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March 31, 2023

Mr. David Christiana
Phoenix Active Management Area
Arizona Department of Water Resources
1110 West Washington Street, Suite 310
Phoenix, AZ 85007

Subject: **Annual Report for 2022 Poor Quality Groundwater Withdrawal Permit No. 59-533159**

Dear Mr. Christiana:

In accordance with requirements for the Poor Quality Groundwater Withdrawal Permit No. 59-533159, issued March 20, 2012, this report has been prepared for extraction wells E-1 (55-626618), E-2 (55-559021), and E-3 (55-232363).

This report is for the period from January 1, 2022, through December 31, 2022.

If you have any questions or concerns, please contact me at 602-327-3807.

Sincerely,

Jacobs Engineering Group Inc.

Baine Foehr
Project Manager

C: Jennifer Widlowski, Arizona Department of Environmental Quality
Tao Wu, Honeywell International Inc.

Deer Valley Computer Park

Annual Groundwater Withdrawal and Groundwater Quality Report for 2022

March 2023

Honeywell Deer Valley Computer Park
Groundwater Treatment Facility
13425 North 31st Avenue
Phoenix, Arizona

Arizona Department of Environmental Quality Voluntary Remediation Program
Site Code 502825-00

Honeywell International Inc.

REGISTERED GEOLOGIST
CERTIFICATE NO.
53073
ERIC A EDWARDS
Date Signed 03/30/2023
ARIZONA U.S.A.
EXPIRES: 12/31/2023

Executive Summary

The *Annual Groundwater Monitoring Report for 2022* has been prepared by Jacobs on behalf of Honeywell International Inc. (Honeywell) to evaluate the effectiveness and adequacy of the approved remedy in achieving remedial objectives with respect to volatile organic compounds (VOCs) in groundwater at the Deer Valley Computer Park, Phoenix, Arizona (site).

The approved remedy consists of groundwater extraction to prevent migration of groundwater impacted by VOCs at the site, treatment of extracted groundwater to drinking water standards, and reinjection of treated groundwater into the aquifer.

This annual groundwater monitoring evaluation found the following:

- Results for the 2022 water quality samples showed that 6 of the 23 groundwater monitoring wells sampled during 2022 had concentrations of trichloroethene (TCE) that exceeded the Arizona Aquifer Water Quality Standard (AAWQS).

- TCE was detected for the third time at HM-13MA (18 micrograms per liter), and concentrations were above the AAWQS. Groundwater samples are collected from HM-13MA within the Upper Alluvial Unit (UAU). Operation of extraction well E-3 began in 2022 to address impacted groundwater within the UAU. Monitoring will be performed at HM-13MA to evaluate the impact of extraction from E-3 on TCE concentrations.

- Increasing concentration trends were observed for contaminants of concern (COCs) in three of the wells evaluated when using the data available for the last 5 years. Two wells presented an increasing trend for cis-1,2-dichloroethene (DCE) (HM-07MA and HM-13MA). Two wells presented an increasing trend for TCE (HM-07MA and HM-13MA). One well presented an increasing trend for 1,1-DCE (HM-07MA). Only TCE is present at concentrations exceeding its AAWQS. Results of trend analysis for the last 5 years are summarized in Table ES-1.

Table ES-1. Summary of Mann-Kendall Trend Statistical Analysis—5 Years

Honeywell Deer Valley Site, Phoenix, Arizona

Well	1,1-DCE (µg/L)	Chloroform (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	t-1,2-DCE (µg/L)	TCE (µg/L)
HM-01MA	Stable	Stable	No Trend	Stable	Stable	Stable
	0.5–0.54	0.48–2	0.5–0.72	0.48–0.5	0.5–0.52	0.5–0.54
HM-02MA	No trend	Stable	No trend	Stable	No trend	No trend
	0.5–0.54	0.48–2	0.2–0.62	0.48–0.5	0.5–0.52	0.5–0.54
HM-03MA	Stable	No trend	No Trend	No trend	Stable	No trend
	0.5–0.54	0.2–2	0.6–3.9	0.4–2.1	0.5–0.52	0.5–4.3
HM-04MA	Stable	No trend	Stable	Stable	Stable	Stable
	0.5–0.54	0.3–2	1.7–3.1	0.5–2.1	0.5–0.52	2.2–**6**

Table ES-1. Summary of Mann-Kendall Trend Statistical Analysis—5 Years
Honeywell Deer Valley Site, Phoenix, Arizona

Well	1,1-DCE (µg/L)	Chloroform (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	t-1,2-DCE (µg/L)	TCE (µg/L)
HM-05MA	Stable	No trend	Stable	Stable	Stable	No trend
	0.5–0.54	0.3–2	2.2–3.2	0.48–0.5	0.5–0.52	0.2–0.54
HM-06MA	Stable	Stable	No Trend	Stable	Stable	No Trend
	0.4–0.9	0.5–2	2.4–21	0.48–1.3	0.5–0.52	**22–200**
HM-07MA	Increasing	Stable	Increasing	No trend	No trend	Increasing
	2.4–5.5	0.5–2	8.4–36	4.6–**7.5**	0.5–0.52	**43–160**
HM-08MA	Stable	Stable	Stable	Stable	Stable	No trend
	0.5–0.54	0.48–2	0.62–0.8	0.48–0.5	0.5–0.52	0.2–0.54
HM-09MA	Stable	Stable	Decreasing	Stable	Stable	No trend
	0.5–0.54	0.48–2	0.5–1.2	0.48–0.5	0.5–0.52	0.2–0.54
HM-10MA	Stable	No trend	No trend	No Trend	Stable	Stable
	0.5–0.54	0.3–2	2.1–3.6	0.1–0.5	0.5–0.52	**6.3–27**
HM-11MA	Stable	No trend	Stable	Stable	Stable	Stable
	0.5–0.54	0.2–2	1.3–2.2	0.48–0.5	0.5–0.52	0.5–0.77
HM-12MA	Stable	Stable	Stable	Stable	Stable	No trend
	0.5–0.54	0.48–2	0.5–0.68	0.48–0.5	0.5–0.52	0.2–0.54
HM-13MA	Stable	Stable	Increasing	No Trend	Stable	Increasing
	0.5–0.54	0.48–2	0.2–6.4	0.48–0.5	0.5–0.52	0.1–**18**
HM-14MA	Stable	Stable	No trend	Stable	No trend	No trend
	0.5–0.54	0.48–2	0.2–0.62	0.48–0.5	0.5–0.52	0.3–0.54
HM-15MA	Stable	Stable	No Trend	Stable	Stable	No Trend
	0.5–0.54	0.3–2	1.6–2.5	0.48–0.5	0.5–0.52	1.1–2.4
HM-16MA	Probably decreasing	Stable	No trend	Stable	Stable	Stable
	0.62–1.7	0.48–2	16–24	0.9–1.5	0.1–1.7	**150–170**
HM-17MA	No trend	Stable	No Trend	Stable	No trend	No trend
	0.2–0.54	0.48–2	0.6–1.1	0.48–0.5	0.5–0.52	4–**8.4**
HM-18LA	Stable	Stable	Stable	Stable	Stable	Stable
	0.5–0.54	0.5–2	0.5–0.62	0.48–0.5	0.5–0.52	0.5–0.54

Table ES-1. Summary of Mann-Kendall Trend Statistical Analysis—5 Years

Honeywell Deer Valley Site, Phoenix, Arizona

Well	1,1-DCE (µg/L)	Chloroform (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	t-1,2-DCE (µg/L)	TCE (µg/L)
HM-19MA	Stable	Stable	Stable	Stable	Stable	Stable
	0.5–0.54	0.48–2	0.5–0.62	0.48–0.5	0.5–0.52	0.5–0.54
HM-20MA	Stable	No trend	Stable	Stable	Decreasing	Probably decreasing
	0.67–1.2	0.48–5	16–25	1.2–2.6	0.5–1.7	**160–180**
HM-21LA	Stable	Stable	Stable	Stable	Stable	No trend
	0.5–0.54	0.5–2	0.5–0.62	0.48–0.5	0.5–0.52	0.1–0.54
HM-21MA	Stable	Stable	Stable	Stable	Stable	Stable
	0.5–0.54	0.48–2	0.5–0.62	0.48–0.5	0.5–0.52	0.5–0.54
HM-22LA	Stable	Stable	Stable	Stable	Stable	Stable
	0.5–0.54	0.48–2	0.5–0.62	0.48–0.5	0.5–0.52	0.5–0.54

Nondetect concentrations were used at their detection level for purposes of the evaluation.

The first row for each well describes the concentration trend and the second row for each well lists the range of concentrations in the data set.

Bold concentrations exceed the Arizona Aquifer Water Quality Standard.

- When data available over the previous 15 years were evaluated for the trend analysis, two wells presented an increasing trend for TCE (HM-11MA and HM-13MA). Seven wells presented an increasing trend for cis-1,2-DCE (HM-05MA, HM-08MA, HM-10MA, HM-11MA, HM-13MA, HM-15MA, and HM-17MA). One well presented an increasing trend for 1,1-DCE (HM-07MA). No increasing trends were observed for PCE, chloroform, or trans-1,2-DCE. Only TCE is present at concentrations exceeding the AAWQS. Results of trend analysis for the last 15 years are summarized in Table ES-2.

Table ES-2. Summary of Mann-Kendall Trend Statistical Analysis—15 Years

Honeywell Deer Valley Computer Park, Phoenix, Arizona

Well	1,1-DCE (µg/L)	Chloroform (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	t-1,2-DCE (µg/L)	TCE (µg/L)
HM-01MA	No trend	Stable	Decreasing	Stable	No trend	No trend
	0.5–0.54	0.2–2	0.1–11	0.48–0.5	0.5–0.52	0.5–0.54
HM-02MA	No trend	Stable	Probably decreasing	Stable	No trend	No trend
	0.5–0.54	0.1–2	0.2–1.3	0.48–0.5	0.5–0.52	0.5–0.54
HM-03MA	Probably decreasing	Stable	Decreasing	Decreasing	Stable	Decreasing

Table ES-2. Summary of Mann-Kendall Trend Statistical Analysis—15 Years

Honeywell Deer Valley Computer Park, Phoenix, Arizona

Well	1,1-DCE (µg/L)	Chloroform (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	t-1,2-DCE (µg/L)	TCE (µg/L)
	0.1–1	0.2–2	0.6–10	0.4–21	0.5–1.5	0.5–**83**
HM-04MA	No Trend	Stable	Stable	Probably decreasing	No trend	Decreasing
	0.2–0.54	0.2–2	1.7–4	0.5–3	0.5–0.52	2.2–**20**
HM-05MA	No trend	Stable	Increasing	Stable	No trend	Stable
	0.5–0.54	0.2–2	0.5–3.3	0.48–0.5	0.5–0.52	0.2–0.54
HM-06MA	No trend	Probably increasing	Decreasing	No trend	Probably decreasing	Probably decreasing
	0.2–5	0.2–5	2.4–93	0.48–5.1	0.5–5	20–**200**
HM-07MA	Increasing	No Trend	Decreasing	Decreasing	Decreasing	Decreasing
	0.5–5.5	0.5–2	8.4–110	3.6–19	0.5–3.2	43–**250**
HM-08MA	No Trend	Stable	Increasing	Stable	No trend	Stable
	0.5–0.54	0.48–2	0.5–0.8	0.48–0.5	0.5–0.52	0.2–0.54
HM-09MA	No trend	Stable	Stable	Stable	No trend	Decreasing
	0.5–0.54	0.2–2	0.5–2.5	0.48–0.5	0.5–0.52	0.2–0.83
HM-10MA	No trend	Stable	Increasing	Stable	No trend	No trend
	0.5–0.54	0.2–2	0.55–3.6	0.1–0.5	0.5–0.52	1.4–**27**
HM-11MA	No trend	Stable	Increasing	Stable	No trend	Increasing
	0.5–0.54	0.2–2	0.5–2.2	0.48–0.5	0.5–0.52	0.5–0.77
HM-12MA	No trend	Stable	No trend	Stable	No trend	No trend
	0.5–0.54	0.48–2	0.3–0.68	0.48–0.5	0.5–0.52	0.2–0.54
HM-13MA	No trend	Stable	Increasing	Stable	No trend	Increasing
	0.5–0.54	0.1–2	0.2–6.4	0.48–0.5	0.5–0.52	0.1–**18**
HM-14MA	No trend	Stable	No trend	Stable	No trend	Stable
	0.5–0.54	0.48–2	0.2–0.62	0.48–0.5	0.5–0.52	0.1–0.54
HM-15MA	No trend	Stable	Increasing	Stable	No trend	Decreasing
	0.5–0.54	0.2–2	0.5–2.5	0.48–0.5	0.5–0.52	1.1–**15**
HM-16MA	Stable	Stable	Decreasing	Decreasing	Stable	Decreasing
	0.6–2.5	0.4–2.5	16–32	0.9–2.5	0.1–2.5	**150–300**

Table ES-2. Summary of Mann-Kendall Trend Statistical Analysis—15 Years

Honeywell Deer Valley Computer Park, Phoenix, Arizona

Well	1,1-DCE (µg/L)	Chloroform (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	t-1,2-DCE (µg/L)	TCE (µg/L)
HM-17MA	No trend	Stable	Increasing	Stable	No trend	Stable
	0.2–0.54	0.48–2	0.5–1.1	0.48–0.5	0.5–0.52	3.9–**13**
HM-18LA	No trend	No trend	No trend	Stable	No trend	No trend
	0.5–0.54	0.5–2	0.5–0.62	0.48–0.5	0.5–0.52	0.5–0.54
HM-19MA	No trend	Stable	No trend	Stable	No trend	No trend
	0.5–0.54	0.48–2	0.5–0.62	0.48–0.5	0.5–0.52	0.5–0.54
HM-20MA	Stable	No trend	Decreasing	Decreasing	Stable	Decreasing
	0.5–2.5	0.4–5	16–41	1.2–2.6	0.5–2.8	**140–290**
HM-21LA	No trend	Probably increasing	No trend	Stable	No trend	Decreasing
	0.5–0.54	0.5–2	0.5–0.62	0.48–0.5	0.5–0.52	0.1–1.4
HM-21MA	No trend	Stable	No trend	Stable	No trend	Decreasing
	0.5–0.54	0.48–2	0.5–0.62	0.48–0.5	0.5–0.52	0.1–1
HM-22LA	No trend	Stable	No trend	Stable	No trend	No trend
	0.5–0.54	0.48–2	0.5–0.62	0.48–0.5	0.5–0.52	0.5–0.54

Nondetect concentrations were used at their detection level for purposes of the evaluation.

The first row for each well describes the concentration trend and the second row for each well lists the range of concentrations in the data set.

Bold concentrations exceed the Arizona Aquifer Water Quality Standard.

Table ES-3 includes site metrics and associated contingency actions and indicates whether the metrics were met. Contingency actions taken for any metrics that were not met are described in Section 6.

Table ES-3. Metrics and Contingency Actions

Honeywell Deer Valley Computer Park, Phoenix, Arizona

Metric	Was the Metric Met?	Contingency Actions
Extraction remains at or above established flow rates. Flow rates for the following extraction wells will be determined after system	NE	If the metric is not met, the associated contingency actions include: • Notify ADEQ within 30 days if the flow rate is reduced by more than 5 percent over 30 days. - Updates to the metric were discussed with ADEQ on August 15, 2022. An updated metric was proposed to ADEQ on August 31,

Table ES-3. Metrics and Contingency Actions

Honeywell Deer Valley Computer Park, Phoenix, Arizona

Metric	Was the Metric Met?	Contingency Actions
startup and stabilized operating conditions are achieved: LAU extraction well E-1 UAU extraction well E-3		2022, as described in Section 6. The proposed metric is provided in Appendix G for review by ADEQ. • Updates to the metric were discussed with ADEQ on August 15, 2022. An updated metric was proposed to ADEQ on August 31, 2022, as described in Section 6. The proposed metric is provided in Appendix G for review by ADEQ Notify ADEQ within 7 days of identifying a shutdown of pump operations greater than 72 hours. - Updates to the metric were discussed with ADEQ on August 15, 2022. An updated metric was proposed to ADEQ on August 31, 2022, as described in Section 6. The proposed metric is provided in Appendix G for review by ADEQ. • Take steps to resume extraction flow rates. - Update to the metric discussed with ADEQ on August 15, 2022. An updated metric was proposed to ADEQ on August 31, 2022, as described in Section 6. The proposed metric is provided in Appendix G for review by ADEQ. • Evaluate capture at achieved flow rates if target flow rates are not resumed. - Update to the metric discussed with ADEQ on August 15, 2022. An updated metric was proposed to ADEQ on August 31, 2022, as described in Section 6. The proposed metric is provided in Appendix G for review by ADEQ. • Evaluate potential mitigation actions to resume the target flow rate, including pump replacement, well rehabilitation, or other appropriate actions. - Update to the metric discussed with ADEQ on August 15, 2022. An updated metric was proposed to ADEQ on August 31, 2022, as described in Section 6. The proposed metric is provided in Appendix G for review by ADEQ.
Extraction well mass removal does not indicate a reducing trend. Mass removal trends for the following extraction wells will be determined after system startup and stabilized operating conditions are achieved: LAU extraction well E-1 UAU extraction well E-3	NE	If the metric is not met, the associated contingency actions include: • Notify ADEQ within 30 days. - Update to the metric discussed with ADEQ on August 15, 2022. An updated metric was proposed to ADEQ on August 31, 2022, as described in Section 6. The proposed metric is provided in Appendix G for review by ADEQ. • Evaluate factors contributing to changes in mass removal and explain overall impacts on remediation. - Update to the metric discussed with ADEQ on August 15, 2022. An updated metric was proposed to ADEQ on August 31, 2022, as described in Section 6. The proposed metric is provided in Appendix G for review by ADEQ.

Table ES-3. Metrics and Contingency Actions

Honeywell Deer Valley Computer Park, Phoenix, Arizona

Metric	Was the Metric Met?	Contingency Actions
		• Evaluate actions to be taken to change mass removal rates, as needed. - Update to the metric discussed with ADEQ on August 15, 2022. An updated metric was proposed to ADEQ on August 31, 2022, as described in Section 6. The proposed metric is provided in Appendix G for review by ADEQ. • Evaluate mass removal metric and update to reflect current conditions, as needed. - Update to the metric discussed with ADEQ on August 15, 2022. An updated metric was proposed to ADEQ on August 31, 2022, as described in Section 6. The proposed metric is provided in Appendix G for review by ADEQ.
TCE concentrations at sentinel monitoring wells do not show an increasing trend, including detectable concentrations exceeding 50% of the AAWQS. Sentinel monitoring wells include the following: HM-12MA, HM-13MA, HM-14MA, HM-21MA, HM-18LA, and HM-21LA	No	If the metric is not met, the associated contingency actions include: • Notify ADEQ after trend is confirmed by Mann-Kendall analysis within 30 days of receiving data. - Notified ADEQ within 30 days following trend confirmed by Mann-Kendall analysis. • Confirm trend by one or more subsequent sampling events. - Confirmed by subsequent sampling event that concentration is contributing to increasing trend. • Evaluate increased sampling frequency. - Increase frequency of sampling at HM-13MA from annual to semiannual. Conduct semiannual groundwater sampling at HM-13MA in May 2023. • Evaluate potential mitigation actions if trends continue, including modifications to extraction flow rates at E-1 and E-3, in situ remediation, or other appropriate options. - The groundwater model indicates that the current flow rate at extraction well E-3 results in containment of the upgradient UAU plume near HM-07MA. TCE between HM-07MA and HM-13MA is expected to attenuate during travel between these wells. TCE concentrations at HM-13MA are predicted to below the AAWQS by 2039. Maximum TCE migration is projected to be approximately 0.25 mile downgradient of HM-13MA over 29 years before retreating upgradient. The closest downgradient well is at least 1.25 miles north of HM-13MA.
TCE concentrations at sentinel monitoring wells are below AAWQS. Sentinel monitoring wells include the following:	No	If the metric is not met, the associated contingency actions include: • Notify ADEQ within 15 days of receiving laboratory data. After notifying ADEQ, collect samples within 30 days to confirm concentrations.

Table ES-3. Metrics and Contingency Actions

Honeywell Deer Valley Computer Park, Phoenix, Arizona

Metric	Was the Metric Met?	Contingency Actions
HM-12MA, HM-13MA, HM-14MA, HM-21MA, HM-18LA, and HM-21LA		- Notified ADEQ within 15 days following receipt of laboratory data. A confirmation sample was collected within 30 days of notifying ADEQ of the initial concentration. • Evaluate increased sampling frequency. - Increase frequency of sampling at HM-13MA from annual to semiannual. Conduct semiannual groundwater sampling at HM-13MA in May 2023 • Evaluate factors contributing to concentrations that exceed AAWQS and downgradient impacts of concentrations that exceed AAWQS, and explain overall impacts on site remediation. - The groundwater model indicates that the current flow rate at extraction well E-3 results in containment of the upgradient UAU plume near HM-07MA. TCE between HM-07MA and HM-13MA is expected to attenuate during travel between these wells. TCE concentrations at HM-13MA are predicted to be below the AAWQS by 2039. Maximum TCE migration is projected to be approximately 0.7 mile downgradient of HM-13MA over 29 years before retreating upgradient. The closest downgradient well is at least 1.25 miles north of HM-13MA. • Re-evaluate the groundwater remedial action and present appropriate mitigation actions or modifications. - No modifications to the remedial actions or mitigation actions are recommended.
TCE concentrations at trigger monitoring wells are below AAWQS. Trigger monitoring wells include the following: HM-01MA, HM-02MA, HM-05MA, HM-08MA, HM-09MA, and HM-11MA	Yes	If the metric is not met, the associated contingency actions include: • Notify ADEQ within 15 days of receiving laboratory data. After notifying ADEQ, collect samples to confirm concentrations within 30 days. - Metric met. No action required. • Evaluate increased sampling frequency. - Metric met. No action required. • Evaluate factors contributing to concentrations that exceed AAWQS and downgradient impacts of concentrations that exceed AAWQS, and explain overall impacts on site remediation. - Metric met. No action required. • Re-evaluate the groundwater remedial action and present appropriate mitigation actions or modifications. - Metric met. No action required.
TCE or other COCs are below their corresponding AAWQSs in treatment plant effluent.	No	If the metric is not met, the associated contingency actions include: • Resample to confirm concentrations above AAWQS and shut down treatment plant operations, if needed.

Table ES-3. Metrics and Contingency Actions

Honeywell Deer Valley Computer Park, Phoenix, Arizona

Metric	Was the Metric Met?	Contingency Actions
		- Resampling the effluent to confirm the exceedance is not necessary due to the extensive history of nitrate concentration data at the site. • Notify ADEQ within 30 days. - ADEQ was notified within 30 days of receiving laboratory results for each nitrate metric exceedance that occurred. • Evaluate factors contributing to concentrations exceeding AAWQS in treatment plant effluent. - Nitrate in groundwater is believed to be a result of historical agricultural practices in the area and is not related to historical site operations. The treatment system does not remove nitrate from extracted groundwater. Elimination of nitrate as a COC for the purposes of metrics evaluation was proposed by Honeywell and has been approved by ADEQ in March 2023, as described in Section 6. • Evaluate whether the frequency of groundwater monitoring should be increased. - The frequency of monitoring does not need to be increased because of the extensive historical record. • Re-evaluate the groundwater remedial action and present appropriate mitigation actions or modifications, as needed. - Nitrate in groundwater is believed to be a result of historical agricultural practices in the area and is not related to historical site operations. The treatment system does not remove nitrate from extracted groundwater. Elimination of nitrate as a COC for the purposes of metrics evaluation was proposed by Honeywell and has been approved by ADEQ, as described in Section 6.

ADEQ = Arizona Department of Environmental Quality

COC = contaminant of concern

LAU = Lower Alluvial Unit

NE = Not established. Finalization of metric pending comment by ADEQ.

TCE = trichloroethene

UAU = Upper Alluvial Unit

The following recommendations are based on the 2022 annual groundwater monitoring results:

- Continue operation of extraction wells E-1 and E-3.
- Finalize flow and mass removal metrics for extraction wells E-1 and E-3.
- Monitor impacts of extraction well E-3 operation on TCE concentrations at HM-13MA.

- Increase the frequency of sampling at HM-13MA from annual to semiannual. Conduct semiannual groundwater sampling at HM-13MA in May 2023.
- Conduct the next full round of groundwater gauging and sampling at the site in November 2023.
- Evaluate 2023 site conditions against approved metrics for the site and apply the appropriate contingency actions, if needed. This includes contingency actions related to the TCE concentration in sentinel well HM-13MA exceeding the AAWQS.
- Stop sampling treatment plant influent and effluent for nitrate because it is not a COC for the site.
- Submit 2023 Annual Groundwater Monitoring Report by March 31, 2024.
- Submit 2021-2023 Periodic Site Review Report by March 31, 2024.

Contents

Executive Summary ..... **iii**

Acronyms and Abbreviations ..... **xv**

1. Introduction **1-1**

2. Background **2-1**

3. Summary of Treatment Plant Operations **3-1**

3.1 Extraction Well Operations and Maintenance 3-1

3.1.1 Extraction and Injection Volumes 3-1

3.1.2 Influent and Effluent Samples 3-1

4. Groundwater Elevations **4-1**

5. Groundwater Quality **5-1**

5.1 Analytical Results 5-1

5.2 Mann-Kendall Analysis 5-2

5.2.1 Mann-Kendall Analysis—5 Years 5-2

5.2.2 Mann-Kendall Analysis—15 Years 5-2

5.3 Data Evaluation 5-3

6. Metrics and Contingency Actions **6-1**

6.1 Extraction Well Flow Rate 6-1

6.2 Extraction Well Mass Removal 6-1

6.3 Sentinel Monitoring Wells 6-1

6.4 Trigger Monitoring Wells 6-3

6.5 Treatment Plan Effluent 6-3

7. Land and Water Use **7-1**

8. Recommendations **8-1**

9. References **9-1**

Appendixes

A Influent and Effluent Analytical Reports
B Historical Influent and Effluent Sample Results
C Monitor Well Analytical Reports
D Historical Groundwater Monitoring Results
E Trend Analysis—5 Years
F Trend Analysis—15 Years
G Proposed Updates to Extraction Well Metrics
H Proposal to Eliminate Nitrate from Remediation Metrics
I ADEQ Review of Proposal to Eliminate Nitrate from Remediation Metrics

Tables

ES-1 Summary of Mann-Kendall Trend Statistical Analysis—5 years
ES-2 Summary of Mann-Kendall Trend Statistical Analysis—15 Years
ES-3 Metrics and Contingency Actions
1 Summary of Groundwater Extraction: 2022
2 Summary of Groundwater Injection: 2022
3 Summary of Plant Influent Water Quality: 2022
4 Summary of Plant Effluent Water Quality: 2022
5 Summary of Monitor Well Water Elevations: 2022
6 Summary of Monitor Well Water Analytical Results: 2022
7 Metrics and Contingency Actions

Figures

1 October 2022 UAU/UMAU Groundwater Elevations
2 October 2022 MMAU, LMAU, and LAU Groundwater Elevations
3 October 2022 UAU/UMAU TCE Concentrations
4 October 2022 MMAU, LMAU, and LAU TCE Concentrations
5 Measured and Modeled TCE Concentrations at Well HM-13MA

Acronyms and Abbreviations

µg/L	microgram(s) per liter
AAWQS	Arizona Aquifer Water Quality Standard
ADEQ	Arizona Department of Environmental Quality
bgs	below ground surface
COC	contaminant of concern
COP	City of Phoenix
DCE	dichloroethene
EPA	U.S. Environmental Protection Agency
gpm	gallon(s) per minute
Honeywell	Honeywell International Inc.
LAU	Lower Alluvial Unit
LMAU	lower portion of the Middle Alluvial Unit
MAU	Middle Alluvial Unit
MMAU	middle portion of the Middle Alluvial Unit
Model Report	*Development and Application of the Deer Valley Groundwater Flow and Solute Transport Model*
No.	number
PCE	tetrachloroethene
QC	quality control
site	Deer Valley Computer Park, Phoenix, Arizona
TCE	trichloroethene
UAU	Upper Alluvial Unit
UMAU	upper portion of the Middle Alluvial Unit
VOC	volatile organic compound

1. Introduction

This report summarizes operations for the Honeywell International Inc. (Honeywell) Deer Valley Computer Park groundwater treatment facility located at 13425 North 31st Avenue, Phoenix, Arizona (site), for the period January through December 2022. This report is intended to satisfy Arizona Department of Environmental Quality (ADEQ) reporting requirements, as well as reporting requirements for the Arizona Department of Water Resources Poor Quality Groundwater Withdrawal Permit Number (No.) 59-533159.

2. Background

Honeywell is treating groundwater in an aquifer beneath the Deer Valley Computer Park. The site is located in a relatively flat landscape setting that is underlain by a thick sequence of basin fill deposits. The deposits are classified into three hydrogeologic units based on lithology and stratigraphic position. The hydrogeologic units are named, in descending order, the Upper Alluvial Unit (UAU), the Middle Alluvial Unit (MAU), and the Lower Alluvial Unit (LAU). The UAU is generally unsaturated across much of the site and is dominated by sand and gravel. The MAU is saturated in the vicinity of the treatment facility and is dominated by silt and clay. Volatile organic compounds (VOCs) are present in the MAU in the vicinity of the site. The LAU is saturated and is dominated by sand and gravel.

Trichloroethene (TCE) was discovered in groundwater beneath the site in the mid-1980s, when Honeywell Information Systems owned the site. Since that time, Honeywell has investigated the groundwater, developed the Remedial Action Plan (RUST Environment and Infrastructure 1993), and eliminated sources of TCE at the site. The Remedial Action Plan identifies the following remedial actions:

- Extract groundwater from the affected aquifer to:
  - Prevent uncontrolled migration of contaminated groundwater
  - Remove TCE and TCE-related organic compounds from the groundwater
- Treat extracted groundwater to meet drinking water standards
- Inject the treated water back into the aquifer
- Use test wells to monitor, evaluate, and, if needed, modify the treatment program

The Deer Valley groundwater extraction and treatment system (system) is designed to allow extraction of contaminated groundwater from up to three extraction wells, E-1, E-2, and E-3, and route the extracted groundwater via a pipeline to the treatment plant at 13425 North 31st Avenue. Upon reaching the treatment plant, the water is initially filtered through a de-sander, followed by a set of bag pre-filters. The water is then treated by granular activated carbon to remove VOCs. Operation of extraction well E-2 ceased in 2016, and groundwater extraction continues to be performed at extraction wells E-1 and E-3.

Treated water is pumped through a second set of bag filters to a network of injection wells. Injection wells I-1 and I-2 deliver water to the MAU aquifer and have been used since the treatment plant began operation in 1997. Injection wells I-1A and I-2A are in the vicinity of I-1 and I-2 and deliver water to the UAU and upper portion of the MAU (UMAU). Injection wells I-1A and I-2A have been used since the first quarter of 2003. The estimated total capacity for injection is currently in excess of 1,100 gallons per minute (gpm), while the current system operation typically extracts, treats, and injects less than 500 gpm.

To evaluate optimization of the remedy, Honeywell completed aquifer testing, groundwater sampling, and groundwater modeling activities in 2017 and 2018. The results of these activities and recommended optimized remediation strategies were described in the *Development and Application of the Deer Valley Groundwater Flow and Solute Transport Model* (Model Report), submitted to ADEQ on March 25, 2019 (Jacobs 2019). ADEQ reviewed the Model Report and provided a response in a letter to Honeywell dated June 11, 2019, in which ADEQ agreed to the optimized remediation strategies proposed by Honeywell in the Model Report, including installation of a new extraction well screened in the UAU and modification to extraction well E-1 to focus extraction from the LAU (Pace, pers. comm. 2019).

Operation of modified extraction E-1 and new UAU extraction well E-3 began in January 2022. Well E-1 achieved full-time operation in January 2022. Extraction well E-3 operated intermittently January through March 2022 but achieved full-time operation in April 2022.

3. Summary of Treatment Plant Operations

3.1 Extraction Well Operations and Maintenance

Replacement of site electrical supply and controls and installation of mechanical connections for extraction wells E-1 and E-3 to the existing system piping were performed between August and November 2021. Startup of the system and commissioning of extraction wells E-1 and E-3 began on December 7, 2021, following installation of new service conduit by Arizona Power Service on December 6, 2021.

Commissioning activities confirming proper operation of electrical supply, mechanical connection, and pump operation for extraction wells E-1 and E-3 were completed December 13, 2021. However, consistent control of well operations remotely from the treatment plant could not be established. Operation of extraction wells E-1 and E-3 occurred intermittently during the remainder of 2021 and beginning of 2022 while troubleshooting of system controls was performed. Consistent operation of extraction well E-1 was achieved in February 2022. Consistent operation at extraction well E-3 was achieved in April 2022, following updates to system control equipment. Consistent flow rates of 200 gpm at extraction well E-1 and 230 gpm at extraction well E-3 were established by November 2022. System downtime occured for routine maintenance, troubleshooting extraction well operations, and area power outages unrelated to system operations.

Development of an apartment complex on the vacant property to the east and south of the treatment system began in 2022. The developer identified that the sewer line for the apartment complex crosses the path of the treatment system injection pipeline at the same elevation, which resulted in the sewer line being blocked from reaching the sewer connection. The developer proposed to lower the elevation of the system injection pipeline so the sewer line could be connected. Jacobs notified ADEQ of the issue and system downtime necessary to complete the injection pipeline modification. ADEQ agreed to the system being offline to complete the injection pipeline modification in an email dated July 21, 2022 (Widlowski, pers. comm. 2022). The system was offline for completion of injection pipeline modifications on August 30 and 31, 2022.

3.1.1 Extraction and Injection Volumes

Approximately 100,690,567 gallons of groundwater were pumped from extraction well E-1 and 101,660,165 gallons of groundwater were pumped from extraction well E-3 during 2022, with a total extracted volume of 202,350,732 gallons. Extracted groundwater was treated then reinjected. Tables 1 and 2 summarize the extraction and injection volumes during 2022.

3.1.2 Influent and Effluent Samples

Water quality samples from the treatment plant influent and effluent are collected at least once per month while the system is operating and are analyzed for VOCs using U.S. Environmental Protection Agency (EPA) Method 624. Plant effluent is also sampled quarterly for total nitrate-nitrite, as required by ADEQ. Tables 3 and 4 present summarized analytical results. The complete analytical laboratory reports of treatment plant samples obtained during 2022 are presented in Appendix A.

Nitrate in groundwater is believed to be a result of historical agricultural practices in the area and is not related to historical site operations. The system is not designed to remove nitrate from groundwater. On December 14, 2022, Jacobs submitted to ADEQ a letter including the history of nitrate at the site and requested removal of nitrate as a contaminant of concern (COC) for the purpose of metrics evaluation, as

described in Section 6 (Foehr, pers. comm. 2022b). In a letter dated March 6, 2023, ADEQ approved removal of nitrate as a COC for the purposes of metrics evaluation (Widlowski, pers. comm. 2023). Historical influent and effluent sample results are presented in Appendix B.

4. Groundwater Elevations

Water levels were measured in 22 monitoring wells from October 17 through October 20, 2022. Table 5 summarizes the calculated groundwater elevations for site monitoring wells, which represent the piezometric surface from at least three separate hydrostratigraphic units. The majority of the wells are screened across the UAU and the UMAU, and the screened intervals in these wells range from 279 to 590 feet bgs. Figure 1 shows the groundwater elevation data and groundwater elevation contours for the UAU and UMAU wells during October 2022.

Figure 2 shows groundwater elevations in wells screened below the UMAU measured in October 2022. The screened intervals in these wells range from 581 to 975 feet bgs. The alluvial units intersected by these wells include the middle and lower portions of the MAU (MMAU and LMAU) and the LAU. The groundwater surface is not contoured for these wells because of the small number of data points, the large difference between screened intervals, and the difference in hydraulic properties between the zones of the aquifer.

5. Groundwater Quality

Groundwater samples were collected from 22 monitoring wells from October 17 through October 20, 2022. Wells were sampled using passive diffusion bag samplers, which were installed in the wells at least 21 days prior to sample collection. A confirmation sample was collected from well HM-13MA in November 2022 as described in Section 6.

Groundwater samples were analyzed for VOCs via EPA Method 624 by Eurofins TestAmerica in Phoenix, Arizona. Eurofins TestAmerica is an Arizona Department of Health Services–certified laboratory (No. AZ0728) and is licensed in Arizona to perform the requested analyses. Table 6 summarizes analytical results for the COCs at this site. Complete laboratory analytical reports for these samples are provided in Appendix C. Historical groundwater monitoring results are presented in Appendix D.

5.1 Analytical Results

Because TCE is the most prevalent and widespread groundwater contaminant at this site, it has been used as an indicator to delineate the areal extent of the groundwater plume. Figure 3 illustrates 2022 TCE concentration contours for the UAU and UMAU. The distribution generally follows the local groundwater flow direction, which is to the north-northwest. The capture zone of well E-3 was developed using the groundwater model as described in Section 6.

The highest TCE concentration in the UAU and UMAU, 200 micrograms per liter (µg/L), was detected at monitoring well HM-06MA. The TCE concentration in monitoring well HM-06MA was 22 µg/L during the 2021 sampling event.

TCE was detected for the third time at HM-13MA (18 µg/L) and was above the Arizona Aquifer Water Quality Standard (AAWQS). TCE concentrations at HM-13MA were stable between November 2021 (18 µg/L) and October 2022. Groundwater samples are collected from HM-13MA within the UAU. Extraction well E-3 was installed adjacent to extraction well E-1 in June 2020 to address impacted groundwater within the UAU. Monitoring is being performed at HM-13MA to evaluate the impact of extraction from E-3 on TCE concentrations in well HM-13MA.

Figure 4 illustrates 2022 TCE concentrations in monitoring wells screened in the MMAU, LMAU, and LAU. The capture zone of well E-1 was developed using the groundwater model as described in Section 6. The highest TCE concentrations were detected in the MMAU just north of the intersection of Thunderbird Road and 31st Avenue in monitoring well HM-16MA (150 µg/L) and in the LMAU in nearby monitoring well HM-20MA (160 µg/L). During the 2021 sampling event the TCE concentrations in HM-16MA and HM-20MA were 150 µg/L and 160 µg/L, respectively. TCE was not detected in samples collected from the LAU.

Tetrachloroethene (PCE) was detected at a concentration below its AAWQS of 5 µg/L in 2022. PCE was detected at a concentration of 4.9 µg/L in UAU/UMAU monitoring well HM-07MA, a concentration that is lower than the concentration of PCE in this well in 2021 (6.6 µg/L).

cis-1,2-Dichloroethene (DCE) was detected in groundwater samples collected at the site in 2022, but at concentrations less than its AAWQS.

5.2 Mann-Kendall Analysis

Mann-Kendall trend analyses were performed on 23 groundwater monitoring wells. The Mann-Kendall trend analysis produces six different results based on the data analyzed. The results indicate the data trends are increasing, probably increasing, stable, probably decreasing, or decreasing, or no trend is apparent. The results are presented in this report at a 95 percent confidence level. All nondetect concentrations were used at their detection level for the evaluation. Due to the use of nondetect concentrations at their detection level, some wells and COCs may present trends that are the result of the changes of detection limits over time, not trends due to changing concentrations in groundwater. These trends are presented along with the rest of the analysis but are not discussed in this section. The results of the Mann-Kendall trend analyses for the following COCs regularly analyzed at the site are presented in Appendix E and Appendix F and are described below:

- 1,1-DCE
- cis-1,2-DCE
- trans-1,2-DCE
- Chloroform
- PCE
- TCE

5.2.1 Mann-Kendall Analysis—5 Years

Trends were analyzed using all data collected over the previous 5 years. The results of the Mann-Kendall trend analyses are presented in Table E-1 of Appendix E. Figures E-1 through E-23 of Appendix E provide a graphical representation of the data used for the analysis.

One well presented an increasing trend for 1,1-DCE (HM-07MA). Two wells presented an increasing trend for cis-1,2-DCE (HM-7MA and HM-13MA). Two wells presented an increasing trend for TCE (HM-7MA and HM-13MA). Only TCE is present at concentrations exceeding its AAWQS. TCE concentrations at HM-13MA have been stable between 2021 and 2022 (18 µg/L).

5.2.2 Mann-Kendall Analysis—15 Years

Trends were analyzed using all data collected over the previous 15 years to represent long-term trend analysis. The results of the Mann-Kendall trend analyses are presented in Table F-1 of Appendix F. Figures F-1 through F-23 of Appendix F provide a graphical representation of the data used for the analysis.

When data available over the previous 15 years were evaluated for the trend analysis, two wells presented an increasing trend for TCE (HM-11MA and HM-13MA). The TCE concentration in HM-11MA has not exceeded 1 µg/L in the past 15 years. The increasing trend at well HM-13MA began in 2019, when TCE was first detected above its laboratory reporting limit.

Seven wells presented an increasing trend for cis-1,2-DCE (HM-05MA, HM-08MA, HM-10MA, HM-11MA, HM-13MA, HM-15MA, and HM-17MA). One well presented an increasing trend for 1,1-DCE (HM-07MA). No increasing trends were observed for PCE, chloroform, or trans-1,2-DCE. Only TCE is present at concentrations exceeding the AAWQS. TCE concentrations at HM-13MA have been stable between 2021 and 2022 (18 µg/L).

5.3 Data Evaluation

Laboratory data were evaluated by the project chemist. Evaluation included a review of the following:

- Chain-of-custody documentation
- Holding-time compliance
- Required field and laboratory quality control (QC) samples
- Flagging for method and field blanks
- Laboratory control sample and laboratory control sample duplicates
- Surrogate spike recoveries
- Matrix spike and matrix spike duplicate samples

Field sample data were also reviewed to ascertain field compliance and data quality issues. This included a review of three trip blanks and three field duplicates.

The findings of the data evaluation are summarized as follows:

1) No data were rejected, and completeness was 100 percent.
2) No data were qualified because of low-level blank contamination.
3) A field duplicate relative percent difference exceedance was observed; two results were qualified as estimated.
4) The precision and accuracy of the data, as measured by field and the laboratory QC indicators, suggest that the project goals have been met.

6. Metrics and Contingency Actions

This section discusses finalization of proposed site metrics, performance against site metrics, and associated contingency actions taken. Table 7 describes site metrics and associated contingency actions, indicates whether the metrics were met, and describes contingency actions taken for metrics that were not met.

6.1 Extraction Well Flow Rate

Metric: *Extraction remains at or above established flow rates. Flow rates for the following extraction wells will be determined after system startup and operating conditions are stabilized: LAU extraction well E-1 and UAU extraction well E-3.*

Site metric flow rates for extraction wells E-1 and E-3 were to be determined after system startup and stabilized conditions were achieved. Proposed updates to metrics for extraction wells E-1 and E-3 were provided to ADEQ for review in an email on August 31, 2022 (Foehr, pers. comm. 2022a). Proposed updates included primarily a flow rate of 200 gpm for extraction well E-1 and exclusion of planned and unplanned downtime. The proposed updates did not include a flow rate for extraction well E-3 because stabilized operating conditions had not been established. Since that time, stabilized flow conditions at extraction well E-3 have established at 230 gpm. The proposed metrics, including a target flow rate of 230 gpm at extraction well E-3, are included in Appendix G for review by ADEQ.

6.2 Extraction Well Mass Removal

Metric: *Extraction well mass removal does not indicate a reducing trend. Mass removal trends for the following extraction wells will be determined after system startup and operating conditions are stabilized: LAU extraction well E-1 and UAU extraction well E-3.*

Mass removal trends for extraction wells E-1 and E-3 were to have been determined after system startup and stabilized conditions were achieved. Proposed updates to metrics for extraction wells E-1 and E-3 were provided to ADEQ for review in an email on August 31, 2022 (Foehr, pers. comm. 2022a). Proposed updates primarily included semiannual determination of mass removal rates. The proposed metrics are included in Appendix G for review by ADEQ.

6.3 Sentinel Monitoring Wells

Metric: *TCE concentrations at sentinel monitoring wells do not show an increasing trend, including detectable concentrations exceeding 50% of the AAWQS. Sentinel monitoring wells include the following: HM-12MA, HM-13MA, HM-14MA, HM-21MA, HM-18LA, and HM-21LA.*

Metric: *TCE concentrations at sentinel monitoring wells are below AAWQS. Sentinel monitoring wells include the following: HM-12MA, HM-13MA, HM-14MA, HM-21MA, HM-18LA, and HM-21LA.*

The concentration of TCE (18 µg/L) at sentinel monitoring well HM-13MA exceeded the AAWQS and showed an increasing trend during October 2022. Per the site metrics and contingency actions, ADEQ was notified of the exceedance at HM-13MA within 30 days of receiving laboratory data, and a confirmation sample was collected in November 2022. The concentration of TCE (14 µg/L) at HM-13MA exceeded the AAWQS during November 2022. TCE concentrations at HM-13MA were stable between November 2021 (18 µg/L) and October 2022.

The system was shut down in early 2017 to collect depth-discrete samples, conduct aquifer testing, upgrade the system, and install extraction well E-3 for the UAU. The system was restarted in early 2022 and has been operating consistently since then. TCE concentrations at downgradient monitoring well HM-13MA began increasing in 2019 and exceeded the AAWQS for the first time in 2020. The shutdown of the system and the subsequent plume arrival at HM-13MA provided an ideal dataset to perform a calibration test on the groundwater flow and solute transport model developed for the site (CH2M, 2019). To perform this test, initial concentrations in the model were updated to reflect the October 2017 dataset. This dataset was selected because it represents the first concentration data available following system shutdown (that is, under nonpumping conditions). The model was then run forward in time with no system pumping to see if the model could replicate the observed TCE arrival at HM-13MA. Results of the initial test simulation showed the modeled plume migration was too slow. Thus, model parameters were modified to better match the observed breakthrough at HM-13MA. Given the greater relative uncertainty of the modeled solute transport parameters, as compared to the modeled hydraulic parameters, solute transport parameters were modified first to determine whether changes to these parameters alone could improve the fit to the measured data.

Thus, the overall goal was to modify a subset of the solute transport parameters within a reasonable range to increase the simulated rate of TCE migration. Two solute transport parameters were modified. The first parameter was the TCE distribution coefficient (K_d), which is the product of the fraction of organic carbon (f_{oc}) of the aquifer solids and the soil organic carbon-water partitioning coefficient (K_{oc}) and is used by the model to compute the magnitude of TCE adsorption onto the porous medium. K_d was reduced by a factor of 10. Site-specific f_{oc} data are not available, so a value of 0.1 percent was used during the development of the original model. The K_d reduction implies a reduction in f_{oc} to a value of 0.01 percent, which is a low value but not unreasonable for a relatively coarse-grained alluvial aquifer in an arid environment. The second parameter that was modified was the dual domain mass transfer coefficient (MTC). This parameter controls the rate of solute transfer between the mobile and immobile porosity domains in the model. The MTC used during the initial model development was 6.09×10^{-5} per day, whereas the updated parameter was 5.09×10^{-5} per day. A reduction in the MTC acts to slow down the transfer of TCE between the mobile and immobile domains, resulting in an increased rate of simulated TCE migration. The reductions in K_d and MTC had the desired effect of increasing the simulated TCE concentrations in well HM-13MA, as shown in Figure 5. The simulated TCE concentrations at HM-13MA shown on Figure 5 include both the initial and recalibrated model parameters.

The recalibrated model indicates that the current flow rate at extraction well E-3 results in containment of the upgradient UAU plume near HM-07MA, as shown on Figure 3. TCE in the UAU between HM-07MA and HM-13MA is expected to attenuate as it migrates between these two wells. TCE concentrations at HM-13MA are predicted to be below the AAWQS by approximately 2039 (22 years after initial system shutdown), as shown on Figure 5.

The model was also used to evaluate the projected maximum plume extent under current pumping conditions. Based on the 50-year half-life included in the groundwater flow and solute transport model, TCE is projected to migrate approximately 0.70 miles downgradient of HM-13MA over 29 years before retreating upgradient. However, site data indicate a half-life of approximately 20 years, which would reduce the predicted travel distance and time required to reach the MCL at HM-13MA. As described in Section 7, the closest downgradient well (55-622206) is at least 1.25 miles north of the HM-13MA. The closest City of Phoenix (COP) production well (55-626636) is located 2.25 miles downgradient.

Monitoring is being performed at HM-13MA to evaluate the impact of extraction from E-3 on TCE concentrations. The monitoring frequency has been increased from annual to semiannual at HM-13MA. Semiannual groundwater sampling at HM-13MA will be conducted next in May 2023.

6.4 Trigger Monitoring Wells

Metric: *TCE concentrations at trigger monitoring wells are below AAWQS. Trigger monitoring wells include the following: HM-01MA, HM-02MA, HM-05MA, HM-08MA, HM-09MA, and HM-11MA.*

The site metric was met. No action is required.

6.5 Treatment Plan Effluent

Metric: *TCE or other COCs are below their corresponding AAWQSs in treatment plant effluent.*

Results from effluent sampling indicate that the concentration of nitrate in system effluent was greater than the AAWQS during quarterly nitrate sampling events, as shown in Table 4. Per the site metrics, ADEQ was notified of each exceedance within 30 days of receiving laboratory results. The nitrate concentration is consistent with previous concentrations in extracted groundwater. Nitrate in groundwater is believed to be a result of historical agricultural practices in the area and is not related to historical site operations. The groundwater treatment system does not remove nitrate. On December 14, 2022, Jacobs submitted to ADEQ a letter including the history of nitrate at the site and requested removal of nitrate as a COC for the purpose of metrics evaluation, as shown in Appendix H (Foehr, pers. comm. 2022b). In a letter dated March 6, 2023, ADEQ approved removal of nitrate as a COC for the purposes of metrics evaluation, as shown in Appendix I (Widlowski, pers. comm. 2023).

7. Land and Water Use

Initial construction occurred at the site during the late 1950s, when the principal land use in Deer Valley was agricultural. Historical aerial photographs show that in December 1955, the land in the area of the site and nearly all the land within a 1-mile radius was cultivated. In 1946, a stockyard and a feed mill were located adjacent to COP well #226 (which later was converted into extraction well E-1); the stockyard and feed mill were still present in 1955. COP well #226 was drilled in November 1941 and was deepened in 1958.

Industrial operations at the site began in 1958, and the first use of industrial wastewater disposal sites occurred in 1959 (Tetra Tech 1986). Historical aerial photographs show that in September 1959, a residential subdivision was being constructed about 1/4 mile southwest of the site, between Sweetwater Avenue and Cactus Road. Urbanization of the Deer Valley area continued; in January 1970 large tracts of land surrounding the site remained cultivated for agriculture. Since the late 1970s, the site property has been surrounded by urban developments: residential subdivisions and commercial developments to the north and south, residential subdivisions to the west, and the Black Canyon Highway to the east.

Current land use at the site and in the vicinity of the site consists of single- and multifamily housing, schools, parks and recreation, and commercial and industrial zoned properties.

Information in the Arizona Department of Water Resources Imaged Records Database was reviewed to identify wells near the site. According to those records, irrigation well 55-605467, owned by Sunburst Farms Mutual Water and Agricultural Company and located 1/2 mile cross gradient and 1 mile downgradient of the site, had documented pumping data until 2015. The location of well 55-622206, another well identified to be near the site, is undetermined; however, through discussion with Arizona Department of Water Resources, the well is estimated to be at least 1.25 miles downgradient of the site. COP municipal well 55-626521 (COP #237), located 1/2 mile cross gradient of the site, documented pumping data until 2015. COP municipal wells 55-626607, 55-626609, and 55-626640, located cross gradient and downgradient of the site, discontinued pumping in 1985, 1994, and 1997, respectively. Former well 55-607984, owned by Arrowhead Drinking Water Company and located 1/2 mile cross gradient, was abandoned in 1990. The nearest COP municipal well (55-626636) is located 2.25 miles downgradient.

8. Recommendations

The following recommendations are based on the 2022 annual groundwater monitoring results:

- Continue operation of extraction wells E-1 and E-3.
- Finalize flow and mass removal metrics for extraction wells E-1 and E-3.
- Monitor impacts of extraction well E-3 operation on TCE concentrations at HM-13MA.
- Increase the frequency of sampling at HM-13MA from annual to semiannual. Conduct semiannual groundwater sampling at HM-13MA in May 2023.
- Conduct the next full round of groundwater gauging and sampling at the site in November 2023.
- Evaluate 2023 site conditions against approved metrics for the site and apply the appropriate contingency actions, if needed. This includes contingency actions related to the TCE concentration in sentinel well HM-13MA exceeding the AAWQS.
- Stop sampling treatment plant influent and effluent for nitrate because it is not a COC for the site.
- Submit 2023 Annual Groundwater Monitoring Report by March 31, 2024.
- Submit 2021-2023 Periodic Site Review Report by March 31, 2024.

9. References

Foehr, Baine, (Project Manager, Jacobs). 2022a. Personal communication (email) with Jennifer Widlowski (ADEQ). Re: Honeywell Deer Valley and IAC-Peoria Sites. August 31.

Foehr, Baine, (Project Manager, Jacobs). 2022b. Personal communication (letter) with Jennifer Widlowski (ADEQ). Re: Proposal to Eliminate Nitrate from Remediation Metrics, Honeywell Deer Valley Computer Park, Phoenix, Arizona. Site Code 502825-00. December 14.

Jacobs. 2019. *Development and Application of the Deer Valley Groundwater Flow and Solute Transport Model.*

Pace, Joey (Arizona Department of Environmental Quality). 2019. Personal communication (letter) with Tao Wu (Honeywell International Inc.). Re: Development and Application of the Deer Valley Groundwater Flow and Solute Transport Model. June 11.

RUST Environment and Infrastructure. 1993. *Remedial Action Plan for Groundwater Remediation in the Vicinity of Deer Valley Computer Park, Maricopa County, Arizona*. September.

Tetra Tech, Inc. 1986. *Phase I Evaluation of Ground Water Quality in the Vicinity of Deer Valley Computer Park, phoenix, Arizona: Final Report, March 1986*. Prepared for Honeywell Large Computer Products Division.

Widlowski, Jennifer (Project Manager, Arizona Department of Environmental Quality). 2022. Personal communication (email) with Baine Foehr (Jacobs). RE: Honeywell Deer Valley Computer Park: Treated Water Pipeline Modification. June 21.

Widlowski, Jennifer (Project Manager, Arizona Department of Environmental Quality). 2023. Personal communication (letter) with Tao Wu (Honeywell International Inc.). RE: Review of Proposal to Eliminate Nitrate from Remediation Metrics, Honeywell Deer Valley Computer Park. March 6.

Tables

Table 1. Summary of Groundwater Extraction: 2022

Honeywell Deer Valley Computer Park, Phoenix, Arizona

Well Registration Number	**55-626618**	**55-559021**	**55-232363**	
Well ID	**E-1**	**E-2**	**E-3**	**TOTAL**
Totalizer Reading, Start of Year:	500,677,562	663,475,200	2,790,356	N/A
Totalizer Reading When Removed:	N/A	N/A	N/A	N/A
Totalizer Reading When Installed:	N/A	N/A	N/A	N/A
Totalizer Reading, End of Year:	601,368,129	663,475,200	104,450,521	N/A
Groundwater Extracted (Gallons):	100,690,567	0	101,660,165	202,350,732
Groundwater Extracted (Acre-Feet):	309.01	0	311.98	620.99

Note: The total extraction and injection volumes can differ slightly because multiple types of totalizers are at the extraction and injection wells and at the treatment plant.

ID = identification

N/A = not applicable

Table 2. Summary of Groundwater Injection: 2022

Honeywell Deer Valley Computer Park, Phoenix, Arizona

Well Registration Number	**55-552327**	**55-593630**	**55-552329**	**55-593629**	**55-586528**	**55-586529**	**55-586530**	
Well ID	**I-1**	**I-1A**	**I-2**	**I-2A**	**I-3**	**I-4**	**I-5**	**TOTAL**
Totalizer Reading, Start of Year:	N/A	45,711,300	79,354,769	3,411,600	N/A	N/A	N/A	N/A
Totalizer Reading Before Replacement:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Totalizer Reading After Replacement:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Totalizer Reading, End of Year:	N/A	73,370,600	79,354,769	172,205,700	N/A	N/A	N/A	N/A
Groundwater Injected (Gallons):	0	27,659,300	0	168,794,100	0	0	0	196,453,400
Groundwater Injected (Acre-Feet):	0	84.88	0	518	0	0	0	602.89

Notes:

The total extraction and injection volumes can differ slightly because multiple types of totalizers are used at the extraction and injection wells.

Injection wells I-1, I-3, I-4, and I-5 are no longer connected to the remediation system, and the totalizers have been removed.

ID = identification

N/A = not applicable

Table 4. Summary of Plant Effluent Water Quality: 2022

Honeywell Deer Valley Computer Park, Phoenix, Arizona

Analyte	Units	Water Quality Standard	01/14/22	02/03/22	03/02/22	04/04/22	04/25/22	05/04/22	06/03/22	07/05/22	08/02/22	09/15/22	10/11/22	11/11/2022	12/6/2022
1,1-Dichloroethene	µg/L	7	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<0.50	<0.50	<0.50
Chloroform	µg/L	NE	<0.50	<0.50	<0.50	NA	<0.50	<0.50	0.62	0.98	<0.50	<0.5	<0.50	<0.50	<0.50
cis-1,2-Dichloroethene	µg/L	70	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	2.0	<0.50	1.4	<0.50	<0.50	<0.50
Nitrate-N	mg/L	10	**21**	NA	NA	**21**	NA	NA	NA	**24**	NA	NA	**22**	NA	NA
Tetrachloroethene	µg/L	5	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<0.50	<0.50	<0.50
trans-1,2-Dichloroethene	µg/L	100	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<0.50	<0.50	<0.50
Trichloroethene	µg/L	5	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<0.50	<0.50	<0.50

Nitrate-nitrite samples analyzed by USEPA Method 300.0
Other samples analyzed by USEPA Method 624.1
< = less than
µg/L = microgram per liter
J = estimated
mg/L = milligram per liter
NA = not analyzed for this analyte
NE = not established
USEPA = U.S. Environmental Protection Agency

Table 3. Summary of Plant Influent Water Quality: 2022

Honeywell Deer Valley Computer Park, Phoenix, Arizona

Analyte	Units	Water Quality Standard	01/14/22	02/03/22	03/02/22	04/04/22	04/25/22	05/04/22	06/03/22	07/05/22	08/02/22	09/15/22	10/11/22	11/11/2022	12/6/2022
1,1-Dichloroethene	µg/L	7	<0.50	<0.50	<0.50	NA	0.64	<0.50	0.55	0.61	<0.50	<0.5	<0.50	<0.50	<0.50
Chloroform	µg/L	NE	0.70	0.89	<0.50	NA	0.82	0.61	0.65	0.67	0.60	0.51	0.54	<0.50	0.66
cis-1,2-Dichloroethene	µg/L	70	0.78	<0.50	2.3	NA	4.1	4.7	4.2	4.6	4.4	4.5	4.3	4.8	5.1
Nitrate-N	mg/L	10	**20**	NA	NA	**21**	NA	NA	NA	**23**	NA	NA	**23**	NA	NA
Tetrachloroethene	µg/L	5	<0.50	<0.50	0.73	NA	1.0	0.96	1.2	1.3	1.2	1	1.1	1.3	1.4
trans-1,2-Dichloroethene	µg/L	100	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<0.50	<0.50	<0.50
Trichloroethene	µg/L	5	**15**	<0.50	**18**	NA	**29**	**28**	**28**	**30**	**29**	**27**	**27**	**30**	32

Nitrate-nitrite samples analyzed by USEPA Method 300.0
Other samples analyzed by USEPA Method 624.1
< = less than
µg/L = microgram per liter
J = estimated
mg/L = milligram per liter
NA = not analyzed for this analyte
NE = not established
USEPA = U.S. Environmental Protection Agency

Table 5. Summary of Monitoring Well Water Elevations: 2022

Honeywell Deer Valley Computer Park, Phoenix, Arizona

Well ID	Date Measured	Measured Depth to Water (in feet)	Groundwater Elevation (in feet) (amsl)
HM-01MA	10/17/2022	309.13	965.97
HM-02MA	10/17/2022	NM	NC
HM-03MA	10/17/2022	324.08	960.41
HM-04MA	10/20/2022	319.16	962.79
HM-05MA	10/17/2022	330.11	961.28
HM-06MA	10/17/2022	341.20	948.76
HM-07MA	10/17/2022	332.51	956.35
HM-08MA	10/17/2022	333.89	958.17
HM-09MA	10/17/2022	309.33	960.18
HM-10MA	10/17/2022	331.08	948.49
HM-11MA	10/17/2022	317.43	957.89
HM-12MA	10/17/2022	326.64	950.38
HM-13MA	10/17/2022	342.14	952.12
HM-14MA	10/17/2022	335.52	949.65
HM-15MA	10/17/2022	327.53	956.72
HM-16MA	10/17/2022	334.81	948.01
HM-17MA	10/17/2022	339.68	944.81
HM-18LA	10/20/2022	335.10	947.78
HM-19MA	10/17/2022	334.13	949.41
HM-20MA	10/17/2022	335.60	947.01
HM-21LA	10/17/2022	344.89	943.65
HM-21MA	10/17/2022	334.22	954.31
HM-22LA	10/17/2022	327.23	951.71

amsl = above mean sea level
ID = identification
NM = not measured
NC = not calculated

Table 6. Summary of Monitoring Well Water Analytical Results: 2022

Honeywell Deer Valley Computer Park, Phoenix, Arizona

Location ID	Field Sample ID	Sample Depth (feet)	Sample Date	1,1-DCE	CFM	cis-1,2-DCE	PCE	t-1,2-DCE	TCE
		Arizona Aquifer Water Quality Standard:		*7*	*NE*	*70*	*5*	*100*	*5*
HM-01MA	HM-01MA-395-22A1	395	10/20/22	<0.50	<0.50	0.59	<0.50	<0.50	<0.50
HM-02MA	NS	420	NS	NS	NS	NS	NS	NS	NS
HM-03MA	HM-03MA-405-22A1	405	10/20/22	<0.50	<0.50	2.8	1.2	<0.50	2.1
HM-04MA	HM-04MA-425-22A1	425	10/20/22	<0.50	<0.50	1.7	0.62	<0.50	2.2
HM-05MA	HM-05MA-415-22A1	415	10/21/22	<0.50	<0.50	2.4	<0.50	<0.50	<0.50
HM-06MA	HM-06MA-452-22A1	452	10/20/22	<0.50	0.57	21	0.82	<0.50	200
HM-07MA	HM-07MA-433-22A1	433	10/18/22	5.5/5.4	0.53/0.55	36/36	4.9/4.7	<0.50/<0.50	160/170
HM-08MA	HM-08MA-400-22A1	400	10/18/22	<0.50	<0.50	0.69	<0.50	<0.50	<0.50
HM-09MA	HM-09MA-405-22A1	405	10/20/22	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
HM-10MA	HM-10MA-390-22A1	390	10/18/22	<0.50	<0.50	2.8	<0.50	<0.50	27
HM-11MA	HM-11MA-442-22A1	442	10/18/22	<0.50	<0.50	1.3	<0.50	<0.50	<0.50
HM-12MA	HM-12MA-443-22A1	443	10/18/22	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
HM-13MA	HM-13MA-450-22A1	450	10/20/22	<0.50	<0.50	6.4	<0.50	<0.50	18
HM-13MA	HM-13MA-450-22A1-2	450	11/15/22	<0.50	<0.50	4.8	<0.50	<0.50	14
HM-14MA	HM-14MA-446-22A1	446	10/21/22	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
HM-15MA	HM-15MA-401-22A1	401	10/21/22	<0.50/<0.50	<0.50/<0.50	2.5/2.5	<0.50/<0.50	<0.50/<0.50	2.4/2.4
HM-16MA	HM-16MA-690-22A1	690	10/20/22	0.90/<0.50	<0.50/<0.50	23 J/13 J	1.1/0.63	<0.50/<0.50	150/140
HM-17MA	HM-17MA-731-22A1	731	11/15/22	<0.50	<0.50	0.81	<0.50	<0.50	4.4
HM-18LA	HM-18LA-945-22A1	945	10/20/22	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
HM-19MA	HM-19MA-593-22A1	593	10/21/22	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
HM-20MA	HM-20MA-820-22A1	820	10/20/22	0.67	<0.50	16	1.2	<0.50	160
HM-21LA	HM-21LA-944-22A1	944	10/21/22	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
HM-21MA	HM-21MA-764-22A1	764	10/21/22	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
HM-22LA	HM-22LA-934-22A1	934	10/18/22	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

Notes:

Samples analyzed by USEPA Method 624.1

Results are in micrograms per liter

Bold = concentration greater than Arizona Aquifer Water Quality Standard

When applicable, original and duplicate sample results are presented before and after a "/", respectively.

< = less than

1,1-DCE = 1,1-dichloroethene

CFM = chloroform

cis-1,2-DCE = cis-1,2-dichloroethene

ID = identification

J = estimated

NE = not established

PCE = tetrachloroethene

t-1,2-DCE = trans-1,2-dichloroethene

TCE = trichloroethene

USEPA = U.S. Environmental Protection Agency

Table 7. Metrics and Contingency Actions

Honeywell Deer Valley Computer Park, Phoenix, Arizona

Metrics	Was the Metric Met?	Contingency Actions
Extraction remains at or above established flow rates. Flow rates for the following extraction wells will be determined after system startup and stabilized operating conditions are achieved: LAU extraction well E-1 UAU extraction well E-3	NE	If the metric is not met, the associated contingency actions include: • Notify ADEQ within 30 days if the flow rate is reduced by more than 5 percent over 30 days. - Updates to the metric were discussed with ADEQ on August 15, 2022. An updated metric was proposed to ADEQ on August 31, 2022, as described in Section 6. The proposed metric is provided in Appendix G for review by ADEQ. • Updates to the metric were discussed with ADEQ on August 15, 2022. An updated metric was proposed to ADEQ on August 31, 2022, as described in Section 6. The proposed metric is provided in Appendix G for review by ADEQ Notify ADEQ within 7 days of identifying a shutdown of pump operations greater than 72 hours. - Updates to the metric were discussed with ADEQ on August 15, 2022. An updated metric was proposed to ADEQ on August 31, 2022, as described in Section 6. The proposed metric is provided in Appendix G for review by ADEQ. • Take steps to resume extraction flow rates. - Update to the metric discussed with ADEQ on August 15, 2022. An updated metric was proposed to ADEQ on August 31, 2022, as described in Section 6. The proposed metric is provided in Appendix G for review by ADEQ. • Evaluate capture at achieved flow rates if target flow rates are not resumed. - Update to the metric discussed with ADEQ on August 15, 2022. An updated metric was proposed to ADEQ on August 31, 2022, as described in Section 6. The proposed metric is provided in Appendix G for review by ADEQ. • Evaluate potential mitigation actions to resume the target flow rate, including pump replacement, well rehabilitation, or other appropriate actions. - Update to the metric discussed with ADEQ on August 15, 2022. An updated metric was proposed to ADEQ on August 31, 2022, as described in Section 6. The proposed metric is provided in Appendix G for review by ADEQ.
Extraction well mass removal does not indicate a reducing trend. Mass removal trends for the following extraction wells will be determined after system startup and stabilized operating conditions are achieved: LAU extraction well E-1 UAU extraction well E-3	NE	If the metric is not met, the associated contingency actions include: • Notify ADEQ within 30 days. - Update to the metric discussed with ADEQ on August 15, 2022. An updated metric was proposed to ADEQ on August 31, 2022, as described in Section 6. The proposed metric is provided in Appendix G for review by ADEQ. • Evaluate factors contributing to changes in mass removal and explain overall impacts on remediation. - Update to the metric discussed with ADEQ on August 15, 2022. An updated metric was proposed to ADEQ on August 31, 2022, as described in Section 6. The proposed metric is provided in Appendix G for review by ADEQ.

Table 7. Metrics and Contingency Actions

Honeywell Deer Valley Computer Park, Phoenix, Arizona

Metrics	Was the Metric Met?	Contingency Actions
		• Evaluate actions to be taken to change mass removal rates, as needed. - Update to the metric discussed with ADEQ on August 15, 2022. An updated metric was proposed to ADEQ on August 31, 2022, as described in Section 6. The proposed metric is provided in Appendix G for review by ADEQ. • Evaluate mass removal metric and update to reflect current conditions, as needed. - Update to the metric discussed with ADEQ on August 15, 2022. An updated metric was proposed to ADEQ on August 31, 2022, as described in Section 6. The proposed metric is provided in Appendix G for review by ADEQ.
TCE concentrations at sentinel monitoring wells do not show an increasing trend, including detectable concentrations exceeding 50% of the AAWQS. Sentinel monitoring wells include the following: HM-12MA, HM-13MA, HM-14MA, HM-21MA, HM-18LA, and HM-21LA	No	If the metric is not met, the associated contingency actions include: • Notify ADEQ after trend is confirmed by Mann-Kendall analysis within 30 days of receiving data. - Notified ADEQ within 30 days following trend confirmed by Mann-Kendall analysis. • Confirm trend by one or more subsequent sampling events. - Confirmed by subsequent sampling event that concentration is contributing to increasing trend. • Evaluate increased sampling frequency. - Increase frequency of sampling at HM-13MA from annual to semiannual. Conduct semiannual groundwater sampling at HM-13MA in May 2023. • Evaluate potential mitigation actions if trends continue, including modifications to extraction flow rates at E-1 and E-3, in situ remediation, or other appropriate options. - The groundwater model indicates that the current flow rate at extraction well E-3 results in containment of the upgradient UAU plume near HM-07MA. TCE between HM-07MA and HM-13MA is expected to attenuate during travel between these wells. TCE concentrations at HM-13MA are predicted to below the AAWQS by 2039. Maximum TCE migration is projected to be approximately 0.25 mile downgradient of HM-13MA over 29 years before retreating upgradient. The closest downgradient well is at least 1.25 miles north of HM-13MA.
TCE concentrations at sentinel monitoring wells are below AAWQS. Sentinel monitoring wells include the following: HM-12MA, HM-13MA, HM-14MA, HM-21MA, HM-18LA, and HM-21LA	No	If the metric is not met, the associated contingency actions include: • Notify ADEQ within 15 days of receiving laboratory data. After notifying ADEQ, collect samples within 30 days to confirm concentrations. - Notified ADEQ within 15 days following receipt of laboratory data. A confirmation sample was collected within 30 days of notifying ADEQ of the initial concentration. • Evaluate increased sampling frequency.

Table 7. Metrics and Contingency Actions

Honeywell Deer Valley Computer Park, Phoenix, Arizona

Metrics	Was the Metric Met?	Contingency Actions
		- Increase frequency of sampling at HM-13MA from annual to semiannual. Conduct semiannual groundwater sampling at HM-13MA in May 2023 • Evaluate factors contributing to concentrations that exceed AAWQS and downgradient impacts of concentrations that exceed AAWQS, and explain overall impacts on site remediation. - The groundwater model indicates that the current flow rate at extraction well E-3 results in containment of the upgradient UAU plume near HM-07MA. TCE between HM-07MA and HM-13MA is expected to attenuate during travel between these wells. TCE concentrations at HM-13MA are predicted to be below the AAWQS by 2039. Maximum TCE migration is projected to be approximately 0.7 mile downgradient of HM-13MA over 29 years before retreating upgradient. The closest downgradient well is at least 1.25 miles north of HM-13MA. • Re-evaluate the groundwater remedial action and present appropriate mitigation actions or modifications. - No modifications to the remedial actions or mitigation actions are recommended.
TCE concentrations at trigger monitoring wells are below AAWQS. Trigger monitoring wells include the following: HM-01MA, HM-02MA, HM-05MA, HM-08MA, HM-09MA, and HM-11MA	Yes	If the metric is not met, the associated contingency actions include: • Notify ADEQ within 15 days of receiving laboratory data. After notifying ADEQ, collect samples to confirm concentrations within 30 days. - Metric met. No action required. • Evaluate increased sampling frequency. - Metric met. No action required. • Evaluate factors contributing to concentrations that exceed AAWQS and downgradient impacts of concentrations that exceed AAWQS, and explain overall impacts on site remediation. - Metric met. No action required. • Re-evaluate the groundwater remedial action and present appropriate mitigation actions or modifications. - Metric met. No action required.
TCE or other COCs are below their corresponding AAWQSs in treatment plant effluent.	No	If the metric is not met, the associated contingency actions include: • Resample to confirm concentrations above AAWQS and shut down treatment plant operations, if needed. - Resampling the effluent to confirm the exceedance is not necessary due to the extensive history of nitrate concentration data at the site. • Notify ADEQ within 30 days. - ADEQ was notified within 30 days of receiving laboratory results for each nitrate metrics exceedance that occurred. • Evaluate factors contributing to concentrations exceeding AAWQS in treatment plant effluent.

Table 7. Metrics and Contingency Actions

Honeywell Deer Valley Computer Park, Phoenix, Arizona

Metrics	Was the Metric Met?	Contingency Actions
		- Nitrate in groundwater is believed to be a result of historical agricultural practices in the area and is not related to historical site operations. The treatment system does not remove nitrate from extracted groundwater. Elimination of nitrate as a COC for the purposes of metrics evaluation was proposed by Honeywell and has been approved by ADEQ in March 2023, as described in Section 6. Evaluate whether the frequency of groundwater monitoring should be increased. - The frequency of monitoring does not need to be increased because of the extensive historical record. • Re-evaluate the groundwater remedial action and present appropriate mitigation actions or modifications, as needed. - Nitrate in groundwater is believed to be a result of historical agricultural practices in the area and is not related to historical site operations. The treatment system does not remove nitrate from extracted groundwater. Elimination of nitrate as a COC for the purposes of metrics evaluation was proposed by Honeywell and has been approved by ADEQ, as described in Section 6.

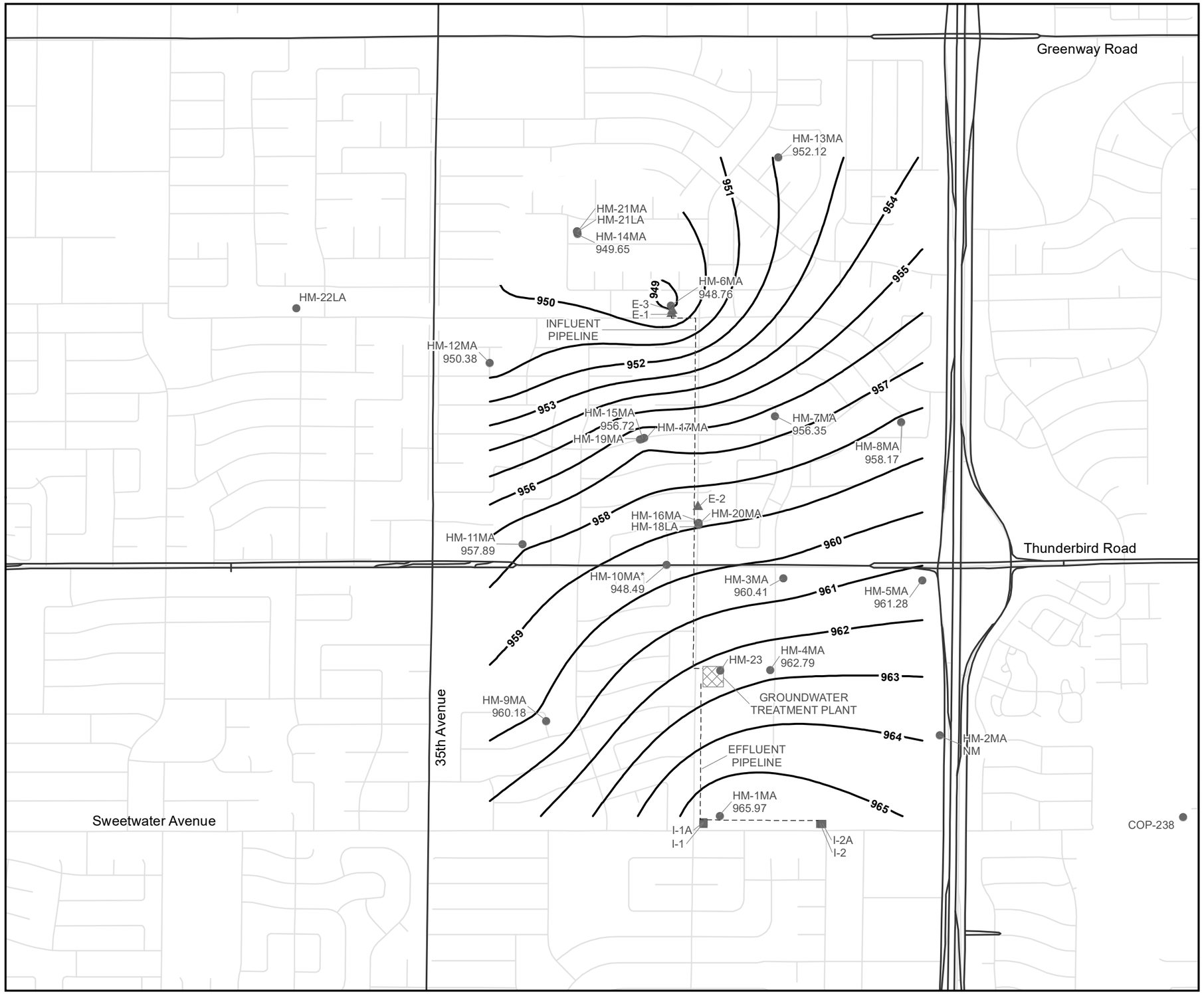
ADEQ = Arizona Department of Environmental Quality

LAU = Lower Alluvial Unit

NE = Insufficient data is available to evaluate performance against the metric.

UAU = Upper Alluvial Unit

Figures



0 1,000 2,000

SCALE IN FEET

LEGEND:

- HM-8MA 958.17 — monitor well location; static water level (feet AMSL)
- E-1 — groundwater extraction well location
- I-2 — treated groundwater Injection well location
- groundwater elevation contour (feet AMSL)
- groundwater treatment plant

NOTES:

AMSL = above mean sea level

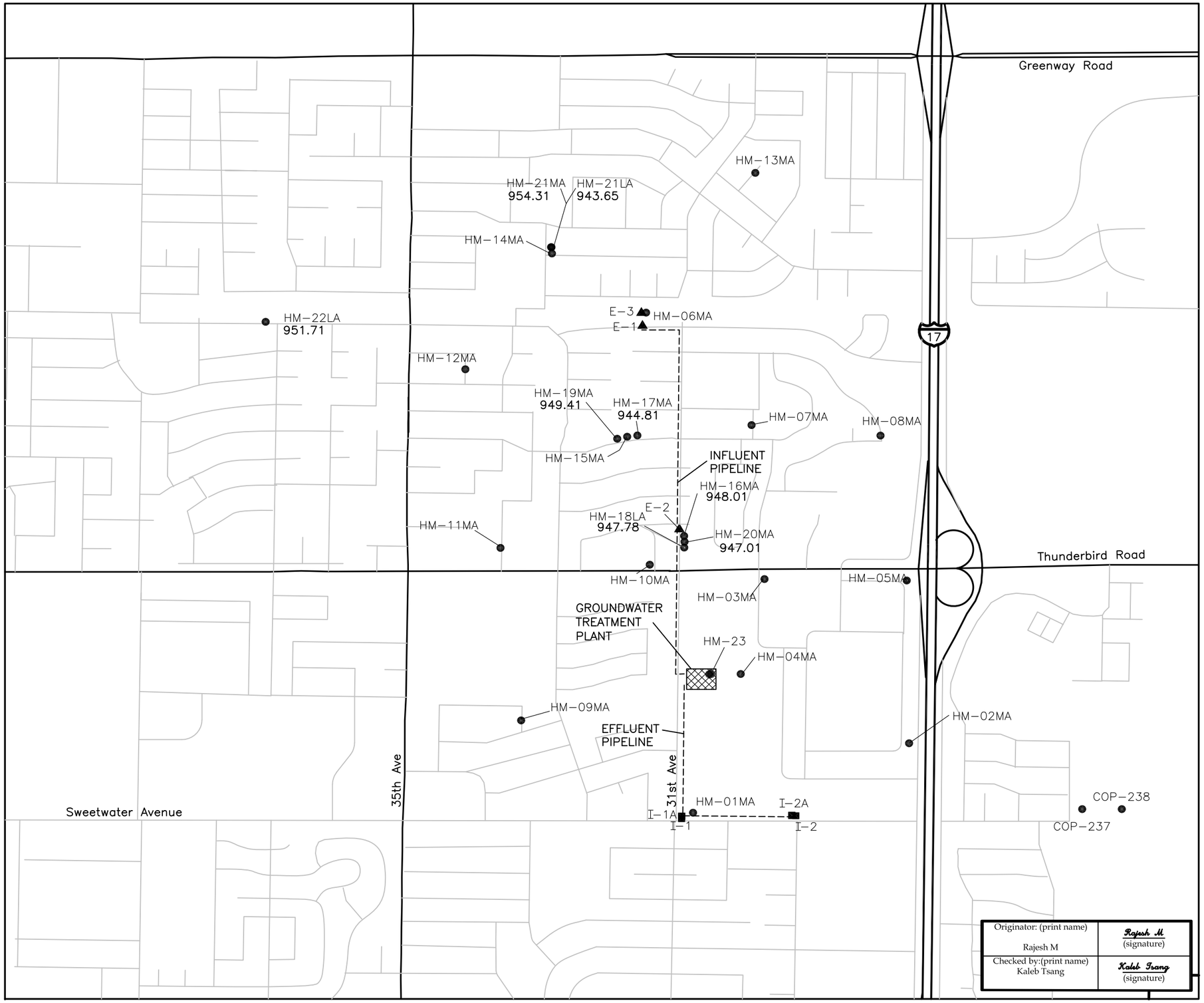
UAU = upper alluvial unit

UMAU = upper middle alluvial unit

* = Not used for contouring

FIGURE 1
OCTOBER 2022 UAU/UMAU
GROUNDWATER ELEVATIONS
HONEYWELL
DEER VALLEY COMPUTER PARK
PHOENIX, ARIZONA

JACOBS



N

0 1000 2000

SCALE IN FEET

LEGEND:

HM-19MA ● monitor well location
949.41 — static water level (feet AMSL)

E-1 ▲ groundwater extraction well location

I-2 ■ treated groundwater injection well location

NOTES:

AMSL = above mean sea level

MMAU = middle portion of the middle alluvial unit

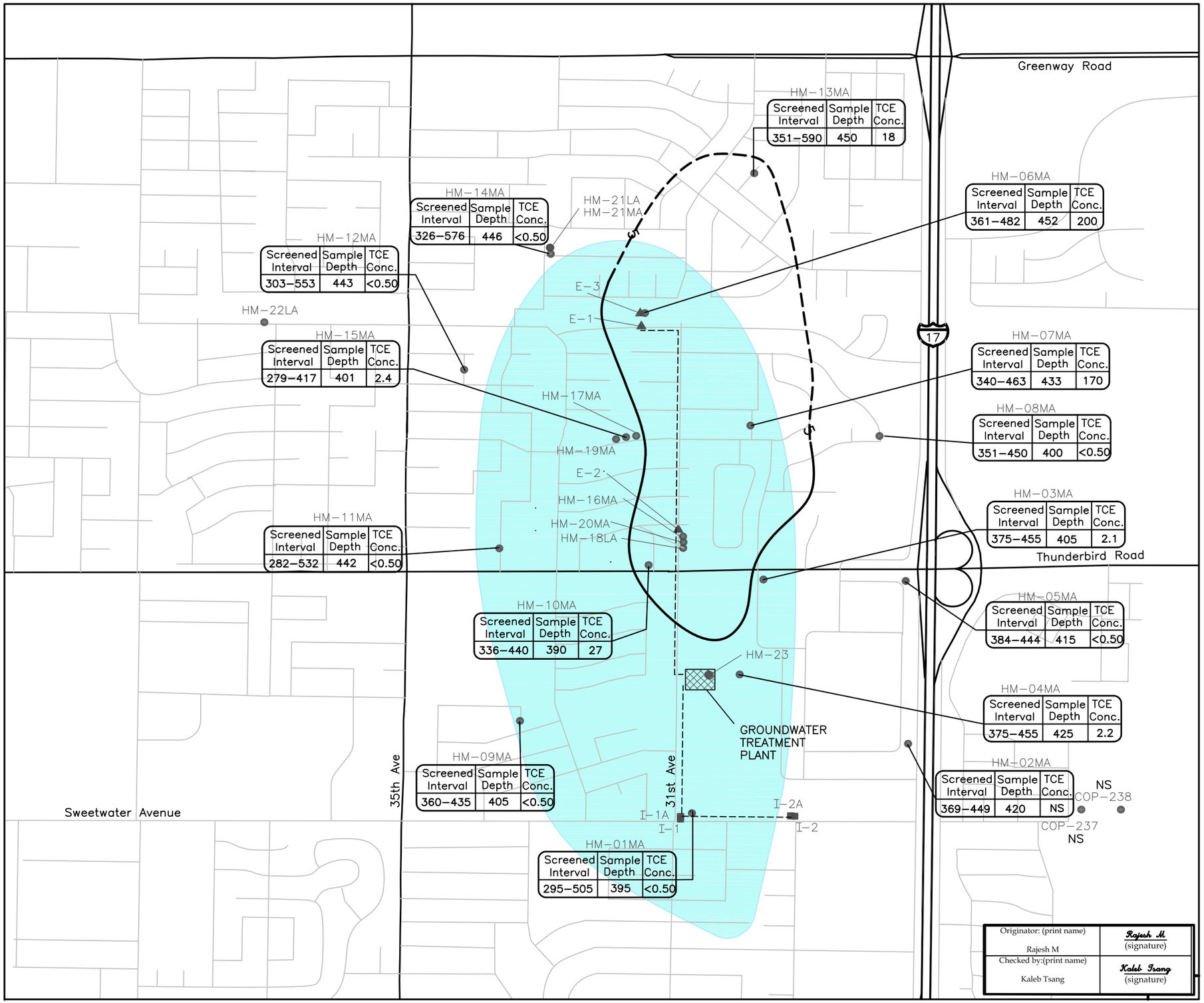
LMAU = lower middle alluvial unit

LAU = lower alluvial unit

Originator: (print name) Rajesh M	Rajesh M (signature)
Checked by:(print name) Kaleb Tsang	Kaleb Tsang (signature)

FIGURE 2
OCTOBER 2022
MMAU, LMAU AND LAU GROUNDWATER ELEVATIONS
HONEYWELL DEER VALLEY COMPUTER PARK, PHOENIX, ARIZONA

JACOBS



N

0 1000 2000

SCALE IN FEET

LEGEND:

HM-04MA ● monitor well location

Screened Interval	Sample Depth	TCE Conc.
351-590	425	2.2

trichloroethene concentration (µg/L)

Sample Depth (feet)

screen interval (feet below ground surface)

E-1 ▲ groundwater extraction well location

I-2 ■ treated groundwater injection well location

TCE concentration contour (Dashed when inferred)

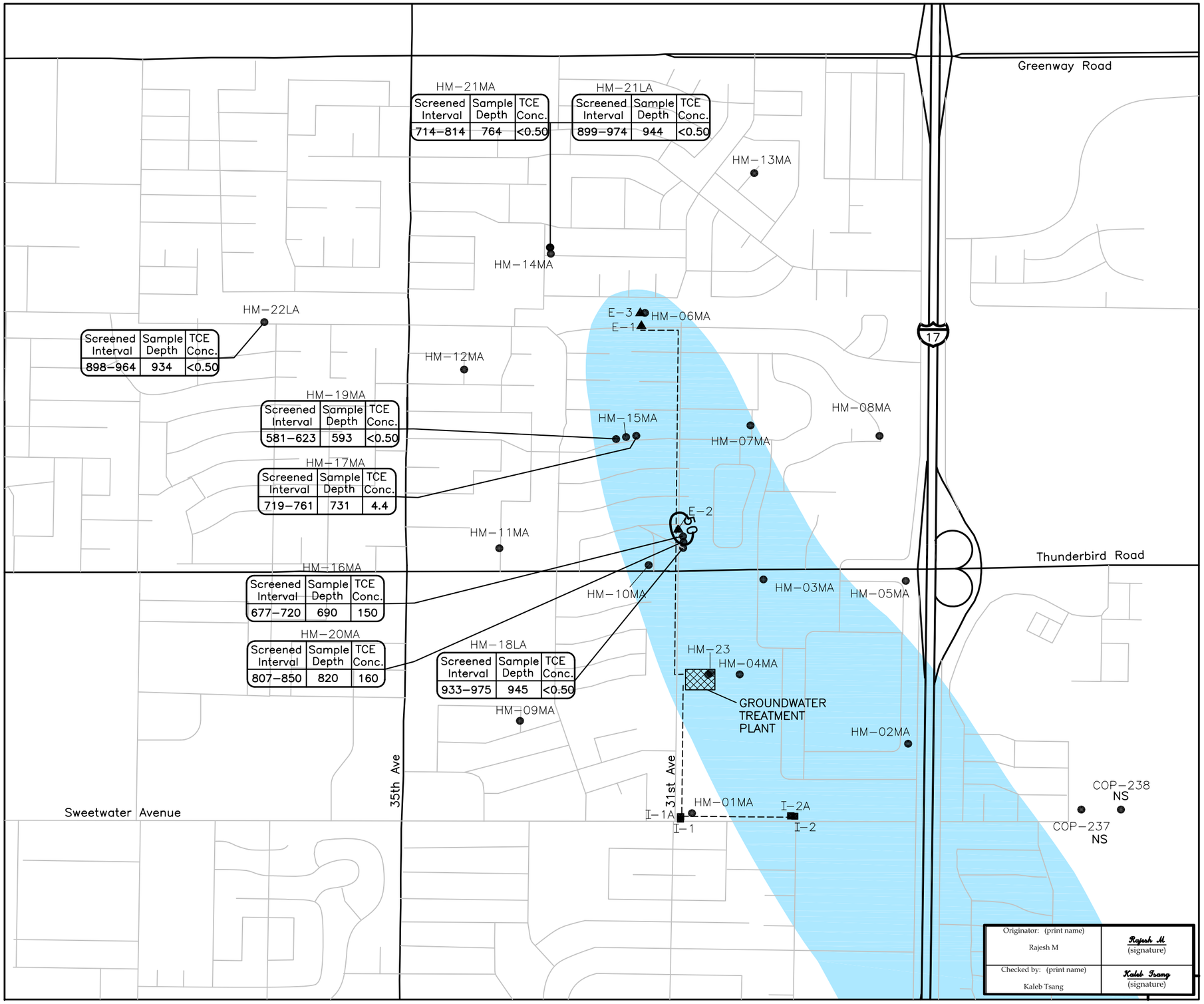
Capture Zone boundary

NOTES:

1. J = estimated concentration
2. µg/L = micrograms per liter
3. NS = not sampled
4. < = not detected, the value given is the reporting limit
5. Conc. = concentration
6. UAU = upper alluvial unit
7. UMAU = upper middle alluvial unit
8. TCE = trichloroethene

FIGURE 3
OCTOBER 2022 UAU/UMAU TCE CONCENTRATIONS
HONEYWELL DEER VALLEY COMPUTER PARK, PHOENIX, ARIZONA

JACOBS



N

0 1000 2000

SCALE IN FEET

LEGEND:

HM-21MA● monitor well location

Screened Interval	Sample Depth	TCE Conc.
714-814	764	<0.50

trichloroethene concentration (µg/L)

Sample Depth (feet)

screen interval (feet below ground surface)

E-1 ▲ groundwater extraction well location

I-2 ■ treated groundwater injection well location

5 TCE concentration contour

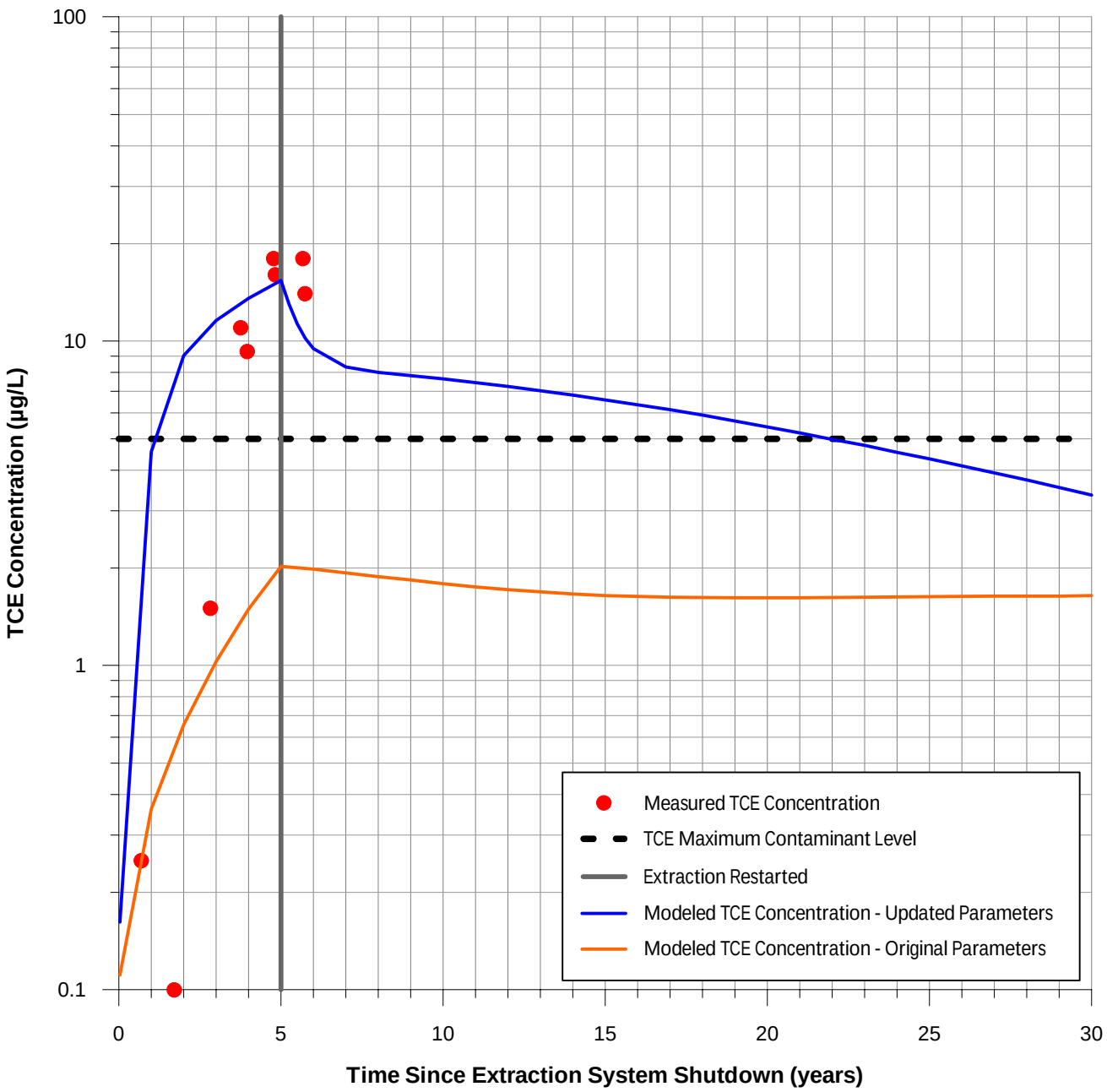
Capture Zone boundary

NOTES:

1. µg/L = micrograms per liter
2. J = estimated concentration
3. < = not detected, the value given is the reporting limit
4. Conc. = concentration
5. MMAU = middle portion of the middle alluvial unit
6. LMAU = lower middle alluvial unit
7. LAU = lower alluvial unit
8. TCE = trichloroethene

FIGURE 4
OCTOBER 2022 MMAU, LMAU AND LAU TCE CONCENTRATIONS
HONEYWELL DEER VALLEY COMPUTER PARK, PHOENIX, ARIZONA

JACOBS



Notes:
1. Extraction system shut down in early 2017.
2. Modified paramters include TCE distribution coefficient and dual domain mass transfer coefficient.
3. Modeled TCE degradation half-life equals 50 years.

FIGURE 5
Measured and Modeled TCE Concentrations
at Well HM-13MA
Honeywell Deer Valley Computer Park
Phoenix, Arizona

Jacobs

Appendix A
Influent and Effluent Analytical Reports

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Phoenix
4625 East Cotton Center Boulevard
Building #3 Suite #189
Phoenix, AZ 85040
Tel: (866)772-5227

Laboratory Job ID: 550-177343-1
Client Project/Site: Deer Valley

For:
Honeywell International Inc
1944 E. Sky Harbor Circle MS 2101-2C
Phoenix, Arizona 85034

Attn: Tao Wu

Authorized for release by:
1/19/2022 7:24:17 PM

Rachel Sester, Project Manager I
(602)659-7615
Rachel.Sester@Eurofinset.com

LINKS

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www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Sample Summary 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 16
QC Sample Results 17
QC Association Summary 35
Lab Chronicle 36
Certification Summary 37
Method Summary 38
Chain of Custody 39
Receipt Checklists 40

Definitions/Glossary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-177343-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
B1	Target analyte detected in method blank at or above the method reporting limit.
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix.
L5	The associated blank spike recovery was above laboratory/method acceptance limits. This analyte was not detected in the sample.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
R1	RPD/RSD exceeded the method acceptance limit. See case narrative.
T2	Cited ADHS licensed method does not contain this analyte as part of the method compound list.
V1	CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.

HPLC/IC

Qualifier	Qualifier Description
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.

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: 550-177343-1

Laboratory: Eurofins Phoenix

Narrative

Job Narrative
550-177343-1

Comments
No additional comments.

Receipt
The samples were received on 1/14/2022 1:15 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.3º C.

GC/MS VOA
Method 624.1: The method blank for 550-263758 contained 1,1,1,2-Tetrachloroethane and tert-Butylbenzene above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

Method 624.1: The % Recovery (%R); as well as, RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for 550-263758 recovered outside control limits, high for Dichlorobromomethane. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance. All samples are ND; therefore, the data is not impacted. The LCS/LCSD and samples have been reported with L5 and R1 qualifiers.

Method 624.1: The laboratory control sample (LCS), laboratory control sample duplicate (LCSD) and matrix spike (MS) for batch 550-263758 recovered outside control limits high for 1,1,2-Trichloro-1,2,2-trifluoroethane. There were no hits in the associated samples. The LCS/LCSD and samples have been flagged with an L5 qualifier. The MS and source sample have been flagged with an N1 qualifier. (LCS 550-263758/3), (LCSD 550-263758/4), (550-177361-B-3) and (550-177361-B-3 MS)

Method 624.1: Toluene-d8 (surrogate) recoveries for the following sample was outside control limits: (550-177358-B-1). Reanalysis confirms the low recoveries, indicating sample matrix interference. Results have been reported with an S6 qualifier, see batch 550-263819.

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

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

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

Sample Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-177343-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-177343-1	INF-22M01	Water	01/14/22 09:23	01/14/22 13:15
550-177343-2	EFF-22M01	Water	01/14/22 09:10	01/14/22 13:15
550-177343-3	GAC-2A-100-22M01	Water	01/14/22 09:17	01/14/22 13:15
550-177343-4	GAC-2B-75-22M01	Water	01/14/22 09:13	01/14/22 13:15
550-177343-5	TB-22M01	Water	01/14/22 08:00	01/14/22 13:15

Detection Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-177343-1

Client Sample ID: INF-22M01 — Lab Sample ID: 550-177343-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.70		0.50		ug/L	1		624.1	Total/NA
cis-1,2-Dichloroethene	0.78		0.50		ug/L	1		624.1	Total/NA
Trichloroethene	15		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	0.70		0.50		ug/L	1		624.1	Total/NA
Nitrate as N	20		0.050		mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	20		0.050		mg/L	1		300.0	Total/NA

Client Sample ID: EFF-22M01 — Lab Sample ID: 550-177343-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	21		0.050		mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	21		0.050		mg/L	1		300.0	Total/NA

Client Sample ID: GAC-2A-100-22M01 — Lab Sample ID: 550-177343-3

No Detections.

Client Sample ID: GAC-2B-75-22M01 — Lab Sample ID: 550-177343-4

No Detections.

