	Chlorine, Total Residual	SM 4500-Cl G-2000
102.180	001	Chlorine Dioxide	SM 4500-ClO2 D-2000
102.191	001	Cyanide, Total	SM 4500-CN F-1999
102.200	001	Fluoride	SM 4500-F C-1997
102.203	001	Hydrogen Ion (pH)	SM 4500-H+ B-2000
102.240	001	Phosphate,Ortho (as P)	SM 4500-P E-1999
102.242	001	Silica	SM 4500-SiO2 C-1997
102.262	001	Organic Carbon-Total (TOC)	SM 5310 C-2000
102.263	001	Dissolved Organic Carbon (DOC)	SM 5310 C-2000
102.270	001	Surfactants	SM 5540 C-2000
102.280	001	UV254	SM 5910 B-2011

**Field of Testing: 103 - Toxic Chemical Elements of Drinking Water**

103.130	001	Aluminum	EPA 200.7
103.130	003	Barium	EPA 200.7
103.130	004	Beryllium	EPA 200.7
103.130	007	Chromium	EPA 200.7
103.130	008	Copper	EPA 200.7
103.130	009	Iron	EPA 200.7
103.130	011	Manganese	EPA 200.7
103.130	012	Nickel	EPA 200.7
103.130	015	Silver	EPA 200.7
103.130	017	Zinc	EPA 200.7
103.130	018	Boron	EPA 200.7
103.140	001	Aluminum	EPA 200.8
103.140	002	Antimony	EPA 200.8

103.140	003	Arsenic	EPA 200.8
103.140	004	Barium	EPA 200.8
103.140	005	Beryllium	EPA 200.8
103.140	006	Cadmium	EPA 200.8
103.140	007	Chromium	EPA 200.8
103.140	008	Copper	EPA 200.8
103.140	009	Lead	EPA 200.8
103.140	010	Manganese	EPA 200.8
103.140	011	Mercury	EPA 200.8
103.140	012	Nickel	EPA 200.8
103.140	013	Selenium	EPA 200.8
103.140	014	Silver	EPA 200.8
103.140	015	Thallium	EPA 200.8
103.140	016	Zinc	EPA 200.8
103.140	018	Vanadium	EPA 200.8
103.301	001	Asbestos	EPA 100.2
103.310	001	Chromium VI (Hexavalent Chromium)	EPA 218.6
103.311	001	Chromium VI (Hexavalent Chromium)	EPA 218.7

**Field of Testing: 104 - Volatile Organic Chemistry of Drinking Water**

104.030	001	1,2-Dibromoethane (EDB)	EPA 504.1
104.030	002	1,2-Dibromo-3-chloropropane (DBCP)	EPA 504.1
104.035	001	1,2,3-Trichloropropane (TCP)	SRL 524M-TCP
104.040	001	Benzene	EPA 524.2
104.040	007	n-Butylbenzene	EPA 524.2
104.040	008	sec-Butylbenzene	EPA 524.2
104.040	009	tert-Butylbenzene	EPA 524.2
104.040	010	Carbon Tetrachloride	EPA 524.2
104.040	011	Chlorobenzene	EPA 524.2
104.040	015	2-Chlorotoluene	EPA 524.2
104.040	016	4-Chlorotoluene	EPA 524.2
104.040	019	1,3-Dichlorobenzene	EPA 524.2
104.040	020	1,2-Dichlorobenzene	EPA 524.2
104.040	021	1,4-Dichlorobenzene	EPA 524.2
104.040	022	Dichlorodifluoromethane	EPA 524.2
104.040	023	1,1-Dichloroethane	EPA 524.2
104.040	024	1,2-Dichloroethane (Ethylene Dichloride)	EPA 524.2
104.040	025	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 524.2
104.040	026	cis-1,2-Dichloroethylene (cis 1,2 Dichloroethene)	EPA 524.2
104.040	027	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 524.2
104.040	028	Dichloromethane (Methylene Chloride)	EPA 524.2
104.040	029	1,2-Dichloropropane	EPA 524.2
104.040	033	cis-1,3-Dichloropropylene (cis 1,3 Dichloropropene)	EPA 524.2

104.040	034	trans-1,3-Dichloropropylene (trans-1,3 Dichloropropene)	EPA 524.2
104.040	035	Ethylbenzene	EPA 524.2
104.040	037	Isopropylbenzene	EPA 524.2
104.040	039	Naphthalene	EPA 524.2
104.040	041	N-propylbenzene	EPA 524.2
104.040	042	Styrene	EPA 524.2
104.040	043	1,1,1,2-Tetrachloroethane	EPA 524.2
104.040	044	1,1,2,2-Tetrachloroethane	EPA 524.2
104.040	045	Tetrachloroethylene (Tetrachloroethene)	EPA 524.2
104.040	046	Toluene	EPA 524.2
104.040	047	1,2,3-Trichlorobenzene	EPA 524.2
104.040	048	1,2,4-Trichlorobenzene	EPA 524.2
104.040	049	1,1,1-Trichloroethane	EPA 524.2
104.040	050	1,1,2-Trichloroethane	EPA 524.2
104.040	051	Trichloroethylene (Trichloroethene)	EPA 524.2
104.040	052	Trichlorofluoromethane	EPA 524.2
104.040	054	1,2,4-Trimethylbenzene	EPA 524.2
104.040	055	1,3,5-Trimethylbenzene	EPA 524.2
104.040	056	Vinyl Chloride	EPA 524.2
104.040	058	m-Xylene	EPA 524.2
104.040	059	o-Xylene	EPA 524.2
104.040	060	p-Xylene	EPA 524.2
104.040	061	Carbon Disulfide	EPA 524.2
104.040	062	Methyl isobutyl ketone (MIBK, 4-Methyl-2-pentanone)	EPA 524.2
104.040	063	m+p-Xylene	EPA 524.2
104.045	001	Bromodichloromethane	EPA 524.2
104.045	002	Bromoform	EPA 524.2
104.045	003	Chloroform	EPA 524.2
104.045	004	Dibromochloromethane (Chlorodibromomethane)	EPA 524.2
104.050	002	Methyl tert-butyl Ether (MTBE)	EPA 524.2
104.050	003	tert-Amyl Methyl Ether (TAME)	EPA 524.2
104.050	004	Ethyl tert-butyl Ether (ETBE)	EPA 524.2
104.050	005	Trichlorotrifluoroethane (Freon 113)	EPA 524.2
104.050	006	t-Butyl alcohol (2-Methyl-2-propanol)	EPA 524.2

**Field of Testing:** 105 - Semi-volatile Organic Chemistry of Drinking Water

105.010	002	Alachlor	EPA 505
105.010	004	Chlordane	EPA 505
105.010	006	Endrin	EPA 505
105.010	007	Heptachlor	EPA 505
105.010	008	Heptachlor Epoxide	EPA 505
105.010	011	Lindane (HCH-gamma)	EPA 505
105.010	012	Methoxychlor	EPA 505

105.010	014	Toxaphene	EPA 505
105.010	015	PCBs as Aroclors (screen)	EPA 505
105.083	001	2,4-D	EPA 515.4
105.083	002	Dinoseb	EPA 515.4
105.083	003	Pentachlorophenol	EPA 515.4
105.083	004	Picloram	EPA 515.4
105.083	005	2,4,5-TP (Silvex)	EPA 515.4
105.083	006	Dalapon	EPA 515.4
105.083	007	Bentazon	EPA 515.4
105.083	008	Dicamba	EPA 515.4
105.085	001	1,4-Dioxane	EPA 522
105.090	001	Alachlor	EPA 525.2
105.090	002	Aldrin	EPA 525.2
105.090	003	Atrazine	EPA 525.2
105.090	004	Benzo(a)pyrene	EPA 525.2
105.090	005	Butachlor	EPA 525.2
105.090	006	Chlordane	EPA 525.2
105.090	007	Dieldrin	EPA 525.2
105.090	008	Di(2-ethylhexyl) Adipate	EPA 525.2
105.090	009	Di(2-ethylhexyl) Phthalate	EPA 525.2
105.090	013	Endrin	EPA 525.2
105.090	014	Heptachlor	EPA 525.2
105.090	015	Heptachlor Epoxide	EPA 525.2
105.090	016	Hexachlorobenzene	EPA 525.2
105.090	017	Hexachlorocyclopentadiene	EPA 525.2
105.090	018	Lindane (HCH-gamma)	EPA 525.2
105.090	019	Methoxychlor	EPA 525.2
105.090	022	Molinate	EPA 525.2
105.090	025	Simazine	EPA 525.2
105.090	028	Thiobencarb	EPA 525.2
105.101	001	Carbofuran (Furadan)	EPA 531.2
105.101	002	Oxamyl	EPA 531.2
105.101	003	Aldicarb (Temik)	EPA 531.2
105.101	004	Aldicarb Sulfone	EPA 531.2
105.101	005	Aldicarb Sulfoxide	EPA 531.2
105.101	006	Carbaryl (Sevin)	EPA 531.2
105.101	007	3-Hydroxycarbofuran	EPA 531.2
105.101	008	Methomyl (Lannate)	EPA 531.2
105.106	001	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	EPA 537.1
105.106	002	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	EPA 537.1
105.106	003	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	EPA 537.1
105.106	004	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	EPA 537.1

105.106	005	N-Ethylperfluorooctane Sulfonamido Acetic Acid (NEtFOSAA)	EPA 537.1
105.106	006	N-Methylperfluorooctane Sulfonamido Acetic Acid (NMeFOSAA)	EPA 537.1
105.106	007	Perfluorobutane Sulfonic Acid (PFBS)	EPA 537.1
105.106	008	Perfluorodecanoic Acid (PFDA)	EPA 537.1
105.106	009	Perfluorododecanoic Acid (PFDoA)	EPA 537.1
105.106	010	Perfluoroheptanoic Acid (PFHpA)	EPA 537.1
105.106	011	Perfluorohexane Sulfonic Acid (PFHxS)	EPA 537.1
105.106	012	Perfluorohexanoic Acid (PFHxA)	EPA 537.1
105.106	013	Perfluorononanoic Acid (PFNA)	EPA 537.1
105.106	014	Perfluorooctanoic Acid (PFOA)	EPA 537.1
105.106	015	Perfluorooctane Sulfonic Acid (PFOS)	EPA 537.1
105.106	016	Perfluorotetradecanoic Acid (PFTDA)	EPA 537.1
105.106	017	Perfluorotridecanoic Acid (PFTrDA)	EPA 537.1
105.106	018	Perfluoroundecanoic Acid (PFUnDA)	EPA 537.1
105.120	001	Glyphosate	EPA 547
105.140	001	Endothall	EPA 548.1
105.150	001	Diquat	EPA 549.2
105.170	010	1,2-Dibromo-3-chloropropane (DBCP)	EPA 551.1
105.170	011	1,2-Dibromoethane (EDB)	EPA 551.1
105.175	001	Bromodichloromethane	EPA 551.1
105.175	002	Bromoform	EPA 551.1
105.175	003	Chloroform	EPA 551.1
105.175	004	Dibromochloromethane (Chlorodibromomethane)	EPA 551.1
105.190	001	Bromoacetic Acid	SM 6251 B
105.190	003	Chloroacetic Acid	SM 6251 B
105.190	005	Dibromoacetic Acid	SM 6251 B
105.190	006	Dichloroacetic Acid	SM 6251 B
105.190	007	Trichloroacetic Acid	SM 6251 B
105.230	002	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) Screening Only	EPA 1613 B

**Field of Testing:** 106 - Radionuclides in Drinking Water

106.010	001	Gross Alpha	EPA 900.0
106.010	002	Gross Beta	EPA 900.0
106.092	001	Uranium	EPA 200.8
106.270	001	Gross Alpha	SM 7110 C
106.610	001	Radon-222	SM 7500-Rn
106.640	001	Radium-226	Georgia Inst. of Tech. rev 1.2
106.640	002	Radium-228	Georgia Inst. of Tech. rev 1.2

**Field of Testing:** 107 - Microbiological Methods for Non-Potable Water and Sewage Sludge

107.001	001	Total Coliform (Enumeration)	SM 9221 B,C-2006
107.001	002	Fecal Coliform (Enumeration)	SM 9221 C,E-2006
107.001	003	E. coli (Enumeration)	SM 9221 C,F-2006
107.007	001	Enterococci	SM 9230 B-2007



107.007	002	Fecal Streptococci	SM 9230 B-2007
107.013	001	E. coli (Enumeration)	SM 9223 B-2004
107.015	001	E. coli (Enumeration)	SM 9223 B-2004 Colilert 18
107.017	001	Enterococci	Enterolert

**Field of Testing: 108 - Inorganic Constituents in Non-Potable Water**

108.001	001	Specific Conductance	EPA 120.1 (1982 Rev.1.0)
108.007	001	Residue, Volatile	EPA 160.4 (1971)
108.009	001	Turbidity	EPA 180.1 (1993 Rev. 2.0)
108.013	001	Calcium	EPA 200.7 (1994 Rev. 4.4)
108.013	002	Magnesium	EPA 200.7 (1994 Rev. 4.4)
108.013	004	Potassium	EPA 200.7 (1994 Rev. 4.4)
108.013	005	Silica, Dissolved	EPA 200.7 (1994 Rev. 4.4)
108.013	006	Sodium	EPA 200.7 (1994 Rev. 4.4)
108.017	001	Bromide	EPA 300.0 (1993 Rev. 2.1)
108.017	002	Chloride	EPA 300.0 (1993 Rev. 2.1)
108.017	004	Nitrate (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	005	Nitrate-Nitrite (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	006	Nitrite (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	008	Sulfate (as SO4)	EPA 300.0 (1993 Rev. 2.1)
108.023	001	Cyanide, Total	EPA 335.4 (1993 Rev. 1.0)
108.025	001	Ammonia (as N)	EPA 350.1 (1993 Rev. 2.0)
108.029	001	Kjeldahl Nitrogen, Total (as N)	EPA 351.2 (1993 Rev. 2.0)
108.033	001	Nitrate-Nitrite (as N)	EPA 353.2 (1993 Rev. 2.0)
108.033	002	Nitrite (as N)	EPA 353.2 (1993 Rev. 2.0)
108.035	001	Phosphate, Ortho (as P)	EPA 365.1 (1993 Rev. 2.0)
108.035	002	Phosphorus, Total	EPA 365.1 (1993 Rev. 2.0)
108.045	001	Chemical Oxygen Demand	EPA 410.4 (1993 Rev. 2.0)
108.047	001	Phenols, Total	EPA 420.1 (1978 Rev. 1.0)
108.049	001	Phenols, Total	EPA 420.4 (1993 Rev. 2.0)
108.055	001	Color	SM 2120 B-2011
108.063	001	Alkalinity	SM 2320 B-2011
108.065	001	Hardness (Calculation)	SM 2340 B-2011
108.069	001	Specific Conductance	SM 2510 B-2011
108.071	001	Residue, Total	SM 2540 B-2011
108.073	001	Residue, Filterable TDS	SM 2540 C-2011
108.075	001	Residue, Non-filterable TSS	SM 2540 D-2011
108.077	001	Residue, Volatile	SM 2540 E-2011
108.079	001	Residue, Settleable	SM 2540 F-2011
108.114	001	Chlorine, Total Residual	SM 4500-CI G-2011
108.114	002	Chlorine, Free	SM 4500-CI G-2011
108.129	001	Cyanide, Available	SM 4500-CN G-2011
108.137	001	Hydrogen Ion (pH)	SM 4500-H+ B-2011

108.175	001	Phosphate,Ortho (as P)	SM 4500-P E-2011
108.175	002	Phosphorus,Total	SM 4500-P E-2011
108.184	001	Silica, Dissolved	SM 4500-SiO2 C-2011
108.201	001	Sulfide (as S)	SM 4500-S D-2011
108.207	001	Biochemical Oxygen Demand	SM 5210 B-2011
108.207	002	Carbonaceous BOD	SM 5210 B-2011
108.213	001	Chemical Oxygen Demand	SM 5220 D-2011
108.217	001	Organic Carbon-Total (TOC)	SM 5310 C-2011
108.225	001	Surfactants	SM 5540 C-2011

**Field of Testing: 109 - Metals and Trace Elements in Non-Potable Water**

109.623	001	Aluminum	EPA 200.7 (1994 Rev. 4.4)
109.623	002	Antimony	EPA 200.7 (1994 Rev. 4.4)
109.623	004	Barium	EPA 200.7 (1994 Rev. 4.4)
109.623	005	Beryllium	EPA 200.7 (1994 Rev. 4.4)
109.623	006	Boron	EPA 200.7 (1994 Rev. 4.4)
109.623	007	Cadmium	EPA 200.7 (1994 Rev. 4.4)
109.623	008	Chromium	EPA 200.7 (1994 Rev. 4.4)
109.623	009	Cobalt	EPA 200.7 (1994 Rev. 4.4)
109.623	010	Copper	EPA 200.7 (1994 Rev. 4.4)
109.623	011	Iron	EPA 200.7 (1994 Rev. 4.4)
109.623	012	Lead	EPA 200.7 (1994 Rev. 4.4)
109.623	013	Manganese	EPA 200.7 (1994 Rev. 4.4)
109.623	014	Molybdenum	EPA 200.7 (1994 Rev. 4.4)
109.623	015	Nickel	EPA 200.7 (1994 Rev. 4.4)
109.623	017	Silver	EPA 200.7 (1994 Rev. 4.4)
109.623	018	Thallium	EPA 200.7 (1994 Rev. 4.4)
109.623	019	Tin	EPA 200.7 (1994 Rev. 4.4)
109.623	020	Titanium	EPA 200.7 (1994 Rev. 4.4)
109.623	021	Vanadium	EPA 200.7 (1994 Rev. 4.4)
109.623	022	Zinc	EPA 200.7 (1994 Rev. 4.4)
109.625	001	Aluminum	EPA 200.8 (1994 Rev. 5.4)
109.625	002	Antimony	EPA 200.8 (1994 Rev. 5.4)
109.625	003	Arsenic	EPA 200.8 (1994 Rev. 5.4)
109.625	004	Barium	EPA 200.8 (1994 Rev. 5.4)
109.625	005	Beryllium	EPA 200.8 (1994 Rev. 5.4)
109.625	007	Cadmium	EPA 200.8 (1994 Rev. 5.4)
109.625	008	Chromium	EPA 200.8 (1994 Rev. 5.4)
109.625	009	Cobalt	EPA 200.8 (1994 Rev. 5.4)
109.625	010	Copper	EPA 200.8 (1994 Rev. 5.4)
109.625	013	Lead	EPA 200.8 (1994 Rev. 5.4)
109.625	014	Manganese	EPA 200.8 (1994 Rev. 5.4)
109.625	015	Molybdenum	EPA 200.8 (1994 Rev. 5.4)

109.625	016	Nickel	EPA 200.8 (1994 Rev. 5.4)
109.625	017	Selenium	EPA 200.8 (1994 Rev. 5.4)
109.625	018	Silver	EPA 200.8 (1994 Rev. 5.4)
109.625	019	Thallium	EPA 200.8 (1994 Rev. 5.4)
109.625	020	Tin	EPA 200.8 (1994 Rev. 5.4)
109.625	021	Titanium	EPA 200.8 (1994 Rev. 5.4)
109.625	022	Vanadium	EPA 200.8 (1994 Rev. 5.4)
109.625	023	Zinc	EPA 200.8 (1994 Rev. 5.4)
109.629	001	Chromium VI (Hexavalent Chromium)	EPA 218.6 (1994 Rev. 3.3)
109.685	002	Chromium VI (Hexavalent Chromium)	SM 3500-Cr B-2011

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**Field of Testing: 112 - Radionuclides in Non-Potable Water**

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112.001	001	Gross Alpha	EPA 900.0
112.001	002	Gross Beta	EPA 900.0



STATE WATER RESOURCES CONTROL BOARD  
REGIONAL WATER QUALITY CONTROL BOARDS



CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

**CERTIFICATE OF  
ENVIRONMENTAL LABORATORY ACCREDITATION**

Is hereby granted to

**Eurofins TestAmerica Savannah**

5102 LaRoche Avenue

Savannah, GA 31404

Scope of the certificate is limited to the  
"Fields of Accreditation"  
which accompany this Certificate.

Continued accredited status depends on compliance with applicable laws and regulations,  
proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of  
Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **2939**

Effective Date: **7/1/2021**

Expiration Date: **6/30/2022**

A handwritten signature in blue ink, appearing to read "Christine Sotelo".

Sacramento, California  
subject to forfeiture or revocation

Christine Sotelo, Chief  
Environmental Laboratory Accreditation Program



**CALIFORNIA STATE  
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM  
Fields of Accreditation**



**Eurofins TestAmerica Savannah**

5102 LaRoche Avenue  
Savannah, GA 31404  
Phone: 9123547858

**Certificate Number: 2939**  
**Expiration Date: 6/30/2022**

Primary Accreditation  
Body

**Field of Accreditation:102 - Inorganic Chemistry of Drinking Water**

102.015	001	Hydrogen Ion (pH)	EPA 150.1	FL
102.020	001	Turbidity	EPA 180.1	FL
102.026	001	Calcium	EPA 200.7	FL
102.026	002	Magnesium	EPA 200.7	FL
102.026	003	Potassium	EPA 200.7	FL
102.026	004	Silica	EPA 200.7	FL
102.026	005	Sodium	EPA 200.7	FL
102.030	003	Chloride	EPA 300.0	FL
102.030	005	Fluoride	EPA 300.0	FL
102.030	006	Nitrate (as N)	EPA 300.0	FL
102.030	007	Nitrite (as N)	EPA 300.0	FL
102.030	009	Sulfate (as SO4)	EPA 300.0	FL
102.040	001	Bromide	EPA 300.1	FL
102.040	002	Chlorite	EPA 300.1	FL
102.040	003	Chlorate	EPA 300.1	FL
102.040	004	Bromate	EPA 300.1	FL
102.050	001	Cyanide, Total	EPA 335.4	FL
102.060	001	Nitrate (as N) (Calculation)	EPA 353.2	FL
102.061	001	Nitrite (as N)	EPA 353.2	FL
102.070	001	Phosphate,Ortho (as P)	EPA 365.1	FL
102.095	001	Turbidity	SM 2130 B-2001	FL
102.100	001	Alkalinity	SM 2320 B-1997	FL
102.120	001	Hardness (Calculation)	SM 2340 B-1997	FL
102.121	001	Hardness	SM 2340 C-1997	FL
102.130	001	Specific Conductance	SM 2510 B-1997	FL
102.140	001	Residue, Filterable TDS	SM 2540 C-1997	FL
102.190	001	Cyanide, Total	SM 4500-CN E-1999	FL
102.203	001	Hydrogen Ion (pH)	SM 4500-H+ B-2000	FL
102.241	001	Phosphate,Ortho (as P)	SM 4500-P F-1999	FL
102.260	001	Organic Carbon-Total (TOC)	SM 5310 B-2000	FL
102.261	001	Dissolved Organic Carbon (DOC)	SM 5310 B-2000	FL
102.280	001	UV254	SM 5910 B-2011	FL

**Field of Accreditation:103 - Toxic Chemical Elements of Drinking Water**

As of 7/1/2021 , this list supersedes all previous lists for this certificate number.  
Customers: Please verify the current accreditation standing with the State.

103.130	001	Aluminum	EPA 200.7	FL
103.130	003	Barium	EPA 200.7	FL
103.130	004	Beryllium	EPA 200.7	FL
103.130	007	Chromium	EPA 200.7	FL
103.130	008	Copper	EPA 200.7	FL
103.130	009	Iron	EPA 200.7	FL
103.130	011	Manganese	EPA 200.7	FL
103.130	012	Nickel	EPA 200.7	FL
103.130	015	Silver	EPA 200.7	FL
103.130	017	Zinc	EPA 200.7	FL
103.130	018	Boron	EPA 200.7	FL
103.140	001	Aluminum	EPA 200.8	FL
103.140	002	Antimony	EPA 200.8	FL
103.140	003	Arsenic	EPA 200.8	FL
103.140	004	Barium	EPA 200.8	FL
103.140	005	Beryllium	EPA 200.8	FL
103.140	006	Cadmium	EPA 200.8	FL
103.140	007	Chromium	EPA 200.8	FL
103.140	008	Copper	EPA 200.8	FL
103.140	009	Lead	EPA 200.8	FL
103.140	010	Manganese	EPA 200.8	FL
103.140	011	Mercury	EPA 200.8	FL
103.140	012	Nickel	EPA 200.8	FL
103.140	013	Selenium	EPA 200.8	FL
103.140	014	Silver	EPA 200.8	FL
103.140	015	Thallium	EPA 200.8	FL
103.140	016	Zinc	EPA 200.8	FL
103.140	018	Vanadium	EPA 200.8	FL
103.160	001	Mercury	EPA 245.1	FL

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**Field of Accreditation: 104 - Volatile Organic Chemistry of Drinking Water**

104.030	001	1,2-Dibromoethane (EDB)	EPA 504.1	FL
104.030	002	1,2-Dibromo-3-chloropropane (DBCP)	EPA 504.1	FL
104.040	001	Benzene	EPA 524.2	FL
104.040	007	n-Butylbenzene	EPA 524.2	FL
104.040	008	sec-Butylbenzene	EPA 524.2	FL
104.040	009	tert-Butylbenzene	EPA 524.2	FL
104.040	010	Carbon Tetrachloride	EPA 524.2	FL
104.040	011	Chlorobenzene	EPA 524.2	FL
104.040	015	2-Chlorotoluene	EPA 524.2	FL
104.040	016	4-Chlorotoluene	EPA 524.2	FL
104.040	019	1,3-Dichlorobenzene	EPA 524.2	FL
104.040	020	1,2-Dichlorobenzene	EPA 524.2	FL

104.040	021	1,4-Dichlorobenzene	EPA 524.2	FL
104.040	022	Dichlorodifluoromethane	EPA 524.2	FL
104.040	023	1,1-Dichloroethane	EPA 524.2	FL
104.040	024	1,2-Dichloroethane (Ethylene Dichloride)	EPA 524.2	FL
104.040	025	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 524.2	FL
104.040	026	cis-1,2-Dichloroethylene (cis 1,2 Dichloroethene)	EPA 524.2	FL
104.040	027	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 524.2	FL
104.040	028	Dichloromethane (Methylene Chloride)	EPA 524.2	FL
104.040	029	1,2-Dichloropropane	EPA 524.2	FL
104.040	033	cis-1,3-Dichloropropylene (cis 1,3 Dichloropropene)	EPA 524.2	FL
104.040	034	trans-1,3-Dichloropropylene (trans-1,3 Dichloropropene)	EPA 524.2	FL
104.040	035	Ethylbenzene	EPA 524.2	FL
104.040	037	Isopropylbenzene	EPA 524.2	FL
104.040	039	Naphthalene	EPA 524.2	FL
104.040	041	N-propylbenzene	EPA 524.2	FL
104.040	042	Styrene	EPA 524.2	FL
104.040	043	1,1,1,2-Tetrachloroethane	EPA 524.2	FL
104.040	044	1,1,2,2-Tetrachloroethane	EPA 524.2	FL
104.040	045	Tetrachloroethylene (Tetrachloroethene)	EPA 524.2	FL
104.040	046	Toluene	EPA 524.2	FL
104.040	047	1,2,3-Trichlorobenzene	EPA 524.2	FL
104.040	048	1,2,4-Trichlorobenzene	EPA 524.2	FL
104.040	049	1,1,1-Trichloroethane	EPA 524.2	FL
104.040	050	1,1,2-Trichloroethane	EPA 524.2	FL
104.040	051	Trichloroethylene (Trichloroethene)	EPA 524.2	FL
104.040	052	Trichlorofluoromethane	EPA 524.2	FL
104.040	054	1,2,4-Trimethylbenzene	EPA 524.2	FL
104.040	055	1,3,5-Trimethylbenzene	EPA 524.2	FL
104.040	056	Vinyl Chloride	EPA 524.2	FL
104.040	058	m-Xylene	EPA 524.2	FL
104.040	059	o-Xylene	EPA 524.2	FL
104.040	060	p-Xylene	EPA 524.2	FL
104.040	062	Methyl isobutyl ketone (MIBK, 4-Methyl-2-pentanone)	EPA 524.2	FL
104.040	063	m+p-Xylene	EPA 524.2	FL
104.045	001	Bromodichloromethane	EPA 524.2	FL
104.045	002	Bromoform	EPA 524.2	FL
104.045	003	Chloroform	EPA 524.2	FL
104.045	004	Dibromochloromethane (Chlorodibromomethane)	EPA 524.2	FL
104.050	002	Methyl tert-butyl Ether (MTBE)	EPA 524.2	FL
<b>Field of Accreditation:105 - Semi-volatile Organic Chemistry of Drinking Water</b>				
105.200	001	Bromoacetic Acid	EPA 552.2	FL
105.200	003	Chloroacetic Acid	EPA 552.2	FL

105.200	005	Dibromoacetic Acid	EPA 552.2	FL
105.200	006	Dichloroacetic Acid	EPA 552.2	FL
105.200	007	Trichloroacetic Acid	EPA 552.2	FL

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**Field of Accreditation: 108 - Inorganic Constituents in Non-Potable Water**


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108.001	001	Specific Conductance	EPA 120.1 (1982 Rev.1.0)	FL
108.007	001	Residue, Volatile	EPA 160.4 (1971)	FL
108.009	001	Turbidity	EPA 180.1 (1993 Rev. 2.0)	FL
108.013	001	Calcium	EPA 200.7 (1994 Rev. 4.4)	FL
108.013	002	Magnesium	EPA 200.7 (1994 Rev. 4.4)	FL
108.013	004	Potassium	EPA 200.7 (1994 Rev. 4.4)	FL
108.013	005	Silica, Dissolved	EPA 200.7 (1994 Rev. 4.4)	FL
108.013	006	Sodium	EPA 200.7 (1994 Rev. 4.4)	FL
108.017	001	Bromide	EPA 300.0 (1993 Rev. 2.1)	FL
108.017	002	Chloride	EPA 300.0 (1993 Rev. 2.1)	FL
108.017	003	Fluoride	EPA 300.0 (1993 Rev. 2.1)	FL
108.017	004	Nitrate (as N)	EPA 300.0 (1993 Rev. 2.1)	FL
108.017	005	Nitrate-Nitrite (as N)	EPA 300.0 (1993 Rev. 2.1)	FL
108.017	006	Nitrite (as N)	EPA 300.0 (1993 Rev. 2.1)	FL
108.017	008	Sulfate (as SO <sub>4</sub> )	EPA 300.0 (1993 Rev. 2.1)	FL
108.019	001	Bromide	EPA 300.1 (1997 Rev.1.0)	FL
108.023	001	Cyanide, Total	EPA 335.4 (1993 Rev. 1.0)	FL
108.025	001	Ammonia (as N)	EPA 350.1 (1993 Rev. 2.0)	FL
108.029	001	Kjeldahl Nitrogen, Total (as N)	EPA 351.2 (1993 Rev. 2.0)	FL
108.033	001	Nitrate-Nitrite (as N)	EPA 353.2 (1993 Rev. 2.0)	FL
108.033	002	Nitrite (as N)	EPA 353.2 (1993 Rev. 2.0)	FL
108.035	001	Phosphate, Ortho (as P)	EPA 365.1 (1993 Rev. 2.0)	FL
108.039	001	Phosphorus, Total	EPA 365.4 (1974)	FL
108.045	001	Chemical Oxygen Demand	EPA 410.4 (1993 Rev. 2.0)	FL
108.047	001	Phenols, Total	EPA 420.1 (1978 Rev. 1.0)	FL
108.053	001	Oil & Grease Total	EPA 1664 A	FL
108.055	001	Color	SM 2120 B-2011	FL
108.059	001	Turbidity	SM 2130 B-2011	FL
108.063	001	Alkalinity	SM 2320 B-2011	FL
108.065	001	Hardness (Calculation)	SM 2340 B-2011	FL
108.067	001	Hardness	SM 2340 C-2011	FL
108.069	001	Specific Conductance	SM 2510 B-2011	FL
108.073	001	Residue, Filterable TDS	SM 2540 C-2011	FL
108.075	001	Residue, Non-filterable TSS	SM 2540 D-2011	FL
108.077	001	Residue, Volatile	SM 2540 E-2011	FL
108.079	001	Residue, Settleable	SM 2540 F-2011	FL
108.103	001	Chlorine, Total Residual	SM 4500-CI B-2011	FL
108.108	001	Chlorine, Total Residual	SM 4500-CI E-2011	FL



108.125	001	Cyanide, Total	SM 4500-CN E-2011	FL
108.129	001	Cyanide, Available	SM 4500-CN G-2011	FL
108.137	001	Hydrogen Ion (pH)	SM 4500-H+ B-2011	FL
108.203	001	Sulfide (as S)	SM 4500-S F-2011	FL
108.207	001	Biochemical Oxygen Demand	SM 5210 B-2011	FL
108.207	002	Carbonaceous BOD	SM 5210 B-2011	FL
108.213	001	Chemical Oxygen Demand	SM 5220 D-2011	FL
108.215	001	Organic Carbon-Total (TOC)	SM 5310 B-2011	FL

