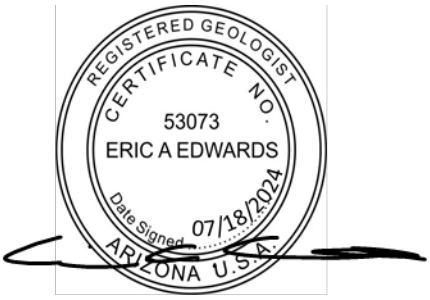
Cholla Power Plant, Joseph City, Arizona, Voluntary Remediation Program #090050-00

Spring 2024 Groundwater Monitoring Report

July 2024

Arizona Public Service



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Acronyms and Abbreviations

µg/L	microgram(s) per liter
ADEQ	Arizona Department of Environmental Quality
APS	Arizona Public Service Company
AWQS	Aquifer Water Quality Standard
DCE	dichloroethylene
EPA	U.S. Environmental Protection Agency
GSI	GSI Environmental, Inc.
Jacobs	Jacobs Engineering Group Inc.
MNA	monitored natural attenuation
PCE	tetrachloroethene
PDB	passive diffusion bag
QAPP	Quality Assurance Project Plan
QA	quality assurance
QC	quality control
Site	Cholla Power Plant
TCE	trichloroethylene
VOC	volatile organic compound
VRP	Voluntary Remediation Program

1. Introduction

This groundwater monitoring report provides the results of the ongoing groundwater monitoring program conducted by Jacobs Engineering Group Inc. (Jacobs) at the Arizona Public Service Company (APS) Cholla Power Plant (Site) in April 2024. Figure 1 shows a Site location map. This report is submitted to the Arizona Department of Environmental Quality (ADEQ) Voluntary Remediation Program (VRP) to meet the monitoring requirements of site code 090050-00. Additional background information, including data from previous investigations and Site-specific hydrogeologic information, is provided in previous annual groundwater monitoring reports and the Monitored Natural Attenuation Work Plan (Work Plan) (Jacobs 2020).

2. Spring 2024 Groundwater Monitoring

2.1 Sample Collection and Water Level Monitoring

2.1.1 Groundwater Sampling

One groundwater monitoring event was conducted during this reporting period. Sampling was conducted in accordance with the procedures described in the Work Plan for collecting samples using passive diffusion bag (PDB) samplers and the low-flow purge method.

For the spring 2024 sampling event, PDBs were deployed on November 16 and 17, 2023 (Jacobs 2024) and retrieved on April 22, 2024. Six wells were sampled using a submersible pump on April 23, 2024, and the samples were analyzed for monitored natural attenuation (MNA) parameters.

Table 1 summarizes well coordinates and construction information. Table 2 provides a summary of sampling depths and methods for the sampling event. Appendix A includes the field sampling forms.

Prior to sampling, water levels were measured to the nearest 0.01 foot using a decontaminated water-level meter. Where applicable, PDB samplers were then retrieved from Site monitoring wells, where deployed. After the PDBs were retrieved, groundwater samples were collected in certified-clean, laboratory-supplied sample vials containing the appropriate preservatives. Vials used to collect PDB samples for volatile organic compounds (VOCs) were filled using disposable straws provided for that purpose to minimize contact with air. Vials used to collect samples for VOCs were filled slowly, to minimize aeration, until there was no headspace.

Where purge and sample methods were used, water quality parameters were monitored during the purge and samples were collected after water quality parameters had stabilized.

Sample bottles were labeled and placed on ice for timely delivery to a fixed laboratory under chain-of-custody procedures.

Samples from the event were analyzed for VOCs in accordance with U.S. Environmental Protection Agency (EPA) Method 8260B and for various MNA parameters using appropriate methods. Table 3 presents a summary of the analytical methods and associated sample handling requirements.

2.1.2 Field Quality Control Sampling

Field quality control (QC) samples were collected in accordance with the *APS Quality Assurance Project Plan* (QAPP) (Jacobs 2019). Two field duplicate samples and one equipment blank sample were collected. Enough sample was collected for the laboratory to analyze one set of site-specific matrix spike/matrix spike duplicate samples. The quality control samples were analyzed for the same analyses as the original samples, which varied depending on the location. A trip blank accompanied the samples to the laboratory and was submitted for the analysis of VOCs in accordance with EPA Method 8260B.

2.1.3 Decontamination

Sampling activities using PDBs, which are disposable, did not require decontamination. The water level meter and submersible pump were decontaminated with Alconox and deionized water and rinsed with deionized water between each well.

2.2 Investigation-derived Waste Summary

All investigation-derived waste was managed as directed by APS, consistent with *Resource Conservation and Recovery Act* waste handling best management practices. Rinse water from decontamination of the water level meter was discharged to the land surface, as was purge water from wells that contained VOCs at concentrations below Aquifer Water Quality Standards (AWQSs) during recent sampling events. Purge water from wells

suspected to contain VOCs at concentrations exceeding AWQSs was contained in a labeled drum, sampled, and held for disposal after analytical results were received. Other materials (such as used PDBs and gloves) were bagged and disposed as solid waste.

3. Investigation Findings

3.1 Groundwater Elevation Summary

Groundwater is present at the Site at a depth of approximately 32 feet below ground surface. Table 4 presents measured groundwater depths and calculated groundwater elevations collected at the Site monitoring wells during the April 2024 sampling event. Figure 2 depicts groundwater elevations measured during the spring sampling event. Groundwater elevation contours are based on elevations measured on April 22 and 23, 2024.

Overall, the groundwater flow direction appears to be westerly, generally parallel to flow in the Little Colorado River, which is located immediately south of the Site. This gradient is consistent with previous measurements. The change in groundwater elevation between well VRP-11 (east of the plant) and well VRP-8 (west of the plant) showed an overall groundwater gradient of 0.001 foot per foot in the direction of flow.

Figure 3 shows the historical groundwater elevations in well DR-2, which are generally representative of groundwater elevation trends at the site. Groundwater elevations generally fell between 2006 and 2013 but have generally been rising since approximately 2015 and rapidly since 2021. Previous measurements indicated that the elevations of Cholla Lake and the Little Colorado River are higher than the groundwater elevation at the Site, indicating that groundwater does not discharge to surface water (Jacobs 2022).

3.2 Volatile Organic Compound Results

Table 5 presents the reported laboratory analytical results for VOCs in groundwater samples collected during the spring 2024 sampling event. Data from previous sampling events, including results for total petroleum hydrocarbons and polyaromatic hydrocarbons, are presented in previous groundwater reports. Table 6 displays the historical laboratory analytical results for PCE, TCE, and daughter products that have been detected at concentrations exceeding the laboratory reporting limits for groundwater samples collected at Site monitoring wells. The analytical laboratory report for the spring 2024 reporting period is included in Appendix B.

Five chlorinated VOCs were identified in groundwater samples collected from Site monitoring wells during this period: trichloroethylene (TCE), cis-1,2-dichloroethylene (DCE), trans-1,2-dichloroethylene (trans-1,2-DCE), tetrachloroethylene (PCE), and chloroform.

The VOCs that were detected included the following:

- TCE was detected in wells CH-MW-2, DR-2, VRP-2, and VRP-3 at concentrations ranging from 3.8 to 32 micrograms per liter (µg/L). The TCE concentration exceeded the AWQS of 5 µg/L in the samples collected from well VRP-3 during the reporting period.
- Cis-1,2- DCE was identified in wells CH-MW-2, DR-2, VRP-2, VRP-3, and VRP-15, at concentrations ranging from 2.7 to 40 µg/L, all of which are less than the AWQS of 70 µg/L.
- Trans-1,2-DCE was detected in well VRP-3 at a concentration of 2.3 µg/L, which is less than the AWQS of 100 µg/L.
- PCE was detected in well VRP-3 at a concentration of 2.1 µg/L. The PCE concentration did not exceed the AWQS of 5 µg/L in the sample collected from well VRP-3 during this reporting period.
- Chloroform was detected in well VRP-3 at a concentration of 2.4 µg/L and 3.8 µg/L in the original sample and field duplicate. The AWQS for total trihalomethanes, which includes chloroform, is 100 µg/L.

TCE is the only compound for which concentrations in groundwater at the Site exceeded the AWQS based on spring 2024 sampling results. Figure 4 illustrates TCE, PCE, and cis-1,2-DCE concentrations across the Site during spring 2024.

Figure 5 shows the historical TCE concentrations for seven key wells located within the TCE plume and downgradient. TCE concentrations have been generally decreasing in wells in which they previously exceeded the AWQS, often to concentrations that no longer exceeded the AWQS. In spring 2024, only one well, VRP-3, exceeded an AWQS (for TCE).

The vertical extent of TCE in groundwater at concentrations exceeding the AWQS has been delineated to a depth of less than 108 feet below ground surface (bgs).

PCE concentrations generally decreased in spring 2024 compared to fall 2023 and did not exceed the AWQS in any well in spring 2024.

Cis-1,2-DCE is a common product of biodegradation of TCE (EPA 1998). Trans-1,2-DCE also may be produced through biodegradation, but is not as common as cis-1,2-DCE (EPA 1998). The presence of cis-1,2-DCE and trans-1,2-DCE in Site wells is therefore an indicator that natural attenuation is occurring in the groundwater (EPA 1998, 2012).

3.2.1 Data Quality Evaluation

A quality assurance (QA)/QC evaluation was conducted using the QAPP (Jacobs 2019) for the groundwater sampling event described in this report. The QA/QC evaluation was based on the QC data and case narratives contained in the April 2024 laboratory analytical reports. The laboratory analytical report and the Data Quality Evaluation Report are presented in Appendix B. The precision and accuracy of the data, as measured by laboratory QC indicators, suggest that the data meet the data quality objectives for the project and is acceptable to use for project decisions.

3.3 Monitored Natural Attenuation Evaluation

In accordance with the Work Plan, this report includes an evaluation of current and historical data related to MNA including an evaluation of recent geochemistry data.

3.3.1 Geochemical Parameters

Samples from six wells were analyzed for the following MNA parameters:

- Alkalinity
- Carbon dioxide
- Chloride
- Total and dissolved organic carbon
- Iron, dissolved
- Manganese, dissolved
- Nitrate
- Sulfate

Table 7 summarizes the MNA parameter results from those wells selected for MNA evaluation in the Work Plan. Per the Work Plan, wells DR-2 and UST-2 represent upgradient wells. Wells VRP-3 and VRP-4 represent mid-site. The duplicate sample result for well VRP-3 was not included in the MNA parameter analysis. Wells VRP-9 and CH-MW-2 represent downgradient wells.

Comparing concentrations of the various parameters in upgradient, mid-site, and downgradient areas can indicate whether certain natural attenuation processes are occurring (USEPA 1998). The following points summarize this comparison:

- The total alkalinity was slightly higher in mid-site well VRP-4, which may be associated with microbial activity.
- Carbon dioxide concentrations were highest in mid-site well VRP-3 and downgradient well CH-MW-2, which may indicate biological degradation of CVOCs.
- Chloride concentrations did not show a consistent trend across the site and did not provide evidence of production of chlorine through the degradation of CVOCs.
- Dissolved organic carbon and total organic carbon concentrations did not show a consistent trend across the site and did not indicate the use of carbon as an electron receptor during reductive dechlorination.
- Dissolved iron concentrations were highest in mid-site well VRP-4 and downgradient well CH-MW-2, which may indicate the use of iron as a terminal electron acceptor during reductive dechlorination.
- Dissolved manganese concentrations did not show a consistent trend across the site and did not indicate the use of manganese as a terminal electron acceptor during reductive dechlorination.
- Nitrate was only detected in mid-site well VRP-3 which does not indicate that denitrification is occurring.
- Sulfate concentrations generally decreased from upgradient to downgradient, which provides evidence of sulfate reduction due to reductive dechlorination.
- The dissolved oxygen concentrations were relatively consistent across the site and indicate relatively aerobic conditions.
- The oxidation-reduction potential measurements in five of the six wells were less than 50 milllivolts, which is an acceptable range for reductive dechlorination.

These comparisons provide evidence of reductive dechlorination occurring in site groundwater.

3.4 Site Metrics and Contingency Actions

The Work Plan proposed the following metrics to demonstrate the performance of the groundwater MNA remedy:

- A decreasing or stable trend in the TCE concentration at well VRP-3.
- No offsite migration predicted, based on the estimated groundwater flow velocity, TCE attenuation rates, and TCE concentrations and trends in downgradient wells, particularly VRP-9 and CH-MW-2.

The following contingency actions were proposed in the Work Plan:

- If the TCE concentration at well VRP-3 shows an increasing trend above historical concentrations, additional source area investigations will be evaluated. Access to potential source areas may be insufficient to conduct a thorough source area investigation.
- If the TCE concentrations in a perimeter well such as VRP-9 or CH-MW-2 show an increasing trend and offsite migration of the TCE was predicted, the sampling frequency in the affected well(s) will be increased to quarterly, and the addition of additional downgradient wells will be considered.

The potential for offsite migration was evaluated using methods described in the Work Plan. The groundwater velocity was calculated from the estimated hydraulic conductivity and porosity of the aquifer and the hydraulic gradient calculated from groundwater elevations measured during spring 2024. Using an approximate distance of 1,800 feet between well VRP-3 and the Site boundary and the estimated groundwater velocity of 170 feet per year yielded a travel time of approximately 11 years for groundwater at well VRP-3 to migrate offsite. However, based on the calculation presented in the fall 2023 report, TCE

observed at well VRP-3 was projected to attenuate to a concentration less than the AWQS in less than 8 years (Jacobs 2024). Therefore, no offsite migration of TCE is predicted. Also, the most recent Mann-Kendall trend analysis for this well, conducted using data through fall 2023, indicated a decreasing concentration trend (Jacobs 2024).

Per the Work Plan, a Mann-Kendall trend analysis is to be performed annually in the second semi-annual (fall) report. As reported in the fall 2023 report, the TCE concentration in VRP-9 did not show an increasing trend. The TCE concentrations in CH-MW-2 showed an increasing trend when evaluating using the historical dataset but indicated no trend when evaluating only the prior 8 sampling events. No offsite migration was predicted and contingency actions were not deemed necessary in the fall 2023 report (Jacobs 2024).

Although concentrations of TCE and its by-product cis-1,2-DCE increased in CH-MW-2 during the spring 2024 event, the TCE concentration remained less than the AWQS in this downgradient well and therefore, offsite migration of TCE at this location is not predicted, the associated metric is met, and no contingency action is recommended. Trend analysis using a Mann-Kendall method will be conducted again following the fall 2024 sampling event. Until such time that TCE is detected greater than the AWQS in the downgradient well, contingency actions are not recommended. However, an additional sample at CH-MW-2 is recommended to be collected in the fall 2024 sampling event to assess seasonality and to increase confidence in the next trend analysis.

Table 8 summarizes an evaluation of the metrics and triggers for contingency actions. Data from the recent groundwater monitoring event indicate that the MNA remedy metrics were met and no contingency actions are necessary at this time.

3.5 Conclusions

Chlorinated VOC impacts to groundwater consist primarily of TCE. The maximum TCE concentration detected in groundwater samples during spring 2024 was 32 µg/L in well VRP-3. This concentration is greater than the AWQS for TCE of 5 µg/L. No other compounds were detected at levels exceeding their associated AWQS in spring 2024.

Based on current results, impacted groundwater has not reached the Site boundary (Figure 3). The lateral and vertical extent of groundwater containing TCE greater than the AWQS have been delineated to an area between wells VRP-11 and VRP-8 (east to west), between wells M-62A and VRP-10 (north to south), and at a depth of less than 108 feet bgs. Well CH-MW-2 is recommended to be sampled a second time in 2024 to assess seasonality and to increase confidence in the fall 2024 trend analysis.

Jacobs recommends continued groundwater sampling and reporting in accordance with the Work Plan (Jacobs 2020) with the following modifications:

- Sample in April and October, rather than February and August, to reduce exposure to freezing weather and lightning.
- Eliminate the analysis of groundwater samples for ethane, ethene, methane, nitrite, and sulfide, which do not provide evidence of specific attenuation processes in site groundwater (approved by ADEQ [2022]). MNA samples will continue to analyze to be analyzed for dissolved iron and manganese; sulfate, nitrate and chloride; total and dissolved organic carbon; alkalinity; and carbon dioxide in accordance with the Work Plan.
- Sample wells VRP-16 and VRP-17 using PDBs.
- Sample well CH-MW-2 for VOCs using a HydraSleeve during the fall semiannual event.

MNA sampling will take place during the spring event each year.

4. References

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Tables

Table 1. Well Construction Summary
APS Cholla Power Plant, Joseph City, Arizona

Well Name	Registration Number	Measuring Point Elevation (feet amsl)	Screened Interval (feet bgs)
CH-MW-1	55-921058	5014.42*	20-60
CH-MW-2	55-921060	5013.84*	20-60
CR-1	55-540672	5007.62	25-45
DR-1	Unknown	Unknown	21-46
DR-2	55-205719	5018.88	21-46
M-62A	55-918658	5018.73*	39-84
UST-1	55-540668	5018.83	15-30
UST-2	55-547034	5018.94	21-46
UST-3[1]	Unknown	5018.86	Unknown
UST-4[1]	Unknown	5018.36	Unknown
UST-5	Unknown	5019.31	Unknown
VRP-1	55-215540	5019.11	20-50
VRP-2	55-215541	5019.69	20-50
VRP-3	55-221780	5019.29	19-59
VRP-4	55-221779	5018.36	19-59
VRP-5	55-221778	5018.54	19-59
VRP-7	55-919791	5015.87	20-60
VRP-8	55-919787	5013.99	20-60
VRP-9	55-919788	5011.78	20-60
VRP-10	55-919789	5015.42	20-60
VRP-11	55-919790	5019.53	20-60
VRP-12	55-919786	5019.62	108-118
VRP-13	55-921016	5013.93*	110-120
VRP-14	55-922955	5014.42*	60-70
VRP-15	55-922954	5018.89*	71-81
VRP-16	55-925226	5013.26	40-70
VRP-17	55-925227	5018.27	40-70

Notes:
[1] abandoned wells

* = elevation was adjusted from the North American Vertical Datum of 1988 to match the power plant's internal coordinate system by subtracting 2.28 feet from the survey measurements

amsl = above mean sea level

bgs = below ground surface

Table 2. Summary of Groundwater Sampling Methods – Spring 2024

APS Cholla Power Plant, Joseph City, Arizona

Well	Sampling Method and Depth April
DR-2	Submersible pump (40 feet)
M-62A	Passive diffusion bag sampler (62 feet)
UST-2	Submersible pump (40 feet)
VRP-1	Passive diffusion bag sampler (47 feet)
VRP-2	Passive diffusion bag sampler (47 feet)
VRP-3	Submersible pump (45 feet)
VRP-4	Submersible pump (45 feet)
VRP-5	Passive diffusion bag sampler (47 feet)
VRP-7	Passive diffusion bag sampler (53 feet)
VRP-8	Passive diffusion bag sampler (53 feet)
VRP-9	Submersible pump (40 feet)
VRP-10	Passive diffusion bag sampler (53 feet)
VRP-11	Passive diffusion bag sampler (53 feet)
VRP-12	Passive diffusion bag sampler (113 feet)
VRP-13	Passive diffusion bag sampler (115 feet)
VRP-14	Passive diffusion bag sampler (65 feet)
VRP-15	Passive diffusion bag sampler (76 feet)
VRP-16	Passive diffusion bag sampler (53 feet)
VRP-17	Passive diffusion bag sampler (53 feet)
CH-MW-2	Submersible pump (50 feet)

Note:

Well CH-MW-1 is not sampled

Table 3. Analytical Methods and Sample Handling – Spring 2024

APS Cholla Power Plant, Joseph City, Arizona

Parameter	EPA Analytical Method	Matrix	Container	Preservative	Hold Time
Chloride, Nitrate, and Sulfate	300.0	Groundwater	500 mL Polyethylene	Cool to 4°C	48 Hours (Nitrate and Nitrite) 28 Days (Chloride and Sulfate)
Dissolved Iron and Manganese	6010C	Groundwater	500 mL Polyethylene	Field Filter, Nitric Acid, Cool to 4°C	180 Days
Carbon Dioxide	RSK-175	Groundwater	2 x 40 ml Glass Vials	Cool to 4°C	7 Days
Alkalinity	SM 2320B	Groundwater	250 ml Polyethylene	Cool to 4°C	14 Days
Total and Dissolved Carbon	SM 5310C	Groundwater	2 x 250 mL Amber Glass	Field Filter (Dissolved Carbon), Sulfuric Acid, Cool to 4°C	28 days
Volatile Organic Compounds (VOCs)	SW846 8260B	Groundwater	3 x 40 mL Glass Vials	HCL, Cool to 4□C	14 Days

Notes:

°C = degrees Celsius

mL = milliliter

Table 4. Groundwater Elevation Measurements - Spring 2024

APS Cholla Power Plant, Joseph City, Arizona

Well	Date	Depth to Water	Ref Pt Elev	GW Elev
CH-MW-1	4/23/2024	29.85	5014.42	4984.57
CH-MW-2	4/23/2024	30.70	5013.84	4983.14
DR-2	4/23/2024	34.04	5018.88	4984.84
M-62A	4/22/2024	34.36	5018.73	4984.37
UST-2	4/23/2024	32.90	5018.94	4986.04
VRP-1	4/22/2024	34.67	5019.11	4984.44
VRP-2	4/22/2024	35.00	5019.69	4984.69
VRP-3	4/23/2024	34.70	5019.29	4984.59
VRP-4	4/23/2024	33.04	5018.36	4985.32
VRP-5	4/22/2024	33.26	5018.54	4985.28
VRP-7	4/22/2024	31.89	5015.87	4983.98
VRP-8	4/22/2024	30.42	5013.99	4983.57
VRP-9	4/23/2024	28.50	5011.78	4983.28
VRP-10	4/22/2024	30.25	5015.42	4985.17
VRP-11	4/22/2024	33.72	5019.53	4985.81
VRP-12	4/22/2024	34.85	5019.62	4984.77
VRP-13	4/22/2024	31.12	5013.93	4982.81
VRP-14	4/22/2024	30.45	5014.42	4983.97
VRP-15	4/22/2024	34.25	5018.89	4984.64
VRP-16	4/22/2024	28.95	5013.26	4984.31
VRP-17	4/22/2024	33.80	5018.27	4984.47

Notes:

All elevations are in feet above mean sea level.

Depth to Water measurements are in feet below reference point elevation.

GW Elev = groundwater elevation

Ref Pt Elev = reference point elevation

Table 5. Groundwater Analytical Data - VOCs - Spring 2024

APS Cholla Power Plant, Joseph City, Arizona

		Field Sample ID	CH-MW02-2024	CH-DR-2-2024	CH-M62-A-0424	CH-UST-2-2024	CH-VRP-1-2024	CH-VRP-2-2024	CH-VRP-3-2024	CH-FD02-VR3-3-2-2024	CH-VRP-4-2024	CH-VRP-5-2024
		Well Number	MW-2	DR-2	M-62A	UST-2	VRP-1	VRP-2	VRP-3	VRP-3	VRP-4	VRP-5
		Sample Depth (feet bmp)	50	40	62	40	47	47	45	45	45	47
		Sample Date	4/23/2024	4/23/2024	4/22/2024	4/23/2024	4/22/2024	4/22/2024	4/23/2024	4/23/2024	4/23/2024	4/22/2024
Parameter Name	**Units**	**AWQS**										
1,1,1,2-Tetrachloroethane	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1,1-Trichloroethane	µg/L	200	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	µg/L	0.2	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2-Trichloroethane	µg/L	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
1,1-Dichloroethane	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
1,1-Dichloroethylene	µg/L	7	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloropropene	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
1,2,3-Trichlorobenzene	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2,3-Trichloropropane	µg/L	Not Established	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,2,4-Trichlorobenzene	µg/L	70	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dibromo-3-chloropropane	µg/L	200	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dibromoethane (EDB)	µg/L	0.05	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
1,2-Dichloroethane	µg/L	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
1,2-Dichloropropane	µg/L	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
1,3-Dichloropropane	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
2,2-Dichloropropane	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
2-Hexanone	µg/L	Not Established	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	µg/L	Not Established	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Benzene	µg/L	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Benzene, 1,2,4-trimethyl	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Benzene, 1,3,5-trimethyl-	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Benzene, 1-methylethyl-	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Bromobenzene	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Bromoform	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Carbon tetrachloride	µg/L	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Carbondisulfide	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chlorobenzene	µg/L	100	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Chlorobromomethane	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroethane	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroform	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	**2.4**	**3.8**	< 2.0	< 2.0
cis-1,2-Dichloroethylene	µg/L	70	**13**	**9.7**	< 2.0	< 2.0	< 2.0	**14**	**26 J**	**40 J**	< 2.0	< 2.0
cis-1,3-Dichloropropene	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Dibromochloromethane	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Dichlorodifluoromethane	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/L	700	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Hexachlorobutadiene	µg/L	0.4	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Iodomethane	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
m-Dichlorobenzene	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Methyl bromide	µg/L	9.8	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Methyl chloride	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Table 5. Groundwater Analytical Data - VOCs - Spring 2024

APS Cholla Power Plant, Joseph City, Arizona

		Field Sample ID	CH-MW02-2024	CH-DR-2-2024	CH-M62-A-0424	CH-UST-2-2024	CH-VRP-1-2024	CH-VRP-2-2024	CH-VRP-3-2024	CH-FD02-VR3-3-2-2024	CH-VRP-4-2024	CH-VRP-5-2024
		Well Number	MW-2	DR-2	M-62A	UST-2	VRP-1	VRP-2	VRP-3	VRP-3	VRP-4	VRP-5
		Sample Depth (feet bmp)	50	40	62	40	47	47	45	45	45	47
		Sample Date	4/23/2024	4/23/2024	4/22/2024	4/23/2024	4/22/2024	4/22/2024	4/23/2024	4/23/2024	4/23/2024	4/22/2024
Parameter Name	**Units**	**AWQS**										
Methyl ethylketone	µg/L	Not Established	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Methyl isobutyl ketone (MIBK)	µg/L	Not Established	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Methylene bromide	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Methylene Chloride	µg/L	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Naphthalene	µg/L	140	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
n-Butylbenzene	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-Chlorotoluene	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-Dichlorobenzene	µg/L	600	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
p-Chlorotoluene	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p-Cymene	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
p-Dichlorobenzene	µg/L	75	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
sec-Butylbenzene	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Styrene	µg/L	100	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
tert-Butylbenzene	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Tetrachloroethylene	µg/L	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	**2.1**	< 2.0	< 2.0
Toluene	µg/L	1000	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
trans-1,2-Dichloroethylene	µg/L	100	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	**2.3**	< 2.0	< 2.0
trans-1,3-Dichloropropene	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichloroethylene	µg/L	5	**4.2**	**3.9**	< 2.0	< 2.0	< 2.0	**3.8**	**21 J**	**32 J**	< 2.0	< 2.0
Trichlorofluoromethane	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl Acetate	µg/L	Not Established	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25
Vinyl chloride	µg/L	2	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Xylene (total)	µg/L	10000	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10

Table 5. Groundwater Analytical Data - VOCs - Spring 2024

APS Cholla Power Plant, Joseph City, Arizona

		Field Sample ID	CH-VRP-7-2024	CH-FD01-VRP-7-2-2024	CH-VRP-8-2024	CH-VRP-9-2024	CH-VRP-10-2024	CH-VRP-11-2024	CH-VRP-12-2024	CH-VRP-13-2024	CH-VRP-14-2024	CH-VRP-15-2024
		Well Number	VRP-7	VRP-7	VRP-8	VRP-9	VRP-10	VRP-11	VRP-12	VRP-13	VRP-14	VRP-15
		Sample Depth (feet bmp)	53	53	53	40	53	53	113	115	65	76
		Sample Date	4/22/2024	4/22/2024	4/22/2024	4/23/2024	4/22/2024	4/22/2024	4/22/2024	4/22/2024	4/22/2024	4/22/2024
Parameter Name	**Units**	**AWQS**										
1,1,1,2-Tetrachloroethane	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1,1-Trichloroethane	µg/L	200	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	µg/L	0.2	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2-Trichloroethane	µg/L	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
1,1-Dichloroethane	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
1,1-Dichloroethylene	µg/L	7	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloropropene	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
1,2,3-Trichlorobenzene	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2,3-Trichloropropane	µg/L	Not Established	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,2,4-Trichlorobenzene	µg/L	70	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dibromo-3-chloropropane	µg/L	200	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dibromoethane (EDB)	µg/L	0.05	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
1,2-Dichloroethane	µg/L	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
1,2-Dichloropropane	µg/L	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
1,3-Dichloropropane	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
2,2-Dichloropropane	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
2-Hexanone	µg/L	Not Established	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	µg/L	Not Established	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Benzene	µg/L	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Benzene, 1,2,4-trimethyl	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Benzene, 1,3,5-trimethyl-	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Benzene, 1-methylethyl-	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Bromobenzene	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Bromoform	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Carbon tetrachloride	µg/L	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Carbondisulfide	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chlorobenzene	µg/L	100	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Chlorobromomethane	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroethane	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroform	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
cis-1,2-Dichloroethylene	µg/L	70	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	**2.7**
cis-1,3-Dichloropropene	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Dibromochloromethane	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Dichlorodifluoromethane	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/L	700	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Hexachlorobutadiene	µg/L	0.4	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Iodomethane	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
m-Dichlorobenzene	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Methyl bromide	µg/L	9.8	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Methyl chloride	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Table 5. Groundwater Analytical Data - VOCs - Spring 2024

APS Cholla Power Plant, Joseph City, Arizona

		Field Sample ID	CH-VRP-7-2024	CH-FD01-VRP-7-2-2024	CH-VRP-8-2024	CH-VRP-9-2024	CH-VRP-10-2024	CH-VRP-11-2024	CH-VRP-12-2024	CH-VRP-13-2024	CH-VRP-14-2024	CH-VRP-15-2024
		Well Number	VRP-7	VRP-7	VRP-8	VRP-9	VRP-10	VRP-11	VRP-12	VRP-13	VRP-14	VRP-15
		Sample Depth (feet bmp)	53	53	53	40	53	53	113	115	65	76
		Sample Date	4/22/2024	4/22/2024	4/22/2024	4/23/2024	4/22/2024	4/22/2024	4/22/2024	4/22/2024	4/22/2024	4/22/2024
Parameter Name	**Units**	**AWQS**										
Methyl ethylketone	µg/L	Not Established	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Methyl isobutyl ketone (MIBK)	µg/L	Not Established	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Methylene bromide	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Methylene Chloride	µg/L	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Naphthalene	µg/L	140	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
n-Butylbenzene	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-Chlorotoluene	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-Dichlorobenzene	µg/L	600	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
p-Chlorotoluene	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p-Cymene	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
p-Dichlorobenzene	µg/L	75	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
sec-Butylbenzene	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Styrene	µg/L	100	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
tert-Butylbenzene	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Tetrachloroethylene	µg/L	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Toluene	µg/L	1000	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
trans-1,2-Dichloroethylene	µg/L	100	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
trans-1,3-Dichloropropene	µg/L	Not Established	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichloroethylene	µg/L	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichlorofluoromethane	µg/L	Not Established	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl Acetate	µg/L	Not Established	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25
Vinyl chloride	µg/L	2	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Xylene (total)	µg/L	10000	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10

Table 5. Groundwater Analytical Data - VOCs - Spring 2024

APS Cholla Power Plant, Joseph City, Arizona

		Field Sample ID	CH-VRP-16-2024	CH-VRP-17-2024
		Well Number	VRP-16	VRP-17
		Sample Depth (feet bmp)	53	53
		Sample Date	4/22/2024	4/22/2024
Parameter Name	**Units**	**AWQS**		
1,1,1,2-Tetrachloroethane	µg/L	Not Established	< 5.0	< 5.0
1,1,1-Trichloroethane	µg/L	200	< 2.0	< 2.0
1,1,2,2-Tetrachloroethane	µg/L	0.2	< 2.0	< 2.0
1,1,2-Trichloroethane	µg/L	5	< 2.0	< 2.0
1,1-Dichloroethane	µg/L	Not Established	< 2.0	< 2.0
1,1-Dichloroethylene	µg/L	7	< 5.0	< 5.0
1,1-Dichloropropene	µg/L	Not Established	< 2.0	< 2.0
1,2,3-Trichlorobenzene	µg/L	Not Established	< 5.0	< 5.0
1,2,3-Trichloropropane	µg/L	Not Established	< 10	< 10
1,2,4-Trichlorobenzene	µg/L	70	< 5.0	< 5.0
1,2-Dibromo-3-chloropropane	µg/L	200	< 5.0	< 5.0
1,2-Dibromoethane (EDB)	µg/L	0.05	< 2.0	< 2.0
1,2-Dichloroethane	µg/L	5	< 2.0	< 2.0
1,2-Dichloropropane	µg/L	5	< 2.0	< 2.0
1,3-Dichloropropane	µg/L	Not Established	< 2.0	< 2.0
2,2-Dichloropropane	µg/L	Not Established	< 2.0	< 2.0
2-Hexanone	µg/L	Not Established	< 10	< 10
Acetone	µg/L	Not Established	< 20	< 20
Benzene	µg/L	5	< 2.0	< 2.0
Benzene, 1,2,4-trimethyl	µg/L	Not Established	< 2.0	< 2.0
Benzene, 1,3,5-trimethyl-	µg/L	Not Established	< 2.0	< 2.0
Benzene, 1-methylethyl-	µg/L	Not Established	< 2.0	< 2.0
Bromobenzene	µg/L	Not Established	< 5.0	< 5.0
Bromoform	µg/L	Not Established	< 5.0	< 5.0
Carbon tetrachloride	µg/L	5	< 5.0	< 5.0
Carbondisulfide	µg/L	Not Established	< 5.0	< 5.0
Chlorobenzene	µg/L	100	< 2.0	< 2.0
Chlorobromomethane	µg/L	Not Established	< 5.0	< 5.0
Chloroethane	µg/L	Not Established	< 5.0	< 5.0
Chloroform	µg/L	Not Established	< 2.0	< 2.0
cis-1,2-Dichloroethylene	µg/L	70	< 2.0	< 2.0
cis-1,3-Dichloropropene	µg/L	Not Established	< 2.0	< 2.0
Dibromochloromethane	µg/L	Not Established	< 2.0	< 2.0
Dichlorodifluoromethane	µg/L	Not Established	< 5.0	< 5.0
Ethylbenzene	µg/L	700	< 2.0	< 2.0
Hexachlorobutadiene	µg/L	0.4	< 5.0	< 5.0
Iodomethane	µg/L	Not Established	< 2.0	< 2.0
m-Dichlorobenzene	µg/L	Not Established	< 2.0	< 2.0
Methyl bromide	µg/L	9.8	< 10	< 10
Methyl chloride	µg/L	Not Established	< 5.0	< 5.0

Table 5. Groundwater Analytical Data - VOCs - Spring 2024

APS Cholla Power Plant, Joseph City, Arizona

		Field Sample ID	CH-VRP-16-2024	CH-VRP-17-2024
		Well Number	VRP-16	VRP-17
		Sample Depth (feet bmp)	53	53
		Sample Date	4/22/2024	4/22/2024
Parameter Name	**Units**	**AWQS**		
Methyl ethylketone	µg/L	Not Established	< 10	< 10
Methyl isobutyl ketone (MIBK)	µg/L	Not Established	< 10	< 10
Methylene bromide	µg/L	Not Established	< 2.0	< 2.0
Methylene Chloride	µg/L	5	< 5.0	< 5.0
Naphthalene	µg/L	140	< 5.0	< 5.0
n-Butylbenzene	µg/L	Not Established	< 5.0	< 5.0
o-Chlorotoluene	µg/L	Not Established	< 5.0	< 5.0
o-Dichlorobenzene	µg/L	600	< 2.0	< 2.0
p-Chlorotoluene	µg/L	Not Established	< 5.0	< 5.0
p-Cymene	µg/L	Not Established	< 2.0	< 2.0
p-Dichlorobenzene	µg/L	75	< 2.0	< 2.0
sec-Butylbenzene	µg/L	Not Established	< 5.0	< 5.0
Styrene	µg/L	100	< 2.0	< 2.0
tert-Butylbenzene	µg/L	Not Established	< 5.0	< 5.0
Tetrachloroethylene	µg/L	5	< 2.0	< 2.0
Toluene	µg/L	1000	< 5.0	< 5.0
trans-1,2-Dichloroethylene	µg/L	100	< 2.0	< 2.0
trans-1,3-Dichloropropene	µg/L	Not Established	< 2.0	< 2.0
Trichloroethylene	µg/L	5	< 2.0	< 2.0
Trichlorofluoromethane	µg/L	Not Established	< 5.0	< 5.0
Vinyl Acetate	µg/L	Not Established	< 25	< 25
Vinyl chloride	µg/L	2	< 5.0	< 5.0
Xylene (total)	µg/L	10000	< 10	< 10

Notes:

Bold text indicates compound was detected above the Reporting Limit (RL)

Bold underline text indicates the concentration exceeds the AWQS

"<" denotes that the compound was not detected; the value given is the reporting limit

µg/L = microgram(s) per liter

AWQS = Aquifer Water Quality Standard

bmp = below measuring point

DUP = duplicate sample

Table 6. Summary of Chlorinated Volatile Organic Compounds in Groundwater 2005 to 2024

APS Cholla Power Plant, Joseph City, Arizona

Well Number[1]	Sample Collection Method	Sample Depth (feet below top of casing)	Sample Type	Date Sampled	Units	Volatile Organic Compounds--Method 8260B			
						cis-1,2-Dichloroethene (cis-1,2-DCE)	Tetrachloroethene (PCE)	trans-1,2-Dichloroethene (trans-1,2-DCE)	Trichloroethene (TCE)
					AWQS:	70	5	100	5
CH-MW-2	PDB	45	Regular	8/30/2018	µg/L	<0.5	<0.5	<0.5	<0.5
CH-MW-2	PDB	45	Regular	8/5/2019	µg/L	<1	<1	<1	<5
CH-MW-2	PDB	45	Regular	2/25/2020	µg/L	**0.80**	<0.5	<0.5	**0.51**
CH-MW-2	PDB	45	Regular	09/09/2020	µg/L	<0.50	<0.50	<0.50	<0.50
CH-MW-2	Low-Flow	45	Regular	10/13/2021	µg/L	**3.0**	<0.50	<0.50	**1.2**
CH-MW-2	Submersible Pump	47	Regular	9/8/2022	µg/L	**3.8**	<2.0	<2.0	**1.5 J**
CH-MW-2	Low-Flow	47	Regular	4/23/2024	µg/L	**13**	< 2.0	< 2.0	**4.2**
CR-1	Purge and Sample	Not Applicable	Regular	3/12/2012	µg/L	<2.0	<2.0	<2.0	<2.0
CR-1	Purge and Sample	Not Applicable	Regular	11/14/2012	µg/L	<2.0	<2.0	<2.0	<2.0
CR-1	Purge and Sample	Not Applicable	Regular	3/11/2013	µg/L	<2.0	<2.0	<2.0	<2.0
CR-1	Purge and Sample	Not Applicable	Regular	9/16/2013	µg/L	<1.0	<1.0	<1.0	<1.0
CR-1	Low-Flow	Unknown	Regular	3/18/2014	µg/L	<0.5	<0.5	<0.5	<0.5
CR-1	Low-Flow	Unknown	Regular	10/30/2014	µg/L	<1.0	<1.0	<1.0	<1.0
CR-1	PDB	36	Regular	6/25/2015	µg/L	<2.0	<2.0	<2.0	<2.0
CR-1	Submersible Pump	Not Applicable	Regular	11/30/2015	µg/L	<2.0	<2.0	<2.0	<2.0
CR-1	PDB	36	Regular	8/2/2016	µg/L	<0.5	<0.5	<0.5	<0.5
CR-1	PDB	36	Regular	10/24/2016	µg/L	<2.0	<2.0	<2.0	<2.0
CR-1	PDB	36	Regular	5/3/2017	µg/L	<2.0	<2.0	<2.0	<2.0
CR-1	PDB	36	Regular	10/31/2017	µg/L	<0.5	<0.5	<0.5	<0.5
CR-1	PDB	36	Regular	8/30/2018	µg/L	<0.5	<0.5	<0.5	<0.5
CR-1	PDB	36	Regular	8/5/2019	µg/L	<1	<1	<1	<5
CR-1	PDB	36	Regular	2/26/2020	µg/L	<0.5	<0.5	<0.5	<0.5
CR-1	PDB	36	Regular	09/08/2020	µg/L	<0.50	<0.50	<0.50	<0.50
DR-1	Unknown	Unknown	Regular	4/4/2005	µg/L	<2.0	<2.0	<2.0	<2.0
DR-1	Unknown	Unknown	Regular	4/4/2005	µg/L	<2.0	<2.0	<2.0	<2.0
DR-1	Unknown	Unknown	Field Duplicate	4/4/2005	µg/L	<2.0	<2.0	<2.0	<2.0
DR-1	Unknown	Unknown	Regular	6/2/2005	µg/L	<2.0	<2.0	<2.0	<2.0
DR-1	Unknown	Unknown	Field Duplicate	6/2/2005	µg/L	**9.9**	<2.0	<2.0	**12**
DR-1	Unknown	Unknown	Regular	11/17/2005	µg/L	<1.0	<1.0	<1.0	**1.3**
DR-1	Unknown	Unknown	Field Duplicate	11/17/2005	µg/L	<1.0	<1.0	<1.0	<1.0
DR-1	Unknown	Unknown	Regular	3/7/2006	µg/L	<1.0	<1.0	<1.0	<1.0
DR-1	Unknown	Unknown	Field Duplicate	3/7/2006	µg/L	<1.0	<1.0	<1.0	<1.0
DR-1	Unknown	Unknown	Regular	10/18/2006	µg/L	<1.0	<1.0	<1.0	**1.2**
DR-1	Unknown	Unknown	Field Duplicate	10/18/2006	µg/L	<1.0	<1.0	<1.0	**1.4**
DR-1	Unknown	Unknown	Regular	3/28/2007	µg/L	<1.0	<1.0	<1.0	<1.0
DR-1	Unknown	Unknown	Field Duplicate	3/28/2007	µg/L	**11**	<1.0	<1.0	**8.6**
DR-1	Unknown	Unknown	Regular	9/26/2007	µg/L	<2.0	<2.0	<2.0	<2.0
DR-1	Unknown	Unknown	Field Duplicate	9/26/2007	µg/L	**10**	<2.0	<2.0	**7.2**
DR-1	Unknown	Unknown	Regular	3/3/2008	µg/L	<1.0	<1.0	<1.0	**2.0**
DR-1	Unknown	Unknown	Regular	11/18/2008	µg/L	**14**	<2.0	<2.0	**8.8**
DR-1	Unknown	Unknown	Regular	3/18/2009	µg/L	**12**	**4.2**	<2.0	**13**
DR-1	Unknown	Unknown	Regular	10/20/2009	µg/L	**19**	**2.0**	<1.0	**13**
DR-2	Unknown	Unknown	Regular	4/4/2005	µg/L	**9.2**	**3.9**	<2.0	**12**
DR-2	Unknown	Unknown	Regular	6/2/2005	µg/L	**9.8**	<2.0	<2.0	**12**
DR-2	Unknown	Unknown	Regular	11/17/2005	µg/L	**9.4**	**3.1**	<1.0	**11.0**
DR-2	Unknown	Unknown	Regular	3/7/2006	µg/L	**11**	**2.4**	<1.0	**8.5**
DR-2	Unknown	Unknown	Regular	10/18/2006	µg/L	**10**	<1.0	<1.0	**7.1**
DR-2	Unknown	Unknown	Regular	3/28/2007	µg/L	**11**	<1.0	<1.0	**8.1**
DR-2	Unknown	Unknown	Regular	7/3/2007	µg/L	**12**	<2.0	<2.0	**8.6**
DR-2	Unknown	Unknown	Regular	9/26/2007	µg/L	**10**	<2.0	<2.0	**7.8**
DR-2	Unknown	Unknown	Regular	3/3/2008	µg/L	**14**	<1.0	<1.0	**9.8**
DR-2	Unknown	Unknown	Regular	11/18/2008	µg/L	**12**	<2.0	<2.0	**7.9**
DR-2	Unknown	Unknown	Regular	3/18/2009	µg/L	**12**	**3.8**	<2.0	**12**
DR-2	Unknown	Unknown	Regular	10/20/2009	µg/L	**19**	**2.0**	<1.0	**13**

Table 6. Summary of Chlorinated Volatile Organic Compounds in Groundwater 2005 to 2024

APS Cholla Power Plant, Joseph City, Arizona

Well Number[1]	Sample Collection Method	Sample Depth (feet below top of casing)	Sample Type	Date Sampled	Units	Volatile Organic Compounds--Method 8260B			
						cis-1,2-Dichloroethene (cis-1,2-DCE)	Tetrachloroethene (PCE)	trans-1,2-Dichloroethene (trans-1,2-DCE)	Trichloroethene (TCE)
					AWQS:	70	5	100	5
DR-2	Unknown	Unknown	Regular	3/23/2010	µg/L	**12**	**2.2**	<2.0	**21**
DR-2	Unknown	Unknown	Regular	10/5/2010	µg/L	**4.2**	<2.0	<2.0	**27**
DR-2	Unknown	Unknown	Regular	3/2/2011	µg/L	**15**	<2.0	<2.0	**10**
DR-2	Unknown	Unknown	Regular	10/19/2011	µg/L	**21**	<2.0	<2.0	**9.2**
DR-2	Purge and Sample	Not Applicable	Regular	3/12/2012	µg/L	**16**	<2.0	<2.0	**5.9**
DR-2	Purge and Sample	Not Applicable	Regular	11/15/2012	µg/L	**14**	<2.0	<2.0	**7.0**
DR-2	Purge and Sample	Not Applicable	Regular	3/11/2013	µg/L	**15**	<2.0	<2.0	**5.1**
DR-2	Purge and Sample	Not Applicable	Regular	9/16/2013	µg/L	**11.6**	<1.0	<1.0	**6.7**
DR-2	Low-Flow	Unknown	Regular	3/19/2014	µg/L	**13**	<0.5	**0.56**	**6.2**
DR-2	PDB	44	Regular	6/25/2015	µg/L	**4.4**	<2.0	<2.0	**12**
DR-2	PDB	44	Regular	11/17/2015	µg/L	**7.7**	<2.0	<2.0	**14**
DR-2	PDB	44	Regular	8/2/2016	µg/L	**7.6**	<2.0	<2.0	**8.3**
DR-2	PDB	44	Regular	10/24/2016	µg/L	**9.8**	<2.0	<2.0	**9.3**
DR-2	PDB	44	Regular	5/3/2017	µg/L	**11**	<2.0	**0.39 J**	**6.0**
DR-2	PDB	44	Regular	10/31/2017	µg/L	**11.1**	<0.5	**0.69**	**7.12**
DR-2	PDB	44	Regular	8/30/2018	µg/L	**10.2**	<0.5	<0.5	**3.24**
DR-2	PDB	44	Regular	8/5/2019	µg/L	**7.56**	<1	**0.29 J**	**3.92 J**
DR-2	PDB	44	Regular	2/25/2020	µg/L	**7.0**	<0.5	<0.5	**2.7**
DR-2	PDB	44	Regular	09/08/2020	µg/L	**2.2**	<0.50	<0.50	**2.9**
DR-2	PDB	44	Regular	3/3/2021	µg/L	<2.0	<2.0	<2.0	**2.0**
DR-2	Low-Flow	44	Regular	10/13/2021	µg/L	**1.9**	**0.68**	<0.50	**2.7**
DR-2	PDB	44	Regular	2/22/2022	µg/L	**2.7**	**0.42 J**	<0.50	**3.2**
DR-2	Submersible Pump	42	Regular	9/8/2022	µg/L	**5.1**	<2.0	<2.0	**1.2 J**
DR-2	PDB	44	Regular	4/19/2023	µg/L	**7.4**	< 0.50	< 0.50	**1.4**
DR-2	HydraSleeve	42	Regular	11/16/2023	µg/L	**0.76**	**1.9**	< 0.50	**4.4**
DR-2	Low-Flow	40	Regular	4/23/2024	µg/L	**9.7**	< 2.0	< 2.0	**3.9**
M-62A	PDB	62	Regular	09/08/2020	µg/L	<0.50	<0.50	<0.50	<0.50
M-62A	PDB	62	Regular	3/2/2021	µg/L	<2.0	<2.0	<2.0	<2.0
M-62A	PDB	62	Regular	8/30/2021	µg/L	<0.50	<0.50	<0.50	<0.50
M-62A	PDB	62	Regular	2/22/2022	µg/L	<0.50	<0.50	<0.50	<0.50
M-62A	PDB	62	Regular	9/8/2022	µg/L	<2.0	<2.0	<2.0	<2.0
M-62A	PDB	62	Regular	4/18/2023	µg/L	< 0.50	< 0.50	< 0.50	< 0.50
M-62A	PDB	62	Regular	11/15/2023	µg/L	< 0.50	< 0.50	< 0.50	< 0.50
M-62A	PDB	62	Field Duplicate	11/15/2023	µg/L	< 0.50	< 0.50	< 0.50	< 0.50
M-62A	PDB	62	Regular	4/22/2024	µg/L	< 2.0	< 2.0	< 2.0	< 2.0
UST-1	Unknown	Unknown	Regular	10/18/2006	µg/L	**1.6**	<1.0	<1.0	**4.1**
UST-1	Unknown	Unknown	Regular	3/28/2007	µg/L	**1.5**	<1.0	<1.0	**3.7**
UST-1	Unknown	Unknown	Regular	9/25/2007	µg/L	<2.0	<2.0	<2.0	<2.0
UST-1	Unknown	Unknown	Regular	3/3/2008	µg/L	<1.0	<1.0	<1.0	**2.0**
UST-2	Unknown	Unknown	Regular	11/17/2005	µg/L	<1.0	<1.0	<1.0	<1.0
UST-2	Unknown	Unknown	Regular	3/7/2006	µg/L	<1.0	<1.0	<1.0	<1.0
UST-2	Unknown	Unknown	Regular	10/18/2006	µg/L	<1.0	<1.0	<1.0	<1.0
UST-2	Unknown	Unknown	Regular	11/18/2008	µg/L	<2.0	<2.0	<2.0	<2.0
UST-2	Unknown	Unknown	Regular	3/18/2009	µg/L	<2.0	<2.0	<2.0	<2.0
UST-2	Unknown	Unknown	Regular	10/20/2009	µg/L	<1.0	<1.0	<1.0	<1.0
UST-2	Unknown	Unknown	Regular	3/23/2010	µg/L	<2.0	<2.0	<2.0	<2.0
UST-2	Unknown	Unknown	Regular	10/4/2010	µg/L	<2.0	<2.0	<2.0	<2.0
UST-2	Unknown	Unknown	Regular	3/2/2011	µg/L	<2.0	<2.0	<2.0	<2.0
UST-2	Unknown	Unknown	Regular	10/18/2011	µg/L	<2.0	<2.0	<2.0	<2.0
UST-2	Purge and Sample	Not Applicable	Regular	3/12/2012	µg/L	<2.0	<2.0	<2.0	<2.0
UST-2	Purge and Sample	Not Applicable	Regular	11/14/2012	µg/L	<2.0	<2.0	<2.0	<2.0
UST-2	Purge and Sample	Not Applicable	Regular	3/11/2013	µg/L	<2.0	<2.0	<2.0	<2.0
UST-2	Purge and Sample	Not Applicable	Regular	9/16/2013	µg/L	<1.0	<1.0	<1.0	<1.0

Table 6. Summary of Chlorinated Volatile Organic Compounds in Groundwater 2005 to 2024

APS Cholla Power Plant, Joseph City, Arizona

Well Number[1]	Sample Collection Method	Sample Depth (feet below top of casing)	Sample Type	Date Sampled	Units	Volatile Organic Compounds--Method 8260B			
						cis-1,2-Dichloroethene (cis-1,2-DCE)	Tetrachloroethene (PCE)	trans-1,2-Dichloroethene (trans-1,2-DCE)	Trichloroethene (TCE)
					AWQS:	70	5	100	5
UST-2	Low Flow	Unknown	Regular	3/18/2014	µg/L	<0.5	<0.5	<0.5	<0.5
UST-2	Low Flow	Unknown	Regular	10/30/2014	µg/L	<1.0	<1.0	<1.0	<1.0
UST-2	PDB	44	Regular	6/25/2015	µg/L	<2.0	<2.0	<2.0	<2.0
UST-2	PDB	44	Regular	11/17/2015	µg/L	<2.0	<2.0	<2.0	<2.0
UST-2	PDB	44	Regular	8/2/2016	µg/L	<2.0	<2.0	<2.0	<2.0
UST-2	PDB	44	Regular	10/24/2016	µg/L	<2.0	<2.0	<2.0	<2.0
UST-2	PDB	44	Regular	5/3/2017	µg/L	<2.0	<2.0	<2.0	<2.0
UST-2	PDB	44	Regular	10/31/2017	µg/L	<0.5	<0.5	<0.5	<0.5
UST-2	PDB	44	Regular	8/30/2018	µg/L	<0.5	<0.5	<0.5	<0.5
UST-2	PDB	44	Regular	8/5/2019	µg/L	<1.0	<1.0	<1.0	<5.0
UST-2	PDB	44	Regular	2/25/2020	µg/L	<0.5	<0.5	<0.5	<0.5
UST-2	PDB	44	Regular	09/09/2020	µg/L	<0.50	<0.50	<0.50	<0.50
UST-2	PDB	44	Regular	3/2/2021	µg/L	<2.0	<2.0	<2.0	<2.0
UST-2	Low Flow	44	Regular	10/13/2021	µg/L	<0.50	<0.50	<0.50	<0.50
UST-2	PDB	44	Regular	2/22/2022	µg/L	<0.50	<0.50	<0.50	<0.50
UST-2	Submersible Pump	43	Regular	9/8/2022	µg/L	<2.0	<2.0	<2.0	<2.0
UST-2	PDB	44	Regular	4/19/2023	µg/L	< 0.50	< 0.50	< 0.50	< 0.50
UST-2	HydraSleeve	43	Regular	11/16/2023	µg/L	< 0.50	< 0.50	< 0.50	< 0.50
UST-2	Low-Flow	40	Regular	4/23/2024	µg/L	< 2.0	< 2.0	< 2.0	< 2.0
UST-4	Unknown	Unknown	Regular	11/17/2005	µg/L	<1.0	<1.0	<1.0	<1.0
UST-4	Unknown	Unknown	Regular	3/8/2006	µg/L	<1.0	<1.0	<1.0	**1.2**
UST-4	Unknown	Unknown	Regular	10/18/2006	µg/L	<1.0	<1.0	<1.0	<1.0
UST-4	Unknown	Unknown	Regular	3/28/2007	µg/L	<1.0	<1.0	<1.0	<1.0
UST-4	Unknown	Unknown	Regular	9/25/2007	µg/L	<2.0	<2.0	<2.0	<2.0
UST-4	Unknown	Unknown	Regular	3/3/2008	µg/L	<1.0	<1.0	<1.0	<1.0
UST-5	Unknown	Unknown	Regular	11/17/2005	µg/L	<1.0	<1.0	<1.0	**1.0**
UST-5	Unknown	Unknown	Regular	3/7/2006	µg/L	<1.0	<1.0	<1.0	<1.0
UST-5	Unknown	Unknown	Regular	10/18/2006	µg/L	<1.0	<1.0	<1.0	<1.0
VRP-1	Unknown	Unknown	Regular	7/3/2007	µg/L	<2.0	**2.6**	<2.0	**7.8**
VRP-1	Unknown	Unknown	Regular	8/16/2007	µg/L	<2.0	<2.0	<2.0	**8.1**
VRP-1	Unknown	Unknown	Field Duplicate	8/16/2007	µg/L	<2.0	<2.0	<2.0	**8.0**
VRP-1	Unknown	Unknown	Regular	3/4/2008	µg/L	<1.0	<1.0	<1.0	**9.0**
VRP-1	Unknown	Unknown	Regular	11/18/2008	µg/L	<2.0	<2.0	<2.0	**9.3**
VRP-1	Unknown	Unknown	Regular	3/18/2009	µg/L	<2.0	<2.0	<2.0	**8.3**
VRP-1	Unknown	Unknown	Regular	10/20/2009	µg/L	<1.0	<1.0	<1.0	**8.2**
VRP-1	Unknown	Unknown	Regular	3/23/2010	µg/L	<2.0	<2.0	<2.0	**8.4**
VRP-1	Unknown	Unknown	Field Duplicate	3/23/2010	µg/L	<2.0	<2.0	<2.0	**7.9**
VRP-1	Unknown	Unknown	Regular	10/5/2010	µg/L	<2.0	<2.0	<2.0	**6.9**
VRP-1	Unknown	Unknown	Field Duplicate	10/5/2010	µg/L	<2.0	<2.0	<2.0	**6.8**
VRP-1	Unknown	Unknown	Regular	3/2/2011	µg/L	<2.0	<2.0	<2.0	**7.7**
VRP-1	Unknown	Unknown	Field Duplicate	3/2/2011	µg/L	<2.0	<2.0	<2.0	**7.5**
VRP-1	Unknown	Unknown	Regular	10/19/2011	µg/L	<2.0	<2.0	<2.0	**8.2**
VRP-1	Unknown	Unknown	Field Duplicate	10/19/2011	µg/L	<2.0	<2.0	<2.0	**6.9**
VRP-1	Purge and Sample	Not Applicable	Regular	3/12/2012	µg/L	<2.0	<2.0	<2.0	**7.1**
VRP-1	Purge and Sample	Not Applicable	Field Duplicate	3/12/2012	µg/L	<2.0	<2.0	<2.0	**7.9**
VRP-1	Purge and Sample	Not Applicable	Regular	11/14/2012	µg/L	<2.0	<2.0	<2.0	**7.5**
VRP-1	Purge and Sample	Not Applicable	Regular	3/11/2013	µg/L	<2.0	<2.0	<2.0	**7.5**
VRP-1	Purge and Sample	Not Applicable	Regular	9/16/2013	µg/L	<1.0	<1.0	<1.0	**6.9**
VRP-1	Low-Flow	Unknown	Regular	3/19/2014	µg/L	**1.4**	<0.5	<0.5	**7.2**
VRP-1	Low-Flow	Unknown	Regular	10/30/2014	µg/L	**1.8**	<1.0	<1.0	**8.3**
VRP-1	Submersible Pump	Not Applicable	Regular	6/25/2015	µg/L	<2.0	<2.0	<2.0	**7.5**
VRP-1	PDB	47	Regular	6/25/2015	µg/L	**2.5**	<2.0	<2.0	**12 J**
VRP-1	PDB	47	Field Duplicate	6/25/2015	µg/L	<2.0	<2.0	<2.0	**7.7 J**