Client Sample ID: TB-22M01 — Lab Sample ID: 550-177343-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-177343-1

Client Sample ID: INF-22M01

Date Collected: 01/14/22 09:23
Date Received: 01/14/22 13:15

Lab Sample ID: 550-177343-1

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/18/22 00:23	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/18/22 00:23	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/18/22 00:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	L5 V1	5.0		ug/L			01/18/22 00:23	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/18/22 00:23	1
1,1-Dichloroethane	ND		0.50		ug/L			01/18/22 00:23	1
1,1-Dichloroethene	ND		0.50		ug/L			01/18/22 00:23	1
1,1-Dichloropropene	ND		0.50		ug/L			01/18/22 00:23	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			01/18/22 00:23	1
1,2,3-Trichloropropane	ND		2.0		ug/L			01/18/22 00:23	1
1,2,4-Trichlorobenzene	ND	T2	2.0		ug/L			01/18/22 00:23	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			01/18/22 00:23	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			01/18/22 00:23	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/18/22 00:23	1
1,2-Dichloroethane	ND		0.50		ug/L			01/18/22 00:23	1
1,2-Dichloropropane	ND		0.50		ug/L			01/18/22 00:23	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			01/18/22 00:23	1
1,3-Dichlorobenzene	ND		0.50		ug/L			01/18/22 00:23	1
1,3-Dichloropropane	ND		0.50		ug/L			01/18/22 00:23	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/18/22 00:23	1
2,2-Dichloropropane	ND		1.0		ug/L			01/18/22 00:23	1
2-Butanone (MEK)	ND	L5 V1	10		ug/L			01/18/22 00:23	1
2-Chlorotoluene	ND		0.50		ug/L			01/18/22 00:23	1
2-Hexanone	ND		5.0		ug/L			01/18/22 00:23	1
4-Chlorotoluene	ND		0.50		ug/L			01/18/22 00:23	1
4-Isopropyltoluene	ND		0.50		ug/L			01/18/22 00:23	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			01/18/22 00:23	1
Acetone	ND		10		ug/L			01/18/22 00:23	1
Benzene	ND		0.50		ug/L			01/18/22 00:23	1
Bromobenzene	ND		1.0		ug/L			01/18/22 00:23	1
Bromoform	ND		1.0		ug/L			01/18/22 00:23	1
Bromomethane	ND	L5 V1	5.0		ug/L			01/18/22 00:23	1
Carbon disulfide	ND		5.0		ug/L			01/18/22 00:23	1
Carbon tetrachloride	ND		0.50		ug/L			01/18/22 00:23	1
Chlorobenzene	ND		0.50		ug/L			01/18/22 00:23	1
Chlorobromomethane	ND		0.50		ug/L			01/18/22 00:23	1
Chlorodibromomethane	ND		0.50		ug/L			01/18/22 00:23	1
Chloroethane	ND	L5	1.0		ug/L			01/18/22 00:23	1
Chloroform	**0.70**		0.50		ug/L			01/18/22 00:23	1
Chloromethane	ND		1.0		ug/L			01/18/22 00:23	1
cis-1,2-Dichloroethene	**0.78**		0.50		ug/L			01/18/22 00:23	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/18/22 00:23	1
Dibromomethane	ND		0.50		ug/L			01/18/22 00:23	1
Dichlorobromomethane	ND		0.50		ug/L			01/18/22 00:23	1
Dichlorodifluoromethane	ND	L5 R1	1.0		ug/L			01/18/22 00:23	1
Ethanol	ND		150		ug/L			01/18/22 00:23	1
Ethylbenzene	ND		0.50		ug/L			01/18/22 00:23	1
Ethylene Dibromide	ND		0.50		ug/L			01/18/22 00:23	1
Hexachlorobutadiene	ND		5.0		ug/L			01/18/22 00:23	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-177343-1

Client Sample ID: INF-22M01

Lab Sample ID: 550-177343-1
Matrix: Water
Date Collected: 01/14/22 09:23
Date Received: 01/14/22 13:15

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND		2.0	ug/L			01/18/22 00:23	1
Isopropylbenzene	ND		0.50	ug/L			01/18/22 00:23	1
Methyl tert-butyl ether	ND		0.50	ug/L			01/18/22 00:23	1
Methylene Chloride	ND		5.0	ug/L			01/18/22 00:23	1
m-Xylene & p-Xylene	ND		1.0	ug/L			01/18/22 00:23	1
Naphthalene	ND		5.0	ug/L			01/18/22 00:23	1
n-Butylbenzene	ND		1.0	ug/L			01/18/22 00:23	1
N-Propylbenzene	ND		0.50	ug/L			01/18/22 00:23	1
o-Xylene	ND		0.50	ug/L			01/18/22 00:23	1
sec-Butylbenzene	ND		0.50	ug/L			01/18/22 00:23	1
Styrene	ND		1.0	ug/L			01/18/22 00:23	1
tert-Butylbenzene	ND		0.50	ug/L			01/18/22 00:23	1
Tetrachloroethene	ND		0.50	ug/L			01/18/22 00:23	1
Toluene	ND		0.50	ug/L			01/18/22 00:23	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			01/18/22 00:23	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			01/18/22 00:23	1
Trichloroethene	**15**		0.50	ug/L			01/18/22 00:23	1
Trichlorofluoromethane	ND	L5 V1	1.0	ug/L			01/18/22 00:23	1
Trihalomethanes, Total	**0.70**		0.50	ug/L			01/18/22 00:23	1
Vinyl acetate	ND		5.0	ug/L			01/18/22 00:23	1
Vinyl chloride	ND		1.0	ug/L			01/18/22 00:23	1
Xylenes, Total	ND		0.50	ug/L			01/18/22 00:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*60 - 140*		*01/18/22 00:23*	*1*
Dibromofluoromethane (Surr)	*109*		*60 - 140*		*01/18/22 00:23*	*1*
Toluene-d8 (Surr)	*98*		*60 - 140*		*01/18/22 00:23*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**20**		0.050	mg/L			01/16/22 04:02	1
Nitrite as N	ND		0.050	mg/L			01/16/22 04:02	1
Nitrate Nitrite as N	**20**		0.050	mg/L			01/16/22 04:02	1

Client Sample ID: EFF-22M01

Lab Sample ID: 550-177343-2
Matrix: Water
Date Collected: 01/14/22 09:10
Date Received: 01/14/22 13:15

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			01/18/22 00:45	1
1,1,1-Trichloroethane	ND		0.50	ug/L			01/18/22 00:45	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			01/18/22 00:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	L5 V1	5.0	ug/L			01/18/22 00:45	1
1,1,2-Trichloroethane	ND		0.50	ug/L			01/18/22 00:45	1
1,1-Dichloroethane	ND		0.50	ug/L			01/18/22 00:45	1
1,1-Dichloroethene	ND		0.50	ug/L			01/18/22 00:45	1
1,1-Dichloropropene	ND		0.50	ug/L			01/18/22 00:45	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			01/18/22 00:45	1
1,2,3-Trichloropropane	ND		2.0	ug/L			01/18/22 00:45	1

Client Sample ID: EFF-22M01

Date Collected: 01/14/22 09:10
Date Received: 01/14/22 13:15

Lab Sample ID: 550-177343-2

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND	T2	2.0		ug/L			01/18/22 00:45	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			01/18/22 00:45	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			01/18/22 00:45	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/18/22 00:45	1
1,2-Dichloroethane	ND		0.50		ug/L			01/18/22 00:45	1
1,2-Dichloropropane	ND		0.50		ug/L			01/18/22 00:45	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			01/18/22 00:45	1
1,3-Dichlorobenzene	ND		0.50		ug/L			01/18/22 00:45	1
1,3-Dichloropropane	ND		0.50		ug/L			01/18/22 00:45	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/18/22 00:45	1
2,2-Dichloropropane	ND		1.0		ug/L			01/18/22 00:45	1
2-Butanone (MEK)	ND	L5 V1	10		ug/L			01/18/22 00:45	1
2-Chlorotoluene	ND		0.50		ug/L			01/18/22 00:45	1
2-Hexanone	ND		5.0		ug/L			01/18/22 00:45	1
4-Chlorotoluene	ND		0.50		ug/L			01/18/22 00:45	1
4-Isopropyltoluene	ND		0.50		ug/L			01/18/22 00:45	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			01/18/22 00:45	1
Acetone	ND		10		ug/L			01/18/22 00:45	1
Benzene	ND		0.50		ug/L			01/18/22 00:45	1
Bromobenzene	ND		1.0		ug/L			01/18/22 00:45	1
Bromoform	ND		1.0		ug/L			01/18/22 00:45	1
Bromomethane	ND	L5 V1	5.0		ug/L			01/18/22 00:45	1
Carbon disulfide	ND		5.0		ug/L			01/18/22 00:45	1
Carbon tetrachloride	ND		0.50		ug/L			01/18/22 00:45	1
Chlorobenzene	ND		0.50		ug/L			01/18/22 00:45	1
Chlorobromomethane	ND		0.50		ug/L			01/18/22 00:45	1
Chlorodibromomethane	ND		0.50		ug/L			01/18/22 00:45	1
Chloroethane	ND	L5	1.0		ug/L			01/18/22 00:45	1
Chloroform	ND		0.50		ug/L			01/18/22 00:45	1
Chloromethane	ND		1.0		ug/L			01/18/22 00:45	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/18/22 00:45	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/18/22 00:45	1
Dibromomethane	ND		0.50		ug/L			01/18/22 00:45	1
Dichlorobromomethane	ND		0.50		ug/L			01/18/22 00:45	1
Dichlorodifluoromethane	ND	L5 R1	1.0		ug/L			01/18/22 00:45	1
Ethanol	ND		150		ug/L			01/18/22 00:45	1
Ethylbenzene	ND		0.50		ug/L			01/18/22 00:45	1
Ethylene Dibromide	ND		0.50		ug/L			01/18/22 00:45	1
Hexachlorobutadiene	ND		5.0		ug/L			01/18/22 00:45	1
Iodomethane	ND		2.0		ug/L			01/18/22 00:45	1
Isopropylbenzene	ND		0.50		ug/L			01/18/22 00:45	1
Methyl tert-butyl ether	ND		0.50		ug/L			01/18/22 00:45	1
Methylene Chloride	ND		5.0		ug/L			01/18/22 00:45	1
m-Xylene & p-Xylene	ND		1.0		ug/L			01/18/22 00:45	1
Naphthalene	ND		5.0		ug/L			01/18/22 00:45	1
n-Butylbenzene	ND		1.0		ug/L			01/18/22 00:45	1
N-Propylbenzene	ND		0.50		ug/L			01/18/22 00:45	1
o-Xylene	ND		0.50		ug/L			01/18/22 00:45	1
sec-Butylbenzene	ND		0.50		ug/L			01/18/22 00:45	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-177343-1

Client Sample ID: EFF-22M01

Lab Sample ID: 550-177343-2
Date Collected: 01/14/22 09:10
Matrix: Water
Date Received: 01/14/22 13:15

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	ug/L			01/18/22 00:45	1
tert-Butylbenzene	ND		0.50	ug/L			01/18/22 00:45	1
Tetrachloroethene	ND		0.50	ug/L			01/18/22 00:45	1
Toluene	ND		0.50	ug/L			01/18/22 00:45	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			01/18/22 00:45	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			01/18/22 00:45	1
Trichloroethene	ND		0.50	ug/L			01/18/22 00:45	1
Trichlorofluoromethane	ND	L5 V1	1.0	ug/L			01/18/22 00:45	1
Trihalomethanes, Total	ND		0.50	ug/L			01/18/22 00:45	1
Vinyl acetate	ND		5.0	ug/L			01/18/22 00:45	1
Vinyl chloride	ND		1.0	ug/L			01/18/22 00:45	1
Xylenes, Total	ND		0.50	ug/L			01/18/22 00:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*60 - 140*		*01/18/22 00:45*	*1*
Dibromofluoromethane (Surr)	*108*		*60 - 140*		*01/18/22 00:45*	*1*
Toluene-d8 (Surr)	*96*		*60 - 140*		*01/18/22 00:45*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**21**		0.050	mg/L			01/16/22 02:11	1
Nitrite as N	ND		0.050	mg/L			01/16/22 02:11	1
Nitrate Nitrite as N	**21**		0.050	mg/L			01/16/22 02:11	1

Client Sample ID: GAC-2A-100-22M01

Lab Sample ID: 550-177343-3
Date Collected: 01/14/22 09:17
Matrix: Water
Date Received: 01/14/22 13:15

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			01/18/22 01:07	1
1,1,1-Trichloroethane	ND		0.50	ug/L			01/18/22 01:07	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			01/18/22 01:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	L5 V1	5.0	ug/L			01/18/22 01:07	1
1,1,2-Trichloroethane	ND		0.50	ug/L			01/18/22 01:07	1
1,1-Dichloroethane	ND		0.50	ug/L			01/18/22 01:07	1
1,1-Dichloroethene	ND		0.50	ug/L			01/18/22 01:07	1
1,1-Dichloropropene	ND		0.50	ug/L			01/18/22 01:07	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			01/18/22 01:07	1
1,2,3-Trichloropropane	ND		2.0	ug/L			01/18/22 01:07	1
1,2,4-Trichlorobenzene	ND	T2	2.0	ug/L			01/18/22 01:07	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			01/18/22 01:07	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			01/18/22 01:07	1
1,2-Dichlorobenzene	ND		0.50	ug/L			01/18/22 01:07	1
1,2-Dichloroethane	ND		0.50	ug/L			01/18/22 01:07	1
1,2-Dichloropropane	ND		0.50	ug/L			01/18/22 01:07	1
1,3,5-Trimethylbenzene	ND		0.50	ug/L			01/18/22 01:07	1
1,3-Dichlorobenzene	ND		0.50	ug/L			01/18/22 01:07	1
1,3-Dichloropropane	ND		0.50	ug/L			01/18/22 01:07	1
1,4-Dichlorobenzene	ND		0.50	ug/L			01/18/22 01:07	1

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-177343-1

Client Sample ID: GAC-2A-100-22M01

Lab Sample ID: 550-177343-3

Date Collected: 01/14/22 09:17

Matrix: Water

Date Received: 01/14/22 13:15

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND		1.0		ug/L			01/18/22 01:07	1
2-Butanone (MEK)	ND	L5 V1	10		ug/L			01/18/22 01:07	1
2-Chlorotoluene	ND		0.50		ug/L			01/18/22 01:07	1
2-Hexanone	ND		5.0		ug/L			01/18/22 01:07	1
4-Chlorotoluene	ND		0.50		ug/L			01/18/22 01:07	1
4-Isopropyltoluene	ND		0.50		ug/L			01/18/22 01:07	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			01/18/22 01:07	1
Acetone	ND		10		ug/L			01/18/22 01:07	1
Benzene	ND		0.50		ug/L			01/18/22 01:07	1
Bromobenzene	ND		1.0		ug/L			01/18/22 01:07	1
Bromoform	ND		1.0		ug/L			01/18/22 01:07	1
Bromomethane	ND	L5 V1	5.0		ug/L			01/18/22 01:07	1
Carbon disulfide	ND		5.0		ug/L			01/18/22 01:07	1
Carbon tetrachloride	ND		0.50		ug/L			01/18/22 01:07	1
Chlorobenzene	ND		0.50		ug/L			01/18/22 01:07	1
Chlorobromomethane	ND		0.50		ug/L			01/18/22 01:07	1
Chlorodibromomethane	ND		0.50		ug/L			01/18/22 01:07	1
Chloroethane	ND	L5	1.0		ug/L			01/18/22 01:07	1
Chloroform	ND		0.50		ug/L			01/18/22 01:07	1
Chloromethane	ND		1.0		ug/L			01/18/22 01:07	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/18/22 01:07	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/18/22 01:07	1
Dibromomethane	ND		0.50		ug/L			01/18/22 01:07	1
Dichlorobromomethane	ND		0.50		ug/L			01/18/22 01:07	1
Dichlorodifluoromethane	ND	L5 R1	1.0		ug/L			01/18/22 01:07	1
Ethanol	ND		150		ug/L			01/18/22 01:07	1
Ethylbenzene	ND		0.50		ug/L			01/18/22 01:07	1
Ethylene Dibromide	ND		0.50		ug/L			01/18/22 01:07	1
Hexachlorobutadiene	ND		5.0		ug/L			01/18/22 01:07	1
Iodomethane	ND		2.0		ug/L			01/18/22 01:07	1
Isopropylbenzene	ND		0.50		ug/L			01/18/22 01:07	1
Methyl tert-butyl ether	ND		0.50		ug/L			01/18/22 01:07	1
Methylene Chloride	ND		5.0		ug/L			01/18/22 01:07	1
m-Xylene & p-Xylene	ND		1.0		ug/L			01/18/22 01:07	1
Naphthalene	ND		5.0		ug/L			01/18/22 01:07	1
n-Butylbenzene	ND		1.0		ug/L			01/18/22 01:07	1
N-Propylbenzene	ND		0.50		ug/L			01/18/22 01:07	1
o-Xylene	ND		0.50		ug/L			01/18/22 01:07	1
sec-Butylbenzene	ND		0.50		ug/L			01/18/22 01:07	1
Styrene	ND		1.0		ug/L			01/18/22 01:07	1
tert-Butylbenzene	ND		0.50		ug/L			01/18/22 01:07	1
Tetrachloroethene	ND		0.50		ug/L			01/18/22 01:07	1
Toluene	ND		0.50		ug/L			01/18/22 01:07	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/18/22 01:07	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/18/22 01:07	1
Trichloroethene	ND		0.50		ug/L			01/18/22 01:07	1
Trichlorofluoromethane	ND	L5 V1	1.0		ug/L			01/18/22 01:07	1
Trihalomethanes, Total	ND		0.50		ug/L			01/18/22 01:07	1
Vinyl acetate	ND		5.0		ug/L			01/18/22 01:07	1

Client Sample ID: GAC-2A-100-22M01

Lab Sample ID: 550-177343-3

Date Collected: 01/14/22 09:17

Matrix: Water

Date Received: 01/14/22 13:15

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		1.0		ug/L			01/18/22 01:07	1
Xylenes, Total	ND		0.50		ug/L			01/18/22 01:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*60 - 140*		*01/18/22 01:07*	*1*
Dibromofluoromethane (Surr)	*103*		*60 - 140*		*01/18/22 01:07*	*1*
Toluene-d8 (Surr)	*95*		*60 - 140*		*01/18/22 01:07*	*1*

Client Sample ID: GAC-2B-75-22M01

Lab Sample ID: 550-177343-4

Date Collected: 01/14/22 09:13

Matrix: Water

Date Received: 01/14/22 13:15

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			01/18/22 01:29	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/18/22 01:29	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/18/22 01:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	L5 V1	5.0		ug/L			01/18/22 01:29	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/18/22 01:29	1
1,1-Dichloroethane	ND		0.50		ug/L			01/18/22 01:29	1
1,1-Dichloroethene	ND		0.50		ug/L			01/18/22 01:29	1
1,1-Dichloropropene	ND		0.50		ug/L			01/18/22 01:29	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			01/18/22 01:29	1
1,2,3-Trichloropropane	ND		2.0		ug/L			01/18/22 01:29	1
1,2,4-Trichlorobenzene	ND	T2	2.0		ug/L			01/18/22 01:29	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			01/18/22 01:29	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			01/18/22 01:29	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/18/22 01:29	1
1,2-Dichloroethane	ND		0.50		ug/L			01/18/22 01:29	1
1,2-Dichloropropane	ND		0.50		ug/L			01/18/22 01:29	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			01/18/22 01:29	1
1,3-Dichlorobenzene	ND		0.50		ug/L			01/18/22 01:29	1
1,3-Dichloropropane	ND		0.50		ug/L			01/18/22 01:29	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/18/22 01:29	1
2,2-Dichloropropane	ND		1.0		ug/L			01/18/22 01:29	1
2-Butanone (MEK)	ND	L5 V1	10		ug/L			01/18/22 01:29	1
2-Chlorotoluene	ND		0.50		ug/L			01/18/22 01:29	1
2-Hexanone	ND		5.0		ug/L			01/18/22 01:29	1
4-Chlorotoluene	ND		0.50		ug/L			01/18/22 01:29	1
4-Isopropyltoluene	ND		0.50		ug/L			01/18/22 01:29	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			01/18/22 01:29	1
Acetone	ND		10		ug/L			01/18/22 01:29	1
Benzene	ND		0.50		ug/L			01/18/22 01:29	1
Bromobenzene	ND		1.0		ug/L			01/18/22 01:29	1
Bromoform	ND		1.0		ug/L			01/18/22 01:29	1
Bromomethane	ND	L5 V1	5.0		ug/L			01/18/22 01:29	1
Carbon disulfide	ND		5.0		ug/L			01/18/22 01:29	1
Carbon tetrachloride	ND		0.50		ug/L			01/18/22 01:29	1
Chlorobenzene	ND		0.50		ug/L			01/18/22 01:29	1
Chlorobromomethane	ND		0.50		ug/L			01/18/22 01:29	1

Client Sample ID: GAC-2B-75-22M01

Lab Sample ID: 550-177343-4

Date Collected: 01/14/22 09:13
Matrix: Water
Date Received: 01/14/22 13:15

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodibromomethane	ND		0.50	ug/L			01/18/22 01:29	1
Chloroethane	ND	L5	1.0	ug/L			01/18/22 01:29	1
Chloroform	ND		0.50	ug/L			01/18/22 01:29	1
Chloromethane	ND		1.0	ug/L			01/18/22 01:29	1
cis-1,2-Dichloroethene	ND		0.50	ug/L			01/18/22 01:29	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			01/18/22 01:29	1
Dibromomethane	ND		0.50	ug/L			01/18/22 01:29	1
Dichlorobromomethane	ND		0.50	ug/L			01/18/22 01:29	1
Dichlorodifluoromethane	ND	L5 R1	1.0	ug/L			01/18/22 01:29	1
Ethanol	ND		150	ug/L			01/18/22 01:29	1
Ethylbenzene	ND		0.50	ug/L			01/18/22 01:29	1
Ethylene Dibromide	ND		0.50	ug/L			01/18/22 01:29	1
Hexachlorobutadiene	ND		5.0	ug/L			01/18/22 01:29	1
Iodomethane	ND		2.0	ug/L			01/18/22 01:29	1
Isopropylbenzene	ND		0.50	ug/L			01/18/22 01:29	1
Methyl tert-butyl ether	ND		0.50	ug/L			01/18/22 01:29	1
Methylene Chloride	ND		5.0	ug/L			01/18/22 01:29	1
m-Xylene & p-Xylene	ND		1.0	ug/L			01/18/22 01:29	1
Naphthalene	ND		5.0	ug/L			01/18/22 01:29	1
n-Butylbenzene	ND		1.0	ug/L			01/18/22 01:29	1
N-Propylbenzene	ND		0.50	ug/L			01/18/22 01:29	1
o-Xylene	ND		0.50	ug/L			01/18/22 01:29	1
sec-Butylbenzene	ND		0.50	ug/L			01/18/22 01:29	1
Styrene	ND		1.0	ug/L			01/18/22 01:29	1
tert-Butylbenzene	ND		0.50	ug/L			01/18/22 01:29	1
Tetrachloroethene	ND		0.50	ug/L			01/18/22 01:29	1
Toluene	ND		0.50	ug/L			01/18/22 01:29	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			01/18/22 01:29	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			01/18/22 01:29	1
Trichloroethene	ND		0.50	ug/L			01/18/22 01:29	1
Trichlorofluoromethane	ND	L5 V1	1.0	ug/L			01/18/22 01:29	1
Trihalomethanes, Total	ND		0.50	ug/L			01/18/22 01:29	1
Vinyl acetate	ND		5.0	ug/L			01/18/22 01:29	1
Vinyl chloride	ND		1.0	ug/L			01/18/22 01:29	1
Xylenes, Total	ND		0.50	ug/L			01/18/22 01:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*60 - 140*		*01/18/22 01:29*	*1*
Dibromofluoromethane (Surr)	*106*		*60 - 140*		*01/18/22 01:29*	*1*
Toluene-d8 (Surr)	*97*		*60 - 140*		*01/18/22 01:29*	*1*

Client Sample ID: TB-22M01

Lab Sample ID: 550-177343-5

Date Collected: 01/14/22 08:00
Matrix: Water
Date Received: 01/14/22 13:15

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			01/18/22 13:21	1
1,1,1-Trichloroethane	ND		0.50	ug/L			01/18/22 13:21	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			01/18/22 13:21	1

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-177343-1

Client Sample ID: TB-22M01

Date Collected: 01/14/22 08:00
Date Received: 01/14/22 13:15

Lab Sample ID: 550-177343-5

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			01/18/22 13:21	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/18/22 13:21	1
1,1-Dichloroethane	ND		0.50		ug/L			01/18/22 13:21	1
1,1-Dichloroethene	ND		0.50		ug/L			01/18/22 13:21	1
1,1-Dichloropropene	ND		0.50		ug/L			01/18/22 13:21	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			01/18/22 13:21	1
1,2,3-Trichloropropane	ND		2.0		ug/L			01/18/22 13:21	1
1,2,4-Trichlorobenzene	ND		2.0		ug/L			01/18/22 13:21	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			01/18/22 13:21	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			01/18/22 13:21	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/18/22 13:21	1
1,2-Dichloroethane	ND		0.50		ug/L			01/18/22 13:21	1
1,2-Dichloropropane	ND		0.50		ug/L			01/18/22 13:21	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			01/18/22 13:21	1
1,3-Dichlorobenzene	ND		0.50		ug/L			01/18/22 13:21	1
1,3-Dichloropropane	ND		0.50		ug/L			01/18/22 13:21	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/18/22 13:21	1
2,2-Dichloropropane	ND		1.0		ug/L			01/18/22 13:21	1
2-Butanone (MEK)	ND		10		ug/L			01/18/22 13:21	1
2-Chlorotoluene	ND		0.50		ug/L			01/18/22 13:21	1
2-Hexanone	ND		5.0		ug/L			01/18/22 13:21	1
4-Chlorotoluene	ND		0.50		ug/L			01/18/22 13:21	1
4-Isopropyltoluene	ND		0.50		ug/L			01/18/22 13:21	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			01/18/22 13:21	1
Acetone	ND		10		ug/L			01/18/22 13:21	1
Benzene	ND		0.50		ug/L			01/18/22 13:21	1
Bromobenzene	ND		1.0		ug/L			01/18/22 13:21	1
Bromoform	ND		1.0		ug/L			01/18/22 13:21	1
Bromomethane	ND		5.0		ug/L			01/18/22 13:21	1
Carbon disulfide	ND		5.0		ug/L			01/18/22 13:21	1
Carbon tetrachloride	ND		0.50		ug/L			01/18/22 13:21	1
Chlorobenzene	ND		0.50		ug/L			01/18/22 13:21	1
Chlorobromomethane	ND		0.50		ug/L			01/18/22 13:21	1
Chlorodibromomethane	ND		0.50		ug/L			01/18/22 13:21	1
Chloroethane	ND		1.0		ug/L			01/18/22 13:21	1
Chloroform	ND		0.50		ug/L			01/18/22 13:21	1
Chloromethane	ND		1.0		ug/L			01/18/22 13:21	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/18/22 13:21	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/18/22 13:21	1
Dibromomethane	ND		0.50		ug/L			01/18/22 13:21	1
Dichlorobromomethane	ND		0.50		ug/L			01/18/22 13:21	1
Dichlorodifluoromethane	ND		1.0		ug/L			01/18/22 13:21	1
Ethanol	ND		150		ug/L			01/18/22 13:21	1
Ethylbenzene	ND		0.50		ug/L			01/18/22 13:21	1
Ethylene Dibromide	ND		0.50		ug/L			01/18/22 13:21	1
Hexachlorobutadiene	ND		5.0		ug/L			01/18/22 13:21	1
Iodomethane	ND		2.0		ug/L			01/18/22 13:21	1
Isopropylbenzene	ND		0.50		ug/L			01/18/22 13:21	1
Methyl tert-butyl ether	ND		0.50		ug/L			01/18/22 13:21	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-177343-1

Client Sample ID: TB-22M01

Date Collected: 01/14/22 08:00
Date Received: 01/14/22 13:15

Lab Sample ID: 550-177343-5

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		5.0		ug/L			01/18/22 13:21	1
m-Xylene & p-Xylene	ND		1.0		ug/L			01/18/22 13:21	1
Naphthalene	ND		5.0		ug/L			01/18/22 13:21	1
n-Butylbenzene	ND		1.0		ug/L			01/18/22 13:21	1
N-Propylbenzene	ND		0.50		ug/L			01/18/22 13:21	1
o-Xylene	ND		0.50		ug/L			01/18/22 13:21	1
sec-Butylbenzene	ND		0.50		ug/L			01/18/22 13:21	1
Styrene	ND		1.0		ug/L			01/18/22 13:21	1
tert-Butylbenzene	ND		0.50		ug/L			01/18/22 13:21	1
Tetrachloroethene	ND		0.50		ug/L			01/18/22 13:21	1
Toluene	ND		0.50		ug/L			01/18/22 13:21	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/18/22 13:21	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/18/22 13:21	1
Trichloroethene	ND		0.50		ug/L			01/18/22 13:21	1
Trichlorofluoromethane	ND		1.0		ug/L			01/18/22 13:21	1
Trihalomethanes, Total	ND		0.50		ug/L			01/18/22 13:21	1
Vinyl acetate	ND		5.0		ug/L			01/18/22 13:21	1
Vinyl chloride	ND		1.0		ug/L			01/18/22 13:21	1
Xylenes, Total	ND		0.50		ug/L			01/18/22 13:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*60 - 140*		*01/18/22 13:21*	*1*
Dibromofluoromethane (Surr)	*94*		*60 - 140*		*01/18/22 13:21*	*1*
Toluene-d8 (Surr)	*100*		*60 - 140*		*01/18/22 13:21*	*1*

Surrogate Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-177343-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	**Client Sample ID**	**(60-140)**	**(60-140)**	**(60-140)**
550-177343-1	INF-22M01	83	109	98
550-177343-2	EFF-22M01	87	108	96
550-177343-3	GAC-2A-100-22M01	84	103	95
550-177343-4	GAC-2B-75-22M01	82	106	97
550-177343-5	TB-22M01	83	94	100
550-177358-B-1 MS	Matrix Spike	97	99	94
550-177358-B-1 MSD	Matrix Spike Duplicate	89	89	83
550-177361-B-3 MS	Matrix Spike	84	122	93
550-177361-B-3 MSD	Matrix Spike Duplicate	85	116	90
LCS 550-263758/3	Lab Control Sample	86	130	93
LCS 550-263819/3	Lab Control Sample	90	89	94
LCSD 550-263758/4	Lab Control Sample Dup	88	127	90
LCSD 550-263819/4	Lab Control Sample Dup	94	95	100
MB 550-263758/5	Method Blank	84	107	94
MB 550-263819/5	Method Blank	85	88	99

Surrogate Legend

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

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-263758/5
Matrix: Water
Analysis Batch: 263758

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		0.50		ug/L			01/17/22 22:12	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/17/22 22:12	1
1,1,2,2-Tetrachloroethane	0.618	B1	0.50		ug/L			01/17/22 22:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	V1	5.0		ug/L			01/17/22 22:12	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/17/22 22:12	1
1,1-Dichloroethane	ND		0.50		ug/L			01/17/22 22:12	1
1,1-Dichloroethene	ND		0.50		ug/L			01/17/22 22:12	1
1,1-Dichloropropene	ND		0.50		ug/L			01/17/22 22:12	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			01/17/22 22:12	1
1,2,3-Trichloropropane	ND		2.0		ug/L			01/17/22 22:12	1
1,2,4-Trichlorobenzene	ND	T2	2.0		ug/L			01/17/22 22:12	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			01/17/22 22:12	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			01/17/22 22:12	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/17/22 22:12	1
1,2-Dichloroethane	ND		0.50		ug/L			01/17/22 22:12	1
1,2-Dichloropropane	ND		0.50		ug/L			01/17/22 22:12	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			01/17/22 22:12	1
1,3-Dichlorobenzene	ND		0.50		ug/L			01/17/22 22:12	1
1,3-Dichloropropane	ND		0.50		ug/L			01/17/22 22:12	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/17/22 22:12	1
2,2-Dichloropropane	ND		1.0		ug/L			01/17/22 22:12	1
2-Butanone (MEK)	ND	V1	10		ug/L			01/17/22 22:12	1
2-Chlorotoluene	ND		0.50		ug/L			01/17/22 22:12	1
2-Hexanone	ND		5.0		ug/L			01/17/22 22:12	1
4-Chlorotoluene	ND		0.50		ug/L			01/17/22 22:12	1
4-Isopropyltoluene	ND		0.50		ug/L			01/17/22 22:12	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			01/17/22 22:12	1
Acetone	ND		10		ug/L			01/17/22 22:12	1
Benzene	ND		0.50		ug/L			01/17/22 22:12	1
Bromobenzene	ND		1.0		ug/L			01/17/22 22:12	1
Bromoform	ND		1.0		ug/L			01/17/22 22:12	1
Bromomethane	ND	V1	5.0		ug/L			01/17/22 22:12	1
Carbon disulfide	ND		5.0		ug/L			01/17/22 22:12	1
Carbon tetrachloride	ND		0.50		ug/L			01/17/22 22:12	1
Chlorobenzene	ND		0.50		ug/L			01/17/22 22:12	1
Chlorobromomethane	ND		0.50		ug/L			01/17/22 22:12	1
Chlorodibromomethane	ND		0.50		ug/L			01/17/22 22:12	1
Chloroethane	ND		1.0		ug/L			01/17/22 22:12	1
Chloroform	ND		0.50		ug/L			01/17/22 22:12	1
Chloromethane	ND		1.0		ug/L			01/17/22 22:12	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/17/22 22:12	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/17/22 22:12	1
Dibromomethane	ND		0.50		ug/L			01/17/22 22:12	1
Dichlorobromomethane	ND		0.50		ug/L			01/17/22 22:12	1
Dichlorodifluoromethane	ND		1.0		ug/L			01/17/22 22:12	1
Ethanol	ND		150		ug/L			01/17/22 22:12	1
Ethylbenzene	ND		0.50		ug/L			01/17/22 22:12	1
Ethylene Dibromide	ND		0.50		ug/L			01/17/22 22:12	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-263758/5
Matrix: Water
Analysis Batch: 263758

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		5.0		ug/L			01/17/22 22:12	1
Iodomethane	ND		2.0		ug/L			01/17/22 22:12	1
Isopropylbenzene	ND		0.50		ug/L			01/17/22 22:12	1
Methyl tert-butyl ether	ND		0.50		ug/L			01/17/22 22:12	1
Methylene Chloride	ND		5.0		ug/L			01/17/22 22:12	1
m-Xylene & p-Xylene	ND		1.0		ug/L			01/17/22 22:12	1
Naphthalene	ND		5.0		ug/L			01/17/22 22:12	1
n-Butylbenzene	ND		1.0		ug/L			01/17/22 22:12	1
N-Propylbenzene	ND		0.50		ug/L			01/17/22 22:12	1
o-Xylene	ND		0.50		ug/L			01/17/22 22:12	1
sec-Butylbenzene	ND		0.50		ug/L			01/17/22 22:12	1
Styrene	ND		1.0		ug/L			01/17/22 22:12	1
tert-Butylbenzene	0.519	B1	0.50		ug/L			01/17/22 22:12	1
Tetrachloroethene	ND		0.50		ug/L			01/17/22 22:12	1
Toluene	ND		0.50		ug/L			01/17/22 22:12	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			01/17/22 22:12	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			01/17/22 22:12	1
Trichloroethene	ND		0.50		ug/L			01/17/22 22:12	1
Trichlorofluoromethane	ND	V1	1.0		ug/L			01/17/22 22:12	1
Trihalomethanes, Total	ND		0.50		ug/L			01/17/22 22:12	1
Vinyl acetate	ND		5.0		ug/L			01/17/22 22:12	1
Vinyl chloride	ND		1.0		ug/L			01/17/22 22:12	1
Xylenes, Total	ND		0.50		ug/L			01/17/22 22:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*60 - 140*		*01/17/22 22:12*	*1*
Dibromofluoromethane (Surr)	*107*		*60 - 140*		*01/17/22 22:12*	*1*
Toluene-d8 (Surr)	*94*		*60 - 140*		*01/17/22 22:12*	*1*

Lab Sample ID: LCS 550-263758/3
Matrix: Water
Analysis Batch: 263758

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	49.5		ug/L		99	60 - 140
1,1,1-Trichloroethane	50.0	61.5		ug/L		123	70 - 130
1,1,2,2-Tetrachloroethane	50.0	47.0		ug/L		94	60 - 140
1,1,2-Trichloroethane	50.0	43.3		ug/L		87	70 - 130
1,1-Dichloroethane	50.0	59.3		ug/L		119	70 - 150
1,1-Dichloroethene	50.0	64.5		ug/L		129	50 - 140
1,1-Dichloropropene	50.0	47.4		ug/L		95	60 - 140
1,2,3-Trichlorobenzene	50.0	44.0		ug/L		88	60 - 140
1,2,3-Trichloropropane	50.0	40.2		ug/L		80	60 - 140
1,2,4-Trichlorobenzene	50.0	43.5	T2	ug/L		87	60 - 140
1,2,4-Trimethylbenzene	50.0	45.8		ug/L		92	60 - 140
1,2-Dibromo-3-Chloropropane	50.0	42.9		ug/L		86	60 - 140
1,2-Dichlorobenzene	50.0	43.2		ug/L		86	65 - 140
1,2-Dichloroethane	50.0	38.7		ug/L		77	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-263758/3
Matrix: Water
Analysis Batch: 263758

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloropropane	50.0	46.3		ug/L		93	35 - 165
1,3,5-Trimethylbenzene	50.0	48.3		ug/L		97	60 - 140
1,3-Dichlorobenzene	50.0	43.3		ug/L		87	70 - 130
1,3-Dichloropropane	50.0	46.9		ug/L		94	60 - 140
1,4-Dichlorobenzene	50.0	43.7		ug/L		87	65 - 135
2,2-Dichloropropane	50.0	64.2		ug/L		128	60 - 140
2-Butanone (MEK)	50.0	79.0	L5 V1	ug/L		158	60 - 140
2-Chlorotoluene	50.0	45.7		ug/L		91	60 - 140
2-Hexanone	50.0	50.8		ug/L		102	60 - 140
4-Chlorotoluene	50.0	44.4		ug/L		89	60 - 140
4-Isopropyltoluene	50.0	44.7		ug/L		89	60 - 140
4-Methyl-2-pentanone (MIBK)	50.0	50.8		ug/L		102	60 - 140
Acetone	50.0	51.3		ug/L		103	18 - 150
Benzene	50.0	42.5		ug/L		85	65 - 135
Bromobenzene	50.0	44.6		ug/L		89	60 - 140
Bromoform	50.0	50.1		ug/L		100	70 - 130
Bromomethane	50.0	111	E2 L5 V1	ug/L		221	15 - 185
Carbon disulfide	50.0	67.6		ug/L		135	60 - 140
Carbon tetrachloride	50.0	47.7		ug/L		95	70 - 130
Chlorobenzene	50.0	45.0		ug/L		90	65 - 135
Chlorobromomethane	50.0	60.5		ug/L		121	60 - 140
Chlorodibromomethane	50.0	43.1		ug/L		86	70 - 135
Chloroethane	50.0	80.7	L5	ug/L		161	40 - 160
Chloroform	50.0	63.5		ug/L		127	70 - 135
Chloromethane	50.0	73.6		ug/L		147	10 - 205
cis-1,2-Dichloroethene	50.0	42.0		ug/L		84	60 - 140
cis-1,3-Dichloropropene	50.0	45.5		ug/L		91	25 - 175
Dibromomethane	50.0	50.4		ug/L		101	70 - 130
Dichlorobromomethane	50.0	47.1		ug/L		94	65 - 135
Dichlorodifluoromethane	50.0	71.7	L5	ug/L		143	60 - 140
Ethanol	1000	1330		ug/L		133	60 - 140
Ethylbenzene	50.0	47.5		ug/L		95	60 - 140
Ethylene Dibromide	50.0	48.4		ug/L		97	60 - 140
Hexachlorobutadiene	50.0	43.7		ug/L		87	60 - 140
Iodomethane	50.0	68.0		ug/L		136	60 - 140
Isopropylbenzene	50.0	49.0		ug/L		98	60 - 140
Methyl tert-butyl ether	50.0	59.6		ug/L		119	60 - 140
Methylene Chloride	50.0	52.9		ug/L		106	60 - 140
m-Xylene & p-Xylene	50.0	46.1		ug/L		92	60 - 140
Naphthalene	50.0	42.4		ug/L		85	60 - 140
n-Butylbenzene	50.0	49.4		ug/L		99	60 - 140
N-Propylbenzene	50.0	48.9		ug/L		98	60 - 140
o-Xylene	50.0	46.7		ug/L		93	60 - 140
sec-Butylbenzene	50.0	44.8		ug/L		90	60 - 140
Styrene	50.0	45.1		ug/L		90	60 - 140
tert-Butylbenzene	50.0	43.2		ug/L		86	60 - 140
Tetrachloroethene	50.0	46.2		ug/L		92	70 - 130
Toluene	50.0	43.9		ug/L		88	70 - 130
trans-1,2-Dichloroethene	50.0	60.8		ug/L		122	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-263758/3
Matrix: Water
Analysis Batch: 263758

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	50.0	46.2		ug/L		92	50 - 150
Trichloroethene	50.0	44.7		ug/L		89	65 - 135
Trichlorofluoromethane	50.0	86.1	L5 V1	ug/L		172	50 - 150
Vinyl acetate	50.0	69.0		ug/L		138	60 - 140
Vinyl chloride	50.0	82.7		ug/L		165	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*86*		*60 - 140*
Dibromofluoromethane (Surr)	*130*		*60 - 140*
Toluene-d8 (Surr)	*93*		*60 - 140*

Lab Sample ID: LCSD 550-263758/4
Matrix: Water
Analysis Batch: 263758

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	46.8		ug/L		94	60 - 140	5	20
1,1,1-Trichloroethane	50.0	54.9		ug/L		110	70 - 130	11	20
1,1,2,2-Tetrachloroethane	50.0	44.1		ug/L		88	60 - 140	6	20
1,1,2-Trichloroethane	50.0	44.4		ug/L		89	70 - 130	3	20
1,1-Dichloroethane	50.0	55.8		ug/L		112	70 - 150	6	20
1,1-Dichloroethene	50.0	56.9		ug/L		114	50 - 140	12	20
1,1-Dichloropropene	50.0	44.0		ug/L		88	60 - 140	7	20
1,2,3-Trichlorobenzene	50.0	41.1		ug/L		82	60 - 140	7	20
1,2,3-Trichloropropane	50.0	39.6		ug/L		79	60 - 140	2	20
1,2,4-Trichlorobenzene	50.0	40.9	T2	ug/L		82	60 - 140	6	20
1,2,4-Trimethylbenzene	50.0	44.1		ug/L		88	60 - 140	4	20
1,2-Dibromo-3-Chloropropane	50.0	36.8		ug/L		74	60 - 140	15	20
1,2-Dichlorobenzene	50.0	42.7		ug/L		85	65 - 140	1	20
1,2-Dichloroethane	50.0	38.6		ug/L		77	70 - 130	0	20
1,2-Dichloropropane	50.0	44.0		ug/L		88	35 - 165	5	20
1,3,5-Trimethylbenzene	50.0	47.4		ug/L		95	60 - 140	2	20
1,3-Dichlorobenzene	50.0	43.4		ug/L		87	70 - 130	0	20
1,3-Dichloropropane	50.0	46.4		ug/L		93	60 - 140	1	20
1,4-Dichlorobenzene	50.0	44.3		ug/L		89	65 - 135	1	20
2,2-Dichloropropane	50.0	58.9		ug/L		118	60 - 140	9	20
2-Butanone (MEK)	50.0	71.1	L5 V1	ug/L		142	60 - 140	11	20
2-Chlorotoluene	50.0	44.9		ug/L		90	60 - 140	2	20
2-Hexanone	50.0	46.4		ug/L		93	60 - 140	9	20
4-Chlorotoluene	50.0	44.7		ug/L		89	60 - 140	1	20
4-Isopropyltoluene	50.0	42.3		ug/L		85	60 - 140	5	20
4-Methyl-2-pentanone (MIBK)	50.0	46.4		ug/L		93	60 - 140	9	20
Acetone	50.0	45.1		ug/L		90	18 - 150	13	20
Benzene	50.0	40.3		ug/L		81	65 - 135	5	20
Bromobenzene	50.0	46.1		ug/L		92	60 - 140	3	20
Bromoform	50.0	51.9		ug/L		104	70 - 130	4	20
Bromomethane	50.0	92.3	V1	ug/L		185	15 - 185	18	20
Carbon disulfide	50.0	58.2		ug/L		116	60 - 140	15	20

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 550-263758/4
Matrix: Water
Analysis Batch: 263758

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 tetrachloride	50.0	42.6		ug/L		85	70 - 130	11	20
Chlorobenzene	50.0	44.6		ug/L		89	65 - 135	1	20
Chlorobromomethane	50.0	59.6		ug/L		119	60 - 140	1	20
Chlorodibromomethane	50.0	43.4		ug/L		87	70 - 135	1	20
Chloroethane	50.0	66.7		ug/L		133	40 - 160	19	20
Chloroform	50.0	61.3		ug/L		123	70 - 135	4	20
Chloromethane	50.0	62.5		ug/L		125	10 - 205	16	20
cis-1,2-Dichloroethene	50.0	41.0		ug/L		82	60 - 140	2	20
cis-1,3-Dichloropropene	50.0	44.9		ug/L		90	25 - 175	1	20
Dibromomethane	50.0	49.2		ug/L		98	70 - 130	2	20
Dichlorobromomethane	50.0	45.7		ug/L		91	65 - 135	3	20
Dichlorodifluoromethane	50.0	55.9	R1	ug/L		112	60 - 140	25	20
Ethanol	1000	1100		ug/L		110	60 - 140	19	20
Ethylbenzene	50.0	45.2		ug/L		90	60 - 140	5	20
Ethylene Dibromide	50.0	47.2		ug/L		94	60 - 140	3	20
Hexachlorobutadiene	50.0	40.4		ug/L		81	60 - 140	8	20
Iodomethane	50.0	63.4		ug/L		127	60 - 140	7	20
Isopropylbenzene	50.0	46.6		ug/L		93	60 - 140	5	20
Methyl tert-butyl ether	50.0	56.2		ug/L		112	60 - 140	6	20
Methylene Chloride	50.0	50.4		ug/L		101	60 - 140	5	20
m-Xylene & p-Xylene	50.0	45.8		ug/L		92	60 - 140	1	20
Naphthalene	50.0	38.6		ug/L		77	60 - 140	9	20
n-Butylbenzene	50.0	46.0		ug/L		92	60 - 140	7	20
N-Propylbenzene	50.0	47.6		ug/L		95	60 - 140	3	20
o-Xylene	50.0	46.5		ug/L		93	60 - 140	1	20
sec-Butylbenzene	50.0	41.5		ug/L		83	60 - 140	8	20
Styrene	50.0	46.3		ug/L		93	60 - 140	3	20
tert-Butylbenzene	50.0	42.0		ug/L		84	60 - 140	3	20
Tetrachloroethene	50.0	43.4		ug/L		87	70 - 130	6	20
Toluene	50.0	41.8		ug/L		84	70 - 130	5	20
trans-1,2-Dichloroethene	50.0	55.7		ug/L		111	70 - 130	9	20
trans-1,3-Dichloropropene	50.0	45.6		ug/L		91	50 - 150	1	20
Trichloroethene	50.0	43.3		ug/L		87	65 - 135	3	20
Trichlorofluoromethane	50.0	73.7	V1	ug/L		147	50 - 150	16	20
Vinyl acetate	50.0	61.3		ug/L		123	60 - 140	12	20
Vinyl chloride	50.0	67.4		ug/L		135	5 - 195	20	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*
Dibromofluoromethane (Surr)	*127*		*60 - 140*
Toluene-d8 (Surr)	*90*		*60 - 140*

Lab Sample ID: 550-177361-B-3 MS
Matrix: Water
Analysis Batch: 263758

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	47.8		ug/L		96	50 - 150		

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-177361-B-3 MS
Matrix: Water
Analysis Batch: 263758

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-Trichloroethane	ND		50.0	60.0		ug/L		120	52 - 162
1,1,2,2-Tetrachloroethane	ND		50.0	44.4		ug/L		89	46 - 157
1,1,2-Trichloroethane	ND		50.0	42.1		ug/L		84	52 - 150
1,1-Dichloroethane	ND		50.0	56.4		ug/L		113	59 - 155
1,1-Dichloroethene	ND		50.0	63.5		ug/L		127	10 - 234
1,1-Dichloropropene	ND		50.0	47.5		ug/L		95	50 - 150
1,2,3-Trichlorobenzene	ND		50.0	42.8		ug/L		80	50 - 150
1,2,3-Trichloropropane	ND		50.0	37.5		ug/L		75	50 - 150
1,2,4-Trichlorobenzene	ND	T2	50.0	43.1	T2	ug/L		83	50 - 150
1,2,4-Trimethylbenzene	ND		50.0	44.5		ug/L		89	50 - 150
1,2-Dibromo-3-Chloropropane	ND		50.0	40.7		ug/L		81	50 - 150
1,2-Dichlorobenzene	ND		50.0	45.0		ug/L		90	18 - 190
1,2-Dichloroethane	ND		50.0	37.3		ug/L		75	49 - 155
1,2-Dichloropropane	ND		50.0	45.0		ug/L		90	10 - 210
1,3,5-Trimethylbenzene	ND		50.0	48.2		ug/L		96	50 - 150
1,3-Dichlorobenzene	ND		50.0	42.0		ug/L		83	59 - 156
1,3-Dichloropropane	ND		50.0	44.8		ug/L		90	50 - 150
1,4-Dichlorobenzene	ND		50.0	42.1		ug/L		84	18 - 190
2,2-Dichloropropane	ND		50.0	61.8		ug/L		124	50 - 150
2-Butanone (MEK)	ND	V1	50.0	62.2	V1	ug/L		124	50 - 150
2-Chlorotoluene	ND		50.0	45.5		ug/L		91	50 - 150
2-Hexanone	ND		50.0	43.5		ug/L		87	50 - 150
4-Chlorotoluene	ND		50.0	42.9		ug/L		86	50 - 150
4-Isopropyltoluene	ND		50.0	44.6		ug/L		88	50 - 150
4-Methyl-2-pentanone (MIBK)	ND		50.0	45.2		ug/L		90	50 - 150
Acetone	26		50.0	58.2		ug/L		65	18 - 150
Benzene	ND		50.0	42.5		ug/L		85	35 - 151
Bromobenzene	ND		50.0	42.8		ug/L		86	50 - 150
Bromoform	1.7		50.0	48.9		ug/L		94	45 - 169
Bromomethane	ND	V1	50.0	103	E2 V1	ug/L		205	10 - 242
Carbon disulfide	ND		50.0	69.8		ug/L		135	50 - 150
Carbon tetrachloride	ND		50.0	48.5		ug/L		97	70 - 140
Chlorobenzene	ND		50.0	43.6		ug/L		87	37 - 160
Chlorobromomethane	ND		50.0	54.8		ug/L		110	50 - 150
Chlorodibromomethane	ND		50.0	42.1		ug/L		84	53 - 149
Chloroethane	ND		50.0	75.9		ug/L		152	14 - 230
Chloroform	ND		50.0	60.1		ug/L		120	51 - 138
Chloromethane	ND		50.0	75.3		ug/L		151	10 - 273
cis-1,2-Dichloroethene	ND		50.0	42.7		ug/L		85	50 - 150
cis-1,3-Dichloropropene	ND		50.0	43.9		ug/L		88	10 - 227
Dibromomethane	ND		50.0	47.9		ug/L		96	50 - 150
Dichlorobromomethane	ND		50.0	44.7		ug/L		89	35 - 155
Dichlorodifluoromethane	ND		50.0	66.0		ug/L		132	50 - 150
Ethanol	ND		1000	1100		ug/L		99	50 - 150
Ethylbenzene	ND		50.0	46.3		ug/L		93	37 - 162
Ethylene Dibromide	ND		50.0	44.5		ug/L		89	50 - 150
Hexachlorobutadiene	ND		50.0	43.5		ug/L		87	50 - 150
Iodomethane	ND		50.0	66.0		ug/L		132	50 - 150
Isopropylbenzene	ND		50.0	48.4		ug/L		97	50 - 150

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-177361-B-3 MS
Matrix: Water
Analysis Batch: 263758

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
Methyl tert-butyl ether	ND		50.0	54.1		ug/L		108	50 - 150
Methylene Chloride	ND		50.0	49.4		ug/L		99	10 - 221
m-Xylene & p-Xylene	ND		50.0	44.2		ug/L		88	50 - 150
Naphthalene	ND		50.0	40.8		ug/L		76	50 - 150
n-Butylbenzene	ND		50.0	49.7		ug/L		99	50 - 150
N-Propylbenzene	ND		50.0	47.8		ug/L		96	50 - 150
o-Xylene	ND		50.0	44.7		ug/L		89	50 - 150
sec-Butylbenzene	ND		50.0	45.3		ug/L		90	50 - 150
Styrene	ND		50.0	42.5		ug/L		85	50 - 150
tert-Butylbenzene	0.53	B1	50.0	43.0		ug/L		85	50 - 150
Tetrachloroethene	ND		50.0	44.0		ug/L		88	64 - 148
Toluene	ND		50.0	42.7		ug/L		85	47 - 150
trans-1,2-Dichloroethene	ND		50.0	57.0		ug/L		114	54 - 156
trans-1,3-Dichloropropene	ND		50.0	42.8		ug/L		86	17 - 183
Trichloroethene	ND		50.0	43.2		ug/L		86	70 - 157
Trichlorofluoromethane	ND	V1	50.0	85.2	V1	ug/L		170	17 - 181
Vinyl acetate	ND		50.0	55.8		ug/L		112	50 - 150
Vinyl chloride	ND		50.0	82.5		ug/L		165	10 - 251

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*84*		*60 - 140*
Dibromofluoromethane (Surr)	*122*		*60 - 140*
Toluene-d8 (Surr)	*93*		*60 - 140*

Lab Sample ID: 550-177361-B-3 MSD
Matrix: Water
Analysis Batch: 263758

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	44.3		ug/L		89	50 - 150	8	35
1,1,1-Trichloroethane	ND		50.0	57.9		ug/L		116	52 - 162	4	36
1,1,2,2-Tetrachloroethane	ND		50.0	45.6		ug/L		91	46 - 157	3	61
1,1,2-Trichloroethane	ND		50.0	42.3		ug/L		85	52 - 150	0	45
1,1-Dichloroethane	ND		50.0	53.8		ug/L		108	59 - 155	5	40
1,1-Dichloroethene	ND		50.0	61.4		ug/L		123	10 - 234	4	32
1,1-Dichloropropene	ND		50.0	47.8		ug/L		96	50 - 150	1	35
1,2,3-Trichlorobenzene	ND		50.0	43.6		ug/L		82	50 - 150	2	35
1,2,3-Trichloropropane	ND		50.0	42.9		ug/L		86	50 - 150	13	35
1,2,4-Trichlorobenzene	ND	T2	50.0	42.2	T2	ug/L		81	50 - 150	2	35
1,2,4-Trimethylbenzene	ND		50.0	45.0		ug/L		90	50 - 150	1	35
1,2-Dibromo-3-Chloropropane	ND		50.0	45.1		ug/L		90	50 - 150	10	35
1,2-Dichlorobenzene	ND		50.0	43.4		ug/L		87	18 - 190	4	57
1,2-Dichloroethane	ND		50.0	36.4		ug/L		73	49 - 155	2	49
1,2-Dichloropropane	ND		50.0	43.1		ug/L		86	10 - 210	4	55
1,3,5-Trimethylbenzene	ND		50.0	48.9		ug/L		98	50 - 150	1	35
1,3-Dichlorobenzene	ND		50.0	42.0		ug/L		83	59 - 156	0	43
1,3-Dichloropropane	ND		50.0	44.4		ug/L		89	50 - 150	1	35
1,4-Dichlorobenzene	ND		50.0	41.9		ug/L		83	18 - 190	1	57

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-177361-B-3 MSD
Matrix: Water
Analysis Batch: 263758

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
2,2-Dichloropropane	ND		50.0	58.6		ug/L		117	50 - 150	5	35
2-Butanone (MEK)	ND	V1	50.0	66.2	V1	ug/L		132	50 - 150	6	35
2-Chlorotoluene	ND		50.0	46.7		ug/L		93	50 - 150	3	35
2-Hexanone	ND		50.0	45.6		ug/L		91	50 - 150	5	35
4-Chlorotoluene	ND		50.0	44.2		ug/L		88	50 - 150	3	35
4-Isopropyltoluene	ND		50.0	43.8		ug/L		87	50 - 150	2	35
4-Methyl-2-pentanone (MIBK)	ND		50.0	47.7		ug/L		95	50 - 150	6	35
Acetone	26		50.0	65.3		ug/L		79	18 - 150	11	35
Benzene	ND		50.0	40.7		ug/L		81	35 - 151	4	61
Bromobenzene	ND		50.0	44.5		ug/L		89	50 - 150	4	35
Bromoform	1.7		50.0	52.6		ug/L		102	45 - 169	7	42
Bromomethane	ND	V1	50.0	91.4	V1	ug/L		183	10 - 242	12	61
Carbon disulfide	ND		50.0	65.2		ug/L		125	50 - 150	7	35
Carbon tetrachloride	ND		50.0	47.9		ug/L		96	70 - 140	1	41
Chlorobenzene	ND		50.0	42.6		ug/L		85	37 - 160	2	53
Chlorobromomethane	ND		50.0	53.9		ug/L		108	50 - 150	2	35
Chlorodibromomethane	ND		50.0	41.0		ug/L		82	53 - 149	2	50
Chloroethane	ND		50.0	66.8		ug/L		134	14 - 230	13	78
Chloroform	ND		50.0	58.2		ug/L		116	51 - 138	3	54
Chloromethane	ND		50.0	64.9		ug/L		130	10 - 273	15	60
cis-1,2-Dichloroethene	ND		50.0	41.2		ug/L		82	50 - 150	3	35
cis-1,3-Dichloropropene	ND		50.0	43.2		ug/L		86	10 - 227	2	58
Dibromomethane	ND		50.0	47.2		ug/L		94	50 - 150	1	35
Dichlorobromomethane	ND		50.0	43.9		ug/L		88	35 - 155	2	56
Dichlorodifluoromethane	ND		50.0	63.7		ug/L		127	50 - 150	4	35
Ethanol	ND		1000	1240		ug/L		113	50 - 150	12	35
Ethylbenzene	ND		50.0	45.3		ug/L		91	37 - 162	2	63
Ethylene Dibromide	ND		50.0	44.5		ug/L		89	50 - 150	0	35
Hexachlorobutadiene	ND		50.0	43.3		ug/L		87	50 - 150	1	35
Iodomethane	ND		50.0	63.5		ug/L		127	50 - 150	4	35
Isopropylbenzene	ND		50.0	50.0		ug/L		100	50 - 150	3	35
Methyl tert-butyl ether	ND		50.0	49.3		ug/L		99	50 - 150	9	35
Methylene Chloride	ND		50.0	49.2		ug/L		98	10 - 221	0	28
m-Xylene & p-Xylene	ND		50.0	47.5		ug/L		95	50 - 150	7	35
Naphthalene	ND		50.0	42.4		ug/L		79	50 - 150	4	35
n-Butylbenzene	ND		50.0	49.9		ug/L		100	50 - 150	0	35
N-Propylbenzene	ND		50.0	49.9		ug/L		100	50 - 150	4	35
o-Xylene	ND		50.0	46.3		ug/L		93	50 - 150	3	35
sec-Butylbenzene	ND		50.0	45.4		ug/L		90	50 - 150	0	35
Styrene	ND		50.0	44.2		ug/L		88	50 - 150	4	35
tert-Butylbenzene	0.53	B1	50.0	44.7		ug/L		88	50 - 150	4	35
Tetrachloroethene	ND		50.0	46.3		ug/L		93	64 - 148	5	39
Toluene	ND		50.0	42.7		ug/L		85	47 - 150	0	41
trans-1,2-Dichloroethene	ND		50.0	56.3		ug/L		113	54 - 156	1	45
trans-1,3-Dichloropropene	ND		50.0	43.6		ug/L		87	17 - 183	2	86
Trichloroethene	ND		50.0	43.8		ug/L		88	70 - 157	1	48
Trichlorofluoromethane	ND	V1	50.0	79.5	V1	ug/L		159	17 - 181	7	84
Vinyl acetate	ND		50.0	52.3		ug/L		105	50 - 150	6	35
Vinyl chloride	ND		50.0	73.6		ug/L		147	10 - 251	11	66

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	85		60 - 140
Dibromofluoromethane (Surr)	116		60 - 140
Toluene-d8 (Surr)	90		60 - 140

Lab Sample ID: MB 550-263819/5
Matrix: Water
Analysis Batch: 263819

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		0.50		ug/L			01/18/22 11:57	1
1,1,1-Trichloroethane	ND		0.50		ug/L			01/18/22 11:57	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/18/22 11:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			01/18/22 11:57	1
1,1,2-Trichloroethane	ND		0.50		ug/L			01/18/22 11:57	1
1,1-Dichloroethane	ND		0.50		ug/L			01/18/22 11:57	1
1,1-Dichloroethene	ND		0.50		ug/L			01/18/22 11:57	1
1,1-Dichloropropene	ND		0.50		ug/L			01/18/22 11:57	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			01/18/22 11:57	1
1,2,3-Trichloropropane	ND		2.0		ug/L			01/18/22 11:57	1
1,2,4-Trichlorobenzene	ND		2.0		ug/L			01/18/22 11:57	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			01/18/22 11:57	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			01/18/22 11:57	1
1,2-Dichlorobenzene	ND		0.50		ug/L			01/18/22 11:57	1
1,2-Dichloroethane	ND		0.50		ug/L			01/18/22 11:57	1
1,2-Dichloropropane	ND		0.50		ug/L			01/18/22 11:57	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			01/18/22 11:57	1
1,3-Dichlorobenzene	ND		0.50		ug/L			01/18/22 11:57	1
1,3-Dichloropropane	ND		0.50		ug/L			01/18/22 11:57	1
1,4-Dichlorobenzene	ND		0.50		ug/L			01/18/22 11:57	1
2,2-Dichloropropane	ND		1.0		ug/L			01/18/22 11:57	1
2-Butanone (MEK)	ND		10		ug/L			01/18/22 11:57	1
2-Chlorotoluene	ND		0.50		ug/L			01/18/22 11:57	1
2-Hexanone	ND		5.0		ug/L			01/18/22 11:57	1
4-Chlorotoluene	ND		0.50		ug/L			01/18/22 11:57	1
4-Isopropyltoluene	ND		0.50		ug/L			01/18/22 11:57	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			01/18/22 11:57	1
Acetone	ND		10		ug/L			01/18/22 11:57	1
Benzene	ND		0.50		ug/L			01/18/22 11:57	1
Bromobenzene	ND		1.0		ug/L			01/18/22 11:57	1
Bromoform	ND		1.0		ug/L			01/18/22 11:57	1
Bromomethane	ND		5.0		ug/L			01/18/22 11:57	1
Carbon disulfide	ND		5.0		ug/L			01/18/22 11:57	1
Carbon tetrachloride	ND		0.50		ug/L			01/18/22 11:57	1
Chlorobenzene	ND		0.50		ug/L			01/18/22 11:57	1
Chlorobromomethane	ND		0.50		ug/L			01/18/22 11:57	1
Chlorodibromomethane	ND		0.50		ug/L			01/18/22 11:57	1
Chloroethane	ND		1.0		ug/L			01/18/22 11:57	1
Chloroform	ND		0.50		ug/L			01/18/22 11:57	1
Chloromethane	ND		1.0		ug/L			01/18/22 11:57	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			01/18/22 11:57	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			01/18/22 11:57	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-263819/5
Matrix: Water
Analysis Batch: 263819

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	ND		0.50	ug/L			01/18/22 11:57	1
Dichlorobromomethane	ND		0.50	ug/L			01/18/22 11:57	1
Dichlorodifluoromethane	ND		1.0	ug/L			01/18/22 11:57	1
Ethanol	ND		150	ug/L			01/18/22 11:57	1
Ethylbenzene	ND		0.50	ug/L			01/18/22 11:57	1
Ethylene Dibromide	ND		0.50	ug/L			01/18/22 11:57	1
Hexachlorobutadiene	ND		5.0	ug/L			01/18/22 11:57	1
Iodomethane	ND		2.0	ug/L			01/18/22 11:57	1
Isopropylbenzene	ND		0.50	ug/L			01/18/22 11:57	1
Methyl tert-butyl ether	ND		0.50	ug/L			01/18/22 11:57	1
Methylene Chloride	ND		5.0	ug/L			01/18/22 11:57	1
m-Xylene & p-Xylene	ND		1.0	ug/L			01/18/22 11:57	1
Naphthalene	ND		5.0	ug/L			01/18/22 11:57	1
n-Butylbenzene	ND		1.0	ug/L			01/18/22 11:57	1
N-Propylbenzene	ND		0.50	ug/L			01/18/22 11:57	1
o-Xylene	ND		0.50	ug/L			01/18/22 11:57	1
sec-Butylbenzene	ND		0.50	ug/L			01/18/22 11:57	1
Styrene	ND		1.0	ug/L			01/18/22 11:57	1
tert-Butylbenzene	ND		0.50	ug/L			01/18/22 11:57	1
Tetrachloroethene	ND		0.50	ug/L			01/18/22 11:57	1
Toluene	ND		0.50	ug/L			01/18/22 11:57	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			01/18/22 11:57	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			01/18/22 11:57	1
Trichloroethene	ND		0.50	ug/L			01/18/22 11:57	1
Trichlorofluoromethane	ND		1.0	ug/L			01/18/22 11:57	1
Trihalomethanes, Total	ND		0.50	ug/L			01/18/22 11:57	1
Vinyl acetate	ND		5.0	ug/L			01/18/22 11:57	1
Vinyl chloride	ND		1.0	ug/L			01/18/22 11:57	1
Xylenes, Total	ND		0.50	ug/L			01/18/22 11:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*60 - 140*		*01/18/22 11:57*	*1*
Dibromofluoromethane (Surr)	*88*		*60 - 140*		*01/18/22 11:57*	*1*
Toluene-d8 (Surr)	*99*		*60 - 140*		*01/18/22 11:57*	*1*

Lab Sample ID: LCS 550-263819/3
Matrix: Water
Analysis Batch: 263819

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	45.2		ug/L		90	60 - 140
1,1,1-Trichloroethane	50.0	46.7		ug/L		93	70 - 130
1,1,2,2-Tetrachloroethane	50.0	49.0		ug/L		98	60 - 140
1,1,2-Trichloroethane	50.0	45.2		ug/L		90	70 - 130
1,1-Dichloroethane	50.0	43.5		ug/L		87	70 - 150
1,1-Dichloroethene	50.0	44.6		ug/L		89	50 - 140
1,1-Dichloropropene	50.0	44.0		ug/L		88	60 - 140
1,2,3-Trichlorobenzene	50.0	42.3		ug/L		85	60 - 140

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-263819/3
Matrix: Water
Analysis Batch: 263819

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	50.0	50.3		ug/L		101	60 - 140
1,2,4-Trichlorobenzene	50.0	43.8		ug/L		88	60 - 140
1,2,4-Trimethylbenzene	50.0	48.0		ug/L		96	60 - 140
1,2-Dibromo-3-Chloropropane	50.0	52.1		ug/L		104	60 - 140
1,2-Dichlorobenzene	50.0	45.6		ug/L		91	65 - 140
1,2-Dichloroethane	50.0	45.0		ug/L		90	70 - 130
1,2-Dichloropropane	50.0	43.8		ug/L		88	35 - 165
1,3,5-Trimethylbenzene	50.0	49.5		ug/L		99	60 - 140
1,3-Dichlorobenzene	50.0	47.6		ug/L		95	70 - 130
1,3-Dichloropropane	50.0	48.5		ug/L		97	60 - 140
1,4-Dichlorobenzene	50.0	46.3		ug/L		93	65 - 135
2,2-Dichloropropane	50.0	48.1		ug/L		96	60 - 140
2-Butanone (MEK)	50.0	54.9		ug/L		110	60 - 140
2-Chlorotoluene	50.0	47.4		ug/L		95	60 - 140
2-Hexanone	50.0	52.1		ug/L		104	60 - 140
4-Chlorotoluene	50.0	48.6		ug/L		97	60 - 140
4-Isopropyltoluene	50.0	50.6		ug/L		101	60 - 140
4-Methyl-2-pentanone (MIBK)	50.0	51.0		ug/L		102	60 - 140
Acetone	50.0	64.9		ug/L		130	18 - 150
Benzene	50.0	43.0		ug/L		86	65 - 135
Bromobenzene	50.0	47.0		ug/L		94	60 - 140
Bromoform	50.0	49.2		ug/L		98	70 - 130
Bromomethane	50.0	49.2		ug/L		98	15 - 185
Carbon disulfide	50.0	44.0		ug/L		88	60 - 140
Carbon tetrachloride	50.0	44.9		ug/L		90	70 - 130
Chlorobenzene	50.0	46.5		ug/L		93	65 - 135
Chlorobromomethane	50.0	42.7		ug/L		85	60 - 140
Chlorodibromomethane	50.0	49.8		ug/L		100	70 - 135
Chloroethane	50.0	52.1		ug/L		104	40 - 160
Chloroform	50.0	45.1		ug/L		90	70 - 135
Chloromethane	50.0	43.8		ug/L		88	10 - 205
cis-1,2-Dichloroethene	50.0	41.6		ug/L		83	60 - 140
cis-1,3-Dichloropropene	50.0	47.1		ug/L		94	25 - 175
Dibromomethane	50.0	43.6		ug/L		87	70 - 130
Dichlorobromomethane	50.0	42.1		ug/L		84	65 - 135
Dichlorodifluoromethane	50.0	38.5		ug/L		77	60 - 140
Ethanol	1000	1140		ug/L		114	60 - 140
Ethylbenzene	50.0	47.2		ug/L		94	60 - 140
Ethylene Dibromide	50.0	46.5		ug/L		93	60 - 140
Hexachlorobutadiene	50.0	43.0		ug/L		86	60 - 140
Iodomethane	50.0	43.3		ug/L		87	60 - 140
Isopropylbenzene	50.0	50.3		ug/L		101	60 - 140
Methyl tert-butyl ether	50.0	45.1		ug/L		90	60 - 140
Methylene Chloride	50.0	43.8		ug/L		88	60 - 140
m-Xylene & p-Xylene	50.0	48.1		ug/L		96	60 - 140
Naphthalene	50.0	45.3		ug/L		91	60 - 140
n-Butylbenzene	50.0	49.5		ug/L		99	60 - 140
N-Propylbenzene	50.0	48.5		ug/L		97	60 - 140
o-Xylene	50.0	48.3		ug/L		97	60 - 140

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-263819/3
Matrix: Water
Analysis Batch: 263819

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
sec-Butylbenzene	50.0	51.0		ug/L		102	60 - 140
Styrene	50.0	47.9		ug/L		96	60 - 140
tert-Butylbenzene	50.0	46.9		ug/L		94	60 - 140
Tetrachloroethene	50.0	45.2		ug/L		90	70 - 130
Toluene	50.0	42.1		ug/L		84	70 - 130
trans-1,2-Dichloroethene	50.0	43.7		ug/L		87	70 - 130
trans-1,3-Dichloropropene	50.0	48.3		ug/L		97	50 - 150
Trichloroethene	50.0	42.9		ug/L		86	65 - 135
Trichlorofluoromethane	50.0	45.0		ug/L		90	50 - 150
Vinyl acetate	50.0	56.1		ug/L		112	60 - 140
Vinyl chloride	50.0	45.3		ug/L		91	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*
Dibromofluoromethane (Surr)	*89*		*60 - 140*
Toluene-d8 (Surr)	*94*		*60 - 140*

Lab Sample ID: LCSD 550-263819/4
Matrix: Water
Analysis Batch: 263819

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	49.3		ug/L		99	60 - 140	9	20
1,1,1-Trichloroethane	50.0	52.0		ug/L		104	70 - 130	11	20
1,1,2,2-Tetrachloroethane	50.0	50.1		ug/L		100	60 - 140	2	20
1,1,2-Trichloroethane	50.0	45.9		ug/L		92	70 - 130	2	20
1,1-Dichloroethane	50.0	47.9		ug/L		96	70 - 150	10	20
1,1-Dichloroethene	50.0	48.9		ug/L		98	50 - 140	9	20
1,1-Dichloropropene	50.0	44.9		ug/L		90	60 - 140	2	20
1,2,3-Trichlorobenzene	50.0	46.9		ug/L		94	60 - 140	10	20
1,2,3-Trichloropropane	50.0	52.8		ug/L		106	60 - 140	5	20
1,2,4-Trichlorobenzene	50.0	47.9		ug/L		96	60 - 140	9	20
1,2,4-Trimethylbenzene	50.0	48.6		ug/L		97	60 - 140	1	20
1,2-Dibromo-3-Chloropropane	50.0	55.5		ug/L		111	60 - 140	6	20
1,2-Dichlorobenzene	50.0	47.7		ug/L		95	65 - 140	5	20
1,2-Dichloroethane	50.0	45.9		ug/L		92	70 - 130	2	20
1,2-Dichloropropane	50.0	45.7		ug/L		91	35 - 165	4	20
1,3,5-Trimethylbenzene	50.0	49.6		ug/L		99	60 - 140	0	20
1,3-Dichlorobenzene	50.0	47.6		ug/L		95	70 - 130	0	20
1,3-Dichloropropane	50.0	47.8		ug/L		96	60 - 140	1	20
1,4-Dichlorobenzene	50.0	46.9		ug/L		94	65 - 135	1	20
2,2-Dichloropropane	50.0	53.5		ug/L		107	60 - 140	11	20
2-Butanone (MEK)	50.0	49.2		ug/L		98	60 - 140	11	20
2-Chlorotoluene	50.0	47.3		ug/L		95	60 - 140	0	20
2-Hexanone	50.0	51.0		ug/L		102	60 - 140	2	20
4-Chlorotoluene	50.0	47.6		ug/L		95	60 - 140	2	20
4-Isopropyltoluene	50.0	51.1		ug/L		102	60 - 140	1	20
4-Methyl-2-pentanone (MIBK)	50.0	51.7		ug/L		103	60 - 140	2	20

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 550-263819/4
Matrix: Water
Analysis Batch: 263819

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
Acetone			50.0	59.8		ug/L		120	18 - 150	8	20
Benzene			50.0	44.4		ug/L		89	65 - 135	3	20
Bromobenzene			50.0	46.1		ug/L		92	60 - 140	2	20
Bromoform			50.0	48.7		ug/L		97	70 - 130	1	20
Bromomethane			50.0	55.2		ug/L		110	15 - 185	11	20
Carbon disulfide			50.0	49.4		ug/L		99	60 - 140	12	20
Carbon tetrachloride			50.0	50.9		ug/L		102	70 - 130	12	20
Chlorobenzene			50.0	48.3		ug/L		97	65 - 135	4	20
Chlorobromomethane			50.0	46.1		ug/L		92	60 - 140	8	20
Chlorodibromomethane			50.0	49.9		ug/L		100	70 - 135	0	20
Chloroethane			50.0	63.8		ug/L		128	40 - 160	20	20
Chloroform			50.0	46.7		ug/L		93	70 - 135	4	20
Chloromethane			50.0	48.4		ug/L		97	10 - 205	10	20
cis-1,2-Dichloroethene			50.0	45.8		ug/L		92	60 - 140	10	20
cis-1,3-Dichloropropene			50.0	46.0		ug/L		92	25 - 175	3	20
Dibromomethane			50.0	44.6		ug/L		89	70 - 130	2	20
Dichlorobromomethane			50.0	43.3		ug/L		87	65 - 135	3	20
Dichlorodifluoromethane			50.0	42.0		ug/L		84	60 - 140	9	20
Ethanol			1000	1310		ug/L		131	60 - 140	15	20
Ethylbenzene			50.0	48.9		ug/L		98	60 - 140	3	20
Ethylene Dibromide			50.0	47.1		ug/L		94	60 - 140	1	20
Hexachlorobutadiene			50.0	46.0		ug/L		92	60 - 140	7	20
Iodomethane			50.0	49.8		ug/L		100	60 - 140	14	20
Isopropylbenzene			50.0	50.8		ug/L		102	60 - 140	1	20
Methyl tert-butyl ether			50.0	50.6		ug/L		101	60 - 140	11	20
Methylene Chloride			50.0	49.0		ug/L		98	60 - 140	11	20
m-Xylene & p-Xylene			50.0	46.7		ug/L		93	60 - 140	3	20
Naphthalene			50.0	50.3		ug/L		101	60 - 140	11	20
n-Butylbenzene			50.0	50.3		ug/L		101	60 - 140	2	20
N-Propylbenzene			50.0	48.4		ug/L		97	60 - 140	0	20
o-Xylene			50.0	48.5		ug/L		97	60 - 140	0	20
sec-Butylbenzene			50.0	51.4		ug/L		103	60 - 140	1	20
Styrene			50.0	45.2		ug/L		90	60 - 140	6	20
tert-Butylbenzene			50.0	45.7		ug/L		91	60 - 140	3	20
Tetrachloroethene			50.0	45.1		ug/L		90	70 - 130	0	20
Toluene			50.0	42.4		ug/L		85	70 - 130	1	20
trans-1,2-Dichloroethene			50.0	48.5		ug/L		97	70 - 130	10	20
trans-1,3-Dichloropropene			50.0	47.6		ug/L		95	50 - 150	2	20
Trichloroethene			50.0	43.0		ug/L		86	65 - 135	0	20
Trichlorofluoromethane			50.0	51.2		ug/L		102	50 - 150	13	20
Vinyl acetate			50.0	48.7		ug/L		97	60 - 140	14	20
Vinyl chloride			50.0	50.2		ug/L		100	5 - 195	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*
Dibromofluoromethane (Surr)	*95*		*60 - 140*
Toluene-d8 (Surr)	*100*		*60 - 140*

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-177358-B-1 MS
Matrix: Water
Analysis Batch: 263819

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	50.8		ug/L		102	50 - 150
1,1,1-Trichloroethane	ND		50.0	51.3		ug/L		103	52 - 162
1,1,2,2-Tetrachloroethane	ND		50.0	52.0		ug/L		104	46 - 157
1,1,2-Trichloroethane	ND		50.0	47.8		ug/L		96	52 - 150
1,1-Dichloroethane	ND		50.0	50.9		ug/L		102	59 - 155
1,1-Dichloroethene	ND		50.0	48.3		ug/L		97	10 - 234
1,1-Dichloropropene	ND		50.0	43.4		ug/L		87	50 - 150
1,2,3-Trichlorobenzene	ND		50.0	51.7		ug/L		103	50 - 150
1,2,3-Trichloropropane	ND		50.0	51.4		ug/L		103	50 - 150
1,2,4-Trichlorobenzene	ND		50.0	53.0		ug/L		106	50 - 150
1,2,4-Trimethylbenzene	ND	M2	50.0	5.36	M2	ug/L		11	50 - 150
1,2-Dibromo-3-Chloropropane	ND		50.0	52.7		ug/L		105	50 - 150
1,2-Dichlorobenzene	ND		50.0	50.9		ug/L		102	18 - 190
1,2-Dichloroethane	ND		50.0	49.6		ug/L		99	49 - 155
1,2-Dichloropropane	ND		50.0	50.1		ug/L		100	10 - 210
1,3,5-Trimethylbenzene	ND	M2	50.0	0.929	M2	ug/L		2	50 - 150
1,3-Dichlorobenzene	ND		50.0	51.2		ug/L		102	59 - 156
1,3-Dichloropropane	ND		50.0	52.8		ug/L		106	50 - 150
1,4-Dichlorobenzene	ND		50.0	49.6		ug/L		99	18 - 190
2,2-Dichloropropane	ND		50.0	54.0		ug/L		108	50 - 150
2-Butanone (MEK)	ND		50.0	49.2		ug/L		98	50 - 150
2-Chlorotoluene	ND		50.0	52.1		ug/L		104	50 - 150
2-Hexanone	ND		50.0	47.7		ug/L		95	50 - 150
4-Chlorotoluene	ND		50.0	52.3		ug/L		105	50 - 150
4-Isopropyltoluene	ND		50.0	41.5		ug/L		83	50 - 150
4-Methyl-2-pentanone (MIBK)	ND		50.0	49.1		ug/L		98	50 - 150
Acetone	ND		50.0	47.5		ug/L		95	18 - 150
Benzene	ND		50.0	47.3		ug/L		95	35 - 151
Bromobenzene	ND		50.0	50.1		ug/L		100	50 - 150
Bromoform	ND		50.0	50.4		ug/L		101	45 - 169
Bromomethane	ND		50.0	55.3		ug/L		111	10 - 242
Carbon disulfide	ND		50.0	50.1		ug/L		100	50 - 150
Carbon tetrachloride	ND		50.0	47.8		ug/L		96	70 - 140
Chlorobenzene	ND		50.0	50.6		ug/L		101	37 - 160
Chlorobromomethane	ND		50.0	48.0		ug/L		96	50 - 150
Chlorodibromomethane	ND		50.0	52.4		ug/L		105	53 - 149
Chloroethane	ND		50.0	60.2		ug/L		120	14 - 230
Chloroform	ND		50.0	51.4		ug/L		103	51 - 138
Chloromethane	ND		50.0	57.7		ug/L		115	10 - 273
cis-1,2-Dichloroethene	ND		50.0	47.1		ug/L		94	50 - 150
cis-1,3-Dichloropropene	ND		50.0	50.6		ug/L		101	10 - 227
Dibromomethane	ND		50.0	46.9		ug/L		94	50 - 150
Dichlorobromomethane	ND		50.0	47.5		ug/L		95	35 - 155
Dichlorodifluoromethane	ND		50.0	40.8		ug/L		82	50 - 150
Ethanol	ND		1000	1060		ug/L		106	50 - 150
Ethylbenzene	ND		50.0	48.9		ug/L		98	37 - 162
Ethylene Dibromide	ND		50.0	49.6		ug/L		99	50 - 150
Hexachlorobutadiene	ND		50.0	53.0		ug/L		106	50 - 150

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-177358-B-1 MS
Matrix: Water
Analysis Batch: 263819

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
Iodomethane	ND	M2	50.0	ND	M2	ug/L		0	50 - 150
Isopropylbenzene	ND		50.0	52.3		ug/L		105	50 - 150
Methyl tert-butyl ether	ND		50.0	48.9		ug/L		98	50 - 150
Methylene Chloride	ND		50.0	49.8		ug/L		100	10 - 221
m-Xylene & p-Xylene	ND	M2	50.0	22.3	M2	ug/L		45	50 - 150
Naphthalene	ND	M2	50.0	ND	M2	ug/L		8	50 - 150
n-Butylbenzene	ND		50.0	50.4		ug/L		101	50 - 150
N-Propylbenzene	ND		50.0	50.5		ug/L		101	50 - 150
o-Xylene	ND		50.0	38.5		ug/L		77	50 - 150
sec-Butylbenzene	ND		50.0	53.5		ug/L		107	50 - 150
Styrene	ND	M2	50.0	ND	M2	ug/L		0	50 - 150
tert-Butylbenzene	ND		50.0	49.5		ug/L		98	50 - 150
Tetrachloroethene	ND		50.0	47.5		ug/L		95	64 - 148
Toluene	ND		50.0	43.1		ug/L		86	47 - 150
trans-1,2-Dichloroethene	ND		50.0	49.2		ug/L		98	54 - 156
trans-1,3-Dichloropropene	ND		50.0	51.0		ug/L		102	17 - 183
Trichloroethene	ND		50.0	47.4		ug/L		95	70 - 157
Trichlorofluoromethane	ND		50.0	50.7		ug/L		101	17 - 181
Vinyl acetate	ND	M2	50.0	ND	M2	ug/L		0	50 - 150
Vinyl chloride	ND		50.0	44.9		ug/L		90	10 - 251

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*60 - 140*
Dibromofluoromethane (Surr)	*99*		*60 - 140*
Toluene-d8 (Surr)	*94*		*60 - 140*

Lab Sample ID: 550-177358-B-1 MSD
Matrix: Water
Analysis Batch: 263819

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	51.2		ug/L		102	50 - 150	1	35
1,1,1-Trichloroethane	ND		50.0	52.5		ug/L		105	52 - 162	2	36
1,1,2,2-Tetrachloroethane	ND		50.0	49.2		ug/L		98	46 - 157	6	61
1,1,2-Trichloroethane	ND		50.0	45.8		ug/L		92	52 - 150	4	45
1,1-Dichloroethane	ND		50.0	48.8		ug/L		98	59 - 155	4	40
1,1-Dichloroethene	ND		50.0	49.3		ug/L		99	10 - 234	2	32
1,1-Dichloropropene	ND		50.0	42.4		ug/L		85	50 - 150	2	35
1,2,3-Trichlorobenzene	ND		50.0	48.7		ug/L		97	50 - 150	6	35
1,2,3-Trichloropropane	ND		50.0	50.4		ug/L		101	50 - 150	2	35
1,2,4-Trichlorobenzene	ND		50.0	50.3		ug/L		101	50 - 150	5	35
1,2,4-Trimethylbenzene	ND	M2	50.0	7.34	M2	ug/L		15	50 - 150	31	35
1,2-Dibromo-3-Chloropropane	ND		50.0	51.1		ug/L		102	50 - 150	3	35
1,2-Dichlorobenzene	ND		50.0	49.1		ug/L		98	18 - 190	4	57
1,2-Dichloroethane	ND		50.0	45.9		ug/L		92	49 - 155	8	49
1,2-Dichloropropane	ND		50.0	48.1		ug/L		96	10 - 210	4	55
1,3,5-Trimethylbenzene	ND	M2	50.0	0.789	M2	ug/L		2	50 - 150	16	35
1,3-Dichlorobenzene	ND		50.0	50.4		ug/L		101	59 - 156	1	43

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-177358-B-1 MSD
Matrix: Water
Analysis Batch: 263819

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
1,3-Dichloropropane	ND		50.0	49.6		ug/L		99	50 - 150	6	35
1,4-Dichlorobenzene	ND		50.0	48.0		ug/L		96	18 - 190	3	57
2,2-Dichloropropane	ND		50.0	53.8		ug/L		108	50 - 150	0	35
2-Butanone (MEK)	ND		50.0	45.4		ug/L		91	50 - 150	8	35
2-Chlorotoluene	ND		50.0	52.0		ug/L		104	50 - 150	0	35
2-Hexanone	ND		50.0	43.8		ug/L		88	50 - 150	9	35
4-Chlorotoluene	ND		50.0	51.8		ug/L		104	50 - 150	1	35
4-Isopropyltoluene	ND		50.0	40.6		ug/L		81	50 - 150	2	35
4-Methyl-2-pentanone (MIBK)	ND		50.0	45.2		ug/L		90	50 - 150	8	35
Acetone	ND		50.0	46.0		ug/L		92	18 - 150	3	35
Benzene	ND		50.0	45.7		ug/L		91	35 - 151	4	61
Bromobenzene	ND		50.0	49.0		ug/L		98	50 - 150	2	35
Bromoform	ND		50.0	49.0		ug/L		98	45 - 169	3	42
Bromomethane	ND		50.0	52.7		ug/L		105	10 - 242	5	61
Carbon disulfide	ND		50.0	48.6		ug/L		97	50 - 150	3	35
Carbon tetrachloride	ND		50.0	49.1		ug/L		98	70 - 140	3	41
Chlorobenzene	ND		50.0	49.5		ug/L		99	37 - 160	2	53
Chlorobromomethane	ND		50.0	46.9		ug/L		94	50 - 150	2	35
Chlorodibromomethane	ND		50.0	51.0		ug/L		102	53 - 149	3	50
Chloroethane	ND		50.0	52.9		ug/L		106	14 - 230	13	78
Chloroform	ND		50.0	49.4		ug/L		99	51 - 138	4	54
Chloromethane	ND		50.0	57.0		ug/L		114	10 - 273	1	60
cis-1,2-Dichloroethene	ND		50.0	45.1		ug/L		90	50 - 150	4	35
cis-1,3-Dichloropropene	ND		50.0	46.7		ug/L		93	10 - 227	8	58
Dibromomethane	ND		50.0	44.8		ug/L		90	50 - 150	4	35
Dichlorobromomethane	ND		50.0	44.7		ug/L		89	35 - 155	6	56
Dichlorodifluoromethane	ND		50.0	43.1		ug/L		86	50 - 150	6	35
Ethanol	ND		1000	1020		ug/L		102	50 - 150	4	35
Ethylbenzene	ND		50.0	47.7		ug/L		95	37 - 162	2	63
Ethylene Dibromide	ND		50.0	45.6		ug/L		91	50 - 150	8	35
Hexachlorobutadiene	ND		50.0	50.2		ug/L		100	50 - 150	5	35
Iodomethane	ND	M2	50.0	ND	M2	ug/L		0	50 - 150	NC	35
Isopropylbenzene	ND		50.0	53.6		ug/L		107	50 - 150	2	35
Methyl tert-butyl ether	ND		50.0	51.1		ug/L		102	50 - 150	4	35
Methylene Chloride	ND		50.0	50.3		ug/L		101	10 - 221	1	28
m-Xylene & p-Xylene	ND	M2	50.0	23.6	M2	ug/L		47	50 - 150	6	35
Naphthalene	ND	M2	50.0	ND	M2	ug/L		0	50 - 150	NC	35
n-Butylbenzene	ND		50.0	49.6		ug/L		99	50 - 150	2	35
N-Propylbenzene	ND		50.0	49.4		ug/L		99	50 - 150	2	35
o-Xylene	ND		50.0	36.6		ug/L		73	50 - 150	5	35
sec-Butylbenzene	ND		50.0	54.1		ug/L		108	50 - 150	1	35
Styrene	ND	M2	50.0	ND	M2	ug/L		0	50 - 150	NC	35
tert-Butylbenzene	ND		50.0	50.2		ug/L		100	50 - 150	1	35
Tetrachloroethene	ND		50.0	47.0		ug/L		94	64 - 148	1	39
Toluene	ND		50.0	42.0		ug/L		84	47 - 150	2	41
trans-1,2-Dichloroethene	ND		50.0	49.9		ug/L		100	54 - 156	1	45
trans-1,3-Dichloropropene	ND		50.0	48.9		ug/L		98	17 - 183	4	86
Trichloroethene	ND		50.0	45.6		ug/L		91	70 - 157	4	48
Trichlorofluoromethane	ND		50.0	49.4		ug/L		99	17 - 181	3	84

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-177358-B-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 263819

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl acetate	ND	M2	50.0	ND	M2	ug/L		0	50 - 150	NC	35
Vinyl chloride	ND		50.0	45.6		ug/L		91	10 - 251	1	66

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*
Dibromofluoromethane (Surr)	*89*		*60 - 140*
Toluene-d8 (Surr)	*83*		*60 - 140*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-263685/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 263685

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.050		mg/L			01/15/22 14:05	1
Nitrite as N	ND		0.050		mg/L			01/15/22 14:05	1
Nitrate Nitrite as N	ND		0.050		mg/L			01/15/22 14:05	1

Lab Sample ID: LCS 550-263685/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 263685

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	4.00	3.92		mg/L		98	90 - 110
Nitrite as N	4.00	3.80		mg/L		95	90 - 110
Nitrate Nitrite as N	8.00	7.72		mg/L		97	90 - 110

Lab Sample ID: LCSD 550-263685/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 263685

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	4.00	3.92		mg/L		98	90 - 110	0	20
Nitrite as N	4.00	3.80		mg/L		95	90 - 110	0	20
Nitrate Nitrite as N	8.00	7.72		mg/L		97	90 - 110	0	20

Lab Sample ID: 550-177375-E-6 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 263685

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	10	M2	4.00	13.1	M2	mg/L		70	80 - 120
Nitrite as N	ND		4.00	3.48		mg/L		87	80 - 120
Nitrate Nitrite as N	10		8.00	16.6		mg/L		82	80 - 120

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-177375-E-6 MSD
Matrix: Water
Analysis Batch: 263685

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
Nitrate as N	10	M2	4.00	13.9		mg/L		90	80 - 120	6	20
Nitrite as N	ND		4.00	3.89		mg/L		97	80 - 120	11	20
Nitrate Nitrite as N	10		8.00	17.8		mg/L		97	80 - 120	7	20

Lab Sample ID: MB 550-263686/1034
Matrix: Water
Analysis Batch: 263686

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.050		mg/L			01/16/22 04:58	1
Nitrite as N	ND		0.050		mg/L			01/16/22 04:58	1
Nitrate Nitrite as N	ND		0.050		mg/L			01/16/22 04:58	1

Lab Sample ID: LCS 550-263686/35
Matrix: Water
Analysis Batch: 263686

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N			4.00	4.09		mg/L		102	90 - 110		
Nitrite as N			4.00	4.04		mg/L		101	90 - 110		
Nitrate Nitrite as N			8.00	8.13		mg/L		102	90 - 110		

Lab Sample ID: LCSD 550-263686/36
Matrix: Water
Analysis Batch: 263686

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
Nitrate as N			4.00	4.08		mg/L		102	90 - 110	0	20
Nitrite as N			4.00	4.03		mg/L		101	90 - 110	0	20
Nitrate Nitrite as N			8.00	8.11		mg/L		101	90 - 110	0	20

QC Association Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-177343-1

GC/MS VOA

Analysis Batch: 263758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-177343-1	INF-22M01	Total/NA	Water	624.1	
550-177343-2	EFF-22M01	Total/NA	Water	624.1	
550-177343-3	GAC-2A-100-22M01	Total/NA	Water	624.1	
550-177343-4	GAC-2B-75-22M01	Total/NA	Water	624.1	
MB 550-263758/5	Method Blank	Total/NA	Water	624.1	
LCS 550-263758/3	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-263758/4	Lab Control Sample Dup	Total/NA	Water	624.1	
550-177361-B-3 MS	Matrix Spike	Total/NA	Water	624.1	
550-177361-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	624.1	

Analysis Batch: 263819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-177343-5	TB-22M01	Total/NA	Water	624.1	
MB 550-263819/5	Method Blank	Total/NA	Water	624.1	
LCS 550-263819/3	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-263819/4	Lab Control Sample Dup	Total/NA	Water	624.1	
550-177358-B-1 MS	Matrix Spike	Total/NA	Water	624.1	
550-177358-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	624.1	

HPLC/IC

Analysis Batch: 263685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-177343-1	INF-22M01	Total/NA	Water	300.0	
550-177343-2	EFF-22M01	Total/NA	Water	300.0	
MB 550-263685/2	Method Blank	Total/NA	Water	300.0	
LCS 550-263685/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-263685/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-177375-E-6 MS	Matrix Spike	Total/NA	Water	300.0	
550-177375-E-6 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 263686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-263686/1034	Method Blank	Total/NA	Water	300.0	
LCS 550-263686/35	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-263686/36	Lab Control Sample Dup	Total/NA	Water	300.0	

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-177343-1

Client Sample ID: INF-22M01 — Lab Sample ID: 550-177343-1

Date Collected: 01/14/22 09:23 — **Matrix: Water**
Date Received: 01/14/22 13:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	263758	01/18/22 00:23	R1K	TAL PHX
Total/NA	Analysis	300.0		1	263685	01/16/22 04:02	JNW	TAL PHX

Client Sample ID: EFF-22M01 — Lab Sample ID: 550-177343-2

Date Collected: 01/14/22 09:10 — **Matrix: Water**
Date Received: 01/14/22 13:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	263758	01/18/22 00:45	R1K	TAL PHX
Total/NA	Analysis	300.0		1	263685	01/16/22 02:11	JNW	TAL PHX

Client Sample ID: GAC-2A-100-22M01 — Lab Sample ID: 550-177343-3

Date Collected: 01/14/22 09:17 — **Matrix: Water**
Date Received: 01/14/22 13:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	263758	01/18/22 01:07	R1K	TAL PHX

Client Sample ID: GAC-2B-75-22M01 — Lab Sample ID: 550-177343-4

Date Collected: 01/14/22 09:13 — **Matrix: Water**
Date Received: 01/14/22 13:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	263758	01/18/22 01:29	R1K	TAL PHX

Client Sample ID: TB-22M01 — Lab Sample ID: 550-177343-5

Date Collected: 01/14/22 08:00 — **Matrix: Water**
Date Received: 01/14/22 13:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	263819	01/18/22 13:21	R1K	TAL PHX

Laboratory References:

TAL PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Building #3 Suite #189, Phoenix, AZ 85040, TEL (866)772-5227

Accreditation/Certification Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-177343-1

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
624.1		Water	1,2,4-Trichlorobenzene
624.1		Water	Trihalomethanes, Total

Method Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-177343-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL PHX
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

TAL PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Building #3 Suite #189, Phoenix, AZ 85040, TEL (866)772-5227

177343

Test America Phoenix
4625 East Cotton CTr Blvd Suite 189
Phoenix, AZ 85040
602-437-3340

Honeywell Chain Of Custody / Analysis Request

AESI Ref: 44575.39217
COC#: 37553-011422

Privileged & Confidential | 55014762
Site Name: Deer Valley
Phase:
Lab Proj # (SDG):
Sampling Co.: Jacobs
EDD To: Bernice Kidd, Jacobs HTS
Location of Site: Phoenix AZ.
Sampling Program: Monthly Groundwater Monitoring Program
Lab ID: TAL-PHX
Client Contact: (name, co., address)
Sampler: T. Kearsley
Site ID: DEERV
Jacobs
PO #: 4500178520
Preservative: 8
Lab Job #:
1501 W. Fountainhead Parkway (suite 401)
Analysis Turnaround Time (TAT): 10
Authorized User: Honeywell
Tempe, AZ 85282
Consultant: Jacobs
Preliminary Data To: Berney Kidd Jacobs ,Lakshmi Devi HTS
Laboratory Contact: Rachel Sester
Sample Receipt Acknowledgement To: Site Distribution List
Report Tier Level: 2
Hard Copy To: Berney Kidd Jacobs
Full Report TAT: 10
Invoice To: Mike Heitmann, Honeywell/Copy Berney Kidd
HTS

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	Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	E624 (Total VOCs)	E300 0 (Nitrite-Nitrate)	MS/MSD	Sampling Method (code)	Lab Sample Numbers
	Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID							Units						
1	Influent			INF-22M01	1/14/2022	9:23	GW-GWS	WATER	REG	4	grab	N	X	X	-01		
2	Effluent			EFF-22M01	1/14/2022	9:10	GW-GWS	WATER	REG	4	grab	N	X	X	-02		
3	GAC2A Effluent			GAC-2A-100-22M01	1/14/2022	9:17	GW-GWS	WATER	REG	3	grab	N	X		-03		
4	GAC2B 75%			GAC-2B-75-22M01	1/14/2022	9:13	GW-GWS	WATER	REG	3	grab	N	X		-04		
5	TRIPBLANK			TB-22M01	1/14/2022	8:00	GW-GWS	WATER	REG	~~2~~ 1 TK	grab	N	X		-05		
6																	
7																	
8																	
9																	
10																	
11																	
12																	

550-177343 Chain of Custody

Relinquished by	Company	Received by	Company	Condition	Custody Seals Intact
	Jacobs				
	Date/Time 1/14/21 13:15		Date/Time	Cooler Temp.	
Relinquished by	Company	Received by	Company EETA Phx	Condition	Custody Seals Intact
	Date/Time	Nick Strand	Date/Time 1/14/22 1313	Cooler Temp. 1.3°C	ICE COO

Preservatives: (Other; Specify):

0 (none); 1 (4 Deg C); 2 (HCl, pH<2); 3 (HNO3, pH<2); 4 (H2SO4, pH<2); 5 (NaOH, pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4, pH<2, 4 Deg C)); 8 (HCl, pH<2, 4 Deg C); 9 (HCl, 4 Deg C); 10 (HNO3, pH<2, 4 Deg C); 11 (NaOH. pH>12, 4 Deg, Ascorbic Acid); 12 (H2SO4, Na2S2O3, 4 Deg C, pH<2); 13 (Zn Acetate); 14 (1-MeOH, 4 Deg C and 2-NaHSO4, 4 Deg C) 15 (NaOH, pH>12, 4 Deg C), sp (special instructions)

Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 550-177343-1

Login Number: 177343
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.

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-178408-1
Client Project/Site: Monthly Groundwater Monitoring Program

For:
Honeywell International Inc
1944 E. Sky Harbor Circle MS 2101-2C
Phoenix, Arizona 85034

Attn: Tao Wu

Authorized for release by:
2/14/2022 12:34:41 PM

Rachel Sester, Project Manager I
(602)659-7615
Rachel.Sester@Eurofinset.com

LINKS

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www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Sample Summary 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 16
QC Sample Results 17
QC Association Summary 26
Lab Chronicle 27
Certification Summary 28
Method Summary 29
Chain of Custody 30
Receipt Checklists 31

Definitions/Glossary

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-178408-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
R6	LFB/LFBD RPD exceeded method control limit. Recovery met acceptance criteria.

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: 550-178408-1

Laboratory: Eurofins Phoenix

Narrative

Job Narrative
550-178408-1

Comments
No additional comments.

Receipt
The samples were received on 2/3/2022 11:46 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.4º C.

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

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

Sample Summary

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-178408-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-178408-1	INF-22M02	Water	02/03/22 07:48	02/03/22 11:46
550-178408-2	EFF-22M02	Water	02/03/22 08:04	02/03/22 11:46
550-178408-3	GAC-2A-100-22M02	Water	02/03/22 07:51	02/03/22 11:46
550-178408-4	GAC-2B-75-22M02	Water	02/03/22 07:54	02/03/22 11:46
550-178408-5	TB-22M02	Water	02/03/22 08:00	02/03/22 11:46

Detection Summary

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-178408-1

Client Sample ID: INF-22M02 — Lab Sample ID: 550-178408-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.89		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	0.89		0.50		ug/L	1		624.1	Total/NA

Client Sample ID: EFF-22M02 — Lab Sample ID: 550-178408-2

No Detections.

Client Sample ID: GAC-2A-100-22M02 — Lab Sample ID: 550-178408-3

No Detections.

Client Sample ID: GAC-2B-75-22M02 — Lab Sample ID: 550-178408-4

No Detections.

Client Sample ID: TB-22M02 — Lab Sample ID: 550-178408-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-178408-1

Client Sample ID: INF-22M02

Date Collected: 02/03/22 07:48
Date Received: 02/03/22 11:46

Lab Sample ID: 550-178408-1

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/03/22 18:53	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/03/22 18:53	1
1,1,2,2-Tetrachloroethane	ND	R6	0.50		ug/L			02/03/22 18:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			02/03/22 18:53	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/03/22 18:53	1
1,1-Dichloroethane	ND		0.50		ug/L			02/03/22 18:53	1
1,1-Dichloroethene	ND		0.50		ug/L			02/03/22 18:53	1
1,1-Dichloropropene	ND		0.50		ug/L			02/03/22 18:53	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			02/03/22 18:53	1
1,2,3-Trichloropropane	ND		2.0		ug/L			02/03/22 18:53	1
1,2,4-Trichlorobenzene	ND		2.0		ug/L			02/03/22 18:53	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			02/03/22 18:53	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			02/03/22 18:53	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/03/22 18:53	1
1,2-Dichloroethane	ND		0.50		ug/L			02/03/22 18:53	1
1,2-Dichloropropane	ND		0.50		ug/L			02/03/22 18:53	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			02/03/22 18:53	1
1,3-Dichlorobenzene	ND		0.50		ug/L			02/03/22 18:53	1
1,3-Dichloropropane	ND		0.50		ug/L			02/03/22 18:53	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/03/22 18:53	1
2,2-Dichloropropane	ND		1.0		ug/L			02/03/22 18:53	1
2-Butanone (MEK)	ND		10		ug/L			02/03/22 18:53	1
2-Chlorotoluene	ND		0.50		ug/L			02/03/22 18:53	1
2-Hexanone	ND		5.0		ug/L			02/03/22 18:53	1
4-Chlorotoluene	ND		0.50		ug/L			02/03/22 18:53	1
4-Isopropyltoluene	ND		0.50		ug/L			02/03/22 18:53	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			02/03/22 18:53	1
Acetone	ND		10		ug/L			02/03/22 18:53	1
Benzene	ND		0.50		ug/L			02/03/22 18:53	1
Bromobenzene	ND		1.0		ug/L			02/03/22 18:53	1
Bromoform	ND		1.0		ug/L			02/03/22 18:53	1
Bromomethane	ND	R6	5.0		ug/L			02/03/22 18:53	1
Carbon disulfide	ND		5.0		ug/L			02/03/22 18:53	1
Carbon tetrachloride	ND		0.50		ug/L			02/03/22 18:53	1
Chlorobenzene	ND		0.50		ug/L			02/03/22 18:53	1
Chlorobromomethane	ND		0.50		ug/L			02/03/22 18:53	1
Chlorodibromomethane	ND		0.50		ug/L			02/03/22 18:53	1
Chloroethane	ND		1.0		ug/L			02/03/22 18:53	1
Chloroform	**0.89**		0.50		ug/L			02/03/22 18:53	1
Chloromethane	ND		1.0		ug/L			02/03/22 18:53	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/03/22 18:53	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/03/22 18:53	1
Dibromomethane	ND		0.50		ug/L			02/03/22 18:53	1
Dichlorobromomethane	ND		0.50		ug/L			02/03/22 18:53	1
Dichlorodifluoromethane	ND		1.0		ug/L			02/03/22 18:53	1
Ethanol	ND		150		ug/L			02/03/22 18:53	1
Ethylbenzene	ND		0.50		ug/L			02/03/22 18:53	1
Ethylene Dibromide	ND		0.50		ug/L			02/03/22 18:53	1
Hexachlorobutadiene	ND		5.0		ug/L			02/03/22 18:53	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-178408-1

Client Sample ID: INF-22M02

Lab Sample ID: 550-178408-1
Date Collected: 02/03/22 07:48
Matrix: Water
Date Received: 02/03/22 11:46

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND		2.0		ug/L			02/03/22 18:53	1
Isopropylbenzene	ND		0.50		ug/L			02/03/22 18:53	1
Methyl tert-butyl ether	ND		0.50		ug/L			02/03/22 18:53	1
Methylene Chloride	ND		5.0		ug/L			02/03/22 18:53	1
m-Xylene & p-Xylene	ND		1.0		ug/L			02/03/22 18:53	1
Naphthalene	ND		5.0		ug/L			02/03/22 18:53	1
n-Butylbenzene	ND		1.0		ug/L			02/03/22 18:53	1
N-Propylbenzene	ND		0.50		ug/L			02/03/22 18:53	1
o-Xylene	ND		0.50		ug/L			02/03/22 18:53	1
sec-Butylbenzene	ND		0.50		ug/L			02/03/22 18:53	1
Styrene	ND		1.0		ug/L			02/03/22 18:53	1
tert-Butylbenzene	ND		0.50		ug/L			02/03/22 18:53	1
Tetrachloroethene	ND		0.50		ug/L			02/03/22 18:53	1
Toluene	ND		0.50		ug/L			02/03/22 18:53	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/03/22 18:53	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/03/22 18:53	1
Trichloroethene	ND		0.50		ug/L			02/03/22 18:53	1
Trichlorofluoromethane	ND		1.0		ug/L			02/03/22 18:53	1
Trihalomethanes, Total	**0.89**		0.50		ug/L			02/03/22 18:53	1
Vinyl acetate	ND		5.0		ug/L			02/03/22 18:53	1
Vinyl chloride	ND		1.0		ug/L			02/03/22 18:53	1
Xylenes, Total	ND		0.50		ug/L			02/03/22 18:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*02/03/22 18:53*	*1*
Dibromofluoromethane (Surr)	*96*		*60 - 140*		*02/03/22 18:53*	*1*
Toluene-d8 (Surr)	*99*		*60 - 140*		*02/03/22 18:53*	*1*

Client Sample ID: EFF-22M02

Lab Sample ID: 550-178408-2
Date Collected: 02/03/22 08:04
Matrix: Water
Date Received: 02/03/22 11:46

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/03/22 18:27	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/03/22 18:27	1
1,1,2,2-Tetrachloroethane	ND	R6	0.50		ug/L			02/03/22 18:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			02/03/22 18:27	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/03/22 18:27	1
1,1-Dichloroethane	ND		0.50		ug/L			02/03/22 18:27	1
1,1-Dichloroethene	ND		0.50		ug/L			02/03/22 18:27	1
1,1-Dichloropropene	ND		0.50		ug/L			02/03/22 18:27	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			02/03/22 18:27	1
1,2,3-Trichloropropane	ND		2.0		ug/L			02/03/22 18:27	1
1,2,4-Trichlorobenzene	ND		2.0		ug/L			02/03/22 18:27	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			02/03/22 18:27	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			02/03/22 18:27	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/03/22 18:27	1
1,2-Dichloroethane	ND		0.50		ug/L			02/03/22 18:27	1
1,2-Dichloropropane	ND		0.50		ug/L			02/03/22 18:27	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-178408-1

Client Sample ID: EFF-22M02

Date Collected: 02/03/22 08:04
Date Received: 02/03/22 11:46

Lab Sample ID: 550-178408-2

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		0.50		ug/L			02/03/22 18:27	1
1,3-Dichlorobenzene	ND		0.50		ug/L			02/03/22 18:27	1
1,3-Dichloropropane	ND		0.50		ug/L			02/03/22 18:27	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/03/22 18:27	1
2,2-Dichloropropane	ND		1.0		ug/L			02/03/22 18:27	1
2-Butanone (MEK)	ND		10		ug/L			02/03/22 18:27	1
2-Chlorotoluene	ND		0.50		ug/L			02/03/22 18:27	1
2-Hexanone	ND		5.0		ug/L			02/03/22 18:27	1
4-Chlorotoluene	ND		0.50		ug/L			02/03/22 18:27	1
4-Isopropyltoluene	ND		0.50		ug/L			02/03/22 18:27	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			02/03/22 18:27	1
Acetone	ND		10		ug/L			02/03/22 18:27	1
Benzene	ND		0.50		ug/L			02/03/22 18:27	1
Bromobenzene	ND		1.0		ug/L			02/03/22 18:27	1
Bromoform	ND		1.0		ug/L			02/03/22 18:27	1
Bromomethane	ND	R6	5.0		ug/L			02/03/22 18:27	1
Carbon disulfide	ND		5.0		ug/L			02/03/22 18:27	1
Carbon tetrachloride	ND		0.50		ug/L			02/03/22 18:27	1
Chlorobenzene	ND		0.50		ug/L			02/03/22 18:27	1
Chlorobromomethane	ND		0.50		ug/L			02/03/22 18:27	1
Chlorodibromomethane	ND		0.50		ug/L			02/03/22 18:27	1
Chloroethane	ND		1.0		ug/L			02/03/22 18:27	1
Chloroform	ND		0.50		ug/L			02/03/22 18:27	1
Chloromethane	ND		1.0		ug/L			02/03/22 18:27	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/03/22 18:27	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/03/22 18:27	1
Dibromomethane	ND		0.50		ug/L			02/03/22 18:27	1
Dichlorobromomethane	ND		0.50		ug/L			02/03/22 18:27	1
Dichlorodifluoromethane	ND		1.0		ug/L			02/03/22 18:27	1
Ethanol	ND		150		ug/L			02/03/22 18:27	1
Ethylbenzene	ND		0.50		ug/L			02/03/22 18:27	1
Ethylene Dibromide	ND		0.50		ug/L			02/03/22 18:27	1
Hexachlorobutadiene	ND		5.0		ug/L			02/03/22 18:27	1
Iodomethane	ND		2.0		ug/L			02/03/22 18:27	1
Isopropylbenzene	ND		0.50		ug/L			02/03/22 18:27	1
Methyl tert-butyl ether	ND		0.50		ug/L			02/03/22 18:27	1
Methylene Chloride	ND		5.0		ug/L			02/03/22 18:27	1
m-Xylene & p-Xylene	ND		1.0		ug/L			02/03/22 18:27	1
Naphthalene	ND		5.0		ug/L			02/03/22 18:27	1
n-Butylbenzene	ND		1.0		ug/L			02/03/22 18:27	1
N-Propylbenzene	ND		0.50		ug/L			02/03/22 18:27	1
o-Xylene	ND		0.50		ug/L			02/03/22 18:27	1
sec-Butylbenzene	ND		0.50		ug/L			02/03/22 18:27	1
Styrene	ND		1.0		ug/L			02/03/22 18:27	1
tert-Butylbenzene	ND		0.50		ug/L			02/03/22 18:27	1
Tetrachloroethene	ND		0.50		ug/L			02/03/22 18:27	1
Toluene	ND		0.50		ug/L			02/03/22 18:27	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/03/22 18:27	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/03/22 18:27	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-178408-1

Client Sample ID: EFF-22M02

Lab Sample ID: 550-178408-2
Date Collected: 02/03/22 08:04
Matrix: Water
Date Received: 02/03/22 11:46

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		0.50	ug/L			02/03/22 18:27	1
Trichlorofluoromethane	ND		1.0	ug/L			02/03/22 18:27	1
Trihalomethanes, Total	ND		0.50	ug/L			02/03/22 18:27	1
Vinyl acetate	ND		5.0	ug/L			02/03/22 18:27	1
Vinyl chloride	ND		1.0	ug/L			02/03/22 18:27	1
Xylenes, Total	ND		0.50	ug/L			02/03/22 18:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*02/03/22 18:27*	*1*
Dibromofluoromethane (Surr)	*97*		*60 - 140*		*02/03/22 18:27*	*1*
Toluene-d8 (Surr)	*102*		*60 - 140*		*02/03/22 18:27*	*1*

Client Sample ID: GAC-2A-100-22M02

Lab Sample ID: 550-178408-3
Date Collected: 02/03/22 07:51
Matrix: Water
Date Received: 02/03/22 11:46

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			02/03/22 19:19	1
1,1,1-Trichloroethane	ND		0.50	ug/L			02/03/22 19:19	1
1,1,2,2-Tetrachloroethane	ND	R6	0.50	ug/L			02/03/22 19:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	ug/L			02/03/22 19:19	1
1,1,2-Trichloroethane	ND		0.50	ug/L			02/03/22 19:19	1
1,1-Dichloroethane	ND		0.50	ug/L			02/03/22 19:19	1
1,1-Dichloroethene	ND		0.50	ug/L			02/03/22 19:19	1
1,1-Dichloropropene	ND		0.50	ug/L			02/03/22 19:19	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			02/03/22 19:19	1
1,2,3-Trichloropropane	ND		2.0	ug/L			02/03/22 19:19	1
1,2,4-Trichlorobenzene	ND		2.0	ug/L			02/03/22 19:19	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			02/03/22 19:19	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			02/03/22 19:19	1
1,2-Dichlorobenzene	ND		0.50	ug/L			02/03/22 19:19	1
1,2-Dichloroethane	ND		0.50	ug/L			02/03/22 19:19	1
1,2-Dichloropropane	ND		0.50	ug/L			02/03/22 19:19	1
1,3,5-Trimethylbenzene	ND		0.50	ug/L			02/03/22 19:19	1
1,3-Dichlorobenzene	ND		0.50	ug/L			02/03/22 19:19	1
1,3-Dichloropropane	ND		0.50	ug/L			02/03/22 19:19	1
1,4-Dichlorobenzene	ND		0.50	ug/L			02/03/22 19:19	1
2,2-Dichloropropane	ND		1.0	ug/L			02/03/22 19:19	1
2-Butanone (MEK)	ND		10	ug/L			02/03/22 19:19	1
2-Chlorotoluene	ND		0.50	ug/L			02/03/22 19:19	1
2-Hexanone	ND		5.0	ug/L			02/03/22 19:19	1
4-Chlorotoluene	ND		0.50	ug/L			02/03/22 19:19	1
4-Isopropyltoluene	ND		0.50	ug/L			02/03/22 19:19	1
4-Methyl-2-pentanone (MIBK)	ND		2.5	ug/L			02/03/22 19:19	1
Acetone	ND		10	ug/L			02/03/22 19:19	1
Benzene	ND		0.50	ug/L			02/03/22 19:19	1
Bromobenzene	ND		1.0	ug/L			02/03/22 19:19	1
Bromoform	ND		1.0	ug/L			02/03/22 19:19	1
Bromomethane	ND	R6	5.0	ug/L			02/03/22 19:19	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-178408-1

Client Sample ID: GAC-2A-100-22M02

Lab Sample ID: 550-178408-3

Date Collected: 02/03/22 07:51
Matrix: Water
Date Received: 02/03/22 11:46

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		5.0		ug/L			02/03/22 19:19	1
Carbon tetrachloride	ND		0.50		ug/L			02/03/22 19:19	1
Chlorobenzene	ND		0.50		ug/L			02/03/22 19:19	1
Chlorobromomethane	ND		0.50		ug/L			02/03/22 19:19	1
Chlorodibromomethane	ND		0.50		ug/L			02/03/22 19:19	1
Chloroethane	ND		1.0		ug/L			02/03/22 19:19	1
Chloroform	ND		0.50		ug/L			02/03/22 19:19	1
Chloromethane	ND		1.0		ug/L			02/03/22 19:19	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/03/22 19:19	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/03/22 19:19	1
Dibromomethane	ND		0.50		ug/L			02/03/22 19:19	1
Dichlorobromomethane	ND		0.50		ug/L			02/03/22 19:19	1
Dichlorodifluoromethane	ND		1.0		ug/L			02/03/22 19:19	1
Ethanol	ND		150		ug/L			02/03/22 19:19	1
Ethylbenzene	ND		0.50		ug/L			02/03/22 19:19	1
Ethylene Dibromide	ND		0.50		ug/L			02/03/22 19:19	1
Hexachlorobutadiene	ND		5.0		ug/L			02/03/22 19:19	1
Iodomethane	ND		2.0		ug/L			02/03/22 19:19	1
Isopropylbenzene	ND		0.50		ug/L			02/03/22 19:19	1
Methyl tert-butyl ether	ND		0.50		ug/L			02/03/22 19:19	1
Methylene Chloride	ND		5.0		ug/L			02/03/22 19:19	1
m-Xylene & p-Xylene	ND		1.0		ug/L			02/03/22 19:19	1
Naphthalene	ND		5.0		ug/L			02/03/22 19:19	1
n-Butylbenzene	ND		1.0		ug/L			02/03/22 19:19	1
N-Propylbenzene	ND		0.50		ug/L			02/03/22 19:19	1
o-Xylene	ND		0.50		ug/L			02/03/22 19:19	1
sec-Butylbenzene	ND		0.50		ug/L			02/03/22 19:19	1
Styrene	ND		1.0		ug/L			02/03/22 19:19	1
tert-Butylbenzene	ND		0.50		ug/L			02/03/22 19:19	1
Tetrachloroethene	ND		0.50		ug/L			02/03/22 19:19	1
Toluene	ND		0.50		ug/L			02/03/22 19:19	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/03/22 19:19	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/03/22 19:19	1
Trichloroethene	ND		0.50		ug/L			02/03/22 19:19	1
Trichlorofluoromethane	ND		1.0		ug/L			02/03/22 19:19	1
Trihalomethanes, Total	ND		0.50		ug/L			02/03/22 19:19	1
Vinyl acetate	ND		5.0		ug/L			02/03/22 19:19	1
Vinyl chloride	ND		1.0		ug/L			02/03/22 19:19	1
Xylenes, Total	ND		0.50		ug/L			02/03/22 19:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*60 - 140*		*02/03/22 19:19*	*1*
Dibromofluoromethane (Surr)	*90*		*60 - 140*		*02/03/22 19:19*	*1*
Toluene-d8 (Surr)	*93*		*60 - 140*		*02/03/22 19:19*	*1*

Client Sample Results

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-178408-1

Client Sample ID: GAC-2B-75-22M02

Lab Sample ID: 550-178408-4

Date Collected: 02/03/22 07:54
Matrix: Water
Date Received: 02/03/22 11:46

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/03/22 19:45	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/03/22 19:45	1
1,1,2,2-Tetrachloroethane	ND	R6	0.50		ug/L			02/03/22 19:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			02/03/22 19:45	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/03/22 19:45	1
1,1-Dichloroethane	ND		0.50		ug/L			02/03/22 19:45	1
1,1-Dichloroethene	ND		0.50		ug/L			02/03/22 19:45	1
1,1-Dichloropropene	ND		0.50		ug/L			02/03/22 19:45	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			02/03/22 19:45	1
1,2,3-Trichloropropane	ND		2.0		ug/L			02/03/22 19:45	1
1,2,4-Trichlorobenzene	ND		2.0		ug/L			02/03/22 19:45	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			02/03/22 19:45	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			02/03/22 19:45	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/03/22 19:45	1
1,2-Dichloroethane	ND		0.50		ug/L			02/03/22 19:45	1
1,2-Dichloropropane	ND		0.50		ug/L			02/03/22 19:45	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			02/03/22 19:45	1
1,3-Dichlorobenzene	ND		0.50		ug/L			02/03/22 19:45	1
1,3-Dichloropropane	ND		0.50		ug/L			02/03/22 19:45	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/03/22 19:45	1
2,2-Dichloropropane	ND		1.0		ug/L			02/03/22 19:45	1
2-Butanone (MEK)	ND		10		ug/L			02/03/22 19:45	1
2-Chlorotoluene	ND		0.50		ug/L			02/03/22 19:45	1
2-Hexanone	ND		5.0		ug/L			02/03/22 19:45	1
4-Chlorotoluene	ND		0.50		ug/L			02/03/22 19:45	1
4-Isopropyltoluene	ND		0.50		ug/L			02/03/22 19:45	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			02/03/22 19:45	1
Acetone	ND		10		ug/L			02/03/22 19:45	1
Benzene	ND		0.50		ug/L			02/03/22 19:45	1
Bromobenzene	ND		1.0		ug/L			02/03/22 19:45	1
Bromoform	ND		1.0		ug/L			02/03/22 19:45	1
Bromomethane	ND	R6	5.0		ug/L			02/03/22 19:45	1
Carbon disulfide	ND		5.0		ug/L			02/03/22 19:45	1
Carbon tetrachloride	ND		0.50		ug/L			02/03/22 19:45	1
Chlorobenzene	ND		0.50		ug/L			02/03/22 19:45	1
Chlorobromomethane	ND		0.50		ug/L			02/03/22 19:45	1
Chlorodibromomethane	ND		0.50		ug/L			02/03/22 19:45	1
Chloroethane	ND		1.0		ug/L			02/03/22 19:45	1
Chloroform	ND		0.50		ug/L			02/03/22 19:45	1
Chloromethane	ND		1.0		ug/L			02/03/22 19:45	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/03/22 19:45	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/03/22 19:45	1
Dibromomethane	ND		0.50		ug/L			02/03/22 19:45	1
Dichlorobromomethane	ND		0.50		ug/L			02/03/22 19:45	1
Dichlorodifluoromethane	ND		1.0		ug/L			02/03/22 19:45	1
Ethanol	ND		150		ug/L			02/03/22 19:45	1
Ethylbenzene	ND		0.50		ug/L			02/03/22 19:45	1
Ethylene Dibromide	ND		0.50		ug/L			02/03/22 19:45	1
Hexachlorobutadiene	ND		5.0		ug/L			02/03/22 19:45	1

Client Sample ID: GAC-2B-75-22M02

Lab Sample ID: 550-178408-4
Matrix: Water
Date Collected: 02/03/22 07:54
Date Received: 02/03/22 11:46

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND		2.0		ug/L			02/03/22 19:45	1
Isopropylbenzene	ND		0.50		ug/L			02/03/22 19:45	1
Methyl tert-butyl ether	ND		0.50		ug/L			02/03/22 19:45	1
Methylene Chloride	ND		5.0		ug/L			02/03/22 19:45	1
m-Xylene & p-Xylene	ND		1.0		ug/L			02/03/22 19:45	1
Naphthalene	ND		5.0		ug/L			02/03/22 19:45	1
n-Butylbenzene	ND		1.0		ug/L			02/03/22 19:45	1
N-Propylbenzene	ND		0.50		ug/L			02/03/22 19:45	1
o-Xylene	ND		0.50		ug/L			02/03/22 19:45	1
sec-Butylbenzene	ND		0.50		ug/L			02/03/22 19:45	1
Styrene	ND		1.0		ug/L			02/03/22 19:45	1
tert-Butylbenzene	ND		0.50		ug/L			02/03/22 19:45	1
Tetrachloroethene	ND		0.50		ug/L			02/03/22 19:45	1
Toluene	ND		0.50		ug/L			02/03/22 19:45	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/03/22 19:45	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/03/22 19:45	1
Trichloroethene	ND		0.50		ug/L			02/03/22 19:45	1
Trichlorofluoromethane	ND		1.0		ug/L			02/03/22 19:45	1
Trihalomethanes, Total	ND		0.50		ug/L			02/03/22 19:45	1
Vinyl acetate	ND		5.0		ug/L			02/03/22 19:45	1
Vinyl chloride	ND		1.0		ug/L			02/03/22 19:45	1
Xylenes, Total	ND		0.50		ug/L			02/03/22 19:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*02/03/22 19:45*	*1*
Dibromofluoromethane (Surr)	*98*		*60 - 140*		*02/03/22 19:45*	*1*
Toluene-d8 (Surr)	*80*		*60 - 140*		*02/03/22 19:45*	*1*

Client Sample ID: TB-22M02

Lab Sample ID: 550-178408-5
Matrix: Water
Date Collected: 02/03/22 08:00
Date Received: 02/03/22 11:46

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/03/22 17:34	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/03/22 17:34	1
1,1,2,2-Tetrachloroethane	ND	R6	0.50		ug/L			02/03/22 17:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			02/03/22 17:34	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/03/22 17:34	1
1,1-Dichloroethane	ND		0.50		ug/L			02/03/22 17:34	1
1,1-Dichloroethene	ND		0.50		ug/L			02/03/22 17:34	1
1,1-Dichloropropene	ND		0.50		ug/L			02/03/22 17:34	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			02/03/22 17:34	1
1,2,3-Trichloropropane	ND		2.0		ug/L			02/03/22 17:34	1
1,2,4-Trichlorobenzene	ND		2.0		ug/L			02/03/22 17:34	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			02/03/22 17:34	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			02/03/22 17:34	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/03/22 17:34	1
1,2-Dichloroethane	ND		0.50		ug/L			02/03/22 17:34	1
1,2-Dichloropropane	ND		0.50		ug/L			02/03/22 17:34	1

Client Sample ID: TB-22M02

Date Collected: 02/03/22 08:00
Date Received: 02/03/22 11:46

Lab Sample ID: 550-178408-5

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		0.50		ug/L			02/03/22 17:34	1
1,3-Dichlorobenzene	ND		0.50		ug/L			02/03/22 17:34	1
1,3-Dichloropropane	ND		0.50		ug/L			02/03/22 17:34	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/03/22 17:34	1
2,2-Dichloropropane	ND		1.0		ug/L			02/03/22 17:34	1
2-Butanone (MEK)	ND		10		ug/L			02/03/22 17:34	1
2-Chlorotoluene	ND		0.50		ug/L			02/03/22 17:34	1
2-Hexanone	ND		5.0		ug/L			02/03/22 17:34	1
4-Chlorotoluene	ND		0.50		ug/L			02/03/22 17:34	1
4-Isopropyltoluene	ND		0.50		ug/L			02/03/22 17:34	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			02/03/22 17:34	1
Acetone	ND		10		ug/L			02/03/22 17:34	1
Benzene	ND		0.50		ug/L			02/03/22 17:34	1
Bromobenzene	ND		1.0		ug/L			02/03/22 17:34	1
Bromoform	ND		1.0		ug/L			02/03/22 17:34	1
Bromomethane	ND	R6	5.0		ug/L			02/03/22 17:34	1
Carbon disulfide	ND		5.0		ug/L			02/03/22 17:34	1
Carbon tetrachloride	ND		0.50		ug/L			02/03/22 17:34	1
Chlorobenzene	ND		0.50		ug/L			02/03/22 17:34	1
Chlorobromomethane	ND		0.50		ug/L			02/03/22 17:34	1
Chlorodibromomethane	ND		0.50		ug/L			02/03/22 17:34	1
Chloroethane	ND		1.0		ug/L			02/03/22 17:34	1
Chloroform	ND		0.50		ug/L			02/03/22 17:34	1
Chloromethane	ND		1.0		ug/L			02/03/22 17:34	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/03/22 17:34	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/03/22 17:34	1
Dibromomethane	ND		0.50		ug/L			02/03/22 17:34	1
Dichlorobromomethane	ND		0.50		ug/L			02/03/22 17:34	1
Dichlorodifluoromethane	ND		1.0		ug/L			02/03/22 17:34	1
Ethanol	ND		150		ug/L			02/03/22 17:34	1
Ethylbenzene	ND		0.50		ug/L			02/03/22 17:34	1
Ethylene Dibromide	ND		0.50		ug/L			02/03/22 17:34	1
Hexachlorobutadiene	ND		5.0		ug/L			02/03/22 17:34	1
Iodomethane	ND		2.0		ug/L			02/03/22 17:34	1
Isopropylbenzene	ND		0.50		ug/L			02/03/22 17:34	1
Methyl tert-butyl ether	ND		0.50		ug/L			02/03/22 17:34	1
Methylene Chloride	ND		5.0		ug/L			02/03/22 17:34	1
m-Xylene & p-Xylene	ND		1.0		ug/L			02/03/22 17:34	1
Naphthalene	ND		5.0		ug/L			02/03/22 17:34	1
n-Butylbenzene	ND		1.0		ug/L			02/03/22 17:34	1
N-Propylbenzene	ND		0.50		ug/L			02/03/22 17:34	1
o-Xylene	ND		0.50		ug/L			02/03/22 17:34	1
sec-Butylbenzene	ND		0.50		ug/L			02/03/22 17:34	1
Styrene	ND		1.0		ug/L			02/03/22 17:34	1
tert-Butylbenzene	ND		0.50		ug/L			02/03/22 17:34	1
Tetrachloroethene	ND		0.50		ug/L			02/03/22 17:34	1
Toluene	ND		0.50		ug/L			02/03/22 17:34	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/03/22 17:34	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/03/22 17:34	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-178408-1

Client Sample ID: TB-22M02

Date Collected: 02/03/22 08:00
Date Received: 02/03/22 11:46

Lab Sample ID: 550-178408-5

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		0.50		ug/L			02/03/22 17:34	1
Trichlorofluoromethane	ND		1.0		ug/L			02/03/22 17:34	1
Trihalomethanes, Total	ND		0.50		ug/L			02/03/22 17:34	1
Vinyl acetate	ND		5.0		ug/L			02/03/22 17:34	1
Vinyl chloride	ND		1.0		ug/L			02/03/22 17:34	1
Xylenes, Total	ND		0.50		ug/L			02/03/22 17:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*02/03/22 17:34*	*1*
Dibromofluoromethane (Surr)	*83*		*60 - 140*		*02/03/22 17:34*	*1*
Toluene-d8 (Surr)	*94*		*60 - 140*		*02/03/22 17:34*	*1*