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**Field of Accreditation: 109 - Metals and Trace Elements in Non-Potable Water**


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109.623	001	Aluminum	EPA 200.7 (1994 Rev. 4.4)	FL
109.623	002	Antimony	EPA 200.7 (1994 Rev. 4.4)	FL
109.623	003	Arsenic	EPA 200.7 (1994 Rev. 4.4)	FL
109.623	004	Barium	EPA 200.7 (1994 Rev. 4.4)	FL
109.623	005	Beryllium	EPA 200.7 (1994 Rev. 4.4)	FL
109.623	006	Boron	EPA 200.7 (1994 Rev. 4.4)	FL
109.623	007	Cadmium	EPA 200.7 (1994 Rev. 4.4)	FL
109.623	008	Chromium	EPA 200.7 (1994 Rev. 4.4)	FL
109.623	009	Cobalt	EPA 200.7 (1994 Rev. 4.4)	FL
109.623	010	Copper	EPA 200.7 (1994 Rev. 4.4)	FL
109.623	011	Iron	EPA 200.7 (1994 Rev. 4.4)	FL
109.623	012	Lead	EPA 200.7 (1994 Rev. 4.4)	FL
109.623	013	Manganese	EPA 200.7 (1994 Rev. 4.4)	FL
109.623	014	Molybdenum	EPA 200.7 (1994 Rev. 4.4)	FL
109.623	015	Nickel	EPA 200.7 (1994 Rev. 4.4)	FL
109.623	016	Selenium	EPA 200.7 (1994 Rev. 4.4)	FL
109.623	017	Silver	EPA 200.7 (1994 Rev. 4.4)	FL
109.623	018	Thallium	EPA 200.7 (1994 Rev. 4.4)	FL
109.623	019	Tin	EPA 200.7 (1994 Rev. 4.4)	FL
109.623	020	Titanium	EPA 200.7 (1994 Rev. 4.4)	FL
109.623	021	Vanadium	EPA 200.7 (1994 Rev. 4.4)	FL
109.623	022	Zinc	EPA 200.7 (1994 Rev. 4.4)	FL
109.625	001	Aluminum	EPA 200.8 (1994 Rev. 5.4)	FL
109.625	002	Antimony	EPA 200.8 (1994 Rev. 5.4)	FL
109.625	003	Arsenic	EPA 200.8 (1994 Rev. 5.4)	FL
109.625	004	Barium	EPA 200.8 (1994 Rev. 5.4)	FL
109.625	005	Beryllium	EPA 200.8 (1994 Rev. 5.4)	FL
109.625	007	Cadmium	EPA 200.8 (1994 Rev. 5.4)	FL
109.625	008	Chromium	EPA 200.8 (1994 Rev. 5.4)	FL
109.625	009	Cobalt	EPA 200.8 (1994 Rev. 5.4)	FL
109.625	010	Copper	EPA 200.8 (1994 Rev. 5.4)	FL
109.625	013	Lead	EPA 200.8 (1994 Rev. 5.4)	FL
109.625	014	Manganese	EPA 200.8 (1994 Rev. 5.4)	FL

109.625	015	Molybdenum	EPA 200.8 (1994 Rev. 5.4)	FL
109.625	016	Nickel	EPA 200.8 (1994 Rev. 5.4)	FL
109.625	017	Selenium	EPA 200.8 (1994 Rev. 5.4)	FL
109.625	018	Silver	EPA 200.8 (1994 Rev. 5.4)	FL
109.625	019	Thallium	EPA 200.8 (1994 Rev. 5.4)	FL
109.625	022	Vanadium	EPA 200.8 (1994 Rev. 5.4)	FL
109.625	023	Zinc	EPA 200.8 (1994 Rev. 5.4)	FL
109.635	001	Mercury	EPA 245.1 (1994 Rev. 3.0)	FL
109.685	002	Chromium VI (Hexavalent Chromium)	SM 3500-Cr B-2011	FL

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**Field of Accreditation: 110 - Volatile Organic Constituents in Non-Potable Water**


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110.040	003	Acrolein	EPA 624.1	FL
110.040	004	Acrylonitrile	EPA 624.1	FL
110.040	005	Benzene	EPA 624.1	FL
110.040	006	Bromodichloromethane	EPA 624.1	FL
110.040	007	Bromoform	EPA 624.1	FL
110.040	008	Bromomethane (Methyl Bromide)	EPA 624.1	FL
110.040	010	Carbon Tetrachloride	EPA 624.1	FL
110.040	011	Chlorobenzene	EPA 624.1	FL
110.040	012	Chloroethane	EPA 624.1	FL
110.040	013	2-Chloroethyl vinyl Ether	EPA 624.1	FL
110.040	014	Chloroform	EPA 624.1	FL
110.040	015	Chloromethane (Methyl Chloride)	EPA 624.1	FL
110.040	016	Dibromochloromethane (Chlorodibromomethane)	EPA 624.1	FL
110.040	017	1,2-Dichlorobenzene	EPA 624.1	FL
110.040	018	1,3-Dichlorobenzene	EPA 624.1	FL
110.040	019	1,4-Dichlorobenzene	EPA 624.1	FL
110.040	020	1,1-Dichloroethane	EPA 624.1	FL
110.040	021	1,2-Dichloroethane (Ethylene Dichloride)	EPA 624.1	FL
110.040	022	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 624.1	FL
110.040	023	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 624.1	FL
110.040	024	1,2-Dichloropropane	EPA 624.1	FL
110.040	025	cis-1,3-Dichloropropylene (cis 1,3 Dichloropropene)	EPA 624.1	FL
110.040	026	trans-1,3-Dichloropropylene (trans-1,3 Dichloropropene)	EPA 624.1	FL
110.040	029	Ethylbenzene	EPA 624.1	FL
110.040	031	Methylene Chloride (Dichloromethane)	EPA 624.1	FL
110.040	034	1,1,2,2-Tetrachloroethane	EPA 624.1	FL
110.040	035	Tetrachloroethylene (Tetrachloroethene)	EPA 624.1	FL
110.040	037	Toluene	EPA 624.1	FL
110.040	038	1,1,1-Trichloroethane	EPA 624.1	FL
110.040	039	1,1,2-Trichloroethane	EPA 624.1	FL
110.040	040	Trichloroethylene (Trichloroethene)	EPA 624.1	FL
110.040	041	Vinyl Chloride	EPA 624.1	FL

110.040	042	m-Xylene	EPA 624.1	FL
110.040	043	o-Xylene	EPA 624.1	FL
110.040	044	p-Xylene	EPA 624.1	FL
110.040	045	Trichlorofluoromethane	EPA 624.1	FL
110.040	046	m+p-Xylene	EPA 624.1	FL

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**Field of Accreditation: 111 - Semi-volatile Organic Constituents in Non-Potable Water**

111.055	001	Aldrin	EPA 608.3	FL
111.055	002	alpha-BHC	EPA 608.3	FL
111.055	003	beta-BHC	EPA 608.3	FL
111.055	004	delta-BHC	EPA 608.3	FL
111.055	005	gamma-BHC (Lindane)	EPA 608.3	FL
111.055	006	Chlordane	EPA 608.3	FL
111.055	007	4,4'-DDD	EPA 608.3	FL
111.055	008	4,4'-DDE	EPA 608.3	FL
111.055	009	4,4'-DDT	EPA 608.3	FL
111.055	010	Dieldrin	EPA 608.3	FL
111.055	011	Endosulfan I	EPA 608.3	FL
111.055	012	Endosulfan II	EPA 608.3	FL
111.055	013	Endosulfan Sulfate	EPA 608.3	FL
111.055	014	Endrin	EPA 608.3	FL
111.055	015	Endrin Aldehyde	EPA 608.3	FL
111.055	016	Heptachlor	EPA 608.3	FL
111.055	017	Heptachlor Epoxide	EPA 608.3	FL
111.055	019	PCB-1016 (Aroclor-1016)	EPA 608.3	FL
111.055	020	PCB-1221 (Aroclor-1221)	EPA 608.3	FL
111.055	021	PCB-1232 (Aroclor-1232)	EPA 608.3	FL
111.055	022	PCB-1242 (Aroclor-1242)	EPA 608.3	FL
111.055	023	PCB-1248 (Aroclor-1248)	EPA 608.3	FL
111.055	024	PCB-1254 (Aroclor-1254)	EPA 608.3	FL
111.055	025	PCB-1260 (Aroclor-1260)	EPA 608.3	FL
111.055	046	Methoxychlor	EPA 608.3	FL
111.055	060	Toxaphene	EPA 608.3	FL
111.055	060	Toxaphene	EPA 608.3	FL
111.120	001	2,4-D	EPA 615	FL
111.120	002	2,4-DB	EPA 615	FL
111.120	003	Dicamba	EPA 615	FL
111.120	004	Dichloroprop	EPA 615	FL
111.120	005	Dinoseb	EPA 615	FL
111.120	006	MCPA	EPA 615	FL
111.120	007	MCPP	EPA 615	FL
111.120	008	2,4,5-T	EPA 615	FL
111.120	009	2,4,5-TP (Silvex)	EPA 615	FL

111.160 001	Acenaphthene	EPA 625.1	FL
111.160 002	Acenaphthylene	EPA 625.1	FL
111.160 003	Anthracene	EPA 625.1	FL
111.160 004	Benzidine	EPA 625.1	FL
111.160 005	Benzo(a)anthracene	EPA 625.1	FL
111.160 006	Benzo(a)pyrene	EPA 625.1	FL
111.160 007	Benzo(b)fluoranthene	EPA 625.1	FL
111.160 008	Benzo(g,h,i)perylene	EPA 625.1	FL
111.160 009	Benzo(k)fluoranthene	EPA 625.1	FL
111.160 010	Bis(2-chloroethoxy) Methane	EPA 625.1	FL
111.160 011	Bis(2-chloroethyl) Ether	EPA 625.1	FL
111.160 012	bis(2-Chloroisopropyl) ether (2,2'-Oxybis[1-chloropropane])	EPA 625.1	FL
111.160 013	Bis(2-ethylhexyl)phthalate (Di(2-ethylhexyl) phthalate)	EPA 625.1	FL
111.160 014	4-Bromophenyl Phenyl Ether	EPA 625.1	FL
111.160 015	Butyl Benzyl Phthalate	EPA 625.1	FL
111.160 016	2-Chloronaphthalene	EPA 625.1	FL
111.160 017	4-Chlorophenyl Phenyl Ether	EPA 625.1	FL
111.160 018	Chrysene	EPA 625.1	FL
111.160 019	Dibenz(a,h)anthracene	EPA 625.1	FL
111.160 020	3,3'-Dichlorobenzidine	EPA 625.1	FL
111.160 021	Diethyl Phthalate	EPA 625.1	FL
111.160 022	Dimethyl Phthalate	EPA 625.1	FL
111.160 023	Di-n-butyl Phthalate	EPA 625.1	FL
111.160 024	2,4-Dinitrotoluene	EPA 625.1	FL
111.160 025	2,6-Dinitrotoluene	EPA 625.1	FL
111.160 026	Di-n-octyl Phthalate	EPA 625.1	FL
111.160 027	Fluoranthene	EPA 625.1	FL
111.160 028	Fluorene	EPA 625.1	FL
111.160 029	Hexachlorobenzene	EPA 625.1	FL
111.160 030	Hexachlorobutadiene	EPA 625.1	FL
111.160 031	Hexachloroethane	EPA 625.1	FL
111.160 032	Indeno(1,2,3-c,d)pyrene	EPA 625.1	FL
111.160 033	Isophorone	EPA 625.1	FL
111.160 034	Naphthalene	EPA 625.1	FL
111.160 035	Nitrobenzene	EPA 625.1	FL
111.160 036	N-nitroso-di-n-propylamine	EPA 625.1	FL
111.160 037	Phenanthrene	EPA 625.1	FL
111.160 038	Pyrene	EPA 625.1	FL
111.160 039	1,2,4-Trichlorobenzene	EPA 625.1	FL
111.160 040	4-Chloro-3-methylphenol	EPA 625.1	FL
111.160 041	2-Chlorophenol	EPA 625.1	FL
111.160 042	2,4-Dichlorophenol	EPA 625.1	FL

111.160	043	2,4-Dimethylphenol	EPA 625.1	FL
111.160	044	2,4-Dinitrophenol	EPA 625.1	FL
111.160	045	2-Methyl-4,6-dinitrophenol	EPA 625.1	FL
111.160	046	2-Nitrophenol	EPA 625.1	FL
111.160	047	4-Nitrophenol	EPA 625.1	FL
111.160	048	Pentachlorophenol	EPA 625.1	FL
111.160	049	Phenol	EPA 625.1	FL
111.160	050	2,4,6-Trichlorophenol	EPA 625.1	FL
111.160	143	1,2-Diphenylhydrazine	EPA 625.1	FL

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**Field of Accreditation: 114 - Inorganic Constituents in Hazardous Waste**

114.315	001	Aluminum	EPA 6010 B	FL
114.315	002	Antimony	EPA 6010 B	FL
114.315	003	Arsenic	EPA 6010 B	FL
114.315	004	Barium	EPA 6010 B	FL
114.315	005	Beryllium	EPA 6010 B	FL
114.315	006	Boron	EPA 6010 B	FL
114.315	007	Cadmium	EPA 6010 B	FL
114.315	008	Calcium	EPA 6010 B	FL
114.315	009	Chromium	EPA 6010 B	FL
114.315	010	Cobalt	EPA 6010 B	FL
114.315	011	Copper	EPA 6010 B	FL
114.315	012	Iron	EPA 6010 B	FL
114.315	013	Lead	EPA 6010 B	FL
114.315	014	Magnesium	EPA 6010 B	FL
114.315	015	Manganese	EPA 6010 B	FL
114.315	016	Molybdenum	EPA 6010 B	FL
114.315	017	Nickel	EPA 6010 B	FL
114.315	018	Potassium	EPA 6010 B	FL
114.315	019	Selenium	EPA 6010 B	FL
114.315	020	Silver	EPA 6010 B	FL
114.315	021	Sodium	EPA 6010 B	FL
114.315	022	Strontium	EPA 6010 B	FL
114.315	023	Thallium	EPA 6010 B	FL
114.315	024	Tin	EPA 6010 B	FL
114.315	025	Titanium	EPA 6010 B	FL
114.315	026	Vanadium	EPA 6010 B	FL
114.315	027	Zinc	EPA 6010 B	FL
114.325	001	Aluminum	EPA 6010 D	FL
114.325	002	Antimony	EPA 6010 D	FL
114.325	003	Arsenic	EPA 6010 D	FL
114.325	004	Barium	EPA 6010 D	FL
114.325	005	Beryllium	EPA 6010 D	FL

114.325	006	Boron	EPA 6010 D	FL
114.325	007	Cadmium	EPA 6010 D	FL
114.325	008	Calcium	EPA 6010 D	FL
114.325	009	Chromium	EPA 6010 D	FL
114.325	010	Cobalt	EPA 6010 D	FL
114.325	011	Copper	EPA 6010 D	FL
114.325	012	Iron	EPA 6010 D	FL
114.325	013	Lead	EPA 6010 D	FL
114.325	014	Magnesium	EPA 6010 D	FL
114.325	015	Manganese	EPA 6010 D	FL
114.325	016	Molybdenum	EPA 6010 D	FL
114.325	017	Nickel	EPA 6010 D	FL
114.325	018	Potassium	EPA 6010 D	FL
114.325	019	Selenium	EPA 6010 D	FL
114.325	020	Silver	EPA 6010 D	FL
114.325	021	Sodium	EPA 6010 D	FL
114.325	022	Strontium	EPA 6010 D	FL
114.325	023	Thallium	EPA 6010 D	FL
114.325	024	Tin	EPA 6010 D	FL
114.325	025	Titanium	EPA 6010 D	FL
114.325	026	Vanadium	EPA 6010 D	FL
114.325	027	Zinc	EPA 6010 D	FL
114.335	002	Antimony	EPA 6020	FL
114.335	003	Arsenic	EPA 6020	FL
114.335	004	Barium	EPA 6020	FL
114.335	005	Beryllium	EPA 6020	FL
114.335	006	Cadmium	EPA 6020	FL
114.335	007	Chromium	EPA 6020	FL
114.335	008	Cobalt	EPA 6020	FL
114.335	009	Copper	EPA 6020	FL
114.335	010	Lead	EPA 6020	FL
114.335	011	Manganese	EPA 6020	FL
114.335	012	Nickel	EPA 6020	FL
114.335	013	Silver	EPA 6020	FL
114.335	014	Thallium	EPA 6020	FL
114.335	015	Zinc	EPA 6020	FL
114.345	001	Aluminum	EPA 6020 B	FL
114.345	002	Antimony	EPA 6020 B	FL
114.345	003	Arsenic	EPA 6020 B	FL
114.345	004	Barium	EPA 6020 B	FL
114.345	005	Beryllium	EPA 6020 B	FL
114.345	006	Cadmium	EPA 6020 B	FL

114.345	007	Calcium	EPA 6020 B	FL
114.345	008	Chromium	EPA 6020 B	FL
114.345	009	Cobalt	EPA 6020 B	FL
114.345	010	Copper	EPA 6020 B	FL
114.345	011	Iron	EPA 6020 B	FL
114.345	012	Lead	EPA 6020 B	FL
114.345	013	Magnesium	EPA 6020 B	FL
114.345	014	Manganese	EPA 6020 B	FL
114.345	015	Mercury	EPA 6020 B	FL
114.345	016	Nickel	EPA 6020 B	FL
114.345	017	Potassium	EPA 6020 B	FL
114.345	018	Selenium	EPA 6020 B	FL
114.345	019	Silver	EPA 6020 B	FL
114.345	020	Sodium	EPA 6020 B	FL
114.345	021	Thallium	EPA 6020 B	FL
114.345	022	Vanadium	EPA 6020 B	FL
114.345	023	Zinc	EPA 6020 B	FL
114.435	001	Chromium VI (Hexavalent Chromium)	EPA 7196 A	FL
114.545	001	Mercury	EPA 7471 B	FL
114.705	001	Cyanide, Total	EPA 9012 A	FL
114.705	002	Cyanide, Amenable	EPA 9012 A	FL
114.715	001	Cyanide, Total	EPA 9012 B	FL
114.715	002	Cyanide, Amenable	EPA 9012 B	FL
114.735	001	Sulfides	EPA 9034	FL
114.755	001	Fluoride	EPA 9056 A	FL

**Field of Accreditation:115 - Leaching/Extraction Tests and Physical Characteristics of Hazardous Waste**

115.085	001	Toxicity Characteristic Leaching Procedure (TCLP)	EPA 1311	FL
115.095	001	Synthetic Precipitation Leaching Procedure (SPLP)	EPA 1312	FL
115.105	001	Ignitability	EPA 1030	FL
115.135	001	Corrosivity - pH Determination	EPA 9045 C	FL
115.145	001	Corrosivity - pH Determination	EPA 9045 D	FL

**Field of Accreditation:116 - Volatile Organic Compounds in Hazardous Waste**

116.265	001	Benzene	EPA 8260 B	FL
116.265	002	Bromobenzene	EPA 8260 B	FL
116.265	003	Bromochloromethane	EPA 8260 B	FL
116.265	004	Bromodichloromethane	EPA 8260 B	FL
116.265	005	Bromoform	EPA 8260 B	FL
116.265	006	Bromomethane (Methyl Bromide)	EPA 8260 B	FL
116.265	007	n-Butylbenzene	EPA 8260 B	FL
116.265	008	sec-Butylbenzene	EPA 8260 B	FL
116.265	009	tert-Butylbenzene	EPA 8260 B	FL
116.265	010	Carbon Disulfide	EPA 8260 B	FL

116.265	011	Carbon Tetrachloride	EPA 8260 B	FL
116.265	012	Chlorobenzene	EPA 8260 B	FL
116.265	013	Chlorodibromomethane (Dibromochloromethane)	EPA 8260 B	FL
116.265	014	Chloroethane	EPA 8260 B	FL
116.265	015	Chloroform	EPA 8260 B	FL
116.265	016	Chloromethane (Methyl Chloride)	EPA 8260 B	FL
116.265	017	Dibromomethane	EPA 8260 B	FL
116.265	018	Dichlorodifluoromethane (Freon 12)	EPA 8260 B	FL
116.265	019	cis-1,2-Dichloroethylene (cis 1,2 Dichloroethene)	EPA 8260 B	FL
116.265	020	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 8260 B	FL
116.265	021	cis-1,3-Dichloropropylene (cis 1,3 Dichloropropene)	EPA 8260 B	FL
116.265	022	trans-1,3-Dichloropropylene (trans-1,3 Dichloropropene)	EPA 8260 B	FL
116.265	023	Ethylbenzene	EPA 8260 B	FL
116.265	024	Hexachlorobutadiene	EPA 8260 B	FL
116.265	025	Methyl tert-butyl Ether (MTBE)	EPA 8260 B	FL
116.265	026	Methylene Chloride (Dichloromethane)	EPA 8260 B	FL
116.265	027	Naphthalene	EPA 8260 B	FL
116.265	029	N-propylbenzene	EPA 8260 B	FL
116.265	030	Styrene	EPA 8260 B	FL
116.265	031	Tetrachloroethylene (Tetrachloroethene)	EPA 8260 B	FL
116.265	032	Toluene	EPA 8260 B	FL
116.265	033	Trichloroethylene (Trichloroethene)	EPA 8260 B	FL
116.265	034	Trichlorofluoromethane	EPA 8260 B	FL
116.265	035	Vinyl Chloride	EPA 8260 B	FL
116.265	036	m+p-Xylene	EPA 8260 B	FL
116.265	037	o-Xylene	EPA 8260 B	FL
116.265	038	m-Xylene	EPA 8260 B	FL
116.265	039	p-Xylene	EPA 8260 B	FL
116.265	040	1,1-Dichloroethane	EPA 8260 B	FL
116.265	041	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 8260 B	FL
116.265	042	1,1,1-Trichloroethane	EPA 8260 B	FL
116.265	043	1,1,1,2-Tetrachloroethane	EPA 8260 B	FL
116.265	044	1,1,2,2-Tetrachloroethane	EPA 8260 B	FL
116.265	045	1,1,2-Trichloroethane	EPA 8260 B	FL
116.265	046	1,2-Dichlorobenzene	EPA 8260 B	FL
116.265	047	1,2-Dichloroethane (Ethylene Dichloride)	EPA 8260 B	FL
116.265	048	1,2-Dibromoethane (EDB)	EPA 8260 B	FL
116.265	049	1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260 B	FL
116.265	050	1,2-Dichloropropane	EPA 8260 B	FL
116.265	051	1,2,3-Trichloropropane (TCP)	EPA 8260 B	FL
116.265	052	1,2,4-Trichlorobenzene	EPA 8260 B	FL
116.265	053	1,3-Dichlorobenzene	EPA 8260 B	FL



116.265	054	1,4-Dichlorobenzene	EPA 8260 B	FL
116.265	055	2-Chloroethyl vinyl Ether	EPA 8260 B	FL
116.265	056	4-Chlorotoluene	EPA 8260 B	FL
116.265	057	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	EPA 8260 B	FL
116.275	001	Benzene	EPA 8260 D	FL
116.275	002	Bromobenzene	EPA 8260 D	FL
116.275	003	Bromochloromethane	EPA 8260 D	FL
116.275	004	Bromodichloromethane	EPA 8260 D	FL
116.275	005	Bromoform	EPA 8260 D	FL
116.275	006	Bromomethane (Methyl Bromide)	EPA 8260 D	FL
116.275	007	n-Butylbenzene	EPA 8260 D	FL
116.275	008	sec-Butylbenzene	EPA 8260 D	FL
116.275	009	tert-Butylbenzene	EPA 8260 D	FL
116.275	010	Carbon Disulfide	EPA 8260 D	FL
116.275	011	Carbon Tetrachloride	EPA 8260 D	FL
116.275	012	Chlorobenzene	EPA 8260 D	FL
116.275	013	Chlorodibromomethane (Dibromochloromethane)	EPA 8260 D	FL
116.275	014	Chloroethane	EPA 8260 D	FL
116.275	015	Chloroform	EPA 8260 D	FL
116.275	016	Chloromethane (Methyl Chloride)	EPA 8260 D	FL
116.275	017	Dibromomethane	EPA 8260 D	FL
116.275	018	Dichlorodifluoromethane (Freon 12)	EPA 8260 D	FL
116.275	019	cis-1,2-Dichloroethylene (cis 1,2 Dichloroethene)	EPA 8260 D	FL
116.275	020	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 8260 D	FL
116.275	021	cis-1,3-Dichloropropylene (cis 1,3 Dichloropropene)	EPA 8260 D	FL
116.275	022	trans-1,3-Dichloropropylene (trans-1,3 Dichloropropene)	EPA 8260 D	FL
116.275	023	Ethylbenzene	EPA 8260 D	FL
116.275	024	Hexachlorobutadiene	EPA 8260 D	FL
116.275	025	Methyl tert-butyl Ether (MTBE)	EPA 8260 D	FL
116.275	026	Methylene Chloride (Dichloromethane)	EPA 8260 D	FL
116.275	027	Naphthalene	EPA 8260 D	FL
116.275	029	N-propylbenzene	EPA 8260 D	FL
116.275	030	Styrene	EPA 8260 D	FL
116.275	031	Tetrachloroethylene (Tetrachloroethene)	EPA 8260 D	FL
116.275	032	Toluene	EPA 8260 D	FL
116.275	033	Trichloroethylene (Trichloroethene)	EPA 8260 D	FL
116.275	034	Trichlorofluoromethane	EPA 8260 D	FL
116.275	035	Vinyl Chloride	EPA 8260 D	FL
116.275	036	m+p-Xylene	EPA 8260 D	FL
116.275	037	o-Xylene	EPA 8260 D	FL
116.275	038	m-Xylene	EPA 8260 D	FL
116.275	039	p-Xylene	EPA 8260 D	FL

116.275	040	1,1-Dichloroethane	EPA 8260 D	FL
116.275	041	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 8260 D	FL
116.275	042	1,1,1-Trichloroethane	EPA 8260 D	FL
116.275	043	1,1,1,2-Tetrachloroethane	EPA 8260 D	FL
116.275	044	1,1,2,2-Tetrachloroethane	EPA 8260 D	FL
116.275	045	1,1,2-Trichloroethane	EPA 8260 D	FL
116.275	046	1,2-Dichlorobenzene	EPA 8260 D	FL
116.275	047	1,2-Dichloroethane (Ethylene Dichloride)	EPA 8260 D	FL
116.275	048	1,2-Dibromoethane (EDB)	EPA 8260 D	FL
116.275	049	1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260 D	FL
116.275	050	1,2-Dichloropropane	EPA 8260 D	FL
116.275	051	1,2,3-Trichloropropane (TCP)	EPA 8260 D	FL
116.275	052	1,2,4-Trichlorobenzene	EPA 8260 D	FL
116.275	053	1,3-Dichlorobenzene	EPA 8260 D	FL
116.275	054	1,4-Dichlorobenzene	EPA 8260 D	FL
116.275	055	2-Chloroethyl vinyl Ether	EPA 8260 D	FL
116.275	056	4-Chlorotoluene	EPA 8260 D	FL
116.275	057	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	EPA 8260 D	FL

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**Field of Accreditation: 117 - Semi-volatile Organic Chemistry of Hazardous Waste**

117.245	001	Gasoline Range Organics (GRO)	EPA 8015 C	FL
117.245	002	Diesel Range Organics (DRO)	EPA 8015 C	FL
117.265	006	n-Butyl Alcohol (1-Butanol)	EPA 8015 C	FL
117.265	007	t-Butyl alcohol (2-Methyl-2-propanol)	EPA 8015 C	FL
117.265	012	Ethanol	EPA 8015 C	FL
117.265	013	Ethyl Acetate	EPA 8015 C	FL
117.265	014	Ethylene Glycol	EPA 8015 C	FL
117.265	016	Isobutyl Alcohol	EPA 8015 C	FL
117.265	017	Isopropyl Alcohol (Isopropanol)	EPA 8015 C	FL
117.265	018	Methanol	EPA 8015 C	FL
117.265	025	1-Propanol	EPA 8015 C	FL
117.325	001	Aldrin	EPA 8081 B	FL
117.325	002	alpha-BHC	EPA 8081 B	FL
117.325	003	beta-BHC	EPA 8081 B	FL
117.325	004	delta-BHC	EPA 8081 B	FL
117.325	005	gamma-BHC (Lindane)	EPA 8081 B	FL
117.325	006	Chlordane (total)	EPA 8081 B	FL
117.325	007	trans-Chlordane	EPA 8081 B	FL
117.325	008	4,4'-DDD	EPA 8081 B	FL
117.325	009	4,4'-DDE	EPA 8081 B	FL
117.325	010	4,4'-DDT	EPA 8081 B	FL
117.325	011	Dieldrin	EPA 8081 B	FL
117.325	012	Endosulfan I	EPA 8081 B	FL

117.325	013	Endosulfan II	EPA 8081 B	FL
117.325	014	Endosulfan Sulfate	EPA 8081 B	FL
117.325	015	Endrin	EPA 8081 B	FL
117.325	016	Endrin Aldehyde	EPA 8081 B	FL
117.325	017	Endrin Ketone	EPA 8081 B	FL
117.325	018	Heptachlor	EPA 8081 B	FL
117.325	019	Heptachlor Epoxide	EPA 8081 B	FL
117.325	020	Methoxychlor	EPA 8081 B	FL
117.325	021	Toxaphene	EPA 8081 B	FL
117.345	001	Aroclor 1016	EPA 8082 A	FL
117.345	001	Aroclor 1016	EPA 8082 A	FL
117.345	002	Aroclor 1221	EPA 8082 A	FL
117.345	002	Aroclor 1221	EPA 8082 A	FL
117.345	003	Aroclor 1232	EPA 8082 A	FL
117.345	003	Aroclor 1232	EPA 8082 A	FL
117.345	004	Aroclor 1242	EPA 8082 A	FL
117.345	004	Aroclor 1242	EPA 8082 A	FL
117.345	005	Aroclor 1248	EPA 8082 A	FL
117.345	005	Aroclor 1248	EPA 8082 A	FL
117.345	006	Aroclor 1254	EPA 8082 A	FL
117.345	006	Aroclor 1254	EPA 8082 A	FL
117.345	007	Aroclor 1260	EPA 8082 A	FL
117.345	007	Aroclor 1260	EPA 8082 A	FL
117.425	001	2,4-D	EPA 8151 A	FL
117.425	002	2,4-DB	EPA 8151 A	FL
117.425	003	2,4,5-TP (Silvex)	EPA 8151 A	FL
117.425	004	2,4,5-T	EPA 8151 A	FL
117.425	005	Dalapon	EPA 8151 A	FL
117.425	006	Dicamba	EPA 8151 A	FL
117.425	007	Dichloroprop	EPA 8151 A	FL
117.425	008	Dinoseb	EPA 8151 A	FL
117.425	009	MCPA	EPA 8151 A	FL
117.425	010	MCPP	EPA 8151 A	FL
117.425	012	Pentachlorophenol	EPA 8151 A	FL
117.445	001	Acenaphthene	EPA 8270 E	FL
117.445	002	Acenaphthylene	EPA 8270 E	FL
117.445	003	Aniline	EPA 8270 E	FL
117.445	004	Anthracene	EPA 8270 E	FL
117.445	005	Benzidine	EPA 8270 E	FL
117.445	006	Benzoic Acid	EPA 8270 E	FL
117.445	007	Benzo(a)anthracene	EPA 8270 E	FL
117.445	008	Benzo(b)fluoranthene	EPA 8270 E	FL