Table 6. Summary of Chlorinated Volatile Organic Compounds in Groundwater 2005 to 2024

APS Cholla Power Plant, Joseph City, Arizona

Well Number[1]	Sample Collection Method	Sample Depth (feet below top of casing)	Sample Type	Date Sampled	Units	Volatile Organic Compounds--Method 8260B			
						cis-1,2-Dichloroethene (cis-1,2-DCE)	Tetrachloroethene (PCE)	trans-1,2-Dichloroethene (trans-1,2-DCE)	Trichloroethene (TCE)
					AWQS:	70	5	100	5
VRP-1	PDB	47	Regular	11/17/2015	µg/L	<2.0	<2.0	<2.0	**8.6**
VRP-1	PDB	47	Regular	8/2/2016	µg/L	**1.2**	<2.0	<2.0	**6.4**
VRP-1	PDB	47	Regular	10/24/2016	µg/L	<2.0	<2.0	<2.0	**8.3**
VRP-1	PDB	47	Regular	5/3/2017	µg/L	**1.6 J**	<2.0	<2.0	**8.0**
VRP-1	PDB	47	Regular	10/31/2017	µg/L	**1.18**	<0.5	<0.5	**8.37**
VRP-1	PDB	47	Regular	8/30/2018	µg/L	<0.5	<0.5	<0.5	**3.77**
VRP-1	PDB	47	Regular	8/5/2019	µg/L	**0.62 J**	<1	<1	**3.62 J**
VRP-1	PDB	47	Regular	2/25/2020	µg/L	<0.5	<0.5	<0.5	**3.2**
VRP-1	PDB	47	Regular	09/08/2020	µg/L	<0.50	<0.50	<0.50	**2.4**
VRP-1	PDB	47	Regular	3/2/2021	µg/L	<2.0	<2.0	<2.0	**2.2**
VRP-1	PDB	47	Regular	8/30/2021	µg/L	**0.46 J**	<0.50	<0.50	**2.0**
VRP-1	PDB	47	Regular	2/22/2022	µg/L	**0.47 J**	<0.50	<0.50	**2.9**
VRP-1	PDB	47	Regular	9/8/2022	µg/L	**0.95 J**	<2.0	<2.0	**2.0**
VRP-1	PDB	47	Regular	4/19/2023	µg/L	**2.9**	< 0.50	< 0.50	**3.3**
VRP-1	PDB	47	Regular	11/15/2023	µg/L	< 0.50	**1.9**	< 0.50	**1.8**
VRP-1	PDB	47	Regular	4/22/2024	µg/L	< 2.0	< 2.0	< 2.0	< 2.0
VRP-2	Unknown	Unknown	Regular	7/3/2007	µg/L	**13**	<2.0	<2.0	**18**
VRP-2	Unknown	Unknown	Field Duplicate	7/3/2007	µg/L	**13**	<2.0	<2.0	**19**
VRP-2	Unknown	Unknown	Regular	8/16/2007	µg/L	**12**	<2.0	<2.0	**19**
VRP-2	Unknown	Unknown	Regular	3/4/2008	µg/L	**8.2**	<1.0	<1.0	**22**
VRP-2	Unknown	Unknown	Regular	11/18/2008	µg/L	**5.6**	<2.0	<2.0	**23**
VRP-2	Unknown	Unknown	Regular	3/18/2009	µg/L	**4.6**	**3.2**	<2.0	**21**
VRP-2	Unknown	Unknown	Regular	10/20/2009	µg/L	**4.3**	<1.0	<1.0	**23**
VRP-2	Unknown	Unknown	Regular	3/23/2010	µg/L	**4.4**	<2.0	<2.0	**26**
VRP-2	Unknown	Unknown	Regular	10/5/2010	µg/L	**3.8**	<2.0	<2.0	**27**
VRP-2	Unknown	Unknown	Regular	3/2/2011	µg/L	**4.8**	<2.0	<2.0	**27**
VRP-2	Unknown	Unknown	Regular	10/19/2011	µg/L	**5.2**	<2.0	<2.0	**26**
VRP-2	Purge and Sample	Not Applicable	Regular	3/12/2012	µg/L	**4.8**	<2.0	<2.0	**22**
VRP-2	Purge and Sample	Not Applicable	Regular	11/14/2012	µg/L	**5.0**	<2.0	<2.0	**25**
VRP-2	Purge and Sample	Not Applicable	Regular	3/11/2013	µg/L	**4.0**	<2.0	<2.0	**26**
VRP-2	Purge and Sample	Not Applicable	Regular	9/16/2013	µg/L	**3.8**	<1.0	<1.0	**25.7**
VRP-2	Low-Flow	Unknown	Regular	3/19/2014	µg/L	**5.3**	<0.5	**0.43**	**24**
VRP-2	Low-Flow	Unknown	Regular	10/30/2014	µg/L	**7.7**	**0.49**	**0.70 J**	**29.8**
VRP-2	Submersible Pump	Not Applicable	Regular	6/25/2015	µg/L	**5.9**	<2.0	<2.0	**27**
VRP-2	PDB	47	Regular	6/25/2015	µg/L	**5.3**	<2.0	<2.0	**23**
VRP-2	PDB	47	Regular	11/17/2015	µg/L	**5.3**	<2.0	<2.0	**22**
VRP-2	PDB	47	Regular	8/2/2016	µg/L	**6.3**	<2.0	<2.0	**17**
VRP-2	PDB	47	Regular	10/24/2016	µg/L	**8.6**	<2.0	<2.0	**18**
VRP-2	PDB	47	Regular	5/3/2017	µg/L	**17**	<2.0	**0.60 J**	**7.5**
VRP-2	PDB	47	Regular	10/31/2017	µg/L	**12.6**	<0.5	<0.5	**12.6**
VRP-2	PDB	47	Regular	8/30/2018	µg/L	**6.77**	<0.5	<0.5	**13.3**
VRP-2	PDB	47	Field Duplicate	8/30/2018	µg/L	**6.35**	<0.5	<0.5	**14.3**
VRP-2	PDB	47	Regular	8/5/2019	µg/L	**4.62**	<1	**0.32 J**	**11.2**
VRP-2	PDB	47	Field Duplicate	8/5/2019	µg/L	**4.38 J**	<1	**0.28 J**	**11.2 J**
VRP-2	PDB	47	Regular	2/25/2020	µg/L	**4.2**	<0.5	<0.5	**12**
VRP-2	PDB	47	Field Duplicate	2/25/2020	µg/L	**4.6**	<0.5	<0.5	**11**
VRP-2	PDB	47	Regular	09/08/2020	µg/L	**3.2**	<0.50	<0.50	**8.3 J**
VRP-2	PDB	47	Field Duplicate	09/08/2020	µg/L	**4.1**	<0.50	<0.50	**11 J**
VRP-2	PDB	47	Regular	3/3/2021	µg/L	**2.6**	<2.0	<2.0	**8.5**
VRP-2	PDB	47	Field Duplicate	3/3/2021	µg/L	**2.7**	<2.0	<2.0	**7.9**
VRP-2	PDB	47	Regular	8/30/2021	µg/L	**4.9**	**0.38 J**	<0.50	**5.9**
VRP-2	PDB	47	Field Duplicate	8/30/2021	µg/L	**5.0**	**0.46 J**	<0.50	**6.1**
VRP-2	PDB	47	Regular	2/22/2022	µg/L	**9.9**	<0.50	**0.32 J**	**4.7**

Table 6. Summary of Chlorinated Volatile Organic Compounds in Groundwater 2005 to 2024

APS Cholla Power Plant, Joseph City, Arizona

Well Number[1]	Sample Collection Method	Sample Depth (feet below top of casing)	Sample Type	Date Sampled	Units	Volatile Organic Compounds--Method 8260B			
						cis-1,2-Dichloroethene (cis-1,2-DCE)	Tetrachloroethene (PCE)	trans-1,2-Dichloroethene (trans-1,2-DCE)	Trichloroethene (TCE)
					AWQS:	70	5	100	5
VRP-2	PDB	47	Field Duplicate	2/22/2022	µg/L	**9.5**	<0.50	**0.33 J**	**4.8**
VRP-2	PDB	47	Regular	9/8/2022	µg/L	**12 J**	<2.0	<2.0	**2.4**
VRP-2	PDB	47	Field Duplicate	9/8/2022	µg/L	**17 J**	<2.0	**0.56 J**	**2.8**
VRP-2	PDB	47	Regular	4/18/2023	µg/L	**13**	< 0.50	**0.59**	**5.5**
VRP-2	PDB	47	Field Duplicate	4/18/2023	µg/L	**14**	< 0.50	**0.56**	**6.0**
VRP-2	PDB	47	Regular	11/15/2023	µg/L	**0.83**	**3.1**	**< 0.50**	**4.4**
VRP-2	PDB	47	Regular	4/22/2024	µg/L	**14**	< 2.0	< 2.0	**3.8**
VRP-3	Purge and Sample	Not Applicable	Regular	11/15/2012	µg/L	**10**	**2.2**	<2.0	**51**
VRP-3	Purge and Sample	Not Applicable	Regular	3/11/2013	µg/L	**13**	**3.1**	<2.0	**120**
VRP-3	Purge and Sample	Not Applicable	Field Duplicate	3/11/2013	µg/L	**14**	**3.0**	<2.0	**120**
VRP-3	Purge and Sample	Not Applicable	Regular	6/6/2013	µg/L	**12.6**	**2.0**	<2.0	**140**
VRP-3	Purge and Sample	Not Applicable	Field Duplicate	6/6/2013	µg/L	**12.2**	<2.0	<2.0	**129**
VRP-3	Purge and Sample	Not Applicable	Regular	9/16/2013	µg/L	**12.7**	<1.0	<1.0	**90**
VRP-3	Purge and Sample	Not Applicable	Field Duplicate	9/16/2013	µg/L	**13**	<1.0	<1.0	**112**
VRP-3	Low-Flow	Unknown	Regular	3/19/2014	µg/L	**17**	**0.55**	**0.91**	**79**
VRP-3	Low-Flow	Unknown	Field Duplicate	3/19/2014	µg/L	**15**	**0.59**	**0.96**	**78**
VRP-3	Low-Flow	Unknown	Regular	10/30/2014	µg/L	**26.2**	**0.93 J**	**2.2**	**106**
VRP-3	Low-Flow	Unknown	Field Duplicate	10/30/2014	µg/L	**21.9**	**0.66 J**	**2.0**	**110**
VRP-3	Submersible Pump	Not Applicable	Regular	6/25/2015	µg/L	**31**	**<2.0**	<2.0	**93**
VRP-3	PDB	47	Regular	6/25/2015	µg/L	**28**	**2.1**	<2.0	**130**
VRP-3	PDB	47	Field Duplicate	6/25/2015	µg/L	**28**	**2**	<2.0	**130**
VRP-3	PDB	47	Regular	11/17/2015	µg/L	**29**	<2.0	<2.0	**110**
VRP-3	PDB	47	Field Duplicate	11/17/2015	µg/L	**28**	<2.0	<2.0	**110**
VRP-3	PDB	47	Regular	6/25/2015	µg/L	**33**	<2.0	<2.0	**120**
VRP-3	PDB	47	Field Duplicate	11/17/2015	µg/L	**28**	<2.0	<2.0	**110**
VRP-3	PDB	47	Regular	6/25/2015	µg/L	**33**	<2.0	<2.0	**120**
VRP-3	PDB	47	Regular	11/17/2015	µg/L	**29**	<2.0	<2.0	**110**
VRP-3	PDB	47	Regular	8/2/2016	µg/L	**30**	**0.69**	**1.5**	**87**
VRP-3	PDB	47	Field Duplicate	8/2/2016	µg/L	**30**	**0.66**	**1.7**	**92**
VRP-3	PDB	47	Regular	10/24/2016	µg/L	**33**	<2.0	**2.4**	**120**
VRP-3	PDB	47	Field Duplicate	10/24/2016	µg/L	**41**	<2.0	**2.4**	**120**
VRP-3	PDB	47	Regular	5/3/2017	µg/L	**25**	<2.0	**0.97 J**	**31**
VRP-3	PDB	47	Field Duplicate	5/3/2017	µg/L	**26**	<2.0	**0.98 J**	**29**
VRP-3	PDB	47	Regular	10/31/2017	µg/L	**45.8**	**1.45**	**2.48**	**124**
VRP-3	PDB	47	Field Duplicate	10/31/2017	µg/L	**44.7**	**1.68**	**2.76**	**134**
VRP-3	PDB	47	Regular	8/30/2018	µg/L	**41.3**	**1.74**	**2.42**	**110**
VRP-3	PDB	47	Field Duplicate	8/30/2018	µg/L	**40.1**	**1.65**	**2.74**	**115**
VRP-3	PDB	47	Regular	8/5/2019	µg/L	**37.7**	**2.07**	**2.27**	**107**
VRP-3	PDB	47	Field Duplicate	8/5/2019	µg/L	**39.7**	**2**	**2.41**	**111**
VRP-3	PDB	47	Regular	2/25/2020	µg/L	**30**	**2.0**	**1.6**	**76**
VRP-3	PDB	47	Field Duplicate	2/25/2020	µg/L	**32**	**2.1**	**1.9**	**74**
VRP-3	PDB	47	Regular	09/08/2020	µg/L	**33**	**1.5 J**	**1.9 J**	**71 J**
VRP-3	PDB	47	Field Duplicate	09/08/2020	µg/L	**42**	**2.1 J**	**2.6 J**	**100 J**
VRP-3	PDB	47	Regular	3/2/2021	µg/L	**23**	<2.0	<2.0	**53**
VRP-3	PDB	47	Field Duplicate	3/2/2021	µg/L	**27**	<2.0	<2.0	**59**
VRP-3	Low-Flow	47	Regular	8/30/2021	µg/L	**7.9 J**	<0.50	<0.50	**3.8 J**
VRP-3	Low-Flow	47	Field Duplicate	8/30/2021	µg/L	**11 J**	<0.50	**0.57**	**7.7 J**
VRP-3	PDB	47	Regular	2/22/2022	µg/L	**12**	<0.50	**0.47 J**	**7.1**
VRP-3	PDB	47	Field Duplicate	2/22/2022	µg/L	**12**	<0.50	**0.41 J**	**7.1**
VRP-3	Submersible Pump	50	Regular	9/8/2022	µg/L	**5.9**	<2.0	<2.0	**3.4**
VRP-3	Submersible Pump	50	Field Duplicate	9/8/2022	µg/L	**5.9**	<2.0	<2.0	**3.3**
VRP-3	PDB	53	Regular	4/18/2023	µg/L	**11 J**	< 0.50	< 0.50	**4.8 J**
VRP-3	PDB	53	Field Duplicate	4/18/2023	µg/L	**5.5 J**	< 0.50	< 0.50	**2.3 J**
VRP-3	PDB	50	Regular	11/15/2023	µg/L	**26**	**2.0**	**1.4**	**28**
VRP-3	Low-Flow	45	Regular	4/23/2024	µg/L	**26 J**	< 2.0	< 2.0	**21 J**

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APS Cholla Power Plant, Joseph City, Arizona

Well Number[1]	Sample Collection Method	Sample Depth (feet below top of casing)	Sample Type	Date Sampled	Units	Volatile Organic Compounds--Method 8260B			
						cis-1,2-Dichloroethene (cis-1,2-DCE)	Tetrachloroethene (PCE)	trans-1,2-Dichloroethene (trans-1,2-DCE)	Trichloroethene (TCE)
					AWQS:	70	5	100	5
VRP-3	Low-Flow	45	Field Duplicate	4/23/2024	µg/L	**40 J**	**2.1**	**2.3**	**32 J**
VRP-4	Purge and Sample	Not Applicable	Regular	11/15/2012	µg/L	**2.1**	**19**	<2.0	**18**
VRP-4	Purge and Sample	Not Applicable	Field Duplicate	11/15/2012	µg/L	<2.0	**17**	<2.0	**18**
VRP-4	Purge and Sample	Not Applicable	Regular	3/11/2013	µg/L	<2.0	**11**	<2.0	**19**
VRP-4	Purge and Sample	Not Applicable	Regular	6/6/2013	µg/L	**1.5**	**14.4**	<1.0	**18.5**
VRP-4	Purge and Sample	Not Applicable	Regular	9/16/2013	µg/L	<1.0	<1.0	<1.0	**10.3**
VRP-4	Low-Flow	Unknown	Regular	3/19/2014	µg/L	**0.68**	**0.58**	<0.5	**7.8**
VRP-4	PDB	47	Regular	6/25/2015	µg/L	<2.0	**6.6**	<2.0	**11**
VRP-4	PDB	47	Regular	11/17/2015	µg/L	<2.0	**3.5**	<2.0	**9.7**
VRP-4	PDB	47	Regular	8/2/2016	µg/L	**0.91**	**0.49 J**	<2.0	**6.6**
VRP-4	PDB	47	Regular	10/24/2016	µg/L	<2.0	<2.0	<2.0	**4.2**
VRP-4	PDB	47	Regular	5/3/2017	µg/L	**0.76 J**	<2.0	<2.0	**4.0**
VRP-4	PDB	47	Regular	10/31/2017	µg/L	**1.14**	**4.12**	<0.5	**14.3**
VRP-4	PDB	47	Regular	8/30/2018	µg/L	**1.55**	**4.51**	<0.5	**24.6**
VRP-4	PDB	47	Regular	8/5/2019	µg/L	**1.68**	**6.12**	<1	**21.3**
VRP-4	PDB	47	Regular	2/25/2020	µg/L	**2.2**	**6.6**	<0.5	**24**
VRP-4	PDB	47	Regular	09/08/2020	µg/L	**1.4**	**2.6**	<0.50	**14**
VRP-4	PDB	47	Regular	3/2/2021	µg/L	<2.0	<2.0	<2.0	**11**
VRP-4	Low-Flow	47	Regular	10/13/2021	µg/L	<0.50	<0.50	<0.50	**1.8**
VRP-4	PDB	47	Regular	2/22/2022	µg/L	<0.50	<0.50	<0.50	**1.4**
VRP-4	Submersible Pump	50	Regular	9/8/2022	µg/L	<2.0	<2.0	<2.0	**1.5 J**
VRP-4	PDB	47	Regular	4/18/2023	µg/L	< 0.50	< 0.50	< 0.50	**1.8**
VRP-4	HydraSleeve	50	Regular	11/16/2023	µg/L	**0.88**	**5.8**	< 0.50	**5.3**
VRP-4	Low-Flow	50	Regular	4/23/2024	µg/L	< 2.0	< 2.0	< 2.0	< 2.0
VRP-5	Purge and Sample	Not Applicable	Regular	11/15/2012	µg/L	<2.0	**3.5**	<2.0	**7.7**
VRP-5	Purge and Sample	Not Applicable	Regular	3/11/2013	µg/L	<2.0	<2.0	<2.0	**4.4**
VRP-5	Purge and Sample	Not Applicable	Regular	6/6/2013	µg/L	<1.0	**3.9**	<1.0	**5.8**
VRP-5	Purge and Sample	Not Applicable	Regular	9/16/2013	µg/L	<1.0	<1.0	<1.0	**3.4**
VRP-5	Low-Flow	Unknown	Regular	3/19/2014	µg/L	**0.71**	**0.35**	<0.5	**4.1**
VRP-5	Low-Flow	Unknown	Regular	10/31/2014	µg/L	**0.84 J**	**1.4**	<1.0	**5.2**
VRP-5	Submersible Pump	Not Applicable	Regular	6/25/2015	µg/L	<2.0	**2.5**	<2.0	**4.6**
VRP-5	PDB	47	Regular	6/25/2015	µg/L	<2.0	**2.7**	<2.0	**6.2**
VRP-5	PDB	47	Regular	11/17/2015	µg/L	<2.0	**2.0**	<2.0	**3.9**
VRP-5	PDB	47	Regular	8/2/2016	µg/L	<2.0	**0.6**	<2.0	**1.7**
VRP-5	PDB	47	Regular	10/24/2016	µg/L	<2.0	<2.0	<2.0	**3.0**
VRP-5	PDB	47	Regular	5/3/2017	µg/L	**0.26 J**	<2.0	<2.0	**1.7 J**
VRP-5	PDB	47	Regular	10/31/2017	µg/L	<0.5	**1.54**	<0.5	**6.74**
VRP-5	PDB	47	Regular	8/30/2018	µg/L	**1.09**	**1.79**	<0.5	**11.5**
VRP-5	PDB	47	Regular	8/5/2019	µg/L	**1.58**	**1.33**	<1	**14.5**
VRP-5	PDB	47	Regular	2/25/2020	µg/L	**1.5**	**0.51**	<0.5	**13**
VRP-5	PDB	47	Regular	09/08/2020	µg/L	<0.50	<0.50	<0.50	**2.9**
VRP-5	PDB	47	Regular	3/2/2021	µg/L	<2.0	<2.0	<2.0	**2.4**
VRP-5	PDB	47	Regular	8/30/2021	µg/L	**0.38 J**	<0.50	<0.50	**2.5**
VRP-5	PDB	47	Regular	2/22/2022	µg/L	**0.42 J**	<0.50	<0.50	**3.2**
VRP-5	PDB	47	Regular	9/8/2022	µg/L	<2.0	<2.0	<2.0	**2.1**
VRP-5	PDB	47	Regular	4/18/2023	µg/L	< 0.50	< 0.50	< 0.50	**1.4**
VRP-5	PDB	47	Regular	11/15/2023	µg/L	**0.99**	**5.4**	< 0.50	**5.6**
VRP-5	PDB	47	Regular	4/22/2024	µg/L	< 2.0	< 2.0	< 2.0	< 2.0
VRP-7	PDB	53	Regular	8/30/2018	µg/L	<0.5	<0.5	<0.5	<0.5
VRP-7	PDB	53	Regular	8/5/2019	µg/L	<1	<1	<1	<5
VRP-7	PDB	53	Regular	2/25/2020	µg/L	<0.5	<0.5	<0.5	<0.5
VRP-7	PDB	53	Regular	9/8/2020	µg/L	<0.5	<0.5	<0.5	<0.5
VRP-7	PDB	53	Regular	3/2/2021	µg/L	<2.0	<2.0	<2.0	<2.0

Table 6. Summary of Chlorinated Volatile Organic Compounds in Groundwater 2005 to 2024

APS Cholla Power Plant, Joseph City, Arizona

Well Number[1]	Sample Collection Method	Sample Depth (feet below top of casing)	Sample Type	Date Sampled	Units	Volatile Organic Compounds--Method 8260B			
						cis-1,2-Dichloroethene (cis-1,2-DCE)	Tetrachloroethene (PCE)	trans-1,2-Dichloroethene (trans-1,2-DCE)	Trichloroethene (TCE)
					AWQS:	70	5	100	5
VRP-7	PDB	53	Regular	8/30/2021	µg/L	<0.50	<0.50	<0.50	<0.50
VRP-7	PDB	53	Regular	2/22/2022	µg/L	<0.50	<0.50	<0.50	<0.50
VRP-7	PDB	53	Regular	9/7/2022	µg/L	<2.0	<2.0	<2.0	<2.0
VRP-7	PDB	53	Regular	4/18/2023	µg/L	< 0.50	< 0.50	< 0.50	< 0.50
VRP-7	PDB	53	Regular	11/15/2023	µg/L	< 0.50	< 0.50	< 0.50	< 0.50
VRP-7	PDB	53	Regular	4/22/2024	µg/L	< 2.0	< 2.0	< 2.0	< 2.0
VRP-8	PDB	53	Regular	10/24/2016	µg/L	<2.0	<2.0	<2.0	<2.0
VRP-8	PDB	53	Regular	5/3/2017	µg/L	<2.0	<2.0	<2.0	**0.60 J**
VRP-8	PDB	53	Regular	10/31/2017	µg/L	<0.5	<0.5	<0.5	<0.5
VRP-8	PDB	53	Regular	8/30/2018	µg/L	<0.5	<0.5	<0.5	**0.97**
VRP-8	Low-Flow	53	Regular	8/30/2018	µg/L	<0.5	<0.5	<0.5	**0.63**
VRP-8	PDB	53	Regular	8/5/2019	µg/L	**0.37J**	<1	<1	**1.29 J**
VRP-8	PDB	53	Regular	2/25/2020	µg/L	<0.5	<0.5	<0.5	**1.9**
VRP-8	PDB	53	Regular	09/08/2020	µg/L	<0.50	<0.50	<0.50	**1.6**
VRP-8	PDB	53	Regular	3/2/2021	µg/L	<2.0	<2.0	<2.0	<2.0
VRP-8	PDB	53	Regular	8/30/2021	µg/L	<0.50	<0.50	<0.50	**1.3**
VRP-8	PDB	53	Regular	2/22/2022	µg/L	**0.62**	<0.50	<0.50	**2.2**
VRP-8	PDB	53	Regular	9/7/2022	µg/L	**0.69 J**	<2.0	<2.0	**2.0**
VRP-8	PDB	53	Regular	4/18/2023	µg/L	**0.73**	< 0.50	< 0.50	**2.0**
VRP-8	PDB	53	Regular	11/15/2023	µg/L	< 0.50	< 0.50	< 0.50	**0.89**
VRP-8	PDB	53	Regular	4/22/2024	µg/L	< 2.0	< 2.0	< 2.0	< 2.0
VRP-9	PDB	53	Regular	8/30/2018	µg/L	<0.5	<0.5	<0.5	<0.5
VRP-9	Low-Flow	53	Regular	8/30/2018	µg/L	<0.5	<0.5	<0.5	<0.5
VRP-9	PDB	53	Regular	8/5/2019	µg/L	<1	<1	<1	<5
VRP-9	PDB	53	Regular	2/26/2020	µg/L	<0.5	<0.5	<0.5	<0.5
VRP-9	PDB	53	Regular	09/08/2020	µg/L	<0.50	<0.50	<0.50	<0.50
VRP-9	PDB	53	Regular	3/2/2021	µg/L	<2.0	<2.0	<2.0	<2.0
VRP-9	Low Flow	53	Regular	8/30/2021	µg/L	<0.50	<0.50	<0.50	<0.50
VRP-9	PDB	53	Regular	2/22/2022	µg/L	<0.50	<0.50	<0.50	<0.50
VRP-9	Submersible Pump	50	Regular	9/8/2022	µg/L	<2.0	<2.0	<2.0	<2.0
VRP-9	PDB	53	Regular	4/18/2023	µg/L	< 0.50	< 0.50	< 0.50	< 0.50
VRP-9	HydraSleeve	50	Regular	11/16/2023	µg/L	< 0.50	< 0.50	< 0.50	< 0.50
VRP-9	Low-Flow	40	Regular	4/23/2024	µg/L	< 2.0	< 2.0	< 2.0	< 2.0
VRP-10	PDB	53	Regular	8/30/2018	µg/L	<0.5	<0.5	<0.5	<0.5
VRP-10	PDB	53	Regular	8/5/2019	µg/L	<1	<1	<1	<5
VRP-10	PDB	53	Regular	2/25/2020	µg/L	<0.5	<0.5	<0.5	<0.5
VRP-10	PDB	53	Regular	09/08/2020	µg/L	<0.50	<0.50	<0.50	<0.50
VRP-10	PDB	53	Regular	3/2/2021	µg/L	<2.0	<2.0	<2.0	<2.0
VRP-10	PDB	53	Regular	8/30/2021	µg/L	<0.50	<0.50	<0.50	<0.50
VRP-10	PDB	53	Regular	2/22/2022	µg/L	<0.50	<0.50	<0.50	<0.50
VRP-10	PDB	53	Regular	9/7/2022	µg/L	<2.0	<2.0	<2.0	<2.0
VRP-10	PDB	53	Regular	4/18/2023	µg/L	< 0.50	< 0.50	< 0.50	< 0.50
VRP-10	PDB	53	Regular	11/15/2023	µg/L	< 0.50	< 0.50	< 0.50	< 0.50
VRP-10	PDB	53	Regular	4/22/2024	µg/L	< 2.0	< 2.0	< 2.0	< 2.0
VRP-11	PDB	53	Regular	8/30/2018	µg/L	<0.5	<0.5	<0.5	<0.5
VRP-11	PDB	53	Regular	8/5/2019	µg/L	<1	<1	<1	<5
VRP-11	PDB	53	Regular	2/25/2020	µg/L	<0.5	<0.5	<0.5	<0.5
VRP-11	PDB	53	Regular	09/08/2020	µg/L	<0.50	<0.50	<0.50	<0.50
VRP-11	PDB	53	Regular	3/2/2021	µg/L	<2.0	<2.0	<2.0	<2.0
VRP-11	PDB	53	Regular	8/30/2021	µg/L	<0.50	<0.50	<0.50	<0.50
VRP-11	PDB	53	Regular	2/22/2022	µg/L	<0.50	<0.50	<0.50	<0.50
VRP-11	PDB	53	Regular	9/7/2022	µg/L	<2.0	<2.0	<2.0	<2.0
VRP-11	PDB	53	Regular	4/19/2023	µg/L	< 0.50	< 0.50	< 0.50	< 0.50

Table 6. Summary of Chlorinated Volatile Organic Compounds in Groundwater 2005 to 2024

APS Cholla Power Plant, Joseph City, Arizona

Well Number[1]	Sample Collection Method	Sample Depth (feet below top of casing)	Sample Type	Date Sampled	Units	Volatile Organic Compounds--Method 8260B			
						cis-1,2-Dichloroethene (cis-1,2-DCE)	Tetrachloroethene (PCE)	trans-1,2-Dichloroethene (trans-1,2-DCE)	Trichloroethene (TCE)
					AWQS:	70	5	100	5
VRP-11	PDB	53	Regular	11/15/2023	µg/L	< 0.50	< 0.50	< 0.50	< 0.50
VRP-11	PDB	53	Regular	4/22/2024	µg/L	< 2.0	< 2.0	< 2.0	< 2.0
VRP-12	PDB	113	Regular	10/24/2016	µg/L	<2.0	<2.0	<2.0	<2.0
VRP-12	PDB	113	Field Duplicate	10/24/2016	µg/L	<2.0	<2.0	<2.0	<2.0
VRP-12	PDB	113	Regular	5/3/2017	µg/L	<2.0	**0.18 J**	<2.0	**0.35 J**
VRP-12	PDB	113	Field Duplicate	5/3/2017	µg/L	<2.0	<2.0	<2.0	**0.31 J**
VRP-12	PDB	113	Regular	10/31/2017	µg/L	<0.5	<0.5	<0.5	<0.5
VRP-12	PDB	113	Field Duplicate	10/31/2017	µg/L	<0.5	<0.5	<0.5	<0.5
VRP-12	PDB	113	Regular	8/30/2018	µg/L	<0.5	<0.5	<0.5	**1.08**
VRP-12	PDB	113	Regular	8/5/2019	µg/L	**0.31 J**	<1	<1	**0.88 J**
VRP-12	PDB	113	Regular	2/25/2020	µg/L	<0.5	<0.5	<0.5	**1.3**
VRP-12	PDB	113	Regular	09/08/2020	µg/L	<0.50	<0.50	<0.50	**1.2**
VRP-12	PDB	113	Regular	3/2/2021	µg/L	<2.0	<2.0	<2.0	<2.0
VRP-12	PDB	113	Regular	8/30/2021	µg/L	<0.50	**0.31 J**	<0.50	**0.90**
VRP-12	PDB	113	Regular	2/22/2022	µg/L	**0.73**	<0.50	<0.50	**1.9**
VRP-12	PDB	113	Regular	9/8/2022	µg/L	**0.63 J**	<2.0	<2.0	**2.1**
VRP-12	PDB	113	Regular	4/18/2023	µg/L	< 0.50	< 0.50	< 0.50	**1.5**
VRP-12	PDB	113	Regular	11/15/2023	µg/L	< 0.50	< 0.50	< 0.50	**1.1**
VRP-12	PDB	113	Regular	4/22/2024	µg/L	< 2.0	< 2.0	< 2.0	< 2.0
VRP-13	SimulProbe®	66	Regular	11/1/2017	µg/L	<0.5	<0.5	<0.5	**2.12**
VRP-13	SimulProbe®	76	Regular	11/2/2017	µg/L	<0.5	<0.5	<0.5	<0.5
VRP-13	SimulProbe®	86	Regular	11/2/2017	µg/L	<0.5	<0.5	<0.5	<0.5
VRP-13	Low-Flow	Unknown	Regular	11/14/2017	µg/L	<0.5	<0.5	<0.5	<0.5
VRP-13	PDB	115	Regular	8/30/2018	µg/L	<0.5	<0.5	<0.5	<0.5
VRP-13	PDB	115	Regular	8/5/2019	µg/L	<1	<1	<1	<5
VRP-13	PDB	115	Regular	2/26/2020	µg/L	<0.5	<0.5	<0.5	<0.5
VRP-13	PDB	115	Regular	09/08/2020	µg/L	<0.50	<0.50	<0.50	<0.50
VRP-13	PDB	115	Regular	3/2/2021	µg/L	<2.0	<2.0	<2.0	<2.0
VRP-13	PDB	115	Regular	8/30/2021	µg/L	<0.50	<0.50	<0.50	<0.50
VRP-13	PDB	115	Regular	2/22/2022	µg/L	<0.50	<0.50	<0.50	<0.50
VRP-13	PDB	115	Regular	9/7/2022	µg/L	<2.0	<2.0	<2.0	<2.0
VRP-13	PDB	115	Regular	4/18/2023	µg/L	< 0.50	< 0.50	< 0.50	< 0.50
VRP-13	PDB	115	Regular	11/15/2023	µg/L	< 0.50	< 0.50	< 0.50	< 0.50
VRP-13	PDB	115	Regular	4/22/2024	µg/L	< 2.0	< 2.0	< 2.0	< 2.0
VRP-14	SimulProbe®	48	Regular	5/21/2019	µg/L	<0.25	<0.25	NA	0.74
VRP-14	SimulProbe®	58	Regular	5/21/2019	µg/L	<0.25	<0.25	NA	1.6
VRP-14	SimulProbe®	68	Regular	5/21/2019	µg/L	<0.25	<0.25	NA	0.74
VRP-14	SimulProbe®	78	Regular	5/21/2019	µg/L	<0.25	<0.25	NA	0.72
VRP-14	SimulProbe®	88	Regular	5/21/2019	µg/L	<0.25	<0.25	NA	<0.25
VRP-14	PDB	65	Regular	05/30/2019	µg/L	**1.82**	<1	<1	**1.41 J**
VRP-14	PDB	65	Field Duplicate	05/30/2019	µg/L	**1.84**	<1	<1	**1.45 J**
VRP-14	PDB	65	Regular	8/5/2019	µg/L	**1.87**	<1	<1	**1.63 J**
VRP-14	PDB	65	Regular	2/25/2020	µg/L	**2.3**	<0.5	<0.5	**1.8**
VRP-14	PDB	65	Regular	09/08/2020	µg/L	**4.0**	<0.50	<0.50	**2.1**
VRP-14	PDB	65	Regular	3/2/2021	µg/L	**2.0**	<2.0	<2.0	<2.0
VRP-14	PDB	65	Regular	8/30/2021	µg/L	**1.1**	<0.50	<0.50	**0.91**
VRP-14	PDB	65	Regular	2/22/2022	µg/L	**0.79**	<0.50	<0.50	**0.94**
VRP-14	PDB	65	Regular	9/7/2022	µg/L	**<2.0**	<2.0	<2.0	**0.54 J**
VRP-14	PDB	65	Regular	4/18/2023	µg/L	**0.64**	< 0.50	< 0.50	**0.51**
VRP-14	PDB	65	Regular	11/15/2023	µg/L	< 0.50	< 0.50	< 0.50	< 0.50
VRP-14	PDB	65	Regular	4/22/2024	µg/L	< 2.0	< 2.0	< 2.0	< 2.0
VRP-15	SimulProbe®	52	Regular	5/15/2019	µg/L	5.6	<0.25	NA	1.6
VRP-15	SimulProbe®	58	Regular	5/15/2019	µg/L	2.6	<0.25	NA	1.1

Table 6. Summary of Chlorinated Volatile Organic Compounds in Groundwater 2005 to 2024

APS Cholla Power Plant, Joseph City, Arizona

Well Number[1]	Sample Collection Method	Sample Depth (feet below top of casing)	Sample Type	Date Sampled	Units	Volatile Organic Compounds--Method 8260B			
						cis-1,2-Dichloroethene (cis-1,2-DCE)	Tetrachloroethene (PCE)	trans-1,2-Dichloroethene (trans-1,2-DCE)	Trichloroethene (TCE)
					AWQS:	70	5	100	5
VRP-15	SimulProbe®	68	Regular	5/16/2019	µg/L	8.6	<0.25	NA	3.2
VRP-15	SimulProbe®	78	Regular	5/16/2019	µg/L	6	<0.25	NA	4.7
VRP-15	SimulProbe®	77	Regular	5/16/2019	µg/L	<0.25	<0.25	NA	<0.25
VRP-15	PDB	76	Regular	05/30/2019	µg/L	**5.36**	<1	<1	**3.67 J**
VRP-15	PDB	76	Regular	8/5/2019	µg/L	**5.06**	<1	**0.35 J**	**4.67 J**
VRP-15	PDB	76	Regular	2/25/2020	µg/L	**5.6**	<0.5	<0.5	**4.7**
VRP-15	PDB	76	Regular	09/08/2020	µg/L	**5.4**	<0.50	<0.50	**5.0**
VRP-15	PDB	76	Regular	3/2/2021	µg/L	**3.3**	<2.0	<2.0	**3.6**
VRP-15	PDB	76	Regular	8/30/2021	µg/L	**2.8**	<0.50	<0.50	**3.1**
VRP-15	PDB	76	Regular	2/22/2022	µg/L	**4.1**	<0.50	<0.50	**3.7**
VRP-15	PDB	76	Regular	9/8/2022	µg/L	**2.8**	<2.0	<2.0	**2.2**
VRP-15	PDB	76	Regular	4/18/2023	µg/L	< 0.50	**1.2**	< 0.50	< 0.50
VRP-15	PDB	76	Regular	11/15/2023	µg/L	**2.7**	< 0.50	< 0.50	**1.6**
VRP-15	PDB	76	Regular	4/22/2024	µg/L	**2.7**	< 2.0	< 2.0	< 2.0
VRP-16	PDB	53	Regular	3/2/2021	µg/L	**10**	<2.0	<2.0	**14**
VRP-16	PDB	53	Regular	8/30/2021	µg/L	**16**	<0.50	**0.56**	**18**
VRP-16	PDB	53	Regular	2/21/2022	µg/L	**13**	<0.50	**0.60**	**13**
VRP-16	PDB	53	Regular	9/8/2022	µg/L	**11**	<2.0	<2.0	**11**
VRP-16	PDB	53	Regular	4/18/2023	µg/L	**8.7**	< 0.50	< 0.50	**5.3**
VRP-16	PDB	53	Regular	11/16/2023	µg/L	**3.0**	< 0.50	< 0.50	**2.0**
VRP-16	PDB	53	Field Duplicate	11/16/2023	µg/L	**3.0**	< 0.50	< 0.50	**1.7**
VRP-16	PDB	53	Regular	4/22/2024	µg/L	< 2.0	< 2.0	< 2.0	< 2.0
VRP-17	PDB	53	Regular	3/2/2021	µg/L	**48**	**2.6**	<2.0	**40**
VRP-17	PDB	53	Regular	8/30/2021	µg/L	**3.8**	**1.1**	<0.50	**4.8**
VRP-17	PDB	53	Regular	2/22/2022	µg/L	<0.50	<0.50	<0.50	**0.86**
VRP-17	PDB	53	Regular	9/8/2022	µg/L	<2.0	<2.0	<2.0	**0.56 J**
VRP-17	PDB	53	Regular	4/19/2023	µg/L	< 0.50	< 0.50	< 0.50	**0.58**
VRP-17	PDB	53	Regular	11/15/2023	µg/L	**13**	**9.7**	< 0.50	**19**
VRP-17	PDB	53	Regular	4/22/2024	µg/L	< 2.0	< 2.0	< 2.0	< 2.0

Notes:

[1] All sampling events are included for any wells that have exhibited detectable concentrations of listed compounds.

SimulProbe® samples collected during drilling

Bold text indicates compound was detected above the Reporting Limit (RL)

< = analyte was not detected; the value provided is the RL

µg/L = microgram(s) per liter

AWQS = Aquifer Water Quality Standard

J = estimated value

NA = not available

Table 7. Groundwater Analytical Data - Non-VOCs - Spring 2024

APS Cholla Power Plant, Joseph City, Arizona

		Field Sample ID	CH-DR-2-2024	CH-UST-2-2024	CH-VRP-3-2024	CH-FD02-VR3-3-2-2024	CH-VRP-4-2024	CH-VRP-9-2024	CH-MW02-2024			
		Well Number	DR-2	UST-2	VRP-3	VRP-3	VRP-4	VRP-9	MW-2			
		Sample Depth (feet bmp)	40	40	45	45	45	40	50			
		Sample Date	4/23/2024	4/23/2024	4/23/2024	4/23/2024	4/23/2024	4/23/2024	4/23/2024	Average	Average	Average
Parameter Name	Units	AWQS	Upgadient	Upgadient	Mid-site	Mid-site	Mid-site	Downgradient	Downgradient	Upgradient	Mid-site	Downgradient
Alkalinity Total	mg/L	Not Established	**280**	**370**	**320**	**320**	**440**	**330**	**220**	**325**	**380**	**275**
Carbon Dioxide	mg/L	Not Established	**8100**	**11000**	**17000**	**19000**	**7300**	**25000**	**5300**	**9550**	**12150**	**15150**
Chloride	mg/L	Not Established	**1500**	**3100**	**3000**	**3100**	**1100**	**2100**	**2400**	**2300**	**2050**	**2250**
Dissolved Organic Carbon	mg/L	Not Established	**1.45**	**1.21**	<1.00	<1.00	**1.21**	**1.19**	<1.00	**1.33**	**1.21**	**1.19**
Iron	mg/L	Not Established	< 0.10	**0.86**	**0.10**	**0.10**	**1.5**	**0.19**	**1.5**	**0.86**	**0.80**	**0.85**
Manganese	mg/L	Not Established	**0.16**	**2.0**	**1.6**	**1.5**	**0.46**	**1.1**	**1.9**	**1.08**	**1.03**	**1.5**
Nitrate as N	mg/L	10	<0.050	<0.050	**0.12**	**0.11**	<0.050	<0.050	<0.050	**NC**	**0.12**	**NC**
Sulfate	mg/L	Not Established	**1100**	**1700**	**1300**	**1300**	**720**	**860**	**590**	**1400**	**1010**	**725**
Total Organic Carbon	mg/L	Not Established	**1.76**	**1.08**	<1.00	<1.00	**1.03**	**1.30**	<1.00	**1.42**	**1.03**	**1.3**
Dissolved Oxygen (field)	Percent	Not Established	**38.0**	**36.4**	**41.0**	**41.0**	**38.0**	**37.1**	**42.3**	**37.2**	**39.5**	**39.7**
Oxidation-Reduction Potential (field)	mV	Not Established	**25**	**-73**	**59**	**59**	**-147**	**21**	**-106**	**-24**	**-44**	**-42.5**

Notes:

Bold text indicates compound was detected above the Reporting Limit (RL)

Bold underline text indicates the concentration exceeds the AWQS

"<" denotes that the compound was not detected; the value given is the reporting limit

AWQS = Aquifer Water Quality Standard

bmp = below measuring point

DUP = duplicate sample

mg/L = milligram(s) per liter

mV = millivolts

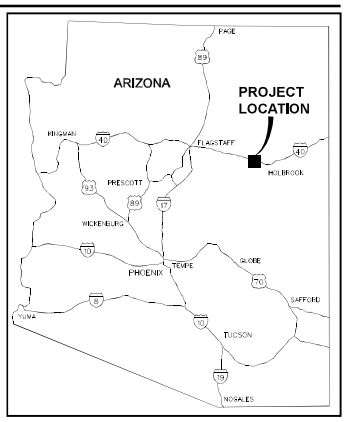
NC = not calculated

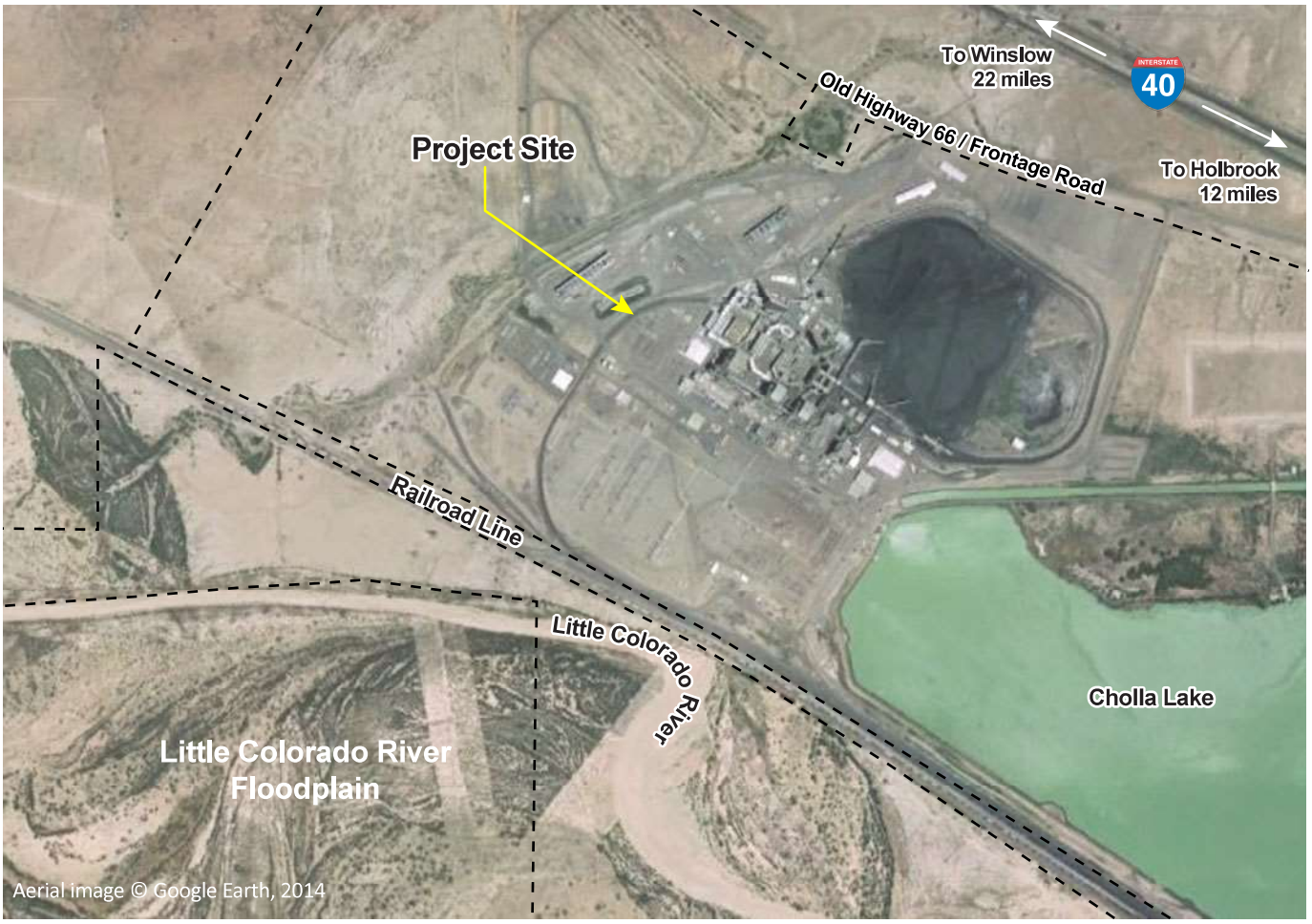
Table 8. Metrics and Contingencies Evaluation – Spring 2024
Arizona Public Service Cholla Power Plant, Joseph City, Arizona

Metric	Contingency Trigger	Evaluation Result
A decreasing or stable trend in the TCE concentration at well VRP-3.	If the TCE concentration at well VRP-3 shows an increasing trend above historical concentrations, additional source area investigations will be evaluated.	The Mann-Kendall analysis conducted in fall 2023 indicated the TCE concentration trend in well VRP-3 is decreasing with a confidence factor of 99.9% when evaluating the historical dataset for the well (Jacobs 2024). A Mann-Kendall analysis will be performed again in fall 2024. The concentration in spring 2024 was not above historical concentrations. No contingency actions are recommended.
No offsite migration predicted, based on the estimated groundwater flow velocity, TCE attenuation rates, and TCE concentrations and trends in downgradient wells, particularly VRP-9 and CH-MW-2.	If the TCE concentrations in a perimeter well such as VRP-9 or CH-MW-2 show an increasing trend and offsite migration of the TCE was predicted, the sampling frequency in the affected well(s) will be increased to quarterly, and the addition of additional downgradient wells will be considered.	TCE concentrations in well VRP-9 do not show increasing trends. The TCE concentration in well CH-MW-2 increased compared to 2023 but remained below the AWQS. A Mann-Kendall trend evaluation will be conducted following the fall 2024 sampling event. Groundwater at well VRP-3, where the TCE concentration exceeds the AWQS, would take about 11 years to reach the site boundary, during which time the TCE would have attenuated below the AWQS (Jacobs 2024). Offsite migration of TCE is not predicted. Although the contingency trigger was not met, an additional sample is recommended to be collected at well CH-MW-2 in fall 2024.

Notes:
AWQS = Aquifer Water Quality Standard
MNA = monitored natural attenuation
TCE = trichloroethylene

Figures





North

0 800 1,600

Approximate scale in feet

Approximate Property Boundary

FIGURE 1
Site Location Map
APS Cholla Power Plant
Joseph City, Arizona

JACOBS

LEGEND

- Shallow Monitoring Well (screened from top of aquifer to 60 feet or less)
- Intermediate Monitoring Well (screened from top of aquifer to 90 feet or less)
- Deep Monitoring Well (screened interval is below 90 feet and above 120 feet)
- Inactive Well
- Groundwater Elevation Contour (Dashed Where Inferred)

Notes:
1. NM = not measured
2. Groundwater levels were measured in April 2024.
3. 4983.5 = Groundwater elevation (feet above mean sea level).
4. Wells DR-1, UST-3, and UST-4 were abandoned; the location of wells UST-3 and UST-4 are unknown.

N

0 150 300

Approximate scale in feet

Figure 2. Groundwater Elevation and Gradient, April 2024
APS Cholla Power Plant
Joseph City, Arizona

Source: ESRI World Imagery (Clarity)
\\DC1VS01\GISPROJ\A\APS\CHOLLA_POWERPLANT\MAPFILES\2024\FIGURE_2_GWE_AND_GRADIENT_APR2024.MXD AESPEJO 6/12/2024

Jacobs

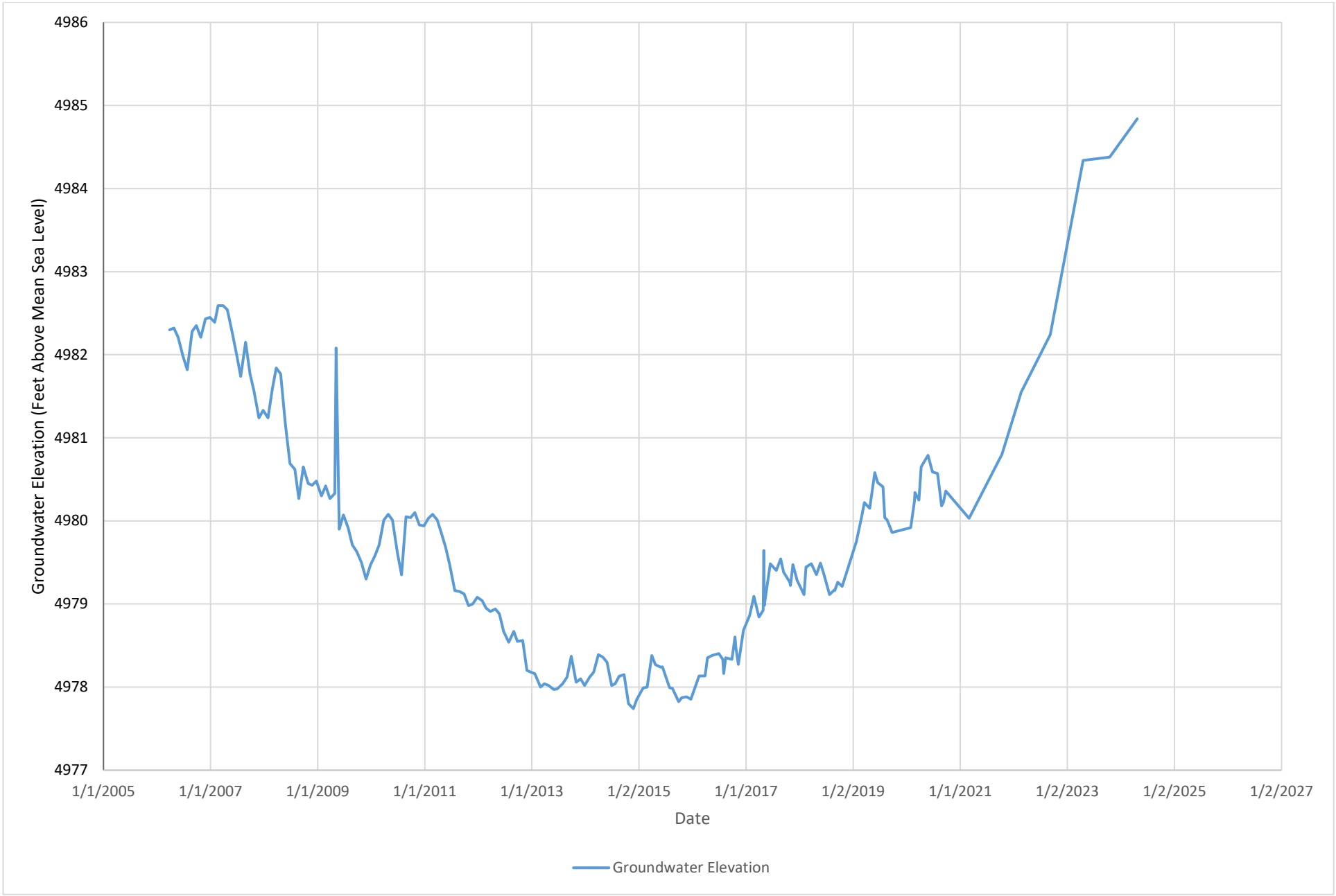
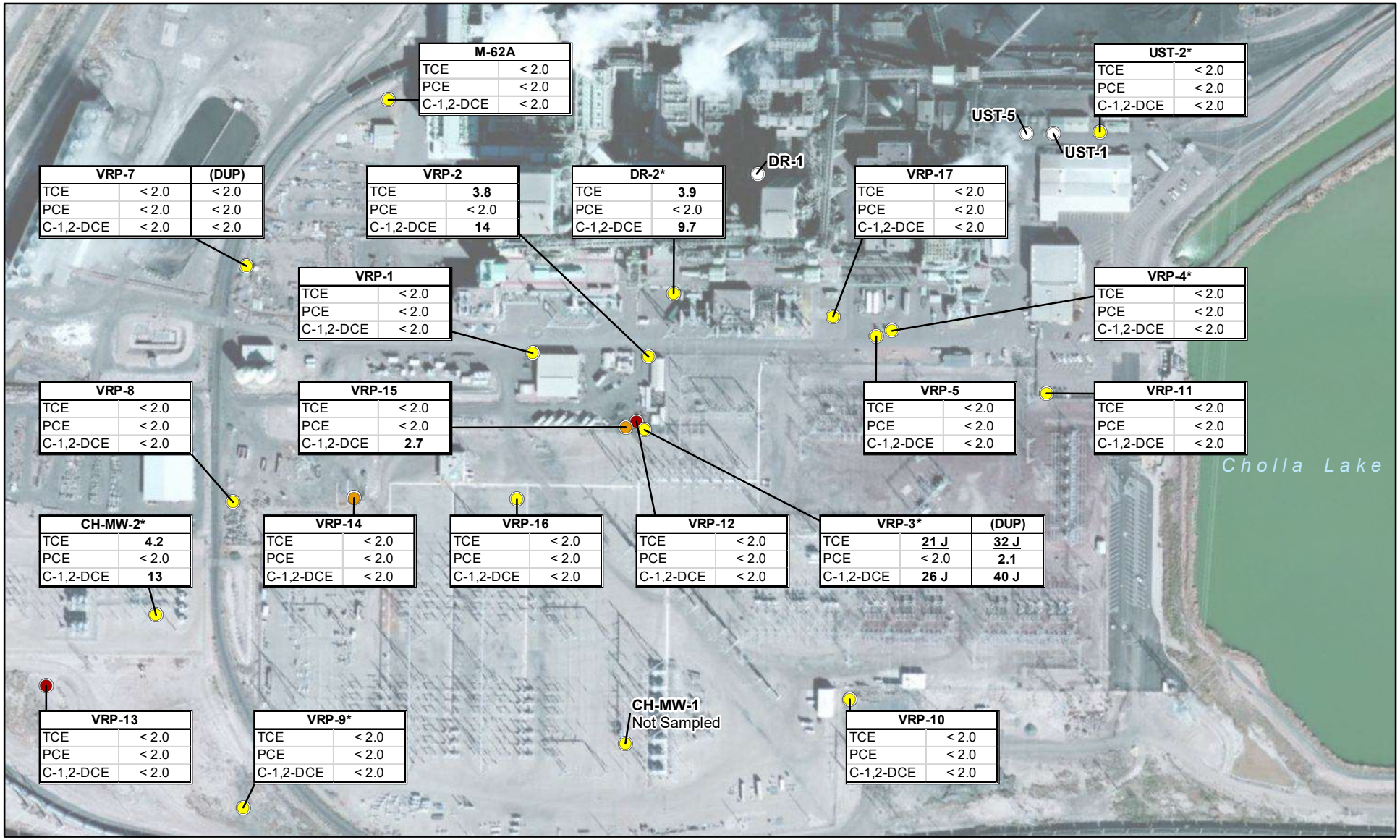


Figure 3. Historical Groundwater Elevations in Well DR-2
APS Cholla Power Plant
Joseph City, Arizona

Jacobs



LEGEND

- Shallow Monitoring Well (screened from top of aquifer to 60 feet or less)
- Intermediate Monitoring Well (screened from top of aquifer to 90 feet or less)
- Deep Monitoring Well (screened interval is below 90 feet and above 120 feet)
- Inactive Well

Notes:
1. Samples were collected using PDBs and a low-flow pump on April 22 and 23, 2024.
2. Concentrations are in micrograms per liter (µg/L).
3. **Bold** text indicates compound was detected.
4. **Bold underline** text indicates the concentration exceeds the AWQS.
5. "<" denotes that the compound was not detected; the value given is the reporting limit.
6. * indicates samples collected with a low-flow pump.