Surrogate Summary

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-178408-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	**Client Sample ID**	**(60-140)**	**(60-140)**	**(60-140)**
550-178405-A-6 MS	Matrix Spike	91	103	73
550-178405-A-6 MSD	Matrix Spike Duplicate	78	103	91
550-178408-1	INF-22M02	92	96	99
550-178408-2	EFF-22M02	93	97	102
550-178408-3	GAC-2A-100-22M02	75	90	93
550-178408-4	GAC-2B-75-22M02	92	98	80
550-178408-5	TB-22M02	92	83	94
LCS 550-265411/1003	Lab Control Sample	85	100	82
LCSD 550-265411/4	Lab Control Sample Dup	91	101	78
MB 550-265411/5	Method Blank	96	98	95

Surrogate Legend

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

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-265411/5
Matrix: Water
Analysis Batch: 265411

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		0.50		ug/L			02/03/22 13:39	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/03/22 13:39	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/03/22 13:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			02/03/22 13:39	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/03/22 13:39	1
1,1-Dichloroethane	ND		0.50		ug/L			02/03/22 13:39	1
1,1-Dichloroethene	ND		0.50		ug/L			02/03/22 13:39	1
1,1-Dichloropropene	ND		0.50		ug/L			02/03/22 13:39	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			02/03/22 13:39	1
1,2,3-Trichloropropane	ND		2.0		ug/L			02/03/22 13:39	1
1,2,4-Trichlorobenzene	ND		2.0		ug/L			02/03/22 13:39	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			02/03/22 13:39	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			02/03/22 13:39	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/03/22 13:39	1
1,2-Dichloroethane	ND		0.50		ug/L			02/03/22 13:39	1
1,2-Dichloropropane	ND		0.50		ug/L			02/03/22 13:39	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			02/03/22 13:39	1
1,3-Dichlorobenzene	ND		0.50		ug/L			02/03/22 13:39	1
1,3-Dichloropropane	ND		0.50		ug/L			02/03/22 13:39	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/03/22 13:39	1
2,2-Dichloropropane	ND		1.0		ug/L			02/03/22 13:39	1
2-Butanone (MEK)	ND		10		ug/L			02/03/22 13:39	1
2-Chlorotoluene	ND		0.50		ug/L			02/03/22 13:39	1
2-Hexanone	ND		5.0		ug/L			02/03/22 13:39	1
4-Chlorotoluene	ND		0.50		ug/L			02/03/22 13:39	1
4-Isopropyltoluene	ND		0.50		ug/L			02/03/22 13:39	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			02/03/22 13:39	1
Acetone	ND		10		ug/L			02/03/22 13:39	1
Benzene	ND		0.50		ug/L			02/03/22 13:39	1
Bromobenzene	ND		1.0		ug/L			02/03/22 13:39	1
Bromoform	ND		1.0		ug/L			02/03/22 13:39	1
Bromomethane	ND		5.0		ug/L			02/03/22 13:39	1
Carbon disulfide	ND		5.0		ug/L			02/03/22 13:39	1
Carbon tetrachloride	ND		0.50		ug/L			02/03/22 13:39	1
Chlorobenzene	ND		0.50		ug/L			02/03/22 13:39	1
Chlorobromomethane	ND		0.50		ug/L			02/03/22 13:39	1
Chlorodibromomethane	ND		0.50		ug/L			02/03/22 13:39	1
Chloroethane	ND		1.0		ug/L			02/03/22 13:39	1
Chloroform	ND		0.50		ug/L			02/03/22 13:39	1
Chloromethane	ND		1.0		ug/L			02/03/22 13:39	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/03/22 13:39	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/03/22 13:39	1
Dibromomethane	ND		0.50		ug/L			02/03/22 13:39	1
Dichlorobromomethane	ND		0.50		ug/L			02/03/22 13:39	1
Dichlorodifluoromethane	ND		1.0		ug/L			02/03/22 13:39	1
Ethanol	ND		150		ug/L			02/03/22 13:39	1
Ethylbenzene	ND		0.50		ug/L			02/03/22 13:39	1
Ethylene Dibromide	ND		0.50		ug/L			02/03/22 13:39	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-265411/5
Matrix: Water
Analysis Batch: 265411

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		5.0	ug/L			02/03/22 13:39	1
Iodomethane	ND		2.0	ug/L			02/03/22 13:39	1
Isopropylbenzene	ND		0.50	ug/L			02/03/22 13:39	1
Methyl tert-butyl ether	ND		0.50	ug/L			02/03/22 13:39	1
Methylene Chloride	ND		5.0	ug/L			02/03/22 13:39	1
m-Xylene & p-Xylene	ND		1.0	ug/L			02/03/22 13:39	1
Naphthalene	ND		5.0	ug/L			02/03/22 13:39	1
n-Butylbenzene	ND		1.0	ug/L			02/03/22 13:39	1
N-Propylbenzene	ND		0.50	ug/L			02/03/22 13:39	1
o-Xylene	ND		0.50	ug/L			02/03/22 13:39	1
sec-Butylbenzene	ND		0.50	ug/L			02/03/22 13:39	1
Styrene	ND		1.0	ug/L			02/03/22 13:39	1
tert-Butylbenzene	ND		0.50	ug/L			02/03/22 13:39	1
Tetrachloroethene	ND		0.50	ug/L			02/03/22 13:39	1
Toluene	ND		0.50	ug/L			02/03/22 13:39	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			02/03/22 13:39	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			02/03/22 13:39	1
Trichloroethene	ND		0.50	ug/L			02/03/22 13:39	1
Trichlorofluoromethane	ND		1.0	ug/L			02/03/22 13:39	1
Trihalomethanes, Total	ND		0.50	ug/L			02/03/22 13:39	1
Vinyl acetate	ND		5.0	ug/L			02/03/22 13:39	1
Vinyl chloride	ND		1.0	ug/L			02/03/22 13:39	1
Xylenes, Total	ND		0.50	ug/L			02/03/22 13:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*02/03/22 13:39*	*1*
Dibromofluoromethane (Surr)	*98*		*60 - 140*		*02/03/22 13:39*	*1*
Toluene-d8 (Surr)	*95*		*60 - 140*		*02/03/22 13:39*	*1*

Lab Sample ID: LCS 550-265411/1003
Matrix: Water
Analysis Batch: 265411

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	45.4		ug/L		91	60 - 140
1,1,1-Trichloroethane	50.0	47.6		ug/L		95	70 - 130
1,1,2,2-Tetrachloroethane	50.0	41.5		ug/L		83	60 - 140
1,1,2-Trichloroethane	50.0	41.6		ug/L		83	70 - 130
1,1-Dichloroethane	50.0	47.3		ug/L		95	70 - 150
1,1-Dichloroethene	50.0	47.0		ug/L		94	50 - 140
1,1-Dichloropropene	50.0	40.7		ug/L		81	60 - 140
1,2,3-Trichlorobenzene	50.0	32.2		ug/L		64	60 - 140
1,2,3-Trichloropropane	50.0	38.6		ug/L		77	60 - 140
1,2,4-Trichlorobenzene	50.0	36.1		ug/L		72	60 - 140
1,2,4-Trimethylbenzene	50.0	45.8		ug/L		92	60 - 140
1,2-Dibromo-3-Chloropropane	50.0	36.2		ug/L		72	60 - 140
1,2-Dichlorobenzene	50.0	44.2		ug/L		88	65 - 140
1,2-Dichloroethane	50.0	41.6		ug/L		83	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-265411/1003
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 265411

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloropropane	50.0	44.2		ug/L		88	35 - 165
1,3,5-Trimethylbenzene	50.0	41.0		ug/L		82	60 - 140
1,3-Dichlorobenzene	50.0	43.2		ug/L		86	70 - 130
1,3-Dichloropropane	50.0	41.3		ug/L		83	60 - 140
1,4-Dichlorobenzene	50.0	42.9		ug/L		86	65 - 135
2,2-Dichloropropane	50.0	52.9		ug/L		106	60 - 140
2-Butanone (MEK)	50.0	55.9		ug/L		112	60 - 140
2-Chlorotoluene	50.0	43.1		ug/L		86	60 - 140
2-Hexanone	50.0	36.0		ug/L		72	60 - 140
4-Chlorotoluene	50.0	43.1		ug/L		86	60 - 140
4-Isopropyltoluene	50.0	41.8		ug/L		84	60 - 140
4-Methyl-2-pentanone (MIBK)	50.0	35.2		ug/L		70	60 - 140
Acetone	50.0	33.8		ug/L		68	18 - 150
Benzene	50.0	38.9		ug/L		78	65 - 135
Bromobenzene	50.0	42.9		ug/L		86	60 - 140
Bromoform	50.0	38.6		ug/L		77	70 - 130
Bromomethane	50.0	19.6		ug/L		39	15 - 185
Carbon disulfide	50.0	53.1		ug/L		106	60 - 140
Carbon tetrachloride	50.0	39.7		ug/L		79	70 - 130
Chlorobenzene	50.0	46.6		ug/L		93	65 - 135
Chlorobromomethane	50.0	51.2		ug/L		102	60 - 140
Chlorodibromomethane	50.0	40.3		ug/L		81	70 - 135
Chloroethane	50.0	50.2		ug/L		100	40 - 160
Chloroform	50.0	48.9		ug/L		98	70 - 135
Chloromethane	50.0	42.6		ug/L		85	10 - 205
cis-1,2-Dichloroethene	50.0	45.9		ug/L		92	60 - 140
cis-1,3-Dichloropropene	50.0	42.9		ug/L		86	25 - 175
Dibromomethane	50.0	42.2		ug/L		84	70 - 130
Dichlorobromomethane	50.0	41.8		ug/L		84	65 - 135
Dichlorodifluoromethane	50.0	39.8		ug/L		80	60 - 140
Ethanol	1000	808		ug/L		81	60 - 140
Ethylbenzene	50.0	46.6		ug/L		93	60 - 140
Ethylene Dibromide	50.0	43.8		ug/L		88	60 - 140
Hexachlorobutadiene	50.0	33.2		ug/L		66	60 - 140
Iodomethane	50.0	47.6		ug/L		95	60 - 140
Isopropylbenzene	50.0	42.1		ug/L		84	60 - 140
Methyl tert-butyl ether	50.0	52.4		ug/L		105	60 - 140
Methylene Chloride	50.0	45.7		ug/L		91	60 - 140
m-Xylene & p-Xylene	50.0	46.9		ug/L		94	60 - 140
Naphthalene	50.0	34.5		ug/L		69	60 - 140
n-Butylbenzene	50.0	43.9		ug/L		88	60 - 140
N-Propylbenzene	50.0	42.8		ug/L		86	60 - 140
o-Xylene	50.0	42.5		ug/L		85	60 - 140
sec-Butylbenzene	50.0	44.1		ug/L		88	60 - 140
Styrene	50.0	43.4		ug/L		87	60 - 140
tert-Butylbenzene	50.0	42.9		ug/L		86	60 - 140
Tetrachloroethene	50.0	39.9		ug/L		80	70 - 130
Toluene	50.0	40.7		ug/L		81	70 - 130
trans-1,2-Dichloroethene	50.0	51.5		ug/L		103	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-265411/1003
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 265411

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	50.0	42.9		ug/L		86	50 - 150
Trichloroethene	50.0	43.0		ug/L		86	65 - 135
Trichlorofluoromethane	50.0	46.2		ug/L		92	50 - 150
Vinyl acetate	50.0	54.8		ug/L		110	60 - 140
Vinyl chloride	50.0	47.5		ug/L		95	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*85*		*60 - 140*
Dibromofluoromethane (Surr)	*100*		*60 - 140*
Toluene-d8 (Surr)	*82*		*60 - 140*

Lab Sample ID: LCSD 550-265411/4
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 265411

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	50.0	39.6		ug/L		79	60 - 140	13	20
1,1,1-Trichloroethane	50.0	48.2		ug/L		96	70 - 130	1	20
1,1,2,2-Tetrachloroethane	50.0	51.0	R6	ug/L		102	60 - 140	21	20
1,1,2-Trichloroethane	50.0	41.7		ug/L		83	70 - 130	0	20
1,1-Dichloroethane	50.0	47.5		ug/L		95	70 - 150	1	20
1,1-Dichloroethene	50.0	47.3		ug/L		95	50 - 140	1	20
1,1-Dichloropropene	50.0	38.6		ug/L		77	60 - 140	5	20
1,2,3-Trichlorobenzene	50.0	36.6		ug/L		73	60 - 140	13	20
1,2,3-Trichloropropane	50.0	45.8		ug/L		92	60 - 140	17	20
1,2,4-Trichlorobenzene	50.0	39.6		ug/L		79	60 - 140	9	20
1,2,4-Trimethylbenzene	50.0	46.6		ug/L		93	60 - 140	2	20
1,2-Dibromo-3-Chloropropane	50.0	36.9		ug/L		74	60 - 140	2	20
1,2-Dichlorobenzene	50.0	41.5		ug/L		83	65 - 140	7	20
1,2-Dichloroethane	50.0	39.8		ug/L		80	70 - 130	4	20
1,2-Dichloropropane	50.0	38.0		ug/L		76	35 - 165	15	20
1,3,5-Trimethylbenzene	50.0	48.1		ug/L		96	60 - 140	16	20
1,3-Dichlorobenzene	50.0	42.1		ug/L		84	70 - 130	3	20
1,3-Dichloropropane	50.0	39.2		ug/L		78	60 - 140	5	20
1,4-Dichlorobenzene	50.0	42.8		ug/L		86	65 - 135	0	20
2,2-Dichloropropane	50.0	48.2		ug/L		96	60 - 140	9	20
2-Butanone (MEK)	50.0	50.0		ug/L		100	60 - 140	11	20
2-Chlorotoluene	50.0	49.8		ug/L		100	60 - 140	14	20
2-Hexanone	50.0	34.8		ug/L		70	60 - 140	3	20
4-Chlorotoluene	50.0	50.1		ug/L		100	60 - 140	15	20
4-Isopropyltoluene	50.0	40.9		ug/L		82	60 - 140	2	20
4-Methyl-2-pentanone (MIBK)	50.0	34.6		ug/L		69	60 - 140	2	20
Acetone	50.0	33.8		ug/L		68	18 - 150	0	20
Benzene	50.0	36.9		ug/L		74	65 - 135	5	20
Bromobenzene	50.0	49.2		ug/L		98	60 - 140	14	20
Bromoform	50.0	41.4		ug/L		83	70 - 130	7	20
Bromomethane	50.0	83.1	R6	ug/L		166	15 - 185	124	20
Carbon disulfide	50.0	53.5		ug/L		107	60 - 140	1	20

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 550-265411/4
Matrix: Water
Analysis Batch: 265411

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 tetrachloride	50.0	37.8		ug/L		76	70 - 130	5	20
Chlorobenzene	50.0	43.6		ug/L		87	65 - 135	7	20
Chlorobromomethane	50.0	48.0		ug/L		96	60 - 140	6	20
Chlorodibromomethane	50.0	38.7		ug/L		77	70 - 135	4	20
Chloroethane	50.0	51.2		ug/L		102	40 - 160	2	20
Chloroform	50.0	49.1		ug/L		98	70 - 135	0	20
Chloromethane	50.0	45.5		ug/L		91	10 - 205	7	20
cis-1,2-Dichloroethene	50.0	37.6		ug/L		75	60 - 140	20	20
cis-1,3-Dichloropropene	50.0	40.7		ug/L		81	25 - 175	5	20
Dibromomethane	50.0	40.4		ug/L		81	70 - 130	4	20
Dichlorobromomethane	50.0	39.3		ug/L		79	65 - 135	6	20
Dichlorodifluoromethane	50.0	40.6		ug/L		81	60 - 140	2	20
Ethanol	1000	837		ug/L		84	60 - 140	3	20
Ethylbenzene	50.0	39.9		ug/L		80	60 - 140	16	20
Ethylene Dibromide	50.0	38.9		ug/L		78	60 - 140	12	20
Hexachlorobutadiene	50.0	34.7		ug/L		69	60 - 140	5	20
Iodomethane	50.0	45.9		ug/L		92	60 - 140	4	20
Isopropylbenzene	50.0	44.4		ug/L		89	60 - 140	5	20
Methyl tert-butyl ether	50.0	49.3		ug/L		99	60 - 140	6	20
Methylene Chloride	50.0	45.1		ug/L		90	60 - 140	1	20
m-Xylene & p-Xylene	50.0	44.1		ug/L		88	60 - 140	6	20
Naphthalene	50.0	38.9		ug/L		78	60 - 140	12	20
n-Butylbenzene	50.0	41.5		ug/L		83	60 - 140	6	20
N-Propylbenzene	50.0	50.2		ug/L		100	60 - 140	16	20
o-Xylene	50.0	44.7		ug/L		89	60 - 140	5	20
sec-Butylbenzene	50.0	41.8		ug/L		84	60 - 140	5	20
Styrene	50.0	45.8		ug/L		92	60 - 140	6	20
tert-Butylbenzene	50.0	44.3		ug/L		89	60 - 140	3	20
Tetrachloroethene	50.0	37.1		ug/L		74	70 - 130	7	20
Toluene	50.0	38.1		ug/L		76	70 - 130	6	20
trans-1,2-Dichloroethene	50.0	46.7		ug/L		93	70 - 130	10	20
trans-1,3-Dichloropropene	50.0	44.3		ug/L		89	50 - 150	3	20
Trichloroethene	50.0	37.8		ug/L		76	65 - 135	13	20
Trichlorofluoromethane	50.0	46.3		ug/L		93	50 - 150	0	20
Vinyl acetate	50.0	56.4		ug/L		113	60 - 140	3	20
Vinyl chloride	50.0	53.4		ug/L		107	5 - 195	12	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*
Dibromofluoromethane (Surr)	*101*		*60 - 140*
Toluene-d8 (Surr)	*78*		*60 - 140*

Lab Sample ID: 550-178405-A-6 MS
Matrix: Water
Analysis Batch: 265411

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	44.6		ug/L		89	50 - 150		

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-178405-A-6 MS
Matrix: Water
Analysis Batch: 265411

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-Trichloroethane	ND		50.0	48.7		ug/L		97	52 - 162
1,1,2,2-Tetrachloroethane	ND	R6	50.0	49.1		ug/L		98	46 - 157
1,1,2-Trichloroethane	ND		50.0	37.9		ug/L		76	52 - 150
1,1-Dichloroethane	ND		50.0	46.2		ug/L		92	59 - 155
1,1-Dichloroethene	ND		50.0	46.5		ug/L		93	10 - 234
1,1-Dichloropropene	ND		50.0	35.4		ug/L		71	50 - 150
1,2,3-Trichlorobenzene	ND		50.0	31.3		ug/L		63	50 - 150
1,2,3-Trichloropropane	ND		50.0	46.8		ug/L		94	50 - 150
1,2,4-Trichlorobenzene	ND		50.0	34.9		ug/L		70	50 - 150
1,2,4-Trimethylbenzene	ND		50.0	44.2		ug/L		88	50 - 150
1,2-Dibromo-3-Chloropropane	ND		50.0	41.7		ug/L		83	50 - 150
1,2-Dichlorobenzene	ND		50.0	42.5		ug/L		85	18 - 190
1,2-Dichloroethane	ND		50.0	37.1		ug/L		74	49 - 155
1,2-Dichloropropane	ND		50.0	34.9		ug/L		70	10 - 210
1,3,5-Trimethylbenzene	ND		50.0	46.7		ug/L		93	50 - 150
1,3-Dichlorobenzene	ND		50.0	42.2		ug/L		84	59 - 156
1,3-Dichloropropane	ND		50.0	37.0		ug/L		74	50 - 150
1,4-Dichlorobenzene	ND		50.0	42.7		ug/L		85	18 - 190
2,2-Dichloropropane	ND		50.0	51.6		ug/L		103	50 - 150
2-Butanone (MEK)	ND		50.0	68.1		ug/L		136	50 - 150
2-Chlorotoluene	ND		50.0	44.8		ug/L		90	50 - 150
2-Hexanone	ND		50.0	36.9		ug/L		74	50 - 150
4-Chlorotoluene	ND		50.0	46.3		ug/L		93	50 - 150
4-Isopropyltoluene	ND		50.0	41.2		ug/L		82	50 - 150
4-Methyl-2-pentanone (MIBK)	ND		50.0	34.6		ug/L		69	50 - 150
Acetone	51		50.0	68.5		ug/L		34	18 - 150
Benzene	ND		50.0	33.9		ug/L		68	35 - 151
Bromobenzene	ND		50.0	46.0		ug/L		92	50 - 150
Bromoform	ND		50.0	46.0		ug/L		92	45 - 169
Bromomethane	ND	R6	50.0	85.3		ug/L		171	10 - 242
Carbon disulfide	ND		50.0	53.2		ug/L		106	50 - 150
Carbon tetrachloride	ND		50.0	36.0		ug/L		72	70 - 140
Chlorobenzene	ND		50.0	45.7		ug/L		91	37 - 160
Chlorobromomethane	ND		50.0	57.0		ug/L		114	50 - 150
Chlorodibromomethane	ND		50.0	38.3		ug/L		77	53 - 149
Chloroethane	ND		50.0	56.4		ug/L		113	14 - 230
Chloroform	0.65		50.0	56.8		ug/L		112	51 - 138
Chloromethane	ND		50.0	41.8		ug/L		84	10 - 273
cis-1,2-Dichloroethene	ND		50.0	42.4		ug/L		85	50 - 150
cis-1,3-Dichloropropene	ND		50.0	36.4		ug/L		73	10 - 227
Dibromomethane	ND		50.0	38.6		ug/L		77	50 - 150
Dichlorobromomethane	ND		50.0	36.9		ug/L		74	35 - 155
Dichlorodifluoromethane	ND		50.0	37.6		ug/L		75	50 - 150
Ethanol	590		1000	1140		ug/L		55	50 - 150
Ethylbenzene	ND		50.0	44.9		ug/L		90	37 - 162
Ethylene Dibromide	ND		50.0	46.1		ug/L		92	50 - 150
Hexachlorobutadiene	ND		50.0	31.8		ug/L		64	50 - 150
Iodomethane	ND		50.0	45.6		ug/L		90	50 - 150
Isopropylbenzene	ND		50.0	45.6		ug/L		91	50 - 150

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-178405-A-6 MS
Matrix: Water
Analysis Batch: 265411

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
Methyl tert-butyl ether	ND		50.0	48.5		ug/L		97	50 - 150
Methylene Chloride	ND		50.0	53.5		ug/L		107	10 - 221
m-Xylene & p-Xylene	ND		50.0	45.3		ug/L		90	50 - 150
Naphthalene	ND		50.0	37.5		ug/L		75	50 - 150
n-Butylbenzene	ND		50.0	41.9		ug/L		84	50 - 150
N-Propylbenzene	ND		50.0	45.8		ug/L		92	50 - 150
o-Xylene	ND		50.0	45.3		ug/L		91	50 - 150
sec-Butylbenzene	ND		50.0	43.2		ug/L		86	50 - 150
Styrene	ND		50.0	45.8		ug/L		92	50 - 150
tert-Butylbenzene	ND		50.0	42.7		ug/L		85	50 - 150
Tetrachloroethene	ND		50.0	35.2		ug/L		70	64 - 148
Toluene	1.1		50.0	36.3		ug/L		70	47 - 150
trans-1,2-Dichloroethene	ND		50.0	46.5		ug/L		93	54 - 156
trans-1,3-Dichloropropene	ND		50.0	37.8		ug/L		76	17 - 183
Trichloroethene	ND		50.0	35.1		ug/L		70	70 - 157
Trichlorofluoromethane	ND		50.0	46.4		ug/L		93	17 - 181
Vinyl acetate	ND		50.0	34.0		ug/L		68	50 - 150
Vinyl chloride	ND		50.0	55.7		ug/L		111	10 - 251

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*
Dibromofluoromethane (Surr)	*103*		*60 - 140*
Toluene-d8 (Surr)	*73*		*60 - 140*

Lab Sample ID: 550-178405-A-6 MSD
Matrix: Water
Analysis Batch: 265411

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	45.6		ug/L		91	50 - 150	2	35
1,1,1-Trichloroethane	ND		50.0	47.0		ug/L		94	52 - 162	4	36
1,1,2,2-Tetrachloroethane	ND	R6	50.0	40.9		ug/L		82	46 - 157	18	61
1,1,2-Trichloroethane	ND		50.0	45.8		ug/L		92	52 - 150	19	45
1,1-Dichloroethane	ND		50.0	45.7		ug/L		91	59 - 155	1	40
1,1-Dichloroethene	ND		50.0	45.6		ug/L		91	10 - 234	2	32
1,1-Dichloropropene	ND		50.0	43.6		ug/L		87	50 - 150	21	35
1,2,3-Trichlorobenzene	ND		50.0	27.4		ug/L		55	50 - 150	13	35
1,2,3-Trichloropropane	ND		50.0	40.0		ug/L		80	50 - 150	16	35
1,2,4-Trichlorobenzene	ND		50.0	29.7		ug/L		59	50 - 150	16	35
1,2,4-Trimethylbenzene	ND		50.0	40.8		ug/L		82	50 - 150	8	35
1,2-Dibromo-3-Chloropropane	ND		50.0	36.4		ug/L		73	50 - 150	14	35
1,2-Dichlorobenzene	ND		50.0	41.5		ug/L		83	18 - 190	2	57
1,2-Dichloroethane	ND		50.0	44.6		ug/L		89	49 - 155	19	49
1,2-Dichloropropane	ND		50.0	52.2		ug/L		104	10 - 210	40	55
1,3,5-Trimethylbenzene	ND		50.0	44.1		ug/L		88	50 - 150	6	35
1,3-Dichlorobenzene	ND		50.0	41.7		ug/L		83	59 - 156	1	43
1,3-Dichloropropane	ND		50.0	45.0		ug/L		90	50 - 150	19	35
1,4-Dichlorobenzene	ND		50.0	42.4		ug/L		85	18 - 190	1	57

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-178405-A-6 MSD
Matrix: Water
Analysis Batch: 265411

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
2,2-Dichloropropane	ND		50.0	42.9		ug/L		86	50 - 150	18	35
2-Butanone (MEK)	ND		50.0	55.6		ug/L		111	50 - 150	20	35
2-Chlorotoluene	ND		50.0	41.6		ug/L		83	50 - 150	7	35
2-Hexanone	ND		50.0	42.0		ug/L		84	50 - 150	13	35
4-Chlorotoluene	ND		50.0	45.8		ug/L		92	50 - 150	1	35
4-Isopropyltoluene	ND		50.0	40.4		ug/L		81	50 - 150	2	35
4-Methyl-2-pentanone (MIBK)	ND		50.0	42.2		ug/L		84	50 - 150	20	35
Acetone	51		50.0	83.3		ug/L		64	18 - 150	20	35
Benzene	ND		50.0	42.0		ug/L		84	35 - 151	21	61
Bromobenzene	ND		50.0	38.6		ug/L		77	50 - 150	17	35
Bromoform	ND		50.0	38.7		ug/L		77	45 - 169	17	42
Bromomethane	ND	R6	50.0	84.0		ug/L		168	10 - 242	2	61
Carbon disulfide	ND		50.0	52.3		ug/L		105	50 - 150	2	35
Carbon tetrachloride	ND		50.0	43.4		ug/L		87	70 - 140	19	41
Chlorobenzene	ND		50.0	45.5		ug/L		91	37 - 160	0	53
Chlorobromomethane	ND		50.0	47.1		ug/L		94	50 - 150	19	35
Chlorodibromomethane	ND		50.0	46.3		ug/L		93	53 - 149	19	50
Chloroethane	ND		50.0	53.0		ug/L		106	14 - 230	6	78
Chloroform	0.65		50.0	48.3		ug/L		95	51 - 138	16	54
Chloromethane	ND		50.0	42.3		ug/L		85	10 - 273	1	60
cis-1,2-Dichloroethene	ND		50.0	42.7		ug/L		85	50 - 150	1	35
cis-1,3-Dichloropropene	ND		50.0	43.7		ug/L		87	10 - 227	18	58
Dibromomethane	ND		50.0	54.8		ug/L		110	50 - 150	35	35
Dichlorobromomethane	ND		50.0	51.4		ug/L		103	35 - 155	33	56
Dichlorodifluoromethane	ND		50.0	37.6		ug/L		75	50 - 150	0	35
Ethanol	590		1000	1420		ug/L		83	50 - 150	22	35
Ethylbenzene	ND		50.0	45.0		ug/L		90	37 - 162	0	63
Ethylene Dibromide	ND		50.0	45.6		ug/L		91	50 - 150	1	35
Hexachlorobutadiene	ND		50.0	25.7		ug/L		51	50 - 150	21	35
Iodomethane	ND		50.0	44.1		ug/L		87	50 - 150	3	35
Isopropylbenzene	ND		50.0	37.5		ug/L		75	50 - 150	19	35
Methyl tert-butyl ether	ND		50.0	52.0		ug/L		104	50 - 150	7	35
Methylene Chloride	ND		50.0	43.5		ug/L		87	10 - 221	21	28
m-Xylene & p-Xylene	ND		50.0	37.5		ug/L		74	50 - 150	19	35
Naphthalene	ND		50.0	32.1		ug/L		64	50 - 150	16	35
n-Butylbenzene	ND		50.0	41.0		ug/L		82	50 - 150	2	35
N-Propylbenzene	ND		50.0	37.8		ug/L		76	50 - 150	19	35
o-Xylene	ND		50.0	38.2		ug/L		76	50 - 150	17	35
sec-Butylbenzene	ND		50.0	42.0		ug/L		84	50 - 150	3	35
Styrene	ND		50.0	40.2		ug/L		80	50 - 150	13	35
tert-Butylbenzene	ND		50.0	39.8		ug/L		80	50 - 150	7	35
Tetrachloroethene	ND		50.0	43.3		ug/L		87	64 - 148	21	39
Toluene	1.1		50.0	44.5		ug/L		87	47 - 150	20	41
trans-1,2-Dichloroethene	ND		50.0	52.0		ug/L		104	54 - 156	11	45
trans-1,3-Dichloropropene	ND		50.0	45.7		ug/L		91	17 - 183	19	86
Trichloroethene	ND		50.0	51.7		ug/L		103	70 - 157	38	48
Trichlorofluoromethane	ND		50.0	45.4		ug/L		91	17 - 181	2	84
Vinyl acetate	ND		50.0	30.4		ug/L		61	50 - 150	11	35
Vinyl chloride	ND		50.0	53.1		ug/L		106	10 - 251	5	66

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	78		60 - 140
Dibromofluoromethane (Surr)	103		60 - 140
Toluene-d8 (Surr)	91		60 - 140

QC Association Summary

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-178408-1

GC/MS VOA

Analysis Batch: 265411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-178408-1	INF-22M02	Total/NA	Water	624.1	
550-178408-2	EFF-22M02	Total/NA	Water	624.1	
550-178408-3	GAC-2A-100-22M02	Total/NA	Water	624.1	
550-178408-4	GAC-2B-75-22M02	Total/NA	Water	624.1	
550-178408-5	TB-22M02	Total/NA	Water	624.1	
MB 550-265411/5	Method Blank	Total/NA	Water	624.1	
LCS 550-265411/1003	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-265411/4	Lab Control Sample Dup	Total/NA	Water	624.1	
550-178405-A-6 MS	Matrix Spike	Total/NA	Water	624.1	
550-178405-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	624.1	

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-178408-1

Client Sample ID: INF-22M02 — Lab Sample ID: 550-178408-1

Date Collected: 02/03/22 07:48 — **Matrix: Water**
Date Received: 02/03/22 11:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	265411	02/03/22 18:53	TC1	TAL PHX

Client Sample ID: EFF-22M02 — Lab Sample ID: 550-178408-2

Date Collected: 02/03/22 08:04 — **Matrix: Water**
Date Received: 02/03/22 11:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	265411	02/03/22 18:27	TC1	TAL PHX

Client Sample ID: GAC-2A-100-22M02 — Lab Sample ID: 550-178408-3

Date Collected: 02/03/22 07:51 — **Matrix: Water**
Date Received: 02/03/22 11:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	265411	02/03/22 19:19	TC1	TAL PHX

Client Sample ID: GAC-2B-75-22M02 — Lab Sample ID: 550-178408-4

Date Collected: 02/03/22 07:54 — **Matrix: Water**
Date Received: 02/03/22 11:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	265411	02/03/22 19:45	TC1	TAL PHX

Client Sample ID: TB-22M02 — Lab Sample ID: 550-178408-5

Date Collected: 02/03/22 08:00 — **Matrix: Water**
Date Received: 02/03/22 11:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	265411	02/03/22 17:34	TC1	TAL PHX

Laboratory References:

TAL PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Honeywell International Inc
Job ID: 550-178408-1
Project/Site: Monthly Groundwater Monitoring Program

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
624.1		Water	1,2,4-Trichlorobenzene
624.1		Water	Trihalomethanes, Total

Method Summary

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-178408-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

Laboratory References:

TAL PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

178408

Test America Phoenix
4625 East Cotton CTr Blvd Suite 189
Phoenix, AZ 85040
602-437-3340

Honeywell — Chain Of Custody / Analysis Request

AESI Ref: 44594.53786
COC#: 37553-020322

Privileged & Confidential | 55014762
Site Name: Deer Valley | Phase:
Location of Site: Phoenix AZ. | Sampling Program: Monthly Groundwater Monitoring Program
Lab Proj # (SDG):
Lab ID: TAL-PHX
Site ID: DEERV
Lab Job #:
Authorized User: Honeywell

Sampling Co.: Jacobs
EDD To: Bernice Kidd, Jacobs HTS
Client Contact: (name, co., address)
Jacobs
1501 W. Fountainhead Parkway (suite 401)
Tempe, AZ 85282
Sampler: T. Kearsley J. Ruiz
PO #: 4500178520
Preservative: 8
Analysis Turnaround Time (TAT): 10
Consultant: Jacobs
Preliminary Data To: Berney Kidd Jacobs, Lakshmi Devi HTS,
Laboratory Contact: Rachel Sester
Sample Receipt Acknowledgement To: Site Distribution List
Report Tier Level: 2
Hard Copy To: Berney Kidd Jacobs
Full Report TAT: 10
Invoice To: Mike Heitmann, Honeywell/Copy Berney Kidd
HTS

Test America Field Order | Honeywell Field Order

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Sample Identification: Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID	Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	E624 (Total VOCs)	E300 0 (Nitrite-Nitrate)	MS/MSD	Sampling Method (code)	Lab Sample Numbers
										Units						
Influent			INF-22M02	2/3/2022	748	GW-GWS	WATER	REG	3	grab	N	X				
Effluent			EFF-22M02	2/3/2022	804	GW-GWS	WATER	REG	3	grab	N	X				
GAC2A Effluent			GAC-2A-100-22M02	2/3/2022	751	GW-GWS	WATER	REG	3	grab	N	X				
GAC2B 75%			GAC-2B-75-22M02	2/3/2022	754	GW-GWS	WATER	REG	3	grab	N	X				
5 TRIPBLANK			TB-22M02	2/3/2022	8:00	GW-GWS	WATER	REG	1	grab	N	X				
6																
7																
8																
9																
10																
11																
12																

550-178408 Chain of Custody

Relinquished by	Company	Date/Time	Received by	Company	Date/Time	Condition	Cooler Temp.	Custody Seals Intact
Jem Day	Jacobs	2/3/21 1146						
Relinquished by	Company	Date/Time	Received by	Company	Date/Time	Condition	Cooler Temp.	Custody Seals Intact
			[illegible]		2/3/22 1146			

Preservatives: (Other; Specify):
0 (none); 1 (4 Deg C); 2 (HCl, pH<2); 3 (HNO3, pH<2); 4 (H2SO4, pH<2); 5 (NaOH, pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4, pH<2, 4 Deg C)); 8 (HCl, pH<2, 4 Deg C); 9 (HCl, 4 Deg C); 10 (HNO3, pH<2, 4 Deg C); 11 (NaOH, pH>12, 4 Deg, Ascorbic Acid); 12 (H2SO4, Na2S2O3, 4 Deg C, pH<2); 13 (Zn Acetate); 14 (1-MeOH, 4 Deg C and 2-NaHSO4, 4 Deg C): 15 (NaOH, pH>12, 4 Deg C); sp (special instructions)

0.4°C ICE CUD

2/14/2022

Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 550-178408-1

Login Number: 178408
List Number: 1
Creator: Maycock, Lisa

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.

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-180055-1
Client Project/Site: Monthly Groundwater Monitoring Program

For:
Honeywell International Inc
1944 E. Sky Harbor Circle MS 2101-2C
Phoenix, Arizona 85034

Attn: Tao Wu

Authorized for release by:
3/11/2022 5:35:47 PM
Emily Petrunia, Project Manager I
(602)659-7629
emily.petrunia@eurofinset.com

Designee for

Rachel Sester, Project Manager I
(602)659-7615
Rachel.Sester@Eurofinset.com

LINKS

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www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Sample Summary 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 16
QC Sample Results 17
QC Association Summary 27
Lab Chronicle 28
Certification Summary 29
Method Summary 30
Chain of Custody 31
Receipt Checklists 32

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
L4	The associated blank spike recovery was below method acceptance limits.
L5	The associated blank spike recovery was above laboratory/method acceptance limits. This analyte was not detected in the sample.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
N1	See case narrative.
R1	RPD/RSD exceeded the method acceptance limit. See case narrative.
R6	LFB/LFBD RPD exceeded method control limit. Recovery met acceptance criteria.
T2	Cited ADHS licensed method does not contain this analyte as part of the method compound list.
V1	CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.

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: 550-180055-1

Laboratory: Eurofins Phoenix

Narrative

Job Narrative
550-180055-1

Comments
No additional comments.

Receipt
The samples were received on 3/2/2022 12:02 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.2º C.

GC/MS VOA
Method 624.1: The % Recovery (%R); as well as, RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for analytical batch 550-267849 recovered outside control limits, high for Acetone. The batch matrix spike/matrix spike duplicate (MS/MSD) were within acceptance limits and may be used to evaluate matrix performance. All samples are ND; therefore, the data is not impacted. The LCS/LCSD and samples will be reported with L5 and R1 qualifiers.

Method 624.1: The initial calibration verification (ICV) result for batch 550-267849 was above the upper control limit for 1,2-Dibromo-3-Chloropropane. Sample results were non-detects, and have been reported as N1 qualified data.

Method 624.1: Dibromofluoromethane (surrogate) recovered outside project specific limits in the following QC : (LCSD 550-268056/4) . All other QC and samples recovered within limits, all data reported qualified with N1 qualifier.

Method 624.1: Fluorobenzene (IS) failed outside of laboratory limits in the following QC: (550-179949-B-16). The sample was used as the source for the matrix spike and matrix spike duplicate (MS/MSD) in which, both had acceptable internal standard recoveries. The results for the sample source will be reported with an N1 qualifier, see analytical batch 550-268380.

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

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

Sample Summary

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-180055-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-180055-1	INF-22M03	Water	03/02/22 10:53	03/02/22 12:02
550-180055-2	EFF-22M03	Water	03/02/22 11:06	03/02/22 12:02
550-180055-3	GAC-2A-100-22M03	Water	03/02/22 10:57	03/02/22 12:02
550-180055-4	GAC-2B-75-22M03	Water	03/02/22 11:03	03/02/22 12:02
550-180055-5	TB-22M03	Water	03/02/22 08:00	03/02/22 12:02

Detection Summary

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-180055-1

Client Sample ID: INF-22M03 — Lab Sample ID: 550-180055-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2.3		0.50		ug/L	1		624.1	Total/NA
Tetrachloroethene	0.73		0.50		ug/L	1		624.1	Total/NA
Trichloroethene	18		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	0.55		0.50		ug/L	1		624.1	Total/NA

Client Sample ID: EFF-22M03 — Lab Sample ID: 550-180055-2

No Detections.

Client Sample ID: GAC-2A-100-22M03 — Lab Sample ID: 550-180055-3

No Detections.

Client Sample ID: GAC-2B-75-22M03 — Lab Sample ID: 550-180055-4

No Detections.

Client Sample ID: TB-22M03 — Lab Sample ID: 550-180055-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-180055-1

Client Sample ID: INF-22M03

Date Collected: 03/02/22 10:53
Date Received: 03/02/22 12:02

Lab Sample ID: 550-180055-1

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			03/03/22 21:22	1
1,1,1-Trichloroethane	ND		0.50		ug/L			03/09/22 13:31	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			03/03/22 21:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			03/03/22 21:22	1
1,1,2-Trichloroethane	ND		0.50		ug/L			03/03/22 21:22	1
1,1-Dichloroethane	ND		0.50		ug/L			03/03/22 21:22	1
1,1-Dichloroethene	ND		0.50		ug/L			03/03/22 21:22	1
1,1-Dichloropropene	ND		0.50		ug/L			03/03/22 21:22	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			03/03/22 21:22	1
1,2,3-Trichloropropane	ND		2.0		ug/L			03/03/22 21:22	1
1,2,4-Trichlorobenzene	ND	T2	2.0		ug/L			03/03/22 21:22	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			03/03/22 21:22	1
1,2-Dibromo-3-Chloropropane	ND	N1	5.0		ug/L			03/03/22 21:22	1
1,2-Dichlorobenzene	ND		0.50		ug/L			03/03/22 21:22	1
1,2-Dichloroethane	ND		0.50		ug/L			03/03/22 21:22	1
1,2-Dichloropropane	ND		0.50		ug/L			03/03/22 21:22	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			03/03/22 21:22	1
1,3-Dichlorobenzene	ND		0.50		ug/L			03/03/22 21:22	1
1,3-Dichloropropane	ND		0.50		ug/L			03/03/22 21:22	1
1,4-Dichlorobenzene	ND		0.50		ug/L			03/03/22 21:22	1
2,2-Dichloropropane	ND		1.0		ug/L			03/03/22 21:22	1
2-Butanone (MEK)	ND		10		ug/L			03/03/22 21:22	1
2-Chlorotoluene	ND		0.50		ug/L			03/03/22 21:22	1
2-Hexanone	ND	R6	5.0		ug/L			03/03/22 21:22	1
4-Chlorotoluene	ND		0.50		ug/L			03/03/22 21:22	1
4-Isopropyltoluene	ND		0.50		ug/L			03/03/22 21:22	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			03/03/22 21:22	1
Acetone	ND	L5 R1 V1	10		ug/L			03/03/22 21:22	1
Benzene	ND		0.50		ug/L			03/03/22 21:22	1
Bromobenzene	ND		1.0		ug/L			03/03/22 21:22	1
Bromoform	ND		1.0		ug/L			03/03/22 21:22	1
Bromomethane	ND		5.0		ug/L			03/03/22 21:22	1
Carbon disulfide	ND		5.0		ug/L			03/03/22 21:22	1
Carbon tetrachloride	ND		0.50		ug/L			03/03/22 21:22	1
Chlorobenzene	ND		0.50		ug/L			03/03/22 21:22	1
Chlorobromomethane	ND		0.50		ug/L			03/03/22 21:22	1
Chlorodibromomethane	ND		0.50		ug/L			03/03/22 21:22	1
Chloroethane	ND		1.0		ug/L			03/03/22 21:22	1
Chloroform	ND		0.50		ug/L			03/09/22 13:31	1
Chloromethane	ND		1.0		ug/L			03/03/22 21:22	1
cis-1,2-Dichloroethene	**2.3**		0.50		ug/L			03/03/22 21:22	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			03/03/22 21:22	1
Dibromomethane	ND		0.50		ug/L			03/03/22 21:22	1
Dichlorobromomethane	ND		0.50		ug/L			03/03/22 21:22	1
Dichlorodifluoromethane	ND		1.0		ug/L			03/09/22 13:31	1
Ethanol	ND		150		ug/L			03/03/22 21:22	1
Ethylbenzene	ND		0.50		ug/L			03/03/22 21:22	1
Ethylene Dibromide	ND		0.50		ug/L			03/03/22 21:22	1
Hexachlorobutadiene	ND		5.0		ug/L			03/03/22 21:22	1

Client Sample ID: INF-22M03

Lab Sample ID: 550-180055-1
Date Collected: 03/02/22 10:53
Matrix: Water
Date Received: 03/02/22 12:02

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND		2.0	ug/L			03/03/22 21:22	1
Isopropylbenzene	ND		0.50	ug/L			03/03/22 21:22	1
Methyl tert-butyl ether	ND	R6	0.50	ug/L			03/03/22 21:22	1
Methylene Chloride	ND		5.0	ug/L			03/03/22 21:22	1
m-Xylene & p-Xylene	ND		1.0	ug/L			03/03/22 21:22	1
Naphthalene	ND		5.0	ug/L			03/03/22 21:22	1
n-Butylbenzene	ND		1.0	ug/L			03/03/22 21:22	1
N-Propylbenzene	ND		0.50	ug/L			03/03/22 21:22	1
o-Xylene	ND		0.50	ug/L			03/03/22 21:22	1
sec-Butylbenzene	ND		0.50	ug/L			03/03/22 21:22	1
Styrene	ND		1.0	ug/L			03/03/22 21:22	1
tert-Butylbenzene	ND		0.50	ug/L			03/03/22 21:22	1
Tetrachloroethene	**0.73**		0.50	ug/L			03/03/22 21:22	1
Toluene	ND		0.50	ug/L			03/03/22 21:22	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			03/09/22 13:31	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			03/03/22 21:22	1
Trichloroethene	**18**		0.50	ug/L			03/03/22 21:22	1
Trichlorofluoromethane	ND		1.0	ug/L			03/03/22 21:22	1
Trihalomethanes, Total	**0.55**		0.50	ug/L			03/03/22 21:22	1
Vinyl acetate	ND		5.0	ug/L			03/03/22 21:22	1
Vinyl chloride	ND		1.0	ug/L			03/03/22 21:22	1
Xylenes, Total	ND		0.50	ug/L			03/03/22 21:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*60 - 140*		*03/03/22 21:22*	*1*
4-Bromofluorobenzene (Surr)	*105*		*60 - 140*		*03/09/22 13:31*	*1*
Dibromofluoromethane (Surr)	*92*		*60 - 140*		*03/03/22 21:22*	*1*
Dibromofluoromethane (Surr)	*69*		*60 - 140*		*03/09/22 13:31*	*1*
Toluene-d8 (Surr)	*89*		*60 - 140*		*03/03/22 21:22*	*1*
Toluene-d8 (Surr)	*101*		*60 - 140*		*03/09/22 13:31*	*1*

Client Sample ID: EFF-22M03

Lab Sample ID: 550-180055-2
Date Collected: 03/02/22 11:06
Matrix: Water
Date Received: 03/02/22 12:02

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			03/03/22 21:44	1
1,1,1-Trichloroethane	ND		0.50	ug/L			03/09/22 19:02	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			03/03/22 21:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	ug/L			03/03/22 21:44	1
1,1,2-Trichloroethane	ND		0.50	ug/L			03/03/22 21:44	1
1,1-Dichloroethane	ND		0.50	ug/L			03/03/22 21:44	1
1,1-Dichloroethene	ND		0.50	ug/L			03/03/22 21:44	1
1,1-Dichloropropene	ND		0.50	ug/L			03/03/22 21:44	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			03/03/22 21:44	1
1,2,3-Trichloropropane	ND		2.0	ug/L			03/03/22 21:44	1
1,2,4-Trichlorobenzene	ND	T2	2.0	ug/L			03/03/22 21:44	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			03/03/22 21:44	1
1,2-Dibromo-3-Chloropropane	ND	N1	5.0	ug/L			03/03/22 21:44	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-180055-1

Client Sample ID: EFF-22M03

Date Collected: 03/02/22 11:06
Date Received: 03/02/22 12:02

Lab Sample ID: 550-180055-2

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		0.50		ug/L			03/03/22 21:44	1
1,2-Dichloroethane	ND		0.50		ug/L			03/03/22 21:44	1
1,2-Dichloropropane	ND		0.50		ug/L			03/03/22 21:44	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			03/03/22 21:44	1
1,3-Dichlorobenzene	ND		0.50		ug/L			03/03/22 21:44	1
1,3-Dichloropropane	ND		0.50		ug/L			03/03/22 21:44	1
1,4-Dichlorobenzene	ND		0.50		ug/L			03/03/22 21:44	1
2,2-Dichloropropane	ND		1.0		ug/L			03/03/22 21:44	1
2-Butanone (MEK)	ND		10		ug/L			03/03/22 21:44	1
2-Chlorotoluene	ND		0.50		ug/L			03/03/22 21:44	1
2-Hexanone	ND	R6	5.0		ug/L			03/03/22 21:44	1
4-Chlorotoluene	ND		0.50		ug/L			03/03/22 21:44	1
4-Isopropyltoluene	ND		0.50		ug/L			03/03/22 21:44	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			03/03/22 21:44	1
Acetone	ND	L5 R1 V1	10		ug/L			03/03/22 21:44	1
Benzene	ND		0.50		ug/L			03/03/22 21:44	1
Bromobenzene	ND		1.0		ug/L			03/03/22 21:44	1
Bromoform	ND		1.0		ug/L			03/03/22 21:44	1
Bromomethane	ND		5.0		ug/L			03/03/22 21:44	1
Carbon disulfide	ND		5.0		ug/L			03/03/22 21:44	1
Carbon tetrachloride	ND		0.50		ug/L			03/03/22 21:44	1
Chlorobenzene	ND		0.50		ug/L			03/03/22 21:44	1
Chlorobromomethane	ND		0.50		ug/L			03/03/22 21:44	1
Chlorodibromomethane	ND		0.50		ug/L			03/03/22 21:44	1
Chloroethane	ND		1.0		ug/L			03/03/22 21:44	1
Chloroform	ND		0.50		ug/L			03/09/22 19:02	1
Chloromethane	ND		1.0		ug/L			03/03/22 21:44	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			03/03/22 21:44	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			03/03/22 21:44	1
Dibromomethane	ND		0.50		ug/L			03/03/22 21:44	1
Dichlorobromomethane	ND		0.50		ug/L			03/03/22 21:44	1
Dichlorodifluoromethane	ND		1.0		ug/L			03/09/22 19:02	1
Ethanol	ND		150		ug/L			03/03/22 21:44	1
Ethylbenzene	ND		0.50		ug/L			03/03/22 21:44	1
Ethylene Dibromide	ND		0.50		ug/L			03/03/22 21:44	1
Hexachlorobutadiene	ND		5.0		ug/L			03/03/22 21:44	1
Iodomethane	ND		2.0		ug/L			03/03/22 21:44	1
Isopropylbenzene	ND		0.50		ug/L			03/03/22 21:44	1
Methyl tert-butyl ether	ND	R6	0.50		ug/L			03/03/22 21:44	1
Methylene Chloride	ND		5.0		ug/L			03/03/22 21:44	1
m-Xylene & p-Xylene	ND		1.0		ug/L			03/03/22 21:44	1
Naphthalene	ND		5.0		ug/L			03/03/22 21:44	1
n-Butylbenzene	ND		1.0		ug/L			03/03/22 21:44	1
N-Propylbenzene	ND		0.50		ug/L			03/03/22 21:44	1
o-Xylene	ND		0.50		ug/L			03/03/22 21:44	1
sec-Butylbenzene	ND		0.50		ug/L			03/03/22 21:44	1
Styrene	ND		1.0		ug/L			03/03/22 21:44	1
tert-Butylbenzene	ND		0.50		ug/L			03/03/22 21:44	1
Tetrachloroethene	ND		0.50		ug/L			03/03/22 21:44	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-180055-1

Client Sample ID: EFF-22M03

Lab Sample ID: 550-180055-2
Date Collected: 03/02/22 11:06
Matrix: Water
Date Received: 03/02/22 12:02

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		0.50	ug/L			03/03/22 21:44	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			03/09/22 19:02	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			03/03/22 21:44	1
Trichloroethene	ND		0.50	ug/L			03/03/22 21:44	1
Trichlorofluoromethane	ND		1.0	ug/L			03/03/22 21:44	1
Trihalomethanes, Total	ND		0.50	ug/L			03/03/22 21:44	1
Vinyl acetate	ND		5.0	ug/L			03/03/22 21:44	1
Vinyl chloride	ND		1.0	ug/L			03/03/22 21:44	1
Xylenes, Total	ND		0.50	ug/L			03/03/22 21:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*03/03/22 21:44*	*1*
4-Bromofluorobenzene (Surr)	*116*		*60 - 140*		*03/09/22 19:02*	*1*
Dibromofluoromethane (Surr)	*93*		*60 - 140*		*03/03/22 21:44*	*1*
Dibromofluoromethane (Surr)	*71*		*60 - 140*		*03/09/22 19:02*	*1*
Toluene-d8 (Surr)	*89*		*60 - 140*		*03/03/22 21:44*	*1*
Toluene-d8 (Surr)	*100*		*60 - 140*		*03/09/22 19:02*	*1*

Client Sample ID: GAC-2A-100-22M03

Lab Sample ID: 550-180055-3
Date Collected: 03/02/22 10:57
Matrix: Water
Date Received: 03/02/22 12:02

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			03/03/22 22:06	1
1,1,1-Trichloroethane	ND		0.50	ug/L			03/09/22 19:24	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			03/03/22 22:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	ug/L			03/03/22 22:06	1
1,1,2-Trichloroethane	ND		0.50	ug/L			03/03/22 22:06	1
1,1-Dichloroethane	ND		0.50	ug/L			03/03/22 22:06	1
1,1-Dichloroethene	ND		0.50	ug/L			03/03/22 22:06	1
1,1-Dichloropropene	ND		0.50	ug/L			03/03/22 22:06	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			03/03/22 22:06	1
1,2,3-Trichloropropane	ND		2.0	ug/L			03/03/22 22:06	1
1,2,4-Trichlorobenzene	ND	T2	2.0	ug/L			03/03/22 22:06	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			03/03/22 22:06	1
1,2-Dibromo-3-Chloropropane	ND	N1	5.0	ug/L			03/03/22 22:06	1
1,2-Dichlorobenzene	ND		0.50	ug/L			03/03/22 22:06	1
1,2-Dichloroethane	ND		0.50	ug/L			03/03/22 22:06	1
1,2-Dichloropropane	ND		0.50	ug/L			03/03/22 22:06	1
1,3,5-Trimethylbenzene	ND		0.50	ug/L			03/03/22 22:06	1
1,3-Dichlorobenzene	ND		0.50	ug/L			03/03/22 22:06	1
1,3-Dichloropropane	ND		0.50	ug/L			03/03/22 22:06	1
1,4-Dichlorobenzene	ND		0.50	ug/L			03/03/22 22:06	1
2,2-Dichloropropane	ND		1.0	ug/L			03/03/22 22:06	1
2-Butanone (MEK)	ND		10	ug/L			03/03/22 22:06	1
2-Chlorotoluene	ND		0.50	ug/L			03/03/22 22:06	1
2-Hexanone	ND	R6	5.0	ug/L			03/03/22 22:06	1
4-Chlorotoluene	ND		0.50	ug/L			03/03/22 22:06	1
4-Isopropyltoluene	ND		0.50	ug/L			03/03/22 22:06	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-180055-1

Client Sample ID: GAC-2A-100-22M03

Lab Sample ID: 550-180055-3

Date Collected: 03/02/22 10:57
Date Received: 03/02/22 12:02

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	ND		2.5	ug/L			03/03/22 22:06	1
Acetone	ND	L5 R1 V1	10	ug/L			03/03/22 22:06	1
Benzene	ND		0.50	ug/L			03/03/22 22:06	1
Bromobenzene	ND		1.0	ug/L			03/03/22 22:06	1
Bromoform	ND		1.0	ug/L			03/03/22 22:06	1
Bromomethane	ND		5.0	ug/L			03/03/22 22:06	1
Carbon disulfide	ND		5.0	ug/L			03/03/22 22:06	1
Carbon tetrachloride	ND		0.50	ug/L			03/03/22 22:06	1
Chlorobenzene	ND		0.50	ug/L			03/03/22 22:06	1
Chlorobromomethane	ND		0.50	ug/L			03/03/22 22:06	1
Chlorodibromomethane	ND		0.50	ug/L			03/03/22 22:06	1
Chloroethane	ND		1.0	ug/L			03/03/22 22:06	1
Chloroform	ND		0.50	ug/L			03/09/22 19:24	1
Chloromethane	ND		1.0	ug/L			03/03/22 22:06	1
cis-1,2-Dichloroethene	ND		0.50	ug/L			03/03/22 22:06	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			03/03/22 22:06	1
Dibromomethane	ND		0.50	ug/L			03/03/22 22:06	1
Dichlorobromomethane	ND		0.50	ug/L			03/03/22 22:06	1
Dichlorodifluoromethane	ND		1.0	ug/L			03/09/22 19:24	1
Ethanol	ND		150	ug/L			03/03/22 22:06	1
Ethylbenzene	ND		0.50	ug/L			03/03/22 22:06	1
Ethylene Dibromide	ND		0.50	ug/L			03/03/22 22:06	1
Hexachlorobutadiene	ND		5.0	ug/L			03/03/22 22:06	1
Iodomethane	ND		2.0	ug/L			03/03/22 22:06	1
Isopropylbenzene	ND		0.50	ug/L			03/03/22 22:06	1
Methyl tert-butyl ether	ND	R6	0.50	ug/L			03/03/22 22:06	1
Methylene Chloride	ND		5.0	ug/L			03/03/22 22:06	1
m-Xylene & p-Xylene	ND		1.0	ug/L			03/03/22 22:06	1
Naphthalene	ND		5.0	ug/L			03/03/22 22:06	1
n-Butylbenzene	ND		1.0	ug/L			03/03/22 22:06	1
N-Propylbenzene	ND		0.50	ug/L			03/03/22 22:06	1
o-Xylene	ND		0.50	ug/L			03/03/22 22:06	1
sec-Butylbenzene	ND		0.50	ug/L			03/03/22 22:06	1
Styrene	ND		1.0	ug/L			03/03/22 22:06	1
tert-Butylbenzene	ND		0.50	ug/L			03/03/22 22:06	1
Tetrachloroethene	ND		0.50	ug/L			03/03/22 22:06	1
Toluene	ND		0.50	ug/L			03/03/22 22:06	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			03/09/22 19:24	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			03/03/22 22:06	1
Trichloroethene	ND		0.50	ug/L			03/03/22 22:06	1
Trichlorofluoromethane	ND		1.0	ug/L			03/03/22 22:06	1
Trihalomethanes, Total	ND		0.50	ug/L			03/03/22 22:06	1
Vinyl acetate	ND		5.0	ug/L			03/03/22 22:06	1
Vinyl chloride	ND		1.0	ug/L			03/03/22 22:06	1
Xylenes, Total	ND		0.50	ug/L			03/03/22 22:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*03/03/22 22:06*	*1*
4-Bromofluorobenzene (Surr)	*114*		*60 - 140*		*03/09/22 19:24*	*1*
Dibromofluoromethane (Surr)	*91*		*60 - 140*		*03/03/22 22:06*	*1*

Client Sample Results

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-180055-1

Client Sample ID: GAC-2A-100-22M03

Lab Sample ID: 550-180055-3
Date Collected: 03/02/22 10:57
Matrix: Water
Date Received: 03/02/22 12:02

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	72		60 - 140		03/09/22 19:24	1
Toluene-d8 (Surr)	90		60 - 140		03/03/22 22:06	1
Toluene-d8 (Surr)	101		60 - 140		03/09/22 19:24	1

Client Sample ID: GAC-2B-75-22M03

Lab Sample ID: 550-180055-4
Date Collected: 03/02/22 11:03
Matrix: Water
Date Received: 03/02/22 12:02

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			03/03/22 22:28	1
1,1,1-Trichloroethane	ND		0.50	ug/L			03/09/22 19:46	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			03/03/22 22:28	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	ug/L			03/03/22 22:28	1
1,1,2-Trichloroethane	ND		0.50	ug/L			03/03/22 22:28	1
1,1-Dichloroethane	ND		0.50	ug/L			03/03/22 22:28	1
1,1-Dichloroethene	ND		0.50	ug/L			03/03/22 22:28	1
1,1-Dichloropropene	ND		0.50	ug/L			03/03/22 22:28	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			03/03/22 22:28	1
1,2,3-Trichloropropane	ND		2.0	ug/L			03/03/22 22:28	1
1,2,4-Trichlorobenzene	ND	T2	2.0	ug/L			03/03/22 22:28	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			03/03/22 22:28	1
1,2-Dibromo-3-Chloropropane	ND	N1	5.0	ug/L			03/03/22 22:28	1
1,2-Dichlorobenzene	ND		0.50	ug/L			03/03/22 22:28	1
1,2-Dichloroethane	ND		0.50	ug/L			03/03/22 22:28	1
1,2-Dichloropropane	ND		0.50	ug/L			03/03/22 22:28	1
1,3,5-Trimethylbenzene	ND		0.50	ug/L			03/03/22 22:28	1
1,3-Dichlorobenzene	ND		0.50	ug/L			03/03/22 22:28	1
1,3-Dichloropropane	ND		0.50	ug/L			03/03/22 22:28	1
1,4-Dichlorobenzene	ND		0.50	ug/L			03/03/22 22:28	1
2,2-Dichloropropane	ND		1.0	ug/L			03/03/22 22:28	1
2-Butanone (MEK)	ND		10	ug/L			03/03/22 22:28	1
2-Chlorotoluene	ND		0.50	ug/L			03/03/22 22:28	1
2-Hexanone	ND	R6	5.0	ug/L			03/03/22 22:28	1
4-Chlorotoluene	ND		0.50	ug/L			03/03/22 22:28	1
4-Isopropyltoluene	ND		0.50	ug/L			03/03/22 22:28	1
4-Methyl-2-pentanone (MIBK)	ND		2.5	ug/L			03/03/22 22:28	1
Acetone	ND	L5 R1 V1	10	ug/L			03/03/22 22:28	1
Benzene	ND		0.50	ug/L			03/03/22 22:28	1
Bromobenzene	ND		1.0	ug/L			03/03/22 22:28	1
Bromoform	ND		1.0	ug/L			03/03/22 22:28	1
Bromomethane	ND		5.0	ug/L			03/03/22 22:28	1
Carbon disulfide	ND		5.0	ug/L			03/03/22 22:28	1
Carbon tetrachloride	ND		0.50	ug/L			03/03/22 22:28	1
Chlorobenzene	ND		0.50	ug/L			03/03/22 22:28	1
Chlorobromomethane	ND		0.50	ug/L			03/03/22 22:28	1
Chlorodibromomethane	ND		0.50	ug/L			03/03/22 22:28	1
Chloroethane	ND		1.0	ug/L			03/03/22 22:28	1
Chloroform	ND		0.50	ug/L			03/09/22 19:46	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-180055-1

Client Sample ID: GAC-2B-75-22M03

Lab Sample ID: 550-180055-4
Matrix: Water
Date Collected: 03/02/22 11:03
Date Received: 03/02/22 12:02

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0		ug/L			03/03/22 22:28	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			03/03/22 22:28	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			03/03/22 22:28	1
Dibromomethane	ND		0.50		ug/L			03/03/22 22:28	1
Dichlorobromomethane	ND		0.50		ug/L			03/03/22 22:28	1
Dichlorodifluoromethane	ND		1.0		ug/L			03/09/22 19:46	1
Ethanol	ND		150		ug/L			03/03/22 22:28	1
Ethylbenzene	ND		0.50		ug/L			03/03/22 22:28	1
Ethylene Dibromide	ND		0.50		ug/L			03/03/22 22:28	1
Hexachlorobutadiene	ND		5.0		ug/L			03/03/22 22:28	1
Iodomethane	ND		2.0		ug/L			03/03/22 22:28	1
Isopropylbenzene	ND		0.50		ug/L			03/03/22 22:28	1
Methyl tert-butyl ether	ND	R6	0.50		ug/L			03/03/22 22:28	1
Methylene Chloride	ND		5.0		ug/L			03/03/22 22:28	1
m-Xylene & p-Xylene	ND		1.0		ug/L			03/03/22 22:28	1
Naphthalene	ND		5.0		ug/L			03/03/22 22:28	1
n-Butylbenzene	ND		1.0		ug/L			03/03/22 22:28	1
N-Propylbenzene	ND		0.50		ug/L			03/03/22 22:28	1
o-Xylene	ND		0.50		ug/L			03/03/22 22:28	1
sec-Butylbenzene	ND		0.50		ug/L			03/03/22 22:28	1
Styrene	ND		1.0		ug/L			03/03/22 22:28	1
tert-Butylbenzene	ND		0.50		ug/L			03/03/22 22:28	1
Tetrachloroethene	ND		0.50		ug/L			03/03/22 22:28	1
Toluene	ND		0.50		ug/L			03/03/22 22:28	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			03/09/22 19:46	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			03/03/22 22:28	1
Trichloroethene	ND		0.50		ug/L			03/03/22 22:28	1
Trichlorofluoromethane	ND		1.0		ug/L			03/03/22 22:28	1
Trihalomethanes, Total	ND		0.50		ug/L			03/03/22 22:28	1
Vinyl acetate	ND		5.0		ug/L			03/03/22 22:28	1
Vinyl chloride	ND		1.0		ug/L			03/03/22 22:28	1
Xylenes, Total	ND		0.50		ug/L			03/03/22 22:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*03/03/22 22:28*	*1*
4-Bromofluorobenzene (Surr)	*114*		*60 - 140*		*03/09/22 19:46*	*1*
Dibromofluoromethane (Surr)	*96*		*60 - 140*		*03/03/22 22:28*	*1*
Dibromofluoromethane (Surr)	*71*		*60 - 140*		*03/09/22 19:46*	*1*
Toluene-d8 (Surr)	*89*		*60 - 140*		*03/03/22 22:28*	*1*
Toluene-d8 (Surr)	*102*		*60 - 140*		*03/09/22 19:46*	*1*

Client Sample ID: TB-22M03

Lab Sample ID: 550-180055-5
Matrix: Water
Date Collected: 03/02/22 08:00
Date Received: 03/02/22 12:02

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			03/03/22 22:50	1
1,1,1-Trichloroethane	ND		0.50		ug/L			03/09/22 13:53	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			03/03/22 22:50	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-180055-1

Client Sample ID: TB-22M03

Date Collected: 03/02/22 08:00
Date Received: 03/02/22 12:02

Lab Sample ID: 550-180055-5

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND		0.50		ug/L			03/03/22 22:50	1
1,1-Dichloroethane	ND		0.50		ug/L			03/03/22 22:50	1
1,1-Dichloroethene	ND		0.50		ug/L			03/03/22 22:50	1
1,1-Dichloropropene	ND		0.50		ug/L			03/03/22 22:50	1
1,2,4-Trichlorobenzene	ND	T2	2.0		ug/L			03/03/22 22:50	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			03/03/22 22:50	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			03/03/22 22:50	1
1,2,3-Trichloropropane	ND		2.0		ug/L			03/03/22 22:50	1
1,2-Dibromo-3-Chloropropane	ND	N1	5.0		ug/L			03/03/22 22:50	1
Ethylene Dibromide	ND		0.50		ug/L			03/03/22 22:50	1
1,3-Dichlorobenzene	ND		0.50		ug/L			03/03/22 22:50	1
1,3-Dichloropropane	ND		0.50		ug/L			03/03/22 22:50	1
1,2-Dichlorobenzene	ND		0.50		ug/L			03/03/22 22:50	1
1,2-Dichloroethane	ND		0.50		ug/L			03/03/22 22:50	1
1,2-Dichloropropane	ND		0.50		ug/L			03/03/22 22:50	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			03/03/22 22:50	1
1,4-Dichlorobenzene	ND		0.50		ug/L			03/03/22 22:50	1
2,2-Dichloropropane	ND		1.0		ug/L			03/03/22 22:50	1
2-Butanone (MEK)	ND		10		ug/L			03/03/22 22:50	1
2-Chlorotoluene	ND		0.50		ug/L			03/03/22 22:50	1
2-Hexanone	ND	R6	5.0		ug/L			03/03/22 22:50	1
4-Chlorotoluene	ND		0.50		ug/L			03/03/22 22:50	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			03/03/22 22:50	1
Acetone	ND	L5 R1 V1	10		ug/L			03/03/22 22:50	1
Benzene	ND		0.50		ug/L			03/03/22 22:50	1
Bromobenzene	ND		1.0		ug/L			03/03/22 22:50	1
Chlorobromomethane	ND		0.50		ug/L			03/03/22 22:50	1
Dichlorobromomethane	ND		0.50		ug/L			03/03/22 22:50	1
Bromoform	ND		1.0		ug/L			03/03/22 22:50	1
Bromomethane	ND		5.0		ug/L			03/03/22 22:50	1
Carbon disulfide	ND		5.0		ug/L			03/03/22 22:50	1
Carbon tetrachloride	ND		0.50		ug/L			03/03/22 22:50	1
Chlorobenzene	ND		0.50		ug/L			03/03/22 22:50	1
Chloroethane	ND		1.0		ug/L			03/03/22 22:50	1
Chloroform	ND		0.50		ug/L			03/09/22 13:53	1
Chloromethane	ND		1.0		ug/L			03/03/22 22:50	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			03/03/22 22:50	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			03/03/22 22:50	1
Chlorodibromomethane	ND		0.50		ug/L			03/03/22 22:50	1
Dibromomethane	ND		0.50		ug/L			03/03/22 22:50	1
Dichlorodifluoromethane	ND		1.0		ug/L			03/09/22 13:53	1
Ethanol	ND		150		ug/L			03/03/22 22:50	1
Ethylbenzene	ND		0.50		ug/L			03/03/22 22:50	1
Hexachlorobutadiene	ND		5.0		ug/L			03/03/22 22:50	1
Iodomethane	ND		2.0		ug/L			03/03/22 22:50	1
Isopropylbenzene	ND		0.50		ug/L			03/03/22 22:50	1
m-Xylene & p-Xylene	ND		1.0		ug/L			03/03/22 22:50	1
Methylene Chloride	ND		5.0		ug/L			03/03/22 22:50	1
Methyl tert-butyl ether	ND	R6	0.50		ug/L			03/03/22 22:50	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-180055-1

Client Sample ID: TB-22M03

Date Collected: 03/02/22 08:00
Date Received: 03/02/22 12:02

Lab Sample ID: 550-180055-5

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0		ug/L			03/03/22 22:50	1
n-Butylbenzene	ND		1.0		ug/L			03/03/22 22:50	1
N-Propylbenzene	ND		0.50		ug/L			03/03/22 22:50	1
o-Xylene	ND		0.50		ug/L			03/03/22 22:50	1
4-Isopropyltoluene	ND		0.50		ug/L			03/03/22 22:50	1
sec-Butylbenzene	ND		0.50		ug/L			03/03/22 22:50	1
Styrene	ND		1.0		ug/L			03/03/22 22:50	1
tert-Butylbenzene	ND		0.50		ug/L			03/03/22 22:50	1
Tetrachloroethene	ND		0.50		ug/L			03/03/22 22:50	1
Toluene	ND		0.50		ug/L			03/03/22 22:50	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			03/09/22 13:53	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			03/03/22 22:50	1
Trichloroethene	ND		0.50		ug/L			03/03/22 22:50	1
Trichlorofluoromethane	ND		1.0		ug/L			03/03/22 22:50	1
Vinyl chloride	ND		1.0		ug/L			03/03/22 22:50	1
Vinyl acetate	ND		5.0		ug/L			03/03/22 22:50	1
Xylenes, Total	ND		0.50		ug/L			03/03/22 22:50	1
Trihalomethanes, Total	ND		0.50		ug/L			03/03/22 22:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			03/03/22 22:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*90*		*60 - 140*		*03/03/22 22:50*	*1*
Dibromofluoromethane (Surr)	*69*		*60 - 140*		*03/09/22 13:53*	*1*
Toluene-d8 (Surr)	*88*		*60 - 140*		*03/03/22 22:50*	*1*
Toluene-d8 (Surr)	*101*		*60 - 140*		*03/09/22 13:53*	*1*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*03/03/22 22:50*	*1*
4-Bromofluorobenzene (Surr)	*111*		*60 - 140*		*03/09/22 13:53*	*1*

Surrogate Summary

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-180055-1

Method: 624.1 - 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	(60-140)	(60-140)	(60-140)
550-179949-B-16 MS	Matrix Spike	67	94	110
550-179949-B-16 MSD	Matrix Spike Duplicate	66	90	111
550-180012-A-1 MS	Matrix Spike	64	88	110
550-180012-A-1 MSD	Matrix Spike Duplicate	65	94	115
550-180055-1	INF-22M03	92	89	97
550-180055-1	INF-22M03	69	101	105
550-180055-2	EFF-22M03	93	89	91
550-180055-2	EFF-22M03	71	100	116
550-180055-3	GAC-2A-100-22M03	91	90	96
550-180055-3	GAC-2A-100-22M03	72	101	114
550-180055-4	GAC-2B-75-22M03	96	89	91
550-180055-4	GAC-2B-75-22M03	71	102	114
550-180055-5	TB-22M03	90	88	96
550-180055-5	TB-22M03	69	101	111
LCS 550-267849/3	Lab Control Sample	66	90	108
LCS 550-268380/3	Lab Control Sample	64	97	110
LCSD 550-267849/4	Lab Control Sample Dup	63	94	111
LCSD 550-268380/4	Lab Control Sample Dup	69	99	111
MB 550-267849/5	Method Blank	92	90	93
MB 550-268380/5	Method Blank	75	104	109

Surrogate Legend

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

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-267849/5
Matrix: Water
Analysis Batch: 267849

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		0.50		ug/L			03/03/22 18:03	1
1,1,1-Trichloroethane	ND		0.50		ug/L			03/03/22 18:03	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			03/03/22 18:03	1
1,1,2-Trichloroethane	ND		0.50		ug/L			03/03/22 18:03	1
1,1-Dichloroethane	ND		0.50		ug/L			03/03/22 18:03	1
1,1-Dichloroethene	ND		0.50		ug/L			03/03/22 18:03	1
1,1-Dichloropropene	ND		0.50		ug/L			03/03/22 18:03	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			03/03/22 18:03	1
1,2,3-Trichloropropane	ND		2.0		ug/L			03/03/22 18:03	1
1,2,4-Trichlorobenzene	ND	T2	2.0		ug/L			03/03/22 18:03	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			03/03/22 18:03	1
1,2-Dibromo-3-Chloropropane	ND	N1	5.0		ug/L			03/03/22 18:03	1
1,2-Dichlorobenzene	ND		0.50		ug/L			03/03/22 18:03	1
1,2-Dichloroethane	ND		0.50		ug/L			03/03/22 18:03	1
1,2-Dichloropropane	ND		0.50		ug/L			03/03/22 18:03	1
1,3-Dichlorobenzene	ND		0.50		ug/L			03/03/22 18:03	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			03/03/22 18:03	1
1,3-Dichloropropane	ND		0.50		ug/L			03/03/22 18:03	1
1,4-Dichlorobenzene	ND		0.50		ug/L			03/03/22 18:03	1
2,2-Dichloropropane	ND		1.0		ug/L			03/03/22 18:03	1
2-Butanone (MEK)	ND		10		ug/L			03/03/22 18:03	1
2-Chlorotoluene	ND		0.50		ug/L			03/03/22 18:03	1
2-Hexanone	ND		5.0		ug/L			03/03/22 18:03	1
4-Chlorotoluene	ND		0.50		ug/L			03/03/22 18:03	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			03/03/22 18:03	1
Acetone	ND	V1	10		ug/L			03/03/22 18:03	1
Benzene	ND		0.50		ug/L			03/03/22 18:03	1
Bromobenzene	ND		1.0		ug/L			03/03/22 18:03	1
Bromoform	ND		1.0		ug/L			03/03/22 18:03	1
Bromomethane	ND		5.0		ug/L			03/03/22 18:03	1
Carbon disulfide	ND		5.0		ug/L			03/03/22 18:03	1
Carbon tetrachloride	ND		0.50		ug/L			03/03/22 18:03	1
Chlorobenzene	ND		0.50		ug/L			03/03/22 18:03	1
Chlorobromomethane	ND		0.50		ug/L			03/03/22 18:03	1
Chloroethane	ND		1.0		ug/L			03/03/22 18:03	1
Chloroform	ND		0.50		ug/L			03/03/22 18:03	1
Chloromethane	ND		1.0		ug/L			03/03/22 18:03	1
Chlorodibromomethane	ND		0.50		ug/L			03/03/22 18:03	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			03/03/22 18:03	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			03/03/22 18:03	1
Dibromomethane	ND		0.50		ug/L			03/03/22 18:03	1
Dichlorobromomethane	ND		0.50		ug/L			03/03/22 18:03	1
Dichlorodifluoromethane	ND		1.0		ug/L			03/03/22 18:03	1
Ethanol	ND		150		ug/L			03/03/22 18:03	1
Ethylbenzene	ND		0.50		ug/L			03/03/22 18:03	1
Ethylene Dibromide	ND		0.50		ug/L			03/03/22 18:03	1
Hexachlorobutadiene	ND		5.0		ug/L			03/03/22 18:03	1
Iodomethane	ND		2.0		ug/L			03/03/22 18:03	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-267849/5
Matrix: Water
Analysis Batch: 267849

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50		ug/L			03/03/22 18:03	1
Methyl tert-butyl ether	ND		0.50		ug/L			03/03/22 18:03	1
Methylene Chloride	ND		5.0		ug/L			03/03/22 18:03	1
m-Xylene & p-Xylene	ND		1.0		ug/L			03/03/22 18:03	1
4-Isopropyltoluene	ND		0.50		ug/L			03/03/22 18:03	1
Naphthalene	ND		5.0		ug/L			03/03/22 18:03	1
n-Butylbenzene	ND		1.0		ug/L			03/03/22 18:03	1
N-Propylbenzene	ND		0.50		ug/L			03/03/22 18:03	1
o-Xylene	ND		0.50		ug/L			03/03/22 18:03	1
sec-Butylbenzene	ND		0.50		ug/L			03/03/22 18:03	1
Styrene	ND		1.0		ug/L			03/03/22 18:03	1
tert-Butylbenzene	ND		0.50		ug/L			03/03/22 18:03	1
Tetrachloroethene	ND		0.50		ug/L			03/03/22 18:03	1
Toluene	ND		0.50		ug/L			03/03/22 18:03	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			03/03/22 18:03	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			03/03/22 18:03	1
Trichloroethene	ND		0.50		ug/L			03/03/22 18:03	1
Trichlorofluoromethane	ND		1.0		ug/L			03/03/22 18:03	1
Trihalomethanes, Total	ND		0.50		ug/L			03/03/22 18:03	1
Vinyl acetate	ND		5.0		ug/L			03/03/22 18:03	1
Vinyl chloride	ND		1.0		ug/L			03/03/22 18:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			03/03/22 18:03	1
Xylenes, Total	ND		0.50		ug/L			03/03/22 18:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*92*		*60 - 140*		*03/03/22 18:03*	*1*
Toluene-d8 (Surr)	*90*		*60 - 140*		*03/03/22 18:03*	*1*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*03/03/22 18:03*	*1*

Lab Sample ID: LCS 550-267849/3
Matrix: Water
Analysis Batch: 267849

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	52.0		ug/L		104	60 - 140
1,1,1-Trichloroethane	50.0	37.9		ug/L		76	70 - 130
1,1,2,2-Tetrachloroethane	50.0	61.9		ug/L		124	60 - 140
1,1,2-Trichloroethane	50.0	47.7		ug/L		95	70 - 130
1,1-Dichloroethane	50.0	38.0		ug/L		76	70 - 150
1,1-Dichloroethene	50.0	36.2		ug/L		72	50 - 140
1,1-Dichloropropene	50.0	43.9		ug/L		88	60 - 140
1,2,3-Trichlorobenzene	50.0	54.8		ug/L		110	60 - 140
1,2,3-Trichloropropane	50.0	62.0		ug/L		124	60 - 140
1,2,4-Trichlorobenzene	50.0	58.4	T2	ug/L		117	60 - 140
1,2,4-Trimethylbenzene	50.0	58.3		ug/L		117	60 - 140
1,2-Dibromo-3-Chloropropane	50.0	67.2	N1	ug/L		134	60 - 140
1,2-Dichlorobenzene	50.0	57.6		ug/L		115	65 - 140
1,2-Dichloroethane	50.0	49.7		ug/L		99	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-267849/3
Matrix: Water
Analysis Batch: 267849

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloropropane	50.0	51.7		ug/L		103	35 - 165
1,3-Dichlorobenzene	50.0	55.3		ug/L		111	70 - 130
1,3,5-Trimethylbenzene	50.0	59.3		ug/L		119	60 - 140
1,3-Dichloropropane	50.0	52.0		ug/L		104	60 - 140
1,4-Dichlorobenzene	50.0	55.7		ug/L		111	65 - 135
2,2-Dichloropropane	50.0	40.6		ug/L		81	60 - 140
2-Butanone (MEK)	50.0	39.3		ug/L		79	60 - 140
2-Chlorotoluene	50.0	56.1		ug/L		112	60 - 140
2-Hexanone	50.0	62.8		ug/L		126	60 - 140
4-Chlorotoluene	50.0	58.8		ug/L		118	60 - 140
4-Methyl-2-pentanone (MIBK)	50.0	65.6		ug/L		131	60 - 140
Acetone	50.0	75.8	L5 V1	ug/L		152	18 - 150
Benzene	50.0	45.0		ug/L		90	65 - 135
Bromobenzene	50.0	55.6		ug/L		111	60 - 140
Bromoform	50.0	59.1		ug/L		118	70 - 130
Bromomethane	50.0	16.9		ug/L		34	15 - 185
Carbon disulfide	50.0	35.2		ug/L		70	60 - 140
Carbon tetrachloride	50.0	50.1		ug/L		100	70 - 130
Chlorobenzene	50.0	50.0		ug/L		100	65 - 135
Chlorobromomethane	50.0	33.7		ug/L		67	60 - 140
Chloroethane	50.0	29.4		ug/L		59	40 - 160
Chloroform	50.0	36.0		ug/L		72	70 - 135
Chloromethane	50.0	35.7		ug/L		71	10 - 205
Chlorodibromomethane	50.0	52.4		ug/L		105	70 - 135
cis-1,2-Dichloroethene	50.0	44.6		ug/L		89	60 - 140
cis-1,3-Dichloropropene	50.0	48.4		ug/L		97	25 - 175
Dibromomethane	50.0	46.3		ug/L		93	70 - 130
Dichlorobromomethane	50.0	46.1		ug/L		92	65 - 135
Dichlorodifluoromethane	50.0	29.4	L4	ug/L		59	60 - 140
Ethanol	1000	1180		ug/L		118	60 - 140
Ethylbenzene	50.0	48.2		ug/L		96	60 - 140
Ethylene Dibromide	50.0	51.5		ug/L		103	60 - 140
Hexachlorobutadiene	50.0	54.2		ug/L		108	60 - 140
Iodomethane	50.0	37.6		ug/L		75	60 - 140
Isopropylbenzene	50.0	61.2		ug/L		122	60 - 140
Methyl tert-butyl ether	50.0	40.0		ug/L		80	60 - 140
Methylene Chloride	50.0	38.8		ug/L		78	60 - 140
m-Xylene & p-Xylene	50.0	56.1		ug/L		112	60 - 140
4-Isopropyltoluene	50.0	57.9		ug/L		116	60 - 140
Naphthalene	50.0	58.9		ug/L		118	60 - 140
n-Butylbenzene	50.0	59.1		ug/L		118	60 - 140
N-Propylbenzene	50.0	56.7		ug/L		113	60 - 140
o-Xylene	50.0	58.1		ug/L		116	60 - 140
sec-Butylbenzene	50.0	61.8		ug/L		124	60 - 140
Styrene	50.0	53.8		ug/L		108	60 - 140
tert-Butylbenzene	50.0	55.6		ug/L		111	60 - 140
Tetrachloroethene	50.0	46.0		ug/L		92	70 - 130
Toluene	50.0	43.1		ug/L		86	70 - 130
trans-1,2-Dichloroethene	50.0	34.9		ug/L		70	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-267849/3
Matrix: Water
Analysis Batch: 267849

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	50.0	49.4		ug/L		99	50 - 150
Trichloroethene	50.0	44.0		ug/L		88	65 - 135
Trichlorofluoromethane	50.0	38.6		ug/L		77	50 - 150
Vinyl acetate	50.0	36.3		ug/L		73	60 - 140
Vinyl chloride	50.0	31.7		ug/L		63	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*66*		*60 - 140*
Toluene-d8 (Surr)	*90*		*60 - 140*
4-Bromofluorobenzene (Surr)	*108*		*60 - 140*

Lab Sample ID: LCSD 550-267849/4
Matrix: Water
Analysis Batch: 267849

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	47.9		ug/L		96	60 - 140	8	20
1,1,1-Trichloroethane	50.0	33.7	L4	ug/L		67	70 - 130	12	20
1,1,2,2-Tetrachloroethane	50.0	55.8		ug/L		112	60 - 140	10	20
1,1,2-Trichloroethane	50.0	46.5		ug/L		93	70 - 130	3	20
1,1-Dichloroethane	50.0	36.3		ug/L		73	70 - 150	5	20
1,1-Dichloroethene	50.0	31.4		ug/L		63	50 - 140	14	20
1,1-Dichloropropene	50.0	46.9		ug/L		94	60 - 140	7	20
1,2,3-Trichlorobenzene	50.0	51.6		ug/L		103	60 - 140	6	20
1,2,3-Trichloropropane	50.0	56.5		ug/L		113	60 - 140	9	20
1,2,4-Trichlorobenzene	50.0	54.1	T2	ug/L		108	60 - 140	8	20
1,2,4-Trimethylbenzene	50.0	57.6		ug/L		115	60 - 140	1	20
1,2-Dibromo-3-Chloropropane	50.0	56.4	N1	ug/L		113	60 - 140	18	20
1,2-Dichlorobenzene	50.0	55.0		ug/L		110	65 - 140	5	20
1,2-Dichloroethane	50.0	50.4		ug/L		101	70 - 130	1	20
1,2-Dichloropropane	50.0	53.7		ug/L		107	35 - 165	4	20
1,3-Dichlorobenzene	50.0	54.9		ug/L		110	70 - 130	1	20
1,3,5-Trimethylbenzene	50.0	58.5		ug/L		117	60 - 140	1	20
1,3-Dichloropropane	50.0	51.2		ug/L		102	60 - 140	2	20
1,4-Dichlorobenzene	50.0	54.3		ug/L		109	65 - 135	2	20
2,2-Dichloropropane	50.0	35.7		ug/L		71	60 - 140	13	20
2-Butanone (MEK)	50.0	33.4		ug/L		67	60 - 140	16	20
2-Chlorotoluene	50.0	56.6		ug/L		113	60 - 140	1	20
2-Hexanone	50.0	50.4	R6	ug/L		101	60 - 140	22	20
4-Chlorotoluene	50.0	60.7		ug/L		121	60 - 140	3	20
4-Methyl-2-pentanone (MIBK)	50.0	55.6		ug/L		111	60 - 140	17	20
Acetone	50.0	58.0	R1 V1	ug/L		116	18 - 150	27	20
Benzene	50.0	46.8		ug/L		94	65 - 135	4	20
Bromobenzene	50.0	55.5		ug/L		111	60 - 140	0	20
Bromoform	50.0	55.8		ug/L		112	70 - 130	6	20
Bromomethane	50.0	14.1		ug/L		28	15 - 185	18	20
Carbon disulfide	50.0	31.5		ug/L		63	60 - 140	11	20
Carbon tetrachloride	50.0	46.5		ug/L		93	70 - 130	7	20

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 550-267849/4
Matrix: Water
Analysis Batch: 267849

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
Chlorobenzene	50.0	49.9		ug/L		100	65 - 135	0	20
Chlorobromomethane	50.0	30.9		ug/L		62	60 - 140	9	20
Chloroethane	50.0	25.2		ug/L		50	40 - 160	15	20
Chloroform	50.0	34.1	L4	ug/L		68	70 - 135	5	20
Chloromethane	50.0	31.2		ug/L		62	10 - 205	13	20
Chlorodibromomethane	50.0	50.9		ug/L		102	70 - 135	3	20
cis-1,2-Dichloroethene	50.0	45.2		ug/L		90	60 - 140	1	20
cis-1,3-Dichloropropene	50.0	51.6		ug/L		103	25 - 175	6	20
Dibromomethane	50.0	44.7		ug/L		89	70 - 130	4	20
Dichlorobromomethane	50.0	46.6		ug/L		93	65 - 135	1	20
Dichlorodifluoromethane	50.0	25.0	L4	ug/L		50	60 - 140	16	20
Ethanol	1000	1100		ug/L		110	60 - 140	7	20
Ethylbenzene	50.0	49.0		ug/L		98	60 - 140	2	20
Ethylene Dibromide	50.0	49.0		ug/L		98	60 - 140	5	20
Hexachlorobutadiene	50.0	52.2		ug/L		104	60 - 140	4	20
Iodomethane	50.0	32.9		ug/L		66	60 - 140	14	20
Isopropylbenzene	50.0	61.6		ug/L		123	60 - 140	1	20
Methyl tert-butyl ether	50.0	31.6	R6	ug/L		63	60 - 140	24	20
Methylene Chloride	50.0	33.4		ug/L		67	60 - 140	15	20
m-Xylene & p-Xylene	50.0	60.8		ug/L		122	60 - 140	8	20
4-Isopropyltoluene	50.0	56.6		ug/L		113	60 - 140	2	20
Naphthalene	50.0	51.3		ug/L		103	60 - 140	14	20
n-Butylbenzene	50.0	57.6		ug/L		115	60 - 140	3	20
N-Propylbenzene	50.0	58.5		ug/L		117	60 - 140	3	20
o-Xylene	50.0	59.8		ug/L		120	60 - 140	3	20
sec-Butylbenzene	50.0	60.4		ug/L		121	60 - 140	2	20
Styrene	50.0	57.2		ug/L		114	60 - 140	6	20
tert-Butylbenzene	50.0	54.7		ug/L		109	60 - 140	2	20
Tetrachloroethene	50.0	48.4		ug/L		97	70 - 130	5	20
Toluene	50.0	45.6		ug/L		91	70 - 130	6	20
trans-1,2-Dichloroethene	50.0	32.1	L4	ug/L		64	70 - 130	9	20
trans-1,3-Dichloropropene	50.0	50.4		ug/L		101	50 - 150	2	20
Trichloroethene	50.0	47.2		ug/L		94	65 - 135	7	20
Trichlorofluoromethane	50.0	33.9		ug/L		68	50 - 150	13	20
Vinyl acetate	50.0	35.0		ug/L		70	60 - 140	4	20
Vinyl chloride	50.0	27.0		ug/L		54	5 - 195	16	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*63*		*60 - 140*
Toluene-d8 (Surr)	*94*		*60 - 140*
4-Bromofluorobenzene (Surr)	*111*		*60 - 140*

Lab Sample ID: 550-180012-A-1 MS
Matrix: Water
Analysis Batch: 267849

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	48.6		ug/L		97	50 - 150		

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-180012-A-1 MS
Matrix: Water
Analysis Batch: 267849

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-Trichloroethane	ND		50.0	33.6		ug/L		67	52 - 162
1,1,2,2-Tetrachloroethane	ND		50.0	57.3		ug/L		115	46 - 157
1,1,2-Trichloroethane	ND		50.0	45.9		ug/L		92	52 - 150
1,1-Dichloroethane	ND		50.0	36.2		ug/L		72	59 - 155
1,1-Dichloroethene	ND		50.0	31.4		ug/L		63	10 - 234
1,1-Dichloropropene	ND		50.0	46.5		ug/L		93	50 - 150
1,2,3-Trichlorobenzene	ND		50.0	54.4		ug/L		106	50 - 150
1,2,3-Trichloropropane	ND		50.0	56.7		ug/L		113	50 - 150
1,2,4-Trichlorobenzene	ND	T2	50.0	55.3	T2	ug/L		111	50 - 150
1,2,4-Trimethylbenzene	ND		50.0	58.3		ug/L		117	50 - 150
1,2-Dibromo-3-Chloropropane	ND	N1	50.0	57.3	N1	ug/L		115	50 - 150
1,2-Dichlorobenzene	ND		50.0	57.2		ug/L		114	18 - 190
1,2-Dichloroethane	ND		50.0	51.6		ug/L		103	49 - 155
1,2-Dichloropropane	ND		50.0	52.0		ug/L		104	10 - 210
1,3-Dichlorobenzene	ND		50.0	56.1		ug/L		112	59 - 156
1,3,5-Trimethylbenzene	ND		50.0	60.2		ug/L		120	50 - 150
1,3-Dichloropropane	ND		50.0	51.6		ug/L		103	50 - 150
1,4-Dichlorobenzene	ND		50.0	55.6		ug/L		111	18 - 190
2,2-Dichloropropane	ND		50.0	35.3		ug/L		71	50 - 150
2-Butanone (MEK)	ND		50.0	31.1		ug/L		62	50 - 150
2-Chlorotoluene	ND		50.0	56.9		ug/L		114	50 - 150
2-Hexanone	ND		50.0	48.8		ug/L		98	50 - 150
4-Chlorotoluene	ND		50.0	60.9		ug/L		122	50 - 150
4-Methyl-2-pentanone (MIBK)	ND		50.0	53.3		ug/L		107	50 - 150
Acetone	ND	V1	50.0	47.5	V1	ug/L		95	18 - 150
Benzene	ND		50.0	46.2		ug/L		92	35 - 151
Bromobenzene	ND		50.0	57.8		ug/L		116	50 - 150
Bromoform	ND		50.0	58.7		ug/L		117	45 - 169
Bromomethane	ND		50.0	15.3		ug/L		31	10 - 242
Carbon disulfide	ND		50.0	31.6		ug/L		63	50 - 150
Carbon tetrachloride	ND		50.0	46.2		ug/L		92	70 - 140
Chlorobenzene	ND		50.0	49.9		ug/L		100	37 - 160
Chlorobromomethane	ND		50.0	32.0		ug/L		64	50 - 150
Chloroethane	ND		50.0	26.1		ug/L		52	14 - 230
Chloroform	ND		50.0	34.4		ug/L		69	51 - 138
Chloromethane	ND		50.0	30.6		ug/L		61	10 - 273
Chlorodibromomethane	ND		50.0	50.6		ug/L		101	53 - 149
cis-1,2-Dichloroethene	ND		50.0	45.5		ug/L		91	50 - 150
cis-1,3-Dichloropropene	ND		50.0	49.8		ug/L		100	10 - 227
Dibromomethane	ND		50.0	45.4		ug/L		91	50 - 150
Dichlorobromomethane	ND		50.0	46.6		ug/L		93	35 - 155
Dichlorodifluoromethane	ND	M2	50.0	25.8		ug/L		52	50 - 150
Ethanol	ND		1000	1250		ug/L		125	50 - 150
Ethylbenzene	ND		50.0	47.9		ug/L		96	37 - 162
Ethylene Dibromide	ND		50.0	48.0		ug/L		96	50 - 150
Hexachlorobutadiene	ND		50.0	52.7		ug/L		105	50 - 150
Iodomethane	ND		50.0	33.3		ug/L		67	50 - 150
Isopropylbenzene	ND		50.0	61.6		ug/L		123	50 - 150
Methyl tert-butyl ether	ND		50.0	33.3		ug/L		67	50 - 150

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-180012-A-1 MS
Matrix: Water
Analysis Batch: 267849

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
Methylene Chloride	ND		50.0	33.7		ug/L		67	10 - 221
m-Xylene & p-Xylene	ND		50.0	59.0		ug/L		118	50 - 150
4-Isopropyltoluene	ND		50.0	58.7		ug/L		117	50 - 150
Naphthalene	ND		50.0	53.3		ug/L		107	50 - 150
n-Butylbenzene	ND		50.0	58.4		ug/L		117	50 - 150
N-Propylbenzene	ND		50.0	58.2		ug/L		116	50 - 150
o-Xylene	ND		50.0	59.6		ug/L		119	50 - 150
sec-Butylbenzene	ND		50.0	62.3		ug/L		125	50 - 150
Styrene	ND		50.0	57.0		ug/L		114	50 - 150
tert-Butylbenzene	ND		50.0	56.6		ug/L		113	50 - 150
Tetrachloroethene	ND		50.0	46.5		ug/L		93	64 - 148
Toluene	ND		50.0	43.8		ug/L		88	47 - 150
trans-1,2-Dichloroethene	ND		50.0	32.7		ug/L		65	54 - 156
trans-1,3-Dichloropropene	ND		50.0	50.0		ug/L		100	17 - 183
Trichloroethene	ND		50.0	45.8		ug/L		92	70 - 157
Trichlorofluoromethane	ND		50.0	33.5		ug/L		67	17 - 181
Vinyl acetate	ND		50.0	36.9		ug/L		74	50 - 150
Vinyl chloride	ND		50.0	28.6		ug/L		57	10 - 251

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*64*		*60 - 140*
Toluene-d8 (Surr)	*88*		*60 - 140*
4-Bromofluorobenzene (Surr)	*110*		*60 - 140*

Lab Sample ID: 550-180012-A-1 MSD
Matrix: Water
Analysis Batch: 267849

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	49.0		ug/L		98	50 - 150	1	35
1,1,1-Trichloroethane	ND		50.0	33.7		ug/L		67	52 - 162	1	36
1,1,2,2-Tetrachloroethane	ND		50.0	56.8		ug/L		114	46 - 157	1	61
1,1,2-Trichloroethane	ND		50.0	47.3		ug/L		95	52 - 150	3	45
1,1-Dichloroethane	ND		50.0	36.9		ug/L		74	59 - 155	2	40
1,1-Dichloroethene	ND		50.0	31.0		ug/L		62	10 - 234	1	32
1,1-Dichloropropene	ND		50.0	49.4		ug/L		99	50 - 150	6	35
1,2,3-Trichlorobenzene	ND		50.0	52.7		ug/L		103	50 - 150	3	35
1,2,3-Trichloropropane	ND		50.0	56.9		ug/L		114	50 - 150	0	35
1,2,4-Trichlorobenzene	ND	T2	50.0	55.2	T2	ug/L		110	50 - 150	0	35
1,2,4-Trimethylbenzene	ND		50.0	60.2		ug/L		120	50 - 150	3	35
1,2-Dibromo-3-Chloropropane	ND	N1	50.0	55.5	N1	ug/L		111	50 - 150	3	35
1,2-Dichlorobenzene	ND		50.0	56.8		ug/L		113	18 - 190	1	57
1,2-Dichloroethane	ND		50.0	54.0		ug/L		108	49 - 155	5	49
1,2-Dichloropropane	ND		50.0	54.3		ug/L		109	10 - 210	4	55
1,3-Dichlorobenzene	ND		50.0	56.1		ug/L		112	59 - 156	0	43
1,3,5-Trimethylbenzene	ND		50.0	61.4		ug/L		123	50 - 150	2	35
1,3-Dichloropropane	ND		50.0	51.0		ug/L		102	50 - 150	1	35
1,4-Dichlorobenzene	ND		50.0	55.8		ug/L		111	18 - 190	0	57

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-180012-A-1 MSD
Matrix: Water
Analysis Batch: 267849

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
2,2-Dichloropropane	ND		50.0	34.0		ug/L		68	50 - 150	4	35
2-Butanone (MEK)	ND		50.0	29.2		ug/L		58	50 - 150	6	35
2-Chlorotoluene	ND		50.0	59.5		ug/L		119	50 - 150	5	35
2-Hexanone	ND		50.0	48.4		ug/L		97	50 - 150	1	35
4-Chlorotoluene	ND		50.0	62.3		ug/L		125	50 - 150	2	35
4-Methyl-2-pentanone (MIBK)	ND		50.0	54.9		ug/L		110	50 - 150	3	35
Acetone	ND	V1	50.0	50.7	V1	ug/L		101	18 - 150	7	35
Benzene	ND		50.0	48.8		ug/L		98	35 - 151	5	61
Bromobenzene	ND		50.0	59.3		ug/L		119	50 - 150	2	35
Bromoform	ND		50.0	58.2		ug/L		116	45 - 169	1	42
Bromomethane	ND		50.0	14.0		ug/L		28	10 - 242	9	61
Carbon disulfide	ND		50.0	30.9		ug/L		62	50 - 150	2	35
Carbon tetrachloride	ND		50.0	48.0		ug/L		96	70 - 140	4	41
Chlorobenzene	ND		50.0	50.8		ug/L		102	37 - 160	2	53
Chlorobromomethane	ND		50.0	31.3		ug/L		63	50 - 150	2	35
Chloroethane	ND		50.0	24.8		ug/L		50	14 - 230	5	78
Chloroform	ND		50.0	34.8		ug/L		70	51 - 138	1	54
Chloromethane	ND		50.0	29.7		ug/L		59	10 - 273	3	60
Chlorodibromomethane	ND		50.0	51.5		ug/L		103	53 - 149	2	50
cis-1,2-Dichloroethene	ND		50.0	46.5		ug/L		93	50 - 150	2	35
cis-1,3-Dichloropropene	ND		50.0	51.9		ug/L		104	10 - 227	4	58
Dibromomethane	ND		50.0	46.7		ug/L		93	50 - 150	3	35
Dichlorobromomethane	ND		50.0	48.6		ug/L		97	35 - 155	4	56
Dichlorodifluoromethane	ND	M2	50.0	23.2	M2	ug/L		46	50 - 150	11	35
Ethanol	ND		1000	1240		ug/L		124	50 - 150	1	35
Ethylbenzene	ND		50.0	49.3		ug/L		99	37 - 162	3	63
Ethylene Dibromide	ND		50.0	48.5		ug/L		97	50 - 150	1	35
Hexachlorobutadiene	ND		50.0	53.4		ug/L		107	50 - 150	1	35
Iodomethane	ND		50.0	31.8		ug/L		64	50 - 150	4	35
Isopropylbenzene	ND		50.0	65.1		ug/L		130	50 - 150	5	35
Methyl tert-butyl ether	ND		50.0	31.8		ug/L		64	50 - 150	5	35
Methylene Chloride	ND		50.0	33.1		ug/L		66	10 - 221	2	28
m-Xylene & p-Xylene	ND		50.0	62.8		ug/L		126	50 - 150	6	35
4-Isopropyltoluene	ND		50.0	59.0		ug/L		118	50 - 150	0	35
Naphthalene	ND		50.0	52.4		ug/L		105	50 - 150	2	35
n-Butylbenzene	ND		50.0	59.1		ug/L		118	50 - 150	1	35
N-Propylbenzene	ND		50.0	60.8		ug/L		122	50 - 150	4	35
o-Xylene	ND		50.0	62.5		ug/L		125	50 - 150	5	35
sec-Butylbenzene	ND		50.0	63.5		ug/L		127	50 - 150	2	35
Styrene	ND		50.0	59.7		ug/L		119	50 - 150	5	35
tert-Butylbenzene	ND		50.0	58.7		ug/L		117	50 - 150	4	35
Tetrachloroethene	ND		50.0	49.1		ug/L		98	64 - 148	5	39
Toluene	ND		50.0	45.3		ug/L		91	47 - 150	3	41
trans-1,2-Dichloroethene	ND		50.0	33.1		ug/L		66	54 - 156	1	45
trans-1,3-Dichloropropene	ND		50.0	51.3		ug/L		103	17 - 183	2	86
Trichloroethene	ND		50.0	49.3		ug/L		99	70 - 157	8	48
Trichlorofluoromethane	ND		50.0	32.2		ug/L		64	17 - 181	4	84
Vinyl acetate	ND		50.0	37.6		ug/L		75	50 - 150	2	35
Vinyl chloride	ND		50.0	26.1		ug/L		52	10 - 251	9	66

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Dibromofluoromethane (Surr)	*65*		*60 - 140*
Toluene-d8 (Surr)	*94*		*60 - 140*
4-Bromofluorobenzene (Surr)	*115*		*60 - 140*

Lab Sample ID: MB 550-268380/5
Matrix: Water
Analysis Batch: 268380

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		0.50	ug/L			03/09/22 11:58	1
Chloroform	ND		0.50	ug/L			03/09/22 11:58	1
Dichlorodifluoromethane	ND		1.0	ug/L			03/09/22 11:58	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			03/09/22 11:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*75*		*60 - 140*		*03/09/22 11:58*	*1*
Toluene-d8 (Surr)	*104*		*60 - 140*		*03/09/22 11:58*	*1*
4-Bromofluorobenzene (Surr)	*109*		*60 - 140*		*03/09/22 11:58*	*1*

Lab Sample ID: LCS 550-268380/3
Matrix: Water
Analysis Batch: 268380

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-Trichloroethane	50.0	36.9		ug/L		74	70 - 130
Chloroform	50.0	36.7		ug/L		73	70 - 135
Dichlorodifluoromethane	50.0	30.5		ug/L		61	60 - 140
trans-1,2-Dichloroethene	50.0	34.8		ug/L		70	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	*64*		*60 - 140*
Toluene-d8 (Surr)	*97*		*60 - 140*
4-Bromofluorobenzene (Surr)	*110*		*60 - 140*

Lab Sample ID: LCSD 550-268380/4
Matrix: Water
Analysis Batch: 268380

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-Trichloroethane	50.0	37.8		ug/L		76	70 - 130	2	20
Chloroform	50.0	38.1		ug/L		76	70 - 135	4	20
Dichlorodifluoromethane	50.0	34.5		ug/L		69	60 - 140	12	20
trans-1,2-Dichloroethene	50.0	36.4		ug/L		73	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Dibromofluoromethane (Surr)	*69*		*60 - 140*
Toluene-d8 (Surr)	*99*		*60 - 140*
4-Bromofluorobenzene (Surr)	*111*		*60 - 140*

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-179949-B-16 MS
Matrix: Water
Analysis Batch: 268380

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-Trichloroethane	ND	E6	50.0	37.8		ug/L		76	52 - 162
Chloroform	ND	N1	50.0	39.6		ug/L		79	51 - 138
Dichlorodifluoromethane	ND	N1	50.0	30.2		ug/L		60	50 - 150
trans-1,2-Dichloroethene	ND	N1	50.0	38.0		ug/L		76	54 - 156

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*67*		*60 - 140*
Toluene-d8 (Surr)	*94*		*60 - 140*
4-Bromofluorobenzene (Surr)	*110*		*60 - 140*

Lab Sample ID: 550-179949-B-16 MSD
Matrix: Water
Analysis Batch: 268380

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-Trichloroethane	ND	E6	50.0	35.6		ug/L		71	52 - 162	6	36
Chloroform	ND	N1	50.0	38.6		ug/L		77	51 - 138	3	54
Dichlorodifluoromethane	ND	N1	50.0	30.1		ug/L		60	50 - 150	0	35
trans-1,2-Dichloroethene	ND	N1	50.0	34.7		ug/L		69	54 - 156	9	45

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*66*		*60 - 140*
Toluene-d8 (Surr)	*90*		*60 - 140*
4-Bromofluorobenzene (Surr)	*111*		*60 - 140*

QC Association Summary

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-180055-1

GC/MS VOA

Analysis Batch: 267849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-180055-1	INF-22M03	Total/NA	Water	624.1	
550-180055-2	EFF-22M03	Total/NA	Water	624.1	
550-180055-3	GAC-2A-100-22M03	Total/NA	Water	624.1	
550-180055-4	GAC-2B-75-22M03	Total/NA	Water	624.1	
550-180055-5	TB-22M03	Total/NA	Water	624.1	
MB 550-267849/5	Method Blank	Total/NA	Water	624.1	
LCS 550-267849/3	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-267849/4	Lab Control Sample Dup	Total/NA	Water	624.1	
550-180012-A-1 MS	Matrix Spike	Total/NA	Water	624.1	
550-180012-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	624.1	

Analysis Batch: 268380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-180055-1	INF-22M03	Total/NA	Water	624.1	
550-180055-2	EFF-22M03	Total/NA	Water	624.1	
550-180055-3	GAC-2A-100-22M03	Total/NA	Water	624.1	
550-180055-4	GAC-2B-75-22M03	Total/NA	Water	624.1	
550-180055-5	TB-22M03	Total/NA	Water	624.1	
MB 550-268380/5	Method Blank	Total/NA	Water	624.1	
LCS 550-268380/3	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-268380/4	Lab Control Sample Dup	Total/NA	Water	624.1	
550-179949-B-16 MS	Matrix Spike	Total/NA	Water	624.1	
550-179949-B-16 MSD	Matrix Spike Duplicate	Total/NA	Water	624.1	

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-180055-1

Client Sample ID: INF-22M03 — Lab Sample ID: 550-180055-1

Date Collected: 03/02/22 10:53 — **Matrix: Water**
Date Received: 03/02/22 12:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	267849	03/03/22 21:22	R1K	TAL PHX
Total/NA	Analysis	624.1		1	268380	03/09/22 13:31	TC1	TAL PHX

Client Sample ID: EFF-22M03 — Lab Sample ID: 550-180055-2

Date Collected: 03/02/22 11:06 — **Matrix: Water**
Date Received: 03/02/22 12:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	267849	03/03/22 21:44	R1K	TAL PHX
Total/NA	Analysis	624.1		1	268380	03/09/22 19:02	TC1	TAL PHX

Client Sample ID: GAC-2A-100-22M03 — Lab Sample ID: 550-180055-3

Date Collected: 03/02/22 10:57 — **Matrix: Water**
Date Received: 03/02/22 12:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	267849	03/03/22 22:06	R1K	TAL PHX
Total/NA	Analysis	624.1		1	268380	03/09/22 19:24	TC1	TAL PHX

Client Sample ID: GAC-2B-75-22M03 — Lab Sample ID: 550-180055-4

Date Collected: 03/02/22 11:03 — **Matrix: Water**
Date Received: 03/02/22 12:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	267849	03/03/22 22:28	R1K	TAL PHX
Total/NA	Analysis	624.1		1	268380	03/09/22 19:46	TC1	TAL PHX

Client Sample ID: TB-22M03 — Lab Sample ID: 550-180055-5

Date Collected: 03/02/22 08:00 — **Matrix: Water**
Date Received: 03/02/22 12:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	267849	03/03/22 22:50	R1K	TAL PHX
Total/NA	Analysis	624.1		1	268380	03/09/22 13:53	TC1	TAL PHX

Laboratory References:

TAL PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Honeywell International Inc
Job ID: 550-180055-1
Project/Site: Monthly Groundwater Monitoring Program

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
624.1		Water	1,2,4-Trichlorobenzene
624.1		Water	Trihalomethanes, Total

Method Summary

Client: Honeywell International Inc
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-180055-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

Laboratory References:

TAL PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

180055

Test America Phoenix
4625 East Cotton CTr Blvd Suite 189
Phoenix, AZ 85040
602-437-3340

Honeywell — Chain Of Custody / Analysis Request

AESI Ref:	44622.37235
COC#	37553-038222
Lab Proj # (SDG):	
Lab ID	TAL PHX
Site ID	DEERV
Lab Job #	
Authorized User:	Honeywell

Privileged & Confidential | 55014762
Site Name: Deer Valley
Phase:
Sampling Co.: Jacobs
EDD To: Bernice Kidd, Jacobs HTS
Location of Site: Phoenix AZ.
Sampling Program: Monthly Groundwater Monitoring Program
Client Contact: (name, co., address)
Jacobs
1501 W. Fountainhead Parkway (suite 401)
Tempe, AZ 85282
Sampler: J. Paez
PO #: 4500178520
Preservative: 8
Analysis Turnaround Time (TAT): 10
Consultant: Jacobs
Laboratory Contact: Rachel Sester
Report Tier Level: 2
Full Report TAT: 10
HTS
Preliminary Data To: Berney Kidd Jacobs, Lakshmi Devi HTS
Sample Receipt Acknowledgement To: Site Distribution List
Hard Copy To: Berney Kidd Jacobs,
Invoice To: Mike Heitmann, Honeywell/Copy Berney Kidd

Text & Excel File Drive | Excel & Text File Order

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	Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	E624 (Total VOCs)	E300 0 (Nitrite-Nitrate)	MS/MSD	Sampling Method (code)	Lab Sample Numbers
	Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID							Units						
1	Influent			INF-22M03	3/2/2022	1053	GW-GWS	WATER	REG	3	grab	N	X				-1
2	Effluent			EFF-22M03	3/2/2022	1106	GW-GWS	WATER	REG	3	grab	N	X				-2
3	GAC2A Effluent			GAC-2A-100-22M03	3/2/2022	1057	GW-GWS	WATER	REG	3	grab	N	X				-3
4	GAC2B 75%			GAC-2B-75-22M03	3/2/2022	1103	GW-GWS	WATER	REG	3	grab	N	X				-4
5	TRIPBLANK			TB-22M03	3/2/2022	8:00	GW-GWS	WATER	REG	1	grab	N	X				-5
6																	
7																	
8																	
9																	
10																	
11																	
12																	

550-180055 Chain of Custody

Relinquished by	Company	Received by	Company	Condition	Custody Seals Intact
Jan Paez	Jacobs				
	Date/Time 3/2/22 1202		Date/Time	Cooler Temp.	
Relinquished by	Company	Received by	Company	Condition	Custody Seals Intact
	Date/Time	Nick Smith	Date/Time 3/2/22 1202 CEM PHX	Cooler Temp. 1.2°C ICE CDO	

Preservatives: (Other; Specify):

0 (none); 1 (4 Deg C); 2 (HCl, pH<2); 3 (HNO3, pH<2); 4 (H2SO4, pH<2); 5 (NaOH, pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4, pH<2, 4 Deg C)); 8 (HCl, pH<2, 4 Deg C); 9 (HCl, 4 Deg C); 10 (HNO3, pH<2, 4 Deg C); 11 (NaOH, pH>12, 4 Deg, Ascorbic Acid); 12 (H2SO4, Na2S2O3, 4 Deg C, pH<2); 13 (Zn Acetate); 14 (1-MeOH, 4 Deg C and 2-NaHSO4, 4 Deg C); 15 (NaOH, pH>12, 4 Deg C); sp (special instructions)

3/11/2022

Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 550-180055-1

Login Number: 180055
List Number: 1
Creator: Maycock, Lisa

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.

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ANALYTICAL REPORT

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-181740-1
Client Project/Site: Deer Valley

For:
Honeywell International Inc
1944 E. Sky Harbor Circle MS 2101-2C
Phoenix, Arizona 85034

Attn: Tao Wu

Authorized for release by:
4/22/2022 4:54:51 PM
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Designee for

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LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Sample Summary 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 13
QC Sample Results 14
QC Association Summary 20
Lab Chronicle 21
Certification Summary 22
Method Summary 23
Chain of Custody 24
Receipt Checklists 25

Definitions/Glossary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-181740-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix.
L5	The associated blank spike recovery was above laboratory/method acceptance limits. This analyte was not detected in the sample.
N1	See case narrative.
T5	Laboratory not licensed for this parameter
V1	CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.

HPLC/IC

Qualifier	Qualifier Description
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.

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: 550-181740-1

Laboratory: Eurofins Phoenix

Narrative

Job Narrative
550-181740-1

Comments
No additional comments.

Receipt
The samples were received on 4/4/2022 11:25 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.4º C.

GC/MS VOA
Method 624.1: The MS/MSD were analyzed but could not be used as the source sample was not analyzed due an instrument issue. Data is not impacted; therefore, all sample results will be reported. The laboratory control spike/laboratory control spike duplicate (LCS/LCSD) will be used as batch QC, and sample reported with an N1 qualifier.