117.445	009	Benzo(k)fluoranthene	EPA 8270 E	FL
117.445	010	Benzo(g,h,i)perylene	EPA 8270 E	FL
117.445	011	Benzo(a)pyrene	EPA 8270 E	FL
117.445	012	Benzyl Alcohol	EPA 8270 E	FL
117.445	013	Bis(2-chloroethoxy) Methane	EPA 8270 E	FL
117.445	014	Bis(2-chloroethyl) Ether	EPA 8270 E	FL
117.445	015	Bis(2-ethylhexyl)phthalate (Di(2-ethylhexyl) phthalate)	EPA 8270 E	FL
117.445	016	Butyl Benzyl Phthalate	EPA 8270 E	FL
117.445	017	Chrysene	EPA 8270 E	FL
117.445	018	Dibenz(a,h)anthracene	EPA 8270 E	FL
117.445	019	Dibenzofuran	EPA 8270 E	FL
117.445	020	Di-n-butyl Phthalate	EPA 8270 E	FL
117.445	021	Diethyl Phthalate	EPA 8270 E	FL
117.445	022	Dimethyl Phthalate	EPA 8270 E	FL
117.445	023	Di-n-octyl Phthalate	EPA 8270 E	FL
117.445	024	Fluoranthene	EPA 8270 E	FL
117.445	025	Fluorene	EPA 8270 E	FL
117.445	026	Naphthalene	EPA 8270 E	FL
117.445	027	Nitrobenzene	EPA 8270 E	FL
117.445	028	Pentachlorobenzene	EPA 8270 E	FL
117.445	029	Pentachlorophenol	EPA 8270 E	FL
117.445	031	1,2-Dichlorobenzene	EPA 8270 E	FL
117.445	032	1,3-Dichlorobenzene	EPA 8270 E	FL
117.445	033	1,4-Dichlorobenzene	EPA 8270 E	FL
117.445	034	2-Chloronaphthalene	EPA 8270 E	FL
117.445	035	2-Chlorophenol	EPA 8270 E	FL
117.445	036	2,4-Dichlorophenol	EPA 8270 E	FL
117.445	037	2,4-Dimethylphenol	EPA 8270 E	FL
117.445	038	2,4-Dinitrophenol	EPA 8270 E	FL
117.445	039	2,4-Dinitrotoluene	EPA 8270 E	FL
117.445	040	2,6-Dichlorophenol	EPA 8270 E	FL
117.445	041	2,6-Dinitrotoluene	EPA 8270 E	FL
117.445	042	2-Nitroaniline	EPA 8270 E	FL
117.445	043	2-Nitrophenol	EPA 8270 E	FL
117.445	044	3-Nitroaniline	EPA 8270 E	FL
117.445	045	3,3'-Dichlorobenzidine	EPA 8270 E	FL
117.445	046	4-Chloroaniline	EPA 8270 E	FL
117.445	047	4-Chloro-3-methylphenol	EPA 8270 E	FL
117.445	048	4-Bromophenyl Phenyl Ether	EPA 8270 E	FL
117.445	049	4-Chlorophenyl Phenyl Ether	EPA 8270 E	FL
117.445	050	4-Nitroaniline	EPA 8270 E	FL
117.445	051	4-Nitrophenol	EPA 8270 E	FL

117.445	061	Dinoseb	EPA 8270 E	FL
117.445	074	Disulfoton	EPA 8270 E	FL
117.445	076	Parathion Ethyl	EPA 8270 E	FL
117.445	077	Parathion Methyl	EPA 8270 E	FL
117.445	078	Phorate	EPA 8270 E	FL
117.445	087	N-nitrosodiethylamine	EPA 8270 E	FL
117.445	088	N-nitrosodimethylamine	EPA 8270 E	FL
117.445	089	N-nitrosodiphenylamine	EPA 8270 E	FL
117.445	090	N-nitroso-di-n-propylamine	EPA 8270 E	FL

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**Field of Accreditation: 130 - Inorganic constituents in Hazardous waste (Matrix Aqueous)**


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130.010	001	Aluminum	EPA 6010 B	FL
130.010	002	Antimony	EPA 6010 B	FL
130.010	003	Arsenic	EPA 6010 B	FL
130.010	004	Barium	EPA 6010 B	FL
130.010	005	Beryllium	EPA 6010 B	FL
130.010	006	Boron	EPA 6010 B	FL
130.010	007	Cadmium	EPA 6010 B	FL
130.010	008	Calcium	EPA 6010 B	FL
130.010	009	Chromium	EPA 6010 B	FL
130.010	010	Cobalt	EPA 6010 B	FL
130.010	011	Copper	EPA 6010 B	FL
130.010	012	Iron	EPA 6010 B	FL
130.010	013	Lead	EPA 6010 B	FL
130.010	014	Magnesium	EPA 6010 B	FL
130.010	015	Manganese	EPA 6010 B	FL
130.010	016	Molybdenum	EPA 6010 B	FL
130.010	017	Nickel	EPA 6010 B	FL
130.010	018	Potassium	EPA 6010 B	FL
130.010	019	Selenium	EPA 6010 B	FL
130.010	020	Silver	EPA 6010 B	FL
130.010	021	Sodium	EPA 6010 B	FL
130.010	022	Strontium	EPA 6010 B	FL
130.010	023	Thallium	EPA 6010 B	FL
130.010	024	Tin	EPA 6010 B	FL
130.010	025	Titanium	EPA 6010 B	FL
130.010	026	Vanadium	EPA 6010 B	FL
130.010	027	Zinc	EPA 6010 B	FL
130.020	001	Aluminum	EPA 6010 D	FL
130.020	002	Antimony	EPA 6010 D	FL
130.020	003	Arsenic	EPA 6010 D	FL
130.020	004	Barium	EPA 6010 D	FL
130.020	005	Beryllium	EPA 6010 D	FL

130.020	006	Boron	EPA 6010 D	FL
130.020	007	Cadmium	EPA 6010 D	FL
130.020	008	Calcium	EPA 6010 D	FL
130.020	009	Chromium	EPA 6010 D	FL
130.020	010	Cobalt	EPA 6010 D	FL
130.020	011	Copper	EPA 6010 D	FL
130.020	012	Iron	EPA 6010 D	FL
130.020	013	Lead	EPA 6010 D	FL
130.020	014	Magnesium	EPA 6010 D	FL
130.020	015	Manganese	EPA 6010 D	FL
130.020	016	Molybdenum	EPA 6010 D	FL
130.020	017	Nickel	EPA 6010 D	FL
130.020	018	Potassium	EPA 6010 D	FL
130.020	019	Selenium	EPA 6010 D	FL
130.020	020	Silver	EPA 6010 D	FL
130.020	021	Sodium	EPA 6010 D	FL
130.020	022	Strontium	EPA 6010 D	FL
130.020	023	Thallium	EPA 6010 D	FL
130.020	024	Tin	EPA 6010 D	FL
130.020	025	Titanium	EPA 6010 D	FL
130.020	026	Vanadium	EPA 6010 D	FL
130.020	027	Zinc	EPA 6010 D	FL
130.030	001	Aluminum	EPA 6020	FL
130.030	002	Antimony	EPA 6020	FL
130.030	003	Arsenic	EPA 6020	FL
130.030	004	Barium	EPA 6020	FL
130.030	005	Beryllium	EPA 6020	FL
130.030	006	Cadmium	EPA 6020	FL
130.030	007	Chromium	EPA 6020	FL
130.030	008	Cobalt	EPA 6020	FL
130.030	009	Copper	EPA 6020	FL
130.030	010	Lead	EPA 6020	FL
130.030	011	Manganese	EPA 6020	FL
130.030	012	Nickel	EPA 6020	FL
130.030	013	Silver	EPA 6020	FL
130.030	014	Thallium	EPA 6020	FL
130.030	015	Zinc	EPA 6020	FL
130.040	001	Aluminum	EPA 6020 B	FL
130.040	002	Antimony	EPA 6020 B	FL
130.040	003	Arsenic	EPA 6020 B	FL
130.040	004	Barium	EPA 6020 B	FL
130.040	005	Beryllium	EPA 6020 B	FL

130.040	006	Cadmium	EPA 6020 B	FL
130.040	007	Calcium	EPA 6020 B	FL
130.040	008	Chromium	EPA 6020 B	FL
130.040	009	Cobalt	EPA 6020 B	FL
130.040	010	Copper	EPA 6020 B	FL
130.040	011	Iron	EPA 6020 B	FL
130.040	012	Lead	EPA 6020 B	FL
130.040	013	Magnesium	EPA 6020 B	FL
130.040	014	Manganese	EPA 6020 B	FL
130.040	015	Mercury	EPA 6020 B	FL
130.040	016	Nickel	EPA 6020 B	FL
130.040	017	Potassium	EPA 6020 B	FL
130.040	018	Selenium	EPA 6020 B	FL
130.040	019	Silver	EPA 6020 B	FL
130.040	020	Sodium	EPA 6020 B	FL
130.040	021	Thallium	EPA 6020 B	FL
130.040	022	Vanadium	EPA 6020 B	FL
130.040	023	Zinc	EPA 6020 B	FL
130.140	001	Chromium VI (Hexavalent Chromium)	EPA 7196 A	FL
130.250	001	Mercury	EPA 7470 A	FL
130.430	001	Cyanide, Total	EPA 9012 A	FL
130.430	002	Cyanide, Amenable	EPA 9012 A	FL
130.440	001	Cyanide, Total	EPA 9012 B	FL
130.440	002	Cyanide, Amenable	EPA 9012 B	FL
130.460	001	Sulfides	EPA 9034	FL
130.480	001	Fluoride	EPA 9056 A	FL
130.490	001	Organic Carbon-Total (TOC)	EPA 9060 A	FL

**Field of Accreditation:131 - Leaching/Extraction, Physical Characteristics in Hazardous Waste (Matrix Aqueous)**

131.120	001	Corrosivity - pH Determination	EPA 9040 C	FL
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**Field of Accreditation:132 - Volatile Organic Compounds in Hazardous Waste (Matrix Aqueous)**

132.010	001	1,2-Dibromoethane (EDB)	EPA 8011	FL
132.010	002	1,2-Dibromo-3-chloropropane (DBCP)	EPA 8011	FL
132.060	001	Benzene	EPA 8260 B	FL
132.060	002	Bromobenzene	EPA 8260 B	FL
132.060	003	Bromochloromethane	EPA 8260 B	FL
132.060	004	Bromodichloromethane	EPA 8260 B	FL
132.060	005	Bromoform	EPA 8260 B	FL
132.060	006	Bromomethane (Methyl Bromide)	EPA 8260 B	FL
132.060	007	n-Butylbenzene	EPA 8260 B	FL
132.060	008	sec-Butylbenzene	EPA 8260 B	FL
132.060	009	tert-Butylbenzene	EPA 8260 B	FL
132.060	010	Carbon Disulfide	EPA 8260 B	FL

132.060	011	Carbon Tetrachloride	EPA 8260 B	FL
132.060	012	Chlorobenzene	EPA 8260 B	FL
132.060	013	Chlorodibromomethane (Dibromochloromethane)	EPA 8260 B	FL
132.060	014	Chloroethane	EPA 8260 B	FL
132.060	015	Chloroform	EPA 8260 B	FL
132.060	016	Chloromethane (Methyl Chloride)	EPA 8260 B	FL
132.060	017	Dibromomethane	EPA 8260 B	FL
132.060	018	Dichlorodifluoromethane (Freon 12)	EPA 8260 B	FL
132.060	019	cis-1,2-Dichloroethylene (cis 1,2 Dichloroethene)	EPA 8260 B	FL
132.060	020	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 8260 B	FL
132.060	021	cis-1,3-Dichloropropylene (cis 1,3 Dichloropropene)	EPA 8260 B	FL
132.060	022	trans-1,3-Dichloropropylene (trans-1,3 Dichloropropene)	EPA 8260 B	FL
132.060	023	Ethylbenzene	EPA 8260 B	FL
132.060	024	Hexachlorobutadiene	EPA 8260 B	FL
132.060	025	Methyl tert-butyl Ether (MTBE)	EPA 8260 B	FL
132.060	026	Methylene Chloride (Dichloromethane)	EPA 8260 B	FL
132.060	027	Naphthalene	EPA 8260 B	FL
132.060	028	Nitrobenzene	EPA 8260 B	FL
132.060	029	N-propylbenzene	EPA 8260 B	FL
132.060	030	Styrene	EPA 8260 B	FL
132.060	031	Tetrachloroethylene (Tetrachloroethene)	EPA 8260 B	FL
132.060	032	Toluene	EPA 8260 B	FL
132.060	033	Trichloroethylene (Trichloroethene)	EPA 8260 B	FL
132.060	034	Trichlorofluoromethane	EPA 8260 B	FL
132.060	035	Vinyl Chloride	EPA 8260 B	FL
132.060	036	m+p-Xylene	EPA 8260 B	FL
132.060	037	o-Xylene	EPA 8260 B	FL
132.060	038	m-Xylene	EPA 8260 B	FL
132.060	039	p-Xylene	EPA 8260 B	FL
132.060	040	1,1-Dichloroethane	EPA 8260 B	FL
132.060	041	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 8260 B	FL
132.060	042	1,1,1-Trichloroethane	EPA 8260 B	FL
132.060	043	1,1,1,2-Tetrachloroethane	EPA 8260 B	FL
132.060	044	1,1,2,2-Tetrachloroethane	EPA 8260 B	FL
132.060	045	1,1,2-Trichloroethane	EPA 8260 B	FL
132.060	046	1,2-Dichlorobenzene	EPA 8260 B	FL
132.060	047	1,2-Dichloroethane (Ethylene Dichloride)	EPA 8260 B	FL
132.060	048	1,2-Dibromoethane (EDB)	EPA 8260 B	FL
132.060	049	1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260 B	FL
132.060	050	1,2-Dichloropropane	EPA 8260 B	FL
132.060	051	1,2,3-Trichloropropane (TCP)	EPA 8260 B	FL
132.060	052	1,2,4-Trichlorobenzene	EPA 8260 B	FL



132.060	053	1,3-Dichlorobenzene	EPA 8260 B	FL
132.060	054	1,4-Dichlorobenzene	EPA 8260 B	FL
132.060	055	2-Chloroethyl vinyl Ether	EPA 8260 B	FL
132.060	056	4-Chlorotoluene	EPA 8260 B	FL
132.060	057	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	EPA 8260 B	FL
132.070	001	Benzene	EPA 8260 D	FL
132.070	002	Bromobenzene	EPA 8260 D	FL
132.070	003	Bromochloromethane	EPA 8260 D	FL
132.070	004	Bromodichloromethane	EPA 8260 D	FL
132.070	005	Bromoform	EPA 8260 D	FL
132.070	006	Bromomethane (Methyl Bromide)	EPA 8260 D	FL
132.070	007	n-Butylbenzene	EPA 8260 D	FL
132.070	008	sec-Butylbenzene	EPA 8260 D	FL
132.070	009	tert-Butylbenzene	EPA 8260 D	FL
132.070	010	Carbon Disulfide	EPA 8260 D	FL
132.070	011	Carbon Tetrachloride	EPA 8260 D	FL
132.070	012	Chlorobenzene	EPA 8260 D	FL
132.070	013	Chlorodibromomethane (Dibromochloromethane)	EPA 8260 D	FL
132.070	014	Chloroethane	EPA 8260 D	FL
132.070	015	Chloroform	EPA 8260 D	FL
132.070	016	Chloromethane (Methyl Chloride)	EPA 8260 D	FL
132.070	017	Dibromomethane	EPA 8260 D	FL
132.070	018	Dichlorodifluoromethane (Freon 12)	EPA 8260 D	FL
132.070	019	cis-1,2-Dichloroethylene (cis 1,2 Dichloroethene)	EPA 8260 D	FL
132.070	020	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 8260 D	FL
132.070	021	cis-1,3-Dichloropropylene (cis 1,3 Dichloropropene)	EPA 8260 D	FL
132.070	022	trans-1,3-Dichloropropylene (trans-1,3 Dichloropropene)	EPA 8260 D	FL
132.070	023	Ethylbenzene	EPA 8260 D	FL
132.070	024	Hexachlorobutadiene	EPA 8260 D	FL
132.070	025	Methyl tert-butyl Ether (MTBE)	EPA 8260 D	FL
132.070	026	Methylene Chloride (Dichloromethane)	EPA 8260 D	FL
132.070	027	Naphthalene	EPA 8260 D	FL
132.070	028	Nitrobenzene	EPA 8260 D	FL
132.070	029	N-propylbenzene	EPA 8260 D	FL
132.070	030	Styrene	EPA 8260 D	FL
132.070	031	Tetrachloroethylene (Tetrachloroethene)	EPA 8260 D	FL
132.070	032	Toluene	EPA 8260 D	FL
132.070	033	Trichloroethylene (Trichloroethene)	EPA 8260 D	FL
132.070	034	Trichlorofluoromethane	EPA 8260 D	FL
132.070	035	Vinyl Chloride	EPA 8260 D	FL
132.070	036	m+p-Xylene	EPA 8260 D	FL
132.070	037	o-Xylene	EPA 8260 D	FL

132.070	038	m-Xylene	EPA 8260 D	FL
132.070	039	p-Xylene	EPA 8260 D	FL
132.070	040	1,1-Dichloroethane	EPA 8260 D	FL
132.070	041	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 8260 D	FL
132.070	042	1,1,1-Trichloroethane	EPA 8260 D	FL
132.070	043	1,1,1,2-Tetrachloroethane	EPA 8260 D	FL
132.070	044	1,1,2,2-Tetrachloroethane	EPA 8260 D	FL
132.070	045	1,1,2-Trichloroethane	EPA 8260 D	FL
132.070	046	1,2-Dichlorobenzene	EPA 8260 D	FL
132.070	047	1,2-Dichloroethane (Ethylene Dichloride)	EPA 8260 D	FL
132.070	048	1,2-Dibromoethane (EDB)	EPA 8260 D	FL
132.070	049	1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260 D	FL
132.070	050	1,2-Dichloropropane	EPA 8260 D	FL
132.070	051	1,2,3-Trichloropropane (TCP)	EPA 8260 D	FL
132.070	052	1,2,4-Trichlorobenzene	EPA 8260 D	FL
132.070	053	1,3-Dichlorobenzene	EPA 8260 D	FL
132.070	054	1,4-Dichlorobenzene	EPA 8260 D	FL
132.070	055	2-Chloroethyl vinyl Ether	EPA 8260 D	FL
132.070	056	4-Chlorotoluene	EPA 8260 D	FL
132.070	057	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	EPA 8260 D	FL

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**Field of Accreditation: 133 - Semi-Volatile Organic Chemistry in Hazardous Waste (Matrix Aqueous)**


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133.020	001	Gasoline Range Organics (GRO)	EPA 8015 C	FL
133.020	002	Diesel Range Organics (DRO)	EPA 8015 C	FL
133.040	005	Allyl Alcohol	EPA 8015 C	FL
133.040	006	n-Butyl Alcohol (1-Butanol)	EPA 8015 C	FL
133.040	007	t-Butyl alcohol (2-Methyl-2-propanol)	EPA 8015 C	FL
133.040	012	Ethanol	EPA 8015 C	FL
133.040	013	Ethyl Acetate	EPA 8015 C	FL
133.040	014	Ethylene Glycol	EPA 8015 C	FL
133.040	016	Isobutyl Alcohol	EPA 8015 C	FL
133.040	017	Isopropyl Alcohol (Isopropanol)	EPA 8015 C	FL
133.040	018	Methanol	EPA 8015 C	FL
133.040	023	2-Pentanone	EPA 8015 C	FL
133.040	025	1-Propanol	EPA 8015 C	FL
133.110	001	Aldrin	EPA 8081 B	FL
133.110	001	Aldrin	EPA 8081 B	FL
133.110	002	alpha-BHC	EPA 8081 B	FL
133.110	002	alpha-BHC	EPA 8081 B	FL
133.110	003	beta-BHC	EPA 8081 B	FL
133.110	003	beta-BHC	EPA 8081 B	FL
133.110	004	delta-BHC	EPA 8081 B	FL
133.110	004	delta-BHC	EPA 8081 B	FL

133.110	005	gamma-BHC (Lindane)	EPA 8081 B	FL
133.110	005	gamma-BHC (Lindane)	EPA 8081 B	FL
133.110	006	Chlordane	EPA 8081 B	FL
133.110	006	Chlordane	EPA 8081 B	FL
133.110	007	trans-Chlordane	EPA 8081 B	FL
133.110	007	trans-Chlordane	EPA 8081 B	FL
133.110	008	4,4'-DDD	EPA 8081 B	FL
133.110	008	4,4'-DDD	EPA 8081 B	FL
133.110	009	4,4'-DDE	EPA 8081 B	FL
133.110	009	4,4'-DDE	EPA 8081 B	FL
133.110	010	4,4'-DDT	EPA 8081 B	FL
133.110	010	4,4'-DDT	EPA 8081 B	FL
133.110	011	Dieldrin	EPA 8081 B	FL
133.110	011	Dieldrin	EPA 8081 B	FL
133.110	012	Endosulfan I	EPA 8081 B	FL
133.110	012	Endosulfan I	EPA 8081 B	FL
133.110	013	Endosulfan II	EPA 8081 B	FL
133.110	013	Endosulfan II	EPA 8081 B	FL
133.110	014	Endosulfan Sulfate	EPA 8081 B	FL
133.110	014	Endosulfan Sulfate	EPA 8081 B	FL
133.110	015	Endrin	EPA 8081 B	FL
133.110	015	Endrin	EPA 8081 B	FL
133.110	016	Endrin Aldehyde	EPA 8081 B	FL
133.110	016	Endrin Aldehyde	EPA 8081 B	FL
133.110	017	Endrin Ketone	EPA 8081 B	FL
133.110	017	Endrin Ketone	EPA 8081 B	FL
133.110	018	Heptachlor	EPA 8081 B	FL
133.110	018	Heptachlor	EPA 8081 B	FL
133.110	019	Heptachlor Epoxide	EPA 8081 B	FL
133.110	019	Heptachlor Epoxide	EPA 8081 B	FL
133.110	020	Methoxychlor	EPA 8081 B	FL
133.110	020	Methoxychlor	EPA 8081 B	FL
133.110	021	Toxaphene	EPA 8081 B	FL
133.110	021	Toxaphene	EPA 8081 B	FL
133.130	001	Aroclor 1016	EPA 8082 A	FL
133.130	001	Aroclor 1016	EPA 8082 A	FL
133.130	002	Aroclor 1221	EPA 8082 A	FL
133.130	002	Aroclor 1221	EPA 8082 A	FL
133.130	003	Aroclor 1232	EPA 8082 A	FL
133.130	003	Aroclor 1232	EPA 8082 A	FL
133.130	004	Aroclor 1242	EPA 8082 A	FL
133.130	004	Aroclor 1242	EPA 8082 A	FL

133.130	005	Aroclor 1248	EPA 8082 A	FL
133.130	005	Aroclor 1248	EPA 8082 A	FL
133.130	006	Aroclor 1254	EPA 8082 A	FL
133.130	006	Aroclor 1254	EPA 8082 A	FL
133.130	007	Aroclor 1260	EPA 8082 A	FL
133.130	007	Aroclor 1260	EPA 8082 A	FL
133.220	001	2,4-D	EPA 8151 A	FL
133.220	002	2,4-DB	EPA 8151 A	FL
133.220	003	2,4,5-TP (Silvex)	EPA 8151 A	FL
133.220	004	2,4,5-T	EPA 8151 A	FL
133.220	005	Dalapon	EPA 8151 A	FL
133.220	006	Dicamba	EPA 8151 A	FL
133.220	007	Dichloroprop	EPA 8151 A	FL
133.220	008	Dinoseb	EPA 8151 A	FL
133.220	009	MCPA	EPA 8151 A	FL
133.220	010	MCPP	EPA 8151 A	FL
133.220	012	Pentachlorophenol	EPA 8151 A	FL
133.240	001	Acenaphthene	EPA 8270 E	FL
133.240	001	Acenaphthene	EPA 8270 E	FL
133.240	002	Acenaphthylene	EPA 8270 E	FL
133.240	002	Acenaphthylene	EPA 8270 E	FL
133.240	003	Aniline	EPA 8270 E	FL
133.240	003	Aniline	EPA 8270 E	FL
133.240	004	Anthracene	EPA 8270 E	FL
133.240	004	Anthracene	EPA 8270 E	FL
133.240	005	Benzidine	EPA 8270 E	FL
133.240	005	Benzidine	EPA 8270 E	FL
133.240	006	Benzoic Acid	EPA 8270 E	FL
133.240	006	Benzoic Acid	EPA 8270 E	FL
133.240	007	Benzo(a)anthracene	EPA 8270 E	FL
133.240	007	Benzo(a)anthracene	EPA 8270 E	FL
133.240	008	Benzo(b)fluoranthene	EPA 8270 E	FL
133.240	008	Benzo(b)fluoranthene	EPA 8270 E	FL
133.240	009	Benzo(k)fluoranthene	EPA 8270 E	FL
133.240	009	Benzo(k)fluoranthene	EPA 8270 E	FL
133.240	010	Benzo(g,h,i)perylene	EPA 8270 E	FL
133.240	010	Benzo(g,h,i)perylene	EPA 8270 E	FL
133.240	011	Benzo(a)pyrene	EPA 8270 E	FL
133.240	011	Benzo(a)pyrene	EPA 8270 E	FL
133.240	012	Benzyl Alcohol	EPA 8270 E	FL
133.240	012	Benzyl Alcohol	EPA 8270 E	FL
133.240	013	Bis(2-chloroethoxy) Methane	EPA 8270 E	FL

133.240	013	Bis(2-chloroethoxy) Methane	EPA 8270 E	FL
133.240	014	Bis(2-chloroethyl) Ether	EPA 8270 E	FL
133.240	014	Bis(2-chloroethyl) Ether	EPA 8270 E	FL
133.240	015	Bis(2-ethylhexyl)phthalate (Di(2-ethylhexyl) phthalate)	EPA 8270 E	FL
133.240	015	Bis(2-ethylhexyl)phthalate (Di(2-ethylhexyl) phthalate)	EPA 8270 E	FL
133.240	016	Butyl Benzyl Phthalate	EPA 8270 E	FL
133.240	016	Butyl Benzyl Phthalate	EPA 8270 E	FL
133.240	017	Chrysene	EPA 8270 E	FL
133.240	017	Chrysene	EPA 8270 E	FL
133.240	018	Dibenz(a,h)anthracene	EPA 8270 E	FL
133.240	018	Dibenz(a,h)anthracene	EPA 8270 E	FL
133.240	019	Dibenzofuran	EPA 8270 E	FL
133.240	019	Dibenzofuran	EPA 8270 E	FL
133.240	020	Di-n-butyl Phthalate	EPA 8270 E	FL
133.240	020	Di-n-butyl Phthalate	EPA 8270 E	FL
133.240	021	Diethyl Phthalate	EPA 8270 E	FL
133.240	021	Diethyl Phthalate	EPA 8270 E	FL
133.240	022	Dimethyl Phthalate	EPA 8270 E	FL
133.240	022	Dimethyl Phthalate	EPA 8270 E	FL
133.240	023	Di-n-octyl Phthalate	EPA 8270 E	FL
133.240	023	Di-n-octyl Phthalate	EPA 8270 E	FL
133.240	024	Fluoranthene	EPA 8270 E	FL
133.240	024	Fluoranthene	EPA 8270 E	FL
133.240	025	Fluorene	EPA 8270 E	FL
133.240	025	Fluorene	EPA 8270 E	FL
133.240	026	Naphthalene	EPA 8270 E	FL
133.240	026	Naphthalene	EPA 8270 E	FL
133.240	027	Nitrobenzene	EPA 8270 E	FL
133.240	027	Nitrobenzene	EPA 8270 E	FL
133.240	028	Pentachlorobenzene	EPA 8270 E	FL
133.240	028	Pentachlorobenzene	EPA 8270 E	FL
133.240	029	Pentachlorophenol	EPA 8270 E	FL
133.240	029	Pentachlorophenol	EPA 8270 E	FL
133.240	030	1-Chloronaphthalene	EPA 8270 E	FL
133.240	030	1-Chloronaphthalene	EPA 8270 E	FL
133.240	031	1,2-Dichlorobenzene	EPA 8270 E	FL
133.240	031	1,2-Dichlorobenzene	EPA 8270 E	FL
133.240	032	1,3-Dichlorobenzene	EPA 8270 E	FL
133.240	032	1,3-Dichlorobenzene	EPA 8270 E	FL
133.240	033	1,4-Dichlorobenzene	EPA 8270 E	FL
133.240	033	1,4-Dichlorobenzene	EPA 8270 E	FL
133.240	034	2-Chloronaphthalene	EPA 8270 E	FL

133.240	034	2-Chloronaphthalene	EPA 8270 E	FL
133.240	035	2-Chlorophenol	EPA 8270 E	FL
133.240	035	2-Chlorophenol	EPA 8270 E	FL
133.240	036	2,4-Dichlorophenol	EPA 8270 E	FL
133.240	036	2,4-Dichlorophenol	EPA 8270 E	FL
133.240	037	2,4-Dimethylphenol	EPA 8270 E	FL
133.240	037	2,4-Dimethylphenol	EPA 8270 E	FL
133.240	038	2,4-Dinitrophenol	EPA 8270 E	FL
133.240	038	2,4-Dinitrophenol	EPA 8270 E	FL
133.240	039	2,4-Dinitrotoluene	EPA 8270 E	FL
133.240	039	2,4-Dinitrotoluene	EPA 8270 E	FL
133.240	040	2,6-Dichlorophenol	EPA 8270 E	FL
133.240	040	2,6-Dichlorophenol	EPA 8270 E	FL
133.240	041	2,6-Dinitrotoluene	EPA 8270 E	FL
133.240	041	2,6-Dinitrotoluene	EPA 8270 E	FL
133.240	042	2-Nitroaniline	EPA 8270 E	FL
133.240	042	2-Nitroaniline	EPA 8270 E	FL
133.240	043	2-Nitrophenol	EPA 8270 E	FL
133.240	043	2-Nitrophenol	EPA 8270 E	FL
133.240	044	3-Nitroaniline	EPA 8270 E	FL
133.240	044	3-Nitroaniline	EPA 8270 E	FL
133.240	045	3,3'-Dichlorobenzidine	EPA 8270 E	FL
133.240	045	3,3'-Dichlorobenzidine	EPA 8270 E	FL
133.240	046	4-Chloroaniline	EPA 8270 E	FL
133.240	046	4-Chloroaniline	EPA 8270 E	FL
133.240	047	4-Chloro-3-methylphenol	EPA 8270 E	FL
133.240	047	4-Chloro-3-methylphenol	EPA 8270 E	FL
133.240	048	4-Bromophenyl Phenyl Ether	EPA 8270 E	FL
133.240	048	4-Bromophenyl Phenyl Ether	EPA 8270 E	FL
133.240	049	4-Chlorophenyl Phenyl Ether	EPA 8270 E	FL
133.240	049	4-Chlorophenyl Phenyl Ether	EPA 8270 E	FL
133.240	050	4-Nitroaniline	EPA 8270 E	FL
133.240	050	4-Nitroaniline	EPA 8270 E	FL
133.240	051	4-Nitrophenol	EPA 8270 E	FL
133.240	051	4-Nitrophenol	EPA 8270 E	FL
133.240	074	Disulfoton	EPA 8270 E	FL
133.240	074	Disulfoton	EPA 8270 E	FL
133.240	076	Parathion Ethyl	EPA 8270 E	FL
133.240	076	Parathion Ethyl	EPA 8270 E	FL
133.240	077	Parathion Methyl	EPA 8270 E	FL
133.240	077	Parathion Methyl	EPA 8270 E	FL
133.240	078	Phorate	EPA 8270 E	FL

133.240	078	Phorate	EPA 8270 E	FL
133.240	087	N-nitrosodiethylamine	EPA 8270 E	FL
133.240	087	N-nitrosodiethylamine	EPA 8270 E	FL
133.240	088	N-nitrosodimethylamine	EPA 8270 E	FL
133.240	088	N-nitrosodimethylamine	EPA 8270 E	FL
133.240	089	N-nitrosodiphenylamine	EPA 8270 E	FL
133.240	089	N-nitrosodiphenylamine	EPA 8270 E	FL
133.240	090	N-nitroso-di-n-propylamine	EPA 8270 E	FL
133.240	090	N-nitroso-di-n-propylamine	EPA 8270 E	FL



STATE WATER RESOURCES CONTROL BOARD  
REGIONAL WATER QUALITY CONTROL BOARDS



CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

**CERTIFICATE OF  
ENVIRONMENTAL LABORATORY ACCREDITATION**

Is hereby granted to

**Eurofins Calscience, LLC**

7440 Lincoln Way

Garden Grove, CA 92841-1427

Scope of the certificate is limited to the  
"Fields of Accreditation"  
which accompany this Certificate.

Continued accredited status depends on compliance with applicable laws and regulations,  
proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of  
Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **2944**

Effective Date: **10/1/2020**

Expiration Date: **9/30/2022**

A handwritten signature in blue ink, appearing to read "Christine Sotelo".