Abbreviations:
AWQS = Aquifer Water Quality Standard
bmp = below measuring point
C-1,2-DCE = cis-1,2-dichloroethylene
DUP = duplicate sample
PCE = Tetrachloroethylene
PDB = passive diffusion bag
TCE = Trichloroethylene

N

0 150 300

Approximate scale in feet

Source: ESRI World Imagery (Clarity)
\\DC1VS01\GISPROJ\A\APS\CHOLLA_POWERPLANT\MAPFILES\2024\FIGURE_4_WQ_ANALYTICAL_RESULTS_APR2024.MXD AESPEJO 6/19/2024

Figure 4. Water Quality Analytical Results April 2024
APS Cholla Power Plant
Joseph City, Arizona

Jacobs

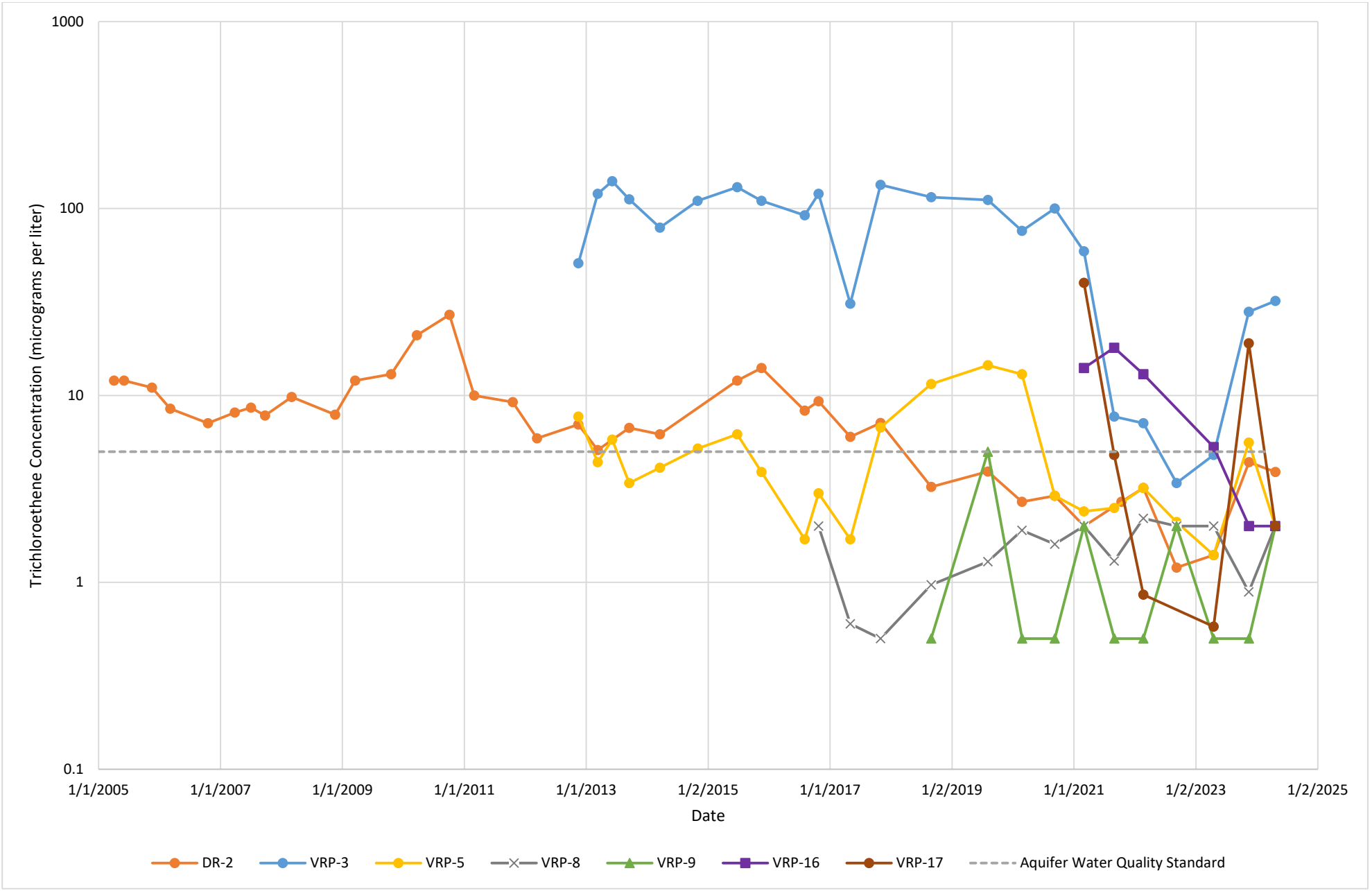


Figure 5. Historical Trichloroethene Concentrations in Selected Wells
APS Cholla Power Plant
Joseph City, Arizona

Jacobs

Appendix A. Groundwater Sampling Field Sheets

Passive Diffusion Bag Retrieval Data Sheet

Arizona Public Service Cholla Power Plant

Event: 2024 First Semiannual (April)

Well	PDB Depth (feet)	Date	Depth to Water	Sample Time	Sample ID	Analysis	Sample Type
DR-2	44	4-22-24	34.04	1525	See purge and sample form	8260B, MNA	Regular
M-62A[a]	62	4-22-24	34.36	1330		8260B	Regular
UST-2	44	4-23-24	32.90	1630	See purge and sample form	8260B, MNA	Regular
VRP-1	47	4-22-24	34.67	1345		8260B	Regular
VRP-2	47	4-22-24	35.00	11:20		8260B	Regular
						8260B	Duplicate
VRP-3	53	4-23-24	34.70	1355	See purge and sample form	8260B, MNA	Regular
		4-23-24				8260B, MNA	Duplicate
VRP-4	47	4-23-24	33.04	1230	See purge and sample form	8260B, MNA	Regular
VRP-5	47	4-22-24	33.26	10:30		8260B	Regular
VRP-7	53	4-22-24	31.89	1255		8260B	Regular
VRP-8	53	4-22-24	30.42	1230		8260B	Regular
VRP-9	53	4-23-24	28.50	1800	See purge and sample form	8260B, MNA	MS/MSD
VRP-10	53	4-22-24	30.25	1555		8260B	Regular
VRP-11	53	4-22-24	33.72	1410		8260B	Regular
VRP-12	113	4-22-24	34.95	1740		8260B	Regular
VRP-13	115	4-22-24	31.12	1620		8260B	Regular
VRP-14	65	4-22-24	30.45	1220		8260B	Regular
VRP-15	76	4-22-24	34.25	1155		8260B	Regular
VRP-16	53	4-22-24	28.95	1440		8260B	Regular
VRP-17	53	4-22-24	39.80	11:00		8260B	Regular
CH-MW-1	NA	4-22-24	24.85	—	Not sampled; gauging only	NA	NA
CH-MW-2[b]	45	4-23-24	30.70	10:30	See purge and sample form	8260B, MNA	Regular

Notes:

Fluid levels in wells were measured with an interface probe. No NAPL was detected. JSS 07/18/2024

[a] Measure to the top of the well casing, not the pipe connector, at well M62-A

[b] This well is only sampled during the spring MNA sampling event

Example Sample IDs

CH-DR-2-1023 Regular sample collected from well DR-2 in October 2023

JACOBS — GROUNDWATER SAMPLING DATA SHEET

WELL ID: VRP-4

Project Name:	APS Cholla Power Plant	Casing Materials:	PVC	Well Depth:	~59 ft btoc
Project Number:	653897CH			Start Water Level:	33.04 ft btoc
Start Date:	4-23-24	PID Reading:			
Sampling Team:	Jamie Shaffer	Weather:	Sunny 68	Well Diameter:	4 in
Purge Method:	Low-flow				
Equipment:	EcoTech Pro Bladder			Start Time:	1155
				End Time:	1230
Tubing Materials:	P/E Bond			Screened Interval:	19-59 ft btoc
				Pump/Tubing Intake:	45 OR ft btoc

Diam. (in)	Vol. (gal/ft)
1	0.041
1.25	0.064
2	0.163
4	0.653

WELL STABILIZATION DATA

Time	Volume Removed	pH	SPCOND. (mS/cm)	Temp. (°C)	ORP (mV)	D.O. ~~(mg/L)~~ %	Water level (ft)	Pumping rate (Lpm)	Appearance/Notes
Requirements:	(liters)	+/- 0.1	+/- 3%	+/- 0.2	+/- 10 mV	+/- 10%	< 0.3 ft	<0.5LPM	
1155	0.1	6.78	4.76	23.52	-103	52.0	33.05	0.15	
1200	2	6.76	4.77	21.77	-133	45.1	33.05	0.25	
1205	3	6.74	4.78	21.31	-139	42.5	33.05	0.25	SI cloudy
1210	4	6.74	4.81	21.42	-143	46.9	33.06	0.25	Clear
1215	6	6.74	4.79	21.53	-144	39.5	33.06	0.25	Clear
1220	8	6.75	4.82	21.23	-145	39.8	33.06	0.25	Clear
1225	9.5	6.75	4.82	21.16	-147	38.0	33.06	0.25	Clear
1230		Sample							

SAMPLE INFORMATION

Sample ID:	CH-VRP-4-0424	Primary Laboratory:	Eurofins PHX
Analyses:		QA/QC Sample Type:	—
Collection Date:	4-23-24	Shipment Method:	Priority Overnight
Collection Time:	1230	Well Condition/Comments:	Good
Field Filter? (Y/N):	Y		

[1] Sampling standards adapted from USEPA Groundwater Sampling Guidelines for Superfund and RCRA Project Managers, 2002

JACOBS — GROUNDWATER SAMPLING DATA SHEET

WELL ID: VRP-9

Project Name:	APS Cholla Power Plant	Casing Materials:	PVC	Well Depth:	~60 ft btoc
Project Number:	653897CH			Start Water Level:	28.50 ft btoc
Start Date:	4-23-24	PID Reading:			
Sampling Team:	Jamie Shaffer	Weather:	Sunny	Well Diameter:	4 in
Purge Method:	Low-flow				
Equipment:	Geo Tech Pro Bladder			Start Time:	17:25
				End Time:	1800
Tubing Materials:	P/E Band			Screened Interval:	20-60 ft btoc
				Pump/Tubing Intake:	40 ft btoc

Diam. (in)	Vol. (gal/ft)
1	0.041
1.25	0.064
2	0.163
4	0.653

WELL STABILIZATION DATA

Time	Volume Removed	pH	SPCOND. (mS/cm)	Temp. (°C)	ORP (mV)	D.O. (~~mg/L~~ %)	Water level (ft)	Pumping rate (Lpm)	Appearance/Notes
Requirements:	(liters)	+/- 0.1	+/- 3%	+/- 0.2	+/- 10 mV	+/- 10%	< 0.3 ft	<0.5LPM	
1730	2	6.44	7.57	20.23	22	47.3	28.55	0.15	
1735	3.5	6.35	7.35	20.01	21	42.5	28.55	0.25	
1740	4.5	6.26	7.22	20.03	21	40.1	28.55	~~0~~ 0.25	Clear
1745	6	6.23	7.13	20.02	20	38.7	28.55	0.25	
1750	7.5	6.22	7.00	19.81	20	37.7	28.55	0.25	
1755	9.0	6.22	6.87	19.92	21	37.1	28.55	0.25	
~~1~~ 1800		collect							

SAMPLE INFORMATION

Sample ID:	CH-VRP-9	Primary Laboratory:	Eurofins PHX
Analyses:		QA/QC Sample Type:	MS/MSD
Collection Date:	4-23-24	Shipment Method:	Priority Overnight
Collection Time:	1800	Well Condition/Comments:	Good
Field Filter? (Y/N):	Y		

[1] Sampling standards adapted from USEPA Groundwater Sampling Guidelines for Superfund and RCRA Project Managers, 2002

JACOBS

GROUNDWATER SAMPLING DATA SHEET

WELL ID: UST-2

Project Name:	APS Cholla Power Plant	Casing Materials:	PVC	Well Depth:	~46 ft btoc
Project Number:	653897CH			Start Water Level:	32.90 ft btoc
Start Date:	4-23-24	PID Reading:			
Sampling Team:	Jamie Shaffer	Weather:	Sunny 85	Well Diameter:	4 in
Purge Method:	Low-flow				
Equipment:	GeoTech Pro Bladder			Start Time:	1600
				End Time:	1630
Tubing Materials:	P/E Band			Screened Interval:	21-46 ft btoc
				Pump/Tubing Intake:	40 ft btoc

Diam. (in)	Vol. (gal/ft)
1	0.041
1.25	0.064
2	0.163
4	0.653

WELL STABILIZATION DATA

Time	Volume Removed	pH	SPCOND. (mS/cm)	Temp. (°C)	ORP (mV)	D.O. ~~(mg/L)~~ %	Water level (ft)	Pumping rate (Lpm)	Appearance/Notes
Requirements:	(liters)	+/- 0.1	+/- 3%	+/- 0.2	+/- 10 mV	+/- 10%	< 0.3 ft	<0.5LPM	
1600	0.1	6.74	10.3	24.69	0	104.8	32.90	0.1	
1610	1	6.66	10.4	22.48	-40	48.5	32.90	0.15	
1615	2.5	6.61	10.4	21.06	-66	42.7	32.90	0.15	
1620	3.5	6.59	10.4	20.96	-72	39.3	33.05	0.15	
1625	4.5	6.58	10.4	20.89	-71	38.5	33.05	0.15	
1630	6.5	6.57	10.4	20.65	-73	36.4	33.05	0.15	
	Sample								

SAMPLE INFORMATION

Sample ID:	CH-UST-2-0424	Primary Laboratory:	Eurofins PHX
Analyses:		QA/QC Sample Type:	—
Collection Date:	4-23-24	Shipment Method:	Priority Overnight
Collection Time:	1630	Well Condition/Comments:	Good
Field Filter? (Y/N):	Y		

[1] Sampling standards adapted from USEPA Groundwater Sampling Guidelines for Superfund and RCRA Project Managers, 2002

JACOBS

GROUNDWATER SAMPLING DATA SHEET

WELL ID: DR-2

Project Name:	APS Cholla Power Plant	Casing Materials:	PVC	Well Depth:	~46 ft btoc
Project Number:	653897CH			Start Water Level:	~~34.04~~ 45.00 ft btoc
Start Date:		PID Reading:			
Sampling Team:	Jamie Shaffer	Weather:	Sunny	Well Diameter:	4 in
Purge Method:	Low-flow				
Equipment:	GeoTech Pro Bladder			Start Time:	~~2~~ 1450
				End Time:	1525
Tubing Materials:	P/E Bond			Screened Interval:	21-46 ft btoc
				Pump/Tubing Intake:	40 ft btoc

Diam. (in)	Vol. (gal/ft)
1	0.041
1.25	0.064
2	0.163
4	0.653

WELL STABILIZATION DATA

Time	Volume Removed	pH	SPCOND. (mS/cm)	Temp. (°C)	ORP (mV)	D.O. (~~mg/L~~ %)	Water level (ft)	Pumping rate (Lpm)	Appearance/Notes
Requirements:	(liters)	+/- 0.1	+/- 3%	+/- 0.2	+/- 10 mV	+/- 10%	< 0.3 ft	<0.5LPM	
1500	0.5	6.80	6.21	25.10	84	4.19	~~3~~4.20	0.15	
1505	0.75	6.72	6.28	24.70	72	46.5	34.20	0.15	
1510	2	6.65	6.25	23.04	34	41.1	34.20	0.15	slow flow / clear
1515	3	6.63	6.19	22.79	25	35.2	34.20	0.15	↓
1520	3.5	6.61	6.17	22.64	25	38.0	34.50	0.15	↓
1525		Sample							

SAMPLE INFORMATION

Sample ID:	CH-DR-2-0424	Primary Laboratory:	Euro Fins / PHX
Analyses:		QA/QC Sample Type:	
Collection Date:	4-23-24	Shipment Method:	Priority Overnight
Collection Time:	1525	Well Condition/Comments:	Good
Field Filter? (Y/N):	Y		

[1] Sampling standards adapted from USEPA Groundwater Sampling Guidelines for Superfund and RCRA Project Managers, 2002

JACOBS — GROUNDWATER SAMPLING DATA SHEET

WELL ID: CH-MW-2

Project Name:	APS Cholla Power Plant	Casing Materials:	PVC	Well Depth:	~60 ft btoc
Project Number:	653897CH			Start Water Level:	30.70 ft btoc
Start Date:	4-23-24	PID Reading:			
Sampling Team:	Jamie Shaffer	Weather:	Sunny 55°F	Well Diameter:	2 in
Purge Method:	Low-flow				
Equipment:	GeoTech Inc bladder			Start Time:	8:15
				End Time:	10:30
Tubing Materials:	P/E Bond			Screened Interval:	20-60 ft btoc
				Pump/Tubing Intake:	50.00 ft btoc

Diam. (in)	Vol. (gal/ft)
1	0.041
1.25	0.064
2	0.163
4	0.653

WELL STABILIZATION DATA

Time	Volume Removed	pH	SPCOND. (mS/cm)	Temp. (°C)	ORP (mV)	D.O. (~~mg/L~~ %)	Water level (ft)	Pumping rate (Lpm)	Appearance/Notes
Requirements:	(liters)	+/- 0.1	+/- 3%	+/- 0.2	+/- 10 mV	+/- 10%	< 0.3 ft	<0.5LPM	
8:30	2.0	5.83	7.18	19.85	-77	61.5	30.80	0.25	cloudy
8:35	3.5	5.90	7.16	19.86	-89	57.0	30.80	0.25	sl cloudy
8:40	4.25	5.94	7.14	19.94	-93	54.5	30.80	0.25	clear
8:45	6.75	5.97	7.12	19.97	-94	52.1	30.80	0.25	clear
8:50	Pump not working, pulling up. Pump reset					Fixed			
~~9:30~~	~~3.00~~	~~6.~~							
10:15	9.50	6.48	7.04	20.52	-98	73.9	30.80	0.25	clear
10:20	9.75	6.48	7.02	20.49	-101	51.8	30.80	025	clear
10:25	11.00	6.48	7.00	20.56	-106	42.3	30.80	025	clear
10:30	sample collect								

SAMPLE INFORMATION

Sample ID:	CH-MW-02-0424	Primary Laboratory:	Eurofins Phoenix
Analyses:		QA/QC Sample Type:	—
Collection Date:		Shipment Method:	Priority overnight
Collection Time:	4-23-24 / 10:30	Well Condition/Comments:	Good
Field Filter? (Y/N):	Y		

[1] Sampling standards adapted from USEPA Groundwater Sampling Guidelines for Superfund and RCRA Project Managers, 2002

JACOBS — GROUNDWATER SAMPLING DATA SHEET

WELL ID: VRP-3

Project Name:	APS Cholla Power Plant	Casing Materials:	PVC	Well Depth:	~59 ft btoc
Project Number:	653897CH			Start Water Level:	~~34.17~~ 34.70 ft btoc
Start Date:	4-23-24	PID Reading:			
Sampling Team:	Jamie Shaffer	Weather:	Sunny 83°F	Well Diameter:	4 in
Purge Method:	Low-flow				
Equipment:	GeoTech Pro Bladder			Start Time:	1319
				End Time:	1355
Tubing Materials:	P/E Bond			Screened Interval:	19-59 ft btoc
				Pump/Tubing Intake:	~~45~~ ft btoc

Diam. (in)	Vol. (gal/ft)
1	0.041
1.25	0.064
2	0.163
4	0.653

WELL STABILIZATION DATA

Time	Volume Removed	pH	SPCOND. (mS/cm)	Temp. (°C)	ORP (mV)	D.O. ~~(mg/L)~~ %	Water level (ft)	Pumping rate (Lpm)	Appearance/Notes
Requirements:	(liters)	+/- 0.1	+/- 3%	+/- 0.2	+/- 10 mV	+/- 10%	< 0.3 ft	<0.5LPM	
1319	0.1	6.77	9.10	26.78	76	65.0	34.70	0.25	
1325	2	6.50	9.31	21.65	51	47.1	34.70	0.25	Clear
1330	4	6.45	9.40	21.45	53	43.6	34.75	0.25	↓
1335	6	6.40	9.42	21.30	54	41.0	34.75	0.25	
1340	7.5	6.37	9.42	21.30	56	39.1	34.75	0.25	
1345	9	6.33	9.39	21.33	56	38.0	34.75	0.25	
1350	11	6.30	9.50	21.33	59	41.0	34.73	0.25	
1355		Sample							

SAMPLE INFORMATION

Sample ID:	CHVRP-3-042424	Primary Laboratory:	Eurofins Phoenix
Analyses:		QA/QC Sample Type:	Field Duplicate ID: CH-FD02-3-042424
Collection Date:	4-23-24	Shipment Method:	Priority Overnight
Collection Time:	1355	Well Condition/Comments:	Good
Field Filter? (Y/N):	Y		

[1] Sampling standards adapted from USEPA Groundwater Sampling Guidelines for Superfund and RCRA Project Managers, 2002

Appendix B. Groundwater Sampling Laboratory and Data Quality Evaluation Report

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

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JOB DESCRIPTION

APS - Cholla Power Plant

JOB NUMBER

550-217471-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

Authorization

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Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix.
L3	The associated blank spike recovery was above method acceptance limits.
L5	The associated blank spike recovery was above laboratory/method acceptance limits. This analyte was not detected in the sample.
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
N1	See case narrative.
R4	MS/MSD RPD exceeded the method control limit. Recovery met acceptance criteria.
V1	CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.

HPLC/IC

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
H1	Sample analysis performed past holding time.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 550-217471-1 Eurofins Phoenix

Job Narrative
550-217471-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/25/2024 9:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.4°C and 4.1°C.

Subcontract Work
Methods DOC (Field Filtered), Total Organic Carbon: These methods were subcontracted to Legend Technical Services of Arizona Inc. The subcontract laboratory certifications are different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

GC/MS VOA
Method 8260_AZ: The initial calibration verification (ICV) result for batch 550-320106 was above the upper control limit. The affected analytes are: Carbon disulfide, Vinyl chloride and Dichlorodifluoromethane. Sample results were non-detects, and have been reported as N1 qualified data.

Method 8260_AZ: The laboratory control sample (LCS), laboratory control sample duplicate (LCSD), matrix spike (MS) and matrix spike duplicate (MSD) for batch 550-320106 recovered outside control limits high for Vinyl chloride and Dichlorodifluoromethane. There were no hits in the associated samples. The LCS/LCSD and samples have been flagged with an L5 qualifier. The MS/MSD and source sample have been flagged with an N1 qualifier.

(550-217471-C-1 MS) and (550-217471-C-1 MSD)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-217471-1	CH-VRP-1-2024	Water	04/22/24 13:45	04/25/24 09:15
550-217471-2	CH-VRP-2-2024	Water	04/22/24 11:20	04/25/24 09:15
550-217471-3	CH-VRP-3-2024	Water	04/23/24 13:55	04/25/24 09:15
550-217471-4	CH-VRP-4-2024	Water	04/23/24 12:30	04/25/24 09:15
550-217471-5	CH-VRP-5-2024	Water	04/22/24 10:30	04/25/24 09:15
550-217471-6	CH-VRP-7-2024	Water	04/22/24 12:55	04/25/24 09:15
550-217471-7	CH-VRP-8-2024	Water	04/22/24 12:30	04/25/24 09:15
550-217471-8	CH-VRP-9-2024	Water	04/23/24 18:00	04/25/24 09:15
550-217471-9	CH-VRP-10-2024	Water	04/22/24 15:55	04/25/24 09:15
550-217471-10	CH-VRP-11-2024	Water	04/22/24 14:10	04/25/24 09:15
550-217471-11	CH-VRP-12-2024	Water	04/22/24 11:40	04/25/24 09:15
550-217471-12	CH-VRP-13-2024	Water	04/22/24 16:20	04/25/24 09:15
550-217471-13	CH-VRP-14-2024	Water	04/22/24 12:20	04/25/24 09:15
550-217471-14	CH-VRP-15-2024	Water	04/22/24 11:55	04/25/24 09:15
550-217471-15	CH-VRP-16-2024	Water	04/22/24 14:40	04/25/24 09:15
550-217471-16	CH-VRP-17-2024	Water	04/22/24 11:00	04/25/24 09:15
550-217471-17	CH-DR-2-2024	Water	04/23/24 15:25	04/25/24 09:15
550-217471-18	CH-UST-2-2024	Water	04/23/24 16:30	04/25/24 09:15
550-217471-19	CH-MW02-2024	Water	04/23/24 10:30	04/25/24 09:15
550-217471-20	CH-FD01-VRP-7-2-2024	Water	04/22/24 12:55	04/25/24 09:15
550-217471-21	CH-FD02-VR3-3-2-2024	Water	04/23/24 13:55	04/25/24 09:15
550-217471-22	CH-TB01-	Water	04/23/24 19:00	04/25/24 09:15
550-217471-23	CH-M62-A-0424	Water	04/22/24 13:30	04/25/24 09:15
550-217471-26	Waste-0424	Water	04/23/24 19:00	04/25/24 09:15
550-217471-27	CH-RB01-0424	Water	04/23/24 18:30	04/25/24 09:15

Detection Summary

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-VRP-1-2024 — Lab Sample ID: 550-217471-1

No Detections.

Client Sample ID: CH-VRP-2-2024 — Lab Sample ID: 550-217471-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	14		2.0		ug/L	1		8260B	Total/NA
Trichloroethene	3.8		2.0		ug/L	1		8260B	Total/NA

Client Sample ID: CH-VRP-3-2024 — Lab Sample ID: 550-217471-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	2.4		2.0		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	26		2.0		ug/L	1		8260B	Total/NA
Trichloroethene	21		2.0		ug/L	1		8260B	Total/NA
Carbon dioxide - DL	17000		50		ug/L	10		RSK-175	Total/NA
Chloride	3000	D2	100		mg/L	50		300.0	Total/NA
Sulfate	1300	D2	100		mg/L	50		300.0	Total/NA
Nitrate as N	0.12		0.050		mg/L	1		300.0	Total/NA
Iron	0.10		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	1.6		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	320		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	320		6.0		mg/L	1		SM 2320B	Total/NA

Client Sample ID: CH-VRP-4-2024 — Lab Sample ID: 550-217471-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	7300		50		ug/L	10		RSK-175	Total/NA
Chloride	1100	D2	100		mg/L	50		300.0	Total/NA
Sulfate	720	D2	100		mg/L	50		300.0	Total/NA
Iron	1.5		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.46		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	440		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	440		6.0		mg/L	1		SM 2320B	Total/NA

Client Sample ID: CH-VRP-5-2024 — Lab Sample ID: 550-217471-5

No Detections.

Client Sample ID: CH-VRP-7-2024 — Lab Sample ID: 550-217471-6

No Detections.

Client Sample ID: CH-VRP-8-2024 — Lab Sample ID: 550-217471-7

No Detections.

Client Sample ID: CH-VRP-9-2024 — Lab Sample ID: 550-217471-8

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	25000		50		ug/L	10		RSK-175	Total/NA
Chloride	2100	D2	100		mg/L	50		300.0	Total/NA
Sulfate	860	D2	100		mg/L	50		300.0	Total/NA
Iron	0.19		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	1.1		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	330		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	330		6.0		mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Phoenix

Detection Summary

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-VRP-10-2024 — Lab Sample ID: 550-217471-9

No Detections.

Client Sample ID: CH-VRP-11-2024 — Lab Sample ID: 550-217471-10

No Detections.

Client Sample ID: CH-VRP-12-2024 — Lab Sample ID: 550-217471-11

No Detections.

Client Sample ID: CH-VRP-13-2024 — Lab Sample ID: 550-217471-12

No Detections.

Client Sample ID: CH-VRP-14-2024 — Lab Sample ID: 550-217471-13

No Detections.

Client Sample ID: CH-VRP-15-2024 — Lab Sample ID: 550-217471-14

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2.7		2.0		ug/L	1		8260B	Total/NA

Client Sample ID: CH-VRP-16-2024 — Lab Sample ID: 550-217471-15

No Detections.

Client Sample ID: CH-VRP-17-2024 — Lab Sample ID: 550-217471-16

No Detections.

Client Sample ID: CH-DR-2-2024 — Lab Sample ID: 550-217471-17

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	9.7		2.0		ug/L	1		8260B	Total/NA
Trichloroethene	3.9		2.0		ug/L	1		8260B	Total/NA
Carbon dioxide	8100		50		ug/L	10		RSK-175	Total/NA
Chloride	1500	D2	100		mg/L	50		300.0	Total/NA
Sulfate	1100	D2	100		mg/L	50		300.0	Total/NA
Manganese	0.16		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	280		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	280		6.0		mg/L	1		SM 2320B	Total/NA

Client Sample ID: CH-UST-2-2024 — Lab Sample ID: 550-217471-18

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	11000		50		ug/L	10		RSK-175	Total/NA
Chloride	3100	D2	100		mg/L	50		300.0	Total/NA
Sulfate	1700	D2	100		mg/L	50		300.0	Total/NA
Iron	0.86		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	2.0		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	370		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	370		6.0		mg/L	1		SM 2320B	Total/NA

Client Sample ID: CH-MW02-2024 — Lab Sample ID: 550-217471-19

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	13		2.0		ug/L	1		8260B	Total/NA
Trichloroethene	4.2		2.0		ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Phoenix

Client Sample ID: CH-MW02-2024 (Continued) — Lab Sample ID: 550-217471-19

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	5300		50		ug/L	10		RSK-175	Total/NA
Chloride	2400	D2	40		mg/L	20		300.0	Total/NA
Sulfate	590	D2	40		mg/L	20		300.0	Total/NA
Iron	1.5		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	1.9		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	220		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	220		6.0		mg/L	1		SM 2320B	Total/NA

Client Sample ID: CH-FD01-VRP-7-2-2024 — Lab Sample ID: 550-217471-20

No Detections.

Client Sample ID: CH-FD02-VR3-3-2-2024 — Lab Sample ID: 550-217471-21

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	3.8		2.0		ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	40		2.0		ug/L	1		8260B	Total/NA
Tetrachloroethene	2.1		2.0		ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	2.3		2.0		ug/L	1		8260B	Total/NA
Trichloroethene	32		2.0		ug/L	1		8260B	Total/NA
Carbon dioxide	19000		50		ug/L	10		RSK-175	Total/NA
Chloride	3100	D2	100		mg/L	50		300.0	Total/NA
Sulfate	1300	D2	100		mg/L	50		300.0	Total/NA
Nitrate as N	0.11		0.050		mg/L	1		300.0	Total/NA
Iron	0.10		0.10		mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	1.5		0.010		mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	320		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	320		6.0		mg/L	1		SM 2320B	Total/NA

Client Sample ID: CH-TB01- — Lab Sample ID: 550-217471-22

No Detections.

Client Sample ID: CH-M62-A-0424 — Lab Sample ID: 550-217471-23

No Detections.

Client Sample ID: Waste-0424 — Lab Sample ID: 550-217471-26

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	3.8		2.0		ug/L	1		8260B	Total/NA
Trichloroethene	2.6		2.0		ug/L	1		8260B	Total/NA

Client Sample ID: CH-RB01-0424 — Lab Sample ID: 550-217471-27

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-VRP-1-2024

Date Collected: 04/22/24 13:45
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-1

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			04/30/24 04:18	1
1,1,1-Trichloroethane	ND		2.0		ug/L			04/30/24 04:18	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			04/30/24 04:18	1
1,1,2-Trichloroethane	ND		2.0		ug/L			04/30/24 04:18	1
1,1-Dichloroethane	ND		2.0		ug/L			04/30/24 04:18	1
1,1-Dichloroethene	ND		5.0		ug/L			04/30/24 04:18	1
1,1-Dichloropropene	ND		2.0		ug/L			04/30/24 04:18	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			04/30/24 04:18	1
1,2,3-Trichloropropane	ND		10		ug/L			04/30/24 04:18	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			04/30/24 04:18	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			04/30/24 04:18	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/30/24 04:18	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			04/30/24 04:18	1
1,2-Dichlorobenzene	ND		2.0		ug/L			04/30/24 04:18	1
1,2-Dichloroethane	ND		2.0		ug/L			04/30/24 04:18	1
1,2-Dichloropropane	ND		2.0		ug/L			04/30/24 04:18	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			04/30/24 04:18	1
1,3-Dichlorobenzene	ND		2.0		ug/L			04/30/24 04:18	1
1,3-Dichloropropane	ND		2.0		ug/L			04/30/24 04:18	1
1,4-Dichlorobenzene	ND		2.0		ug/L			04/30/24 04:18	1
2,2-Dichloropropane	ND		2.0		ug/L			04/30/24 04:18	1
2-Butanone (MEK)	ND		10		ug/L			04/30/24 04:18	1
2-Chlorotoluene	ND		5.0		ug/L			04/30/24 04:18	1
2-Hexanone	ND		10		ug/L			04/30/24 04:18	1
4-Chlorotoluene	ND		5.0		ug/L			04/30/24 04:18	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/30/24 04:18	1
Acetone	ND		20		ug/L			04/30/24 04:18	1
Benzene	ND		2.0		ug/L			04/30/24 04:18	1
Bromobenzene	ND		5.0		ug/L			04/30/24 04:18	1
Bromochloromethane	ND		5.0		ug/L			04/30/24 04:18	1
Bromodichloromethane	ND		2.0		ug/L			04/30/24 04:18	1
Bromoform	ND		5.0		ug/L			04/30/24 04:18	1
Bromomethane	ND		10		ug/L			04/30/24 04:18	1
Carbon disulfide	ND		5.0		ug/L			04/30/24 04:18	1
Carbon tetrachloride	ND		5.0		ug/L			04/30/24 04:18	1
Chlorobenzene	ND		2.0		ug/L			04/30/24 04:18	1
Chloroethane	ND		5.0		ug/L			04/30/24 04:18	1
Chloroform	ND		2.0		ug/L			04/30/24 04:18	1
Chloromethane	ND		5.0		ug/L			04/30/24 04:18	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			05/01/24 12:55	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			04/30/24 04:18	1
Chlorodibromomethane	ND		2.0		ug/L			04/30/24 04:18	1
Dibromomethane	ND		2.0		ug/L			04/30/24 04:18	1
Dichlorodifluoromethane	ND	L5 V1	5.0		ug/L			04/30/24 04:18	1
Ethylbenzene	ND		2.0		ug/L			04/30/24 04:18	1
Hexachlorobutadiene	ND		5.0		ug/L			04/30/24 04:18	1
Iodomethane	ND		2.0		ug/L			04/30/24 04:18	1
Isopropylbenzene	ND		2.0		ug/L			04/30/24 04:18	1
m,p-Xylenes	ND		5.0		ug/L			04/30/24 04:18	1

Client Sample ID: CH-VRP-1-2024

Lab Sample ID: 550-217471-1

Date Collected: 04/22/24 13:45

Matrix: Water

Date Received: 04/25/24 09:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		5.0		ug/L			04/30/24 04:18	1
Naphthalene	ND		5.0		ug/L			04/30/24 04:18	1
n-Butylbenzene	ND		5.0		ug/L			04/30/24 04:18	1
o-Xylene	ND		5.0		ug/L			04/30/24 04:18	1
p-Isopropyltoluene	ND		2.0		ug/L			04/30/24 04:18	1
sec-Butylbenzene	ND		5.0		ug/L			04/30/24 04:18	1
Styrene	ND		2.0		ug/L			04/30/24 04:18	1
tert-Butylbenzene	ND		5.0		ug/L			04/30/24 04:18	1
Tetrachloroethene	ND		2.0		ug/L			04/30/24 04:18	1
Toluene	ND		5.0		ug/L			04/30/24 04:18	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			04/30/24 04:18	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			04/30/24 04:18	1
Trichloroethene	ND		2.0		ug/L			04/30/24 04:18	1
Trichlorofluoromethane	ND		5.0		ug/L			04/30/24 04:18	1
Vinyl acetate	ND		25		ug/L			04/30/24 04:18	1
Vinyl chloride	ND	L5 V1	5.0		ug/L			04/30/24 04:18	1
Xylenes, Total	ND		10		ug/L			04/30/24 04:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*116*		*70 - 130*		*04/30/24 04:18*	*1*
Dibromofluoromethane (Surr)	*87*		*70 - 130*		*05/01/24 12:55*	*1*
Dibromofluoromethane (Surr)	*120*		*70 - 130*		*05/01/24 18:05*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*04/30/24 04:18*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*05/01/24 12:55*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*05/01/24 18:05*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*04/30/24 04:18*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*05/01/24 12:55*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*05/01/24 18:05*	*1*

Client Sample ID: CH-VRP-2-2024

Lab Sample ID: 550-217471-2

Date Collected: 04/22/24 11:20

Matrix: Water

Date Received: 04/25/24 09:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			04/30/24 04:40	1
1,1,1-Trichloroethane	ND		2.0		ug/L			04/30/24 04:40	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			04/30/24 04:40	1
1,1,2-Trichloroethane	ND		2.0		ug/L			04/30/24 04:40	1
1,1-Dichloroethane	ND		2.0		ug/L			04/30/24 04:40	1
1,1-Dichloroethene	ND		5.0		ug/L			04/30/24 04:40	1
1,1-Dichloropropene	ND		2.0		ug/L			04/30/24 04:40	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			04/30/24 04:40	1
1,2,3-Trichloropropane	ND		10		ug/L			04/30/24 04:40	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			04/30/24 04:40	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			04/30/24 04:40	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/30/24 04:40	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			04/30/24 04:40	1
1,2-Dichlorobenzene	ND		2.0		ug/L			04/30/24 04:40	1
1,2-Dichloroethane	ND		2.0		ug/L			04/30/24 04:40	1

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-VRP-2-2024
Date Collected: 04/22/24 11:20
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-2
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		2.0		ug/L			04/30/24 04:40	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			04/30/24 04:40	1
1,3-Dichlorobenzene	ND		2.0		ug/L			04/30/24 04:40	1
1,3-Dichloropropane	ND		2.0		ug/L			04/30/24 04:40	1
1,4-Dichlorobenzene	ND		2.0		ug/L			04/30/24 04:40	1
2,2-Dichloropropane	ND		2.0		ug/L			04/30/24 04:40	1
2-Butanone (MEK)	ND		10		ug/L			04/30/24 04:40	1
2-Chlorotoluene	ND		5.0		ug/L			04/30/24 04:40	1
2-Hexanone	ND		10		ug/L			04/30/24 04:40	1
4-Chlorotoluene	ND		5.0		ug/L			04/30/24 04:40	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/30/24 04:40	1
Acetone	ND		20		ug/L			04/30/24 04:40	1
Benzene	ND		2.0		ug/L			04/30/24 04:40	1
Bromobenzene	ND		5.0		ug/L			04/30/24 04:40	1
Bromochloromethane	ND		5.0		ug/L			04/30/24 04:40	1
Bromodichloromethane	ND		2.0		ug/L			04/30/24 04:40	1
Bromoform	ND		5.0		ug/L			04/30/24 04:40	1
Bromomethane	ND		10		ug/L			04/30/24 04:40	1
Carbon disulfide	ND		5.0		ug/L			04/30/24 04:40	1
Carbon tetrachloride	ND		5.0		ug/L			04/30/24 04:40	1
Chlorobenzene	ND		2.0		ug/L			04/30/24 04:40	1
Chloroethane	ND		5.0		ug/L			04/30/24 04:40	1
Chloroform	ND		2.0		ug/L			04/30/24 04:40	1
Chloromethane	ND		5.0		ug/L			04/30/24 04:40	1
cis-1,2-Dichloroethene	**14**		2.0		ug/L			05/01/24 13:16	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			04/30/24 04:40	1
Chlorodibromomethane	ND		2.0		ug/L			04/30/24 04:40	1
Dibromomethane	ND		2.0		ug/L			04/30/24 04:40	1
Dichlorodifluoromethane	ND	L5 V1	5.0		ug/L			04/30/24 04:40	1
Ethylbenzene	ND		2.0		ug/L			04/30/24 04:40	1
Hexachlorobutadiene	ND		5.0		ug/L			04/30/24 04:40	1
Iodomethane	ND		2.0		ug/L			04/30/24 04:40	1
Isopropylbenzene	ND		2.0		ug/L			04/30/24 04:40	1
m,p-Xylenes	ND		5.0		ug/L			04/30/24 04:40	1
Methylene Chloride	ND		5.0		ug/L			04/30/24 04:40	1
Naphthalene	ND		5.0		ug/L			04/30/24 04:40	1
n-Butylbenzene	ND		5.0		ug/L			04/30/24 04:40	1
o-Xylene	ND		5.0		ug/L			04/30/24 04:40	1
p-Isopropyltoluene	ND		2.0		ug/L			04/30/24 04:40	1
sec-Butylbenzene	ND		5.0		ug/L			04/30/24 04:40	1
Styrene	ND		2.0		ug/L			04/30/24 04:40	1
tert-Butylbenzene	ND		5.0		ug/L			04/30/24 04:40	1
Tetrachloroethene	ND		2.0		ug/L			04/30/24 04:40	1
Toluene	ND		5.0		ug/L			04/30/24 04:40	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			04/30/24 04:40	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			04/30/24 04:40	1
Trichloroethene	**3.8**		2.0		ug/L			05/01/24 13:16	1
Trichlorofluoromethane	ND		5.0		ug/L			04/30/24 04:40	1
Vinyl acetate	ND		25		ug/L			04/30/24 04:40	1

Client Sample ID: CH-VRP-2-2024

Lab Sample ID: 550-217471-2

Date Collected: 04/22/24 11:20

Matrix: Water

Date Received: 04/25/24 09:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND	L5 V1	5.0		ug/L			04/30/24 04:40	1
Xylenes, Total	ND		10		ug/L			04/30/24 04:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*115*		*70 - 130*		*04/30/24 04:40*	*1*
Dibromofluoromethane (Surr)	*88*		*70 - 130*		*05/01/24 13:16*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*04/30/24 04:40*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*05/01/24 13:16*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*04/30/24 04:40*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*05/01/24 13:16*	*1*

Client Sample ID: CH-VRP-3-2024

Lab Sample ID: 550-217471-3

Date Collected: 04/23/24 13:55

Matrix: Water

Date Received: 04/25/24 09:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			04/30/24 05:01	1
1,1,1-Trichloroethane	ND		2.0		ug/L			04/30/24 05:01	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			04/30/24 05:01	1
1,1,2-Trichloroethane	ND		2.0		ug/L			04/30/24 05:01	1
1,1-Dichloroethane	ND		2.0		ug/L			04/30/24 05:01	1
1,1-Dichloroethene	ND		5.0		ug/L			04/30/24 05:01	1
1,1-Dichloropropene	ND		2.0		ug/L			04/30/24 05:01	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			04/30/24 05:01	1
1,2,3-Trichloropropane	ND		10		ug/L			04/30/24 05:01	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			04/30/24 05:01	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			04/30/24 05:01	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/30/24 05:01	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			04/30/24 05:01	1
1,2-Dichlorobenzene	ND		2.0		ug/L			04/30/24 05:01	1
1,2-Dichloroethane	ND		2.0		ug/L			04/30/24 05:01	1
1,2-Dichloropropane	ND		2.0		ug/L			04/30/24 05:01	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			04/30/24 05:01	1
1,3-Dichlorobenzene	ND		2.0		ug/L			04/30/24 05:01	1
1,3-Dichloropropane	ND		2.0		ug/L			04/30/24 05:01	1
1,4-Dichlorobenzene	ND		2.0		ug/L			04/30/24 05:01	1
2,2-Dichloropropane	ND		2.0		ug/L			04/30/24 05:01	1
2-Butanone (MEK)	ND		10		ug/L			04/30/24 05:01	1
2-Chlorotoluene	ND		5.0		ug/L			04/30/24 05:01	1
2-Hexanone	ND		10		ug/L			04/30/24 05:01	1
4-Chlorotoluene	ND		5.0		ug/L			04/30/24 05:01	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/30/24 05:01	1
Acetone	ND		20		ug/L			04/30/24 05:01	1
Benzene	ND		2.0		ug/L			04/30/24 05:01	1
Bromobenzene	ND		5.0		ug/L			04/30/24 05:01	1
Bromochloromethane	ND		5.0		ug/L			04/30/24 05:01	1
Bromodichloromethane	ND		2.0		ug/L			04/30/24 05:01	1
Bromoform	ND		5.0		ug/L			04/30/24 05:01	1
Bromomethane	ND		10		ug/L			04/30/24 05:01	1

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-VRP-3-2024
Date Collected: 04/23/24 13:55
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		5.0		ug/L			04/30/24 05:01	1
Carbon tetrachloride	ND		5.0		ug/L			04/30/24 05:01	1
Chlorobenzene	ND		2.0		ug/L			04/30/24 05:01	1
Chloroethane	ND		5.0		ug/L			04/30/24 05:01	1
Chloroform	**2.4**		2.0		ug/L			05/01/24 13:37	1
Chloromethane	ND		5.0		ug/L			04/30/24 05:01	1
cis-1,2-Dichloroethene	**26**		2.0		ug/L			05/01/24 13:37	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			04/30/24 05:01	1
Chlorodibromomethane	ND		2.0		ug/L			04/30/24 05:01	1
Dibromomethane	ND		2.0		ug/L			04/30/24 05:01	1
Dichlorodifluoromethane	ND	L5 V1	5.0		ug/L			04/30/24 05:01	1
Ethylbenzene	ND		2.0		ug/L			04/30/24 05:01	1
Hexachlorobutadiene	ND		5.0		ug/L			04/30/24 05:01	1
Iodomethane	ND		2.0		ug/L			04/30/24 05:01	1
Isopropylbenzene	ND		2.0		ug/L			04/30/24 05:01	1
m,p-Xylenes	ND		5.0		ug/L			04/30/24 05:01	1
Methylene Chloride	ND		5.0		ug/L			04/30/24 05:01	1
Naphthalene	ND		5.0		ug/L			04/30/24 05:01	1
n-Butylbenzene	ND		5.0		ug/L			04/30/24 05:01	1
o-Xylene	ND		5.0		ug/L			04/30/24 05:01	1
p-Isopropyltoluene	ND		2.0		ug/L			04/30/24 05:01	1
sec-Butylbenzene	ND		5.0		ug/L			04/30/24 05:01	1
Styrene	ND		2.0		ug/L			04/30/24 05:01	1
tert-Butylbenzene	ND		5.0		ug/L			04/30/24 05:01	1
Tetrachloroethene	ND		2.0		ug/L			04/30/24 05:01	1
Toluene	ND		5.0		ug/L			04/30/24 05:01	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			04/30/24 05:01	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			04/30/24 05:01	1
Trichloroethene	**21**		2.0		ug/L			05/01/24 13:37	1
Trichlorofluoromethane	ND		5.0		ug/L			04/30/24 05:01	1
Vinyl acetate	ND		25		ug/L			04/30/24 05:01	1
Vinyl chloride	ND	L5 V1	5.0		ug/L			04/30/24 05:01	1
Xylenes, Total	ND		10		ug/L			04/30/24 05:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*120*		*70 - 130*		*04/30/24 05:01*	*1*
Dibromofluoromethane (Surr)	*88*		*70 - 130*		*05/01/24 13:37*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*04/30/24 05:01*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*05/01/24 13:37*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*04/30/24 05:01*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*05/01/24 13:37*	*1*

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	**17000**		50		ug/L			04/27/24 11:19	10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3000**	**D2**	100		mg/L			04/25/24 18:51	50
Sulfate	**1300**	**D2**	100		mg/L			04/25/24 18:51	50

Client Sample ID: CH-VRP-3-2024

Lab Sample ID: 550-217471-3

Date Collected: 04/23/24 13:55

Matrix: Water

Date Received: 04/25/24 09:15

Method: EPA 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.12**		0.050		mg/L			04/25/24 13:15	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.10**		0.10		mg/L		04/26/24 07:42	04/29/24 19:53	1
Manganese	**1.6**		0.010		mg/L		04/26/24 07:42	05/01/24 20:15	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3 (SM 2320B)	**320**		6.0		mg/L			05/03/24 10:01	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/03/24 10:01	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**320**		6.0		mg/L			05/03/24 10:01	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/03/24 10:01	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/03/24 10:01	1

Client Sample ID: CH-VRP-4-2024

Lab Sample ID: 550-217471-4

Date Collected: 04/23/24 12:30

Matrix: Water

Date Received: 04/25/24 09:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			04/30/24 05:23	1
1,1,1-Trichloroethane	ND		2.0		ug/L			04/30/24 05:23	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			04/30/24 05:23	1
1,1,2-Trichloroethane	ND		2.0		ug/L			04/30/24 05:23	1
1,1-Dichloroethane	ND		2.0		ug/L			04/30/24 05:23	1
1,1-Dichloroethene	ND		5.0		ug/L			04/30/24 05:23	1
1,1-Dichloropropene	ND		2.0		ug/L			04/30/24 05:23	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			04/30/24 05:23	1
1,2,3-Trichloropropane	ND		10		ug/L			04/30/24 05:23	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			04/30/24 05:23	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			04/30/24 05:23	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/30/24 05:23	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			04/30/24 05:23	1
1,2-Dichlorobenzene	ND		2.0		ug/L			04/30/24 05:23	1
1,2-Dichloroethane	ND		2.0		ug/L			04/30/24 05:23	1
1,2-Dichloropropane	ND		2.0		ug/L			04/30/24 05:23	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			04/30/24 05:23	1
1,3-Dichlorobenzene	ND		2.0		ug/L			04/30/24 05:23	1
1,3-Dichloropropane	ND		2.0		ug/L			04/30/24 05:23	1
1,4-Dichlorobenzene	ND		2.0		ug/L			04/30/24 05:23	1
2,2-Dichloropropane	ND		2.0		ug/L			04/30/24 05:23	1
2-Butanone (MEK)	ND		10		ug/L			04/30/24 05:23	1
2-Chlorotoluene	ND		5.0		ug/L			04/30/24 05:23	1
2-Hexanone	ND		10		ug/L			04/30/24 05:23	1
4-Chlorotoluene	ND		5.0		ug/L			04/30/24 05:23	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/30/24 05:23	1
Acetone	ND		20		ug/L			04/30/24 05:23	1

Client Sample ID: CH-VRP-4-2024
Date Collected: 04/23/24 12:30
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			04/30/24 05:23	1
Bromobenzene	ND		5.0		ug/L			04/30/24 05:23	1
Bromochloromethane	ND		5.0		ug/L			04/30/24 05:23	1
Bromodichloromethane	ND		2.0		ug/L			04/30/24 05:23	1
Bromoform	ND		5.0		ug/L			04/30/24 05:23	1
Bromomethane	ND		10		ug/L			04/30/24 05:23	1
Carbon disulfide	ND		5.0		ug/L			04/30/24 05:23	1
Carbon tetrachloride	ND		5.0		ug/L			04/30/24 05:23	1
Chlorobenzene	ND		2.0		ug/L			04/30/24 05:23	1
Chloroethane	ND		5.0		ug/L			04/30/24 05:23	1
Chloroform	ND		2.0		ug/L			04/30/24 05:23	1
Chloromethane	ND		5.0		ug/L			04/30/24 05:23	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			04/30/24 05:23	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			04/30/24 05:23	1
Chlorodibromomethane	ND		2.0		ug/L			04/30/24 05:23	1
Dibromomethane	ND		2.0		ug/L			04/30/24 05:23	1
Dichlorodifluoromethane	ND	L5 V1	5.0		ug/L			04/30/24 05:23	1
Ethylbenzene	ND		2.0		ug/L			04/30/24 05:23	1
Hexachlorobutadiene	ND		5.0		ug/L			04/30/24 05:23	1
Iodomethane	ND		2.0		ug/L			04/30/24 05:23	1
Isopropylbenzene	ND		2.0		ug/L			04/30/24 05:23	1
m,p-Xylenes	ND		5.0		ug/L			04/30/24 05:23	1
Methylene Chloride	ND		5.0		ug/L			04/30/24 05:23	1
Naphthalene	ND		5.0		ug/L			04/30/24 05:23	1
n-Butylbenzene	ND		5.0		ug/L			04/30/24 05:23	1
o-Xylene	ND		5.0		ug/L			04/30/24 05:23	1
p-Isopropyltoluene	ND		2.0		ug/L			04/30/24 05:23	1
sec-Butylbenzene	ND		5.0		ug/L			04/30/24 05:23	1
Styrene	ND		2.0		ug/L			04/30/24 05:23	1
tert-Butylbenzene	ND		5.0		ug/L			04/30/24 05:23	1
Tetrachloroethene	ND		2.0		ug/L			04/30/24 05:23	1
Toluene	ND		5.0		ug/L			04/30/24 05:23	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			04/30/24 05:23	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			04/30/24 05:23	1
Trichloroethene	ND		2.0		ug/L			04/30/24 05:23	1
Trichlorofluoromethane	ND		5.0		ug/L			04/30/24 05:23	1
Vinyl acetate	ND		25		ug/L			04/30/24 05:23	1
Vinyl chloride	ND	L5 V1	5.0		ug/L			04/30/24 05:23	1
Xylenes, Total	ND		10		ug/L			04/30/24 05:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*120*		*70 - 130*		*04/30/24 05:23*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*04/30/24 05:23*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*04/30/24 05:23*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	**7300**		50		ug/L			04/27/24 09:31	10

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-VRP-4-2024

Lab Sample ID: 550-217471-4

Date Collected: 04/23/24 12:30

Matrix: Water

Date Received: 04/25/24 09:15

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1100**	**D2**	100		mg/L			04/25/24 17:55	50
Sulfate	**720**	**D2**	100		mg/L			04/25/24 17:55	50
Nitrate as N	ND		0.050		mg/L			04/25/24 12:19	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**1.5**		0.10		mg/L		04/26/24 07:42	04/29/24 19:50	1
Manganese	**0.46**		0.010		mg/L		04/26/24 07:42	05/01/24 20:11	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3 (SM 2320B)	**440**		6.0		mg/L			05/03/24 10:09	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/03/24 10:09	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**440**		6.0		mg/L			05/03/24 10:09	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/03/24 10:09	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/03/24 10:09	1

Client Sample ID: CH-VRP-5-2024

Lab Sample ID: 550-217471-5

Date Collected: 04/22/24 10:30

Matrix: Water

Date Received: 04/25/24 09:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			04/30/24 05:44	1
1,1,1-Trichloroethane	ND		2.0		ug/L			04/30/24 05:44	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			04/30/24 05:44	1
1,1,2-Trichloroethane	ND		2.0		ug/L			04/30/24 05:44	1
1,1-Dichloroethane	ND		2.0		ug/L			04/30/24 05:44	1
1,1-Dichloroethene	ND		5.0		ug/L			04/30/24 05:44	1
1,1-Dichloropropene	ND		2.0		ug/L			04/30/24 05:44	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			04/30/24 05:44	1
1,2,3-Trichloropropane	ND		10		ug/L			04/30/24 05:44	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			04/30/24 05:44	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			04/30/24 05:44	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/30/24 05:44	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			04/30/24 05:44	1
1,2-Dichlorobenzene	ND		2.0		ug/L			04/30/24 05:44	1
1,2-Dichloroethane	ND		2.0		ug/L			04/30/24 05:44	1
1,2-Dichloropropane	ND		2.0		ug/L			04/30/24 05:44	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			04/30/24 05:44	1
1,3-Dichlorobenzene	ND		2.0		ug/L			04/30/24 05:44	1
1,3-Dichloropropane	ND		2.0		ug/L			04/30/24 05:44	1
1,4-Dichlorobenzene	ND		2.0		ug/L			04/30/24 05:44	1
2,2-Dichloropropane	ND		2.0		ug/L			04/30/24 05:44	1
2-Butanone (MEK)	ND		10		ug/L			04/30/24 05:44	1
2-Chlorotoluene	ND		5.0		ug/L			04/30/24 05:44	1
2-Hexanone	ND		10		ug/L			04/30/24 05:44	1
4-Chlorotoluene	ND		5.0		ug/L			04/30/24 05:44	1