GAC-2A-100-22M04 (550-181740-3), GAC-2B-75-22M04 (550-181740-4) and TB-22M04 (550-181740-5)

The 624 analysis was canceled for samples INF-22M04 (550-181740-1) and EFF-22M04 (550-181740-2) due to a data file issue that cannot be recovered, so the original analytical data is unavailable. The samples are now past the required holding time.

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

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

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

Sample Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-181740-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-181740-1	INF-22M04	Water	04/04/22 09:18	04/04/22 11:25
550-181740-2	EFF-22M04	Water	04/04/22 09:15	04/04/22 11:25
550-181740-3	GAC-2A-100-22M04	Water	04/04/22 09:24	04/04/22 11:25
550-181740-4	GAC-2B-75-22M04	Water	04/04/22 09:22	04/04/22 11:25
550-181740-5	TB-22M04	Water	04/04/22 08:00	04/04/22 11:25

Detection Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-181740-1

Client Sample ID: INF-22M04 — Lab Sample ID: 550-181740-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	21		0.050		mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	21		0.050		mg/L	1		300.0	Total/NA

Client Sample ID: EFF-22M04 — Lab Sample ID: 550-181740-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	21	M3	0.050		mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	21		0.050		mg/L	1		300.0	Total/NA

Client Sample ID: GAC-2A-100-22M04 — Lab Sample ID: 550-181740-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.58	N1	0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	0.58	N1 T5	0.50		ug/L	1		624.1	Total/NA

Client Sample ID: GAC-2B-75-22M04 — Lab Sample ID: 550-181740-4

No Detections.

Client Sample ID: TB-22M04 — Lab Sample ID: 550-181740-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-181740-1

Client Sample ID: INF-22M04

Lab Sample ID: 550-181740-1
Date Collected: 04/04/22 09:18
Matrix: Water
Date Received: 04/04/22 11:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**21**		0.050		mg/L			04/04/22 14:50	1
Nitrite as N	ND		0.050		mg/L			04/04/22 14:50	1
Nitrate Nitrite as N	**21**		0.050		mg/L			04/04/22 14:50	1

Client Sample ID: EFF-22M04

Lab Sample ID: 550-181740-2
Date Collected: 04/04/22 09:15
Matrix: Water
Date Received: 04/04/22 11:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**21**	**M3**	0.050		mg/L			04/04/22 13:26	1
Nitrite as N	ND		0.050		mg/L			04/04/22 13:26	1
Nitrate Nitrite as N	**21**		0.050		mg/L			04/04/22 13:26	1

Client Sample ID: GAC-2A-100-22M04

Lab Sample ID: 550-181740-3
Date Collected: 04/04/22 09:24
Matrix: Water
Date Received: 04/04/22 11:25

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND	N1	0.50		ug/L			04/18/22 16:32	1
1,1,1-Trichloroethane	ND	N1	0.50		ug/L			04/18/22 16:32	1
1,1,2,2-Tetrachloroethane	ND	N1	0.50		ug/L			04/18/22 16:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	N1 T5	5.0		ug/L			04/18/22 16:32	1
1,1,2-Trichloroethane	ND	N1	0.50		ug/L			04/18/22 16:32	1
1,1-Dichloroethane	ND	N1	0.50		ug/L			04/18/22 16:32	1
1,1-Dichloroethene	ND	N1	0.50		ug/L			04/18/22 16:32	1
1,1-Dichloropropene	ND	N1	0.50		ug/L			04/18/22 16:32	1
1,2,3-Trichlorobenzene	ND	N1	3.0		ug/L			04/18/22 16:32	1
1,2,3-Trichloropropane	ND	N1	2.0		ug/L			04/18/22 16:32	1
1,2,4-Trichlorobenzene	ND	N1 T5	2.0		ug/L			04/18/22 16:32	1
1,2,4-Trimethylbenzene	ND	N1	0.50		ug/L			04/18/22 16:32	1
1,2-Dibromo-3-Chloropropane	ND	N1	5.0		ug/L			04/18/22 16:32	1
1,2-Dichlorobenzene	ND	N1	0.50		ug/L			04/18/22 16:32	1
1,2-Dichloroethane	ND	N1	0.50		ug/L			04/18/22 16:32	1
1,2-Dichloropropane	ND	N1	0.50		ug/L			04/18/22 16:32	1
1,3,5-Trimethylbenzene	ND	N1	0.50		ug/L			04/18/22 16:32	1
1,3-Dichlorobenzene	ND	N1	0.50		ug/L			04/18/22 16:32	1
1,3-Dichloropropane	ND	N1	0.50		ug/L			04/18/22 16:32	1
1,4-Dichlorobenzene	ND	N1	0.50		ug/L			04/18/22 16:32	1
2,2-Dichloropropane	ND	N1	1.0		ug/L			04/18/22 16:32	1
2-Butanone (MEK)	ND	N1	10		ug/L			04/18/22 16:32	1
2-Chlorotoluene	ND	N1	0.50		ug/L			04/18/22 16:32	1
2-Hexanone	ND	N1	5.0		ug/L			04/18/22 16:32	1
4-Chlorotoluene	ND	N1	0.50		ug/L			04/18/22 16:32	1
4-Isopropyltoluene	ND	N1	0.50		ug/L			04/18/22 16:32	1
4-Methyl-2-pentanone (MIBK)	ND	N1	2.5		ug/L			04/18/22 16:32	1
Acetone	ND	N1	10		ug/L			04/18/22 16:32	1
Benzene	ND	N1	0.50		ug/L			04/18/22 16:32	1
Bromobenzene	ND	N1	1.0		ug/L			04/18/22 16:32	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-181740-1

Client Sample ID: GAC-2A-100-22M04

Lab Sample ID: 550-181740-3

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

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND	N1	1.0		ug/L			04/18/22 16:32	1
Bromomethane	ND	L5 N1 V1	5.0		ug/L			04/18/22 16:32	1
Carbon disulfide	ND	N1	5.0		ug/L			04/18/22 16:32	1
Carbon tetrachloride	ND	N1	0.50		ug/L			04/18/22 16:32	1
Chlorobenzene	ND	N1	0.50		ug/L			04/18/22 16:32	1
Chlorobromomethane	ND	N1	0.50		ug/L			04/18/22 16:32	1
Chlorodibromomethane	ND	N1	0.50		ug/L			04/18/22 16:32	1
Chloroethane	ND	N1	1.0		ug/L			04/18/22 16:32	1
Chloroform	**0.58**	**N1**	0.50		ug/L			04/18/22 16:32	1
Chloromethane	ND	N1	1.0		ug/L			04/18/22 16:32	1
cis-1,2-Dichloroethene	ND	N1	0.50		ug/L			04/18/22 16:32	1
cis-1,3-Dichloropropene	ND	N1	0.50		ug/L			04/18/22 16:32	1
Dibromomethane	ND	N1	0.50		ug/L			04/18/22 16:32	1
Dichlorobromomethane	ND	N1	0.50		ug/L			04/18/22 16:32	1
Dichlorodifluoromethane	ND	N1	1.0		ug/L			04/18/22 16:32	1
Ethanol	ND	N1	150		ug/L			04/18/22 16:32	1
Ethylbenzene	ND	N1	0.50		ug/L			04/18/22 16:32	1
Ethylene Dibromide	ND	N1	0.50		ug/L			04/18/22 16:32	1
Hexachlorobutadiene	ND	N1	5.0		ug/L			04/18/22 16:32	1
Iodomethane	ND	N1	2.0		ug/L			04/18/22 16:32	1
Isopropylbenzene	ND	N1	0.50		ug/L			04/18/22 16:32	1
Methyl tert-butyl ether	ND	N1	0.50		ug/L			04/18/22 16:32	1
Methylene Chloride	ND	N1	5.0		ug/L			04/18/22 16:32	1
m-Xylene & p-Xylene	ND	N1	1.0		ug/L			04/18/22 16:32	1
Naphthalene	ND	N1	5.0		ug/L			04/18/22 16:32	1
n-Butylbenzene	ND	N1	1.0		ug/L			04/18/22 16:32	1
N-Propylbenzene	ND	N1	0.50		ug/L			04/18/22 16:32	1
o-Xylene	ND	N1	0.50		ug/L			04/18/22 16:32	1
sec-Butylbenzene	ND	N1	0.50		ug/L			04/18/22 16:32	1
Styrene	ND	N1	1.0		ug/L			04/18/22 16:32	1
tert-Butylbenzene	ND	N1	0.50		ug/L			04/18/22 16:32	1
Tetrachloroethene	ND	N1	0.50		ug/L			04/18/22 16:32	1
Toluene	ND	N1	0.50		ug/L			04/18/22 16:32	1
trans-1,2-Dichloroethene	ND	N1	0.50		ug/L			04/18/22 16:32	1
trans-1,3-Dichloropropene	ND	N1	0.50		ug/L			04/18/22 16:32	1
Trichloroethene	ND	N1	0.50		ug/L			04/18/22 16:32	1
Trichlorofluoromethane	ND	N1	1.0		ug/L			04/18/22 16:32	1
Trihalomethanes, Total	**0.58**	**N1 T5**	0.50		ug/L			04/18/22 16:32	1
Vinyl acetate	ND	N1	5.0		ug/L			04/18/22 16:32	1
Vinyl chloride	ND	N1	1.0		ug/L			04/18/22 16:32	1
Xylenes, Total	ND	N1	0.50		ug/L			04/18/22 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*60 - 140*		*04/18/22 16:32*	*1*
Dibromofluoromethane (Surr)	*96*		*60 - 140*		*04/18/22 16:32*	*1*
Toluene-d8 (Surr)	*106*		*60 - 140*		*04/18/22 16:32*	*1*

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-181740-1

Client Sample ID: GAC-2B-75-22M04

Lab Sample ID: 550-181740-4

Date Collected: 04/04/22 09:22
Date Received: 04/04/22 11:25

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND	N1	0.50		ug/L			04/18/22 16:58	1
1,1,1-Trichloroethane	ND	N1	0.50		ug/L			04/18/22 16:58	1
1,1,2,2-Tetrachloroethane	ND	N1	0.50		ug/L			04/18/22 16:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	N1 T5	5.0		ug/L			04/18/22 16:58	1
1,1,2-Trichloroethane	ND	N1	0.50		ug/L			04/18/22 16:58	1
1,1-Dichloroethane	ND	N1	0.50		ug/L			04/18/22 16:58	1
1,1-Dichloroethene	ND	N1	0.50		ug/L			04/18/22 16:58	1
1,1-Dichloropropene	ND	N1	0.50		ug/L			04/18/22 16:58	1
1,2,3-Trichlorobenzene	ND	N1	3.0		ug/L			04/18/22 16:58	1
1,2,3-Trichloropropane	ND	N1	2.0		ug/L			04/18/22 16:58	1
1,2,4-Trichlorobenzene	ND	N1 T5	2.0		ug/L			04/18/22 16:58	1
1,2,4-Trimethylbenzene	ND	N1	0.50		ug/L			04/18/22 16:58	1
1,2-Dibromo-3-Chloropropane	ND	N1	5.0		ug/L			04/18/22 16:58	1
1,2-Dichlorobenzene	ND	N1	0.50		ug/L			04/18/22 16:58	1
1,2-Dichloroethane	ND	N1	0.50		ug/L			04/18/22 16:58	1
1,2-Dichloropropane	ND	N1	0.50		ug/L			04/18/22 16:58	1
1,3,5-Trimethylbenzene	ND	N1	0.50		ug/L			04/18/22 16:58	1
1,3-Dichlorobenzene	ND	N1	0.50		ug/L			04/18/22 16:58	1
1,3-Dichloropropane	ND	N1	0.50		ug/L			04/18/22 16:58	1
1,4-Dichlorobenzene	ND	N1	0.50		ug/L			04/18/22 16:58	1
2,2-Dichloropropane	ND	N1	1.0		ug/L			04/18/22 16:58	1
2-Butanone (MEK)	ND	N1	10		ug/L			04/18/22 16:58	1
2-Chlorotoluene	ND	N1	0.50		ug/L			04/18/22 16:58	1
2-Hexanone	ND	N1	5.0		ug/L			04/18/22 16:58	1
4-Chlorotoluene	ND	N1	0.50		ug/L			04/18/22 16:58	1
4-Isopropyltoluene	ND	N1	0.50		ug/L			04/18/22 16:58	1
4-Methyl-2-pentanone (MIBK)	ND	N1	2.5		ug/L			04/18/22 16:58	1
Acetone	ND	N1	10		ug/L			04/18/22 16:58	1
Benzene	ND	N1	0.50		ug/L			04/18/22 16:58	1
Bromobenzene	ND	N1	1.0		ug/L			04/18/22 16:58	1
Bromoform	ND	N1	1.0		ug/L			04/18/22 16:58	1
Bromomethane	ND	L5 N1 V1	5.0		ug/L			04/18/22 16:58	1
Carbon disulfide	ND	N1	5.0		ug/L			04/18/22 16:58	1
Carbon tetrachloride	ND	N1	0.50		ug/L			04/18/22 16:58	1
Chlorobenzene	ND	N1	0.50		ug/L			04/18/22 16:58	1
Chlorobromomethane	ND	N1	0.50		ug/L			04/18/22 16:58	1
Chlorodibromomethane	ND	N1	0.50		ug/L			04/18/22 16:58	1
Chloroethane	ND	N1	1.0		ug/L			04/18/22 16:58	1
Chloroform	ND	N1	0.50		ug/L			04/18/22 16:58	1
Chloromethane	ND	N1	1.0		ug/L			04/18/22 16:58	1
cis-1,2-Dichloroethene	ND	N1	0.50		ug/L			04/18/22 16:58	1
cis-1,3-Dichloropropene	ND	N1	0.50		ug/L			04/18/22 16:58	1
Dibromomethane	ND	N1	0.50		ug/L			04/18/22 16:58	1
Dichlorobromomethane	ND	N1	0.50		ug/L			04/18/22 16:58	1
Dichlorodifluoromethane	ND	N1	1.0		ug/L			04/18/22 16:58	1
Ethanol	ND	N1	150		ug/L			04/18/22 16:58	1
Ethylbenzene	ND	N1	0.50		ug/L			04/18/22 16:58	1
Ethylene Dibromide	ND	N1	0.50		ug/L			04/18/22 16:58	1
Hexachlorobutadiene	ND	N1	5.0		ug/L			04/18/22 16:58	1

Client Sample ID: GAC-2B-75-22M04

Lab Sample ID: 550-181740-4

Date Collected: 04/04/22 09:22
Matrix: Water
Date Received: 04/04/22 11:25

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND	N1	2.0		ug/L			04/18/22 16:58	1
Isopropylbenzene	ND	N1	0.50		ug/L			04/18/22 16:58	1
Methyl tert-butyl ether	ND	N1	0.50		ug/L			04/18/22 16:58	1
Methylene Chloride	ND	N1	5.0		ug/L			04/18/22 16:58	1
m-Xylene & p-Xylene	ND	N1	1.0		ug/L			04/18/22 16:58	1
Naphthalene	ND	N1	5.0		ug/L			04/18/22 16:58	1
n-Butylbenzene	ND	N1	1.0		ug/L			04/18/22 16:58	1
N-Propylbenzene	ND	N1	0.50		ug/L			04/18/22 16:58	1
o-Xylene	ND	N1	0.50		ug/L			04/18/22 16:58	1
sec-Butylbenzene	ND	N1	0.50		ug/L			04/18/22 16:58	1
Styrene	ND	N1	1.0		ug/L			04/18/22 16:58	1
tert-Butylbenzene	ND	N1	0.50		ug/L			04/18/22 16:58	1
Tetrachloroethene	ND	N1	0.50		ug/L			04/18/22 16:58	1
Toluene	ND	N1	0.50		ug/L			04/18/22 16:58	1
trans-1,2-Dichloroethene	ND	N1	0.50		ug/L			04/18/22 16:58	1
trans-1,3-Dichloropropene	ND	N1	0.50		ug/L			04/18/22 16:58	1
Trichloroethene	ND	N1	0.50		ug/L			04/18/22 16:58	1
Trichlorofluoromethane	ND	N1	1.0		ug/L			04/18/22 16:58	1
Trihalomethanes, Total	ND	N1 T5	0.50		ug/L			04/18/22 16:58	1
Vinyl acetate	ND	N1	5.0		ug/L			04/18/22 16:58	1
Vinyl chloride	ND	N1	1.0		ug/L			04/18/22 16:58	1
Xylenes, Total	ND	N1	0.50		ug/L			04/18/22 16:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*60 - 140*		*04/18/22 16:58*	*1*
Dibromofluoromethane (Surr)	*96*		*60 - 140*		*04/18/22 16:58*	*1*
Toluene-d8 (Surr)	*108*		*60 - 140*		*04/18/22 16:58*	*1*

Client Sample ID: TB-22M04

Lab Sample ID: 550-181740-5

Date Collected: 04/04/22 08:00
Matrix: Water
Date Received: 04/04/22 11:25

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND	N1	0.50		ug/L			04/18/22 13:56	1
1,1,1-Trichloroethane	ND	N1	0.50		ug/L			04/18/22 13:56	1
1,1,2,2-Tetrachloroethane	ND	N1	0.50		ug/L			04/18/22 13:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	N1 T5	5.0		ug/L			04/18/22 13:56	1
1,1,2-Trichloroethane	ND	N1	0.50		ug/L			04/18/22 13:56	1
1,1-Dichloroethane	ND	N1	0.50		ug/L			04/18/22 13:56	1
1,1-Dichloroethene	ND	N1	0.50		ug/L			04/18/22 13:56	1
1,1-Dichloropropene	ND	N1	0.50		ug/L			04/18/22 13:56	1
1,2,3-Trichlorobenzene	ND	N1	3.0		ug/L			04/18/22 13:56	1
1,2,3-Trichloropropane	ND	N1	2.0		ug/L			04/18/22 13:56	1
1,2,4-Trichlorobenzene	ND	N1 T5	2.0		ug/L			04/18/22 13:56	1
1,2,4-Trimethylbenzene	ND	N1	0.50		ug/L			04/18/22 13:56	1
1,2-Dibromo-3-Chloropropane	ND	N1	5.0		ug/L			04/18/22 13:56	1
1,2-Dichlorobenzene	ND	N1	0.50		ug/L			04/18/22 13:56	1
1,2-Dichloroethane	ND	N1	0.50		ug/L			04/18/22 13:56	1
1,2-Dichloropropane	ND	N1	0.50		ug/L			04/18/22 13:56	1

Client Sample ID: TB-22M04

Date Collected: 04/04/22 08:00
Date Received: 04/04/22 11:25

Lab Sample ID: 550-181740-5

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND	N1	0.50		ug/L			04/18/22 13:56	1
1,3-Dichlorobenzene	ND	N1	0.50		ug/L			04/18/22 13:56	1
1,3-Dichloropropane	ND	N1	0.50		ug/L			04/18/22 13:56	1
1,4-Dichlorobenzene	ND	N1	0.50		ug/L			04/18/22 13:56	1
2,2-Dichloropropane	ND	N1	1.0		ug/L			04/18/22 13:56	1
2-Butanone (MEK)	ND	N1	10		ug/L			04/18/22 13:56	1
2-Chlorotoluene	ND	N1	0.50		ug/L			04/18/22 13:56	1
2-Hexanone	ND	N1	5.0		ug/L			04/18/22 13:56	1
4-Chlorotoluene	ND	N1	0.50		ug/L			04/18/22 13:56	1
4-Isopropyltoluene	ND	N1	0.50		ug/L			04/18/22 13:56	1
4-Methyl-2-pentanone (MIBK)	ND	N1	2.5		ug/L			04/18/22 13:56	1
Acetone	ND	N1	10		ug/L			04/18/22 13:56	1
Benzene	ND	N1	0.50		ug/L			04/18/22 13:56	1
Bromobenzene	ND	N1	1.0		ug/L			04/18/22 13:56	1
Bromoform	ND	N1	1.0		ug/L			04/18/22 13:56	1
Bromomethane	ND	L5 N1 V1	5.0		ug/L			04/18/22 13:56	1
Carbon disulfide	ND	N1	5.0		ug/L			04/18/22 13:56	1
Carbon tetrachloride	ND	N1	0.50		ug/L			04/18/22 13:56	1
Chlorobenzene	ND	N1	0.50		ug/L			04/18/22 13:56	1
Chlorobromomethane	ND	N1	0.50		ug/L			04/18/22 13:56	1
Chlorodibromomethane	ND	N1	0.50		ug/L			04/18/22 13:56	1
Chloroethane	ND	N1	1.0		ug/L			04/18/22 13:56	1
Chloroform	ND	N1	0.50		ug/L			04/18/22 13:56	1
Chloromethane	ND	N1	1.0		ug/L			04/18/22 13:56	1
cis-1,2-Dichloroethene	ND	N1	0.50		ug/L			04/18/22 13:56	1
cis-1,3-Dichloropropene	ND	N1	0.50		ug/L			04/18/22 13:56	1
Dibromomethane	ND	N1	0.50		ug/L			04/18/22 13:56	1
Dichlorobromomethane	ND	N1	0.50		ug/L			04/18/22 13:56	1
Dichlorodifluoromethane	ND	N1	1.0		ug/L			04/18/22 13:56	1
Ethanol	ND	N1	150		ug/L			04/18/22 13:56	1
Ethylbenzene	ND	N1	0.50		ug/L			04/18/22 13:56	1
Ethylene Dibromide	ND	N1	0.50		ug/L			04/18/22 13:56	1
Hexachlorobutadiene	ND	N1	5.0		ug/L			04/18/22 13:56	1
Iodomethane	ND	N1	2.0		ug/L			04/18/22 13:56	1
Isopropylbenzene	ND	N1	0.50		ug/L			04/18/22 13:56	1
Methyl tert-butyl ether	ND	N1	0.50		ug/L			04/18/22 13:56	1
Methylene Chloride	ND	N1	5.0		ug/L			04/18/22 13:56	1
m-Xylene & p-Xylene	ND	N1	1.0		ug/L			04/18/22 13:56	1
Naphthalene	ND	N1	5.0		ug/L			04/18/22 13:56	1
n-Butylbenzene	ND	N1	1.0		ug/L			04/18/22 13:56	1
N-Propylbenzene	ND	N1	0.50		ug/L			04/18/22 13:56	1
o-Xylene	ND	N1	0.50		ug/L			04/18/22 13:56	1
sec-Butylbenzene	ND	N1	0.50		ug/L			04/18/22 13:56	1
Styrene	ND	N1	1.0		ug/L			04/18/22 13:56	1
tert-Butylbenzene	ND	N1	0.50		ug/L			04/18/22 13:56	1
Tetrachloroethene	ND	N1	0.50		ug/L			04/18/22 13:56	1
Toluene	ND	N1	0.50		ug/L			04/18/22 13:56	1
trans-1,2-Dichloroethene	ND	N1	0.50		ug/L			04/18/22 13:56	1
trans-1,3-Dichloropropene	ND	N1	0.50		ug/L			04/18/22 13:56	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-181740-1

Client Sample ID: TB-22M04

Date Collected: 04/04/22 08:00
Date Received: 04/04/22 11:25

Lab Sample ID: 550-181740-5

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND	N1	0.50		ug/L			04/18/22 13:56	1
Trichlorofluoromethane	ND	N1	1.0		ug/L			04/18/22 13:56	1
Trihalomethanes, Total	ND	N1 T5	0.50		ug/L			04/18/22 13:56	1
Vinyl acetate	ND	N1	5.0		ug/L			04/18/22 13:56	1
Vinyl chloride	ND	N1	1.0		ug/L			04/18/22 13:56	1
Xylenes, Total	ND	N1	0.50		ug/L			04/18/22 13:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*60 - 140*		*04/18/22 13:56*	*1*
Dibromofluoromethane (Surr)	*96*		*60 - 140*		*04/18/22 13:56*	*1*
Toluene-d8 (Surr)	*101*		*60 - 140*		*04/18/22 13:56*	*1*

Surrogate Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-181740-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	**Client Sample ID**	**(60-140)**	**(60-140)**	**(60-140)**
550-181740-3	GAC-2A-100-22M04	110	96	106
550-181740-4	GAC-2B-75-22M04	117	96	108
550-181740-5	TB-22M04	114	96	101
LCS 550-271856/1002	Lab Control Sample	106	95	103
LCSD 550-271856/4	Lab Control Sample Dup	107	96	103
MB 550-271856/5	Method Blank	117	98	109

Surrogate Legend

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

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-271856/5
Matrix: Water
Analysis Batch: 271856

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		0.50		ug/L			04/18/22 13:29	1
1,1,1-Trichloroethane	ND		0.50		ug/L			04/18/22 13:29	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/18/22 13:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			04/18/22 13:29	1
1,1,2-Trichloroethane	ND		0.50		ug/L			04/18/22 13:29	1
1,1-Dichloroethane	ND		0.50		ug/L			04/18/22 13:29	1
1,1-Dichloroethene	ND		0.50		ug/L			04/18/22 13:29	1
1,1-Dichloropropene	ND		0.50		ug/L			04/18/22 13:29	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			04/18/22 13:29	1
1,2,3-Trichloropropane	ND		2.0		ug/L			04/18/22 13:29	1
1,2,4-Trichlorobenzene	ND		2.0		ug/L			04/18/22 13:29	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			04/18/22 13:29	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/18/22 13:29	1
1,2-Dichlorobenzene	ND		0.50		ug/L			04/18/22 13:29	1
1,2-Dichloroethane	ND		0.50		ug/L			04/18/22 13:29	1
1,2-Dichloropropane	ND		0.50		ug/L			04/18/22 13:29	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			04/18/22 13:29	1
1,3-Dichlorobenzene	ND		0.50		ug/L			04/18/22 13:29	1
1,3-Dichloropropane	ND		0.50		ug/L			04/18/22 13:29	1
1,4-Dichlorobenzene	ND		0.50		ug/L			04/18/22 13:29	1
2,2-Dichloropropane	ND		1.0		ug/L			04/18/22 13:29	1
2-Butanone (MEK)	ND		10		ug/L			04/18/22 13:29	1
2-Chlorotoluene	ND		0.50		ug/L			04/18/22 13:29	1
2-Hexanone	ND		5.0		ug/L			04/18/22 13:29	1
4-Chlorotoluene	ND		0.50		ug/L			04/18/22 13:29	1
4-Isopropyltoluene	ND		0.50		ug/L			04/18/22 13:29	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			04/18/22 13:29	1
Acetone	ND		10		ug/L			04/18/22 13:29	1
Benzene	ND		0.50		ug/L			04/18/22 13:29	1
Bromobenzene	ND		1.0		ug/L			04/18/22 13:29	1
Bromoform	ND		1.0		ug/L			04/18/22 13:29	1
Bromomethane	ND		5.0		ug/L			04/18/22 13:29	1
Carbon disulfide	ND		5.0		ug/L			04/18/22 13:29	1
Carbon tetrachloride	ND		0.50		ug/L			04/18/22 13:29	1
Chlorobenzene	ND		0.50		ug/L			04/18/22 13:29	1
Chlorobromomethane	ND		0.50		ug/L			04/18/22 13:29	1
Chlorodibromomethane	ND		0.50		ug/L			04/18/22 13:29	1
Chloroethane	ND		1.0		ug/L			04/18/22 13:29	1
Chloroform	ND		0.50		ug/L			04/18/22 13:29	1
Chloromethane	ND		1.0		ug/L			04/18/22 13:29	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			04/18/22 13:29	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			04/18/22 13:29	1
Dibromomethane	ND		0.50		ug/L			04/18/22 13:29	1
Dichlorobromomethane	ND		0.50		ug/L			04/18/22 13:29	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/18/22 13:29	1
Ethanol	ND		150		ug/L			04/18/22 13:29	1
Ethylbenzene	ND		0.50		ug/L			04/18/22 13:29	1
Ethylene Dibromide	ND		0.50		ug/L			04/18/22 13:29	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-271856/5
Matrix: Water
Analysis Batch: 271856

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		5.0	ug/L			04/18/22 13:29	1
Iodomethane	ND		2.0	ug/L			04/18/22 13:29	1
Isopropylbenzene	ND		0.50	ug/L			04/18/22 13:29	1
Methyl tert-butyl ether	ND		0.50	ug/L			04/18/22 13:29	1
Methylene Chloride	ND		5.0	ug/L			04/18/22 13:29	1
m-Xylene & p-Xylene	ND		1.0	ug/L			04/18/22 13:29	1
Naphthalene	ND		5.0	ug/L			04/18/22 13:29	1
n-Butylbenzene	ND		1.0	ug/L			04/18/22 13:29	1
N-Propylbenzene	ND		0.50	ug/L			04/18/22 13:29	1
o-Xylene	ND		0.50	ug/L			04/18/22 13:29	1
sec-Butylbenzene	ND		0.50	ug/L			04/18/22 13:29	1
Styrene	ND		1.0	ug/L			04/18/22 13:29	1
tert-Butylbenzene	ND		0.50	ug/L			04/18/22 13:29	1
Tetrachloroethene	ND		0.50	ug/L			04/18/22 13:29	1
Toluene	ND		0.50	ug/L			04/18/22 13:29	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			04/18/22 13:29	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			04/18/22 13:29	1
Trichloroethene	ND		0.50	ug/L			04/18/22 13:29	1
Trichlorofluoromethane	ND		1.0	ug/L			04/18/22 13:29	1
Trihalomethanes, Total	ND		0.50	ug/L			04/18/22 13:29	1
Vinyl acetate	ND		5.0	ug/L			04/18/22 13:29	1
Vinyl chloride	ND		1.0	ug/L			04/18/22 13:29	1
Xylenes, Total	ND		0.50	ug/L			04/18/22 13:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*60 - 140*		*04/18/22 13:29*	*1*
Dibromofluoromethane (Surr)	*98*		*60 - 140*		*04/18/22 13:29*	*1*
Toluene-d8 (Surr)	*109*		*60 - 140*		*04/18/22 13:29*	*1*

Lab Sample ID: LCS 550-271856/1002
Matrix: Water
Analysis Batch: 271856

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	49.7		ug/L		99	60 - 140
1,1,1-Trichloroethane	50.0	51.6		ug/L		103	70 - 130
1,1,2,2-Tetrachloroethane	50.0	59.6		ug/L		119	60 - 140
1,1,2-Trichloroethane	50.0	56.1		ug/L		112	70 - 130
1,1-Dichloroethane	50.0	53.9		ug/L		108	70 - 150
1,1-Dichloroethene	50.0	51.9		ug/L		104	50 - 140
1,1-Dichloropropene	50.0	59.7		ug/L		119	60 - 140
1,2,3-Trichlorobenzene	50.0	49.1		ug/L		98	60 - 140
1,2,3-Trichloropropane	50.0	52.7		ug/L		105	60 - 140
1,2,4-Trichlorobenzene	50.0	47.9		ug/L		96	60 - 140
1,2,4-Trimethylbenzene	50.0	56.6		ug/L		113	60 - 140
1,2-Dibromo-3-Chloropropane	50.0	58.6		ug/L		117	60 - 140
1,2-Dichlorobenzene	50.0	50.7		ug/L		101	65 - 140
1,2-Dichloroethane	50.0	58.6		ug/L		117	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-271856/1002
Matrix: Water
Analysis Batch: 271856

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dichloropropane	50.0	60.0		ug/L		120	35 - 165
1,3,5-Trimethylbenzene	50.0	55.9		ug/L		112	60 - 140
1,3-Dichlorobenzene	50.0	50.9		ug/L		102	70 - 130
1,3-Dichloropropane	50.0	57.9		ug/L		116	60 - 140
1,4-Dichlorobenzene	50.0	50.3		ug/L		101	65 - 135
2,2-Dichloropropane	50.0	53.8		ug/L		108	60 - 140
2-Butanone (MEK)	50.0	55.3		ug/L		111	60 - 140
2-Chlorotoluene	50.0	61.1		ug/L		122	60 - 140
2-Hexanone	50.0	49.5		ug/L		99	60 - 140
4-Chlorotoluene	50.0	59.1		ug/L		118	60 - 140
4-Isopropyltoluene	50.0	53.7		ug/L		107	60 - 140
4-Methyl-2-pentanone (MIBK)	50.0	49.3		ug/L		99	60 - 140
Acetone	50.0	53.4		ug/L		107	18 - 150
Benzene	50.0	57.8		ug/L		116	65 - 135
Bromobenzene	50.0	48.8		ug/L		98	60 - 140
Bromoform	50.0	51.1		ug/L		102	70 - 130
Bromomethane	50.0	107	E2 L5	ug/L		214	15 - 185
Carbon disulfide	50.0	38.3		ug/L		77	60 - 140
Carbon tetrachloride	50.0	54.0		ug/L		108	70 - 130
Chlorobenzene	50.0	54.0		ug/L		108	65 - 135
Chlorobromomethane	50.0	46.3		ug/L		93	60 - 140
Chlorodibromomethane	50.0	50.4		ug/L		101	70 - 135
Chloroethane	50.0	61.2		ug/L		122	40 - 160
Chloroform	50.0	52.6		ug/L		105	70 - 135
Chloromethane	50.0	58.9		ug/L		118	10 - 205
cis-1,2-Dichloroethene	50.0	57.9		ug/L		116	60 - 140
cis-1,3-Dichloropropene	50.0	61.5		ug/L		123	25 - 175
Dibromomethane	50.0	60.2		ug/L		120	70 - 130
Dichlorobromomethane	50.0	57.9		ug/L		116	65 - 135
Dichlorodifluoromethane	50.0	59.3		ug/L		119	60 - 140
Ethanol	1000	982		ug/L		98	60 - 140
Ethylbenzene	50.0	57.4		ug/L		115	60 - 140
Ethylene Dibromide	50.0	53.0		ug/L		106	60 - 140
Hexachlorobutadiene	50.0	44.3		ug/L		89	60 - 140
Iodomethane	50.0	34.8		ug/L		70	60 - 140
Isopropylbenzene	50.0	57.0		ug/L		114	60 - 140
Methyl tert-butyl ether	50.0	50.9		ug/L		102	60 - 140
Methylene Chloride	50.0	49.8		ug/L		100	60 - 140
m-Xylene & p-Xylene	50.0	55.9		ug/L		112	60 - 140
Naphthalene	50.0	52.3		ug/L		105	60 - 140
n-Butylbenzene	50.0	59.7		ug/L		119	60 - 140
N-Propylbenzene	50.0	61.7		ug/L		123	60 - 140
o-Xylene	50.0	57.1		ug/L		114	60 - 140
sec-Butylbenzene	50.0	55.9		ug/L		112	60 - 140
Styrene	50.0	58.5		ug/L		117	60 - 140
tert-Butylbenzene	50.0	53.2		ug/L		106	60 - 140
Tetrachloroethene	50.0	46.6		ug/L		93	70 - 130
Toluene	50.0	56.6		ug/L		113	70 - 130
trans-1,2-Dichloroethene	50.0	51.1		ug/L		102	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-271856/1002
Matrix: Water
Analysis Batch: 271856

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
trans-1,3-Dichloropropene	50.0	61.7		ug/L		123	50 - 150
Trichloroethene	50.0	55.4		ug/L		111	65 - 135
Trichlorofluoromethane	50.0	52.2		ug/L		104	50 - 150
Vinyl acetate	50.0	56.2		ug/L		112	60 - 140
Vinyl chloride	50.0	64.1		ug/L		128	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*60 - 140*
Dibromofluoromethane (Surr)	*95*		*60 - 140*
Toluene-d8 (Surr)	*103*		*60 - 140*

Lab Sample ID: LCSD 550-271856/4
Matrix: Water
Analysis Batch: 271856

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	49.8		ug/L		100	60 - 140	0	20
1,1,1-Trichloroethane	50.0	51.5		ug/L		103	70 - 130	0	20
1,1,2,2-Tetrachloroethane	50.0	58.4		ug/L		117	60 - 140	2	20
1,1,2-Trichloroethane	50.0	55.5		ug/L		111	70 - 130	1	20
1,1-Dichloroethane	50.0	54.1		ug/L		108	70 - 150	0	20
1,1-Dichloroethene	50.0	51.4		ug/L		103	50 - 140	1	20
1,1-Dichloropropene	50.0	59.2		ug/L		118	60 - 140	1	20
1,2,3-Trichlorobenzene	50.0	49.7		ug/L		99	60 - 140	1	20
1,2,3-Trichloropropane	50.0	51.4		ug/L		103	60 - 140	2	20
1,2,4-Trichlorobenzene	50.0	48.0		ug/L		96	60 - 140	0	20
1,2,4-Trimethylbenzene	50.0	55.5		ug/L		111	60 - 140	2	20
1,2-Dibromo-3-Chloropropane	50.0	57.2		ug/L		114	60 - 140	2	20
1,2-Dichlorobenzene	50.0	49.6		ug/L		99	65 - 140	2	20
1,2-Dichloroethane	50.0	58.4		ug/L		117	70 - 130	0	20
1,2-Dichloropropane	50.0	59.6		ug/L		119	35 - 165	1	20
1,3,5-Trimethylbenzene	50.0	57.2		ug/L		114	60 - 140	2	20
1,3-Dichlorobenzene	50.0	50.3		ug/L		101	70 - 130	1	20
1,3-Dichloropropane	50.0	57.8		ug/L		116	60 - 140	0	20
1,4-Dichlorobenzene	50.0	49.7		ug/L		99	65 - 135	1	20
2,2-Dichloropropane	50.0	53.0		ug/L		106	60 - 140	1	20
2-Butanone (MEK)	50.0	54.9		ug/L		110	60 - 140	1	20
2-Chlorotoluene	50.0	59.3		ug/L		119	60 - 140	3	20
2-Hexanone	50.0	48.3		ug/L		97	60 - 140	2	20
4-Chlorotoluene	50.0	60.2		ug/L		120	60 - 140	2	20
4-Isopropyltoluene	50.0	52.5		ug/L		105	60 - 140	2	20
4-Methyl-2-pentanone (MIBK)	50.0	48.9		ug/L		98	60 - 140	1	20
Acetone	50.0	54.0		ug/L		108	18 - 150	1	20
Benzene	50.0	57.0		ug/L		114	65 - 135	1	20
Bromobenzene	50.0	48.5		ug/L		97	60 - 140	1	20
Bromoform	50.0	51.6		ug/L		103	70 - 130	1	20
Bromomethane	50.0	107	E2	ug/L		214	15 - 185	0	20
Carbon disulfide	50.0	38.5		ug/L		77	60 - 140	1	20

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 550-271856/4
Matrix: Water
Analysis Batch: 271856

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 tetrachloride	50.0	53.9		ug/L		108	70 - 130	0	20
Chlorobenzene	50.0	53.6		ug/L		107	65 - 135	1	20
Chlorobromomethane	50.0	46.8		ug/L		94	60 - 140	1	20
Chlorodibromomethane	50.0	50.5		ug/L		101	70 - 135	0	20
Chloroethane	50.0	60.8		ug/L		122	40 - 160	1	20
Chloroform	50.0	52.6		ug/L		105	70 - 135	0	20
Chloromethane	50.0	61.9		ug/L		124	10 - 205	5	20
cis-1,2-Dichloroethene	50.0	56.9		ug/L		114	60 - 140	2	20
cis-1,3-Dichloropropene	50.0	60.5		ug/L		121	25 - 175	1	20
Dibromomethane	50.0	60.0		ug/L		120	70 - 130	0	20
Dichlorobromomethane	50.0	57.5		ug/L		115	65 - 135	1	20
Dichlorodifluoromethane	50.0	59.2		ug/L		118	60 - 140	0	20
Ethanol	1000	1070		ug/L		107	60 - 140	8	20
Ethylbenzene	50.0	56.4		ug/L		113	60 - 140	2	20
Ethylene Dibromide	50.0	52.1		ug/L		104	60 - 140	2	20
Hexachlorobutadiene	50.0	44.5		ug/L		89	60 - 140	0	20
Iodomethane	50.0	35.3		ug/L		71	60 - 140	2	20
Isopropylbenzene	50.0	55.9		ug/L		112	60 - 140	2	20
Methyl tert-butyl ether	50.0	51.2		ug/L		102	60 - 140	1	20
Methylene Chloride	50.0	49.3		ug/L		99	60 - 140	1	20
m-Xylene & p-Xylene	50.0	55.6		ug/L		111	60 - 140	1	20
Naphthalene	50.0	52.1		ug/L		104	60 - 140	0	20
n-Butylbenzene	50.0	58.5		ug/L		117	60 - 140	2	20
N-Propylbenzene	50.0	59.7		ug/L		119	60 - 140	3	20
o-Xylene	50.0	56.6		ug/L		113	60 - 140	1	20
sec-Butylbenzene	50.0	54.3		ug/L		109	60 - 140	3	20
Styrene	50.0	57.4		ug/L		115	60 - 140	2	20
tert-Butylbenzene	50.0	52.5		ug/L		105	60 - 140	1	20
Tetrachloroethene	50.0	46.8		ug/L		94	70 - 130	0	20
Toluene	50.0	55.9		ug/L		112	70 - 130	1	20
trans-1,2-Dichloroethene	50.0	50.8		ug/L		102	70 - 130	1	20
trans-1,3-Dichloropropene	50.0	60.4		ug/L		121	50 - 150	2	20
Trichloroethene	50.0	55.1		ug/L		110	65 - 135	0	20
Trichlorofluoromethane	50.0	52.5		ug/L		105	50 - 150	1	20
Vinyl acetate	50.0	54.9		ug/L		110	60 - 140	2	20
Vinyl chloride	50.0	67.4		ug/L		135	5 - 195	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*60 - 140*
Dibromofluoromethane (Surr)	*96*		*60 - 140*
Toluene-d8 (Surr)	*103*		*60 - 140*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-270686/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 270686

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.050		mg/L			04/04/22 11:07	1
Nitrite as N	ND		0.050		mg/L			04/04/22 11:07	1
Nitrate Nitrite as N	ND		0.050		mg/L			04/04/22 11:07	1

Lab Sample ID: LCS 550-270686/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 270686

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N			4.00	4.05		mg/L		101	90 - 110		
Nitrite as N			4.00	4.07		mg/L		102	90 - 110		
Nitrate Nitrite as N			8.00	8.12		mg/L		102	90 - 110		

Lab Sample ID: LCSD 550-270686/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 270686

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N			4.00	4.06		mg/L		102	90 - 110	0	20
Nitrite as N			4.00	4.06		mg/L		101	90 - 110	0	20
Nitrate Nitrite as N			8.00	8.12		mg/L		102	90 - 110	0	20

Lab Sample ID: 550-181740-2 MS — **Client Sample ID: EFF-22M04**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 270686

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N	21	M3	4.00	24.4	M3	mg/L		78	80 - 120		
Nitrite as N	ND		4.00	4.04		mg/L		101	80 - 120		
Nitrate Nitrite as N	21		8.00	28.4		mg/L		93	80 - 120		

Lab Sample ID: 550-181740-2 MSD — **Client Sample ID: EFF-22M04**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 270686

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	21	M3	4.00	24.4	M3	mg/L		77	80 - 120	0	20
Nitrite as N	ND		4.00	4.03		mg/L		101	80 - 120	0	20
Nitrate Nitrite as N	21		8.00	28.4		mg/L		93	80 - 120	0	20

QC Association Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-181740-1

GC/MS VOA

Analysis Batch: 271856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-181740-3	GAC-2A-100-22M04	Total/NA	Water	624.1	
550-181740-4	GAC-2B-75-22M04	Total/NA	Water	624.1	
550-181740-5	TB-22M04	Total/NA	Water	624.1	
MB 550-271856/5	Method Blank	Total/NA	Water	624.1	
LCS 550-271856/1002	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-271856/4	Lab Control Sample Dup	Total/NA	Water	624.1	

HPLC/IC

Analysis Batch: 270686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-181740-1	INF-22M04	Total/NA	Water	300.0	
550-181740-2	EFF-22M04	Total/NA	Water	300.0	
MB 550-270686/2	Method Blank	Total/NA	Water	300.0	
LCS 550-270686/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-270686/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-181740-2 MS	EFF-22M04	Total/NA	Water	300.0	
550-181740-2 MSD	EFF-22M04	Total/NA	Water	300.0	

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-181740-1

Client Sample ID: INF-22M04 — Lab Sample ID: 550-181740-1

Date Collected: 04/04/22 09:18 — **Matrix: Water**
Date Received: 04/04/22 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	270686	04/04/22 14:50	AS1	TAL PHX

Client Sample ID: EFF-22M04 — Lab Sample ID: 550-181740-2

Date Collected: 04/04/22 09:15 — **Matrix: Water**
Date Received: 04/04/22 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	270686	04/04/22 13:26	AS1	TAL PHX

Client Sample ID: GAC-2A-100-22M04 — Lab Sample ID: 550-181740-3

Date Collected: 04/04/22 09:24 — **Matrix: Water**
Date Received: 04/04/22 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	271856	04/18/22 16:32	TC1	TAL PHX

Client Sample ID: GAC-2B-75-22M04 — Lab Sample ID: 550-181740-4

Date Collected: 04/04/22 09:22 — **Matrix: Water**
Date Received: 04/04/22 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	271856	04/18/22 16:58	TC1	TAL PHX

Client Sample ID: TB-22M04 — Lab Sample ID: 550-181740-5

Date Collected: 04/04/22 08:00 — **Matrix: Water**
Date Received: 04/04/22 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	271856	04/18/22 13:56	TC1	TAL PHX

Laboratory References:

TAL PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-181740-1

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
624.1		Water	1,2,4-Trichlorobenzene
624.1		Water	Trihalomethanes, Total

Method Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-181740-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL PHX
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

TAL PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

181740

Test America Phoenix
4625 East Cotton CTr Blvd Suite 189
Phoenix, AZ 85040
602-437-3340

Honeywell — Chain Of Custody / Analysis Request

AESI Ref:	44650.56116		
COC#	37553-540432		
Lab Proj # (SDG):			
Lab ID	TAL-PHX		
Site ID	DEERV		
Lab Job #			
Authorized User:	Honeywell		

Text & Excel File | Excel & Text File Order

Privileged & Confidential | 55014762

Site Name: Deer Valley | Phase:
Location of Site: Phoenix AZ. | Sampling Program: Monthly Groundwater Monitoring Program

Sampling Co.: Jacobs
EDD To: Bernice Kidd, Jacobs HTS
Sampler: T. Kearsley
PO #: 4500178520
Preservative: 8

Client Contact: (name, co., address)
Jacobs
1501 W. Fountainhead Parkway (suite 401)
Tempe, AZ 85282

Analysis Turnaround Time (TAT): 10
Consultant: Jacobs
Laboratory Contact: Rachel Sester
Report Tier Level: 2
Full Report TAT: 10
HTS

Preliminary Data To: Berney Kidd Jacobs, Lakshmi Devi HTS,
Sample Receipt Acknowledgement To: Site Distribution List
Hard Copy To: Berney Kidd Jacobs,
Invoice To: Mike Heitmann, Honeywell/Copy Berney Kidd

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	Sample Identification: Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID	Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	E624 (Total VOCs)	E300.0 (Nitrite-Nitrate)	MS/MSD	Sampling Method (code)	Lab Sample Numbers
											Units						
1	Influent			INF-22M04	4/4/22	0918	GW-GWS	WATER	REG	4	grab	N	X	X			-01
2	Effluent			EFF-22M04	4/4/22	0915	GW-GWS	WATER	REG	4	grab	N	X	X			-02
3	GAC2A Effluent			GAC-2A-100-22M04	4/4/22	0924	GW-GWS	WATER	REG	3	grab	N	X				-03
4	GAC2B 75%			GAC-2B-75-22M04	4/4/22	0922	GW-GWS	WATER	REG	3	grab	N	X				-04
5	TRIPBLANK			TB-22M04	4/4/22	8:00	GW-GWS	WATER	REG	1	grab	N	X				-05
6																	
7																	
8																	
9																	
10																	
11																	
12																	

550-181740 Chain of Custody

Relinquished by	Company	Date/Time	Received by	Company	Date/Time	Condition	Cooler Temp.	Custody Seals Intact
[signature]	Jacobs	4/4/22 11:25	[signature]	EETA QWC	4/4/22 11:25		3.4	
Relinquished by	Company	Date/Time	Received by	Company	Date/Time	Condition	Cooler Temp.	Custody Seals Intact

Preservatives: (Other; Specify):

0 (none); 1 (4 Deg C); 2 (HCl, pH<2); 3 (HNO3, pH<2); 4 (H2SO4, pH<2); 5 (NaOH, pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4, pH<2, 4 Deg C)); 8 (HCl, pH<2, 4 Deg C); 9 (HCl, 4 Deg C); 10 (HNO3, pH<2, 4 Deg C); 11 (NaOH. pH>12, 4 Deg. Ascorbic Acid); 12 (H2SO4, Na2S2O3, 4 Deg C, pH<2); 13 (Zn Acetate); 14 (1-MeOH, 4 Deg C and 2-NaHSO4, 4 Deg C); 15 (NaOH, pH>12, 4 Deg C); sp (special instructions)

CDo

Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 550-181740-1

Login Number: 181740
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.

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ANALYTICAL REPORT

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-182982-1
Client Project/Site: Deer Valley

For:
Honeywell International Inc
1944 E. Sky Harbor Circle MS 2101-2C
Phoenix, Arizona 85034

Attn: Tao Wu

Authorized for release by:
4/30/2022 10:59:17 AM

Rachel Sester, Project Manager I
(602)659-7615
Rachel.Sester@et.eurofinsus.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Sample Summary 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 12
QC Sample Results 13
QC Association Summary 22
Lab Chronicle 23
Certification Summary 24
Method Summary 25
Chain of Custody 26
Receipt Checklists 27

Definitions/Glossary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-182982-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix.
L5	The associated blank spike recovery was above laboratory/method acceptance limits. This analyte was not detected in the sample.
N1	See case narrative.
T5	Laboratory not licensed for this parameter

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: 550-182982-1

Laboratory: Eurofins Phoenix

Narrative

Job Narrative
550-182982-1

Comments
No additional comments.

Receipt
The samples were received on 4/25/2022 1:28 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.9º C.

GC/MS VOA
Method 624.1: The laboratory control sample (LCS), laboratory control sample duplicate (LCSD), matrix spike (MS) and matrix spike duplicate (MSD) for batch 550-272876 recovered outside control limits high for Bromomethane. 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.

Method 624.1: The following sample(s) was collected in a properly preserved vial; however, the pH-4 was outside the required criteria when verified by the laboratory. The sample was analyzed within the 7-day holding time specified for unpreserved samples: INF-22M04-2 (550-182982-1).

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

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

Sample Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-182982-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-182982-1	INF-22M04-2	Water	04/25/22 09:40	04/25/22 13:28
550-182982-2	EFF-22M04-2	Water	04/25/22 09:45	04/25/22 13:28
550-182982-3	TB-22M04-2	Water	04/25/22 08:00	04/25/22 13:28

Detection Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-182982-1

Client Sample ID: INF-22M04-2 — Lab Sample ID: 550-182982-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.64		0.50		ug/L	1		624.1	Total/NA
Chloroform	0.82		0.50		ug/L	1		624.1	Total/NA
cis-1,2-Dichloroethene	4.1		0.50		ug/L	1		624.1	Total/NA
Tetrachloroethene	1.0		0.50		ug/L	1		624.1	Total/NA
Trichloroethene	29		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	0.82	T5	0.50		ug/L	1		624.1	Total/NA

Client Sample ID: EFF-22M04-2 — Lab Sample ID: 550-182982-2

No Detections.

Client Sample ID: TB-22M04-2 — Lab Sample ID: 550-182982-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
4-Methyl-2-pentanone (MIBK)	4.3		2.5		ug/L	1		624.1	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-182982-1

Client Sample ID: INF-22M04-2

Date Collected: 04/25/22 09:40
Date Received: 04/25/22 13:28

Lab Sample ID: 550-182982-1

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			04/29/22 22:12	1
1,1,1-Trichloroethane	ND		0.50		ug/L			04/29/22 22:12	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/29/22 22:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			04/29/22 22:12	1
1,1,2-Trichloroethane	ND		0.50		ug/L			04/29/22 22:12	1
1,1-Dichloroethane	ND		0.50		ug/L			04/29/22 22:12	1
1,1-Dichloroethene	**0.64**		0.50		ug/L			04/29/22 22:12	1
1,1-Dichloropropene	ND		0.50		ug/L			04/29/22 22:12	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			04/29/22 22:12	1
1,2,3-Trichloropropane	ND		2.0		ug/L			04/29/22 22:12	1
1,2,4-Trichlorobenzene	ND	T5	2.0		ug/L			04/29/22 22:12	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			04/29/22 22:12	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/29/22 22:12	1
1,2-Dichlorobenzene	ND		0.50		ug/L			04/29/22 22:12	1
1,2-Dichloroethane	ND		0.50		ug/L			04/29/22 22:12	1
1,2-Dichloropropane	ND		0.50		ug/L			04/29/22 22:12	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			04/29/22 22:12	1
1,3-Dichlorobenzene	ND		0.50		ug/L			04/29/22 22:12	1
1,3-Dichloropropane	ND		0.50		ug/L			04/29/22 22:12	1
1,4-Dichlorobenzene	ND		0.50		ug/L			04/29/22 22:12	1
2,2-Dichloropropane	ND		1.0		ug/L			04/29/22 22:12	1
2-Butanone (MEK)	ND		10		ug/L			04/29/22 22:12	1
2-Chlorotoluene	ND		0.50		ug/L			04/29/22 22:12	1
2-Hexanone	ND		5.0		ug/L			04/29/22 22:12	1
4-Chlorotoluene	ND		0.50		ug/L			04/29/22 22:12	1
4-Isopropyltoluene	ND		0.50		ug/L			04/29/22 22:12	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			04/29/22 22:12	1
Acetone	ND		10		ug/L			04/29/22 22:12	1
Benzene	ND		0.50		ug/L			04/29/22 22:12	1
Bromobenzene	ND		1.0		ug/L			04/29/22 22:12	1
Bromoform	ND		1.0		ug/L			04/29/22 22:12	1
Bromomethane	ND	L5 N1	5.0		ug/L			04/29/22 22:12	1
Carbon disulfide	ND		5.0		ug/L			04/29/22 22:12	1
Carbon tetrachloride	ND		0.50		ug/L			04/29/22 22:12	1
Chlorobenzene	ND		0.50		ug/L			04/29/22 22:12	1
Chlorobromomethane	ND		0.50		ug/L			04/29/22 22:12	1
Chlorodibromomethane	ND		0.50		ug/L			04/29/22 22:12	1
Chloroethane	ND	L5	1.0		ug/L			04/29/22 22:12	1
Chloroform	**0.82**		0.50		ug/L			04/29/22 22:12	1
Chloromethane	ND		1.0		ug/L			04/29/22 22:12	1
cis-1,2-Dichloroethene	**4.1**		0.50		ug/L			04/29/22 22:12	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			04/29/22 22:12	1
Dibromomethane	ND		0.50		ug/L			04/29/22 22:12	1
Dichlorobromomethane	ND		0.50		ug/L			04/29/22 22:12	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/29/22 22:12	1
Ethanol	ND		150		ug/L			04/29/22 22:12	1
Ethylbenzene	ND		0.50		ug/L			04/29/22 22:12	1
Ethylene Dibromide	ND		0.50		ug/L			04/29/22 22:12	1
Hexachlorobutadiene	ND		5.0		ug/L			04/29/22 22:12	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-182982-1

Client Sample ID: INF-22M04-2

Lab Sample ID: 550-182982-1
Matrix: Water
Date Collected: 04/25/22 09:40
Date Received: 04/25/22 13:28

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND		2.0	ug/L			04/29/22 22:12	1
Isopropylbenzene	ND		0.50	ug/L			04/29/22 22:12	1
Methyl tert-butyl ether	ND		0.50	ug/L			04/29/22 22:12	1
Methylene Chloride	ND		5.0	ug/L			04/29/22 22:12	1
m-Xylene & p-Xylene	ND		1.0	ug/L			04/29/22 22:12	1
Naphthalene	ND		5.0	ug/L			04/29/22 22:12	1
n-Butylbenzene	ND		1.0	ug/L			04/29/22 22:12	1
N-Propylbenzene	ND		0.50	ug/L			04/29/22 22:12	1
o-Xylene	ND		0.50	ug/L			04/29/22 22:12	1
sec-Butylbenzene	ND		0.50	ug/L			04/29/22 22:12	1
Styrene	ND		1.0	ug/L			04/29/22 22:12	1
tert-Butylbenzene	ND		0.50	ug/L			04/29/22 22:12	1
Tetrachloroethene	**1.0**		0.50	ug/L			04/29/22 22:12	1
Toluene	ND		0.50	ug/L			04/29/22 22:12	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			04/29/22 22:12	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			04/29/22 22:12	1
Trichloroethene	**29**		0.50	ug/L			04/29/22 22:12	1
Trichlorofluoromethane	ND		1.0	ug/L			04/29/22 22:12	1
Trihalomethanes, Total	**0.82**	**T5**	0.50	ug/L			04/29/22 22:12	1
Vinyl acetate	ND		5.0	ug/L			04/29/22 22:12	1
Vinyl chloride	ND		1.0	ug/L			04/29/22 22:12	1
Xylenes, Total	ND		0.50	ug/L			04/29/22 22:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*04/29/22 22:12*	*1*
Dibromofluoromethane (Surr)	*99*		*60 - 140*		*04/29/22 22:12*	*1*
Toluene-d8 (Surr)	*99*		*60 - 140*		*04/29/22 22:12*	*1*

Client Sample ID: EFF-22M04-2

Lab Sample ID: 550-182982-2
Matrix: Water
Date Collected: 04/25/22 09:45
Date Received: 04/25/22 13:28

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			04/29/22 22:33	1
1,1,1-Trichloroethane	ND		0.50	ug/L			04/29/22 22:33	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			04/29/22 22:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			04/29/22 22:33	1
1,1,2-Trichloroethane	ND		0.50	ug/L			04/29/22 22:33	1
1,1-Dichloroethane	ND		0.50	ug/L			04/29/22 22:33	1
1,1-Dichloroethene	ND		0.50	ug/L			04/29/22 22:33	1
1,1-Dichloropropene	ND		0.50	ug/L			04/29/22 22:33	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			04/29/22 22:33	1
1,2,3-Trichloropropane	ND		2.0	ug/L			04/29/22 22:33	1
1,2,4-Trichlorobenzene	ND	T5	2.0	ug/L			04/29/22 22:33	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			04/29/22 22:33	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			04/29/22 22:33	1
1,2-Dichlorobenzene	ND		0.50	ug/L			04/29/22 22:33	1
1,2-Dichloroethane	ND		0.50	ug/L			04/29/22 22:33	1
1,2-Dichloropropane	ND		0.50	ug/L			04/29/22 22:33	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-182982-1

Client Sample ID: EFF-22M04-2

Date Collected: 04/25/22 09:45
Date Received: 04/25/22 13:28

Lab Sample ID: 550-182982-2

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		0.50		ug/L			04/29/22 22:33	1
1,3-Dichlorobenzene	ND		0.50		ug/L			04/29/22 22:33	1
1,3-Dichloropropane	ND		0.50		ug/L			04/29/22 22:33	1
1,4-Dichlorobenzene	ND		0.50		ug/L			04/29/22 22:33	1
2,2-Dichloropropane	ND		1.0		ug/L			04/29/22 22:33	1
2-Butanone (MEK)	ND		10		ug/L			04/29/22 22:33	1
2-Chlorotoluene	ND		0.50		ug/L			04/29/22 22:33	1
2-Hexanone	ND		5.0		ug/L			04/29/22 22:33	1
4-Chlorotoluene	ND		0.50		ug/L			04/29/22 22:33	1
4-Isopropyltoluene	ND		0.50		ug/L			04/29/22 22:33	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			04/29/22 22:33	1
Acetone	ND		10		ug/L			04/29/22 22:33	1
Benzene	ND		0.50		ug/L			04/29/22 22:33	1
Bromobenzene	ND		1.0		ug/L			04/29/22 22:33	1
Bromoform	ND		1.0		ug/L			04/29/22 22:33	1
Bromomethane	ND	L5	5.0		ug/L			04/29/22 22:33	1
Carbon disulfide	ND		5.0		ug/L			04/29/22 22:33	1
Carbon tetrachloride	ND		0.50		ug/L			04/29/22 22:33	1
Chlorobenzene	ND		0.50		ug/L			04/29/22 22:33	1
Chlorobromomethane	ND		0.50		ug/L			04/29/22 22:33	1
Chlorodibromomethane	ND		0.50		ug/L			04/29/22 22:33	1
Chloroethane	ND	L5	1.0		ug/L			04/29/22 22:33	1
Chloroform	ND		0.50		ug/L			04/29/22 22:33	1
Chloromethane	ND		1.0		ug/L			04/29/22 22:33	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			04/29/22 22:33	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			04/29/22 22:33	1
Dibromomethane	ND		0.50		ug/L			04/29/22 22:33	1
Dichlorobromomethane	ND		0.50		ug/L			04/29/22 22:33	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/29/22 22:33	1
Ethanol	ND		150		ug/L			04/29/22 22:33	1
Ethylbenzene	ND		0.50		ug/L			04/29/22 22:33	1
Ethylene Dibromide	ND		0.50		ug/L			04/29/22 22:33	1
Hexachlorobutadiene	ND		5.0		ug/L			04/29/22 22:33	1
Iodomethane	ND		2.0		ug/L			04/29/22 22:33	1
Isopropylbenzene	ND		0.50		ug/L			04/29/22 22:33	1
Methyl tert-butyl ether	ND		0.50		ug/L			04/29/22 22:33	1
Methylene Chloride	ND		5.0		ug/L			04/29/22 22:33	1
m-Xylene & p-Xylene	ND		1.0		ug/L			04/29/22 22:33	1
Naphthalene	ND		5.0		ug/L			04/29/22 22:33	1
n-Butylbenzene	ND		1.0		ug/L			04/29/22 22:33	1
N-Propylbenzene	ND		0.50		ug/L			04/29/22 22:33	1
o-Xylene	ND		0.50		ug/L			04/29/22 22:33	1
sec-Butylbenzene	ND		0.50		ug/L			04/29/22 22:33	1
Styrene	ND		1.0		ug/L			04/29/22 22:33	1
tert-Butylbenzene	ND		0.50		ug/L			04/29/22 22:33	1
Tetrachloroethene	ND		0.50		ug/L			04/29/22 22:33	1
Toluene	ND		0.50		ug/L			04/29/22 22:33	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			04/29/22 22:33	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			04/29/22 22:33	1

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-182982-1

Client Sample ID: EFF-22M04-2

Lab Sample ID: 550-182982-2
Date Collected: 04/25/22 09:45
Matrix: Water
Date Received: 04/25/22 13:28

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		0.50	ug/L			04/29/22 22:33	1
Trichlorofluoromethane	ND		1.0	ug/L			04/29/22 22:33	1
Trihalomethanes, Total	ND	T5	0.50	ug/L			04/29/22 22:33	1
Vinyl acetate	ND		5.0	ug/L			04/29/22 22:33	1
Vinyl chloride	ND		1.0	ug/L			04/29/22 22:33	1
Xylenes, Total	ND		0.50	ug/L			04/29/22 22:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*		*04/29/22 22:33*	*1*
Dibromofluoromethane (Surr)	*102*		*60 - 140*		*04/29/22 22:33*	*1*
Toluene-d8 (Surr)	*100*		*60 - 140*		*04/29/22 22:33*	*1*

Client Sample ID: TB-22M04-2

Lab Sample ID: 550-182982-3
Date Collected: 04/25/22 08:00
Matrix: Water
Date Received: 04/25/22 13:28

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			04/29/22 22:53	1
1,1,1-Trichloroethane	ND		0.50	ug/L			04/29/22 22:53	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			04/29/22 22:53	1
1,1,2-Trichloroethane	ND		0.50	ug/L			04/29/22 22:53	1
1,1-Dichloroethane	ND		0.50	ug/L			04/29/22 22:53	1
1,1-Dichloroethene	ND		0.50	ug/L			04/29/22 22:53	1
1,1-Dichloropropene	ND		0.50	ug/L			04/29/22 22:53	1
1,2,4-Trichlorobenzene	ND	T5	2.0	ug/L			04/29/22 22:53	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			04/29/22 22:53	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			04/29/22 22:53	1
1,2,3-Trichloropropane	ND		2.0	ug/L			04/29/22 22:53	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			04/29/22 22:53	1
Ethylene Dibromide	ND		0.50	ug/L			04/29/22 22:53	1
1,3-Dichlorobenzene	ND		0.50	ug/L			04/29/22 22:53	1
1,3-Dichloropropane	ND		0.50	ug/L			04/29/22 22:53	1
1,2-Dichlorobenzene	ND		0.50	ug/L			04/29/22 22:53	1
1,2-Dichloroethane	ND		0.50	ug/L			04/29/22 22:53	1
1,2-Dichloropropane	ND		0.50	ug/L			04/29/22 22:53	1
1,3,5-Trimethylbenzene	ND		0.50	ug/L			04/29/22 22:53	1
1,4-Dichlorobenzene	ND		0.50	ug/L			04/29/22 22:53	1
2,2-Dichloropropane	ND		1.0	ug/L			04/29/22 22:53	1
2-Butanone (MEK)	ND		10	ug/L			04/29/22 22:53	1
2-Chlorotoluene	ND		0.50	ug/L			04/29/22 22:53	1
2-Hexanone	ND		5.0	ug/L			04/29/22 22:53	1
4-Chlorotoluene	ND		0.50	ug/L			04/29/22 22:53	1
4-Methyl-2-pentanone (MIBK)	**4.3**		2.5	ug/L			04/29/22 22:53	1
Acetone	ND		10	ug/L			04/29/22 22:53	1
Benzene	ND		0.50	ug/L			04/29/22 22:53	1
Bromobenzene	ND		1.0	ug/L			04/29/22 22:53	1
Chlorobromomethane	ND		0.50	ug/L			04/29/22 22:53	1
Dichlorobromomethane	ND		0.50	ug/L			04/29/22 22:53	1
Bromoform	ND		1.0	ug/L			04/29/22 22:53	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-182982-1

Client Sample ID: TB-22M04-2

Date Collected: 04/25/22 08:00
Date Received: 04/25/22 13:28

Lab Sample ID: 550-182982-3

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND	L5	5.0		ug/L			04/29/22 22:53	1
Carbon disulfide	ND		5.0		ug/L			04/29/22 22:53	1
Carbon tetrachloride	ND		0.50		ug/L			04/29/22 22:53	1
Chlorobenzene	ND		0.50		ug/L			04/29/22 22:53	1
Chloroethane	ND	L5	1.0		ug/L			04/29/22 22:53	1
Chloroform	ND		0.50		ug/L			04/29/22 22:53	1
Chloromethane	ND		1.0		ug/L			04/29/22 22:53	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			04/29/22 22:53	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			04/29/22 22:53	1
Chlorodibromomethane	ND		0.50		ug/L			04/29/22 22:53	1
Dibromomethane	ND		0.50		ug/L			04/29/22 22:53	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/29/22 22:53	1
Ethanol	ND		150		ug/L			04/29/22 22:53	1
Ethylbenzene	ND		0.50		ug/L			04/29/22 22:53	1
Hexachlorobutadiene	ND		5.0		ug/L			04/29/22 22:53	1
Iodomethane	ND		2.0		ug/L			04/29/22 22:53	1
Isopropylbenzene	ND		0.50		ug/L			04/29/22 22:53	1
m-Xylene & p-Xylene	ND		1.0		ug/L			04/29/22 22:53	1
Methylene Chloride	ND		5.0		ug/L			04/29/22 22:53	1
Methyl tert-butyl ether	ND		0.50		ug/L			04/29/22 22:53	1
Naphthalene	ND		5.0		ug/L			04/29/22 22:53	1
n-Butylbenzene	ND		1.0		ug/L			04/29/22 22:53	1
N-Propylbenzene	ND		0.50		ug/L			04/29/22 22:53	1
o-Xylene	ND		0.50		ug/L			04/29/22 22:53	1
4-Isopropyltoluene	ND		0.50		ug/L			04/29/22 22:53	1
sec-Butylbenzene	ND		0.50		ug/L			04/29/22 22:53	1
Styrene	ND		1.0		ug/L			04/29/22 22:53	1
tert-Butylbenzene	ND		0.50		ug/L			04/29/22 22:53	1
Tetrachloroethene	ND		0.50		ug/L			04/29/22 22:53	1
Toluene	ND		0.50		ug/L			04/29/22 22:53	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			04/29/22 22:53	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			04/29/22 22:53	1
Trichloroethene	ND		0.50		ug/L			04/29/22 22:53	1
Trichlorofluoromethane	ND		1.0		ug/L			04/29/22 22:53	1
Vinyl chloride	ND		1.0		ug/L			04/29/22 22:53	1
Vinyl acetate	ND		5.0		ug/L			04/29/22 22:53	1
Xylenes, Total	ND		0.50		ug/L			04/29/22 22:53	1
Trihalomethanes, Total	ND	T5	0.50		ug/L			04/29/22 22:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			04/29/22 22:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*99*		*60 - 140*		*04/29/22 22:53*	*1*
Toluene-d8 (Surr)	*97*		*60 - 140*		*04/29/22 22:53*	*1*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*04/29/22 22:53*	*1*

Surrogate Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-182982-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	**Client Sample ID**	**(60-140)**	**(60-140)**	**(60-140)**
550-182982-1	INF-22M04-2	91	99	99
550-182982-1 MS	INF-22M04-2	97	90	100
550-182982-1 MSD	INF-22M04-2	96	88	96
550-182982-2	EFF-22M04-2	90	102	100
550-182982-3	TB-22M04-2	92	99	97
LCS 550-272876/3	Lab Control Sample	99	107	113
LCSD 550-272876/4	Lab Control Sample Dup	97	103	111
MB 550-272876/6	Method Blank	93	102	96

Surrogate Legend

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

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-272876/6
Matrix: Water
Analysis Batch: 272876

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		0.50		ug/L			04/29/22 21:10	1
1,1,1-Trichloroethane	ND		0.50		ug/L			04/29/22 21:10	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/29/22 21:10	1
1,1,2-Trichloroethane	ND		0.50		ug/L			04/29/22 21:10	1
1,1-Dichloroethane	ND		0.50		ug/L			04/29/22 21:10	1
1,1-Dichloroethene	ND		0.50		ug/L			04/29/22 21:10	1
1,1-Dichloropropene	ND		0.50		ug/L			04/29/22 21:10	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			04/29/22 21:10	1
1,2,3-Trichloropropane	ND		2.0		ug/L			04/29/22 21:10	1
1,2,4-Trichlorobenzene	ND		2.0		ug/L			04/29/22 21:10	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			04/29/22 21:10	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/29/22 21:10	1
1,2-Dichlorobenzene	ND		0.50		ug/L			04/29/22 21:10	1
1,2-Dichloroethane	ND		0.50		ug/L			04/29/22 21:10	1
1,2-Dichloropropane	ND		0.50		ug/L			04/29/22 21:10	1
1,3-Dichlorobenzene	ND		0.50		ug/L			04/29/22 21:10	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			04/29/22 21:10	1
1,3-Dichloropropane	ND		0.50		ug/L			04/29/22 21:10	1
1,4-Dichlorobenzene	ND		0.50		ug/L			04/29/22 21:10	1
2,2-Dichloropropane	ND		1.0		ug/L			04/29/22 21:10	1
2-Butanone (MEK)	ND		10		ug/L			04/29/22 21:10	1
2-Chlorotoluene	ND		0.50		ug/L			04/29/22 21:10	1
2-Hexanone	ND		5.0		ug/L			04/29/22 21:10	1
4-Chlorotoluene	ND		0.50		ug/L			04/29/22 21:10	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			04/29/22 21:10	1
Acetone	ND		10		ug/L			04/29/22 21:10	1
Benzene	ND		0.50		ug/L			04/29/22 21:10	1
Bromobenzene	ND		1.0		ug/L			04/29/22 21:10	1
Bromoform	ND		1.0		ug/L			04/29/22 21:10	1
Bromomethane	ND		5.0		ug/L			04/29/22 21:10	1
Carbon disulfide	ND		5.0		ug/L			04/29/22 21:10	1
Carbon tetrachloride	ND		0.50		ug/L			04/29/22 21:10	1
Chlorobenzene	ND		0.50		ug/L			04/29/22 21:10	1
Chlorobromomethane	ND		0.50		ug/L			04/29/22 21:10	1
Chloroethane	ND		1.0		ug/L			04/29/22 21:10	1
Chloroform	ND		0.50		ug/L			04/29/22 21:10	1
Chloromethane	ND		1.0		ug/L			04/29/22 21:10	1
Chlorodibromomethane	ND		0.50		ug/L			04/29/22 21:10	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			04/29/22 21:10	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			04/29/22 21:10	1
Dibromomethane	ND		0.50		ug/L			04/29/22 21:10	1
Dichlorobromomethane	ND		0.50		ug/L			04/29/22 21:10	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/29/22 21:10	1
Ethanol	ND		150		ug/L			04/29/22 21:10	1
Ethylbenzene	ND		0.50		ug/L			04/29/22 21:10	1
Ethylene Dibromide	ND		0.50		ug/L			04/29/22 21:10	1
Hexachlorobutadiene	ND		5.0		ug/L			04/29/22 21:10	1
Iodomethane	ND		2.0		ug/L			04/29/22 21:10	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-272876/6
Matrix: Water
Analysis Batch: 272876

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	ug/L			04/29/22 21:10	1
Methyl tert-butyl ether	ND		0.50	ug/L			04/29/22 21:10	1
Methylene Chloride	ND		5.0	ug/L			04/29/22 21:10	1
m-Xylene & p-Xylene	ND		1.0	ug/L			04/29/22 21:10	1
4-Isopropyltoluene	ND		0.50	ug/L			04/29/22 21:10	1
Naphthalene	ND		5.0	ug/L			04/29/22 21:10	1
n-Butylbenzene	ND		1.0	ug/L			04/29/22 21:10	1
N-Propylbenzene	ND		0.50	ug/L			04/29/22 21:10	1
o-Xylene	ND		0.50	ug/L			04/29/22 21:10	1
sec-Butylbenzene	ND		0.50	ug/L			04/29/22 21:10	1
Styrene	ND		1.0	ug/L			04/29/22 21:10	1
tert-Butylbenzene	ND		0.50	ug/L			04/29/22 21:10	1
Tetrachloroethene	ND		0.50	ug/L			04/29/22 21:10	1
Toluene	ND		0.50	ug/L			04/29/22 21:10	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			04/29/22 21:10	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			04/29/22 21:10	1
Trichloroethene	ND		0.50	ug/L			04/29/22 21:10	1
Trichlorofluoromethane	ND		1.0	ug/L			04/29/22 21:10	1
Trihalomethanes, Total	ND		0.50	ug/L			04/29/22 21:10	1
Vinyl acetate	ND		5.0	ug/L			04/29/22 21:10	1
Vinyl chloride	ND		1.0	ug/L			04/29/22 21:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	ug/L			04/29/22 21:10	1
Xylenes, Total	ND		0.50	ug/L			04/29/22 21:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*102*		*60 - 140*		*04/29/22 21:10*	*1*
Toluene-d8 (Surr)	*96*		*60 - 140*		*04/29/22 21:10*	*1*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*04/29/22 21:10*	*1*

Lab Sample ID: LCS 550-272876/3
Matrix: Water
Analysis Batch: 272876

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	52.6		ug/L		105	60 - 140
1,1,1-Trichloroethane	50.0	51.9		ug/L		104	70 - 130
1,1,2,2-Tetrachloroethane	50.0	68.1		ug/L		136	60 - 140
1,1,2-Trichloroethane	50.0	56.8		ug/L		114	70 - 130
1,1-Dichloroethane	50.0	55.2		ug/L		110	70 - 150
1,1-Dichloroethene	50.0	53.3		ug/L		107	50 - 140
1,1-Dichloropropene	50.0	57.8		ug/L		116	60 - 140
1,2,3-Trichlorobenzene	50.0	47.0		ug/L		94	60 - 140
1,2,3-Trichloropropane	50.0	58.2		ug/L		116	60 - 140
1,2,4-Trichlorobenzene	50.0	47.3		ug/L		95	60 - 140
1,2,4-Trimethylbenzene	50.0	51.8		ug/L		104	60 - 140
1,2-Dibromo-3-Chloropropane	50.0	64.1		ug/L		128	60 - 140
1,2-Dichlorobenzene	50.0	52.0		ug/L		104	65 - 140
1,2-Dichloroethane	50.0	60.6		ug/L		121	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-272876/3
Matrix: Water
Analysis Batch: 272876

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dichloropropane	50.0	58.0		ug/L		116	35 - 165
1,3-Dichlorobenzene	50.0	53.7		ug/L		107	70 - 130
1,3,5-Trimethylbenzene	50.0	52.0		ug/L		104	60 - 140
1,3-Dichloropropane	50.0	61.6		ug/L		123	60 - 140
1,4-Dichlorobenzene	50.0	52.4		ug/L		105	65 - 135
2,2-Dichloropropane	50.0	56.9		ug/L		114	60 - 140
2-Butanone (MEK)	50.0	63.6		ug/L		127	60 - 140
2-Chlorotoluene	50.0	56.6		ug/L		113	60 - 140
2-Hexanone	50.0	65.1		ug/L		130	60 - 140
4-Chlorotoluene	50.0	53.4		ug/L		107	60 - 140
4-Methyl-2-pentanone (MIBK)	50.0	65.1		ug/L		130	60 - 140
Acetone	50.0	66.9		ug/L		134	18 - 150
Benzene	50.0	57.2		ug/L		114	65 - 135
Bromobenzene	50.0	50.7		ug/L		101	60 - 140
Bromoform	50.0	54.9		ug/L		110	70 - 130
Bromomethane	50.0	133	E2 L5	ug/L		267	15 - 185
Carbon disulfide	50.0	54.2		ug/L		108	60 - 140
Carbon tetrachloride	50.0	52.6		ug/L		105	70 - 130
Chlorobenzene	50.0	53.8		ug/L		108	65 - 135
Chlorobromomethane	50.0	47.6		ug/L		95	60 - 140
Chloroethane	50.0	102	E2	ug/L		203	40 - 160
Chloroform	50.0	54.7		ug/L		109	70 - 135
Chloromethane	50.0	63.6		ug/L		127	10 - 205
Chlorodibromomethane	50.0	54.1		ug/L		108	70 - 135
cis-1,2-Dichloroethene	50.0	55.1		ug/L		110	60 - 140
cis-1,3-Dichloropropene	50.0	60.5		ug/L		121	25 - 175
Dibromomethane	50.0	60.5		ug/L		121	70 - 130
Dichlorobromomethane	50.0	58.1		ug/L		116	65 - 135
Dichlorodifluoromethane	50.0	43.0		ug/L		86	60 - 140
Ethanol	1000	819		ug/L		82	60 - 140
Ethylbenzene	50.0	58.1		ug/L		116	60 - 140
Ethylene Dibromide	50.0	57.3		ug/L		115	60 - 140
Hexachlorobutadiene	50.0	39.9		ug/L		80	60 - 140
Iodomethane	50.0	49.2		ug/L		98	60 - 140
Isopropylbenzene	50.0	54.5		ug/L		109	60 - 140
Methyl tert-butyl ether	50.0	57.2		ug/L		114	60 - 140
Methylene Chloride	50.0	50.6		ug/L		101	60 - 140
m-Xylene & p-Xylene	50.0	54.0		ug/L		108	60 - 140
4-Isopropyltoluene	50.0	54.9		ug/L		110	60 - 140
Naphthalene	50.0	53.8		ug/L		108	60 - 140
n-Butylbenzene	50.0	61.1		ug/L		122	60 - 140
N-Propylbenzene	50.0	58.4		ug/L		117	60 - 140
o-Xylene	50.0	55.3		ug/L		111	60 - 140
sec-Butylbenzene	50.0	56.0		ug/L		112	60 - 140
Styrene	50.0	57.3		ug/L		115	60 - 140
tert-Butylbenzene	50.0	51.5		ug/L		103	60 - 140
Tetrachloroethene	50.0	47.0		ug/L		94	70 - 130
Toluene	50.0	54.4		ug/L		109	70 - 130
trans-1,2-Dichloroethene	50.0	52.3		ug/L		105	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-272876/3
Matrix: Water
Analysis Batch: 272876

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
trans-1,3-Dichloropropene	50.0	62.7		ug/L		125	50 - 150
Trichloroethene	50.0	53.9		ug/L		108	65 - 135
Trichlorofluoromethane	50.0	53.1		ug/L		106	50 - 150
Vinyl acetate	50.0	57.8		ug/L		116	60 - 140
Vinyl chloride	50.0	71.4		ug/L		143	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*107*		*60 - 140*
Toluene-d8 (Surr)	*113*		*60 - 140*
4-Bromofluorobenzene (Surr)	*99*		*60 - 140*

Lab Sample ID: LCSD 550-272876/4
Matrix: Water
Analysis Batch: 272876

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	52.0		ug/L		104	60 - 140	1	20
1,1,1-Trichloroethane	50.0	52.0		ug/L		104	70 - 130	0	20
1,1,2,2-Tetrachloroethane	50.0	65.4		ug/L		131	60 - 140	4	20
1,1,2-Trichloroethane	50.0	52.7		ug/L		105	70 - 130	7	20
1,1-Dichloroethane	50.0	55.5		ug/L		111	70 - 150	0	20
1,1-Dichloroethene	50.0	53.7		ug/L		107	50 - 140	1	20
1,1-Dichloropropene	50.0	59.1		ug/L		118	60 - 140	2	20
1,2,3-Trichlorobenzene	50.0	47.7		ug/L		95	60 - 140	1	20
1,2,3-Trichloropropane	50.0	53.0		ug/L		106	60 - 140	9	20
1,2,4-Trichlorobenzene	50.0	48.5		ug/L		97	60 - 140	3	20
1,2,4-Trimethylbenzene	50.0	54.2		ug/L		108	60 - 140	5	20
1,2-Dibromo-3-Chloropropane	50.0	59.9		ug/L		120	60 - 140	7	20
1,2-Dichlorobenzene	50.0	51.6		ug/L		103	65 - 140	1	20
1,2-Dichloroethane	50.0	58.7		ug/L		117	70 - 130	3	20
1,2-Dichloropropane	50.0	55.9		ug/L		112	35 - 165	4	20
1,3-Dichlorobenzene	50.0	53.2		ug/L		106	70 - 130	1	20
1,3,5-Trimethylbenzene	50.0	53.7		ug/L		107	60 - 140	3	20
1,3-Dichloropropane	50.0	55.3		ug/L		111	60 - 140	11	20
1,4-Dichlorobenzene	50.0	51.8		ug/L		104	65 - 135	1	20
2,2-Dichloropropane	50.0	56.1		ug/L		112	60 - 140	1	20
2-Butanone (MEK)	50.0	56.7		ug/L		113	60 - 140	11	20
2-Chlorotoluene	50.0	58.0		ug/L		116	60 - 140	3	20
2-Hexanone	50.0	54.4		ug/L		109	60 - 140	18	20
4-Chlorotoluene	50.0	53.6		ug/L		107	60 - 140	0	20
4-Methyl-2-pentanone (MIBK)	50.0	56.4		ug/L		113	60 - 140	14	20
Acetone	50.0	64.4		ug/L		129	18 - 150	4	20
Benzene	50.0	57.6		ug/L		115	65 - 135	1	20
Bromobenzene	50.0	50.6		ug/L		101	60 - 140	0	20
Bromoform	50.0	51.2		ug/L		102	70 - 130	7	20
Bromomethane	50.0	123	E2 L5	ug/L		247	15 - 185	8	20
Carbon disulfide	50.0	53.8		ug/L		108	60 - 140	1	20
Carbon tetrachloride	50.0	54.0		ug/L		108	70 - 130	3	20

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 550-272876/4
Matrix: Water
Analysis Batch: 272876

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
Chlorobenzene	50.0	50.6		ug/L		101	65 - 135	6	20
Chlorobromomethane	50.0	45.9		ug/L		92	60 - 140	3	20
Chloroethane	50.0	95.7	L5	ug/L		191	40 - 160	6	20
Chloroform	50.0	53.9		ug/L		108	70 - 135	1	20
Chloromethane	50.0	67.5		ug/L		135	10 - 205	6	20
Chlorodibromomethane	50.0	51.0		ug/L		102	70 - 135	6	20
cis-1,2-Dichloroethene	50.0	56.2		ug/L		112	60 - 140	2	20
cis-1,3-Dichloropropene	50.0	57.3		ug/L		115	25 - 175	5	20
Dibromomethane	50.0	58.2		ug/L		116	70 - 130	4	20
Dichlorobromomethane	50.0	57.4		ug/L		115	65 - 135	1	20
Dichlorodifluoromethane	50.0	43.5		ug/L		87	60 - 140	1	20
Ethanol	1000	983		ug/L		98	60 - 140	18	20
Ethylbenzene	50.0	55.4		ug/L		111	60 - 140	5	20
Ethylene Dibromide	50.0	51.8		ug/L		104	60 - 140	10	20
Hexachlorobutadiene	50.0	43.4		ug/L		87	60 - 140	9	20
Iodomethane	50.0	48.1		ug/L		96	60 - 140	2	20
Isopropylbenzene	50.0	57.4		ug/L		115	60 - 140	5	20
Methyl tert-butyl ether	50.0	53.5		ug/L		107	60 - 140	7	20
Methylene Chloride	50.0	50.2		ug/L		100	60 - 140	1	20
m-Xylene & p-Xylene	50.0	55.0		ug/L		110	60 - 140	2	20
4-Isopropyltoluene	50.0	57.9		ug/L		116	60 - 140	5	20
Naphthalene	50.0	53.6		ug/L		107	60 - 140	0	20
n-Butylbenzene	50.0	64.2		ug/L		128	60 - 140	5	20
N-Propylbenzene	50.0	60.6		ug/L		121	60 - 140	4	20
o-Xylene	50.0	56.6		ug/L		113	60 - 140	2	20
sec-Butylbenzene	50.0	59.2		ug/L		118	60 - 140	5	20
Styrene	50.0	56.8		ug/L		114	60 - 140	1	20
tert-Butylbenzene	50.0	54.3		ug/L		109	60 - 140	5	20
Tetrachloroethene	50.0	47.2		ug/L		94	70 - 130	1	20
Toluene	50.0	53.9		ug/L		108	70 - 130	1	20
trans-1,2-Dichloroethene	50.0	51.7		ug/L		103	70 - 130	1	20
trans-1,3-Dichloropropene	50.0	59.1		ug/L		118	50 - 150	6	20
Trichloroethene	50.0	53.9		ug/L		108	65 - 135	0	20
Trichlorofluoromethane	50.0	53.1		ug/L		106	50 - 150	0	20
Vinyl acetate	50.0	53.0		ug/L		106	60 - 140	9	20
Vinyl chloride	50.0	75.3		ug/L		151	5 - 195	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*103*		*60 - 140*
Toluene-d8 (Surr)	*111*		*60 - 140*
4-Bromofluorobenzene (Surr)	*97*		*60 - 140*

Lab Sample ID: 550-182982-1 MS
Matrix: Water
Analysis Batch: 272876

Client Sample ID: INF-22M04-2
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	53.2		ug/L		106	50 - 150

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-182982-1 MS
Matrix: Water
Analysis Batch: 272876

Client Sample ID: INF-22M04-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	ND		50.0	53.4		ug/L		107	52 - 162
1,1,2,2-Tetrachloroethane	ND		50.0	62.9		ug/L		126	46 - 157
1,1,2-Trichloroethane	ND		50.0	54.0		ug/L		108	52 - 150
1,1-Dichloroethane	ND		50.0	56.8		ug/L		114	59 - 155
1,1-Dichloroethene	0.64		50.0	55.2		ug/L		109	10 - 234
1,1-Dichloropropene	ND		50.0	61.5		ug/L		123	50 - 150
1,2,3-Trichlorobenzene	ND		50.0	47.2		ug/L		94	50 - 150
1,2,3-Trichloropropane	ND		50.0	53.1		ug/L		106	50 - 150
1,2,4-Trichlorobenzene	ND	T5	50.0	46.8		ug/L		94	50 - 150
1,2,4-Trimethylbenzene	ND		50.0	54.2		ug/L		108	50 - 150
1,2-Dibromo-3-Chloropropane	ND		50.0	58.5		ug/L		117	50 - 150
1,2-Dichlorobenzene	ND		50.0	50.8		ug/L		101	18 - 190
1,2-Dichloroethane	ND		50.0	61.8		ug/L		124	49 - 155
1,2-Dichloropropane	ND		50.0	58.9		ug/L		118	10 - 210
1,3-Dichlorobenzene	ND		50.0	52.9		ug/L		105	59 - 156
1,3,5-Trimethylbenzene	ND		50.0	52.8		ug/L		106	50 - 150
1,3-Dichloropropane	ND		50.0	57.5		ug/L		115	50 - 150
1,4-Dichlorobenzene	ND		50.0	50.7		ug/L		101	18 - 190
2,2-Dichloropropane	ND		50.0	57.8		ug/L		116	50 - 150
2-Butanone (MEK)	ND		50.0	58.2		ug/L		116	50 - 150
2-Chlorotoluene	ND		50.0	57.2		ug/L		114	50 - 150
2-Hexanone	ND		50.0	59.5		ug/L		119	50 - 150
4-Chlorotoluene	ND		50.0	53.0		ug/L		105	50 - 150
4-Methyl-2-pentanone (MIBK)	ND		50.0	57.6		ug/L		115	50 - 150
Acetone	ND		50.0	68.6		ug/L		137	18 - 150
Benzene	ND		50.0	59.7		ug/L		119	35 - 151
Bromobenzene	ND		50.0	49.8		ug/L		100	50 - 150
Bromoform	ND		50.0	50.8		ug/L		102	45 - 169
Bromomethane	ND	L5 N1	50.0	126	E2 N1	ug/L		251	10 - 242
Carbon disulfide	ND		50.0	54.4		ug/L		109	50 - 150
Carbon tetrachloride	ND		50.0	56.0		ug/L		112	70 - 140
Chlorobenzene	ND		50.0	52.9		ug/L		105	37 - 160
Chlorobromomethane	ND		50.0	46.2		ug/L		92	50 - 150
Chloroethane	ND	L5	50.0	82.2		ug/L		164	14 - 230
Chloroform	0.82		50.0	55.6		ug/L		110	51 - 138
Chloromethane	ND		50.0	66.2		ug/L		132	10 - 273
Chlorodibromomethane	ND		50.0	53.2		ug/L		106	53 - 149
cis-1,2-Dichloroethene	4.1		50.0	61.3		ug/L		115	50 - 150
cis-1,3-Dichloropropene	ND		50.0	59.6		ug/L		119	10 - 227
Dibromomethane	ND		50.0	60.8		ug/L		122	50 - 150
Dichlorobromomethane	ND		50.0	59.8		ug/L		120	35 - 155
Dichlorodifluoromethane	ND		50.0	43.9		ug/L		88	50 - 150
Ethanol	ND		1000	984		ug/L		98	50 - 150
Ethylbenzene	ND		50.0	57.9		ug/L		116	37 - 162
Ethylene Dibromide	ND		50.0	54.3		ug/L		109	50 - 150
Hexachlorobutadiene	ND		50.0	42.6		ug/L		85	50 - 150
Iodomethane	ND		50.0	48.1		ug/L		96	50 - 150
Isopropylbenzene	ND		50.0	56.9		ug/L		114	50 - 150
Methyl tert-butyl ether	ND		50.0	54.3		ug/L		109	50 - 150

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-182982-1 MS
Matrix: Water
Analysis Batch: 272876

Client Sample ID: INF-22M04-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Methylene Chloride	ND		50.0	50.1		ug/L		100	10 - 221
m-Xylene & p-Xylene	ND		50.0	53.7		ug/L		107	50 - 150
4-Isopropyltoluene	ND		50.0	57.3		ug/L		115	50 - 150
Naphthalene	ND		50.0	51.5		ug/L		103	50 - 150
n-Butylbenzene	ND		50.0	63.0		ug/L		126	50 - 150
N-Propylbenzene	ND		50.0	59.3		ug/L		119	50 - 150
o-Xylene	ND		50.0	56.7		ug/L		113	50 - 150
sec-Butylbenzene	ND		50.0	58.1		ug/L		116	50 - 150
Styrene	ND		50.0	57.1		ug/L		114	50 - 150
tert-Butylbenzene	ND		50.0	54.2		ug/L		108	50 - 150
Tetrachloroethene	1.0		50.0	49.4		ug/L		97	64 - 148
Toluene	ND		50.0	55.9		ug/L		112	47 - 150
trans-1,2-Dichloroethene	ND		50.0	53.6		ug/L		107	54 - 156
trans-1,3-Dichloropropene	ND		50.0	59.8		ug/L		120	17 - 183
Trichloroethene	29		50.0	86.2		ug/L		115	70 - 157
Trichlorofluoromethane	ND		50.0	54.7		ug/L		109	17 - 181
Vinyl acetate	ND		50.0	51.4		ug/L		103	50 - 150
Vinyl chloride	ND		50.0	75.8		ug/L		152	10 - 251

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*90*		*60 - 140*
Toluene-d8 (Surr)	*100*		*60 - 140*
4-Bromofluorobenzene (Surr)	*97*		*60 - 140*

Lab Sample ID: 550-182982-1 MSD
Matrix: Water
Analysis Batch: 272876

Client Sample ID: INF-22M04-2
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	52.9		ug/L		106	50 - 150	0	35
1,1,1-Trichloroethane	ND		50.0	52.1		ug/L		104	52 - 162	2	36
1,1,2,2-Tetrachloroethane	ND		50.0	62.8		ug/L		126	46 - 157	0	61
1,1,2-Trichloroethane	ND		50.0	55.3		ug/L		111	52 - 150	2	45
1,1-Dichloroethane	ND		50.0	55.8		ug/L		112	59 - 155	2	40
1,1-Dichloroethene	0.64		50.0	53.2		ug/L		105	10 - 234	4	32
1,1-Dichloropropene	ND		50.0	59.3		ug/L		119	50 - 150	4	35
1,2,3-Trichlorobenzene	ND		50.0	47.0		ug/L		94	50 - 150	0	35
1,2,3-Trichloropropane	ND		50.0	53.1		ug/L		106	50 - 150	0	35
1,2,4-Trichlorobenzene	ND	T5	50.0	48.1		ug/L		96	50 - 150	3	35
1,2,4-Trimethylbenzene	ND		50.0	53.2		ug/L		106	50 - 150	2	35
1,2-Dibromo-3-Chloropropane	ND		50.0	58.0		ug/L		116	50 - 150	1	35
1,2-Dichlorobenzene	ND		50.0	51.1		ug/L		102	18 - 190	1	57
1,2-Dichloroethane	ND		50.0	61.1		ug/L		122	49 - 155	1	49
1,2-Dichloropropane	ND		50.0	58.7		ug/L		117	10 - 210	0	55
1,3-Dichlorobenzene	ND		50.0	52.1		ug/L		104	59 - 156	1	43
1,3,5-Trimethylbenzene	ND		50.0	52.5		ug/L		105	50 - 150	0	35
1,3-Dichloropropane	ND		50.0	57.5		ug/L		115	50 - 150	0	35
1,4-Dichlorobenzene	ND		50.0	51.6		ug/L		102	18 - 190	2	57

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-182982-1 MSD
Matrix: Water
Analysis Batch: 272876

Client Sample ID: INF-22M04-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,2-Dichloropropane	ND		50.0	55.5		ug/L		111	50 - 150	4	35
2-Butanone (MEK)	ND		50.0	57.5		ug/L		115	50 - 150	1	35
2-Chlorotoluene	ND		50.0	56.8		ug/L		114	50 - 150	1	35
2-Hexanone	ND		50.0	58.1		ug/L		116	50 - 150	2	35
4-Chlorotoluene	ND		50.0	52.9		ug/L		105	50 - 150	0	35
4-Methyl-2-pentanone (MIBK)	ND		50.0	57.5		ug/L		115	50 - 150	0	35
Acetone	ND		50.0	69.7		ug/L		139	18 - 150	2	35
Benzene	ND		50.0	59.0		ug/L		118	35 - 151	1	61
Bromobenzene	ND		50.0	50.4		ug/L		101	50 - 150	1	35
Bromoform	ND		50.0	52.4		ug/L		105	45 - 169	3	42
Bromomethane	ND	L5 N1	50.0	124	E2 N1	ug/L		248	10 - 242	1	61
Carbon disulfide	ND		50.0	53.5		ug/L		107	50 - 150	2	35
Carbon tetrachloride	ND		50.0	54.4		ug/L		109	70 - 140	3	41
Chlorobenzene	ND		50.0	52.5		ug/L		105	37 - 160	1	53
Chlorobromomethane	ND		50.0	47.6		ug/L		95	50 - 150	3	35
Chloroethane	ND	L5	50.0	83.6		ug/L		167	14 - 230	2	78
Chloroform	0.82		50.0	56.3		ug/L		111	51 - 138	1	54
Chloromethane	ND		50.0	66.8		ug/L		134	10 - 273	1	60
Chlorodibromomethane	ND		50.0	53.3		ug/L		107	53 - 149	0	50
cis-1,2-Dichloroethene	4.1		50.0	60.8		ug/L		113	50 - 150	1	35
cis-1,3-Dichloropropene	ND		50.0	59.6		ug/L		119	10 - 227	0	58
Dibromomethane	ND		50.0	59.9		ug/L		120	50 - 150	1	35
Dichlorobromomethane	ND		50.0	59.0		ug/L		118	35 - 155	1	56
Dichlorodifluoromethane	ND		50.0	43.4		ug/L		87	50 - 150	1	35
Ethanol	ND		1000	870		ug/L		87	50 - 150	12	35
Ethylbenzene	ND		50.0	56.1		ug/L		112	37 - 162	3	63
Ethylene Dibromide	ND		50.0	54.4		ug/L		109	50 - 150	0	35
Hexachlorobutadiene	ND		50.0	41.4		ug/L		83	50 - 150	3	35
Iodomethane	ND		50.0	47.9		ug/L		96	50 - 150	0	35
Isopropylbenzene	ND		50.0	56.0		ug/L		112	50 - 150	2	35
Methyl tert-butyl ether	ND		50.0	54.7		ug/L		109	50 - 150	1	35
Methylene Chloride	ND		50.0	50.7		ug/L		101	10 - 221	1	28
m-Xylene & p-Xylene	ND		50.0	53.5		ug/L		107	50 - 150	0	35
4-Isopropyltoluene	ND		50.0	55.1		ug/L		110	50 - 150	4	35
Naphthalene	ND		50.0	52.8		ug/L		106	50 - 150	3	35
n-Butylbenzene	ND		50.0	60.5		ug/L		121	50 - 150	4	35
N-Propylbenzene	ND		50.0	59.0		ug/L		118	50 - 150	0	35
o-Xylene	ND		50.0	55.6		ug/L		111	50 - 150	2	35
sec-Butylbenzene	ND		50.0	56.9		ug/L		114	50 - 150	2	35
Styrene	ND		50.0	56.9		ug/L		114	50 - 150	0	35
tert-Butylbenzene	ND		50.0	53.1		ug/L		106	50 - 150	2	35
Tetrachloroethene	1.0		50.0	48.2		ug/L		94	64 - 148	3	39
Toluene	ND		50.0	55.0		ug/L		110	47 - 150	2	41
trans-1,2-Dichloroethene	ND		50.0	51.3		ug/L		103	54 - 156	4	45
trans-1,3-Dichloropropene	ND		50.0	60.4		ug/L		121	17 - 183	1	86
Trichloroethene	29		50.0	85.2		ug/L		113	70 - 157	1	48
Trichlorofluoromethane	ND		50.0	53.6		ug/L		107	17 - 181	2	84
Vinyl acetate	ND		50.0	52.1		ug/L		104	50 - 150	1	35
Vinyl chloride	ND		50.0	74.0		ug/L		148	10 - 251	2	66

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Dibromofluoromethane (Surr)	88		60 - 140
Toluene-d8 (Surr)	96		60 - 140
4-Bromofluorobenzene (Surr)	96		60 - 140

QC Association Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-182982-1

GC/MS VOA

Analysis Batch: 272876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-182982-1	INF-22M04-2	Total/NA	Water	624.1	
550-182982-2	EFF-22M04-2	Total/NA	Water	624.1	
550-182982-3	TB-22M04-2	Total/NA	Water	624.1	
MB 550-272876/6	Method Blank	Total/NA	Water	624.1	
LCS 550-272876/3	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-272876/4	Lab Control Sample Dup	Total/NA	Water	624.1	
550-182982-1 MS	INF-22M04-2	Total/NA	Water	624.1	
550-182982-1 MSD	INF-22M04-2	Total/NA	Water	624.1	

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-182982-1

Client Sample ID: INF-22M04-2

Lab Sample ID: 550-182982-1

Date Collected: 04/25/22 09:40
Date Received: 04/25/22 13:28

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	272876	04/29/22 22:12	ZN1	TAL PHX

Client Sample ID: EFF-22M04-2

Lab Sample ID: 550-182982-2

Date Collected: 04/25/22 09:45
Date Received: 04/25/22 13:28

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	272876	04/29/22 22:33	ZN1	TAL PHX

Client Sample ID: TB-22M04-2

Lab Sample ID: 550-182982-3

Date Collected: 04/25/22 08:00
Date Received: 04/25/22 13:28

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	272876	04/29/22 22:53	ZN1	TAL PHX

Laboratory References:

TAL PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-182982-1

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
624.1		Water	1,2,4-Trichlorobenzene
624.1		Water	Trihalomethanes, Total

Method Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-182982-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

Laboratory References:

TAL PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

182 982

4/30/2022

Test America Phoenix
4625 East Cotton CTr Blvd Suite 189
Phoenix, AZ 85040
602-437-3340

Honeywell — Chain Of Custody / Analysis Request

AESI Ref:	44676.42983
COC#	37553-842522
Lab Proj # (SDG):	
Lab ID	TAL-PHX
Site ID	DEERV
Lab Job #	
Authorized User:	Honeywell

Text & Excel File Drive | Excel & Text File Order

Copyright AESI: Version 10.0 (11-26-08) Unauthorized use strictly prohibited.

Privileged & Confidential		55014762	
Site Name:	Deer Valley	Phase:	
Location of Site:	Phoenix AZ.	Sampling Program	Monthly Groundwater Monitoring Program
Sampling Co.:	Jacobs	EDD To:	Bernice Kidd, Jacobs HTS
Client Contact: (name, co., address)	Jacobs, 1501 W. Fountainhead Parkway (suite 401), Tempe, AZ 85282	Sampler:	T. Kearsley
		PO #	4500178520
Preliminary Data To	Berney Kidd Jacobs, Lakshmi Devi HTS	Analysis Turnaround Time (TAT):	3
		Consultant	Jacobs
Sample Receipt Acknowledgement To	Site Distribution List	Laboratory Contact	Rachel Sester
Hard Copy To	Berney Kidd Jacobs	Report Tier Level	2
Invoice To:	Mike Heitmann, Honeywell/Copy Berney Kidd	Full Report TAT:	10
			HTS

	Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	E624 (Total VOCs)	E300 0 (Nitrite-Nitrate)	MS/MSD	Sampling Method (code)	Lab Sample Numbers
	Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID							Units		Preservative	8			
1	Influent			INF-22M04-2	4/25/2022	9:40	GW-GWS	WATER	REG	3	grab	N	X				-1
2	Effluent			EFF-22M04-2	4/25/2022	9:45	GW-GWS	WATER	REG	3	grab	N	X				-2
3	TRIPBLANK			TB-22M04-2	4/25/2022	8:00	GW-GWS	WATER	REG	1	grab	N	X				-3
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	

550-182982 Chain of Custody

RUSH!

Relinquished by	T. Kearsley	Company	Jacobs	Received by	Company	Condition	Custody Seals Intact
		Date/Time	4/25/22 13:28		Date/Time	Cooler Temp.	
Relinquished by		Company		Received by	Company	Condition	Custody Seals Intact
		Date/Time			Date/Time 4/25/22 1328	Cooler Temp. 0.9	on ice

Preservatives: (Other; Specify):

0 (none); 1 (4 Deg C); 2 (HCl, pH<2); 3 (HNO3, pH<2); 4 (H2SO4, pH<2); 5 (NaOH, pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4, pH<2, 4 Deg C)); 8 (HCl, pH<2, 4 Deg C); 9 (HCl, 4 Deg C); 10 (HNO3, pH<2, 4 Deg C); 11 (NaOH, pH>12, 4 Deg, Ascorbic Acid); 12 (H2SO4, Na2S2O3, 4 Deg C, pH<2); 13 (Zn Acetate); 14 (1-MeOH, 4 Deg C and 2-NaHSO4, 4 Deg C): 15 (NaOH, pH>12, 4 Deg C); sp (special instructions)

Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 550-182982-1

Login Number: 182982
List Number: 1
Creator: Maycock, Lisa

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.

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-183540-1
Client Project/Site: Deer Valley

For:
Honeywell International Inc
1944 E. Sky Harbor Circle MS 2101-2C
Phoenix, Arizona 85034

Attn: Tao Wu

Authorized for release by:
5/19/2022 6:26:16 PM

Rachel Sester, Project Manager I
(602)659-7615
Rachel.Sester@et.eurofinsus.com

LINKS

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www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Sample Summary 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 16
QC Sample Results 17
QC Association Summary 29
Lab Chronicle 30
Certification Summary 31
Method Summary 32
Chain of Custody 33
Receipt Checklists 34

Definitions/Glossary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-183540-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
L4	The associated blank spike recovery was below method acceptance limits.
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
N1	See case narrative.
R1	RPD/RSD exceeded the method acceptance limit. See case narrative.
T2	Cited ADHS licensed method does not contain this analyte as part of the method compound list.
T5	Laboratory not licensed for this parameter

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: 550-183540-1

Laboratory: Eurofins Phoenix

Narrative

Job Narrative
550-183540-1

Comments
No additional comments.

Receipt
The samples were received on 5/4/2022 2:36 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.8º C.

GC/MS VOA
Method 624.1: Toluene-d8, 4-Bromofluorobenzene, and Dibromofluoromethane (surrogates) were inadvertently omitted during the preparation of the following MS/MSD. The data was reported with N1 flag.
(550-183540-B-1 MS) and (550-183540-B-1 MSD)

Method 624.1: The RPD of the laboratory control sample and laboratory control sample duplicate (LCS/LCSD) and % Recovery (%R) of the LCSD for batch 550-274477 recovered outside control limits, low for Dichlorodifluoromethane. All other QC have acceptable results and Dichlorodifluoromethane was non-detected in the associated samples; therefore, the data is not impacted and will be reported. The LCSD and samples will be flagged with L4 and an R1 qualifier.

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

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

Sample Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-183540-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-183540-1	INF-22M05	Water	05/04/22 10:18	05/04/22 14:36
550-183540-2	EFF-22M05	Water	05/04/22 10:05	05/04/22 14:36
550-183540-3	GAC-2A-100-22M05	Water	05/04/22 10:13	05/04/22 14:36
550-183540-4	GAC-2B-75-22M05	Water	05/04/22 10:10	05/04/22 14:36
550-183540-5	TB-22M05	Water	05/04/22 08:00	05/04/22 14:36

Detection Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-183540-1

Client Sample ID: INF-22M05 — Lab Sample ID: 550-183540-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,2,3-Trichlorobenzene	3.0		3.0		ug/L	1		624.1	Total/NA
Chloroform	0.61		0.50		ug/L	1		624.1	Total/NA
cis-1,2-Dichloroethene	4.7		0.50		ug/L	1		624.1	Total/NA
Tetrachloroethene	0.96		0.50		ug/L	1		624.1	Total/NA
Trichloroethene	28		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	0.61	T5	0.50		ug/L	1		624.1	Total/NA

Client Sample ID: EFF-22M05 — Lab Sample ID: 550-183540-2

No Detections.