Sacramento, California  
subject to forfeiture or revocation

Christine Sotelo, Chief  
Environmental Laboratory Accreditation Program





**CALIFORNIA STATE  
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM  
Fields of Accreditation**



**Eurofins Calscience, LLC**

7440 Lincoln Way  
Garden Grove, CA 92841-1427  
Phone: 7148955494

**Certificate Number: 2944  
Expiration Date: 9/30/2022**

**Field of Accreditation:102 - Inorganic Chemistry of Drinking Water**

102.040	003	Chlorate	EPA 300.1
102.045	001	Perchlorate	EPA 314.0
102.047	001	Perchlorate	EPA 331.0
102.264	001	Organic Carbon-Total (TOC)	SM 5310 D-2000
102.265	001	Dissolved Organic Carbon (DOC)	SM 5310 D-2000

**Field of Accreditation:103 - Toxic Chemical Elements of Drinking Water**

103.140	019	Strontium	EPA 200.8
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**Field of Accreditation:104 - Volatile Organic Chemistry of Drinking Water**

104.030	001	1,2-Dibromoethane (EDB)	EPA 504.1
104.030	002	1,2-Dibromo-3-chloropropane (DBCP)	EPA 504.1
104.035	001	1,2,3-Trichloropropane (TCP)	SRL 524M-TCP
104.040	001	Benzene	EPA 524.2
104.040	007	n-Butylbenzene	EPA 524.2
104.040	008	sec-Butylbenzene	EPA 524.2
104.040	009	tert-Butylbenzene	EPA 524.2
104.040	010	Carbon Tetrachloride	EPA 524.2
104.040	011	Chlorobenzene	EPA 524.2
104.040	015	2-Chlorotoluene	EPA 524.2
104.040	016	4-Chlorotoluene	EPA 524.2
104.040	019	1,3-Dichlorobenzene	EPA 524.2
104.040	020	1,2-Dichlorobenzene	EPA 524.2
104.040	021	1,4-Dichlorobenzene	EPA 524.2
104.040	022	Dichlorodifluoromethane	EPA 524.2
104.040	023	1,1-Dichloroethane	EPA 524.2
104.040	024	1,2-Dichloroethane (Ethylene Dichloride)	EPA 524.2
104.040	025	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 524.2
104.040	026	cis-1,2-Dichloroethylene (cis 1,2 Dichloroethene)	EPA 524.2
104.040	027	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 524.2
104.040	028	Dichloromethane (Methylene Chloride)	EPA 524.2
104.040	029	1,2-Dichloropropane	EPA 524.2
104.040	033	cis-1,3-Dichloropropylene (cis 1,3 Dichloropropene)	EPA 524.2
104.040	034	trans-1,3-Dichloropropylene (trans-1,3 Dichloropropene)	EPA 524.2
104.040	035	Ethylbenzene	EPA 524.2

As of 9/14/2021 , this list supersedes all previous lists for this certificate number.  
Customers: Please verify the current accreditation standing with the State.

104.040	037	Isopropylbenzene	EPA 524.2
104.040	039	Naphthalene	EPA 524.2
104.040	041	N-propylbenzene	EPA 524.2
104.040	042	Styrene	EPA 524.2
104.040	043	1,1,1,2-Tetrachloroethane	EPA 524.2
104.040	044	1,1,2,2-Tetrachloroethane	EPA 524.2
104.040	045	Tetrachloroethylene (Tetrachloroethene)	EPA 524.2
104.040	046	Toluene	EPA 524.2
104.040	047	1,2,3-Trichlorobenzene	EPA 524.2
104.040	048	1,2,4-Trichlorobenzene	EPA 524.2
104.040	049	1,1,1-Trichloroethane	EPA 524.2
104.040	050	1,1,2-Trichloroethane	EPA 524.2
104.040	051	Trichloroethylene (Trichloroethene)	EPA 524.2
104.040	052	Trichlorofluoromethane	EPA 524.2
104.040	054	1,2,4-Trimethylbenzene	EPA 524.2
104.040	055	1,3,5-Trimethylbenzene	EPA 524.2
104.040	056	Vinyl Chloride	EPA 524.2
104.040	059	o-Xylene	EPA 524.2
104.040	063	m+p-Xylene	EPA 524.2
104.045	001	Bromodichloromethane	EPA 524.2
104.045	002	Bromoform	EPA 524.2
104.045	003	Chloroform	EPA 524.2
104.045	004	Dibromochloromethane (Chlorodibromomethane)	EPA 524.2
104.050	002	Methyl tert-butyl Ether (MTBE)	EPA 524.2
104.050	003	tert-Amyl Methyl Ether (TAME)	EPA 524.2
104.050	004	Ethyl tert-butyl Ether (ETBE)	EPA 524.2
104.050	005	Trichlorotrifluoroethane (Freon 113)	EPA 524.2
104.050	006	t-Butyl alcohol (2-Methyl-2-propanol)	EPA 524.2

**Field of Accreditation:105 - Semi-volatile Organic Chemistry of Drinking Water**

105.085	001	1,4-Dioxane	EPA 522
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**Field of Accreditation:108 - Inorganic Constituents in Non-Potable Water**

108.001	001	Specific Conductance	EPA 120.1 (1982 Rev.1.0)
108.013	001	Calcium	EPA 200.7 (1994 Rev. 4.4)
108.013	002	Magnesium	EPA 200.7 (1994 Rev. 4.4)
108.013	003	Phosphorus, Total	EPA 200.7 (1994 Rev. 4.4)
108.013	004	Potassium	EPA 200.7 (1994 Rev. 4.4)
108.013	005	Silica, Dissolved	EPA 200.7 (1994 Rev. 4.4)
108.013	006	Sodium	EPA 200.7 (1994 Rev. 4.4)
108.015	001	Calcium	EPA 200.8 (1994 Rev. 5.4)
108.015	002	Magnesium	EPA 200.8 (1994 Rev. 5.4)
108.015	003	Potassium	EPA 200.8 (1994 Rev. 5.4)
108.015	005	Sodium	EPA 200.8 (1994 Rev. 5.4)

108.017	001	Bromide	EPA 300.0 (1993 Rev. 2.1)
108.017	002	Chloride	EPA 300.0 (1993 Rev. 2.1)
108.017	003	Fluoride	EPA 300.0 (1993 Rev. 2.1)
108.017	004	Nitrate (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	005	Nitrate-Nitrite (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	006	Nitrite (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	007	Phosphate,Ortho (as P)	EPA 300.0 (1993 Rev. 2.1)
108.017	008	Sulfate (as SO4)	EPA 300.0 (1993 Rev. 2.1)
108.025	001	Ammonia (as N)	EPA 350.1 (1993 Rev. 2.0)
108.029	001	Kjeldahl Nitrogen,Total (as N)	EPA 351.2 (1993 Rev. 2.0)
108.035	001	Phosphate,Ortho (as P)	EPA 365.1 (1993 Rev. 2.0)
108.035	002	Phosphorus,Total	EPA 365.1 (1993 Rev. 2.0)
108.045	001	Chemical Oxygen Demand	EPA 410.4 (1993 Rev. 2.0)
108.047	001	Phenols, Total	EPA 420.1 (1978 Rev. 1.0)
108.053	001	Oil & Grease Total	EPA 1664 A
108.055	001	Color	SM 2120 B-2011
108.059	001	Turbidity	SM 2130 B-2011
108.063	001	Alkalinity	SM 2320 B-2011
108.065	001	Hardness (Calculation)	SM 2340 B-2011
108.067	001	Hardness	SM 2340 C-2011
108.069	001	Specific Conductance	SM 2510 B-2011
108.071	001	Residue, Total	SM 2540 B-2011
108.073	001	Residue, Filterable TDS	SM 2540 C-2011
108.075	001	Residue, Non-filterable TSS	SM 2540 D-2011
108.077	001	Residue, Volatile	SM 2540 E-2011
108.079	001	Residue, Settleable	SM 2540 F-2011
108.109	001	Chlorine, Total Residual	SM 4500-CI F-2011
108.117	001	Chloride	SM 4500-Chloride C-2011
108.125	001	Cyanide, Total	SM 4500-CN E-2011
108.131	001	Fluoride	SM 4500-F C-2011
108.137	001	Hydrogen Ion (pH)	SM 4500-H+ B-2011
108.139	001	Ammonia (as N)	SM 4500-NH3 C-2011
108.139	002	Kjeldahl Nitrogen,Total (as N)	SM 4500-NH3 C-2011
108.140	001	Ammonia (as N)	SM 4500-NH3 D-2011
108.153	001	Nitrite (as N)	SM 4500-NO2 B-2011
108.157	001	Nitrate-Nitrite (as N)	SM 4500-NO3 E-2011
108.173	001	Oxygen, Dissolved	SM 4500-O G-2011
108.175	001	Phosphate,Ortho (as P)	SM 4500-P E-2011
108.175	002	Phosphorus,Total	SM 4500-P E-2011
108.201	001	Sulfide (as S)	SM 4500-S D-2011
108.207	001	Biochemical Oxygen Demand	SM 5210 B-2011
108.207	002	Carbonaceous BOD	SM 5210 B-2011

108.219	001	Organic Carbon-Total (TOC)	SM 5310 D-2011
108.225	001	Surfactants	SM 5540 C-2011

**Field of Accreditation: 109 - Metals and Trace Elements in Non-Potable Water**

109.623	001	Aluminum	EPA 200.7 (1994 Rev. 4.4)
109.623	002	Antimony	EPA 200.7 (1994 Rev. 4.4)
109.623	003	Arsenic	EPA 200.7 (1994 Rev. 4.4)
109.623	004	Barium	EPA 200.7 (1994 Rev. 4.4)
109.623	005	Beryllium	EPA 200.7 (1994 Rev. 4.4)
109.623	006	Boron	EPA 200.7 (1994 Rev. 4.4)
109.623	007	Cadmium	EPA 200.7 (1994 Rev. 4.4)
109.623	008	Chromium	EPA 200.7 (1994 Rev. 4.4)
109.623	009	Cobalt	EPA 200.7 (1994 Rev. 4.4)
109.623	010	Copper	EPA 200.7 (1994 Rev. 4.4)
109.623	011	Iron	EPA 200.7 (1994 Rev. 4.4)
109.623	012	Lead	EPA 200.7 (1994 Rev. 4.4)
109.623	013	Manganese	EPA 200.7 (1994 Rev. 4.4)
109.623	014	Molybdenum	EPA 200.7 (1994 Rev. 4.4)
109.623	015	Nickel	EPA 200.7 (1994 Rev. 4.4)
109.623	016	Selenium	EPA 200.7 (1994 Rev. 4.4)
109.623	017	Silver	EPA 200.7 (1994 Rev. 4.4)
109.623	018	Thallium	EPA 200.7 (1994 Rev. 4.4)
109.623	019	Tin	EPA 200.7 (1994 Rev. 4.4)
109.623	020	Titanium	EPA 200.7 (1994 Rev. 4.4)
109.623	021	Vanadium	EPA 200.7 (1994 Rev. 4.4)
109.623	022	Zinc	EPA 200.7 (1994 Rev. 4.4)
109.625	001	Aluminum	EPA 200.8 (1994 Rev. 5.4)
109.625	002	Antimony	EPA 200.8 (1994 Rev. 5.4)
109.625	003	Arsenic	EPA 200.8 (1994 Rev. 5.4)
109.625	004	Barium	EPA 200.8 (1994 Rev. 5.4)
109.625	005	Beryllium	EPA 200.8 (1994 Rev. 5.4)
109.625	006	Boron	EPA 200.8 (1994 Rev. 5.4)
109.625	007	Cadmium	EPA 200.8 (1994 Rev. 5.4)
109.625	008	Chromium	EPA 200.8 (1994 Rev. 5.4)
109.625	009	Cobalt	EPA 200.8 (1994 Rev. 5.4)
109.625	010	Copper	EPA 200.8 (1994 Rev. 5.4)
109.625	012	Iron	EPA 200.8 (1994 Rev. 5.4)
109.625	013	Lead	EPA 200.8 (1994 Rev. 5.4)
109.625	014	Manganese	EPA 200.8 (1994 Rev. 5.4)
109.625	015	Molybdenum	EPA 200.8 (1994 Rev. 5.4)
109.625	016	Nickel	EPA 200.8 (1994 Rev. 5.4)
109.625	017	Selenium	EPA 200.8 (1994 Rev. 5.4)
109.625	018	Silver	EPA 200.8 (1994 Rev. 5.4)

109.625	019	Thallium	EPA 200.8 (1994 Rev. 5.4)
109.625	020	Tin	EPA 200.8 (1994 Rev. 5.4)
109.625	021	Titanium	EPA 200.8 (1994 Rev. 5.4)
109.625	022	Vanadium	EPA 200.8 (1994 Rev. 5.4)
109.625	023	Zinc	EPA 200.8 (1994 Rev. 5.4)
109.629	001	Chromium VI (Hexavalent Chromium)	EPA 218.6 (1994 Rev. 3.3)
109.635	001	Mercury	EPA 245.1 (1994 Rev. 3.0)
109.693	001	Iron	SM 3500-Fe B-2011

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**Field of Accreditation: 110 - Volatile Organic Constituents in Non-Potable Water**


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110.020	001	Benzene	EPA 602
110.020	006	Ethylbenzene	EPA 602
110.020	007	Toluene	EPA 602
110.040	001	Acetone	EPA 624.1
110.040	003	Acrolein	EPA 624.1
110.040	004	Acrylonitrile	EPA 624.1
110.040	005	Benzene	EPA 624.1
110.040	006	Bromodichloromethane	EPA 624.1
110.040	007	Bromoform	EPA 624.1
110.040	008	Bromomethane (Methyl Bromide)	EPA 624.1
110.040	009	t-Butyl alcohol (2-Methyl-2-propanol)	EPA 624.1
110.040	010	Carbon Tetrachloride	EPA 624.1
110.040	011	Chlorobenzene	EPA 624.1
110.040	012	Chloroethane	EPA 624.1
110.040	013	2-Chloroethyl vinyl Ether	EPA 624.1
110.040	014	Chloroform	EPA 624.1
110.040	015	Chloromethane (Methyl Chloride)	EPA 624.1
110.040	016	Dibromochloromethane (Chlorodibromomethane)	EPA 624.1
110.040	017	1,2-Dichlorobenzene	EPA 624.1
110.040	018	1,3-Dichlorobenzene	EPA 624.1
110.040	019	1,4-Dichlorobenzene	EPA 624.1
110.040	020	1,1-Dichloroethane	EPA 624.1
110.040	021	1,2-Dichloroethane (Ethylene Dichloride)	EPA 624.1
110.040	022	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 624.1
110.040	023	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 624.1
110.040	024	1,2-Dichloropropane	EPA 624.1
110.040	025	cis-1,3-Dichloropropylene (cis 1,3 Dichloropropene)	EPA 624.1
110.040	026	trans-1,3-Dichloropropylene (trans-1,3 Dichloropropene)	EPA 624.1
110.040	029	Ethylbenzene	EPA 624.1
110.040	031	Methylene Chloride (Dichloromethane)	EPA 624.1
110.040	032	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	EPA 624.1
110.040	034	1,1,2,2-Tetrachloroethane	EPA 624.1
110.040	035	Tetrachloroethylene (Tetrachloroethene)	EPA 624.1

110.040	037	Toluene	EPA 624.1
110.040	038	1,1,1-Trichloroethane	EPA 624.1
110.040	039	1,1,2-Trichloroethane	EPA 624.1
110.040	040	Trichloroethylene (Trichloroethene)	EPA 624.1
110.040	041	Vinyl Chloride	EPA 624.1
110.040	043	o-Xylene	EPA 624.1
110.040	045	Trichlorofluoromethane	EPA 624.1
110.040	046	m+p-Xylene	EPA 624.1
110.040	047	2-Butanone (MEK)	EPA 624.1

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**Field of Accreditation: 111 - Semi-volatile Organic Constituents in Non-Potable Water**


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111.055	001	Aldrin	EPA 608.3
111.055	002	alpha-BHC	EPA 608.3
111.055	003	beta-BHC	EPA 608.3
111.055	004	delta-BHC	EPA 608.3
111.055	005	gamma-BHC (Lindane)	EPA 608.3
111.055	006	Chlordane	EPA 608.3
111.055	007	4,4'-DDD	EPA 608.3
111.055	008	4,4'-DDE	EPA 608.3
111.055	009	4,4'-DDT	EPA 608.3
111.055	010	Dieldrin	EPA 608.3
111.055	011	Endosulfan I	EPA 608.3
111.055	012	Endosulfan II	EPA 608.3
111.055	013	Endosulfan Sulfate	EPA 608.3
111.055	014	Endrin	EPA 608.3
111.055	015	Endrin Aldehyde	EPA 608.3
111.055	016	Heptachlor	EPA 608.3
111.055	017	Heptachlor Epoxide	EPA 608.3
111.055	019	PCB-1016 (Aroclor-1016)	EPA 608.3
111.055	020	PCB-1221 (Aroclor-1221)	EPA 608.3
111.055	021	PCB-1232 (Aroclor-1232)	EPA 608.3
111.055	022	PCB-1242 (Aroclor-1242)	EPA 608.3
111.055	023	PCB-1248 (Aroclor-1248)	EPA 608.3
111.055	024	PCB-1254 (Aroclor-1254)	EPA 608.3
111.055	025	PCB-1260 (Aroclor-1260)	EPA 608.3
111.055	046	Methoxychlor	EPA 608.3
111.055	060	Toxaphene	EPA 608.3
111.070	001	Acenaphthene	EPA 610
111.070	002	Acenaphthylene	EPA 610
111.070	003	Anthracene	EPA 610
111.070	004	Benzo(a)anthracene	EPA 610
111.070	005	Benzo(a)pyrene	EPA 610
111.070	006	Benzo(b)fluoranthene	EPA 610

111.070	007	Benzo(g,h,i)perylene	EPA 610
111.070	008	Benzo(k)fluoranthene	EPA 610
111.070	009	Chrysene	EPA 610
111.070	010	Dibenz(a,h)anthracene	EPA 610
111.070	011	Fluoranthene	EPA 610
111.070	012	Fluorene	EPA 610
111.070	013	Indeno(1,2,3-c,d)pyrene	EPA 610
111.070	014	Naphthalene	EPA 610
111.070	015	Phenanthrene	EPA 610
111.070	016	Pyrene	EPA 610
111.160	001	Acenaphthene	EPA 625.1
111.160	002	Acenaphthylene	EPA 625.1
111.160	003	Anthracene	EPA 625.1
111.160	004	Benzidine	EPA 625.1
111.160	005	Benzo(a)anthracene	EPA 625.1
111.160	006	Benzo(a)pyrene	EPA 625.1
111.160	007	Benzo(b)fluoranthene	EPA 625.1
111.160	008	Benzo(g,h,i)perylene	EPA 625.1
111.160	009	Benzo(k)fluoranthene	EPA 625.1
111.160	010	Bis(2-chloroethoxy) Methane	EPA 625.1
111.160	011	Bis(2-chloroethyl) Ether	EPA 625.1
111.160	012	bis(2-Chloroisopropyl) ether (2,2'-Oxybis[1-chloropropane])	EPA 625.1
111.160	013	Bis(2-ethylhexyl)phthalate (Di(2-ethylhexyl) phthalate)	EPA 625.1
111.160	014	4-Bromophenyl Phenyl Ether	EPA 625.1
111.160	015	Butyl Benzyl Phthalate	EPA 625.1
111.160	016	2-Chloronaphthalene	EPA 625.1
111.160	017	4-Chlorophenyl Phenyl Ether	EPA 625.1
111.160	018	Chrysene	EPA 625.1
111.160	019	Dibenz(a,h)anthracene	EPA 625.1
111.160	020	3,3'-Dichlorobenzidine	EPA 625.1
111.160	021	Diethyl Phthalate	EPA 625.1
111.160	022	Dimethyl Phthalate	EPA 625.1
111.160	023	Di-n-butyl Phthalate	EPA 625.1
111.160	024	2,4-Dinitrotoluene	EPA 625.1
111.160	025	2,6-Dinitrotoluene	EPA 625.1
111.160	026	Di-n-octyl Phthalate	EPA 625.1
111.160	027	Fluoranthene	EPA 625.1
111.160	028	Fluorene	EPA 625.1
111.160	029	Hexachlorobenzene	EPA 625.1
111.160	030	Hexachlorobutadiene	EPA 625.1
111.160	031	Hexachloroethane	EPA 625.1
111.160	032	Indeno(1,2,3-c,d)pyrene	EPA 625.1

111.160	033	Isophorone	EPA 625.1
111.160	034	Naphthalene	EPA 625.1
111.160	035	Nitrobenzene	EPA 625.1
111.160	036	N-nitroso-di-n-propylamine	EPA 625.1
111.160	037	Phenanthrene	EPA 625.1
111.160	038	Pyrene	EPA 625.1
111.160	039	1,2,4-Trichlorobenzene	EPA 625.1
111.160	040	4-Chloro-3-methylphenol	EPA 625.1
111.160	041	2-Chlorophenol	EPA 625.1
111.160	042	2,4-Dichlorophenol	EPA 625.1
111.160	043	2,4-Dimethylphenol	EPA 625.1
111.160	044	2,4-Dinitrophenol	EPA 625.1
111.160	045	2-Methyl-4,6-dinitrophenol	EPA 625.1
111.160	046	2-Nitrophenol	EPA 625.1
111.160	047	4-Nitrophenol	EPA 625.1
111.160	048	Pentachlorophenol	EPA 625.1
111.160	049	Phenol	EPA 625.1
111.160	050	2,4,6-Trichlorophenol	EPA 625.1
111.160	098	Hexachlorocyclopentadiene	EPA 625.1
111.160	108	N-nitrosodimethylamine	EPA 625.1
111.160	110	N-nitrosodiphenylamine	EPA 625.1
111.160	140	Carbazole	EPA 625.1
111.160	141	o-Cresol	EPA 625.1
111.160	143	1,2-Diphenylhydrazine	EPA 625.1
111.160	145	Pyridine	EPA 625.1
111.260	041	N-nitrosodimethylamine	EPA 1625 B

**Field of Accreditation: 114 - Inorganic Constituents in Hazardous Waste**

114.010	001	Antimony	EPA 6010 B
114.010	002	Arsenic	EPA 6010 B
114.010	003	Barium	EPA 6010 B
114.010	004	Beryllium	EPA 6010 B
114.010	005	Cadmium	EPA 6010 B
114.010	006	Chromium	EPA 6010 B
114.010	007	Cobalt	EPA 6010 B
114.010	008	Copper	EPA 6010 B
114.010	009	Lead	EPA 6010 B
114.010	010	Molybdenum	EPA 6010 B
114.010	011	Nickel	EPA 6010 B
114.010	012	Selenium	EPA 6010 B
114.010	013	Silver	EPA 6010 B
114.010	014	Thallium	EPA 6010 B
114.010	015	Vanadium	EPA 6010 B



114.010	016	Zinc	EPA 6010 B	
114.020	001	Antimony	EPA 6020	
114.020	002	Arsenic	EPA 6020	
114.020	003	Barium	EPA 6020	
114.020	004	Beryllium	EPA 6020	
114.020	005	Cadmium	EPA 6020	
114.020	006	Chromium	EPA 6020	
114.020	007	Cobalt	EPA 6020	
114.020	008	Copper	EPA 6020	
114.020	009	Lead	EPA 6020	
114.020	010	Molybdenum	EPA 6020	
114.020	011	Nickel	EPA 6020	
114.020	012	Selenium	EPA 6020	
114.020	013	Silver	EPA 6020	
114.020	014	Thallium	EPA 6020	
114.020	015	Vanadium	EPA 6020	
114.020	016	Zinc	EPA 6020	
114.103	001	Chromium VI (Hexavalent Chromium)	EPA 7196 A	
114.106	001	Chromium VI (Hexavalent Chromium)	EPA 7199	
114.140	001	Mercury	EPA 7470 A	Aqueous Only
114.141	001	Mercury	EPA 7471 A	
114.222	001	Cyanide, Total	EPA 9014	
114.241	001	Corrosivity - pH Determination	EPA 9045 C	
114.250	001	Fluoride	EPA 9056	
114.280	001	Organic Lead	HML 939-M	

**Field of Accreditation:115 - Leaching/Extraction Tests and Physical Characteristics of Hazardous Waste**

115.020	001	Toxicity Characteristic Leaching Procedure (TCLP)	EPA 1311	
115.021	001	TCLP Inorganics	EPA 1311	
115.022	001	TCLP Extractables	EPA 1311	
115.023	001	TCLP Volatiles	EPA 1311	
115.030	001	Waste Extraction Test (WET)	CCR Chapter11, Article 5, Appe	
115.040	001	Synthetic Precipitation Leaching Procedure (SPLP)	EPA 1312	

**Field of Accreditation:116 - Volatile Organic Compounds in Hazardous Waste**

116.020	030	Nonhalogenated Volatiles	EPA 8015 B	
116.030	001	Gasoline Range Organics (GRO)	EPA 8015 B	
116.040	041	Methyl tert-butyl Ether (MTBE)	EPA 8021 B	
116.040	061	Aromatic Volatiles	EPA 8021 B	
116.040	062	BTEX	EPA 8021 B	
116.080	000	Volatile Organic Compounds	EPA 8260 B	
116.080	120	Oxygenates	EPA 8260 B	
116.100	001	Total Petroleum Hydrocarbons - Gasoline (GRO)	LUFT GC/MS	
116.100	010	BTEX and MTBE	LUFT GC/MS	

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116.110	001	Total Petroleum Hydrocarbons - Gasoline (GRO)	LUFT
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**Field of Accreditation:117 - Semi-volatile Organic Chemistry of Hazardous Waste**

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117.010	001	Diesel Range Organics (DRO)	EPA 8015 B
117.016	001	Diesel Range Organics (DRO)	LUFT
117.110	000	Extractable Organics	EPA 8270 C
117.140	000	Polynuclear Aromatic Hydrocarbons	EPA 8310
117.170	000	Nitroaromatics and Nitramines	EPA 8330
117.171	000	Nitroaromatics and Nitramines	EPA 8330 A
117.210	000	Organochlorine Pesticides	EPA 8081 A
117.220	000	PCBs	EPA 8082
117.240	000	Organophosphorus Pesticides	EPA 8141 A
117.250	000	Chlorinated Herbicides	EPA 8151 A

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**Field of Accreditation:120 - Physical Properties of Hazardous Waste**

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120.010	001	Ignitability	EPA 1010
120.040	001	Reactive Cyanide	Section 7.3 SW-846
120.050	001	Reactive Sulfide	Section 7.3 SW-846
120.080	001	Corrosivity - pH Determination	EPA 9045 C

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STATE WATER RESOURCES CONTROL BOARD  
REGIONAL WATER QUALITY CONTROL BOARDS



CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

**CERTIFICATE OF  
ENVIRONMENTAL LABORATORY ACCREDITATION**

Is hereby granted to

**Pace Analytical Services, LLC-Pittsburg PA**

1638 Roseytown Road

Greensburg, PA 15601

Scope of the certificate is limited to the  
"Fields of Accreditation"  
which accompany this Certificate.

Continued accredited status depends on compliance with applicable laws and regulations,  
proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of  
Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **2950**

Effective Date: **4/1/2021**

Expiration Date: **3/31/2022**

A handwritten signature in blue ink, appearing to read "Christine Sotelo".

Sacramento, California  
subject to forfeiture or revocation

Christine Sotelo, Chief  
Environmental Laboratory Accreditation Program



**CALIFORNIA STATE  
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM  
Fields of Accreditation**



**Pace Analytical Services, LLC-Pittsburg PA**

1638 Roseytown Road  
Greensburg, PA 15601  
Phone: 7248505600

**Certificate Number: 2950  
Expiration Date: 3/31/2022**

Primary Accreditation  
Body

**Field of Accreditation:106 - Radionuclides in Drinking Water**

106.010	001	Gross Alpha	EPA 900.0	PA
106.010	002	Gross Beta	EPA 900.0	PA
106.030	003	Gamma Emitters	EPA 901.1	PA
106.050	001	Total Alpha Radium	EPA 903.0	PA
106.051	001	Radium-226	EPA 903.1	PA
106.060	001	Radium-228	EPA 904.0	PA
106.070	003	Strontium-90	EPA 905.0	PA
106.080	001	Tritium	EPA 906.0	PA
106.270	001	Gross Alpha	SM 7110 C	PA
106.480	001	Uranium	ASTM D5174-97	PA
106.610	001	Radon-222	SM 7500-Rn	PA

**Field of Accreditation:112 - Radionuclides in Non-Potable Water**

112.001	001	Gross Alpha	EPA 900.0	PA
112.001	002	Gross Beta	EPA 900.0	PA

**Field of Accreditation:118 - Radionuclides in Hazardous Waste**

118.010	001	Gross Alpha	EPA 9310	PA
118.010	002	Gross Beta	EPA 9310	PA



**CALIFORNIA STATE  
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM  
Fields of Accreditation**



**Pace Analytical Services, LLC-Pittsburg PA**

1638 Roseytown Road  
Greensburg, PA 15601  
Phone: 7248505600

**Certificate Number: 2950  
Expiration Date: 3/31/2022**

Primary Accreditation  
Body

**Field of Accreditation:106 - Radionuclides in Drinking Water**

106.010	001	Gross Alpha	EPA 900.0	PA
106.010	002	Gross Beta	EPA 900.0	PA
106.030	003	Gamma Emitters	EPA 901.1	PA
106.050	001	Total Alpha Radium	EPA 903.0	PA
106.051	001	Radium-226	EPA 903.1	PA
106.060	001	Radium-228	EPA 904.0	PA
106.070	003	Strontium-90	EPA 905.0	PA
106.080	001	Tritium	EPA 906.0	PA
106.270	001	Gross Alpha	SM 7110 C	PA
106.480	001	Uranium	ASTM D5174-97	PA
106.610	001	Radon-222	SM 7500-Rn	PA

**Field of Accreditation:112 - Radionuclides in Non-Potable Water**

112.001	001	Gross Alpha	EPA 900.0	PA
112.001	002	Gross Beta	EPA 900.0	PA

**Field of Accreditation:118 - Radionuclides in Hazardous Waste**

118.010	001	Gross Alpha	EPA 9310	PA
118.010	002	Gross Beta	EPA 9310	PA



State Water Resources Control Board

April 29, 2021

William Billings
Pace Analytical Services, LLC-Pittsburg PA
1638 Roseytown Road, Suites 2, 3, & 4
Greensburg, PA 15601

Dear William Billings:

Certificate No. 2950

Congratulations! This notice advises that the laboratory named above has been accredited as an environmental testing laboratory pursuant to the provisions of the California Health and Safety Code (HSC) Sections 100825-100920. The analyses for which this laboratory is accredited are shown on the enclosed "Fields of Accreditation" List.

The laboratory's accreditation begins on the date printed on the enclosed certificate. If you did not submit your application by the renewal deadline, there may be a lapse in your accreditation. You are responsible for ensuring no data is submitted for regulatory purposes during a period the laboratory is not accredited.

Be advised, the laboratory may have been denied accreditation for one or more analyses for which it applied due to failure to comply with regulatory requirements for application or accreditation. It is the laboratory's responsibility to review the enclosed documents and know which methods it has been accredited for. This accreditation is a final action of the State Water Resources Control Board subject to petition under HSC Section 116701 within 30 days. However, if you believe that an FOA has been left off of your accreditation in error, before you file a petition you may submit to ELAP within 30 days of this letter, an "Accreditation Inquiry Request Form" located at www.waterboards.ca.gov/elap identifying any mistakes or errors you believe occurred in your accreditation. ELAP will then review all timely submitted "Accreditation Inquiry Request Forms" and will make a final determination, which could then be petitioned to the State Water Resources Control Board. Failure to submit an "Accreditation Inquiry Request Form" to ELAP within 30 days of this letter or to timely petition ELAP's final decision to the State Water Resources Control Board will prohibit you from obtaining any further review of your accreditation. HSC Section 100890 lists the civil penalties for environmental laboratories that perform analyses for state regulatory purposes without a valid certificate.

Continued accreditation is contingent upon compliance with HSC Sections 100825-100920 and California Code of Regulations, Title 22, Division 4, Chapter 19, Certification of Environmental Laboratories. ELAP reserves the right to take enforcement action, including issuance of civil penalties, or suspension and revocation of the laboratory's ELAP certificate, for failure to comply with all applicable regulations, statutes and orders.

E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

1001 I Street, Sacramento, CA 95814 | Mailing Address: P.O. Box 100, Sacramento, CA 95812-0100 | www.waterboards.ca.gov



Thank you,



Christine Sotelo, Chief  
California Environmental Laboratory Accreditation Program (CA ELAP)

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E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

1001 | Street, Sacramento, CA 95814 | Mailing Address: P.O. Box 100, Sacramento, CA 95812-0100 | [www.waterboards.ca.gov](http://www.waterboards.ca.gov)





STATE WATER RESOURCES CONTROL BOARD  
REGIONAL WATER QUALITY CONTROL BOARDS

**Interim**

CALIFORNIA STATE



ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

**CERTIFICATE OF  
ENVIRONMENTAL LABORATORY ACCREDITATION**

Is hereby granted to

**Ceres Analytical Laboratory, Inc.**

4919 Windplay Drive, Suite 1

El Dorado Hills, CA 95762

Scope of the certificate is limited to the  
"Fields of Accreditation"  
which accompany this Certificate.

Continued accredited status depends on compliance with applicable laws and regulations,  
proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of  
Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **3046**

Effective Date: **5/1/2021**

Expiration Date: **4/30/2022**

A handwritten signature in blue ink, appearing to read "Christine Sotelo".