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-VRP-5-2024
Date Collected: 04/22/24 10:30
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/30/24 05:44	1
Acetone	ND		20		ug/L			04/30/24 05:44	1
Benzene	ND		2.0		ug/L			04/30/24 05:44	1
Bromobenzene	ND		5.0		ug/L			04/30/24 05:44	1
Bromochloromethane	ND		5.0		ug/L			04/30/24 05:44	1
Bromodichloromethane	ND		2.0		ug/L			04/30/24 05:44	1
Bromoform	ND		5.0		ug/L			04/30/24 05:44	1
Bromomethane	ND		10		ug/L			04/30/24 05:44	1
Carbon disulfide	ND		5.0		ug/L			04/30/24 05:44	1
Carbon tetrachloride	ND		5.0		ug/L			04/30/24 05:44	1
Chlorobenzene	ND		2.0		ug/L			04/30/24 05:44	1
Chloroethane	ND		5.0		ug/L			04/30/24 05:44	1
Chloroform	ND		2.0		ug/L			04/30/24 05:44	1
Chloromethane	ND		5.0		ug/L			04/30/24 05:44	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			04/30/24 05:44	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			04/30/24 05:44	1
Chlorodibromomethane	ND		2.0		ug/L			04/30/24 05:44	1
Dibromomethane	ND		2.0		ug/L			04/30/24 05:44	1
Dichlorodifluoromethane	ND	L5	5.0		ug/L			04/30/24 05:44	1
Ethylbenzene	ND		2.0		ug/L			04/30/24 05:44	1
Hexachlorobutadiene	ND		5.0		ug/L			04/30/24 05:44	1
Iodomethane	ND		2.0		ug/L			04/30/24 05:44	1
Isopropylbenzene	ND		2.0		ug/L			04/30/24 05:44	1
m,p-Xylenes	ND		5.0		ug/L			04/30/24 05:44	1
Methylene Chloride	ND		5.0		ug/L			04/30/24 05:44	1
Naphthalene	ND		5.0		ug/L			04/30/24 05:44	1
n-Butylbenzene	ND		5.0		ug/L			04/30/24 05:44	1
o-Xylene	ND		5.0		ug/L			04/30/24 05:44	1
p-Isopropyltoluene	ND		2.0		ug/L			04/30/24 05:44	1
sec-Butylbenzene	ND		5.0		ug/L			04/30/24 05:44	1
Styrene	ND		2.0		ug/L			04/30/24 05:44	1
tert-Butylbenzene	ND		5.0		ug/L			04/30/24 05:44	1
Tetrachloroethene	ND		2.0		ug/L			04/30/24 05:44	1
Toluene	ND		5.0		ug/L			04/30/24 05:44	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			04/30/24 05:44	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			04/30/24 05:44	1
Trichloroethene	ND		2.0		ug/L			04/30/24 05:44	1
Trichlorofluoromethane	ND		5.0		ug/L			04/30/24 05:44	1
Vinyl acetate	ND		25		ug/L			04/30/24 05:44	1
Vinyl chloride	ND	L5	5.0		ug/L			04/30/24 05:44	1
Xylenes, Total	ND		10		ug/L			04/30/24 05:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*117*		*70 - 130*		*04/30/24 05:44*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*04/30/24 05:44*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*04/30/24 05:44*	*1*

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-VRP-7-2024
Date Collected: 04/22/24 12:55
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			04/30/24 06:06	1
1,1,1-Trichloroethane	ND		2.0		ug/L			04/30/24 06:06	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			04/30/24 06:06	1
1,1,2-Trichloroethane	ND		2.0		ug/L			04/30/24 06:06	1
1,1-Dichloroethane	ND		2.0		ug/L			04/30/24 06:06	1
1,1-Dichloroethene	ND		5.0		ug/L			04/30/24 06:06	1
1,1-Dichloropropene	ND		2.0		ug/L			04/30/24 06:06	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			04/30/24 06:06	1
1,2,3-Trichloropropane	ND		10		ug/L			04/30/24 06:06	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			04/30/24 06:06	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			04/30/24 06:06	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/30/24 06:06	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			04/30/24 06:06	1
1,2-Dichlorobenzene	ND		2.0		ug/L			04/30/24 06:06	1
1,2-Dichloroethane	ND		2.0		ug/L			04/30/24 06:06	1
1,2-Dichloropropane	ND		2.0		ug/L			04/30/24 06:06	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			04/30/24 06:06	1
1,3-Dichlorobenzene	ND		2.0		ug/L			04/30/24 06:06	1
1,3-Dichloropropane	ND		2.0		ug/L			04/30/24 06:06	1
1,4-Dichlorobenzene	ND		2.0		ug/L			04/30/24 06:06	1
2,2-Dichloropropane	ND		2.0		ug/L			04/30/24 06:06	1
2-Butanone (MEK)	ND		10		ug/L			04/30/24 06:06	1
2-Chlorotoluene	ND		5.0		ug/L			04/30/24 06:06	1
2-Hexanone	ND		10		ug/L			04/30/24 06:06	1
4-Chlorotoluene	ND		5.0		ug/L			04/30/24 06:06	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/30/24 06:06	1
Acetone	ND		20		ug/L			04/30/24 06:06	1
Benzene	ND		2.0		ug/L			04/30/24 06:06	1
Bromobenzene	ND		5.0		ug/L			04/30/24 06:06	1
Bromochloromethane	ND		5.0		ug/L			04/30/24 06:06	1
Bromodichloromethane	ND		2.0		ug/L			04/30/24 06:06	1
Bromoform	ND		5.0		ug/L			04/30/24 06:06	1
Bromomethane	ND		10		ug/L			04/30/24 06:06	1
Carbon disulfide	ND		5.0		ug/L			04/30/24 06:06	1
Carbon tetrachloride	ND		5.0		ug/L			04/30/24 06:06	1
Chlorobenzene	ND		2.0		ug/L			04/30/24 06:06	1
Chloroethane	ND		5.0		ug/L			04/30/24 06:06	1
Chloroform	ND		2.0		ug/L			04/30/24 06:06	1
Chloromethane	ND		5.0		ug/L			04/30/24 06:06	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			04/30/24 06:06	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			04/30/24 06:06	1
Chlorodibromomethane	ND		2.0		ug/L			04/30/24 06:06	1
Dibromomethane	ND		2.0		ug/L			04/30/24 06:06	1
Dichlorodifluoromethane	ND	L5	5.0		ug/L			04/30/24 06:06	1
Ethylbenzene	ND		2.0		ug/L			04/30/24 06:06	1
Hexachlorobutadiene	ND		5.0		ug/L			04/30/24 06:06	1
Iodomethane	ND		2.0		ug/L			04/30/24 06:06	1
Isopropylbenzene	ND		2.0		ug/L			04/30/24 06:06	1
m,p-Xylenes	ND		5.0		ug/L			04/30/24 06:06	1

Client Sample ID: CH-VRP-7-2024

Lab Sample ID: 550-217471-6

Date Collected: 04/22/24 12:55
Matrix: Water
Date Received: 04/25/24 09:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		5.0		ug/L			04/30/24 06:06	1
Naphthalene	ND		5.0		ug/L			04/30/24 06:06	1
n-Butylbenzene	ND		5.0		ug/L			04/30/24 06:06	1
o-Xylene	ND		5.0		ug/L			04/30/24 06:06	1
p-Isopropyltoluene	ND		2.0		ug/L			04/30/24 06:06	1
sec-Butylbenzene	ND		5.0		ug/L			04/30/24 06:06	1
Styrene	ND		2.0		ug/L			04/30/24 06:06	1
tert-Butylbenzene	ND		5.0		ug/L			04/30/24 06:06	1
Tetrachloroethene	ND		2.0		ug/L			04/30/24 06:06	1
Toluene	ND		5.0		ug/L			04/30/24 06:06	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			04/30/24 06:06	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			04/30/24 06:06	1
Trichloroethene	ND		2.0		ug/L			04/30/24 06:06	1
Trichlorofluoromethane	ND		5.0		ug/L			04/30/24 06:06	1
Vinyl acetate	ND		25		ug/L			04/30/24 06:06	1
Vinyl chloride	ND	L5	5.0		ug/L			04/30/24 06:06	1
Xylenes, Total	ND		10		ug/L			04/30/24 06:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*118*		*70 - 130*		*04/30/24 06:06*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*04/30/24 06:06*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*04/30/24 06:06*	*1*

Client Sample ID: CH-VRP-8-2024

Lab Sample ID: 550-217471-7

Date Collected: 04/22/24 12:30
Matrix: Water
Date Received: 04/25/24 09:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			04/30/24 06:28	1
1,1,1-Trichloroethane	ND		2.0		ug/L			04/30/24 06:28	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			04/30/24 06:28	1
1,1,2-Trichloroethane	ND		2.0		ug/L			04/30/24 06:28	1
1,1-Dichloroethane	ND		2.0		ug/L			04/30/24 06:28	1
1,1-Dichloroethene	ND		5.0		ug/L			04/30/24 06:28	1
1,1-Dichloropropene	ND		2.0		ug/L			04/30/24 06:28	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			04/30/24 06:28	1
1,2,3-Trichloropropane	ND		10		ug/L			04/30/24 06:28	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			04/30/24 06:28	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			04/30/24 06:28	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/30/24 06:28	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			04/30/24 06:28	1
1,2-Dichlorobenzene	ND		2.0		ug/L			04/30/24 06:28	1
1,2-Dichloroethane	ND		2.0		ug/L			04/30/24 06:28	1
1,2-Dichloropropane	ND		2.0		ug/L			04/30/24 06:28	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			04/30/24 06:28	1
1,3-Dichlorobenzene	ND		2.0		ug/L			04/30/24 06:28	1
1,3-Dichloropropane	ND		2.0		ug/L			04/30/24 06:28	1
1,4-Dichlorobenzene	ND		2.0		ug/L			04/30/24 06:28	1
2,2-Dichloropropane	ND		2.0		ug/L			04/30/24 06:28	1

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-VRP-8-2024
Date Collected: 04/22/24 12:30
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-7
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	ND		10		ug/L			04/30/24 06:28	1
2-Chlorotoluene	ND		5.0		ug/L			04/30/24 06:28	1
2-Hexanone	ND		10		ug/L			04/30/24 06:28	1
4-Chlorotoluene	ND		5.0		ug/L			04/30/24 06:28	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/30/24 06:28	1
Acetone	ND		20		ug/L			04/30/24 06:28	1
Benzene	ND		2.0		ug/L			04/30/24 06:28	1
Bromobenzene	ND		5.0		ug/L			04/30/24 06:28	1
Bromochloromethane	ND		5.0		ug/L			04/30/24 06:28	1
Bromodichloromethane	ND		2.0		ug/L			04/30/24 06:28	1
Bromoform	ND		5.0		ug/L			04/30/24 06:28	1
Bromomethane	ND		10		ug/L			04/30/24 06:28	1
Carbon disulfide	ND		5.0		ug/L			04/30/24 06:28	1
Carbon tetrachloride	ND		5.0		ug/L			04/30/24 06:28	1
Chlorobenzene	ND		2.0		ug/L			04/30/24 06:28	1
Chloroethane	ND		5.0		ug/L			04/30/24 06:28	1
Chloroform	ND		2.0		ug/L			04/30/24 06:28	1
Chloromethane	ND		5.0		ug/L			04/30/24 06:28	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			04/30/24 06:28	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			04/30/24 06:28	1
Chlorodibromomethane	ND		2.0		ug/L			04/30/24 06:28	1
Dibromomethane	ND		2.0		ug/L			04/30/24 06:28	1
Dichlorodifluoromethane	ND	L5	5.0		ug/L			04/30/24 06:28	1
Ethylbenzene	ND		2.0		ug/L			04/30/24 06:28	1
Hexachlorobutadiene	ND		5.0		ug/L			04/30/24 06:28	1
Iodomethane	ND		2.0		ug/L			04/30/24 06:28	1
Isopropylbenzene	ND		2.0		ug/L			04/30/24 06:28	1
m,p-Xylenes	ND		5.0		ug/L			04/30/24 06:28	1
Methylene Chloride	ND		5.0		ug/L			04/30/24 06:28	1
Naphthalene	ND		5.0		ug/L			04/30/24 06:28	1
n-Butylbenzene	ND		5.0		ug/L			04/30/24 06:28	1
o-Xylene	ND		5.0		ug/L			04/30/24 06:28	1
p-Isopropyltoluene	ND		2.0		ug/L			04/30/24 06:28	1
sec-Butylbenzene	ND		5.0		ug/L			04/30/24 06:28	1
Styrene	ND		2.0		ug/L			04/30/24 06:28	1
tert-Butylbenzene	ND		5.0		ug/L			04/30/24 06:28	1
Tetrachloroethene	ND		2.0		ug/L			04/30/24 06:28	1
Toluene	ND		5.0		ug/L			04/30/24 06:28	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			04/30/24 06:28	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			04/30/24 06:28	1
Trichloroethene	ND		2.0		ug/L			04/30/24 06:28	1
Trichlorofluoromethane	ND		5.0		ug/L			04/30/24 06:28	1
Vinyl acetate	ND		25		ug/L			04/30/24 06:28	1
Vinyl chloride	ND	L5	5.0		ug/L			04/30/24 06:28	1
Xylenes, Total	ND		10		ug/L			04/30/24 06:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*116*		*70 - 130*		*04/30/24 06:28*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*04/30/24 06:28*	*1*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*04/30/24 06:28*	*1*

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-VRP-9-2024
Date Collected: 04/23/24 18:00
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-8
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			04/30/24 06:49	1
1,1,1-Trichloroethane	ND		2.0		ug/L			04/30/24 06:49	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			04/30/24 06:49	1
1,1,2-Trichloroethane	ND		2.0		ug/L			04/30/24 06:49	1
1,1-Dichloroethane	ND		2.0		ug/L			04/30/24 06:49	1
1,1-Dichloroethene	ND		5.0		ug/L			04/30/24 06:49	1
1,1-Dichloropropene	ND		2.0		ug/L			04/30/24 06:49	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			04/30/24 06:49	1
1,2,3-Trichloropropane	ND		10		ug/L			04/30/24 06:49	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			04/30/24 06:49	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			04/30/24 06:49	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/30/24 06:49	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			04/30/24 06:49	1
1,2-Dichlorobenzene	ND		2.0		ug/L			04/30/24 06:49	1
1,2-Dichloroethane	ND		2.0		ug/L			04/30/24 06:49	1
1,2-Dichloropropane	ND		2.0		ug/L			04/30/24 06:49	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			04/30/24 06:49	1
1,3-Dichlorobenzene	ND		2.0		ug/L			04/30/24 06:49	1
1,3-Dichloropropane	ND		2.0		ug/L			04/30/24 06:49	1
1,4-Dichlorobenzene	ND		2.0		ug/L			04/30/24 06:49	1
2,2-Dichloropropane	ND		2.0		ug/L			04/30/24 06:49	1
2-Butanone (MEK)	ND		10		ug/L			04/30/24 06:49	1
2-Chlorotoluene	ND		5.0		ug/L			04/30/24 06:49	1
2-Hexanone	ND		10		ug/L			04/30/24 06:49	1
4-Chlorotoluene	ND		5.0		ug/L			04/30/24 06:49	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/30/24 06:49	1
Acetone	ND		20		ug/L			04/30/24 06:49	1
Benzene	ND		2.0		ug/L			04/30/24 06:49	1
Bromobenzene	ND		5.0		ug/L			04/30/24 06:49	1
Bromochloromethane	ND		5.0		ug/L			04/30/24 06:49	1
Bromodichloromethane	ND		2.0		ug/L			04/30/24 06:49	1
Bromoform	ND		5.0		ug/L			04/30/24 06:49	1
Bromomethane	ND		10		ug/L			04/30/24 06:49	1
Carbon disulfide	ND		5.0		ug/L			04/30/24 06:49	1
Carbon tetrachloride	ND		5.0		ug/L			04/30/24 06:49	1
Chlorobenzene	ND		2.0		ug/L			04/30/24 06:49	1
Chloroethane	ND		5.0		ug/L			04/30/24 06:49	1
Chloroform	ND		2.0		ug/L			04/30/24 06:49	1
Chloromethane	ND		5.0		ug/L			04/30/24 06:49	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			04/30/24 06:49	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			04/30/24 06:49	1
Chlorodibromomethane	ND		2.0		ug/L			04/30/24 06:49	1
Dibromomethane	ND		2.0		ug/L			04/30/24 06:49	1
Dichlorodifluoromethane	ND	L5 M1	5.0		ug/L			04/30/24 06:49	1
Ethylbenzene	ND		2.0		ug/L			04/30/24 06:49	1
Hexachlorobutadiene	ND		5.0		ug/L			04/30/24 06:49	1
Iodomethane	ND		2.0		ug/L			04/30/24 06:49	1
Isopropylbenzene	ND		2.0		ug/L			04/30/24 06:49	1
m,p-Xylenes	ND		5.0		ug/L			04/30/24 06:49	1

Client Sample ID: CH-VRP-9-2024
Date Collected: 04/23/24 18:00
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-8
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		5.0		ug/L			04/30/24 06:49	1
Naphthalene	ND		5.0		ug/L			04/30/24 06:49	1
n-Butylbenzene	ND		5.0		ug/L			04/30/24 06:49	1
o-Xylene	ND		5.0		ug/L			04/30/24 06:49	1
p-Isopropyltoluene	ND		2.0		ug/L			04/30/24 06:49	1
sec-Butylbenzene	ND		5.0		ug/L			04/30/24 06:49	1
Styrene	ND		2.0		ug/L			04/30/24 06:49	1
tert-Butylbenzene	ND		5.0		ug/L			04/30/24 06:49	1
Tetrachloroethene	ND		2.0		ug/L			04/30/24 06:49	1
Toluene	ND		5.0		ug/L			04/30/24 06:49	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			04/30/24 06:49	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			04/30/24 06:49	1
Trichloroethene	ND		2.0		ug/L			04/30/24 06:49	1
Trichlorofluoromethane	ND		5.0		ug/L			04/30/24 06:49	1
Vinyl acetate	ND		25		ug/L			04/30/24 06:49	1
Vinyl chloride	ND	L5	5.0		ug/L			04/30/24 06:49	1
Xylenes, Total	ND		10		ug/L			04/30/24 06:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*118*		*70 - 130*		*04/30/24 06:49*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*04/30/24 06:49*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*04/30/24 06:49*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	**25000**		50		ug/L			04/27/24 09:45	10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2100**	**D2**	100		mg/L			04/25/24 15:35	50
Sulfate	**860**	**D2**	100		mg/L			04/25/24 15:35	50
Nitrate as N	ND		0.050		mg/L			04/25/24 15:07	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.19**		0.10		mg/L		04/26/24 07:42	04/29/24 19:46	1
Manganese	**1.1**		0.010		mg/L		04/26/24 07:42	05/01/24 20:01	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3 (SM 2320B)	**330**		6.0		mg/L			05/03/24 10:20	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/03/24 10:20	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**330**		6.0		mg/L			05/03/24 10:20	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/03/24 10:20	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/03/24 10:20	1

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-VRP-10-2024

Date Collected: 04/22/24 15:55
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-9

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			05/01/24 12:40	1
1,1,1-Trichloroethane	ND		2.0		ug/L			05/01/24 12:40	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			05/01/24 12:40	1
1,1,2-Trichloroethane	ND		2.0		ug/L			05/01/24 12:40	1
1,1-Dichloroethane	ND		2.0		ug/L			05/01/24 12:40	1
1,1-Dichloroethene	ND	V1	5.0		ug/L			05/01/24 12:40	1
1,1-Dichloropropene	ND		2.0		ug/L			05/01/24 12:40	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			05/01/24 12:40	1
1,2,3-Trichloropropane	ND		10		ug/L			05/01/24 12:40	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			05/01/24 12:40	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			05/01/24 12:40	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/01/24 12:40	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			05/01/24 12:40	1
1,2-Dichlorobenzene	ND		2.0		ug/L			05/01/24 12:40	1
1,2-Dichloroethane	ND		2.0		ug/L			05/01/24 12:40	1
1,2-Dichloropropane	ND		2.0		ug/L			05/01/24 12:40	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			05/01/24 12:40	1
1,3-Dichlorobenzene	ND		2.0		ug/L			05/01/24 12:40	1
1,3-Dichloropropane	ND		2.0		ug/L			05/01/24 12:40	1
1,4-Dichlorobenzene	ND		2.0		ug/L			05/01/24 12:40	1
2,2-Dichloropropane	ND		2.0		ug/L			05/01/24 12:40	1
2-Butanone (MEK)	ND		10		ug/L			05/01/24 12:40	1
2-Chlorotoluene	ND		5.0		ug/L			05/01/24 12:40	1
2-Hexanone	ND		10		ug/L			05/01/24 12:40	1
4-Chlorotoluene	ND		5.0		ug/L			05/01/24 12:40	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/01/24 12:40	1
Acetone	ND		20		ug/L			05/01/24 12:40	1
Benzene	ND		2.0		ug/L			05/01/24 12:40	1
Bromobenzene	ND		5.0		ug/L			05/01/24 12:40	1
Bromochloromethane	ND		5.0		ug/L			05/01/24 12:40	1
Bromodichloromethane	ND		2.0		ug/L			05/01/24 12:40	1
Bromoform	ND		5.0		ug/L			05/01/24 12:40	1
Bromomethane	ND		10		ug/L			05/01/24 12:40	1
Carbon disulfide	ND	N1	5.0		ug/L			05/01/24 12:40	1
Carbon tetrachloride	ND		5.0		ug/L			05/01/24 12:40	1
Chlorobenzene	ND		2.0		ug/L			05/01/24 12:40	1
Chloroethane	ND	V1	5.0		ug/L			05/01/24 12:40	1
Chloroform	ND		2.0		ug/L			05/01/24 12:40	1
Chloromethane	ND	V1	5.0		ug/L			05/01/24 12:40	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			05/01/24 12:40	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 12:40	1
Chlorodibromomethane	ND		2.0		ug/L			05/01/24 12:40	1
Dibromomethane	ND		2.0		ug/L			05/01/24 12:40	1
Dichlorodifluoromethane	ND	L5 N1 V1	5.0		ug/L			05/01/24 12:40	1
Ethylbenzene	ND		2.0		ug/L			05/01/24 12:40	1
Hexachlorobutadiene	ND		5.0		ug/L			05/01/24 12:40	1
Iodomethane	ND		2.0		ug/L			05/01/24 12:40	1
Isopropylbenzene	ND		2.0		ug/L			05/01/24 12:40	1
m,p-Xylenes	ND		5.0		ug/L			05/01/24 12:40	1

Client Sample ID: CH-VRP-10-2024

Lab Sample ID: 550-217471-9

Date Collected: 04/22/24 15:55
Matrix: Water
Date Received: 04/25/24 09:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		5.0		ug/L			05/01/24 12:40	1
Naphthalene	ND		5.0		ug/L			05/01/24 12:40	1
n-Butylbenzene	ND		5.0		ug/L			05/01/24 12:40	1
o-Xylene	ND		5.0		ug/L			05/01/24 12:40	1
p-Isopropyltoluene	ND		2.0		ug/L			05/01/24 12:40	1
sec-Butylbenzene	ND		5.0		ug/L			05/01/24 12:40	1
Styrene	ND		2.0		ug/L			05/01/24 12:40	1
tert-Butylbenzene	ND		5.0		ug/L			05/01/24 12:40	1
Tetrachloroethene	ND		2.0		ug/L			05/01/24 12:40	1
Toluene	ND		5.0		ug/L			05/01/24 12:40	1
trans-1,2-Dichloroethene	ND	V1	2.0		ug/L			05/01/24 12:40	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 12:40	1
Trichloroethene	ND		2.0		ug/L			05/01/24 12:40	1
Trichlorofluoromethane	ND		5.0		ug/L			05/01/24 12:40	1
Vinyl acetate	ND		25		ug/L			05/01/24 12:40	1
Vinyl chloride	ND	L5 N1 V1	5.0		ug/L			05/01/24 12:40	1
Xylenes, Total	ND		10		ug/L			05/01/24 12:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*117*		*70 - 130*		*05/01/24 12:40*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*05/01/24 12:40*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*05/01/24 12:40*	*1*

Client Sample ID: CH-VRP-11-2024

Lab Sample ID: 550-217471-10

Date Collected: 04/22/24 14:10
Matrix: Water
Date Received: 04/25/24 09:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			05/01/24 13:02	1
1,1,1-Trichloroethane	ND		2.0		ug/L			05/01/24 13:02	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			05/01/24 13:02	1
1,1,2-Trichloroethane	ND		2.0		ug/L			05/01/24 13:02	1
1,1-Dichloroethane	ND		2.0		ug/L			05/01/24 13:02	1
1,1-Dichloroethene	ND	V1	5.0		ug/L			05/01/24 13:02	1
1,1-Dichloropropene	ND		2.0		ug/L			05/01/24 13:02	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			05/01/24 13:02	1
1,2,3-Trichloropropane	ND		10		ug/L			05/01/24 13:02	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			05/01/24 13:02	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			05/01/24 13:02	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/01/24 13:02	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			05/01/24 13:02	1
1,2-Dichlorobenzene	ND		2.0		ug/L			05/01/24 13:02	1
1,2-Dichloroethane	ND		2.0		ug/L			05/01/24 13:02	1
1,2-Dichloropropane	ND		2.0		ug/L			05/01/24 13:02	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			05/01/24 13:02	1
1,3-Dichlorobenzene	ND		2.0		ug/L			05/01/24 13:02	1
1,3-Dichloropropane	ND		2.0		ug/L			05/01/24 13:02	1
1,4-Dichlorobenzene	ND		2.0		ug/L			05/01/24 13:02	1
2,2-Dichloropropane	ND		2.0		ug/L			05/01/24 13:02	1

Client Sample ID: CH-VRP-11-2024
Date Collected: 04/22/24 14:10
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-10
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	ND		10		ug/L			05/01/24 13:02	1
2-Chlorotoluene	ND		5.0		ug/L			05/01/24 13:02	1
2-Hexanone	ND		10		ug/L			05/01/24 13:02	1
4-Chlorotoluene	ND		5.0		ug/L			05/01/24 13:02	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/01/24 13:02	1
Acetone	ND		20		ug/L			05/01/24 13:02	1
Benzene	ND		2.0		ug/L			05/01/24 13:02	1
Bromobenzene	ND		5.0		ug/L			05/01/24 13:02	1
Bromochloromethane	ND		5.0		ug/L			05/01/24 13:02	1
Bromodichloromethane	ND		2.0		ug/L			05/01/24 13:02	1
Bromoform	ND		5.0		ug/L			05/01/24 13:02	1
Bromomethane	ND		10		ug/L			05/01/24 13:02	1
Carbon disulfide	ND	N1	5.0		ug/L			05/01/24 13:02	1
Carbon tetrachloride	ND		5.0		ug/L			05/01/24 13:02	1
Chlorobenzene	ND		2.0		ug/L			05/01/24 13:02	1
Chloroethane	ND	V1	5.0		ug/L			05/01/24 13:02	1
Chloroform	ND		2.0		ug/L			05/01/24 13:02	1
Chloromethane	ND	V1	5.0		ug/L			05/01/24 13:02	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			05/01/24 13:02	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 13:02	1
Chlorodibromomethane	ND		2.0		ug/L			05/01/24 13:02	1
Dibromomethane	ND		2.0		ug/L			05/01/24 13:02	1
Dichlorodifluoromethane	ND	L5 N1 V1	5.0		ug/L			05/01/24 13:02	1
Ethylbenzene	ND		2.0		ug/L			05/01/24 13:02	1
Hexachlorobutadiene	ND		5.0		ug/L			05/01/24 13:02	1
Iodomethane	ND		2.0		ug/L			05/01/24 13:02	1
Isopropylbenzene	ND		2.0		ug/L			05/01/24 13:02	1
m,p-Xylenes	ND		5.0		ug/L			05/01/24 13:02	1
Methylene Chloride	ND		5.0		ug/L			05/01/24 13:02	1
Naphthalene	ND		5.0		ug/L			05/01/24 13:02	1
n-Butylbenzene	ND		5.0		ug/L			05/01/24 13:02	1
o-Xylene	ND		5.0		ug/L			05/01/24 13:02	1
p-Isopropyltoluene	ND		2.0		ug/L			05/01/24 13:02	1
sec-Butylbenzene	ND		5.0		ug/L			05/01/24 13:02	1
Styrene	ND		2.0		ug/L			05/01/24 13:02	1
tert-Butylbenzene	ND		5.0		ug/L			05/01/24 13:02	1
Tetrachloroethene	ND		2.0		ug/L			05/01/24 13:02	1
Toluene	ND		5.0		ug/L			05/01/24 13:02	1
trans-1,2-Dichloroethene	ND	V1	2.0		ug/L			05/01/24 13:02	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 13:02	1
Trichloroethene	ND		2.0		ug/L			05/01/24 13:02	1
Trichlorofluoromethane	ND		5.0		ug/L			05/01/24 13:02	1
Vinyl acetate	ND		25		ug/L			05/01/24 13:02	1
Vinyl chloride	ND	L5 N1 V1	5.0		ug/L			05/01/24 13:02	1
Xylenes, Total	ND		10		ug/L			05/01/24 13:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*116*		*70 - 130*		*05/01/24 13:02*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*05/01/24 13:02*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*05/01/24 13:02*	*1*

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-VRP-12-2024

Date Collected: 04/22/24 11:40
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-11

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			05/01/24 13:24	1
1,1,1-Trichloroethane	ND		2.0		ug/L			05/01/24 13:24	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			05/01/24 13:24	1
1,1,2-Trichloroethane	ND		2.0		ug/L			05/01/24 13:24	1
1,1-Dichloroethane	ND		2.0		ug/L			05/01/24 13:24	1
1,1-Dichloroethene	ND	V1	5.0		ug/L			05/01/24 13:24	1
1,1-Dichloropropene	ND		2.0		ug/L			05/01/24 13:24	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			05/01/24 13:24	1
1,2,3-Trichloropropane	ND		10		ug/L			05/01/24 13:24	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			05/01/24 13:24	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			05/01/24 13:24	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/01/24 13:24	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			05/01/24 13:24	1
1,2-Dichlorobenzene	ND		2.0		ug/L			05/01/24 13:24	1
1,2-Dichloroethane	ND		2.0		ug/L			05/01/24 13:24	1
1,2-Dichloropropane	ND		2.0		ug/L			05/01/24 13:24	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			05/01/24 13:24	1
1,3-Dichlorobenzene	ND		2.0		ug/L			05/01/24 13:24	1
1,3-Dichloropropane	ND		2.0		ug/L			05/01/24 13:24	1
1,4-Dichlorobenzene	ND		2.0		ug/L			05/01/24 13:24	1
2,2-Dichloropropane	ND		2.0		ug/L			05/01/24 13:24	1
2-Butanone (MEK)	ND		10		ug/L			05/01/24 13:24	1
2-Chlorotoluene	ND		5.0		ug/L			05/01/24 13:24	1
2-Hexanone	ND		10		ug/L			05/01/24 13:24	1
4-Chlorotoluene	ND		5.0		ug/L			05/01/24 13:24	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/01/24 13:24	1
Acetone	ND		20		ug/L			05/01/24 13:24	1
Benzene	ND		2.0		ug/L			05/01/24 13:24	1
Bromobenzene	ND		5.0		ug/L			05/01/24 13:24	1
Bromochloromethane	ND		5.0		ug/L			05/01/24 13:24	1
Bromodichloromethane	ND		2.0		ug/L			05/01/24 13:24	1
Bromoform	ND		5.0		ug/L			05/01/24 13:24	1
Bromomethane	ND		10		ug/L			05/01/24 13:24	1
Carbon disulfide	ND	N1	5.0		ug/L			05/01/24 13:24	1
Carbon tetrachloride	ND		5.0		ug/L			05/01/24 13:24	1
Chlorobenzene	ND		2.0		ug/L			05/01/24 13:24	1
Chloroethane	ND	V1	5.0		ug/L			05/01/24 13:24	1
Chloroform	ND		2.0		ug/L			05/01/24 13:24	1
Chloromethane	ND	V1	5.0		ug/L			05/01/24 13:24	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			05/01/24 13:24	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 13:24	1
Chlorodibromomethane	ND		2.0		ug/L			05/01/24 13:24	1
Dibromomethane	ND		2.0		ug/L			05/01/24 13:24	1
Dichlorodifluoromethane	ND	L5 N1 V1	5.0		ug/L			05/01/24 13:24	1
Ethylbenzene	ND		2.0		ug/L			05/01/24 13:24	1
Hexachlorobutadiene	ND		5.0		ug/L			05/01/24 13:24	1
Iodomethane	ND		2.0		ug/L			05/01/24 13:24	1
Isopropylbenzene	ND		2.0		ug/L			05/01/24 13:24	1
m,p-Xylenes	ND		5.0		ug/L			05/01/24 13:24	1

Client Sample ID: CH-VRP-12-2024

Lab Sample ID: 550-217471-11

Date Collected: 04/22/24 11:40

Matrix: Water

Date Received: 04/25/24 09:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		5.0		ug/L			05/01/24 13:24	1
Naphthalene	ND		5.0		ug/L			05/01/24 13:24	1
n-Butylbenzene	ND		5.0		ug/L			05/01/24 13:24	1
o-Xylene	ND		5.0		ug/L			05/01/24 13:24	1
p-Isopropyltoluene	ND		2.0		ug/L			05/01/24 13:24	1
sec-Butylbenzene	ND		5.0		ug/L			05/01/24 13:24	1
Styrene	ND		2.0		ug/L			05/01/24 13:24	1
tert-Butylbenzene	ND		5.0		ug/L			05/01/24 13:24	1
Tetrachloroethene	ND		2.0		ug/L			05/01/24 13:24	1
Toluene	ND		5.0		ug/L			05/01/24 13:24	1
trans-1,2-Dichloroethene	ND	V1	2.0		ug/L			05/01/24 13:24	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 13:24	1
Trichloroethene	ND		2.0		ug/L			05/01/24 13:24	1
Trichlorofluoromethane	ND		5.0		ug/L			05/01/24 13:24	1
Vinyl acetate	ND		25		ug/L			05/01/24 13:24	1
Vinyl chloride	ND	L5 N1 V1	5.0		ug/L			05/01/24 13:24	1
Xylenes, Total	ND		10		ug/L			05/01/24 13:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*117*		*70 - 130*		*05/01/24 13:24*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/01/24 13:24*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*05/01/24 13:24*	*1*

Client Sample ID: CH-VRP-13-2024

Lab Sample ID: 550-217471-12

Date Collected: 04/22/24 16:20

Matrix: Water

Date Received: 04/25/24 09:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			05/01/24 13:45	1
1,1,1-Trichloroethane	ND		2.0		ug/L			05/01/24 13:45	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			05/01/24 13:45	1
1,1,2-Trichloroethane	ND		2.0		ug/L			05/01/24 13:45	1
1,1-Dichloroethane	ND		2.0		ug/L			05/01/24 13:45	1
1,1-Dichloroethene	ND	V1	5.0		ug/L			05/01/24 13:45	1
1,1-Dichloropropene	ND		2.0		ug/L			05/01/24 13:45	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			05/01/24 13:45	1
1,2,3-Trichloropropane	ND		10		ug/L			05/01/24 13:45	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			05/01/24 13:45	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			05/01/24 13:45	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/01/24 13:45	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			05/01/24 13:45	1
1,2-Dichlorobenzene	ND		2.0		ug/L			05/01/24 13:45	1
1,2-Dichloroethane	ND		2.0		ug/L			05/01/24 13:45	1
1,2-Dichloropropane	ND		2.0		ug/L			05/01/24 13:45	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			05/01/24 13:45	1
1,3-Dichlorobenzene	ND		2.0		ug/L			05/01/24 13:45	1
1,3-Dichloropropane	ND		2.0		ug/L			05/01/24 13:45	1
1,4-Dichlorobenzene	ND		2.0		ug/L			05/01/24 13:45	1
2,2-Dichloropropane	ND		2.0		ug/L			05/01/24 13:45	1

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-VRP-13-2024
Date Collected: 04/22/24 16:20
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-12
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	ND		10		ug/L			05/01/24 13:45	1
2-Chlorotoluene	ND		5.0		ug/L			05/01/24 13:45	1
2-Hexanone	ND		10		ug/L			05/01/24 13:45	1
4-Chlorotoluene	ND		5.0		ug/L			05/01/24 13:45	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/01/24 13:45	1
Acetone	ND		20		ug/L			05/01/24 13:45	1
Benzene	ND		2.0		ug/L			05/01/24 13:45	1
Bromobenzene	ND		5.0		ug/L			05/01/24 13:45	1
Bromochloromethane	ND		5.0		ug/L			05/01/24 13:45	1
Bromodichloromethane	ND		2.0		ug/L			05/01/24 13:45	1
Bromoform	ND		5.0		ug/L			05/01/24 13:45	1
Bromomethane	ND		10		ug/L			05/01/24 13:45	1
Carbon disulfide	ND	N1	5.0		ug/L			05/01/24 13:45	1
Carbon tetrachloride	ND		5.0		ug/L			05/01/24 13:45	1
Chlorobenzene	ND		2.0		ug/L			05/01/24 13:45	1
Chloroethane	ND	V1	5.0		ug/L			05/01/24 13:45	1
Chloroform	ND		2.0		ug/L			05/01/24 13:45	1
Chloromethane	ND	V1	5.0		ug/L			05/01/24 13:45	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			05/01/24 13:45	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 13:45	1
Chlorodibromomethane	ND		2.0		ug/L			05/01/24 13:45	1
Dibromomethane	ND		2.0		ug/L			05/01/24 13:45	1
Dichlorodifluoromethane	ND	L5 N1 V1	5.0		ug/L			05/01/24 13:45	1
Ethylbenzene	ND		2.0		ug/L			05/01/24 13:45	1
Hexachlorobutadiene	ND		5.0		ug/L			05/01/24 13:45	1
Iodomethane	ND		2.0		ug/L			05/01/24 13:45	1
Isopropylbenzene	ND		2.0		ug/L			05/01/24 13:45	1
m,p-Xylenes	ND		5.0		ug/L			05/01/24 13:45	1
Methylene Chloride	ND		5.0		ug/L			05/01/24 13:45	1
Naphthalene	ND		5.0		ug/L			05/01/24 13:45	1
n-Butylbenzene	ND		5.0		ug/L			05/01/24 13:45	1
o-Xylene	ND		5.0		ug/L			05/01/24 13:45	1
p-Isopropyltoluene	ND		2.0		ug/L			05/01/24 13:45	1
sec-Butylbenzene	ND		5.0		ug/L			05/01/24 13:45	1
Styrene	ND		2.0		ug/L			05/01/24 13:45	1
tert-Butylbenzene	ND		5.0		ug/L			05/01/24 13:45	1
Tetrachloroethene	ND		2.0		ug/L			05/01/24 13:45	1
Toluene	ND		5.0		ug/L			05/01/24 13:45	1
trans-1,2-Dichloroethene	ND	V1	2.0		ug/L			05/01/24 13:45	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 13:45	1
Trichloroethene	ND		2.0		ug/L			05/01/24 13:45	1
Trichlorofluoromethane	ND		5.0		ug/L			05/01/24 13:45	1
Vinyl acetate	ND		25		ug/L			05/01/24 13:45	1
Vinyl chloride	ND	L5 N1 V1	5.0		ug/L			05/01/24 13:45	1
Xylenes, Total	ND		10		ug/L			05/01/24 13:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*116*		*70 - 130*		*05/01/24 13:45*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/01/24 13:45*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*05/01/24 13:45*	*1*

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-VRP-14-2024

Date Collected: 04/22/24 12:20
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-13

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			05/01/24 14:07	1
1,1,1-Trichloroethane	ND		2.0		ug/L			05/01/24 14:07	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			05/01/24 14:07	1
1,1,2-Trichloroethane	ND		2.0		ug/L			05/01/24 14:07	1
1,1-Dichloroethane	ND		2.0		ug/L			05/01/24 14:07	1
1,1-Dichloroethene	ND	V1	5.0		ug/L			05/01/24 14:07	1
1,1-Dichloropropene	ND		2.0		ug/L			05/01/24 14:07	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			05/01/24 14:07	1
1,2,3-Trichloropropane	ND		10		ug/L			05/01/24 14:07	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			05/01/24 14:07	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			05/01/24 14:07	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/01/24 14:07	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			05/01/24 14:07	1
1,2-Dichlorobenzene	ND		2.0		ug/L			05/01/24 14:07	1
1,2-Dichloroethane	ND		2.0		ug/L			05/01/24 14:07	1
1,2-Dichloropropane	ND		2.0		ug/L			05/01/24 14:07	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			05/01/24 14:07	1
1,3-Dichlorobenzene	ND		2.0		ug/L			05/01/24 14:07	1
1,3-Dichloropropane	ND		2.0		ug/L			05/01/24 14:07	1
1,4-Dichlorobenzene	ND		2.0		ug/L			05/01/24 14:07	1
2,2-Dichloropropane	ND		2.0		ug/L			05/01/24 14:07	1
2-Butanone (MEK)	ND		10		ug/L			05/01/24 14:07	1
2-Chlorotoluene	ND		5.0		ug/L			05/01/24 14:07	1
2-Hexanone	ND		10		ug/L			05/01/24 14:07	1
4-Chlorotoluene	ND		5.0		ug/L			05/01/24 14:07	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/01/24 14:07	1
Acetone	ND		20		ug/L			05/01/24 14:07	1
Benzene	ND		2.0		ug/L			05/01/24 14:07	1
Bromobenzene	ND		5.0		ug/L			05/01/24 14:07	1
Bromochloromethane	ND		5.0		ug/L			05/01/24 14:07	1
Bromodichloromethane	ND		2.0		ug/L			05/01/24 14:07	1
Bromoform	ND		5.0		ug/L			05/01/24 14:07	1
Bromomethane	ND		10		ug/L			05/01/24 14:07	1
Carbon disulfide	ND	N1	5.0		ug/L			05/01/24 14:07	1
Carbon tetrachloride	ND		5.0		ug/L			05/01/24 14:07	1
Chlorobenzene	ND		2.0		ug/L			05/01/24 14:07	1
Chloroethane	ND	V1	5.0		ug/L			05/01/24 14:07	1
Chloroform	ND		2.0		ug/L			05/01/24 14:07	1
Chloromethane	ND	V1	5.0		ug/L			05/01/24 14:07	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			05/01/24 14:07	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 14:07	1
Chlorodibromomethane	ND		2.0		ug/L			05/01/24 14:07	1
Dibromomethane	ND		2.0		ug/L			05/01/24 14:07	1
Dichlorodifluoromethane	ND	L5 N1 V1	5.0		ug/L			05/01/24 14:07	1
Ethylbenzene	ND		2.0		ug/L			05/01/24 14:07	1
Hexachlorobutadiene	ND		5.0		ug/L			05/01/24 14:07	1
Iodomethane	ND		2.0		ug/L			05/01/24 14:07	1
Isopropylbenzene	ND		2.0		ug/L			05/01/24 14:07	1
m,p-Xylenes	ND		5.0		ug/L			05/01/24 14:07	1

Client Sample ID: CH-VRP-14-2024

Lab Sample ID: 550-217471-13

Date Collected: 04/22/24 12:20

Matrix: Water

Date Received: 04/25/24 09:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		5.0		ug/L			05/01/24 14:07	1
Naphthalene	ND		5.0		ug/L			05/01/24 14:07	1
n-Butylbenzene	ND		5.0		ug/L			05/01/24 14:07	1
o-Xylene	ND		5.0		ug/L			05/01/24 14:07	1
p-Isopropyltoluene	ND		2.0		ug/L			05/01/24 14:07	1
sec-Butylbenzene	ND		5.0		ug/L			05/01/24 14:07	1
Styrene	ND		2.0		ug/L			05/01/24 14:07	1
tert-Butylbenzene	ND		5.0		ug/L			05/01/24 14:07	1
Tetrachloroethene	ND		2.0		ug/L			05/01/24 14:07	1
Toluene	ND		5.0		ug/L			05/01/24 14:07	1
trans-1,2-Dichloroethene	ND	V1	2.0		ug/L			05/01/24 14:07	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 14:07	1
Trichloroethene	ND		2.0		ug/L			05/01/24 14:07	1
Trichlorofluoromethane	ND		5.0		ug/L			05/01/24 14:07	1
Vinyl acetate	ND		25		ug/L			05/01/24 14:07	1
Vinyl chloride	ND	L5 N1 V1	5.0		ug/L			05/01/24 14:07	1
Xylenes, Total	ND		10		ug/L			05/01/24 14:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*115*		*70 - 130*		*05/01/24 14:07*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/01/24 14:07*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*05/01/24 14:07*	*1*

Client Sample ID: CH-VRP-15-2024

Lab Sample ID: 550-217471-14

Date Collected: 04/22/24 11:55

Matrix: Water

Date Received: 04/25/24 09:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			05/01/24 14:29	1
1,1,1-Trichloroethane	ND		2.0		ug/L			05/01/24 14:29	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			05/01/24 14:29	1
1,1,2-Trichloroethane	ND		2.0		ug/L			05/01/24 14:29	1
1,1-Dichloroethane	ND		2.0		ug/L			05/01/24 14:29	1
1,1-Dichloroethene	ND	V1	5.0		ug/L			05/01/24 14:29	1
1,1-Dichloropropene	ND		2.0		ug/L			05/01/24 14:29	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			05/01/24 14:29	1
1,2,3-Trichloropropane	ND		10		ug/L			05/01/24 14:29	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			05/01/24 14:29	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			05/01/24 14:29	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/01/24 14:29	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			05/01/24 14:29	1
1,2-Dichlorobenzene	ND		2.0		ug/L			05/01/24 14:29	1
1,2-Dichloroethane	ND		2.0		ug/L			05/01/24 14:29	1
1,2-Dichloropropane	ND		2.0		ug/L			05/01/24 14:29	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			05/01/24 14:29	1
1,3-Dichlorobenzene	ND		2.0		ug/L			05/01/24 14:29	1
1,3-Dichloropropane	ND		2.0		ug/L			05/01/24 14:29	1
1,4-Dichlorobenzene	ND		2.0		ug/L			05/01/24 14:29	1
2,2-Dichloropropane	ND		2.0		ug/L			05/01/24 14:29	1

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-VRP-15-2024
Date Collected: 04/22/24 11:55
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-14
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	ND		10		ug/L			05/01/24 14:29	1
2-Chlorotoluene	ND		5.0		ug/L			05/01/24 14:29	1
2-Hexanone	ND		10		ug/L			05/01/24 14:29	1
4-Chlorotoluene	ND		5.0		ug/L			05/01/24 14:29	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/01/24 14:29	1
Acetone	ND		20		ug/L			05/01/24 14:29	1
Benzene	ND		2.0		ug/L			05/01/24 14:29	1
Bromobenzene	ND		5.0		ug/L			05/01/24 14:29	1
Bromochloromethane	ND		5.0		ug/L			05/01/24 14:29	1
Bromodichloromethane	ND		2.0		ug/L			05/01/24 14:29	1
Bromoform	ND		5.0		ug/L			05/01/24 14:29	1
Bromomethane	ND		10		ug/L			05/01/24 14:29	1
Carbon disulfide	ND	N1	5.0		ug/L			05/01/24 14:29	1
Carbon tetrachloride	ND		5.0		ug/L			05/01/24 14:29	1
Chlorobenzene	ND		2.0		ug/L			05/01/24 14:29	1
Chloroethane	ND	V1	5.0		ug/L			05/01/24 14:29	1
Chloroform	ND		2.0		ug/L			05/01/24 14:29	1
Chloromethane	ND	V1	5.0		ug/L			05/01/24 14:29	1
cis-1,2-Dichloroethene	**2.7**		2.0		ug/L			05/02/24 23:09	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 14:29	1
Chlorodibromomethane	ND		2.0		ug/L			05/01/24 14:29	1
Dibromomethane	ND		2.0		ug/L			05/01/24 14:29	1
Dichlorodifluoromethane	ND	L5 N1 V1	5.0		ug/L			05/01/24 14:29	1
Ethylbenzene	ND		2.0		ug/L			05/01/24 14:29	1
Hexachlorobutadiene	ND		5.0		ug/L			05/01/24 14:29	1
Iodomethane	ND		2.0		ug/L			05/01/24 14:29	1
Isopropylbenzene	ND		2.0		ug/L			05/01/24 14:29	1
m,p-Xylenes	ND		5.0		ug/L			05/01/24 14:29	1
Methylene Chloride	ND		5.0		ug/L			05/01/24 14:29	1
Naphthalene	ND		5.0		ug/L			05/01/24 14:29	1
n-Butylbenzene	ND		5.0		ug/L			05/01/24 14:29	1
o-Xylene	ND		5.0		ug/L			05/01/24 14:29	1
p-Isopropyltoluene	ND		2.0		ug/L			05/01/24 14:29	1
sec-Butylbenzene	ND		5.0		ug/L			05/01/24 14:29	1
Styrene	ND		2.0		ug/L			05/01/24 14:29	1
tert-Butylbenzene	ND		5.0		ug/L			05/01/24 14:29	1
Tetrachloroethene	ND		2.0		ug/L			05/01/24 14:29	1
Toluene	ND		5.0		ug/L			05/01/24 14:29	1
trans-1,2-Dichloroethene	ND	V1	2.0		ug/L			05/01/24 14:29	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 14:29	1
Trichloroethene	ND		2.0		ug/L			05/01/24 14:29	1
Trichlorofluoromethane	ND		5.0		ug/L			05/01/24 14:29	1
Vinyl acetate	ND		25		ug/L			05/01/24 14:29	1
Vinyl chloride	ND	L5 N1 V1	5.0		ug/L			05/01/24 14:29	1
Xylenes, Total	ND		10		ug/L			05/01/24 14:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*114*		*70 - 130*		*05/01/24 14:29*	*1*
Dibromofluoromethane (Surr)	*109*		*70 - 130*		*05/02/24 23:09*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/01/24 14:29*	*1*

Client Sample ID: CH-VRP-15-2024

Date Collected: 04/22/24 11:55
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-14

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*107*		*70 - 130*		*05/02/24 23:09*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*05/01/24 14:29*	*1*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*05/02/24 23:09*	*1*

Client Sample ID: CH-VRP-16-2024

Date Collected: 04/22/24 14:40
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-15

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0	ug/L			05/01/24 14:50	1
1,1,1-Trichloroethane	ND		2.0	ug/L			05/01/24 14:50	1
1,1,2,2-Tetrachloroethane	ND		2.0	ug/L			05/01/24 14:50	1
1,1,2-Trichloroethane	ND		2.0	ug/L			05/01/24 14:50	1
1,1-Dichloroethane	ND		2.0	ug/L			05/01/24 14:50	1
1,1-Dichloroethene	ND	V1	5.0	ug/L			05/01/24 14:50	1
1,1-Dichloropropene	ND		2.0	ug/L			05/01/24 14:50	1
1,2,3-Trichlorobenzene	ND		5.0	ug/L			05/01/24 14:50	1
1,2,3-Trichloropropane	ND		10	ug/L			05/01/24 14:50	1
1,2,4-Trichlorobenzene	ND		5.0	ug/L			05/01/24 14:50	1
1,2,4-Trimethylbenzene	ND		2.0	ug/L			05/01/24 14:50	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			05/01/24 14:50	1
1,2-Dibromoethane (EDB)	ND		2.0	ug/L			05/01/24 14:50	1
1,2-Dichlorobenzene	ND		2.0	ug/L			05/01/24 14:50	1
1,2-Dichloroethane	ND		2.0	ug/L			05/01/24 14:50	1
1,2-Dichloropropane	ND		2.0	ug/L			05/01/24 14:50	1
1,3,5-Trimethylbenzene	ND		2.0	ug/L			05/01/24 14:50	1
1,3-Dichlorobenzene	ND		2.0	ug/L			05/01/24 14:50	1
1,3-Dichloropropane	ND		2.0	ug/L			05/01/24 14:50	1
1,4-Dichlorobenzene	ND		2.0	ug/L			05/01/24 14:50	1
2,2-Dichloropropane	ND		2.0	ug/L			05/01/24 14:50	1
2-Butanone (MEK)	ND		10	ug/L			05/01/24 14:50	1
2-Chlorotoluene	ND		5.0	ug/L			05/01/24 14:50	1
2-Hexanone	ND		10	ug/L			05/01/24 14:50	1
4-Chlorotoluene	ND		5.0	ug/L			05/01/24 14:50	1
4-Methyl-2-pentanone (MIBK)	ND		10	ug/L			05/01/24 14:50	1
Acetone	ND		20	ug/L			05/01/24 14:50	1
Benzene	ND		2.0	ug/L			05/01/24 14:50	1
Bromobenzene	ND		5.0	ug/L			05/01/24 14:50	1
Bromochloromethane	ND		5.0	ug/L			05/01/24 14:50	1
Bromodichloromethane	ND		2.0	ug/L			05/01/24 14:50	1
Bromoform	ND		5.0	ug/L			05/01/24 14:50	1
Bromomethane	ND		10	ug/L			05/01/24 14:50	1
Carbon disulfide	ND	N1	5.0	ug/L			05/01/24 14:50	1
Carbon tetrachloride	ND		5.0	ug/L			05/01/24 14:50	1
Chlorobenzene	ND		2.0	ug/L			05/01/24 14:50	1
Chloroethane	ND	V1	5.0	ug/L			05/01/24 14:50	1
Chloroform	ND		2.0	ug/L			05/01/24 14:50	1
Chloromethane	ND	V1	5.0	ug/L			05/01/24 14:50	1

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-VRP-16-2024

Date Collected: 04/22/24 14:40
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-15
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.0		ug/L			05/01/24 14:50	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 14:50	1
Chlorodibromomethane	ND		2.0		ug/L			05/01/24 14:50	1
Dibromomethane	ND		2.0		ug/L			05/01/24 14:50	1
Dichlorodifluoromethane	ND	L5 N1 V1	5.0		ug/L			05/01/24 14:50	1
Ethylbenzene	ND		2.0		ug/L			05/01/24 14:50	1
Hexachlorobutadiene	ND		5.0		ug/L			05/01/24 14:50	1
Iodomethane	ND		2.0		ug/L			05/01/24 14:50	1
Isopropylbenzene	ND		2.0		ug/L			05/01/24 14:50	1
m,p-Xylenes	ND		5.0		ug/L			05/01/24 14:50	1
Methylene Chloride	ND		5.0		ug/L			05/01/24 14:50	1
Naphthalene	ND		5.0		ug/L			05/01/24 14:50	1
n-Butylbenzene	ND		5.0		ug/L			05/01/24 14:50	1
o-Xylene	ND		5.0		ug/L			05/01/24 14:50	1
p-Isopropyltoluene	ND		2.0		ug/L			05/01/24 14:50	1
sec-Butylbenzene	ND		5.0		ug/L			05/01/24 14:50	1
Styrene	ND		2.0		ug/L			05/01/24 14:50	1
tert-Butylbenzene	ND		5.0		ug/L			05/01/24 14:50	1
Tetrachloroethene	ND		2.0		ug/L			05/01/24 14:50	1
Toluene	ND		5.0		ug/L			05/01/24 14:50	1
trans-1,2-Dichloroethene	ND	V1	2.0		ug/L			05/01/24 14:50	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 14:50	1
Trichloroethene	ND		2.0		ug/L			05/01/24 14:50	1
Trichlorofluoromethane	ND		5.0		ug/L			05/01/24 14:50	1
Vinyl acetate	ND		25		ug/L			05/01/24 14:50	1
Vinyl chloride	ND	L5 N1 V1	5.0		ug/L			05/01/24 14:50	1
Xylenes, Total	ND		10		ug/L			05/01/24 14:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*116*		*70 - 130*		*05/01/24 14:50*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/01/24 14:50*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*05/01/24 14:50*	*1*

Client Sample ID: CH-VRP-17-2024

Date Collected: 04/22/24 11:00
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-16
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			05/01/24 15:12	1
1,1,1-Trichloroethane	ND		2.0		ug/L			05/01/24 15:12	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			05/01/24 15:12	1
1,1,2-Trichloroethane	ND		2.0		ug/L			05/01/24 15:12	1
1,1-Dichloroethane	ND		2.0		ug/L			05/01/24 15:12	1
1,1-Dichloroethene	ND	V1	5.0		ug/L			05/01/24 15:12	1
1,1-Dichloropropene	ND		2.0		ug/L			05/01/24 15:12	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			05/01/24 15:12	1
1,2,3-Trichloropropane	ND		10		ug/L			05/01/24 15:12	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			05/01/24 15:12	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			05/01/24 15:12	1