Client Sample ID: GAC-2A-100-22M05 — Lab Sample ID: 550-183540-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	1.0		0.50		ug/L	1		624.1	Total/NA
cis-1,2-Dichloroethene	2.8		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	1.0	T5	0.50		ug/L	1		624.1	Total/NA

Client Sample ID: GAC-2B-75-22M05 — Lab Sample ID: 550-183540-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.59		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	0.59	T5	0.50		ug/L	1		624.1	Total/NA

Client Sample ID: TB-22M05 — Lab Sample ID: 550-183540-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-183540-1

Client Sample ID: INF-22M05

Date Collected: 05/04/22 10:18
Date Received: 05/04/22 14:36

Lab Sample ID: 550-183540-1

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			05/07/22 14:44	1
1,1,1-Trichloroethane	ND		0.50		ug/L			05/07/22 14:44	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			05/07/22 14:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	M1 T5	5.0		ug/L			05/07/22 14:44	1
1,1,2-Trichloroethane	ND		0.50		ug/L			05/07/22 14:44	1
1,1-Dichloroethane	ND		0.50		ug/L			05/07/22 14:44	1
1,1-Dichloroethene	ND		0.50		ug/L			05/07/22 14:44	1
1,1-Dichloropropene	ND		0.50		ug/L			05/07/22 14:44	1
1,2,3-Trichlorobenzene	**3.0**		3.0		ug/L			05/07/22 14:44	1
1,2,3-Trichloropropane	ND		2.0		ug/L			05/07/22 14:44	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0		ug/L			05/07/22 14:44	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			05/07/22 14:44	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/07/22 14:44	1
1,2-Dichlorobenzene	ND		0.50		ug/L			05/07/22 14:44	1
1,2-Dichloroethane	ND		0.50		ug/L			05/07/22 14:44	1
1,2-Dichloropropane	ND		0.50		ug/L			05/07/22 14:44	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			05/07/22 14:44	1
1,3-Dichlorobenzene	ND		0.50		ug/L			05/07/22 14:44	1
1,3-Dichloropropane	ND		0.50		ug/L			05/07/22 14:44	1
1,4-Dichlorobenzene	ND		0.50		ug/L			05/07/22 14:44	1
2,2-Dichloropropane	ND		1.0		ug/L			05/07/22 14:44	1
2-Butanone (MEK)	ND		10		ug/L			05/07/22 14:44	1
2-Chlorotoluene	ND		0.50		ug/L			05/07/22 14:44	1
2-Hexanone	ND		5.0		ug/L			05/07/22 14:44	1
4-Chlorotoluene	ND		0.50		ug/L			05/07/22 14:44	1
4-Isopropyltoluene	ND		0.50		ug/L			05/07/22 14:44	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			05/07/22 14:44	1
Acetone	ND	M1	10		ug/L			05/07/22 14:44	1
Benzene	ND		0.50		ug/L			05/07/22 14:44	1
Bromobenzene	ND		1.0		ug/L			05/07/22 14:44	1
Bromoform	ND		1.0		ug/L			05/07/22 14:44	1
Bromomethane	ND		5.0		ug/L			05/07/22 14:44	1
Carbon disulfide	ND		5.0		ug/L			05/07/22 14:44	1
Carbon tetrachloride	ND	M1	0.50		ug/L			05/07/22 14:44	1
Chlorobenzene	ND		0.50		ug/L			05/07/22 14:44	1
Chlorobromomethane	ND		0.50		ug/L			05/07/22 14:44	1
Chlorodibromomethane	ND		0.50		ug/L			05/07/22 14:44	1
Chloroethane	ND		1.0		ug/L			05/07/22 14:44	1
Chloroform	**0.61**		0.50		ug/L			05/07/22 14:44	1
Chloromethane	ND		1.0		ug/L			05/07/22 14:44	1
cis-1,2-Dichloroethene	**4.7**		0.50		ug/L			05/07/22 14:44	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			05/07/22 14:44	1
Dibromomethane	ND		0.50		ug/L			05/07/22 14:44	1
Dichlorobromomethane	ND		0.50		ug/L			05/07/22 14:44	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/17/22 21:21	1
Ethanol	ND		150		ug/L			05/07/22 14:44	1
Ethylbenzene	ND		0.50		ug/L			05/07/22 14:44	1
Ethylene Dibromide	ND		0.50		ug/L			05/07/22 14:44	1
Hexachlorobutadiene	ND		5.0		ug/L			05/07/22 14:44	1

Client Sample ID: INF-22M05

Lab Sample ID: 550-183540-1

Date Collected: 05/04/22 10:18

Matrix: Water

Date Received: 05/04/22 14:36

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND		2.0		ug/L			05/07/22 14:44	1
Isopropylbenzene	ND		0.50		ug/L			05/07/22 14:44	1
Methyl tert-butyl ether	ND		0.50		ug/L			05/07/22 14:44	1
Methylene Chloride	ND		5.0		ug/L			05/07/22 14:44	1
m-Xylene & p-Xylene	ND		1.0		ug/L			05/07/22 14:44	1
Naphthalene	ND		5.0		ug/L			05/07/22 14:44	1
n-Butylbenzene	ND		1.0		ug/L			05/07/22 14:44	1
N-Propylbenzene	ND		0.50		ug/L			05/07/22 14:44	1
o-Xylene	ND		0.50		ug/L			05/07/22 14:44	1
sec-Butylbenzene	ND		0.50		ug/L			05/07/22 14:44	1
Styrene	ND		1.0		ug/L			05/07/22 14:44	1
tert-Butylbenzene	ND		0.50		ug/L			05/07/22 14:44	1
Tetrachloroethene	**0.96**		0.50		ug/L			05/07/22 14:44	1
Toluene	ND		0.50		ug/L			05/07/22 14:44	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			05/07/22 14:44	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			05/07/22 14:44	1
Trichloroethene	**28**		0.50		ug/L			05/07/22 14:44	1
Trichlorofluoromethane	ND		1.0		ug/L			05/07/22 14:44	1
Trihalomethanes, Total	**0.61**	**T5**	0.50		ug/L			05/07/22 14:44	1
Vinyl acetate	ND		5.0		ug/L			05/07/22 14:44	1
Vinyl chloride	ND		1.0		ug/L			05/07/22 14:44	1
Xylenes, Total	ND		0.50		ug/L			05/07/22 14:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*68*		*60 - 140*		*05/07/22 14:44*	*1*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*05/17/22 21:21*	*1*
4-Bromofluorobenzene (Surr)	*79*		*60 - 140*		*05/18/22 17:04*	*1*
Dibromofluoromethane (Surr)	*101*		*60 - 140*		*05/07/22 14:44*	*1*
Dibromofluoromethane (Surr)	*98*		*60 - 140*		*05/17/22 21:21*	*1*
Dibromofluoromethane (Surr)	*101*		*60 - 140*		*05/18/22 17:04*	*1*
Toluene-d8 (Surr)	*91*		*60 - 140*		*05/07/22 14:44*	*1*
Toluene-d8 (Surr)	*82*		*60 - 140*		*05/17/22 21:21*	*1*
Toluene-d8 (Surr)	*83*		*60 - 140*		*05/18/22 17:04*	*1*

Client Sample ID: EFF-22M05

Lab Sample ID: 550-183540-2

Date Collected: 05/04/22 10:05

Matrix: Water

Date Received: 05/04/22 14:36

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			05/07/22 15:49	1
1,1,1-Trichloroethane	ND		0.50		ug/L			05/07/22 15:49	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			05/07/22 15:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			05/07/22 15:49	1
1,1,2-Trichloroethane	ND		0.50		ug/L			05/07/22 15:49	1
1,1-Dichloroethane	ND		0.50		ug/L			05/07/22 15:49	1
1,1-Dichloroethene	ND		0.50		ug/L			05/07/22 15:49	1
1,1-Dichloropropene	ND		0.50		ug/L			05/07/22 15:49	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			05/07/22 15:49	1
1,2,3-Trichloropropane	ND		2.0		ug/L			05/07/22 15:49	1

Client Sample ID: EFF-22M05

Lab Sample ID: 550-183540-2

Date Collected: 05/04/22 10:05

Matrix: Water

Date Received: 05/04/22 14:36

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND	T2 T5	2.0		ug/L			05/07/22 15:49	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			05/07/22 15:49	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/07/22 15:49	1
1,2-Dichlorobenzene	ND		0.50		ug/L			05/07/22 15:49	1
1,2-Dichloroethane	ND		0.50		ug/L			05/07/22 15:49	1
1,2-Dichloropropane	ND		0.50		ug/L			05/07/22 15:49	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			05/07/22 15:49	1
1,3-Dichlorobenzene	ND		0.50		ug/L			05/07/22 15:49	1
1,3-Dichloropropane	ND		0.50		ug/L			05/07/22 15:49	1
1,4-Dichlorobenzene	ND		0.50		ug/L			05/07/22 15:49	1
2,2-Dichloropropane	ND		1.0		ug/L			05/07/22 15:49	1
2-Butanone (MEK)	ND		10		ug/L			05/07/22 15:49	1
2-Chlorotoluene	ND		0.50		ug/L			05/07/22 15:49	1
2-Hexanone	ND		5.0		ug/L			05/07/22 15:49	1
4-Chlorotoluene	ND		0.50		ug/L			05/07/22 15:49	1
4-Isopropyltoluene	ND		0.50		ug/L			05/07/22 15:49	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			05/07/22 15:49	1
Acetone	ND		10		ug/L			05/07/22 15:49	1
Benzene	ND		0.50		ug/L			05/07/22 15:49	1
Bromobenzene	ND		1.0		ug/L			05/07/22 15:49	1
Bromoform	ND		1.0		ug/L			05/07/22 15:49	1
Bromomethane	ND		5.0		ug/L			05/07/22 15:49	1
Carbon disulfide	ND		5.0		ug/L			05/07/22 15:49	1
Carbon tetrachloride	ND		0.50		ug/L			05/07/22 15:49	1
Chlorobenzene	ND		0.50		ug/L			05/07/22 15:49	1
Chlorobromomethane	ND		0.50		ug/L			05/07/22 15:49	1
Chlorodibromomethane	ND		0.50		ug/L			05/07/22 15:49	1
Chloroethane	ND		1.0		ug/L			05/07/22 15:49	1
Chloroform	ND		0.50		ug/L			05/07/22 15:49	1
Chloromethane	ND		1.0		ug/L			05/07/22 15:49	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/07/22 15:49	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			05/07/22 15:49	1
Dibromomethane	ND		0.50		ug/L			05/07/22 15:49	1
Dichlorobromomethane	ND		0.50		ug/L			05/07/22 15:49	1
Dichlorodifluoromethane	ND	L4 R1	1.0		ug/L			05/18/22 17:25	1
Ethanol	ND		150		ug/L			05/07/22 15:49	1
Ethylbenzene	ND		0.50		ug/L			05/07/22 15:49	1
Ethylene Dibromide	ND		0.50		ug/L			05/07/22 15:49	1
Hexachlorobutadiene	ND		5.0		ug/L			05/07/22 15:49	1
Iodomethane	ND		2.0		ug/L			05/07/22 15:49	1
Isopropylbenzene	ND		0.50		ug/L			05/07/22 15:49	1
Methyl tert-butyl ether	ND		0.50		ug/L			05/07/22 15:49	1
Methylene Chloride	ND		5.0		ug/L			05/07/22 15:49	1
m-Xylene & p-Xylene	ND		1.0		ug/L			05/07/22 15:49	1
Naphthalene	ND		5.0		ug/L			05/07/22 15:49	1
n-Butylbenzene	ND		1.0		ug/L			05/07/22 15:49	1
N-Propylbenzene	ND		0.50		ug/L			05/07/22 15:49	1
o-Xylene	ND		0.50		ug/L			05/07/22 15:49	1
sec-Butylbenzene	ND		0.50		ug/L			05/07/22 15:49	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-183540-1

Client Sample ID: EFF-22M05

Lab Sample ID: 550-183540-2
Date Collected: 05/04/22 10:05
Matrix: Water
Date Received: 05/04/22 14:36

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	ug/L			05/07/22 15:49	1
tert-Butylbenzene	ND		0.50	ug/L			05/07/22 15:49	1
Tetrachloroethene	ND		0.50	ug/L			05/07/22 15:49	1
Toluene	ND		0.50	ug/L			05/07/22 15:49	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			05/07/22 15:49	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			05/07/22 15:49	1
Trichloroethene	ND		0.50	ug/L			05/07/22 15:49	1
Trichlorofluoromethane	ND		1.0	ug/L			05/07/22 15:49	1
Trihalomethanes, Total	ND	T5	0.50	ug/L			05/07/22 15:49	1
Vinyl acetate	ND		5.0	ug/L			05/07/22 15:49	1
Vinyl chloride	ND		1.0	ug/L			05/07/22 15:49	1
Xylenes, Total	ND		0.50	ug/L			05/07/22 15:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*70*		*60 - 140*		*05/07/22 15:49*	*1*
4-Bromofluorobenzene (Surr)	*82*		*60 - 140*		*05/18/22 17:25*	*1*
Dibromofluoromethane (Surr)	*113*		*60 - 140*		*05/07/22 15:49*	*1*
Dibromofluoromethane (Surr)	*86*		*60 - 140*		*05/18/22 17:25*	*1*
Toluene-d8 (Surr)	*93*		*60 - 140*		*05/07/22 15:49*	*1*
Toluene-d8 (Surr)	*90*		*60 - 140*		*05/18/22 17:25*	*1*

Client Sample ID: GAC-2A-100-22M05

Lab Sample ID: 550-183540-3
Date Collected: 05/04/22 10:13
Matrix: Water
Date Received: 05/04/22 14:36

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			05/07/22 16:10	1
1,1,1-Trichloroethane	ND		0.50	ug/L			05/07/22 16:10	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			05/07/22 16:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			05/07/22 16:10	1
1,1,2-Trichloroethane	ND		0.50	ug/L			05/07/22 16:10	1
1,1-Dichloroethane	ND		0.50	ug/L			05/07/22 16:10	1
1,1-Dichloroethene	ND		0.50	ug/L			05/07/22 16:10	1
1,1-Dichloropropene	ND		0.50	ug/L			05/07/22 16:10	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			05/07/22 16:10	1
1,2,3-Trichloropropane	ND		2.0	ug/L			05/07/22 16:10	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0	ug/L			05/07/22 16:10	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			05/07/22 16:10	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			05/07/22 16:10	1
1,2-Dichlorobenzene	ND		0.50	ug/L			05/07/22 16:10	1
1,2-Dichloroethane	ND		0.50	ug/L			05/07/22 16:10	1
1,2-Dichloropropane	ND		0.50	ug/L			05/07/22 16:10	1
1,3,5-Trimethylbenzene	ND		0.50	ug/L			05/07/22 16:10	1
1,3-Dichlorobenzene	ND		0.50	ug/L			05/07/22 16:10	1
1,3-Dichloropropane	ND		0.50	ug/L			05/07/22 16:10	1
1,4-Dichlorobenzene	ND		0.50	ug/L			05/07/22 16:10	1
2,2-Dichloropropane	ND		1.0	ug/L			05/07/22 16:10	1
2-Butanone (MEK)	ND		10	ug/L			05/07/22 16:10	1
2-Chlorotoluene	ND		0.50	ug/L			05/07/22 16:10	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-183540-1

Client Sample ID: GAC-2A-100-22M05

Lab Sample ID: 550-183540-3

Date Collected: 05/04/22 10:13
Matrix: Water
Date Received: 05/04/22 14:36

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	ND		5.0		ug/L			05/07/22 16:10	1
4-Chlorotoluene	ND		0.50		ug/L			05/07/22 16:10	1
4-Isopropyltoluene	ND		0.50		ug/L			05/07/22 16:10	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			05/07/22 16:10	1
Acetone	ND		10		ug/L			05/07/22 16:10	1
Benzene	ND		0.50		ug/L			05/07/22 16:10	1
Bromobenzene	ND		1.0		ug/L			05/07/22 16:10	1
Bromoform	ND		1.0		ug/L			05/07/22 16:10	1
Bromomethane	ND		5.0		ug/L			05/07/22 16:10	1
Carbon disulfide	ND		5.0		ug/L			05/07/22 16:10	1
Carbon tetrachloride	ND		0.50		ug/L			05/07/22 16:10	1
Chlorobenzene	ND		0.50		ug/L			05/07/22 16:10	1
Chlorobromomethane	ND		0.50		ug/L			05/07/22 16:10	1
Chlorodibromomethane	ND		0.50		ug/L			05/07/22 16:10	1
Chloroethane	ND		1.0		ug/L			05/07/22 16:10	1
Chloroform	**1.0**		0.50		ug/L			05/07/22 16:10	1
Chloromethane	ND		1.0		ug/L			05/07/22 16:10	1
cis-1,2-Dichloroethene	**2.8**		0.50		ug/L			05/07/22 16:10	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			05/07/22 16:10	1
Dibromomethane	ND		0.50		ug/L			05/07/22 16:10	1
Dichlorobromomethane	ND		0.50		ug/L			05/07/22 16:10	1
Dichlorodifluoromethane	ND	L4 R1	1.0		ug/L			05/18/22 17:47	1
Ethanol	ND		150		ug/L			05/07/22 16:10	1
Ethylbenzene	ND		0.50		ug/L			05/07/22 16:10	1
Ethylene Dibromide	ND		0.50		ug/L			05/07/22 16:10	1
Hexachlorobutadiene	ND		5.0		ug/L			05/07/22 16:10	1
Iodomethane	ND		2.0		ug/L			05/07/22 16:10	1
Isopropylbenzene	ND		0.50		ug/L			05/07/22 16:10	1
Methyl tert-butyl ether	ND		0.50		ug/L			05/07/22 16:10	1
Methylene Chloride	ND		5.0		ug/L			05/07/22 16:10	1
m-Xylene & p-Xylene	ND		1.0		ug/L			05/07/22 16:10	1
Naphthalene	ND		5.0		ug/L			05/07/22 16:10	1
n-Butylbenzene	ND		1.0		ug/L			05/07/22 16:10	1
N-Propylbenzene	ND		0.50		ug/L			05/07/22 16:10	1
o-Xylene	ND		0.50		ug/L			05/07/22 16:10	1
sec-Butylbenzene	ND		0.50		ug/L			05/07/22 16:10	1
Styrene	ND		1.0		ug/L			05/07/22 16:10	1
tert-Butylbenzene	ND		0.50		ug/L			05/07/22 16:10	1
Tetrachloroethene	ND		0.50		ug/L			05/07/22 16:10	1
Toluene	ND		0.50		ug/L			05/07/22 16:10	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			05/07/22 16:10	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			05/07/22 16:10	1
Trichloroethene	ND		0.50		ug/L			05/07/22 16:10	1
Trichlorofluoromethane	ND		1.0		ug/L			05/07/22 16:10	1
Trihalomethanes, Total	**1.0**	**T5**	0.50		ug/L			05/07/22 16:10	1
Vinyl acetate	ND		5.0		ug/L			05/07/22 16:10	1
Vinyl chloride	ND		1.0		ug/L			05/07/22 16:10	1
Xylenes, Total	ND		0.50		ug/L			05/07/22 16:10	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-183540-1

Client Sample ID: GAC-2A-100-22M05

Lab Sample ID: 550-183540-3
Date Collected: 05/04/22 10:13
Matrix: Water
Date Received: 05/04/22 14:36

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*64*		*60 - 140*		*05/07/22 16:10*	*1*
4-Bromofluorobenzene (Surr)	*83*		*60 - 140*		*05/18/22 17:47*	*1*
Dibromofluoromethane (Surr)	*104*		*60 - 140*		*05/07/22 16:10*	*1*
Dibromofluoromethane (Surr)	*96*		*60 - 140*		*05/18/22 17:47*	*1*
Toluene-d8 (Surr)	*93*		*60 - 140*		*05/07/22 16:10*	*1*
Toluene-d8 (Surr)	*83*		*60 - 140*		*05/18/22 17:47*	*1*

Client Sample ID: GAC-2B-75-22M05

Lab Sample ID: 550-183540-4
Date Collected: 05/04/22 10:10
Matrix: Water
Date Received: 05/04/22 14:36

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			05/07/22 16:32	1
1,1,1-Trichloroethane	ND		0.50	ug/L			05/07/22 16:32	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			05/07/22 16:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			05/07/22 16:32	1
1,1,2-Trichloroethane	ND		0.50	ug/L			05/07/22 16:32	1
1,1-Dichloroethane	ND		0.50	ug/L			05/07/22 16:32	1
1,1-Dichloroethene	ND		0.50	ug/L			05/07/22 16:32	1
1,1-Dichloropropene	ND		0.50	ug/L			05/07/22 16:32	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			05/07/22 16:32	1
1,2,3-Trichloropropane	ND		2.0	ug/L			05/07/22 16:32	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0	ug/L			05/07/22 16:32	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			05/07/22 16:32	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			05/07/22 16:32	1
1,2-Dichlorobenzene	ND		0.50	ug/L			05/07/22 16:32	1
1,2-Dichloroethane	ND		0.50	ug/L			05/07/22 16:32	1
1,2-Dichloropropane	ND		0.50	ug/L			05/07/22 16:32	1
1,3,5-Trimethylbenzene	ND		0.50	ug/L			05/07/22 16:32	1
1,3-Dichlorobenzene	ND		0.50	ug/L			05/07/22 16:32	1
1,3-Dichloropropane	ND		0.50	ug/L			05/07/22 16:32	1
1,4-Dichlorobenzene	ND		0.50	ug/L			05/07/22 16:32	1
2,2-Dichloropropane	ND		1.0	ug/L			05/07/22 16:32	1
2-Butanone (MEK)	ND		10	ug/L			05/07/22 16:32	1
2-Chlorotoluene	ND		0.50	ug/L			05/07/22 16:32	1
2-Hexanone	ND		5.0	ug/L			05/07/22 16:32	1
4-Chlorotoluene	ND		0.50	ug/L			05/07/22 16:32	1
4-Isopropyltoluene	ND		0.50	ug/L			05/07/22 16:32	1
4-Methyl-2-pentanone (MIBK)	ND		2.5	ug/L			05/07/22 16:32	1
Acetone	ND		10	ug/L			05/07/22 16:32	1
Benzene	ND		0.50	ug/L			05/07/22 16:32	1
Bromobenzene	ND		1.0	ug/L			05/07/22 16:32	1
Bromoform	ND		1.0	ug/L			05/07/22 16:32	1
Bromomethane	ND		5.0	ug/L			05/07/22 16:32	1
Carbon disulfide	ND		5.0	ug/L			05/07/22 16:32	1
Carbon tetrachloride	ND		0.50	ug/L			05/07/22 16:32	1
Chlorobenzene	ND		0.50	ug/L			05/07/22 16:32	1
Chlorobromomethane	ND		0.50	ug/L			05/07/22 16:32	1
Chlorodibromomethane	ND		0.50	ug/L			05/07/22 16:32	1

Client Sample ID: GAC-2B-75-22M05

Lab Sample ID: 550-183540-4

Date Collected: 05/04/22 10:10
Matrix: Water
Date Received: 05/04/22 14:36

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	ND		1.0		ug/L			05/07/22 16:32	1
Chloroform	**0.59**		0.50		ug/L			05/07/22 16:32	1
Chloromethane	ND		1.0		ug/L			05/07/22 16:32	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/07/22 16:32	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			05/07/22 16:32	1
Dibromomethane	ND		0.50		ug/L			05/07/22 16:32	1
Dichlorobromomethane	ND		0.50		ug/L			05/07/22 16:32	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/17/22 17:00	1
Ethanol	ND		150		ug/L			05/07/22 16:32	1
Ethylbenzene	ND		0.50		ug/L			05/07/22 16:32	1
Ethylene Dibromide	ND		0.50		ug/L			05/07/22 16:32	1
Hexachlorobutadiene	ND		5.0		ug/L			05/07/22 16:32	1
Iodomethane	ND		2.0		ug/L			05/07/22 16:32	1
Isopropylbenzene	ND		0.50		ug/L			05/07/22 16:32	1
Methyl tert-butyl ether	ND		0.50		ug/L			05/07/22 16:32	1
Methylene Chloride	ND		5.0		ug/L			05/07/22 16:32	1
m-Xylene & p-Xylene	ND		1.0		ug/L			05/07/22 16:32	1
Naphthalene	ND		5.0		ug/L			05/07/22 16:32	1
n-Butylbenzene	ND		1.0		ug/L			05/07/22 16:32	1
N-Propylbenzene	ND		0.50		ug/L			05/07/22 16:32	1
o-Xylene	ND		0.50		ug/L			05/07/22 16:32	1
sec-Butylbenzene	ND		0.50		ug/L			05/07/22 16:32	1
Styrene	ND		1.0		ug/L			05/07/22 16:32	1
tert-Butylbenzene	ND		0.50		ug/L			05/07/22 16:32	1
Tetrachloroethene	ND		0.50		ug/L			05/07/22 16:32	1
Toluene	ND		0.50		ug/L			05/07/22 16:32	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			05/07/22 16:32	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			05/07/22 16:32	1
Trichloroethene	ND		0.50		ug/L			05/07/22 16:32	1
Trichlorofluoromethane	ND		1.0		ug/L			05/07/22 16:32	1
Trihalomethanes, Total	**0.59**	**T5**	0.50		ug/L			05/07/22 16:32	1
Vinyl acetate	ND		5.0		ug/L			05/07/22 16:32	1
Vinyl chloride	ND		1.0		ug/L			05/07/22 16:32	1
Xylenes, Total	ND		0.50		ug/L			05/07/22 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*66*		*60 - 140*		*05/07/22 16:32*	*1*
4-Bromofluorobenzene (Surr)	*82*		*60 - 140*		*05/17/22 17:00*	*1*
Dibromofluoromethane (Surr)	*106*		*60 - 140*		*05/07/22 16:32*	*1*
Dibromofluoromethane (Surr)	*98*		*60 - 140*		*05/17/22 17:00*	*1*
Toluene-d8 (Surr)	*89*		*60 - 140*		*05/07/22 16:32*	*1*
Toluene-d8 (Surr)	*85*		*60 - 140*		*05/17/22 17:00*	*1*

Client Sample ID: TB-22M05

Lab Sample ID: 550-183540-5

Date Collected: 05/04/22 08:00
Matrix: Water
Date Received: 05/04/22 14:36

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			05/07/22 16:54	1

Client Sample ID: TB-22M05

Date Collected: 05/04/22 08:00
Date Received: 05/04/22 14:36

Lab Sample ID: 550-183540-5

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.50		ug/L			05/07/22 16:54	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			05/07/22 16:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			05/07/22 16:54	1
1,1,2-Trichloroethane	ND		0.50		ug/L			05/07/22 16:54	1
1,1-Dichloroethane	ND		0.50		ug/L			05/07/22 16:54	1
1,1-Dichloroethene	ND		0.50		ug/L			05/07/22 16:54	1
1,1-Dichloropropene	ND		0.50		ug/L			05/07/22 16:54	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			05/07/22 16:54	1
1,2,3-Trichloropropane	ND		2.0		ug/L			05/07/22 16:54	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0		ug/L			05/07/22 16:54	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			05/07/22 16:54	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/07/22 16:54	1
1,2-Dichlorobenzene	ND		0.50		ug/L			05/07/22 16:54	1
1,2-Dichloroethane	ND		0.50		ug/L			05/07/22 16:54	1
1,2-Dichloropropane	ND		0.50		ug/L			05/07/22 16:54	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			05/07/22 16:54	1
1,3-Dichlorobenzene	ND		0.50		ug/L			05/07/22 16:54	1
1,3-Dichloropropane	ND		0.50		ug/L			05/07/22 16:54	1
1,4-Dichlorobenzene	ND		0.50		ug/L			05/07/22 16:54	1
2,2-Dichloropropane	ND		1.0		ug/L			05/07/22 16:54	1
2-Butanone (MEK)	ND		10		ug/L			05/07/22 16:54	1
2-Chlorotoluene	ND		0.50		ug/L			05/07/22 16:54	1
2-Hexanone	ND		5.0		ug/L			05/07/22 16:54	1
4-Chlorotoluene	ND		0.50		ug/L			05/07/22 16:54	1
4-Isopropyltoluene	ND		0.50		ug/L			05/07/22 16:54	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			05/07/22 16:54	1
Acetone	ND		10		ug/L			05/07/22 16:54	1
Benzene	ND		0.50		ug/L			05/07/22 16:54	1
Bromobenzene	ND		1.0		ug/L			05/07/22 16:54	1
Bromoform	ND		1.0		ug/L			05/07/22 16:54	1
Bromomethane	ND		5.0		ug/L			05/07/22 16:54	1
Carbon disulfide	ND		5.0		ug/L			05/07/22 16:54	1
Carbon tetrachloride	ND		0.50		ug/L			05/07/22 16:54	1
Chlorobenzene	ND		0.50		ug/L			05/07/22 16:54	1
Chlorobromomethane	ND		0.50		ug/L			05/07/22 16:54	1
Chlorodibromomethane	ND		0.50		ug/L			05/07/22 16:54	1
Chloroethane	ND		1.0		ug/L			05/07/22 16:54	1
Chloroform	ND		0.50		ug/L			05/07/22 16:54	1
Chloromethane	ND		1.0		ug/L			05/07/22 16:54	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/07/22 16:54	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			05/07/22 16:54	1
Dibromomethane	ND		0.50		ug/L			05/07/22 16:54	1
Dichlorobromomethane	ND		0.50		ug/L			05/07/22 16:54	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/17/22 17:21	1
Ethanol	ND		150		ug/L			05/07/22 16:54	1
Ethylbenzene	ND		0.50		ug/L			05/07/22 16:54	1
Ethylene Dibromide	ND		0.50		ug/L			05/07/22 16:54	1
Hexachlorobutadiene	ND		5.0		ug/L			05/07/22 16:54	1
Iodomethane	ND		2.0		ug/L			05/07/22 16:54	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-183540-1

Client Sample ID: TB-22M05

Date Collected: 05/04/22 08:00
Date Received: 05/04/22 14:36

Lab Sample ID: 550-183540-5

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50		ug/L			05/07/22 16:54	1
Methyl tert-butyl ether	ND		0.50		ug/L			05/07/22 16:54	1
Methylene Chloride	ND		5.0		ug/L			05/07/22 16:54	1
m-Xylene & p-Xylene	ND		1.0		ug/L			05/07/22 16:54	1
Naphthalene	ND		5.0		ug/L			05/07/22 16:54	1
n-Butylbenzene	ND		1.0		ug/L			05/07/22 16:54	1
N-Propylbenzene	ND		0.50		ug/L			05/07/22 16:54	1
o-Xylene	ND		0.50		ug/L			05/07/22 16:54	1
sec-Butylbenzene	ND		0.50		ug/L			05/07/22 16:54	1
Styrene	ND		1.0		ug/L			05/07/22 16:54	1
tert-Butylbenzene	ND		0.50		ug/L			05/07/22 16:54	1
Tetrachloroethene	ND		0.50		ug/L			05/07/22 16:54	1
Toluene	ND		0.50		ug/L			05/07/22 16:54	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			05/07/22 16:54	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			05/07/22 16:54	1
Trichloroethene	ND		0.50		ug/L			05/07/22 16:54	1
Trichlorofluoromethane	ND		1.0		ug/L			05/07/22 16:54	1
Trihalomethanes, Total	ND	T5	0.50		ug/L			05/07/22 16:54	1
Vinyl acetate	ND		5.0		ug/L			05/07/22 16:54	1
Vinyl chloride	ND		1.0		ug/L			05/07/22 16:54	1
Xylenes, Total	ND		0.50		ug/L			05/07/22 16:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*69*		*60 - 140*		*05/07/22 16:54*	*1*
4-Bromofluorobenzene (Surr)	*85*		*60 - 140*		*05/17/22 17:21*	*1*
Dibromofluoromethane (Surr)	*103*		*60 - 140*		*05/07/22 16:54*	*1*
Dibromofluoromethane (Surr)	*84*		*60 - 140*		*05/17/22 17:21*	*1*
Toluene-d8 (Surr)	*92*		*60 - 140*		*05/07/22 16:54*	*1*
Toluene-d8 (Surr)	*94*		*60 - 140*		*05/17/22 17:21*	*1*

Surrogate Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-183540-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(60-140)	(60-140)	(60-140)
550-183540-1	INF-22M05	68	101	91
550-183540-1	INF-22M05	88	98	82
550-183540-1	INF-22M05	79	101	83
550-183540-1 MS	INF-22M05	80	99	94
550-183540-1 MS	INF-22M05	0 N1	0 N1	0 N1
550-183540-1 MS	INF-22M05	91	87	75
550-183540-1 MSD	INF-22M05	79	100	92
550-183540-1 MSD	INF-22M05	0 N1	0 N1	0 N1
550-183540-1 MSD	INF-22M05	88	90	78
550-183540-2	EFF-22M05	70	113	93
550-183540-2	EFF-22M05	82	86	90
550-183540-3	GAC-2A-100-22M05	64	104	93
550-183540-3	GAC-2A-100-22M05	83	96	83
550-183540-4	GAC-2B-75-22M05	66	106	89
550-183540-4	GAC-2B-75-22M05	82	98	85
550-183540-4 MS	GAC-2B-75-22M05	88	91	78
550-183540-4 MSD	GAC-2B-75-22M05	86	92	77
550-183540-5	TB-22M05	69	103	92
550-183540-5	TB-22M05	85	84	94
LCS 550-273579/3	Lab Control Sample	80	104	97
LCS 550-274346/3	Lab Control Sample	88	93	82
LCS 550-274433/1003	Lab Control Sample	85	79	85
LCS 550-274477/3	Lab Control Sample	93	93	80
LCSD 550-273579/4	Lab Control Sample Dup	81	106	93
LCSD 550-274346/4	Lab Control Sample Dup	96	93	78
LCSD 550-274433/4	Lab Control Sample Dup	87	92	81
LCSD 550-274477/4	Lab Control Sample Dup	95	92	82
MB 550-273579/6	Method Blank	66	105	93
MB 550-274346/6	Method Blank	82	94	84
MB 550-274433/6	Method Blank	81	102	83
MB 550-274477/6	Method Blank	82	102	83

Surrogate Legend

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

QC Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-183540-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-273579/6
Matrix: Water
Analysis Batch: 273579

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		0.50		ug/L			05/07/22 12:55	1
1,1,1-Trichloroethane	ND		0.50		ug/L			05/07/22 12:55	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			05/07/22 12:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			05/07/22 12:55	1
1,1,2-Trichloroethane	ND		0.50		ug/L			05/07/22 12:55	1
1,1-Dichloroethane	ND		0.50		ug/L			05/07/22 12:55	1
1,1-Dichloroethene	ND		0.50		ug/L			05/07/22 12:55	1
1,1-Dichloropropene	ND		0.50		ug/L			05/07/22 12:55	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			05/07/22 12:55	1
1,2,3-Trichloropropane	ND		2.0		ug/L			05/07/22 12:55	1
1,2,4-Trichlorobenzene	ND	T2	2.0		ug/L			05/07/22 12:55	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			05/07/22 12:55	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/07/22 12:55	1
1,2-Dichlorobenzene	ND		0.50		ug/L			05/07/22 12:55	1
1,2-Dichloroethane	ND		0.50		ug/L			05/07/22 12:55	1
1,2-Dichloropropane	ND		0.50		ug/L			05/07/22 12:55	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			05/07/22 12:55	1
1,3-Dichlorobenzene	ND		0.50		ug/L			05/07/22 12:55	1
1,3-Dichloropropane	ND		0.50		ug/L			05/07/22 12:55	1
1,4-Dichlorobenzene	ND		0.50		ug/L			05/07/22 12:55	1
2,2-Dichloropropane	ND		1.0		ug/L			05/07/22 12:55	1
2-Butanone (MEK)	ND		10		ug/L			05/07/22 12:55	1
2-Chlorotoluene	ND		0.50		ug/L			05/07/22 12:55	1
2-Hexanone	ND		5.0		ug/L			05/07/22 12:55	1
4-Chlorotoluene	ND		0.50		ug/L			05/07/22 12:55	1
4-Isopropyltoluene	ND		0.50		ug/L			05/07/22 12:55	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			05/07/22 12:55	1
Acetone	ND		10		ug/L			05/07/22 12:55	1
Benzene	ND		0.50		ug/L			05/07/22 12:55	1
Bromobenzene	ND		1.0		ug/L			05/07/22 12:55	1
Bromoform	ND		1.0		ug/L			05/07/22 12:55	1
Bromomethane	ND		5.0		ug/L			05/07/22 12:55	1
Carbon disulfide	ND		5.0		ug/L			05/07/22 12:55	1
Carbon tetrachloride	ND		0.50		ug/L			05/07/22 12:55	1
Chlorobenzene	ND		0.50		ug/L			05/07/22 12:55	1
Chlorobromomethane	ND		0.50		ug/L			05/07/22 12:55	1
Chlorodibromomethane	ND		0.50		ug/L			05/07/22 12:55	1
Chloroethane	ND		1.0		ug/L			05/07/22 12:55	1
Chloroform	ND		0.50		ug/L			05/07/22 12:55	1
Chloromethane	ND		1.0		ug/L			05/07/22 12:55	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/07/22 12:55	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			05/07/22 12:55	1
Dibromomethane	ND		0.50		ug/L			05/07/22 12:55	1
Dichlorobromomethane	ND		0.50		ug/L			05/07/22 12:55	1
Ethanol	ND		150		ug/L			05/07/22 12:55	1
Ethylbenzene	ND		0.50		ug/L			05/07/22 12:55	1
Ethylene Dibromide	ND		0.50		ug/L			05/07/22 12:55	1
Hexachlorobutadiene	ND		5.0		ug/L			05/07/22 12:55	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-273579/6
Matrix: Water
Analysis Batch: 273579

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND		2.0	ug/L			05/07/22 12:55	1
Isopropylbenzene	ND		0.50	ug/L			05/07/22 12:55	1
Methyl tert-butyl ether	ND		0.50	ug/L			05/07/22 12:55	1
Methylene Chloride	ND		5.0	ug/L			05/07/22 12:55	1
m-Xylene & p-Xylene	ND		1.0	ug/L			05/07/22 12:55	1
Naphthalene	ND		5.0	ug/L			05/07/22 12:55	1
n-Butylbenzene	ND		1.0	ug/L			05/07/22 12:55	1
N-Propylbenzene	ND		0.50	ug/L			05/07/22 12:55	1
o-Xylene	ND		0.50	ug/L			05/07/22 12:55	1
sec-Butylbenzene	ND		0.50	ug/L			05/07/22 12:55	1
Styrene	ND		1.0	ug/L			05/07/22 12:55	1
tert-Butylbenzene	ND		0.50	ug/L			05/07/22 12:55	1
Tetrachloroethene	ND		0.50	ug/L			05/07/22 12:55	1
Toluene	ND		0.50	ug/L			05/07/22 12:55	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			05/07/22 12:55	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			05/07/22 12:55	1
Trichloroethene	ND		0.50	ug/L			05/07/22 12:55	1
Trichlorofluoromethane	ND		1.0	ug/L			05/07/22 12:55	1
Trihalomethanes, Total	ND		0.50	ug/L			05/07/22 12:55	1
Vinyl acetate	ND		5.0	ug/L			05/07/22 12:55	1
Vinyl chloride	ND		1.0	ug/L			05/07/22 12:55	1
Xylenes, Total	ND		0.50	ug/L			05/07/22 12:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*66*		*60 - 140*		*05/07/22 12:55*	*1*
Dibromofluoromethane (Surr)	*105*		*60 - 140*		*05/07/22 12:55*	*1*
Toluene-d8 (Surr)	*93*		*60 - 140*		*05/07/22 12:55*	*1*

Lab Sample ID: LCS 550-273579/3
Matrix: Water
Analysis Batch: 273579

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	60.2		ug/L		120	60 - 140
1,1,1-Trichloroethane	50.0	55.6		ug/L		111	70 - 130
1,1,2,2-Tetrachloroethane	50.0	47.3		ug/L		95	60 - 140
1,1,2-Trichloroethane	50.0	41.5		ug/L		83	70 - 130
1,1-Dichloroethane	50.0	44.1		ug/L		88	70 - 150
1,1-Dichloroethene	50.0	42.7		ug/L		85	50 - 140
1,1-Dichloropropene	50.0	41.8		ug/L		84	60 - 140
1,2,3-Trichlorobenzene	50.0	64.5		ug/L		129	60 - 140
1,2,3-Trichloropropane	50.0	49.6		ug/L		99	60 - 140
1,2,4-Trichlorobenzene	50.0	65.9	T2	ug/L		132	60 - 140
1,2,4-Trimethylbenzene	50.0	50.8		ug/L		102	60 - 140
1,2-Dibromo-3-Chloropropane	50.0	61.6		ug/L		123	60 - 140
1,2-Dichlorobenzene	50.0	50.5		ug/L		101	65 - 140
1,2-Dichloroethane	50.0	45.8		ug/L		92	70 - 130
1,2-Dichloropropane	50.0	45.0		ug/L		90	35 - 165

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-273579/3
Matrix: Water
Analysis Batch: 273579

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3,5-Trimethylbenzene	50.0	49.4		ug/L		99	60 - 140
1,3-Dichlorobenzene	50.0	45.7		ug/L		91	70 - 130
1,3-Dichloropropane	50.0	40.6		ug/L		81	60 - 140
1,4-Dichlorobenzene	50.0	45.6		ug/L		91	65 - 135
2,2-Dichloropropane	50.0	52.4		ug/L		105	60 - 140
2-Butanone (MEK)	50.0	51.5		ug/L		103	60 - 140
2-Chlorotoluene	50.0	47.1		ug/L		94	60 - 140
2-Hexanone	50.0	43.3		ug/L		87	60 - 140
4-Chlorotoluene	50.0	39.7		ug/L		79	60 - 140
4-Isopropyltoluene	50.0	52.8		ug/L		106	60 - 140
4-Methyl-2-pentanone (MIBK)	50.0	54.1		ug/L		108	60 - 140
Acetone	50.0	73.3		ug/L		147	18 - 150
Benzene	50.0	43.3		ug/L		87	65 - 135
Bromobenzene	50.0	43.2		ug/L		86	60 - 140
Bromoform	50.0	43.0		ug/L		86	70 - 130
Bromomethane	50.0	35.1		ug/L		70	15 - 185
Carbon disulfide	50.0	39.6		ug/L		79	60 - 140
Carbon tetrachloride	50.0	57.0		ug/L		114	70 - 130
Chlorobenzene	50.0	45.1		ug/L		90	65 - 135
Chlorobromomethane	50.0	50.6		ug/L		101	60 - 140
Chlorodibromomethane	50.0	45.1		ug/L		90	70 - 135
Chloroethane	50.0	35.9		ug/L		72	40 - 160
Chloroform	50.0	46.2		ug/L		92	70 - 135
Chloromethane	50.0	12.1		ug/L		24	10 - 205
cis-1,2-Dichloroethene	50.0	47.0		ug/L		94	60 - 140
cis-1,3-Dichloropropene	50.0	39.4		ug/L		79	25 - 175
Dibromomethane	50.0	44.9		ug/L		90	70 - 130
Dichlorobromomethane	50.0	43.9		ug/L		88	65 - 135
Ethanol	1000	860		ug/L		86	60 - 140
Ethylbenzene	50.0	47.4		ug/L		95	60 - 140
Ethylene Dibromide	50.0	42.1		ug/L		84	60 - 140
Hexachlorobutadiene	50.0	60.9		ug/L		122	60 - 140
Iodomethane	50.0	47.6		ug/L		95	60 - 140
Isopropylbenzene	50.0	51.4		ug/L		103	60 - 140
Methyl tert-butyl ether	50.0	55.3		ug/L		111	60 - 140
Methylene Chloride	50.0	50.7		ug/L		101	60 - 140
m-Xylene & p-Xylene	50.0	43.6		ug/L		87	60 - 140
Naphthalene	50.0	64.0		ug/L		128	60 - 140
n-Butylbenzene	50.0	50.1		ug/L		100	60 - 140
N-Propylbenzene	50.0	46.6		ug/L		93	60 - 140
o-Xylene	50.0	49.4		ug/L		99	60 - 140
sec-Butylbenzene	50.0	53.6		ug/L		107	60 - 140
Styrene	50.0	41.1		ug/L		82	60 - 140
tert-Butylbenzene	50.0	53.7		ug/L		107	60 - 140
Tetrachloroethene	50.0	46.5		ug/L		93	70 - 130
Toluene	50.0	43.5		ug/L		87	70 - 130
trans-1,2-Dichloroethene	50.0	44.3		ug/L		89	70 - 130
trans-1,3-Dichloropropene	50.0	37.6		ug/L		75	50 - 150
Trichloroethene	50.0	42.5		ug/L		85	65 - 135

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-273579/3
Matrix: Water
Analysis Batch: 273579

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Trichlorofluoromethane	50.0	42.4		ug/L		85	50 - 150
Vinyl acetate	50.0	39.1		ug/L		78	60 - 140
Vinyl chloride	50.0	21.2		ug/L		42	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*80*		*60 - 140*
Dibromofluoromethane (Surr)	*104*		*60 - 140*
Toluene-d8 (Surr)	*97*		*60 - 140*

Lab Sample ID: LCSD 550-273579/4
Matrix: Water
Analysis Batch: 273579

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	60 - 140	13	20
1,1,1-Trichloroethane	50.0	50.8		ug/L		102	70 - 130	9	20
1,1,2,2-Tetrachloroethane	50.0	43.1		ug/L		86	60 - 140	9	20
1,1,2-Trichloroethane	50.0	39.6		ug/L		79	70 - 130	5	20
1,1-Dichloroethane	50.0	43.5		ug/L		87	70 - 150	1	20
1,1-Dichloroethene	50.0	40.3		ug/L		81	50 - 140	6	20
1,1-Dichloropropene	50.0	39.3		ug/L		79	60 - 140	6	20
1,2,3-Trichlorobenzene	50.0	57.0		ug/L		114	60 - 140	12	20
1,2,3-Trichloropropane	50.0	46.4		ug/L		93	60 - 140	7	20
1,2,4-Trichlorobenzene	50.0	57.2	T2	ug/L		114	60 - 140	14	20
1,2,4-Trimethylbenzene	50.0	43.4		ug/L		87	60 - 140	16	20
1,2-Dibromo-3-Chloropropane	50.0	57.2		ug/L		114	60 - 140	7	20
1,2-Dichlorobenzene	50.0	45.2		ug/L		90	65 - 140	11	20
1,2-Dichloroethane	50.0	43.3		ug/L		87	70 - 130	6	20
1,2-Dichloropropane	50.0	41.4		ug/L		83	35 - 165	8	20
1,3,5-Trimethylbenzene	50.0	42.1		ug/L		84	60 - 140	16	20
1,3-Dichlorobenzene	50.0	42.7		ug/L		85	70 - 130	7	20
1,3-Dichloropropane	50.0	39.8		ug/L		80	60 - 140	2	20
1,4-Dichlorobenzene	50.0	43.2		ug/L		86	65 - 135	5	20
2,2-Dichloropropane	50.0	47.6		ug/L		95	60 - 140	10	20
2-Butanone (MEK)	50.0	51.5		ug/L		103	60 - 140	0	20
2-Chlorotoluene	50.0	41.4		ug/L		83	60 - 140	13	20
2-Hexanone	50.0	41.5		ug/L		83	60 - 140	4	20
4-Chlorotoluene	50.0	36.8		ug/L		74	60 - 140	8	20
4-Isopropyltoluene	50.0	45.3		ug/L		91	60 - 140	15	20
4-Methyl-2-pentanone (MIBK)	50.0	48.9		ug/L		98	60 - 140	10	20
Acetone	50.0	68.0		ug/L		136	18 - 150	7	20
Benzene	50.0	39.2		ug/L		78	65 - 135	10	20
Bromobenzene	50.0	40.1		ug/L		80	60 - 140	7	20
Bromoform	50.0	41.1		ug/L		82	70 - 130	5	20
Bromomethane	50.0	32.4		ug/L		65	15 - 185	8	20
Carbon disulfide	50.0	35.2		ug/L		70	60 - 140	12	20
Carbon tetrachloride	50.0	49.5		ug/L		99	70 - 130	14	20
Chlorobenzene	50.0	42.5		ug/L		85	65 - 135	6	20

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 550-273579/4
Matrix: Water
Analysis Batch: 273579

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
Chlorobromomethane	50.0	49.4		ug/L		99	60 - 140	2	20
Chlorodibromomethane	50.0	43.0		ug/L		86	70 - 135	5	20
Chloroethane	50.0	31.7		ug/L		63	40 - 160	13	20
Chloroform	50.0	44.7		ug/L		89	70 - 135	3	20
Chloromethane	50.0	11.1		ug/L		22	10 - 205	8	20
cis-1,2-Dichloroethene	50.0	43.8		ug/L		88	60 - 140	7	20
cis-1,3-Dichloropropene	50.0	37.4		ug/L		75	25 - 175	5	20
Dibromomethane	50.0	43.0		ug/L		86	70 - 130	4	20
Dichlorobromomethane	50.0	40.6		ug/L		81	65 - 135	8	20
Ethanol	1000	943		ug/L		94	60 - 140	9	20
Ethylbenzene	50.0	43.8		ug/L		88	60 - 140	8	20
Ethylene Dibromide	50.0	41.9		ug/L		84	60 - 140	1	20
Hexachlorobutadiene	50.0	52.5		ug/L		105	60 - 140	15	20
Iodomethane	50.0	43.5		ug/L		87	60 - 140	9	20
Isopropylbenzene	50.0	44.0		ug/L		88	60 - 140	16	20
Methyl tert-butyl ether	50.0	52.0		ug/L		104	60 - 140	6	20
Methylene Chloride	50.0	47.6		ug/L		95	60 - 140	6	20
m-Xylene & p-Xylene	50.0	38.9		ug/L		78	60 - 140	11	20
Naphthalene	50.0	56.8		ug/L		114	60 - 140	12	20
n-Butylbenzene	50.0	44.4		ug/L		89	60 - 140	12	20
N-Propylbenzene	50.0	41.4		ug/L		83	60 - 140	12	20
o-Xylene	50.0	42.4		ug/L		85	60 - 140	15	20
sec-Butylbenzene	50.0	45.5		ug/L		91	60 - 140	16	20
Styrene	50.0	37.7		ug/L		75	60 - 140	9	20
tert-Butylbenzene	50.0	45.9		ug/L		92	60 - 140	16	20
Tetrachloroethene	50.0	43.4		ug/L		87	70 - 130	7	20
Toluene	50.0	39.7		ug/L		79	70 - 130	9	20
trans-1,2-Dichloroethene	50.0	44.1		ug/L		88	70 - 130	0	20
trans-1,3-Dichloropropene	50.0	37.1		ug/L		74	50 - 150	1	20
Trichloroethene	50.0	39.2		ug/L		78	65 - 135	8	20
Trichlorofluoromethane	50.0	39.6		ug/L		79	50 - 150	7	20
Vinyl acetate	50.0	43.8		ug/L		88	60 - 140	11	20
Vinyl chloride	50.0	19.5		ug/L		39	5 - 195	8	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*81*		*60 - 140*
Dibromofluoromethane (Surr)	*106*		*60 - 140*
Toluene-d8 (Surr)	*93*		*60 - 140*

Lab Sample ID: 550-183540-1 MS
Matrix: Water
Analysis Batch: 273579

Client Sample ID: INF-22M05
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	65.4		ug/L		131	50 - 150
1,1,1-Trichloroethane	ND		50.0	67.9		ug/L		136	52 - 162
1,1,2,2-Tetrachloroethane	ND		50.0	53.5		ug/L		107	46 - 157
1,1,2-Trichloroethane	ND		50.0	47.5		ug/L		95	52 - 150

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-183540-1 MS
Matrix: Water
Analysis Batch: 273579

Client Sample ID: INF-22M05
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethane	ND		50.0	54.9		ug/L		110	59 - 155
1,1-Dichloroethene	ND		50.0	65.8		ug/L		131	10 - 234
1,1-Dichloropropene	ND		50.0	55.5		ug/L		111	50 - 150
1,2,3-Trichlorobenzene	3.0		50.0	63.8		ug/L		122	50 - 150
1,2,3-Trichloropropane	ND		50.0	58.2		ug/L		116	50 - 150
1,2,4-Trichlorobenzene	ND	T5 T2	50.0	66.6	T2	ug/L		130	50 - 150
1,2,4-Trimethylbenzene	ND		50.0	57.1		ug/L		114	50 - 150
1,2-Dibromo-3-Chloropropane	ND		50.0	70.7		ug/L		141	50 - 150
1,2-Dichlorobenzene	ND		50.0	56.2		ug/L		112	18 - 190
1,2-Dichloroethane	ND		50.0	55.4		ug/L		111	49 - 155
1,2-Dichloropropane	ND		50.0	52.2		ug/L		104	10 - 210
1,3,5-Trimethylbenzene	ND		50.0	56.1		ug/L		112	50 - 150
1,3-Dichlorobenzene	ND		50.0	53.4		ug/L		106	59 - 156
1,3-Dichloropropane	ND		50.0	48.3		ug/L		97	50 - 150
1,4-Dichlorobenzene	ND		50.0	53.1		ug/L		106	18 - 190
2,2-Dichloropropane	ND		50.0	63.6		ug/L		127	50 - 150
2-Butanone (MEK)	ND		50.0	68.9		ug/L		138	50 - 150
2-Chlorotoluene	ND		50.0	53.9		ug/L		108	50 - 150
2-Hexanone	ND		50.0	53.3		ug/L		107	50 - 150
4-Chlorotoluene	ND		50.0	46.0		ug/L		92	50 - 150
4-Isopropyltoluene	ND		50.0	61.1		ug/L		122	50 - 150
4-Methyl-2-pentanone (MIBK)	ND		50.0	65.1		ug/L		130	50 - 150
Acetone	ND	M1	50.0	81.7	M1	ug/L		163	18 - 150
Benzene	ND		50.0	53.1		ug/L		106	35 - 151
Bromobenzene	ND		50.0	49.8		ug/L		100	50 - 150
Bromoform	ND		50.0	51.0		ug/L		102	45 - 169
Bromomethane	ND		50.0	77.8		ug/L		156	10 - 242
Carbon disulfide	ND		50.0	71.7		ug/L		143	50 - 150
Carbon tetrachloride	ND	M1	50.0	70.8	M1	ug/L		142	70 - 140
Chlorobenzene	ND		50.0	52.2		ug/L		104	37 - 160
Chlorobromomethane	ND		50.0	60.7		ug/L		121	50 - 150
Chlorodibromomethane	ND		50.0	51.6		ug/L		103	53 - 149
Chloroethane	ND		50.0	70.1		ug/L		140	14 - 230
Chloroform	0.61		50.0	54.7		ug/L		108	51 - 138
Chloromethane	ND		50.0	74.0		ug/L		148	10 - 273
cis-1,2-Dichloroethene	4.7		50.0	61.5		ug/L		114	50 - 150
cis-1,3-Dichloropropene	ND		50.0	46.0		ug/L		92	10 - 227
Dibromomethane	ND		50.0	54.8		ug/L		110	50 - 150
Dichlorobromomethane	ND		50.0	50.5		ug/L		101	35 - 155
Ethanol	ND		1000	878		ug/L		88	50 - 150
Ethylbenzene	ND		50.0	56.2		ug/L		112	37 - 162
Ethylene Dibromide	ND		50.0	50.5		ug/L		101	50 - 150
Hexachlorobutadiene	ND		50.0	67.5		ug/L		135	50 - 150
Iodomethane	ND		50.0	69.0		ug/L		138	50 - 150
Isopropylbenzene	ND		50.0	59.6		ug/L		119	50 - 150
Methyl tert-butyl ether	ND		50.0	62.0		ug/L		124	50 - 150
Methylene Chloride	ND		50.0	62.1		ug/L		124	10 - 221
m-Xylene & p-Xylene	ND		50.0	51.1		ug/L		102	50 - 150
Naphthalene	ND		50.0	65.7		ug/L		125	50 - 150

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-183540-1 MS
Matrix: Water
Analysis Batch: 273579

Client Sample ID: INF-22M05
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
n-Butylbenzene	ND		50.0	58.5		ug/L		117	50 - 150
N-Propylbenzene	ND		50.0	55.2		ug/L		110	50 - 150
o-Xylene	ND		50.0	55.7		ug/L		111	50 - 150
sec-Butylbenzene	ND		50.0	62.0		ug/L		124	50 - 150
Styrene	ND		50.0	46.9		ug/L		94	50 - 150
tert-Butylbenzene	ND		50.0	62.3		ug/L		125	50 - 150
Tetrachloroethene	0.96		50.0	59.1		ug/L		116	64 - 148
Toluene	ND		50.0	52.2		ug/L		104	47 - 150
trans-1,2-Dichloroethene	ND		50.0	58.8		ug/L		118	54 - 156
trans-1,3-Dichloropropene	ND		50.0	44.8		ug/L		90	17 - 183
Trichloroethene	28		50.0	78.8		ug/L		102	70 - 157
Trichlorofluoromethane	ND		50.0	75.1		ug/L		150	17 - 181
Vinyl acetate	ND		50.0	52.0		ug/L		104	50 - 150
Vinyl chloride	ND		50.0	74.2		ug/L		148	10 - 251

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*80*		*60 - 140*
Dibromofluoromethane (Surr)	*99*		*60 - 140*
Toluene-d8 (Surr)	*94*		*60 - 140*

Lab Sample ID: 550-183540-1 MSD
Matrix: Water
Analysis Batch: 273579

Client Sample ID: INF-22M05
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	63.0		ug/L		126	50 - 150	4	35
1,1,1-Trichloroethane	ND		50.0	65.0		ug/L		130	52 - 162	4	36
1,1,2,2-Tetrachloroethane	ND		50.0	53.8		ug/L		108	46 - 157	1	61
1,1,2-Trichloroethane	ND		50.0	48.2		ug/L		96	52 - 150	1	45
1,1-Dichloroethane	ND		50.0	55.0		ug/L		110	59 - 155	0	40
1,1-Dichloroethene	ND		50.0	62.5		ug/L		124	10 - 234	5	32
1,1-Dichloropropene	ND		50.0	52.3		ug/L		105	50 - 150	6	35
1,2,3-Trichlorobenzene	3.0		50.0	67.4		ug/L		129	50 - 150	5	35
1,2,3-Trichloropropane	ND		50.0	58.5		ug/L		117	50 - 150	1	35
1,2,4-Trichlorobenzene	ND	T5 T2	50.0	68.1	T2	ug/L		133	50 - 150	2	35
1,2,4-Trimethylbenzene	ND		50.0	55.2		ug/L		110	50 - 150	3	35
1,2-Dibromo-3-Chloropropane	ND		50.0	70.7		ug/L		141	50 - 150	0	35
1,2-Dichlorobenzene	ND		50.0	56.4		ug/L		112	18 - 190	0	57
1,2-Dichloroethane	ND		50.0	54.8		ug/L		110	49 - 155	1	49
1,2-Dichloropropane	ND		50.0	50.3		ug/L		101	10 - 210	4	55
1,3,5-Trimethylbenzene	ND		50.0	54.6		ug/L		109	50 - 150	3	35
1,3-Dichlorobenzene	ND		50.0	53.1		ug/L		106	59 - 156	1	43
1,3-Dichloropropane	ND		50.0	48.8		ug/L		98	50 - 150	1	35
1,4-Dichlorobenzene	ND		50.0	52.6		ug/L		105	18 - 190	1	57
2,2-Dichloropropane	ND		50.0	61.0		ug/L		122	50 - 150	4	35
2-Butanone (MEK)	ND		50.0	70.5		ug/L		141	50 - 150	2	35
2-Chlorotoluene	ND		50.0	52.8		ug/L		106	50 - 150	2	35
2-Hexanone	ND		50.0	51.5		ug/L		103	50 - 150	3	35

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-183540-1 MSD
Matrix: Water
Analysis Batch: 273579

Client Sample ID: INF-22M05
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4-Chlorotoluene	ND		50.0	45.4		ug/L		91	50 - 150	1	35
4-Isopropyltoluene	ND		50.0	58.6		ug/L		117	50 - 150	4	35
4-Methyl-2-pentanone (MIBK)	ND		50.0	64.1		ug/L		128	50 - 150	2	35
Acetone	ND	M1	50.0	75.6	M1	ug/L		151	18 - 150	8	35
Benzene	ND		50.0	50.7		ug/L		101	35 - 151	5	61
Bromobenzene	ND		50.0	50.2		ug/L		100	50 - 150	1	35
Bromoform	ND		50.0	52.2		ug/L		104	45 - 169	2	42
Bromomethane	ND		50.0	73.6		ug/L		147	10 - 242	5	61
Carbon disulfide	ND		50.0	67.3		ug/L		135	50 - 150	6	35
Carbon tetrachloride	ND	M1	50.0	65.2		ug/L		130	70 - 140	8	41
Chlorobenzene	ND		50.0	51.7		ug/L		103	37 - 160	1	53
Chlorobromomethane	ND		50.0	61.5		ug/L		123	50 - 150	1	35
Chlorodibromomethane	ND		50.0	52.3		ug/L		105	53 - 149	1	50
Chloroethane	ND		50.0	65.3		ug/L		131	14 - 230	7	78
Chloroform	0.61		50.0	55.2		ug/L		109	51 - 138	1	54
Chloromethane	ND		50.0	70.7		ug/L		141	10 - 273	4	60
cis-1,2-Dichloroethene	4.7		50.0	59.1		ug/L		109	50 - 150	4	35
cis-1,3-Dichloropropene	ND		50.0	45.8		ug/L		92	10 - 227	1	58
Dibromomethane	ND		50.0	53.9		ug/L		108	50 - 150	2	35
Dichlorobromomethane	ND		50.0	49.6		ug/L		99	35 - 155	2	56
Ethanol	ND		1000	852		ug/L		85	50 - 150	3	35
Ethylbenzene	ND		50.0	53.8		ug/L		108	37 - 162	4	63
Ethylene Dibromide	ND		50.0	51.2		ug/L		102	50 - 150	1	35
Hexachlorobutadiene	ND		50.0	66.7		ug/L		133	50 - 150	1	35
Iodomethane	ND		50.0	66.7		ug/L		133	50 - 150	3	35
Isopropylbenzene	ND		50.0	56.9		ug/L		114	50 - 150	5	35
Methyl tert-butyl ether	ND		50.0	63.7		ug/L		127	50 - 150	3	35
Methylene Chloride	ND		50.0	61.1		ug/L		122	10 - 221	2	28
m-Xylene & p-Xylene	ND		50.0	50.4		ug/L		101	50 - 150	1	35
Naphthalene	ND		50.0	69.3		ug/L		132	50 - 150	5	35
n-Butylbenzene	ND		50.0	55.9		ug/L		112	50 - 150	4	35
N-Propylbenzene	ND		50.0	53.2		ug/L		106	50 - 150	4	35
o-Xylene	ND		50.0	54.3		ug/L		109	50 - 150	3	35
sec-Butylbenzene	ND		50.0	59.0		ug/L		118	50 - 150	5	35
Styrene	ND		50.0	46.6		ug/L		93	50 - 150	1	35
tert-Butylbenzene	ND		50.0	60.3		ug/L		121	50 - 150	3	35
Tetrachloroethene	0.96		50.0	56.1		ug/L		110	64 - 148	5	39
Toluene	ND		50.0	50.3		ug/L		101	47 - 150	4	41
trans-1,2-Dichloroethene	ND		50.0	57.9		ug/L		116	54 - 156	2	45
trans-1,3-Dichloropropene	ND		50.0	45.3		ug/L		91	17 - 183	1	86
Trichloroethene	28		50.0	74.7		ug/L		94	70 - 157	5	48
Trichlorofluoromethane	ND		50.0	70.6		ug/L		141	17 - 181	6	84
Vinyl acetate	ND		50.0	54.5		ug/L		109	50 - 150	5	35
Vinyl chloride	ND		50.0	70.8		ug/L		142	10 - 251	5	66

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*79*		*60 - 140*
Dibromofluoromethane (Surr)	*100*		*60 - 140*

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-183540-1 MSD
Matrix: Water
Analysis Batch: 273579

Client Sample ID: INF-22M05
Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Toluene-d8 (Surr)	92		60 - 140

Lab Sample ID: MB 550-274346/6
Matrix: Water
Analysis Batch: 274346

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			05/17/22 13:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		60 - 140		05/17/22 13:00	1
Dibromofluoromethane (Surr)	94		60 - 140		05/17/22 13:00	1
Toluene-d8 (Surr)	84		60 - 140		05/17/22 13:00	1

Lab Sample ID: LCS 550-274346/3
Matrix: Water
Analysis Batch: 274346

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Dichlorodifluoromethane			50.0	43.2		ug/L		86	60 - 140		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		60 - 140
Dibromofluoromethane (Surr)	93		60 - 140
Toluene-d8 (Surr)	82		60 - 140

Lab Sample ID: LCSD 550-274346/4
Matrix: Water
Analysis Batch: 274346

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
Dichlorodifluoromethane			50.0	35.7		ug/L		71	60 - 140	19	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		60 - 140
Dibromofluoromethane (Surr)	93		60 - 140
Toluene-d8 (Surr)	78		60 - 140

Lab Sample ID: 550-183540-4 MS
Matrix: Water
Analysis Batch: 274346

Client Sample ID: GAC-2B-75-22M05
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Dichlorodifluoromethane	ND		50.0	35.5		ug/L		71	50 - 150		

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		60 - 140

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-183540-4 MS
Matrix: Water
Analysis Batch: 274346

Client Sample ID: GAC-2B-75-22M05
Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
Dibromofluoromethane (Surr)	91		60 - 140
Toluene-d8 (Surr)	78		60 - 140

Lab Sample ID: 550-183540-4 MSD
Matrix: Water
Analysis Batch: 274346

Client Sample ID: GAC-2B-75-22M05
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dichlorodifluoromethane	ND		50.0	47.2		ug/L		94	50 - 150	28	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	86		60 - 140
Dibromofluoromethane (Surr)	92		60 - 140
Toluene-d8 (Surr)	77		60 - 140

Lab Sample ID: MB 550-274433/6
Matrix: Water
Analysis Batch: 274433

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			05/17/22 19:32	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		60 - 140		05/17/22 19:32	1
Dibromofluoromethane (Surr)	102		60 - 140		05/17/22 19:32	1
Toluene-d8 (Surr)	83		60 - 140		05/17/22 19:32	1

Lab Sample ID: LCS 550-274433/1003
Matrix: Water
Analysis Batch: 274433

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Dichlorodifluoromethane			50.0	59.7		ug/L		119	60 - 140		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	85		60 - 140
Dibromofluoromethane (Surr)	79		60 - 140
Toluene-d8 (Surr)	85		60 - 140

Lab Sample ID: LCSD 550-274433/4
Matrix: Water
Analysis Batch: 274433

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
Dichlorodifluoromethane			50.0	53.4		ug/L		107	60 - 140	11	20

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 550-274433/4
Matrix: Water
Analysis Batch: 274433

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

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*87*		*60 - 140*
Dibromofluoromethane (Surr)	*92*		*60 - 140*
Toluene-d8 (Surr)	*81*		*60 - 140*

Lab Sample ID: 550-183540-1 MS
Matrix: Water
Analysis Batch: 274433

Client Sample ID: INF-22M05
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Dichlorodifluoromethane	ND		50.0	70.2		ug/L		140	50 - 150		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*0*	*N1*	*60 - 140*
Dibromofluoromethane (Surr)	*0*	*N1*	*60 - 140*
Toluene-d8 (Surr)	*0*	*N1*	*60 - 140*

Lab Sample ID: 550-183540-1 MSD
Matrix: Water
Analysis Batch: 274433

Client Sample ID: INF-22M05
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dichlorodifluoromethane	ND		50.0	55.3		ug/L		111	50 - 150	24	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*0*	*N1*	*60 - 140*
Dibromofluoromethane (Surr)	*0*	*N1*	*60 - 140*
Toluene-d8 (Surr)	*0*	*N1*	*60 - 140*

Lab Sample ID: MB 550-274477/6
Matrix: Water
Analysis Batch: 274477

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			05/18/22 15:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*60 - 140*		*05/18/22 15:37*	*1*
Dibromofluoromethane (Surr)	*102*		*60 - 140*		*05/18/22 15:37*	*1*
Toluene-d8 (Surr)	*83*		*60 - 140*		*05/18/22 15:37*	*1*

Lab Sample ID: LCS 550-274477/3
Matrix: Water
Analysis Batch: 274477

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Dichlorodifluoromethane			50.0	43.1		ug/L		86	60 - 140		

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-274477/3
Matrix: Water
Analysis Batch: 274477

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

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*
Dibromofluoromethane (Surr)	*93*		*60 - 140*
Toluene-d8 (Surr)	*80*		*60 - 140*

Lab Sample ID: LCSD 550-274477/4
Matrix: Water
Analysis Batch: 274477

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
Dichlorodifluoromethane			50.0	28.5	L4 R1	ug/L		57	60 - 140	41	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*60 - 140*
Dibromofluoromethane (Surr)	*92*		*60 - 140*
Toluene-d8 (Surr)	*82*		*60 - 140*

Lab Sample ID: 550-183540-1 MS
Matrix: Water
Analysis Batch: 274477

Client Sample ID: INF-22M05
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Dichlorodifluoromethane	ND	L4 R6	50.0	25.0		ug/L		50	50 - 150		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*
Dibromofluoromethane (Surr)	*87*		*60 - 140*
Toluene-d8 (Surr)	*75*		*60 - 140*

Lab Sample ID: 550-183540-1 MSD
Matrix: Water
Analysis Batch: 274477

Client Sample ID: INF-22M05
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dichlorodifluoromethane	ND	L4 R6	50.0	29.0		ug/L		58	50 - 150	15	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*
Dibromofluoromethane (Surr)	*90*		*60 - 140*
Toluene-d8 (Surr)	*78*		*60 - 140*

QC Association Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-183540-1

GC/MS VOA

Analysis Batch: 273579

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-183540-1	INF-22M05	Total/NA	Water	624.1	
550-183540-2	EFF-22M05	Total/NA	Water	624.1	
550-183540-3	GAC-2A-100-22M05	Total/NA	Water	624.1	
550-183540-4	GAC-2B-75-22M05	Total/NA	Water	624.1	
550-183540-5	TB-22M05	Total/NA	Water	624.1	
MB 550-273579/6	Method Blank	Total/NA	Water	624.1	
LCS 550-273579/3	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-273579/4	Lab Control Sample Dup	Total/NA	Water	624.1	
550-183540-1 MS	INF-22M05	Total/NA	Water	624.1	
550-183540-1 MSD	INF-22M05	Total/NA	Water	624.1	

Analysis Batch: 274346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-183540-4	GAC-2B-75-22M05	Total/NA	Water	624.1	
550-183540-5	TB-22M05	Total/NA	Water	624.1	
MB 550-274346/6	Method Blank	Total/NA	Water	624.1	
LCS 550-274346/3	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-274346/4	Lab Control Sample Dup	Total/NA	Water	624.1	
550-183540-4 MS	GAC-2B-75-22M05	Total/NA	Water	624.1	
550-183540-4 MSD	GAC-2B-75-22M05	Total/NA	Water	624.1	

Analysis Batch: 274433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-183540-1	INF-22M05	Total/NA	Water	624.1	
MB 550-274433/6	Method Blank	Total/NA	Water	624.1	
LCS 550-274433/1003	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-274433/4	Lab Control Sample Dup	Total/NA	Water	624.1	
550-183540-1 MS	INF-22M05	Total/NA	Water	624.1	
550-183540-1 MSD	INF-22M05	Total/NA	Water	624.1	

Analysis Batch: 274477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-183540-1	INF-22M05	Total/NA	Water	624.1	
550-183540-2	EFF-22M05	Total/NA	Water	624.1	
550-183540-3	GAC-2A-100-22M05	Total/NA	Water	624.1	
MB 550-274477/6	Method Blank	Total/NA	Water	624.1	
LCS 550-274477/3	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-274477/4	Lab Control Sample Dup	Total/NA	Water	624.1	
550-183540-1 MS	INF-22M05	Total/NA	Water	624.1	
550-183540-1 MSD	INF-22M05	Total/NA	Water	624.1	

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-183540-1

Client Sample ID: INF-22M05 — Lab Sample ID: 550-183540-1

Date Collected: 05/04/22 10:18 — **Matrix: Water**
Date Received: 05/04/22 14:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	273579	05/07/22 14:44	R1K	TAL PHX
Total/NA	Analysis	624.1		1	274433	05/17/22 21:21	JHU	TAL PHX
Total/NA	Analysis	624.1		1	274477	05/18/22 17:04	TC1	TAL PHX

Client Sample ID: EFF-22M05 — Lab Sample ID: 550-183540-2

Date Collected: 05/04/22 10:05 — **Matrix: Water**
Date Received: 05/04/22 14:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	273579	05/07/22 15:49	R1K	TAL PHX
Total/NA	Analysis	624.1		1	274477	05/18/22 17:25	TC1	TAL PHX

Client Sample ID: GAC-2A-100-22M05 — Lab Sample ID: 550-183540-3

Date Collected: 05/04/22 10:13 — **Matrix: Water**
Date Received: 05/04/22 14:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	273579	05/07/22 16:10	R1K	TAL PHX
Total/NA	Analysis	624.1		1	274477	05/18/22 17:47	TC1	TAL PHX

Client Sample ID: GAC-2B-75-22M05 — Lab Sample ID: 550-183540-4

Date Collected: 05/04/22 10:10 — **Matrix: Water**
Date Received: 05/04/22 14:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	273579	05/07/22 16:32	R1K	TAL PHX
Total/NA	Analysis	624.1		1	274346	05/17/22 17:00	TC1	TAL PHX

Client Sample ID: TB-22M05 — Lab Sample ID: 550-183540-5

Date Collected: 05/04/22 08:00 — **Matrix: Water**
Date Received: 05/04/22 14:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	273579	05/07/22 16:54	R1K	TAL PHX
Total/NA	Analysis	624.1		1	274346	05/17/22 17:21	TC1	TAL PHX

Laboratory References:

TAL PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-183540-1

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
624.1		Water	1,2,4-Trichlorobenzene
624.1		Water	Trihalomethanes, Total

Method Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-183540-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

Laboratory References:

TAL PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

183540

America Phoenix
4625 East Cotton CTr Blvd Suite 189
Phoenix, AZ 85040
602-437-3340

Honeywell — **Chain Of Custody / Analysis Request**

AESI Ref: 44685.43523
COC#: 37553-050422

Sampling Co.:	Jacobs	Privileged & Confidential	55014762
Client Contact: (name, co., address)		EDD To:	Bernice Kidd, Jacobs HTS
Jacobs		Sampler:	T. Kearsley
1501 W. Fountainhead Parkway (suite 401)		PO #	4500178520
Tempe, AZ 85282		Analysis Turnaround Time (TAT):	10
Preliminary Data To	Berney Kidd Jacobs, Lakshmi Devi HTS	Consultant	Jacobs
Sample Receipt Acknowledgement To	Site Distribution List	Laboratory Contact	Rachel Sester
Hard Copy To	Berney Kidd Jacobs	Report Tier Level	2
Invoice To:	Mike Heitmann, Honeywell/Copy Berney Kidd	Full Report TAT:	10
			HTS

Site Name: Deer Valley — Phase: — Lab Proj # (SDG):
Location of Site: Phoenix AZ. — Sampling Program: Monthly Groundwater Monitoring Program — Lab ID: TAL-PHX
Site ID: DEERV
Lab Job #:
Authorized User: Honeywell
Text & Excel File Drive — Excel & Text File Order

Preservative: 8 (E624)

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#	Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID	Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	E624 (Total VOCs)	E300 0 (Nitrite-Nitrate)	MS/MSD	Sampling Method (code)	Lab Sample Numbers
											Units						
1	Influent			INF-22M05	5/4/2022	10:18	GW-GWS	WATER	REG	3	grab	N	X				-01
2	Effluent			EFF-22M05	5/4/2022	10:05	GW-GWS	WATER	REG	3	grab	N	X				-02
3	GAC2A Effluent			GAC-2A-100-22M05	5/4/2022	10:13	GW-GWS	WATER	REG	3	grab	N	X				-03
4	GAC2B 75%			GAC-2B-75-22M05	5/4/2022	10:10	GW-GWS	WATER	REG	3	grab	N	X				-04
5	TRIPBLANK			TB-22M05	5/4/2022	8:00	GW-GWS	WATER	REG	1	grab	N	X				-05
6																	
7																	
8																	
9																	
10																	
11																	
12																	

550-183540 Chain of Custody

Relinquished by: Jacobs 1436	Company: Jacobs	Received by	Company	Condition	Custody Seals Intact
	Date/Time: 5/4/22		Date/Time	Cooler Temp.	
Relinquished by	Company	Received by: Eeta PHX	Company	Condition	Custody Seals Intact
	Date/Time		Date/Time: 5-4-22 1434	Cooler Temp.	

Preservatives: (Other; Specify):

0 (none); 1 (4 Deg C); 2 (HCl, pH<2); 3 (HNO3, pH<2); 4 (H2SO4, pH<2); 5 (NaOH, pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4, pH<2, 4 Deg C)); 8 (HCl, pH<2, 4 Deg C); 9 (HCl, 4 Deg C); 10 (HNO3, pH<2, 4 Deg C); 11 (NaOH. pH>12, 4 Deg, Ascorbic Acid); 12 (H2SO4, Na2S2O3, 4 Deg C, pH<2); 13 (Zn Acetate), 14 (1-MeOH, 4 Deg C and 2-NaHSO4, 4 Deg C): 15 (NaOH, pH>12, 4 Deg C); sp (special instructions)

0.8°C 1IG COO

Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 550-183540-1

Login Number: 183540
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.

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-185016-1
Client Project/Site: Deer Valley

For:
Honeywell International Inc
1944 E. Sky Harbor Circle MS 2101-2C
Phoenix, Arizona 85034

Attn: Tao Wu

Authorized for release by:
6/8/2022 2:32:55 PM

Rachel Sester, Project Manager I
(602)659-7615
Rachel.Sester@et.eurofinsus.com

LINKS

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www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Sample Summary 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 16
QC Sample Results 17
QC Association Summary 27
Lab Chronicle 28
Certification Summary 29
Method Summary 30
Chain of Custody 31
Receipt Checklists 32

Definitions/Glossary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-185016-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
L5	The associated blank spike recovery was above laboratory/method acceptance limits. This analyte was not detected in the sample.
N1	See case narrative.
R6	LFB/LFBD RPD exceeded method control limit. Recovery met acceptance criteria.
T2	Cited ADHS licensed method does not contain this analyte as part of the method compound list.
T5	Laboratory not licensed for this parameter
V1	CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.

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: 550-185016-1

Laboratory: Eurofins Phoenix

Narrative

Job Narrative
550-185016-1

Comments
No additional comments.

Receipt
The samples were received on 6/3/2022 11:38 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.0º C.

GC/MS VOA
Method 624.1: The initial calibration verification (ICV) result for batch 550-276028 was above the upper control limit for Carbon disulfide. Sample results were non-detects, and have been reported as N1 qualified data.

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

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

Sample Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-185016-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-185016-1	INF-22M06	Water	06/03/22 09:40	06/03/22 11:38
550-185016-2	EFF-22M06	Water	06/03/22 09:25	06/03/22 11:38
550-185016-3	GAC-2A-100-22M06	Water	06/03/22 09:33	06/03/22 11:38
550-185016-4	GAC-2B-75-22M06	Water	06/03/22 09:30	06/03/22 11:38
550-185016-5	TB-22M06	Water	06/03/22 08:00	06/03/22 11:38

Detection Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-185016-1

Client Sample ID: INF-22M06 — Lab Sample ID: 550-185016-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.55		0.50		ug/L	1		624.1	Total/NA
Chloroform	0.65		0.50		ug/L	1		624.1	Total/NA
cis-1,2-Dichloroethene	4.2		0.50		ug/L	1		624.1	Total/NA
Tetrachloroethene	1.2		0.50		ug/L	1		624.1	Total/NA
Trichloroethene	28		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	0.65	T5	0.50		ug/L	1		624.1	Total/NA

Client Sample ID: EFF-22M06 — Lab Sample ID: 550-185016-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.62		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	0.62	T5	0.50		ug/L	1		624.1	Total/NA

Client Sample ID: GAC-2A-100-22M06 — Lab Sample ID: 550-185016-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.90		0.50		ug/L	1		624.1	Total/NA
cis-1,2-Dichloroethene	4.1		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	0.90	T5	0.50		ug/L	1		624.1	Total/NA

Client Sample ID: GAC-2B-75-22M06 — Lab Sample ID: 550-185016-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.86		0.50		ug/L	1		624.1	Total/NA
cis-1,2-Dichloroethene	0.66		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	0.86	T5	0.50		ug/L	1		624.1	Total/NA

Client Sample ID: TB-22M06 — Lab Sample ID: 550-185016-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-185016-1

Client Sample ID: INF-22M06

Date Collected: 06/03/22 09:40
Date Received: 06/03/22 11:38

Lab Sample ID: 550-185016-1

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			06/04/22 17:01	1
1,1,1-Trichloroethane	ND		0.50		ug/L			06/04/22 17:01	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			06/04/22 17:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			06/04/22 17:01	1
1,1,2-Trichloroethane	ND		0.50		ug/L			06/04/22 17:01	1
1,1-Dichloroethane	ND		0.50		ug/L			06/04/22 17:01	1
1,1-Dichloroethene	**0.55**		0.50		ug/L			06/04/22 17:01	1
1,1-Dichloropropene	ND		0.50		ug/L			06/04/22 17:01	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			06/04/22 17:01	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/04/22 17:01	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0		ug/L			06/04/22 17:01	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			06/04/22 17:01	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			06/04/22 17:01	1
1,2-Dichlorobenzene	ND		0.50		ug/L			06/04/22 17:01	1
1,2-Dichloroethane	ND		0.50		ug/L			06/04/22 17:01	1
1,2-Dichloropropane	ND		0.50		ug/L			06/04/22 17:01	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			06/04/22 17:01	1
1,3-Dichlorobenzene	ND		0.50		ug/L			06/04/22 17:01	1
1,3-Dichloropropane	ND		0.50		ug/L			06/04/22 17:01	1
1,4-Dichlorobenzene	ND		0.50		ug/L			06/04/22 17:01	1
2,2-Dichloropropane	ND		1.0		ug/L			06/04/22 17:01	1
2-Butanone (MEK)	ND		10		ug/L			06/04/22 17:01	1
2-Chlorotoluene	ND		0.50		ug/L			06/04/22 17:01	1
2-Hexanone	ND		5.0		ug/L			06/04/22 17:01	1
4-Chlorotoluene	ND		0.50		ug/L			06/04/22 17:01	1
4-Isopropyltoluene	ND		0.50		ug/L			06/04/22 17:01	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			06/04/22 17:01	1
Acetone	ND		10		ug/L			06/04/22 17:01	1
Benzene	ND		0.50		ug/L			06/04/22 17:01	1
Bromobenzene	ND		1.0		ug/L			06/04/22 17:01	1
Bromoform	ND		1.0		ug/L			06/04/22 17:01	1
Bromomethane	ND		5.0		ug/L			06/04/22 17:01	1
Carbon disulfide	ND	N1	5.0		ug/L			06/04/22 17:01	1
Carbon tetrachloride	ND		0.50		ug/L			06/04/22 17:01	1
Chlorobenzene	ND		0.50		ug/L			06/08/22 02:36	1
Chlorobromomethane	ND		0.50		ug/L			06/04/22 17:01	1
Chlorodibromomethane	ND		0.50		ug/L			06/04/22 17:01	1
Chloroethane	ND		1.0		ug/L			06/04/22 17:01	1
Chloroform	**0.65**		0.50		ug/L			06/04/22 17:01	1
Chloromethane	ND		1.0		ug/L			06/04/22 17:01	1
cis-1,2-Dichloroethene	**4.2**		0.50		ug/L			06/04/22 17:01	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			06/04/22 17:01	1
Dibromomethane	ND		0.50		ug/L			06/04/22 17:01	1
Dichlorobromomethane	ND		0.50		ug/L			06/04/22 17:01	1
Dichlorodifluoromethane	ND		1.0		ug/L			06/04/22 17:01	1
Ethanol	ND	R6	150		ug/L			06/04/22 17:01	1
Ethylbenzene	ND		0.50		ug/L			06/04/22 17:01	1
Ethylene Dibromide	ND		0.50		ug/L			06/04/22 17:01	1
Hexachlorobutadiene	ND		5.0		ug/L			06/04/22 17:01	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-185016-1

Client Sample ID: INF-22M06

Lab Sample ID: 550-185016-1
Matrix: Water
Date Collected: 06/03/22 09:40
Date Received: 06/03/22 11:38

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND	L5 V1	2.0	ug/L			06/04/22 17:01	1
Isopropylbenzene	ND		0.50	ug/L			06/04/22 17:01	1
Methyl tert-butyl ether	ND		0.50	ug/L			06/04/22 17:01	1
Methylene Chloride	ND		5.0	ug/L			06/04/22 17:01	1
m-Xylene & p-Xylene	ND		1.0	ug/L			06/04/22 17:01	1
Naphthalene	ND		5.0	ug/L			06/04/22 17:01	1
n-Butylbenzene	ND		1.0	ug/L			06/04/22 17:01	1
N-Propylbenzene	ND		0.50	ug/L			06/04/22 17:01	1
o-Xylene	ND		0.50	ug/L			06/04/22 17:01	1
sec-Butylbenzene	ND		0.50	ug/L			06/04/22 17:01	1
Styrene	ND		1.0	ug/L			06/04/22 17:01	1
tert-Butylbenzene	ND		0.50	ug/L			06/04/22 17:01	1
Tetrachloroethene	**1.2**		0.50	ug/L			06/04/22 17:01	1
Toluene	ND		0.50	ug/L			06/04/22 17:01	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			06/04/22 17:01	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			06/04/22 17:01	1
Trichloroethene	**28**		0.50	ug/L			06/04/22 17:01	1
Trichlorofluoromethane	ND		1.0	ug/L			06/04/22 17:01	1
Trihalomethanes, Total	**0.65**	**T5**	0.50	ug/L			06/04/22 17:01	1
Vinyl acetate	ND		5.0	ug/L			06/04/22 17:01	1
Vinyl chloride	ND		1.0	ug/L			06/04/22 17:01	1
Xylenes, Total	ND		0.50	ug/L			06/04/22 17:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*60 - 140*		*06/04/22 17:01*	*1*
4-Bromofluorobenzene (Surr)	*99*		*60 - 140*		*06/08/22 02:36*	*1*
Dibromofluoromethane (Surr)	*103*		*60 - 140*		*06/04/22 17:01*	*1*
Dibromofluoromethane (Surr)	*101*		*60 - 140*		*06/08/22 02:36*	*1*
Toluene-d8 (Surr)	*91*		*60 - 140*		*06/04/22 17:01*	*1*
Toluene-d8 (Surr)	*107*		*60 - 140*		*06/08/22 02:36*	*1*

Client Sample ID: EFF-22M06

Lab Sample ID: 550-185016-2
Matrix: Water
Date Collected: 06/03/22 09:25
Date Received: 06/03/22 11:38

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			06/04/22 17:22	1
1,1,1-Trichloroethane	ND		0.50	ug/L			06/04/22 17:22	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			06/04/22 17:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			06/04/22 17:22	1
1,1,2-Trichloroethane	ND		0.50	ug/L			06/04/22 17:22	1
1,1-Dichloroethane	ND		0.50	ug/L			06/04/22 17:22	1
1,1-Dichloroethene	ND		0.50	ug/L			06/04/22 17:22	1
1,1-Dichloropropene	ND		0.50	ug/L			06/04/22 17:22	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			06/04/22 17:22	1
1,2,3-Trichloropropane	ND		2.0	ug/L			06/04/22 17:22	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0	ug/L			06/04/22 17:22	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			06/04/22 17:22	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			06/04/22 17:22	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-185016-1

Client Sample ID: EFF-22M06

Date Collected: 06/03/22 09:25
Date Received: 06/03/22 11:38

Lab Sample ID: 550-185016-2

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		0.50		ug/L			06/04/22 17:22	1
1,2-Dichloroethane	ND		0.50		ug/L			06/04/22 17:22	1
1,2-Dichloropropane	ND		0.50		ug/L			06/04/22 17:22	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			06/04/22 17:22	1
1,3-Dichlorobenzene	ND		0.50		ug/L			06/04/22 17:22	1
1,3-Dichloropropane	ND		0.50		ug/L			06/04/22 17:22	1
1,4-Dichlorobenzene	ND		0.50		ug/L			06/04/22 17:22	1
2,2-Dichloropropane	ND		1.0		ug/L			06/04/22 17:22	1
2-Butanone (MEK)	ND		10		ug/L			06/04/22 17:22	1
2-Chlorotoluene	ND		0.50		ug/L			06/04/22 17:22	1
2-Hexanone	ND		5.0		ug/L			06/04/22 17:22	1
4-Chlorotoluene	ND		0.50		ug/L			06/04/22 17:22	1
4-Isopropyltoluene	ND		0.50		ug/L			06/04/22 17:22	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			06/04/22 17:22	1
Acetone	ND		10		ug/L			06/04/22 17:22	1
Benzene	ND		0.50		ug/L			06/04/22 17:22	1
Bromobenzene	ND		1.0		ug/L			06/04/22 17:22	1
Bromoform	ND		1.0		ug/L			06/04/22 17:22	1
Bromomethane	ND		5.0		ug/L			06/04/22 17:22	1
Carbon disulfide	ND	N1	5.0		ug/L			06/04/22 17:22	1
Carbon tetrachloride	ND		0.50		ug/L			06/04/22 17:22	1
Chlorobenzene	ND		0.50		ug/L			06/08/22 03:05	1
Chlorobromomethane	ND		0.50		ug/L			06/04/22 17:22	1
Chlorodibromomethane	ND		0.50		ug/L			06/04/22 17:22	1
Chloroethane	ND		1.0		ug/L			06/04/22 17:22	1
Chloroform	**0.62**		0.50		ug/L			06/04/22 17:22	1
Chloromethane	ND		1.0		ug/L			06/04/22 17:22	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			06/04/22 17:22	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			06/04/22 17:22	1
Dibromomethane	ND		0.50		ug/L			06/04/22 17:22	1
Dichlorobromomethane	ND		0.50		ug/L			06/04/22 17:22	1
Dichlorodifluoromethane	ND		1.0		ug/L			06/04/22 17:22	1
Ethanol	ND	R6	150		ug/L			06/04/22 17:22	1
Ethylbenzene	ND		0.50		ug/L			06/04/22 17:22	1
Ethylene Dibromide	ND		0.50		ug/L			06/04/22 17:22	1
Hexachlorobutadiene	ND		5.0		ug/L			06/04/22 17:22	1
Iodomethane	ND	L5 V1	2.0		ug/L			06/04/22 17:22	1
Isopropylbenzene	ND		0.50		ug/L			06/04/22 17:22	1
Methyl tert-butyl ether	ND		0.50		ug/L			06/04/22 17:22	1
Methylene Chloride	ND		5.0		ug/L			06/04/22 17:22	1
m-Xylene & p-Xylene	ND		1.0		ug/L			06/04/22 17:22	1
Naphthalene	ND		5.0		ug/L			06/04/22 17:22	1
n-Butylbenzene	ND		1.0		ug/L			06/04/22 17:22	1
N-Propylbenzene	ND		0.50		ug/L			06/04/22 17:22	1
o-Xylene	ND		0.50		ug/L			06/04/22 17:22	1
sec-Butylbenzene	ND		0.50		ug/L			06/04/22 17:22	1
Styrene	ND		1.0		ug/L			06/04/22 17:22	1
tert-Butylbenzene	ND		0.50		ug/L			06/04/22 17:22	1
Tetrachloroethene	ND		0.50		ug/L			06/04/22 17:22	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-185016-1

Client Sample ID: EFF-22M06

Lab Sample ID: 550-185016-2
Date Collected: 06/03/22 09:25
Matrix: Water
Date Received: 06/03/22 11:38

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		0.50		ug/L			06/04/22 17:22	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			06/04/22 17:22	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			06/04/22 17:22	1
Trichloroethene	ND		0.50		ug/L			06/04/22 17:22	1
Trichlorofluoromethane	ND		1.0		ug/L			06/04/22 17:22	1
Trihalomethanes, Total	**0.62**	**T5**	0.50		ug/L			06/04/22 17:22	1
Vinyl acetate	ND		5.0		ug/L			06/04/22 17:22	1
Vinyl chloride	ND		1.0		ug/L			06/04/22 17:22	1
Xylenes, Total	ND		0.50		ug/L			06/04/22 17:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*60 - 140*		*06/04/22 17:22*	*1*
4-Bromofluorobenzene (Surr)	*102*		*60 - 140*		*06/08/22 03:05*	*1*
Dibromofluoromethane (Surr)	*100*		*60 - 140*		*06/04/22 17:22*	*1*
Dibromofluoromethane (Surr)	*99*		*60 - 140*		*06/08/22 03:05*	*1*
Toluene-d8 (Surr)	*90*		*60 - 140*		*06/04/22 17:22*	*1*
Toluene-d8 (Surr)	*95*		*60 - 140*		*06/08/22 03:05*	*1*

Client Sample ID: GAC-2A-100-22M06

Lab Sample ID: 550-185016-3
Date Collected: 06/03/22 09:33
Matrix: Water
Date Received: 06/03/22 11:38

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			06/04/22 17:43	1
1,1,1-Trichloroethane	ND		0.50		ug/L			06/04/22 17:43	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			06/04/22 17:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			06/04/22 17:43	1
1,1,2-Trichloroethane	ND		0.50		ug/L			06/04/22 17:43	1
1,1-Dichloroethane	ND		0.50		ug/L			06/04/22 17:43	1
1,1-Dichloroethene	ND		0.50		ug/L			06/04/22 17:43	1
1,1-Dichloropropene	ND		0.50		ug/L			06/04/22 17:43	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			06/04/22 17:43	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/04/22 17:43	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0		ug/L			06/04/22 17:43	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			06/04/22 17:43	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			06/04/22 17:43	1
1,2-Dichlorobenzene	ND		0.50		ug/L			06/04/22 17:43	1
1,2-Dichloroethane	ND		0.50		ug/L			06/04/22 17:43	1
1,2-Dichloropropane	ND		0.50		ug/L			06/04/22 17:43	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			06/04/22 17:43	1
1,3-Dichlorobenzene	ND		0.50		ug/L			06/04/22 17:43	1
1,3-Dichloropropane	ND		0.50		ug/L			06/04/22 17:43	1
1,4-Dichlorobenzene	ND		0.50		ug/L			06/04/22 17:43	1
2,2-Dichloropropane	ND		1.0		ug/L			06/04/22 17:43	1
2-Butanone (MEK)	ND		10		ug/L			06/04/22 17:43	1
2-Chlorotoluene	ND		0.50		ug/L			06/04/22 17:43	1
2-Hexanone	ND		5.0		ug/L			06/04/22 17:43	1
4-Chlorotoluene	ND		0.50		ug/L			06/04/22 17:43	1
4-Isopropyltoluene	ND		0.50		ug/L			06/04/22 17:43	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-185016-1

Client Sample ID: GAC-2A-100-22M06

Lab Sample ID: 550-185016-3

Date Collected: 06/03/22 09:33
Date Received: 06/03/22 11:38

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			06/04/22 17:43	1
Acetone	ND		10		ug/L			06/04/22 17:43	1
Benzene	ND		0.50		ug/L			06/04/22 17:43	1
Bromobenzene	ND		1.0		ug/L			06/04/22 17:43	1
Bromoform	ND		1.0		ug/L			06/04/22 17:43	1
Bromomethane	ND		5.0		ug/L			06/04/22 17:43	1
Carbon disulfide	ND	N1	5.0		ug/L			06/04/22 17:43	1
Carbon tetrachloride	ND		0.50		ug/L			06/04/22 17:43	1
Chlorobenzene	ND		0.50		ug/L			06/08/22 03:33	1
Chlorobromomethane	ND		0.50		ug/L			06/04/22 17:43	1
Chlorodibromomethane	ND		0.50		ug/L			06/04/22 17:43	1
Chloroethane	ND		1.0		ug/L			06/04/22 17:43	1
Chloroform	**0.90**		0.50		ug/L			06/04/22 17:43	1
Chloromethane	ND		1.0		ug/L			06/04/22 17:43	1
cis-1,2-Dichloroethene	**4.1**		0.50		ug/L			06/04/22 17:43	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			06/04/22 17:43	1
Dibromomethane	ND		0.50		ug/L			06/04/22 17:43	1
Dichlorobromomethane	ND		0.50		ug/L			06/04/22 17:43	1
Dichlorodifluoromethane	ND		1.0		ug/L			06/04/22 17:43	1
Ethanol	ND	R6	150		ug/L			06/04/22 17:43	1
Ethylbenzene	ND		0.50		ug/L			06/04/22 17:43	1
Ethylene Dibromide	ND		0.50		ug/L			06/04/22 17:43	1
Hexachlorobutadiene	ND		5.0		ug/L			06/04/22 17:43	1
Iodomethane	ND	L5 V1	2.0		ug/L			06/04/22 17:43	1
Isopropylbenzene	ND		0.50		ug/L			06/04/22 17:43	1
Methyl tert-butyl ether	ND		0.50		ug/L			06/04/22 17:43	1
Methylene Chloride	ND		5.0		ug/L			06/04/22 17:43	1
m-Xylene & p-Xylene	ND		1.0		ug/L			06/04/22 17:43	1
Naphthalene	ND		5.0		ug/L			06/04/22 17:43	1
n-Butylbenzene	ND		1.0		ug/L			06/04/22 17:43	1
N-Propylbenzene	ND		0.50		ug/L			06/04/22 17:43	1
o-Xylene	ND		0.50		ug/L			06/04/22 17:43	1
sec-Butylbenzene	ND		0.50		ug/L			06/04/22 17:43	1
Styrene	ND		1.0		ug/L			06/04/22 17:43	1
tert-Butylbenzene	ND		0.50		ug/L			06/04/22 17:43	1
Tetrachloroethene	ND		0.50		ug/L			06/04/22 17:43	1
Toluene	ND		0.50		ug/L			06/04/22 17:43	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			06/04/22 17:43	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			06/04/22 17:43	1
Trichloroethene	ND		0.50		ug/L			06/04/22 17:43	1
Trichlorofluoromethane	ND		1.0		ug/L			06/04/22 17:43	1
Trihalomethanes, Total	**0.90**	**T5**	0.50		ug/L			06/04/22 17:43	1
Vinyl acetate	ND		5.0		ug/L			06/04/22 17:43	1
Vinyl chloride	ND		1.0		ug/L			06/04/22 17:43	1
Xylenes, Total	ND		0.50		ug/L			06/04/22 17:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*60 - 140*		*06/04/22 17:43*	*1*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*		*06/08/22 03:33*	*1*
Dibromofluoromethane (Surr)	*99*		*60 - 140*		*06/04/22 17:43*	*1*

Client Sample ID: GAC-2A-100-22M06

Lab Sample ID: 550-185016-3

Date Collected: 06/03/22 09:33
Matrix: Water
Date Received: 06/03/22 11:38

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	101		60 - 140		06/08/22 03:33	1
Toluene-d8 (Surr)	92		60 - 140		06/04/22 17:43	1
Toluene-d8 (Surr)	107		60 - 140		06/08/22 03:33	1

Client Sample ID: GAC-2B-75-22M06

Lab Sample ID: 550-185016-4

Date Collected: 06/03/22 09:30
Matrix: Water
Date Received: 06/03/22 11:38

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			06/04/22 18:03	1
1,1,1-Trichloroethane	ND		0.50	ug/L			06/04/22 18:03	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			06/04/22 18:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			06/04/22 18:03	1
1,1,2-Trichloroethane	ND		0.50	ug/L			06/04/22 18:03	1
1,1-Dichloroethane	ND		0.50	ug/L			06/04/22 18:03	1
1,1-Dichloroethene	ND		0.50	ug/L			06/04/22 18:03	1
1,1-Dichloropropene	ND		0.50	ug/L			06/04/22 18:03	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			06/04/22 18:03	1
1,2,3-Trichloropropane	ND		2.0	ug/L			06/04/22 18:03	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0	ug/L			06/04/22 18:03	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			06/04/22 18:03	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			06/04/22 18:03	1
1,2-Dichlorobenzene	ND		0.50	ug/L			06/04/22 18:03	1
1,2-Dichloroethane	ND		0.50	ug/L			06/04/22 18:03	1
1,2-Dichloropropane	ND		0.50	ug/L			06/04/22 18:03	1
1,3,5-Trimethylbenzene	ND		0.50	ug/L			06/04/22 18:03	1
1,3-Dichlorobenzene	ND		0.50	ug/L			06/04/22 18:03	1
1,3-Dichloropropane	ND		0.50	ug/L			06/04/22 18:03	1
1,4-Dichlorobenzene	ND		0.50	ug/L			06/04/22 18:03	1
2,2-Dichloropropane	ND		1.0	ug/L			06/04/22 18:03	1
2-Butanone (MEK)	ND		10	ug/L			06/04/22 18:03	1
2-Chlorotoluene	ND		0.50	ug/L			06/04/22 18:03	1
2-Hexanone	ND		5.0	ug/L			06/04/22 18:03	1
4-Chlorotoluene	ND		0.50	ug/L			06/04/22 18:03	1
4-Isopropyltoluene	ND		0.50	ug/L			06/04/22 18:03	1
4-Methyl-2-pentanone (MIBK)	ND		2.5	ug/L			06/04/22 18:03	1
Acetone	ND		10	ug/L			06/04/22 18:03	1
Benzene	ND		0.50	ug/L			06/04/22 18:03	1
Bromobenzene	ND		1.0	ug/L			06/04/22 18:03	1
Bromoform	ND		1.0	ug/L			06/04/22 18:03	1
Bromomethane	ND		5.0	ug/L			06/04/22 18:03	1
Carbon disulfide	ND	N1	5.0	ug/L			06/04/22 18:03	1
Carbon tetrachloride	ND		0.50	ug/L			06/04/22 18:03	1
Chlorobenzene	ND		0.50	ug/L			06/08/22 04:02	1
Chlorobromomethane	ND		0.50	ug/L			06/04/22 18:03	1
Chlorodibromomethane	ND		0.50	ug/L			06/04/22 18:03	1
Chloroethane	ND		1.0	ug/L			06/04/22 18:03	1
Chloroform	**0.86**		0.50	ug/L			06/04/22 18:03	1

Client Sample ID: GAC-2B-75-22M06

Lab Sample ID: 550-185016-4

Date Collected: 06/03/22 09:30
Matrix: Water
Date Received: 06/03/22 11:38

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0		ug/L			06/04/22 18:03	1
cis-1,2-Dichloroethene	**0.66**		0.50		ug/L			06/04/22 18:03	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			06/04/22 18:03	1
Dibromomethane	ND		0.50		ug/L			06/04/22 18:03	1
Dichlorobromomethane	ND		0.50		ug/L			06/04/22 18:03	1
Dichlorodifluoromethane	ND		1.0		ug/L			06/04/22 18:03	1
Ethanol	ND	R6	150		ug/L			06/04/22 18:03	1
Ethylbenzene	ND		0.50		ug/L			06/04/22 18:03	1
Ethylene Dibromide	ND		0.50		ug/L			06/04/22 18:03	1
Hexachlorobutadiene	ND		5.0		ug/L			06/04/22 18:03	1
Iodomethane	ND	L5 V1	2.0		ug/L			06/04/22 18:03	1
Isopropylbenzene	ND		0.50		ug/L			06/04/22 18:03	1
Methyl tert-butyl ether	ND		0.50		ug/L			06/04/22 18:03	1
Methylene Chloride	ND		5.0		ug/L			06/04/22 18:03	1
m-Xylene & p-Xylene	ND		1.0		ug/L			06/04/22 18:03	1
Naphthalene	ND		5.0		ug/L			06/04/22 18:03	1
n-Butylbenzene	ND		1.0		ug/L			06/04/22 18:03	1
N-Propylbenzene	ND		0.50		ug/L			06/04/22 18:03	1
o-Xylene	ND		0.50		ug/L			06/04/22 18:03	1
sec-Butylbenzene	ND		0.50		ug/L			06/04/22 18:03	1
Styrene	ND		1.0		ug/L			06/04/22 18:03	1
tert-Butylbenzene	ND		0.50		ug/L			06/04/22 18:03	1
Tetrachloroethene	ND		0.50		ug/L			06/04/22 18:03	1
Toluene	ND		0.50		ug/L			06/04/22 18:03	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			06/04/22 18:03	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			06/04/22 18:03	1
Trichloroethene	ND		0.50		ug/L			06/04/22 18:03	1
Trichlorofluoromethane	ND		1.0		ug/L			06/04/22 18:03	1
Trihalomethanes, Total	**0.86**	**T5**	0.50		ug/L			06/04/22 18:03	1
Vinyl acetate	ND		5.0		ug/L			06/04/22 18:03	1
Vinyl chloride	ND		1.0		ug/L			06/04/22 18:03	1
Xylenes, Total	ND		0.50		ug/L			06/04/22 18:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*60 - 140*		*06/04/22 18:03*	*1*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*		*06/08/22 04:02*	*1*
Dibromofluoromethane (Surr)	*100*		*60 - 140*		*06/04/22 18:03*	*1*
Dibromofluoromethane (Surr)	*102*		*60 - 140*		*06/08/22 04:02*	*1*
Toluene-d8 (Surr)	*91*		*60 - 140*		*06/04/22 18:03*	*1*
Toluene-d8 (Surr)	*108*		*60 - 140*		*06/08/22 04:02*	*1*

Client Sample ID: TB-22M06

Lab Sample ID: 550-185016-5

Date Collected: 06/03/22 08:00
Matrix: Water
Date Received: 06/03/22 11:38

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			06/04/22 15:38	1
1,1,1-Trichloroethane	ND		0.50		ug/L			06/04/22 15:38	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			06/04/22 15:38	1

Client Sample ID: TB-22M06

Date Collected: 06/03/22 08:00
Date Received: 06/03/22 11:38

Lab Sample ID: 550-185016-5

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			06/04/22 15:38	1
1,1,2-Trichloroethane	ND		0.50		ug/L			06/04/22 15:38	1
1,1-Dichloroethane	ND		0.50		ug/L			06/04/22 15:38	1
1,1-Dichloroethene	ND		0.50		ug/L			06/04/22 15:38	1
1,1-Dichloropropene	ND		0.50		ug/L			06/04/22 15:38	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			06/04/22 15:38	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/04/22 15:38	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0		ug/L			06/04/22 15:38	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			06/04/22 15:38	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			06/04/22 15:38	1
1,2-Dichlorobenzene	ND		0.50		ug/L			06/04/22 15:38	1
1,2-Dichloroethane	ND		0.50		ug/L			06/04/22 15:38	1
1,2-Dichloropropane	ND		0.50		ug/L			06/04/22 15:38	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			06/04/22 15:38	1
1,3-Dichlorobenzene	ND		0.50		ug/L			06/04/22 15:38	1
1,3-Dichloropropane	ND		0.50		ug/L			06/04/22 15:38	1
1,4-Dichlorobenzene	ND		0.50		ug/L			06/04/22 15:38	1
2,2-Dichloropropane	ND		1.0		ug/L			06/04/22 15:38	1
2-Butanone (MEK)	ND		10		ug/L			06/04/22 15:38	1
2-Chlorotoluene	ND		0.50		ug/L			06/04/22 15:38	1
2-Hexanone	ND		5.0		ug/L			06/04/22 15:38	1
4-Chlorotoluene	ND		0.50		ug/L			06/04/22 15:38	1
4-Isopropyltoluene	ND		0.50		ug/L			06/04/22 15:38	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			06/04/22 15:38	1
Acetone	ND		10		ug/L			06/04/22 15:38	1
Benzene	ND		0.50		ug/L			06/04/22 15:38	1
Bromobenzene	ND		1.0		ug/L			06/04/22 15:38	1
Bromoform	ND		1.0		ug/L			06/04/22 15:38	1
Bromomethane	ND		5.0		ug/L			06/04/22 15:38	1
Carbon disulfide	ND	N1	5.0		ug/L			06/04/22 15:38	1
Carbon tetrachloride	ND		0.50		ug/L			06/04/22 15:38	1
Chlorobenzene	ND		0.50		ug/L			06/08/22 01:11	1
Chlorobromomethane	ND		0.50		ug/L			06/04/22 15:38	1
Chlorodibromomethane	ND		0.50		ug/L			06/04/22 15:38	1
Chloroethane	ND		1.0		ug/L			06/04/22 15:38	1
Chloroform	ND		0.50		ug/L			06/04/22 15:38	1
Chloromethane	ND		1.0		ug/L			06/04/22 15:38	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			06/04/22 15:38	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			06/04/22 15:38	1
Dibromomethane	ND		0.50		ug/L			06/04/22 15:38	1
Dichlorobromomethane	ND		0.50		ug/L			06/04/22 15:38	1
Dichlorodifluoromethane	ND		1.0		ug/L			06/04/22 15:38	1
Ethanol	ND	R6	150		ug/L			06/04/22 15:38	1
Ethylbenzene	ND		0.50		ug/L			06/04/22 15:38	1
Ethylene Dibromide	ND		0.50		ug/L			06/04/22 15:38	1
Hexachlorobutadiene	ND		5.0		ug/L			06/04/22 15:38	1
Iodomethane	ND	L5 V1	2.0		ug/L			06/04/22 15:38	1
Isopropylbenzene	ND		0.50		ug/L			06/04/22 15:38	1
Methyl tert-butyl ether	ND		0.50		ug/L			06/04/22 15:38	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-185016-1

Client Sample ID: TB-22M06

Date Collected: 06/03/22 08:00
Date Received: 06/03/22 11:38

Lab Sample ID: 550-185016-5

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		5.0		ug/L			06/04/22 15:38	1
m-Xylene & p-Xylene	ND		1.0		ug/L			06/04/22 15:38	1
Naphthalene	ND		5.0		ug/L			06/04/22 15:38	1
n-Butylbenzene	ND		1.0		ug/L			06/04/22 15:38	1
N-Propylbenzene	ND		0.50		ug/L			06/04/22 15:38	1
o-Xylene	ND		0.50		ug/L			06/04/22 15:38	1
sec-Butylbenzene	ND		0.50		ug/L			06/04/22 15:38	1
Styrene	ND		1.0		ug/L			06/04/22 15:38	1
tert-Butylbenzene	ND		0.50		ug/L			06/04/22 15:38	1
Tetrachloroethene	ND		0.50		ug/L			06/04/22 15:38	1
Toluene	ND		0.50		ug/L			06/04/22 15:38	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			06/04/22 15:38	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			06/04/22 15:38	1
Trichloroethene	ND		0.50		ug/L			06/04/22 15:38	1
Trichlorofluoromethane	ND		1.0		ug/L			06/04/22 15:38	1
Trihalomethanes, Total	ND	T5	0.50		ug/L			06/04/22 15:38	1
Vinyl acetate	ND		5.0		ug/L			06/04/22 15:38	1
Vinyl chloride	ND		1.0		ug/L			06/04/22 15:38	1
Xylenes, Total	ND		0.50		ug/L			06/04/22 15:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*60 - 140*		*06/04/22 15:38*	*1*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*		*06/08/22 01:11*	*1*
Dibromofluoromethane (Surr)	*98*		*60 - 140*		*06/04/22 15:38*	*1*
Dibromofluoromethane (Surr)	*103*		*60 - 140*		*06/08/22 01:11*	*1*
Toluene-d8 (Surr)	*92*		*60 - 140*		*06/04/22 15:38*	*1*
Toluene-d8 (Surr)	*93*		*60 - 140*		*06/08/22 01:11*	*1*

Surrogate Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-185016-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(60-140)	(60-140)	(60-140)
550-185016-1	INF-22M06	83	103	91
550-185016-1	INF-22M06	99	101	107
550-185016-1 MS	INF-22M06	102	125	108
550-185016-1 MS	INF-22M06	93	101	87
550-185016-1 MSD	INF-22M06	104	127	108
550-185016-1 MSD	INF-22M06	97	107	95
550-185016-2	EFF-22M06	83	100	90
550-185016-2	EFF-22M06	102	99	95
550-185016-3	GAC-2A-100-22M06	81	99	92
550-185016-3	GAC-2A-100-22M06	100	101	107
550-185016-4	GAC-2B-75-22M06	83	100	91
550-185016-4	GAC-2B-75-22M06	100	102	108
550-185016-5	TB-22M06	82	98	92
550-185016-5	TB-22M06	100	103	93
LCS 550-276028/3	Lab Control Sample	101	118	109
LCS 550-276245/3	Lab Control Sample	96	101	106
LCSD 550-276028/4	Lab Control Sample Dup	102	123	113
LCSD 550-276245/4	Lab Control Sample Dup	97	102	94
MB 550-276028/6	Method Blank	84	97	93
MB 550-276245/6	Method Blank	108	105	117

Surrogate Legend

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

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-276028/6
Matrix: Water
Analysis Batch: 276028

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		0.50		ug/L			06/04/22 15:18	1
1,1,1-Trichloroethane	ND		0.50		ug/L			06/04/22 15:18	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			06/04/22 15:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			06/04/22 15:18	1
1,1,2-Trichloroethane	ND		0.50		ug/L			06/04/22 15:18	1
1,1-Dichloroethane	ND		0.50		ug/L			06/04/22 15:18	1
1,1-Dichloroethene	ND		0.50		ug/L			06/04/22 15:18	1
1,1-Dichloropropene	ND		0.50		ug/L			06/04/22 15:18	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			06/04/22 15:18	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/04/22 15:18	1
1,2,4-Trichlorobenzene	ND	T2	2.0		ug/L			06/04/22 15:18	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			06/04/22 15:18	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			06/04/22 15:18	1
1,2-Dichlorobenzene	ND		0.50		ug/L			06/04/22 15:18	1
1,2-Dichloroethane	ND		0.50		ug/L			06/04/22 15:18	1
1,2-Dichloropropane	ND		0.50		ug/L			06/04/22 15:18	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			06/04/22 15:18	1
1,3-Dichlorobenzene	ND		0.50		ug/L			06/04/22 15:18	1
1,3-Dichloropropane	ND		0.50		ug/L			06/04/22 15:18	1
1,4-Dichlorobenzene	ND		0.50		ug/L			06/04/22 15:18	1
2,2-Dichloropropane	ND		1.0		ug/L			06/04/22 15:18	1
2-Butanone (MEK)	ND		10		ug/L			06/04/22 15:18	1
2-Chlorotoluene	ND		0.50		ug/L			06/04/22 15:18	1
2-Hexanone	ND		5.0		ug/L			06/04/22 15:18	1
4-Chlorotoluene	ND		0.50		ug/L			06/04/22 15:18	1
4-Isopropyltoluene	ND		0.50		ug/L			06/04/22 15:18	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			06/04/22 15:18	1
Acetone	ND		10		ug/L			06/04/22 15:18	1
Benzene	ND		0.50		ug/L			06/04/22 15:18	1
Bromobenzene	ND		1.0		ug/L			06/04/22 15:18	1
Bromoform	ND		1.0		ug/L			06/04/22 15:18	1
Bromomethane	ND		5.0		ug/L			06/04/22 15:18	1
Carbon disulfide	ND	N1	5.0		ug/L			06/04/22 15:18	1
Carbon tetrachloride	ND		0.50		ug/L			06/04/22 15:18	1
Chlorobromomethane	ND		0.50		ug/L			06/04/22 15:18	1
Chlorodibromomethane	ND		0.50		ug/L			06/04/22 15:18	1
Chloroethane	ND		1.0		ug/L			06/04/22 15:18	1
Chloroform	ND		0.50		ug/L			06/04/22 15:18	1
Chloromethane	ND		1.0		ug/L			06/04/22 15:18	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			06/04/22 15:18	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			06/04/22 15:18	1
Dibromomethane	ND		0.50		ug/L			06/04/22 15:18	1
Dichlorobromomethane	ND		0.50		ug/L			06/04/22 15:18	1
Dichlorodifluoromethane	ND		1.0		ug/L			06/04/22 15:18	1
Ethanol	ND		150		ug/L			06/04/22 15:18	1
Ethylbenzene	ND		0.50		ug/L			06/04/22 15:18	1
Ethylene Dibromide	ND		0.50		ug/L			06/04/22 15:18	1
Hexachlorobutadiene	ND		5.0		ug/L			06/04/22 15:18	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-276028/6
Matrix: Water
Analysis Batch: 276028

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND		2.0		ug/L			06/04/22 15:18	1
Isopropylbenzene	ND		0.50		ug/L			06/04/22 15:18	1
Methyl tert-butyl ether	ND		0.50		ug/L			06/04/22 15:18	1
Methylene Chloride	ND		5.0		ug/L			06/04/22 15:18	1
m-Xylene & p-Xylene	ND		1.0		ug/L			06/04/22 15:18	1
Naphthalene	ND		5.0		ug/L			06/04/22 15:18	1
n-Butylbenzene	ND		1.0		ug/L			06/04/22 15:18	1
N-Propylbenzene	ND		0.50		ug/L			06/04/22 15:18	1
o-Xylene	ND		0.50		ug/L			06/04/22 15:18	1
sec-Butylbenzene	ND		0.50		ug/L			06/04/22 15:18	1
Styrene	ND		1.0		ug/L			06/04/22 15:18	1
tert-Butylbenzene	ND		0.50		ug/L			06/04/22 15:18	1
Tetrachloroethene	ND		0.50		ug/L			06/04/22 15:18	1
Toluene	ND		0.50		ug/L			06/04/22 15:18	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			06/04/22 15:18	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			06/04/22 15:18	1
Trichloroethene	ND		0.50		ug/L			06/04/22 15:18	1
Trichlorofluoromethane	ND		1.0		ug/L			06/04/22 15:18	1
Trihalomethanes, Total	ND		0.50		ug/L			06/04/22 15:18	1
Vinyl acetate	ND		5.0		ug/L			06/04/22 15:18	1
Vinyl chloride	ND		1.0		ug/L			06/04/22 15:18	1
Xylenes, Total	ND		0.50		ug/L			06/04/22 15:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*60 - 140*		*06/04/22 15:18*	*1*
Dibromofluoromethane (Surr)	*97*		*60 - 140*		*06/04/22 15:18*	*1*
Toluene-d8 (Surr)	*93*		*60 - 140*		*06/04/22 15:18*	*1*

Lab Sample ID: LCS 550-276028/3
Matrix: Water
Analysis Batch: 276028

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	59.3		ug/L		119	60 - 140
1,1,1-Trichloroethane	50.0	60.2		ug/L		120	70 - 130
1,1,2,2-Tetrachloroethane	50.0	53.0		ug/L		106	60 - 140
1,1,2-Trichloroethane	50.0	56.8		ug/L		114	70 - 130
1,1-Dichloroethane	50.0	56.0		ug/L		112	70 - 150
1,1-Dichloroethene	50.0	60.2		ug/L		120	50 - 140
1,1-Dichloropropene	50.0	54.1		ug/L		108	60 - 140
1,2,3-Trichlorobenzene	50.0	62.2		ug/L		124	60 - 140
1,2,3-Trichloropropane	50.0	55.8		ug/L		112	60 - 140
1,2,4-Trichlorobenzene	50.0	61.6	T2	ug/L		123	60 - 140
1,2,4-Trimethylbenzene	50.0	56.2		ug/L		112	60 - 140
1,2-Dibromo-3-Chloropropane	50.0	47.4		ug/L		95	60 - 140
1,2-Dichlorobenzene	50.0	59.2		ug/L		118	65 - 140
1,2-Dichloroethane	50.0	53.5		ug/L		107	70 - 130
1,2-Dichloropropane	50.0	51.7		ug/L		103	35 - 165

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-276028/3
Matrix: Water
Analysis Batch: 276028

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3,5-Trimethylbenzene	50.0	55.4		ug/L		111	60 - 140
1,3-Dichlorobenzene	50.0	59.4		ug/L		119	70 - 130
1,3-Dichloropropane	50.0	55.7		ug/L		111	60 - 140
1,4-Dichlorobenzene	50.0	58.7		ug/L		117	65 - 135
2,2-Dichloropropane	50.0	60.3		ug/L		121	60 - 140
2-Butanone (MEK)	50.0	58.1		ug/L		116	60 - 140
2-Chlorotoluene	50.0	54.7		ug/L		109	60 - 140
2-Hexanone	50.0	51.8		ug/L		104	60 - 140
4-Chlorotoluene	50.0	54.2		ug/L		108	60 - 140
4-Isopropyltoluene	50.0	59.3		ug/L		119	60 - 140
4-Methyl-2-pentanone (MIBK)	50.0	49.3		ug/L		99	60 - 140
Acetone	50.0	56.7		ug/L		113	18 - 150
Benzene	50.0	54.4		ug/L		109	65 - 135
Bromobenzene	50.0	59.6		ug/L		119	60 - 140
Bromoform	50.0	54.7		ug/L		109	70 - 130
Bromomethane	50.0	72.4		ug/L		145	15 - 185
Carbon disulfide	50.0	48.9	N1	ug/L		98	60 - 140
Carbon tetrachloride	50.0	56.5		ug/L		113	70 - 130
Chlorobenzene	50.0	63.0		ug/L		126	65 - 135
Chlorobromomethane	50.0	63.4		ug/L		127	60 - 140
Chlorodibromomethane	50.0	56.2		ug/L		112	70 - 135
Chloroethane	50.0	61.4		ug/L		123	40 - 160
Chloroform	50.0	59.0		ug/L		118	70 - 135
Chloromethane	50.0	54.8		ug/L		110	10 - 205
cis-1,2-Dichloroethene	50.0	57.1		ug/L		114	60 - 140
cis-1,3-Dichloropropene	50.0	55.6		ug/L		111	25 - 175
Dibromomethane	50.0	56.5		ug/L		113	70 - 130
Dichlorobromomethane	50.0	52.7		ug/L		105	65 - 135
Dichlorodifluoromethane	50.0	57.6		ug/L		115	60 - 140
Ethanol	1000	783		ug/L		78	60 - 140
Ethylbenzene	50.0	56.9		ug/L		114	60 - 140
Ethylene Dibromide	50.0	58.9		ug/L		118	60 - 140
Hexachlorobutadiene	50.0	61.7		ug/L		123	60 - 140
Iodomethane	50.0	71.0	L5	ug/L		142	60 - 140
Isopropylbenzene	50.0	56.1		ug/L		112	60 - 140
Methyl tert-butyl ether	50.0	58.3		ug/L		117	60 - 140
Methylene Chloride	50.0	57.9		ug/L		116	60 - 140
m-Xylene & p-Xylene	50.0	55.1		ug/L		110	60 - 140
Naphthalene	50.0	58.0		ug/L		116	60 - 140
n-Butylbenzene	50.0	56.7		ug/L		113	60 - 140
N-Propylbenzene	50.0	54.9		ug/L		110	60 - 140
o-Xylene	50.0	55.8		ug/L		112	60 - 140
sec-Butylbenzene	50.0	56.4		ug/L		113	60 - 140
Styrene	50.0	56.5		ug/L		113	60 - 140
tert-Butylbenzene	50.0	58.3		ug/L		117	60 - 140
Tetrachloroethene	50.0	63.1		ug/L		126	70 - 130
Toluene	50.0	56.5		ug/L		113	70 - 130
trans-1,2-Dichloroethene	50.0	61.2		ug/L		122	70 - 130
trans-1,3-Dichloropropene	50.0	56.2		ug/L		112	50 - 150