Sacramento, California  
subject to forfeiture or revocation

Christine Sotelo, Chief  
Environmental Laboratory Accreditation Program





**CALIFORNIA STATE  
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM  
Fields of Accreditation**



**Ceres Analytical Laboratory, Inc.**

4919 Windplay Drive, Suite 1  
El Dorado Hills, CA 95762  
Phone: 9169325011

**Certificate Number: 3046  
Expiration Date: 4/30/2022  
INTERIM**

**Field of Accreditation:105 - Semi-volatile Organic Chemistry of Drinking Water**

105.230	001	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	EPA 1613 B
105.230	002	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) Screening Only	EPA 1613 B

**Field of Accreditation:111 - Semi-volatile Organic Constituents in Non-Potable Water**

111.250	001	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	EPA 1613 B
111.250	002	Total Tetrachlorodibenzo-p-dioxin (TCDD)	EPA 1613 B
111.250	003	2,3,7,8-Tetrachlorodibenzofuran (TCDF)	EPA 1613 B
111.250	004	Total Tetrachlorodibenzofuran (TCDF)	EPA 1613 B
111.250	005	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	EPA 1613 B
111.250	006	Total Pentachlorodibenzo-p-dioxin (PeCDD)	EPA 1613 B
111.250	007	1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	EPA 1613 B
111.250	008	2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	EPA 1613 B
111.250	009	Total Pentachlorodibenzofuran (PeCDF)	EPA 1613 B
111.250	010	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	EPA 1613 B
111.250	011	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	EPA 1613 B
111.250	012	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	EPA 1613 B
111.250	013	Total Hexachlorodibenzo-p-dioxin (HxCDD)	EPA 1613 B
111.250	014	1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	EPA 1613 B
111.250	015	1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	EPA 1613 B
111.250	016	1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	EPA 1613 B
111.250	017	2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	EPA 1613 B
111.250	018	Total Hexachlorodibenzofuran (HxCDF)	EPA 1613 B
111.250	019	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	EPA 1613 B
111.250	020	Total Heptachlorodibenzo-p-dioxin (HpCDD)	EPA 1613 B
111.250	021	1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	EPA 1613 B
111.250	022	1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	EPA 1613 B
111.250	023	Total Heptachlorodibenzofuran (HpCDF)	EPA 1613 B
111.250	024	OCDD	EPA 1613 B
111.250	025	OCDF	EPA 1613 B

**CALIFORNIA STATE  
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM  
Accredited Fields of Testing**

**Weck Laboratories, Inc.**

14859 East Clark Avenue  
City of Industry, CA 91745  
Phone: (626) 336-2139

**Certificate No. 1132**

**Expiration Date 3/31/2022**

**\*As of 4/7/2020, this list supersedes all previous lists for this certificate number.**

**Customers: Please verify the current accreditation standing with the State.**

**Field of Testing:** 101 – Microbiology of Drinking Water

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
101.010	001	Heterotrophic Bacteria	SM 9215 B
101.020	004	Total Coliform (Enumeration)	SM 9221 B, C
101.020	005	Fecal Coliform (Enumeration)	SM 9221 B, E
101.020	006	E. coli (Enumeration)	SM 9221 B, F
101.050	001	Total Coliform P/A	SM 9223 B Colilert
101.050	002	E. coli P/A	SM 9223 B Colilert
101.050	003	Total Coliform (Enumeration)	SM 9223 B Colilert
101.050	004	E. coli (Enumeration)	SM 9223 B Colilert
101.050	005	Total Coliform P/A	SM 9223 B Colilert 18
101.050	006	E. coli P/A	SM 9223 B Colilert 18
101.050	007	Total Coliform (Enumeration)	SM 9223 B Colilert 18
101.050	008	E. coli (Enumeration)	SM 9223 B Colilert 18
101.050	009	Total Coliform P/A	SM 9223 B Colisure
101.050	010	E. coli P/A	SM 9223 B Colisure
101.140	001	Enterococci	SM 9230 B
101.170	001	Enterococci	Enterolert

**Field of Testing:** 102 – Inorganic Chemistry of Drinking Water

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
102.020	001	Turbidity	EPA 180.1
102.026	001	Calcium	EPA 200.7
102.026	002	Magnesium	EPA 200.7

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
102.026	003	Potassium	EPA 200.7
102.026	004	Silica	EPA 200.7
102.026	005	Sodium	EPA 200.7
102.026	006	Hardness (Calculation)	EPA 200.7
102.030	001	Bromide	EPA 300.0
102.030	003	Chloride	EPA 300.0
102.030	005	Fluoride	EPA 300.0
102.030	006	Nitrate (as N)	EPA 300.0
102.030	007	Nitrite (as N)	EPA 300.0
102.030	009	Sulfate (as SO4)	EPA 300.0
102.040	001	Bromide	EPA 300.1
102.040	002	Chlorite	EPA 300.1
102.040	003	Chlorate	EPA 300.1
102.040	004	Bromate	EPA 300.1
102.045	001	Perchlorate	EPA 314.0
102.047	001	Perchlorate	EPA 331.0
102.048	001	Perchlorate	EPA 332.0
102.050	001	Cyanide, Total	EPA 335.4
102.060	001	Nitrate (as N) (Calculation)	EPA 353.2
102.061	001	Nitrite (as N)	EPA 353.2
102.070	001	Phosphate, Ortho (as P)	EPA 365.1
102.086	001	Dissolved Organic Carbon (DOC)	EPA 415.3 Revision 1.2
102.086	002	Specific UV Absorbance SUVA	EPA 415.3 Revision 1.2
102.086	003	Organic Carbon-Total (TOC)	EPA 415.3 Revision 1.2
102.086	004	UV254	EPA 415.3 Revision 1.2
102.090	001	Bromate	EPA 557
102.100	001	Alkalinity	SM 2320 B-1997
102.130	001	Specific Conductance	SM 2510 B-1997
102.140	001	Residue, Filterable TDS	SM 2540 C-1997
102.175	001	Chlorine, Free	SM 4500-CI G-2000
102.175	002	Chlorine, Total Residual	SM 4500-CI G-2000
102.180	001	Chlorine Dioxide	SM 4500-CIO2 D-2000
102.203	001	Hydrogen Ion (pH)	SM 4500-H+ B-2000
102.260	001	Organic Carbon-Total (TOC)	SM 5310 B-2000
102.261	001	Dissolved Organic Carbon (DOC)	SM 5310 B-2000
102.270	001	Surfactants	SM 5540 C-2000
102.280	001	UV254	SM 5910 B-2011
102.570	001	Cyanide, Free	OIA-1677, DW

**Field of Testing:** 103 – Toxic Chemical Elements of Drinking Water

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
103.130	001	Aluminum	EPA 200.7

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
103.130	003	Barium	EPA 200.7
103.130	007	Chromium	EPA 200.7
103.130	008	Copper	EPA 200.7
103.130	009	Iron	EPA 200.7
103.130	011	Manganese	EPA 200.7
103.130	012	Nickel	EPA 200.7
103.130	015	Silver	EPA 200.7
103.130	017	Zinc	EPA 200.7
103.130	018	Boron	EPA 200.7
103.140	001	Aluminum	EPA 200.8
103.140	002	Antimony	EPA 200.8
103.140	003	Arsenic	EPA 200.8
103.140	004	Barium	EPA 200.8
103.140	005	Beryllium	EPA 200.8
103.140	006	Cadmium	EPA 200.8
103.140	007	Chromium	EPA 200.8
103.140	008	Copper	EPA 200.8
103.140	009	Lead	EPA 200.8
103.140	010	Manganese	EPA 200.8
103.140	011	Mercury	EPA 200.8
103.140	012	Nickel	EPA 200.8
103.140	013	Selenium	EPA 200.8
103.140	014	Silver	EPA 200.8
103.140	015	Thallium	EPA 200.8
103.140	016	Zinc	EPA 200.8
103.140	017	Boron	EPA 200.8
103.140	018	Vanadium	EPA 200.8
103.140	019	Strontium	EPA 200.8
103.160	001	Mercury	EPA 245.1
103.310	001	Chromium (VI)	EPA 218.6
103.311	001	Chromium (VI)	EPA 218.7

**Field of Testing:** 104 – Volatile Organic Chemistry of Drinking Water

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
104.030	001	1,2-Dibromoethane (EDB, Ethylene Dibromide)	EPA 504.1
104.030	002	1,2-Dibromo-3-chloropropane (DBCP)	EPA 504.1
104.035	001	1,2,3-Trichloropropane (TCP)	SRL 524M-TCP
104.040	000	Volatile Organic Compounds	EPA 524.2
104.040	001	Benzene	EPA 524.2
104.040	007	n-Butylbenzene	EPA 524.2
104.040	008	sec-Butylbenzene	EPA 524.2
104.040	009	tert-Butylbenzene	EPA 524.2
104.040	010	Carbon Tetrachloride	EPA 524.2
104.040	011	Chlorobenzene	EPA 524.2
104.040	015	2-Chlorotoluene	EPA 524.2

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
104.040	016	4-Chlorotoluene	EPA 524.2
104.040	019	1,3-Dichlorobenzene	EPA 524.2
104.040	020	1,2-Dichlorobenzene	EPA 524.2
104.040	021	1,4-Dichlorobenzene	EPA 524.2
104.040	022	Dichlorodifluoromethane	EPA 524.2
104.040	023	1,1-Dichloroethane	EPA 524.2
104.040	024	1,2-Dichloroethane	EPA 524.2
104.040	025	1,1-Dichloroethene (1,1-Dichloroethylene)	EPA 524.2
104.040	026	cis-1,2-Dichloroethene	EPA 524.2
104.040	027	trans-1,2-Dichloroethene	EPA 524.2
104.040	028	Dichloromethane (Methylene Chloride)	EPA 524.2
104.040	029	1,2-Dichloropropane	EPA 524.2
104.040	033	cis-1,3-Dichloropropene	EPA 524.2
104.040	034	trans-1,3-Dichloropropene	EPA 524.2
104.040	035	Ethylbenzene	EPA 524.2
104.040	037	Isopropylbenzene	EPA 524.2
104.040	039	Naphthalene	EPA 524.2
104.040	041	N-propylbenzene	EPA 524.2
104.040	042	Styrene	EPA 524.2
104.040	043	1,1,1,2-Tetrachloroethane	EPA 524.2
104.040	044	1,1,2,2-Tetrachloroethane	EPA 524.2
104.040	045	Tetrachloroethylene (Tetrachloroethene)	EPA 524.2
104.040	046	Toluene	EPA 524.2
104.040	047	1,2,3-Trichlorobenzene	EPA 524.2
104.040	048	1,2,4-Trichlorobenzene	EPA 524.2
104.040	049	1,1,1-Trichloroethane	EPA 524.2
104.040	050	1,1,2-Trichloroethane	EPA 524.2
104.040	051	Trichloroethene	EPA 524.2
104.040	052	Trichlorofluoromethane	EPA 524.2
104.040	054	1,2,4-Trimethylbenzene	EPA 524.2
104.040	055	1,3,5-Trimethylbenzene	EPA 524.2
104.040	056	Vinyl Chloride	EPA 524.2
104.040	057	Xylenes, Total	EPA 524.2
104.040	061	Carbon Disulfide	EPA 524.2
104.040	062	Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	EPA 524.2
104.045	000	Trihalomethanes, Total	EPA 524.2
104.045	001	Bromodichloromethane	EPA 524.2
104.045	002	Bromoform	EPA 524.2
104.045	003	Chloroform	EPA 524.2
104.045	004	Dibromochloromethane	EPA 524.2
104.050	000	Gasoline Additives	EPA 524.2
104.050	002	Methyl tert-butyl Ether (MTBE)	EPA 524.2
104.050	003	tert-Amyl Methyl Ether (TAME)	EPA 524.2
104.050	004	Ethyl tert-butyl Ether (ETBE)	EPA 524.2

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
104.050	005	Trichlorotrifluoroethane	EPA 524.2
104.050	006	tert-Butyl Alcohol (TBA)	EPA 524.2
104.055	022	1,2-Dibromo-3-chloropropane (DBCP)	EPA 524.3
104.055	023	1,2-Dibromoethane (EDB, Ethylene Dibromide)	EPA 524.3
104.058	000	Volatile Organic Compounds	EPA 524.4
104.058	001	Benzene	EPA 524.4
104.058	002	Carbon Tetrachloride	EPA 524.4
104.058	003	Chlorobenzene	EPA 524.4
104.058	004	1,2-Dichlorobenzene	EPA 524.4
104.058	005	1,4-Dichlorobenzene	EPA 524.4
104.058	006	1,2-Dichloroethane	EPA 524.4
104.058	007	cis-1,2-Dichloroethene	EPA 524.4
104.058	008	trans-1,2-Dichloroethene	EPA 524.4
104.058	009	Dichloromethane (Methylene Chloride)	EPA 524.4
104.058	010	1,2-Dichloropropane	EPA 524.4
104.058	011	Ethylbenzene	EPA 524.4
104.058	012	Styrene	EPA 524.4
104.058	013	Tetrachloroethylene (Tetrachloroethene)	EPA 524.4
104.058	014	1,1,1-Trichloroethane	EPA 524.4
104.058	015	Trichloroethene	EPA 524.4
104.058	016	Toluene	EPA 524.4
104.058	017	1,2,4-Trichlorobenzene	EPA 524.4
104.058	018	1,1-Dichloroethene (1,1-Dichloroethylene)	EPA 524.4
104.058	019	1,1,2-Trichloroethane	EPA 524.4
104.058	020	Vinyl Chloride	EPA 524.4
104.058	021	Xylenes, Total	EPA 524.4
104.059	000	Trihalomethanes, Total	EPA 524.4
104.059	001	Bromodichloromethane	EPA 524.4
104.059	002	Bromoform	EPA 524.4
104.059	003	Chloroform	EPA 524.4
104.059	004	Dibromochloromethane	EPA 524.4
104.061	000	Gasoline Additives	EPA 524.4
104.061	001	Di-isopropyl Ether (DIPE)	EPA 524.4
104.061	003	tert-Amyl Methyl Ether (TAME)	EPA 524.4
104.061	004	Ethyl tert-butyl Ether (ETBE)	EPA 524.4
104.061	005	Trichlorofluoromethane (Freon 11)	EPA 524.4
104.061	006	tert-Butyl Alcohol (TBA)	EPA 524.4
104.061	007	Trichlorotrifluoroethane (Freon 113)	EPA 524.4

**Field of Testing:** 105 – Semi-volatile Organic Chemistry of Drinking Water

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
105.035	000	Organochlorine Pesticides and PCBs	EPA 508
105.035	001	Aldrin	EPA 508
105.035	005	Endrin	EPA 508
105.035	007	Heptachlor	EPA 508
105.035	008	Heptachlor Epoxide	EPA 508
105.035	009	Hexachlorobenzene	EPA 508
105.035	010	Lindane (HCH-gamma)	EPA 508
105.035	011	Methoxychlor	EPA 508
105.035	012	Propachlor	EPA 508
105.035	013	Chlordane	EPA 508
105.035	014	Toxaphene	EPA 508
105.035	015	PCBs as Aroclors	EPA 508
105.035	016	Aroclor 1016	EPA 508
105.035	017	Aroclor 1221	EPA 508
105.035	018	Aroclor 1232	EPA 508
105.035	019	Aroclor 1242	EPA 508
105.035	020	Aroclor 1248	EPA 508
105.035	021	Aroclor 1254	EPA 508
105.035	022	Aroclor 1260	EPA 508
105.050	000	Organochlorine Pesticides	EPA 508.1
105.050	005	Chlordane (total)	EPA 508.1
105.050	010	Endrin	EPA 508.1
105.050	011	Heptachlor	EPA 508.1
105.050	012	Heptachlor Epoxide	EPA 508.1
105.050	013	Hexachlorobenzene	EPA 508.1
105.050	014	Hexachlorocyclopentadiene	EPA 508.1
105.050	015	Lindane (HCH-gamma)	EPA 508.1
105.050	016	Methoxychlor	EPA 508.1
105.050	019	Propachlor	EPA 508.1
105.050	021	PCB-1016	EPA 508.1
105.050	022	PCB-1221	EPA 508.1
105.050	023	PCB-1232	EPA 508.1
105.050	024	PCB-1242	EPA 508.1
105.050	025	PCB-1248	EPA 508.1
105.050	026	PCB-1254	EPA 508.1
105.050	027	PCB-1260	EPA 508.1
105.050	028	PCBs as Aroclors	EPA 508.1
105.050	029	Toxaphene	EPA 508.1
105.083	000	Chlorinated Acids	EPA 515.4
105.083	001	2,4-D	EPA 515.4
105.083	002	Dinoseb	EPA 515.4
105.083	003	Pentachlorophenol	EPA 515.4
105.083	004	Picloram	EPA 515.4
105.083	005	2,4,5-TP (Silvex)	EPA 515.4
105.083	006	Dalapon	EPA 515.4
105.083	007	Bentazon	EPA 515.4

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
105.083	008	Dicamba	EPA 515.4
105.090	000	Semi-volatile Organic Compounds	EPA 525.2
105.090	001	Alachlor	EPA 525.2
105.090	003	Atrazine	EPA 525.2
105.090	004	Benzo(a)pyrene	EPA 525.2
105.090	005	Butachlor	EPA 525.2
105.090	007	Dieldrin	EPA 525.2
105.090	008	Di(2-ethylhexyl) Adipate	EPA 525.2
105.090	009	Di(2-ethylhexyl) Phthalate	EPA 525.2
105.090	013	Endrin	EPA 525.2
105.090	014	Heptachlor	EPA 525.2
105.090	015	Heptachlor Epoxide	EPA 525.2
105.090	016	Hexachlorobenzene	EPA 525.2
105.090	017	Hexachlorocyclopentadiene	EPA 525.2
105.090	018	Lindane (HCH-gamma)	EPA 525.2
105.090	019	Methoxychlor	EPA 525.2
105.090	022	Molinate	EPA 525.2
105.090	023	Pentachlorophenol	EPA 525.2
105.090	025	Simazine	EPA 525.2
105.090	028	Thiobencarb	EPA 525.2
105.101	000	Carbamates	EPA 531.2
105.101	001	Carbofuran	EPA 531.2
105.101	002	Oxamyl	EPA 531.2
105.101	003	Aldicarb	EPA 531.2
105.101	004	Aldicarb Sulfone	EPA 531.2
105.101	005	Aldicarb Sulfoxide	EPA 531.2
105.101	006	Carbaryl	EPA 531.2
105.101	007	3-Hydroxycarbofuran	EPA 531.2
105.101	008	Methomyl	EPA 531.2
105.106	000	Per- and Polyfluorinated Alkyl Substances (PFAS)	EPA 537.1
105.120	001	Glyphosate	EPA 547
105.140	001	Endothall	EPA 548.1
105.150	001	Diquat	EPA 549.2
105.170	031	Disinfection Byproducts	EPA 551.1
105.201	001	Haloacetic Acids (HAA5)	EPA 552.3
105.210	002	2,4-D	EPA 555
105.210	004	Dinoseb	EPA 555
105.210	005	Pentachlorophenol	EPA 555
105.210	006	Picloram	EPA 555
105.210	007	2,4,5-TP (Silvex)	EPA 555
105.210	008	Bentazon	EPA 555
105.215	001	Haloacetic Acids (HAA5)	EPA 557
105.215	002	Dalapon	EPA 557
105.230	002	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) Screening Only	EPA 1613 B



**Field of Testing:** 106 – Radionuclides in Drinking Water

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
106.010	001	Gross Alpha	EPA 900.0
106.010	002	Gross Beta	EPA 900.0
106.092	001	Uranium	EPA 200.8
106.270	001	Gross Alpha	SM 7110 C
106.610	001	Radon-222	SM 7500-Rn

**Field of Testing:** 107 – Microbiological Methods for Non-Potable Water and Sewage Sludge

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
107.001	001	Total Coliform (Enumeration)	SM 9221 B, C-2006
107.001	002	Fecal Coliform (Enumeration)	SM 9221 C, E-2006
107.001	003	E. coli (Enumeration)	SM 9221 C, F-2006
107.007	002	Fecal Streptococci	SM 9230 B-2007
107.013	001	E. coli (Enumeration)	Colilert
107.015	001	E. coli (Enumeration)	Colilert 18
107.015	002	Fecal Coliform (Enumeration)	Colilert 18
107.017	001	Enterococci	Enterolert

**Field of Testing:** 108 – Inorganic Constituents in Non-Potable Water

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
108.007	001	Residue, Volatile	EPA 160.4 (1971)
108.009	001	Turbidity	EPA 180.1 (1993 Rev. 2.0)
108.013	001	Calcium	EPA 200.7 (1994 Rev. 4.4)
108.013	002	Magnesium	EPA 200.7 (1994 Rev. 4.4)
108.013	003	Phosphorus, Total	EPA 200.7 (1994 Rev. 4.4)
108.013	004	Potassium	EPA 200.7 (1994 Rev. 4.4)
108.013	005	Silica, Dissolved	EPA 200.7 (1994 Rev. 4.4)
108.013	006	Sodium	EPA 200.7 (1994 Rev. 4.4)
108.015	001	Calcium	EPA 200.8 (1994 Rev. 5.4)
108.015	002	Magnesium	EPA 200.8 (1994 Rev. 5.4)
108.015	003	Potassium	EPA 200.8 (1994 Rev. 5.4)
108.015	005	Sodium	EPA 200.8 (1994 Rev. 5.4)
108.017	001	Bromide	EPA 300.0 (1993 Rev. 2.1)

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
108.017	002	Chloride	EPA 300.0 (1993 Rev. 2.1)
108.017	003	Fluoride	EPA 300.0 (1993 Rev. 2.1)
108.017	004	Nitrate (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	005	Nitrate-Nitrite (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	006	Nitrite (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	008	Sulfate (as SO <sub>4</sub> )	EPA 300.0 (1993 Rev. 2.1)
108.019	001	Bromide	EPA 300.1 (1997 Rev.1.0)
108.023	001	Cyanide, Total	EPA 335.4 (1993 Rev. 1.0)
108.025	001	Ammonia (as N)	EPA 350.1 (1993 Rev. 2.0)
108.029	001	Kjeldahl Nitrogen, Total (as N)	EPA 351.2 (1993 Rev. 2.0)
108.033	001	Nitrate-Nitrite (as N)	EPA 353.2 (1993 Rev. 2.0)
108.033	002	Nitrite (as N)	EPA 353.2 (1993 Rev. 2.0)
108.035	001	Phosphate, Ortho (as P)	EPA 365.1 (1993 Rev. 2.0)
108.035	002	Phosphorus, Total	EPA 365.1 (1993 Rev. 2.0)
108.037	001	Phosphate, Ortho (as P)	EPA 365.3 (1978)
108.037	002	Phosphorus, Total	EPA 365.3 (1978)
108.045	001	Chemical Oxygen Demand	EPA 410.4 (1993 Rev. 2.0)
108.049	001	Phenols, Total	EPA 420.4 (1993 Rev. 2.0)
108.053	002	Oil & Grease Total	EPA 1664 B
108.055	001	Color	SM 2120 B-2011
108.063	001	Alkalinity	SM 2320 B-2011
108.069	001	Specific Conductance	SM 2510 B-2011
108.071	001	Residue, Total	SM 2540 B-2011
108.073	001	Residue, Filterable TDS	SM 2540 C-2011
108.075	001	Residue, Non-filterable TSS	SM 2540 D-2011
108.077	001	Residue, Volatile	SM 2540 E-2011
108.079	001	Residue, Settleable	SM 2540 F-2011
108.080	001	Temperature	SM 2550 B-2010
108.114	001	Chlorine, Total Residual	SM 4500-CI G-2011
108.114	002	Chlorine, Free	SM 4500-CI G-2011
108.129	001	Cyanide, Available	SM 4500-CN G-2011
108.137	001	Hydrogen Ion (pH)	SM 4500-H+ B-2011
108.173	001	Oxygen, Dissolved	SM 4500-O G-2011

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
108.189	001	Sulfite (as SO <sub>3</sub> )	SM 4500-SO <sub>3</sub> B-2011
108.201	001	Sulfide (as S)	SM 4500-S D-2011
108.207	001	Biochemical Oxygen Demand	SM 5210 B-2011
108.207	002	Carbonaceous BOD	SM 5210 B-2011
108.215	001	Organic Carbon-Total (TOC)	SM 5310 B-2011
108.225	001	Surfactants	SM 5540 C-2011
108.321	001	Cyanide, Total	ASTM D7511-12
108.339	001	Cyanide, Available	OIA-1677-09

**Field of Testing:** 109 – Metals and Trace Elements in Non-Potable Water

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
109.623	001	Aluminum	EPA 200.7 (1994 Rev. 4.4)
109.623	002	Antimony	EPA 200.7 (1994 Rev. 4.4)
109.623	003	Arsenic	EPA 200.7 (1994 Rev. 4.4)
109.623	004	Barium	EPA 200.7 (1994 Rev. 4.4)
109.623	005	Beryllium	EPA 200.7 (1994 Rev. 4.4)
109.623	006	Boron	EPA 200.7 (1994 Rev. 4.4)
109.623	007	Cadmium	EPA 200.7 (1994 Rev. 4.4)
109.623	008	Chromium	EPA 200.7 (1994 Rev. 4.4)
109.623	009	Cobalt	EPA 200.7 (1994 Rev. 4.4)
109.623	010	Copper	EPA 200.7 (1994 Rev. 4.4)
109.623	011	Iron	EPA 200.7 (1994 Rev. 4.4)
109.623	012	Lead	EPA 200.7 (1994 Rev. 4.4)
109.623	013	Manganese	EPA 200.7 (1994 Rev. 4.4)
109.623	014	Molybdenum	EPA 200.7 (1994 Rev. 4.4)
109.623	015	Nickel	EPA 200.7 (1994 Rev. 4.4)
109.623	016	Selenium	EPA 200.7 (1994 Rev. 4.4)
109.623	017	Silver	EPA 200.7 (1994 Rev. 4.4)
109.623	018	Thallium	EPA 200.7 (1994 Rev. 4.4)

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
109.623	019	Tin	EPA 200.7 (1994 Rev. 4.4)
109.623	020	Titanium	EPA 200.7 (1994 Rev. 4.4)
109.623	021	Vanadium	EPA 200.7 (1994 Rev. 4.4)
109.623	022	Zinc	EPA 200.7 (1994 Rev. 4.4)
109.625	001	Aluminum	EPA 200.8 (1994 Rev. 5.4)
109.625	002	Antimony	EPA 200.8 (1994 Rev. 5.4)
109.625	003	Arsenic	EPA 200.8 (1994 Rev. 5.4)
109.625	004	Barium	EPA 200.8 (1994 Rev. 5.4)
109.625	005	Beryllium	EPA 200.8 (1994 Rev. 5.4)
109.625	006	Boron	EPA 200.8 (1994 Rev. 5.4)
109.625	007	Cadmium	EPA 200.8 (1994 Rev. 5.4)
109.625	008	Chromium	EPA 200.8 (1994 Rev. 5.4)
109.625	009	Cobalt	EPA 200.8 (1994 Rev. 5.4)
109.625	010	Copper	EPA 200.8 (1994 Rev. 5.4)
109.625	012	Iron	EPA 200.8 (1994 Rev. 5.4)
109.625	013	Lead	EPA 200.8 (1994 Rev. 5.4)
109.625	014	Manganese	EPA 200.8 (1994 Rev. 5.4)
109.625	015	Molybdenum	EPA 200.8 (1994 Rev. 5.4)
109.625	016	Nickel	EPA 200.8 (1994 Rev. 5.4)
109.625	017	Selenium	EPA 200.8 (1994 Rev. 5.4)
109.625	018	Silver	EPA 200.8 (1994 Rev. 5.4)
109.625	019	Thallium	EPA 200.8 (1994 Rev. 5.4)
109.625	020	Tin	EPA 200.8 (1994 Rev. 5.4)
109.625	021	Titanium	EPA 200.8 (1994 Rev. 5.4)

Subgroup Code	Analyte Code	Analyte	Method
109.625	022	Vanadium	EPA 200.8 (1994 Rev. 5.4)
109.625	023	Zinc	EPA 200.8 (1994 Rev. 5.4)
109.629	001	Chromium (VI)	EPA 218.6 (1994 Rev. 3.3)
109.635	001	Mercury	EPA 245.1 (1994 Rev. 3.0)
109.657	001	Mercury	EPA 1631 E (2002)

**Field of Testing:** 110 – Volatile Organic Constituents in Non-Potable Water

Subgroup Code	Analyte Code	Analyte	Method
110.040	001	Acetone	EPA 624.1
110.040	002	Acetonitrile	EPA 624.1
110.040	003	Acrolein	EPA 624.1
110.040	004	Acrylonitrile	EPA 624.1
110.040	005	Benzene	EPA 624.1
110.040	006	Bromodichloromethane	EPA 624.1
110.040	007	Bromoform	EPA 624.1
110.040	008	Bromomethane (Methyl Bromide)	EPA 624.1
110.040	009	tert-Butyl Alcohol (TBA)	EPA 624.1
110.040	010	Carbon Tetrachloride	EPA 624.1
110.040	011	Chlorobenzene	EPA 624.1
110.040	012	Chloroethane	EPA 624.1
110.040	013	2-Chloroethylvinyl Ether	EPA 624.1
110.040	014	Chloroform	EPA 624.1
110.040	015	Chloromethane (Methyl Chloride)	EPA 624.1
110.040	016	Dibromochloromethane	EPA 624.1
110.040	017	1,2-Dichlorobenzene	EPA 624.1
110.040	018	1,3-Dichlorobenzene	EPA 624.1
110.040	019	1,4-Dichlorobenzene	EPA 624.1
110.040	020	1,1-Dichloroethane	EPA 624.1
110.040	021	1,2-Dichloroethane	EPA 624.1
110.040	022	1,1-Dichloroethene (1,1-Dichloroethylene)	EPA 624.1
110.040	023	trans-1,2-Dichloroethene	EPA 624.1
110.040	024	1,2-Dichloropropane	EPA 624.1
110.040	025	cis-1,3-Dichloropropene	EPA 624.1
110.040	026	trans-1,3-Dichloropropene	EPA 624.1
110.040	029	Ethylbenzene	EPA 624.1
110.040	031	Methylene Chloride (Dichloromethane)	EPA 624.1
110.040	032	4-Methyl-2-pentanone (MIBK)	EPA 624.1
110.040	034	1,1,2,2-Tetrachloroethane	EPA 624.1
110.040	035	Tetrachloroethylene (Tetrachloroethene)	EPA 624.1
110.040	037	Toluene	EPA 624.1

Subgroup Code	Analyte Code	Analyte	Method
110.040	038	1,1,1-Trichloroethane	EPA 624.1
110.040	039	1,1,2-Trichloroethane	EPA 624.1
110.040	040	Trichloroethene	EPA 624.1
110.040	041	Vinyl Chloride	EPA 624.1
110.040	042	m-Xylene	EPA 624.1
110.040	043	o-Xylene	EPA 624.1
110.040	044	p-Xylene	EPA 624.1
110.040	045	Trichlorofluoromethane	EPA 624.1
110.070	002	n-Amyl Acetate	EPA 1666
110.070	004	n-Butyl Acetate	EPA 1666
110.070	005	tert-Butyl Alcohol (TBA)	EPA 1666
110.070	006	Diethylamine	EPA 1666
110.070	007	Dimethyl Sulfoxide	EPA 1666
110.070	009	Ethyl Acetate	EPA 1666
110.070	010	n-Heptane	EPA 1666
110.070	011	n-Hexane	EPA 1666
110.070	012	Isobutyraldehyde	EPA 1666
110.070	013	Isopropyl Acetate	EPA 1666
110.070	014	Isopropyl Alcohol (Isopropanol)	EPA 1666
110.070	015	Isopropyl Ether (DIPE)	EPA 1666
110.070	017	2-Methoxyethanol	EPA 1666
110.070	018	Methyl Formate	EPA 1666
110.070	019	4-Methyl-2-pentanone (MIBK)	EPA 1666
110.070	021	Tetrahydrofuran	EPA 1666
110.070	022	Triethylamine	EPA 1666
110.070	023	m-Xylene	EPA 1666
110.070	024	o-Xylene	EPA 1666
110.070	025	p-Xylene	EPA 1666

**Field of Testing:** 111 – Semi-volatile Organic Constituents in Non-Potable Water

Subgroup Code	Analyte Code	Analyte	Method
111.055	001	Aldrin	EPA 608.3
111.055	002	alpha-BHC	EPA 608.3
111.055	003	beta-BHC	EPA 608.3
111.055	004	delta-BHC	EPA 608.3
111.055	005	gamma-BHC (Lindane)	EPA 608.3
111.055	006	Chlordane	EPA 608.3
111.055	007	4,4'-DDD	EPA 608.3
111.055	008	4,4'-DDE	EPA 608.3
111.055	009	4,4'-DDT	EPA 608.3
111.055	010	Dieldrin	EPA 608.3
111.055	011	Endosulfan I	EPA 608.3
111.055	012	Endosulfan II	EPA 608.3
111.055	013	Endosulfan Sulfate	EPA 608.3
111.055	014	Endrin	EPA 608.3
111.055	015	Endrin Aldehyde	EPA 608.3
111.055	016	Heptachlor	EPA 608.3