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-VRP-17-2024
Date Collected: 04/22/24 11:00
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-16
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/01/24 15:12	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			05/01/24 15:12	1
1,2-Dichlorobenzene	ND		2.0		ug/L			05/01/24 15:12	1
1,2-Dichloroethane	ND		2.0		ug/L			05/01/24 15:12	1
1,2-Dichloropropane	ND		2.0		ug/L			05/01/24 15:12	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			05/01/24 15:12	1
1,3-Dichlorobenzene	ND		2.0		ug/L			05/01/24 15:12	1
1,3-Dichloropropane	ND		2.0		ug/L			05/01/24 15:12	1
1,4-Dichlorobenzene	ND		2.0		ug/L			05/01/24 15:12	1
2,2-Dichloropropane	ND		2.0		ug/L			05/01/24 15:12	1
2-Butanone (MEK)	ND		10		ug/L			05/01/24 15:12	1
2-Chlorotoluene	ND		5.0		ug/L			05/01/24 15:12	1
2-Hexanone	ND		10		ug/L			05/01/24 15:12	1
4-Chlorotoluene	ND		5.0		ug/L			05/01/24 15:12	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/01/24 15:12	1
Acetone	ND		20		ug/L			05/01/24 15:12	1
Benzene	ND		2.0		ug/L			05/01/24 15:12	1
Bromobenzene	ND		5.0		ug/L			05/01/24 15:12	1
Bromochloromethane	ND		5.0		ug/L			05/01/24 15:12	1
Bromodichloromethane	ND		2.0		ug/L			05/01/24 15:12	1
Bromoform	ND		5.0		ug/L			05/01/24 15:12	1
Bromomethane	ND		10		ug/L			05/01/24 15:12	1
Carbon disulfide	ND	N1	5.0		ug/L			05/01/24 15:12	1
Carbon tetrachloride	ND		5.0		ug/L			05/01/24 15:12	1
Chlorobenzene	ND		2.0		ug/L			05/01/24 15:12	1
Chloroethane	ND	V1	5.0		ug/L			05/01/24 15:12	1
Chloroform	ND		2.0		ug/L			05/01/24 15:12	1
Chloromethane	ND	V1	5.0		ug/L			05/01/24 15:12	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			05/01/24 15:12	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 15:12	1
Chlorodibromomethane	ND		2.0		ug/L			05/01/24 15:12	1
Dibromomethane	ND		2.0		ug/L			05/01/24 15:12	1
Dichlorodifluoromethane	ND	L5 N1 V1	5.0		ug/L			05/01/24 15:12	1
Ethylbenzene	ND		2.0		ug/L			05/01/24 15:12	1
Hexachlorobutadiene	ND		5.0		ug/L			05/01/24 15:12	1
Iodomethane	ND		2.0		ug/L			05/01/24 15:12	1
Isopropylbenzene	ND		2.0		ug/L			05/01/24 15:12	1
m,p-Xylenes	ND		5.0		ug/L			05/01/24 15:12	1
Methylene Chloride	ND		5.0		ug/L			05/01/24 15:12	1
Naphthalene	ND		5.0		ug/L			05/01/24 15:12	1
n-Butylbenzene	ND		5.0		ug/L			05/01/24 15:12	1
o-Xylene	ND		5.0		ug/L			05/01/24 15:12	1
p-Isopropyltoluene	ND		2.0		ug/L			05/01/24 15:12	1
sec-Butylbenzene	ND		5.0		ug/L			05/01/24 15:12	1
Styrene	ND		2.0		ug/L			05/01/24 15:12	1
tert-Butylbenzene	ND		5.0		ug/L			05/01/24 15:12	1
Tetrachloroethene	ND		2.0		ug/L			05/01/24 15:12	1
Toluene	ND		5.0		ug/L			05/01/24 15:12	1
trans-1,2-Dichloroethene	ND	V1	2.0		ug/L			05/01/24 15:12	1

Client Sample ID: CH-VRP-17-2024

Date Collected: 04/22/24 11:00
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-16
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 15:12	1
Trichloroethene	ND		2.0		ug/L			05/01/24 15:12	1
Trichlorofluoromethane	ND		5.0		ug/L			05/01/24 15:12	1
Vinyl acetate	ND		25		ug/L			05/01/24 15:12	1
Vinyl chloride	ND	L5 N1 V1	5.0		ug/L			05/01/24 15:12	1
Xylenes, Total	ND		10		ug/L			05/01/24 15:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*118*		*70 - 130*		*05/01/24 15:12*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/01/24 15:12*	*1*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*		*05/01/24 15:12*	*1*

Client Sample ID: CH-DR-2-2024

Date Collected: 04/23/24 15:25
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-17
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			05/01/24 15:33	1
1,1,1-Trichloroethane	ND		2.0		ug/L			05/01/24 15:33	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			05/01/24 15:33	1
1,1,2-Trichloroethane	ND		2.0		ug/L			05/01/24 15:33	1
1,1-Dichloroethane	ND		2.0		ug/L			05/01/24 15:33	1
1,1-Dichloroethene	ND	V1	5.0		ug/L			05/01/24 15:33	1
1,1-Dichloropropene	ND		2.0		ug/L			05/01/24 15:33	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			05/01/24 15:33	1
1,2,3-Trichloropropane	ND		10		ug/L			05/01/24 15:33	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			05/01/24 15:33	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			05/01/24 15:33	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/01/24 15:33	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			05/01/24 15:33	1
1,2-Dichlorobenzene	ND		2.0		ug/L			05/01/24 15:33	1
1,2-Dichloroethane	ND		2.0		ug/L			05/01/24 15:33	1
1,2-Dichloropropane	ND		2.0		ug/L			05/01/24 15:33	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			05/01/24 15:33	1
1,3-Dichlorobenzene	ND		2.0		ug/L			05/01/24 15:33	1
1,3-Dichloropropane	ND		2.0		ug/L			05/01/24 15:33	1
1,4-Dichlorobenzene	ND		2.0		ug/L			05/01/24 15:33	1
2,2-Dichloropropane	ND		2.0		ug/L			05/01/24 15:33	1
2-Butanone (MEK)	ND		10		ug/L			05/01/24 15:33	1
2-Chlorotoluene	ND		5.0		ug/L			05/01/24 15:33	1
2-Hexanone	ND		10		ug/L			05/01/24 15:33	1
4-Chlorotoluene	ND		5.0		ug/L			05/01/24 15:33	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/01/24 15:33	1
Acetone	ND		20		ug/L			05/01/24 15:33	1
Benzene	ND		2.0		ug/L			05/01/24 15:33	1
Bromobenzene	ND		5.0		ug/L			05/01/24 15:33	1
Bromochloromethane	ND		5.0		ug/L			05/01/24 15:33	1
Bromodichloromethane	ND		2.0		ug/L			05/01/24 15:33	1
Bromoform	ND		5.0		ug/L			05/01/24 15:33	1

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-DR-2-2024
Date Collected: 04/23/24 15:25
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-17
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		10		ug/L			05/01/24 15:33	1
Carbon disulfide	ND	N1	5.0		ug/L			05/01/24 15:33	1
Carbon tetrachloride	ND		5.0		ug/L			05/01/24 15:33	1
Chlorobenzene	ND		2.0		ug/L			05/01/24 15:33	1
Chloroethane	ND	V1	5.0		ug/L			05/01/24 15:33	1
Chloroform	ND		2.0		ug/L			05/01/24 15:33	1
Chloromethane	ND	V1	5.0		ug/L			05/01/24 15:33	1
cis-1,2-Dichloroethene	**9.7**		2.0		ug/L			05/02/24 23:31	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 15:33	1
Chlorodibromomethane	ND		2.0		ug/L			05/01/24 15:33	1
Dibromomethane	ND		2.0		ug/L			05/01/24 15:33	1
Dichlorodifluoromethane	ND	L5 N1 V1	5.0		ug/L			05/01/24 15:33	1
Ethylbenzene	ND		2.0		ug/L			05/01/24 15:33	1
Hexachlorobutadiene	ND		5.0		ug/L			05/01/24 15:33	1
Iodomethane	ND		2.0		ug/L			05/01/24 15:33	1
Isopropylbenzene	ND		2.0		ug/L			05/01/24 15:33	1
m,p-Xylenes	ND		5.0		ug/L			05/01/24 15:33	1
Methylene Chloride	ND		5.0		ug/L			05/01/24 15:33	1
Naphthalene	ND		5.0		ug/L			05/01/24 15:33	1
n-Butylbenzene	ND		5.0		ug/L			05/01/24 15:33	1
o-Xylene	ND		5.0		ug/L			05/01/24 15:33	1
p-Isopropyltoluene	ND		2.0		ug/L			05/01/24 15:33	1
sec-Butylbenzene	ND		5.0		ug/L			05/01/24 15:33	1
Styrene	ND		2.0		ug/L			05/01/24 15:33	1
tert-Butylbenzene	ND		5.0		ug/L			05/01/24 15:33	1
Tetrachloroethene	ND		2.0		ug/L			05/01/24 15:33	1
Toluene	ND		5.0		ug/L			05/01/24 15:33	1
trans-1,2-Dichloroethene	ND	V1	2.0		ug/L			05/01/24 15:33	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 15:33	1
Trichloroethene	**3.9**		2.0		ug/L			05/02/24 23:31	1
Trichlorofluoromethane	ND		5.0		ug/L			05/01/24 15:33	1
Vinyl acetate	ND		25		ug/L			05/01/24 15:33	1
Vinyl chloride	ND	L5 N1 V1	5.0		ug/L			05/01/24 15:33	1
Xylenes, Total	ND		10		ug/L			05/01/24 15:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*117*		*70 - 130*		*05/01/24 15:33*	*1*
Dibromofluoromethane (Surr)	*110*		*70 - 130*		*05/02/24 23:31*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*05/01/24 15:33*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*05/02/24 23:31*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*05/01/24 15:33*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*05/02/24 23:31*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	**8100**		50		ug/L			04/27/24 10:33	10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1500**	**D2**	100		mg/L			04/25/24 19:47	50

Client Sample ID: CH-DR-2-2024

Lab Sample ID: 550-217471-17

Date Collected: 04/23/24 15:25

Matrix: Water

Date Received: 04/25/24 09:15

Method: EPA 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**1100**	**D2**	100		mg/L			04/25/24 19:47	50
Nitrate as N	ND		0.050		mg/L			04/25/24 14:11	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		04/26/24 07:42	04/29/24 19:56	1
Manganese	**0.16**		0.010		mg/L		04/26/24 07:42	05/01/24 20:18	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3 (SM 2320B)	**280**		6.0		mg/L			05/03/24 10:28	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/03/24 10:28	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**280**		6.0		mg/L			05/03/24 10:28	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/03/24 10:28	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/03/24 10:28	1

Client Sample ID: CH-UST-2-2024

Lab Sample ID: 550-217471-18

Date Collected: 04/23/24 16:30

Matrix: Water

Date Received: 04/25/24 09:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			05/01/24 15:55	1
1,1,1-Trichloroethane	ND		2.0		ug/L			05/01/24 15:55	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			05/01/24 15:55	1
1,1,2-Trichloroethane	ND		2.0		ug/L			05/01/24 15:55	1
1,1-Dichloroethane	ND		2.0		ug/L			05/01/24 15:55	1
1,1-Dichloroethene	ND	V1	5.0		ug/L			05/01/24 15:55	1
1,1-Dichloropropene	ND		2.0		ug/L			05/01/24 15:55	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			05/01/24 15:55	1
1,2,3-Trichloropropane	ND		10		ug/L			05/01/24 15:55	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			05/01/24 15:55	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			05/01/24 15:55	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/01/24 15:55	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			05/01/24 15:55	1
1,2-Dichlorobenzene	ND		2.0		ug/L			05/01/24 15:55	1
1,2-Dichloroethane	ND		2.0		ug/L			05/01/24 15:55	1
1,2-Dichloropropane	ND		2.0		ug/L			05/01/24 15:55	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			05/01/24 15:55	1
1,3-Dichlorobenzene	ND		2.0		ug/L			05/01/24 15:55	1
1,3-Dichloropropane	ND		2.0		ug/L			05/01/24 15:55	1
1,4-Dichlorobenzene	ND		2.0		ug/L			05/01/24 15:55	1
2,2-Dichloropropane	ND		2.0		ug/L			05/01/24 15:55	1
2-Butanone (MEK)	ND		10		ug/L			05/01/24 15:55	1
2-Chlorotoluene	ND		5.0		ug/L			05/01/24 15:55	1
2-Hexanone	ND		10		ug/L			05/01/24 15:55	1
4-Chlorotoluene	ND		5.0		ug/L			05/01/24 15:55	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/01/24 15:55	1

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-UST-2-2024
Date Collected: 04/23/24 16:30
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-18
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20		ug/L			05/01/24 15:55	1
Benzene	ND		2.0		ug/L			05/01/24 15:55	1
Bromobenzene	ND		5.0		ug/L			05/01/24 15:55	1
Bromochloromethane	ND		5.0		ug/L			05/01/24 15:55	1
Bromodichloromethane	ND		2.0		ug/L			05/01/24 15:55	1
Bromoform	ND		5.0		ug/L			05/01/24 15:55	1
Bromomethane	ND		10		ug/L			05/01/24 15:55	1
Carbon disulfide	ND	N1	5.0		ug/L			05/01/24 15:55	1
Carbon tetrachloride	ND		5.0		ug/L			05/01/24 15:55	1
Chlorobenzene	ND		2.0		ug/L			05/01/24 15:55	1
Chloroethane	ND	V1	5.0		ug/L			05/01/24 15:55	1
Chloroform	ND		2.0		ug/L			05/01/24 15:55	1
Chloromethane	ND	V1	5.0		ug/L			05/01/24 15:55	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			05/01/24 15:55	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 15:55	1
Chlorodibromomethane	ND		2.0		ug/L			05/01/24 15:55	1
Dibromomethane	ND		2.0		ug/L			05/01/24 15:55	1
Dichlorodifluoromethane	ND	L5 N1 V1	5.0		ug/L			05/01/24 15:55	1
Ethylbenzene	ND		2.0		ug/L			05/01/24 15:55	1
Hexachlorobutadiene	ND		5.0		ug/L			05/01/24 15:55	1
Iodomethane	ND		2.0		ug/L			05/01/24 15:55	1
Isopropylbenzene	ND		2.0		ug/L			05/01/24 15:55	1
m,p-Xylenes	ND		5.0		ug/L			05/01/24 15:55	1
Methylene Chloride	ND		5.0		ug/L			05/01/24 15:55	1
Naphthalene	ND		5.0		ug/L			05/01/24 15:55	1
n-Butylbenzene	ND		5.0		ug/L			05/01/24 15:55	1
o-Xylene	ND		5.0		ug/L			05/01/24 15:55	1
p-Isopropyltoluene	ND		2.0		ug/L			05/01/24 15:55	1
sec-Butylbenzene	ND		5.0		ug/L			05/01/24 15:55	1
Styrene	ND		2.0		ug/L			05/01/24 15:55	1
tert-Butylbenzene	ND		5.0		ug/L			05/01/24 15:55	1
Tetrachloroethene	ND		2.0		ug/L			05/01/24 15:55	1
Toluene	ND		5.0		ug/L			05/01/24 15:55	1
trans-1,2-Dichloroethene	ND	V1	2.0		ug/L			05/01/24 15:55	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 15:55	1
Trichloroethene	ND		2.0		ug/L			05/01/24 15:55	1
Trichlorofluoromethane	ND		5.0		ug/L			05/01/24 15:55	1
Vinyl acetate	ND		25		ug/L			05/01/24 15:55	1
Vinyl chloride	ND	L5 N1 V1	5.0		ug/L			05/01/24 15:55	1
Xylenes, Total	ND		10		ug/L			05/01/24 15:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*116*		*70 - 130*		*05/01/24 15:55*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/01/24 15:55*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*05/01/24 15:55*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	**11000**		50		ug/L			04/27/24 10:19	10

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-UST-2-2024

Lab Sample ID: 550-217471-18

Date Collected: 04/23/24 16:30

Matrix: Water

Date Received: 04/25/24 09:15

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3100**	**D2**	100		mg/L			04/25/24 20:15	50
Sulfate	**1700**	**D2**	100		mg/L			04/25/24 20:15	50
Nitrate as N	ND		0.050		mg/L			04/25/24 14:39	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.86**		0.10		mg/L		04/26/24 07:42	04/29/24 20:00	1
Manganese	**2.0**		0.010		mg/L		04/26/24 07:42	05/01/24 20:22	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3 (SM 2320B)	**370**		6.0		mg/L			05/03/24 10:51	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/03/24 10:51	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**370**		6.0		mg/L			05/03/24 10:51	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/03/24 10:51	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/03/24 10:51	1

Client Sample ID: CH-MW02-2024

Lab Sample ID: 550-217471-19

Date Collected: 04/23/24 10:30

Matrix: Water

Date Received: 04/25/24 09:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			05/01/24 16:17	1
1,1,1-Trichloroethane	ND		2.0		ug/L			05/01/24 16:17	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			05/01/24 16:17	1
1,1,2-Trichloroethane	ND		2.0		ug/L			05/01/24 16:17	1
1,1-Dichloroethane	ND		2.0		ug/L			05/01/24 16:17	1
1,1-Dichloroethene	ND	V1	5.0		ug/L			05/01/24 16:17	1
1,1-Dichloropropene	ND		2.0		ug/L			05/01/24 16:17	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			05/01/24 16:17	1
1,2,3-Trichloropropane	ND		10		ug/L			05/01/24 16:17	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			05/01/24 16:17	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			05/01/24 16:17	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/01/24 16:17	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			05/01/24 16:17	1
1,2-Dichlorobenzene	ND		2.0		ug/L			05/01/24 16:17	1
1,2-Dichloroethane	ND		2.0		ug/L			05/01/24 16:17	1
1,2-Dichloropropane	ND		2.0		ug/L			05/01/24 16:17	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			05/01/24 16:17	1
1,3-Dichlorobenzene	ND		2.0		ug/L			05/01/24 16:17	1
1,3-Dichloropropane	ND		2.0		ug/L			05/01/24 16:17	1
1,4-Dichlorobenzene	ND		2.0		ug/L			05/01/24 16:17	1
2,2-Dichloropropane	ND		2.0		ug/L			05/01/24 16:17	1
2-Butanone (MEK)	ND		10		ug/L			05/01/24 16:17	1
2-Chlorotoluene	ND		5.0		ug/L			05/01/24 16:17	1
2-Hexanone	ND		10		ug/L			05/01/24 16:17	1
4-Chlorotoluene	ND		5.0		ug/L			05/01/24 16:17	1

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-MW02-2024
Date Collected: 04/23/24 10:30
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-19
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/01/24 16:17	1
Acetone	ND		20		ug/L			05/01/24 16:17	1
Benzene	ND		2.0		ug/L			05/01/24 16:17	1
Bromobenzene	ND		5.0		ug/L			05/01/24 16:17	1
Bromochloromethane	ND		5.0		ug/L			05/01/24 16:17	1
Bromodichloromethane	ND		2.0		ug/L			05/01/24 16:17	1
Bromoform	ND		5.0		ug/L			05/01/24 16:17	1
Bromomethane	ND		10		ug/L			05/01/24 16:17	1
Carbon disulfide	ND	N1	5.0		ug/L			05/01/24 16:17	1
Carbon tetrachloride	ND		5.0		ug/L			05/01/24 16:17	1
Chlorobenzene	ND		2.0		ug/L			05/01/24 16:17	1
Chloroethane	ND	V1	5.0		ug/L			05/01/24 16:17	1
Chloroform	ND		2.0		ug/L			05/01/24 16:17	1
Chloromethane	ND	V1	5.0		ug/L			05/01/24 16:17	1
cis-1,2-Dichloroethene	**13**		2.0		ug/L			05/02/24 23:53	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 16:17	1
Chlorodibromomethane	ND		2.0		ug/L			05/01/24 16:17	1
Dibromomethane	ND		2.0		ug/L			05/01/24 16:17	1
Dichlorodifluoromethane	ND	L5 N1 V1	5.0		ug/L			05/01/24 16:17	1
Ethylbenzene	ND		2.0		ug/L			05/01/24 16:17	1
Hexachlorobutadiene	ND		5.0		ug/L			05/01/24 16:17	1
Iodomethane	ND		2.0		ug/L			05/01/24 16:17	1
Isopropylbenzene	ND		2.0		ug/L			05/01/24 16:17	1
m,p-Xylenes	ND		5.0		ug/L			05/01/24 16:17	1
Methylene Chloride	ND		5.0		ug/L			05/01/24 16:17	1
Naphthalene	ND		5.0		ug/L			05/01/24 16:17	1
n-Butylbenzene	ND		5.0		ug/L			05/01/24 16:17	1
o-Xylene	ND		5.0		ug/L			05/01/24 16:17	1
p-Isopropyltoluene	ND		2.0		ug/L			05/01/24 16:17	1
sec-Butylbenzene	ND		5.0		ug/L			05/01/24 16:17	1
Styrene	ND		2.0		ug/L			05/01/24 16:17	1
tert-Butylbenzene	ND		5.0		ug/L			05/01/24 16:17	1
Tetrachloroethene	ND		2.0		ug/L			05/01/24 16:17	1
Toluene	ND		5.0		ug/L			05/01/24 16:17	1
trans-1,2-Dichloroethene	ND	V1	2.0		ug/L			05/01/24 16:17	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 16:17	1
Trichloroethene	**4.2**		2.0		ug/L			05/02/24 23:53	1
Trichlorofluoromethane	ND		5.0		ug/L			05/01/24 16:17	1
Vinyl acetate	ND		25		ug/L			05/01/24 16:17	1
Vinyl chloride	ND	L5 N1 V1	5.0		ug/L			05/01/24 16:17	1
Xylenes, Total	ND		10		ug/L			05/01/24 16:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*116*		*70 - 130*		*05/01/24 16:17*	*1*
Dibromofluoromethane (Surr)	*110*		*70 - 130*		*05/02/24 23:53*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/01/24 16:17*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*05/02/24 23:53*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*05/01/24 16:17*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*05/02/24 23:53*	*1*

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-MW02-2024

Lab Sample ID: 550-217471-19

Date Collected: 04/23/24 10:30
Matrix: Water
Date Received: 04/25/24 09:15

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	5300		50		ug/L			04/27/24 10:47	10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2400	D2	40		mg/L			04/25/24 18:23	20
Sulfate	590	D2	40		mg/L			04/25/24 18:23	20
Nitrate as N	ND	H1	0.050		mg/L			04/25/24 12:47	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	1.5		0.10		mg/L		04/26/24 07:42	04/29/24 20:03	1
Manganese	1.9		0.010		mg/L		04/26/24 07:42	05/01/24 20:25	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3 (SM 2320B)	220		6.0		mg/L			05/03/24 11:08	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/03/24 11:08	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	220		6.0		mg/L			05/03/24 11:08	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/03/24 11:08	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/03/24 11:08	1

Client Sample ID: CH-FD01-VRP-7-2-2024

Lab Sample ID: 550-217471-20

Date Collected: 04/22/24 12:55
Matrix: Water
Date Received: 04/25/24 09:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			05/01/24 16:38	1
1,1,1-Trichloroethane	ND		2.0		ug/L			05/01/24 16:38	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			05/01/24 16:38	1
1,1,2-Trichloroethane	ND		2.0		ug/L			05/01/24 16:38	1
1,1-Dichloroethane	ND		2.0		ug/L			05/01/24 16:38	1
1,1-Dichloroethene	ND	V1	5.0		ug/L			05/01/24 16:38	1
1,1-Dichloropropene	ND		2.0		ug/L			05/01/24 16:38	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			05/01/24 16:38	1
1,2,3-Trichloropropane	ND		10		ug/L			05/01/24 16:38	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			05/01/24 16:38	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			05/01/24 16:38	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/01/24 16:38	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			05/01/24 16:38	1
1,2-Dichlorobenzene	ND		2.0		ug/L			05/01/24 16:38	1
1,2-Dichloroethane	ND		2.0		ug/L			05/01/24 16:38	1
1,2-Dichloropropane	ND		2.0		ug/L			05/01/24 16:38	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			05/01/24 16:38	1
1,3-Dichlorobenzene	ND		2.0		ug/L			05/01/24 16:38	1
1,3-Dichloropropane	ND		2.0		ug/L			05/01/24 16:38	1
1,4-Dichlorobenzene	ND		2.0		ug/L			05/01/24 16:38	1
2,2-Dichloropropane	ND		2.0		ug/L			05/01/24 16:38	1

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-FD01-VRP-7-2-2024
Date Collected: 04/22/24 12:55
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-20
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	ND		10		ug/L			05/01/24 16:38	1
2-Chlorotoluene	ND		5.0		ug/L			05/01/24 16:38	1
2-Hexanone	ND		10		ug/L			05/01/24 16:38	1
4-Chlorotoluene	ND		5.0		ug/L			05/01/24 16:38	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/01/24 16:38	1
Acetone	ND		20		ug/L			05/01/24 16:38	1
Benzene	ND		2.0		ug/L			05/01/24 16:38	1
Bromobenzene	ND		5.0		ug/L			05/01/24 16:38	1
Bromochloromethane	ND		5.0		ug/L			05/01/24 16:38	1
Bromodichloromethane	ND		2.0		ug/L			05/01/24 16:38	1
Bromoform	ND		5.0		ug/L			05/01/24 16:38	1
Bromomethane	ND		10		ug/L			05/01/24 16:38	1
Carbon disulfide	ND	N1	5.0		ug/L			05/01/24 16:38	1
Carbon tetrachloride	ND		5.0		ug/L			05/01/24 16:38	1
Chlorobenzene	ND		2.0		ug/L			05/01/24 16:38	1
Chloroethane	ND	V1	5.0		ug/L			05/01/24 16:38	1
Chloroform	ND		2.0		ug/L			05/01/24 16:38	1
Chloromethane	ND	V1	5.0		ug/L			05/01/24 16:38	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			05/01/24 16:38	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 16:38	1
Chlorodibromomethane	ND		2.0		ug/L			05/01/24 16:38	1
Dibromomethane	ND		2.0		ug/L			05/01/24 16:38	1
Dichlorodifluoromethane	ND	L5 N1 V1	5.0		ug/L			05/01/24 16:38	1
Ethylbenzene	ND		2.0		ug/L			05/01/24 16:38	1
Hexachlorobutadiene	ND		5.0		ug/L			05/01/24 16:38	1
Iodomethane	ND		2.0		ug/L			05/01/24 16:38	1
Isopropylbenzene	ND		2.0		ug/L			05/01/24 16:38	1
m,p-Xylenes	ND		5.0		ug/L			05/01/24 16:38	1
Methylene Chloride	ND		5.0		ug/L			05/01/24 16:38	1
Naphthalene	ND		5.0		ug/L			05/01/24 16:38	1
n-Butylbenzene	ND		5.0		ug/L			05/01/24 16:38	1
o-Xylene	ND		5.0		ug/L			05/01/24 16:38	1
p-Isopropyltoluene	ND		2.0		ug/L			05/01/24 16:38	1
sec-Butylbenzene	ND		5.0		ug/L			05/01/24 16:38	1
Styrene	ND		2.0		ug/L			05/01/24 16:38	1
tert-Butylbenzene	ND		5.0		ug/L			05/01/24 16:38	1
Tetrachloroethene	ND		2.0		ug/L			05/01/24 16:38	1
Toluene	ND		5.0		ug/L			05/01/24 16:38	1
trans-1,2-Dichloroethene	ND	V1	2.0		ug/L			05/01/24 16:38	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 16:38	1
Trichloroethene	ND		2.0		ug/L			05/01/24 16:38	1
Trichlorofluoromethane	ND		5.0		ug/L			05/01/24 16:38	1
Vinyl acetate	ND		25		ug/L			05/01/24 16:38	1
Vinyl chloride	ND	L5 N1 V1	5.0		ug/L			05/01/24 16:38	1
Xylenes, Total	ND		10		ug/L			05/01/24 16:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*116*		*70 - 130*		*05/01/24 16:38*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*05/01/24 16:38*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*05/01/24 16:38*	*1*

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-FD02-VR3-3-2-2024
Date Collected: 04/23/24 13:55
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-21
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			05/01/24 17:00	1
1,1,1-Trichloroethane	ND		2.0		ug/L			05/01/24 17:00	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			05/01/24 17:00	1
1,1,2-Trichloroethane	ND		2.0		ug/L			05/01/24 17:00	1
1,1-Dichloroethane	ND		2.0		ug/L			05/01/24 17:00	1
1,1-Dichloroethene	ND	V1	5.0		ug/L			05/01/24 17:00	1
1,1-Dichloropropene	ND		2.0		ug/L			05/01/24 17:00	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			05/01/24 17:00	1
1,2,3-Trichloropropane	ND		10		ug/L			05/01/24 17:00	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			05/01/24 17:00	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			05/01/24 17:00	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/01/24 17:00	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			05/01/24 17:00	1
1,2-Dichlorobenzene	ND		2.0		ug/L			05/01/24 17:00	1
1,2-Dichloroethane	ND		2.0		ug/L			05/01/24 17:00	1
1,2-Dichloropropane	ND		2.0		ug/L			05/01/24 17:00	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			05/01/24 17:00	1
1,3-Dichlorobenzene	ND		2.0		ug/L			05/01/24 17:00	1
1,3-Dichloropropane	ND		2.0		ug/L			05/01/24 17:00	1
1,4-Dichlorobenzene	ND		2.0		ug/L			05/01/24 17:00	1
2,2-Dichloropropane	ND		2.0		ug/L			05/01/24 17:00	1
2-Butanone (MEK)	ND		10		ug/L			05/01/24 17:00	1
2-Chlorotoluene	ND		5.0		ug/L			05/01/24 17:00	1
2-Hexanone	ND		10		ug/L			05/01/24 17:00	1
4-Chlorotoluene	ND		5.0		ug/L			05/01/24 17:00	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/01/24 17:00	1
Acetone	ND		20		ug/L			05/01/24 17:00	1
Benzene	ND		2.0		ug/L			05/01/24 17:00	1
Bromobenzene	ND		5.0		ug/L			05/01/24 17:00	1
Bromochloromethane	ND		5.0		ug/L			05/01/24 17:00	1
Bromodichloromethane	ND		2.0		ug/L			05/01/24 17:00	1
Bromoform	ND		5.0		ug/L			05/01/24 17:00	1
Bromomethane	ND		10		ug/L			05/01/24 17:00	1
Carbon disulfide	ND	N1	5.0		ug/L			05/01/24 17:00	1
Carbon tetrachloride	ND		5.0		ug/L			05/01/24 17:00	1
Chlorobenzene	ND		2.0		ug/L			05/01/24 17:00	1
Chloroethane	ND	V1	5.0		ug/L			05/01/24 17:00	1
Chloroform	**3.8**		2.0		ug/L			05/03/24 00:15	1
Chloromethane	ND	V1	5.0		ug/L			05/01/24 17:00	1
cis-1,2-Dichloroethene	**40**		2.0		ug/L			05/03/24 00:15	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 17:00	1
Chlorodibromomethane	ND		2.0		ug/L			05/01/24 17:00	1
Dibromomethane	ND		2.0		ug/L			05/01/24 17:00	1
Dichlorodifluoromethane	ND	L5 N1 V1	5.0		ug/L			05/01/24 17:00	1
Ethylbenzene	ND		2.0		ug/L			05/01/24 17:00	1
Hexachlorobutadiene	ND		5.0		ug/L			05/01/24 17:00	1
Iodomethane	ND		2.0		ug/L			05/01/24 17:00	1
Isopropylbenzene	ND		2.0		ug/L			05/01/24 17:00	1
m,p-Xylenes	ND		5.0		ug/L			05/01/24 17:00	1

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-FD02-VR3-3-2-2024

Date Collected: 04/23/24 13:55
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-21

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		5.0		ug/L			05/01/24 17:00	1
Naphthalene	ND		5.0		ug/L			05/01/24 17:00	1
n-Butylbenzene	ND		5.0		ug/L			05/01/24 17:00	1
o-Xylene	ND		5.0		ug/L			05/01/24 17:00	1
p-Isopropyltoluene	ND		2.0		ug/L			05/01/24 17:00	1
sec-Butylbenzene	ND		5.0		ug/L			05/01/24 17:00	1
Styrene	ND		2.0		ug/L			05/01/24 17:00	1
tert-Butylbenzene	ND		5.0		ug/L			05/01/24 17:00	1
Tetrachloroethene	**2.1**		2.0		ug/L			05/03/24 00:15	1
Toluene	ND		5.0		ug/L			05/01/24 17:00	1
trans-1,2-Dichloroethene	**2.3**		2.0		ug/L			05/03/24 00:15	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 17:00	1
Trichloroethene	**32**		2.0		ug/L			05/03/24 00:15	1
Trichlorofluoromethane	ND		5.0		ug/L			05/01/24 17:00	1
Vinyl acetate	ND		25		ug/L			05/01/24 17:00	1
Vinyl chloride	ND	L5 N1 V1	5.0		ug/L			05/01/24 17:00	1
Xylenes, Total	ND		10		ug/L			05/01/24 17:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*119*		*70 - 130*		*05/01/24 17:00*	*1*
Dibromofluoromethane (Surr)	*109*		*70 - 130*		*05/03/24 00:15*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/01/24 17:00*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*05/03/24 00:15*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*05/01/24 17:00*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*05/03/24 00:15*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	**19000**		50		ug/L			04/27/24 11:02	10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3100**	**D2**	100		mg/L			04/25/24 19:19	50
Sulfate	**1300**	**D2**	100		mg/L			04/25/24 19:19	50
Nitrate as N	**0.11**		0.050		mg/L			04/25/24 13:43	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.10**		0.10		mg/L		04/26/24 07:42	04/29/24 20:07	1
Manganese	**1.5**		0.010		mg/L		04/26/24 07:42	05/01/24 20:28	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3 (SM 2320B)	**320**		6.0		mg/L			05/03/24 11:15	1
Alkalinity, Phenolphthalein (SM 2320B)	ND		6.0		mg/L			05/03/24 11:15	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**320**		6.0		mg/L			05/03/24 11:15	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/03/24 11:15	1
Hydroxide Alkalinity as CaCO3 (SM 2320B)	ND		6.0		mg/L			05/03/24 11:15	1

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-TB01-
Date Collected: 04/23/24 19:00
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-22
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			05/01/24 11:14	1
1,1,1-Trichloroethane	ND		2.0		ug/L			05/01/24 11:14	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			05/01/24 11:14	1
1,1,2-Trichloroethane	ND		2.0		ug/L			05/01/24 11:14	1
1,1-Dichloroethane	ND		2.0		ug/L			05/01/24 11:14	1
1,1-Dichloroethene	ND		5.0		ug/L			05/01/24 11:14	1
1,1-Dichloropropene	ND		2.0		ug/L			05/01/24 11:14	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			05/01/24 11:14	1
1,2,3-Trichloropropane	ND		10		ug/L			05/01/24 11:14	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			05/01/24 11:14	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			05/01/24 11:14	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/01/24 11:14	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			05/01/24 11:14	1
1,2-Dichlorobenzene	ND		2.0		ug/L			05/01/24 11:14	1
1,2-Dichloroethane	ND		2.0		ug/L			05/01/24 11:14	1
1,2-Dichloropropane	ND		2.0		ug/L			05/01/24 11:14	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			05/01/24 11:14	1
1,3-Dichlorobenzene	ND		2.0		ug/L			05/01/24 11:14	1
1,3-Dichloropropane	ND		2.0		ug/L			05/01/24 11:14	1
1,4-Dichlorobenzene	ND		2.0		ug/L			05/01/24 11:14	1
2,2-Dichloropropane	ND		2.0		ug/L			05/01/24 11:14	1
2-Butanone (MEK)	ND		10		ug/L			05/01/24 11:14	1
2-Chlorotoluene	ND		5.0		ug/L			05/01/24 11:14	1
2-Hexanone	ND		10		ug/L			05/01/24 11:14	1
4-Chlorotoluene	ND		5.0		ug/L			05/01/24 11:14	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/01/24 11:14	1
Acetone	ND		20		ug/L			05/01/24 11:14	1
Benzene	ND		2.0		ug/L			05/01/24 11:14	1
Bromobenzene	ND		5.0		ug/L			05/01/24 11:14	1
Bromochloromethane	ND		5.0		ug/L			05/01/24 11:14	1
Bromodichloromethane	ND		2.0		ug/L			05/01/24 11:14	1
Bromoform	ND		5.0		ug/L			05/01/24 11:14	1
Bromomethane	ND		10		ug/L			05/01/24 11:14	1
Carbon disulfide	ND		5.0		ug/L			05/01/24 11:14	1
Carbon tetrachloride	ND		5.0		ug/L			05/01/24 11:14	1
Chlorobenzene	ND		2.0		ug/L			05/01/24 11:14	1
Chloroethane	ND		5.0		ug/L			05/01/24 11:14	1
Chloroform	ND		2.0		ug/L			05/01/24 11:14	1
Chloromethane	ND		5.0		ug/L			05/01/24 11:14	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			05/01/24 11:14	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 11:14	1
Chlorodibromomethane	ND		2.0		ug/L			05/01/24 11:14	1
Dibromomethane	ND		2.0		ug/L			05/01/24 11:14	1
Dichlorodifluoromethane	ND		5.0		ug/L			05/01/24 11:14	1
Ethylbenzene	ND		2.0		ug/L			05/01/24 11:14	1
Hexachlorobutadiene	ND		5.0		ug/L			05/01/24 11:14	1
Iodomethane	ND		2.0		ug/L			05/01/24 11:14	1
Isopropylbenzene	ND		2.0		ug/L			05/01/24 11:14	1
m,p-Xylenes	ND		5.0		ug/L			05/01/24 11:14	1

Client Sample ID: CH-TB01-

Date Collected: 04/23/24 19:00
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-22

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		5.0		ug/L			05/01/24 11:14	1
Naphthalene	ND		5.0		ug/L			05/01/24 11:14	1
n-Butylbenzene	ND		5.0		ug/L			05/01/24 11:14	1
o-Xylene	ND		5.0		ug/L			05/01/24 11:14	1
p-Isopropyltoluene	ND		2.0		ug/L			05/01/24 11:14	1
sec-Butylbenzene	ND		5.0		ug/L			05/01/24 11:14	1
Styrene	ND		2.0		ug/L			05/01/24 11:14	1
tert-Butylbenzene	ND		5.0		ug/L			05/01/24 11:14	1
Tetrachloroethene	ND		2.0		ug/L			05/01/24 11:14	1
Toluene	ND		5.0		ug/L			05/01/24 11:14	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			05/01/24 11:14	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 11:14	1
Trichloroethene	ND		2.0		ug/L			05/01/24 11:14	1
Trichlorofluoromethane	ND		5.0		ug/L			05/01/24 11:14	1
Vinyl acetate	ND		25		ug/L			05/01/24 11:14	1
Vinyl chloride	ND		5.0		ug/L			05/01/24 11:14	1
Xylenes, Total	ND		10		ug/L			05/01/24 11:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*115*		*70 - 130*		*05/01/24 11:14*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*05/01/24 11:14*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*05/01/24 11:14*	*1*

Client Sample ID: CH-M62-A-0424

Date Collected: 04/22/24 13:30
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-23

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			05/01/24 17:22	1
1,1,1-Trichloroethane	ND		2.0		ug/L			05/01/24 17:22	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			05/01/24 17:22	1
1,1,2-Trichloroethane	ND		2.0		ug/L			05/01/24 17:22	1
1,1-Dichloroethane	ND		2.0		ug/L			05/01/24 17:22	1
1,1-Dichloroethene	ND	V1	5.0		ug/L			05/01/24 17:22	1
1,1-Dichloropropene	ND		2.0		ug/L			05/01/24 17:22	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			05/01/24 17:22	1
1,2,3-Trichloropropane	ND		10		ug/L			05/01/24 17:22	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			05/01/24 17:22	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			05/01/24 17:22	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/01/24 17:22	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			05/01/24 17:22	1
1,2-Dichlorobenzene	ND		2.0		ug/L			05/01/24 17:22	1
1,2-Dichloroethane	ND		2.0		ug/L			05/01/24 17:22	1
1,2-Dichloropropane	ND		2.0		ug/L			05/01/24 17:22	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			05/01/24 17:22	1
1,3-Dichlorobenzene	ND		2.0		ug/L			05/01/24 17:22	1
1,3-Dichloropropane	ND		2.0		ug/L			05/01/24 17:22	1
1,4-Dichlorobenzene	ND		2.0		ug/L			05/01/24 17:22	1
2,2-Dichloropropane	ND		2.0		ug/L			05/01/24 17:22	1

Client Sample ID: CH-M62-A-0424
Date Collected: 04/22/24 13:30
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-23
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	ND		10		ug/L			05/01/24 17:22	1
2-Chlorotoluene	ND		5.0		ug/L			05/01/24 17:22	1
2-Hexanone	ND		10		ug/L			05/01/24 17:22	1
4-Chlorotoluene	ND		5.0		ug/L			05/01/24 17:22	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/01/24 17:22	1
Acetone	ND		20		ug/L			05/01/24 17:22	1
Benzene	ND		2.0		ug/L			05/01/24 17:22	1
Bromobenzene	ND		5.0		ug/L			05/01/24 17:22	1
Bromochloromethane	ND		5.0		ug/L			05/01/24 17:22	1
Bromodichloromethane	ND		2.0		ug/L			05/01/24 17:22	1
Bromoform	ND		5.0		ug/L			05/01/24 17:22	1
Bromomethane	ND		10		ug/L			05/01/24 17:22	1
Carbon disulfide	ND	N1	5.0		ug/L			05/01/24 17:22	1
Carbon tetrachloride	ND		5.0		ug/L			05/01/24 17:22	1
Chlorobenzene	ND		2.0		ug/L			05/01/24 17:22	1
Chloroethane	ND	V1	5.0		ug/L			05/01/24 17:22	1
Chloroform	ND		2.0		ug/L			05/01/24 17:22	1
Chloromethane	ND	V1	5.0		ug/L			05/01/24 17:22	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			05/01/24 17:22	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 17:22	1
Chlorodibromomethane	ND		2.0		ug/L			05/01/24 17:22	1
Dibromomethane	ND		2.0		ug/L			05/01/24 17:22	1
Dichlorodifluoromethane	ND	L5 N1 V1	5.0		ug/L			05/01/24 17:22	1
Ethylbenzene	ND		2.0		ug/L			05/01/24 17:22	1
Hexachlorobutadiene	ND		5.0		ug/L			05/01/24 17:22	1
Iodomethane	ND		2.0		ug/L			05/01/24 17:22	1
Isopropylbenzene	ND		2.0		ug/L			05/01/24 17:22	1
m,p-Xylenes	ND		5.0		ug/L			05/01/24 17:22	1
Methylene Chloride	ND		5.0		ug/L			05/01/24 17:22	1
Naphthalene	ND		5.0		ug/L			05/01/24 17:22	1
n-Butylbenzene	ND		5.0		ug/L			05/01/24 17:22	1
o-Xylene	ND		5.0		ug/L			05/01/24 17:22	1
p-Isopropyltoluene	ND		2.0		ug/L			05/01/24 17:22	1
sec-Butylbenzene	ND		5.0		ug/L			05/01/24 17:22	1
Styrene	ND		2.0		ug/L			05/01/24 17:22	1
tert-Butylbenzene	ND		5.0		ug/L			05/01/24 17:22	1
Tetrachloroethene	ND		2.0		ug/L			05/01/24 17:22	1
Toluene	ND		5.0		ug/L			05/01/24 17:22	1
trans-1,2-Dichloroethene	ND	V1	2.0		ug/L			05/01/24 17:22	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 17:22	1
Trichloroethene	ND		2.0		ug/L			05/01/24 17:22	1
Trichlorofluoromethane	ND		5.0		ug/L			05/01/24 17:22	1
Vinyl acetate	ND		25		ug/L			05/01/24 17:22	1
Vinyl chloride	ND	L5 N1 V1	5.0		ug/L			05/01/24 17:22	1
Xylenes, Total	ND		10		ug/L			05/01/24 17:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*115*		*70 - 130*		*05/01/24 17:22*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*05/01/24 17:22*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*05/01/24 17:22*	*1*

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: Waste-0424
Date Collected: 04/23/24 19:00
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-26
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			05/01/24 13:58	1
1,1,1-Trichloroethane	ND		2.0		ug/L			05/01/24 13:58	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			05/01/24 13:58	1
1,1,2-Trichloroethane	ND		2.0		ug/L			05/01/24 13:58	1
1,1-Dichloroethane	ND		2.0		ug/L			05/01/24 13:58	1
1,1-Dichloroethene	ND		5.0		ug/L			05/01/24 13:58	1
1,1-Dichloropropene	ND		2.0		ug/L			05/01/24 13:58	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			05/01/24 13:58	1
1,2,3-Trichloropropane	ND		10		ug/L			05/01/24 13:58	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			05/01/24 13:58	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			05/01/24 13:58	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/01/24 13:58	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			05/01/24 13:58	1
1,2-Dichlorobenzene	ND		2.0		ug/L			05/01/24 13:58	1
1,2-Dichloroethane	ND		2.0		ug/L			05/01/24 13:58	1
1,2-Dichloropropane	ND		2.0		ug/L			05/01/24 13:58	1
1,3,5-Trimethylbenzene	ND	V1	2.0		ug/L			05/01/24 13:58	1
1,3-Dichlorobenzene	ND		2.0		ug/L			05/01/24 13:58	1
1,3-Dichloropropane	ND		2.0		ug/L			05/01/24 13:58	1
1,4-Dichlorobenzene	ND		2.0		ug/L			05/01/24 13:58	1
2,2-Dichloropropane	ND		2.0		ug/L			05/01/24 13:58	1
2-Butanone (MEK)	ND		10		ug/L			05/01/24 13:58	1
2-Chlorotoluene	ND	V1	5.0		ug/L			05/01/24 13:58	1
2-Hexanone	ND		10		ug/L			05/01/24 13:58	1
4-Chlorotoluene	ND		5.0		ug/L			05/01/24 13:58	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/01/24 13:58	1
Acetone	ND		20		ug/L			05/01/24 13:58	1
Benzene	ND		2.0		ug/L			05/01/24 13:58	1
Bromobenzene	ND		5.0		ug/L			05/01/24 13:58	1
Bromochloromethane	ND		5.0		ug/L			05/01/24 13:58	1
Bromodichloromethane	ND		2.0		ug/L			05/01/24 13:58	1
Bromoform	ND		5.0		ug/L			05/01/24 13:58	1
Bromomethane	ND		10		ug/L			05/01/24 13:58	1
Carbon disulfide	ND		5.0		ug/L			05/01/24 13:58	1
Carbon tetrachloride	ND		5.0		ug/L			05/01/24 13:58	1
Chlorobenzene	ND		2.0		ug/L			05/01/24 13:58	1
Chloroethane	ND		5.0		ug/L			05/01/24 13:58	1
Chloroform	ND		2.0		ug/L			05/01/24 13:58	1
Chloromethane	ND		5.0		ug/L			05/01/24 13:58	1
cis-1,2-Dichloroethene	**3.8**		2.0		ug/L			05/01/24 13:58	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 13:58	1
Chlorodibromomethane	ND		2.0		ug/L			05/01/24 13:58	1
Dibromomethane	ND		2.0		ug/L			05/01/24 13:58	1
Dichlorodifluoromethane	ND		5.0		ug/L			05/01/24 13:58	1
Ethylbenzene	ND		2.0		ug/L			05/01/24 13:58	1
Hexachlorobutadiene	ND	L5 V1	5.0		ug/L			05/01/24 13:58	1
Iodomethane	ND		2.0		ug/L			05/01/24 13:58	1
Isopropylbenzene	ND	V1	2.0		ug/L			05/01/24 13:58	1
m,p-Xylenes	ND	V1	5.0		ug/L			05/01/24 13:58	1

Client Sample ID: Waste-0424

Lab Sample ID: 550-217471-26

Date Collected: 04/23/24 19:00

Matrix: Water

Date Received: 04/25/24 09:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		5.0		ug/L			05/01/24 13:58	1
Naphthalene	ND		5.0		ug/L			05/01/24 13:58	1
n-Butylbenzene	ND	L5 V1	5.0		ug/L			05/01/24 13:58	1
o-Xylene	ND		5.0		ug/L			05/01/24 13:58	1
p-Isopropyltoluene	ND	L5 V1	2.0		ug/L			05/01/24 13:58	1
sec-Butylbenzene	ND	L5 V1	5.0		ug/L			05/01/24 13:58	1
Styrene	ND		2.0		ug/L			05/01/24 13:58	1
tert-Butylbenzene	ND	L5 V1	5.0		ug/L			05/01/24 13:58	1
Tetrachloroethene	ND		2.0		ug/L			05/01/24 13:58	1
Toluene	ND		5.0		ug/L			05/01/24 13:58	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			05/01/24 13:58	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 13:58	1
Trichloroethene	**2.6**		2.0		ug/L			05/01/24 13:58	1
Trichlorofluoromethane	ND		5.0		ug/L			05/01/24 13:58	1
Vinyl acetate	ND		25		ug/L			05/01/24 13:58	1
Vinyl chloride	ND		5.0		ug/L			05/01/24 13:58	1
Xylenes, Total	ND		10		ug/L			05/01/24 13:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*89*		*70 - 130*		*05/01/24 13:58*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/01/24 13:58*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*05/01/24 13:58*	*1*

Client Sample ID: CH-RB01-0424

Lab Sample ID: 550-217471-27

Date Collected: 04/23/24 18:30

Matrix: Water

Date Received: 04/25/24 09:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			05/01/24 14:20	1
1,1,1-Trichloroethane	ND		2.0		ug/L			05/01/24 14:20	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			05/01/24 14:20	1
1,1,2-Trichloroethane	ND		2.0		ug/L			05/01/24 14:20	1
1,1-Dichloroethane	ND		2.0		ug/L			05/01/24 14:20	1
1,1-Dichloroethene	ND		5.0		ug/L			05/01/24 14:20	1
1,1-Dichloropropene	ND		2.0		ug/L			05/01/24 14:20	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			05/01/24 14:20	1
1,2,3-Trichloropropane	ND		10		ug/L			05/01/24 14:20	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			05/01/24 14:20	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			05/01/24 14:20	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/01/24 14:20	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			05/01/24 14:20	1
1,2-Dichlorobenzene	ND		2.0		ug/L			05/01/24 14:20	1
1,2-Dichloroethane	ND		2.0		ug/L			05/01/24 14:20	1
1,2-Dichloropropane	ND		2.0		ug/L			05/01/24 14:20	1
1,3,5-Trimethylbenzene	ND	V1	2.0		ug/L			05/01/24 14:20	1
1,3-Dichlorobenzene	ND		2.0		ug/L			05/01/24 14:20	1
1,3-Dichloropropane	ND		2.0		ug/L			05/01/24 14:20	1
1,4-Dichlorobenzene	ND		2.0		ug/L			05/01/24 14:20	1
2,2-Dichloropropane	ND		2.0		ug/L			05/01/24 14:20	1

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-RB01-0424
Date Collected: 04/23/24 18:30
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-27
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	ND		10		ug/L			05/01/24 14:20	1
2-Chlorotoluene	ND	V1	5.0		ug/L			05/01/24 14:20	1
2-Hexanone	ND		10		ug/L			05/01/24 14:20	1
4-Chlorotoluene	ND		5.0		ug/L			05/01/24 14:20	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/01/24 14:20	1
Acetone	ND		20		ug/L			05/01/24 14:20	1
Benzene	ND		2.0		ug/L			05/01/24 14:20	1
Bromobenzene	ND		5.0		ug/L			05/01/24 14:20	1
Bromochloromethane	ND		5.0		ug/L			05/01/24 14:20	1
Bromodichloromethane	ND		2.0		ug/L			05/01/24 14:20	1
Bromoform	ND		5.0		ug/L			05/01/24 14:20	1
Bromomethane	ND		10		ug/L			05/01/24 14:20	1
Carbon disulfide	ND		5.0		ug/L			05/01/24 14:20	1
Carbon tetrachloride	ND		5.0		ug/L			05/01/24 14:20	1
Chlorobenzene	ND		2.0		ug/L			05/01/24 14:20	1
Chloroethane	ND		5.0		ug/L			05/01/24 14:20	1
Chloroform	ND		2.0		ug/L			05/01/24 14:20	1
Chloromethane	ND		5.0		ug/L			05/01/24 14:20	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			05/01/24 14:20	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 14:20	1
Chlorodibromomethane	ND		2.0		ug/L			05/01/24 14:20	1
Dibromomethane	ND		2.0		ug/L			05/01/24 14:20	1
Dichlorodifluoromethane	ND		5.0		ug/L			05/01/24 14:20	1
Ethylbenzene	ND		2.0		ug/L			05/01/24 14:20	1
Hexachlorobutadiene	ND	L5 V1	5.0		ug/L			05/01/24 14:20	1
Iodomethane	ND		2.0		ug/L			05/01/24 14:20	1
Isopropylbenzene	ND	V1	2.0		ug/L			05/01/24 14:20	1
m,p-Xylenes	ND	V1	5.0		ug/L			05/01/24 14:20	1
Methylene Chloride	ND		5.0		ug/L			05/01/24 14:20	1
Naphthalene	ND		5.0		ug/L			05/01/24 14:20	1
n-Butylbenzene	ND	L5 V1	5.0		ug/L			05/01/24 14:20	1
o-Xylene	ND		5.0		ug/L			05/01/24 14:20	1
p-Isopropyltoluene	ND	L5 V1	2.0		ug/L			05/01/24 14:20	1
sec-Butylbenzene	ND	L5 V1	5.0		ug/L			05/01/24 14:20	1
Styrene	ND		2.0		ug/L			05/01/24 14:20	1
tert-Butylbenzene	ND	L5 V1	5.0		ug/L			05/01/24 14:20	1
Tetrachloroethene	ND		2.0		ug/L			05/01/24 14:20	1
Toluene	ND		5.0		ug/L			05/01/24 14:20	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			05/01/24 14:20	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 14:20	1
Trichloroethene	ND		2.0		ug/L			05/01/24 14:20	1
Trichlorofluoromethane	ND		5.0		ug/L			05/01/24 14:20	1
Vinyl acetate	ND		25		ug/L			05/01/24 14:20	1
Vinyl chloride	ND		5.0		ug/L			05/01/24 14:20	1
Xylenes, Total	ND		10		ug/L			05/01/24 14:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*87*		*70 - 130*		*05/01/24 14:20*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*05/01/24 14:20*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*05/01/24 14:20*	*1*

Surrogate Summary

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
550-217471-1	CH-VRP-1-2024	116	97	95
550-217471-1	CH-VRP-1-2024	120	95	94
550-217471-1	CH-VRP-1-2024	87	98	95
550-217471-1 MS	CH-VRP-1-2024	96	85	95
550-217471-1 MSD	CH-VRP-1-2024	106	102	107
550-217471-2	CH-VRP-2-2024	115	96	96
550-217471-2	CH-VRP-2-2024	88	99	96
550-217471-3	CH-VRP-3-2024	120	96	95
550-217471-3	CH-VRP-3-2024	88	97	96
550-217471-4	CH-VRP-4-2024	120	96	94
550-217471-5	CH-VRP-5-2024	117	97	94
550-217471-6	CH-VRP-7-2024	118	97	93
550-217471-7	CH-VRP-8-2024	116	97	97
550-217471-8	CH-VRP-9-2024	118	97	94
550-217471-8 MS	CH-VRP-9-2024	102	95	98
550-217471-8 MSD	CH-VRP-9-2024	103	97	100
550-217471-9	CH-VRP-10-2024	117	95	93
550-217471-10	CH-VRP-11-2024	116	95	93
550-217471-11	CH-VRP-12-2024	117	96	93
550-217471-12	CH-VRP-13-2024	116	96	95
550-217471-13	CH-VRP-14-2024	115	96	93
550-217471-14	CH-VRP-15-2024	114	96	95
550-217471-14	CH-VRP-15-2024	109	107	97
550-217471-15	CH-VRP-16-2024	116	96	94
550-217471-16	CH-VRP-17-2024	118	96	91
550-217471-17	CH-DR-2-2024	117	95	93
550-217471-17	CH-DR-2-2024	110	104	95
550-217471-18	CH-UST-2-2024	116	96	93
550-217471-19	CH-MW02-2024	116	96	93
550-217471-19	CH-MW02-2024	110	105	96
550-217471-20	CH-FD01-VRP-7-2-2024	116	95	95
550-217471-21	CH-FD02-VR3-3-2-2024	119	96	95
550-217471-21	CH-FD02-VR3-3-2-2024	109	104	96
550-217471-22	CH-TB01-	115	95	93
550-217471-23	CH-M62-A-0424	115	97	95
550-217471-26	Waste-0424	89	96	94
550-217471-27	CH-RB01-0424	87	99	96
550-217664-D-8 MS	Matrix Spike	72	88	90
550-217664-D-8 MSD	Matrix Spike Duplicate	72	88	90
550-217664-E-41 MS	Matrix Spike	95	108	109
550-217664-E-41 MSD	Matrix Spike Duplicate	99	110	104
LCS 550-319979/3	Lab Control Sample	100	95	99
LCS 550-320106/3	Lab Control Sample	104	99	103
LCS 550-320110/3	Lab Control Sample	84	100	100
LCS 550-320221/3	Lab Control Sample	97	108	106
LCSD 550-319979/4	Lab Control Sample Dup	96	95	96
LCSD 550-320106/4	Lab Control Sample Dup	107	100	102
LCSD 550-320110/4	Lab Control Sample Dup	82	100	101
LCSD 550-320221/4	Lab Control Sample Dup	98	107	104

Surrogate Summary

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
MB 550-319979/6	Method Blank	114	92	92
MB 550-320106/6	Method Blank	113	95	93
MB 550-320110/6	Method Blank	85	99	96
MB 550-320221/6	Method Blank	93	99	95

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-319979/6
Matrix: Water
Analysis Batch: 319979

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			04/29/24 23:12	1
1,1,1-Trichloroethane	ND		2.0		ug/L			04/29/24 23:12	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			04/29/24 23:12	1
1,1,2-Trichloroethane	ND		2.0		ug/L			04/29/24 23:12	1
1,1-Dichloroethane	ND		2.0		ug/L			04/29/24 23:12	1
1,1-Dichloroethene	ND		5.0		ug/L			04/29/24 23:12	1
1,1-Dichloropropene	ND		2.0		ug/L			04/29/24 23:12	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			04/29/24 23:12	1
1,2,3-Trichloropropane	ND		10		ug/L			04/29/24 23:12	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			04/29/24 23:12	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			04/29/24 23:12	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/29/24 23:12	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			04/29/24 23:12	1
1,2-Dichlorobenzene	ND		2.0		ug/L			04/29/24 23:12	1
1,2-Dichloroethane	ND		2.0		ug/L			04/29/24 23:12	1
1,2-Dichloropropane	ND		2.0		ug/L			04/29/24 23:12	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			04/29/24 23:12	1
1,3-Dichlorobenzene	ND		2.0		ug/L			04/29/24 23:12	1
1,3-Dichloropropane	ND		2.0		ug/L			04/29/24 23:12	1
1,4-Dichlorobenzene	ND		2.0		ug/L			04/29/24 23:12	1
2,2-Dichloropropane	ND		2.0		ug/L			04/29/24 23:12	1
2-Butanone (MEK)	ND		10		ug/L			04/29/24 23:12	1
2-Chlorotoluene	ND		5.0		ug/L			04/29/24 23:12	1
2-Hexanone	ND		10		ug/L			04/29/24 23:12	1
4-Chlorotoluene	ND		5.0		ug/L			04/29/24 23:12	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/29/24 23:12	1
Acetone	ND		20		ug/L			04/29/24 23:12	1
Benzene	ND		2.0		ug/L			04/29/24 23:12	1
Bromobenzene	ND		5.0		ug/L			04/29/24 23:12	1
Bromochloromethane	ND		5.0		ug/L			04/29/24 23:12	1
Bromodichloromethane	ND		2.0		ug/L			04/29/24 23:12	1
Bromoform	ND		5.0		ug/L			04/29/24 23:12	1
Bromomethane	ND		10		ug/L			04/29/24 23:12	1
Carbon disulfide	ND		5.0		ug/L			04/29/24 23:12	1
Carbon tetrachloride	ND		5.0		ug/L			04/29/24 23:12	1
Chlorobenzene	ND		2.0		ug/L			04/29/24 23:12	1
Chloroethane	ND		5.0		ug/L			04/29/24 23:12	1
Chloroform	ND		2.0		ug/L			04/29/24 23:12	1
Chloromethane	ND		5.0		ug/L			04/29/24 23:12	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			04/29/24 23:12	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			04/29/24 23:12	1
Chlorodibromomethane	ND		2.0		ug/L			04/29/24 23:12	1
Dibromomethane	ND		2.0		ug/L			04/29/24 23:12	1
Dichlorodifluoromethane	ND		5.0		ug/L			04/29/24 23:12	1
Ethylbenzene	ND		2.0		ug/L			04/29/24 23:12	1
Hexachlorobutadiene	ND		5.0		ug/L			04/29/24 23:12	1
Iodomethane	ND		2.0		ug/L			04/29/24 23:12	1
Isopropylbenzene	ND		2.0		ug/L			04/29/24 23:12	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-319979/6
Matrix: Water
Analysis Batch: 319979