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-276028/3
Matrix: Water
Analysis Batch: 276028

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Trichloroethene	50.0	57.2		ug/L		114	65 - 135
Trichlorofluoromethane	50.0	63.7		ug/L		127	50 - 150
Vinyl acetate	50.0	61.2		ug/L		122	60 - 140
Vinyl chloride	50.0	56.5		ug/L		113	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*60 - 140*
Dibromofluoromethane (Surr)	*118*		*60 - 140*
Toluene-d8 (Surr)	*109*		*60 - 140*

Lab Sample ID: LCSD 550-276028/4
Matrix: Water
Analysis Batch: 276028

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	60.2		ug/L		120	60 - 140	2	20
1,1,1-Trichloroethane	50.0	61.2		ug/L		122	70 - 130	2	20
1,1,2,2-Tetrachloroethane	50.0	52.9		ug/L		106	60 - 140	0	20
1,1,2-Trichloroethane	50.0	57.7		ug/L		115	70 - 130	1	20
1,1-Dichloroethane	50.0	56.4		ug/L		113	70 - 150	1	20
1,1-Dichloroethene	50.0	59.9		ug/L		120	50 - 140	0	20
1,1-Dichloropropene	50.0	55.5		ug/L		111	60 - 140	3	20
1,2,3-Trichlorobenzene	50.0	68.6		ug/L		137	60 - 140	10	20
1,2,3-Trichloropropane	50.0	55.8		ug/L		112	60 - 140	0	20
1,2,4-Trichlorobenzene	50.0	67.1	T2	ug/L		134	60 - 140	9	20
1,2,4-Trimethylbenzene	50.0	57.5		ug/L		115	60 - 140	2	20
1,2-Dibromo-3-Chloropropane	50.0	50.3		ug/L		101	60 - 140	6	20
1,2-Dichlorobenzene	50.0	60.9		ug/L		122	65 - 140	3	20
1,2-Dichloroethane	50.0	56.2		ug/L		112	70 - 130	5	20
1,2-Dichloropropane	50.0	52.6		ug/L		105	35 - 165	2	20
1,3,5-Trimethylbenzene	50.0	58.7		ug/L		117	60 - 140	6	20
1,3-Dichlorobenzene	50.0	60.2		ug/L		120	70 - 130	1	20
1,3-Dichloropropane	50.0	56.1		ug/L		112	60 - 140	1	20
1,4-Dichlorobenzene	50.0	59.3		ug/L		119	65 - 135	1	20
2,2-Dichloropropane	50.0	61.8		ug/L		124	60 - 140	3	20
2-Butanone (MEK)	50.0	65.6		ug/L		131	60 - 140	12	20
2-Chlorotoluene	50.0	55.5		ug/L		111	60 - 140	1	20
2-Hexanone	50.0	54.4		ug/L		109	60 - 140	5	20
4-Chlorotoluene	50.0	55.0		ug/L		110	60 - 140	1	20
4-Isopropyltoluene	50.0	61.1		ug/L		122	60 - 140	3	20
4-Methyl-2-pentanone (MIBK)	50.0	51.0		ug/L		102	60 - 140	3	20
Acetone	50.0	54.4		ug/L		109	18 - 150	4	20
Benzene	50.0	54.6		ug/L		109	65 - 135	0	20
Bromobenzene	50.0	59.4		ug/L		119	60 - 140	0	20
Bromoform	50.0	53.3		ug/L		107	70 - 130	3	20
Bromomethane	50.0	72.6		ug/L		145	15 - 185	0	20
Carbon disulfide	50.0	48.2	N1	ug/L		96	60 - 140	2	20
Carbon tetrachloride	50.0	57.8		ug/L		116	70 - 130	2	20

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 550-276028/4
Matrix: Water
Analysis Batch: 276028

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
Chlorobenzene	50.0	61.9		ug/L		124	65 - 135	2	20
Chlorobromomethane	50.0	65.0		ug/L		130	60 - 140	3	20
Chlorodibromomethane	50.0	56.9		ug/L		114	70 - 135	1	20
Chloroethane	50.0	58.1		ug/L		116	40 - 160	5	20
Chloroform	50.0	59.8		ug/L		120	70 - 135	1	20
Chloromethane	50.0	53.9		ug/L		108	10 - 205	2	20
cis-1,2-Dichloroethene	50.0	58.4		ug/L		117	60 - 140	2	20
cis-1,3-Dichloropropene	50.0	56.9		ug/L		114	25 - 175	2	20
Dibromomethane	50.0	57.4		ug/L		115	70 - 130	2	20
Dichlorobromomethane	50.0	54.4		ug/L		109	65 - 135	3	20
Dichlorodifluoromethane	50.0	56.7		ug/L		113	60 - 140	2	20
Ethanol	1000	970	R6	ug/L		97	60 - 140	21	20
Ethylbenzene	50.0	57.7		ug/L		115	60 - 140	1	20
Ethylene Dibromide	50.0	60.2		ug/L		120	60 - 140	2	20
Hexachlorobutadiene	50.0	66.5		ug/L		133	60 - 140	7	20
Iodomethane	50.0	65.0		ug/L		130	60 - 140	9	20
Isopropylbenzene	50.0	57.3		ug/L		115	60 - 140	2	20
Methyl tert-butyl ether	50.0	58.8		ug/L		118	60 - 140	1	20
Methylene Chloride	50.0	58.3		ug/L		117	60 - 140	1	20
m-Xylene & p-Xylene	50.0	54.9		ug/L		110	60 - 140	0	20
Naphthalene	50.0	64.3		ug/L		129	60 - 140	10	20
n-Butylbenzene	50.0	58.8		ug/L		118	60 - 140	4	20
N-Propylbenzene	50.0	55.2		ug/L		110	60 - 140	1	20
o-Xylene	50.0	56.1		ug/L		112	60 - 140	1	20
sec-Butylbenzene	50.0	58.4		ug/L		117	60 - 140	4	20
Styrene	50.0	56.2		ug/L		112	60 - 140	1	20
tert-Butylbenzene	50.0	59.5		ug/L		119	60 - 140	2	20
Tetrachloroethene	50.0	64.9		ug/L		130	70 - 130	3	20
Toluene	50.0	57.3		ug/L		115	70 - 130	1	20
trans-1,2-Dichloroethene	50.0	61.8		ug/L		124	70 - 130	1	20
trans-1,3-Dichloropropene	50.0	56.7		ug/L		113	50 - 150	1	20
Trichloroethene	50.0	58.7		ug/L		117	65 - 135	3	20
Trichlorofluoromethane	50.0	63.0		ug/L		126	50 - 150	1	20
Vinyl acetate	50.0	58.0		ug/L		116	60 - 140	5	20
Vinyl chloride	50.0	57.0		ug/L		114	5 - 195	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*60 - 140*
Dibromofluoromethane (Surr)	*123*		*60 - 140*
Toluene-d8 (Surr)	*113*		*60 - 140*

Lab Sample ID: 550-185016-1 MS
Matrix: Water
Analysis Batch: 276028

Client Sample ID: INF-22M06
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	60.2		ug/L		120	50 - 150
1,1,1-Trichloroethane	ND		50.0	57.6		ug/L		115	52 - 162

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-185016-1 MS
Matrix: Water
Analysis Batch: 276028

Client Sample ID: INF-22M06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2,2-Tetrachloroethane	ND		50.0	52.5		ug/L		105	46 - 157
1,1,2-Trichloroethane	ND		50.0	58.7		ug/L		117	52 - 150
1,1-Dichloroethane	ND		50.0	54.1		ug/L		108	59 - 155
1,1-Dichloroethene	0.55		50.0	54.6		ug/L		108	10 - 234
1,1-Dichloropropene	ND		50.0	49.1		ug/L		98	50 - 150
1,2,3-Trichlorobenzene	ND		50.0	64.7		ug/L		126	50 - 150
1,2,3-Trichloropropane	ND		50.0	56.6		ug/L		113	50 - 150
1,2,4-Trichlorobenzene	ND	T5 T2	50.0	63.8	T2	ug/L		128	50 - 150
1,2,4-Trimethylbenzene	ND		50.0	53.5		ug/L		107	50 - 150
1,2-Dibromo-3-Chloropropane	ND		50.0	48.0		ug/L		96	50 - 150
1,2-Dichlorobenzene	ND		50.0	58.9		ug/L		117	18 - 190
1,2-Dichloroethane	ND		50.0	55.4		ug/L		111	49 - 155
1,2-Dichloropropane	ND		50.0	50.9		ug/L		102	10 - 210
1,3,5-Trimethylbenzene	ND		50.0	52.4		ug/L		105	50 - 150
1,3-Dichlorobenzene	ND		50.0	58.4		ug/L		116	59 - 156
1,3-Dichloropropane	ND		50.0	56.8		ug/L		114	50 - 150
1,4-Dichlorobenzene	ND		50.0	57.6		ug/L		114	18 - 190
2,2-Dichloropropane	ND		50.0	57.0		ug/L		114	50 - 150
2-Butanone (MEK)	ND		50.0	59.3		ug/L		119	50 - 150
2-Chlorotoluene	ND		50.0	52.2		ug/L		104	50 - 150
2-Hexanone	ND		50.0	49.8		ug/L		100	50 - 150
4-Chlorotoluene	ND		50.0	52.6		ug/L		105	50 - 150
4-Isopropyltoluene	ND		50.0	55.6		ug/L		111	50 - 150
4-Methyl-2-pentanone (MIBK)	ND		50.0	49.0		ug/L		98	50 - 150
Acetone	ND		50.0	42.1		ug/L		84	18 - 150
Benzene	ND		50.0	51.1		ug/L		102	35 - 151
Bromobenzene	ND		50.0	59.0		ug/L		118	50 - 150
Bromoform	ND		50.0	55.0		ug/L		110	45 - 169
Bromomethane	ND		50.0	64.4		ug/L		129	10 - 242
Carbon disulfide	ND	N1	50.0	43.4	N1	ug/L		87	50 - 150
Carbon tetrachloride	ND		50.0	51.0		ug/L		102	70 - 140
Chlorobenzene	0.80	B1	50.0	59.4		ug/L		117	37 - 160
Chlorobromomethane	ND		50.0	66.3		ug/L		133	50 - 150
Chlorodibromomethane	ND		50.0	58.6		ug/L		117	53 - 149
Chloroethane	ND		50.0	56.0		ug/L		112	14 - 230
Chloroform	0.65		50.0	59.3		ug/L		117	51 - 138
Chloromethane	ND		50.0	51.6		ug/L		103	10 - 273
cis-1,2-Dichloroethene	4.2		50.0	58.5		ug/L		109	50 - 150
cis-1,3-Dichloropropene	ND		50.0	54.7		ug/L		109	10 - 227
Dibromomethane	ND		50.0	56.3		ug/L		113	50 - 150
Dichlorobromomethane	ND		50.0	53.2		ug/L		106	35 - 155
Dichlorodifluoromethane	ND		50.0	50.5		ug/L		101	50 - 150
Ethanol	ND	R6	1000	908		ug/L		91	50 - 150
Ethylbenzene	ND		50.0	54.7		ug/L		109	37 - 162
Ethylene Dibromide	ND		50.0	61.0		ug/L		122	50 - 150
Hexachlorobutadiene	ND		50.0	59.3		ug/L		119	50 - 150
Iodomethane	ND	V1 L5	50.0	63.0		ug/L		124	50 - 150
Isopropylbenzene	ND		50.0	51.6		ug/L		103	50 - 150
Methyl tert-butyl ether	ND		50.0	60.8		ug/L		122	50 - 150

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-185016-1 MS
Matrix: Water
Analysis Batch: 276028

Client Sample ID: INF-22M06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Methylene Chloride	ND		50.0	57.2		ug/L		114	10 - 221
m-Xylene & p-Xylene	ND		50.0	51.7		ug/L		103	50 - 150
Naphthalene	ND		50.0	59.5		ug/L		119	50 - 150
n-Butylbenzene	ND		50.0	52.5		ug/L		105	50 - 150
N-Propylbenzene	ND		50.0	50.0		ug/L		100	50 - 150
o-Xylene	ND		50.0	53.9		ug/L		108	50 - 150
sec-Butylbenzene	ND		50.0	52.2		ug/L		104	50 - 150
Styrene	ND		50.0	54.8		ug/L		110	50 - 150
tert-Butylbenzene	ND		50.0	53.7		ug/L		107	50 - 150
Tetrachloroethene	1.2		50.0	60.7		ug/L		119	64 - 148
Toluene	ND		50.0	54.2		ug/L		108	47 - 150
trans-1,2-Dichloroethene	ND		50.0	58.1		ug/L		116	54 - 156
trans-1,3-Dichloropropene	ND		50.0	56.6		ug/L		113	17 - 183
Trichloroethene	28		50.0	84.7		ug/L		113	70 - 157
Trichlorofluoromethane	ND		50.0	56.9		ug/L		114	17 - 181
Vinyl acetate	ND		50.0	61.3		ug/L		123	50 - 150
Vinyl chloride	ND		50.0	52.3		ug/L		105	10 - 251

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*60 - 140*
Dibromofluoromethane (Surr)	*125*		*60 - 140*
Toluene-d8 (Surr)	*108*		*60 - 140*

Lab Sample ID: 550-185016-1 MSD
Matrix: Water
Analysis Batch: 276028

Client Sample ID: INF-22M06
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	59.9		ug/L		120	50 - 150	1	35
1,1,1-Trichloroethane	ND		50.0	56.9		ug/L		114	52 - 162	1	36
1,1,2,2-Tetrachloroethane	ND		50.0	50.8		ug/L		102	46 - 157	3	61
1,1,2-Trichloroethane	ND		50.0	57.6		ug/L		115	52 - 150	2	45
1,1-Dichloroethane	ND		50.0	55.4		ug/L		111	59 - 155	2	40
1,1-Dichloroethene	0.55		50.0	54.0		ug/L		107	10 - 234	1	32
1,1-Dichloropropene	ND		50.0	47.0		ug/L		94	50 - 150	5	35
1,2,3-Trichlorobenzene	ND		50.0	63.2		ug/L		123	50 - 150	2	35
1,2,3-Trichloropropane	ND		50.0	52.6		ug/L		105	50 - 150	7	35
1,2,4-Trichlorobenzene	ND	T5 T2	50.0	61.3	T2	ug/L		123	50 - 150	4	35
1,2,4-Trimethylbenzene	ND		50.0	53.6		ug/L		107	50 - 150	0	35
1,2-Dibromo-3-Chloropropane	ND		50.0	43.1		ug/L		86	50 - 150	11	35
1,2-Dichlorobenzene	ND		50.0	59.2		ug/L		118	18 - 190	1	57
1,2-Dichloroethane	ND		50.0	54.1		ug/L		108	49 - 155	2	49
1,2-Dichloropropane	ND		50.0	50.7		ug/L		101	10 - 210	0	55
1,3,5-Trimethylbenzene	ND		50.0	56.1		ug/L		112	50 - 150	7	35
1,3-Dichlorobenzene	ND		50.0	58.9		ug/L		117	59 - 156	1	43
1,3-Dichloropropane	ND		50.0	56.5		ug/L		113	50 - 150	1	35
1,4-Dichlorobenzene	ND		50.0	58.8		ug/L		117	18 - 190	2	57
2,2-Dichloropropane	ND		50.0	57.6		ug/L		115	50 - 150	1	35

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-185016-1 MSD
Matrix: Water
Analysis Batch: 276028

Client Sample ID: INF-22M06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Butanone (MEK)	ND		50.0	51.5		ug/L		103	50 - 150	14	35
2-Chlorotoluene	ND		50.0	52.6		ug/L		105	50 - 150	1	35
2-Hexanone	ND		50.0	45.5		ug/L		91	50 - 150	9	35
4-Chlorotoluene	ND		50.0	55.5		ug/L		111	50 - 150	5	35
4-Isopropyltoluene	ND		50.0	54.6		ug/L		109	50 - 150	2	35
4-Methyl-2-pentanone (MIBK)	ND		50.0	44.6		ug/L		89	50 - 150	9	35
Acetone	ND		50.0	36.6		ug/L		73	18 - 150	14	35
Benzene	ND		50.0	50.1		ug/L		100	35 - 151	2	61
Bromobenzene	ND		50.0	60.5		ug/L		121	50 - 150	3	35
Bromoform	ND		50.0	54.6		ug/L		109	45 - 169	1	42
Bromomethane	ND		50.0	64.2		ug/L		128	10 - 242	0	61
Carbon disulfide	ND	N1	50.0	43.3	N1	ug/L		87	50 - 150	0	35
Carbon tetrachloride	ND		50.0	48.5		ug/L		97	70 - 140	5	41
Chlorobenzene	0.80	B1	50.0	59.5		ug/L		117	37 - 160	0	53
Chlorobromomethane	ND		50.0	67.4		ug/L		135	50 - 150	2	35
Chlorodibromomethane	ND		50.0	58.6		ug/L		117	53 - 149	0	50
Chloroethane	ND		50.0	53.3		ug/L		107	14 - 230	5	78
Chloroform	0.65		50.0	60.7		ug/L		120	51 - 138	2	54
Chloromethane	ND		50.0	49.9		ug/L		100	10 - 273	3	60
cis-1,2-Dichloroethene	4.2		50.0	57.7		ug/L		107	50 - 150	1	35
cis-1,3-Dichloropropene	ND		50.0	55.7		ug/L		111	10 - 227	2	58
Dibromomethane	ND		50.0	54.8		ug/L		110	50 - 150	3	35
Dichlorobromomethane	ND		50.0	53.6		ug/L		107	35 - 155	1	56
Dichlorodifluoromethane	ND		50.0	47.8		ug/L		96	50 - 150	6	35
Ethanol	ND	R6	1000	977		ug/L		98	50 - 150	7	35
Ethylbenzene	ND		50.0	54.2		ug/L		108	37 - 162	1	63
Ethylene Dibromide	ND		50.0	59.6		ug/L		119	50 - 150	2	35
Hexachlorobutadiene	ND		50.0	55.4		ug/L		111	50 - 150	7	35
Iodomethane	ND	V1 L5	50.0	62.8		ug/L		124	50 - 150	0	35
Isopropylbenzene	ND		50.0	51.5		ug/L		103	50 - 150	0	35
Methyl tert-butyl ether	ND		50.0	61.6		ug/L		123	50 - 150	1	35
Methylene Chloride	ND		50.0	57.9		ug/L		116	10 - 221	1	28
m-Xylene & p-Xylene	ND		50.0	51.9		ug/L		104	50 - 150	0	35
Naphthalene	ND		50.0	56.4		ug/L		113	50 - 150	5	35
n-Butylbenzene	ND		50.0	51.7		ug/L		103	50 - 150	2	35
N-Propylbenzene	ND		50.0	50.1		ug/L		100	50 - 150	0	35
o-Xylene	ND		50.0	54.2		ug/L		108	50 - 150	1	35
sec-Butylbenzene	ND		50.0	50.9		ug/L		102	50 - 150	3	35
Styrene	ND		50.0	56.3		ug/L		113	50 - 150	3	35
tert-Butylbenzene	ND		50.0	52.8		ug/L		106	50 - 150	2	35
Tetrachloroethene	1.2		50.0	58.9		ug/L		115	64 - 148	3	39
Toluene	ND		50.0	53.9		ug/L		108	47 - 150	0	41
trans-1,2-Dichloroethene	ND		50.0	57.6		ug/L		115	54 - 156	1	45
trans-1,3-Dichloropropene	ND		50.0	57.5		ug/L		115	17 - 183	2	86
Trichloroethene	28		50.0	81.1		ug/L		106	70 - 157	4	48
Trichlorofluoromethane	ND		50.0	55.7		ug/L		111	17 - 181	2	84
Vinyl acetate	ND		50.0	61.9		ug/L		124	50 - 150	1	35
Vinyl chloride	ND		50.0	50.4		ug/L		101	10 - 251	4	66

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-185016-1 MSD
Matrix: Water
Analysis Batch: 276028

Client Sample ID: INF-22M06
Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		60 - 140
Dibromofluoromethane (Surr)	127		60 - 140
Toluene-d8 (Surr)	108		60 - 140

Lab Sample ID: MB 550-276245/6
Matrix: Water
Analysis Batch: 276245

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		0.50		ug/L			06/08/22 00:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		60 - 140		06/08/22 00:42	1
Dibromofluoromethane (Surr)	105		60 - 140		06/08/22 00:42	1
Toluene-d8 (Surr)	117		60 - 140		06/08/22 00:42	1

Lab Sample ID: LCS 550-276245/3
Matrix: Water
Analysis Batch: 276245

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chlorobenzene			50.0	50.5		ug/L		101	65 - 135		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		60 - 140
Dibromofluoromethane (Surr)	101		60 - 140
Toluene-d8 (Surr)	106		60 - 140

Lab Sample ID: LCSD 550-276245/4
Matrix: Water
Analysis Batch: 276245

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
Chlorobenzene			50.0	50.5		ug/L		101	65 - 135	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		60 - 140
Dibromofluoromethane (Surr)	102		60 - 140
Toluene-d8 (Surr)	94		60 - 140

Lab Sample ID: 550-185016-1 MS
Matrix: Water
Analysis Batch: 276245

Client Sample ID: INF-22M06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chlorobenzene	ND		50.0	51.5		ug/L		103	37 - 160		

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-185016-1 MS
Matrix: Water
Analysis Batch: 276245

Client Sample ID: INF-22M06
Prep Type: Total/NA

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*
Dibromofluoromethane (Surr)	*101*		*60 - 140*
Toluene-d8 (Surr)	*87*		*60 - 140*

Lab Sample ID: 550-185016-1 MSD
Matrix: Water
Analysis Batch: 276245

Client Sample ID: INF-22M06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chlorobenzene	ND		50.0	52.2		ug/L		104	37 - 160	1	53

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*60 - 140*
Dibromofluoromethane (Surr)	*107*		*60 - 140*
Toluene-d8 (Surr)	*95*		*60 - 140*

QC Association Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-185016-1

GC/MS VOA

Analysis Batch: 276028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-185016-1	INF-22M06	Total/NA	Water	624.1	
550-185016-2	EFF-22M06	Total/NA	Water	624.1	
550-185016-3	GAC-2A-100-22M06	Total/NA	Water	624.1	
550-185016-4	GAC-2B-75-22M06	Total/NA	Water	624.1	
550-185016-5	TB-22M06	Total/NA	Water	624.1	
MB 550-276028/6	Method Blank	Total/NA	Water	624.1	
LCS 550-276028/3	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-276028/4	Lab Control Sample Dup	Total/NA	Water	624.1	
550-185016-1 MS	INF-22M06	Total/NA	Water	624.1	
550-185016-1 MSD	INF-22M06	Total/NA	Water	624.1	

Analysis Batch: 276245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-185016-1	INF-22M06	Total/NA	Water	624.1	
550-185016-2	EFF-22M06	Total/NA	Water	624.1	
550-185016-3	GAC-2A-100-22M06	Total/NA	Water	624.1	
550-185016-4	GAC-2B-75-22M06	Total/NA	Water	624.1	
550-185016-5	TB-22M06	Total/NA	Water	624.1	
MB 550-276245/6	Method Blank	Total/NA	Water	624.1	
LCS 550-276245/3	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-276245/4	Lab Control Sample Dup	Total/NA	Water	624.1	
550-185016-1 MS	INF-22M06	Total/NA	Water	624.1	
550-185016-1 MSD	INF-22M06	Total/NA	Water	624.1	

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-185016-1

Client Sample ID: INF-22M06 — Lab Sample ID: 550-185016-1

Date Collected: 06/03/22 09:40 — **Matrix: Water**
Date Received: 06/03/22 11:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	276245	06/08/22 02:36	TC1	TAL PHX
Total/NA	Analysis	624.1		1	276028	06/04/22 17:01	JHU	TAL PHX

Client Sample ID: EFF-22M06 — Lab Sample ID: 550-185016-2

Date Collected: 06/03/22 09:25 — **Matrix: Water**
Date Received: 06/03/22 11:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	276245	06/08/22 03:05	TC1	TAL PHX
Total/NA	Analysis	624.1		1	276028	06/04/22 17:22	JHU	TAL PHX

Client Sample ID: GAC-2A-100-22M06 — Lab Sample ID: 550-185016-3

Date Collected: 06/03/22 09:33 — **Matrix: Water**
Date Received: 06/03/22 11:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	276245	06/08/22 03:33	TC1	TAL PHX
Total/NA	Analysis	624.1		1	276028	06/04/22 17:43	JHU	TAL PHX

Client Sample ID: GAC-2B-75-22M06 — Lab Sample ID: 550-185016-4

Date Collected: 06/03/22 09:30 — **Matrix: Water**
Date Received: 06/03/22 11:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	276245	06/08/22 04:02	TC1	TAL PHX
Total/NA	Analysis	624.1		1	276028	06/04/22 18:03	JHU	TAL PHX

Client Sample ID: TB-22M06 — Lab Sample ID: 550-185016-5

Date Collected: 06/03/22 08:00 — **Matrix: Water**
Date Received: 06/03/22 11:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	276245	06/08/22 01:11	TC1	TAL PHX
Total/NA	Analysis	624.1		1	276028	06/04/22 15:38	JHU	TAL PHX

Laboratory References:

TAL PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-185016-1

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
624.1		Water	1,2,4-Trichlorobenzene
624.1		Water	Trihalomethanes, Total

Method Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-185016-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

Laboratory References:

TAL PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

185016

Test America Phoenix
4625 East Cotton CTr Blvd Suite 189
Phoenix, AZ 85040
602-437-3340

Honeywell — Chain Of Custody / Analysis Request

AESI Ref:	44715.42002
COC#	37553-060322
Lab Proj # (SDG):	
Lab ID	TAL-PHX
Site ID	DEERV
Lab Job #	
Authorized User:	Honeywell

Text & Excel File Drive | Excel & Text File Order

Privileged & Confidential		55014762	
Site Name:	Deer Valley	Phase:	
Location of Site:	Phoenix AZ.	Sampling Program	Monthly Groundwater Monitoring Program
Sampling Co.:	Jacobs	EDD To:	Bernice Kidd, Jacobs HTS
Client Contact: (name, co., address)	Jacobs, 1501 W. Fountainhead Parkway (suite 401), Tempe, AZ 85282	Sampler:	T. Kearsley
		PO #	4500178520
Preliminary Data To	Berney Kidd Jacobs, Lakshmi Devi H[redacted]	Analysis Turnaround Time (TAT):	10
		Consultant	Jacobs
Sample Receipt Acknowledgement To	Site Distribution List	Laboratory Contact	Rachel Sester
		Report Tier Level	2
Hard Copy To	Berney Kidd Jacobs	Full Report TAT:	10
Invoice To:	Mike Heitmann, Honeywell/Copy Berney Kidd		HTS

Preservative: 8

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	Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID	Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	E624 (Total VOCs)	E300 0 (Nitrite-Nitrate)	MS/MSD	Sampling Method (code)	Lab Sample Numbers
											Units						
1	Influent			INF-22M06	6/3/2022	9:40	GW-GWS	WATER	REG	3	grab	N	X		-01		
2	Effluent			EFF-22M06	6/3/2022	9:25	GW-GWS	WATER	REG	3	grab	N	X		-02		
3	GAC2A Effluent			GAC-2A-100-22M06	6/3/2022	9:33	GW-GWS	WATER	REG	3	grab	N	X		-03		
4	GAC2B 75%			GAC-2B-75-22M06	6/3/2022	9:30	GW-GWS	WATER	REG	3	grab	N	X		-04		
5	TRIPBLANK			TB-22M06	6/3/2022	8:00	GW-GWS	WATER	REG	1	grab	N	X		-05		
6																	
7																	
8																	
9																	
10																	
11																	
12																	

550-185016 Chain of Custody

Relinquished by	T. Kearsley	Company	Jacobs	Received by	Company	Condition	Custody Seals Intact
		Date/Time	6/3/22 11:38		Date/Time	Cooler Temp.	
Relinquished by		Company		Received by	Company	Condition	Custody Seals Intact
		Date/Time			Date/Time 6/3/22 11:38	Cooler Temp. 2.0	

Preservatives: (Other; Specify):

0 (none); 1 (4 Deg C); 2 (HCl, pH<2); 3 (HNO3, pH<2); 4 (H2SO4, pH<2); 5 (NaOH, pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4, pH<2, 4 Deg C)); 8 (HCl, pH<2, 4 Deg C); 9 (HCl, 4 Deg C); 10 (HNO3, pH<2, 4 Deg C); 11 (NaOH, pH>12, 4 Deg, Ascorbic Acid); 12 (H2SO4, Na2S2O3, 4 Deg C, pH<2); 13 (Zn Acetate); 14 (1-MeOH, 4 Deg C and 2-NaHSO4, 4 Deg C): 15 (NaOH, pH>12, 4 Deg C); sp (special instructions)

CDO

6/8/2022

Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 550-185016-1

Login Number: 185016
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.	N/A	Check done at department level as required.

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-186548-1
Client Project/Site: Deer Valley

For:
Honeywell International Inc
1944 E. Sky Harbor Circle MS 2101-2C
Phoenix, Arizona 85034

Attn: Tao Wu

Authorized for release by:
7/11/2022 2:25:02 PM

Danielle Roberts, Senior Project Manager
(657)210-6355
Danielle.Roberts@et.eurofinsus.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Sample Summary 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 16
QC Sample Results 17
QC Association Summary 35
Lab Chronicle 36
Certification Summary 37
Method Summary 38
Chain of Custody 39
Receipt Checklists 40

Definitions/Glossary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-186548-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
R6	LFB/LFBD RPD exceeded method control limit. Recovery met acceptance criteria.
T2	Cited ADHS licensed method does not contain this analyte as part of the method compound list.
T5	Laboratory not licensed for this parameter

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: 550-186548-1

Laboratory: Eurofins Phoenix

Narrative

Job Narrative
550-186548-1

Comments
No additional comments.

Receipt
The samples were received on 7/5/2022 2:34 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.1º C.

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

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

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

Sample Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-186548-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-186548-1	INF-22M07	Water	07/05/22 12:40	07/05/22 14:34
550-186548-2	EFF-22M07	Water	07/05/22 12:30	07/05/22 14:34
550-186548-3	GAC-2A-100-22M07	Water	07/05/22 12:37	07/05/22 14:34
550-186548-4	GAC-2B-75-22M07	Water	07/05/22 12:35	07/05/22 14:34
550-186548-5	TB-22M07	Water	07/05/22 08:00	07/05/22 14:34

Detection Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-186548-1

Client Sample ID: INF-22M07 — Lab Sample ID: 550-186548-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.61		0.50		ug/L	1		624.1	Total/NA
Chloroform	0.67		0.50		ug/L	1		624.1	Total/NA
cis-1,2-Dichloroethene	4.6		0.50		ug/L	1		624.1	Total/NA
Tetrachloroethene	1.3		0.50		ug/L	1		624.1	Total/NA
Trichloroethene	30		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	0.67	T5	0.50		ug/L	1		624.1	Total/NA
Nitrate as N	23		0.050		mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	23		0.050		mg/L	1		300.0	Total/NA

Client Sample ID: EFF-22M07 — Lab Sample ID: 550-186548-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.98		0.50		ug/L	1		624.1	Total/NA
cis-1,2-Dichloroethene	2.0		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	0.98	T5	0.50		ug/L	1		624.1	Total/NA
Nitrate as N	24		0.050		mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	24		0.050		mg/L	1		300.0	Total/NA

Client Sample ID: GAC-2A-100-22M07 — Lab Sample ID: 550-186548-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.59		0.50		ug/L	1		624.1	Total/NA
Chloroform	0.94		0.50		ug/L	1		624.1	Total/NA
cis-1,2-Dichloroethene	6.4		0.50		ug/L	1		624.1	Total/NA
Trichloroethene	4.0		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	0.94	T5	0.50		ug/L	1		624.1	Total/NA

Client Sample ID: GAC-2B-75-22M07 — Lab Sample ID: 550-186548-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	1.1		0.50		ug/L	1		624.1	Total/NA
cis-1,2-Dichloroethene	4.0		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	1.1	T5	0.50		ug/L	1		624.1	Total/NA

Client Sample ID: TB-22M07 — Lab Sample ID: 550-186548-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-186548-1

Client Sample ID: INF-22M07

Date Collected: 07/05/22 12:40
Date Received: 07/05/22 14:34

Lab Sample ID: 550-186548-1

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			07/06/22 12:47	1
1,1,1-Trichloroethane	ND		0.50		ug/L			07/06/22 12:47	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			07/06/22 12:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			07/06/22 12:47	1
1,1,2-Trichloroethane	ND		0.50		ug/L			07/06/22 12:47	1
1,1-Dichloroethane	ND		0.50		ug/L			07/06/22 12:47	1
1,1-Dichloroethene	**0.61**		0.50		ug/L			07/06/22 12:47	1
1,1-Dichloropropene	ND		0.50		ug/L			07/06/22 12:47	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			07/06/22 12:47	1
1,2,3-Trichloropropane	ND		2.0		ug/L			07/06/22 12:47	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0		ug/L			07/06/22 12:47	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			07/06/22 12:47	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			07/06/22 12:47	1
1,2-Dichlorobenzene	ND		0.50		ug/L			07/06/22 12:47	1
1,2-Dichloroethane	ND		0.50		ug/L			07/06/22 12:47	1
1,2-Dichloropropane	ND		0.50		ug/L			07/06/22 12:47	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			07/06/22 12:47	1
1,3-Dichlorobenzene	ND		0.50		ug/L			07/06/22 12:47	1
1,3-Dichloropropane	ND		0.50		ug/L			07/06/22 12:47	1
1,4-Dichlorobenzene	ND		0.50		ug/L			07/06/22 12:47	1
2,2-Dichloropropane	ND		1.0		ug/L			07/06/22 12:47	1
2-Butanone (MEK)	ND		10		ug/L			07/06/22 12:47	1
2-Chlorotoluene	ND		0.50		ug/L			07/06/22 12:47	1
2-Hexanone	ND		5.0		ug/L			07/06/22 12:47	1
4-Chlorotoluene	ND		0.50		ug/L			07/06/22 12:47	1
4-Isopropyltoluene	ND		0.50		ug/L			07/06/22 12:47	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			07/06/22 12:47	1
Acetone	ND		10		ug/L			07/06/22 12:47	1
Benzene	ND		0.50		ug/L			07/06/22 12:47	1
Bromobenzene	ND		1.0		ug/L			07/06/22 12:47	1
Bromoform	ND		1.0		ug/L			07/06/22 12:47	1
Bromomethane	ND		5.0		ug/L			07/06/22 12:47	1
Carbon disulfide	ND		5.0		ug/L			07/06/22 12:47	1
Carbon tetrachloride	ND		0.50		ug/L			07/06/22 12:47	1
Chlorobenzene	ND		0.50		ug/L			07/06/22 12:47	1
Chlorobromomethane	ND		0.50		ug/L			07/06/22 12:47	1
Chlorodibromomethane	ND		0.50		ug/L			07/06/22 12:47	1
Chloroethane	ND		1.0		ug/L			07/06/22 12:47	1
Chloroform	**0.67**		0.50		ug/L			07/06/22 12:47	1
Chloromethane	ND		1.0		ug/L			07/06/22 12:47	1
cis-1,2-Dichloroethene	**4.6**		0.50		ug/L			07/06/22 12:47	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/06/22 12:47	1
Dibromomethane	ND		0.50		ug/L			07/06/22 12:47	1
Dichlorobromomethane	ND		0.50		ug/L			07/06/22 12:47	1
Dichlorodifluoromethane	ND		1.0		ug/L			07/06/22 12:47	1
Ethanol	ND		150		ug/L			07/06/22 12:47	1
Ethylbenzene	ND		0.50		ug/L			07/06/22 12:47	1
Ethylene Dibromide	ND		0.50		ug/L			07/06/22 12:47	1
Hexachlorobutadiene	ND		5.0		ug/L			07/06/22 12:47	1

Client Sample ID: INF-22M07

Lab Sample ID: 550-186548-1

Date Collected: 07/05/22 12:40

Matrix: Water

Date Received: 07/05/22 14:34

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND		2.0	ug/L			07/06/22 12:47	1
Isopropylbenzene	ND		0.50	ug/L			07/06/22 12:47	1
Methyl tert-butyl ether	ND		0.50	ug/L			07/06/22 12:47	1
Methylene Chloride	ND		5.0	ug/L			07/06/22 12:47	1
m-Xylene & p-Xylene	ND		1.0	ug/L			07/06/22 12:47	1
Naphthalene	ND		5.0	ug/L			07/06/22 12:47	1
n-Butylbenzene	ND		1.0	ug/L			07/06/22 12:47	1
N-Propylbenzene	ND		0.50	ug/L			07/06/22 12:47	1
o-Xylene	ND		0.50	ug/L			07/06/22 12:47	1
sec-Butylbenzene	ND		0.50	ug/L			07/06/22 12:47	1
Styrene	ND		1.0	ug/L			07/06/22 12:47	1
tert-Butylbenzene	ND		0.50	ug/L			07/06/22 12:47	1
Tetrachloroethene	**1.3**		0.50	ug/L			07/06/22 12:47	1
Toluene	ND		0.50	ug/L			07/06/22 12:47	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			07/06/22 12:47	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			07/06/22 12:47	1
Trichloroethene	**30**		0.50	ug/L			07/06/22 12:47	1
Trichlorofluoromethane	ND		1.0	ug/L			07/06/22 12:47	1
Trihalomethanes, Total	**0.67**	**T5**	0.50	ug/L			07/06/22 12:47	1
Vinyl acetate	ND		5.0	ug/L			07/06/22 12:47	1
Vinyl chloride	ND		1.0	ug/L			07/06/22 12:47	1
Xylenes, Total	ND		0.50	ug/L			07/06/22 12:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*60 - 140*		*07/06/22 12:47*	*1*
Dibromofluoromethane (Surr)	*105*		*60 - 140*		*07/06/22 12:47*	*1*
Toluene-d8 (Surr)	*100*		*60 - 140*		*07/06/22 12:47*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**23**		0.050	mg/L			07/05/22 20:32	1
Nitrite as N	ND		0.050	mg/L			07/05/22 20:32	1
Nitrate Nitrite as N	**23**		0.050	mg/L			07/05/22 20:32	1

Client Sample ID: EFF-22M07

Lab Sample ID: 550-186548-2

Date Collected: 07/05/22 12:30

Matrix: Water

Date Received: 07/05/22 14:34

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			07/06/22 13:08	1
1,1,1-Trichloroethane	ND		0.50	ug/L			07/06/22 13:08	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			07/06/22 13:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			07/06/22 13:08	1
1,1,2-Trichloroethane	ND		0.50	ug/L			07/06/22 13:08	1
1,1-Dichloroethane	ND		0.50	ug/L			07/06/22 13:08	1
1,1-Dichloroethene	ND		0.50	ug/L			07/06/22 13:08	1
1,1-Dichloropropene	ND		0.50	ug/L			07/06/22 13:08	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			07/06/22 13:08	1
1,2,3-Trichloropropane	ND		2.0	ug/L			07/06/22 13:08	1

Client Sample ID: EFF-22M07

Date Collected: 07/05/22 12:30
Date Received: 07/05/22 14:34

Lab Sample ID: 550-186548-2

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND	T2 T5	2.0		ug/L			07/06/22 13:08	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			07/06/22 13:08	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			07/06/22 13:08	1
1,2-Dichlorobenzene	ND		0.50		ug/L			07/06/22 13:08	1
1,2-Dichloroethane	ND		0.50		ug/L			07/06/22 13:08	1
1,2-Dichloropropane	ND		0.50		ug/L			07/06/22 13:08	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			07/06/22 13:08	1
1,3-Dichlorobenzene	ND		0.50		ug/L			07/06/22 13:08	1
1,3-Dichloropropane	ND		0.50		ug/L			07/06/22 13:08	1
1,4-Dichlorobenzene	ND		0.50		ug/L			07/06/22 13:08	1
2,2-Dichloropropane	ND		1.0		ug/L			07/06/22 13:08	1
2-Butanone (MEK)	ND		10		ug/L			07/06/22 13:08	1
2-Chlorotoluene	ND		0.50		ug/L			07/06/22 13:08	1
2-Hexanone	ND		5.0		ug/L			07/06/22 13:08	1
4-Chlorotoluene	ND		0.50		ug/L			07/06/22 13:08	1
4-Isopropyltoluene	ND		0.50		ug/L			07/06/22 13:08	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			07/06/22 13:08	1
Acetone	ND		10		ug/L			07/06/22 13:08	1
Benzene	ND		0.50		ug/L			07/06/22 13:08	1
Bromobenzene	ND		1.0		ug/L			07/06/22 13:08	1
Bromoform	ND		1.0		ug/L			07/06/22 13:08	1
Bromomethane	ND		5.0		ug/L			07/06/22 13:08	1
Carbon disulfide	ND		5.0		ug/L			07/06/22 13:08	1
Carbon tetrachloride	ND		0.50		ug/L			07/06/22 13:08	1
Chlorobenzene	ND		0.50		ug/L			07/06/22 13:08	1
Chlorobromomethane	ND		0.50		ug/L			07/06/22 13:08	1
Chlorodibromomethane	ND		0.50		ug/L			07/06/22 13:08	1
Chloroethane	ND		1.0		ug/L			07/06/22 13:08	1
Chloroform	**0.98**		0.50		ug/L			07/06/22 13:08	1
Chloromethane	ND		1.0		ug/L			07/06/22 13:08	1
cis-1,2-Dichloroethene	**2.0**		0.50		ug/L			07/06/22 13:08	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/06/22 13:08	1
Dibromomethane	ND		0.50		ug/L			07/06/22 13:08	1
Dichlorobromomethane	ND		0.50		ug/L			07/06/22 13:08	1
Dichlorodifluoromethane	ND		1.0		ug/L			07/06/22 13:08	1
Ethanol	ND		150		ug/L			07/06/22 13:08	1
Ethylbenzene	ND		0.50		ug/L			07/06/22 13:08	1
Ethylene Dibromide	ND		0.50		ug/L			07/06/22 13:08	1
Hexachlorobutadiene	ND		5.0		ug/L			07/06/22 13:08	1
Iodomethane	ND		2.0		ug/L			07/06/22 13:08	1
Isopropylbenzene	ND		0.50		ug/L			07/06/22 13:08	1
Methyl tert-butyl ether	ND		0.50		ug/L			07/06/22 13:08	1
Methylene Chloride	ND		5.0		ug/L			07/06/22 13:08	1
m-Xylene & p-Xylene	ND		1.0		ug/L			07/06/22 13:08	1
Naphthalene	ND		5.0		ug/L			07/06/22 13:08	1
n-Butylbenzene	ND		1.0		ug/L			07/06/22 13:08	1
N-Propylbenzene	ND		0.50		ug/L			07/06/22 13:08	1
o-Xylene	ND		0.50		ug/L			07/06/22 13:08	1
sec-Butylbenzene	ND		0.50		ug/L			07/06/22 13:08	1

Client Sample ID: EFF-22M07

Lab Sample ID: 550-186548-2

Date Collected: 07/05/22 12:30
Matrix: Water
Date Received: 07/05/22 14:34

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	ug/L			07/06/22 13:08	1
tert-Butylbenzene	ND		0.50	ug/L			07/06/22 13:08	1
Tetrachloroethene	ND		0.50	ug/L			07/06/22 13:08	1
Toluene	ND		0.50	ug/L			07/06/22 13:08	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			07/06/22 13:08	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			07/06/22 13:08	1
Trichloroethene	ND		0.50	ug/L			07/06/22 13:08	1
Trichlorofluoromethane	ND		1.0	ug/L			07/06/22 13:08	1
Trihalomethanes, Total	**0.98**	**T5**	0.50	ug/L			07/06/22 13:08	1
Vinyl acetate	ND		5.0	ug/L			07/06/22 13:08	1
Vinyl chloride	ND		1.0	ug/L			07/06/22 13:08	1
Xylenes, Total	ND		0.50	ug/L			07/06/22 13:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*60 - 140*		*07/06/22 13:08*	*1*
Dibromofluoromethane (Surr)	*107*		*60 - 140*		*07/06/22 13:08*	*1*
Toluene-d8 (Surr)	*101*		*60 - 140*		*07/06/22 13:08*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**24**		0.050	mg/L			07/05/22 21:00	1
Nitrite as N	ND		0.050	mg/L			07/05/22 21:00	1
Nitrate Nitrite as N	**24**		0.050	mg/L			07/05/22 21:00	1

Client Sample ID: GAC-2A-100-22M07

Lab Sample ID: 550-186548-3

Date Collected: 07/05/22 12:37
Matrix: Water
Date Received: 07/05/22 14:34

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			07/06/22 13:29	1
1,1,1-Trichloroethane	ND		0.50	ug/L			07/06/22 13:29	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			07/06/22 13:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			07/06/22 13:29	1
1,1,2-Trichloroethane	ND		0.50	ug/L			07/06/22 13:29	1
1,1-Dichloroethane	ND		0.50	ug/L			07/06/22 13:29	1
1,1-Dichloroethene	**0.59**		0.50	ug/L			07/06/22 13:29	1
1,1-Dichloropropene	ND		0.50	ug/L			07/06/22 13:29	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			07/06/22 13:29	1
1,2,3-Trichloropropane	ND		2.0	ug/L			07/06/22 13:29	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0	ug/L			07/06/22 13:29	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			07/06/22 13:29	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			07/06/22 13:29	1
1,2-Dichlorobenzene	ND		0.50	ug/L			07/06/22 13:29	1
1,2-Dichloroethane	ND		0.50	ug/L			07/06/22 13:29	1
1,2-Dichloropropane	ND		0.50	ug/L			07/06/22 13:29	1
1,3,5-Trimethylbenzene	ND		0.50	ug/L			07/06/22 13:29	1
1,3-Dichlorobenzene	ND		0.50	ug/L			07/06/22 13:29	1
1,3-Dichloropropane	ND		0.50	ug/L			07/06/22 13:29	1
1,4-Dichlorobenzene	ND		0.50	ug/L			07/06/22 13:29	1

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-186548-1

Client Sample ID: GAC-2A-100-22M07

Lab Sample ID: 550-186548-3

Date Collected: 07/05/22 12:37
Matrix: Water
Date Received: 07/05/22 14:34

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND		1.0		ug/L			07/06/22 13:29	1
2-Butanone (MEK)	ND		10		ug/L			07/06/22 13:29	1
2-Chlorotoluene	ND		0.50		ug/L			07/06/22 13:29	1
2-Hexanone	ND		5.0		ug/L			07/06/22 13:29	1
4-Chlorotoluene	ND		0.50		ug/L			07/06/22 13:29	1
4-Isopropyltoluene	ND		0.50		ug/L			07/06/22 13:29	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			07/06/22 13:29	1
Acetone	ND		10		ug/L			07/06/22 13:29	1
Benzene	ND		0.50		ug/L			07/06/22 13:29	1
Bromobenzene	ND		1.0		ug/L			07/06/22 13:29	1
Bromoform	ND		1.0		ug/L			07/06/22 13:29	1
Bromomethane	ND		5.0		ug/L			07/06/22 13:29	1
Carbon disulfide	ND		5.0		ug/L			07/06/22 13:29	1
Carbon tetrachloride	ND		0.50		ug/L			07/06/22 13:29	1
Chlorobenzene	ND		0.50		ug/L			07/06/22 13:29	1
Chlorobromomethane	ND		0.50		ug/L			07/06/22 13:29	1
Chlorodibromomethane	ND		0.50		ug/L			07/06/22 13:29	1
Chloroethane	ND		1.0		ug/L			07/06/22 13:29	1
Chloroform	**0.94**		0.50		ug/L			07/06/22 13:29	1
Chloromethane	ND		1.0		ug/L			07/06/22 13:29	1
cis-1,2-Dichloroethene	**6.4**		0.50		ug/L			07/06/22 13:29	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/06/22 13:29	1
Dibromomethane	ND		0.50		ug/L			07/06/22 13:29	1
Dichlorobromomethane	ND		0.50		ug/L			07/06/22 13:29	1
Dichlorodifluoromethane	ND		1.0		ug/L			07/06/22 13:29	1
Ethanol	ND		150		ug/L			07/06/22 13:29	1
Ethylbenzene	ND		0.50		ug/L			07/06/22 13:29	1
Ethylene Dibromide	ND		0.50		ug/L			07/06/22 13:29	1
Hexachlorobutadiene	ND		5.0		ug/L			07/06/22 13:29	1
Iodomethane	ND		2.0		ug/L			07/06/22 13:29	1
Isopropylbenzene	ND		0.50		ug/L			07/06/22 13:29	1
Methyl tert-butyl ether	ND		0.50		ug/L			07/06/22 13:29	1
Methylene Chloride	ND		5.0		ug/L			07/06/22 13:29	1
m-Xylene & p-Xylene	ND		1.0		ug/L			07/06/22 13:29	1
Naphthalene	ND		5.0		ug/L			07/06/22 13:29	1
n-Butylbenzene	ND		1.0		ug/L			07/06/22 13:29	1
N-Propylbenzene	ND		0.50		ug/L			07/06/22 13:29	1
o-Xylene	ND		0.50		ug/L			07/06/22 13:29	1
sec-Butylbenzene	ND		0.50		ug/L			07/06/22 13:29	1
Styrene	ND		1.0		ug/L			07/06/22 13:29	1
tert-Butylbenzene	ND		0.50		ug/L			07/06/22 13:29	1
Tetrachloroethene	ND		0.50		ug/L			07/06/22 13:29	1
Toluene	ND		0.50		ug/L			07/06/22 13:29	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			07/06/22 13:29	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/06/22 13:29	1
Trichloroethene	**4.0**		0.50		ug/L			07/06/22 13:29	1
Trichlorofluoromethane	ND		1.0		ug/L			07/06/22 13:29	1
Trihalomethanes, Total	**0.94**	**T5**	0.50		ug/L			07/06/22 13:29	1
Vinyl acetate	ND		5.0		ug/L			07/06/22 13:29	1

Client Sample ID: GAC-2A-100-22M07

Lab Sample ID: 550-186548-3

Date Collected: 07/05/22 12:37
Matrix: Water
Date Received: 07/05/22 14:34

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		1.0		ug/L			07/06/22 13:29	1
Xylenes, Total	ND		0.50		ug/L			07/06/22 13:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*60 - 140*		*07/06/22 13:29*	*1*
Dibromofluoromethane (Surr)	*106*		*60 - 140*		*07/06/22 13:29*	*1*
Toluene-d8 (Surr)	*101*		*60 - 140*		*07/06/22 13:29*	*1*

Client Sample ID: GAC-2B-75-22M07

Lab Sample ID: 550-186548-4

Date Collected: 07/05/22 12:35
Matrix: Water
Date Received: 07/05/22 14:34

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			07/06/22 13:50	1
1,1,1-Trichloroethane	ND		0.50		ug/L			07/06/22 13:50	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			07/06/22 13:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			07/06/22 13:50	1
1,1,2-Trichloroethane	ND		0.50		ug/L			07/06/22 13:50	1
1,1-Dichloroethane	ND		0.50		ug/L			07/06/22 13:50	1
1,1-Dichloroethene	ND		0.50		ug/L			07/06/22 13:50	1
1,1-Dichloropropene	ND		0.50		ug/L			07/06/22 13:50	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			07/06/22 13:50	1
1,2,3-Trichloropropane	ND		2.0		ug/L			07/06/22 13:50	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0		ug/L			07/06/22 13:50	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			07/06/22 13:50	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			07/06/22 13:50	1
1,2-Dichlorobenzene	ND		0.50		ug/L			07/06/22 13:50	1
1,2-Dichloroethane	ND		0.50		ug/L			07/06/22 13:50	1
1,2-Dichloropropane	ND		0.50		ug/L			07/06/22 13:50	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			07/06/22 13:50	1
1,3-Dichlorobenzene	ND		0.50		ug/L			07/06/22 13:50	1
1,3-Dichloropropane	ND		0.50		ug/L			07/06/22 13:50	1
1,4-Dichlorobenzene	ND		0.50		ug/L			07/06/22 13:50	1
2,2-Dichloropropane	ND		1.0		ug/L			07/06/22 13:50	1
2-Butanone (MEK)	ND		10		ug/L			07/06/22 13:50	1
2-Chlorotoluene	ND		0.50		ug/L			07/06/22 13:50	1
2-Hexanone	ND		5.0		ug/L			07/06/22 13:50	1
4-Chlorotoluene	ND		0.50		ug/L			07/06/22 13:50	1
4-Isopropyltoluene	ND		0.50		ug/L			07/06/22 13:50	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			07/06/22 13:50	1
Acetone	ND		10		ug/L			07/06/22 13:50	1
Benzene	ND		0.50		ug/L			07/06/22 13:50	1
Bromobenzene	ND		1.0		ug/L			07/06/22 13:50	1
Bromoform	ND		1.0		ug/L			07/06/22 13:50	1
Bromomethane	ND		5.0		ug/L			07/06/22 13:50	1
Carbon disulfide	ND		5.0		ug/L			07/06/22 13:50	1
Carbon tetrachloride	ND		0.50		ug/L			07/06/22 13:50	1
Chlorobenzene	ND		0.50		ug/L			07/06/22 13:50	1
Chlorobromomethane	ND		0.50		ug/L			07/06/22 13:50	1

Client Sample ID: GAC-2B-75-22M07

Lab Sample ID: 550-186548-4

Date Collected: 07/05/22 12:35
Matrix: Water
Date Received: 07/05/22 14:34

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodibromomethane	ND		0.50	ug/L			07/06/22 13:50	1
Chloroethane	ND		1.0	ug/L			07/06/22 13:50	1
Chloroform	**1.1**		0.50	ug/L			07/06/22 13:50	1
Chloromethane	ND		1.0	ug/L			07/06/22 13:50	1
cis-1,2-Dichloroethene	**4.0**		0.50	ug/L			07/06/22 13:50	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			07/06/22 13:50	1
Dibromomethane	ND		0.50	ug/L			07/06/22 13:50	1
Dichlorobromomethane	ND		0.50	ug/L			07/06/22 13:50	1
Dichlorodifluoromethane	ND		1.0	ug/L			07/06/22 13:50	1
Ethanol	ND		150	ug/L			07/06/22 13:50	1
Ethylbenzene	ND		0.50	ug/L			07/06/22 13:50	1
Ethylene Dibromide	ND		0.50	ug/L			07/06/22 13:50	1
Hexachlorobutadiene	ND		5.0	ug/L			07/06/22 13:50	1
Iodomethane	ND		2.0	ug/L			07/06/22 13:50	1
Isopropylbenzene	ND		0.50	ug/L			07/06/22 13:50	1
Methyl tert-butyl ether	ND		0.50	ug/L			07/06/22 13:50	1
Methylene Chloride	ND		5.0	ug/L			07/06/22 13:50	1
m-Xylene & p-Xylene	ND		1.0	ug/L			07/06/22 13:50	1
Naphthalene	ND		5.0	ug/L			07/06/22 13:50	1
n-Butylbenzene	ND		1.0	ug/L			07/06/22 13:50	1
N-Propylbenzene	ND		0.50	ug/L			07/06/22 13:50	1
o-Xylene	ND		0.50	ug/L			07/06/22 13:50	1
sec-Butylbenzene	ND		0.50	ug/L			07/06/22 13:50	1
Styrene	ND		1.0	ug/L			07/06/22 13:50	1
tert-Butylbenzene	ND		0.50	ug/L			07/06/22 13:50	1
Tetrachloroethene	ND		0.50	ug/L			07/06/22 13:50	1
Toluene	ND		0.50	ug/L			07/06/22 13:50	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			07/06/22 13:50	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			07/06/22 13:50	1
Trichloroethene	ND		0.50	ug/L			07/06/22 13:50	1
Trichlorofluoromethane	ND		1.0	ug/L			07/06/22 13:50	1
Trihalomethanes, Total	**1.1**	**T5**	0.50	ug/L			07/06/22 13:50	1
Vinyl acetate	ND		5.0	ug/L			07/06/22 13:50	1
Vinyl chloride	ND		1.0	ug/L			07/06/22 13:50	1
Xylenes, Total	ND		0.50	ug/L			07/06/22 13:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*60 - 140*		*07/06/22 13:50*	*1*
Dibromofluoromethane (Surr)	*108*		*60 - 140*		*07/06/22 13:50*	*1*
Toluene-d8 (Surr)	*101*		*60 - 140*		*07/06/22 13:50*	*1*

Client Sample ID: TB-22M07

Lab Sample ID: 550-186548-5

Date Collected: 07/05/22 08:00
Matrix: Water
Date Received: 07/05/22 14:34

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			07/08/22 13:23	1
1,1,1-Trichloroethane	ND		0.50	ug/L			07/08/22 13:23	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			07/08/22 13:23	1

Client Sample ID: TB-22M07

Date Collected: 07/05/22 08:00
Date Received: 07/05/22 14:34

Lab Sample ID: 550-186548-5

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			07/08/22 13:23	1
1,1,2-Trichloroethane	ND		0.50		ug/L			07/08/22 13:23	1
1,1-Dichloroethane	ND		0.50		ug/L			07/08/22 13:23	1
1,1-Dichloroethene	ND		0.50		ug/L			07/08/22 13:23	1
1,1-Dichloropropene	ND		0.50		ug/L			07/08/22 13:23	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			07/08/22 13:23	1
1,2,3-Trichloropropane	ND		2.0		ug/L			07/08/22 13:23	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0		ug/L			07/08/22 13:23	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			07/08/22 13:23	1
1,2-Dibromo-3-Chloropropane	ND	R6	5.0		ug/L			07/08/22 13:23	1
1,2-Dichlorobenzene	ND		0.50		ug/L			07/08/22 13:23	1
1,2-Dichloroethane	ND		0.50		ug/L			07/08/22 13:23	1
1,2-Dichloropropane	ND		0.50		ug/L			07/08/22 13:23	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			07/08/22 13:23	1
1,3-Dichlorobenzene	ND		0.50		ug/L			07/08/22 13:23	1
1,3-Dichloropropane	ND		0.50		ug/L			07/08/22 13:23	1
1,4-Dichlorobenzene	ND		0.50		ug/L			07/08/22 13:23	1
2,2-Dichloropropane	ND		1.0		ug/L			07/08/22 13:23	1
2-Butanone (MEK)	ND	R6	10		ug/L			07/08/22 13:23	1
2-Chlorotoluene	ND		0.50		ug/L			07/08/22 13:23	1
2-Hexanone	ND	R6	5.0		ug/L			07/08/22 13:23	1
4-Chlorotoluene	ND		0.50		ug/L			07/08/22 13:23	1
4-Isopropyltoluene	ND		0.50		ug/L			07/08/22 13:23	1
4-Methyl-2-pentanone (MIBK)	ND	R6	2.5		ug/L			07/08/22 13:23	1
Acetone	ND	R6	10		ug/L			07/08/22 13:23	1
Benzene	ND		0.50		ug/L			07/08/22 13:23	1
Bromobenzene	ND		1.0		ug/L			07/08/22 13:23	1
Bromoform	ND		1.0		ug/L			07/08/22 13:23	1
Bromomethane	ND		5.0		ug/L			07/08/22 13:23	1
Carbon disulfide	ND		5.0		ug/L			07/08/22 13:23	1
Carbon tetrachloride	ND		0.50		ug/L			07/08/22 13:23	1
Chlorobenzene	ND		0.50		ug/L			07/08/22 13:23	1
Chlorobromomethane	ND		0.50		ug/L			07/08/22 13:23	1
Chlorodibromomethane	ND		0.50		ug/L			07/08/22 13:23	1
Chloroethane	ND		1.0		ug/L			07/08/22 13:23	1
Chloroform	ND		0.50		ug/L			07/08/22 13:23	1
Chloromethane	ND		1.0		ug/L			07/08/22 13:23	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			07/08/22 13:23	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/08/22 13:23	1
Dibromomethane	ND		0.50		ug/L			07/08/22 13:23	1
Dichlorobromomethane	ND		0.50		ug/L			07/08/22 13:23	1
Dichlorodifluoromethane	ND		1.0		ug/L			07/08/22 13:23	1
Ethanol	ND		150		ug/L			07/08/22 13:23	1
Ethylbenzene	ND		0.50		ug/L			07/08/22 13:23	1
Ethylene Dibromide	ND		0.50		ug/L			07/08/22 13:23	1
Hexachlorobutadiene	ND		5.0		ug/L			07/08/22 13:23	1
Iodomethane	ND		2.0		ug/L			07/08/22 13:23	1
Isopropylbenzene	ND		0.50		ug/L			07/08/22 13:23	1
Methyl tert-butyl ether	ND		0.50		ug/L			07/08/22 13:23	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-186548-1

Client Sample ID: TB-22M07

Date Collected: 07/05/22 08:00
Date Received: 07/05/22 14:34

Lab Sample ID: 550-186548-5

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		5.0		ug/L			07/08/22 13:23	1
m-Xylene & p-Xylene	ND		1.0		ug/L			07/08/22 13:23	1
Naphthalene	ND		5.0		ug/L			07/08/22 13:23	1
n-Butylbenzene	ND		1.0		ug/L			07/08/22 13:23	1
N-Propylbenzene	ND		0.50		ug/L			07/08/22 13:23	1
o-Xylene	ND		0.50		ug/L			07/08/22 13:23	1
sec-Butylbenzene	ND		0.50		ug/L			07/08/22 13:23	1
Styrene	ND		1.0		ug/L			07/08/22 13:23	1
tert-Butylbenzene	ND		0.50		ug/L			07/08/22 13:23	1
Tetrachloroethene	ND		0.50		ug/L			07/08/22 13:23	1
Toluene	ND		0.50		ug/L			07/08/22 13:23	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			07/08/22 13:23	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/08/22 13:23	1
Trichloroethene	ND		0.50		ug/L			07/08/22 13:23	1
Trichlorofluoromethane	ND		1.0		ug/L			07/08/22 13:23	1
Trihalomethanes, Total	ND	T5	0.50		ug/L			07/08/22 13:23	1
Vinyl acetate	ND		5.0		ug/L			07/08/22 13:23	1
Vinyl chloride	ND		1.0		ug/L			07/08/22 13:23	1
Xylenes, Total	ND		0.50		ug/L			07/08/22 13:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*60 - 140*		*07/08/22 13:23*	*1*
Dibromofluoromethane (Surr)	*106*		*60 - 140*		*07/08/22 13:23*	*1*
Toluene-d8 (Surr)	*101*		*60 - 140*		*07/08/22 13:23*	*1*

Surrogate Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-186548-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	**Client Sample ID**	**(60-140)**	**(60-140)**	**(60-140)**
550-186548-1	INF-22M07	107	105	100
550-186548-1 MS	INF-22M07	103	103	100
550-186548-1 MSD	INF-22M07	98	101	95
550-186548-2	EFF-22M07	103	107	101
550-186548-3	GAC-2A-100-22M07	106	106	101
550-186548-4	GAC-2B-75-22M07	107	108	101
550-186548-5	TB-22M07	104	106	101
550-186720-A-1 MS	Matrix Spike	109	112	101
550-186720-A-1 MSD	Matrix Spike Duplicate	113	114	105
LCS 550-278434/3	Lab Control Sample	100	100	102
LCS 550-278652/3	Lab Control Sample	105	105	105
LCSD 550-278434/4	Lab Control Sample Dup	102	100	102
LCSD 550-278652/4	Lab Control Sample Dup	105	104	104
MB 550-278434/6	Method Blank	102	100	106
MB 550-278652/6	Method Blank	103	104	103

Surrogate Legend

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

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-278434/6
Matrix: Water
Analysis Batch: 278434

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		0.50		ug/L			07/06/22 11:24	1
1,1,1-Trichloroethane	ND		0.50		ug/L			07/06/22 11:24	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			07/06/22 11:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			07/06/22 11:24	1
1,1,2-Trichloroethane	ND		0.50		ug/L			07/06/22 11:24	1
1,1-Dichloroethane	ND		0.50		ug/L			07/06/22 11:24	1
1,1-Dichloroethene	ND		0.50		ug/L			07/06/22 11:24	1
1,1-Dichloropropene	ND		0.50		ug/L			07/06/22 11:24	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			07/06/22 11:24	1
1,2,3-Trichloropropane	ND		2.0		ug/L			07/06/22 11:24	1
1,2,4-Trichlorobenzene	ND	T2	2.0		ug/L			07/06/22 11:24	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			07/06/22 11:24	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			07/06/22 11:24	1
1,2-Dichlorobenzene	ND		0.50		ug/L			07/06/22 11:24	1
1,2-Dichloroethane	ND		0.50		ug/L			07/06/22 11:24	1
1,2-Dichloropropane	ND		0.50		ug/L			07/06/22 11:24	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			07/06/22 11:24	1
1,3-Dichlorobenzene	ND		0.50		ug/L			07/06/22 11:24	1
1,3-Dichloropropane	ND		0.50		ug/L			07/06/22 11:24	1
1,4-Dichlorobenzene	ND		0.50		ug/L			07/06/22 11:24	1
2,2-Dichloropropane	ND		1.0		ug/L			07/06/22 11:24	1
2-Butanone (MEK)	ND		10		ug/L			07/06/22 11:24	1
2-Chlorotoluene	ND		0.50		ug/L			07/06/22 11:24	1
2-Hexanone	ND		5.0		ug/L			07/06/22 11:24	1
4-Chlorotoluene	ND		0.50		ug/L			07/06/22 11:24	1
4-Isopropyltoluene	ND		0.50		ug/L			07/06/22 11:24	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			07/06/22 11:24	1
Acetone	ND		10		ug/L			07/06/22 11:24	1
Benzene	ND		0.50		ug/L			07/06/22 11:24	1
Bromobenzene	ND		1.0		ug/L			07/06/22 11:24	1
Bromoform	ND		1.0		ug/L			07/06/22 11:24	1
Bromomethane	ND		5.0		ug/L			07/06/22 11:24	1
Carbon disulfide	ND		5.0		ug/L			07/06/22 11:24	1
Carbon tetrachloride	ND		0.50		ug/L			07/06/22 11:24	1
Chlorobenzene	ND		0.50		ug/L			07/06/22 11:24	1
Chlorobromomethane	ND		0.50		ug/L			07/06/22 11:24	1
Chlorodibromomethane	ND		0.50		ug/L			07/06/22 11:24	1
Chloroethane	ND		1.0		ug/L			07/06/22 11:24	1
Chloroform	ND		0.50		ug/L			07/06/22 11:24	1
Chloromethane	ND		1.0		ug/L			07/06/22 11:24	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			07/06/22 11:24	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/06/22 11:24	1
Dibromomethane	ND		0.50		ug/L			07/06/22 11:24	1
Dichlorobromomethane	ND		0.50		ug/L			07/06/22 11:24	1
Dichlorodifluoromethane	ND		1.0		ug/L			07/06/22 11:24	1
Ethanol	ND		150		ug/L			07/06/22 11:24	1
Ethylbenzene	ND		0.50		ug/L			07/06/22 11:24	1
Ethylene Dibromide	ND		0.50		ug/L			07/06/22 11:24	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-278434/6
Matrix: Water
Analysis Batch: 278434

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		5.0		ug/L			07/06/22 11:24	1
Iodomethane	ND		2.0		ug/L			07/06/22 11:24	1
Isopropylbenzene	ND		0.50		ug/L			07/06/22 11:24	1
Methyl tert-butyl ether	ND		0.50		ug/L			07/06/22 11:24	1
Methylene Chloride	ND		5.0		ug/L			07/06/22 11:24	1
m-Xylene & p-Xylene	ND		1.0		ug/L			07/06/22 11:24	1
Naphthalene	ND		5.0		ug/L			07/06/22 11:24	1
n-Butylbenzene	ND		1.0		ug/L			07/06/22 11:24	1
N-Propylbenzene	ND		0.50		ug/L			07/06/22 11:24	1
o-Xylene	ND		0.50		ug/L			07/06/22 11:24	1
sec-Butylbenzene	ND		0.50		ug/L			07/06/22 11:24	1
Styrene	ND		1.0		ug/L			07/06/22 11:24	1
tert-Butylbenzene	ND		0.50		ug/L			07/06/22 11:24	1
Tetrachloroethene	ND		0.50		ug/L			07/06/22 11:24	1
Toluene	ND		0.50		ug/L			07/06/22 11:24	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			07/06/22 11:24	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/06/22 11:24	1
Trichloroethene	ND		0.50		ug/L			07/06/22 11:24	1
Trichlorofluoromethane	ND		1.0		ug/L			07/06/22 11:24	1
Trihalomethanes, Total	ND		0.50		ug/L			07/06/22 11:24	1
Vinyl acetate	ND		5.0		ug/L			07/06/22 11:24	1
Vinyl chloride	ND		1.0		ug/L			07/06/22 11:24	1
Xylenes, Total	ND		0.50		ug/L			07/06/22 11:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*60 - 140*		*07/06/22 11:24*	*1*
Dibromofluoromethane (Surr)	*100*		*60 - 140*		*07/06/22 11:24*	*1*
Toluene-d8 (Surr)	*106*		*60 - 140*		*07/06/22 11:24*	*1*

Lab Sample ID: LCS 550-278434/3
Matrix: Water
Analysis Batch: 278434

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	56.9		ug/L		114	60 - 140
1,1,1-Trichloroethane	50.0	56.4		ug/L		113	70 - 130
1,1,2,2-Tetrachloroethane	50.0	57.2		ug/L		114	60 - 140
1,1,2-Trichloroethane	50.0	55.6		ug/L		111	70 - 130
1,1-Dichloroethane	50.0	54.2		ug/L		108	70 - 150
1,1-Dichloroethene	50.0	51.5		ug/L		103	50 - 140
1,1-Dichloropropene	50.0	58.8		ug/L		118	60 - 140
1,2,3-Trichlorobenzene	50.0	56.9		ug/L		114	60 - 140
1,2,3-Trichloropropane	50.0	55.0		ug/L		110	60 - 140
1,2,4-Trichlorobenzene	50.0	57.9	T2	ug/L		116	60 - 140
1,2,4-Trimethylbenzene	50.0	57.3		ug/L		115	60 - 140
1,2-Dibromo-3-Chloropropane	50.0	53.8		ug/L		108	60 - 140
1,2-Dichlorobenzene	50.0	55.3		ug/L		111	65 - 140
1,2-Dichloroethane	50.0	53.6		ug/L		107	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-278434/3
Matrix: Water
Analysis Batch: 278434

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dichloropropane	50.0	55.9		ug/L		112	35 - 165
1,3,5-Trimethylbenzene	50.0	59.6		ug/L		119	60 - 140
1,3-Dichlorobenzene	50.0	55.8		ug/L		112	70 - 130
1,3-Dichloropropane	50.0	55.1		ug/L		110	60 - 140
1,4-Dichlorobenzene	50.0	53.7		ug/L		107	65 - 135
2,2-Dichloropropane	50.0	57.2		ug/L		114	60 - 140
2-Butanone (MEK)	50.0	57.6		ug/L		115	60 - 140
2-Chlorotoluene	50.0	56.6		ug/L		113	60 - 140
2-Hexanone	50.0	58.2		ug/L		116	60 - 140
4-Chlorotoluene	50.0	56.0		ug/L		112	60 - 140
4-Isopropyltoluene	50.0	61.0		ug/L		122	60 - 140
4-Methyl-2-pentanone (MIBK)	50.0	56.8		ug/L		114	60 - 140
Acetone	50.0	47.8		ug/L		96	18 - 150
Benzene	50.0	54.8		ug/L		110	65 - 135
Bromobenzene	50.0	54.8		ug/L		110	60 - 140
Bromoform	50.0	58.0		ug/L		116	70 - 130
Bromomethane	50.0	49.2		ug/L		98	15 - 185
Carbon disulfide	50.0	58.0		ug/L		116	60 - 140
Carbon tetrachloride	50.0	58.1		ug/L		116	70 - 130
Chlorobenzene	50.0	53.8		ug/L		108	65 - 135
Chlorobromomethane	50.0	52.7		ug/L		105	60 - 140
Chlorodibromomethane	50.0	57.4		ug/L		115	70 - 135
Chloroethane	50.0	51.2		ug/L		102	40 - 160
Chloroform	50.0	53.7		ug/L		107	70 - 135
Chloromethane	50.0	46.6		ug/L		93	10 - 205
cis-1,2-Dichloroethene	50.0	54.5		ug/L		109	60 - 140
cis-1,3-Dichloropropene	50.0	58.2		ug/L		116	25 - 175
Dibromomethane	50.0	53.9		ug/L		108	70 - 130
Dichlorobromomethane	50.0	55.7		ug/L		111	65 - 135
Dichlorodifluoromethane	50.0	52.6		ug/L		105	60 - 140
Ethanol	1000	909		ug/L		91	60 - 140
Ethylbenzene	50.0	56.1		ug/L		112	60 - 140
Ethylene Dibromide	50.0	55.7		ug/L		111	60 - 140
Hexachlorobutadiene	50.0	63.4		ug/L		127	60 - 140
Iodomethane	50.0	54.2		ug/L		108	60 - 140
Isopropylbenzene	50.0	58.2		ug/L		116	60 - 140
Methyl tert-butyl ether	50.0	58.0		ug/L		116	60 - 140
Methylene Chloride	50.0	51.3		ug/L		103	60 - 140
m-Xylene & p-Xylene	50.0	55.3		ug/L		111	60 - 140
Naphthalene	50.0	57.4		ug/L		115	60 - 140
n-Butylbenzene	50.0	61.0		ug/L		122	60 - 140
N-Propylbenzene	50.0	57.1		ug/L		114	60 - 140
o-Xylene	50.0	56.0		ug/L		112	60 - 140
sec-Butylbenzene	50.0	60.8		ug/L		122	60 - 140
Styrene	50.0	55.4		ug/L		111	60 - 140
tert-Butylbenzene	50.0	59.0		ug/L		118	60 - 140
Tetrachloroethene	50.0	58.6		ug/L		117	70 - 130
Toluene	50.0	54.1		ug/L		108	70 - 130
trans-1,2-Dichloroethene	50.0	53.9		ug/L		108	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-278434/3
Matrix: Water
Analysis Batch: 278434

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
trans-1,3-Dichloropropene	50.0	58.4		ug/L		117	50 - 150
Trichloroethene	50.0	55.6		ug/L		111	65 - 135
Trichlorofluoromethane	50.0	52.4		ug/L		105	50 - 150
Vinyl acetate	50.0	57.9		ug/L		116	60 - 140
Vinyl chloride	50.0	54.5		ug/L		109	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*
Dibromofluoromethane (Surr)	*100*		*60 - 140*
Toluene-d8 (Surr)	*102*		*60 - 140*

Lab Sample ID: LCSD 550-278434/4
Matrix: Water
Analysis Batch: 278434

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	56.4		ug/L		113	60 - 140	1	20
1,1,1-Trichloroethane	50.0	55.8		ug/L		112	70 - 130	1	20
1,1,2,2-Tetrachloroethane	50.0	57.9		ug/L		116	60 - 140	1	20
1,1,2-Trichloroethane	50.0	55.3		ug/L		111	70 - 130	1	20
1,1-Dichloroethane	50.0	54.1		ug/L		108	70 - 150	0	20
1,1-Dichloroethene	50.0	51.0		ug/L		102	50 - 140	1	20
1,1-Dichloropropene	50.0	57.3		ug/L		115	60 - 140	2	20
1,2,3-Trichlorobenzene	50.0	57.9		ug/L		116	60 - 140	2	20
1,2,3-Trichloropropane	50.0	56.0		ug/L		112	60 - 140	2	20
1,2,4-Trichlorobenzene	50.0	58.4	T2	ug/L		117	60 - 140	1	20
1,2,4-Trimethylbenzene	50.0	56.7		ug/L		113	60 - 140	1	20
1,2-Dibromo-3-Chloropropane	50.0	55.7		ug/L		111	60 - 140	3	20
1,2-Dichlorobenzene	50.0	55.2		ug/L		110	65 - 140	0	20
1,2-Dichloroethane	50.0	54.0		ug/L		108	70 - 130	1	20
1,2-Dichloropropane	50.0	55.7		ug/L		111	35 - 165	0	20
1,3,5-Trimethylbenzene	50.0	58.2		ug/L		116	60 - 140	2	20
1,3-Dichlorobenzene	50.0	55.9		ug/L		112	70 - 130	0	20
1,3-Dichloropropane	50.0	55.7		ug/L		111	60 - 140	1	20
1,4-Dichlorobenzene	50.0	53.5		ug/L		107	65 - 135	0	20
2,2-Dichloropropane	50.0	57.2		ug/L		114	60 - 140	0	20
2-Butanone (MEK)	50.0	57.9		ug/L		116	60 - 140	1	20
2-Chlorotoluene	50.0	56.2		ug/L		112	60 - 140	1	20
2-Hexanone	50.0	59.4		ug/L		119	60 - 140	2	20
4-Chlorotoluene	50.0	56.2		ug/L		112	60 - 140	0	20
4-Isopropyltoluene	50.0	60.2		ug/L		120	60 - 140	1	20
4-Methyl-2-pentanone (MIBK)	50.0	58.2		ug/L		116	60 - 140	2	20
Acetone	50.0	48.2		ug/L		96	18 - 150	1	20
Benzene	50.0	54.3		ug/L		109	65 - 135	1	20
Bromobenzene	50.0	54.8		ug/L		110	60 - 140	0	20
Bromoform	50.0	59.2		ug/L		118	70 - 130	2	20
Bromomethane	50.0	50.6		ug/L		101	15 - 185	3	20
Carbon disulfide	50.0	56.9		ug/L		114	60 - 140	2	20

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 550-278434/4
Matrix: Water
Analysis Batch: 278434

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 tetrachloride	50.0	57.1		ug/L		114	70 - 130	2	20
Chlorobenzene	50.0	53.3		ug/L		107	65 - 135	1	20
Chlorobromomethane	50.0	53.0		ug/L		106	60 - 140	1	20
Chlorodibromomethane	50.0	57.8		ug/L		116	70 - 135	1	20
Chloroethane	50.0	50.9		ug/L		102	40 - 160	1	20
Chloroform	50.0	53.7		ug/L		107	70 - 135	0	20
Chloromethane	50.0	47.5		ug/L		95	10 - 205	2	20
cis-1,2-Dichloroethene	50.0	53.6		ug/L		107	60 - 140	2	20
cis-1,3-Dichloropropene	50.0	57.5		ug/L		115	25 - 175	1	20
Dibromomethane	50.0	53.2		ug/L		106	70 - 130	1	20
Dichlorobromomethane	50.0	54.7		ug/L		109	65 - 135	2	20
Dichlorodifluoromethane	50.0	52.0		ug/L		104	60 - 140	1	20
Ethanol	1000	977		ug/L		98	60 - 140	7	20
Ethylbenzene	50.0	55.3		ug/L		111	60 - 140	1	20
Ethylene Dibromide	50.0	55.8		ug/L		112	60 - 140	0	20
Hexachlorobutadiene	50.0	63.2		ug/L		126	60 - 140	0	20
Iodomethane	50.0	53.5		ug/L		107	60 - 140	1	20
Isopropylbenzene	50.0	57.2		ug/L		114	60 - 140	2	20
Methyl tert-butyl ether	50.0	58.8		ug/L		118	60 - 140	1	20
Methylene Chloride	50.0	50.5		ug/L		101	60 - 140	2	20
m-Xylene & p-Xylene	50.0	55.2		ug/L		110	60 - 140	0	20
Naphthalene	50.0	58.9		ug/L		118	60 - 140	3	20
n-Butylbenzene	50.0	59.9		ug/L		120	60 - 140	2	20
N-Propylbenzene	50.0	57.1		ug/L		114	60 - 140	0	20
o-Xylene	50.0	56.3		ug/L		113	60 - 140	0	20
sec-Butylbenzene	50.0	59.8		ug/L		120	60 - 140	2	20
Styrene	50.0	55.7		ug/L		111	60 - 140	1	20
tert-Butylbenzene	50.0	59.0		ug/L		118	60 - 140	0	20
Tetrachloroethene	50.0	57.9		ug/L		116	70 - 130	1	20
Toluene	50.0	53.3		ug/L		107	70 - 130	1	20
trans-1,2-Dichloroethene	50.0	53.3		ug/L		107	70 - 130	1	20
trans-1,3-Dichloropropene	50.0	57.8		ug/L		116	50 - 150	1	20
Trichloroethene	50.0	55.4		ug/L		111	65 - 135	0	20
Trichlorofluoromethane	50.0	52.0		ug/L		104	50 - 150	1	20
Vinyl acetate	50.0	58.9		ug/L		118	60 - 140	2	20
Vinyl chloride	50.0	53.3		ug/L		107	5 - 195	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*60 - 140*
Dibromofluoromethane (Surr)	*100*		*60 - 140*
Toluene-d8 (Surr)	*102*		*60 - 140*

Lab Sample ID: 550-186548-1 MS
Matrix: Water
Analysis Batch: 278434

Client Sample ID: INF-22M07
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	57.6		ug/L		115	50 - 150		

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-186548-1 MS
Matrix: Water
Analysis Batch: 278434

Client Sample ID: INF-22M07
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	ND		50.0	55.2		ug/L		110	52 - 162
1,1,2,2-Tetrachloroethane	ND		50.0	57.6		ug/L		115	46 - 157
1,1,2-Trichloroethane	ND		50.0	55.7		ug/L		111	52 - 150
1,1-Dichloroethane	ND		50.0	53.9		ug/L		108	59 - 155
1,1-Dichloroethene	0.61		50.0	49.6		ug/L		98	10 - 234
1,1-Dichloropropene	ND		50.0	53.9		ug/L		108	50 - 150
1,2,3-Trichlorobenzene	ND		50.0	53.8		ug/L		105	50 - 150
1,2,3-Trichloropropane	ND		50.0	56.5		ug/L		113	50 - 150
1,2,4-Trichlorobenzene	ND	T2 T5	50.0	55.8	T2	ug/L		110	50 - 150
1,2,4-Trimethylbenzene	ND		50.0	56.8		ug/L		114	50 - 150
1,2-Dibromo-3-Chloropropane	ND		50.0	47.8		ug/L		96	50 - 150
1,2-Dichlorobenzene	ND		50.0	55.6		ug/L		111	18 - 190
1,2-Dichloroethane	ND		50.0	52.6		ug/L		105	49 - 155
1,2-Dichloropropane	ND		50.0	54.4		ug/L		109	10 - 210
1,3,5-Trimethylbenzene	ND		50.0	56.6		ug/L		113	50 - 150
1,3-Dichlorobenzene	ND		50.0	56.3		ug/L		112	59 - 156
1,3-Dichloropropane	ND		50.0	54.9		ug/L		110	50 - 150
1,4-Dichlorobenzene	ND		50.0	54.3		ug/L		108	18 - 190
2,2-Dichloropropane	ND		50.0	55.6		ug/L		111	50 - 150
2-Butanone (MEK)	ND		50.0	54.4		ug/L		109	50 - 150
2-Chlorotoluene	ND		50.0	57.6		ug/L		115	50 - 150
2-Hexanone	ND		50.0	53.0		ug/L		106	50 - 150
4-Chlorotoluene	ND		50.0	56.6		ug/L		113	50 - 150
4-Isopropyltoluene	ND		50.0	58.9		ug/L		118	50 - 150
4-Methyl-2-pentanone (MIBK)	ND		50.0	52.2		ug/L		104	50 - 150
Acetone	ND		50.0	40.3		ug/L		81	18 - 150
Benzene	ND		50.0	52.6		ug/L		105	35 - 151
Bromobenzene	ND		50.0	57.2		ug/L		114	50 - 150
Bromoform	ND		50.0	60.7		ug/L		121	45 - 169
Bromomethane	ND		50.0	49.9		ug/L		100	10 - 242
Carbon disulfide	ND		50.0	54.8		ug/L		110	50 - 150
Carbon tetrachloride	ND		50.0	54.0		ug/L		108	70 - 140
Chlorobenzene	ND		50.0	53.8		ug/L		108	37 - 160
Chlorobromomethane	ND		50.0	54.1		ug/L		108	50 - 150
Chlorodibromomethane	ND		50.0	58.1		ug/L		116	53 - 149
Chloroethane	ND		50.0	51.8		ug/L		104	14 - 230
Chloroform	0.67		50.0	55.0		ug/L		109	51 - 138
Chloromethane	ND		50.0	42.5		ug/L		85	10 - 273
cis-1,2-Dichloroethene	4.6		50.0	58.0		ug/L		107	50 - 150
cis-1,3-Dichloropropene	ND		50.0	56.9		ug/L		114	10 - 227
Dibromomethane	ND		50.0	53.3		ug/L		107	50 - 150
Dichlorobromomethane	ND		50.0	55.3		ug/L		111	35 - 155
Dichlorodifluoromethane	ND		50.0	46.5		ug/L		93	50 - 150
Ethanol	ND		1000	1020		ug/L		102	50 - 150
Ethylbenzene	ND		50.0	54.9		ug/L		110	37 - 162
Ethylene Dibromide	ND		50.0	55.9		ug/L		112	50 - 150
Hexachlorobutadiene	ND		50.0	56.7		ug/L		113	50 - 150
Iodomethane	ND		50.0	52.8		ug/L		106	50 - 150
Isopropylbenzene	ND		50.0	57.8		ug/L		116	50 - 150

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-186548-1 MS
Matrix: Water
Analysis Batch: 278434

Client Sample ID: INF-22M07
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Methyl tert-butyl ether	ND		50.0	59.1		ug/L		118	50 - 150
Methylene Chloride	ND		50.0	51.8		ug/L		104	10 - 221
m-Xylene & p-Xylene	ND		50.0	55.6		ug/L		111	50 - 150
Naphthalene	ND		50.0	53.5		ug/L		107	50 - 150
n-Butylbenzene	ND		50.0	57.3		ug/L		115	50 - 150
N-Propylbenzene	ND		50.0	56.5		ug/L		113	50 - 150
o-Xylene	ND		50.0	57.7		ug/L		115	50 - 150
sec-Butylbenzene	ND		50.0	58.3		ug/L		117	50 - 150
Styrene	ND		50.0	57.0		ug/L		114	50 - 150
tert-Butylbenzene	ND		50.0	58.4		ug/L		117	50 - 150
Tetrachloroethene	1.3		50.0	56.4		ug/L		110	64 - 148
Toluene	ND		50.0	52.8		ug/L		106	47 - 150
trans-1,2-Dichloroethene	ND		50.0	53.1		ug/L		106	54 - 156
trans-1,3-Dichloropropene	ND		50.0	57.9		ug/L		116	17 - 183
Trichloroethene	30		50.0	84.3		ug/L		109	70 - 157
Trichlorofluoromethane	ND		50.0	49.5		ug/L		99	17 - 181
Vinyl acetate	ND		50.0	57.6		ug/L		115	50 - 150
Vinyl chloride	ND		50.0	49.7		ug/L		99	10 - 251

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*60 - 140*
Dibromofluoromethane (Surr)	*103*		*60 - 140*
Toluene-d8 (Surr)	*100*		*60 - 140*

Lab Sample ID: 550-186548-1 MSD
Matrix: Water
Analysis Batch: 278434

Client Sample ID: INF-22M07
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	58.4		ug/L		117	50 - 150	1	35
1,1,1-Trichloroethane	ND		50.0	51.8		ug/L		104	52 - 162	6	36
1,1,2,2-Tetrachloroethane	ND		50.0	55.7		ug/L		111	46 - 157	3	61
1,1,2-Trichloroethane	ND		50.0	56.3		ug/L		113	52 - 150	1	45
1,1-Dichloroethane	ND		50.0	53.6		ug/L		107	59 - 155	1	40
1,1-Dichloroethene	0.61		50.0	46.5		ug/L		92	10 - 234	7	32
1,1-Dichloropropene	ND		50.0	50.4		ug/L		101	50 - 150	7	35
1,2,3-Trichlorobenzene	ND		50.0	55.6		ug/L		108	50 - 150	3	35
1,2,3-Trichloropropane	ND		50.0	52.9		ug/L		106	50 - 150	7	35
1,2,4-Trichlorobenzene	ND	T2 T5	50.0	55.4	T2	ug/L		109	50 - 150	1	35
1,2,4-Trimethylbenzene	ND		50.0	55.8		ug/L		112	50 - 150	2	35
1,2-Dibromo-3-Chloropropane	ND		50.0	45.0		ug/L		90	50 - 150	6	35
1,2-Dichlorobenzene	ND		50.0	55.9		ug/L		111	18 - 190	1	57
1,2-Dichloroethane	ND		50.0	53.1		ug/L		106	49 - 155	1	49
1,2-Dichloropropane	ND		50.0	55.8		ug/L		112	10 - 210	3	55
1,3,5-Trimethylbenzene	ND		50.0	56.4		ug/L		113	50 - 150	0	35
1,3-Dichlorobenzene	ND		50.0	55.9		ug/L		111	59 - 156	1	43
1,3-Dichloropropane	ND		50.0	55.7		ug/L		111	50 - 150	1	35
1,4-Dichlorobenzene	ND		50.0	54.1		ug/L		107	18 - 190	0	57

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-186548-1 MSD
Matrix: Water
Analysis Batch: 278434

Client Sample ID: INF-22M07
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,2-Dichloropropane	ND		50.0	53.2		ug/L		106	50 - 150	4	35
2-Butanone (MEK)	ND		50.0	50.3		ug/L		101	50 - 150	8	35
2-Chlorotoluene	ND		50.0	54.4		ug/L		109	50 - 150	6	35
2-Hexanone	ND		50.0	50.4		ug/L		101	50 - 150	5	35
4-Chlorotoluene	ND		50.0	55.2		ug/L		110	50 - 150	2	35
4-Isopropyltoluene	ND		50.0	56.2		ug/L		112	50 - 150	5	35
4-Methyl-2-pentanone (MIBK)	ND		50.0	50.2		ug/L		100	50 - 150	4	35
Acetone	ND		50.0	36.2		ug/L		72	18 - 150	11	35
Benzene	ND		50.0	52.1		ug/L		104	35 - 151	1	61
Bromobenzene	ND		50.0	55.5		ug/L		111	50 - 150	3	35
Bromoform	ND		50.0	58.1		ug/L		116	45 - 169	4	42
Bromomethane	ND		50.0	48.8		ug/L		98	10 - 242	2	61
Carbon disulfide	ND		50.0	51.9		ug/L		104	50 - 150	6	35
Carbon tetrachloride	ND		50.0	50.1		ug/L		100	70 - 140	7	41
Chlorobenzene	ND		50.0	53.0		ug/L		106	37 - 160	1	53
Chlorobromomethane	ND		50.0	55.5		ug/L		111	50 - 150	3	35
Chlorodibromomethane	ND		50.0	59.0		ug/L		118	53 - 149	2	50
Chloroethane	ND		50.0	48.8		ug/L		98	14 - 230	6	78
Chloroform	0.67		50.0	55.3		ug/L		109	51 - 138	1	54
Chloromethane	ND		50.0	44.4		ug/L		89	10 - 273	4	60
cis-1,2-Dichloroethene	4.6		50.0	58.0		ug/L		107	50 - 150	0	35
cis-1,3-Dichloropropene	ND		50.0	57.7		ug/L		115	10 - 227	1	58
Dibromomethane	ND		50.0	53.8		ug/L		108	50 - 150	1	35
Dichlorobromomethane	ND		50.0	56.2		ug/L		112	35 - 155	2	56
Dichlorodifluoromethane	ND		50.0	42.8		ug/L		86	50 - 150	8	35
Ethanol	ND		1000	1010		ug/L		101	50 - 150	1	35
Ethylbenzene	ND		50.0	52.5		ug/L		105	37 - 162	5	63
Ethylene Dibromide	ND		50.0	55.7		ug/L		111	50 - 150	0	35
Hexachlorobutadiene	ND		50.0	53.4		ug/L		107	50 - 150	6	35
Iodomethane	ND		50.0	52.2		ug/L		104	50 - 150	1	35
Isopropylbenzene	ND		50.0	54.2		ug/L		108	50 - 150	6	35
Methyl tert-butyl ether	ND		50.0	60.8		ug/L		122	50 - 150	3	35
Methylene Chloride	ND		50.0	52.4		ug/L		105	10 - 221	1	28
m-Xylene & p-Xylene	ND		50.0	52.8		ug/L		106	50 - 150	5	35
Naphthalene	ND		50.0	54.6		ug/L		109	50 - 150	2	35
n-Butylbenzene	ND		50.0	53.6		ug/L		107	50 - 150	7	35
N-Propylbenzene	ND		50.0	52.1		ug/L		104	50 - 150	8	35
o-Xylene	ND		50.0	55.0		ug/L		110	50 - 150	5	35
sec-Butylbenzene	ND		50.0	53.9		ug/L		108	50 - 150	8	35
Styrene	ND		50.0	55.5		ug/L		111	50 - 150	3	35
tert-Butylbenzene	ND		50.0	55.1		ug/L		110	50 - 150	6	35
Tetrachloroethene	1.3		50.0	53.2		ug/L		104	64 - 148	6	39
Toluene	ND		50.0	51.8		ug/L		104	47 - 150	2	41
trans-1,2-Dichloroethene	ND		50.0	51.4		ug/L		103	54 - 156	3	45
trans-1,3-Dichloropropene	ND		50.0	59.7		ug/L		119	17 - 183	3	86
Trichloroethene	30		50.0	81.3		ug/L		103	70 - 157	4	48
Trichlorofluoromethane	ND		50.0	45.3		ug/L		91	17 - 181	9	84
Vinyl acetate	ND		50.0	58.2		ug/L		116	50 - 150	1	35
Vinyl chloride	ND		50.0	46.2		ug/L		92	10 - 251	7	66

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		60 - 140
Dibromofluoromethane (Surr)	101		60 - 140
Toluene-d8 (Surr)	95		60 - 140

Lab Sample ID: MB 550-278652/6
Matrix: Water
Analysis Batch: 278652

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		0.50		ug/L			07/08/22 12:42	1
1,1,1-Trichloroethane	ND		0.50		ug/L			07/08/22 12:42	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			07/08/22 12:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			07/08/22 12:42	1
1,1,2-Trichloroethane	ND		0.50		ug/L			07/08/22 12:42	1
1,1-Dichloroethane	ND		0.50		ug/L			07/08/22 12:42	1
1,1-Dichloroethene	ND		0.50		ug/L			07/08/22 12:42	1
1,1-Dichloropropene	ND		0.50		ug/L			07/08/22 12:42	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			07/08/22 12:42	1
1,2,3-Trichloropropane	ND		2.0		ug/L			07/08/22 12:42	1
1,2,4-Trichlorobenzene	ND	T2	2.0		ug/L			07/08/22 12:42	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			07/08/22 12:42	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			07/08/22 12:42	1
1,2-Dichlorobenzene	ND		0.50		ug/L			07/08/22 12:42	1
1,2-Dichloroethane	ND		0.50		ug/L			07/08/22 12:42	1
1,2-Dichloropropane	ND		0.50		ug/L			07/08/22 12:42	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			07/08/22 12:42	1
1,3-Dichlorobenzene	ND		0.50		ug/L			07/08/22 12:42	1
1,3-Dichloropropane	ND		0.50		ug/L			07/08/22 12:42	1
1,4-Dichlorobenzene	ND		0.50		ug/L			07/08/22 12:42	1
2,2-Dichloropropane	ND		1.0		ug/L			07/08/22 12:42	1
2-Butanone (MEK)	ND		10		ug/L			07/08/22 12:42	1
2-Chlorotoluene	ND		0.50		ug/L			07/08/22 12:42	1
2-Hexanone	ND		5.0		ug/L			07/08/22 12:42	1
4-Chlorotoluene	ND		0.50		ug/L			07/08/22 12:42	1
4-Isopropyltoluene	ND		0.50		ug/L			07/08/22 12:42	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			07/08/22 12:42	1
Acetone	ND		10		ug/L			07/08/22 12:42	1
Benzene	ND		0.50		ug/L			07/08/22 12:42	1
Bromobenzene	ND		1.0		ug/L			07/08/22 12:42	1
Bromoform	ND		1.0		ug/L			07/08/22 12:42	1
Bromomethane	ND		5.0		ug/L			07/08/22 12:42	1
Carbon disulfide	ND		5.0		ug/L			07/08/22 12:42	1
Carbon tetrachloride	ND		0.50		ug/L			07/08/22 12:42	1
Chlorobenzene	ND		0.50		ug/L			07/08/22 12:42	1
Chlorobromomethane	ND		0.50		ug/L			07/08/22 12:42	1
Chlorodibromomethane	ND		0.50		ug/L			07/08/22 12:42	1
Chloroethane	ND		1.0		ug/L			07/08/22 12:42	1
Chloroform	ND		0.50		ug/L			07/08/22 12:42	1
Chloromethane	ND		1.0		ug/L			07/08/22 12:42	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			07/08/22 12:42	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/08/22 12:42	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-278652/6
Matrix: Water
Analysis Batch: 278652

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	ND		0.50	ug/L			07/08/22 12:42	1
Dichlorobromomethane	ND		0.50	ug/L			07/08/22 12:42	1
Dichlorodifluoromethane	ND		1.0	ug/L			07/08/22 12:42	1
Ethanol	ND		150	ug/L			07/08/22 12:42	1
Ethylbenzene	ND		0.50	ug/L			07/08/22 12:42	1
Ethylene Dibromide	ND		0.50	ug/L			07/08/22 12:42	1
Hexachlorobutadiene	ND		5.0	ug/L			07/08/22 12:42	1
Iodomethane	ND		2.0	ug/L			07/08/22 12:42	1
Isopropylbenzene	ND		0.50	ug/L			07/08/22 12:42	1
Methyl tert-butyl ether	ND		0.50	ug/L			07/08/22 12:42	1
Methylene Chloride	ND		5.0	ug/L			07/08/22 12:42	1
m-Xylene & p-Xylene	ND		1.0	ug/L			07/08/22 12:42	1
Naphthalene	ND		5.0	ug/L			07/08/22 12:42	1
n-Butylbenzene	ND		1.0	ug/L			07/08/22 12:42	1
N-Propylbenzene	ND		0.50	ug/L			07/08/22 12:42	1
o-Xylene	ND		0.50	ug/L			07/08/22 12:42	1
sec-Butylbenzene	ND		0.50	ug/L			07/08/22 12:42	1
Styrene	ND		1.0	ug/L			07/08/22 12:42	1
tert-Butylbenzene	ND		0.50	ug/L			07/08/22 12:42	1
Tetrachloroethene	ND		0.50	ug/L			07/08/22 12:42	1
Toluene	ND		0.50	ug/L			07/08/22 12:42	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			07/08/22 12:42	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			07/08/22 12:42	1
Trichloroethene	ND		0.50	ug/L			07/08/22 12:42	1
Trichlorofluoromethane	ND		1.0	ug/L			07/08/22 12:42	1
Trihalomethanes, Total	ND		0.50	ug/L			07/08/22 12:42	1
Vinyl acetate	ND		5.0	ug/L			07/08/22 12:42	1
Vinyl chloride	ND		1.0	ug/L			07/08/22 12:42	1
Xylenes, Total	ND		0.50	ug/L			07/08/22 12:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*60 - 140*		*07/08/22 12:42*	*1*
Dibromofluoromethane (Surr)	*104*		*60 - 140*		*07/08/22 12:42*	*1*
Toluene-d8 (Surr)	*103*		*60 - 140*		*07/08/22 12:42*	*1*

Lab Sample ID: LCS 550-278652/3
Matrix: Water
Analysis Batch: 278652

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	59.2		ug/L		118	60 - 140
1,1,1-Trichloroethane	50.0	56.4		ug/L		113	70 - 130
1,1,2,2-Tetrachloroethane	50.0	51.1		ug/L		102	60 - 140
1,1,2-Trichloroethane	50.0	52.8		ug/L		106	70 - 130
1,1-Dichloroethane	50.0	55.1		ug/L		110	70 - 150
1,1-Dichloroethene	50.0	52.0		ug/L		104	50 - 140
1,1-Dichloropropene	50.0	57.7		ug/L		115	60 - 140
1,2,3-Trichlorobenzene	50.0	56.2		ug/L		112	60 - 140

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-278652/3
Matrix: Water
Analysis Batch: 278652

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	50.4		ug/L		101	60 - 140
1,2,4-Trichlorobenzene	50.0	57.1	T2	ug/L		114	60 - 140
1,2,4-Trimethylbenzene	50.0	58.8		ug/L		118	60 - 140
1,2-Dibromo-3-Chloropropane	50.0	42.3		ug/L		85	60 - 140
1,2-Dichlorobenzene	50.0	57.1		ug/L		114	65 - 140
1,2-Dichloroethane	50.0	53.5		ug/L		107	70 - 130
1,2-Dichloropropane	50.0	55.5		ug/L		111	35 - 165
1,3,5-Trimethylbenzene	50.0	60.0		ug/L		120	60 - 140
1,3-Dichlorobenzene	50.0	56.8		ug/L		114	70 - 130
1,3-Dichloropropane	50.0	52.5		ug/L		105	60 - 140
1,4-Dichlorobenzene	50.0	54.6		ug/L		109	65 - 135
2,2-Dichloropropane	50.0	57.3		ug/L		115	60 - 140
2-Butanone (MEK)	50.0	46.3		ug/L		93	60 - 140
2-Chlorotoluene	50.0	58.1		ug/L		116	60 - 140
2-Hexanone	50.0	42.7		ug/L		85	60 - 140
4-Chlorotoluene	50.0	57.1		ug/L		114	60 - 140
4-Isopropyltoluene	50.0	59.9		ug/L		120	60 - 140
4-Methyl-2-pentanone (MIBK)	50.0	44.4		ug/L		89	60 - 140
Acetone	50.0	45.3		ug/L		91	18 - 150
Benzene	50.0	55.1		ug/L		110	65 - 135
Bromobenzene	50.0	56.8		ug/L		114	60 - 140
Bromoform	50.0	52.0		ug/L		104	70 - 130
Bromomethane	50.0	46.9		ug/L		94	15 - 185
Carbon disulfide	50.0	56.7		ug/L		113	60 - 140
Carbon tetrachloride	50.0	58.0		ug/L		116	70 - 130
Chlorobenzene	50.0	54.6		ug/L		109	65 - 135
Chlorobromomethane	50.0	54.3		ug/L		109	60 - 140
Chlorodibromomethane	50.0	53.9		ug/L		108	70 - 135
Chloroethane	50.0	49.7		ug/L		99	40 - 160
Chloroform	50.0	55.6		ug/L		111	70 - 135
Chloromethane	50.0	53.7		ug/L		107	10 - 205
cis-1,2-Dichloroethene	50.0	56.9		ug/L		114	60 - 140
cis-1,3-Dichloropropene	50.0	56.6		ug/L		113	25 - 175
Dibromomethane	50.0	53.4		ug/L		107	70 - 130
Dichlorobromomethane	50.0	55.5		ug/L		111	65 - 135
Dichlorodifluoromethane	50.0	48.9		ug/L		98	60 - 140
Ethanol	1000	1130		ug/L		113	60 - 140
Ethylbenzene	50.0	55.8		ug/L		112	60 - 140
Ethylene Dibromide	50.0	52.2		ug/L		104	60 - 140
Hexachlorobutadiene	50.0	57.9		ug/L		116	60 - 140
Iodomethane	50.0	62.0		ug/L		124	60 - 140
Isopropylbenzene	50.0	60.0		ug/L		120	60 - 140
Methyl tert-butyl ether	50.0	55.5		ug/L		111	60 - 140
Methylene Chloride	50.0	54.3		ug/L		109	60 - 140
m-Xylene & p-Xylene	50.0	57.4		ug/L		115	60 - 140
Naphthalene	50.0	53.0		ug/L		106	60 - 140
n-Butylbenzene	50.0	59.1		ug/L		118	60 - 140
N-Propylbenzene	50.0	56.9		ug/L		114	60 - 140
o-Xylene	50.0	58.9		ug/L		118	60 - 140

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-278652/3
Matrix: Water
Analysis Batch: 278652

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
sec-Butylbenzene	50.0	59.9		ug/L		120	60 - 140
Styrene	50.0	56.4		ug/L		113	60 - 140
tert-Butylbenzene	50.0	59.2		ug/L		118	60 - 140
Tetrachloroethene	50.0	57.5		ug/L		115	70 - 130
Toluene	50.0	54.5		ug/L		109	70 - 130
trans-1,2-Dichloroethene	50.0	54.4		ug/L		109	70 - 130
trans-1,3-Dichloropropene	50.0	54.3		ug/L		109	50 - 150
Trichloroethene	50.0	55.9		ug/L		112	65 - 135
Trichlorofluoromethane	50.0	53.1		ug/L		106	50 - 150
Vinyl acetate	50.0	50.7		ug/L		101	60 - 140
Vinyl chloride	50.0	53.3		ug/L		107	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*60 - 140*
Dibromofluoromethane (Surr)	*105*		*60 - 140*
Toluene-d8 (Surr)	*105*		*60 - 140*

Lab Sample ID: LCSD 550-278652/4
Matrix: Water
Analysis Batch: 278652

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	57.8		ug/L		116	60 - 140	2	20
1,1,1-Trichloroethane	50.0	56.6		ug/L		113	70 - 130	0	20
1,1,2,2-Tetrachloroethane	50.0	61.4		ug/L		123	60 - 140	18	20
1,1,2-Trichloroethane	50.0	58.4		ug/L		117	70 - 130	10	20
1,1-Dichloroethane	50.0	54.5		ug/L		109	70 - 150	1	20
1,1-Dichloroethene	50.0	52.0		ug/L		104	50 - 140	0	20
1,1-Dichloropropene	50.0	58.5		ug/L		117	60 - 140	1	20
1,2,3-Trichlorobenzene	50.0	59.1		ug/L		118	60 - 140	5	20
1,2,3-Trichloropropane	50.0	60.7		ug/L		121	60 - 140	19	20
1,2,4-Trichlorobenzene	50.0	59.7	T2	ug/L		119	60 - 140	4	20
1,2,4-Trimethylbenzene	50.0	57.4		ug/L		115	60 - 140	2	20
1,2-Dibromo-3-Chloropropane	50.0	54.8	R6	ug/L		110	60 - 140	26	20
1,2-Dichlorobenzene	50.0	58.4		ug/L		117	65 - 140	2	20
1,2-Dichloroethane	50.0	56.4		ug/L		113	70 - 130	5	20
1,2-Dichloropropane	50.0	57.0		ug/L		114	35 - 165	3	20
1,3,5-Trimethylbenzene	50.0	57.5		ug/L		115	60 - 140	4	20
1,3-Dichlorobenzene	50.0	57.6		ug/L		115	70 - 130	1	20
1,3-Dichloropropane	50.0	57.6		ug/L		115	60 - 140	9	20
1,4-Dichlorobenzene	50.0	55.9		ug/L		112	65 - 135	2	20
2,2-Dichloropropane	50.0	57.3		ug/L		115	60 - 140	0	20
2-Butanone (MEK)	50.0	64.3	R6	ug/L		129	60 - 140	32	20
2-Chlorotoluene	50.0	57.4		ug/L		115	60 - 140	1	20
2-Hexanone	50.0	61.1	R6	ug/L		122	60 - 140	35	20
4-Chlorotoluene	50.0	56.1		ug/L		112	60 - 140	2	20
4-Isopropyltoluene	50.0	59.3		ug/L		119	60 - 140	1	20
4-Methyl-2-pentanone (MIBK)	50.0	59.0	R6	ug/L		118	60 - 140	28	20

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 550-278652/4
Matrix: Water
Analysis Batch: 278652

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
Acetone	50.0	58.5	R6	ug/L		117	18 - 150	26	20
Benzene	50.0	54.9		ug/L		110	65 - 135	0	20
Bromobenzene	50.0	58.2		ug/L		116	60 - 140	2	20
Bromoform	50.0	58.4		ug/L		117	70 - 130	12	20
Bromomethane	50.0	44.2		ug/L		88	15 - 185	6	20
Carbon disulfide	50.0	55.5		ug/L		111	60 - 140	2	20
Carbon tetrachloride	50.0	58.2		ug/L		116	70 - 130	0	20
Chlorobenzene	50.0	54.7		ug/L		109	65 - 135	0	20
Chlorobromomethane	50.0	55.2		ug/L		110	60 - 140	2	20
Chlorodibromomethane	50.0	59.0		ug/L		118	70 - 135	9	20
Chloroethane	50.0	46.8		ug/L		94	40 - 160	6	20
Chloroform	50.0	55.2		ug/L		110	70 - 135	1	20
Chloromethane	50.0	51.5		ug/L		103	10 - 205	4	20
cis-1,2-Dichloroethene	50.0	56.0		ug/L		112	60 - 140	2	20
cis-1,3-Dichloropropene	50.0	58.1		ug/L		116	25 - 175	3	20
Dibromomethane	50.0	57.1		ug/L		114	70 - 130	7	20
Dichlorobromomethane	50.0	56.1		ug/L		112	65 - 135	1	20
Dichlorodifluoromethane	50.0	45.9		ug/L		92	60 - 140	6	20
Ethanol	1000	1010		ug/L		101	60 - 140	11	20
Ethylbenzene	50.0	56.0		ug/L		112	60 - 140	0	20
Ethylene Dibromide	50.0	59.6		ug/L		119	60 - 140	13	20
Hexachlorobutadiene	50.0	59.0		ug/L		118	60 - 140	2	20
Iodomethane	50.0	58.5		ug/L		117	60 - 140	6	20
Isopropylbenzene	50.0	58.9		ug/L		118	60 - 140	2	20
Methyl tert-butyl ether	50.0	62.1		ug/L		124	60 - 140	11	20
Methylene Chloride	50.0	52.9		ug/L		106	60 - 140	2	20
m-Xylene & p-Xylene	50.0	56.3		ug/L		113	60 - 140	2	20
Naphthalene	50.0	62.0		ug/L		124	60 - 140	16	20
n-Butylbenzene	50.0	58.7		ug/L		117	60 - 140	1	20
N-Propylbenzene	50.0	56.1		ug/L		112	60 - 140	1	20
o-Xylene	50.0	58.0		ug/L		116	60 - 140	1	20
sec-Butylbenzene	50.0	58.7		ug/L		117	60 - 140	2	20
Styrene	50.0	56.7		ug/L		113	60 - 140	1	20
tert-Butylbenzene	50.0	59.2		ug/L		118	60 - 140	0	20
Tetrachloroethene	50.0	59.3		ug/L		119	70 - 130	3	20
Toluene	50.0	54.5		ug/L		109	70 - 130	0	20
trans-1,2-Dichloroethene	50.0	54.3		ug/L		109	70 - 130	0	20
trans-1,3-Dichloropropene	50.0	59.4		ug/L		119	50 - 150	9	20
Trichloroethene	50.0	56.4		ug/L		113	65 - 135	1	20
Trichlorofluoromethane	50.0	52.2		ug/L		104	50 - 150	2	20
Vinyl acetate	50.0	59.5		ug/L		119	60 - 140	16	20
Vinyl chloride	50.0	50.2		ug/L		100	5 - 195	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*60 - 140*
Dibromofluoromethane (Surr)	*104*		*60 - 140*
Toluene-d8 (Surr)	*104*		*60 - 140*

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-186720-A-1 MS
Matrix: Water
Analysis Batch: 278652

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	60.9		ug/L		122	50 - 150
1,1,1-Trichloroethane	ND		50.0	55.1		ug/L		110	52 - 162
1,1,2,2-Tetrachloroethane	ND		50.0	58.9		ug/L		118	46 - 157
1,1,2-Trichloroethane	ND		50.0	60.2		ug/L		120	52 - 150
1,1-Dichloroethane	ND		50.0	56.1		ug/L		112	59 - 155
1,1-Dichloroethene	ND		50.0	47.5		ug/L		95	10 - 234
1,1-Dichloropropene	ND		50.0	51.3		ug/L		103	50 - 150
1,2,3-Trichlorobenzene	ND		50.0	51.1		ug/L		99	50 - 150
1,2,3-Trichloropropane	ND		50.0	57.7		ug/L		115	50 - 150
1,2,4-Trichlorobenzene	ND	T2	50.0	53.1	T2	ug/L		106	50 - 150
1,2,4-Trimethylbenzene	ND		50.0	56.4		ug/L		113	50 - 150
1,2-Dibromo-3-Chloropropane	ND		50.0	44.4		ug/L		89	50 - 150
1,2-Dichlorobenzene	ND		50.0	57.9		ug/L		115	18 - 190
1,2-Dichloroethane	ND		50.0	56.5		ug/L		113	49 - 155
1,2-Dichloropropane	ND		50.0	57.7		ug/L		115	10 - 210
1,3,5-Trimethylbenzene	ND		50.0	55.2		ug/L		110	50 - 150
1,3-Dichlorobenzene	ND		50.0	58.4		ug/L		116	59 - 156
1,3-Dichloropropane	ND		50.0	59.4		ug/L		119	50 - 150
1,4-Dichlorobenzene	ND		50.0	57.0		ug/L		113	18 - 190
2,2-Dichloropropane	ND		50.0	54.9		ug/L		110	50 - 150
2-Butanone (MEK)	ND		50.0	50.5		ug/L		101	50 - 150
2-Chlorotoluene	ND		50.0	58.2		ug/L		116	50 - 150
2-Hexanone	ND		50.0	48.7		ug/L		97	50 - 150
4-Chlorotoluene	ND		50.0	57.5		ug/L		115	50 - 150
4-Isopropyltoluene	ND		50.0	54.5		ug/L		109	50 - 150
4-Methyl-2-pentanone (MIBK)	ND		50.0	50.6		ug/L		101	50 - 150
Acetone	ND		50.0	32.9		ug/L		66	18 - 150
Benzene	ND		50.0	53.0		ug/L		106	35 - 151
Bromobenzene	ND		50.0	61.9		ug/L		124	50 - 150
Bromoform	ND		50.0	61.4		ug/L		123	45 - 169
Bromomethane	ND		50.0	40.9		ug/L		82	10 - 242
Carbon disulfide	ND		50.0	51.7		ug/L		103	50 - 150
Carbon tetrachloride	ND		50.0	50.1		ug/L		100	70 - 140
Chlorobenzene	ND		50.0	56.9		ug/L		114	37 - 160
Chlorobromomethane	ND		50.0	60.9		ug/L		122	50 - 150
Chlorodibromomethane	ND		50.0	62.3		ug/L		125	53 - 149
Chloroethane	ND		50.0	48.2		ug/L		96	14 - 230
Chloroform	ND		50.0	59.0		ug/L		117	51 - 138
Chloromethane	ND		50.0	45.3		ug/L		91	10 - 273
cis-1,2-Dichloroethene	ND		50.0	54.2		ug/L		108	50 - 150
cis-1,3-Dichloropropene	ND		50.0	59.8		ug/L		120	10 - 227
Dibromomethane	ND		50.0	56.6		ug/L		113	50 - 150
Dichlorobromomethane	ND		50.0	58.3		ug/L		117	35 - 155
Dichlorodifluoromethane	ND		50.0	38.9		ug/L		78	50 - 150
Ethanol	ND		1000	1070		ug/L		107	50 - 150
Ethylbenzene	ND		50.0	55.5		ug/L		111	37 - 162
Ethylene Dibromide	ND		50.0	60.2		ug/L		120	50 - 150
Hexachlorobutadiene	ND		50.0	47.8		ug/L		96	50 - 150

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-186720-A-1 MS
Matrix: Water
Analysis Batch: 278652

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
Iodomethane	ND		50.0	56.7		ug/L		112	50 - 150
Isopropylbenzene	ND		50.0	56.1		ug/L		112	50 - 150
Methyl tert-butyl ether	ND		50.0	66.9		ug/L		134	50 - 150
Methylene Chloride	ND		50.0	56.1		ug/L		112	10 - 221
m-Xylene & p-Xylene	ND		50.0	57.0		ug/L		114	50 - 150
Naphthalene	ND		50.0	50.0		ug/L		100	50 - 150
n-Butylbenzene	ND		50.0	51.4		ug/L		103	50 - 150
N-Propylbenzene	ND		50.0	54.5		ug/L		109	50 - 150
o-Xylene	ND		50.0	59.2		ug/L		118	50 - 150
sec-Butylbenzene	ND		50.0	53.4		ug/L		107	50 - 150
Styrene	ND		50.0	60.6		ug/L		121	50 - 150
tert-Butylbenzene	ND		50.0	53.3		ug/L		107	50 - 150
Tetrachloroethene	ND		50.0	55.0		ug/L		110	64 - 148
Toluene	ND		50.0	54.4		ug/L		109	47 - 150
trans-1,2-Dichloroethene	ND		50.0	53.5		ug/L		107	54 - 156
trans-1,3-Dichloropropene	ND		50.0	61.8		ug/L		124	17 - 183
Trichloroethene	ND		50.0	53.2		ug/L		106	70 - 157
Trichlorofluoromethane	ND		50.0	46.6		ug/L		92	17 - 181
Vinyl acetate	ND		50.0	61.7		ug/L		123	50 - 150
Vinyl chloride	ND		50.0	45.8		ug/L		92	10 - 251

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*60 - 140*
Dibromofluoromethane (Surr)	*112*		*60 - 140*
Toluene-d8 (Surr)	*101*		*60 - 140*

Lab Sample ID: 550-186720-A-1 MSD
Matrix: Water
Analysis Batch: 278652

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	63.7		ug/L		127	50 - 150	4	35
1,1,1-Trichloroethane	ND		50.0	56.3		ug/L		113	52 - 162	2	36
1,1,2,2-Tetrachloroethane	ND		50.0	62.7		ug/L		125	46 - 157	6	61
1,1,2-Trichloroethane	ND		50.0	64.5		ug/L		129	52 - 150	7	45
1,1-Dichloroethane	ND		50.0	57.3		ug/L		115	59 - 155	2	40
1,1-Dichloroethene	ND		50.0	48.9		ug/L		98	10 - 234	3	32
1,1-Dichloropropene	ND		50.0	53.5		ug/L		107	50 - 150	4	35
1,2,3-Trichlorobenzene	ND		50.0	56.8		ug/L		110	50 - 150	11	35
1,2,3-Trichloropropane	ND		50.0	61.0		ug/L		122	50 - 150	6	35
1,2,4-Trichlorobenzene	ND	T2	50.0	58.1	T2	ug/L		116	50 - 150	9	35
1,2,4-Trimethylbenzene	ND		50.0	57.7		ug/L		115	50 - 150	2	35
1,2-Dibromo-3-Chloropropane	ND		50.0	49.5		ug/L		99	50 - 150	11	35
1,2-Dichlorobenzene	ND		50.0	60.3		ug/L		120	18 - 190	4	57
1,2-Dichloroethane	ND		50.0	58.8		ug/L		118	49 - 155	4	49
1,2-Dichloropropane	ND		50.0	59.6		ug/L		119	10 - 210	3	55
1,3,5-Trimethylbenzene	ND		50.0	56.8		ug/L		114	50 - 150	3	35
1,3-Dichlorobenzene	ND		50.0	61.0		ug/L		122	59 - 156	4	43

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-186720-A-1 MSD
Matrix: Water
Analysis Batch: 278652

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
1,3-Dichloropropane	ND		50.0	63.2		ug/L		126	50 - 150	6	35
1,4-Dichlorobenzene	ND		50.0	59.3		ug/L		118	18 - 190	4	57
2,2-Dichloropropane	ND		50.0	56.2		ug/L		112	50 - 150	2	35
2-Butanone (MEK)	ND		50.0	56.2		ug/L		112	50 - 150	11	35
2-Chlorotoluene	ND		50.0	59.6		ug/L		119	50 - 150	2	35
2-Hexanone	ND		50.0	54.8		ug/L		110	50 - 150	12	35
4-Chlorotoluene	ND		50.0	59.6		ug/L		119	50 - 150	4	35
4-Isopropyltoluene	ND		50.0	56.5		ug/L		113	50 - 150	4	35
4-Methyl-2-pentanone (MIBK)	ND		50.0	55.0		ug/L		110	50 - 150	8	35
Acetone	ND		50.0	35.0		ug/L		70	18 - 150	6	35
Benzene	ND		50.0	55.2		ug/L		110	35 - 151	4	61
Bromobenzene	ND		50.0	64.0		ug/L		128	50 - 150	3	35
Bromoform	ND		50.0	64.8		ug/L		130	45 - 169	5	42
Bromomethane	ND		50.0	43.3		ug/L		87	10 - 242	6	61
Carbon disulfide	ND		50.0	53.2		ug/L		106	50 - 150	3	35
Carbon tetrachloride	ND		50.0	52.0		ug/L		104	70 - 140	4	41
Chlorobenzene	ND		50.0	58.8		ug/L		118	37 - 160	3	53
Chlorobromomethane	ND		50.0	63.1		ug/L		126	50 - 150	3	35
Chlorodibromomethane	ND		50.0	66.5		ug/L		133	53 - 149	7	50
Chloroethane	ND		50.0	46.4		ug/L		93	14 - 230	4	78
Chloroform	ND		50.0	60.3		ug/L		120	51 - 138	2	54
Chloromethane	ND		50.0	45.8		ug/L		92	10 - 273	1	60
cis-1,2-Dichloroethene	ND		50.0	55.4		ug/L		111	50 - 150	2	35
cis-1,3-Dichloropropene	ND		50.0	62.6		ug/L		125	10 - 227	5	58
Dibromomethane	ND		50.0	59.7		ug/L		119	50 - 150	5	35
Dichlorobromomethane	ND		50.0	60.4		ug/L		121	35 - 155	4	56
Dichlorodifluoromethane	ND		50.0	38.4		ug/L		77	50 - 150	1	35
Ethanol	ND		1000	1010		ug/L		101	50 - 150	6	35
Ethylbenzene	ND		50.0	57.3		ug/L		115	37 - 162	3	63
Ethylene Dibromide	ND		50.0	64.8		ug/L		130	50 - 150	7	35
Hexachlorobutadiene	ND		50.0	49.9		ug/L		100	50 - 150	4	35
Iodomethane	ND		50.0	58.5		ug/L		116	50 - 150	3	35
Isopropylbenzene	ND		50.0	57.5		ug/L		115	50 - 150	2	35
Methyl tert-butyl ether	ND		50.0	70.2		ug/L		140	50 - 150	5	35
Methylene Chloride	ND		50.0	57.4		ug/L		115	10 - 221	2	28
m-Xylene & p-Xylene	ND		50.0	58.2		ug/L		116	50 - 150	2	35
Naphthalene	ND		50.0	56.5		ug/L		113	50 - 150	12	35
n-Butylbenzene	ND		50.0	53.8		ug/L		108	50 - 150	5	35
N-Propylbenzene	ND		50.0	55.5		ug/L		111	50 - 150	2	35
o-Xylene	ND		50.0	60.6		ug/L		121	50 - 150	2	35
sec-Butylbenzene	ND		50.0	54.5		ug/L		109	50 - 150	2	35
Styrene	ND		50.0	62.7		ug/L		125	50 - 150	3	35
tert-Butylbenzene	ND		50.0	56.2		ug/L		112	50 - 150	5	35
Tetrachloroethene	ND		50.0	56.7		ug/L		113	64 - 148	3	39
Toluene	ND		50.0	55.9		ug/L		112	47 - 150	3	41
trans-1,2-Dichloroethene	ND		50.0	55.4		ug/L		111	54 - 156	3	45
trans-1,3-Dichloropropene	ND		50.0	64.7		ug/L		129	17 - 183	5	86
Trichloroethene	ND		50.0	54.3		ug/L		109	70 - 157	2	48
Trichlorofluoromethane	ND		50.0	48.0		ug/L		95	17 - 181	3	84

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-186720-A-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 278652

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Vinyl acetate	ND		50.0	66.0		ug/L		132	50 - 150	7	35
Vinyl chloride	ND		50.0	46.8		ug/L		94	10 - 251	2	66

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*60 - 140*
Dibromofluoromethane (Surr)	*114*		*60 - 140*
Toluene-d8 (Surr)	*105*		*60 - 140*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-278407/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 278407

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.050		mg/L			07/05/22 11:14	1
Nitrite as N	ND		0.050		mg/L			07/05/22 11:14	1
Nitrate Nitrite as N	ND		0.050		mg/L			07/05/22 11:14	1

Lab Sample ID: LCS 550-278407/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 278407

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	4.00	4.07		mg/L		102	90 - 110
Nitrite as N	4.00	4.00		mg/L		100	90 - 110
Nitrate Nitrite as N	8.00	8.07		mg/L		101	90 - 110

Lab Sample ID: LCSD 550-278407/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 278407

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	4.00	4.06		mg/L		102	90 - 110	0	20
Nitrite as N	4.00	4.01		mg/L		100	90 - 110	0	20
Nitrate Nitrite as N	8.00	8.07		mg/L		101	90 - 110	0	20

Lab Sample ID: 550-186523-A-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 278407

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	11		4.00	15.1		mg/L		94	80 - 120
Nitrite as N	ND		4.00	3.95		mg/L		99	80 - 120
Nitrate Nitrite as N	11		8.00	19.1		mg/L		101	80 - 120

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-186523-A-1 MSD
Matrix: Water
Analysis Batch: 278407

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
Nitrate as N	11		4.00	15.1		mg/L		94	80 - 120	0	20
Nitrite as N	ND		4.00	3.97		mg/L		99	80 - 120	0	20
Nitrate Nitrite as N	11		8.00	19.1		mg/L		101	80 - 120	0	20

QC Association Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-186548-1

GC/MS VOA

Analysis Batch: 278434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-186548-1	INF-22M07	Total/NA	Water	624.1	
550-186548-2	EFF-22M07	Total/NA	Water	624.1	
550-186548-3	GAC-2A-100-22M07	Total/NA	Water	624.1	
550-186548-4	GAC-2B-75-22M07	Total/NA	Water	624.1	
MB 550-278434/6	Method Blank	Total/NA	Water	624.1	
LCS 550-278434/3	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-278434/4	Lab Control Sample Dup	Total/NA	Water	624.1	
550-186548-1 MS	INF-22M07	Total/NA	Water	624.1	
550-186548-1 MSD	INF-22M07	Total/NA	Water	624.1	

Analysis Batch: 278652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-186548-5	TB-22M07	Total/NA	Water	624.1	
MB 550-278652/6	Method Blank	Total/NA	Water	624.1	
LCS 550-278652/3	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-278652/4	Lab Control Sample Dup	Total/NA	Water	624.1	
550-186720-A-1 MS	Matrix Spike	Total/NA	Water	624.1	
550-186720-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	624.1	

HPLC/IC

Analysis Batch: 278407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-186548-1	INF-22M07	Total/NA	Water	300.0	
550-186548-2	EFF-22M07	Total/NA	Water	300.0	
MB 550-278407/2	Method Blank	Total/NA	Water	300.0	
LCS 550-278407/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-278407/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-186523-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
550-186523-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-186548-1

Client Sample ID: INF-22M07 — Lab Sample ID: 550-186548-1

Date Collected: 07/05/22 12:40 — **Matrix: Water**
Date Received: 07/05/22 14:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	278434	07/06/22 12:47	R1K	TAL PHX
Total/NA	Analysis	300.0		1	278407	07/05/22 20:32	AS1	TAL PHX

Client Sample ID: EFF-22M07 — Lab Sample ID: 550-186548-2

Date Collected: 07/05/22 12:30 — **Matrix: Water**
Date Received: 07/05/22 14:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	278434	07/06/22 13:08	R1K	TAL PHX
Total/NA	Analysis	300.0		1	278407	07/05/22 21:00	AS1	TAL PHX

Client Sample ID: GAC-2A-100-22M07 — Lab Sample ID: 550-186548-3

Date Collected: 07/05/22 12:37 — **Matrix: Water**
Date Received: 07/05/22 14:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	278434	07/06/22 13:29	R1K	TAL PHX

Client Sample ID: GAC-2B-75-22M07 — Lab Sample ID: 550-186548-4

Date Collected: 07/05/22 12:35 — **Matrix: Water**
Date Received: 07/05/22 14:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	278434	07/06/22 13:50	R1K	TAL PHX

Client Sample ID: TB-22M07 — Lab Sample ID: 550-186548-5

Date Collected: 07/05/22 08:00 — **Matrix: Water**
Date Received: 07/05/22 14:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	278652	07/08/22 13:23	R1K	TAL PHX

Laboratory References:

TAL PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-186548-1

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
624.1		Water	1,2,4-Trichlorobenzene
624.1		Water	Trihalomethanes, Total

Method Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-186548-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL PHX
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

TAL PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

186548

Test America Phoenix
4625 East Cotton CTr Blvd Suite 189
Phoenix, AZ 85040
602-437-3340

Honeywell — Chain Of Custody / Analysis Request

AESI Ref: 44747.54466
COC#: 37553-070522

Privileged & Confidential | 55014762
Site Name: Deer Valley
Phase:
Lab Proj # (SDG):
Sampling Co.: Jacobs
EDD To: Bernice Kidd, Jacobs HTS
Location of Site: Phoenix AZ.
Sampling Program: Monthly Groundwater Monitoring Program
Lab ID: TAL-PHX
Site ID: DEERV
Client Contact: (name, co., address)
Jacobs
1501 W. Fountainhead Parkway (suite 401)
Tempe, AZ 85282
Sampler: T. Kearsley
PO #: 4500178520
Lab Job #:
Authorized User: Honeywell
Preliminary Data To: Berney Kidd Jacobs, Lakshmi Devi HTS
Sample Receipt Acknowledgement To: Site Distribution List
Hard Copy To: Berney Kidd Jacobs
Invoice To: Tao Wu, Honeywell/Copy Berney Kidd
Analysis Turnaround Time (TAT): 10
Consultant: Jacobs
Laboratory Contact: Danielle Roberts
Report Tier Level: 2
Full Report TAT: 10
HTS
Text & Excel File Drive
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	Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	E624 (Total VOCs)	E300 0 (Nitrite-Nitrate)	MS/MSD	Sampling Method (code)	Lab Sample Numbers
	Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID							Units						
1	Influent			INF-22M07	7/5/2022	12:40	GW-GWS	WATER	REG	4	grab	N	X	X			-1
2	Effluent			EFF-22M07	7/5/2022	12:30	GW-GWS	WATER	REG	4	grab	N	X	X			-2
3	GAC2A Effluent			GAC-2A-100-22M07	7/5/2022	12:37	GW-GWS	WATER	REG	3	grab	N	X				-3
4	GAC2B 75%			GAC-2B-75-22M07	7/5/2022	12:35	GW-GWS	WATER	REG	3	grab	N	X				-4
5	TRIPBLANK			TB-22M07	7/5/2022	8:00	GW-GWS	WATER	REG	1	grab	N	X				-5
6																	
7																	
8																	
9																	
10																	
11																	
12																	

Preservative: 8 | 0

550-186548 Chain of Custody

Relinquished by	Company	Received by	Company	Condition	Custody Seals Intact
T. Kearsley	Jacobs		EDTA-PH2		
T. Kearsley	Date/Time 7-5-22 14:34		Date/Time 7/5/22 14:34	Cooler Temp. 1.1C	N/A
Relinquished by	Company	Received by	Company	Condition	Custody Seals Intact
	Date/Time		Date/Time	Cooler Temp.	