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
111.055	017	Heptachlor Epoxide	EPA 608.3
111.055	019	PCB-1016	EPA 608.3
111.055	020	PCB-1221	EPA 608.3
111.055	021	PCB-1232	EPA 608.3
111.055	022	PCB-1242	EPA 608.3
111.055	023	PCB-1248	EPA 608.3
111.055	024	PCB-1254	EPA 608.3
111.055	025	PCB-1260	EPA 608.3
111.055	046	Methoxychlor	EPA 608.3
111.055	050	Pentachloronitrobenzene (PCNB)	EPA 608.3
111.055	060	Toxaphene	EPA 608.3
111.160	001	Acenaphthene	EPA 625.1
111.160	002	Acenaphthylene	EPA 625.1
111.160	003	Anthracene	EPA 625.1
111.160	004	Benzidine	EPA 625.1
111.160	005	Benzo(a)anthracene	EPA 625.1
111.160	006	Benzo(a)pyrene	EPA 625.1
111.160	007	Benzo(b)fluoranthene	EPA 625.1
111.160	008	Benzo(g,h,i)perylene	EPA 625.1
111.160	009	Benzo(k)fluoranthene	EPA 625.1
111.160	010	Bis(2-chloroethoxy) Methane	EPA 625.1
111.160	011	Bis(2-chloroethyl) Ether	EPA 625.1
111.160	012	Bis(2-chloroisopropyl) Ether	EPA 625.1
111.160	013	Bis(2-ethylhexyl)phthalate	EPA 625.1
111.160	014	4-Bromophenyl Phenyl Ether	EPA 625.1
111.160	015	Butyl Benzyl Phthalate	EPA 625.1
111.160	016	2-Chloronaphthalene	EPA 625.1
111.160	017	4-Chlorophenyl Phenyl Ether	EPA 625.1
111.160	018	Chrysene	EPA 625.1
111.160	019	Dibenz(a,h)anthracene	EPA 625.1
111.160	020	3,3'-Dichlorobenzidine	EPA 625.1
111.160	021	Diethyl Phthalate	EPA 625.1
111.160	022	Dimethyl Phthalate	EPA 625.1
111.160	023	Di-n-butyl Phthalate	EPA 625.1
111.160	024	2,4-Dinitrotoluene	EPA 625.1
111.160	025	2,6-Dinitrotoluene	EPA 625.1
111.160	026	Di-n-octyl Phthalate	EPA 625.1
111.160	027	Fluoranthene	EPA 625.1
111.160	028	Fluorene	EPA 625.1
111.160	029	Hexachlorobenzene	EPA 625.1
111.160	030	Hexachlorobutadiene	EPA 625.1
111.160	031	Hexachloroethane	EPA 625.1
111.160	032	Indeno(1,2,3-c,d)pyrene	EPA 625.1
111.160	033	Isophorone	EPA 625.1
111.160	034	Naphthalene	EPA 625.1
111.160	035	Nitrobenzene	EPA 625.1
111.160	036	N-nitrosodi-n-propylamine	EPA 625.1

Subgroup Code	Analyte Code	Analyte	Method
111.160	037	Phenanthrene	EPA 625.1
111.160	038	Pyrene	EPA 625.1
111.160	039	1,2,4-Trichlorobenzene	EPA 625.1
111.160	040	4-Chloro-3-methylphenol	EPA 625.1
111.160	041	2-Chlorophenol	EPA 625.1
111.160	042	2,4-Dichlorophenol	EPA 625.1
111.160	043	2,4-Dimethylphenol	EPA 625.1
111.160	044	2,4-Dinitrophenol	EPA 625.1
111.160	045	2-Methyl-4,6-dinitrophenol	EPA 625.1
111.160	046	2-Nitrophenol	EPA 625.1
111.160	047	4-Nitrophenol	EPA 625.1
111.160	048	Pentachlorophenol	EPA 625.1
111.160	049	Phenol	EPA 625.1
111.160	050	2,4,6-Trichlorophenol	EPA 625.1
111.210	006	Diuron	EPA 632
111.260	041	N-nitrosodimethylamine	EPA 1625 B
111.260	042	N-nitrosodi-n-propylamine	EPA 1625 B
111.260	043	N-nitrosodiphenylamine	EPA 1625 B

**Field of Testing:** 112 – Radionuclides in Non-Potable Water

Subgroup Code	Analyte Code	Analyte	Method
112.001	001	Gross Alpha	EPA 900.0
112.001	002	Gross Beta	EPA 900.0

**Field of Testing:** 114 – Inorganic Chemistry of Hazardous Waste

Subgroup Code	Analyte Code	Analyte	Method
114.010	001	Antimony	EPA 6010 B
114.010	002	Arsenic	EPA 6010 B
114.010	003	Barium	EPA 6010 B
114.010	004	Beryllium	EPA 6010 B
114.010	005	Cadmium	EPA 6010 B
114.010	006	Chromium	EPA 6010 B
114.010	007	Cobalt	EPA 6010 B
114.010	008	Copper	EPA 6010 B
114.010	009	Lead	EPA 6010 B
114.010	010	Molybdenum	EPA 6010 B
114.010	011	Nickel	EPA 6010 B
114.010	012	Selenium	EPA 6010 B
114.010	013	Silver	EPA 6010 B
114.010	014	Thallium	EPA 6010 B
114.010	015	Vanadium	EPA 6010 B
114.010	016	Zinc	EPA 6010 B
114.020	001	Antimony	EPA 6020
114.020	002	Arsenic	EPA 6020
114.020	003	Barium	EPA 6020



<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
114.020	004	Beryllium	EPA 6020
114.020	005	Cadmium	EPA 6020
114.020	006	Chromium	EPA 6020
114.020	007	Cobalt	EPA 6020
114.020	008	Copper	EPA 6020
114.020	009	Lead	EPA 6020
114.020	010	Molybdenum	EPA 6020
114.020	011	Nickel	EPA 6020
114.020	012	Selenium	EPA 6020
114.020	013	Silver	EPA 6020
114.020	014	Thallium	EPA 6020
114.020	015	Vanadium	EPA 6020
114.020	016	Zinc	EPA 6020
114.106	001	Chromium (VI)	EPA 7199
114.140	001	Mercury	EPA 7470 A
114.141	001	Mercury	EPA 7471 A
114.222	001	Cyanide, Total	EPA 9014
114.240	001	Corrosivity - pH Determination	EPA 9040 B
114.241	001	Corrosivity - pH Determination	EPA 9045 C
114.250	001	Fluoride	EPA 9056

**Field of Testing:** 115 – Extraction Test of Hazardous Waste

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
115.020	001	Toxicity Characteristic Leaching Procedure (TCLP)	EPA 1311 (TCLP)
115.021	001	TCLP Inorganics	EPA 1311 (TCLP)
115.022	001	TCLP Extractables	EPA 1311 (TCLP)
115.030	001	Waste Extraction Test (WET)	CCR Chapter 11, Article 5, Appendix II
115.040	001	Synthetic Precipitation Leaching Procedure (SPLP)	EPA 1312 (SPLP)

**Field of Testing:** 116 – Volatile Organic Chemistry of Hazardous Waste

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
116.020	030	Nonhalogenated Volatiles	EPA 8015 B
116.020	031	Ethanol and Methanol	EPA 8015 B
116.080	000	Volatile Organic Compounds	EPA 8260 B
116.090	000	Acrylamide, Acrylonitrile, Acrolein	EPA 8316
116.100	001	Total Petroleum Hydrocarbons - Gasoline (GRO)	LUFT GC/MS

**Field of Testing:** 117 – Semi-volatile Organic Chemistry of Hazardous Waste

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
117.010	001	Diesel-range Total Petroleum Hydrocarbons	EPA 8015 B
117.110	000	Extractable Organics	EPA 8270 C
117.111	071	Pesticides	EPA 8270 C
117.150	000	Carbonyl Compounds	EPA 8315 A
117.171	000	Nitroaromatics and Nitramines	EPA 8330 A
117.210	000	Organochlorine Pesticides	EPA 8081 A
117.220	000	PCBs	EPA 8082
117.240	000	Organophosphorus Pesticides	EPA 8141 A
117.250	000	Chlorinated Herbicides	EPA 8151 A
117.270	000	Carbamates, N-methylcarbamates	EPA 8318
117.280	000	Carbamates	EPA 8321 A

**Field of Testing:** 120 – Physical Properties of Hazardous Waste

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
120.010	001	Ignitability	EPA 1010
120.070	001	Corrosivity - pH Determination	EPA 9040 B
120.080	001	Corrosivity - pH Determination	EPA 9045 C

**Field of Testing:** 126 – Microbiological Methods for Ambient Water

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
126.003	001	Total Coliform (Enumeration)	SM 9221 B, C-2006
126.003	002	Fecal Coliform (Enumeration)	SM 9221 C, E-2006
126.007	001	E. coli (Enumeration)	SM 9223 B-2004
126.015	001	E. coli (Enumeration)	Colilert
126.017	001	E. coli (Enumeration)	Colilert 18
126.019	001	Enterococci	Enterolert



STATE WATER RESOURCES CONTROL BOARD  
REGIONAL WATER QUALITY CONTROL BOARDS

CALIFORNIA STATE



ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

**CERTIFICATE OF  
ENVIRONMENTAL LABORATORY ACCREDITATION**

Is hereby granted to

**BSK Associates**

**Laboratory Services - Fresno Analytical Laboratory**

1414 Stanislaus Street

Fresno, CA 93706-1623

Scope of the certificate is limited to the  
"Fields of Accreditation"  
which accompany this Certificate.

Continued accredited status depends on compliance with applicable laws and regulations,  
proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of  
Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **1180**

Effective Date: **5/1/2020**

Expiration Date: **4/30/2022**

A handwritten signature in blue ink, appearing to read "Christine Sotelo".

Sacramento, California  
subject to forfeiture or revocation

Christine Sotelo, Chief  
Environmental Laboratory Accreditation Program



**CALIFORNIA STATE  
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM  
Fields of Accreditation**



**BSK Associates**

Laboratory Services - Fresno Analytical Laboratory  
1414 Stanislaus Street  
Fresno, CA 93706-1623  
Phone: 5594972888

**Certificate Number: 1180**  
**Expiration Date: 4/30/2022**

**Field of Accreditation:101 - Microbiology of Drinking Water**

101.010	001	Heterotrophic Bacteria	SM 9215 B
101.020	004	Total Coliform (Enumeration)	SM 9221 B,C
101.020	005	Fecal Coliform (Enumeration)	SM 9221 B,E
101.020	006	E. coli (Enumeration)	SM 9221 B,F
101.050	005	Total Coliform P/A	SM 9223 B Colilert 18
101.050	006	E. coli P/A	SM 9223 B Colilert 18
101.050	007	Total Coliform (Enumeration)	SM 9223 B Colilert 18
101.050	008	E. coli (Enumeration)	SM 9223 B Colilert 18

**Field of Accreditation:102 - Inorganic Chemistry of Drinking Water**

102.026	001	Calcium	EPA 200.7
102.026	002	Magnesium	EPA 200.7
102.026	003	Potassium	EPA 200.7
102.026	004	Silica	EPA 200.7
102.026	005	Sodium	EPA 200.7
102.030	001	Bromide	EPA 300.0
102.030	003	Chloride	EPA 300.0
102.030	005	Fluoride	EPA 300.0
102.030	006	Nitrate (as N)	EPA 300.0
102.030	007	Nitrite (as N)	EPA 300.0
102.030	008	Phosphate,Ortho (as P)	EPA 300.0
102.030	009	Sulfate (as SO4)	EPA 300.0
102.040	001	Bromide	EPA 300.1
102.040	002	Chlorite	EPA 300.1
102.040	003	Chlorate	EPA 300.1
102.044	001	Bromate	EPA 317.0
102.045	001	Perchlorate	EPA 314.0
102.047	001	Perchlorate	EPA 331.0
102.095	001	Turbidity	SM 2130 B-2001
102.100	001	Alkalinity	SM 2320 B-1997
102.120	001	Hardness (Calculation)	SM 2340 B-1997
102.130	001	Specific Conductance	SM 2510 B-1997
102.140	001	Residue, Filterable TDS	SM 2540 C-1997
102.174	001	Chlorine, Free	SM 4500-Cl F-2000

As of 4/29/2021 , this list supersedes all previous lists for this certificate number.  
Customers: Please verify the current accreditation standing with the State.

102.174	002	Chlorine, Total Residual	SM 4500-Cl F-2000
102.175	001	Chlorine, Free	SM 4500-Cl G-2000
102.175	002	Chlorine, Total Residual	SM 4500-Cl G-2000
102.190	001	Cyanide, Total	SM 4500-CN E-1999
102.192	001	Cyanide, Amenable	SM 4500-CN G-1999
102.203	001	Hydrogen Ion (pH)	SM 4500-H+ B-2000
102.240	001	Phosphate, Ortho (as P)	SM 4500-P E-1999
102.262	001	Organic Carbon-Total (TOC)	SM 5310 C-2000
102.263	001	Dissolved Organic Carbon (DOC)	SM 5310 C-2000
102.270	001	Surfactants	SM 5540 C-2000
102.280	001	UV254	SM 5910 B-2011

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**Field of Accreditation: 103 - Toxic Chemical Elements of Drinking Water**


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103.130	001	Aluminum	EPA 200.7
103.130	003	Barium	EPA 200.7
103.130	008	Copper	EPA 200.7
103.130	009	Iron	EPA 200.7
103.130	011	Manganese	EPA 200.7
103.130	015	Silver	EPA 200.7
103.130	017	Zinc	EPA 200.7
103.130	018	Boron	EPA 200.7
103.140	002	Antimony	EPA 200.8
103.140	003	Arsenic	EPA 200.8
103.140	004	Barium	EPA 200.8
103.140	005	Beryllium	EPA 200.8
103.140	006	Cadmium	EPA 200.8
103.140	007	Chromium	EPA 200.8
103.140	008	Copper	EPA 200.8
103.140	009	Lead	EPA 200.8
103.140	011	Mercury	EPA 200.8
103.140	012	Nickel	EPA 200.8
103.140	013	Selenium	EPA 200.8
103.140	014	Silver	EPA 200.8
103.140	015	Thallium	EPA 200.8
103.140	016	Zinc	EPA 200.8
103.140	018	Vanadium	EPA 200.8
103.310	001	Chromium VI (Hexavalent Chromium)	EPA 218.6
103.311	001	Chromium VI (Hexavalent Chromium)	EPA 218.7

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**Field of Accreditation: 104 - Volatile Organic Chemistry of Drinking Water**


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104.030	001	1,2-Dibromoethane (EDB)	EPA 504.1
104.030	002	1,2-Dibromo-3-chloropropane (DBCP)	EPA 504.1
104.035	001	1,2,3-Trichloropropane (TCP)	SRL 524M-TCP
104.040	000	Volatile Organic Compounds	EPA 524.2

104.040	001	Benzene	EPA 524.2
104.040	007	n-Butylbenzene	EPA 524.2
104.040	008	sec-Butylbenzene	EPA 524.2
104.040	009	tert-Butylbenzene	EPA 524.2
104.040	010	Carbon Tetrachloride	EPA 524.2
104.040	011	Chlorobenzene	EPA 524.2
104.040	015	2-Chlorotoluene	EPA 524.2
104.040	016	4-Chlorotoluene	EPA 524.2
104.040	019	1,3-Dichlorobenzene	EPA 524.2
104.040	020	1,2-Dichlorobenzene	EPA 524.2
104.040	021	1,4-Dichlorobenzene	EPA 524.2
104.040	022	Dichlorodifluoromethane	EPA 524.2
104.040	023	1,1-Dichloroethane	EPA 524.2
104.040	024	1,2-Dichloroethane (Ethylene Dichloride)	EPA 524.2
104.040	025	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 524.2
104.040	026	cis-1,2-Dichloroethylene (cis 1,2 Dichloroethene)	EPA 524.2
104.040	027	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 524.2
104.040	028	Dichloromethane (Methylene Chloride)	EPA 524.2
104.040	029	1,2-Dichloropropane	EPA 524.2
104.040	033	cis-1,3-Dichloropropylene (cis 1,3 Dichloropropene)	EPA 524.2
104.040	034	trans-1,3-Dichloropropylene (trans-1,3 Dichloropropene)	EPA 524.2
104.040	035	Ethylbenzene	EPA 524.2
104.040	037	Isopropylbenzene	EPA 524.2
104.040	039	Naphthalene	EPA 524.2
104.040	041	N-propylbenzene	EPA 524.2
104.040	042	Styrene	EPA 524.2
104.040	043	1,1,1,2-Tetrachloroethane	EPA 524.2
104.040	044	1,1,2,2-Tetrachloroethane	EPA 524.2
104.040	045	Tetrachloroethylene (Tetrachloroethene)	EPA 524.2
104.040	046	Toluene	EPA 524.2
104.040	047	1,2,3-Trichlorobenzene	EPA 524.2
104.040	048	1,2,4-Trichlorobenzene	EPA 524.2
104.040	049	1,1,1-Trichloroethane	EPA 524.2
104.040	050	1,1,2-Trichloroethane	EPA 524.2
104.040	051	Trichloroethylene (Trichloroethene)	EPA 524.2
104.040	052	Trichlorofluoromethane	EPA 524.2
104.040	054	1,2,4-Trimethylbenzene	EPA 524.2
104.040	055	1,3,5-Trimethylbenzene	EPA 524.2
104.040	056	Vinyl Chloride	EPA 524.2
104.040	057	Xylenes, Total	EPA 524.2
104.040	061	Carbon Disulfide	EPA 524.2
104.040	062	Methyl isobutyl ketone (MIBK, 4-Methyl-2-pentanone)	EPA 524.2

104.045	000	Trihalomethanes, Total	EPA 524.2
104.045	001	Bromodichloromethane	EPA 524.2
104.045	002	Bromoform	EPA 524.2
104.045	003	Chloroform	EPA 524.2
104.045	004	Dibromochloromethane (Chlorodibromomethane)	EPA 524.2
104.050	000	Gasoline Additives	EPA 524.2
104.050	002	Methyl tert-butyl Ether (MTBE)	EPA 524.2
104.050	003	tert-Amyl Methyl Ether (TAME)	EPA 524.2
104.050	004	Ethyl tert-butyl Ether (ETBE)	EPA 524.2
104.050	005	Trichlorotrifluoroethane	EPA 524.2
104.050	006	t-Butyl alcohol (2-Methyl-2-propanol)	EPA 524.2

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**Field of Accreditation: 105 - Semi-volatile Organic Chemistry of Drinking Water**


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105.010	000	Organochlorine Pesticides and PCBs	EPA 505
105.010	002	Alachlor	EPA 505
105.010	003	Atrazine	EPA 505
105.010	004	Chlordane	EPA 505
105.010	006	Endrin	EPA 505
105.010	007	Heptachlor	EPA 505
105.010	008	Heptachlor Epoxide	EPA 505
105.010	009	Hexachlorobenzene	EPA 505
105.010	010	Hexachlorocyclopentadiene	EPA 505
105.010	011	Lindane (HCH-gamma)	EPA 505
105.010	012	Methoxychlor	EPA 505
105.010	013	Simazine	EPA 505
105.010	014	Toxaphene	EPA 505
105.010	015	PCBs as Aroclors (screen)	EPA 505
105.083	000	Chlorinated Acids	EPA 515.4
105.083	001	2,4-D	EPA 515.4
105.083	002	Dinoseb	EPA 515.4
105.083	003	Pentachlorophenol	EPA 515.4
105.083	004	Picloram	EPA 515.4
105.083	005	2,4,5-TP (Silvex)	EPA 515.4
105.083	006	Dalapon	EPA 515.4
105.083	007	Bentazon	EPA 515.4
105.083	008	Dicamba	EPA 515.4
105.091	000	Semi-volatile Organic Compounds	EPA 525.3
105.091	001	Alachlor	EPA 525.3
105.091	003	Atrazine	EPA 525.3
105.091	004	Bromacil	EPA 525.3
105.091	005	Benzo(a)pyrene	EPA 525.3
105.091	006	Butachlor	EPA 525.3
105.091	008	Diazinon	EPA 525.3

105.091	009	Di(2-ethylhexyl) Adipate	EPA 525.3
105.091	018	Metolachlor	EPA 525.3
105.091	019	Metribuzin	EPA 525.3
105.091	020	Molinate	EPA 525.3
105.091	022	Propachlor	EPA 525.3
105.091	023	Simazine	EPA 525.3
105.091	024	Thiobencarb	EPA 525.3
105.100	000	Carbamates	EPA 531.1
105.100	001	Aldicarb (Temik)	EPA 531.1
105.100	002	Aldicarb Sulfone	EPA 531.1
105.100	003	Aldicarb Sulfoxide	EPA 531.1
105.100	004	Carbaryl (Sevin)	EPA 531.1
105.100	005	Carbofuran (Furadan)	EPA 531.1
105.100	006	3-Hydroxycarbofuran	EPA 531.1
105.100	007	Methomyl (Lannate)	EPA 531.1
105.100	008	Oxamyl	EPA 531.1
105.106	000	Per- and Polyfluorinated Alkyl Substances (PFAS)	EPA 537.1
105.120	001	Glyphosate	EPA 547
105.140	001	Endothall	EPA 548.1
105.150	001	Diquat	EPA 549.2
105.201	001	Haloacetic Acids (HAA5)	EPA 552.3

**Field of Accreditation:106 - Radionuclides in Drinking Water**

106.092	001	Uranium	EPA 200.8
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**Field of Accreditation:107 - Microbiological Methods for Non-Potable Water and Sewage Sludge**

107.001	001	Total Coliform (Enumeration)	SM 9221 B,C-2006
107.001	002	Fecal Coliform (Enumeration)	SM 9221 C,E-2006
107.001	003	E. coli (Enumeration)	SM 9221 C,F-2006
107.007	002	Fecal Streptococci	SM 9230 B-2007
107.015	001	E. coli (Enumeration)	Colilert 18

**Field of Accreditation:108 - Inorganic Constituents in Non-Potable Water**

108.013	001	Calcium	EPA 200.7 (1994 Rev. 4.4)
108.013	002	Magnesium	EPA 200.7 (1994 Rev. 4.4)
108.013	004	Potassium	EPA 200.7 (1994 Rev. 4.4)
108.013	005	Silica, Dissolved	EPA 200.7 (1994 Rev. 4.4)
108.013	006	Sodium	EPA 200.7 (1994 Rev. 4.4)
108.017	001	Bromide	EPA 300.0 (1993 Rev. 2.1)
108.017	002	Chloride	EPA 300.0 (1993 Rev. 2.1)
108.017	003	Fluoride	EPA 300.0 (1993 Rev. 2.1)
108.017	004	Nitrate (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	005	Nitrate-Nitrite (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	006	Nitrite (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	007	Phosphate,Ortho (as P)	EPA 300.0 (1993 Rev. 2.1)



108.017	008	Sulfate (as SO4)	EPA 300.0 (1993 Rev. 2.1)
108.019	001	Bromide	EPA 300.1 (1997 Rev.1.0)
108.025	001	Ammonia (as N)	EPA 350.1 (1993 Rev. 2.0)
108.029	001	Kjeldahl Nitrogen, Total (as N)	EPA 351.2 (1993 Rev. 2.0)
108.039	001	Phosphorus, Total	EPA 365.4 (1974)
108.053	002	Oil & Grease Total	EPA 1664 B
108.055	001	Color	SM 2120 B-2011
108.059	001	Turbidity	SM 2130 B-2011
108.063	001	Alkalinity	SM 2320 B-2011
108.065	001	Hardness (Calculation)	SM 2340 B-2011
108.069	001	Specific Conductance	SM 2510 B-2011
108.071	001	Residue, Total	SM 2540 B-2011
108.073	001	Residue, Filterable TDS	SM 2540 C-2011
108.075	001	Residue, Non-filterable TSS	SM 2540 D-2011
108.077	001	Residue, Volatile	SM 2540 E-2011
108.079	001	Residue, Settleable	SM 2540 F-2011
108.109	001	Chlorine, Total Residual	SM 4500-Cl F-2011
108.109	002	Chlorine, Free	SM 4500-Cl F-2011
108.114	001	Chlorine, Total Residual	SM 4500-Cl G-2011
108.114	002	Chlorine, Free	SM 4500-Cl G-2011
108.125	001	Cyanide, Total	SM 4500-CN E-2011
108.129	001	Cyanide, Available	SM 4500-CN G-2011
108.131	001	Fluoride	SM 4500-F C-2011
108.137	001	Hydrogen Ion (pH)	SM 4500-H+ B-2011
108.159	001	Nitrate-Nitrite (as N)	SM 4500-NO3 F-2011
108.165	001	Oxygen, Dissolved	SM 4500-O C-2011
108.175	001	Phosphate, Ortho (as P)	SM 4500-P E-2011
108.175	002	Phosphorus, Total	SM 4500-P E-2011
108.207	001	Biochemical Oxygen Demand	SM 5210 B-2011
108.207	002	Carbonaceous BOD	SM 5210 B-2011
108.213	001	Chemical Oxygen Demand	SM 5220 D-2011
108.217	001	Organic Carbon-Total (TOC)	SM 5310 C-2011
108.225	001	Surfactants	SM 5540 C-2011

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**Field of Accreditation: 109 - Metals and Trace Elements in Non-Potable Water**

109.623	001	Aluminum	EPA 200.7 (1994 Rev. 4.4)
109.623	004	Barium	EPA 200.7 (1994 Rev. 4.4)
109.623	006	Boron	EPA 200.7 (1994 Rev. 4.4)
109.623	007	Cadmium	EPA 200.7 (1994 Rev. 4.4)
109.623	008	Chromium	EPA 200.7 (1994 Rev. 4.4)
109.623	010	Copper	EPA 200.7 (1994 Rev. 4.4)
109.623	011	Iron	EPA 200.7 (1994 Rev. 4.4)
109.623	012	Lead	EPA 200.7 (1994 Rev. 4.4)

109.623	013	Manganese	EPA 200.7 (1994 Rev. 4.4)
109.623	015	Nickel	EPA 200.7 (1994 Rev. 4.4)
109.623	017	Silver	EPA 200.7 (1994 Rev. 4.4)
109.623	019	Tin	EPA 200.7 (1994 Rev. 4.4)
109.623	020	Titanium	EPA 200.7 (1994 Rev. 4.4)
109.623	022	Zinc	EPA 200.7 (1994 Rev. 4.4)
109.625	001	Aluminum	EPA 200.8 (1994 Rev. 5.4)
109.625	002	Antimony	EPA 200.8 (1994 Rev. 5.4)
109.625	003	Arsenic	EPA 200.8 (1994 Rev. 5.4)
109.625	004	Barium	EPA 200.8 (1994 Rev. 5.4)
109.625	005	Beryllium	EPA 200.8 (1994 Rev. 5.4)
109.625	007	Cadmium	EPA 200.8 (1994 Rev. 5.4)
109.625	008	Chromium	EPA 200.8 (1994 Rev. 5.4)
109.625	009	Cobalt	EPA 200.8 (1994 Rev. 5.4)
109.625	010	Copper	EPA 200.8 (1994 Rev. 5.4)
109.625	012	Iron	EPA 200.8 (1994 Rev. 5.4)
109.625	013	Lead	EPA 200.8 (1994 Rev. 5.4)
109.625	014	Manganese	EPA 200.8 (1994 Rev. 5.4)
109.625	015	Molybdenum	EPA 200.8 (1994 Rev. 5.4)
109.625	016	Nickel	EPA 200.8 (1994 Rev. 5.4)
109.625	017	Selenium	EPA 200.8 (1994 Rev. 5.4)
109.625	018	Silver	EPA 200.8 (1994 Rev. 5.4)
109.625	019	Thallium	EPA 200.8 (1994 Rev. 5.4)
109.625	020	Tin	EPA 200.8 (1994 Rev. 5.4)
109.625	022	Vanadium	EPA 200.8 (1994 Rev. 5.4)
109.625	023	Zinc	EPA 200.8 (1994 Rev. 5.4)
109.629	001	Chromium VI (Hexavalent Chromium)	EPA 218.6 (1994 Rev. 3.3)
109.639	001	Mercury	EPA 245.7 (2005 Rev. 2.0)

**Field of Accreditation: 110 - Volatile Organic Constituents in Non-Potable Water**

110.040	001	Acetone	EPA 624.1
110.040	003	Acrolein	EPA 624.1
110.040	004	Acrylonitrile	EPA 624.1
110.040	005	Benzene	EPA 624.1
110.040	006	Bromodichloromethane	EPA 624.1
110.040	007	Bromoform	EPA 624.1
110.040	008	Bromomethane (Methyl Bromide)	EPA 624.1
110.040	010	Carbon Tetrachloride	EPA 624.1
110.040	011	Chlorobenzene	EPA 624.1
110.040	012	Chloroethane	EPA 624.1
110.040	013	2-Chloroethyl vinyl Ether	EPA 624.1
110.040	014	Chloroform	EPA 624.1
110.040	015	Chloromethane (Methyl Chloride)	EPA 624.1

110.040	016	Dibromochloromethane (Chlorodibromomethane)	EPA 624.1
110.040	017	1,2-Dichlorobenzene	EPA 624.1
110.040	018	1,3-Dichlorobenzene	EPA 624.1
110.040	019	1,4-Dichlorobenzene	EPA 624.1
110.040	020	1,1-Dichloroethane	EPA 624.1
110.040	021	1,2-Dichloroethane (Ethylene Dichloride)	EPA 624.1
110.040	022	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 624.1
110.040	023	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 624.1
110.040	024	1,2-Dichloropropane	EPA 624.1
110.040	025	cis-1,3-Dichloropropylene (cis 1,3 Dichloropropene)	EPA 624.1
110.040	026	trans-1,3-Dichloropropylene (trans-1,3 Dichloropropene)	EPA 624.1
110.040	029	Ethylbenzene	EPA 624.1
110.040	031	Methylene Chloride (Dichloromethane)	EPA 624.1
110.040	032	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	EPA 624.1
110.040	034	1,1,2,2-Tetrachloroethane	EPA 624.1
110.040	035	Tetrachloroethylene (Tetrachloroethene)	EPA 624.1
110.040	037	Toluene	EPA 624.1
110.040	038	1,1,1-Trichloroethane	EPA 624.1
110.040	039	1,1,2-Trichloroethane	EPA 624.1
110.040	040	Trichloroethylene (Trichloroethene)	EPA 624.1
110.040	041	Vinyl Chloride	EPA 624.1
110.040	042	m-Xylene	EPA 624.1
110.040	043	o-Xylene	EPA 624.1
110.040	044	p-Xylene	EPA 624.1
110.040	045	Trichlorofluoromethane	EPA 624.1

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**Field of Accreditation: 111 - Semi-volatile Organic Constituents in Non-Potable Water**

111.055	001	Aldrin	EPA 608.3
111.055	002	alpha-BHC	EPA 608.3
111.055	003	beta-BHC	EPA 608.3
111.055	004	delta-BHC	EPA 608.3
111.055	005	gamma-BHC (Lindane)	EPA 608.3
111.055	006	Chlordane	EPA 608.3
111.055	007	4,4'-DDD	EPA 608.3
111.055	008	4,4'-DDE	EPA 608.3
111.055	009	4,4'-DDT	EPA 608.3
111.055	010	Dieldrin	EPA 608.3
111.055	011	Endosulfan I	EPA 608.3
111.055	012	Endosulfan II	EPA 608.3
111.055	013	Endosulfan Sulfate	EPA 608.3
111.055	014	Endrin	EPA 608.3
111.055	015	Endrin Aldehyde	EPA 608.3
111.055	016	Heptachlor	EPA 608.3

111.055	017	Heptachlor Epoxide	EPA 608.3
111.055	019	PCB-1016 (Aroclor-1016)	EPA 608.3
111.055	020	PCB-1221 (Aroclor-1221)	EPA 608.3
111.055	021	PCB-1232 (Aroclor-1232)	EPA 608.3
111.055	022	PCB-1242 (Aroclor-1242)	EPA 608.3
111.055	023	PCB-1248 (Aroclor-1248)	EPA 608.3
111.055	024	PCB-1254 (Aroclor-1254)	EPA 608.3
111.055	025	PCB-1260 (Aroclor-1260)	EPA 608.3
111.055	046	Methoxychlor	EPA 608.3
111.055	060	Toxaphene	EPA 608.3
111.160	001	Acenaphthene	EPA 625.1
111.160	002	Acenaphthylene	EPA 625.1
111.160	003	Anthracene	EPA 625.1
111.160	004	Benzidine	EPA 625.1
111.160	005	Benzo(a)anthracene	EPA 625.1
111.160	006	Benzo(a)pyrene	EPA 625.1
111.160	007	Benzo(b)fluoranthene	EPA 625.1
111.160	008	Benzo(g,h,i)perylene	EPA 625.1
111.160	009	Benzo(k)fluoranthene	EPA 625.1
111.160	010	Bis(2-chloroethoxy) Methane	EPA 625.1
111.160	011	Bis(2-chloroethyl) Ether	EPA 625.1
111.160	012	bis(2-Chloroisopropyl) ether (2,2'-Oxybis[1-chloropropane])	EPA 625.1
111.160	013	Bis(2-ethylhexyl)phthalate (Di(2-ethylhexyl) phthalate)	EPA 625.1
111.160	014	4-Bromophenyl Phenyl Ether	EPA 625.1
111.160	015	Butyl Benzyl Phthalate	EPA 625.1
111.160	016	2-Chloronaphthalene	EPA 625.1
111.160	017	4-Chlorophenyl Phenyl Ether	EPA 625.1
111.160	018	Chrysene	EPA 625.1
111.160	019	Dibenz(a,h)anthracene	EPA 625.1
111.160	020	3,3'-Dichlorobenzidine	EPA 625.1
111.160	021	Diethyl Phthalate	EPA 625.1
111.160	022	Dimethyl Phthalate	EPA 625.1
111.160	023	Di-n-butyl Phthalate	EPA 625.1
111.160	024	2,4-Dinitrotoluene	EPA 625.1
111.160	025	2,6-Dinitrotoluene	EPA 625.1
111.160	026	Di-n-octyl Phthalate	EPA 625.1
111.160	027	Fluoranthene	EPA 625.1
111.160	028	Fluorene	EPA 625.1
111.160	029	Hexachlorobenzene	EPA 625.1
111.160	030	Hexachlorobutadiene	EPA 625.1
111.160	031	Hexachloroethane	EPA 625.1
111.160	032	Indeno(1,2,3-c,d)pyrene	EPA 625.1