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
m,p-Xylenes	ND		5.0		ug/L			04/29/24 23:12	1
Methylene Chloride	ND		5.0		ug/L			04/29/24 23:12	1
Naphthalene	ND		5.0		ug/L			04/29/24 23:12	1
n-Butylbenzene	ND		5.0		ug/L			04/29/24 23:12	1
o-Xylene	ND		5.0		ug/L			04/29/24 23:12	1
p-Isopropyltoluene	ND		2.0		ug/L			04/29/24 23:12	1
sec-Butylbenzene	ND		5.0		ug/L			04/29/24 23:12	1
Styrene	ND		2.0		ug/L			04/29/24 23:12	1
tert-Butylbenzene	ND		5.0		ug/L			04/29/24 23:12	1
Tetrachloroethene	ND		2.0		ug/L			04/29/24 23:12	1
Toluene	ND		5.0		ug/L			04/29/24 23:12	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			04/29/24 23:12	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			04/29/24 23:12	1
Trichloroethene	ND		2.0		ug/L			04/29/24 23:12	1
Trichlorofluoromethane	ND		5.0		ug/L			04/29/24 23:12	1
Vinyl acetate	ND		25		ug/L			04/29/24 23:12	1
Vinyl chloride	ND		5.0		ug/L			04/29/24 23:12	1
Xylenes, Total	ND		10		ug/L			04/29/24 23:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*114*		*70 - 130*		*04/29/24 23:12*	*1*
Toluene-d8 (Surr)	*92*		*70 - 130*		*04/29/24 23:12*	*1*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*04/29/24 23:12*	*1*

Lab Sample ID: LCS 550-319979/3
Matrix: Water
Analysis Batch: 319979

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,1,2-Tetrachloroethane			50.0	49.4		ug/L		99	68 - 133		
1,1,1-Trichloroethane			50.0	50.7		ug/L		101	62 - 134		
1,1,2,2-Tetrachloroethane			50.0	48.3		ug/L		97	60 - 135		
1,1,2-Trichloroethane			50.0	49.7		ug/L		99	69 - 130		
1,1-Dichloroethane			50.0	50.1		ug/L		100	65 - 132		
1,1-Dichloroethene			50.0	54.2		ug/L		108	80 - 120		
1,1-Dichloropropene			50.0	49.5		ug/L		99	63 - 130		
1,2,3-Trichlorobenzene			50.0	49.3		ug/L		99	62 - 139		
1,2,3-Trichloropropane			50.0	49.9		ug/L		100	67 - 130		
1,2,4-Trichlorobenzene			50.0	49.8		ug/L		100	66 - 135		
1,2,4-Trimethylbenzene			50.0	52.0		ug/L		104	70 - 134		
1,2-Dibromo-3-Chloropropane			50.0	48.9		ug/L		98	58 - 133		
1,2-Dibromoethane (EDB)			50.0	49.7		ug/L		99	70 - 130		
1,2-Dichlorobenzene			50.0	50.9		ug/L		102	70 - 130		
1,2-Dichloroethane			50.0	46.4		ug/L		93	54 - 135		
1,2-Dichloropropane			50.0	49.7		ug/L		99	80 - 120		
1,3,5-Trimethylbenzene			50.0	52.0		ug/L		104	70 - 139		
1,3-Dichlorobenzene			50.0	51.6		ug/L		103	70 - 130		
1,3-Dichloropropane			50.0	49.8		ug/L		100	69 - 130		

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-319979/3
Matrix: Water
Analysis Batch: 319979

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dichlorobenzene	50.0	51.0		ug/L		102	70 - 130
2,2-Dichloropropane	50.0	48.0		ug/L		96	60 - 148
2-Butanone (MEK)	50.0	48.2		ug/L		96	50 - 150
2-Chlorotoluene	50.0	51.2		ug/L		102	70 - 133
2-Hexanone	50.0	47.6		ug/L		95	50 - 148
4-Chlorotoluene	50.0	50.7		ug/L		101	70 - 130
4-Methyl-2-pentanone (MIBK)	50.0	48.3		ug/L		97	56 - 141
Acetone	50.0	43.8		ug/L		88	11 - 150
Benzene	50.0	50.7		ug/L		101	67 - 130
Bromobenzene	50.0	53.4		ug/L		107	70 - 130
Bromochloromethane	50.0	49.9		ug/L		100	59 - 139
Bromodichloromethane	50.0	50.1		ug/L		100	69 - 130
Bromoform	50.0	52.5		ug/L		105	67 - 140
Bromomethane	50.0	53.4		ug/L		107	10 - 150
Carbon disulfide	50.0	47.5		ug/L		95	36 - 150
Carbon tetrachloride	50.0	48.8		ug/L		98	60 - 134
Chlorobenzene	50.0	51.4		ug/L		103	70 - 130
Chloroethane	50.0	55.0		ug/L		110	57 - 150
Chloroform	50.0	51.3		ug/L		103	80 - 120
Chloromethane	50.0	64.2		ug/L		128	46 - 150
cis-1,2-Dichloroethene	50.0	49.4		ug/L		99	64 - 130
cis-1,3-Dichloropropene	50.0	49.9		ug/L		100	66 - 134
Chlorodibromomethane	50.0	52.2		ug/L		104	65 - 133
Dibromomethane	50.0	48.7		ug/L		97	65 - 130
Dichlorodifluoromethane	50.0	95.6	L5	ug/L		191	29 - 150
Ethylbenzene	50.0	52.0		ug/L		104	80 - 120
Hexachlorobutadiene	50.0	48.1		ug/L		96	58 - 134
Iodomethane	50.0	47.4		ug/L		95	54 - 146
Isopropylbenzene	50.0	53.1		ug/L		106	70 - 139
m,p-Xylenes	50.0	52.2		ug/L		104	67 - 137
Methylene Chloride	50.0	51.7		ug/L		103	55 - 136
Naphthalene	50.0	53.8		ug/L		108	64 - 135
n-Butylbenzene	50.0	50.8		ug/L		102	70 - 136
o-Xylene	50.0	53.5		ug/L		107	68 - 136
p-Isopropyltoluene	50.0	53.3		ug/L		107	67 - 138
sec-Butylbenzene	50.0	52.7		ug/L		105	66 - 135
Styrene	50.0	55.5		ug/L		111	69 - 135
tert-Butylbenzene	50.0	54.6		ug/L		109	64 - 135
Tetrachloroethene	50.0	51.0		ug/L		102	63 - 131
Toluene	50.0	52.0		ug/L		104	71 - 123
trans-1,2-Dichloroethene	50.0	52.6		ug/L		105	65 - 132
trans-1,3-Dichloropropene	50.0	50.8		ug/L		102	66 - 136
Trichloroethene	50.0	49.6		ug/L		99	67 - 130
Trichlorofluoromethane	50.0	55.0		ug/L		110	62 - 147
Vinyl acetate	50.0	48.1		ug/L		96	51 - 150
Vinyl chloride	50.0	61.9	L5	ug/L		124	80 - 120
Xylenes, Total	100	106		ug/L		106	66 - 138

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-319979/3
Matrix: Water
Analysis Batch: 319979

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	*100*		*70 - 130*
Toluene-d8 (Surr)	*95*		*70 - 130*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 550-319979/4
Matrix: Water
Analysis Batch: 319979

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane			50.0	48.7		ug/L		97	68 - 133	1	20
1,1,1-Trichloroethane			50.0	51.2		ug/L		102	62 - 134	1	20
1,1,2,2-Tetrachloroethane			50.0	50.2		ug/L		100	60 - 135	4	20
1,1,2-Trichloroethane			50.0	49.5		ug/L		99	69 - 130	0	20
1,1-Dichloroethane			50.0	48.8		ug/L		98	65 - 132	3	20
1,1-Dichloroethene			50.0	55.6		ug/L		111	80 - 120	3	23
1,1-Dichloropropene			50.0	50.6		ug/L		101	63 - 130	2	20
1,2,3-Trichlorobenzene			50.0	50.2		ug/L		100	62 - 139	2	20
1,2,3-Trichloropropane			50.0	51.8		ug/L		104	67 - 130	4	20
1,2,4-Trichlorobenzene			50.0	49.4		ug/L		99	66 - 135	1	20
1,2,4-Trimethylbenzene			50.0	51.4		ug/L		103	70 - 134	1	20
1,2-Dibromo-3-Chloropropane			50.0	52.4		ug/L		105	58 - 133	7	21
1,2-Dibromoethane (EDB)			50.0	50.0		ug/L		100	70 - 130	1	20
1,2-Dichlorobenzene			50.0	50.2		ug/L		100	70 - 130	1	20
1,2-Dichloroethane			50.0	46.8		ug/L		94	54 - 135	1	20
1,2-Dichloropropane			50.0	48.5		ug/L		97	80 - 120	2	20
1,3,5-Trimethylbenzene			50.0	52.3		ug/L		105	70 - 139	1	20
1,3-Dichlorobenzene			50.0	50.2		ug/L		100	70 - 130	3	20
1,3-Dichloropropane			50.0	48.5		ug/L		97	69 - 130	3	20
1,4-Dichlorobenzene			50.0	49.6		ug/L		99	70 - 130	3	20
2,2-Dichloropropane			50.0	47.5		ug/L		95	60 - 148	1	21
2-Butanone (MEK)			50.0	51.2		ug/L		102	50 - 150	6	34
2-Chlorotoluene			50.0	50.6		ug/L		101	70 - 133	1	20
2-Hexanone			50.0	51.0		ug/L		102	50 - 148	7	29
4-Chlorotoluene			50.0	49.9		ug/L		100	70 - 130	2	20
4-Methyl-2-pentanone (MIBK)			50.0	51.5		ug/L		103	56 - 141	6	23
Acetone			50.0	46.0		ug/L		92	11 - 150	5	35
Benzene			50.0	50.5		ug/L		101	67 - 130	0	20
Bromobenzene			50.0	52.2		ug/L		104	70 - 130	2	20
Bromochloromethane			50.0	48.3		ug/L		97	59 - 139	3	20
Bromodichloromethane			50.0	48.9		ug/L		98	69 - 130	2	20
Bromoform			50.0	52.5		ug/L		105	67 - 140	0	20
Bromomethane			50.0	53.3		ug/L		107	10 - 150	0	31
Carbon disulfide			50.0	46.9		ug/L		94	36 - 150	1	26
Carbon tetrachloride			50.0	50.1		ug/L		100	60 - 134	3	20
Chlorobenzene			50.0	50.5		ug/L		101	70 - 130	2	20
Chloroethane			50.0	55.5		ug/L		111	57 - 150	1	29
Chloroform			50.0	49.1		ug/L		98	80 - 120	4	20
Chloromethane			50.0	65.5		ug/L		131	46 - 150	2	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 550-319979/4
Matrix: Water
Analysis Batch: 319979

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
cis-1,2-Dichloroethene			50.0	48.9		ug/L		98	64 - 130	1	20
cis-1,3-Dichloropropene			50.0	48.4		ug/L		97	66 - 134	3	20
Chlorodibromomethane			50.0	51.3		ug/L		103	65 - 133	2	20
Dibromomethane			50.0	48.5		ug/L		97	65 - 130	0	20
Dichlorodifluoromethane			50.0	96.6	L5	ug/L		193	29 - 150	1	30
Ethylbenzene			50.0	51.9		ug/L		104	80 - 120	0	20
Hexachlorobutadiene			50.0	50.7		ug/L		101	58 - 134	5	20
Iodomethane			50.0	46.9		ug/L		94	54 - 146	1	24
Isopropylbenzene			50.0	53.7		ug/L		107	70 - 139	1	20
m,p-Xylenes			50.0	51.1		ug/L		102	67 - 137	2	20
Methylene Chloride			50.0	50.2		ug/L		100	55 - 136	3	23
Naphthalene			50.0	56.0		ug/L		112	64 - 135	4	20
n-Butylbenzene			50.0	51.9		ug/L		104	70 - 136	2	20
o-Xylene			50.0	52.5		ug/L		105	68 - 136	2	20
p-Isopropyltoluene			50.0	53.9		ug/L		108	67 - 138	1	20
sec-Butylbenzene			50.0	54.1		ug/L		108	66 - 135	3	20
Styrene			50.0	53.7		ug/L		107	69 - 135	3	20
tert-Butylbenzene			50.0	55.8		ug/L		112	64 - 135	2	20
Tetrachloroethene			50.0	51.8		ug/L		104	63 - 131	2	20
Toluene			50.0	51.7		ug/L		103	71 - 123	1	20
trans-1,2-Dichloroethene			50.0	52.3		ug/L		105	65 - 132	0	20
trans-1,3-Dichloropropene			50.0	49.4		ug/L		99	66 - 136	3	20
Trichloroethene			50.0	50.1		ug/L		100	67 - 130	1	20
Trichlorofluoromethane			50.0	55.3		ug/L		111	62 - 147	1	22
Vinyl acetate			50.0	50.3		ug/L		101	51 - 150	5	29
Vinyl chloride			50.0	63.7	L5	ug/L		127	80 - 120	3	27
Xylenes, Total			100	104		ug/L		104	66 - 138	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*96*		*70 - 130*
Toluene-d8 (Surr)	*95*		*70 - 130*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: 550-217471-8 MS
Matrix: Water
Analysis Batch: 319979

Client Sample ID: CH-VRP-9-2024
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	ND		50.0	51.2		ug/L		102	62 - 139
1,1,1-Trichloroethane	ND		50.0	53.2		ug/L		106	57 - 143
1,1,2,2-Tetrachloroethane	ND		50.0	54.5		ug/L		109	52 - 150
1,1,2-Trichloroethane	ND		50.0	52.4		ug/L		105	62 - 137
1,1-Dichloroethane	ND		50.0	50.9		ug/L		102	58 - 145
1,1-Dichloroethene	ND		50.0	58.2		ug/L		116	50 - 150
1,1-Dichloropropene	ND		50.0	49.1		ug/L		98	50 - 142
1,2,3-Trichlorobenzene	ND		50.0	44.5		ug/L		89	52 - 144
1,2,3-Trichloropropane	ND		50.0	54.3		ug/L		109	59 - 138
1,2,4-Trichlorobenzene	ND		50.0	46.2		ug/L		92	54 - 140

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-217471-8 MS
Matrix: Water
Analysis Batch: 319979

Client Sample ID: CH-VRP-9-2024
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trimethylbenzene	ND		50.0	51.7		ug/L		103	41 - 150
1,2-Dibromo-3-Chloropropane	ND		50.0	51.7		ug/L		103	41 - 149
1,2-Dibromoethane (EDB)	ND		50.0	52.5		ug/L		105	67 - 136
1,2-Dichlorobenzene	ND		50.0	51.3		ug/L		103	64 - 132
1,2-Dichloroethane	ND		50.0	48.4		ug/L		97	47 - 146
1,2-Dichloropropane	ND		50.0	50.3		ug/L		101	59 - 140
1,3,5-Trimethylbenzene	ND		50.0	52.7		ug/L		105	34 - 150
1,3-Dichlorobenzene	ND		50.0	50.7		ug/L		101	67 - 130
1,3-Dichloropropane	ND		50.0	51.3		ug/L		103	65 - 140
1,4-Dichlorobenzene	ND		50.0	50.3		ug/L		101	67 - 128
2,2-Dichloropropane	ND		50.0	45.9		ug/L		92	54 - 150
2-Butanone (MEK)	ND		50.0	54.4		ug/L		109	10 - 150
2-Chlorotoluene	ND		50.0	51.3		ug/L		103	54 - 150
2-Hexanone	ND		50.0	53.8		ug/L		108	37 - 150
4-Chlorotoluene	ND		50.0	50.2		ug/L		100	63 - 141
4-Methyl-2-pentanone (MIBK)	ND		50.0	55.6		ug/L		111	41 - 150
Acetone	ND		50.0	45.3		ug/L		91	10 - 150
Benzene	ND		50.0	51.2		ug/L		102	54 - 142
Bromobenzene	ND		50.0	54.3		ug/L		109	67 - 132
Bromochloromethane	ND		50.0	52.4		ug/L		105	55 - 147
Bromodichloromethane	ND		50.0	51.5		ug/L		103	61 - 143
Bromoform	ND		50.0	57.3		ug/L		115	57 - 148
Bromomethane	ND		50.0	58.2		ug/L		116	56 - 149
Carbon disulfide	ND		50.0	49.5		ug/L		99	23 - 150
Carbon tetrachloride	ND		50.0	50.0		ug/L		100	51 - 143
Chlorobenzene	ND		50.0	51.6		ug/L		103	69 - 129
Chloroethane	ND		50.0	59.2		ug/L		118	41 - 150
Chloroform	ND		50.0	52.8		ug/L		106	60 - 148
Chloromethane	ND		50.0	70.5		ug/L		141	29 - 150
cis-1,2-Dichloroethene	ND		50.0	50.5		ug/L		101	57 - 139
cis-1,3-Dichloropropene	ND		50.0	50.0		ug/L		100	57 - 145
Chlorodibromomethane	ND		50.0	54.3		ug/L		109	61 - 143
Dibromomethane	ND		50.0	51.1		ug/L		102	56 - 148
Dichlorodifluoromethane	ND	M1 L5	50.0	103	E2 M1	ug/L		207	20 - 150
Ethylbenzene	ND		50.0	51.9		ug/L		104	46 - 149
Hexachlorobutadiene	ND		50.0	45.2		ug/L		90	48 - 146
Iodomethane	ND		50.0	50.4		ug/L		101	17 - 150
Isopropylbenzene	ND		50.0	53.6		ug/L		107	56 - 146
m,p-Xylenes	ND		50.0	51.9		ug/L		104	47 - 150
Methylene Chloride	ND		50.0	54.0		ug/L		108	43 - 150
Naphthalene	ND		50.0	50.2		ug/L		100	32 - 150
n-Butylbenzene	ND		50.0	49.1		ug/L		98	54 - 146
o-Xylene	ND		50.0	54.0		ug/L		108	52 - 150
p-Isopropyltoluene	ND		50.0	52.4		ug/L		105	53 - 147
sec-Butylbenzene	ND		50.0	52.7		ug/L		105	54 - 145
Styrene	ND		50.0	55.6		ug/L		111	20 - 150
tert-Butylbenzene	ND		50.0	55.1		ug/L		110	57 - 143
Tetrachloroethene	ND		50.0	50.1		ug/L		100	37 - 150
Toluene	ND		50.0	52.5		ug/L		105	54 - 141

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-217471-8 MS
Matrix: Water
Analysis Batch: 319979

Client Sample ID: CH-VRP-9-2024
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
trans-1,2-Dichloroethene	ND		50.0	52.4		ug/L		105	58 - 140
trans-1,3-Dichloropropene	ND		50.0	50.7		ug/L		101	57 - 147
Trichloroethene	ND		50.0	48.8		ug/L		98	58 - 134
Trichlorofluoromethane	ND		50.0	61.1		ug/L		122	46 - 150
Vinyl acetate	ND		50.0	55.4		ug/L		111	10 - 150
Vinyl chloride	ND	L5	50.0	68.2		ug/L		136	29 - 150
Xylenes, Total	ND		100	106		ug/L		106	50 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*102*		*70 - 130*
Toluene-d8 (Surr)	*95*		*70 - 130*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 550-217471-8 MSD
Matrix: Water
Analysis Batch: 319979

Client Sample ID: CH-VRP-9-2024
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		50.0	53.0		ug/L		106	62 - 139	3	35
1,1,1-Trichloroethane	ND		50.0	53.6		ug/L		107	57 - 143	1	35
1,1,2,2-Tetrachloroethane	ND		50.0	54.2		ug/L		108	52 - 150	1	35
1,1,2-Trichloroethane	ND		50.0	52.4		ug/L		105	62 - 137	0	35
1,1-Dichloroethane	ND		50.0	52.0		ug/L		104	58 - 145	2	35
1,1-Dichloroethene	ND		50.0	59.2		ug/L		118	50 - 150	2	35
1,1-Dichloropropene	ND		50.0	51.1		ug/L		102	50 - 142	4	35
1,2,3-Trichlorobenzene	ND		50.0	50.3		ug/L		101	52 - 144	12	35
1,2,3-Trichloropropane	ND		50.0	55.0		ug/L		110	59 - 138	1	35
1,2,4-Trichlorobenzene	ND		50.0	49.9		ug/L		100	54 - 140	8	35
1,2,4-Trimethylbenzene	ND		50.0	53.7		ug/L		107	41 - 150	4	35
1,2-Dibromo-3-Chloropropane	ND		50.0	54.3		ug/L		109	41 - 149	5	35
1,2-Dibromoethane (EDB)	ND		50.0	52.7		ug/L		105	67 - 136	0	35
1,2-Dichlorobenzene	ND		50.0	52.5		ug/L		105	64 - 132	2	35
1,2-Dichloroethane	ND		50.0	49.2		ug/L		98	47 - 146	2	35
1,2-Dichloropropane	ND		50.0	51.9		ug/L		104	59 - 140	3	35
1,3,5-Trimethylbenzene	ND		50.0	54.7		ug/L		109	34 - 150	4	35
1,3-Dichlorobenzene	ND		50.0	52.2		ug/L		104	67 - 130	3	35
1,3-Dichloropropane	ND		50.0	51.4		ug/L		103	65 - 140	0	35
1,4-Dichlorobenzene	ND		50.0	51.5		ug/L		103	67 - 128	2	35
2,2-Dichloropropane	ND		50.0	46.7		ug/L		93	54 - 150	2	35
2-Butanone (MEK)	ND		50.0	53.5		ug/L		107	10 - 150	2	35
2-Chlorotoluene	ND		50.0	53.1		ug/L		106	54 - 150	4	35
2-Hexanone	ND		50.0	53.5		ug/L		107	37 - 150	1	35
4-Chlorotoluene	ND		50.0	51.8		ug/L		104	63 - 141	3	35
4-Methyl-2-pentanone (MIBK)	ND		50.0	55.8		ug/L		112	41 - 150	0	35
Acetone	ND		50.0	46.0		ug/L		92	10 - 150	1	35
Benzene	ND		50.0	52.9		ug/L		106	54 - 142	3	35
Bromobenzene	ND		50.0	55.7		ug/L		111	67 - 132	3	35
Bromochloromethane	ND		50.0	53.4		ug/L		107	55 - 147	2	35

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-217471-8 MSD
Matrix: Water
Analysis Batch: 319979

Client Sample ID: CH-VRP-9-2024
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromodichloromethane	ND		50.0	52.1		ug/L		104	61 - 143	1	35
Bromoform	ND		50.0	56.4		ug/L		113	57 - 148	2	35
Bromomethane	ND		50.0	58.0		ug/L		116	56 - 149	0	35
Carbon disulfide	ND		50.0	50.7		ug/L		101	23 - 150	2	35
Carbon tetrachloride	ND		50.0	52.4		ug/L		105	51 - 143	5	35
Chlorobenzene	ND		50.0	52.8		ug/L		106	69 - 129	2	35
Chloroethane	ND		50.0	60.0		ug/L		120	41 - 150	1	35
Chloroform	ND		50.0	53.6		ug/L		107	60 - 148	1	35
Chloromethane	ND		50.0	68.5		ug/L		137	29 - 150	3	35
cis-1,2-Dichloroethene	ND		50.0	51.8		ug/L		104	57 - 139	3	35
cis-1,3-Dichloropropene	ND		50.0	50.0		ug/L		100	57 - 145	0	35
Chlorodibromomethane	ND		50.0	55.4		ug/L		111	61 - 143	2	35
Dibromomethane	ND		50.0	51.9		ug/L		104	56 - 148	2	35
Dichlorodifluoromethane	ND	M1 L5	50.0	100	E2 M1	ug/L		200	20 - 150	3	35
Ethylbenzene	ND		50.0	53.2		ug/L		106	46 - 149	2	35
Hexachlorobutadiene	ND		50.0	48.4		ug/L		97	48 - 146	7	35
Iodomethane	ND		50.0	51.1		ug/L		102	17 - 150	1	35
Isopropylbenzene	ND		50.0	55.7		ug/L		111	56 - 146	4	35
m,p-Xylenes	ND		50.0	53.4		ug/L		107	47 - 150	3	35
Methylene Chloride	ND		50.0	54.7		ug/L		109	43 - 150	1	35
Naphthalene	ND		50.0	57.7		ug/L		115	32 - 150	14	35
n-Butylbenzene	ND		50.0	51.3		ug/L		103	54 - 146	4	35
o-Xylene	ND		50.0	56.1		ug/L		112	52 - 150	4	35
p-Isopropyltoluene	ND		50.0	54.6		ug/L		109	53 - 147	4	35
sec-Butylbenzene	ND		50.0	54.8		ug/L		110	54 - 145	4	35
Styrene	ND		50.0	56.8		ug/L		114	20 - 150	2	35
tert-Butylbenzene	ND		50.0	57.3		ug/L		115	57 - 143	4	35
Tetrachloroethene	ND		50.0	51.6		ug/L		103	37 - 150	3	35
Toluene	ND		50.0	53.7		ug/L		107	54 - 141	2	35
trans-1,2-Dichloroethene	ND		50.0	54.9		ug/L		110	58 - 140	5	35
trans-1,3-Dichloropropene	ND		50.0	50.8		ug/L		102	57 - 147	0	35
Trichloroethene	ND		50.0	50.0		ug/L		100	58 - 134	2	35
Trichlorofluoromethane	ND		50.0	57.7		ug/L		115	46 - 150	6	35
Vinyl acetate	ND		50.0	52.2		ug/L		104	10 - 150	6	35
Vinyl chloride	ND	L5	50.0	66.3		ug/L		133	29 - 150	3	35
Xylenes, Total	ND		100	110		ug/L		110	50 - 150	3	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*103*		*70 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: MB 550-320106/6
Matrix: Water
Analysis Batch: 320106

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			05/01/24 10:52	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-320106/6
Matrix: Water
Analysis Batch: 320106

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0		ug/L			05/01/24 10:52	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			05/01/24 10:52	1
1,1,2-Trichloroethane	ND		2.0		ug/L			05/01/24 10:52	1
1,1-Dichloroethane	ND		2.0		ug/L			05/01/24 10:52	1
1,1-Dichloroethene	ND		5.0		ug/L			05/01/24 10:52	1
1,1-Dichloropropene	ND		2.0		ug/L			05/01/24 10:52	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			05/01/24 10:52	1
1,2,3-Trichloropropane	ND		10		ug/L			05/01/24 10:52	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			05/01/24 10:52	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			05/01/24 10:52	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/01/24 10:52	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			05/01/24 10:52	1
1,2-Dichlorobenzene	ND		2.0		ug/L			05/01/24 10:52	1
1,2-Dichloroethane	ND		2.0		ug/L			05/01/24 10:52	1
1,2-Dichloropropane	ND		2.0		ug/L			05/01/24 10:52	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			05/01/24 10:52	1
1,3-Dichlorobenzene	ND		2.0		ug/L			05/01/24 10:52	1
1,3-Dichloropropane	ND		2.0		ug/L			05/01/24 10:52	1
1,4-Dichlorobenzene	ND		2.0		ug/L			05/01/24 10:52	1
2,2-Dichloropropane	ND		2.0		ug/L			05/01/24 10:52	1
2-Butanone (MEK)	ND		10		ug/L			05/01/24 10:52	1
2-Chlorotoluene	ND		5.0		ug/L			05/01/24 10:52	1
2-Hexanone	ND		10		ug/L			05/01/24 10:52	1
4-Chlorotoluene	ND		5.0		ug/L			05/01/24 10:52	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/01/24 10:52	1
Acetone	ND		20		ug/L			05/01/24 10:52	1
Benzene	ND		2.0		ug/L			05/01/24 10:52	1
Bromobenzene	ND		5.0		ug/L			05/01/24 10:52	1
Bromochloromethane	ND		5.0		ug/L			05/01/24 10:52	1
Bromodichloromethane	ND		2.0		ug/L			05/01/24 10:52	1
Bromoform	ND		5.0		ug/L			05/01/24 10:52	1
Bromomethane	ND		10		ug/L			05/01/24 10:52	1
Carbon disulfide	ND	N1	5.0		ug/L			05/01/24 10:52	1
Carbon tetrachloride	ND		5.0		ug/L			05/01/24 10:52	1
Chlorobenzene	ND		2.0		ug/L			05/01/24 10:52	1
Chloroethane	ND		5.0		ug/L			05/01/24 10:52	1
Chloroform	ND		2.0		ug/L			05/01/24 10:52	1
Chloromethane	ND		5.0		ug/L			05/01/24 10:52	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			05/01/24 10:52	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 10:52	1
Chlorodibromomethane	ND		2.0		ug/L			05/01/24 10:52	1
Dibromomethane	ND		2.0		ug/L			05/01/24 10:52	1
Dichlorodifluoromethane	ND	N1	5.0		ug/L			05/01/24 10:52	1
Ethylbenzene	ND		2.0		ug/L			05/01/24 10:52	1
Hexachlorobutadiene	ND		5.0		ug/L			05/01/24 10:52	1
Iodomethane	ND		2.0		ug/L			05/01/24 10:52	1
Isopropylbenzene	ND		2.0		ug/L			05/01/24 10:52	1
m,p-Xylenes	ND		5.0		ug/L			05/01/24 10:52	1
Methylene Chloride	ND		5.0		ug/L			05/01/24 10:52	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-320106/6
Matrix: Water
Analysis Batch: 320106

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0		ug/L			05/01/24 10:52	1
n-Butylbenzene	ND		5.0		ug/L			05/01/24 10:52	1
o-Xylene	ND		5.0		ug/L			05/01/24 10:52	1
p-Isopropyltoluene	ND		2.0		ug/L			05/01/24 10:52	1
sec-Butylbenzene	ND		5.0		ug/L			05/01/24 10:52	1
Styrene	ND		2.0		ug/L			05/01/24 10:52	1
tert-Butylbenzene	ND		5.0		ug/L			05/01/24 10:52	1
Tetrachloroethene	ND		2.0		ug/L			05/01/24 10:52	1
Toluene	ND		5.0		ug/L			05/01/24 10:52	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			05/01/24 10:52	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 10:52	1
Trichloroethene	ND		2.0		ug/L			05/01/24 10:52	1
Trichlorofluoromethane	ND		5.0		ug/L			05/01/24 10:52	1
Vinyl acetate	ND		25		ug/L			05/01/24 10:52	1
Vinyl chloride	ND	N1	5.0		ug/L			05/01/24 10:52	1
Xylenes, Total	ND		10		ug/L			05/01/24 10:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*113*		*70 - 130*		*05/01/24 10:52*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*05/01/24 10:52*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*05/01/24 10:52*	*1*

Lab Sample ID: LCS 550-320106/3
Matrix: Water
Analysis Batch: 320106

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,1,2-Tetrachloroethane			50.0	51.7		ug/L		103	68 - 133		
1,1,1-Trichloroethane			50.0	55.7		ug/L		111	62 - 134		
1,1,2,2-Tetrachloroethane			50.0	54.6		ug/L		109	60 - 135		
1,1,2-Trichloroethane			50.0	53.9		ug/L		108	69 - 130		
1,1-Dichloroethane			50.0	53.4		ug/L		107	65 - 132		
1,1-Dichloroethene			50.0	59.6		ug/L		119	80 - 120		
1,1-Dichloropropene			50.0	52.9		ug/L		106	63 - 130		
1,2,3-Trichlorobenzene			50.0	46.7		ug/L		93	62 - 139		
1,2,3-Trichloropropane			50.0	56.7		ug/L		113	67 - 130		
1,2,4-Trichlorobenzene			50.0	49.8		ug/L		100	66 - 135		
1,2,4-Trimethylbenzene			50.0	54.5		ug/L		109	70 - 134		
1,2-Dibromo-3-Chloropropane			50.0	55.2		ug/L		110	58 - 133		
1,2-Dibromoethane (EDB)			50.0	54.9		ug/L		110	70 - 130		
1,2-Dichlorobenzene			50.0	53.1		ug/L		106	70 - 130		
1,2-Dichloroethane			50.0	49.3		ug/L		99	54 - 135		
1,2-Dichloropropane			50.0	51.7		ug/L		103	80 - 120		
1,3,5-Trimethylbenzene			50.0	55.0		ug/L		110	70 - 139		
1,3-Dichlorobenzene			50.0	54.5		ug/L		109	70 - 130		
1,3-Dichloropropane			50.0	53.5		ug/L		107	69 - 130		
1,4-Dichlorobenzene			50.0	53.6		ug/L		107	70 - 130		
2,2-Dichloropropane			50.0	55.2		ug/L		110	60 - 148		

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-320106/3
Matrix: Water
Analysis Batch: 320106

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Butanone (MEK)	50.0	62.3		ug/L		125	50 - 150
2-Chlorotoluene	50.0	53.8		ug/L		108	70 - 133
2-Hexanone	50.0	57.2		ug/L		114	50 - 148
4-Chlorotoluene	50.0	53.4		ug/L		107	70 - 130
4-Methyl-2-pentanone (MIBK)	50.0	57.1		ug/L		114	56 - 141
Acetone	50.0	54.2		ug/L		108	11 - 150
Benzene	50.0	53.0		ug/L		106	67 - 130
Bromobenzene	50.0	55.7		ug/L		111	70 - 130
Bromochloromethane	50.0	54.1		ug/L		108	59 - 139
Bromodichloromethane	50.0	51.2		ug/L		102	69 - 130
Bromoform	50.0	53.7		ug/L		107	67 - 140
Bromomethane	50.0	57.6		ug/L		115	10 - 150
Carbon disulfide	50.0	44.5	N1	ug/L		89	36 - 150
Carbon tetrachloride	50.0	51.0		ug/L		102	60 - 134
Chlorobenzene	50.0	54.2		ug/L		108	70 - 130
Chloroethane	50.0	58.9		ug/L		118	57 - 150
Chloroform	50.0	54.1		ug/L		108	80 - 120
Chloromethane	50.0	68.7		ug/L		137	46 - 150
cis-1,2-Dichloroethene	50.0	51.7		ug/L		103	64 - 130
cis-1,3-Dichloropropene	50.0	53.6		ug/L		107	66 - 134
Chlorodibromomethane	50.0	54.4		ug/L		109	65 - 133
Dibromomethane	50.0	52.3		ug/L		105	65 - 130
Dichlorodifluoromethane	50.0	100	E2 L5 N1	ug/L		200	29 - 150
Ethylbenzene	50.0	54.8		ug/L		110	80 - 120
Hexachlorobutadiene	50.0	47.1		ug/L		94	58 - 134
Iodomethane	50.0	47.9		ug/L		96	54 - 146
Isopropylbenzene	50.0	55.9		ug/L		112	70 - 139
m,p-Xylenes	50.0	54.6		ug/L		109	67 - 137
Methylene Chloride	50.0	53.3		ug/L		107	55 - 136
Naphthalene	50.0	57.0		ug/L		114	64 - 135
n-Butylbenzene	50.0	54.1		ug/L		108	70 - 136
o-Xylene	50.0	55.6		ug/L		111	68 - 136
p-Isopropyltoluene	50.0	56.2		ug/L		112	67 - 138
sec-Butylbenzene	50.0	55.5		ug/L		111	66 - 135
Styrene	50.0	57.9		ug/L		116	69 - 135
tert-Butylbenzene	50.0	57.0		ug/L		114	64 - 135
Tetrachloroethene	50.0	55.3		ug/L		111	63 - 131
Toluene	50.0	55.0		ug/L		110	71 - 123
trans-1,2-Dichloroethene	50.0	55.3		ug/L		111	65 - 132
trans-1,3-Dichloropropene	50.0	55.6		ug/L		111	66 - 136
Trichloroethene	50.0	51.8		ug/L		104	67 - 130
Trichlorofluoromethane	50.0	61.2		ug/L		122	62 - 147
Vinyl acetate	50.0	61.1		ug/L		122	51 - 150
Vinyl chloride	50.0	68.5	L5 N1	ug/L		137	80 - 120
Xylenes, Total	100	110		ug/L		110	66 - 138

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*104*		*70 - 130*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-320106/3
Matrix: Water
Analysis Batch: 320106

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*99*		*70 - 130*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 550-320106/4
Matrix: Water
Analysis Batch: 320106

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane			50.0	52.6		ug/L		105	68 - 133	2	20
1,1,1-Trichloroethane			50.0	56.7		ug/L		113	62 - 134	2	20
1,1,2,2-Tetrachloroethane			50.0	50.2		ug/L		100	60 - 135	9	20
1,1,2-Trichloroethane			50.0	52.1		ug/L		104	69 - 130	3	20
1,1-Dichloroethane			50.0	54.6		ug/L		109	65 - 132	2	20
1,1-Dichloroethene			50.0	59.7		ug/L		119	80 - 120	0	23
1,1-Dichloropropene			50.0	53.8		ug/L		108	63 - 130	2	20
1,2,3-Trichlorobenzene			50.0	48.3		ug/L		97	62 - 139	3	20
1,2,3-Trichloropropane			50.0	51.5		ug/L		103	67 - 130	10	20
1,2,4-Trichlorobenzene			50.0	51.4		ug/L		103	66 - 135	3	20
1,2,4-Trimethylbenzene			50.0	55.7		ug/L		111	70 - 134	2	20
1,2-Dibromo-3-Chloropropane			50.0	49.4		ug/L		99	58 - 133	11	21
1,2-Dibromoethane (EDB)			50.0	52.4		ug/L		105	70 - 130	5	20
1,2-Dichlorobenzene			50.0	53.6		ug/L		107	70 - 130	1	20
1,2-Dichloroethane			50.0	48.9		ug/L		98	54 - 135	1	20
1,2-Dichloropropane			50.0	52.3		ug/L		105	80 - 120	1	20
1,3,5-Trimethylbenzene			50.0	56.1		ug/L		112	70 - 139	2	20
1,3-Dichlorobenzene			50.0	55.1		ug/L		110	70 - 130	1	20
1,3-Dichloropropane			50.0	51.4		ug/L		103	69 - 130	4	20
1,4-Dichlorobenzene			50.0	54.4		ug/L		109	70 - 130	1	20
2,2-Dichloropropane			50.0	57.3		ug/L		115	60 - 148	4	21
2-Butanone (MEK)			50.0	51.9		ug/L		104	50 - 150	18	34
2-Chlorotoluene			50.0	55.0		ug/L		110	70 - 133	2	20
2-Hexanone			50.0	47.5		ug/L		95	50 - 148	19	29
4-Chlorotoluene			50.0	54.2		ug/L		108	70 - 130	1	20
4-Methyl-2-pentanone (MIBK)			50.0	49.3		ug/L		99	56 - 141	15	23
Acetone			50.0	44.2		ug/L		88	11 - 150	20	35
Benzene			50.0	54.6		ug/L		109	67 - 130	3	20
Bromobenzene			50.0	56.5		ug/L		113	70 - 130	1	20
Bromochloromethane			50.0	54.3		ug/L		109	59 - 139	0	20
Bromodichloromethane			50.0	52.3		ug/L		105	69 - 130	2	20
Bromoform			50.0	50.8		ug/L		102	67 - 140	6	20
Bromomethane			50.0	60.4		ug/L		121	10 - 150	5	31
Carbon disulfide			50.0	46.9	N1	ug/L		94	36 - 150	5	26
Carbon tetrachloride			50.0	53.7		ug/L		107	60 - 134	5	20
Chlorobenzene			50.0	55.0		ug/L		110	70 - 130	1	20
Chloroethane			50.0	61.1		ug/L		122	57 - 150	4	29
Chloroform			50.0	55.4		ug/L		111	80 - 120	2	20
Chloromethane			50.0	69.9		ug/L		140	46 - 150	2	30
cis-1,2-Dichloroethene			50.0	53.9		ug/L		108	64 - 130	4	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 550-320106/4
Matrix: Water
Analysis Batch: 320106

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
cis-1,3-Dichloropropene			50.0	53.4		ug/L		107	66 - 134	0	20
Chlorodibromomethane			50.0	53.3		ug/L		107	65 - 133	2	20
Dibromomethane			50.0	51.5		ug/L		103	65 - 130	1	20
Dichlorodifluoromethane			50.0	105	E2 L5 N1	ug/L		211	29 - 150	5	30
Ethylbenzene			50.0	55.6		ug/L		111	80 - 120	2	20
Hexachlorobutadiene			50.0	48.5		ug/L		97	58 - 134	3	20
Iodomethane			50.0	50.0		ug/L		100	54 - 146	4	24
Isopropylbenzene			50.0	56.8		ug/L		114	70 - 139	2	20
m,p-Xylenes			50.0	55.4		ug/L		111	67 - 137	1	20
Methylene Chloride			50.0	55.2		ug/L		110	55 - 136	4	23
Naphthalene			50.0	54.5		ug/L		109	64 - 135	4	20
n-Butylbenzene			50.0	54.9		ug/L		110	70 - 136	1	20
o-Xylene			50.0	56.9		ug/L		114	68 - 136	2	20
p-Isopropyltoluene			50.0	57.2		ug/L		114	67 - 138	2	20
sec-Butylbenzene			50.0	56.5		ug/L		113	66 - 135	2	20
Styrene			50.0	58.5		ug/L		117	69 - 135	1	20
tert-Butylbenzene			50.0	58.2		ug/L		116	64 - 135	2	20
Tetrachloroethene			50.0	55.6		ug/L		111	63 - 131	1	20
Toluene			50.0	55.6		ug/L		111	71 - 123	1	20
trans-1,2-Dichloroethene			50.0	58.4		ug/L		117	65 - 132	6	20
trans-1,3-Dichloropropene			50.0	53.6		ug/L		107	66 - 136	4	20
Trichloroethene			50.0	53.4		ug/L		107	67 - 130	3	20
Trichlorofluoromethane			50.0	57.7		ug/L		115	62 - 147	6	22
Vinyl acetate			50.0	59.3		ug/L		119	51 - 150	3	29
Vinyl chloride			50.0	68.9	L5 N1	ug/L		138	80 - 120	1	27
Xylenes, Total			100	112		ug/L		112	66 - 138	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*107*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 550-217471-1 MS
Matrix: Water
Analysis Batch: 320106

Client Sample ID: CH-VRP-1-2024
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	ND		50.0	51.3		ug/L		103	62 - 139
1,1,1-Trichloroethane	ND		50.0	49.4		ug/L		99	57 - 143
1,1,2,2-Tetrachloroethane	ND		50.0	53.4		ug/L		107	52 - 150
1,1,2-Trichloroethane	ND		50.0	53.9		ug/L		108	62 - 137
1,1-Dichloroethane	ND		50.0	50.2		ug/L		100	58 - 145
1,1-Dichloroethene	ND	V1	50.0	52.1		ug/L		104	50 - 150
1,1-Dichloropropene	ND		50.0	47.2		ug/L		94	50 - 142
1,2,3-Trichlorobenzene	ND		50.0	43.8		ug/L		88	52 - 144
1,2,3-Trichloropropane	ND		50.0	53.1		ug/L		106	59 - 138
1,2,4-Trichlorobenzene	ND		50.0	46.0		ug/L		92	54 - 140
1,2,4-Trimethylbenzene	ND		50.0	50.5		ug/L		101	41 - 150

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-217471-1 MS
Matrix: Water
Analysis Batch: 320106

Client Sample ID: CH-VRP-1-2024
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	ND		50.0	49.0		ug/L		98	41 - 149
1,2-Dibromoethane (EDB)	ND		50.0	54.7		ug/L		109	67 - 136
1,2-Dichlorobenzene	ND		50.0	51.2		ug/L		102	64 - 132
1,2-Dichloroethane	ND		50.0	50.0		ug/L		100	47 - 146
1,2-Dichloropropane	ND		50.0	50.2		ug/L		100	59 - 140
1,3,5-Trimethylbenzene	ND		50.0	50.7		ug/L		101	34 - 150
1,3-Dichlorobenzene	ND		50.0	50.2		ug/L		100	67 - 130
1,3-Dichloropropane	ND		50.0	53.0		ug/L		106	65 - 140
1,4-Dichlorobenzene	ND		50.0	50.1		ug/L		100	67 - 128
2,2-Dichloropropane	ND		50.0	45.7		ug/L		91	54 - 150
2-Butanone (MEK)	ND		50.0	54.3		ug/L		109	10 - 150
2-Chlorotoluene	ND		50.0	49.3		ug/L		99	54 - 150
2-Hexanone	ND		50.0	53.7		ug/L		107	37 - 150
4-Chlorotoluene	ND		50.0	48.9		ug/L		98	63 - 141
4-Methyl-2-pentanone (MIBK)	ND		50.0	55.5		ug/L		111	41 - 150
Acetone	ND		50.0	48.9		ug/L		98	10 - 150
Benzene	ND		50.0	50.6		ug/L		101	54 - 142
Bromobenzene	ND		50.0	53.5		ug/L		107	67 - 132
Bromochloromethane	ND		50.0	53.3		ug/L		107	55 - 147
Bromodichloromethane	ND		50.0	51.5		ug/L		103	61 - 143
Bromoform	ND		50.0	55.4		ug/L		111	57 - 148
Bromomethane	ND		50.0	56.2		ug/L		112	56 - 149
Carbon disulfide	ND	N1	50.0	39.5	N1	ug/L		79	23 - 150
Carbon tetrachloride	ND		50.0	46.8		ug/L		94	51 - 143
Chlorobenzene	ND		50.0	51.2		ug/L		102	69 - 129
Chloroethane	ND	V1	50.0	55.2		ug/L		110	41 - 150
Chloroform	ND		50.0	52.1		ug/L		104	60 - 148
Chloromethane	ND	V1	50.0	63.4		ug/L		127	29 - 150
cis-1,2-Dichloroethene	2.7		50.0	53.1		ug/L		101	57 - 139
cis-1,3-Dichloropropene	ND		50.0	51.2		ug/L		102	57 - 145
Chlorodibromomethane	ND		50.0	56.0		ug/L		112	61 - 143
Dibromomethane	ND		50.0	53.2		ug/L		106	56 - 148
Dichlorodifluoromethane	ND	L3 M1 V1 N1	50.0	87.9	N1	ug/L		176	20 - 150
Ethylbenzene	ND		50.0	50.4		ug/L		101	46 - 149
Hexachlorobutadiene	ND		50.0	46.1		ug/L		92	48 - 146
Iodomethane	ND		50.0	45.1		ug/L		90	17 - 150
Isopropylbenzene	ND		50.0	50.4		ug/L		101	56 - 146
m,p-Xylenes	ND		50.0	49.2		ug/L		98	47 - 150
Methylene Chloride	ND		50.0	52.1		ug/L		104	43 - 150
Naphthalene	ND		50.0	48.5		ug/L		97	32 - 150
n-Butylbenzene	ND		50.0	48.6		ug/L		97	54 - 146
o-Xylene	ND		50.0	51.7		ug/L		103	52 - 150
p-Isopropyltoluene	ND		50.0	51.5		ug/L		103	53 - 147
sec-Butylbenzene	ND		50.0	50.7		ug/L		101	54 - 145
Styrene	ND		50.0	53.6		ug/L		107	20 - 150
tert-Butylbenzene	ND		50.0	52.4		ug/L		105	57 - 143
Tetrachloroethene	ND		50.0	50.1		ug/L		98	37 - 150
Toluene	ND		50.0	50.9		ug/L		102	54 - 141

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-217471-1 MS
Matrix: Water
Analysis Batch: 320106

Client Sample ID: CH-VRP-1-2024
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
trans-1,2-Dichloroethene	ND	V1	50.0	52.3		ug/L		105	58 - 140
trans-1,3-Dichloropropene	ND		50.0	53.1		ug/L		106	57 - 147
Trichloroethene	2.3		50.0	49.1		ug/L		94	58 - 134
Trichlorofluoromethane	ND		50.0	49.5		ug/L		99	46 - 150
Vinyl acetate	ND		50.0	57.2		ug/L		114	10 - 150
Vinyl chloride	ND	L3 V1 N1	50.0	61.0	N1	ug/L		122	29 - 150
Xylenes, Total	ND		100	101		ug/L		101	50 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*96*		*70 - 130*
Toluene-d8 (Surr)	*85*		*70 - 130*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: 550-217471-1 MSD
Matrix: Water
Analysis Batch: 320106

Client Sample ID: CH-VRP-1-2024
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		50.0	54.0		ug/L		108	62 - 139	5	35
1,1,1-Trichloroethane	ND		50.0	54.4		ug/L		109	57 - 143	10	35
1,1,2,2-Tetrachloroethane	ND		50.0	53.1		ug/L		106	52 - 150	1	35
1,1,2-Trichloroethane	ND		50.0	53.5		ug/L		107	62 - 137	1	35
1,1-Dichloroethane	ND		50.0	53.1		ug/L		106	58 - 145	6	35
1,1-Dichloroethene	ND	V1	50.0	59.0		ug/L		118	50 - 150	12	35
1,1-Dichloropropene	ND		50.0	52.9		ug/L		106	50 - 142	11	35
1,2,3-Trichlorobenzene	ND		50.0	49.4		ug/L		99	52 - 144	12	35
1,2,3-Trichloropropane	ND		50.0	53.3		ug/L		107	59 - 138	0	35
1,2,4-Trichlorobenzene	ND		50.0	51.8		ug/L		104	54 - 140	12	35
1,2,4-Trimethylbenzene	ND		50.0	56.2		ug/L		112	41 - 150	11	35
1,2-Dibromo-3-Chloropropane	ND		50.0	51.1		ug/L		102	41 - 149	4	35
1,2-Dibromoethane (EDB)	ND		50.0	53.7		ug/L		107	67 - 136	2	35
1,2-Dichlorobenzene	ND		50.0	54.4		ug/L		109	64 - 132	6	35
1,2-Dichloroethane	ND		50.0	49.1		ug/L		98	47 - 146	2	35
1,2-Dichloropropane	ND		50.0	53.0		ug/L		106	59 - 140	5	35
1,3,5-Trimethylbenzene	ND		50.0	56.7		ug/L		113	34 - 150	11	35
1,3-Dichlorobenzene	ND		50.0	55.3		ug/L		111	67 - 130	10	35
1,3-Dichloropropane	ND		50.0	52.6		ug/L		105	65 - 140	1	35
1,4-Dichlorobenzene	ND		50.0	54.6		ug/L		109	67 - 128	9	35
2,2-Dichloropropane	ND		50.0	50.3		ug/L		101	54 - 150	10	35
2-Butanone (MEK)	ND		50.0	50.8		ug/L		102	10 - 150	7	35
2-Chlorotoluene	ND		50.0	55.4		ug/L		111	54 - 150	12	35
2-Hexanone	ND		50.0	49.7		ug/L		99	37 - 150	8	35
4-Chlorotoluene	ND		50.0	54.6		ug/L		109	63 - 141	11	35
4-Methyl-2-pentanone (MIBK)	ND		50.0	51.9		ug/L		104	41 - 150	7	35
Acetone	ND		50.0	42.9		ug/L		86	10 - 150	13	35
Benzene	ND		50.0	54.8		ug/L		110	54 - 142	8	35
Bromobenzene	ND		50.0	57.3		ug/L		115	67 - 132	7	35
Bromochloromethane	ND		50.0	52.8		ug/L		106	55 - 147	1	35

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-217471-1 MSD
Matrix: Water
Analysis Batch: 320106

Client Sample ID: CH-VRP-1-2024
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromodichloromethane	ND		50.0	53.7		ug/L		107	61 - 143	4	35
Bromoform	ND		50.0	56.7		ug/L		113	57 - 148	2	35
Bromomethane	ND		50.0	60.1		ug/L		120	56 - 149	7	35
Carbon disulfide	ND	N1	50.0	45.7	N1	ug/L		91	23 - 150	15	35
Carbon tetrachloride	ND		50.0	53.7		ug/L		107	51 - 143	14	35
Chlorobenzene	ND		50.0	55.2		ug/L		110	69 - 129	7	35
Chloroethane	ND	V1	50.0	58.8		ug/L		118	41 - 150	6	35
Chloroform	ND		50.0	54.5		ug/L		109	60 - 148	4	35
Chloromethane	ND	V1	50.0	68.9		ug/L		138	29 - 150	8	35
cis-1,2-Dichloroethene	2.7		50.0	55.9		ug/L		106	57 - 139	5	35
cis-1,3-Dichloropropene	ND		50.0	52.8		ug/L		106	57 - 145	3	35
Chlorodibromomethane	ND		50.0	56.4		ug/L		113	61 - 143	1	35
Dibromomethane	ND		50.0	52.1		ug/L		104	56 - 148	2	35
Dichlorodifluoromethane	ND	L3 M1 V1 N1	50.0	100	E2 N1	ug/L		200	20 - 150	13	35
Ethylbenzene	ND		50.0	55.8		ug/L		112	46 - 149	10	35
Hexachlorobutadiene	ND		50.0	50.6		ug/L		101	48 - 146	9	35
Iodomethane	ND		50.0	48.1		ug/L		96	17 - 150	6	35
Isopropylbenzene	ND		50.0	57.8		ug/L		116	56 - 146	14	35
m,p-Xylenes	ND		50.0	56.1		ug/L		112	47 - 150	13	35
Methylene Chloride	ND		50.0	53.1		ug/L		106	43 - 150	2	35
Naphthalene	ND		50.0	54.4		ug/L		109	32 - 150	11	35
n-Butylbenzene	ND		50.0	54.8		ug/L		110	54 - 146	12	35
o-Xylene	ND		50.0	58.2		ug/L		116	52 - 150	12	35
p-Isopropyltoluene	ND		50.0	57.8		ug/L		116	53 - 147	11	35
sec-Butylbenzene	ND		50.0	57.3		ug/L		115	54 - 145	12	35
Styrene	ND		50.0	59.2		ug/L		118	20 - 150	10	35
tert-Butylbenzene	ND		50.0	59.1		ug/L		118	57 - 143	12	35
Tetrachloroethene	ND		50.0	55.9		ug/L		109	37 - 150	11	35
Toluene	ND		50.0	56.1		ug/L		112	54 - 141	10	35
trans-1,2-Dichloroethene	ND	V1	50.0	56.6		ug/L		113	58 - 140	8	35
trans-1,3-Dichloropropene	ND		50.0	53.8		ug/L		108	57 - 147	1	35
Trichloroethene	2.3		50.0	54.4		ug/L		104	58 - 134	10	35
Trichlorofluoromethane	ND		50.0	57.3		ug/L		115	46 - 150	15	35
Vinyl acetate	ND		50.0	54.5		ug/L		109	10 - 150	5	35
Vinyl chloride	ND	L3 V1 N1	50.0	67.4	N1	ug/L		135	29 - 150	10	35
Xylenes, Total	ND		100	114		ug/L		114	50 - 150	12	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*106*		*70 - 130*
Toluene-d8 (Surr)	*102*		*70 - 130*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: MB 550-320110/6
Matrix: Water
Analysis Batch: 320110

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			05/01/24 10:47	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-320110/6
Matrix: Water
Analysis Batch: 320110