Preservatives: (Other; Specify):

0 (none); 1 (4 Deg C); 2 (HCl, pH<2); 3 (HNO3, pH<2); 4 (H2SO4, pH<2); 5 (NaOH, pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4, pH<2, 4 Deg C)); 8 (HCl, pH<2, 4 Deg C); 9 (HCl, 4 Deg C); 10 (HNO3, pH<2, 4 Deg C); 11 (NaOH, pH>12, 4 Deg, Ascorbic Acid); 12 (H2SO4, Na2S2O3, 4 Deg C, pH<2); 13 (Zn Acetate); 14 (1-MeOH, 4 Deg C and 2-NaHSO4, 4 Deg C); 15 (NaOH, pH>12, 4 Deg C); sp (special instructions)

C-D.0

7/11/2022

Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 550-186548-1

Login Number: 186548
List Number: 1
Creator: Maycock, Lisa

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.

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-188193-1
Client Project/Site: Deer Valley

For:
Honeywell International Inc
1944 E. Sky Harbor Circle MS 2101-2C
Phoenix, Arizona 85034

Attn: Tao Wu

Authorized for release by:
8/5/2022 11:29:06 AM

Danielle Roberts, Senior Project Manager
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LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Sample Summary 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 16
QC Sample Results 17
QC Association Summary 26
Lab Chronicle 27
Certification Summary 28
Method Summary 29
Chain of Custody 30
Receipt Checklists 31

Definitions/Glossary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-188193-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
T5	Laboratory not licensed for this parameter

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: 550-188193-1

Laboratory: Eurofins Phoenix

Narrative

Job Narrative
550-188193-1

Comments
No additional comments.

Receipt
The samples were received on 8/2/2022 1:44 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.6º C.

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

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

Sample Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-188193-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-188193-1	INF-22M08	Water	08/02/22 08:44	08/02/22 13:44
550-188193-2	EFF-22M08	Water	08/02/22 08:35	08/02/22 13:44
550-188193-3	GAC-2A-75-22M08	Water	08/02/22 08:41	08/02/22 13:44
550-188193-4	GAC-2B-100-22M08	Water	08/02/22 08:39	08/02/22 13:44
550-188193-5	TB-22M08	Water	08/02/22 08:00	08/02/22 13:44

Detection Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-188193-1

Client Sample ID: INF-22M08 — Lab Sample ID: 550-188193-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.60		0.50		ug/L	1		624.1	Total/NA
cis-1,2-Dichloroethene	4.4		0.50		ug/L	1		624.1	Total/NA
Tetrachloroethene	1.2		0.50		ug/L	1		624.1	Total/NA
Trichloroethene	29		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	0.60	T5	0.50		ug/L	1		624.1	Total/NA

Client Sample ID: EFF-22M08 — Lab Sample ID: 550-188193-2

No Detections.

Client Sample ID: GAC-2A-75-22M08 — Lab Sample ID: 550-188193-3

No Detections.

Client Sample ID: GAC-2B-100-22M08 — Lab Sample ID: 550-188193-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.86		0.50		ug/L	1		624.1	Total/NA
cis-1,2-Dichloroethene	3.9		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	0.86	T5	0.50		ug/L	1		624.1	Total/NA

Client Sample ID: TB-22M08 — Lab Sample ID: 550-188193-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-188193-1

Client Sample ID: INF-22M08

Date Collected: 08/02/22 08:44
Date Received: 08/02/22 13:44

Lab Sample ID: 550-188193-1

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			08/03/22 14:41	1
1,1,1-Trichloroethane	ND		0.50		ug/L			08/03/22 14:41	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			08/03/22 14:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			08/03/22 14:41	1
1,1,2-Trichloroethane	ND		0.50		ug/L			08/03/22 14:41	1
1,1-Dichloroethane	ND		0.50		ug/L			08/03/22 14:41	1
1,1-Dichloroethene	ND		0.50		ug/L			08/03/22 14:41	1
1,1-Dichloropropene	ND		0.50		ug/L			08/03/22 14:41	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			08/03/22 14:41	1
1,2,3-Trichloropropane	ND		2.0		ug/L			08/03/22 14:41	1
1,2,4-Trichlorobenzene	ND	T5	2.0		ug/L			08/03/22 14:41	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			08/03/22 14:41	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			08/03/22 14:41	1
1,2-Dichlorobenzene	ND		0.50		ug/L			08/03/22 14:41	1
1,2-Dichloroethane	ND		0.50		ug/L			08/03/22 14:41	1
1,2-Dichloropropane	ND		0.50		ug/L			08/03/22 14:41	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			08/03/22 14:41	1
1,3-Dichlorobenzene	ND		0.50		ug/L			08/03/22 14:41	1
1,3-Dichloropropane	ND		0.50		ug/L			08/03/22 14:41	1
1,4-Dichlorobenzene	ND		0.50		ug/L			08/03/22 14:41	1
2,2-Dichloropropane	ND		1.0		ug/L			08/03/22 14:41	1
2-Butanone (MEK)	ND		10		ug/L			08/03/22 14:41	1
2-Chlorotoluene	ND		0.50		ug/L			08/03/22 14:41	1
2-Hexanone	ND		5.0		ug/L			08/03/22 14:41	1
4-Chlorotoluene	ND		0.50		ug/L			08/03/22 14:41	1
4-Isopropyltoluene	ND		0.50		ug/L			08/03/22 14:41	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			08/03/22 14:41	1
Acetone	ND		10		ug/L			08/03/22 14:41	1
Benzene	ND		0.50		ug/L			08/03/22 14:41	1
Bromobenzene	ND		1.0		ug/L			08/03/22 14:41	1
Bromoform	ND		1.0		ug/L			08/03/22 14:41	1
Bromomethane	ND		5.0		ug/L			08/03/22 14:41	1
Carbon disulfide	ND		5.0		ug/L			08/03/22 14:41	1
Carbon tetrachloride	ND		0.50		ug/L			08/03/22 14:41	1
Chlorobenzene	ND		0.50		ug/L			08/03/22 14:41	1
Chlorobromomethane	ND		0.50		ug/L			08/03/22 14:41	1
Chlorodibromomethane	ND		0.50		ug/L			08/03/22 14:41	1
Chloroethane	ND		1.0		ug/L			08/03/22 14:41	1
Chloroform	**0.60**		0.50		ug/L			08/03/22 14:41	1
Chloromethane	ND		1.0		ug/L			08/03/22 14:41	1
cis-1,2-Dichloroethene	**4.4**		0.50		ug/L			08/03/22 14:41	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/03/22 14:41	1
Dibromomethane	ND		0.50		ug/L			08/03/22 14:41	1
Dichlorobromomethane	ND		0.50		ug/L			08/03/22 14:41	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/03/22 14:41	1
Ethanol	ND		150		ug/L			08/03/22 14:41	1
Ethylbenzene	ND		0.50		ug/L			08/03/22 14:41	1
Ethylene Dibromide	ND		0.50		ug/L			08/03/22 14:41	1
Hexachlorobutadiene	ND		5.0		ug/L			08/03/22 14:41	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-188193-1

Client Sample ID: INF-22M08

Lab Sample ID: 550-188193-1
Matrix: Water

Date Collected: 08/02/22 08:44
Date Received: 08/02/22 13:44

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND		2.0		ug/L			08/03/22 14:41	1
Isopropylbenzene	ND		0.50		ug/L			08/03/22 14:41	1
Methyl tert-butyl ether	ND		0.50		ug/L			08/03/22 14:41	1
Methylene Chloride	ND		5.0		ug/L			08/03/22 14:41	1
m-Xylene & p-Xylene	ND		1.0		ug/L			08/03/22 14:41	1
Naphthalene	ND		5.0		ug/L			08/03/22 14:41	1
n-Butylbenzene	ND		1.0		ug/L			08/03/22 14:41	1
N-Propylbenzene	ND		0.50		ug/L			08/03/22 14:41	1
o-Xylene	ND		0.50		ug/L			08/03/22 14:41	1
sec-Butylbenzene	ND		0.50		ug/L			08/03/22 14:41	1
Styrene	ND		1.0		ug/L			08/03/22 14:41	1
tert-Butylbenzene	ND		0.50		ug/L			08/03/22 14:41	1
Tetrachloroethene	**1.2**		0.50		ug/L			08/03/22 14:41	1
Toluene	ND		0.50		ug/L			08/03/22 14:41	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			08/03/22 14:41	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			08/03/22 14:41	1
Trichloroethene	**29**		0.50		ug/L			08/03/22 14:41	1
Trichlorofluoromethane	ND		1.0		ug/L			08/03/22 14:41	1
Trihalomethanes, Total	**0.60**	**T5**	0.50		ug/L			08/03/22 14:41	1
Vinyl acetate	ND		5.0		ug/L			08/03/22 14:41	1
Vinyl chloride	ND		1.0		ug/L			08/03/22 14:41	1
Xylenes, Total	ND		0.50		ug/L			08/03/22 14:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*60 - 140*		*08/03/22 14:41*	*1*
Dibromofluoromethane (Surr)	*112*		*60 - 140*		*08/03/22 14:41*	*1*
Toluene-d8 (Surr)	*106*		*60 - 140*		*08/03/22 14:41*	*1*

Client Sample ID: EFF-22M08

Lab Sample ID: 550-188193-2
Matrix: Water

Date Collected: 08/02/22 08:35
Date Received: 08/02/22 13:44

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			08/03/22 15:01	1
1,1,1-Trichloroethane	ND		0.50		ug/L			08/03/22 15:01	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			08/03/22 15:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			08/03/22 15:01	1
1,1,2-Trichloroethane	ND		0.50		ug/L			08/03/22 15:01	1
1,1-Dichloroethane	ND		0.50		ug/L			08/03/22 15:01	1
1,1-Dichloroethene	ND		0.50		ug/L			08/03/22 15:01	1
1,1-Dichloropropene	ND		0.50		ug/L			08/03/22 15:01	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			08/03/22 15:01	1
1,2,3-Trichloropropane	ND		2.0		ug/L			08/03/22 15:01	1
1,2,4-Trichlorobenzene	ND	T5	2.0		ug/L			08/03/22 15:01	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			08/03/22 15:01	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			08/03/22 15:01	1
1,2-Dichlorobenzene	ND		0.50		ug/L			08/03/22 15:01	1
1,2-Dichloroethane	ND		0.50		ug/L			08/03/22 15:01	1
1,2-Dichloropropane	ND		0.50		ug/L			08/03/22 15:01	1

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-188193-1

Client Sample ID: EFF-22M08

Lab Sample ID: 550-188193-2

Date Collected: 08/02/22 08:35

Matrix: Water

Date Received: 08/02/22 13:44

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		0.50		ug/L			08/03/22 15:01	1
1,3-Dichlorobenzene	ND		0.50		ug/L			08/03/22 15:01	1
1,3-Dichloropropane	ND		0.50		ug/L			08/03/22 15:01	1
1,4-Dichlorobenzene	ND		0.50		ug/L			08/03/22 15:01	1
2,2-Dichloropropane	ND		1.0		ug/L			08/03/22 15:01	1
2-Butanone (MEK)	ND		10		ug/L			08/03/22 15:01	1
2-Chlorotoluene	ND		0.50		ug/L			08/03/22 15:01	1
2-Hexanone	ND		5.0		ug/L			08/03/22 15:01	1
4-Chlorotoluene	ND		0.50		ug/L			08/03/22 15:01	1
4-Isopropyltoluene	ND		0.50		ug/L			08/03/22 15:01	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			08/03/22 15:01	1
Acetone	ND		10		ug/L			08/03/22 15:01	1
Benzene	ND		0.50		ug/L			08/03/22 15:01	1
Bromobenzene	ND		1.0		ug/L			08/03/22 15:01	1
Bromoform	ND		1.0		ug/L			08/03/22 15:01	1
Bromomethane	ND		5.0		ug/L			08/03/22 15:01	1
Carbon disulfide	ND		5.0		ug/L			08/03/22 15:01	1
Carbon tetrachloride	ND		0.50		ug/L			08/03/22 15:01	1
Chlorobenzene	ND		0.50		ug/L			08/03/22 15:01	1
Chlorobromomethane	ND		0.50		ug/L			08/03/22 15:01	1
Chlorodibromomethane	ND		0.50		ug/L			08/03/22 15:01	1
Chloroethane	ND		1.0		ug/L			08/03/22 15:01	1
Chloroform	ND		0.50		ug/L			08/03/22 15:01	1
Chloromethane	ND		1.0		ug/L			08/03/22 15:01	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			08/03/22 15:01	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/03/22 15:01	1
Dibromomethane	ND		0.50		ug/L			08/03/22 15:01	1
Dichlorobromomethane	ND		0.50		ug/L			08/03/22 15:01	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/03/22 15:01	1
Ethanol	ND		150		ug/L			08/03/22 15:01	1
Ethylbenzene	ND		0.50		ug/L			08/03/22 15:01	1
Ethylene Dibromide	ND		0.50		ug/L			08/03/22 15:01	1
Hexachlorobutadiene	ND		5.0		ug/L			08/03/22 15:01	1
Iodomethane	ND		2.0		ug/L			08/03/22 15:01	1
Isopropylbenzene	ND		0.50		ug/L			08/03/22 15:01	1
Methyl tert-butyl ether	ND		0.50		ug/L			08/03/22 15:01	1
Methylene Chloride	ND		5.0		ug/L			08/03/22 15:01	1
m-Xylene & p-Xylene	ND		1.0		ug/L			08/03/22 15:01	1
Naphthalene	ND		5.0		ug/L			08/03/22 15:01	1
n-Butylbenzene	ND		1.0		ug/L			08/03/22 15:01	1
N-Propylbenzene	ND		0.50		ug/L			08/03/22 15:01	1
o-Xylene	ND		0.50		ug/L			08/03/22 15:01	1
sec-Butylbenzene	ND		0.50		ug/L			08/03/22 15:01	1
Styrene	ND		1.0		ug/L			08/03/22 15:01	1
tert-Butylbenzene	ND		0.50		ug/L			08/03/22 15:01	1
Tetrachloroethene	ND		0.50		ug/L			08/03/22 15:01	1
Toluene	ND		0.50		ug/L			08/03/22 15:01	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			08/03/22 15:01	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			08/03/22 15:01	1

Client Sample ID: EFF-22M08

Lab Sample ID: 550-188193-2

Date Collected: 08/02/22 08:35

Matrix: Water

Date Received: 08/02/22 13:44

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		0.50		ug/L			08/03/22 15:01	1
Trichlorofluoromethane	ND		1.0		ug/L			08/03/22 15:01	1
Trihalomethanes, Total	ND	T5	0.50		ug/L			08/03/22 15:01	1
Vinyl acetate	ND		5.0		ug/L			08/03/22 15:01	1
Vinyl chloride	ND		1.0		ug/L			08/03/22 15:01	1
Xylenes, Total	ND		0.50		ug/L			08/03/22 15:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*60 - 140*		*08/03/22 15:01*	*1*
Dibromofluoromethane (Surr)	*113*		*60 - 140*		*08/03/22 15:01*	*1*
Toluene-d8 (Surr)	*105*		*60 - 140*		*08/03/22 15:01*	*1*

Client Sample ID: GAC-2A-75-22M08

Lab Sample ID: 550-188193-3

Date Collected: 08/02/22 08:41

Matrix: Water

Date Received: 08/02/22 13:44

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			08/03/22 13:59	1
1,1,1-Trichloroethane	ND		0.50		ug/L			08/03/22 13:59	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			08/03/22 13:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			08/03/22 13:59	1
1,1,2-Trichloroethane	ND		0.50		ug/L			08/03/22 13:59	1
1,1-Dichloroethane	ND		0.50		ug/L			08/03/22 13:59	1
1,1-Dichloroethene	ND		0.50		ug/L			08/03/22 13:59	1
1,1-Dichloropropene	ND		0.50		ug/L			08/03/22 13:59	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			08/03/22 13:59	1
1,2,3-Trichloropropane	ND		2.0		ug/L			08/03/22 13:59	1
1,2,4-Trichlorobenzene	ND	T5	2.0		ug/L			08/03/22 13:59	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			08/03/22 13:59	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			08/03/22 13:59	1
1,2-Dichlorobenzene	ND		0.50		ug/L			08/03/22 13:59	1
1,2-Dichloroethane	ND		0.50		ug/L			08/03/22 13:59	1
1,2-Dichloropropane	ND		0.50		ug/L			08/03/22 13:59	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			08/03/22 13:59	1
1,3-Dichlorobenzene	ND		0.50		ug/L			08/03/22 13:59	1
1,3-Dichloropropane	ND		0.50		ug/L			08/03/22 13:59	1
1,4-Dichlorobenzene	ND		0.50		ug/L			08/03/22 13:59	1
2,2-Dichloropropane	ND		1.0		ug/L			08/03/22 13:59	1
2-Butanone (MEK)	ND		10		ug/L			08/03/22 13:59	1
2-Chlorotoluene	ND		0.50		ug/L			08/03/22 13:59	1
2-Hexanone	ND		5.0		ug/L			08/03/22 13:59	1
4-Chlorotoluene	ND		0.50		ug/L			08/03/22 13:59	1
4-Isopropyltoluene	ND		0.50		ug/L			08/03/22 13:59	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			08/03/22 13:59	1
Acetone	ND		10		ug/L			08/03/22 13:59	1
Benzene	ND		0.50		ug/L			08/03/22 13:59	1
Bromobenzene	ND		1.0		ug/L			08/03/22 13:59	1
Bromoform	ND		1.0		ug/L			08/03/22 13:59	1
Bromomethane	ND		5.0		ug/L			08/03/22 13:59	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-188193-1

Client Sample ID: GAC-2A-75-22M08

Lab Sample ID: 550-188193-3

Date Collected: 08/02/22 08:41
Date Received: 08/02/22 13:44

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		5.0		ug/L			08/03/22 13:59	1
Carbon tetrachloride	ND		0.50		ug/L			08/03/22 13:59	1
Chlorobenzene	ND		0.50		ug/L			08/03/22 13:59	1
Chlorobromomethane	ND		0.50		ug/L			08/03/22 13:59	1
Chlorodibromomethane	ND		0.50		ug/L			08/03/22 13:59	1
Chloroethane	ND		1.0		ug/L			08/03/22 13:59	1
Chloroform	ND		0.50		ug/L			08/03/22 13:59	1
Chloromethane	ND		1.0		ug/L			08/03/22 13:59	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			08/03/22 13:59	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/03/22 13:59	1
Dibromomethane	ND		0.50		ug/L			08/03/22 13:59	1
Dichlorobromomethane	ND		0.50		ug/L			08/03/22 13:59	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/03/22 13:59	1
Ethanol	ND		150		ug/L			08/03/22 13:59	1
Ethylbenzene	ND		0.50		ug/L			08/03/22 13:59	1
Ethylene Dibromide	ND		0.50		ug/L			08/03/22 13:59	1
Hexachlorobutadiene	ND		5.0		ug/L			08/03/22 13:59	1
Iodomethane	ND		2.0		ug/L			08/03/22 13:59	1
Isopropylbenzene	ND		0.50		ug/L			08/03/22 13:59	1
Methyl tert-butyl ether	ND		0.50		ug/L			08/03/22 13:59	1
Methylene Chloride	ND		5.0		ug/L			08/03/22 13:59	1
m-Xylene & p-Xylene	ND		1.0		ug/L			08/03/22 13:59	1
Naphthalene	ND		5.0		ug/L			08/03/22 13:59	1
n-Butylbenzene	ND		1.0		ug/L			08/03/22 13:59	1
N-Propylbenzene	ND		0.50		ug/L			08/03/22 13:59	1
o-Xylene	ND		0.50		ug/L			08/03/22 13:59	1
sec-Butylbenzene	ND		0.50		ug/L			08/03/22 13:59	1
Styrene	ND		1.0		ug/L			08/03/22 13:59	1
tert-Butylbenzene	ND		0.50		ug/L			08/03/22 13:59	1
Tetrachloroethene	ND		0.50		ug/L			08/03/22 13:59	1
Toluene	ND		0.50		ug/L			08/03/22 13:59	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			08/03/22 13:59	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			08/03/22 13:59	1
Trichloroethene	ND		0.50		ug/L			08/03/22 13:59	1
Trichlorofluoromethane	ND		1.0		ug/L			08/03/22 13:59	1
Trihalomethanes, Total	ND	T5	0.50		ug/L			08/03/22 13:59	1
Vinyl acetate	ND		5.0		ug/L			08/03/22 13:59	1
Vinyl chloride	ND		1.0		ug/L			08/03/22 13:59	1
Xylenes, Total	ND		0.50		ug/L			08/03/22 13:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*60 - 140*		*08/03/22 13:59*	*1*
Dibromofluoromethane (Surr)	*112*		*60 - 140*		*08/03/22 13:59*	*1*
Toluene-d8 (Surr)	*105*		*60 - 140*		*08/03/22 13:59*	*1*

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-188193-1

Client Sample ID: GAC-2B-100-22M08

Lab Sample ID: 550-188193-4

Date Collected: 08/02/22 08:39
Matrix: Water
Date Received: 08/02/22 13:44

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			08/03/22 15:22	1
1,1,1-Trichloroethane	ND		0.50		ug/L			08/03/22 15:22	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			08/03/22 15:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			08/03/22 15:22	1
1,1,2-Trichloroethane	ND		0.50		ug/L			08/03/22 15:22	1
1,1-Dichloroethane	ND		0.50		ug/L			08/03/22 15:22	1
1,1-Dichloroethene	ND		0.50		ug/L			08/03/22 15:22	1
1,1-Dichloropropene	ND		0.50		ug/L			08/03/22 15:22	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			08/03/22 15:22	1
1,2,3-Trichloropropane	ND		2.0		ug/L			08/03/22 15:22	1
1,2,4-Trichlorobenzene	ND	T5	2.0		ug/L			08/03/22 15:22	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			08/03/22 15:22	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			08/03/22 15:22	1
1,2-Dichlorobenzene	ND		0.50		ug/L			08/03/22 15:22	1
1,2-Dichloroethane	ND		0.50		ug/L			08/03/22 15:22	1
1,2-Dichloropropane	ND		0.50		ug/L			08/03/22 15:22	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			08/03/22 15:22	1
1,3-Dichlorobenzene	ND		0.50		ug/L			08/03/22 15:22	1
1,3-Dichloropropane	ND		0.50		ug/L			08/03/22 15:22	1
1,4-Dichlorobenzene	ND		0.50		ug/L			08/03/22 15:22	1
2,2-Dichloropropane	ND		1.0		ug/L			08/03/22 15:22	1
2-Butanone (MEK)	ND		10		ug/L			08/03/22 15:22	1
2-Chlorotoluene	ND		0.50		ug/L			08/03/22 15:22	1
2-Hexanone	ND		5.0		ug/L			08/03/22 15:22	1
4-Chlorotoluene	ND		0.50		ug/L			08/03/22 15:22	1
4-Isopropyltoluene	ND		0.50		ug/L			08/03/22 15:22	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			08/03/22 15:22	1
Acetone	ND		10		ug/L			08/03/22 15:22	1
Benzene	ND		0.50		ug/L			08/03/22 15:22	1
Bromobenzene	ND		1.0		ug/L			08/03/22 15:22	1
Bromoform	ND		1.0		ug/L			08/03/22 15:22	1
Bromomethane	ND		5.0		ug/L			08/03/22 15:22	1
Carbon disulfide	ND		5.0		ug/L			08/03/22 15:22	1
Carbon tetrachloride	ND		0.50		ug/L			08/03/22 15:22	1
Chlorobenzene	ND		0.50		ug/L			08/03/22 15:22	1
Chlorobromomethane	ND		0.50		ug/L			08/03/22 15:22	1
Chlorodibromomethane	ND		0.50		ug/L			08/03/22 15:22	1
Chloroethane	ND		1.0		ug/L			08/03/22 15:22	1
Chloroform	**0.86**		0.50		ug/L			08/03/22 15:22	1
Chloromethane	ND		1.0		ug/L			08/03/22 15:22	1
cis-1,2-Dichloroethene	**3.9**		0.50		ug/L			08/03/22 15:22	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/03/22 15:22	1
Dibromomethane	ND		0.50		ug/L			08/03/22 15:22	1
Dichlorobromomethane	ND		0.50		ug/L			08/03/22 15:22	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/03/22 15:22	1
Ethanol	ND		150		ug/L			08/03/22 15:22	1
Ethylbenzene	ND		0.50		ug/L			08/03/22 15:22	1
Ethylene Dibromide	ND		0.50		ug/L			08/03/22 15:22	1
Hexachlorobutadiene	ND		5.0		ug/L			08/03/22 15:22	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-188193-1

Client Sample ID: GAC-2B-100-22M08

Lab Sample ID: 550-188193-4
Matrix: Water

Date Collected: 08/02/22 08:39
Date Received: 08/02/22 13:44

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND		2.0		ug/L			08/03/22 15:22	1
Isopropylbenzene	ND		0.50		ug/L			08/03/22 15:22	1
Methyl tert-butyl ether	ND		0.50		ug/L			08/03/22 15:22	1
Methylene Chloride	ND		5.0		ug/L			08/03/22 15:22	1
m-Xylene & p-Xylene	ND		1.0		ug/L			08/03/22 15:22	1
Naphthalene	ND		5.0		ug/L			08/03/22 15:22	1
n-Butylbenzene	ND		1.0		ug/L			08/03/22 15:22	1
N-Propylbenzene	ND		0.50		ug/L			08/03/22 15:22	1
o-Xylene	ND		0.50		ug/L			08/03/22 15:22	1
sec-Butylbenzene	ND		0.50		ug/L			08/03/22 15:22	1
Styrene	ND		1.0		ug/L			08/03/22 15:22	1
tert-Butylbenzene	ND		0.50		ug/L			08/03/22 15:22	1
Tetrachloroethene	ND		0.50		ug/L			08/03/22 15:22	1
Toluene	ND		0.50		ug/L			08/03/22 15:22	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			08/03/22 15:22	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			08/03/22 15:22	1
Trichloroethene	ND		0.50		ug/L			08/03/22 15:22	1
Trichlorofluoromethane	ND		1.0		ug/L			08/03/22 15:22	1
Trihalomethanes, Total	**0.86**	**T5**	0.50		ug/L			08/03/22 15:22	1
Vinyl acetate	ND		5.0		ug/L			08/03/22 15:22	1
Vinyl chloride	ND		1.0		ug/L			08/03/22 15:22	1
Xylenes, Total	ND		0.50		ug/L			08/03/22 15:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*60 - 140*		*08/03/22 15:22*	*1*
Dibromofluoromethane (Surr)	*112*		*60 - 140*		*08/03/22 15:22*	*1*
Toluene-d8 (Surr)	*103*		*60 - 140*		*08/03/22 15:22*	*1*

Client Sample ID: TB-22M08

Lab Sample ID: 550-188193-5
Matrix: Water

Date Collected: 08/02/22 08:00
Date Received: 08/02/22 13:44

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			08/03/22 12:15	1
1,1,1-Trichloroethane	ND		0.50		ug/L			08/03/22 12:15	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			08/03/22 12:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			08/03/22 12:15	1
1,1,2-Trichloroethane	ND		0.50		ug/L			08/03/22 12:15	1
1,1-Dichloroethane	ND		0.50		ug/L			08/03/22 12:15	1
1,1-Dichloroethene	ND		0.50		ug/L			08/03/22 12:15	1
1,1-Dichloropropene	ND		0.50		ug/L			08/03/22 12:15	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			08/03/22 12:15	1
1,2,3-Trichloropropane	ND		2.0		ug/L			08/03/22 12:15	1
1,2,4-Trichlorobenzene	ND	T5	2.0		ug/L			08/03/22 12:15	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			08/03/22 12:15	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			08/03/22 12:15	1
1,2-Dichlorobenzene	ND		0.50		ug/L			08/03/22 12:15	1
1,2-Dichloroethane	ND		0.50		ug/L			08/03/22 12:15	1
1,2-Dichloropropane	ND		0.50		ug/L			08/03/22 12:15	1

Client Sample ID: TB-22M08

Date Collected: 08/02/22 08:00
Date Received: 08/02/22 13:44

Lab Sample ID: 550-188193-5

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		0.50		ug/L			08/03/22 12:15	1
1,3-Dichlorobenzene	ND		0.50		ug/L			08/03/22 12:15	1
1,3-Dichloropropane	ND		0.50		ug/L			08/03/22 12:15	1
1,4-Dichlorobenzene	ND		0.50		ug/L			08/03/22 12:15	1
2,2-Dichloropropane	ND		1.0		ug/L			08/03/22 12:15	1
2-Butanone (MEK)	ND		10		ug/L			08/03/22 12:15	1
2-Chlorotoluene	ND		0.50		ug/L			08/03/22 12:15	1
2-Hexanone	ND		5.0		ug/L			08/03/22 12:15	1
4-Chlorotoluene	ND		0.50		ug/L			08/03/22 12:15	1
4-Isopropyltoluene	ND		0.50		ug/L			08/03/22 12:15	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			08/03/22 12:15	1
Acetone	ND		10		ug/L			08/03/22 12:15	1
Benzene	ND		0.50		ug/L			08/03/22 12:15	1
Bromobenzene	ND		1.0		ug/L			08/03/22 12:15	1
Bromoform	ND		1.0		ug/L			08/03/22 12:15	1
Bromomethane	ND		5.0		ug/L			08/03/22 12:15	1
Carbon disulfide	ND		5.0		ug/L			08/03/22 12:15	1
Carbon tetrachloride	ND		0.50		ug/L			08/03/22 12:15	1
Chlorobenzene	ND		0.50		ug/L			08/03/22 12:15	1
Chlorobromomethane	ND		0.50		ug/L			08/03/22 12:15	1
Chlorodibromomethane	ND		0.50		ug/L			08/03/22 12:15	1
Chloroethane	ND		1.0		ug/L			08/03/22 12:15	1
Chloroform	ND		0.50		ug/L			08/03/22 12:15	1
Chloromethane	ND		1.0		ug/L			08/03/22 12:15	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			08/03/22 12:15	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/03/22 12:15	1
Dibromomethane	ND		0.50		ug/L			08/03/22 12:15	1
Dichlorobromomethane	ND		0.50		ug/L			08/03/22 12:15	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/03/22 12:15	1
Ethanol	ND		150		ug/L			08/03/22 12:15	1
Ethylbenzene	ND		0.50		ug/L			08/03/22 12:15	1
Ethylene Dibromide	ND		0.50		ug/L			08/03/22 12:15	1
Hexachlorobutadiene	ND		5.0		ug/L			08/03/22 12:15	1
Iodomethane	ND		2.0		ug/L			08/03/22 12:15	1
Isopropylbenzene	ND		0.50		ug/L			08/03/22 12:15	1
Methyl tert-butyl ether	ND		0.50		ug/L			08/03/22 12:15	1
Methylene Chloride	ND		5.0		ug/L			08/03/22 12:15	1
m-Xylene & p-Xylene	ND		1.0		ug/L			08/03/22 12:15	1
Naphthalene	ND		5.0		ug/L			08/03/22 12:15	1
n-Butylbenzene	ND		1.0		ug/L			08/03/22 12:15	1
N-Propylbenzene	ND		0.50		ug/L			08/03/22 12:15	1
o-Xylene	ND		0.50		ug/L			08/03/22 12:15	1
sec-Butylbenzene	ND		0.50		ug/L			08/03/22 12:15	1
Styrene	ND		1.0		ug/L			08/03/22 12:15	1
tert-Butylbenzene	ND		0.50		ug/L			08/03/22 12:15	1
Tetrachloroethene	ND		0.50		ug/L			08/03/22 12:15	1
Toluene	ND		0.50		ug/L			08/03/22 12:15	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			08/03/22 12:15	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			08/03/22 12:15	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-188193-1

Client Sample ID: TB-22M08

Date Collected: 08/02/22 08:00
Date Received: 08/02/22 13:44

Lab Sample ID: 550-188193-5

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		0.50		ug/L			08/03/22 12:15	1
Trichlorofluoromethane	ND		1.0		ug/L			08/03/22 12:15	1
Trihalomethanes, Total	ND	T5	0.50		ug/L			08/03/22 12:15	1
Vinyl acetate	ND		5.0		ug/L			08/03/22 12:15	1
Vinyl chloride	ND		1.0		ug/L			08/03/22 12:15	1
Xylenes, Total	ND		0.50		ug/L			08/03/22 12:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*60 - 140*		*08/03/22 12:15*	*1*
Dibromofluoromethane (Surr)	*112*		*60 - 140*		*08/03/22 12:15*	*1*
Toluene-d8 (Surr)	*104*		*60 - 140*		*08/03/22 12:15*	*1*

Surrogate Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-188193-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	**Client Sample ID**	**(60-140)**	**(60-140)**	**(60-140)**
550-188193-1	INF-22M08	105	112	106
550-188193-2	EFF-22M08	105	113	105
550-188193-3	GAC-2A-75-22M08	107	112	105
550-188193-3 MS	GAC-2A-75-22M08	107	119	108
550-188193-3 MSD	GAC-2A-75-22M08	109	122	109
550-188193-4	GAC-2B-100-22M08	108	112	103
550-188193-5	TB-22M08	104	112	104
LCS 550-280704/3	Lab Control Sample	109	115	109
LCSD 550-280704/4	Lab Control Sample Dup	114	118	113
MB 550-280704/6	Method Blank	106	109	106

Surrogate Legend

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

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-280704/6
Matrix: Water
Analysis Batch: 280704

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		0.50		ug/L			08/03/22 10:15	1
1,1,1-Trichloroethane	ND		0.50		ug/L			08/03/22 10:15	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			08/03/22 10:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			08/03/22 10:15	1
1,1,2-Trichloroethane	ND		0.50		ug/L			08/03/22 10:15	1
1,1-Dichloroethane	ND		0.50		ug/L			08/03/22 10:15	1
1,1-Dichloroethene	ND		0.50		ug/L			08/03/22 10:15	1
1,1-Dichloropropene	ND		0.50		ug/L			08/03/22 10:15	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			08/03/22 10:15	1
1,2,3-Trichloropropane	ND		2.0		ug/L			08/03/22 10:15	1
1,2,4-Trichlorobenzene	ND		2.0		ug/L			08/03/22 10:15	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			08/03/22 10:15	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			08/03/22 10:15	1
1,2-Dichlorobenzene	ND		0.50		ug/L			08/03/22 10:15	1
1,2-Dichloroethane	ND		0.50		ug/L			08/03/22 10:15	1
1,2-Dichloropropane	ND		0.50		ug/L			08/03/22 10:15	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			08/03/22 10:15	1
1,3-Dichlorobenzene	ND		0.50		ug/L			08/03/22 10:15	1
1,3-Dichloropropane	ND		0.50		ug/L			08/03/22 10:15	1
1,4-Dichlorobenzene	ND		0.50		ug/L			08/03/22 10:15	1
2,2-Dichloropropane	ND		1.0		ug/L			08/03/22 10:15	1
2-Butanone (MEK)	ND		10		ug/L			08/03/22 10:15	1
2-Chlorotoluene	ND		0.50		ug/L			08/03/22 10:15	1
2-Hexanone	ND		5.0		ug/L			08/03/22 10:15	1
4-Chlorotoluene	ND		0.50		ug/L			08/03/22 10:15	1
4-Isopropyltoluene	ND		0.50		ug/L			08/03/22 10:15	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			08/03/22 10:15	1
Acetone	ND		10		ug/L			08/03/22 10:15	1
Benzene	ND		0.50		ug/L			08/03/22 10:15	1
Bromobenzene	ND		1.0		ug/L			08/03/22 10:15	1
Bromoform	ND		1.0		ug/L			08/03/22 10:15	1
Bromomethane	ND		5.0		ug/L			08/03/22 10:15	1
Carbon disulfide	ND		5.0		ug/L			08/03/22 10:15	1
Carbon tetrachloride	ND		0.50		ug/L			08/03/22 10:15	1
Chlorobenzene	ND		0.50		ug/L			08/03/22 10:15	1
Chlorobromomethane	ND		0.50		ug/L			08/03/22 10:15	1
Chlorodibromomethane	ND		0.50		ug/L			08/03/22 10:15	1
Chloroethane	ND		1.0		ug/L			08/03/22 10:15	1
Chloroform	ND		0.50		ug/L			08/03/22 10:15	1
Chloromethane	ND		1.0		ug/L			08/03/22 10:15	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			08/03/22 10:15	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/03/22 10:15	1
Dibromomethane	ND		0.50		ug/L			08/03/22 10:15	1
Dichlorobromomethane	ND		0.50		ug/L			08/03/22 10:15	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/03/22 10:15	1
Ethanol	ND		150		ug/L			08/03/22 10:15	1
Ethylbenzene	ND		0.50		ug/L			08/03/22 10:15	1
Ethylene Dibromide	ND		0.50		ug/L			08/03/22 10:15	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-280704/6
Matrix: Water
Analysis Batch: 280704

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		5.0		ug/L			08/03/22 10:15	1
Iodomethane	ND		2.0		ug/L			08/03/22 10:15	1
Isopropylbenzene	ND		0.50		ug/L			08/03/22 10:15	1
Methyl tert-butyl ether	ND		0.50		ug/L			08/03/22 10:15	1
Methylene Chloride	ND		5.0		ug/L			08/03/22 10:15	1
m-Xylene & p-Xylene	ND		1.0		ug/L			08/03/22 10:15	1
Naphthalene	ND		5.0		ug/L			08/03/22 10:15	1
n-Butylbenzene	ND		1.0		ug/L			08/03/22 10:15	1
N-Propylbenzene	ND		0.50		ug/L			08/03/22 10:15	1
o-Xylene	ND		0.50		ug/L			08/03/22 10:15	1
sec-Butylbenzene	ND		0.50		ug/L			08/03/22 10:15	1
Styrene	ND		1.0		ug/L			08/03/22 10:15	1
tert-Butylbenzene	ND		0.50		ug/L			08/03/22 10:15	1
Tetrachloroethene	ND		0.50		ug/L			08/03/22 10:15	1
Toluene	ND		0.50		ug/L			08/03/22 10:15	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			08/03/22 10:15	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			08/03/22 10:15	1
Trichloroethene	ND		0.50		ug/L			08/03/22 10:15	1
Trichlorofluoromethane	ND		1.0		ug/L			08/03/22 10:15	1
Trihalomethanes, Total	ND		0.50		ug/L			08/03/22 10:15	1
Vinyl acetate	ND		5.0		ug/L			08/03/22 10:15	1
Vinyl chloride	ND		1.0		ug/L			08/03/22 10:15	1
Xylenes, Total	ND		0.50		ug/L			08/03/22 10:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*60 - 140*		*08/03/22 10:15*	*1*
Dibromofluoromethane (Surr)	*109*		*60 - 140*		*08/03/22 10:15*	*1*
Toluene-d8 (Surr)	*106*		*60 - 140*		*08/03/22 10:15*	*1*

Lab Sample ID: LCS 550-280704/3
Matrix: Water
Analysis Batch: 280704

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	56.0		ug/L		112	60 - 140
1,1,1-Trichloroethane	50.0	53.9		ug/L		108	70 - 130
1,1,2,2-Tetrachloroethane	50.0	56.5		ug/L		113	60 - 140
1,1,2-Trichloroethane	50.0	56.5		ug/L		113	70 - 130
1,1-Dichloroethane	50.0	55.1		ug/L		110	70 - 150
1,1-Dichloroethene	50.0	55.4		ug/L		111	50 - 140
1,1-Dichloropropene	50.0	48.9		ug/L		98	60 - 140
1,2,3-Trichlorobenzene	50.0	52.0		ug/L		104	60 - 140
1,2,3-Trichloropropane	50.0	56.6		ug/L		113	60 - 140
1,2,4-Trichlorobenzene	50.0	53.2		ug/L		106	60 - 140
1,2,4-Trimethylbenzene	50.0	50.6		ug/L		101	60 - 140
1,2-Dibromo-3-Chloropropane	50.0	49.4		ug/L		99	60 - 140
1,2-Dichlorobenzene	50.0	53.7		ug/L		107	65 - 140
1,2-Dichloroethane	50.0	52.3		ug/L		105	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-280704/3
Matrix: Water
Analysis Batch: 280704

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dichloropropane	50.0	54.2		ug/L		108	35 - 165
1,3,5-Trimethylbenzene	50.0	51.2		ug/L		102	60 - 140
1,3-Dichlorobenzene	50.0	54.6		ug/L		109	70 - 130
1,3-Dichloropropane	50.0	55.9		ug/L		112	60 - 140
1,4-Dichlorobenzene	50.0	53.2		ug/L		106	65 - 135
2,2-Dichloropropane	50.0	54.8		ug/L		110	60 - 140
2-Butanone (MEK)	50.0	66.6		ug/L		133	60 - 140
2-Chlorotoluene	50.0	51.8		ug/L		104	60 - 140
2-Hexanone	50.0	63.8		ug/L		128	60 - 140
4-Chlorotoluene	50.0	52.6		ug/L		105	60 - 140
4-Isopropyltoluene	50.0	51.6		ug/L		103	60 - 140
4-Methyl-2-pentanone (MIBK)	50.0	59.3		ug/L		119	60 - 140
Acetone	50.0	58.5		ug/L		117	18 - 150
Benzene	50.0	51.1		ug/L		102	65 - 135
Bromobenzene	50.0	52.8		ug/L		106	60 - 140
Bromoform	50.0	57.6		ug/L		115	70 - 130
Bromomethane	50.0	58.9		ug/L		118	15 - 185
Carbon disulfide	50.0	58.1		ug/L		116	60 - 140
Carbon tetrachloride	50.0	51.1		ug/L		102	70 - 130
Chlorobenzene	50.0	53.1		ug/L		106	65 - 135
Chlorobromomethane	50.0	57.3		ug/L		115	60 - 140
Chlorodibromomethane	50.0	62.0		ug/L		124	70 - 135
Chloroethane	50.0	52.9		ug/L		106	40 - 160
Chloroform	50.0	55.3		ug/L		111	70 - 135
Chloromethane	50.0	59.4		ug/L		119	10 - 205
cis-1,2-Dichloroethene	50.0	52.7		ug/L		105	60 - 140
cis-1,3-Dichloropropene	50.0	56.4		ug/L		113	25 - 175
Dibromomethane	50.0	54.1		ug/L		108	70 - 130
Dichlorobromomethane	50.0	55.9		ug/L		112	65 - 135
Dichlorodifluoromethane	50.0	50.3		ug/L		101	60 - 140
Ethanol	1000	944		ug/L		94	60 - 140
Ethylbenzene	50.0	50.9		ug/L		102	60 - 140
Ethylene Dibromide	50.0	58.1		ug/L		116	60 - 140
Hexachlorobutadiene	50.0	50.6		ug/L		101	60 - 140
Iodomethane	50.0	61.0		ug/L		122	60 - 140
Isopropylbenzene	50.0	50.5		ug/L		101	60 - 140
Methyl tert-butyl ether	50.0	63.4		ug/L		127	60 - 140
Methylene Chloride	50.0	55.3		ug/L		111	60 - 140
m-Xylene & p-Xylene	50.0	49.3		ug/L		99	60 - 140
Naphthalene	50.0	52.6		ug/L		105	60 - 140
n-Butylbenzene	50.0	51.0		ug/L		102	60 - 140
N-Propylbenzene	50.0	49.5		ug/L		99	60 - 140
o-Xylene	50.0	51.1		ug/L		102	60 - 140
sec-Butylbenzene	50.0	51.0		ug/L		102	60 - 140
Styrene	50.0	52.3		ug/L		105	60 - 140
tert-Butylbenzene	50.0	51.1		ug/L		102	60 - 140
Tetrachloroethene	50.0	53.9		ug/L		108	70 - 130
Toluene	50.0	50.1		ug/L		100	70 - 130
trans-1,2-Dichloroethene	50.0	57.2		ug/L		114	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-280704/3
Matrix: Water
Analysis Batch: 280704

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
trans-1,3-Dichloropropene	50.0	57.2		ug/L		114	50 - 150
Trichloroethene	50.0	51.3		ug/L		103	65 - 135
Trichlorofluoromethane	50.0	51.5		ug/L		103	50 - 150
Vinyl acetate	50.0	66.2		ug/L		132	60 - 140
Vinyl chloride	50.0	51.8		ug/L		104	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*60 - 140*
Dibromofluoromethane (Surr)	*115*		*60 - 140*
Toluene-d8 (Surr)	*109*		*60 - 140*

Lab Sample ID: LCSD 550-280704/4
Matrix: Water
Analysis Batch: 280704

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	55.5		ug/L		111	60 - 140	1	20
1,1,1-Trichloroethane	50.0	54.0		ug/L		108	70 - 130	0	20
1,1,2,2-Tetrachloroethane	50.0	55.8		ug/L		112	60 - 140	1	20
1,1,2-Trichloroethane	50.0	55.8		ug/L		112	70 - 130	1	20
1,1-Dichloroethane	50.0	55.0		ug/L		110	70 - 150	0	20
1,1-Dichloroethene	50.0	54.8		ug/L		110	50 - 140	1	20
1,1-Dichloropropene	50.0	47.9		ug/L		96	60 - 140	2	20
1,2,3-Trichlorobenzene	50.0	49.5		ug/L		99	60 - 140	5	20
1,2,3-Trichloropropane	50.0	55.0		ug/L		110	60 - 140	3	20
1,2,4-Trichlorobenzene	50.0	51.9		ug/L		104	60 - 140	2	20
1,2,4-Trimethylbenzene	50.0	51.2		ug/L		102	60 - 140	1	20
1,2-Dibromo-3-Chloropropane	50.0	45.1		ug/L		90	60 - 140	9	20
1,2-Dichlorobenzene	50.0	53.9		ug/L		108	65 - 140	0	20
1,2-Dichloroethane	50.0	51.2		ug/L		102	70 - 130	2	20
1,2-Dichloropropane	50.0	53.6		ug/L		107	35 - 165	1	20
1,3,5-Trimethylbenzene	50.0	51.0		ug/L		102	60 - 140	0	20
1,3-Dichlorobenzene	50.0	55.1		ug/L		110	70 - 130	1	20
1,3-Dichloropropane	50.0	55.1		ug/L		110	60 - 140	1	20
1,4-Dichlorobenzene	50.0	53.4		ug/L		107	65 - 135	0	20
2,2-Dichloropropane	50.0	54.7		ug/L		109	60 - 140	0	20
2-Butanone (MEK)	50.0	62.5		ug/L		125	60 - 140	6	20
2-Chlorotoluene	50.0	53.4		ug/L		107	60 - 140	3	20
2-Hexanone	50.0	58.2		ug/L		116	60 - 140	9	20
4-Chlorotoluene	50.0	53.7		ug/L		107	60 - 140	2	20
4-Isopropyltoluene	50.0	52.5		ug/L		105	60 - 140	2	20
4-Methyl-2-pentanone (MIBK)	50.0	53.9		ug/L		108	60 - 140	10	20
Acetone	50.0	49.7		ug/L		99	18 - 150	16	20
Benzene	50.0	50.1		ug/L		100	65 - 135	2	20
Bromobenzene	50.0	54.3		ug/L		109	60 - 140	3	20
Bromoform	50.0	57.3		ug/L		115	70 - 130	1	20
Bromomethane	50.0	53.5		ug/L		107	15 - 185	10	20
Carbon disulfide	50.0	57.3		ug/L		115	60 - 140	1	20

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 550-280704/4
Matrix: Water
Analysis Batch: 280704

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 tetrachloride	50.0	50.3		ug/L		101	70 - 130	2	20
Chlorobenzene	50.0	53.0		ug/L		106	65 - 135	0	20
Chlorobromomethane	50.0	57.1		ug/L		114	60 - 140	0	20
Chlorodibromomethane	50.0	60.9		ug/L		122	70 - 135	2	20
Chloroethane	50.0	51.0		ug/L		102	40 - 160	4	20
Chloroform	50.0	55.2		ug/L		110	70 - 135	0	20
Chloromethane	50.0	52.0		ug/L		104	10 - 205	13	20
cis-1,2-Dichloroethene	50.0	52.0		ug/L		104	60 - 140	1	20
cis-1,3-Dichloropropene	50.0	55.0		ug/L		110	25 - 175	3	20
Dibromomethane	50.0	53.5		ug/L		107	70 - 130	1	20
Dichlorobromomethane	50.0	54.5		ug/L		109	65 - 135	2	20
Dichlorodifluoromethane	50.0	49.1		ug/L		98	60 - 140	2	20
Ethanol	1000	985		ug/L		98	60 - 140	4	20
Ethylbenzene	50.0	51.7		ug/L		103	60 - 140	2	20
Ethylene Dibromide	50.0	56.7		ug/L		113	60 - 140	2	20
Hexachlorobutadiene	50.0	50.5		ug/L		101	60 - 140	0	20
Iodomethane	50.0	59.7		ug/L		119	60 - 140	2	20
Isopropylbenzene	50.0	52.3		ug/L		105	60 - 140	3	20
Methyl tert-butyl ether	50.0	61.7		ug/L		123	60 - 140	3	20
Methylene Chloride	50.0	55.7		ug/L		111	60 - 140	1	20
m-Xylene & p-Xylene	50.0	51.7		ug/L		103	60 - 140	5	20
Naphthalene	50.0	49.0		ug/L		98	60 - 140	7	20
n-Butylbenzene	50.0	51.3		ug/L		103	60 - 140	1	20
N-Propylbenzene	50.0	51.7		ug/L		103	60 - 140	4	20
o-Xylene	50.0	53.9		ug/L		108	60 - 140	5	20
sec-Butylbenzene	50.0	51.4		ug/L		103	60 - 140	1	20
Styrene	50.0	55.0		ug/L		110	60 - 140	5	20
tert-Butylbenzene	50.0	52.3		ug/L		105	60 - 140	2	20
Tetrachloroethene	50.0	53.6		ug/L		107	70 - 130	1	20
Toluene	50.0	50.0		ug/L		100	70 - 130	0	20
trans-1,2-Dichloroethene	50.0	56.6		ug/L		113	70 - 130	1	20
trans-1,3-Dichloropropene	50.0	55.8		ug/L		112	50 - 150	2	20
Trichloroethene	50.0	50.7		ug/L		101	65 - 135	1	20
Trichlorofluoromethane	50.0	52.1		ug/L		104	50 - 150	1	20
Vinyl acetate	50.0	61.9		ug/L		124	60 - 140	7	20
Vinyl chloride	50.0	55.0		ug/L		110	5 - 195	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*60 - 140*
Dibromofluoromethane (Surr)	*118*		*60 - 140*
Toluene-d8 (Surr)	*113*		*60 - 140*

Lab Sample ID: 550-188193-3 MS
Matrix: Water
Analysis Batch: 280704

Client Sample ID: GAC-2A-75-22M08
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	55.6		ug/L		111	50 - 150		

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-188193-3 MS
Matrix: Water
Analysis Batch: 280704

Client Sample ID: GAC-2A-75-22M08
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	ND		50.0	51.0		ug/L		102	52 - 162
1,1,2,2-Tetrachloroethane	ND		50.0	51.1		ug/L		102	46 - 157
1,1,2-Trichloroethane	ND		50.0	54.3		ug/L		109	52 - 150
1,1-Dichloroethane	ND		50.0	53.3		ug/L		107	59 - 155
1,1-Dichloroethene	ND		50.0	51.3		ug/L		102	10 - 234
1,1-Dichloropropene	ND		50.0	45.4		ug/L		91	50 - 150
1,2,3-Trichlorobenzene	ND		50.0	50.8		ug/L		102	50 - 150
1,2,3-Trichloropropane	ND		50.0	49.9		ug/L		100	50 - 150
1,2,4-Trichlorobenzene	ND	T5	50.0	51.0		ug/L		102	50 - 150
1,2,4-Trimethylbenzene	ND		50.0	50.1		ug/L		100	50 - 150
1,2-Dibromo-3-Chloropropane	ND		50.0	41.0		ug/L		82	50 - 150
1,2-Dichlorobenzene	ND		50.0	54.6		ug/L		109	18 - 190
1,2-Dichloroethane	ND		50.0	50.7		ug/L		101	49 - 155
1,2-Dichloropropane	ND		50.0	53.3		ug/L		107	10 - 210
1,3,5-Trimethylbenzene	ND		50.0	48.8		ug/L		98	50 - 150
1,3-Dichlorobenzene	ND		50.0	53.9		ug/L		108	59 - 156
1,3-Dichloropropane	ND		50.0	53.6		ug/L		107	50 - 150
1,4-Dichlorobenzene	ND		50.0	52.4		ug/L		104	18 - 190
2,2-Dichloropropane	ND		50.0	50.9		ug/L		102	50 - 150
2-Butanone (MEK)	ND		50.0	47.9		ug/L		96	50 - 150
2-Chlorotoluene	ND		50.0	50.3		ug/L		101	50 - 150
2-Hexanone	ND		50.0	46.9		ug/L		94	50 - 150
4-Chlorotoluene	ND		50.0	51.2		ug/L		102	50 - 150
4-Isopropyltoluene	ND		50.0	49.8		ug/L		100	50 - 150
4-Methyl-2-pentanone (MIBK)	ND		50.0	46.6		ug/L		93	50 - 150
Acetone	ND		50.0	33.0		ug/L		66	18 - 150
Benzene	ND		50.0	49.0		ug/L		98	35 - 151
Bromobenzene	ND		50.0	52.2		ug/L		104	50 - 150
Bromoform	ND		50.0	55.7		ug/L		111	45 - 169
Bromomethane	ND		50.0	48.0		ug/L		96	10 - 242
Carbon disulfide	ND		50.0	53.5		ug/L		107	50 - 150
Carbon tetrachloride	ND		50.0	47.8		ug/L		96	70 - 140
Chlorobenzene	ND		50.0	52.2		ug/L		104	37 - 160
Chlorobromomethane	ND		50.0	57.3		ug/L		115	50 - 150
Chlorodibromomethane	ND		50.0	61.7		ug/L		123	53 - 149
Chloroethane	ND		50.0	47.0		ug/L		94	14 - 230
Chloroform	ND		50.0	55.1		ug/L		110	51 - 138
Chloromethane	ND		50.0	54.0		ug/L		108	10 - 273
cis-1,2-Dichloroethene	ND		50.0	51.7		ug/L		103	50 - 150
cis-1,3-Dichloropropene	ND		50.0	54.9		ug/L		110	10 - 227
Dibromomethane	ND		50.0	52.5		ug/L		105	50 - 150
Dichlorobromomethane	ND		50.0	54.9		ug/L		110	35 - 155
Dichlorodifluoromethane	ND		50.0	44.9		ug/L		90	50 - 150
Ethanol	ND		1000	962		ug/L		96	50 - 150
Ethylbenzene	ND		50.0	48.9		ug/L		98	37 - 162
Ethylene Dibromide	ND		50.0	54.2		ug/L		108	50 - 150
Hexachlorobutadiene	ND		50.0	47.8		ug/L		96	50 - 150
Iodomethane	ND		50.0	57.3		ug/L		115	50 - 150
Isopropylbenzene	ND		50.0	48.7		ug/L		97	50 - 150

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-188193-3 MS
Matrix: Water
Analysis Batch: 280704

Client Sample ID: GAC-2A-75-22M08
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Methyl tert-butyl ether	ND		50.0	59.7		ug/L		119	50 - 150
Methylene Chloride	ND		50.0	55.8		ug/L		112	10 - 221
m-Xylene & p-Xylene	ND		50.0	47.6		ug/L		95	50 - 150
Naphthalene	ND		50.0	46.8		ug/L		94	50 - 150
n-Butylbenzene	ND		50.0	48.5		ug/L		97	50 - 150
N-Propylbenzene	ND		50.0	47.1		ug/L		94	50 - 150
o-Xylene	ND		50.0	51.3		ug/L		103	50 - 150
sec-Butylbenzene	ND		50.0	48.8		ug/L		98	50 - 150
Styrene	ND		50.0	52.1		ug/L		104	50 - 150
tert-Butylbenzene	ND		50.0	49.1		ug/L		98	50 - 150
Tetrachloroethene	ND		50.0	50.4		ug/L		101	64 - 148
Toluene	ND		50.0	48.6		ug/L		97	47 - 150
trans-1,2-Dichloroethene	ND		50.0	54.8		ug/L		110	54 - 156
trans-1,3-Dichloropropene	ND		50.0	55.8		ug/L		112	17 - 183
Trichloroethene	ND		50.0	49.0		ug/L		98	70 - 157
Trichlorofluoromethane	ND		50.0	47.9		ug/L		95	17 - 181
Vinyl acetate	ND		50.0	61.0		ug/L		122	50 - 150
Vinyl chloride	ND		50.0	51.7		ug/L		103	10 - 251

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*60 - 140*
Dibromofluoromethane (Surr)	*119*		*60 - 140*
Toluene-d8 (Surr)	*108*		*60 - 140*

Lab Sample ID: 550-188193-3 MSD
Matrix: Water
Analysis Batch: 280704

Client Sample ID: GAC-2A-75-22M08
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	55.2		ug/L		110	50 - 150	1	35
1,1,1-Trichloroethane	ND		50.0	51.5		ug/L		103	52 - 162	1	36
1,1,2,2-Tetrachloroethane	ND		50.0	52.3		ug/L		105	46 - 157	2	61
1,1,2-Trichloroethane	ND		50.0	54.2		ug/L		108	52 - 150	0	45
1,1-Dichloroethane	ND		50.0	54.0		ug/L		108	59 - 155	1	40
1,1-Dichloroethene	ND		50.0	51.8		ug/L		103	10 - 234	1	32
1,1-Dichloropropene	ND		50.0	44.5		ug/L		89	50 - 150	2	35
1,2,3-Trichlorobenzene	ND		50.0	50.5		ug/L		101	50 - 150	1	35
1,2,3-Trichloropropane	ND		50.0	50.7		ug/L		101	50 - 150	2	35
1,2,4-Trichlorobenzene	ND	T5	50.0	52.4		ug/L		105	50 - 150	3	35
1,2,4-Trimethylbenzene	ND		50.0	49.9		ug/L		100	50 - 150	0	35
1,2-Dibromo-3-Chloropropane	ND		50.0	42.6		ug/L		85	50 - 150	4	35
1,2-Dichlorobenzene	ND		50.0	54.2		ug/L		108	18 - 190	1	57
1,2-Dichloroethane	ND		50.0	50.4		ug/L		101	49 - 155	1	49
1,2-Dichloropropane	ND		50.0	53.4		ug/L		107	10 - 210	0	55
1,3,5-Trimethylbenzene	ND		50.0	48.2		ug/L		96	50 - 150	1	35
1,3-Dichlorobenzene	ND		50.0	53.8		ug/L		108	59 - 156	0	43
1,3-Dichloropropane	ND		50.0	53.7		ug/L		107	50 - 150	0	35
1,4-Dichlorobenzene	ND		50.0	52.4		ug/L		104	18 - 190	0	57

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-188193-3 MSD
Matrix: Water
Analysis Batch: 280704

Client Sample ID: GAC-2A-75-22M08
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,2-Dichloropropane	ND		50.0	51.5		ug/L		103	50 - 150	1	35
2-Butanone (MEK)	ND		50.0	52.3		ug/L		105	50 - 150	9	35
2-Chlorotoluene	ND		50.0	50.3		ug/L		101	50 - 150	0	35
2-Hexanone	ND		50.0	49.1		ug/L		98	50 - 150	5	35
4-Chlorotoluene	ND		50.0	51.2		ug/L		102	50 - 150	0	35
4-Isopropyltoluene	ND		50.0	49.8		ug/L		100	50 - 150	0	35
4-Methyl-2-pentanone (MIBK)	ND		50.0	49.0		ug/L		98	50 - 150	5	35
Acetone	ND		50.0	33.4		ug/L		67	18 - 150	1	35
Benzene	ND		50.0	48.2		ug/L		96	35 - 151	2	61
Bromobenzene	ND		50.0	52.4		ug/L		105	50 - 150	0	35
Bromoform	ND		50.0	56.0		ug/L		112	45 - 169	0	42
Bromomethane	ND		50.0	50.2		ug/L		100	10 - 242	4	61
Carbon disulfide	ND		50.0	54.3		ug/L		109	50 - 150	1	35
Carbon tetrachloride	ND		50.0	47.1		ug/L		94	70 - 140	1	41
Chlorobenzene	ND		50.0	51.7		ug/L		103	37 - 160	1	53
Chlorobromomethane	ND		50.0	58.0		ug/L		116	50 - 150	1	35
Chlorodibromomethane	ND		50.0	60.7		ug/L		121	53 - 149	2	50
Chloroethane	ND		50.0	48.7		ug/L		97	14 - 230	3	78
Chloroform	ND		50.0	55.4		ug/L		111	51 - 138	1	54
Chloromethane	ND		50.0	53.9		ug/L		108	10 - 273	0	60
cis-1,2-Dichloroethene	ND		50.0	50.9		ug/L		102	50 - 150	2	35
cis-1,3-Dichloropropene	ND		50.0	54.6		ug/L		109	10 - 227	1	58
Dibromomethane	ND		50.0	52.5		ug/L		105	50 - 150	0	35
Dichlorobromomethane	ND		50.0	54.5		ug/L		109	35 - 155	1	56
Dichlorodifluoromethane	ND		50.0	47.2		ug/L		94	50 - 150	5	35
Ethanol	ND		1000	1020		ug/L		102	50 - 150	6	35
Ethylbenzene	ND		50.0	48.5		ug/L		97	37 - 162	1	63
Ethylene Dibromide	ND		50.0	55.0		ug/L		110	50 - 150	2	35
Hexachlorobutadiene	ND		50.0	48.7		ug/L		97	50 - 150	2	35
Iodomethane	ND		50.0	57.2		ug/L		114	50 - 150	0	35
Isopropylbenzene	ND		50.0	47.7		ug/L		95	50 - 150	2	35
Methyl tert-butyl ether	ND		50.0	61.6		ug/L		123	50 - 150	3	35
Methylene Chloride	ND		50.0	55.8		ug/L		112	10 - 221	0	28
m-Xylene & p-Xylene	ND		50.0	47.0		ug/L		94	50 - 150	1	35
Naphthalene	ND		50.0	48.1		ug/L		96	50 - 150	3	35
n-Butylbenzene	ND		50.0	48.3		ug/L		97	50 - 150	0	35
N-Propylbenzene	ND		50.0	47.4		ug/L		95	50 - 150	1	35
o-Xylene	ND		50.0	49.9		ug/L		100	50 - 150	3	35
sec-Butylbenzene	ND		50.0	48.8		ug/L		98	50 - 150	0	35
Styrene	ND		50.0	51.3		ug/L		103	50 - 150	2	35
tert-Butylbenzene	ND		50.0	49.1		ug/L		98	50 - 150	0	35
Tetrachloroethene	ND		50.0	50.5		ug/L		101	64 - 148	0	39
Toluene	ND		50.0	48.3		ug/L		97	47 - 150	1	41
trans-1,2-Dichloroethene	ND		50.0	54.9		ug/L		110	54 - 156	0	45
trans-1,3-Dichloropropene	ND		50.0	55.8		ug/L		112	17 - 183	0	86
Trichloroethene	ND		50.0	47.8		ug/L		96	70 - 157	2	48
Trichlorofluoromethane	ND		50.0	48.6		ug/L		96	17 - 181	1	84
Vinyl acetate	ND		50.0	63.4		ug/L		127	50 - 150	4	35
Vinyl chloride	ND		50.0	48.4		ug/L		97	10 - 251	7	66

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		60 - 140
Dibromofluoromethane (Surr)	122		60 - 140
Toluene-d8 (Surr)	109		60 - 140

QC Association Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-188193-1

GC/MS VOA

Analysis Batch: 280704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-188193-1	INF-22M08	Total/NA	Water	624.1	
550-188193-2	EFF-22M08	Total/NA	Water	624.1	
550-188193-3	GAC-2A-75-22M08	Total/NA	Water	624.1	
550-188193-4	GAC-2B-100-22M08	Total/NA	Water	624.1	
550-188193-5	TB-22M08	Total/NA	Water	624.1	
MB 550-280704/6	Method Blank	Total/NA	Water	624.1	
LCS 550-280704/3	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-280704/4	Lab Control Sample Dup	Total/NA	Water	624.1	
550-188193-3 MS	GAC-2A-75-22M08	Total/NA	Water	624.1	
550-188193-3 MSD	GAC-2A-75-22M08	Total/NA	Water	624.1	

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-188193-1

Client Sample ID: INF-22M08 — Lab Sample ID: 550-188193-1

Date Collected: 08/02/22 08:44 — **Matrix: Water**
Date Received: 08/02/22 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	280704	08/03/22 14:41	R1K	EETSW PH

Client Sample ID: EFF-22M08 — Lab Sample ID: 550-188193-2

Date Collected: 08/02/22 08:35 — **Matrix: Water**
Date Received: 08/02/22 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	280704	08/03/22 15:01	R1K	EETSW PH

Client Sample ID: GAC-2A-75-22M08 — Lab Sample ID: 550-188193-3

Date Collected: 08/02/22 08:41 — **Matrix: Water**
Date Received: 08/02/22 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	280704	08/03/22 13:59	R1K	EETSW PH

Client Sample ID: GAC-2B-100-22M08 — Lab Sample ID: 550-188193-4

Date Collected: 08/02/22 08:39 — **Matrix: Water**
Date Received: 08/02/22 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	280704	08/03/22 15:22	R1K	EETSW PH

Client Sample ID: TB-22M08 — Lab Sample ID: 550-188193-5

Date Collected: 08/02/22 08:00 — **Matrix: Water**
Date Received: 08/02/22 13:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	280704	08/03/22 12:15	R1K	EETSW PH

Laboratory References:

EETSW PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-188193-1

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
624.1		Water	1,2,4-Trichlorobenzene
624.1		Water	Trihalomethanes, Total

Method Summary

Client: Honeywell International Inc
Project/Site: Deer Valley

Job ID: 550-188193-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	EETSW PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

Laboratory References:

EETSW PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

188193

Test America Phoenix
4625 East Cotton CTr Blvd Suite 189
Phoenix, AZ 85040
602-437-3340

Honeywell — Chain Of Custody / Analysis Request

AESI Ref:	44775.36676		
COC#	37553-080222		
Lab Proj # (SDG):			
Lab ID	TAL-PHX		
Site ID	DEERV		
Lab Job #			
Authorized User:	Honeywell		

Text & Excel File Drive | Excel & Text File Order

Privileged & Confidential | 55014762

Site Name: Deer Valley | Phase:
Location of Site: Phoenix AZ. | Sampling Program: Monthly Groundwater Monitoring Program

Sampling Co.: Jacobs
EDD To: Bernice Kidd, Jacobs HTS
Sampler: T. Kearsley
PO #: 4500178520
Preservative: 8 | 0

Client Contact: (name, co., address)
Jacobs
1501 W. Fountainhead Parkway (suite 401)
Tempe, AZ 85282

Analysis Turnaround Time (TAT): 10
Consultant: Jacobs
Laboratory Contact: Danielle Roberts
Report Tier Level: 2
Full Report TAT: 10

Preliminary Data: Berney Kidd Jacobs, Lakshmi Devi HTS
Sample Receipt Acknowledgement To: Site Distribution List
Hard Copy To: Berney Kidd Jacobs,
Invoice To: Tao Wu, Honeywell/Copy Berney Kidd
HTS

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	Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	E624 (Total VOCs)	E300 0 (Nitrite-Nitrate)	MS/MSD	Sampling Method (code)	Lab Sample Numbers
	Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID							Units						
1	Influent			INF-22M08	8/2/2022	8:44	GW-GWS	WATER	REG	3	grab	N	X				-01
2	Effluent			EFF-22M08	8/2/2022	8:35	GW-GWS	WATER	REG	3	grab	N	X				-02
3	GAC2A 75%			GAC-2A-75-22M08	8/2/2022	8:41	GW-GWS	WATER	REG	3	grab	N	X				-03
4	GAC2B Effluent			GAC-2B-100-22M08	8/2/2022	8:39	GW-GWS	WATER	REG	3	grab	N	X				-04
5	TRIPBLANK			TB-22M08	8/2/2022	8:00	GW-GWS	WATER	REG	1	grab	N	X				-05
6																	
7																	
8																	
9																	
10																	
11																	
12																	

550-188193 Chain of Custody

Relinquished by	Company	Received by	Company	Condition	Custody Seals Intact
	Jacobs				
Date/Time: 8-2-22 13:44		Date/Time		Cooler Temp. 1.6	
Relinquished by	Company	Received by	Company	Condition	Custody Seals Intact
Date/Time		Date/Time: 8/2/22 1344		Cooler Temp.	

Preservatives: (Other; Specify):

0 (none); 1 (4 Deg C); 2 (HCl, pH<2); 3 (HNO3, pH<2); 4 (H2SO4, pH<2); 5 (NaOH, pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4, pH<2, 4 Deg C)); 8 (HCl, pH<2, 4 Deg C); 9 (HCl, 4 Deg C); 10 (HNO3, pH<2, 4 Deg C); 11 (NaOH, pH>12, 4 Deg, Ascorbic Acid); 12 (H2SO4, Na2S2O3, 4 Deg C, pH<2); 13 (Zn Acetate); 14 (1-MeOH, 4 Deg C and 2-NaHSO4, 4 Deg C); 15 (NaOH, pH>12, 4 Deg C); sp (special instructions)

TAL-PHX

CDO

8/5/2022

Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 550-188193-1

Login Number: 188193
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.

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-190519-1
Laboratory Sample Delivery Group: Phoenix, AZ
Client Project/Site: Deer Valley

For:
CH2M Hill, Inc.
1501 W. Fountainhead Parkway
Suite 401
Tempe, Arizona 85282

Attn: Baine Foehr

Authorized for release by:
9/23/2022 9:19:54 AM

Danielle Roberts, Senior Project Manager
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Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Sample Summary 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 16
QC Sample Results 17
QC Association Summary 26
Lab Chronicle 27
Certification Summary 28
Method Summary 29
Chain of Custody 30
Receipt Checklists 31

Definitions/Glossary

Client: CH2M Hill, Inc.
Project/Site: Deer Valley

Job ID: 550-190519-1
SDG: Phoenix, AZ

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
L5	The associated blank spike recovery was above laboratory/method acceptance limits. This analyte was not detected in the sample.
T2	Cited ADHS licensed method does not contain this analyte as part of the method compound list.
V1	CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.

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: 550-190519-1

Laboratory: Eurofins Phoenix

Narrative

Job Narrative
550-190519-1

Comments
No additional comments.

Receipt
The samples were received on 9/15/2022 11:11 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.6º C.

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

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

Sample Summary

Client: CH2M Hill, Inc.
Project/Site: Deer Valley

Job ID: 550-190519-1
SDG: Phoenix, AZ

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-190519-1	INF-22M09	Water	09/15/22 09:00	09/15/22 11:11
550-190519-2	EFF-22M09	Water	09/15/22 08:45	09/15/22 11:11
550-190519-3	GAC-2A-75-22M09	Water	09/15/22 08:50	09/15/22 11:11
550-190519-4	GAC-2B-100-22M09	Water	09/15/22 08:52	09/15/22 11:11
550-190519-5	TB-22M09	Water	09/15/22 08:00	09/15/22 11:11

Detection Summary

Client: CH2M Hill, Inc.
Project/Site: Deer Valley

Job ID: 550-190519-1
SDG: Phoenix, AZ

Client Sample ID: INF-22M09 — Lab Sample ID: 550-190519-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.51		0.50		ug/L	1		624.1	Total/NA
cis-1,2-Dichloroethene	4.5		0.50		ug/L	1		624.1	Total/NA
Tetrachloroethene	1.0		0.50		ug/L	1		624.1	Total/NA
Trichloroethene	27		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	0.51		0.50		ug/L	1		624.1	Total/NA

Client Sample ID: EFF-22M09 — Lab Sample ID: 550-190519-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.4		0.50		ug/L	1		624.1	Total/NA

Client Sample ID: GAC-2A-75-22M09 — Lab Sample ID: 550-190519-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	1.0		0.50		ug/L	1		624.1	Total/NA
cis-1,2-Dichloroethene	2.0		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	1.0		0.50		ug/L	1		624.1	Total/NA

Client Sample ID: GAC-2B-100-22M09 — Lab Sample ID: 550-190519-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.72		0.50		ug/L	1		624.1	Total/NA
cis-1,2-Dichloroethene	6.2		0.50		ug/L	1		624.1	Total/NA
Trichloroethene	1.6		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	0.72		0.50		ug/L	1		624.1	Total/NA

Client Sample ID: TB-22M09 — Lab Sample ID: 550-190519-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: CH2M Hill, Inc.
Project/Site: Deer Valley

Job ID: 550-190519-1
SDG: Phoenix, AZ

Client Sample ID: INF-22M09

Date Collected: 09/15/22 09:00
Date Received: 09/15/22 11:11

Lab Sample ID: 550-190519-1

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			09/20/22 13:30	1
1,1,1-Trichloroethane	ND		0.50		ug/L			09/20/22 13:30	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			09/20/22 13:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			09/20/22 13:30	1
1,1,2-Trichloroethane	ND		0.50		ug/L			09/20/22 13:30	1
1,1-Dichloroethane	ND		0.50		ug/L			09/20/22 13:30	1
1,1-Dichloroethene	ND		0.50		ug/L			09/20/22 13:30	1
1,1-Dichloropropene	ND		0.50		ug/L			09/20/22 13:30	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			09/20/22 13:30	1
1,2,3-Trichloropropane	ND		2.0		ug/L			09/20/22 13:30	1
1,2,4-Trichlorobenzene	ND	T2	2.0		ug/L			09/20/22 13:30	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			09/20/22 13:30	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			09/20/22 13:30	1
1,2-Dichlorobenzene	ND		0.50		ug/L			09/20/22 13:30	1
1,2-Dichloroethane	ND		0.50		ug/L			09/20/22 13:30	1
1,2-Dichloropropane	ND		0.50		ug/L			09/20/22 13:30	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			09/20/22 13:30	1
1,3-Dichlorobenzene	ND		0.50		ug/L			09/20/22 13:30	1
1,3-Dichloropropane	ND		0.50		ug/L			09/20/22 13:30	1
1,4-Dichlorobenzene	ND		0.50		ug/L			09/20/22 13:30	1
2,2-Dichloropropane	ND		1.0		ug/L			09/20/22 13:30	1
2-Butanone (MEK)	ND		10		ug/L			09/20/22 13:30	1
2-Chlorotoluene	ND		0.50		ug/L			09/20/22 13:30	1
2-Hexanone	ND	L5 V1	5.0		ug/L			09/20/22 13:30	1
4-Chlorotoluene	ND		0.50		ug/L			09/20/22 13:30	1
4-Isopropyltoluene	ND		0.50		ug/L			09/20/22 13:30	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			09/20/22 13:30	1
Acetone	ND	L5 V1	10		ug/L			09/20/22 13:30	1
Benzene	ND		0.50		ug/L			09/20/22 13:30	1
Bromobenzene	ND		1.0		ug/L			09/20/22 13:30	1
Bromoform	ND		1.0		ug/L			09/20/22 13:30	1
Bromomethane	ND		5.0		ug/L			09/20/22 13:30	1
Carbon disulfide	ND		5.0		ug/L			09/20/22 13:30	1
Carbon tetrachloride	ND		0.50		ug/L			09/20/22 13:30	1
Chlorobenzene	ND		0.50		ug/L			09/20/22 13:30	1
Chlorobromomethane	ND		0.50		ug/L			09/20/22 13:30	1
Chlorodibromomethane	ND		0.50		ug/L			09/20/22 13:30	1
Chloroethane	ND		1.0		ug/L			09/20/22 13:30	1
Chloroform	**0.51**		0.50		ug/L			09/20/22 13:30	1
Chloromethane	ND		1.0		ug/L			09/20/22 13:30	1
cis-1,2-Dichloroethene	**4.5**		0.50		ug/L			09/20/22 13:30	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			09/20/22 13:30	1
Dibromomethane	ND		0.50		ug/L			09/20/22 13:30	1
Dichlorobromomethane	ND		0.50		ug/L			09/20/22 13:30	1
Dichlorodifluoromethane	ND		1.0		ug/L			09/20/22 13:30	1
Ethanol	ND		150		ug/L			09/20/22 13:30	1
Ethylbenzene	ND		0.50		ug/L			09/20/22 13:30	1
Ethylene Dibromide	ND		0.50		ug/L			09/20/22 13:30	1
Hexachlorobutadiene	ND		5.0		ug/L			09/20/22 13:30	1

Client Sample ID: INF-22M09

Lab Sample ID: 550-190519-1

Date Collected: 09/15/22 09:00
Matrix: Water
Date Received: 09/15/22 11:11

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND		2.0		ug/L			09/20/22 13:30	1
Isopropylbenzene	ND		0.50		ug/L			09/20/22 13:30	1
Methyl tert-butyl ether	ND		0.50		ug/L			09/20/22 13:30	1
Methylene Chloride	ND		5.0		ug/L			09/20/22 13:30	1
m-Xylene & p-Xylene	ND		1.0		ug/L			09/20/22 13:30	1
Naphthalene	ND		5.0		ug/L			09/20/22 13:30	1
n-Butylbenzene	ND		1.0		ug/L			09/20/22 13:30	1
N-Propylbenzene	ND		0.50		ug/L			09/20/22 13:30	1
o-Xylene	ND		0.50		ug/L			09/20/22 13:30	1
sec-Butylbenzene	ND		0.50		ug/L			09/20/22 13:30	1
Styrene	ND		1.0		ug/L			09/20/22 13:30	1
tert-Butylbenzene	ND		0.50		ug/L			09/20/22 13:30	1
Tetrachloroethene	**1.0**		0.50		ug/L			09/20/22 13:30	1
Toluene	ND		0.50		ug/L			09/20/22 13:30	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			09/20/22 13:30	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			09/20/22 13:30	1
Trichloroethene	**27**		0.50		ug/L			09/20/22 13:30	1
Trichlorofluoromethane	ND		1.0		ug/L			09/20/22 13:30	1
Trihalomethanes, Total	**0.51**		0.50		ug/L			09/20/22 13:30	1
Vinyl acetate	ND		5.0		ug/L			09/20/22 13:30	1
Vinyl chloride	ND		1.0		ug/L			09/20/22 13:30	1
Xylenes, Total	ND		0.50		ug/L			09/20/22 13:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*09/20/22 13:30*	*1*
Dibromofluoromethane (Surr)	*93*		*60 - 140*		*09/20/22 13:30*	*1*
Toluene-d8 (Surr)	*86*		*60 - 140*		*09/20/22 13:30*	*1*

Client Sample ID: EFF-22M09

Lab Sample ID: 550-190519-2

Date Collected: 09/15/22 08:45
Matrix: Water
Date Received: 09/15/22 11:11

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			09/20/22 13:52	1
1,1,1-Trichloroethane	ND		0.50		ug/L			09/20/22 13:52	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			09/20/22 13:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			09/20/22 13:52	1
1,1,2-Trichloroethane	ND		0.50		ug/L			09/20/22 13:52	1
1,1-Dichloroethane	ND		0.50		ug/L			09/20/22 13:52	1
1,1-Dichloroethene	ND		0.50		ug/L			09/20/22 13:52	1
1,1-Dichloropropene	ND		0.50		ug/L			09/20/22 13:52	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			09/20/22 13:52	1
1,2,3-Trichloropropane	ND		2.0		ug/L			09/20/22 13:52	1
1,2,4-Trichlorobenzene	ND	T2	2.0		ug/L			09/20/22 13:52	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			09/20/22 13:52	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			09/20/22 13:52	1
1,2-Dichlorobenzene	ND		0.50		ug/L			09/20/22 13:52	1
1,2-Dichloroethane	ND		0.50		ug/L			09/20/22 13:52	1
1,2-Dichloropropane	ND		0.50		ug/L			09/20/22 13:52	1

Client Sample ID: EFF-22M09

Date Collected: 09/15/22 08:45
Date Received: 09/15/22 11:11

Lab Sample ID: 550-190519-2

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		0.50		ug/L			09/20/22 13:52	1
1,3-Dichlorobenzene	ND		0.50		ug/L			09/20/22 13:52	1
1,3-Dichloropropane	ND		0.50		ug/L			09/20/22 13:52	1
1,4-Dichlorobenzene	ND		0.50		ug/L			09/20/22 13:52	1
2,2-Dichloropropane	ND		1.0		ug/L			09/20/22 13:52	1
2-Butanone (MEK)	ND		10		ug/L			09/20/22 13:52	1
2-Chlorotoluene	ND		0.50		ug/L			09/20/22 13:52	1
2-Hexanone	ND	L5 V1	5.0		ug/L			09/20/22 13:52	1
4-Chlorotoluene	ND		0.50		ug/L			09/20/22 13:52	1
4-Isopropyltoluene	ND		0.50		ug/L			09/20/22 13:52	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			09/20/22 13:52	1
Acetone	ND	L5 V1	10		ug/L			09/20/22 13:52	1
Benzene	ND		0.50		ug/L			09/20/22 13:52	1
Bromobenzene	ND		1.0		ug/L			09/20/22 13:52	1
Bromoform	ND		1.0		ug/L			09/20/22 13:52	1
Bromomethane	ND		5.0		ug/L			09/20/22 13:52	1
Carbon disulfide	ND		5.0		ug/L			09/20/22 13:52	1
Carbon tetrachloride	ND		0.50		ug/L			09/20/22 13:52	1
Chlorobenzene	ND		0.50		ug/L			09/20/22 13:52	1
Chlorobromomethane	ND		0.50		ug/L			09/20/22 13:52	1
Chlorodibromomethane	ND		0.50		ug/L			09/20/22 13:52	1
Chloroethane	ND		1.0		ug/L			09/20/22 13:52	1
Chloroform	ND		0.50		ug/L			09/20/22 13:52	1
Chloromethane	ND		1.0		ug/L			09/20/22 13:52	1
cis-1,2-Dichloroethene	**1.4**		0.50		ug/L			09/20/22 13:52	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			09/20/22 13:52	1
Dibromomethane	ND		0.50		ug/L			09/20/22 13:52	1
Dichlorobromomethane	ND		0.50		ug/L			09/20/22 13:52	1
Dichlorodifluoromethane	ND		1.0		ug/L			09/20/22 13:52	1
Ethanol	ND		150		ug/L			09/20/22 13:52	1
Ethylbenzene	ND		0.50		ug/L			09/20/22 13:52	1
Ethylene Dibromide	ND		0.50		ug/L			09/20/22 13:52	1
Hexachlorobutadiene	ND		5.0		ug/L			09/20/22 13:52	1
Iodomethane	ND		2.0		ug/L			09/20/22 13:52	1
Isopropylbenzene	ND		0.50		ug/L			09/20/22 13:52	1
Methyl tert-butyl ether	ND		0.50		ug/L			09/20/22 13:52	1
Methylene Chloride	ND		5.0		ug/L			09/20/22 13:52	1
m-Xylene & p-Xylene	ND		1.0		ug/L			09/20/22 13:52	1
Naphthalene	ND		5.0		ug/L			09/20/22 13:52	1
n-Butylbenzene	ND		1.0		ug/L			09/20/22 13:52	1
N-Propylbenzene	ND		0.50		ug/L			09/20/22 13:52	1
o-Xylene	ND		0.50		ug/L			09/20/22 13:52	1
sec-Butylbenzene	ND		0.50		ug/L			09/20/22 13:52	1
Styrene	ND		1.0		ug/L			09/20/22 13:52	1
tert-Butylbenzene	ND		0.50		ug/L			09/20/22 13:52	1
Tetrachloroethene	ND		0.50		ug/L			09/20/22 13:52	1
Toluene	ND		0.50		ug/L			09/20/22 13:52	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			09/20/22 13:52	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			09/20/22 13:52	1

Client Sample ID: EFF-22M09

Lab Sample ID: 550-190519-2

Date Collected: 09/15/22 08:45
Matrix: Water
Date Received: 09/15/22 11:11

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		0.50		ug/L			09/20/22 13:52	1
Trichlorofluoromethane	ND		1.0		ug/L			09/20/22 13:52	1
Trihalomethanes, Total	ND		0.50		ug/L			09/20/22 13:52	1
Vinyl acetate	ND		5.0		ug/L			09/20/22 13:52	1
Vinyl chloride	ND		1.0		ug/L			09/20/22 13:52	1
Xylenes, Total	ND		0.50		ug/L			09/20/22 13:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*09/20/22 13:52*	*1*
Dibromofluoromethane (Surr)	*93*		*60 - 140*		*09/20/22 13:52*	*1*
Toluene-d8 (Surr)	*87*		*60 - 140*		*09/20/22 13:52*	*1*

Client Sample ID: GAC-2A-75-22M09

Lab Sample ID: 550-190519-3

Date Collected: 09/15/22 08:50
Matrix: Water
Date Received: 09/15/22 11:11

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			09/20/22 14:13	1
1,1,1-Trichloroethane	ND		0.50		ug/L			09/20/22 14:13	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			09/20/22 14:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			09/20/22 14:13	1
1,1,2-Trichloroethane	ND		0.50		ug/L			09/20/22 14:13	1
1,1-Dichloroethane	ND		0.50		ug/L			09/20/22 14:13	1
1,1-Dichloroethene	ND		0.50		ug/L			09/20/22 14:13	1
1,1-Dichloropropene	ND		0.50		ug/L			09/20/22 14:13	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			09/20/22 14:13	1
1,2,3-Trichloropropane	ND		2.0		ug/L			09/20/22 14:13	1
1,2,4-Trichlorobenzene	ND	T2	2.0		ug/L			09/20/22 14:13	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			09/20/22 14:13	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			09/20/22 14:13	1
1,2-Dichlorobenzene	ND		0.50		ug/L			09/20/22 14:13	1
1,2-Dichloroethane	ND		0.50		ug/L			09/20/22 14:13	1
1,2-Dichloropropane	ND		0.50		ug/L			09/20/22 14:13	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			09/20/22 14:13	1
1,3-Dichlorobenzene	ND		0.50		ug/L			09/20/22 14:13	1
1,3-Dichloropropane	ND		0.50		ug/L			09/20/22 14:13	1
1,4-Dichlorobenzene	ND		0.50		ug/L			09/20/22 14:13	1
2,2-Dichloropropane	ND		1.0		ug/L			09/20/22 14:13	1
2-Butanone (MEK)	ND		10		ug/L			09/20/22 14:13	1
2-Chlorotoluene	ND		0.50		ug/L			09/20/22 14:13	1
2-Hexanone	ND	L5 V1	5.0		ug/L			09/20/22 14:13	1
4-Chlorotoluene	ND		0.50		ug/L			09/20/22 14:13	1
4-Isopropyltoluene	ND		0.50		ug/L			09/20/22 14:13	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			09/20/22 14:13	1
Acetone	ND	L5 V1	10		ug/L			09/20/22 14:13	1
Benzene	ND		0.50		ug/L			09/20/22 14:13	1
Bromobenzene	ND		1.0		ug/L			09/20/22 14:13	1
Bromoform	ND		1.0		ug/L			09/20/22 14:13	1
Bromomethane	ND		5.0		ug/L			09/20/22 14:13	1

Client Sample Results

Client: CH2M Hill, Inc.
Project/Site: Deer Valley

Job ID: 550-190519-1
SDG: Phoenix, AZ

Client Sample ID: GAC-2A-75-22M09

Lab Sample ID: 550-190519-3

Date Collected: 09/15/22 08:50
Matrix: Water
Date Received: 09/15/22 11:11

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		5.0		ug/L			09/20/22 14:13	1
Carbon tetrachloride	ND		0.50		ug/L			09/20/22 14:13	1
Chlorobenzene	ND		0.50		ug/L			09/20/22 14:13	1
Chlorobromomethane	ND		0.50		ug/L			09/20/22 14:13	1
Chlorodibromomethane	ND		0.50		ug/L			09/20/22 14:13	1
Chloroethane	ND		1.0		ug/L			09/20/22 14:13	1
Chloroform	**1.0**		0.50		ug/L			09/20/22 14:13	1
Chloromethane	ND		1.0		ug/L			09/20/22 14:13	1
cis-1,2-Dichloroethene	**2.0**		0.50		ug/L			09/20/22 14:13	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			09/20/22 14:13	1
Dibromomethane	ND		0.50		ug/L			09/20/22 14:13	1
Dichlorobromomethane	ND		0.50		ug/L			09/20/22 14:13	1
Dichlorodifluoromethane	ND		1.0		ug/L			09/20/22 14:13	1
Ethanol	ND		150		ug/L			09/20/22 14:13	1
Ethylbenzene	ND		0.50		ug/L			09/20/22 14:13	1
Ethylene Dibromide	ND		0.50		ug/L			09/20/22 14:13	1
Hexachlorobutadiene	ND		5.0		ug/L			09/20/22 14:13	1
Iodomethane	ND		2.0		ug/L			09/20/22 14:13	1
Isopropylbenzene	ND		0.50		ug/L			09/20/22 14:13	1
Methyl tert-butyl ether	ND		0.50		ug/L			09/20/22 14:13	1
Methylene Chloride	ND		5.0		ug/L			09/20/22 14:13	1
m-Xylene & p-Xylene	ND		1.0		ug/L			09/20/22 14:13	1
Naphthalene	ND		5.0		ug/L			09/20/22 14:13	1
n-Butylbenzene	ND		1.0		ug/L			09/20/22 14:13	1
N-Propylbenzene	ND		0.50		ug/L			09/20/22 14:13	1
o-Xylene	ND		0.50		ug/L			09/20/22 14:13	1
sec-Butylbenzene	ND		0.50		ug/L			09/20/22 14:13	1
Styrene	ND		1.0		ug/L			09/20/22 14:13	1
tert-Butylbenzene	ND		0.50		ug/L			09/20/22 14:13	1
Tetrachloroethene	ND		0.50		ug/L			09/20/22 14:13	1
Toluene	ND		0.50		ug/L			09/20/22 14:13	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			09/20/22 14:13	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			09/20/22 14:13	1
Trichloroethene	ND		0.50		ug/L			09/20/22 14:13	1
Trichlorofluoromethane	ND		1.0		ug/L			09/20/22 14:13	1
Trihalomethanes, Total	**1.0**		0.50		ug/L			09/20/22 14:13	1
Vinyl acetate	ND		5.0		ug/L			09/20/22 14:13	1
Vinyl chloride	ND		1.0		ug/L			09/20/22 14:13	1
Xylenes, Total	ND		0.50		ug/L			09/20/22 14:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*09/20/22 14:13*	*1*
Dibromofluoromethane (Surr)	*94*		*60 - 140*		*09/20/22 14:13*	*1*
Toluene-d8 (Surr)	*88*		*60 - 140*		*09/20/22 14:13*	*1*

Client Sample Results

Client: CH2M Hill, Inc.
Project/Site: Deer Valley

Job ID: 550-190519-1
SDG: Phoenix, AZ

Client Sample ID: GAC-2B-100-22M09

Lab Sample ID: 550-190519-4

Date Collected: 09/15/22 08:52
Date Received: 09/15/22 11:11

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			09/20/22 14:35	1
1,1,1-Trichloroethane	ND		0.50		ug/L			09/20/22 14:35	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			09/20/22 14:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			09/20/22 14:35	1
1,1,2-Trichloroethane	ND		0.50		ug/L			09/20/22 14:35	1
1,1-Dichloroethane	ND		0.50		ug/L			09/20/22 14:35	1
1,1-Dichloroethene	ND		0.50		ug/L			09/20/22 14:35	1
1,1-Dichloropropene	ND		0.50		ug/L			09/20/22 14:35	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			09/20/22 14:35	1
1,2,3-Trichloropropane	ND		2.0		ug/L			09/20/22 14:35	1
1,2,4-Trichlorobenzene	ND	T2	2.0		ug/L			09/20/22 14:35	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			09/20/22 14:35	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			09/20/22 14:35	1
1,2-Dichlorobenzene	ND		0.50		ug/L			09/20/22 14:35	1
1,2-Dichloroethane	ND		0.50		ug/L			09/20/22 14:35	1
1,2-Dichloropropane	ND		0.50		ug/L			09/20/22 14:35	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			09/20/22 14:35	1
1,3-Dichlorobenzene	ND		0.50		ug/L			09/20/22 14:35	1
1,3-Dichloropropane	ND		0.50		ug/L			09/20/22 14:35	1
1,4-Dichlorobenzene	ND		0.50		ug/L			09/20/22 14:35	1
2,2-Dichloropropane	ND		1.0		ug/L			09/20/22 14:35	1
2-Butanone (MEK)	ND		10		ug/L			09/20/22 14:35	1
2-Chlorotoluene	ND		0.50		ug/L			09/20/22 14:35	1
2-Hexanone	ND	L5 V1	5.0		ug/L			09/20/22 14:35	1
4-Chlorotoluene	ND		0.50		ug/L			09/20/22 14:35	1
4-Isopropyltoluene	ND		0.50		ug/L			09/20/22 14:35	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			09/20/22 14:35	1
Acetone	ND	L5 V1	10		ug/L			09/20/22 14:35	1
Benzene	ND		0.50		ug/L			09/20/22 14:35	1
Bromobenzene	ND		1.0		ug/L			09/20/22 14:35	1
Bromoform	ND		1.0		ug/L			09/20/22 14:35	1
Bromomethane	ND		5.0		ug/L			09/20/22 14:35	1
Carbon disulfide	ND		5.0		ug/L			09/20/22 14:35	1
Carbon tetrachloride	ND		0.50		ug/L			09/20/22 14:35	1
Chlorobenzene	ND		0.50		ug/L			09/20/22 14:35	1
Chlorobromomethane	ND		0.50		ug/L			09/20/22 14:35	1
Chlorodibromomethane	ND		0.50		ug/L			09/20/22 14:35	1
Chloroethane	ND		1.0		ug/L			09/20/22 14:35	1
Chloroform	**0.72**		0.50		ug/L			09/20/22 14:35	1
Chloromethane	ND		1.0		ug/L			09/20/22 14:35	1
cis-1,2-Dichloroethene	**6.2**		0.50		ug/L			09/20/22 14:35	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			09/20/22 14:35	1
Dibromomethane	ND		0.50		ug/L			09/20/22 14:35	1
Dichlorobromomethane	ND		0.50		ug/L			09/20/22 14:35	1
Dichlorodifluoromethane	ND		1.0		ug/L			09/20/22 14:35	1
Ethanol	ND		150		ug/L			09/20/22 14:35	1
Ethylbenzene	ND		0.50		ug/L			09/20/22 14:35	1
Ethylene Dibromide	ND		0.50		ug/L			09/20/22 14:35	1
Hexachlorobutadiene	ND		5.0		ug/L			09/20/22 14:35	1

Client Sample ID: GAC-2B-100-22M09

Lab Sample ID: 550-190519-4

Date Collected: 09/15/22 08:52
Matrix: Water
Date Received: 09/15/22 11:11

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND		2.0		ug/L			09/20/22 14:35	1
Isopropylbenzene	ND		0.50		ug/L			09/20/22 14:35	1
Methyl tert-butyl ether	ND		0.50		ug/L			09/20/22 14:35	1
Methylene Chloride	ND		5.0		ug/L			09/20/22 14:35	1
m-Xylene & p-Xylene	ND		1.0		ug/L			09/20/22 14:35	1
Naphthalene	ND		5.0		ug/L			09/20/22 14:35	1
n-Butylbenzene	ND		1.0		ug/L			09/20/22 14:35	1
N-Propylbenzene	ND		0.50		ug/L			09/20/22 14:35	1
o-Xylene	ND		0.50		ug/L			09/20/22 14:35	1
sec-Butylbenzene	ND		0.50		ug/L			09/20/22 14:35	1
Styrene	ND		1.0		ug/L			09/20/22 14:35	1
tert-Butylbenzene	ND		0.50		ug/L			09/20/22 14:35	1
Tetrachloroethene	ND		0.50		ug/L			09/20/22 14:35	1
Toluene	ND		0.50		ug/L			09/20/22 14:35	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			09/20/22 14:35	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			09/20/22 14:35	1
Trichloroethene	**1.6**		0.50		ug/L			09/20/22 14:35	1
Trichlorofluoromethane	ND		1.0		ug/L			09/20/22 14:35	1
Trihalomethanes, Total	**0.72**		0.50		ug/L			09/20/22 14:35	1
Vinyl acetate	ND		5.0		ug/L			09/20/22 14:35	1
Vinyl chloride	ND		1.0		ug/L			09/20/22 14:35	1
Xylenes, Total	ND		0.50		ug/L			09/20/22 14:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*		*09/20/22 14:35*	*1*
Dibromofluoromethane (Surr)	*94*		*60 - 140*		*09/20/22 14:35*	*1*
Toluene-d8 (Surr)	*86*		*60 - 140*		*09/20/22 14:35*	*1*

Client Sample ID: TB-22M09

Lab Sample ID: 550-190519-5

Date Collected: 09/15/22 08:00
Matrix: Water
Date Received: 09/15/22 11:11

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			09/20/22 14:56	1
1,1,1-Trichloroethane	ND		0.50		ug/L			09/20/22 14:56	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			09/20/22 14:56	1
1,1,2-Trichloroethane	ND		0.50		ug/L			09/20/22 14:56	1
1,1-Dichloroethane	ND		0.50		ug/L			09/20/22 14:56	1
1,1-Dichloroethene	ND		0.50		ug/L			09/20/22 14:56	1
1,1-Dichloropropene	ND		0.50		ug/L			09/20/22 14:56	1
1,2,4-Trichlorobenzene	ND	T2	2.0		ug/L			09/20/22 14:56	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			09/20/22 14:56	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			09/20/22 14:56	1
1,2,3-Trichloropropane	ND		2.0		ug/L			09/20/22 14:56	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			09/20/22 14:56	1
Ethylene Dibromide	ND		0.50		ug/L			09/20/22 14:56	1
1,3-Dichlorobenzene	ND		0.50		ug/L			09/20/22 14:56	1
1,3-Dichloropropane	ND		0.50		ug/L			09/20/22 14:56	1
1,2-Dichlorobenzene	ND		0.50		ug/L			09/20/22 14:56	1

Client Sample ID: TB-22M09

Date Collected: 09/15/22 08:00
Date Received: 09/15/22 11:11

Lab Sample ID: 550-190519-5

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.50		ug/L			09/20/22 14:56	1
1,2-Dichloropropane	ND		0.50		ug/L			09/20/22 14:56	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			09/20/22 14:56	1
1,4-Dichlorobenzene	ND		0.50		ug/L			09/20/22 14:56	1
2,2-Dichloropropane	ND		1.0		ug/L			09/20/22 14:56	1
2-Butanone (MEK)	ND		10		ug/L			09/20/22 14:56	1
2-Chlorotoluene	ND		0.50		ug/L			09/20/22 14:56	1
2-Hexanone	ND	L5 V1	5.0		ug/L			09/20/22 14:56	1
4-Chlorotoluene	ND		0.50		ug/L			09/20/22 14:56	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			09/20/22 14:56	1
Acetone	ND	L5 V1	10		ug/L			09/20/22 14:56	1
Benzene	ND		0.50		ug/L			09/20/22 14:56	1
Bromobenzene	ND		1.0		ug/L			09/20/22 14:56	1
Chlorobromomethane	ND		0.50		ug/L			09/20/22 14:56	1
Dichlorobromomethane	ND		0.50		ug/L			09/20/22 14:56	1
Bromoform	ND		1.0		ug/L			09/20/22 14:56	1
Bromomethane	ND		5.0		ug/L			09/20/22 14:56	1
Carbon disulfide	ND		5.0		ug/L			09/20/22 14:56	1
Carbon tetrachloride	ND		0.50		ug/L			09/20/22 14:56	1
Chlorobenzene	ND		0.50		ug/L			09/20/22 14:56	1
Chloroethane	ND		1.0		ug/L			09/20/22 14:56	1
Chloroform	ND		0.50		ug/L			09/20/22 14:56	1
Chloromethane	ND		1.0		ug/L			09/20/22 14:56	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			09/20/22 14:56	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			09/20/22 14:56	1
Chlorodibromomethane	ND		0.50		ug/L			09/20/22 14:56	1
Dibromomethane	ND		0.50		ug/L			09/20/22 14:56	1
Dichlorodifluoromethane	ND		1.0		ug/L			09/20/22 14:56	1
Ethanol	ND		150		ug/L			09/20/22 14:56	1
Ethylbenzene	ND		0.50		ug/L			09/20/22 14:56	1
Hexachlorobutadiene	ND		5.0		ug/L			09/20/22 14:56	1
Iodomethane	ND		2.0		ug/L			09/20/22 14:56	1
Isopropylbenzene	ND		0.50		ug/L			09/20/22 14:56	1
m-Xylene & p-Xylene	ND		1.0		ug/L			09/20/22 14:56	1
Methylene Chloride	ND		5.0		ug/L			09/20/22 14:56	1
Methyl tert-butyl ether	ND		0.50		ug/L			09/20/22 14:56	1
Naphthalene	ND		5.0		ug/L			09/20/22 14:56	1
n-Butylbenzene	ND		1.0		ug/L			09/20/22 14:56	1
N-Propylbenzene	ND		0.50		ug/L			09/20/22 14:56	1
o-Xylene	ND		0.50		ug/L			09/20/22 14:56	1
4-Isopropyltoluene	ND		0.50		ug/L			09/20/22 14:56	1
sec-Butylbenzene	ND		0.50		ug/L			09/20/22 14:56	1
Styrene	ND		1.0		ug/L			09/20/22 14:56	1
tert-Butylbenzene	ND		0.50		ug/L			09/20/22 14:56	1
Tetrachloroethene	ND		0.50		ug/L			09/20/22 14:56	1
Toluene	ND		0.50		ug/L			09/20/22 14:56	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			09/20/22 14:56	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			09/20/22 14:56	1
Trichloroethene	ND		0.50		ug/L			09/20/22 14:56	1