111.160 033	Isophorone	EPA 625.1
111.160 034	Naphthalene	EPA 625.1
111.160 035	Nitrobenzene	EPA 625.1
111.160 036	N-nitroso-di-n-propylamine	EPA 625.1
111.160 037	Phenanthrene	EPA 625.1
111.160 038	Pyrene	EPA 625.1
111.160 039	1,2,4-Trichlorobenzene	EPA 625.1
111.160 040	4-Chloro-3-methylphenol	EPA 625.1
111.160 041	2-Chlorophenol	EPA 625.1
111.160 042	2,4-Dichlorophenol	EPA 625.1
111.160 043	2,4-Dimethylphenol	EPA 625.1
111.160 044	2,4-Dinitrophenol	EPA 625.1
111.160 045	2-Methyl-4,6-dinitrophenol	EPA 625.1
111.160 046	2-Nitrophenol	EPA 625.1
111.160 047	4-Nitrophenol	EPA 625.1
111.160 048	Pentachlorophenol	EPA 625.1
111.160 049	Phenol	EPA 625.1
111.160 050	2,4,6-Trichlorophenol	EPA 625.1
111.160 098	Hexachlorocyclopentadiene	EPA 625.1
111.160 108	N-nitrosodimethylamine	EPA 625.1
111.160 110	N-nitrosodiphenylamine	EPA 625.1
111.345 001	N-Ethylperfluorooctane Sulfonamido Acetic Acid (NEtFOSAA)	DoD QSM Version 5.1 (or newer)
111.345 002	4:2 Fluorotelomer Sulfonic Acid (4:2 FTS)	DoD QSM Version 5.1 (or newer)
111.345 003	6:2 Fluorotelomer Sulfonic Acid (6:2 FTS)	DoD QSM Version 5.1 (or newer)
111.345 004	8:2 Fluorotelomer Sulfonic Acid (8:2 FTS)	DoD QSM Version 5.1 (or newer)
111.345 005	N-Methylperfluorooctane Sulfonamido Acetic Acid (NMeFOSAA)	DoD QSM Version 5.1 (or newer)
111.345 006	Perfluorobutanoic Acid (PFBA)	DoD QSM Version 5.1 (or newer)
111.345 007	Perfluorobutane Sulfonic Acid (PFBS)	DoD QSM Version 5.1 (or newer)
111.345 008	Perfluorodecanoic Acid (PFDA)	DoD QSM Version 5.1 (or newer)
111.345 009	Perfluorododecanoic Acid (PFDoA)	DoD QSM Version 5.1 (or newer)
111.345 010	Perfluorodecane Sulfonic Acid (PFDS)	DoD QSM Version 5.1 (or newer)
111.345 011	Perfluoroheptanoic Acid (PFHpA)	DoD QSM Version 5.1 (or newer)
111.345 012	Perfluoroheptane Sulfonic Acid (PFHpS)	DoD QSM Version 5.1 (or newer)
111.345 013	Perfluorohexane Sulfonic Acid (PFHxS)	DoD QSM Version 5.1 (or newer)
111.345 014	Perfluorohexanoic Acid (PFHxA)	DoD QSM Version 5.1 (or newer)
111.345 015	Perfluorononanoic Acid (PFNA)	DoD QSM Version 5.1 (or newer)
111.345 016	Perfluorooctanoic Acid (PFOA)	DoD QSM Version 5.1 (or newer)
111.345 017	Perfluorooctane Sulfonic Acid (PFOS)	DoD QSM Version 5.1 (or newer)
111.345 018	Perfluorooctane Sulfonamide (PFOSAm)	DoD QSM Version 5.1 (or newer)
111.345 019	Perfluoropentanoic Acid (PFPeA)	DoD QSM Version 5.1 (or newer)
111.345 020	Perfluoropentane Sulfonic Acid (PFPeS)	DoD QSM Version 5.1 (or newer)
111.345 021	Perfluorotetradecanoic Acid (PFTDA)	DoD QSM Version 5.1 (or newer)

111.345	022	Perfluorotridecanoic Acid (PFTTrDA)	DoD QSM Version 5.1 (or newer)
111.345	023	Perfluoroundecanoic Acid (PFUnDA)	DoD QSM Version 5.1 (or newer)
111.345	024	11-Chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUd)	DoD QSM Version 5.1 (or newer)
111.345	025	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	DoD QSM Version 5.1 (or newer)
111.345	026	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	DoD QSM Version 5.1 (or newer)
111.345	027	N-Ethylperfluorooctane Sulfonamide (EtFOSAm)	DoD QSM Version 5.1 (or newer)
111.345	028	N-Ethylperfluorooctane Sulfonamido Ethanol (EtFOSE)	DoD QSM Version 5.1 (or newer)
111.345	030	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	DoD QSM Version 5.1 (or newer)
111.345	031	N-Methylperfluorooctane Sulfonamide (NMeFOSA)	DoD QSM Version 5.1 (or newer)
111.345	032	N-Methylperfluorooctane Sulfonamido Ethanol (NMeFOSE)	DoD QSM Version 5.1 (or newer)

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**Field of Accreditation: 114 - Inorganic Constituents in Hazardous Waste**


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114.010	003	Barium	EPA 6010 B
114.010	005	Cadmium	EPA 6010 B
114.010	006	Chromium	EPA 6010 B
114.010	007	Cobalt	EPA 6010 B
114.010	008	Copper	EPA 6010 B
114.010	009	Lead	EPA 6010 B
114.010	010	Molybdenum	EPA 6010 B
114.010	011	Nickel	EPA 6010 B
114.010	013	Silver	EPA 6010 B
114.010	015	Vanadium	EPA 6010 B
114.010	016	Zinc	EPA 6010 B
114.020	001	Antimony	EPA 6020
114.020	002	Arsenic	EPA 6020
114.020	003	Barium	EPA 6020
114.020	004	Beryllium	EPA 6020
114.020	005	Cadmium	EPA 6020
114.020	006	Chromium	EPA 6020
114.020	007	Cobalt	EPA 6020
114.020	008	Copper	EPA 6020
114.020	009	Lead	EPA 6020
114.020	010	Molybdenum	EPA 6020
114.020	011	Nickel	EPA 6020
114.020	012	Selenium	EPA 6020
114.020	013	Silver	EPA 6020
114.020	014	Thallium	EPA 6020
114.020	015	Vanadium	EPA 6020
114.020	016	Zinc	EPA 6020
114.025	001	Mercury	EPA 6020 A
114.106	001	Chromium VI (Hexavalent Chromium)	EPA 7199
114.221	001	Cyanide, Total	EPA 9012 A
114.240	001	Corrosivity - pH Determination	EPA 9040 B

114.241	001	Corrosivity - pH Determination	EPA 9045 C
114.270	001	Fluoride	EPA 9214

**Field of Accreditation:115 - Leaching/Extraction Tests and Physical Characteristics of Hazardous Waste**

115.020	001	Toxicity Characteristic Leaching Procedure (TCLP)	EPA 1311
115.021	001	TCLP Inorganics	EPA 1311
115.030	001	Waste Extraction Test (WET)	CCR Chapter11, Article 5, Appendix II

**Field of Accreditation:116 - Volatile Organic Compounds in Hazardous Waste**

116.080	000	Volatile Organic Compounds	EPA 8260 B
116.080	120	Oxygenates	EPA 8260 B
116.100	001	Total Petroleum Hydrocarbons - Gasoline (GRO)	LUFT GC/MS

**Field of Accreditation:117 - Semi-volatile Organic Chemistry of Hazardous Waste**

117.110	000	Extractable Organics	EPA 8270 C	
117.111	071	Pesticides	EPA 8270 C	
117.210	000	Organochlorine Pesticides	EPA 8081 A	
117.220	000	PCBs	EPA 8082	
117.280	000	Carbamates	EPA 8321 A	Aqueous Only
117.575	001	N-Ethylperfluorooctane Sulfonamide (EtFOSAm)	DoD QSM Version 5.1 (or newer)	
117.575	002	N-Ethylperfluorooctane Sulfonamido Acetic Acid (NEtFOSAA)	DoD QSM Version 5.1 (or newer)	
117.575	003	N-Ethylperfluorooctane Sulfonamido Ethanol (EtFOSE)	DoD QSM Version 5.1 (or newer)	
117.575	004	4:2 Fluorotelomer Sulfonic Acid (4:2 FTS)	DoD QSM Version 5.1 (or newer)	
117.575	005	6:2 Fluorotelomer Sulfonic Acid (6:2 FTS)	DoD QSM Version 5.1 (or newer)	
117.575	006	8:2 Fluorotelomer Sulfonic Acid (8:2 FTS)	DoD QSM Version 5.1 (or newer)	
117.575	007	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUd)	DoD QSM Version 5.1 (or newer)	
117.575	008	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	DoD QSM Version 5.1 (or newer)	
117.575	009	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	DoD QSM Version 5.1 (or newer)	
117.575	010	N-Methylperfluorooctane Sulfonamide (NMeFOSA)	DoD QSM Version 5.1 (or newer)	
117.575	011	N-Methylperfluorooctane Sulfonamido Acetic Acid (NMeFOSAA)	DoD QSM Version 5.1 (or newer)	
117.575	012	N-Methylperfluorooctane Sulfonamido Ethanol (NMeFOSE)	DoD QSM Version 5.1 (or newer)	
117.575	013	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	DoD QSM Version 5.1 (or newer)	
117.575	014	Perfluorobutanoic Acid (PFBA)	DoD QSM Version 5.1 (or newer)	
117.575	015	Perfluorobutane Sulfonic Acid (PFBS)	DoD QSM Version 5.1 (or newer)	
117.575	016	Perfluorodecanoic Acid (PFDA)	DoD QSM Version 5.1 (or newer)	
117.575	017	Perfluorododecanoic Acid (PFDoA)	DoD QSM Version 5.1 (or newer)	
117.575	018	Perfluorodecane Sulfonic Acid (PFDS)	DoD QSM Version 5.1 (or newer)	
117.575	019	Perfluoroheptanoic Acid (PFHpA)	DoD QSM Version 5.1 (or newer)	
117.575	020	Perfluoroheptane Sulfonic Acid (PFHpS)	DoD QSM Version 5.1 (or newer)	
117.575	021	Perfluorohexane Sulfonic Acid (PFHxS)	DoD QSM Version 5.1 (or newer)	
117.575	022	Perfluorohexanoic Acid (PFHxA)	DoD QSM Version 5.1 (or newer)	
117.575	023	Perfluorononanoic Acid (PFNA)	DoD QSM Version 5.1 (or newer)	
117.575	024	Perfluorooctanoic Acid (PFOA)	DoD QSM Version 5.1 (or newer)	
117.575	025	Perfluorooctane Sulfonic Acid (PFOS)	DoD QSM Version 5.1 (or newer)	
117.575	026	Perfluorooctane Sulfonamide (PFOSAm)	DoD QSM Version 5.1 (or newer)	

117.575	027	Perfluoropentanoic Acid (PFPeA)	DoD QSM Version 5.1 (or newer)
117.575	028	Perfluoropentane Sulfonic Acid (PFPeS)	DoD QSM Version 5.1 (or newer)
117.575	029	Perfluorotetradecanoic Acid (PFTDA)	DoD QSM Version 5.1 (or newer)
117.575	030	Perfluorotridecanoic Acid (PFTrDA)	DoD QSM Version 5.1 (or newer)
117.575	031	Perfluoroundecanoic Acid (PFUnDA)	DoD QSM Version 5.1 (or newer)

**Field of Accreditation: 126 - Microbiological Methods for Ambient Water**

126.003	001	Total Coliform (Enumeration)	SM 9221 B,C-2006
126.003	002	Fecal Coliform (Enumeration)	SM 9221 C,E-2006
126.003	003	E. coli (Enumeration)	SM 9221 C,F-2006
126.017	001	E. coli (Enumeration)	SM 9223 B-2004 Colilert 18





STATE WATER RESOURCES CONTROL BOARD  
REGIONAL WATER QUALITY CONTROL BOARDS



CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

**CERTIFICATE OF  
ENVIRONMENTAL LABORATORY ACCREDITATION**

Is hereby granted to

**BC Laboratories, Inc.**

4100 Atlas Court

Bakersfield, CA 93308

Scope of the certificate is limited to the  
"Fields of Accreditation"  
which accompany this Certificate.

Continued accredited status depends on compliance with applicable laws and regulations,  
proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of  
Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **1186**

Effective Date: **6/1/2020**

Expiration Date: **5/31/2022**

A handwritten signature in blue ink, appearing to read "Christine Sotelo".

Sacramento, California  
subject to forfeiture or revocation

Christine Sotelo, Chief  
Environmental Laboratory Accreditation Program



STATE WATER RESOURCES CONTROL BOARD  
REGIONAL WATER QUALITY CONTROL BOARDS

CALIFORNIA STATE



ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

## CERTIFICATE OF ENVIRONMENTAL ACCREDITATION

Is hereby granted to

**Monterey One Water (M1W)**

**Laboratory Division**

14811 Del Monte Boulevard

Marina, CA 93933

Scope of the certificate is limited to the  
"Fields of Testing"  
which accompany this Certificate.

Continued accredited status depends on successful completion of on-site inspection,  
proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of  
Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **1195**

Expiration Date: **5/31/2022**

Effective Date: **6/1/2020**

A handwritten signature in blue ink, appearing to read "Christine Sotelo".

Sacramento, California  
subject to forfeiture or revocation

Christine Sotelo, Chief  
Environmental Laboratory Accreditation Program



**CALIFORNIA STATE  
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM  
Fields of Accreditation**



**Monterey One Water (M1W)**

Laboratory Division  
14811 Del Monte Boulevard  
Marina, CA 93933  
Phone: 8318831118

**Certificate Number: 1195  
Expiration Date: 5/31/2022**

**Field of Accreditation:101 - Microbiology of Drinking Water**

101.010	001	Heterotrophic Bacteria	SM 9215 B
101.050	001	Total Coliform P/A	SM 9223 B Colilert
101.050	002	E. coli P/A	SM 9223 B Colilert
101.050	003	Total Coliform (Enumeration)	SM 9223 B Colilert
101.050	004	E. coli (Enumeration)	SM 9223 B Colilert

**Field of Accreditation:102 - Inorganic Chemistry of Drinking Water**

102.030	003	Chloride	EPA 300.0
102.030	006	Nitrate (as N)	EPA 300.0
102.030	007	Nitrite (as N)	EPA 300.0
102.030	008	Phosphate,Ortho (as P)	EPA 300.0
102.030	009	Sulfate (as SO4)	EPA 300.0
102.100	001	Alkalinity	SM 2320 B-1997
102.130	001	Specific Conductance	SM 2510 B-1997
102.140	001	Residue, Filterable TDS	SM 2540 C-1997
102.175	001	Chlorine, Free	SM 4500-Cl G-2000
102.175	002	Chlorine, Total Residual	SM 4500-Cl G-2000
102.203	001	Hydrogen Ion (pH)	SM 4500-H+ B-2000
102.260	001	Organic Carbon-Total (TOC)	SM 5310 B-2000
102.261	001	Dissolved Organic Carbon (DOC)	SM 5310 B-2000
102.280	001	UV254	SM 5910 B-2011

**Field of Accreditation:107 - Microbiological Methods for Non-Potable Water and Sewage Sludge**

107.001	001	Total Coliform (Enumeration)	SM 9221 B,C-2006
107.001	002	Fecal Coliform (Enumeration)	SM 9221 C,E-2006
107.001	003	E. coli (Enumeration)	SM 9221 C,F-2006
107.005	001	E. coli (Enumeration)	SM 9223 B-2004
107.017	001	Enterococci	Enterolert

**Field of Accreditation:108 - Inorganic Constituents in Non-Potable Water**

108.017	002	Chloride	EPA 300.0 (1993 Rev. 2.1)
108.017	004	Nitrate (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	005	Nitrate-Nitrite (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	006	Nitrite (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	007	Phosphate,Ortho (as P)	EPA 300.0 (1993 Rev. 2.1)
108.017	008	Sulfate (as SO4)	EPA 300.0 (1993 Rev. 2.1)

As of 5/26/2021, this list supersedes all previous lists for this certificate number.  
Customers: Please verify the current accreditation standing with the State.

**Monterey One Water (M1W)**

Certificate Number: 1195

Expiration Date: 5/31/2022

108.053	002	Oil & Grease Total	EPA 1664 B
108.059	001	Turbidity	SM 2130 B-2011
108.063	001	Alkalinity	SM 2320 B-2011
108.065	001	Hardness (Calculation)	SM 2340 B-2011
108.069	001	Specific Conductance	SM 2510 B-2011
108.071	001	Residue, Total	SM 2540 B-2011
108.073	001	Residue, Filterable TDS	SM 2540 C-2011
108.075	001	Residue, Non-filterable TSS	SM 2540 D-2011
108.079	001	Residue, Settleable	SM 2540 F-2011
108.080	001	Temperature	SM 2550 B-2010
108.105	001	Chlorine, Total Residual	SM 4500-Cl C-2011
108.137	001	Hydrogen Ion (pH)	SM 4500-H+ B-2011
108.139	001	Ammonia (as N)	SM 4500-NH3 C-2011
108.139	002	Kjeldahl Nitrogen, Total (as N)	SM 4500-NH3 C-2011
108.173	001	Oxygen, Dissolved	SM 4500-O G-2011
108.175	002	Phosphorus, Total	SM 4500-P E-2011
108.207	001	Biochemical Oxygen Demand	SM 5210 B-2011
108.207	002	Carbonaceous BOD	SM 5210 B-2011
108.215	001	Organic Carbon-Total (TOC)	SM 5310 B-2011
108.315	002	Calcium	ASTM D6919-09
108.315	003	Magnesium	ASTM D6919-09
108.315	004	Potassium	ASTM D6919-09
108.315	005	Sodium	ASTM D6919-09

**Field of Accreditation: 126 - Microbiological Methods for Ambient Water**

126.003	001	Total Coliform (Enumeration)	SM 9221 B,C-2006
126.003	002	Fecal Coliform (Enumeration)	SM 9221 C,E-2006
126.003	003	E. coli (Enumeration)	SM 9221 C,F-2006
126.007	001	E. coli (Enumeration)	SM 9223 B-2004
126.011	001	Enterococci	SM 9230 C-2007
126.019	001	Enterococci	Enterolert

**CALIFORNIA STATE  
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM  
Accredited Fields of Testing**

**Monterey County Consolidated Environmental Laboratory**

Public Health Bureau  
1270 Natividad Road  
Salinas, CA 93906  
Phone: (831) 755-4516

**Certificate No. 1395**

**Expiration Date 12/31/2021 INTERIM**

**\*As of 1/1/2021, this list supersedes all previous lists for this certificate number.**

**Customers: Please verify the current accreditation standing with the State.**

**Field of Testing: 101 – Microbiology of Drinking Water**

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
101.010	001	Heterotrophic Bacteria	SM 9215 B
101.020	004	Total Coliform (Enumeration)	SM 9221 B,C
101.020	005	Fecal Coliform (Enumeration)	SM 9221 B,E
101.020	006	E. coli (Enumeration)	SM 9221 B,F
101.050	001	Total Coliform P/A	SM 9223 B Colilert
101.050	002	E. coli P/A	SM 9223 B Colilert
101.050	003	Total Coliform (Enumeration)	SM 9223 B Colilert
101.050	004	E. coli (Enumeration)	SM 9223 B Colilert
101.050	005	Total Coliform P/A	SM 9223 B Colilert 18
101.050	006	E. coli P/A	SM 9223 B Colilert 18
101.050	007	Total Coliform (Enumeration)	SM 9223 B Colilert 18
101.050	008	E. coli (Enumeration)	SM 9223 B Colilert 18

**Field of Testing:** 102 – Inorganic Chemistry of Drinking Water

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
102.030	003	Chloride	EPA 300.0
102.030	005	Fluoride	EPA 300.0
102.030	006	Nitrate (as N)	EPA 300.0
102.030	007	Nitrite (as N)	EPA 300.0
102.030	009	Sulfate (as SO <sub>4</sub> )	EPA 300.0
102.095	001	Turbidity	SM 2130 B-2001
102.100	001	Alkalinity	SM 2320 B-1997
102.120	001	Hardness (Calculation)	SM 2340 B-1997
102.130	001	Specific Conductance	SM 2510 B-1997
102.140	001	Residue, Filterable TDS	SM 2540 C-1997
102.175	001	Chlorine, Free	SM 4500-CI G-2000
102.175	002	Chlorine, Total Residual	SM 4500-CI G-2000
102.203	001	Hydrogen Ion (pH)	SM 4500-H+ B-2000
102.220	001	Nitrite (as N)	SM 4500-NO <sub>2</sub> B-2000
102.240	001	Phosphate, Ortho (as P)	SM 4500-P E-1999
102.270	001	Surfactants	SM 5540 C-2000

**Field of Testing:** 103 – Toxic Chemical Elements of Drinking Water

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
103.125	001	Aluminum	EPA 200.5
103.125	002	Antimony	EPA 200.5
103.125	004	Barium	EPA 200.5
103.125	005	Beryllium	EPA 200.5
103.125	006	Cadmium	EPA 200.5
103.125	007	Chromium	EPA 200.5
103.125	008	Copper	EPA 200.5
103.125	010	Lead	EPA 200.5
103.125	011	Manganese	EPA 200.5
103.125	012	Nickel	EPA 200.5
103.125	013	Selenium	EPA 200.5
103.125	014	Silver	EPA 200.5
103.125	015	Zinc	EPA 200.5
103.130	001	Aluminum	EPA 200.7
103.130	003	Barium	EPA 200.7
103.130	004	Beryllium	EPA 200.7
103.130	005	Cadmium	EPA 200.7
103.130	007	Chromium	EPA 200.7
103.130	008	Copper	EPA 200.7
103.130	009	Iron	EPA 200.7
103.130	011	Manganese	EPA 200.7

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
103.130	015	Silver	EPA 200.7
103.130	017	Zinc	EPA 200.7
103.130	018	Boron	EPA 200.7
103.140	001	Aluminum	EPA 200.8
103.140	002	Antimony	EPA 200.8
103.140	003	Arsenic	EPA 200.8
103.140	004	Barium	EPA 200.8
103.140	005	Beryllium	EPA 200.8
103.140	006	Cadmium	EPA 200.8
103.140	007	Chromium	EPA 200.8
103.140	008	Copper	EPA 200.8
103.140	009	Lead	EPA 200.8
103.140	010	Manganese	EPA 200.8
103.140	011	Mercury	EPA 200.8
103.140	012	Nickel	EPA 200.8
103.140	013	Selenium	EPA 200.8
103.140	014	Silver	EPA 200.8
103.140	015	Thallium	EPA 200.8
103.140	016	Zinc	EPA 200.8
103.140	017	Boron	EPA 200.8
103.140	018	Vanadium	EPA 200.8

**Field of Testing:** 107 – Microbiological Methods for Non-Potable Water and Sewage Sludge

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
107.001	001	Total Coliform (Enumeration)	SM 9221 B, C-2006
107.001	002	Fecal Coliform (Enumeration)	SM 9221 C, E-2006
107.001	003	E. coli (Enumeration)	SM 9221 C, F-2006
107.005	001	E. coli (Enumeration)	SM 9223 B-2004
107.013	001	E. coli (Enumeration)	Colilert
107.015	001	E. coli (Enumeration)	Colilert 18
107.015	002	Fecal Coliform (Enumeration)	Colilert 18
107.017	001	Enterococci	Enterolert

**Field of Testing:** 108 – Inorganic Constituents in Non-Potable Water

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
108.017	002	Chloride	EPA 300.0 (1993 Rev. 2.1)
108.017	003	Fluoride	EPA 300.0 (1993 Rev. 2.1)
108.017	004	Nitrate (as N)	EPA 300.0 (1993 Rev. 2.1)

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
108.017	005	Nitrate-Nitrite (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	006	Nitrite (as N)	EPA 300.0 (1993 Rev. 2.1)
108.017	008	Sulfate (as SO <sub>4</sub> )	EPA 300.0 (1993 Rev. 2.1)
108.055	001	Color	SM 2120 B-2011
108.059	001	Turbidity	SM 2130 B-2011
108.063	001	Alkalinity	SM 2320 B-2011
108.065	001	Hardness (Calculation)	SM 2340 B-2011
108.069	001	Specific Conductance	SM 2510 B-2011
108.071	001	Residue, Total	SM 2540 B-2011
108.073	001	Residue, Filterable TDS	SM 2540 C-2011
108.075	001	Residue, Non-filterable TSS	SM 2540 D-2011
108.079	001	Residue, Settleable	SM 2540 F-2011
108.080	001	Temperature	SM 2550 B-2010
108.114	001	Chlorine, Total Residual	SM 4500-Cl G-2011
108.114	002	Chlorine, Free	SM 4500-Cl G-2011
108.137	001	Hydrogen Ion (pH)	SM 4500-H+ B-2011
108.140	001	Ammonia (as N)	SM 4500-NH <sub>3</sub> D-2011
108.153	001	Nitrite (as N)	SM 4500-NO <sub>2</sub> B-2011
108.173	001	Oxygen, Dissolved	SM 4500-O G-2011
108.175	001	Phosphate, Ortho (as P)	SM 4500-P E-2011
108.175	002	Phosphorus, Total	SM 4500-P E-2011
108.225	001	Surfactants	SM 5540 C-2011
108.315	002	Calcium	ASTM D6919-09
108.315	003	Magnesium	ASTM D6919-09
108.315	004	Potassium	ASTM D6919-09
108.315	005	Sodium	ASTM D6919-09
108.331	001	Kjeldahl Nitrogen, Total (as N)	Hach 10242

**Field of Testing:** 109 – Metals and Trace Elements in Non-Potable Water

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
109.621	001	Aluminum	EPA 200.5 (2003 Rev. 4.2)
109.621	002	Antimony	EPA 200.5 (2003 Rev. 4.2)
109.621	003	Arsenic	EPA 200.5 (2003 Rev. 4.2)
109.621	004	Barium	EPA 200.5 (2003 Rev. 4.2)



<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
109.621	005	Beryllium	EPA 200.5 (2003 Rev. 4.2)
109.621	006	Boron	EPA 200.5 (2003 Rev. 4.2)
109.621	007	Cadmium	EPA 200.5 (2003 Rev. 4.2)
109.621	009	Copper	EPA 200.5 (2003 Rev. 4.2)
109.621	010	Iron	EPA 200.5 (2003 Rev. 4.2)
109.621	011	Lead	EPA 200.5 (2003 Rev. 4.2)
109.621	012	Manganese	EPA 200.5 (2003 Rev. 4.2)
109.621	014	Selenium	EPA 200.5 (2003 Rev. 4.2)
109.621	015	Silver	EPA 200.5 (2003 Rev. 4.2)
109.621	019	Vanadium	EPA 200.5 (2003 Rev. 4.2)
109.621	020	Zinc	EPA 200.5 (2003 Rev. 4.2)
109.621	021	Aluminum	EPA 200.7 (1994 Rev. 4.4)
109.623	001	Aluminum	EPA 200.7 (1994 Rev. 4.4)
109.623	002	Antimony	EPA 200.7 (1994 Rev. 4.4)
109.623	003	Arsenic	EPA 200.7 (1994 Rev. 4.4)
109.623	004	Barium	EPA 200.7 (1994 Rev. 4.4)
109.623	005	Beryllium	EPA 200.7 (1994 Rev. 4.4)
109.623	006	Boron	EPA 200.7 (1994 Rev. 4.4)
109.623	007	Cadmium	EPA 200.7 (1994 Rev. 4.4)
109.623	008	Chromium	EPA 200.7 (1994 Rev. 4.4)
109.623	009	Cobalt	EPA 200.7 (1994 Rev. 4.4)
109.623	010	Copper	EPA 200.7 (1994 Rev. 4.4)
109.623	011	Iron	EPA 200.7 (1994 Rev. 4.4)
109.623	012	Lead	EPA 200.7 (1994 Rev. 4.4)

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
109.623	013	Manganese	EPA 200.7 (1994 Rev. 4.4)
109.623	014	Molybdenum	EPA 200.7 (1994 Rev. 4.4)
109.623	015	Nickel	EPA 200.7 (1994 Rev. 4.4)
109.623	016	Selenium	EPA 200.7 (1994 Rev. 4.4)
109.623	017	Silver	EPA 200.7 (1994 Rev. 4.4)
109.623	018	Thallium	EPA 200.7 (1994 Rev. 4.4)
109.623	021	Vanadium	EPA 200.7 (1994 Rev. 4.4)
109.623	022	Zinc	EPA 200.7 (1994 Rev. 4.4)
109.625	001	Aluminum	EPA 200.8 (1994 Rev. 5.4)
109.625	002	Antimony	EPA 200.8 (1994 Rev. 5.4)
109.625	003	Arsenic	EPA 200.8 (1994 Rev. 5.4)
109.625	004	Barium	EPA 200.8 (1994 Rev. 5.4)
109.625	005	Beryllium	EPA 200.8 (1994 Rev. 5.4)
109.625	006	Boron	EPA 200.8 (1994 Rev. 5.4)
109.625	007	Cadmium	EPA 200.8 (1994 Rev. 5.4)
109.625	008	Chromium	EPA 200.8 (1994 Rev. 5.4)
109.625	009	Cobalt	EPA 200.8 (1994 Rev. 5.4)
109.625	010	Copper	EPA 200.8 (1994 Rev. 5.4)
109.625	012	Iron	EPA 200.8 (1994 Rev. 5.4)
109.625	013	Lead	EPA 200.8 (1994 Rev. 5.4)
109.625	014	Manganese	EPA 200.8 (1994 Rev. 5.4)
109.625	015	Molybdenum	EPA 200.8 (1994 Rev. 5.4)
109.625	016	Nickel	EPA 200.8 (1994 Rev. 5.4)
109.625	017	Selenium	EPA 200.8 (1994 Rev. 5.4)

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
109.625	018	Silver	EPA 200.8 (1994 Rev. 5.4)
109.625	019	Thallium	EPA 200.8 (1994 Rev. 5.4)
109.625	022	Vanadium	EPA 200.8 (1994 Rev. 5.4)
109.625	023	Zinc	EPA 200.8 (1994 Rev. 5.4)

**Field of Testing:** 126 – Microbiological Methods for Ambient Water

<b>Subgroup Code</b>	<b>Analyte Code</b>	<b>Analyte</b>	<b>Method</b>
126.003	001	Total Coliform (Enumeration)	SM 9221 B,C-2006
126.003	002	Fecal Coliform (Enumeration)	SM 9221 C,E-2006
126.003	003	E. coli (Enumeration)	SM 9221 C,F-2006
126.007	001	E. coli (Enumeration)	SM 9223 B-2004
126.015	001	E. coli (Enumeration)	Colilert
126.017	001	E. coli (Enumeration)	Colilert 18
126.019	001	Enterococci	Enterolert

**Appendix C. 2020 CalAm Water System #2710004 Consumer Confidence Report**



2020 Annual  
**WATER QUALITY  
REPORT**

**Monterey**  
PWS ID: CA2710004



**QUALITY. ONE MORE WAY  
WE KEEP LIFE FLOWING.**



**CALIFORNIA  
AMERICAN WATER**

**WE KEEP LIFE FLOWING™**



# A message from California American Water's President



**Rich Svindland**

President  
California American Water

Dear California American Water Customer,

Our top priority is providing safe, reliable drinking water to our more than 690,000 people. Most people take their water quality for granted in the United States and expect clean water to be always available. I believe this expectation is affirmation of the hard work and investment we and other water utilities across the country have made in providing this essential service.

I am pleased to share with you our 2020 Consumer Confidence Report, which reflects the hard work and dedication of our employees who work to provide high quality drinking water. During the COVID-19 public health emergency, California American Water activated its business continuity plans to ensure our ability to provide reliable, high quality service to our customers.