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0		ug/L			05/01/24 10:47	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			05/01/24 10:47	1
1,1,2-Trichloroethane	ND		2.0		ug/L			05/01/24 10:47	1
1,1-Dichloroethane	ND		2.0		ug/L			05/01/24 10:47	1
1,1-Dichloroethene	ND		5.0		ug/L			05/01/24 10:47	1
1,1-Dichloropropene	ND		2.0		ug/L			05/01/24 10:47	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			05/01/24 10:47	1
1,2,3-Trichloropropane	ND		10		ug/L			05/01/24 10:47	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			05/01/24 10:47	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			05/01/24 10:47	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/01/24 10:47	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			05/01/24 10:47	1
1,2-Dichlorobenzene	ND		2.0		ug/L			05/01/24 10:47	1
1,2-Dichloroethane	ND		2.0		ug/L			05/01/24 10:47	1
1,2-Dichloropropane	ND		2.0		ug/L			05/01/24 10:47	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			05/01/24 10:47	1
1,3-Dichlorobenzene	ND		2.0		ug/L			05/01/24 10:47	1
1,3-Dichloropropane	ND		2.0		ug/L			05/01/24 10:47	1
1,4-Dichlorobenzene	ND		2.0		ug/L			05/01/24 10:47	1
2,2-Dichloropropane	ND		2.0		ug/L			05/01/24 10:47	1
2-Butanone (MEK)	ND		10		ug/L			05/01/24 10:47	1
2-Chlorotoluene	ND		5.0		ug/L			05/01/24 10:47	1
2-Hexanone	ND		10		ug/L			05/01/24 10:47	1
4-Chlorotoluene	ND		5.0		ug/L			05/01/24 10:47	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/01/24 10:47	1
Acetone	ND		20		ug/L			05/01/24 10:47	1
Benzene	ND		2.0		ug/L			05/01/24 10:47	1
Bromobenzene	ND		5.0		ug/L			05/01/24 10:47	1
Bromochloromethane	ND		5.0		ug/L			05/01/24 10:47	1
Bromodichloromethane	ND		2.0		ug/L			05/01/24 10:47	1
Bromoform	ND		5.0		ug/L			05/01/24 10:47	1
Bromomethane	ND		10		ug/L			05/01/24 10:47	1
Carbon disulfide	ND		5.0		ug/L			05/01/24 10:47	1
Carbon tetrachloride	ND		5.0		ug/L			05/01/24 10:47	1
Chlorobenzene	ND		2.0		ug/L			05/01/24 10:47	1
Chloroethane	ND		5.0		ug/L			05/01/24 10:47	1
Chloroform	ND		2.0		ug/L			05/01/24 10:47	1
Chloromethane	ND		5.0		ug/L			05/01/24 10:47	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			05/01/24 10:47	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 10:47	1
Chlorodibromomethane	ND		2.0		ug/L			05/01/24 10:47	1
Dibromomethane	ND		2.0		ug/L			05/01/24 10:47	1
Dichlorodifluoromethane	ND		5.0		ug/L			05/01/24 10:47	1
Ethylbenzene	ND		2.0		ug/L			05/01/24 10:47	1
Hexachlorobutadiene	ND		5.0		ug/L			05/01/24 10:47	1
Iodomethane	ND		2.0		ug/L			05/01/24 10:47	1
Isopropylbenzene	ND		2.0		ug/L			05/01/24 10:47	1
m,p-Xylenes	ND		5.0		ug/L			05/01/24 10:47	1
Methylene Chloride	ND		5.0		ug/L			05/01/24 10:47	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-320110/6
Matrix: Water
Analysis Batch: 320110

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0		ug/L			05/01/24 10:47	1
n-Butylbenzene	ND		5.0		ug/L			05/01/24 10:47	1
o-Xylene	ND		5.0		ug/L			05/01/24 10:47	1
p-Isopropyltoluene	ND		2.0		ug/L			05/01/24 10:47	1
sec-Butylbenzene	ND		5.0		ug/L			05/01/24 10:47	1
Styrene	ND		2.0		ug/L			05/01/24 10:47	1
tert-Butylbenzene	ND		5.0		ug/L			05/01/24 10:47	1
Tetrachloroethene	ND		2.0		ug/L			05/01/24 10:47	1
Toluene	ND		5.0		ug/L			05/01/24 10:47	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			05/01/24 10:47	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			05/01/24 10:47	1
Trichloroethene	ND		2.0		ug/L			05/01/24 10:47	1
Trichlorofluoromethane	ND		5.0		ug/L			05/01/24 10:47	1
Vinyl acetate	ND		25		ug/L			05/01/24 10:47	1
Vinyl chloride	ND		5.0		ug/L			05/01/24 10:47	1
Xylenes, Total	ND		10		ug/L			05/01/24 10:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*85*		*70 - 130*		*05/01/24 10:47*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*05/01/24 10:47*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*05/01/24 10:47*	*1*

Lab Sample ID: LCS 550-320110/3
Matrix: Water
Analysis Batch: 320110

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	50.0	55.2		ug/L		110	68 - 133
1,1,1-Trichloroethane	50.0	54.0		ug/L		108	62 - 134
1,1,2,2-Tetrachloroethane	50.0	44.8		ug/L		90	60 - 135
1,1,2-Trichloroethane	50.0	44.5		ug/L		89	69 - 130
1,1-Dichloroethane	50.0	48.9		ug/L		98	65 - 132
1,1-Dichloroethene	50.0	59.1		ug/L		118	80 - 120
1,1-Dichloropropene	50.0	55.7		ug/L		111	63 - 130
1,2,3-Trichlorobenzene	50.0	56.1		ug/L		112	62 - 139
1,2,3-Trichloropropane	50.0	42.1		ug/L		84	67 - 130
1,2,4-Trichlorobenzene	50.0	60.0		ug/L		120	66 - 135
1,2,4-Trimethylbenzene	50.0	64.0		ug/L		128	70 - 134
1,2-Dibromo-3-Chloropropane	50.0	44.4		ug/L		89	58 - 133
1,2-Dibromoethane (EDB)	50.0	43.2		ug/L		86	70 - 130
1,2-Dichlorobenzene	50.0	57.1		ug/L		114	70 - 130
1,2-Dichloroethane	50.0	43.5		ug/L		87	54 - 135
1,2-Dichloropropane	50.0	51.4		ug/L		103	80 - 120
1,3,5-Trimethylbenzene	50.0	65.3		ug/L		131	70 - 139
1,3-Dichlorobenzene	50.0	61.2		ug/L		122	70 - 130
1,3-Dichloropropane	50.0	43.9		ug/L		88	69 - 130
1,4-Dichlorobenzene	50.0	58.2		ug/L		116	70 - 130
2,2-Dichloropropane	50.0	61.1		ug/L		122	60 - 148

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-320110/3
Matrix: Water
Analysis Batch: 320110

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Butanone (MEK)	50.0	31.0		ug/L		62	50 - 150
2-Chlorotoluene	50.0	63.7		ug/L		127	70 - 133
2-Hexanone	50.0	33.2		ug/L		66	50 - 148
4-Chlorotoluene	50.0	61.4		ug/L		123	70 - 130
4-Methyl-2-pentanone (MIBK)	50.0	33.8		ug/L		68	56 - 141
Acetone	50.0	30.7		ug/L		61	11 - 150
Benzene	50.0	55.3		ug/L		111	67 - 130
Bromobenzene	50.0	59.5		ug/L		119	70 - 130
Bromochloromethane	50.0	42.0		ug/L		84	59 - 139
Bromodichloromethane	50.0	53.1		ug/L		106	69 - 130
Bromoform	50.0	49.2		ug/L		98	67 - 140
Bromomethane	50.0	50.3		ug/L		101	10 - 150
Carbon disulfide	50.0	35.2		ug/L		70	36 - 150
Carbon tetrachloride	50.0	62.0		ug/L		124	60 - 134
Chlorobenzene	50.0	54.7		ug/L		109	70 - 130
Chloroethane	50.0	50.9		ug/L		102	57 - 150
Chloroform	50.0	46.8		ug/L		94	80 - 120
Chloromethane	50.0	50.6		ug/L		101	46 - 150
cis-1,2-Dichloroethene	50.0	54.8		ug/L		110	64 - 130
cis-1,3-Dichloropropene	50.0	52.0		ug/L		104	66 - 134
Chlorodibromomethane	50.0	50.4		ug/L		101	65 - 133
Dibromomethane	50.0	44.0		ug/L		88	65 - 130
Dichlorodifluoromethane	50.0	60.8		ug/L		122	29 - 150
Ethylbenzene	50.0	59.3		ug/L		119	80 - 120
Hexachlorobutadiene	50.0	68.4	L3	ug/L		137	58 - 134
Iodomethane	50.0	35.5		ug/L		71	54 - 146
Isopropylbenzene	50.0	67.9		ug/L		136	70 - 139
m,p-Xylenes	50.0	61.4		ug/L		123	67 - 137
Methylene Chloride	50.0	41.4		ug/L		83	55 - 136
Naphthalene	50.0	50.4		ug/L		101	64 - 135
n-Butylbenzene	50.0	69.4	L3	ug/L		139	70 - 136
o-Xylene	50.0	64.1		ug/L		128	68 - 136
p-Isopropyltoluene	50.0	70.4	L3	ug/L		141	67 - 138
sec-Butylbenzene	50.0	68.3	L3	ug/L		137	66 - 135
Styrene	50.0	60.0		ug/L		120	69 - 135
tert-Butylbenzene	50.0	68.8	L3	ug/L		138	64 - 135
Tetrachloroethene	50.0	56.7		ug/L		113	63 - 131
Toluene	50.0	57.5		ug/L		115	71 - 123
trans-1,2-Dichloroethene	50.0	52.6		ug/L		105	65 - 132
trans-1,3-Dichloropropene	50.0	49.4		ug/L		99	66 - 136
Trichloroethene	50.0	53.1		ug/L		106	67 - 130
Trichlorofluoromethane	50.0	59.8		ug/L		120	62 - 147
Vinyl acetate	50.0	33.0		ug/L		66	51 - 150
Vinyl chloride	50.0	53.8		ug/L		108	80 - 120
Xylenes, Total	100	126		ug/L		126	66 - 138

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*84*		*70 - 130*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-320110/3
Matrix: Water
Analysis Batch: 320110

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	*100*		*70 - 130*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 550-320110/4
Matrix: Water
Analysis Batch: 320110

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane			50.0	54.1		ug/L		108	68 - 133	2	20
1,1,1-Trichloroethane			50.0	54.3		ug/L		109	62 - 134	1	20
1,1,2,2-Tetrachloroethane			50.0	43.9		ug/L		88	60 - 135	2	20
1,1,2-Trichloroethane			50.0	43.3		ug/L		87	69 - 130	3	20
1,1-Dichloroethane			50.0	48.5		ug/L		97	65 - 132	1	20
1,1-Dichloroethene			50.0	59.3		ug/L		119	80 - 120	0	23
1,1-Dichloropropene			50.0	56.7		ug/L		113	63 - 130	2	20
1,2,3-Trichlorobenzene			50.0	57.5		ug/L		115	62 - 139	2	20
1,2,3-Trichloropropane			50.0	42.0		ug/L		84	67 - 130	0	20
1,2,4-Trichlorobenzene			50.0	61.2		ug/L		122	66 - 135	2	20
1,2,4-Trimethylbenzene			50.0	64.2		ug/L		128	70 - 134	0	20
1,2-Dibromo-3-Chloropropane			50.0	43.3		ug/L		87	58 - 133	2	21
1,2-Dibromoethane (EDB)			50.0	42.2		ug/L		84	70 - 130	2	20
1,2-Dichlorobenzene			50.0	56.8		ug/L		114	70 - 130	1	20
1,2-Dichloroethane			50.0	43.1		ug/L		86	54 - 135	1	20
1,2-Dichloropropane			50.0	51.3		ug/L		103	80 - 120	0	20
1,3,5-Trimethylbenzene			50.0	66.2		ug/L		132	70 - 139	1	20
1,3-Dichlorobenzene			50.0	60.8		ug/L		122	70 - 130	1	20
1,3-Dichloropropane			50.0	43.3		ug/L		87	69 - 130	1	20
1,4-Dichlorobenzene			50.0	57.7		ug/L		115	70 - 130	1	20
2,2-Dichloropropane			50.0	60.5		ug/L		121	60 - 148	1	21
2-Butanone (MEK)			50.0	28.8		ug/L		58	50 - 150	7	34
2-Chlorotoluene			50.0	64.2		ug/L		128	70 - 133	1	20
2-Hexanone			50.0	31.9		ug/L		64	50 - 148	4	29
4-Chlorotoluene			50.0	61.6		ug/L		123	70 - 130	0	20
4-Methyl-2-pentanone (MIBK)			50.0	32.3		ug/L		65	56 - 141	4	23
Acetone			50.0	29.3		ug/L		59	11 - 150	5	35
Benzene			50.0	55.3		ug/L		111	67 - 130	0	20
Bromobenzene			50.0	59.5		ug/L		119	70 - 130	0	20
Bromochloromethane			50.0	40.8		ug/L		82	59 - 139	3	20
Bromodichloromethane			50.0	52.4		ug/L		105	69 - 130	1	20
Bromoform			50.0	48.8		ug/L		98	67 - 140	1	20
Bromomethane			50.0	50.8		ug/L		102	10 - 150	1	31
Carbon disulfide			50.0	35.6		ug/L		71	36 - 150	1	26
Carbon tetrachloride			50.0	62.9		ug/L		126	60 - 134	1	20
Chlorobenzene			50.0	54.3		ug/L		109	70 - 130	1	20
Chloroethane			50.0	51.5		ug/L		103	57 - 150	1	29
Chloroform			50.0	46.2		ug/L		92	80 - 120	1	20
Chloromethane			50.0	51.0		ug/L		102	46 - 150	1	30
cis-1,2-Dichloroethene			50.0	54.3		ug/L		109	64 - 130	1	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 550-320110/4
Matrix: Water
Analysis Batch: 320110

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
cis-1,3-Dichloropropene			50.0	51.5		ug/L		103	66 - 134	1	20
Chlorodibromomethane			50.0	49.1		ug/L		98	65 - 133	3	20
Dibromomethane			50.0	43.2		ug/L		86	65 - 130	2	20
Dichlorodifluoromethane			50.0	60.1		ug/L		120	29 - 150	1	30
Ethylbenzene			50.0	59.2		ug/L		118	80 - 120	0	20
Hexachlorobutadiene			50.0	69.1	L3	ug/L		138	58 - 134	1	20
Iodomethane			50.0	35.5		ug/L		71	54 - 146	0	24
Isopropylbenzene			50.0	68.8		ug/L		138	70 - 139	1	20
m,p-Xylenes			50.0	62.4		ug/L		125	67 - 137	2	20
Methylene Chloride			50.0	40.9		ug/L		82	55 - 136	1	23
Naphthalene			50.0	51.8		ug/L		104	64 - 135	3	20
n-Butylbenzene			50.0	70.7	L3	ug/L		141	70 - 136	2	20
o-Xylene			50.0	64.5		ug/L		129	68 - 136	1	20
p-Isopropyltoluene			50.0	71.8	L3	ug/L		144	67 - 138	2	20
sec-Butylbenzene			50.0	69.5	L3	ug/L		139	66 - 135	2	20
Styrene			50.0	60.2		ug/L		120	69 - 135	0	20
tert-Butylbenzene			50.0	69.2	L3	ug/L		138	64 - 135	0	20
Tetrachloroethene			50.0	57.0		ug/L		114	63 - 131	1	20
Toluene			50.0	57.9		ug/L		116	71 - 123	1	20
trans-1,2-Dichloroethene			50.0	52.1		ug/L		104	65 - 132	1	20
trans-1,3-Dichloropropene			50.0	48.5		ug/L		97	66 - 136	2	20
Trichloroethene			50.0	53.9		ug/L		108	67 - 130	1	20
Trichlorofluoromethane			50.0	59.7		ug/L		119	62 - 147	0	22
Vinyl acetate			50.0	32.1		ug/L		64	51 - 150	3	29
Vinyl chloride			50.0	55.1		ug/L		110	80 - 120	2	27
Xylenes, Total			100	127		ug/L		127	66 - 138	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*82*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 550-217664-D-8 MS
Matrix: Water
Analysis Batch: 320110

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	ND		50.0	50.2		ug/L		100	62 - 139
1,1,1-Trichloroethane	ND		50.0	46.4		ug/L		93	57 - 143
1,1,2,2-Tetrachloroethane	ND		50.0	43.8		ug/L		88	52 - 150
1,1,2-Trichloroethane	ND		50.0	41.6		ug/L		83	62 - 137
1,1-Dichloroethane	ND		50.0	42.3		ug/L		85	58 - 145
1,1-Dichloroethene	ND		50.0	50.2		ug/L		100	50 - 150
1,1-Dichloropropene	ND		50.0	49.8		ug/L		100	50 - 142
1,2,3-Trichlorobenzene	ND		50.0	51.0		ug/L		102	52 - 144
1,2,3-Trichloropropane	ND		50.0	41.1		ug/L		82	59 - 138
1,2,4-Trichlorobenzene	ND		50.0	52.2		ug/L		104	54 - 140
1,2,4-Trimethylbenzene	ND		50.0	57.0		ug/L		114	41 - 150

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-217664-D-8 MS
Matrix: Water
Analysis Batch: 320110

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	ND		50.0	42.2		ug/L		84	41 - 149
1,2-Dibromoethane (EDB)	ND		50.0	40.5		ug/L		81	67 - 136
1,2-Dichlorobenzene	ND		50.0	51.9		ug/L		104	64 - 132
1,2-Dichloroethane	ND		50.0	39.4		ug/L		79	47 - 146
1,2-Dichloropropane	ND		50.0	47.1		ug/L		94	59 - 140
1,3,5-Trimethylbenzene	ND	V1	50.0	58.9		ug/L		118	34 - 150
1,3-Dichlorobenzene	ND		50.0	54.2		ug/L		108	67 - 130
1,3-Dichloropropane	ND		50.0	41.3		ug/L		83	65 - 140
1,4-Dichlorobenzene	ND		50.0	51.5		ug/L		103	67 - 128
2,2-Dichloropropane	ND		50.0	49.9		ug/L		100	54 - 150
2-Butanone (MEK)	ND		50.0	26.5		ug/L		53	10 - 150
2-Chlorotoluene	ND	V1	50.0	57.4		ug/L		115	54 - 150
2-Hexanone	ND		50.0	29.4		ug/L		59	37 - 150
4-Chlorotoluene	ND		50.0	54.4		ug/L		109	63 - 141
4-Methyl-2-pentanone (MIBK)	ND		50.0	32.0		ug/L		56	41 - 150
Acetone	ND		50.0	25.0		ug/L		50	10 - 150
Benzene	ND		50.0	50.0		ug/L		100	54 - 142
Bromobenzene	ND		50.0	53.8		ug/L		108	67 - 132
Bromochloromethane	ND		50.0	37.0		ug/L		74	55 - 147
Bromodichloromethane	ND		50.0	48.2		ug/L		96	61 - 143
Bromoform	ND		50.0	46.4		ug/L		93	57 - 148
Bromomethane	ND		50.0	43.5		ug/L		87	56 - 149
Carbon disulfide	ND		50.0	30.5		ug/L		61	23 - 150
Carbon tetrachloride	ND		50.0	54.7		ug/L		109	51 - 143
Chlorobenzene	ND		50.0	48.8		ug/L		98	69 - 129
Chloroethane	ND		50.0	44.6		ug/L		89	41 - 150
Chloroform	ND		50.0	40.4		ug/L		81	60 - 148
Chloromethane	ND		50.0	42.8		ug/L		86	29 - 150
cis-1,2-Dichloroethene	ND		50.0	48.8		ug/L		98	57 - 139
cis-1,3-Dichloropropene	ND		50.0	46.3		ug/L		93	57 - 145
Chlorodibromomethane	ND		50.0	46.2		ug/L		92	61 - 143
Dibromomethane	ND		50.0	40.7		ug/L		81	56 - 148
Dichlorodifluoromethane	ND		50.0	50.0		ug/L		100	20 - 150
Ethylbenzene	ND		50.0	53.1		ug/L		106	46 - 149
Hexachlorobutadiene	ND	V1	50.0	59.8		ug/L		120	48 - 146
Iodomethane	ND		50.0	30.6		ug/L		61	17 - 150
Isopropylbenzene	ND	V1	50.0	61.1		ug/L		122	56 - 146
m,p-Xylenes	ND	V1	50.0	55.3		ug/L		111	47 - 150
Methylene Chloride	ND		50.0	36.2		ug/L		72	43 - 150
Naphthalene	ND		50.0	46.9		ug/L		94	32 - 150
n-Butylbenzene	ND	V1	50.0	60.4		ug/L		121	54 - 146
o-Xylene	ND		50.0	56.9		ug/L		114	52 - 150
p-Isopropyltoluene	ND	V1	50.0	63.2		ug/L		126	53 - 147
sec-Butylbenzene	ND	V1	50.0	62.3		ug/L		125	54 - 145
Styrene	ND	R4	50.0	11.9		ug/L		24	20 - 150
tert-Butylbenzene	ND	V1	50.0	62.4		ug/L		125	57 - 143
Tetrachloroethene	ND		50.0	48.9		ug/L		98	37 - 150
Toluene	ND		50.0	51.7		ug/L		103	54 - 141
trans-1,2-Dichloroethene	ND		50.0	44.3		ug/L		89	58 - 140

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-217664-D-8 MS
Matrix: Water
Analysis Batch: 320110

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
trans-1,3-Dichloropropene	ND		50.0	44.6		ug/L		89	57 - 147
Trichloroethene	ND		50.0	47.1		ug/L		94	58 - 134
Trichlorofluoromethane	ND		50.0	49.7		ug/L		99	46 - 150
Vinyl acetate	ND	R4	50.0	ND		ug/L		20	10 - 150
Vinyl chloride	ND		50.0	44.8		ug/L		90	29 - 150
Xylenes, Total	ND		100	112		ug/L		112	50 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*72*		*70 - 130*
Toluene-d8 (Surr)	*88*		*70 - 130*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*

Lab Sample ID: 550-217664-D-8 MSD
Matrix: Water
Analysis Batch: 320110

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		50.0	50.2		ug/L		100	62 - 139	0	35
1,1,1-Trichloroethane	ND		50.0	45.8		ug/L		92	57 - 143	1	35
1,1,2,2-Tetrachloroethane	ND		50.0	44.1		ug/L		88	52 - 150	1	35
1,1,2-Trichloroethane	ND		50.0	41.7		ug/L		83	62 - 137	0	35
1,1-Dichloroethane	ND		50.0	42.4		ug/L		85	58 - 145	0	35
1,1-Dichloroethene	ND		50.0	49.4		ug/L		99	50 - 150	2	35
1,1-Dichloropropene	ND		50.0	49.3		ug/L		99	50 - 142	1	35
1,2,3-Trichlorobenzene	ND		50.0	51.1		ug/L		102	52 - 144	0	35
1,2,3-Trichloropropane	ND		50.0	41.6		ug/L		83	59 - 138	1	35
1,2,4-Trichlorobenzene	ND		50.0	52.2		ug/L		104	54 - 140	0	35
1,2,4-Trimethylbenzene	ND		50.0	56.9		ug/L		114	41 - 150	0	35
1,2-Dibromo-3-Chloropropane	ND		50.0	43.0		ug/L		86	41 - 149	2	35
1,2-Dibromoethane (EDB)	ND		50.0	40.9		ug/L		82	67 - 136	1	35
1,2-Dichlorobenzene	ND		50.0	52.0		ug/L		104	64 - 132	0	35
1,2-Dichloroethane	ND		50.0	40.3		ug/L		81	47 - 146	2	35
1,2-Dichloropropane	ND		50.0	47.7		ug/L		95	59 - 140	1	35
1,3,5-Trimethylbenzene	ND	V1	50.0	58.2		ug/L		116	34 - 150	1	35
1,3-Dichlorobenzene	ND		50.0	54.5		ug/L		109	67 - 130	1	35
1,3-Dichloropropane	ND		50.0	41.5		ug/L		83	65 - 140	0	35
1,4-Dichlorobenzene	ND		50.0	51.9		ug/L		104	67 - 128	1	35
2,2-Dichloropropane	ND		50.0	49.5		ug/L		99	54 - 150	1	35
2-Butanone (MEK)	ND		50.0	27.2		ug/L		54	10 - 150	3	35
2-Chlorotoluene	ND	V1	50.0	57.3		ug/L		115	54 - 150	0	35
2-Hexanone	ND		50.0	31.5		ug/L		63	37 - 150	7	35
4-Chlorotoluene	ND		50.0	54.9		ug/L		110	63 - 141	1	35
4-Methyl-2-pentanone (MIBK)	ND		50.0	33.3		ug/L		59	41 - 150	4	35
Acetone	ND		50.0	25.6		ug/L		51	10 - 150	3	35
Benzene	ND		50.0	49.8		ug/L		100	54 - 142	0	35
Bromobenzene	ND		50.0	53.9		ug/L		108	67 - 132	0	35
Bromochloromethane	ND		50.0	37.4		ug/L		75	55 - 147	1	35
Bromodichloromethane	ND		50.0	48.6		ug/L		97	61 - 143	1	35

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-217664-D-8 MSD
Matrix: Water
Analysis Batch: 320110

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromoform	ND		50.0	46.8		ug/L		94	57 - 148	1	35
Bromomethane	ND		50.0	42.1		ug/L		84	56 - 149	3	35
Carbon disulfide	ND		50.0	29.9		ug/L		60	23 - 150	2	35
Carbon tetrachloride	ND		50.0	54.2		ug/L		108	51 - 143	1	35
Chlorobenzene	ND		50.0	49.1		ug/L		98	69 - 129	1	35
Chloroethane	ND		50.0	42.6		ug/L		85	41 - 150	5	35
Chloroform	ND		50.0	40.6		ug/L		81	60 - 148	1	35
Chloromethane	ND		50.0	40.8		ug/L		82	29 - 150	5	35
cis-1,2-Dichloroethene	ND		50.0	48.9		ug/L		98	57 - 139	0	35
cis-1,3-Dichloropropene	ND		50.0	47.0		ug/L		94	57 - 145	1	35
Chlorodibromomethane	ND		50.0	46.9		ug/L		94	61 - 143	1	35
Dibromomethane	ND		50.0	41.2		ug/L		82	56 - 148	1	35
Dichlorodifluoromethane	ND		50.0	49.5		ug/L		99	20 - 150	1	35
Ethylbenzene	ND		50.0	52.8		ug/L		106	46 - 149	1	35
Hexachlorobutadiene	ND	V1	50.0	58.5		ug/L		117	48 - 146	2	35
Iodomethane	ND		50.0	30.2		ug/L		60	17 - 150	1	35
Isopropylbenzene	ND	V1	50.0	60.7		ug/L		121	56 - 146	1	35
m,p-Xylenes	ND	V1	50.0	54.8		ug/L		110	47 - 150	1	35
Methylene Chloride	ND		50.0	36.3		ug/L		73	43 - 150	0	35
Naphthalene	ND		50.0	48.5		ug/L		97	32 - 150	3	35
n-Butylbenzene	ND	V1	50.0	60.4		ug/L		121	54 - 146	0	35
o-Xylene	ND		50.0	57.6		ug/L		115	52 - 150	1	35
p-Isopropyltoluene	ND	V1	50.0	62.2		ug/L		124	53 - 147	2	35
sec-Butylbenzene	ND	V1	50.0	61.0		ug/L		122	54 - 145	2	35
Styrene	ND	R4	50.0	35.0	R4	ug/L		70	20 - 150	99	35
tert-Butylbenzene	ND	V1	50.0	61.9		ug/L		124	57 - 143	1	35
Tetrachloroethene	ND		50.0	48.6		ug/L		97	37 - 150	1	35
Toluene	ND		50.0	51.6		ug/L		103	54 - 141	0	35
trans-1,2-Dichloroethene	ND		50.0	44.9		ug/L		90	58 - 140	1	35
trans-1,3-Dichloropropene	ND		50.0	45.2		ug/L		90	57 - 147	1	35
Trichloroethene	ND		50.0	46.7		ug/L		93	58 - 134	1	35
Trichlorofluoromethane	ND		50.0	48.6		ug/L		97	46 - 150	2	35
Vinyl acetate	ND	R4	50.0	ND	R4	ug/L		46	10 - 150	78	35
Vinyl chloride	ND		50.0	43.1		ug/L		86	29 - 150	4	35
Xylenes, Total	ND		100	112		ug/L		112	50 - 150	0	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*72*		*70 - 130*
Toluene-d8 (Surr)	*88*		*70 - 130*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*

Lab Sample ID: MB 550-320221/6
Matrix: Water
Analysis Batch: 320221

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			05/02/24 19:30	1
1,1,1-Trichloroethane	ND		2.0		ug/L			05/02/24 19:30	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-320221/6
Matrix: Water
Analysis Batch: 320221

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			05/02/24 19:30	1
1,1,2-Trichloroethane	ND		2.0		ug/L			05/02/24 19:30	1
1,1-Dichloroethane	ND		2.0		ug/L			05/02/24 19:30	1
1,1-Dichloroethene	ND		5.0		ug/L			05/02/24 19:30	1
1,1-Dichloropropene	ND		2.0		ug/L			05/02/24 19:30	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			05/02/24 19:30	1
1,2,3-Trichloropropane	ND		10		ug/L			05/02/24 19:30	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			05/02/24 19:30	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			05/02/24 19:30	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/02/24 19:30	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			05/02/24 19:30	1
1,2-Dichlorobenzene	ND		2.0		ug/L			05/02/24 19:30	1
1,2-Dichloroethane	ND		2.0		ug/L			05/02/24 19:30	1
1,2-Dichloropropane	ND		2.0		ug/L			05/02/24 19:30	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			05/02/24 19:30	1
1,3-Dichlorobenzene	ND		2.0		ug/L			05/02/24 19:30	1
1,3-Dichloropropane	ND		2.0		ug/L			05/02/24 19:30	1
1,4-Dichlorobenzene	ND		2.0		ug/L			05/02/24 19:30	1
2,2-Dichloropropane	ND		2.0		ug/L			05/02/24 19:30	1
2-Butanone (MEK)	ND		10		ug/L			05/02/24 19:30	1
2-Chlorotoluene	ND		5.0		ug/L			05/02/24 19:30	1
2-Hexanone	ND		10		ug/L			05/02/24 19:30	1
4-Chlorotoluene	ND		5.0		ug/L			05/02/24 19:30	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/02/24 19:30	1
Acetone	ND		20		ug/L			05/02/24 19:30	1
Benzene	ND		2.0		ug/L			05/02/24 19:30	1
Bromobenzene	ND		5.0		ug/L			05/02/24 19:30	1
Bromochloromethane	ND		5.0		ug/L			05/02/24 19:30	1
Bromodichloromethane	ND		2.0		ug/L			05/02/24 19:30	1
Bromoform	ND		5.0		ug/L			05/02/24 19:30	1
Bromomethane	ND		10		ug/L			05/02/24 19:30	1
Carbon disulfide	ND		5.0		ug/L			05/02/24 19:30	1
Carbon tetrachloride	ND		5.0		ug/L			05/02/24 19:30	1
Chlorobenzene	ND		2.0		ug/L			05/02/24 19:30	1
Chloroethane	ND		5.0		ug/L			05/02/24 19:30	1
Chloroform	ND		2.0		ug/L			05/02/24 19:30	1
Chloromethane	ND		5.0		ug/L			05/02/24 19:30	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			05/02/24 19:30	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			05/02/24 19:30	1
Chlorodibromomethane	ND		2.0		ug/L			05/02/24 19:30	1
Dibromomethane	ND		2.0		ug/L			05/02/24 19:30	1
Dichlorodifluoromethane	ND		5.0		ug/L			05/02/24 19:30	1
Ethylbenzene	ND		2.0		ug/L			05/02/24 19:30	1
Hexachlorobutadiene	ND		5.0		ug/L			05/02/24 19:30	1
Iodomethane	ND		2.0		ug/L			05/02/24 19:30	1
Isopropylbenzene	ND		2.0		ug/L			05/02/24 19:30	1
m,p-Xylenes	ND		5.0		ug/L			05/02/24 19:30	1
Methylene Chloride	ND		5.0		ug/L			05/02/24 19:30	1
Naphthalene	ND		5.0		ug/L			05/02/24 19:30	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-320221/6
Matrix: Water
Analysis Batch: 320221

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND		5.0		ug/L			05/02/24 19:30	1
o-Xylene	ND		5.0		ug/L			05/02/24 19:30	1
p-Isopropyltoluene	ND		2.0		ug/L			05/02/24 19:30	1
sec-Butylbenzene	ND		5.0		ug/L			05/02/24 19:30	1
Styrene	ND		2.0		ug/L			05/02/24 19:30	1
tert-Butylbenzene	ND		5.0		ug/L			05/02/24 19:30	1
Tetrachloroethene	ND		2.0		ug/L			05/02/24 19:30	1
Toluene	ND		5.0		ug/L			05/02/24 19:30	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			05/02/24 19:30	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			05/02/24 19:30	1
Trichloroethene	ND		2.0		ug/L			05/02/24 19:30	1
Trichlorofluoromethane	ND		5.0		ug/L			05/02/24 19:30	1
Vinyl acetate	ND		25		ug/L			05/02/24 19:30	1
Vinyl chloride	ND		5.0		ug/L			05/02/24 19:30	1
Xylenes, Total	ND		10		ug/L			05/02/24 19:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*93*		*70 - 130*		*05/02/24 19:30*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*05/02/24 19:30*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*05/02/24 19:30*	*1*

Lab Sample ID: LCS 550-320221/3
Matrix: Water
Analysis Batch: 320221

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	50.0	50.7		ug/L		101	68 - 133
1,1,1-Trichloroethane	50.0	47.1		ug/L		94	62 - 134
1,1,2,2-Tetrachloroethane	50.0	53.8		ug/L		108	60 - 135
1,1,2-Trichloroethane	50.0	51.7		ug/L		103	69 - 130
1,1-Dichloroethane	50.0	50.2		ug/L		100	65 - 132
1,1-Dichloroethene	50.0	47.0		ug/L		94	80 - 120
1,1-Dichloropropene	50.0	51.2		ug/L		102	63 - 130
1,2,3-Trichlorobenzene	50.0	53.7		ug/L		107	62 - 139
1,2,3-Trichloropropane	50.0	54.1		ug/L		108	67 - 130
1,2,4-Trichlorobenzene	50.0	51.6		ug/L		103	66 - 135
1,2,4-Trimethylbenzene	50.0	54.9		ug/L		110	70 - 134
1,2-Dibromo-3-Chloropropane	50.0	55.9		ug/L		112	58 - 133
1,2-Dibromoethane (EDB)	50.0	52.1		ug/L		104	70 - 130
1,2-Dichlorobenzene	50.0	52.1		ug/L		104	70 - 130
1,2-Dichloroethane	50.0	52.8		ug/L		106	54 - 135
1,2-Dichloropropane	50.0	52.1		ug/L		104	80 - 120
1,3,5-Trimethylbenzene	50.0	57.5		ug/L		115	70 - 139
1,3-Dichlorobenzene	50.0	51.3		ug/L		103	70 - 130
1,3-Dichloropropane	50.0	52.9		ug/L		106	69 - 130
1,4-Dichlorobenzene	50.0	51.2		ug/L		102	70 - 130
2,2-Dichloropropane	50.0	45.9		ug/L		92	60 - 148
2-Butanone (MEK)	50.0	54.1		ug/L		108	50 - 150

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-320221/3
Matrix: Water
Analysis Batch: 320221

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chlorotoluene	50.0	54.6		ug/L		109	70 - 133
2-Hexanone	50.0	50.1		ug/L		100	50 - 148
4-Chlorotoluene	50.0	53.0		ug/L		106	70 - 130
4-Methyl-2-pentanone (MIBK)	50.0	52.9		ug/L		106	56 - 141
Acetone	50.0	52.3		ug/L		105	11 - 150
Benzene	50.0	51.4		ug/L		103	67 - 130
Bromobenzene	50.0	55.2		ug/L		110	70 - 130
Bromochloromethane	50.0	48.9		ug/L		98	59 - 139
Bromodichloromethane	50.0	53.0		ug/L		106	69 - 130
Bromoform	50.0	56.6		ug/L		113	67 - 140
Bromomethane	50.0	45.0		ug/L		90	10 - 150
Carbon disulfide	50.0	45.5		ug/L		91	36 - 150
Carbon tetrachloride	50.0	47.6		ug/L		95	60 - 134
Chlorobenzene	50.0	50.5		ug/L		101	70 - 130
Chloroethane	50.0	45.1		ug/L		90	57 - 150
Chloroform	50.0	49.4		ug/L		99	80 - 120
Chloromethane	50.0	47.9		ug/L		96	46 - 150
cis-1,2-Dichloroethene	50.0	51.3		ug/L		103	64 - 130
cis-1,3-Dichloropropene	50.0	54.5		ug/L		109	66 - 134
Chlorodibromomethane	50.0	52.1		ug/L		104	65 - 133
Dibromomethane	50.0	51.4		ug/L		103	65 - 130
Dichlorodifluoromethane	50.0	47.5		ug/L		95	29 - 150
Ethylbenzene	50.0	49.1		ug/L		98	80 - 120
Hexachlorobutadiene	50.0	53.2		ug/L		106	58 - 134
Iodomethane	50.0	47.0		ug/L		94	54 - 146
Isopropylbenzene	50.0	56.9		ug/L		114	70 - 139
m,p-Xylenes	50.0	56.6		ug/L		113	67 - 137
Methylene Chloride	50.0	45.4		ug/L		91	55 - 136
Naphthalene	50.0	58.3		ug/L		117	64 - 135
n-Butylbenzene	50.0	51.7		ug/L		103	70 - 136
o-Xylene	50.0	56.9		ug/L		114	68 - 136
p-Isopropyltoluene	50.0	55.6		ug/L		111	67 - 138
sec-Butylbenzene	50.0	57.4		ug/L		115	66 - 135
Styrene	50.0	56.8		ug/L		114	69 - 135
tert-Butylbenzene	50.0	61.4		ug/L		123	64 - 135
Tetrachloroethene	50.0	50.3		ug/L		101	63 - 131
Toluene	50.0	52.9		ug/L		106	71 - 123
trans-1,2-Dichloroethene	50.0	49.0		ug/L		98	65 - 132
trans-1,3-Dichloropropene	50.0	54.1		ug/L		108	66 - 136
Trichloroethene	50.0	51.8		ug/L		104	67 - 130
Trichlorofluoromethane	50.0	45.8		ug/L		92	62 - 147
Vinyl acetate	50.0	49.2		ug/L		98	51 - 150
Vinyl chloride	50.0	48.0		ug/L		96	80 - 120
Xylenes, Total	100	114		ug/L		114	66 - 138

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*97*		*70 - 130*
Toluene-d8 (Surr)	*108*		*70 - 130*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-320221/3
Matrix: Water
Analysis Batch: 320221

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130

Lab Sample ID: LCSD 550-320221/4
Matrix: Water
Analysis Batch: 320221

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane			50.0	50.7		ug/L		101	68 - 133	0	20
1,1,1-Trichloroethane			50.0	46.7		ug/L		93	62 - 134	1	20
1,1,2,2-Tetrachloroethane			50.0	54.8		ug/L		110	60 - 135	2	20
1,1,2-Trichloroethane			50.0	53.2		ug/L		106	69 - 130	3	20
1,1-Dichloroethane			50.0	50.5		ug/L		101	65 - 132	0	20
1,1-Dichloroethene			50.0	47.3		ug/L		95	80 - 120	1	23
1,1-Dichloropropene			50.0	50.6		ug/L		101	63 - 130	1	20
1,2,3-Trichlorobenzene			50.0	54.3		ug/L		109	62 - 139	1	20
1,2,3-Trichloropropane			50.0	54.5		ug/L		109	67 - 130	1	20
1,2,4-Trichlorobenzene			50.0	52.7		ug/L		105	66 - 135	2	20
1,2,4-Trimethylbenzene			50.0	53.5		ug/L		107	70 - 134	3	20
1,2-Dibromo-3-Chloropropane			50.0	59.1		ug/L		118	58 - 133	6	21
1,2-Dibromoethane (EDB)			50.0	53.8		ug/L		108	70 - 130	3	20
1,2-Dichlorobenzene			50.0	51.0		ug/L		102	70 - 130	2	20
1,2-Dichloroethane			50.0	52.0		ug/L		104	54 - 135	1	20
1,2-Dichloropropane			50.0	52.4		ug/L		105	80 - 120	0	20
1,3,5-Trimethylbenzene			50.0	55.9		ug/L		112	70 - 139	3	20
1,3-Dichlorobenzene			50.0	50.4		ug/L		101	70 - 130	2	20
1,3-Dichloropropane			50.0	53.8		ug/L		108	69 - 130	2	20
1,4-Dichlorobenzene			50.0	51.2		ug/L		102	70 - 130	0	20
2,2-Dichloropropane			50.0	45.3		ug/L		91	60 - 148	1	21
2-Butanone (MEK)			50.0	55.0		ug/L		110	50 - 150	2	34
2-Chlorotoluene			50.0	53.4		ug/L		107	70 - 133	2	20
2-Hexanone			50.0	52.9		ug/L		106	50 - 148	5	29
4-Chlorotoluene			50.0	52.5		ug/L		105	70 - 130	1	20
4-Methyl-2-pentanone (MIBK)			50.0	56.1		ug/L		112	56 - 141	6	23
Acetone			50.0	56.2		ug/L		112	11 - 150	7	35
Benzene			50.0	50.5		ug/L		101	67 - 130	2	20
Bromobenzene			50.0	54.6		ug/L		109	70 - 130	1	20
Bromochloromethane			50.0	49.3		ug/L		99	59 - 139	1	20
Bromodichloromethane			50.0	52.8		ug/L		106	69 - 130	0	20
Bromoform			50.0	57.6		ug/L		115	67 - 140	2	20
Bromomethane			50.0	45.1		ug/L		90	10 - 150	0	31
Carbon disulfide			50.0	46.7		ug/L		93	36 - 150	3	26
Carbon tetrachloride			50.0	46.6		ug/L		93	60 - 134	2	20
Chlorobenzene			50.0	50.5		ug/L		101	70 - 130	0	20
Chloroethane			50.0	46.5		ug/L		93	57 - 150	3	29
Chloroform			50.0	49.6		ug/L		99	80 - 120	0	20
Chloromethane			50.0	47.7		ug/L		95	46 - 150	0	30
cis-1,2-Dichloroethene			50.0	50.2		ug/L		100	64 - 130	2	20
cis-1,3-Dichloropropene			50.0	55.0		ug/L		110	66 - 134	1	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 550-320221/4
Matrix: Water
Analysis Batch: 320221

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chlorodibromomethane			50.0	53.4		ug/L		107	65 - 133	2	20
Dibromomethane			50.0	51.9		ug/L		104	65 - 130	1	20
Dichlorodifluoromethane			50.0	46.7		ug/L		93	29 - 150	2	30
Ethylbenzene			50.0	48.4		ug/L		97	80 - 120	1	20
Hexachlorobutadiene			50.0	52.4		ug/L		105	58 - 134	2	20
Iodomethane			50.0	47.3		ug/L		95	54 - 146	1	24
Isopropylbenzene			50.0	54.9		ug/L		110	70 - 139	4	20
m,p-Xylenes			50.0	55.0		ug/L		110	67 - 137	3	20
Methylene Chloride			50.0	44.3		ug/L		89	55 - 136	2	23
Naphthalene			50.0	59.9		ug/L		120	64 - 135	3	20
n-Butylbenzene			50.0	50.7		ug/L		101	70 - 136	2	20
o-Xylene			50.0	55.9		ug/L		112	68 - 136	2	20
p-Isopropyltoluene			50.0	54.3		ug/L		109	67 - 138	2	20
sec-Butylbenzene			50.0	55.3		ug/L		111	66 - 135	4	20
Styrene			50.0	55.8		ug/L		112	69 - 135	2	20
tert-Butylbenzene			50.0	59.3		ug/L		119	64 - 135	3	20
Tetrachloroethene			50.0	49.6		ug/L		99	63 - 131	1	20
Toluene			50.0	52.5		ug/L		105	71 - 123	1	20
trans-1,2-Dichloroethene			50.0	51.1		ug/L		102	65 - 132	4	20
trans-1,3-Dichloropropene			50.0	55.6		ug/L		111	66 - 136	3	20
Trichloroethene			50.0	51.0		ug/L		102	67 - 130	2	20
Trichlorofluoromethane			50.0	46.1		ug/L		92	62 - 147	1	22
Vinyl acetate			50.0	55.3		ug/L		111	51 - 150	12	29
Vinyl chloride			50.0	48.2		ug/L		96	80 - 120	1	27
Xylenes, Total			100	111		ug/L		111	66 - 138	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*98*		*70 - 130*
Toluene-d8 (Surr)	*107*		*70 - 130*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 550-217664-E-41 MS
Matrix: Water
Analysis Batch: 320221

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	ND		50.0	58.3		ug/L		117	62 - 139
1,1,1-Trichloroethane	ND		50.0	53.1		ug/L		106	57 - 143
1,1,2,2-Tetrachloroethane	ND		50.0	61.6		ug/L		123	52 - 150
1,1,2-Trichloroethane	ND		50.0	59.6		ug/L		119	62 - 137
1,1-Dichloroethane	ND		50.0	57.0		ug/L		113	58 - 145
1,1-Dichloroethene	ND		50.0	54.1		ug/L		108	50 - 150
1,1-Dichloropropene	ND		50.0	58.6		ug/L		117	50 - 142
1,2,3-Trichlorobenzene	ND		50.0	54.2		ug/L		108	52 - 144
1,2,3-Trichloropropane	ND		50.0	61.9		ug/L		124	59 - 138
1,2,4-Trichlorobenzene	ND		50.0	52.2		ug/L		104	54 - 140
1,2,4-Trimethylbenzene	ND		50.0	59.2		ug/L		118	41 - 150
1,2-Dibromo-3-Chloropropane	ND		50.0	63.0		ug/L		126	41 - 149

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-217664-E-41 MS
Matrix: Water
Analysis Batch: 320221

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromoethane (EDB)	ND		50.0	60.1		ug/L		120	67 - 136
1,2-Dichlorobenzene	ND		50.0	56.4		ug/L		113	64 - 132
1,2-Dichloroethane	ND		50.0	60.8		ug/L		122	47 - 146
1,2-Dichloropropane	ND		50.0	60.2		ug/L		120	59 - 140
1,3,5-Trimethylbenzene	ND		50.0	61.8		ug/L		124	34 - 150
1,3-Dichlorobenzene	ND		50.0	54.8		ug/L		110	67 - 130
1,3-Dichloropropane	ND		50.0	60.4		ug/L		121	65 - 140
1,4-Dichlorobenzene	ND		50.0	55.1		ug/L		110	67 - 128
2,2-Dichloropropane	ND		50.0	47.4		ug/L		95	54 - 150
2-Butanone (MEK)	ND		50.0	61.1		ug/L		122	10 - 150
2-Chlorotoluene	ND		50.0	58.8		ug/L		118	54 - 150
2-Hexanone	ND		50.0	62.3		ug/L		125	37 - 150
4-Chlorotoluene	ND		50.0	56.4		ug/L		113	63 - 141
4-Methyl-2-pentanone (MIBK)	ND		50.0	63.8		ug/L		128	41 - 150
Acetone	ND		50.0	61.0		ug/L		122	10 - 150
Benzene	ND		50.0	59.0		ug/L		118	54 - 142
Bromobenzene	ND		50.0	59.6		ug/L		119	67 - 132
Bromochloromethane	ND		50.0	55.5		ug/L		111	55 - 147
Bromodichloromethane	ND		50.0	61.2		ug/L		122	61 - 143
Bromoform	ND		50.0	64.9		ug/L		130	57 - 148
Bromomethane	ND		50.0	51.4		ug/L		103	56 - 149
Carbon disulfide	ND		50.0	52.8		ug/L		106	23 - 150
Carbon tetrachloride	ND		50.0	55.4		ug/L		111	51 - 143
Chlorobenzene	ND		50.0	55.8		ug/L		112	69 - 129
Chloroethane	ND		50.0	53.7		ug/L		107	41 - 150
Chloroform	2.1		50.0	57.3		ug/L		110	60 - 148
Chloromethane	ND		50.0	55.2		ug/L		110	29 - 150
cis-1,2-Dichloroethene	ND		50.0	58.7		ug/L		117	57 - 139
cis-1,3-Dichloropropene	ND		50.0	59.6		ug/L		119	57 - 145
Chlorodibromomethane	ND		50.0	60.7		ug/L		121	61 - 143
Dibromomethane	ND		50.0	59.2		ug/L		118	56 - 148
Dichlorodifluoromethane	ND		50.0	54.0		ug/L		108	20 - 150
Ethylbenzene	ND		50.0	54.9		ug/L		110	46 - 149
Hexachlorobutadiene	ND		50.0	54.8		ug/L		110	48 - 146
Iodomethane	ND		50.0	53.8		ug/L		108	17 - 150
Isopropylbenzene	ND		50.0	62.1		ug/L		124	56 - 146
m,p-Xylenes	ND		50.0	60.7		ug/L		121	47 - 150
Methylene Chloride	ND		50.0	51.0		ug/L		102	43 - 150
Naphthalene	ND		50.0	58.7		ug/L		117	32 - 150
n-Butylbenzene	ND		50.0	54.2		ug/L		108	54 - 146
o-Xylene	ND		50.0	62.3		ug/L		125	52 - 150
p-Isopropyltoluene	ND		50.0	59.5		ug/L		119	53 - 147
sec-Butylbenzene	ND		50.0	62.2		ug/L		124	54 - 145
Styrene	ND		50.0	54.0		ug/L		108	20 - 150
tert-Butylbenzene	ND		50.0	66.0		ug/L		132	57 - 143
Tetrachloroethene	ND		50.0	56.3		ug/L		113	37 - 150
Toluene	ND		50.0	59.3		ug/L		119	54 - 141
trans-1,2-Dichloroethene	ND		50.0	55.3		ug/L		111	58 - 140
trans-1,3-Dichloropropene	ND		50.0	59.5		ug/L		119	57 - 147

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-217664-E-41 MS
Matrix: Water
Analysis Batch: 320221

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Trichloroethene	ND		50.0	57.9		ug/L		116	58 - 134
Trichlorofluoromethane	ND		50.0	56.3		ug/L		113	46 - 150
Vinyl acetate	ND		50.0	55.0		ug/L		110	10 - 150
Vinyl chloride	ND		50.0	55.9		ug/L		112	29 - 150
Xylenes, Total	ND		100	123		ug/L		123	50 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*95*		*70 - 130*
Toluene-d8 (Surr)	*108*		*70 - 130*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: 550-217664-E-41 MSD
Matrix: Water
Analysis Batch: 320221

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		50.0	50.9		ug/L		102	62 - 139	14	35
1,1,1-Trichloroethane	ND		50.0	47.3		ug/L		95	57 - 143	12	35
1,1,2,2-Tetrachloroethane	ND		50.0	54.5		ug/L		109	52 - 150	12	35
1,1,2-Trichloroethane	ND		50.0	51.6		ug/L		103	62 - 137	14	35
1,1-Dichloroethane	ND		50.0	51.0		ug/L		101	58 - 145	11	35
1,1-Dichloroethene	ND		50.0	47.8		ug/L		96	50 - 150	12	35
1,1-Dichloropropene	ND		50.0	51.4		ug/L		103	50 - 142	13	35
1,2,3-Trichlorobenzene	ND		50.0	52.8		ug/L		106	52 - 144	3	35
1,2,3-Trichloropropane	ND		50.0	53.8		ug/L		108	59 - 138	14	35
1,2,4-Trichlorobenzene	ND		50.0	49.8		ug/L		100	54 - 140	5	35
1,2,4-Trimethylbenzene	ND		50.0	53.0		ug/L		106	41 - 150	11	35
1,2-Dibromo-3-Chloropropane	ND		50.0	59.0		ug/L		118	41 - 149	7	35
1,2-Dibromoethane (EDB)	ND		50.0	51.7		ug/L		103	67 - 136	15	35
1,2-Dichlorobenzene	ND		50.0	50.8		ug/L		102	64 - 132	10	35
1,2-Dichloroethane	ND		50.0	52.4		ug/L		105	47 - 146	15	35
1,2-Dichloropropane	ND		50.0	52.1		ug/L		104	59 - 140	14	35
1,3,5-Trimethylbenzene	ND		50.0	55.8		ug/L		112	34 - 150	10	35
1,3-Dichlorobenzene	ND		50.0	49.0		ug/L		98	67 - 130	11	35
1,3-Dichloropropane	ND		50.0	51.4		ug/L		103	65 - 140	16	35
1,4-Dichlorobenzene	ND		50.0	49.5		ug/L		99	67 - 128	11	35
2,2-Dichloropropane	ND		50.0	42.2		ug/L		84	54 - 150	12	35
2-Butanone (MEK)	ND		50.0	50.5		ug/L		101	10 - 150	19	35
2-Chlorotoluene	ND		50.0	52.9		ug/L		106	54 - 150	11	35
2-Hexanone	ND		50.0	51.1		ug/L		102	37 - 150	20	35
4-Chlorotoluene	ND		50.0	50.4		ug/L		101	63 - 141	11	35
4-Methyl-2-pentanone (MIBK)	ND		50.0	52.3		ug/L		105	41 - 150	20	35
Acetone	ND		50.0	51.6		ug/L		103	10 - 150	17	35
Benzene	ND		50.0	51.3		ug/L		103	54 - 142	14	35
Bromobenzene	ND		50.0	53.4		ug/L		107	67 - 132	11	35
Bromochloromethane	ND		50.0	47.8		ug/L		96	55 - 147	15	35
Bromodichloromethane	ND		50.0	53.1		ug/L		106	61 - 143	14	35
Bromoform	ND		50.0	56.8		ug/L		114	57 - 148	13	35

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-217664-E-41 MSD
Matrix: Water
Analysis Batch: 320221

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromomethane	ND		50.0	44.5		ug/L		89	56 - 149	14	35
Carbon disulfide	ND		50.0	47.4		ug/L		95	23 - 150	11	35
Carbon tetrachloride	ND		50.0	49.0		ug/L		98	51 - 143	12	35
Chlorobenzene	ND		50.0	49.1		ug/L		98	69 - 129	13	35
Chloroethane	ND		50.0	46.5		ug/L		93	41 - 150	14	35
Chloroform	2.1		50.0	50.6		ug/L		97	60 - 148	12	35
Chloromethane	ND		50.0	48.7		ug/L		97	29 - 150	13	35
cis-1,2-Dichloroethene	ND		50.0	51.3		ug/L		103	57 - 139	13	35
cis-1,3-Dichloropropene	ND		50.0	51.9		ug/L		104	57 - 145	14	35
Chlorodibromomethane	ND		50.0	52.6		ug/L		105	61 - 143	14	35
Dibromomethane	ND		50.0	51.4		ug/L		103	56 - 148	14	35
Dichlorodifluoromethane	ND		50.0	47.4		ug/L		95	20 - 150	13	35
Ethylbenzene	ND		50.0	48.3		ug/L		97	46 - 149	13	35
Hexachlorobutadiene	ND		50.0	50.4		ug/L		101	48 - 146	8	35
Iodomethane	ND		50.0	47.6		ug/L		95	17 - 150	12	35
Isopropylbenzene	ND		50.0	55.6		ug/L		111	56 - 146	11	35
m,p-Xylenes	ND		50.0	54.8		ug/L		110	47 - 150	10	35
Methylene Chloride	ND		50.0	45.0		ug/L		90	43 - 150	13	35
Naphthalene	ND		50.0	58.2		ug/L		116	32 - 150	1	35
n-Butylbenzene	ND		50.0	49.4		ug/L		99	54 - 146	9	35
o-Xylene	ND		50.0	56.1		ug/L		112	52 - 150	10	35
p-Isopropyltoluene	ND		50.0	53.9		ug/L		108	53 - 147	10	35
sec-Butylbenzene	ND		50.0	55.9		ug/L		112	54 - 145	11	35
Styrene	ND		50.0	48.2		ug/L		96	20 - 150	11	35
tert-Butylbenzene	ND		50.0	59.7		ug/L		119	57 - 143	10	35
Tetrachloroethene	ND		50.0	49.1		ug/L		98	37 - 150	14	35
Toluene	ND		50.0	52.4		ug/L		105	54 - 141	12	35
trans-1,2-Dichloroethene	ND		50.0	48.4		ug/L		97	58 - 140	13	35
trans-1,3-Dichloropropene	ND		50.0	51.4		ug/L		103	57 - 147	15	35
Trichloroethene	ND		50.0	51.0		ug/L		102	58 - 134	13	35
Trichlorofluoromethane	ND		50.0	46.8		ug/L		94	46 - 150	18	35
Vinyl acetate	ND		50.0	46.3		ug/L		93	10 - 150	17	35
Vinyl chloride	ND		50.0	48.7		ug/L		97	29 - 150	14	35
Xylenes, Total	ND		100	111		ug/L		111	50 - 150	10	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*99*		*70 - 130*
Toluene-d8 (Surr)	*110*		*70 - 130*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 570-434982/4
Matrix: Water
Analysis Batch: 434982

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	ND		5.0		ug/L			04/27/24 08:51	1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 570-434982/2
Matrix: Water
Analysis Batch: 434982

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Carbon dioxide	562	552		ug/L		98	80 - 120

Lab Sample ID: LCSD 570-434982/3
Matrix: Water
Analysis Batch: 434982

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Carbon dioxide	562	548		ug/L		98	80 - 120	1	20

Lab Sample ID: 550-217471-8 DU
Matrix: Water
Analysis Batch: 434982

Client Sample ID: CH-VRP-9-2024
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Carbon dioxide	25000		23200		ug/L		7	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-319775/2
Matrix: Water
Analysis Batch: 319775

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0	mg/L			04/25/24 11:51	1
Sulfate	ND		2.0	mg/L			04/25/24 11:51	1
Nitrate as N	ND		0.050	mg/L			04/25/24 11:51	1

Lab Sample ID: LCS 550-319775/39
Matrix: Water
Analysis Batch: 319775

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	20.5		mg/L		103	90 - 110
Sulfate	20.0	19.6		mg/L		98	90 - 110
Nitrate as N	4.00	4.06		mg/L		102	90 - 110

Lab Sample ID: LCSD 550-319775/40
Matrix: Water
Analysis Batch: 319775

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	20.0	20.4		mg/L		102	90 - 110	1	20
Sulfate	20.0	19.2		mg/L		96	90 - 110	2	20
Nitrate as N	4.00	4.09		mg/L		102	90 - 110	1	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-217471-8 MS
Matrix: Water
Analysis Batch: 319775

Client Sample ID: CH-VRP-9-2024
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	2100	D2	1000	3160	D2	mg/L		106	80 - 120
Sulfate	860	D2	1000	1850	D2	mg/L		99	80 - 120
Nitrate as N	ND	D2	200	201	D2	mg/L		101	80 - 120

Lab Sample ID: 550-217471-8 MSD
Matrix: Water
Analysis Batch: 319775

Client Sample ID: CH-VRP-9-2024
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2100	D2	1000	3160	D2	mg/L		107	80 - 120	0	20
Sulfate	860	D2	1000	1860	D2	mg/L		100	80 - 120	1	20
Nitrate as N	ND	D2	200	203	D2	mg/L		101	80 - 120	1	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-319807/1-A
Matrix: Water
Analysis Batch: 320032