According to the U.S. Environmental Protection Agency review of current research, the risk to water supplies from COVID – 19 is low. The USEPA has also relayed that Americans can continue to use and drink water from their tap as usual.

California American Water remains committed to the delivery of safe, reliable water. We have rigorous safeguards in place to help provide water to you that meets or surpasses increasingly stringent water quality standards.

Across California, we conducted approximately 650 different tests on more than 25,000 water samples for nearly 3,000 constituents last year. We are proud and pleased to confirm that those tests showed that we met every primary and secondary state and federal water quality standard.

**SERVICE:** Last year, we invested more than \$68 million in water infrastructure in the California communities we serve. This investment helps maintain the safety and reliability of the facilities and technology needed to draw, treat, and distribute water.

**VALUE:** While costs to provide water service continue to increase across the country, our investments help us provide high quality water service that remains an exceptional value for such an essential service. California American Water also offers a variety of Customer Assistance Programs and Conservation services to help our customers. If you have any questions or concerns, you can contact us by phone, email, online at [www.californiaamwater.com](http://www.californiaamwater.com), or in person at our local Customer Center. Please take the time to review this report as it provides details about the source and quality of your drinking water, using data from water quality testing conducted for your local system between January and December 2020.

Rich Svindland  
California American Water

**This report contains important information about your drinking water. Translate it or speak with someone who understands it at (888) 237-1333, Monday-Friday, 7 a.m. to 7 p.m.**



## **ATTENTION: Landlords and Apartment Owners**

**Please share a copy of this notice with your tenants. It includes important information about their drinking water quality.**

# What is a Consumer Confidence Report (CCR)

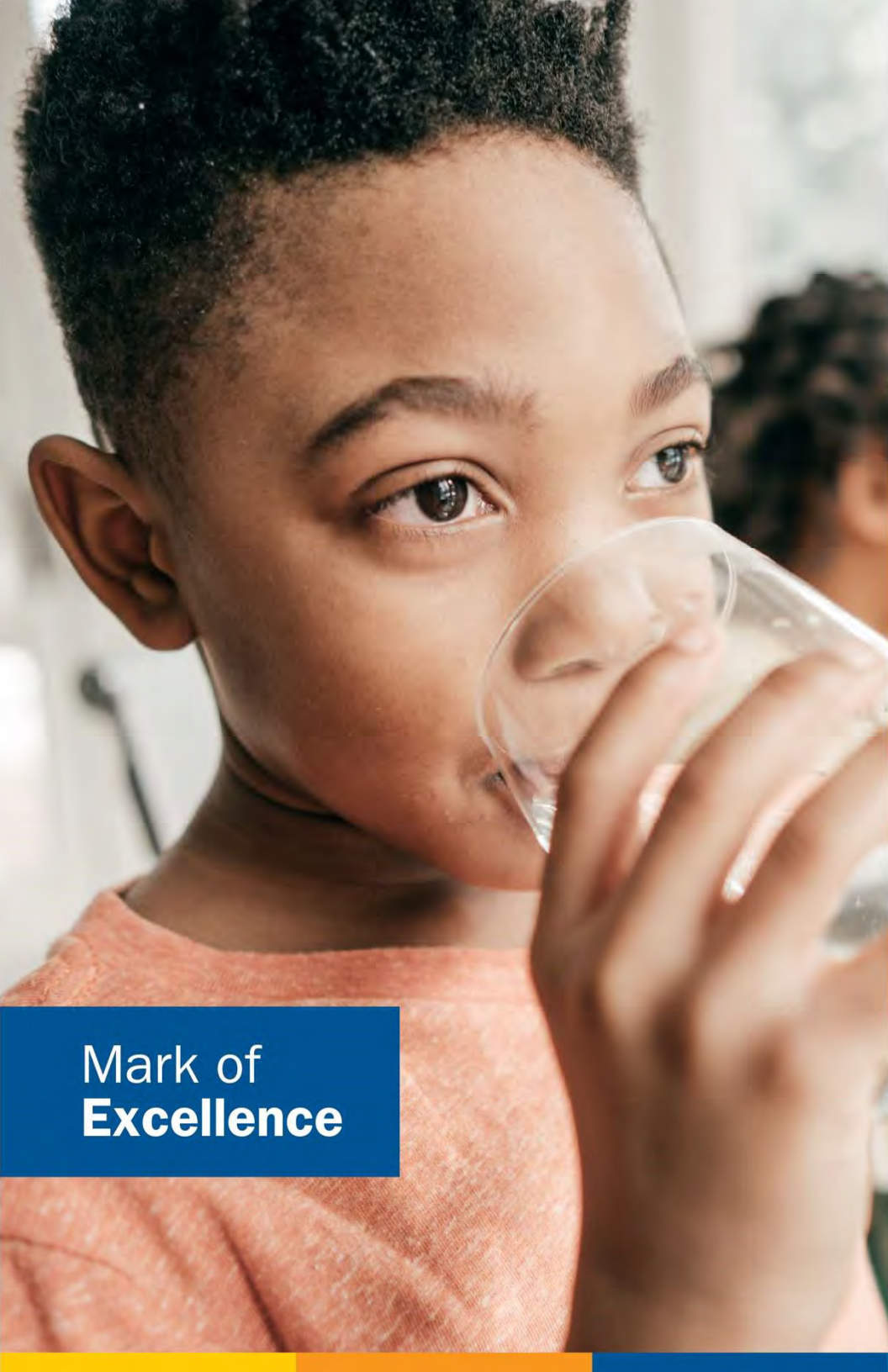


Once again, we proudly present our Annual Water Quality Report, also referred to as a Consumer Confidence Report (CCR). CCRs let consumers know what contaminants, if any, were detected in their drinking water as well as related potential health effects. CCRs also include details about where your water comes from and how it is treated. Additionally, they educate customers on what it takes to deliver safe drinking water and highlight the need to protect drinking water sources.

California American Water is committed to delivering high quality drinking water service. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, environmental compliance, sustainability and community education while continuing to serve the needs of all our water users.

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Mark of  
Excellence



### EVERY STEP OF THE WAY.

We monitor and test your water at multiple points throughout our process of drawing it from its source, treating it to meet drinking water standards, and distributing it through our pipeline systems. **In fact, American Water performs over one million tests annually for about 100 regulated contaminants, nationwide.**



### EXPERTISE. RECOGNIZED AT THE HIGHEST LEVEL.

American Water is an expert in water quality testing, compliance and treatment and has established industry-leading water testing facilities. Our dedicated team of scientists and researchers are committed to finding solutions for water quality challenges and implementing new technologies. We are recognized as an industry leader in water quality and work cooperatively with the EPA so that drinking water standards and new regulations produce benefits for customers and public water suppliers. American Water has earned awards from the EPA's Partnership for Safe Water as well as awards for superior water quality from state regulators, industry organizations, individual communities, and government and environmental agencies.



### WATER QUALITY. DOWN TO A SCIENCE.

We also have access to American Water's Central Laboratory in Belleville, Illinois, which conducts sophisticated drinking water testing and analysis. Here, American Water scientists refine testing procedures, innovate new methods, and look for ways to detect potentially new contaminants—even before regulations are in place.



### MAINTAINING QUALITY FOR FUTURE GENERATIONS.

Just as California American Water are investing in research and testing, we also understand the importance of investing in the infrastructure that provides high-quality water service to you. Last year alone, **we invested more than \$68 million to improve our water and wastewater treatment and pipeline systems.**



# About Your Drinking Water Supply

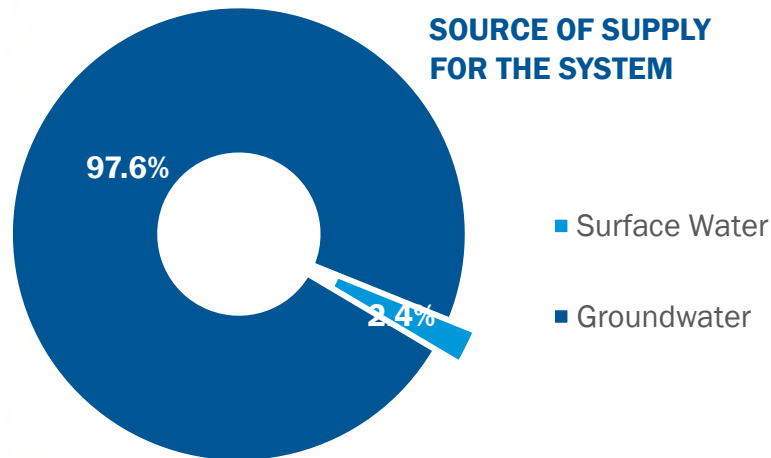


## WHERE YOUR WATER COMES FROM

Monterey is served by groundwater sources from the Santa Margarita, Paso Robles, and Carmel Alluvial aquifers as well as surface water from the Sand City Desalination Plant and groundwater recharged by the Pure Water Monterey Project.

Drinking water treatment technologies used in the system include reverse osmosis, iron and manganese removal, corrosion control, and disinfection for bacteriological quality. The water supply is distributed for residential and commercial use in the communities of Carmel-by-the-Sea, Carmel Highlands, Carmel Valley, Del Rey Oaks, Monterey, Pacific Grove, Pebble Beach, Sand City, and Seaside.

An assessment of the drinking water sources for the California American Water - Monterey water system was completed in February 2003. This assessment is an evaluation of drinking water sources to determine the “possible contaminating activities” (PCAs) to which a source is most vulnerable. PCAs are current or historic human activities that are actual or potential origins of contamination for a drinking water source. PCAs include activities that use, store, produce or dispose of chemicals that have the potential to contaminate drinking water supplies. A copy of the completed assessment may be viewed at California American Water, 511 Forest Lodge Road, Suite 100, Pacific Grove, CA.



## QUICK FACTS ABOUT THE MONTEREY SYSTEM

### Water sources:

Groundwater wells in Carmel Valley  
Groundwater Wells in Seaside  
Sand City Desal Plant  
Pure Water Monterey Project

### Water treatment:

Selection of treatment technologies was based on the quality of source waters. Treatment technologies used in the system include reverse osmosis, iron and manganese removal and corrosion control. The treated water is disinfected with chlorine for bacteriological quality before distributed for customers' consumption.



# What are the Sources of Contaminants?

To provide tap water that is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be

obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, aquifers and/or groundwater. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

**SPECIAL HEALTH INFORMATION**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

## CONTAMINANTS THAT MAY BE PRESENT IN SOURCE WATER INCLUDE:

<b>Microbial Contaminants</b>	such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
<b>Inorganic Contaminants</b>	such as salts and metals, which can be naturally occurring or may result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
<b>Pesticides and Herbicides</b>	which may come from a variety of sources, such as agriculture, urban storm water runoff, and residential uses.
<b>Organic Chemical Contaminants</b>	including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also, come from gas stations, urban storm water runoff, and septic systems.
<b>Radioactive Contaminants</b>	which can be naturally occurring or may be the result of oil and gas production and mining activities.



# Protecting Your Drinking Water Supply

Protecting drinking water at its source is an important part of the process to treat and deliver high quality water. It takes a community effort to protect our shared water resources. This includes utilities, businesses, residents, government agencies and organizations. Everyone who lives, works, and plays in the area has a role and stake in clean water supplies.

## WHAT CAN YOU DO?

Quality drinking water starts upstream. Everyone can help maintain and improve drinking water supplies through the following actions:

- Properly dispose of pharmaceuticals, household chemicals, oils and paints. Materials can impact water ways if poured down the drain, flushed down the toilet, or dumped on the ground.
- Check for leaks from automobiles and heating fuel tanks. Clean up any spills using an absorbent material like cat litter. Sweep up the material and put it in a sealed bag. Check with the local refuse facility for proper disposal.
- Clean up after your pets and limit the use of fertilizers and pesticides.
- Take part in watershed activities.



**Community Involvement:** We have a proactive public outreach program to help spread the word and get people involved. This includes school education, contests, and other community activities.

**Environmental Grant Program:** Each year, we fund projects that improve water resources in our local communities.

**Pharmaceutical Collection:** We sponsor drop box locations within the state for residents to safely dispose of unwanted drugs for free. This helps keep pharmaceutical products from entering water supplies.

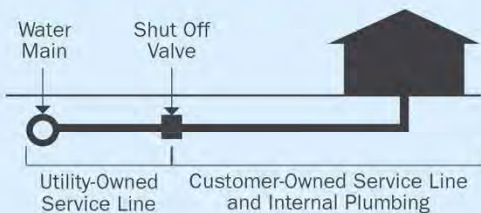
## FOR MORE INFORMATION

To learn more about your water supply and local activities, visit us online at [californiaamwater.com](http://californiaamwater.com) or contact the regional Source Water Protection Lead, Dr. Jack Wang at (831)646-3269.

# About Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Your water utility is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

## UTILITY-OWNED VS. CUSTOMER-OWNED PORTION OF THE SERVICE LINE



Please note: This diagram is a generic representation. Variations may apply.

## The most common source of lead in tap water is from the customer's plumbing and their service line.

Our water mains are not made of lead; however, the water service line that carries the water from the water main in the street to your home could be. Homeowners' service lines may be made of lead, copper, galvanized steel or plastic. You can assess your service line material where it enters your home, typically in your basement, crawl space or garage, near the inlet valve.

### MINIMIZING YOUR POTENTIAL EXPOSURE

You cannot see, smell or taste lead, and boiling water will not remove lead. Here are steps you can take to reduce your potential exposure if lead exists in your home plumbing.

### CHECK YOUR PLUMBING AND SERVICE LINE

If you live in an older home, consider having a licensed plumber check your plumbing for lead. If your service line is made of lead, and you're planning to replace it, be sure to contact us at 1-888-237-1333



**1. Flush your taps.** The longer the water lies dormant in your home's plumbing, the more lead it might contain. If the water in your faucet has gone unused for more than six hours, flush the tap with cold water for 30 seconds to two minutes before drinking or using it to cook. To conserve water, catch the running water and use it to water your plants.



**2. Use cold water for drinking and cooking.** Hot water has the potential to contain more lead than cold water. If hot water is needed for cooking, heat cold water on the stove or in the microwave.



**3. Routinely remove and clean all faucet aerators.**



**4. Look for the "Lead Free" label** when replacing or installing plumbing fixtures.



**5. Follow manufacturer's instructions for replacing water filters** in household appliances, such as refrigerators and ice makers, as well as home water treatment units and pitchers. Look for NSF 53 certified filters.



**6. Flush after plumbing changes.** Changes to your service line, meter, or interior plumbing may result in sediment, possibly containing lead, in your water supply. Remove the strainers from each faucet and run the water for 3 to 5 minutes.

# Important Information About **Drinking Water**

## **UNREGULATED CONTAMINANT MONITORING RULE (UCMR)**

The EPA created the Unregulated Contaminants Monitoring Rule (UCMR) to assist them in determining the occurrence of unregulated contaminants in drinking water and whether new regulations are warranted. The first Unregulated Contaminants Monitoring Rule (UCMR1) testing was completed in 2003 for a list of contaminants specified by the EPA. Unregulated contaminants are those for which the EPA has not established drinking water standards. UCMR2 testing was conducted between November 2008 and August 2009, and UCMR3 assessment monitoring was conducted between January 2013 and December 2016. The fourth list of contaminants to monitor as part of the UCMR was published by the EPA in December 2016. UCMR4 testing began in 2018 and was completed in 2020. The results from the UCMR monitoring are reported directly to the EPA. The results of this monitoring are incorporated in the data tables in this report as appropriate. For more information, contact our Customer Service Center at 1-888-237-1333.





## PFOA/PFOS Monitoring

PFAS refers to per- and polyfluoroalkyl substances, a class of man-made chemicals, manufactured for industrial applications and commercial household products such as non-stick cookware, waterproof and stain resistant fabrics and carpets, firefighting foam and cleaning products. The properties that make these chemicals useful in so many of our every-day products also resist breaking down and therefore persist in the environment. Exposure may be from food, food packaging, consumer products, house dust, indoor and outdoor air, drinking water and at workplaces where PFAS are made or used.

In accordance with Orders received from the Division of Drinking Water (DDW) California American Water is sampling designated sources for PFAS constituents. In 2019 DDW established Notification Levels (NLs) at 6.5 ppt for the PFAS constituents perfluorooctanesulfonic acid (PFOS) and 5.1 ppt for perfluorooctanoic acid (PFOA) in drinking water. In 2020 DDW established Consumer Confidence Detection Levels (CCRDL) of 4 ppt for both PFOS and PFOA.

The science and regulation of PFAS and other contaminants is always evolving, and California American Water strives to be a leader in research and development. PFAS contamination is one of the most rapidly changing areas in the drinking water field. We have invested in our own independent research, as well as engaging with other experts in the field to understand PFAS occurrence in the environment. We are also actively assessing treatment technologies that can effectively remove PFAS from drinking water, because we believe that investment in research is critically important to addressing this issue.

This is one of the most rapidly changing landscapes in drinking water contamination. We have invested time and effort on our own independent research, as well as engaging with other experts in the field to understand PFAS occurrence, fate and transport in the environment. We are also actively assessing treatment technologies that can effectively remove PFAS from drinking water, because we believe that investment in research is critical for addressing this issue.

**Lauren Weinrich**  
Principal Scientist,  
Water Research and Development



## Water Quality Results

### **WATER QUALITY STATEMENT**

We are pleased to report that during calendar year 2020, the results of testing of your drinking water complied with all state and federal drinking water requirements.

For your information, we have compiled a list in the table below showing the testing of your drinking water during 2020. The Division of Drinking Water allows us to monitor for some contaminants less than once per year because the concentration of the contaminants does not change frequently. Some of our data, though representative, are more than one year old.

# Definition of Terms

These are terms that may appear in your report.

**Action Level (AL):** The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, that a water system must follow.

**DDW:** Division of Drinking Water

**Level 1 Assessment:** A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

**Level 2 Assessment:** A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

**LRAA:** Locational Running Annual Average

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. Secondary MCLs (SMCL) are set to protect the odor, taste, and appearance of drinking water.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of disinfectant allowed in drinking water. There is

convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**MFL:** Million fibers per liter.

**micromhos per centimeter ( $\mu\text{mhos/cm}$ ):** A measure of electrical conductance.

**NA:** Not applicable

**N/A:** No data available

**ND:** Not detected

**Nephelometric Turbidity Units (NTU):** Measurement of the clarity, or turbidity, of the water.

**Notification Level (NL):** The concentration of a contaminant, which, if exceeded, requires notification to DDW and the consumer. Not an enforceable standard.

**pH:** A measurement of acidity, 7.0 being neutral.

**picocuries per liter (pCi/L):** Measurement of the natural rate of disintegration of radioactive contaminants in water (also beta particles).

**parts per billion (ppb):** One part substance per billion parts water, or micrograms per liter.

**parts per million (ppm):** One part substance per million parts water, or milligrams per liter.

**parts per trillion (ppt):** One part substance per trillion parts water, or nanograms per liter.

**Primary Drinking Water Standard (PDWS):** MCLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.

**Public Health Goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California EPA.

**RAA:** Running Annual Average

**Secondary Maximum Contaminant Level (SMCL):** Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

**SWRCB:** State Water Resources Control Board

**TON:** Threshold Odor Number

**Total Dissolved Solids (TDS):** An overall indicator of the amount of minerals in water.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

**Variances and Exemptions:** State or EPA permission not to meet an MCL or utilize a treatment technique under certain conditions.

## MEASUREMENTS

### Parts Per Million



in a 10 gallon fish tank

### Parts Per Billion



in a 10,000 gallon swimming pool

### Parts Per Trillion



in 35 junior size Olympic pools



# Water Quality Results

California American Water conducts extensive monitoring to determine if your water meets all water quality standards. The detections of our monitoring are reported in the following tables. While most monitoring was conducted in 2020, certain substances are monitored less than once per year because the levels do not change frequently. For help with interpreting the tables below, see the "Definition of Terms" on the previous page. Some unregulated substances are measured, but maximum contaminant levels have not been established by the government. These contaminants are shown for your information.

**NOTE: Regulated contaminants not listed in the tables below were not found in the treated water supply.**

## LEAD AND COPPER MONITORING PROGRAM - At least 30 tap water samples collected at customers' taps every 3 years

Substance (with units)	Year Sampled	Compliance Achieved	MCLG	Action Level (AL)	90 <sup>th</sup> Percentile	No. of Homes Sampled	Homes Above Action Level	Typical Source
Lead (ppb)	2018	Yes	0.2	15	2	31	0	Corrosion of household plumbing systems.
Copper (ppm)	2018	Yes	0.3	1.3	0.719	31	0	Corrosion of household plumbing systems.

## TOTAL COLIFORM RULE - At least 27 samples collected each week in the distribution system

Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Percentage	Typical Source
Total Coliform	2020	Yes	0	Less than 5%	0.725%	Naturally present in the environment.

NOTE: Coliforms are bacteria that are naturally present in the environment and are used as an indicator of the general bacteriological quality of the water. We are reporting the highest percentage of positive samples in any month.

## DISINFECTION BYPRODUCTS - Collected in the Distribution System

Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Compliance Result	Range Detected	Typical Source
Total Trihalomethanes (TTHMs) (ppb)	2020	Yes	NA	80	46.4	ND to 70.0	By-product of drinking water disinfection.
Haloacetic Acids (HAAs) (ppb)	2020	Yes	NA	60	22.1	ND to 26.4	By-product of drinking water disinfection.

NOTE: Compliance is based on the running annual average at each location. The Highest Compliance Result reflects the highest average at any location and the Range Detected reflects all samples from this year used to calculate the running annual average.

**DISINFECTANTS - Collected in the Distribution System**

Substance (with units)	Year Sampled	Compliance Achieved	MRDLG	MRDL	Minimum Chlorine Residual	Compliance Result	Range Detected	Typical Source
Distribution System Chlorine Residual (ppm) <sup>1</sup>	2020	Yes	4	4	0.08	1.08	0.08 to 2.4	Water additive used to control microbes.

1 - Data represents the monthly average of chlorine residuals measured throughout our distribution system.

**TURBIDITY - Continuous Monitoring at the Sand City Desalination Plant**

Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Single Measurement and Lowest Monthly % of Samples ≤0.3 NTU	Typical Source
Turbidity (NTU)	2020	Yes	0	TT: Single result >0.5 NTU	0.39	Soil runoff.
	2020	Yes	NA	TT: At least 95% of samples ≤0.1 NTU	99.8%	Soil runoff.

**PRIMARY REGULATED SUBSTANCES - Collected at the Treatment Plant or Sources**

Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Average Compliance Result	Range Detected	Typical Source
Gross Alpha Particle Activity (pCi/L)	2015-2020	Yes	(0)	15	1.15	ND to 6.54	Erosion of natural deposits
Gross Beta Particle Activity (pCi/L)	2012	Yes	(0)	50	1.35	ND to 4.05	Erosion of natural deposits
Chromium VI (Hexavalent Chromium) (ppb)	2016 - 2018	Yes	0.02	NA	0.16	ND to 2.23	Erosion of natural deposits
Radium 226 (pCi/L)	2015-2020	Yes	0.05	5	0.32	ND to 1.09	Erosion of natural deposits
Radium 228 (pCi/L)	2015-2020	Yes	0.019	5	0.79	ND to 1.96	Erosion of natural deposits
Uranium (pCi/L)	2014 - 2020	Yes	0.43	20	0.17	ND to 1.5	Erosion of natural deposits
Arsenic (ppb)	2020	Yes	0.004	10	2.75	ND to 5	Erosion of natural deposits
Fluoride (naturally occurring) (ppm) <sup>1</sup>	2019	Yes	1	2.0	0.25	ND to 0.42	Erosion of natural deposits
Nitrate as N (ppm) <sup>3</sup>	2020	Yes	10	10	2.03	ND to 6.66	Erosion of natural deposits
Selenium (ppb)	2019	Yes	30	50	1.1	ND to 7	Erosion of natural deposits

1 - Fluoride: California American Water does not add fluoride to the water in the Monterey Peninsula area. Fluoride occurs naturally in the groundwater we serve.

**SECONDARY REGULATED SUBSTANCES - Collected at the Treatment Plant Effluent and/or at the Source**

Substance (with units)	Year Sampled	Compliance Achieved <sup>1</sup>	SMCL	Average Compliance Result	Range Detected	Typical Source
Chloride (ppm)	2019	Yes	500	51	10 to 202	Leaching from natural deposits; Seawater influence
Odor (Units)	2020	Yes	3	1.3	1 to 3	Naturally-occurring organic materials
Specific Conductance (mmhos/cm)	2020	Yes	1600	526	265 to 849	Substances that form ions when in water; Seawater influence
Sulfate (ppm)	2019	Yes	500	59	1 to 104	Leaching from natural deposits
Total Dissolved Solids (ppm)	2020	Yes	1000	316	122 to 410	Leaching from natural deposits
Turbidity (units)	2020	Yes	5	0.1	ND to 0.4	Soil runoff
Zinc (ppm)	2019	Yes	5	0.02	ND to 0.2	Leaching from natural deposits; Treatment additive

1 - Yes: There are no PHGs, MCLGs, or mandatory standard health effects language for Secondary Substances because secondary MCLs are set based on aesthetic concerns.

**OTHER SUBSTANCES OF INTEREST - Collected at the Treatment Plant Effluent and/or at the Source**

Substance (with units)	Year Sampled	Average	Range Detected	
			Low	High
Alkalinity as CaCO <sub>3</sub> (ppm)	2020	146	91	179
Boron (ppm)	2020	0.6	ND	1.0
Calcium (ppm)	2020	40	27	63
Magnesium (ppm)	2019	13	ND	25
pH (pH Units)	2020	7.52	6.81	8.17
Sodium (ppm)	2019	45	16	132
Strontium (ppb)	2019	227	ND	500
Total Hardness as CaCO <sub>3</sub> (ppm)	2019	161	102	276
Total Hardness as Grains per Gallon (gpg)	2019	9	6	16
Vanadium (ppb)	2019	0.2	ND	5

## UNREGULATED CONTAMINANT MONITORING

Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is necessary. Every five years, the EPA issues a new list of no more than 30 unregulated contaminants to be monitored.

ADDITIONAL WATER QUALITY PARAMETERS OF INTEREST - Water Leaving the Treatment Facility or in Distribution System					
Parameter (with units)	Year Sampled	Average Result	Range Detected		Typical Source
			Low	High	
Bromochloromethane (ppb)	2013 - 2015	0.14	0.08	0.19	By-product of drinking water disinfection
Chlorate (ppb)	2013 - 2015	189	26	490	By-product of drinking water disinfection
Molybdenum (ppb)	2013 - 2015	6	2.2	14.4	By-product of drinking water disinfection
Strontium (ppb)	2013 - 2015	284	90.8	397.7	By-product of drinking water disinfection
Vanadium (ppb)	2013 - 2015	1.41	0.3	5.6	By-product of drinking water disinfection
Bromochloroacetic Acid (ppb)	2019	4.1	0.7	7.4	By-product of drinking water disinfection
Bromodichloroacetic acid (ppb)	2019	3.8	ND	6.3	By-product of drinking water disinfection
Chlorodibromoacetic acid (ppb)	2019	2.1	ND	3.5	By-product of drinking water disinfection
Dibromoacetic Acid (ppb)	2019	1.8	0.3	3.3	By-product of drinking water disinfection
Dichloroacetic Acid (ppb)	2019	5.3	0.5	13	By-product of drinking water disinfection
Monobromoacetic Acid (ppb)	2019	0.3	ND	0.6	By-product of drinking water disinfection
Total Haloacetic Acids - Br (ppb)	2019	12	1.4	21	By-product of drinking water disinfection
Total Haloacetic Acids - HAA 9 (ppb)	2019	22	2	40	By-product of drinking water disinfection
Trichloroacetic Acid (ppb)	2019	4.6	ND	7.5	By-product of drinking water disinfection

## PER- AND POLYFLUOROALKYL SUBSTANCES

Per- or polyfluoroalkyl substances (PFASs) are man-made substances used in a variety of products, such as: stain resistant fabric, non-stick coatings, firefighting foam, paints, waxes, and cleaning products. They are also components in some industrial processes like electronics manufacturing and oil recovery. While the EPA has not developed drinking water standards for PFAS, California American Water recognizes the importance of testing for these contaminants. Compounds detected are tabulated below, along with typical sources.

UNREGULATED PERFLUORINATED COMPOUNDS				
Parameter	Units	Average Result	Range Detected	Typical Source
Perfluorooctanoic Acid (PFOA)	ppt	1.9	ND to 8.2	Used for its emulsifier and surfactant properties in or as fluoropolymers (such as Teflon), fire fighting foams, cleaners, cosmetics, lubricants, paints, polishes, adhesives and photographic films
Perfluorooctanesulfonic Acid (PFOS)	ppt	2.0	ND to 7.5	Manmade chemical; used in products for stain, grease, heat and water resistance
Perfluorobutane sulfonic acid (PFBS)	ppt	4.0	ND to 17	Manmade chemical; used in commercial products to offer water- and stain-repellent properties.



## CALIFORNIA AMERICAN WATER FACTS AT A GLANCE

- **COMMUNITIES SERVED**  
77 communities in  
10 counties
- **PEOPLE SERVED**  
Approx. 880,000 people
- **EMPLOYEES**  
322
- **SYSTEM DELIVERY**  
122 million gallons per day (MGD) of  
water is produced and treated
- **MILES OF PIPELINE**  
2,254 miles of water pipeline  
and 48.5 miles of wastewater pipe
- **STORAGE**  
122 water storage facilities

## About Us

**California American Water**, a subsidiary of American Water, provides high-quality and reliable water and/or wastewater services to more than 880,000 people. For more information, visit [californiaamwater.com](http://californiaamwater.com) and follow us on Twitter, Facebook, Instagram and YouTube.

With a history dating back to 1886, **American Water** (NYSE: AWK) is the largest and most geographically diverse U.S. publicly traded water and wastewater utility company. The company employs more than 7,000 dedicated professionals who provide regulated and market-based drinking water, wastewater and other related services to 15 million people in 46 states. American Water provides safe, clean, affordable and reliable water services to our customers to help make sure we keep their lives flowing.



# How to Contact Us

If you have any questions about this report, your drinking water, or service, please contact California American Water's Customer Service Center Monday to Friday, 7 a.m. to 7 p.m. at 1-888-237-1333.

## WATER INFORMATION SOURCES

California American Water  
[www.californiaamwater.com](http://www.californiaamwater.com)

State Water Resources Control Board (State Board),  
Division of Drinking Water (DDW):  
[www.waterboards.ca.gov/drinking\\_water/programs/index.shtml](http://www.waterboards.ca.gov/drinking_water/programs/index.shtml)

County of Monterey Health Department  
<https://www.co.monterey.ca.us/government/departments-a-h/health>

United States Environmental Protection Agency (USEPA):  
[www.epa.gov/safewater](http://www.epa.gov/safewater)

Safe Drinking Water Hotline: (800) 426-4791

Centers for Disease Control and Prevention: [www.cdc.gov](http://www.cdc.gov)

American Water Works Association: [www.awwa.org](http://www.awwa.org)

Water Quality Association: [www.wqa.org](http://www.wqa.org)

National Library of Medicine/National Institute of Health:  
[www.nlm.nih.gov/medlineplus/drinkingwater.html](http://www.nlm.nih.gov/medlineplus/drinkingwater.html)

**This report contains important information about your drinking water. Translate it, or speak with someone who understands it at 1-888-237-1333.**

This report contains important information about your drinking water. Translate it, or speak with someone who understands it at 1-888-237-1333.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien al 1-888-237-1333.

Ntawm no yog ib co lus qhia tseem ceeb heev txog koj cov dej seb huv npaum li cas. Yog tias koj xav tau kev pab txhais cov lus qhia no, thov hu rau peb ntawm 1-888-237-1333.

這是關於您的水質的十分重要的資訊。如果您需要幫助翻譯此資訊請致電 **1-888-237-1333** 與我們聯繫。

आपके पानी की गुणवत्ता के बारे में यह बहुत महत्वपूर्ण सूचना है। यदि इस सूचना के अनुवाद के लिए आपको सहायता की जरूरत हो, तो कृपया **1-888-237-1333** र हमें काल करें।

**Это очень важная информация о качестве Вашей воды. Если Вам требуется перевод этой информации, позвоните нам по телефону 1-888-237-1333.**

Ito ay isang napakahalagang impormasyon tungkol sa kalidad ng iyong tubig. Kung iyong kailangan ng tulong sa pagsalin ng impormasyon na ito, mangyaring tumawag sa amin sa 1-888-237-1333.

Đây là thông tin rất quan trọng về chất lượng nước của quý vị. Nếu quý vị cần thông dịch thông tin này, xin gọi chúng tôi theo số 1-888-237-1333.

## Appendix D. GeoTracker Report Access Instructions for Quarterly Monitoring Reports

GeoTracker: <https://geotracker.waterboards.ca.gov/>

- Search WDR100039680 and click on 'PURE WATER MONTEREY GROUNDWATER REPLENISHMENT PROJECT (WDR100039680)' when it appears below the search box.
- Reports can be found under the 'Site Maps / Documents' tab.