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319807

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.10		mg/L		04/26/24 07:42	04/29/24 19:29	1

Lab Sample ID: MB 550-319807/1-A
Matrix: Water
Analysis Batch: 320177

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 319807

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.010		mg/L		04/26/24 07:42	05/01/24 19:44	1

Lab Sample ID: LCS 550-319807/2-A
Matrix: Water
Analysis Batch: 320032

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319807

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron			1.00	1.09		mg/L		109	85 - 115

Lab Sample ID: LCS 550-319807/2-A
Matrix: Water
Analysis Batch: 320177

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 319807

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese			1.00	0.969		mg/L		97	85 - 115

Lab Sample ID: LCSD 550-319807/3-A
Matrix: Water
Analysis Batch: 320032

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 319807

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron			1.00	1.11		mg/L		111	85 - 115	2	20

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCSD 550-319807/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320177 — **Prep Batch: 319807**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Manganese			1.00	1.01		mg/L		101	85 - 115	4	20

Lab Sample ID: 550-217471-8 MS — **Client Sample ID: CH-VRP-9-2024**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320032 — **Prep Batch: 319807**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Iron	0.19		1.00	1.30		mg/L		112	70 - 130		

Lab Sample ID: 550-217471-8 MS — **Client Sample ID: CH-VRP-9-2024**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320177 — **Prep Batch: 319807**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Manganese	1.1		1.00	2.01		mg/L		95	70 - 130		

Lab Sample ID: 550-217471-8 MSD — **Client Sample ID: CH-VRP-9-2024**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320032 — **Prep Batch: 319807**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	0.19		1.00	1.30		mg/L		111	70 - 130	0	20

Lab Sample ID: 550-217471-8 MSD — **Client Sample ID: CH-VRP-9-2024**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320177 — **Prep Batch: 319807**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Manganese	1.1		1.00	2.01		mg/L		95	70 - 130	0	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-320334/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320334

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		6.0		mg/L			05/03/24 09:24	1
Alkalinity, Phenolphthalein	ND		6.0		mg/L			05/03/24 09:24	1
Bicarbonate Alkalinity as CaCO3	ND		6.0		mg/L			05/03/24 09:24	1
Carbonate Alkalinity as CaCO3	ND		6.0		mg/L			05/03/24 09:24	1
Hydroxide Alkalinity as CaCO3	ND		6.0		mg/L			05/03/24 09:24	1

Lab Sample ID: LCS 550-320334/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 320334

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity as CaCO3			250	243		mg/L		97	90 - 110		

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCSD 550-320334/13
Matrix: Water
Analysis Batch: 320334

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity as CaCO3			250	243		mg/L		97	90 - 110	0	20

Lab Sample ID: 550-217471-18 DU
Matrix: Water
Analysis Batch: 320334

Client Sample ID: CH-UST-2-2024
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	370			368		mg/L				0.2	20
Alkalinity, Phenolphthalein	ND			ND		mg/L				NC	20
Bicarbonate Alkalinity as CaCO3	370			368		mg/L				0.2	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND			ND		mg/L				NC	20

GC/MS VOA

Analysis Batch: 319979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217471-1	CH-VRP-1-2024	Total/NA	Water	8260B	
550-217471-2	CH-VRP-2-2024	Total/NA	Water	8260B	
550-217471-3	CH-VRP-3-2024	Total/NA	Water	8260B	
550-217471-4	CH-VRP-4-2024	Total/NA	Water	8260B	
550-217471-5	CH-VRP-5-2024	Total/NA	Water	8260B	
550-217471-6	CH-VRP-7-2024	Total/NA	Water	8260B	
550-217471-7	CH-VRP-8-2024	Total/NA	Water	8260B	
550-217471-8	CH-VRP-9-2024	Total/NA	Water	8260B	
MB 550-319979/6	Method Blank	Total/NA	Water	8260B	
LCS 550-319979/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 550-319979/4	Lab Control Sample Dup	Total/NA	Water	8260B	
550-217471-8 MS	CH-VRP-9-2024	Total/NA	Water	8260B	
550-217471-8 MSD	CH-VRP-9-2024	Total/NA	Water	8260B	

Analysis Batch: 320106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217471-1	CH-VRP-1-2024	Total/NA	Water	8260B	
550-217471-9	CH-VRP-10-2024	Total/NA	Water	8260B	
550-217471-10	CH-VRP-11-2024	Total/NA	Water	8260B	
550-217471-11	CH-VRP-12-2024	Total/NA	Water	8260B	
550-217471-12	CH-VRP-13-2024	Total/NA	Water	8260B	
550-217471-13	CH-VRP-14-2024	Total/NA	Water	8260B	
550-217471-14	CH-VRP-15-2024	Total/NA	Water	8260B	
550-217471-15	CH-VRP-16-2024	Total/NA	Water	8260B	
550-217471-16	CH-VRP-17-2024	Total/NA	Water	8260B	
550-217471-17	CH-DR-2-2024	Total/NA	Water	8260B	
550-217471-18	CH-UST-2-2024	Total/NA	Water	8260B	
550-217471-19	CH-MW02-2024	Total/NA	Water	8260B	
550-217471-20	CH-FD01-VRP-7-2-2024	Total/NA	Water	8260B	
550-217471-21	CH-FD02-VR3-3-2-2024	Total/NA	Water	8260B	
550-217471-22	CH-TB01-	Total/NA	Water	8260B	
550-217471-23	CH-M62-A-0424	Total/NA	Water	8260B	
MB 550-320106/6	Method Blank	Total/NA	Water	8260B	
LCS 550-320106/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 550-320106/4	Lab Control Sample Dup	Total/NA	Water	8260B	
550-217471-1 MS	CH-VRP-1-2024	Total/NA	Water	8260B	
550-217471-1 MSD	CH-VRP-1-2024	Total/NA	Water	8260B	

Analysis Batch: 320110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217471-1	CH-VRP-1-2024	Total/NA	Water	8260B	
550-217471-2	CH-VRP-2-2024	Total/NA	Water	8260B	
550-217471-3	CH-VRP-3-2024	Total/NA	Water	8260B	
550-217471-26	Waste-0424	Total/NA	Water	8260B	
550-217471-27	CH-RB01-0424	Total/NA	Water	8260B	
MB 550-320110/6	Method Blank	Total/NA	Water	8260B	
LCS 550-320110/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 550-320110/4	Lab Control Sample Dup	Total/NA	Water	8260B	
550-217664-D-8 MS	Matrix Spike	Total/NA	Water	8260B	
550-217664-D-8 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

QC Association Summary

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

GC/MS VOA

Analysis Batch: 320221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217471-14	CH-VRP-15-2024	Total/NA	Water	8260B	
550-217471-17	CH-DR-2-2024	Total/NA	Water	8260B	
550-217471-19	CH-MW02-2024	Total/NA	Water	8260B	
550-217471-21	CH-FD02-VR3-3-2-2024	Total/NA	Water	8260B	
MB 550-320221/6	Method Blank	Total/NA	Water	8260B	
LCS 550-320221/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 550-320221/4	Lab Control Sample Dup	Total/NA	Water	8260B	
550-217664-E-41 MS	Matrix Spike	Total/NA	Water	8260B	
550-217664-E-41 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

GC VOA

Analysis Batch: 434982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217471-3 - DL	CH-VRP-3-2024	Total/NA	Water	RSK-175	
550-217471-4	CH-VRP-4-2024	Total/NA	Water	RSK-175	
550-217471-8	CH-VRP-9-2024	Total/NA	Water	RSK-175	
550-217471-17	CH-DR-2-2024	Total/NA	Water	RSK-175	
550-217471-18	CH-UST-2-2024	Total/NA	Water	RSK-175	
550-217471-19	CH-MW02-2024	Total/NA	Water	RSK-175	
550-217471-21	CH-FD02-VR3-3-2-2024	Total/NA	Water	RSK-175	
MB 570-434982/4	Method Blank	Total/NA	Water	RSK-175	
LCS 570-434982/2	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 570-434982/3	Lab Control Sample Dup	Total/NA	Water	RSK-175	
550-217471-8 DU	CH-VRP-9-2024	Total/NA	Water	RSK-175	

HPLC/IC

Analysis Batch: 319775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217471-3	CH-VRP-3-2024	Total/NA	Water	300.0	
550-217471-3	CH-VRP-3-2024	Total/NA	Water	300.0	
550-217471-4	CH-VRP-4-2024	Total/NA	Water	300.0	
550-217471-4	CH-VRP-4-2024	Total/NA	Water	300.0	
550-217471-8	CH-VRP-9-2024	Total/NA	Water	300.0	
550-217471-8	CH-VRP-9-2024	Total/NA	Water	300.0	
550-217471-17	CH-DR-2-2024	Total/NA	Water	300.0	
550-217471-17	CH-DR-2-2024	Total/NA	Water	300.0	
550-217471-18	CH-UST-2-2024	Total/NA	Water	300.0	
550-217471-18	CH-UST-2-2024	Total/NA	Water	300.0	
550-217471-19	CH-MW02-2024	Total/NA	Water	300.0	
550-217471-19	CH-MW02-2024	Total/NA	Water	300.0	
550-217471-21	CH-FD02-VR3-3-2-2024	Total/NA	Water	300.0	
550-217471-21	CH-FD02-VR3-3-2-2024	Total/NA	Water	300.0	
MB 550-319775/2	Method Blank	Total/NA	Water	300.0	
LCS 550-319775/39	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-319775/40	Lab Control Sample Dup	Total/NA	Water	300.0	
550-217471-8 MS	CH-VRP-9-2024	Total/NA	Water	300.0	
550-217471-8 MSD	CH-VRP-9-2024	Total/NA	Water	300.0	

Metals

Prep Batch: 319807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217471-3	CH-VRP-3-2024	Total/NA	Water	200.7	
550-217471-4	CH-VRP-4-2024	Total/NA	Water	200.7	
550-217471-8	CH-VRP-9-2024	Total/NA	Water	200.7	
550-217471-17	CH-DR-2-2024	Total/NA	Water	200.7	
550-217471-18	CH-UST-2-2024	Total/NA	Water	200.7	
550-217471-19	CH-MW02-2024	Total/NA	Water	200.7	
550-217471-21	CH-FD02-VR3-3-2-2024	Total/NA	Water	200.7	
MB 550-319807/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-319807/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-319807/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-217471-8 MS	CH-VRP-9-2024	Total/NA	Water	200.7	
550-217471-8 MSD	CH-VRP-9-2024	Total/NA	Water	200.7	

Analysis Batch: 320032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217471-3	CH-VRP-3-2024	Total/NA	Water	200.7 Rev 4.4	319807
550-217471-4	CH-VRP-4-2024	Total/NA	Water	200.7 Rev 4.4	319807
550-217471-8	CH-VRP-9-2024	Total/NA	Water	200.7 Rev 4.4	319807
550-217471-17	CH-DR-2-2024	Total/NA	Water	200.7 Rev 4.4	319807
550-217471-18	CH-UST-2-2024	Total/NA	Water	200.7 Rev 4.4	319807
550-217471-19	CH-MW02-2024	Total/NA	Water	200.7 Rev 4.4	319807
550-217471-21	CH-FD02-VR3-3-2-2024	Total/NA	Water	200.7 Rev 4.4	319807
MB 550-319807/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	319807
LCS 550-319807/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	319807
LCSD 550-319807/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	319807
550-217471-8 MS	CH-VRP-9-2024	Total/NA	Water	200.7 Rev 4.4	319807
550-217471-8 MSD	CH-VRP-9-2024	Total/NA	Water	200.7 Rev 4.4	319807

Analysis Batch: 320177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217471-3	CH-VRP-3-2024	Total/NA	Water	200.7 Rev 4.4	319807
550-217471-4	CH-VRP-4-2024	Total/NA	Water	200.7 Rev 4.4	319807
550-217471-8	CH-VRP-9-2024	Total/NA	Water	200.7 Rev 4.4	319807
550-217471-17	CH-DR-2-2024	Total/NA	Water	200.7 Rev 4.4	319807
550-217471-18	CH-UST-2-2024	Total/NA	Water	200.7 Rev 4.4	319807
550-217471-19	CH-MW02-2024	Total/NA	Water	200.7 Rev 4.4	319807
550-217471-21	CH-FD02-VR3-3-2-2024	Total/NA	Water	200.7 Rev 4.4	319807
MB 550-319807/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	319807
LCS 550-319807/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	319807
LCSD 550-319807/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	319807
550-217471-8 MS	CH-VRP-9-2024	Total/NA	Water	200.7 Rev 4.4	319807
550-217471-8 MSD	CH-VRP-9-2024	Total/NA	Water	200.7 Rev 4.4	319807

General Chemistry

Analysis Batch: 320334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217471-3	CH-VRP-3-2024	Total/NA	Water	SM 2320B	
550-217471-4	CH-VRP-4-2024	Total/NA	Water	SM 2320B	
550-217471-8	CH-VRP-9-2024	Total/NA	Water	SM 2320B	
550-217471-17	CH-DR-2-2024	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 320334 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-217471-18	CH-UST-2-2024	Total/NA	Water	SM 2320B	
550-217471-19	CH-MW02-2024	Total/NA	Water	SM 2320B	
550-217471-21	CH-FD02-VR3-3-2-2024	Total/NA	Water	SM 2320B	
MB 550-320334/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-320334/3	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-320334/13	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-217471-18 DU	CH-UST-2-2024	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-VRP-1-2024
Date Collected: 04/22/24 13:45
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	319979	R1K	EET PHX	04/30/24 04:18
Total/NA	Analysis	8260B		1	320106	R1K	EET PHX	05/01/24 18:05
Total/NA	Analysis	8260B		1	320110	R1K	EET PHX	05/01/24 12:55

Client Sample ID: CH-VRP-2-2024
Date Collected: 04/22/24 11:20
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	319979	R1K	EET PHX	04/30/24 04:40
Total/NA	Analysis	8260B		1	320110	R1K	EET PHX	05/01/24 13:16

Client Sample ID: CH-VRP-3-2024
Date Collected: 04/23/24 13:55
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	319979	R1K	EET PHX	04/30/24 05:01
Total/NA	Analysis	8260B		1	320110	R1K	EET PHX	05/01/24 13:37
Total/NA	Analysis	RSK-175	DL	10	434982	I9H5	EET CAL 4	04/27/24 11:19
Total/NA	Analysis	300.0		1	319775	MMH	EET PHX	04/25/24 13:15
Total/NA	Analysis	300.0		50	319775	MMH	EET PHX	04/25/24 18:51
Total/NA	Prep	200.7			319807	SGO	EET PHX	04/26/24 07:42
Total/NA	Analysis	200.7 Rev 4.4		1	320032	JAC	EET PHX	04/29/24 19:53
Total/NA	Prep	200.7			319807	SGO	EET PHX	04/26/24 07:42
Total/NA	Analysis	200.7 Rev 4.4		1	320177	GLW	EET PHX	05/01/24 20:15
Total/NA	Analysis	SM 2320B		1	320334	ELN	EET PHX	05/03/24 10:01

Client Sample ID: CH-VRP-4-2024
Date Collected: 04/23/24 12:30
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	319979	R1K	EET PHX	04/30/24 05:23
Total/NA	Analysis	RSK-175		10	434982	I9H5	EET CAL 4	04/27/24 09:31
Total/NA	Analysis	300.0		1	319775	MMH	EET PHX	04/25/24 12:19
Total/NA	Analysis	300.0		50	319775	MMH	EET PHX	04/25/24 17:55
Total/NA	Prep	200.7			319807	SGO	EET PHX	04/26/24 07:42
Total/NA	Analysis	200.7 Rev 4.4		1	320032	JAC	EET PHX	04/29/24 19:50
Total/NA	Prep	200.7			319807	SGO	EET PHX	04/26/24 07:42
Total/NA	Analysis	200.7 Rev 4.4		1	320177	GLW	EET PHX	05/01/24 20:11
Total/NA	Analysis	SM 2320B		1	320334	ELN	EET PHX	05/03/24 10:09

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Client Sample ID: CH-VRP-5-2024
Date Collected: 04/22/24 10:30
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	319979	R1K	EET PHX	04/30/24 05:44

Client Sample ID: CH-VRP-7-2024
Date Collected: 04/22/24 12:55
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	319979	R1K	EET PHX	04/30/24 06:06

Client Sample ID: CH-VRP-8-2024
Date Collected: 04/22/24 12:30
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	319979	R1K	EET PHX	04/30/24 06:28

Client Sample ID: CH-VRP-9-2024
Date Collected: 04/23/24 18:00
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	319979	R1K	EET PHX	04/30/24 06:49
Total/NA	Analysis	RSK-175		10	434982	I9H5	EET CAL 4	04/27/24 09:45
Total/NA	Analysis	300.0		1	319775	MMH	EET PHX	04/25/24 15:07
Total/NA	Analysis	300.0		50	319775	MMH	EET PHX	04/25/24 15:35
Total/NA	Prep	200.7			319807	SGO	EET PHX	04/26/24 07:42
Total/NA	Analysis	200.7 Rev 4.4		1	320032	JAC	EET PHX	04/29/24 19:46
Total/NA	Prep	200.7			319807	SGO	EET PHX	04/26/24 07:42
Total/NA	Analysis	200.7 Rev 4.4		1	320177	GLW	EET PHX	05/01/24 20:01
Total/NA	Analysis	SM 2320B		1	320334	ELN	EET PHX	05/03/24 10:20

Client Sample ID: CH-VRP-10-2024
Date Collected: 04/22/24 15:55
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	320106	R1K	EET PHX	05/01/24 12:40

Client Sample ID: CH-VRP-11-2024
Date Collected: 04/22/24 14:10
Date Received: 04/25/24 09:15

Lab Sample ID: 550-217471-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	320106	R1K	EET PHX	05/01/24 13:02

Client Sample ID: CH-VRP-12-2024
Lab Sample ID: 550-217471-11
Date Collected: 04/22/24 11:40
Matrix: Water
Date Received: 04/25/24 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	320106	R1K	EET PHX	05/01/24 13:24

Client Sample ID: CH-VRP-13-2024
Lab Sample ID: 550-217471-12
Date Collected: 04/22/24 16:20
Matrix: Water
Date Received: 04/25/24 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	320106	R1K	EET PHX	05/01/24 13:45

Client Sample ID: CH-VRP-14-2024
Lab Sample ID: 550-217471-13
Date Collected: 04/22/24 12:20
Matrix: Water
Date Received: 04/25/24 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	320106	R1K	EET PHX	05/01/24 14:07

Client Sample ID: CH-VRP-15-2024
Lab Sample ID: 550-217471-14
Date Collected: 04/22/24 11:55
Matrix: Water
Date Received: 04/25/24 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	320106	R1K	EET PHX	05/01/24 14:29
Total/NA	Analysis	8260B		1	320221	R1K	EET PHX	05/02/24 23:09

Client Sample ID: CH-VRP-16-2024
Lab Sample ID: 550-217471-15
Date Collected: 04/22/24 14:40
Matrix: Water
Date Received: 04/25/24 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	320106	R1K	EET PHX	05/01/24 14:50

Client Sample ID: CH-VRP-17-2024
Lab Sample ID: 550-217471-16
Date Collected: 04/22/24 11:00
Matrix: Water
Date Received: 04/25/24 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	320106	R1K	EET PHX	05/01/24 15:12

Client Sample ID: CH-DR-2-2024
Lab Sample ID: 550-217471-17
Date Collected: 04/23/24 15:25
Matrix: Water
Date Received: 04/25/24 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	320106	R1K	EET PHX	05/01/24 15:33
Total/NA	Analysis	8260B		1	320221	R1K	EET PHX	05/02/24 23:31
Total/NA	Analysis	RSK-175		10	434982	I9H5	EET CAL 4	04/27/24 10:33

Client Sample ID: CH-DR-2-2024

Lab Sample ID: 550-217471-17

Date Collected: 04/23/24 15:25

Matrix: Water

Date Received: 04/25/24 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	319775	MMH	EET PHX	04/25/24 14:11
Total/NA	Analysis	300.0		50	319775	MMH	EET PHX	04/25/24 19:47
Total/NA	Prep	200.7			319807	SGO	EET PHX	04/26/24 07:42
Total/NA	Analysis	200.7 Rev 4.4		1	320032	JAC	EET PHX	04/29/24 19:56
Total/NA	Prep	200.7			319807	SGO	EET PHX	04/26/24 07:42
Total/NA	Analysis	200.7 Rev 4.4		1	320177	GLW	EET PHX	05/01/24 20:18
Total/NA	Analysis	SM 2320B		1	320334	ELN	EET PHX	05/03/24 10:28

Client Sample ID: CH-UST-2-2024

Lab Sample ID: 550-217471-18

Date Collected: 04/23/24 16:30

Matrix: Water

Date Received: 04/25/24 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	320106	R1K	EET PHX	05/01/24 15:55
Total/NA	Analysis	RSK-175		10	434982	I9H5	EET CAL 4	04/27/24 10:19
Total/NA	Analysis	300.0		1	319775	MMH	EET PHX	04/25/24 14:39
Total/NA	Analysis	300.0		50	319775	MMH	EET PHX	04/25/24 20:15
Total/NA	Prep	200.7			319807	SGO	EET PHX	04/26/24 07:42
Total/NA	Analysis	200.7 Rev 4.4		1	320032	JAC	EET PHX	04/29/24 20:00
Total/NA	Prep	200.7			319807	SGO	EET PHX	04/26/24 07:42
Total/NA	Analysis	200.7 Rev 4.4		1	320177	GLW	EET PHX	05/01/24 20:22
Total/NA	Analysis	SM 2320B		1	320334	ELN	EET PHX	05/03/24 10:51

Client Sample ID: CH-MW02-2024

Lab Sample ID: 550-217471-19

Date Collected: 04/23/24 10:30

Matrix: Water

Date Received: 04/25/24 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	320106	R1K	EET PHX	05/01/24 16:17
Total/NA	Analysis	8260B		1	320221	R1K	EET PHX	05/02/24 23:53
Total/NA	Analysis	RSK-175		10	434982	I9H5	EET CAL 4	04/27/24 10:47
Total/NA	Analysis	300.0		1	319775	MMH	EET PHX	04/25/24 12:47
Total/NA	Analysis	300.0		20	319775	MMH	EET PHX	04/25/24 18:23
Total/NA	Prep	200.7			319807	SGO	EET PHX	04/26/24 07:42
Total/NA	Analysis	200.7 Rev 4.4		1	320032	JAC	EET PHX	04/29/24 20:03
Total/NA	Prep	200.7			319807	SGO	EET PHX	04/26/24 07:42
Total/NA	Analysis	200.7 Rev 4.4		1	320177	GLW	EET PHX	05/01/24 20:25
Total/NA	Analysis	SM 2320B		1	320334	ELN	EET PHX	05/03/24 11:08

Client Sample ID: CH-FD01-VRP-7-2-2024

Lab Sample ID: 550-217471-20

Date Collected: 04/22/24 12:55

Matrix: Water

Date Received: 04/25/24 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	320106	R1K	EET PHX	05/01/24 16:38

Client Sample ID: CH-FD02-VR3-3-2-2024

Lab Sample ID: 550-217471-21

Date Collected: 04/23/24 13:55

Matrix: Water

Date Received: 04/25/24 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	320106	R1K	EET PHX	05/01/24 17:00
Total/NA	Analysis	8260B		1	320221	R1K	EET PHX	05/03/24 00:15
Total/NA	Analysis	RSK-175		10	434982	I9H5	EET CAL 4	04/27/24 11:02
Total/NA	Analysis	300.0		1	319775	MMH	EET PHX	04/25/24 13:43
Total/NA	Analysis	300.0		50	319775	MMH	EET PHX	04/25/24 19:19
Total/NA	Prep	200.7			319807	SGO	EET PHX	04/26/24 07:42
Total/NA	Analysis	200.7 Rev 4.4		1	320032	JAC	EET PHX	04/29/24 20:07
Total/NA	Prep	200.7			319807	SGO	EET PHX	04/26/24 07:42
Total/NA	Analysis	200.7 Rev 4.4		1	320177	GLW	EET PHX	05/01/24 20:28
Total/NA	Analysis	SM 2320B		1	320334	ELN	EET PHX	05/03/24 11:15

Client Sample ID: CH-TB01-

Lab Sample ID: 550-217471-22

Date Collected: 04/23/24 19:00

Matrix: Water

Date Received: 04/25/24 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	320106	R1K	EET PHX	05/01/24 11:14

Client Sample ID: CH-M62-A-0424

Lab Sample ID: 550-217471-23

Date Collected: 04/22/24 13:30

Matrix: Water

Date Received: 04/25/24 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	320106	R1K	EET PHX	05/01/24 17:22

Client Sample ID: Waste-0424

Lab Sample ID: 550-217471-26

Date Collected: 04/23/24 19:00

Matrix: Water

Date Received: 04/25/24 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	320110	R1K	EET PHX	05/01/24 13:58

Client Sample ID: CH-RB01-0424

Lab Sample ID: 550-217471-27

Date Collected: 04/23/24 18:30

Matrix: Water

Date Received: 04/25/24 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	320110	R1K	EET PHX	05/01/24 14:20

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Legend AZ = Legend Technical Services Inc., 17631 N. 25th Ave., Phoenix, AZ 85023

Accreditation/Certification Summary

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Laboratory: Eurofins Phoenix

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-24

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0830	11-16-24
California	Los Angeles County Sanitation Districts	10109	08-01-24
California	State	3082	07-31-24
Kansas	NELAP	E-10420	08-01-24
Nevada	State	CA00111	07-31-24
Oregon	NELAP	4175	02-03-25
USDA	US Federal Programs	P330-22-00059	06-08-26
Washington	State	C916-18	10-11-24

Method Summary

Client: Arizona Public Service Company
Project/Site: APS - Cholla Power Plant

Job ID: 550-217471-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PHX
RSK-175	Dissolved Gases (GC)	RSK	EET CAL 4
300.0	Anions, Ion Chromatography	EPA	EET PHX
200.7 Rev 4.4	Metals (ICP)	EPA	EET PHX
SM 2320B	Alkalinity	SM	EET PHX
Subcontract	DOC (Field Filtered)	None	Legend AZ
Subcontract	Total Organic Carbon	None	Legend AZ
200.7	Preparation, Total Metals	EPA	EET PHX
5030C	Purge and Trap	SW846	EET PHX

Protocol References:

EPA = US Environmental Protection Agency

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Legend AZ = Legend Technical Services Inc., 17631 N. 25th Ave., Phoenix, AZ 85023

LEGEND Technical Services, Inc.

17631 North 25th Avenue • Phoenix, AZ 85023
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07 May 2024

Linda Eshelman
Eurofins Environmental Testing Southwest
4625 E. Cotton Center Blvd. Building #3 Suite #189
Phoenix, AZ 85040

RE: Test America

Laboratory Work Order No.: 24D3547

Legend Technical Services of Arizona, Inc. is pleased to provide the enclosed analytical results for the aforementioned project. These results relate only to the items tested. This cover letter and the accompanying pages represent the full report for these analyses and should only be reproduced in full. Samples for this project were received by the laboratory on 04/26/24 09:15.

The samples were processed in accordance with the Chain of Custody document and the results presented relate only to the samples tested. The Chain of Custody is considered part of this report.

All samples will be retained by LEGEND for 30 days from the date of this report and then discarded unless other arrangements are made. Due to hold-time and method sample volume requirements, microbiological samples are not retained unless other arrangements are made.

This entire report was reviewed and approved for release by the undersigned. If you have any questions concerning this report, please feel free to contact me.

Sincerely,
LEGEND TECHNICAL SERVICES OF ARIZONA, INC.

Mariana Nicolaides
Client Services Representative

This laboratory report is confidential and is intended for the sole use of LEGEND and it's client.

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Type	Date Sampled	Date Received
CH-VRP-3-2024 (550-217471-3)	24D3547-01	Groundwater	Grab	04/23/24 13:55	04/26/24 09:15
CH-VRP-4-2024 (550-217471-4)	24D3547-02	Groundwater	Grab	04/23/24 12:30	04/26/24 09:15
CH-VRP-9-2024 (550-217471-8)	24D3547-03	Groundwater	Grab	04/23/24 18:00	04/26/24 09:15
CH-VRP-9-2024 (550-217471-8MS)	24D3547-04	Groundwater	Grab	04/23/24 18:00	04/26/24 09:15
CH-VRP-9-2024 (550-217471-8MSD)	24D3547-05	Groundwater	Grab	04/23/24 18:00	04/26/24 09:15
CH-DR-2-2024 (550-217471-17)	24D3547-06	Groundwater	Grab	04/23/24 15:25	04/26/24 09:15
CH-UST-2-2024 (550-217471-18)	24D3547-07	Groundwater	Grab	04/23/24 16:30	04/26/24 09:15
CH-MW02-2024 (550-217471-19)	24D3547-08	Groundwater	Grab	04/23/24 10:30	04/26/24 09:15
CH-FD02-VR3-3-2-2024 (550-217471-21)	24D3547-09	Groundwater	Grab	04/23/24 13:55	04/26/24 09:15

Sample Condition Upon Receipt:

Temperature: 0.60 C

All samples were received in acceptable condition unless noted otherwise in the case narrative.

Case Narrative:

Holding Times: All holding times were met unless otherwise qualified.

QA/QC Criteria: All analyses met method requirements unless otherwise qualified.

Certifications: AZ(PHX)0004, AZ(TUC)OOO4, AIHA#102982, CDC ELITE Member.

Accreditation is applicable only to the test methods specified on each scope of accreditation held by LEGEND.

Comments: There were no problems encountered during the processing of the samples, unless otherwise noted. All samples were analyzed on a "wet" basis unless designated as "dry weight".

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CH-VRP-3-2024 (550-217471-3) (24D3547-01) Groundwater (Grab) Sampled: 04/23/24 13:55 Received: 04/26/24 09:15

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Analyst	Method	Notes
Legend Technical Services of Arizona, Inc.										
Inorganic Chemistry										
Dissolved Organic Carbon	<1.00	1.00	mg/L	1	B4E0156	04/23/24 13:55	05/03/24 09:42	FS	SM 5310 C	
Total Organic Carbon	<1.00	1.00	mg/L	1	B4E0158	05/03/24 09:42	05/03/24 09:42	FS	SM 5310 C	

CH-VRP-4-2024 (550-217471-4) (24D3547-02) Groundwater (Grab) Sampled: 04/23/24 12:30 Received: 04/26/24 09:15

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Analyst	Method	Notes
Legend Technical Services of Arizona, Inc.										
Inorganic Chemistry										
Dissolved Organic Carbon	**1.21**	1.00	mg/L	1	B4E0156	04/23/24 12:30	05/03/24 09:42	FS	SM 5310 C	
Total Organic Carbon	**1.03**	1.00	mg/L	1	B4E0158	05/03/24 09:42	05/03/24 09:42	FS	SM 5310 C	

CH-VRP-9-2024 (550-217471-8) (24D3547-03) Groundwater (Grab) Sampled: 04/23/24 18:00 Received: 04/26/24 09:15

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Analyst	Method	Notes
Legend Technical Services of Arizona, Inc.										
Inorganic Chemistry										
Dissolved Organic Carbon	**1.19**	1.00	mg/L	1	B4E0156	04/23/24 18:00	05/03/24 09:42	FS	SM 5310 C	
Total Organic Carbon	**1.30**	1.00	mg/L	1	B4E0158	05/03/24 09:42	05/03/24 09:42	FS	SM 5310 C	

CH-VRP-9-2024 (550-217471-8MS) (24D3547-04) Groundwater (Grab) Sampled: 04/23/24 18:00 Received: 04/26/24 09:15

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Analyst	Method	Notes
Legend Technical Services of Arizona, Inc.										
Inorganic Chemistry										
Dissolved Organic Carbon	<1.00	1.00	mg/L	1	B4E0156	04/23/24 18:00	05/03/24 09:42	FS	SM 5310 C	
Total Organic Carbon	**1.01**	1.00	mg/L	1	B4E0158	05/03/24 09:42	05/03/24 09:42	FS	SM 5310 C	

CH-VRP-9-2024 (550-217471-8MSD) (24D3547-05) Groundwater (Grab) Sampled: 04/23/24 18:00 Received: 04/26/24 09:15

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Analyst	Method	Notes
Legend Technical Services of Arizona, Inc.										
Inorganic Chemistry										
Dissolved Organic Carbon	<1.00	1.00	mg/L	1	B4E0156	04/23/24 18:00	05/03/24 09:42	FS	SM 5310 C	
Total Organic Carbon	**1.02**	1.00	mg/L	1	B4E0158	05/03/24 09:42	05/03/24 09:42	FS	SM 5310 C	

CH-DR-2-2024 (550-217471-17) (24D3547-06) Groundwater (Grab) Sampled: 04/23/24 15:25 Received: 04/26/24 09:15

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Analyst	Method	Notes
Legend Technical Services of Arizona, Inc.										

CH-DR-2-2024 (550-217471-17) (24D3547-06) Groundwater (Grab) Sampled: 04/23/24 15:25 Received: 04/26/24 09:15

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Analyst	Method	Notes
Legend Technical Services of Arizona, Inc.										
Inorganic Chemistry										
Dissolved Organic Carbon	**1.45**	1.00	mg/L	1	B4E0156	04/23/24 15:25	05/03/24 09:42	FS	SM 5310 C	
Total Organic Carbon	**1.76**	1.00	mg/L	1	B4E0158	05/03/24 09:42	05/03/24 09:42	FS	SM 5310 C	

CH-UST-2-2024 (550-217471-18) (24D3547-07) Groundwater (Grab) Sampled: 04/23/24 16:30 Received: 04/26/24 09:15

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Analyst	Method	Notes
Legend Technical Services of Arizona, Inc.										
Inorganic Chemistry										
Dissolved Organic Carbon	**1.21**	1.00	mg/L	1	B4E0156	04/23/24 16:30	05/03/24 09:42	FS	SM 5310 C	
Total Organic Carbon	**1.08**	1.00	mg/L	1	B4E0158	05/03/24 09:42	05/03/24 09:42	FS	SM 5310 C	

CH-MW02-2024 (550-217471-19) (24D3547-08) Groundwater (Grab) Sampled: 04/23/24 10:30 Received: 04/26/24 09:15

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Analyst	Method	Notes
Legend Technical Services of Arizona, Inc.										
Inorganic Chemistry										
Dissolved Organic Carbon	<1.00	1.00	mg/L	1	B4E0156	04/23/24 10:30	05/03/24 09:42	FS	SM 5310 C	
Total Organic Carbon	<1.00	1.00	mg/L	1	B4E0158	05/03/24 09:42	05/03/24 09:42	FS	SM 5310 C	

CH-FD02-VR3-3-2-2024 (550-217471-21) (24D3547-09) Groundwater (Grab) Sampled: 04/23/24 13:55 Received: 04/26/24 09:15

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Analyst	Method	Notes
Legend Technical Services of Arizona, Inc.										
Inorganic Chemistry										
Dissolved Organic Carbon	<1.00	1.00	mg/L	1	B4E0156	04/23/24 13:55	05/03/24 09:42	FS	SM 5310 C	
Total Organic Carbon	<1.00	1.00	mg/L	1	B4E0158	05/03/24 09:42	05/03/24 09:42	FS	SM 5310 C	

Inorganic Chemistry - Quality Control

Legend Technical Services of Arizona, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4E0156 - NO PREP										
Blank (B4E0156-BLK1)				*Prepared & Analyzed: 05/03/24*						
Dissolved Organic Carbon	<1.00	1.00	mg/L							
LCS (B4E0156-BS1)				*Prepared & Analyzed: 05/03/24*						
Dissolved Organic Carbon	9.49	1.00	mg/L	10.0		95	80-120			
LCS Dup (B4E0156-BSD1)				*Prepared & Analyzed: 05/03/24*						
Dissolved Organic Carbon	9.50	1.00	mg/L	10.0		95	80-120	0.1	20	
Matrix Spike (B4E0156-MS1)		**Source: 24E0081-04**		*Prepared & Analyzed: 05/03/24*						
Dissolved Organic Carbon	16.5	1.00	mg/L	10.0	7.63	89	80-120			
Matrix Spike Dup (B4E0156-MSD1)		**Source: 24E0081-04**		*Prepared & Analyzed: 05/03/24*						
Dissolved Organic Carbon	16.6	1.00	mg/L	10.0	7.63	90	80-120	1	20	
Batch B4E0158 - NO PREP										
Blank (B4E0158-BLK1)				*Prepared & Analyzed: 05/03/24*						
Total Organic Carbon	<1.00	1.00	mg/L							
Blank (B4E0158-BLK2)				*Prepared & Analyzed: 05/03/24*						
Total Organic Carbon	<1.00	1.00	mg/L							
Blank (B4E0158-BLK3)				*Prepared & Analyzed: 05/03/24*						
Total Organic Carbon	<1.00	1.00	mg/L							
Blank (B4E0158-BLK4)				*Prepared & Analyzed: 05/03/24*						
Total Organic Carbon	<1.00	1.00	mg/L							

Inorganic Chemistry - Quality Control

Legend Technical Services of Arizona, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4E0158 - NO PREP										
LCS (B4E0158-BS1)				*Prepared & Analyzed: 05/03/24*						
Total Organic Carbon	9.49	1.00	mg/L	10.0		95	80-120			
LCS Dup (B4E0158-BSD1)				*Prepared & Analyzed: 05/03/24*						
Total Organic Carbon	9.50	1.00	mg/L	10.0		95	80-120	0.1	20	
Matrix Spike (B4E0158-MS1)		**Source: 24E0081-04**		*Prepared & Analyzed: 05/03/24*						
Total Organic Carbon	16.8	1.00	mg/L	10.0	8.06	87	80-120			
Matrix Spike Dup (B4E0158-MSD1)		**Source: 24E0081-04**		*Prepared & Analyzed: 05/03/24*						
Total Organic Carbon	16.9	1.00	mg/L	10.0	8.06	88	80-120	0.6	20	

Notes and Definitions

BLK	Method Blank
LCS/Dup	Laboratory Control Sample/Laboratory Fortified Blank/Duplicate
MS/Dup	Matrix Spike/Duplicate
Dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

24D3547

PM: Mariana Nicolaides

/ Record

eurofins | Environment Testing

Lab PM: Eshelman, Linda	Carrier Tracking No(s):	COC No: 550-39411.1
E-Mail: inda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 1 of 1
Accreditations Required (See note): State - Arizona; State Program - Arizona		Job #: 550-217471-1

Client Information (Sub Contract Lab)

Client Contact: Shipping/Receiving
Company: Legend Technical Services of Arizona Inc
Address: 17631 N. 25th Ave., ,
City: Phoenix
State, Zip: AZ, 85023
Phone:
Email:
Project Name: APS - Cholla CCR & Power Plant (BAM)(FAP
Site: Arizona Public Service

Due Date Requested: 5/7/2024
TAT Requested (days):
PO #:
WO #:
Project #: 55009651
SSOW#:

Analysis Requested

Preservation Codes: -

Other: grab Per Linda MW 5/7/24 GW Per Linda MW 5/7/24

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Total Organic Carbon)/ Total Organic Carbon	SUB (DOC (Field Filtered))/ DOC (Field Filtered)	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
CH-VRP-3-2024 (550-217471-3)	4/23/24	13:55 Arizona	G	Water			X	X	2	01
CH-VRP-4-2024 (550-217471-4)	4/23/24	12:30 Arizona		Water			X	X	2	02
CH-VRP-9-2024 (550-217471-8)	4/23/24	18:00 Arizona		Water			X	X	2	03
CH-VRP-9-2024 (550-217471-8MS)	4/23/24	18:00 Arizona	MS	Water			X	X	2	04
CH-VRP-9-2024 (550-217471-8MSD)	4/23/24	18:00 Arizona	MSD	Water			X	X	2	05
CH-DR-2-2024 (550-217471-17)	4/23/24	15:25 Arizona		Water			X	X	2	06
CH-UST-2-2024 (550-217471-18)	4/23/24	16:30 Arizona		Water			X	X	2	07
CH-MW02-2024 (550-217471-19)	4/23/24	10:30 Arizona		Water			X	X	2	08
CH-FD02-VR3-3-2024 (550-217471-21)	4/23/24	13:55 Arizona		Water			X	X	2	09

CORRECTION MADE BY CLIENT OR COURIER PRIOR TO SAMPLE RECEIPT AT LEGEND ADR 04/26/24

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Ernie 04-25-24 14:30	Date/Time:	Company EESW	Received by: Fedex	Date/Time: 04/25/24 1430	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 04/26/24 0915	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 0.6°C

Eurofins TestAmerica, Phoenix
4625 East Cotton Center Boulevard
Suite 189
Phoenix, AZ 85040-4807
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

eurofins Environment Testing TestAmerica

217471

Regulatory Program: DW NPDES RCRA Other: Voluntary

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

5/13/2024

Client Contact	**Project Manager: Rick Edwards**	**Site Contact: Rick Edwards**	**Date:** 4-23-24
Company Name Arizona Public Service	Email: Rick.Edwards@jacobs.com	**Lab Contact: Linda Eshelman**	**Carrier:** Jacobs
Company Address	Tel/Fax: (480) 570-7162		COC No: 1 of 3 COCs
City, State Zip	**Analysis Turnaround Time**		TALS Project #:
Phone (602) 638-6888 Lori Zito	CALENDAR DAYS / WORKING DAYS		Sampler: Tom Kearsley
	TAT if different from Below		**For Lab Use Only:**
	X 2 weeks		Walk-in Client:
	1 week		Lab Sampling:
	2 days		
Site: Cholla Power Plant	1 day		Job / SDG No.:
P O # 700736973			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCS (8260)	Iron and Manganese (6010B)	SO4, NO3, Cl (300.0)	Total Org. and Diss. Carbon (9060A)	Alkalinity (SM2320B)	CO2 (RSK-175)	Sample Specific Notes:
CH-VRP-1-0424 -01	4-22-24	1345	G	W	3	N	N	X						
CH-VRP-2-0424 -02	4-22-24	11:20	G	W	3	N	N	X						
CH-VRP-3-0424 -03	4-23-24	1355	G	W	9	Y	N	X	X	X	X	X	X	
CH-VRP-4-0424 -04	4-23-24	1230	G	W	9	Y	N	X	X	X	X	X	X	
CH-VRP-5-0424 -05	4-22-24	10:30	G	W	3	N	N	X						
CH-VRP-7-0424 -06	4-22-24	1255	G	W	3	N	N	X						One bottle not Full
CH-VRP-8-0424 -07	4-22-24	1230	G	W	3	N	N	X						
CH-VRP-9-0424 -08	4-23-24	1800	G	W	27	Y	Y	X	X	X	X	X	X	
CH-VRP-10-0424 -09	4-22-24	1555	G	W	3	N	N	X						
CH-VRP-11-0424 -10	4-22-24	1410	G	W	3	N	N	X						
CH-VRP-12-0424 -11	4-22-24	1140	G	W	3	N	N	X						
CH-VRP-13-0424 -12	4-22-24	1620	G	W	3	N	N	X						
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other								2	4	1	3	1	1	

550-217471 Chain of Custody

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

X Non-Hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return to Client X Disposal by Lab Archive for ____ Months

Special Instructions/QC Requirements & Comments: Please send results to Judy Heywood and Rick Edwards

2.4°C / 4.1°C/ICE/FE

Custody Seals Intact: Yes No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:	Corr'd:	Therm ID No.:
Relinquished by: Jamie Shaffer	Company: Jacobs	Date/Time: 4-24-24/1300	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: EETA PHX	Date/Time: 4/25/24 0915

Eurofins TestAmerica, Phoenix
4625 East Cotton Center Boulevard
Suite 189
Phoenix, AZ 85040-4807
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

eurofins Environment Testing TestAmerica

217471

Regulatory Program: DW NPDES RCRA Other: Voluntary

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

5/13/2024

Client Contact	**Project Manager: Rick Edwards**	**Site Contact: Rick Edwards**	**Date: 4-23-24**
Company Name Arizona Public Service	**Email: Rick.Edwards@jacobs.com**	**Lab Contact: Linda Eshelman**	**Carrier: Jacobs**
Company Address	**Tel/Fax: (480) 570-7162**		
City, State Zip	**Analysis Turnaround Time**		
Phone (602) 638-6888 Lori Zito	CALENDAR DAYS / WORKING DAYS		
	TAT if different from Below ____		
	X 2 weeks		
	1 week		
	2 days		
Site: Cholla Power Plant	1 day		
P O # 700736973			

COC No: ___2___ of ___3___ COCs

TALS Project #:

Sampler: Rick Edwards

For Lab Use Only:
Walk-in Client:
Lab Sampling:

Job / SDG No.:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	VOCS (8260)	Iron and Manganese (6010B)	SO4, NO3, Cl (300.0)	Total Org. and Diss. Carbon (9060A)	Alkalinity (SM2320B)	CO2 (RSK-175)	Sample Specific Notes:
CH-VRP-14-0424 -13	4-22-24	1220	G	W	3	N	N	X						
CH-VRP-15-0424 -14	4-22-24	1155	G	W	3	N	N	X						
CH-VRP-16-0424 -15	4-22-24	1440	G	W	3	N	N	X						
CH-VRP-17-0424 -16	4-22-24	1100	G	W	3	N	N	X						
CH-DR-2-0424 -17	4-23-24	1525	G	W	9	Y	N	X	X	X	X	X	X	
CH-UST-2-0424 -18	4-23-24	1630	G	W	9	Y	N	X	X	X	X	X	X	
CH-MW02-0424 -19	4-23-24	1030	G	W	9	Y	N	X	X	X	X	X	X	
CH-FD01-VRP-7-0424 -20	4-22-24	1255	G	W	3	N	N	X						
CH-FD02-VR3-3-0424 -21	4-23-24	1355	G	W	9	Y	N	X	X	X	X	X	X	
CH-TB01- -22	4-23-24	1900	G	W	1	N	N	X						
~~CH-RB01-0424 22~~	4-23-24	1830	G	W	9	Y	N	X	X	X	X	X	X	
CH-M62-A-0424 -23	4-22-24	1330	G	W	3	N	N	X						
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____								2	4	1	3	1	1	

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

X Non-Hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return to Client X Disposal by Lab Archive for ____ Months

Special Instructions/QC Requirements & Comments: Please send results to Judy Heywood and Rick Edwards

2.4°C/4-1°C/ICE/FE

Custody Seals Intact: Yes No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:____ Corr'd:____ Therm ID No.:____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Jamie Shaffer	Jacobs	4-24-24/1300			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: EETA PHX	Date/Time: 4/25/24 0915

Eurofins TestAmerica, Phoenix
4625 East Cotton Center Boulevard
Suite 189
Phoenix, AZ 85040-4807
phone 602.437.3340 fax 602.454.9303

217471

Chain of Custody Record

eurofins Environment Testing TestAmerica

5/13/2024

Regulatory Program: DW NPDES RCRA Other: Voluntary

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	**Project Manager: Rick Edwards**		COC No:
Company Name Arizona Public Service	Email: Rick.Edwards@jacobs.com	Site Contact: Rick Edwards	Date: 4-23-24	___3___ of ___3___ COCs
Company Address	Tel/Fax: (480) 570-7162	Lab Contact: Linda Eshelman	Carrier: Jacobs	TALS Project #:
City, State Zip	**Analysis Turnaround Time**			Sampler: Rick Edwards
Phone (602) 638-6888 Lori Zito	CALENDAR DAYS WORKING DAYS			**For Lab Use Only:**
	TAT if different from Below ____			Walk-in Client:
	X 2 weeks			Lab Sampling:
	1 week			
Site: Cholla Power Plant	2 days			Job / SDG No.:
P O # 700736973	1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCS (8260)	Iron and Manganese (6010B)	SO4, NO3, Cl (300.0)	Total Org. and Diss. Carbon (9060A)	Alkalinity (SM2320B)	CO2 (RSK-175)	Sample Specific Notes:
CH-TB01--24	4-23-24	1900	G	W	1	N	N	X						
CH-TB01--25	4-23-24	1900	G	W	1	N	N	X						
Waste-0424 -26	4-23-24	1900	G	W	3	N	N	X						
CH-RB01-0424 -27	4-23-24	1830	G	W	3	N	N	X						
								2	4	1	3	1	1	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

X Non-Hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return to Client X Disposal by Lab Archive for ____ Months

Special Instructions/QC Requirements & Comments: Please send results to Judy Heywood and Rick Edwards

2.4°C/4.1°C/ICE/FE

Custody Seals Intact: Yes No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:____ Corr'd:____		Therm ID No.:____
Relinquished by: Jamie Shaffer	Company: Jacobs	Date/Time: 4-24-24/1300	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: EETA PHX	Date/Time: 4/25/24 0915

Eurofins Phoenix
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

Chain of Custody Record

eurofins | Environ

Loc: 550
217471

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Eshelman, Linda	Carrier Tracking No(s):	COC No: 550-39413.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: linda.eshelman@et.eurofinsus.com	State of Origin: Arizona	Page: Page 1 of 1
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): State - Arizona; State Program - Arizona		Job #: 550-217471-1
Address: 2841 Dow Avenue, Suite 100,	Due Date Requested: 5/8/2024	Analysis Requested		Preservation Codes: -
City: Tustin	TAT Requested (days):			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #:			
Email:	WO #:			
Project Name: APS - Cholla CCR & Power Plant (BAM)(FAP	Project #: 55009651			
Site: Arizona Public Service	SSOW#:			Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	RSK_175_CO2/ RSK-175 CO2	Total Number of containers	Special Instr
			Preservation Code:						
CH-VRP-3-2024 (550-217471-3)	4/23/24	13:55 Arizona		Water			X	2	
CH-VRP-4-2024 (550-217471-4)	4/23/24	12:30 Arizona		Water			X	2	
CH-VRP-9-2024 (550-217471-8)	4/23/24	18:00 Arizona		Water			X	2	
CH-VRP-9-2024 (550-217471-8MS)	4/23/24	18:00 Arizona	MS	Water			X	2	
CH-VRP-9-2024 (550-217471-8MSD)	4/23/24	18:00 Arizona	MSD	Water			X	2	
CH-DR-2-2024 (550-217471-17)	4/23/24	15:25 Arizona		Water			X	2	
CH-UST-2-2024 (550-217471-18)	4/23/24	16:30 Arizona		Water			X	2	
CH-MW02-2024 (550-217471-19)	4/23/24	10:30 Arizona		Water			X	2	
CH-FD02-VR3-3-2024 (550-217471-21)	4/23/24	13:55 Arizona		Water			X	2	

550-217471 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by: Eurofins 04-25-24 15:15		EETSW	Received by: FedEx		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 4/26/24 0945	Company ET
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.7/1.8 SW4

Ver: 06/08/2021

5/13/2024

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-217471-1

Login Number: 217471
List Number: 1
Creator: Gravlin, Andrea

List Source: Eurofins Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-217471-1

Login Number: 217471
List Number: 2
Creator: Khana, Piyush

List Source: Eurofins Calscience
List Creation: 04/26/24 02:04 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	Seal present with no number.
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-217471-1

Login Number: 217471
List Number: 3
Creator: Le, Sunny

List Source: Eurofins Calscience
List Creation: 05/13/24 01:36 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Arizona Public Service
Cholla Power Plant
Groundwater Sampling April 2024
Data Quality Evaluation Report

Introduction

The objective of this data quality evaluation (DQE) report is to assess the data quality of analytical results for groundwater samples collected at the Cholla Power Plant in Joseph City, Arizona. The basis for this assessment includes individual method requirements and guidelines from the United States Environmental Protection Agency (USEPA) National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (USEPA, 2020).

This DQE report is intended as a general data quality assessment designed to summarize data issues.

Analytical Data

This DQE report covers 20 normal samples, 2 field duplicates (FD), one equipment blank (EB) and one trip blank (TB). Samples were collected April 22 and April 23, 2024. A list of samples and collection dates is included in Attachment A at the end of this DQE report.

The analyses were performed by Eurofins TestAmerica in Phoenix, Arizona. Samples were collected and delivered by courier to the laboratory. The sample results were reported as one sample delivery group (SDG): 550-217471-1.

Six methods were used to analyze the environmental samples. Samples were analyzed for one or more of the following analytes/methods presented in Table 1.

Table 1. Analytical Parameters

Method	Parameter
SW8260B	Volatile organic compounds
E200.7	Iron and manganese
E300.0	Nitrate, sulfate, and chloride
RSK-175	Carbon dioxide
SM2320B	Alkalinity
SM5310C	Total and dissolved carbon

The data validation included a review of the following items: (1) the chain-of-custody documentation; (2) holding-time compliance; (3) the required field and laboratory quality

control samples; (4) flagging for method blanks; (5) laboratory control sample/laboratory control sample duplicates (LCS/LCSD); (6) surrogate spike recoveries for organic methods; and, (7) matrix spike/matrix spike duplicates (MS/MSD).

Field samples were also reviewed to ascertain field compliance and data quality issues. This included a review of FDs, an EB and a TB.

Data flags are assigned using the NFG as guidance. Multiple flags are routinely applied to specific sample method/matrix/analyte combinations, but there will be only one final flag. A final flag is applied to the data and is the most conservative of the applied validation flags. The final flag also includes matrix and blank sample impacts.

The data flags are defined below:

- J = Analyte was present but reported value may not be accurate or precise.
- R = The result was rejected.
- U = Analyte was analyzed for but not detected at the specified detection limit.
- UJ = Analyte was not detected above the detection limit objective. However, the reported detection limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

Findings

The overall summaries of the data validation findings are contained in the following sections and summarized in Attachment B at the end of this DQE report.

Holding Times

All holding-time criteria were met with one exception.

Sample CH-MW02-2024 was analyzed outside of holding time for nitrate by Method E300.0. The associated result is possibly biased. The nondetected result was qualified as estimated and flagged "UJ."

Calibration

Initial and continuing calibration data were not supplied in the data package and were not part of the routine validation performed. The laboratory did not report any criteria exceedances in the case narrative that would affect the data.

Method Blanks

Method blanks were analyzed at the required frequency and were free of contamination that would affect the sample results.

Field Blanks

One TB and one EB were collected and analyzed and were free of contamination.

Field Duplicates

Two FD sets were collected. Precision was acceptable with the following exceptions:

The relative percent differences (RPD) of trichloroethene and cis-1,2-dichloroethene were greater than criteria in FD set CH-VRP-3-2024/ CH-FD02-VR3-3-2-2024 for Method SW8260B. The associated detected results in the FD set were qualified as estimated and flagged "J."

Surrogates

All surrogate recovery criteria were met.

Laboratory Control Samples

LCS/LCSDs were analyzed as required. All acceptance criteria were met.

Matrix Spikes

The results of MS/MSD analyses provide information about the possible influence of the matrix on either accuracy or precision of the measurements. There were no MS/MSD recovery or RPD exceedances that would affect the data.

Internal Standards

Internal standard information was not supplied in the data package and was not part of the routine validation performed. The laboratory did not report any criteria exceedances in the case narrative.

Chain of Custody

Each sample was documented in a completed chain-of-custody and received at the laboratory within temperature criteria.

Overall Assessment

The goal of this assessment is to demonstrate that a sufficient number of representative samples were collected and the resulting analytical data can be used to support the decision-making process. The following summary highlights the validation findings for the above-defined event:

1. No data were rejected and completeness was 100 percent for all method/analyte combinations.
2. No data were qualified due to associated blank contamination.
3. One sample was analyzed outside of holding time for nitrate by Method E300.0; one result was qualified as estimated.
4. FD RPD exceedances were observed for Method SW8260B; four results were qualified as estimated.
5. The precision and accuracy of the data, as measured by laboratory QC indicators, suggest that the data can be used for project decisions.

ATTACHMENT A

Samples Associated with Data Quality Evaluation

Sample ID	Sample Purpose	Sample Date
CH-FD01-VRP-7-2-2024	FD	4/22/2024
CH-FD02-VR3-3-2-2024	FD	4/23/2024
CH-DR-2-2024	REG	04/23/2024
CH-M62-A-0424	REG	04/22/2024
CH-MW02-2024	REG	04/23/2024
CH-UST-2-2024	REG	04/23/2024
CH-VRP-1-2024	REG	04/22/2024
CH-VRP-10-2024	REG	04/22/2024
CH-VRP-11-2024	REG	04/22/2024
CH-VRP-12-2024	REG	04/22/2024
CH-VRP-13-2024	REG	04/22/2024
CH-VRP-14-2024	REG	04/22/2024
CH-VRP-15-2024	REG	04/22/2024
CH-VRP-16-2024	REG	04/22/2024
CH-VRP-17-2024	REG	04/22/2024
CH-VRP-2-2024	REG	04/22/2024
CH-VRP-3-2024	REG	04/23/2024
CH-VRP-4-2024	REG	04/23/2024
CH-VRP-5-2024	REG	04/22/2024
CH-VRP-7-2024	REG	04/22/2024
CH-VRP-8-2024	REG	04/22/2024
CH-VRP-9-2024	REG	04/23/2024
CH-RB01-0424	EB	4/23/2024
CH-TB01-0424	TB	4/23/2024

Notes:
EB = equipment blank
FD = field duplicate
REG = regular sample
TB = trip blank

ATTACHMENT B

Validation Findings

NativeID	Method	Analyte	Final Result	Units	Validation Flag	Validation Reason
CH-FD02-VR3-3-2-2024	SW8260B	cis-1,2-Dichloroethene	40	µg/L	J	FD>RPD
CH-FD02-VR3-3-2-2024	SW8260B	Trichloroethylene	32	µg/L	J	FD>RPD
CH-MW02-2024	E300.0	Nitrate	0.050	mg/L	UJ	HTa>UCL
CH-VRP-3-2024	SW8260B	cis-1,2-Dichloroethene	26	µg/L	J	FD>RPD
CH-VRP-3-2024	SW8260B	Trichloroethylene	21	µg/L	J	FD>RPD

Notes:
µg/L = micrograms per liter
mg/L = milligrams per liter
FD>RPD = Field duplicate relative percent difference greater than the control limit
HTa>UCL = Sample analyzed outside of holding time