Client Sample Results

Client: CH2M Hill, Inc.
Project/Site: Deer Valley

Job ID: 550-190519-1
SDG: Phoenix, AZ

Client Sample ID: TB-22M09

Date Collected: 09/15/22 08:00
Date Received: 09/15/22 11:11

Lab Sample ID: 550-190519-5

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	ND		1.0		ug/L			09/20/22 14:56	1
Vinyl chloride	ND		1.0		ug/L			09/20/22 14:56	1
Vinyl acetate	ND		5.0		ug/L			09/20/22 14:56	1
Xylenes, Total	ND		0.50		ug/L			09/20/22 14:56	1
Trihalomethanes, Total	ND		0.50		ug/L			09/20/22 14:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			09/20/22 14:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*92*		*60 - 140*		*09/20/22 14:56*	*1*
Toluene-d8 (Surr)	*86*		*60 - 140*		*09/20/22 14:56*	*1*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*		*09/20/22 14:56*	*1*

Surrogate Summary

Client: CH2M Hill, Inc.
Project/Site: Deer Valley

Job ID: 550-190519-1
SDG: Phoenix, AZ

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	**Client Sample ID**	**(60-140)**	**(60-140)**	**(60-140)**
550-190519-1	INF-22M09	88	93	86
550-190519-1 MS	INF-22M09	82	90	84
550-190519-1 MSD	INF-22M09	86	92	89
550-190519-2	EFF-22M09	88	93	87
550-190519-3	GAC-2A-75-22M09	88	94	88
550-190519-4	GAC-2B-100-22M09	90	94	86
550-190519-5	TB-22M09	90	92	86
LCS 550-284296/1002	Lab Control Sample	91	92	95
LCSD 550-284296/4	Lab Control Sample Dup	90	94	96
MB 550-284296/6	Method Blank	85	93	90

Surrogate Legend

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

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-284296/6
Matrix: Water
Analysis Batch: 284296

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		0.50		ug/L			09/20/22 08:47	1
1,1,1-Trichloroethane	ND		0.50		ug/L			09/20/22 08:47	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			09/20/22 08:47	1
1,1,2-Trichloroethane	ND		0.50		ug/L			09/20/22 08:47	1
1,1-Dichloroethane	ND		0.50		ug/L			09/20/22 08:47	1
1,1-Dichloroethene	ND		0.50		ug/L			09/20/22 08:47	1
1,1-Dichloropropene	ND		0.50		ug/L			09/20/22 08:47	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			09/20/22 08:47	1
1,2,3-Trichloropropane	ND		2.0		ug/L			09/20/22 08:47	1
1,2,4-Trichlorobenzene	ND	T2	2.0		ug/L			09/20/22 08:47	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			09/20/22 08:47	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			09/20/22 08:47	1
1,2-Dichlorobenzene	ND		0.50		ug/L			09/20/22 08:47	1
1,2-Dichloroethane	ND		0.50		ug/L			09/20/22 08:47	1
1,2-Dichloropropane	ND		0.50		ug/L			09/20/22 08:47	1
1,3-Dichlorobenzene	ND		0.50		ug/L			09/20/22 08:47	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			09/20/22 08:47	1
1,3-Dichloropropane	ND		0.50		ug/L			09/20/22 08:47	1
1,4-Dichlorobenzene	ND		0.50		ug/L			09/20/22 08:47	1
2,2-Dichloropropane	ND		1.0		ug/L			09/20/22 08:47	1
2-Butanone (MEK)	ND		10		ug/L			09/20/22 08:47	1
2-Chlorotoluene	ND		0.50		ug/L			09/20/22 08:47	1
2-Hexanone	ND		5.0		ug/L			09/20/22 08:47	1
4-Chlorotoluene	ND		0.50		ug/L			09/20/22 08:47	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			09/20/22 08:47	1
Acetone	ND		10		ug/L			09/20/22 08:47	1
Benzene	ND		0.50		ug/L			09/20/22 08:47	1
Bromobenzene	ND		1.0		ug/L			09/20/22 08:47	1
Bromoform	ND		1.0		ug/L			09/20/22 08:47	1
Bromomethane	ND		5.0		ug/L			09/20/22 08:47	1
Carbon disulfide	ND		5.0		ug/L			09/20/22 08:47	1
Carbon tetrachloride	ND		0.50		ug/L			09/20/22 08:47	1
Chlorobenzene	ND		0.50		ug/L			09/20/22 08:47	1
Chlorobromomethane	ND		0.50		ug/L			09/20/22 08:47	1
Chloroethane	ND		1.0		ug/L			09/20/22 08:47	1
Chloroform	ND		0.50		ug/L			09/20/22 08:47	1
Chloromethane	ND		1.0		ug/L			09/20/22 08:47	1
Chlorodibromomethane	ND		0.50		ug/L			09/20/22 08:47	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			09/20/22 08:47	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			09/20/22 08:47	1
Dibromomethane	ND		0.50		ug/L			09/20/22 08:47	1
Dichlorobromomethane	ND		0.50		ug/L			09/20/22 08:47	1
Dichlorodifluoromethane	ND		1.0		ug/L			09/20/22 08:47	1
Ethanol	ND		150		ug/L			09/20/22 08:47	1
Ethylbenzene	ND		0.50		ug/L			09/20/22 08:47	1
Ethylene Dibromide	ND		0.50		ug/L			09/20/22 08:47	1
Hexachlorobutadiene	ND		5.0		ug/L			09/20/22 08:47	1
Iodomethane	ND		2.0		ug/L			09/20/22 08:47	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-284296/6
Matrix: Water
Analysis Batch: 284296

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50		ug/L			09/20/22 08:47	1
Methyl tert-butyl ether	ND		0.50		ug/L			09/20/22 08:47	1
Methylene Chloride	ND		5.0		ug/L			09/20/22 08:47	1
m-Xylene & p-Xylene	ND		1.0		ug/L			09/20/22 08:47	1
4-Isopropyltoluene	ND		0.50		ug/L			09/20/22 08:47	1
Naphthalene	ND		5.0		ug/L			09/20/22 08:47	1
n-Butylbenzene	ND		1.0		ug/L			09/20/22 08:47	1
N-Propylbenzene	ND		0.50		ug/L			09/20/22 08:47	1
o-Xylene	ND		0.50		ug/L			09/20/22 08:47	1
sec-Butylbenzene	ND		0.50		ug/L			09/20/22 08:47	1
Styrene	ND		1.0		ug/L			09/20/22 08:47	1
tert-Butylbenzene	ND		0.50		ug/L			09/20/22 08:47	1
Tetrachloroethene	ND		0.50		ug/L			09/20/22 08:47	1
Toluene	ND		0.50		ug/L			09/20/22 08:47	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			09/20/22 08:47	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			09/20/22 08:47	1
Trichloroethene	ND		0.50		ug/L			09/20/22 08:47	1
Trichlorofluoromethane	ND		1.0		ug/L			09/20/22 08:47	1
Trihalomethanes, Total	ND		0.50		ug/L			09/20/22 08:47	1
Vinyl acetate	ND		5.0		ug/L			09/20/22 08:47	1
Vinyl chloride	ND		1.0		ug/L			09/20/22 08:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			09/20/22 08:47	1
Xylenes, Total	ND		0.50		ug/L			09/20/22 08:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*93*		*60 - 140*		*09/20/22 08:47*	*1*
Toluene-d8 (Surr)	*90*		*60 - 140*		*09/20/22 08:47*	*1*
4-Bromofluorobenzene (Surr)	*85*		*60 - 140*		*09/20/22 08:47*	*1*

Lab Sample ID: LCS 550-284296/1002
Matrix: Water
Analysis Batch: 284296

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	61.7		ug/L		123	60 - 140
1,1,1-Trichloroethane	50.0	57.7		ug/L		115	70 - 130
1,1,2,2-Tetrachloroethane	50.0	59.4		ug/L		119	60 - 140
1,1,2-Trichloroethane	50.0	59.8		ug/L		120	70 - 130
1,1-Dichloroethane	50.0	57.1		ug/L		114	70 - 150
1,1-Dichloroethene	50.0	58.2		ug/L		116	50 - 140
1,1-Dichloropropene	50.0	59.8		ug/L		120	60 - 140
1,2,3-Trichlorobenzene	50.0	55.3		ug/L		111	60 - 140
1,2,3-Trichloropropane	50.0	62.5		ug/L		125	60 - 140
1,2,4-Trichlorobenzene	50.0	54.4	T2	ug/L		109	60 - 140
1,2,4-Trimethylbenzene	50.0	62.3		ug/L		125	60 - 140
1,2-Dibromo-3-Chloropropane	50.0	58.4		ug/L		117	60 - 140
1,2-Dichlorobenzene	50.0	56.3		ug/L		113	65 - 140
1,2-Dichloroethane	50.0	58.8		ug/L		118	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-284296/1002
Matrix: Water
Analysis Batch: 284296

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dichloropropane	50.0	59.3		ug/L		119	35 - 165
1,3-Dichlorobenzene	50.0	58.6		ug/L		117	70 - 130
1,3,5-Trimethylbenzene	50.0	62.5		ug/L		125	60 - 140
1,3-Dichloropropane	50.0	58.9		ug/L		118	60 - 140
1,4-Dichlorobenzene	50.0	56.4		ug/L		113	65 - 135
2,2-Dichloropropane	50.0	59.8		ug/L		120	60 - 140
2-Butanone (MEK)	50.0	65.5		ug/L		131	60 - 140
2-Chlorotoluene	50.0	61.8		ug/L		124	60 - 140
2-Hexanone	50.0	70.3	L5	ug/L		141	60 - 140
4-Chlorotoluene	50.0	59.8		ug/L		120	60 - 140
4-Methyl-2-pentanone (MIBK)	50.0	63.8		ug/L		128	60 - 140
Acetone	50.0	77.2	L5	ug/L		154	18 - 150
Benzene	50.0	59.3		ug/L		119	65 - 135
Bromobenzene	50.0	59.0		ug/L		118	60 - 140
Bromoform	50.0	59.9		ug/L		120	70 - 130
Bromomethane	50.0	59.6		ug/L		119	15 - 185
Carbon disulfide	50.0	64.2		ug/L		128	60 - 140
Carbon tetrachloride	50.0	59.2		ug/L		118	70 - 130
Chlorobenzene	50.0	58.8		ug/L		118	65 - 135
Chlorobromomethane	50.0	61.3		ug/L		123	60 - 140
Chloroethane	50.0	53.6		ug/L		107	40 - 160
Chloroform	50.0	57.7		ug/L		115	70 - 135
Chloromethane	50.0	58.4		ug/L		117	10 - 205
Chlorodibromomethane	50.0	59.5		ug/L		119	70 - 135
cis-1,2-Dichloroethene	50.0	62.4		ug/L		125	60 - 140
cis-1,3-Dichloropropene	50.0	59.3		ug/L		119	25 - 175
Dibromomethane	50.0	60.5		ug/L		121	70 - 130
Dichlorobromomethane	50.0	59.1		ug/L		118	65 - 135
Dichlorodifluoromethane	50.0	58.8		ug/L		118	60 - 140
Ethanol	1000	1080		ug/L		108	60 - 140
Ethylbenzene	50.0	61.2		ug/L		122	60 - 140
Ethylene Dibromide	50.0	60.4		ug/L		121	60 - 140
Hexachlorobutadiene	50.0	54.4		ug/L		109	60 - 140
Iodomethane	50.0	65.0		ug/L		130	60 - 140
Isopropylbenzene	50.0	64.3		ug/L		129	60 - 140
Methyl tert-butyl ether	50.0	54.9		ug/L		110	60 - 140
Methylene Chloride	50.0	53.8		ug/L		108	60 - 140
m-Xylene & p-Xylene	50.0	62.3		ug/L		125	60 - 140
4-Isopropyltoluene	50.0	64.8		ug/L		130	60 - 140
Naphthalene	50.0	58.5		ug/L		117	60 - 140
n-Butylbenzene	50.0	61.2		ug/L		122	60 - 140
N-Propylbenzene	50.0	62.6		ug/L		125	60 - 140
o-Xylene	50.0	63.5		ug/L		127	60 - 140
sec-Butylbenzene	50.0	62.7		ug/L		125	60 - 140
Styrene	50.0	65.0		ug/L		130	60 - 140
tert-Butylbenzene	50.0	63.3		ug/L		127	60 - 140
Tetrachloroethene	50.0	61.2		ug/L		122	70 - 130
Toluene	50.0	60.9		ug/L		122	70 - 130
trans-1,2-Dichloroethene	50.0	57.5		ug/L		115	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-284296/1002
Matrix: Water
Analysis Batch: 284296

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
trans-1,3-Dichloropropene	50.0	61.4		ug/L		123	50 - 150
Trichloroethene	50.0	60.8		ug/L		122	65 - 135
Trichlorofluoromethane	50.0	57.1		ug/L		114	50 - 150
Vinyl acetate	50.0	63.6		ug/L		127	60 - 140
Vinyl chloride	50.0	55.7		ug/L		111	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*92*		*60 - 140*
Toluene-d8 (Surr)	*95*		*60 - 140*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*

Lab Sample ID: LCSD 550-284296/4
Matrix: Water
Analysis Batch: 284296

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	62.4		ug/L		125	60 - 140	1	20
1,1,1-Trichloroethane	50.0	59.5		ug/L		119	70 - 130	3	20
1,1,2,2-Tetrachloroethane	50.0	58.5		ug/L		117	60 - 140	2	20
1,1,2-Trichloroethane	50.0	59.7		ug/L		119	70 - 130	0	20
1,1-Dichloroethane	50.0	58.0		ug/L		116	70 - 150	2	20
1,1-Dichloroethene	50.0	59.0		ug/L		118	50 - 140	1	20
1,1-Dichloropropene	50.0	61.1		ug/L		122	60 - 140	2	20
1,2,3-Trichlorobenzene	50.0	59.7		ug/L		119	60 - 140	8	20
1,2,3-Trichloropropane	50.0	64.1		ug/L		128	60 - 140	3	20
1,2,4-Trichlorobenzene	50.0	58.4	T2	ug/L		117	60 - 140	7	20
1,2,4-Trimethylbenzene	50.0	63.2		ug/L		126	60 - 140	1	20
1,2-Dibromo-3-Chloropropane	50.0	59.4		ug/L		119	60 - 140	2	20
1,2-Dichlorobenzene	50.0	58.1		ug/L		116	65 - 140	3	20
1,2-Dichloroethane	50.0	59.5		ug/L		119	70 - 130	1	20
1,2-Dichloropropane	50.0	60.6		ug/L		121	35 - 165	2	20
1,3-Dichlorobenzene	50.0	58.3		ug/L		117	70 - 130	1	20
1,3,5-Trimethylbenzene	50.0	63.6		ug/L		127	60 - 140	2	20
1,3-Dichloropropane	50.0	58.4		ug/L		117	60 - 140	1	20
1,4-Dichlorobenzene	50.0	57.8		ug/L		116	65 - 135	3	20
2,2-Dichloropropane	50.0	61.0		ug/L		122	60 - 140	2	20
2-Butanone (MEK)	50.0	66.5		ug/L		133	60 - 140	1	20
2-Chlorotoluene	50.0	62.1		ug/L		124	60 - 140	0	20
2-Hexanone	50.0	69.5		ug/L		139	60 - 140	1	20
4-Chlorotoluene	50.0	59.4		ug/L		119	60 - 140	1	20
4-Methyl-2-pentanone (MIBK)	50.0	64.4		ug/L		129	60 - 140	1	20
Acetone	50.0	93.7	L5	ug/L		187	18 - 150	19	20
Benzene	50.0	60.1		ug/L		120	65 - 135	1	20
Bromobenzene	50.0	59.7		ug/L		119	60 - 140	1	20
Bromoform	50.0	60.4		ug/L		121	70 - 130	1	20
Bromomethane	50.0	61.0		ug/L		122	15 - 185	2	20
Carbon disulfide	50.0	65.1		ug/L		130	60 - 140	1	20
Carbon tetrachloride	50.0	59.9		ug/L		120	70 - 130	1	20

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 550-284296/4
Matrix: Water
Analysis Batch: 284296

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
Chlorobenzene	50.0	59.5		ug/L		119	65 - 135	1	20
Chlorobromomethane	50.0	61.2		ug/L		122	60 - 140	0	20
Chloroethane	50.0	59.6		ug/L		119	40 - 160	11	20
Chloroform	50.0	57.4		ug/L		115	70 - 135	1	20
Chloromethane	50.0	60.9		ug/L		122	10 - 205	4	20
Chlorodibromomethane	50.0	59.0		ug/L		118	70 - 135	1	20
cis-1,2-Dichloroethene	50.0	63.5		ug/L		127	60 - 140	2	20
cis-1,3-Dichloropropene	50.0	60.4		ug/L		121	25 - 175	2	20
Dibromomethane	50.0	61.2		ug/L		122	70 - 130	1	20
Dichlorobromomethane	50.0	59.2		ug/L		118	65 - 135	0	20
Dichlorodifluoromethane	50.0	59.6		ug/L		119	60 - 140	1	20
Ethanol	1000	975		ug/L		97	60 - 140	10	20
Ethylbenzene	50.0	61.6		ug/L		123	60 - 140	1	20
Ethylene Dibromide	50.0	59.7		ug/L		119	60 - 140	1	20
Hexachlorobutadiene	50.0	58.9		ug/L		118	60 - 140	8	20
Iodomethane	50.0	66.1		ug/L		132	60 - 140	2	20
Isopropylbenzene	50.0	64.9		ug/L		130	60 - 140	1	20
Methyl tert-butyl ether	50.0	56.1		ug/L		112	60 - 140	2	20
Methylene Chloride	50.0	53.1		ug/L		106	60 - 140	1	20
m-Xylene & p-Xylene	50.0	62.4		ug/L		125	60 - 140	0	20
4-Isopropyltoluene	50.0	65.9		ug/L		132	60 - 140	2	20
Naphthalene	50.0	63.8		ug/L		128	60 - 140	9	20
n-Butylbenzene	50.0	62.9		ug/L		126	60 - 140	3	20
N-Propylbenzene	50.0	62.3		ug/L		125	60 - 140	0	20
o-Xylene	50.0	64.7		ug/L		129	60 - 140	2	20
sec-Butylbenzene	50.0	63.4		ug/L		127	60 - 140	1	20
Styrene	50.0	64.9		ug/L		130	60 - 140	0	20
tert-Butylbenzene	50.0	65.3		ug/L		131	60 - 140	3	20
Tetrachloroethene	50.0	61.8		ug/L		124	70 - 130	1	20
Toluene	50.0	61.7		ug/L		123	70 - 130	1	20
trans-1,2-Dichloroethene	50.0	59.4		ug/L		119	70 - 130	3	20
trans-1,3-Dichloropropene	50.0	60.4		ug/L		121	50 - 150	2	20
Trichloroethene	50.0	60.9		ug/L		122	65 - 135	0	20
Trichlorofluoromethane	50.0	59.1		ug/L		118	50 - 150	3	20
Vinyl acetate	50.0	63.6		ug/L		127	60 - 140	0	20
Vinyl chloride	50.0	59.9		ug/L		120	5 - 195	7	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*94*		*60 - 140*
Toluene-d8 (Surr)	*96*		*60 - 140*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*

Lab Sample ID: 550-190519-1 MS
Matrix: Water
Analysis Batch: 284296

Client Sample ID: INF-22M09
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	62.0		ug/L		124	50 - 150		

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-190519-1 MS
Matrix: Water
Analysis Batch: 284296

Client Sample ID: INF-22M09
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	ND		50.0	55.6		ug/L		111	52 - 162
1,1,2,2-Tetrachloroethane	ND		50.0	54.5		ug/L		109	46 - 157
1,1,2-Trichloroethane	ND		50.0	57.3		ug/L		115	52 - 150
1,1-Dichloroethane	ND		50.0	55.8		ug/L		112	59 - 155
1,1-Dichloroethene	ND		50.0	53.1		ug/L		106	10 - 234
1,1-Dichloropropene	ND		50.0	53.3		ug/L		107	50 - 150
1,2,3-Trichlorobenzene	ND		50.0	58.8		ug/L		118	50 - 150
1,2,3-Trichloropropane	ND		50.0	55.8		ug/L		112	50 - 150
1,2,4-Trichlorobenzene	ND	T2	50.0	57.6	T2	ug/L		115	50 - 150
1,2,4-Trimethylbenzene	ND		50.0	59.8		ug/L		120	50 - 150
1,2-Dibromo-3-Chloropropane	ND		50.0	52.9		ug/L		106	50 - 150
1,2-Dichlorobenzene	ND		50.0	56.6		ug/L		113	18 - 190
1,2-Dichloroethane	ND		50.0	56.2		ug/L		112	49 - 155
1,2-Dichloropropane	ND		50.0	57.8		ug/L		116	10 - 210
1,3-Dichlorobenzene	ND		50.0	57.0		ug/L		114	59 - 156
1,3,5-Trimethylbenzene	ND		50.0	58.4		ug/L		117	50 - 150
1,3-Dichloropropane	ND		50.0	56.8		ug/L		114	50 - 150
1,4-Dichlorobenzene	ND		50.0	55.0		ug/L		110	18 - 190
2,2-Dichloropropane	ND		50.0	57.8		ug/L		116	50 - 150
2-Butanone (MEK)	ND		50.0	55.6		ug/L		111	50 - 150
2-Chlorotoluene	ND		50.0	58.2		ug/L		116	50 - 150
2-Hexanone	ND	L5 V1	50.0	58.3		ug/L		117	50 - 150
4-Chlorotoluene	ND		50.0	55.9		ug/L		112	50 - 150
4-Methyl-2-pentanone (MIBK)	ND		50.0	54.2		ug/L		108	50 - 150
Acetone	ND	L5 V1	50.0	57.9		ug/L		116	18 - 150
Benzene	ND		50.0	56.1		ug/L		112	35 - 151
Bromobenzene	ND		50.0	57.3		ug/L		115	50 - 150
Bromoform	ND		50.0	56.9		ug/L		114	45 - 169
Bromomethane	ND		50.0	57.0		ug/L		114	10 - 242
Carbon disulfide	ND		50.0	59.5		ug/L		119	50 - 150
Carbon tetrachloride	ND		50.0	52.4		ug/L		105	70 - 140
Chlorobenzene	ND		50.0	58.0		ug/L		116	37 - 160
Chlorobromomethane	ND		50.0	64.4		ug/L		129	50 - 150
Chloroethane	ND		50.0	55.4		ug/L		111	14 - 230
Chloroform	0.51		50.0	58.6		ug/L		116	51 - 138
Chloromethane	ND		50.0	56.3		ug/L		113	10 - 273
Chlorodibromomethane	ND		50.0	59.2		ug/L		118	53 - 149
cis-1,2-Dichloroethene	4.5		50.0	64.6		ug/L		120	50 - 150
cis-1,3-Dichloropropene	ND		50.0	57.4		ug/L		115	10 - 227
Dibromomethane	ND		50.0	59.3		ug/L		119	50 - 150
Dichlorobromomethane	ND		50.0	58.6		ug/L		117	35 - 155
Dichlorodifluoromethane	ND		50.0	52.7		ug/L		105	50 - 150
Ethanol	ND		1000	891		ug/L		89	50 - 150
Ethylbenzene	ND		50.0	58.3		ug/L		117	37 - 162
Ethylene Dibromide	ND		50.0	57.7		ug/L		115	50 - 150
Hexachlorobutadiene	ND		50.0	53.1		ug/L		106	50 - 150
Iodomethane	ND		50.0	63.2		ug/L		126	50 - 150
Isopropylbenzene	ND		50.0	58.5		ug/L		117	50 - 150
Methyl tert-butyl ether	ND		50.0	57.0		ug/L		114	50 - 150

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-190519-1 MS
Matrix: Water
Analysis Batch: 284296

Client Sample ID: INF-22M09
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Methylene Chloride	ND		50.0	53.3		ug/L		107	10 - 221
m-Xylene & p-Xylene	ND		50.0	57.1		ug/L		114	50 - 150
4-Isopropyltoluene	ND		50.0	60.3		ug/L		121	50 - 150
Naphthalene	ND		50.0	60.0		ug/L		120	50 - 150
n-Butylbenzene	ND		50.0	56.3		ug/L		113	50 - 150
N-Propylbenzene	ND		50.0	57.0		ug/L		114	50 - 150
o-Xylene	ND		50.0	60.8		ug/L		122	50 - 150
sec-Butylbenzene	ND		50.0	57.2		ug/L		114	50 - 150
Styrene	ND		50.0	62.2		ug/L		124	50 - 150
tert-Butylbenzene	ND		50.0	59.9		ug/L		120	50 - 150
Tetrachloroethene	1.0		50.0	56.6		ug/L		111	64 - 148
Toluene	ND		50.0	58.1		ug/L		116	47 - 150
trans-1,2-Dichloroethene	ND		50.0	57.1		ug/L		114	54 - 156
trans-1,3-Dichloropropene	ND		50.0	58.9		ug/L		118	17 - 183
Trichloroethene	27		50.0	89.4		ug/L		124	70 - 157
Trichlorofluoromethane	ND		50.0	50.6		ug/L		101	17 - 181
Vinyl acetate	ND		50.0	61.8		ug/L		124	50 - 150
Vinyl chloride	ND		50.0	55.2		ug/L		110	10 - 251

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*90*		*60 - 140*
Toluene-d8 (Surr)	*84*		*60 - 140*
4-Bromofluorobenzene (Surr)	*82*		*60 - 140*

Lab Sample ID: 550-190519-1 MSD
Matrix: Water
Analysis Batch: 284296

Client Sample ID: INF-22M09
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	61.7		ug/L		123	50 - 150	1	35
1,1,1-Trichloroethane	ND		50.0	56.5		ug/L		113	52 - 162	2	36
1,1,2,2-Tetrachloroethane	ND		50.0	55.7		ug/L		111	46 - 157	2	61
1,1,2-Trichloroethane	ND		50.0	58.4		ug/L		117	52 - 150	2	45
1,1-Dichloroethane	ND		50.0	56.6		ug/L		113	59 - 155	1	40
1,1-Dichloroethene	ND		50.0	55.5		ug/L		111	10 - 234	4	32
1,1-Dichloropropene	ND		50.0	55.7		ug/L		111	50 - 150	4	35
1,2,3-Trichlorobenzene	ND		50.0	58.2		ug/L		116	50 - 150	1	35
1,2,3-Trichloropropane	ND		50.0	58.0		ug/L		116	50 - 150	4	35
1,2,4-Trichlorobenzene	ND	T2	50.0	57.2	T2	ug/L		114	50 - 150	1	35
1,2,4-Trimethylbenzene	ND		50.0	60.3		ug/L		121	50 - 150	1	35
1,2-Dibromo-3-Chloropropane	ND		50.0	56.9		ug/L		114	50 - 150	7	35
1,2-Dichlorobenzene	ND		50.0	57.2		ug/L		114	18 - 190	1	57
1,2-Dichloroethane	ND		50.0	56.5		ug/L		113	49 - 155	1	49
1,2-Dichloropropane	ND		50.0	59.1		ug/L		118	10 - 210	2	55
1,3-Dichlorobenzene	ND		50.0	58.0		ug/L		116	59 - 156	2	43
1,3,5-Trimethylbenzene	ND		50.0	60.8		ug/L		122	50 - 150	4	35
1,3-Dichloropropane	ND		50.0	58.5		ug/L		117	50 - 150	3	35
1,4-Dichlorobenzene	ND		50.0	55.7		ug/L		111	18 - 190	1	57

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-190519-1 MSD
Matrix: Water
Analysis Batch: 284296

Client Sample ID: INF-22M09
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,2-Dichloropropane	ND		50.0	58.9		ug/L		118	50 - 150	2	35
2-Butanone (MEK)	ND		50.0	60.4		ug/L		121	50 - 150	8	35
2-Chlorotoluene	ND		50.0	58.1		ug/L		116	50 - 150	0	35
2-Hexanone	ND	L5 V1	50.0	62.5		ug/L		125	50 - 150	7	35
4-Chlorotoluene	ND		50.0	57.3		ug/L		115	50 - 150	2	35
4-Methyl-2-pentanone (MIBK)	ND		50.0	59.4		ug/L		119	50 - 150	9	35
Acetone	ND	L5 V1	50.0	56.2		ug/L		112	18 - 150	3	35
Benzene	ND		50.0	56.9		ug/L		114	35 - 151	2	61
Bromobenzene	ND		50.0	57.7		ug/L		115	50 - 150	1	35
Bromoform	ND		50.0	58.2		ug/L		116	45 - 169	2	42
Bromomethane	ND		50.0	57.6		ug/L		115	10 - 242	1	61
Carbon disulfide	ND		50.0	60.1		ug/L		120	50 - 150	1	35
Carbon tetrachloride	ND		50.0	54.5		ug/L		109	70 - 140	4	41
Chlorobenzene	ND		50.0	59.0		ug/L		118	37 - 160	2	53
Chlorobromomethane	ND		50.0	63.7		ug/L		127	50 - 150	1	35
Chloroethane	ND		50.0	55.1		ug/L		110	14 - 230	1	78
Chloroform	0.51		50.0	57.9		ug/L		115	51 - 138	1	54
Chloromethane	ND		50.0	55.6		ug/L		111	10 - 273	1	60
Chlorodibromomethane	ND		50.0	59.7		ug/L		119	53 - 149	1	50
cis-1,2-Dichloroethene	4.5		50.0	65.1		ug/L		121	50 - 150	1	35
cis-1,3-Dichloropropene	ND		50.0	58.6		ug/L		117	10 - 227	2	58
Dibromomethane	ND		50.0	59.7		ug/L		119	50 - 150	1	35
Dichlorobromomethane	ND		50.0	59.7		ug/L		119	35 - 155	2	56
Dichlorodifluoromethane	ND		50.0	54.8		ug/L		110	50 - 150	4	35
Ethanol	ND		1000	963		ug/L		96	50 - 150	8	35
Ethylbenzene	ND		50.0	59.5		ug/L		119	37 - 162	2	63
Ethylene Dibromide	ND		50.0	60.6		ug/L		121	50 - 150	5	35
Hexachlorobutadiene	ND		50.0	54.1		ug/L		108	50 - 150	2	35
Iodomethane	ND		50.0	63.5		ug/L		127	50 - 150	0	35
Isopropylbenzene	ND		50.0	59.5		ug/L		119	50 - 150	2	35
Methyl tert-butyl ether	ND		50.0	57.9		ug/L		116	50 - 150	2	35
Methylene Chloride	ND		50.0	52.8		ug/L		106	10 - 221	1	28
m-Xylene & p-Xylene	ND		50.0	57.7		ug/L		115	50 - 150	1	35
4-Isopropyltoluene	ND		50.0	61.7		ug/L		123	50 - 150	2	35
Naphthalene	ND		50.0	60.5		ug/L		121	50 - 150	1	35
n-Butylbenzene	ND		50.0	58.0		ug/L		116	50 - 150	3	35
N-Propylbenzene	ND		50.0	58.0		ug/L		116	50 - 150	2	35
o-Xylene	ND		50.0	60.9		ug/L		122	50 - 150	0	35
sec-Butylbenzene	ND		50.0	58.8		ug/L		118	50 - 150	3	35
Styrene	ND		50.0	62.0		ug/L		124	50 - 150	0	35
tert-Butylbenzene	ND		50.0	61.0		ug/L		122	50 - 150	2	35
Tetrachloroethene	1.0		50.0	59.3		ug/L		117	64 - 148	5	39
Toluene	ND		50.0	59.2		ug/L		118	47 - 150	2	41
trans-1,2-Dichloroethene	ND		50.0	56.9		ug/L		114	54 - 156	0	45
trans-1,3-Dichloropropene	ND		50.0	61.4		ug/L		123	17 - 183	4	86
Trichloroethene	27		50.0	90.8		ug/L		127	70 - 157	2	48
Trichlorofluoromethane	ND		50.0	51.7		ug/L		103	17 - 181	2	84
Vinyl acetate	ND		50.0	63.2		ug/L		126	50 - 150	2	35
Vinyl chloride	ND		50.0	56.2		ug/L		112	10 - 251	2	66

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Dibromofluoromethane (Surr)	92		60 - 140
Toluene-d8 (Surr)	89		60 - 140
4-Bromofluorobenzene (Surr)	86		60 - 140

QC Association Summary

Client: CH2M Hill, Inc.
Project/Site: Deer Valley

Job ID: 550-190519-1
SDG: Phoenix, AZ

GC/MS VOA

Analysis Batch: 284296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-190519-1	INF-22M09	Total/NA	Water	624.1	
550-190519-2	EFF-22M09	Total/NA	Water	624.1	
550-190519-3	GAC-2A-75-22M09	Total/NA	Water	624.1	
550-190519-4	GAC-2B-100-22M09	Total/NA	Water	624.1	
550-190519-5	TB-22M09	Total/NA	Water	624.1	
MB 550-284296/6	Method Blank	Total/NA	Water	624.1	
LCS 550-284296/1002	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-284296/4	Lab Control Sample Dup	Total/NA	Water	624.1	
550-190519-1 MS	INF-22M09	Total/NA	Water	624.1	
550-190519-1 MSD	INF-22M09	Total/NA	Water	624.1	

Lab Chronicle

Client: CH2M Hill, Inc.
Project/Site: Deer Valley

Job ID: 550-190519-1
SDG: Phoenix, AZ

Client Sample ID: INF-22M09 — Lab Sample ID: 550-190519-1

Date Collected: 09/15/22 09:00 — **Matrix: Water**
Date Received: 09/15/22 11:11

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	284296	R1K	EET PHX	09/20/22 13:30

Client Sample ID: EFF-22M09 — Lab Sample ID: 550-190519-2

Date Collected: 09/15/22 08:45 — **Matrix: Water**
Date Received: 09/15/22 11:11

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	284296	R1K	EET PHX	09/20/22 13:52

Client Sample ID: GAC-2A-75-22M09 — Lab Sample ID: 550-190519-3

Date Collected: 09/15/22 08:50 — **Matrix: Water**
Date Received: 09/15/22 11:11

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	284296	R1K	EET PHX	09/20/22 14:13

Client Sample ID: GAC-2B-100-22M09 — Lab Sample ID: 550-190519-4

Date Collected: 09/15/22 08:52 — **Matrix: Water**
Date Received: 09/15/22 11:11

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	284296	R1K	EET PHX	09/20/22 14:35

Client Sample ID: TB-22M09 — Lab Sample ID: 550-190519-5

Date Collected: 09/15/22 08:00 — **Matrix: Water**
Date Received: 09/15/22 11:11

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	284296	R1K	EET PHX	09/20/22 14:56

Laboratory References:

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: CH2M Hill, Inc.
Project/Site: Deer Valley

Job ID: 550-190519-1
SDG: Phoenix, AZ

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
624.1		Water	1,2,4-Trichlorobenzene
624.1		Water	Trihalomethanes, Total

Method Summary

Client: CH2M Hill, Inc.
Project/Site: Deer Valley

Job ID: 550-190519-1
SDG: Phoenix, AZ

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	EET PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

Laboratory References:

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

190519

9/23/2022

Page 30 of 31

Test America Phoenix
4625 East Cotton CTr Blvd Suite 189
Phoenix, AZ 85040
602-437-3340

Honeywell — Chain Of Custody / Analysis Request

AESI Ref:	44819.40277
COC#	37553-091522
Lab Proj # (SDG):	
Lab ID	TAL-PHX
Site ID	DEERV
Lab Job #	
Authorized User:	Honeywell

Privileged & Confidential | 55014762

Site Name: Deer Valley
Location of Site: Phoenix AZ.
Phase: Sampling Program — Monthly Groundwater Monitoring Program

Sampling Co.: Jacobs
EDD To: Bernice Kidd, Jacobs HTS
Client Contact: (name, co., address)
Jacobs
1501 W. Fountainhead Parkway (suite 401)
Tempe, AZ 85282

Sampler: T. Kearsley
PO #: 4500178520
Analysis Turnaround Time (TAT): 10
Consultant: Jacobs
Laboratory Contact: Danielle Roberts
Report Tier Level: 2
Full Report TAT: 10
HTS

Preliminary Data To: Berney Kidd Jacobs, Lakshmi Devi HTS,
Sample Receipt Acknowledgement To: Site Distribution List
Hard Copy To: Berney Kidd Jacobs,
Invoice To: Tao Wu, Honeywell/Copy Berney Kidd

Text & Excel File Drive | Excel & Text File Order

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	Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID	Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	E624 (Total VOCs)	E300 0 (Nitrite-Nitrate)	MS/MSD	Sampling Method (code)	Lab Sample Numbers
											Units						
1	Influent			-1 INF-22M09	9/15/2022	9:00	GW-GWS	WATER	REG	3	grab	N	X				
2	Effluent			-2 EFF-22M09	9/15/2022	8:45	GW-GWS	WATER	REG	3	grab	N	X				
3	GAC2A 75%			-3 GAC-2A-75-22M09	9/15/2022	8:50	GW-GWS	WATER	REG	3	grab	N	X				
4	GAC2B Effluent			-4 GAC-2B-100-22M09	9/15/2022	8:52	GW-GWS	WATER	REG	3	grab	N	X				
5	TRIPBLANK			-5 TB-22M09	9/15/2022	8:00	GW-GWS	WATER	REG	1	grab	N	X				
6																	
7																	
8																	
9																	
10																	
11																	
12																	

550-190519 Chain of Custody

Relinquished by: T. Kearsley	Company: Jacobs	Received by:	Company:	Condition:	Custody Seals Intact:		
Date/Time: 9/15/22 1211		Date/Time:	Cooler Temp.:	n/A			
Relinquished by:	Company:	Received by: EETA-PHX	Company:	Condition:	Custody Seals Intact:		
Date/Time:		Date/Time: 9/15/22 1211	Cooler Temp.: 2.6°C	n/A			

Preservatives: (Other; Specify):

0 (none); 1 (4 Deg C); 2 (HCl, pH<2); 3 (HNO3, pH<2); 4 (H2SO4, pH<2); 5 (NaOH, pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4, pH<2, 4 Deg C)); 8 (HCl, pH<2, 4 Deg C); 9 (HCl, 4 Deg C); 10 (HNO3, pH<2, 4 Deg C); 11 (NaOH. pH>12, 4 Deg, Ascorbic Acid); 12 (H2SO4, Na2S2O3, 4 Deg C, pH<2); 13 (Zn Acetate); 14 (1-MeOH, 4 Deg C and 2-NaHSO4, 4 Deg C): 15 (NaOH, pH>12, 4 Deg C); sp (special instructions)

C.A.O

Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 550-190519-1
SDG Number: Phoenix, AZ

Login Number: 190519
List Number: 1
Creator: Maycock, Lisa

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.

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ANALYTICAL REPORT

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix, AZ 85040
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Laboratory Job ID: 550-191843-1
Laboratory Sample Delivery Group: Deer Valley
Client Project/Site: Monthly Groundwater Monitoring Program

For:
Jacobs Engineering Group, Inc.
1501 W Fountainhead Parkway
Suite 401
Tempe, Arizona 85282

Attn: Bernice Kidd

Authorized for release by:
10/13/2022 7:27:00 AM

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Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Sample Summary 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 16
QC Sample Results 17
QC Association Summary 26
Lab Chronicle 27
Certification Summary 28
Method Summary 29
Chain of Custody 30
Receipt Checklists 31

Definitions/Glossary

Client: Jacobs Engineering Group, Inc.
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-191843-1
SDG: Deer Valley

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
T5	Laboratory not licensed for this parameter

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: 550-191843-1

Laboratory: Eurofins Phoenix

Narrative

Job Narrative
550-191843-1

Comments
No additional comments.

Receipt
The samples were received on 10/11/2022 11:48 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.6º C.

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

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

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

Sample Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-191843-1
SDG: Deer Valley

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-191843-1	INF-22M10	Water	10/11/22 09:25	10/11/22 11:48
550-191843-2	EFF-22M10	Water	10/11/22 09:15	10/11/22 11:48
550-191843-3	GAC-2A-100-22M10	Water	10/11/22 09:20	10/11/22 11:48
550-191843-4	GAC-2B-75-22M10	Water	10/11/22 09:18	10/11/22 11:48
550-191843-5	TB-22M10	Water	10/11/22 08:00	10/11/22 11:48

Detection Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-191843-1
SDG: Deer Valley

Client Sample ID: INF-22M10 — Lab Sample ID: 550-191843-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.54		0.50		ug/L	1		624.1	Total/NA
cis-1,2-Dichloroethene	4.3		0.50		ug/L	1		624.1	Total/NA
Tetrachloroethene	1.1		0.50		ug/L	1		624.1	Total/NA
Trichloroethene	27		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	0.54	T5	0.50		ug/L	1		624.1	Total/NA
Nitrate as N	23		0.050		mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	23		0.050		mg/L	1		300.0	Total/NA

Client Sample ID: EFF-22M10 — Lab Sample ID: 550-191843-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	22		0.050		mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	22		0.050		mg/L	1		300.0	Total/NA

Client Sample ID: GAC-2A-100-22M10 — Lab Sample ID: 550-191843-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.66		0.50		ug/L	1		624.1	Total/NA
cis-1,2-Dichloroethene	2.6		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	0.66	T5	0.50		ug/L	1		624.1	Total/NA

Client Sample ID: GAC-2B-75-22M10 — Lab Sample ID: 550-191843-4

No Detections.

Client Sample ID: TB-22M10 — Lab Sample ID: 550-191843-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-191843-1
SDG: Deer Valley

Client Sample ID: INF-22M10

Date Collected: 10/11/22 09:25
Date Received: 10/11/22 11:48

Lab Sample ID: 550-191843-1

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			10/12/22 02:32	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/12/22 02:32	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/12/22 02:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			10/12/22 02:32	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/12/22 02:32	1
1,1-Dichloroethane	ND		0.50		ug/L			10/12/22 02:32	1
1,1-Dichloroethene	ND		0.50		ug/L			10/12/22 02:32	1
1,1-Dichloropropene	ND		0.50		ug/L			10/12/22 02:32	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			10/12/22 02:32	1
1,2,3-Trichloropropane	ND		2.0		ug/L			10/12/22 02:32	1
1,2,4-Trichlorobenzene	ND	T5	2.0		ug/L			10/12/22 02:32	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			10/12/22 02:32	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/12/22 02:32	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/12/22 02:32	1
1,2-Dichloroethane	ND		0.50		ug/L			10/12/22 02:32	1
1,2-Dichloropropane	ND		0.50		ug/L			10/12/22 02:32	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			10/12/22 02:32	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/12/22 02:32	1
1,3-Dichloropropane	ND		0.50		ug/L			10/12/22 02:32	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/12/22 02:32	1
2,2-Dichloropropane	ND		1.0		ug/L			10/12/22 02:32	1
2-Butanone (MEK)	ND		10		ug/L			10/12/22 02:32	1
2-Chlorotoluene	ND		0.50		ug/L			10/12/22 02:32	1
2-Hexanone	ND		5.0		ug/L			10/12/22 02:32	1
4-Chlorotoluene	ND		0.50		ug/L			10/12/22 02:32	1
4-Isopropyltoluene	ND		0.50		ug/L			10/12/22 02:32	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			10/12/22 02:32	1
Acetone	ND		10		ug/L			10/12/22 02:32	1
Benzene	ND		0.50		ug/L			10/12/22 02:32	1
Bromobenzene	ND		1.0		ug/L			10/12/22 02:32	1
Bromoform	ND		1.0		ug/L			10/12/22 02:32	1
Bromomethane	ND		5.0		ug/L			10/12/22 02:32	1
Carbon disulfide	ND		5.0		ug/L			10/12/22 02:32	1
Carbon tetrachloride	ND		0.50		ug/L			10/12/22 02:32	1
Chlorobenzene	ND		0.50		ug/L			10/12/22 02:32	1
Chlorobromomethane	ND		0.50		ug/L			10/12/22 02:32	1
Chlorodibromomethane	ND		0.50		ug/L			10/12/22 02:32	1
Chloroethane	ND		1.0		ug/L			10/12/22 02:32	1
Chloroform	**0.54**		0.50		ug/L			10/12/22 02:32	1
Chloromethane	ND		1.0		ug/L			10/12/22 02:32	1
cis-1,2-Dichloroethene	**4.3**		0.50		ug/L			10/12/22 02:32	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/12/22 02:32	1
Dibromomethane	ND		0.50		ug/L			10/12/22 02:32	1
Dichlorobromomethane	ND		0.50		ug/L			10/12/22 02:32	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/12/22 02:32	1
Ethanol	ND		150		ug/L			10/12/22 02:32	1
Ethylbenzene	ND		0.50		ug/L			10/12/22 02:32	1
Ethylene Dibromide	ND		0.50		ug/L			10/12/22 02:32	1
Hexachlorobutadiene	ND		5.0		ug/L			10/12/22 02:32	1

Client Sample ID: INF-22M10

Lab Sample ID: 550-191843-1

Date Collected: 10/11/22 09:25
Matrix: Water
Date Received: 10/11/22 11:48

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND		2.0	ug/L			10/12/22 02:32	1
Isopropylbenzene	ND		0.50	ug/L			10/12/22 02:32	1
Methyl tert-butyl ether	ND		0.50	ug/L			10/12/22 02:32	1
Methylene Chloride	ND		5.0	ug/L			10/12/22 02:32	1
m-Xylene & p-Xylene	ND		1.0	ug/L			10/12/22 02:32	1
Naphthalene	ND		5.0	ug/L			10/12/22 02:32	1
n-Butylbenzene	ND		1.0	ug/L			10/12/22 02:32	1
N-Propylbenzene	ND		0.50	ug/L			10/12/22 02:32	1
o-Xylene	ND		0.50	ug/L			10/12/22 02:32	1
sec-Butylbenzene	ND		0.50	ug/L			10/12/22 02:32	1
Styrene	ND		1.0	ug/L			10/12/22 02:32	1
tert-Butylbenzene	ND		0.50	ug/L			10/12/22 02:32	1
Tetrachloroethene	**1.1**		0.50	ug/L			10/12/22 02:32	1
Toluene	ND		0.50	ug/L			10/12/22 02:32	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			10/12/22 02:32	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			10/12/22 02:32	1
Trichloroethene	**27**		0.50	ug/L			10/12/22 02:32	1
Trichlorofluoromethane	ND		1.0	ug/L			10/12/22 02:32	1
Trihalomethanes, Total	**0.54**	**T5**	0.50	ug/L			10/12/22 02:32	1
Vinyl acetate	ND		5.0	ug/L			10/12/22 02:32	1
Vinyl chloride	ND		1.0	ug/L			10/12/22 02:32	1
Xylenes, Total	ND		0.50	ug/L			10/12/22 02:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*60 - 140*		*10/12/22 02:32*	*1*
Dibromofluoromethane (Surr)	*94*		*60 - 140*		*10/12/22 02:32*	*1*
Toluene-d8 (Surr)	*92*		*60 - 140*		*10/12/22 02:32*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**23**		0.050	mg/L			10/11/22 19:34	1
Nitrite as N	ND		0.050	mg/L			10/11/22 19:34	1
Nitrate Nitrite as N	**23**		0.050	mg/L			10/11/22 19:34	1

Client Sample ID: EFF-22M10

Lab Sample ID: 550-191843-2

Date Collected: 10/11/22 09:15
Matrix: Water
Date Received: 10/11/22 11:48

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			10/12/22 02:53	1
1,1,1-Trichloroethane	ND		0.50	ug/L			10/12/22 02:53	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			10/12/22 02:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			10/12/22 02:53	1
1,1,2-Trichloroethane	ND		0.50	ug/L			10/12/22 02:53	1
1,1-Dichloroethane	ND		0.50	ug/L			10/12/22 02:53	1
1,1-Dichloroethene	ND		0.50	ug/L			10/12/22 02:53	1
1,1-Dichloropropene	ND		0.50	ug/L			10/12/22 02:53	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			10/12/22 02:53	1
1,2,3-Trichloropropane	ND		2.0	ug/L			10/12/22 02:53	1

Client Sample ID: EFF-22M10

Date Collected: 10/11/22 09:15
Date Received: 10/11/22 11:48

Lab Sample ID: 550-191843-2

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND	T5	2.0		ug/L			10/12/22 02:53	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			10/12/22 02:53	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/12/22 02:53	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/12/22 02:53	1
1,2-Dichloroethane	ND		0.50		ug/L			10/12/22 02:53	1
1,2-Dichloropropane	ND		0.50		ug/L			10/12/22 02:53	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			10/12/22 02:53	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/12/22 02:53	1
1,3-Dichloropropane	ND		0.50		ug/L			10/12/22 02:53	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/12/22 02:53	1
2,2-Dichloropropane	ND		1.0		ug/L			10/12/22 02:53	1
2-Butanone (MEK)	ND		10		ug/L			10/12/22 02:53	1
2-Chlorotoluene	ND		0.50		ug/L			10/12/22 02:53	1
2-Hexanone	ND		5.0		ug/L			10/12/22 02:53	1
4-Chlorotoluene	ND		0.50		ug/L			10/12/22 02:53	1
4-Isopropyltoluene	ND		0.50		ug/L			10/12/22 02:53	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			10/12/22 02:53	1
Acetone	ND		10		ug/L			10/12/22 02:53	1
Benzene	ND		0.50		ug/L			10/12/22 02:53	1
Bromobenzene	ND		1.0		ug/L			10/12/22 02:53	1
Bromoform	ND		1.0		ug/L			10/12/22 02:53	1
Bromomethane	ND		5.0		ug/L			10/12/22 02:53	1
Carbon disulfide	ND		5.0		ug/L			10/12/22 02:53	1
Carbon tetrachloride	ND		0.50		ug/L			10/12/22 02:53	1
Chlorobenzene	ND		0.50		ug/L			10/12/22 02:53	1
Chlorobromomethane	ND		0.50		ug/L			10/12/22 02:53	1
Chlorodibromomethane	ND		0.50		ug/L			10/12/22 02:53	1
Chloroethane	ND		1.0		ug/L			10/12/22 02:53	1
Chloroform	ND		0.50		ug/L			10/12/22 02:53	1
Chloromethane	ND		1.0		ug/L			10/12/22 02:53	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			10/12/22 02:53	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/12/22 02:53	1
Dibromomethane	ND		0.50		ug/L			10/12/22 02:53	1
Dichlorobromomethane	ND		0.50		ug/L			10/12/22 02:53	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/12/22 02:53	1
Ethanol	ND		150		ug/L			10/12/22 02:53	1
Ethylbenzene	ND		0.50		ug/L			10/12/22 02:53	1
Ethylene Dibromide	ND		0.50		ug/L			10/12/22 02:53	1
Hexachlorobutadiene	ND		5.0		ug/L			10/12/22 02:53	1
Iodomethane	ND		2.0		ug/L			10/12/22 02:53	1
Isopropylbenzene	ND		0.50		ug/L			10/12/22 02:53	1
Methyl tert-butyl ether	ND		0.50		ug/L			10/12/22 02:53	1
Methylene Chloride	ND		5.0		ug/L			10/12/22 02:53	1
m-Xylene & p-Xylene	ND		1.0		ug/L			10/12/22 02:53	1
Naphthalene	ND		5.0		ug/L			10/12/22 02:53	1
n-Butylbenzene	ND		1.0		ug/L			10/12/22 02:53	1
N-Propylbenzene	ND		0.50		ug/L			10/12/22 02:53	1
o-Xylene	ND		0.50		ug/L			10/12/22 02:53	1
sec-Butylbenzene	ND		0.50		ug/L			10/12/22 02:53	1

Client Sample ID: EFF-22M10

Lab Sample ID: 550-191843-2

Date Collected: 10/11/22 09:15
Matrix: Water
Date Received: 10/11/22 11:48

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	ug/L			10/12/22 02:53	1
tert-Butylbenzene	ND		0.50	ug/L			10/12/22 02:53	1
Tetrachloroethene	ND		0.50	ug/L			10/12/22 02:53	1
Toluene	ND		0.50	ug/L			10/12/22 02:53	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			10/12/22 02:53	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			10/12/22 02:53	1
Trichloroethene	ND		0.50	ug/L			10/12/22 02:53	1
Trichlorofluoromethane	ND		1.0	ug/L			10/12/22 02:53	1
Trihalomethanes, Total	ND	T5	0.50	ug/L			10/12/22 02:53	1
Vinyl acetate	ND		5.0	ug/L			10/12/22 02:53	1
Vinyl chloride	ND		1.0	ug/L			10/12/22 02:53	1
Xylenes, Total	ND		0.50	ug/L			10/12/22 02:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*10/12/22 02:53*	*1*
Dibromofluoromethane (Surr)	*94*		*60 - 140*		*10/12/22 02:53*	*1*
Toluene-d8 (Surr)	*91*		*60 - 140*		*10/12/22 02:53*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	22		0.050	mg/L			10/11/22 20:02	1
Nitrite as N	ND		0.050	mg/L			10/11/22 20:02	1
Nitrate Nitrite as N	22		0.050	mg/L			10/11/22 20:02	1

Client Sample ID: GAC-2A-100-22M10

Lab Sample ID: 550-191843-3

Date Collected: 10/11/22 09:20
Matrix: Water
Date Received: 10/11/22 11:48

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			10/12/22 03:14	1
1,1,1-Trichloroethane	ND		0.50	ug/L			10/12/22 03:14	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			10/12/22 03:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			10/12/22 03:14	1
1,1,2-Trichloroethane	ND		0.50	ug/L			10/12/22 03:14	1
1,1-Dichloroethane	ND		0.50	ug/L			10/12/22 03:14	1
1,1-Dichloroethene	ND		0.50	ug/L			10/12/22 03:14	1
1,1-Dichloropropene	ND		0.50	ug/L			10/12/22 03:14	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			10/12/22 03:14	1
1,2,3-Trichloropropane	ND		2.0	ug/L			10/12/22 03:14	1
1,2,4-Trichlorobenzene	ND	T5	2.0	ug/L			10/12/22 03:14	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			10/12/22 03:14	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			10/12/22 03:14	1
1,2-Dichlorobenzene	ND		0.50	ug/L			10/12/22 03:14	1
1,2-Dichloroethane	ND		0.50	ug/L			10/12/22 03:14	1
1,2-Dichloropropane	ND		0.50	ug/L			10/12/22 03:14	1
1,3,5-Trimethylbenzene	ND		0.50	ug/L			10/12/22 03:14	1
1,3-Dichlorobenzene	ND		0.50	ug/L			10/12/22 03:14	1
1,3-Dichloropropane	ND		0.50	ug/L			10/12/22 03:14	1
1,4-Dichlorobenzene	ND		0.50	ug/L			10/12/22 03:14	1

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-191843-1
SDG: Deer Valley

Client Sample ID: GAC-2A-100-22M10

Lab Sample ID: 550-191843-3

Date Collected: 10/11/22 09:20
Date Received: 10/11/22 11:48

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND		1.0		ug/L			10/12/22 03:14	1
2-Butanone (MEK)	ND		10		ug/L			10/12/22 03:14	1
2-Chlorotoluene	ND		0.50		ug/L			10/12/22 03:14	1
2-Hexanone	ND		5.0		ug/L			10/12/22 03:14	1
4-Chlorotoluene	ND		0.50		ug/L			10/12/22 03:14	1
4-Isopropyltoluene	ND		0.50		ug/L			10/12/22 03:14	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			10/12/22 03:14	1
Acetone	ND		10		ug/L			10/12/22 03:14	1
Benzene	ND		0.50		ug/L			10/12/22 03:14	1
Bromobenzene	ND		1.0		ug/L			10/12/22 03:14	1
Bromoform	ND		1.0		ug/L			10/12/22 03:14	1
Bromomethane	ND		5.0		ug/L			10/12/22 03:14	1
Carbon disulfide	ND		5.0		ug/L			10/12/22 03:14	1
Carbon tetrachloride	ND		0.50		ug/L			10/12/22 03:14	1
Chlorobenzene	ND		0.50		ug/L			10/12/22 03:14	1
Chlorobromomethane	ND		0.50		ug/L			10/12/22 03:14	1
Chlorodibromomethane	ND		0.50		ug/L			10/12/22 03:14	1
Chloroethane	ND		1.0		ug/L			10/12/22 03:14	1
Chloroform	**0.66**		0.50		ug/L			10/12/22 03:14	1
Chloromethane	ND		1.0		ug/L			10/12/22 03:14	1
cis-1,2-Dichloroethene	**2.6**		0.50		ug/L			10/12/22 03:14	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/12/22 03:14	1
Dibromomethane	ND		0.50		ug/L			10/12/22 03:14	1
Dichlorobromomethane	ND		0.50		ug/L			10/12/22 03:14	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/12/22 03:14	1
Ethanol	ND		150		ug/L			10/12/22 03:14	1
Ethylbenzene	ND		0.50		ug/L			10/12/22 03:14	1
Ethylene Dibromide	ND		0.50		ug/L			10/12/22 03:14	1
Hexachlorobutadiene	ND		5.0		ug/L			10/12/22 03:14	1
Iodomethane	ND		2.0		ug/L			10/12/22 03:14	1
Isopropylbenzene	ND		0.50		ug/L			10/12/22 03:14	1
Methyl tert-butyl ether	ND		0.50		ug/L			10/12/22 03:14	1
Methylene Chloride	ND		5.0		ug/L			10/12/22 03:14	1
m-Xylene & p-Xylene	ND		1.0		ug/L			10/12/22 03:14	1
Naphthalene	ND		5.0		ug/L			10/12/22 03:14	1
n-Butylbenzene	ND		1.0		ug/L			10/12/22 03:14	1
N-Propylbenzene	ND		0.50		ug/L			10/12/22 03:14	1
o-Xylene	ND		0.50		ug/L			10/12/22 03:14	1
sec-Butylbenzene	ND		0.50		ug/L			10/12/22 03:14	1
Styrene	ND		1.0		ug/L			10/12/22 03:14	1
tert-Butylbenzene	ND		0.50		ug/L			10/12/22 03:14	1
Tetrachloroethene	ND		0.50		ug/L			10/12/22 03:14	1
Toluene	ND		0.50		ug/L			10/12/22 03:14	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/12/22 03:14	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/12/22 03:14	1
Trichloroethene	ND		0.50		ug/L			10/12/22 03:14	1
Trichlorofluoromethane	ND		1.0		ug/L			10/12/22 03:14	1
Trihalomethanes, Total	**0.66**	**T5**	0.50		ug/L			10/12/22 03:14	1
Vinyl acetate	ND		5.0		ug/L			10/12/22 03:14	1

Client Sample ID: GAC-2A-100-22M10

Lab Sample ID: 550-191843-3

Date Collected: 10/11/22 09:20
Matrix: Water
Date Received: 10/11/22 11:48

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		1.0	ug/L			10/12/22 03:14	1
Xylenes, Total	ND		0.50	ug/L			10/12/22 03:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*10/12/22 03:14*	*1*
Dibromofluoromethane (Surr)	*94*		*60 - 140*		*10/12/22 03:14*	*1*
Toluene-d8 (Surr)	*92*		*60 - 140*		*10/12/22 03:14*	*1*

Client Sample ID: GAC-2B-75-22M10

Lab Sample ID: 550-191843-4

Date Collected: 10/11/22 09:18
Matrix: Water
Date Received: 10/11/22 11:48

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			10/12/22 03:35	1
1,1,1-Trichloroethane	ND		0.50	ug/L			10/12/22 03:35	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			10/12/22 03:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			10/12/22 03:35	1
1,1,2-Trichloroethane	ND		0.50	ug/L			10/12/22 03:35	1
1,1-Dichloroethane	ND		0.50	ug/L			10/12/22 03:35	1
1,1-Dichloroethene	ND		0.50	ug/L			10/12/22 03:35	1
1,1-Dichloropropene	ND		0.50	ug/L			10/12/22 03:35	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			10/12/22 03:35	1
1,2,3-Trichloropropane	ND		2.0	ug/L			10/12/22 03:35	1
1,2,4-Trichlorobenzene	ND	T5	2.0	ug/L			10/12/22 03:35	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			10/12/22 03:35	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			10/12/22 03:35	1
1,2-Dichlorobenzene	ND		0.50	ug/L			10/12/22 03:35	1
1,2-Dichloroethane	ND		0.50	ug/L			10/12/22 03:35	1
1,2-Dichloropropane	ND		0.50	ug/L			10/12/22 03:35	1
1,3,5-Trimethylbenzene	ND		0.50	ug/L			10/12/22 03:35	1
1,3-Dichlorobenzene	ND		0.50	ug/L			10/12/22 03:35	1
1,3-Dichloropropane	ND		0.50	ug/L			10/12/22 03:35	1
1,4-Dichlorobenzene	ND		0.50	ug/L			10/12/22 03:35	1
2,2-Dichloropropane	ND		1.0	ug/L			10/12/22 03:35	1
2-Butanone (MEK)	ND		10	ug/L			10/12/22 03:35	1
2-Chlorotoluene	ND		0.50	ug/L			10/12/22 03:35	1
2-Hexanone	ND		5.0	ug/L			10/12/22 03:35	1
4-Chlorotoluene	ND		0.50	ug/L			10/12/22 03:35	1
4-Isopropyltoluene	ND		0.50	ug/L			10/12/22 03:35	1
4-Methyl-2-pentanone (MIBK)	ND		2.5	ug/L			10/12/22 03:35	1
Acetone	ND		10	ug/L			10/12/22 03:35	1
Benzene	ND		0.50	ug/L			10/12/22 03:35	1
Bromobenzene	ND		1.0	ug/L			10/12/22 03:35	1
Bromoform	ND		1.0	ug/L			10/12/22 03:35	1
Bromomethane	ND		5.0	ug/L			10/12/22 03:35	1
Carbon disulfide	ND		5.0	ug/L			10/12/22 03:35	1
Carbon tetrachloride	ND		0.50	ug/L			10/12/22 03:35	1
Chlorobenzene	ND		0.50	ug/L			10/12/22 03:35	1
Chlorobromomethane	ND		0.50	ug/L			10/12/22 03:35	1

Client Sample ID: GAC-2B-75-22M10

Lab Sample ID: 550-191843-4

Date Collected: 10/11/22 09:18
Matrix: Water
Date Received: 10/11/22 11:48

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodibromomethane	ND		0.50	ug/L			10/12/22 03:35	1
Chloroethane	ND		1.0	ug/L			10/12/22 03:35	1
Chloroform	ND		0.50	ug/L			10/12/22 03:35	1
Chloromethane	ND		1.0	ug/L			10/12/22 03:35	1
cis-1,2-Dichloroethene	ND		0.50	ug/L			10/12/22 03:35	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			10/12/22 03:35	1
Dibromomethane	ND		0.50	ug/L			10/12/22 03:35	1
Dichlorobromomethane	ND		0.50	ug/L			10/12/22 03:35	1
Dichlorodifluoromethane	ND		1.0	ug/L			10/12/22 03:35	1
Ethanol	ND		150	ug/L			10/12/22 03:35	1
Ethylbenzene	ND		0.50	ug/L			10/12/22 03:35	1
Ethylene Dibromide	ND		0.50	ug/L			10/12/22 03:35	1
Hexachlorobutadiene	ND		5.0	ug/L			10/12/22 03:35	1
Iodomethane	ND		2.0	ug/L			10/12/22 03:35	1
Isopropylbenzene	ND		0.50	ug/L			10/12/22 03:35	1
Methyl tert-butyl ether	ND		0.50	ug/L			10/12/22 03:35	1
Methylene Chloride	ND		5.0	ug/L			10/12/22 03:35	1
m-Xylene & p-Xylene	ND		1.0	ug/L			10/12/22 03:35	1
Naphthalene	ND		5.0	ug/L			10/12/22 03:35	1
n-Butylbenzene	ND		1.0	ug/L			10/12/22 03:35	1
N-Propylbenzene	ND		0.50	ug/L			10/12/22 03:35	1
o-Xylene	ND		0.50	ug/L			10/12/22 03:35	1
sec-Butylbenzene	ND		0.50	ug/L			10/12/22 03:35	1
Styrene	ND		1.0	ug/L			10/12/22 03:35	1
tert-Butylbenzene	ND		0.50	ug/L			10/12/22 03:35	1
Tetrachloroethene	ND		0.50	ug/L			10/12/22 03:35	1
Toluene	ND		0.50	ug/L			10/12/22 03:35	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			10/12/22 03:35	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			10/12/22 03:35	1
Trichloroethene	ND		0.50	ug/L			10/12/22 03:35	1
Trichlorofluoromethane	ND		1.0	ug/L			10/12/22 03:35	1
Trihalomethanes, Total	ND	T5	0.50	ug/L			10/12/22 03:35	1
Vinyl acetate	ND		5.0	ug/L			10/12/22 03:35	1
Vinyl chloride	ND		1.0	ug/L			10/12/22 03:35	1
Xylenes, Total	ND		0.50	ug/L			10/12/22 03:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*10/12/22 03:35*	*1*
Dibromofluoromethane (Surr)	*95*		*60 - 140*		*10/12/22 03:35*	*1*
Toluene-d8 (Surr)	*92*		*60 - 140*		*10/12/22 03:35*	*1*

Client Sample ID: TB-22M10

Lab Sample ID: 550-191843-5

Date Collected: 10/11/22 08:00
Matrix: Water
Date Received: 10/11/22 11:48

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			10/11/22 23:24	1
1,1,1-Trichloroethane	ND		0.50	ug/L			10/11/22 23:24	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			10/11/22 23:24	1

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-191843-1
SDG: Deer Valley

Client Sample ID: TB-22M10

Date Collected: 10/11/22 08:00
Date Received: 10/11/22 11:48

Lab Sample ID: 550-191843-5

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			10/11/22 23:24	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/11/22 23:24	1
1,1-Dichloroethane	ND		0.50		ug/L			10/11/22 23:24	1
1,1-Dichloroethene	ND		0.50		ug/L			10/11/22 23:24	1
1,1-Dichloropropene	ND		0.50		ug/L			10/11/22 23:24	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			10/11/22 23:24	1
1,2,3-Trichloropropane	ND		2.0		ug/L			10/11/22 23:24	1
1,2,4-Trichlorobenzene	ND	T5	2.0		ug/L			10/11/22 23:24	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			10/11/22 23:24	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/11/22 23:24	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/11/22 23:24	1
1,2-Dichloroethane	ND		0.50		ug/L			10/11/22 23:24	1
1,2-Dichloropropane	ND		0.50		ug/L			10/11/22 23:24	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			10/11/22 23:24	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/11/22 23:24	1
1,3-Dichloropropane	ND		0.50		ug/L			10/11/22 23:24	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/11/22 23:24	1
2,2-Dichloropropane	ND		1.0		ug/L			10/11/22 23:24	1
2-Butanone (MEK)	ND		10		ug/L			10/11/22 23:24	1
2-Chlorotoluene	ND		0.50		ug/L			10/11/22 23:24	1
2-Hexanone	ND		5.0		ug/L			10/11/22 23:24	1
4-Chlorotoluene	ND		0.50		ug/L			10/11/22 23:24	1
4-Isopropyltoluene	ND		0.50		ug/L			10/11/22 23:24	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			10/11/22 23:24	1
Acetone	ND		10		ug/L			10/11/22 23:24	1
Benzene	ND		0.50		ug/L			10/11/22 23:24	1
Bromobenzene	ND		1.0		ug/L			10/11/22 23:24	1
Bromoform	ND		1.0		ug/L			10/11/22 23:24	1
Bromomethane	ND		5.0		ug/L			10/11/22 23:24	1
Carbon disulfide	ND		5.0		ug/L			10/11/22 23:24	1
Carbon tetrachloride	ND		0.50		ug/L			10/11/22 23:24	1
Chlorobenzene	ND		0.50		ug/L			10/11/22 23:24	1
Chlorobromomethane	ND		0.50		ug/L			10/11/22 23:24	1
Chlorodibromomethane	ND		0.50		ug/L			10/11/22 23:24	1
Chloroethane	ND		1.0		ug/L			10/11/22 23:24	1
Chloroform	ND		0.50		ug/L			10/11/22 23:24	1
Chloromethane	ND		1.0		ug/L			10/11/22 23:24	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			10/11/22 23:24	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/11/22 23:24	1
Dibromomethane	ND		0.50		ug/L			10/11/22 23:24	1
Dichlorobromomethane	ND		0.50		ug/L			10/11/22 23:24	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/11/22 23:24	1
Ethanol	ND		150		ug/L			10/11/22 23:24	1
Ethylbenzene	ND		0.50		ug/L			10/11/22 23:24	1
Ethylene Dibromide	ND		0.50		ug/L			10/11/22 23:24	1
Hexachlorobutadiene	ND		5.0		ug/L			10/11/22 23:24	1
Iodomethane	ND		2.0		ug/L			10/11/22 23:24	1
Isopropylbenzene	ND		0.50		ug/L			10/11/22 23:24	1
Methyl tert-butyl ether	ND		0.50		ug/L			10/11/22 23:24	1

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-191843-1
SDG: Deer Valley

Client Sample ID: TB-22M10

Lab Sample ID: 550-191843-5

Date Collected: 10/11/22 08:00
Date Received: 10/11/22 11:48

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		5.0		ug/L			10/11/22 23:24	1
m-Xylene & p-Xylene	ND		1.0		ug/L			10/11/22 23:24	1
Naphthalene	ND		5.0		ug/L			10/11/22 23:24	1
n-Butylbenzene	ND		1.0		ug/L			10/11/22 23:24	1
N-Propylbenzene	ND		0.50		ug/L			10/11/22 23:24	1
o-Xylene	ND		0.50		ug/L			10/11/22 23:24	1
sec-Butylbenzene	ND		0.50		ug/L			10/11/22 23:24	1
Styrene	ND		1.0		ug/L			10/11/22 23:24	1
tert-Butylbenzene	ND		0.50		ug/L			10/11/22 23:24	1
Tetrachloroethene	ND		0.50		ug/L			10/11/22 23:24	1
Toluene	ND		0.50		ug/L			10/11/22 23:24	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/11/22 23:24	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/11/22 23:24	1
Trichloroethene	ND		0.50		ug/L			10/11/22 23:24	1
Trichlorofluoromethane	ND		1.0		ug/L			10/11/22 23:24	1
Trihalomethanes, Total	ND	T5	0.50		ug/L			10/11/22 23:24	1
Vinyl acetate	ND		5.0		ug/L			10/11/22 23:24	1
Vinyl chloride	ND		1.0		ug/L			10/11/22 23:24	1
Xylenes, Total	ND		0.50		ug/L			10/11/22 23:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*10/11/22 23:24*	*1*
Dibromofluoromethane (Surr)	*95*		*60 - 140*		*10/11/22 23:24*	*1*
Toluene-d8 (Surr)	*90*		*60 - 140*		*10/11/22 23:24*	*1*

Surrogate Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-191843-1
SDG: Deer Valley

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	**Client Sample ID**	**(60-140)**	**(60-140)**	**(60-140)**
550-191679-B-2 MS	Matrix Spike	92	97	93
550-191679-B-2 MSD	Matrix Spike Duplicate	92	96	92
550-191843-1	INF-22M10	86	94	92
550-191843-2	EFF-22M10	89	94	91
550-191843-3	GAC-2A-100-22M10	88	94	92
550-191843-4	GAC-2B-75-22M10	89	95	92
550-191843-5	TB-22M10	88	95	90
LCS 550-286121/3	Lab Control Sample	92	95	92
LCSD 550-286121/4	Lab Control Sample Dup	94	98	94
MB 550-286121/6	Method Blank	88	92	92

Surrogate Legend

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

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-286121/6
Matrix: Water
Analysis Batch: 286121

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		0.50		ug/L			10/11/22 23:03	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/11/22 23:03	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/11/22 23:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			10/11/22 23:03	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/11/22 23:03	1
1,1-Dichloroethane	ND		0.50		ug/L			10/11/22 23:03	1
1,1-Dichloroethene	ND		0.50		ug/L			10/11/22 23:03	1
1,1-Dichloropropene	ND		0.50		ug/L			10/11/22 23:03	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			10/11/22 23:03	1
1,2,3-Trichloropropane	ND		2.0		ug/L			10/11/22 23:03	1
1,2,4-Trichlorobenzene	ND		2.0		ug/L			10/11/22 23:03	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			10/11/22 23:03	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/11/22 23:03	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/11/22 23:03	1
1,2-Dichloroethane	ND		0.50		ug/L			10/11/22 23:03	1
1,2-Dichloropropane	ND		0.50		ug/L			10/11/22 23:03	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			10/11/22 23:03	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/11/22 23:03	1
1,3-Dichloropropane	ND		0.50		ug/L			10/11/22 23:03	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/11/22 23:03	1
2,2-Dichloropropane	ND		1.0		ug/L			10/11/22 23:03	1
2-Butanone (MEK)	ND		10		ug/L			10/11/22 23:03	1
2-Chlorotoluene	ND		0.50		ug/L			10/11/22 23:03	1
2-Hexanone	ND		5.0		ug/L			10/11/22 23:03	1
4-Chlorotoluene	ND		0.50		ug/L			10/11/22 23:03	1
4-Isopropyltoluene	ND		0.50		ug/L			10/11/22 23:03	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			10/11/22 23:03	1
Acetone	ND		10		ug/L			10/11/22 23:03	1
Benzene	ND		0.50		ug/L			10/11/22 23:03	1
Bromobenzene	ND		1.0		ug/L			10/11/22 23:03	1
Bromoform	ND		1.0		ug/L			10/11/22 23:03	1
Bromomethane	ND		5.0		ug/L			10/11/22 23:03	1
Carbon disulfide	ND		5.0		ug/L			10/11/22 23:03	1
Carbon tetrachloride	ND		0.50		ug/L			10/11/22 23:03	1
Chlorobenzene	ND		0.50		ug/L			10/11/22 23:03	1
Chlorobromomethane	ND		0.50		ug/L			10/11/22 23:03	1
Chlorodibromomethane	ND		0.50		ug/L			10/11/22 23:03	1
Chloroethane	ND		1.0		ug/L			10/11/22 23:03	1
Chloroform	ND		0.50		ug/L			10/11/22 23:03	1
Chloromethane	ND		1.0		ug/L			10/11/22 23:03	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			10/11/22 23:03	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/11/22 23:03	1
Dibromomethane	ND		0.50		ug/L			10/11/22 23:03	1
Dichlorobromomethane	ND		0.50		ug/L			10/11/22 23:03	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/11/22 23:03	1
Ethanol	ND		150		ug/L			10/11/22 23:03	1
Ethylbenzene	ND		0.50		ug/L			10/11/22 23:03	1
Ethylene Dibromide	ND		0.50		ug/L			10/11/22 23:03	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-286121/6
Matrix: Water
Analysis Batch: 286121

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		5.0		ug/L			10/11/22 23:03	1
Iodomethane	ND		2.0		ug/L			10/11/22 23:03	1
Isopropylbenzene	ND		0.50		ug/L			10/11/22 23:03	1
Methyl tert-butyl ether	ND		0.50		ug/L			10/11/22 23:03	1
Methylene Chloride	ND		5.0		ug/L			10/11/22 23:03	1
m-Xylene & p-Xylene	ND		1.0		ug/L			10/11/22 23:03	1
Naphthalene	ND		5.0		ug/L			10/11/22 23:03	1
n-Butylbenzene	ND		1.0		ug/L			10/11/22 23:03	1
N-Propylbenzene	ND		0.50		ug/L			10/11/22 23:03	1
o-Xylene	ND		0.50		ug/L			10/11/22 23:03	1
sec-Butylbenzene	ND		0.50		ug/L			10/11/22 23:03	1
Styrene	ND		1.0		ug/L			10/11/22 23:03	1
tert-Butylbenzene	ND		0.50		ug/L			10/11/22 23:03	1
Tetrachloroethene	ND		0.50		ug/L			10/11/22 23:03	1
Toluene	ND		0.50		ug/L			10/11/22 23:03	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/11/22 23:03	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/11/22 23:03	1
Trichloroethene	ND		0.50		ug/L			10/11/22 23:03	1
Trichlorofluoromethane	ND		1.0		ug/L			10/11/22 23:03	1
Trihalomethanes, Total	ND		0.50		ug/L			10/11/22 23:03	1
Vinyl acetate	ND		5.0		ug/L			10/11/22 23:03	1
Vinyl chloride	ND		1.0		ug/L			10/11/22 23:03	1
Xylenes, Total	ND		0.50		ug/L			10/11/22 23:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*10/11/22 23:03*	*1*
Dibromofluoromethane (Surr)	*92*		*60 - 140*		*10/11/22 23:03*	*1*
Toluene-d8 (Surr)	*92*		*60 - 140*		*10/11/22 23:03*	*1*

Lab Sample ID: LCS 550-286121/3
Matrix: Water
Analysis Batch: 286121

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	43.1		ug/L		86	60 - 140
1,1,1-Trichloroethane	50.0	41.3		ug/L		83	70 - 130
1,1,2,2-Tetrachloroethane	50.0	45.8		ug/L		92	60 - 140
1,1,2-Trichloroethane	50.0	43.4		ug/L		87	70 - 130
1,1-Dichloroethane	50.0	42.4		ug/L		85	70 - 130
1,1-Dichloroethene	50.0	41.4		ug/L		83	50 - 150
1,1-Dichloropropene	50.0	41.0		ug/L		82	60 - 140
1,2,3-Trichlorobenzene	50.0	44.1		ug/L		88	60 - 140
1,2,3-Trichloropropane	50.0	43.5		ug/L		87	60 - 140
1,2,4-Trichlorobenzene	50.0	42.8		ug/L		86	60 - 140
1,2,4-Trimethylbenzene	50.0	43.4		ug/L		87	60 - 140
1,2-Dibromo-3-Chloropropane	50.0	44.4		ug/L		89	60 - 140
1,2-Dichlorobenzene	50.0	43.3		ug/L		87	65 - 135
1,2-Dichloroethane	50.0	41.8		ug/L		84	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-286121/3
Matrix: Water
Analysis Batch: 286121

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dichloropropane	50.0	43.8		ug/L		88	35 - 165
1,3,5-Trimethylbenzene	50.0	42.0		ug/L		84	60 - 140
1,3-Dichlorobenzene	50.0	43.1		ug/L		86	70 - 130
1,3-Dichloropropane	50.0	44.1		ug/L		88	60 - 140
1,4-Dichlorobenzene	50.0	42.1		ug/L		84	65 - 135
2,2-Dichloropropane	50.0	40.5		ug/L		81	60 - 140
2-Butanone (MEK)	50.0	41.9		ug/L		84	60 - 140
2-Chlorotoluene	50.0	43.8		ug/L		88	60 - 140
2-Hexanone	50.0	40.9		ug/L		82	60 - 140
4-Chlorotoluene	50.0	42.3		ug/L		85	60 - 140
4-Isopropyltoluene	50.0	44.1		ug/L		88	60 - 140
4-Methyl-2-pentanone (MIBK)	50.0	40.8		ug/L		82	60 - 140
Acetone	50.0	45.8		ug/L		92	18 - 150
Benzene	50.0	41.7		ug/L		83	65 - 135
Bromobenzene	50.0	44.2		ug/L		88	60 - 140
Bromoform	50.0	46.3		ug/L		93	70 - 130
Bromomethane	50.0	43.0		ug/L		86	15 - 185
Carbon disulfide	50.0	39.9		ug/L		80	60 - 140
Carbon tetrachloride	50.0	41.0		ug/L		82	70 - 130
Chlorobenzene	50.0	42.2		ug/L		84	65 - 135
Chlorobromomethane	50.0	42.4		ug/L		85	60 - 140
Chlorodibromomethane	50.0	44.2		ug/L		88	70 - 135
Chloroethane	50.0	42.8		ug/L		86	40 - 160
Chloroform	50.0	42.4		ug/L		85	70 - 135
Chloromethane	50.0	42.0		ug/L		84	10 - 205
cis-1,2-Dichloroethene	50.0	41.9		ug/L		84	60 - 140
cis-1,3-Dichloropropene	50.0	43.3		ug/L		87	25 - 175
Dibromomethane	50.0	41.6		ug/L		83	70 - 130
Dichlorobromomethane	50.0	43.7		ug/L		87	65 - 135
Dichlorodifluoromethane	50.0	43.1		ug/L		86	60 - 140
Ethanol	1000	880		ug/L		88	60 - 140
Ethylbenzene	50.0	41.8		ug/L		84	60 - 140
Ethylene Dibromide	50.0	43.0		ug/L		86	60 - 140
Hexachlorobutadiene	50.0	43.0		ug/L		86	60 - 140
Iodomethane	50.0	41.3		ug/L		83	60 - 140
Isopropylbenzene	50.0	44.5		ug/L		89	60 - 140
Methyl tert-butyl ether	50.0	43.9		ug/L		88	60 - 140
Methylene Chloride	50.0	39.1		ug/L		78	60 - 140
m-Xylene & p-Xylene	50.0	43.6		ug/L		87	60 - 140
Naphthalene	50.0	44.3		ug/L		89	60 - 140
n-Butylbenzene	50.0	43.1		ug/L		86	60 - 140
N-Propylbenzene	50.0	43.0		ug/L		86	60 - 140
o-Xylene	50.0	44.8		ug/L		90	60 - 140
sec-Butylbenzene	50.0	44.4		ug/L		89	60 - 140
Styrene	50.0	43.6		ug/L		87	60 - 140
tert-Butylbenzene	50.0	44.8		ug/L		90	60 - 140
Tetrachloroethene	50.0	39.2		ug/L		78	70 - 130
Toluene	50.0	42.4		ug/L		85	70 - 130
trans-1,2-Dichloroethene	50.0	41.7		ug/L		83	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-286121/3
Matrix: Water
Analysis Batch: 286121

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
trans-1,3-Dichloropropene	50.0	43.6		ug/L		87	50 - 150
Trichloroethene	50.0	41.1		ug/L		82	65 - 135
Trichlorofluoromethane	50.0	41.5		ug/L		83	50 - 150
Vinyl acetate	50.0	43.0		ug/L		86	60 - 140
Vinyl chloride	50.0	42.9		ug/L		86	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*
Dibromofluoromethane (Surr)	*95*		*60 - 140*
Toluene-d8 (Surr)	*92*		*60 - 140*

Lab Sample ID: LCSD 550-286121/4
Matrix: Water
Analysis Batch: 286121

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	43.6		ug/L		87	60 - 140	1	20
1,1,1-Trichloroethane	50.0	42.7		ug/L		85	70 - 130	3	20
1,1,2,2-Tetrachloroethane	50.0	46.0		ug/L		92	60 - 140	0	20
1,1,2-Trichloroethane	50.0	44.0		ug/L		88	70 - 130	1	20
1,1-Dichloroethane	50.0	43.5		ug/L		87	70 - 130	3	20
1,1-Dichloroethene	50.0	42.2		ug/L		84	50 - 150	2	20
1,1-Dichloropropene	50.0	41.3		ug/L		83	60 - 140	1	20
1,2,3-Trichlorobenzene	50.0	43.7		ug/L		87	60 - 140	1	20
1,2,3-Trichloropropane	50.0	43.3		ug/L		87	60 - 140	1	20
1,2,4-Trichlorobenzene	50.0	43.3		ug/L		87	60 - 140	1	20
1,2,4-Trimethylbenzene	50.0	44.2		ug/L		88	60 - 140	2	20
1,2-Dibromo-3-Chloropropane	50.0	43.8		ug/L		88	60 - 140	1	20
1,2-Dichlorobenzene	50.0	44.0		ug/L		88	65 - 135	1	20
1,2-Dichloroethane	50.0	42.1		ug/L		84	70 - 130	1	20
1,2-Dichloropropane	50.0	44.7		ug/L		89	35 - 165	2	20
1,3,5-Trimethylbenzene	50.0	42.7		ug/L		85	60 - 140	2	20
1,3-Dichlorobenzene	50.0	43.6		ug/L		87	70 - 130	1	20
1,3-Dichloropropane	50.0	44.3		ug/L		89	60 - 140	1	20
1,4-Dichlorobenzene	50.0	43.3		ug/L		87	65 - 135	3	20
2,2-Dichloropropane	50.0	41.1		ug/L		82	60 - 140	1	20
2-Butanone (MEK)	50.0	42.3		ug/L		85	60 - 140	1	20
2-Chlorotoluene	50.0	44.2		ug/L		88	60 - 140	1	20
2-Hexanone	50.0	40.4		ug/L		81	60 - 140	1	20
4-Chlorotoluene	50.0	43.4		ug/L		87	60 - 140	3	20
4-Isopropyltoluene	50.0	44.8		ug/L		90	60 - 140	2	20
4-Methyl-2-pentanone (MIBK)	50.0	40.3		ug/L		81	60 - 140	1	20
Acetone	50.0	44.0		ug/L		88	18 - 150	4	20
Benzene	50.0	42.2		ug/L		84	65 - 135	1	20
Bromobenzene	50.0	44.5		ug/L		89	60 - 140	1	20
Bromoform	50.0	46.8		ug/L		94	70 - 130	1	20
Bromomethane	50.0	41.5		ug/L		83	15 - 185	3	20
Carbon disulfide	50.0	40.8		ug/L		82	60 - 140	2	20

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 550-286121/4
Matrix: Water
Analysis Batch: 286121

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 tetrachloride	50.0	41.2		ug/L		82	70 - 130	1	20
Chlorobenzene	50.0	43.1		ug/L		86	65 - 135	2	20
Chlorobromomethane	50.0	42.8		ug/L		86	60 - 140	1	20
Chlorodibromomethane	50.0	45.0		ug/L		90	70 - 135	2	20
Chloroethane	50.0	42.8		ug/L		86	40 - 160	0	20
Chloroform	50.0	43.1		ug/L		86	70 - 135	2	20
Chloromethane	50.0	42.6		ug/L		85	10 - 205	2	20
cis-1,2-Dichloroethene	50.0	42.0		ug/L		84	60 - 140	0	20
cis-1,3-Dichloropropene	50.0	44.3		ug/L		89	25 - 175	2	20
Dibromomethane	50.0	42.0		ug/L		84	70 - 130	1	20
Dichlorobromomethane	50.0	44.4		ug/L		89	65 - 135	2	20
Dichlorodifluoromethane	50.0	44.2		ug/L		88	60 - 140	2	20
Ethanol	1000	894		ug/L		89	60 - 140	2	20
Ethylbenzene	50.0	42.9		ug/L		86	60 - 140	3	20
Ethylene Dibromide	50.0	43.9		ug/L		88	60 - 140	2	20
Hexachlorobutadiene	50.0	43.0		ug/L		86	60 - 140	0	20
Iodomethane	50.0	41.7		ug/L		83	60 - 140	1	20
Isopropylbenzene	50.0	44.8		ug/L		90	60 - 140	1	20
Methyl tert-butyl ether	50.0	44.8		ug/L		90	60 - 140	2	20
Methylene Chloride	50.0	40.2		ug/L		80	60 - 140	3	20
m-Xylene & p-Xylene	50.0	45.0		ug/L		90	60 - 140	3	20
Naphthalene	50.0	43.9		ug/L		88	60 - 140	1	20
n-Butylbenzene	50.0	44.0		ug/L		88	60 - 140	2	20
N-Propylbenzene	50.0	43.8		ug/L		88	60 - 140	2	20
o-Xylene	50.0	45.3		ug/L		91	60 - 140	1	20
sec-Butylbenzene	50.0	45.0		ug/L		90	60 - 140	1	20
Styrene	50.0	44.3		ug/L		89	60 - 140	2	20
tert-Butylbenzene	50.0	45.2		ug/L		90	60 - 140	1	20
Tetrachloroethene	50.0	40.3		ug/L		81	70 - 130	3	20
Toluene	50.0	43.3		ug/L		87	70 - 130	2	20
trans-1,2-Dichloroethene	50.0	42.5		ug/L		85	70 - 130	2	20
trans-1,3-Dichloropropene	50.0	44.7		ug/L		89	50 - 150	3	20
Trichloroethene	50.0	41.7		ug/L		83	65 - 135	1	20
Trichlorofluoromethane	50.0	42.5		ug/L		85	50 - 150	2	20
Vinyl acetate	50.0	44.5		ug/L		89	60 - 140	3	20
Vinyl chloride	50.0	44.3		ug/L		89	5 - 195	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*
Dibromofluoromethane (Surr)	*98*		*60 - 140*
Toluene-d8 (Surr)	*94*		*60 - 140*

Lab Sample ID: 550-191679-B-2 MS
Matrix: Water
Analysis Batch: 286121

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	44.3		ug/L		89	50 - 150		

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-191679-B-2 MS
Matrix: Water
Analysis Batch: 286121

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-Trichloroethane	ND		50.0	43.0		ug/L		86	52 - 162
1,1,2,2-Tetrachloroethane	ND		50.0	48.6		ug/L		97	46 - 157
1,1,2-Trichloroethane	ND		50.0	45.2		ug/L		90	52 - 150
1,1-Dichloroethane	1.4		50.0	44.8		ug/L		87	59 - 155
1,1-Dichloroethene	2.0		50.0	44.3		ug/L		85	10 - 234
1,1-Dichloropropene	ND		50.0	42.0		ug/L		84	50 - 150
1,2,3-Trichlorobenzene	ND		50.0	45.2		ug/L		90	50 - 150
1,2,3-Trichloropropane	ND		50.0	46.0		ug/L		92	50 - 150
1,2,4-Trichlorobenzene	ND		50.0	43.9		ug/L		88	50 - 150
1,2,4-Trimethylbenzene	ND		50.0	44.0		ug/L		88	50 - 150
1,2-Dibromo-3-Chloropropane	ND		50.0	48.3		ug/L		97	50 - 150
1,2-Dichlorobenzene	ND		50.0	44.5		ug/L		89	18 - 190
1,2-Dichloroethane	ND		50.0	43.6		ug/L		87	49 - 155
1,2-Dichloropropane	ND		50.0	45.0		ug/L		90	10 - 210
1,3,5-Trimethylbenzene	ND		50.0	43.0		ug/L		86	50 - 150
1,3-Dichlorobenzene	ND		50.0	43.9		ug/L		88	59 - 156
1,3-Dichloropropane	ND		50.0	45.4		ug/L		91	50 - 150
1,4-Dichlorobenzene	ND		50.0	43.0		ug/L		85	18 - 190
2,2-Dichloropropane	ND		50.0	40.6		ug/L		81	50 - 150
2-Butanone (MEK)	ND		50.0	43.6		ug/L		87	50 - 150
2-Chlorotoluene	ND		50.0	44.9		ug/L		90	50 - 150
2-Hexanone	ND		50.0	43.2		ug/L		86	50 - 150
4-Chlorotoluene	ND		50.0	43.0		ug/L		86	50 - 150
4-Isopropyltoluene	ND		50.0	45.0		ug/L		90	50 - 150
4-Methyl-2-pentanone (MIBK)	ND		50.0	44.5		ug/L		89	50 - 150
Acetone	ND		50.0	42.1		ug/L		84	18 - 150
Benzene	ND		50.0	42.7		ug/L		85	35 - 151
Bromobenzene	ND		50.0	45.1		ug/L		90	50 - 150
Bromoform	ND		50.0	49.6		ug/L		99	45 - 169
Bromomethane	ND		50.0	47.0		ug/L		94	10 - 242
Carbon disulfide	ND		50.0	41.3		ug/L		83	50 - 150
Carbon tetrachloride	ND		50.0	42.4		ug/L		85	70 - 140
Chlorobenzene	ND		50.0	43.4		ug/L		87	37 - 160
Chlorobromomethane	ND		50.0	43.3		ug/L		87	50 - 150
Chlorodibromomethane	ND		50.0	46.4		ug/L		93	53 - 149
Chloroethane	ND		50.0	44.7		ug/L		89	14 - 230
Chloroform	1.6		50.0	45.0		ug/L		87	51 - 138
Chloromethane	ND		50.0	43.5		ug/L		87	10 - 273
cis-1,2-Dichloroethene	4.0		50.0	46.8		ug/L		86	50 - 150
cis-1,3-Dichloropropene	ND		50.0	43.7		ug/L		87	10 - 227
Dibromomethane	ND		50.0	43.8		ug/L		88	50 - 150
Dichlorobromomethane	ND		50.0	45.1		ug/L		90	35 - 155
Dichlorodifluoromethane	ND		50.0	44.2		ug/L		88	50 - 150
Ethanol	ND		1000	899		ug/L		90	50 - 150
Ethylbenzene	ND		50.0	42.9		ug/L		86	37 - 162
Ethylene Dibromide	ND		50.0	45.6		ug/L		91	50 - 150
Hexachlorobutadiene	ND		50.0	44.3		ug/L		89	50 - 150
Iodomethane	ND		50.0	41.9		ug/L		84	50 - 150
Isopropylbenzene	ND		50.0	45.8		ug/L		92	50 - 150

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-191679-B-2 MS
Matrix: Water
Analysis Batch: 286121

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
Methyl tert-butyl ether	ND		50.0	46.1		ug/L		92	50 - 150
Methylene Chloride	ND		50.0	40.5		ug/L		81	10 - 221
m-Xylene & p-Xylene	ND		50.0	45.3		ug/L		91	50 - 150
Naphthalene	ND		50.0	47.0		ug/L		94	50 - 150
n-Butylbenzene	ND		50.0	43.8		ug/L		88	50 - 150
N-Propylbenzene	ND		50.0	44.3		ug/L		89	50 - 150
o-Xylene	ND		50.0	46.1		ug/L		92	50 - 150
sec-Butylbenzene	ND		50.0	45.4		ug/L		91	50 - 150
Styrene	ND		50.0	44.5		ug/L		89	50 - 150
tert-Butylbenzene	ND		50.0	45.6		ug/L		91	50 - 150
Tetrachloroethene	0.87		50.0	40.9		ug/L		80	64 - 148
Toluene	ND		50.0	43.5		ug/L		87	47 - 150
trans-1,2-Dichloroethene	ND		50.0	43.0		ug/L		86	54 - 156
trans-1,3-Dichloropropene	ND		50.0	44.5		ug/L		89	17 - 183
Trichloroethene	21		50.0	61.7		ug/L		82	70 - 157
Trichlorofluoromethane	ND		50.0	43.0		ug/L		86	17 - 181
Vinyl acetate	ND		50.0	45.4		ug/L		91	50 - 150
Vinyl chloride	ND		50.0	44.4		ug/L		89	10 - 251

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*
Dibromofluoromethane (Surr)	*97*		*60 - 140*
Toluene-d8 (Surr)	*93*		*60 - 140*

Lab Sample ID: 550-191679-B-2 MSD
Matrix: Water
Analysis Batch: 286121

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	43.9		ug/L		88	50 - 150	1	35
1,1,1-Trichloroethane	ND		50.0	42.7		ug/L		85	52 - 162	1	36
1,1,2,2-Tetrachloroethane	ND		50.0	51.7		ug/L		103	46 - 157	6	61
1,1,2-Trichloroethane	ND		50.0	45.9		ug/L		92	52 - 150	2	45
1,1-Dichloroethane	1.4		50.0	44.8		ug/L		87	59 - 155	0	40
1,1-Dichloroethene	2.0		50.0	44.5		ug/L		85	10 - 234	0	32
1,1-Dichloropropene	ND		50.0	41.7		ug/L		83	50 - 150	1	35
1,2,3-Trichlorobenzene	ND		50.0	45.2		ug/L		90	50 - 150	0	35
1,2,3-Trichloropropane	ND		50.0	49.7		ug/L		99	50 - 150	8	35
1,2,4-Trichlorobenzene	ND		50.0	43.6		ug/L		87	50 - 150	1	35
1,2,4-Trimethylbenzene	ND		50.0	44.3		ug/L		89	50 - 150	1	35
1,2-Dibromo-3-Chloropropane	ND		50.0	53.5		ug/L		107	50 - 150	10	35
1,2-Dichlorobenzene	ND		50.0	44.9		ug/L		90	18 - 190	1	57
1,2-Dichloroethane	ND		50.0	43.9		ug/L		88	49 - 155	1	49
1,2-Dichloropropane	ND		50.0	44.6		ug/L		89	10 - 210	1	55
1,3,5-Trimethylbenzene	ND		50.0	43.4		ug/L		87	50 - 150	1	35
1,3-Dichlorobenzene	ND		50.0	43.8		ug/L		88	59 - 156	0	43
1,3-Dichloropropane	ND		50.0	46.3		ug/L		93	50 - 150	2	35
1,4-Dichlorobenzene	ND		50.0	43.1		ug/L		86	18 - 190	0	57

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-191679-B-2 MSD
Matrix: Water
Analysis Batch: 286121

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
2,2-Dichloropropane	ND		50.0	40.8		ug/L		82	50 - 150	1	35
2-Butanone (MEK)	ND		50.0	47.1		ug/L		94	50 - 150	8	35
2-Chlorotoluene	ND		50.0	45.4		ug/L		91	50 - 150	1	35
2-Hexanone	ND		50.0	46.5		ug/L		93	50 - 150	7	35
4-Chlorotoluene	ND		50.0	42.7		ug/L		85	50 - 150	1	35
4-Isopropyltoluene	ND		50.0	45.2		ug/L		90	50 - 150	0	35
4-Methyl-2-pentanone (MIBK)	ND		50.0	47.4		ug/L		95	50 - 150	6	35
Acetone	ND		50.0	44.4		ug/L		89	18 - 150	5	35
Benzene	ND		50.0	42.6		ug/L		85	35 - 151	0	61
Bromobenzene	ND		50.0	45.7		ug/L		91	50 - 150	1	35
Bromoform	ND		50.0	51.5		ug/L		103	45 - 169	4	42
Bromomethane	ND		50.0	47.7		ug/L		95	10 - 242	2	61
Carbon disulfide	ND		50.0	41.1		ug/L		82	50 - 150	0	35
Carbon tetrachloride	ND		50.0	41.8		ug/L		84	70 - 140	1	41
Chlorobenzene	ND		50.0	43.1		ug/L		86	37 - 160	1	53
Chlorobromomethane	ND		50.0	44.1		ug/L		88	50 - 150	2	35
Chlorodibromomethane	ND		50.0	46.7		ug/L		93	53 - 149	1	50
Chloroethane	ND		50.0	44.6		ug/L		89	14 - 230	0	78
Chloroform	1.6		50.0	45.1		ug/L		87	51 - 138	0	54
Chloromethane	ND		50.0	43.0		ug/L		86	10 - 273	1	60
cis-1,2-Dichloroethene	4.0		50.0	46.9		ug/L		86	50 - 150	0	35
cis-1,3-Dichloropropene	ND		50.0	44.5		ug/L		89	10 - 227	2	58
Dibromomethane	ND		50.0	44.2		ug/L		88	50 - 150	1	35
Dichlorobromomethane	ND		50.0	45.1		ug/L		90	35 - 155	0	56
Dichlorodifluoromethane	ND		50.0	44.4		ug/L		89	50 - 150	0	35
Ethanol	ND		1000	937		ug/L		94	50 - 150	4	35
Ethylbenzene	ND		50.0	42.4		ug/L		85	37 - 162	1	63
Ethylene Dibromide	ND		50.0	46.7		ug/L		93	50 - 150	2	35
Hexachlorobutadiene	ND		50.0	44.1		ug/L		88	50 - 150	1	35
Iodomethane	ND		50.0	41.9		ug/L		84	50 - 150	0	35
Isopropylbenzene	ND		50.0	45.9		ug/L		92	50 - 150	0	35
Methyl tert-butyl ether	ND		50.0	47.1		ug/L		94	50 - 150	2	35
Methylene Chloride	ND		50.0	40.6		ug/L		81	10 - 221	0	28
m-Xylene & p-Xylene	ND		50.0	44.6		ug/L		89	50 - 150	2	35
Naphthalene	ND		50.0	49.1		ug/L		98	50 - 150	4	35
n-Butylbenzene	ND		50.0	43.3		ug/L		87	50 - 150	1	35
N-Propylbenzene	ND		50.0	43.8		ug/L		88	50 - 150	1	35
o-Xylene	ND		50.0	46.4		ug/L		93	50 - 150	0	35
sec-Butylbenzene	ND		50.0	45.7		ug/L		91	50 - 150	1	35
Styrene	ND		50.0	44.9		ug/L		90	50 - 150	1	35
tert-Butylbenzene	ND		50.0	46.2		ug/L		92	50 - 150	1	35
Tetrachloroethene	0.87		50.0	40.0		ug/L		78	64 - 148	2	39
Toluene	ND		50.0	43.2		ug/L		86	47 - 150	1	41
trans-1,2-Dichloroethene	ND		50.0	42.7		ug/L		85	54 - 156	1	45
trans-1,3-Dichloropropene	ND		50.0	45.2		ug/L		90	17 - 183	2	86
Trichloroethene	21		50.0	61.5		ug/L		82	70 - 157	0	48
Trichlorofluoromethane	ND		50.0	42.9		ug/L		86	17 - 181	0	84
Vinyl acetate	ND		50.0	46.2		ug/L		92	50 - 150	2	35
Vinyl chloride	ND		50.0	44.8		ug/L		90	10 - 251	1	66

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		60 - 140
Dibromofluoromethane (Surr)	96		60 - 140
Toluene-d8 (Surr)	92		60 - 140

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-286137/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 286137

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.050	mg/L			10/11/22 11:11	1
Nitrite as N	ND		0.050	mg/L			10/11/22 11:11	1
Nitrate Nitrite as N	ND		0.050	mg/L			10/11/22 11:11	1

Lab Sample ID: LCS 550-286137/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 286137

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	4.00	4.04		mg/L		101	90 - 110
Nitrite as N	4.00	4.05		mg/L		101	90 - 110
Nitrate Nitrite as N	8.00	8.09		mg/L		101	90 - 110

Lab Sample ID: LCSD 550-286137/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 286137

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	4.00	4.06		mg/L		101	90 - 110	0	20
Nitrite as N	4.00	4.07		mg/L		102	90 - 110	0	20
Nitrate Nitrite as N	8.00	8.13		mg/L		102	90 - 110	0	20

Lab Sample ID: 550-191807-A-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 286137

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.53		4.00	4.72		mg/L		105	80 - 120
Nitrite as N	ND		4.00	4.30		mg/L		108	80 - 120
Nitrate Nitrite as N	0.53		8.00	9.02		mg/L		106	80 - 120

Lab Sample ID: 550-191807-A-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 286137

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	0.53		4.00	4.75		mg/L		106	80 - 120	1	20
Nitrite as N	ND		4.00	4.32		mg/L		108	80 - 120	0	20
Nitrate Nitrite as N	0.53		8.00	9.07		mg/L		107	80 - 120	1	20

QC Association Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-191843-1
SDG: Deer Valley

GC/MS VOA

Analysis Batch: 286121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-191843-1	INF-22M10	Total/NA	Water	624.1	
550-191843-2	EFF-22M10	Total/NA	Water	624.1	
550-191843-3	GAC-2A-100-22M10	Total/NA	Water	624.1	
550-191843-4	GAC-2B-75-22M10	Total/NA	Water	624.1	
550-191843-5	TB-22M10	Total/NA	Water	624.1	
MB 550-286121/6	Method Blank	Total/NA	Water	624.1	
LCS 550-286121/3	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-286121/4	Lab Control Sample Dup	Total/NA	Water	624.1	
550-191679-B-2 MS	Matrix Spike	Total/NA	Water	624.1	
550-191679-B-2 MSD	Matrix Spike Duplicate	Total/NA	Water	624.1	

HPLC/IC

Analysis Batch: 286137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-191843-1	INF-22M10	Total/NA	Water	300.0	
550-191843-2	EFF-22M10	Total/NA	Water	300.0	
MB 550-286137/2	Method Blank	Total/NA	Water	300.0	
LCS 550-286137/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-286137/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-191807-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
550-191807-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Lab Chronicle

Client: Jacobs Engineering Group, Inc.
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-191843-1
SDG: Deer Valley

Client Sample ID: INF-22M10 — Lab Sample ID: 550-191843-1

Date Collected: 10/11/22 09:25 — **Matrix: Water**
Date Received: 10/11/22 11:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	286121	SLJ	EET PHX	10/12/22 02:32
Total/NA	Analysis	300.0		1	286137	AS1	EET PHX	10/11/22 19:34

Client Sample ID: EFF-22M10 — Lab Sample ID: 550-191843-2

Date Collected: 10/11/22 09:15 — **Matrix: Water**
Date Received: 10/11/22 11:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	286121	SLJ	EET PHX	10/12/22 02:53
Total/NA	Analysis	300.0		1	286137	AS1	EET PHX	10/11/22 20:02

Client Sample ID: GAC-2A-100-22M10 — Lab Sample ID: 550-191843-3

Date Collected: 10/11/22 09:20 — **Matrix: Water**
Date Received: 10/11/22 11:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	286121	SLJ	EET PHX	10/12/22 03:14

Client Sample ID: GAC-2B-75-22M10 — Lab Sample ID: 550-191843-4

Date Collected: 10/11/22 09:18 — **Matrix: Water**
Date Received: 10/11/22 11:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	286121	SLJ	EET PHX	10/12/22 03:35

Client Sample ID: TB-22M10 — Lab Sample ID: 550-191843-5

Date Collected: 10/11/22 08:00 — **Matrix: Water**
Date Received: 10/11/22 11:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	286121	SLJ	EET PHX	10/11/22 23:24

Laboratory References:

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-191843-1
SDG: Deer Valley

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
624.1		Water	1,2,4-Trichlorobenzene
624.1		Water	Trihalomethanes, Total

Method Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-191843-1
SDG: Deer Valley

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	EET PHX
300.0	Anions, Ion Chromatography	MCAWW	EET PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

191843

Test America Phoenix
4625 East Cotton CTr Blvd Suite 189
Phoenix, AZ 85040
602-437-3340

Honeywell — Chain Of Custody / Analysis Request

AESI Ref:	44845.40765
COC#	37553-101122
Lab Proj # (SDG):	
Lab ID	TAL-PHX
Site ID	DEERV
Lab Job #	
Authorized User:	Honeywell

Privileged & Confidential | 55014762

Site Name: Deer Valley
Location of Site: Phoenix AZ.
Phase:
Sampling Program: Monthly Groundwater Monitoring Program

Sampling Co.: Jacobs
EDD To: Bernice Kidd, Jacobs HTS

Client Contact: (name, co., address)
Jacobs
1501 W. Fountainhead Parkway (suite 401)
Tempe, AZ 85282

Sampler: T. Kearsley
PO # 4500178520
Analysis Turnaround Time (TAT): 10
Consultant: Jacobs
Laboratory Contact: Danielle Roberts
Report Tier Level: 2
Full Report TAT: 10
HTS

Preliminary Data To: Berney Kidd Jacobs, Lakshmi Devi HTS,
Sample Receipt Acknowledgement To: Site Distrbution List
Hard Copy To: Berney Kidd Jacobs,
Invoice To: Tao Wu, Honeywell/Copy Berney Kidd

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	Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	E624 (Total VOCs)	E300 0 (Nitrite-Nitrate)	MS/MSD	Sampling Method (code)	Lab Sample Numbers
	Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID							Units						
												Preservative	8	0			
1	Influent			INF-22M10	10/11/2022	9:25	GW-GWS	WATER	REG	4	grab	N	X	X			-1
2	Effluent			EFF-22M10	10/11/2022	9:15	GW-GWS	WATER	REG	4	grab	N	X	X			-2
3	GAC2A Effluent			GAC-2A-100-22M10	10/11/2022	9:20	GW-GWS	WATER	REG	3	grab	N	X				-3
4	GAC2B 75%			GAC-2B-75-22M10	10/11/2022	9:18	GW-GWS	WATER	REG	3	grab	N	X				-4
5	TRIPBLANK			TB-22M10	10/11/2022	8:00	GW-GWS	WATER	REG	1	grab	N	X				-5
6																	
7																	
8																	
9																	
10																	
11																	
12																	

550-191843 Chain of Custody

Relinquished by	Company	Received by	Company	Condition	Custody Seals Intact
	Jacobs				
Date/Time: 10-11-22 10:48		Date/Time		Cooler Temp.	
Relinquished by	Company	Received by	Company	Condition	Custody Seals Intact
Date/Time			Date/Time 10/11/22 1148	Cooler Temp.	

EETA-PHX

Preservatives: (Other; Specify):

0 (none); 1 (4 Deg C); 2 (HCl, pH<2); 3 (HNO3, pH<2); 4 (H2SO4, pH<2); 5 (NaOH, pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4, pH<2, 4 Deg C)); 8 (HCl, pH<2, 4 Deg C); 9 (HCl, 4 Deg C); 10 (HNO3, pH<2, 4 Deg C); 11 (NaOH. pH>12, 4 Deg, Ascorbic Acid); 12 (H2SO4, Na2S2O3, 4 Deg C, pH<2); 13 (Zn Acetate); 14 (1-MeOH, 4 Deg C and 2-NaHSO4, 4 Deg C): 15 (NaOH, pH>12, 4 Deg C); sp (special instructions)

0.6°C ice cos

Login Sample Receipt Checklist

Client: Jacobs Engineering Group, Inc.

Job Number: 550-191843-1
SDG Number: Deer Valley

Login Number: 191843
List Number: 1
Creator: Maycock, Lisa

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.

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ANALYTICAL REPORT

PREPARED FOR

Attn: Bernice Kidd
Jacobs Engineering Group, Inc.
1501 W Fountainhead Parkway
Suite 401
Tempe, Arizona 85282

Generated 11/28/2022 11:11:16 AM

JOB DESCRIPTION

Deer Valley
SDG NUMBER Phoenix, AZ

JOB NUMBER

550-193555-1

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

See page two for job notes and contact information.

my EOL

Eurofins Phoenix

Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

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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Authorized for release by
Danielle Roberts, Senior Project Manager
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Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Sample Summary 6
Detection Summary 7
Client Sample Results 8
Surrogate Summary 17
QC Sample Results 18
QC Association Summary 28
Lab Chronicle 29
Certification Summary 30
Method Summary 31
Chain of Custody 32
Receipt Checklists 35

Definitions/Glossary

Client: Jacobs Engineering Group, Inc.
Project/Site: Deer Valley

Job ID: 550-193555-1
SDG: Phoenix, AZ

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
T2	Cited ADHS licensed method does not contain this analyte as part of the method compound list.
T5	Laboratory not licensed for this parameter

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: 550-193555-1

Laboratory: Eurofins Phoenix

Narrative

Job Narrative
550-193555-1

Receipt
The samples were received on 11/11/2022 11:55 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.5º C.

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

Sample Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Deer Valley

Job ID: 550-193555-1
SDG: Phoenix, AZ

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-193555-1	INF-22M11	Water	11/11/22 10:59	11/11/22 11:55
550-193555-2	EFF-22M11	Water	11/11/22 10:49	11/11/22 11:55
550-193555-3	GAC-2A-100-22M11	Water	11/11/22 10:55	11/11/22 11:55
550-193555-4	GAC-2B-75-22M11	Water	11/11/22 10:53	11/11/22 11:55
550-193555-5	TB-22M11	Water	11/11/22 08:00	11/11/22 11:55

Detection Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Deer Valley

Job ID: 550-193555-1
SDG: Phoenix, AZ

Client Sample ID: INF-22M11 — Lab Sample ID: 550-193555-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	4.8		0.50		ug/L	1		624.1	Total/NA
Tetrachloroethene	1.3		0.50		ug/L	1		624.1	Total/NA
Trichloroethene	30		0.50		ug/L	1		624.1	Total/NA

Client Sample ID: EFF-22M11 — Lab Sample ID: 550-193555-2

No Detections.

Client Sample ID: GAC-2A-100-22M11 — Lab Sample ID: 550-193555-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.68		0.50		ug/L	1		624.1	Total/NA
cis-1,2-Dichloroethene	5.6		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	0.68	T5	0.50		ug/L	1		624.1	Total/NA

Client Sample ID: GAC-2B-75-22M11 — Lab Sample ID: 550-193555-4

No Detections.

Client Sample ID: TB-22M11 — Lab Sample ID: 550-193555-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Deer Valley

Job ID: 550-193555-1
SDG: Phoenix, AZ

Client Sample ID: INF-22M11

Date Collected: 11/11/22 10:59
Date Received: 11/11/22 11:55

Lab Sample ID: 550-193555-1

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			11/22/22 15:06	1
1,1,1-Trichloroethane	ND		0.50		ug/L			11/22/22 15:06	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			11/22/22 15:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			11/22/22 15:06	1
1,1,2-Trichloroethane	ND		0.50		ug/L			11/22/22 15:06	1
1,1-Dichloroethane	ND		0.50		ug/L			11/22/22 15:06	1
1,1-Dichloroethene	ND		0.50		ug/L			11/22/22 15:06	1
1,1-Dichloropropene	ND		0.50		ug/L			11/22/22 15:06	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			11/22/22 15:06	1
1,2,3-Trichloropropane	ND		2.0		ug/L			11/22/22 15:06	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0		ug/L			11/22/22 15:06	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			11/22/22 15:06	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			11/22/22 15:06	1
1,2-Dichlorobenzene	ND		0.50		ug/L			11/22/22 15:06	1
1,2-Dichloroethane	ND		0.50		ug/L			11/22/22 15:06	1
1,2-Dichloropropane	ND		0.50		ug/L			11/22/22 15:06	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			11/22/22 15:06	1
1,3-Dichlorobenzene	ND		0.50		ug/L			11/22/22 15:06	1
1,3-Dichloropropane	ND		0.50		ug/L			11/22/22 15:06	1
1,4-Dichlorobenzene	ND		0.50		ug/L			11/22/22 15:06	1
2,2-Dichloropropane	ND		1.0		ug/L			11/22/22 15:06	1
2-Butanone (MEK)	ND		10		ug/L			11/22/22 15:06	1
2-Chlorotoluene	ND		0.50		ug/L			11/22/22 15:06	1
2-Hexanone	ND		5.0		ug/L			11/22/22 15:06	1
4-Chlorotoluene	ND		0.50		ug/L			11/22/22 15:06	1
4-Isopropyltoluene	ND		0.50		ug/L			11/22/22 15:06	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			11/22/22 15:06	1
Acetone	ND		10		ug/L			11/22/22 15:06	1
Benzene	ND		0.50		ug/L			11/22/22 15:06	1
Bromobenzene	ND		1.0		ug/L			11/22/22 15:06	1
Bromoform	ND		1.0		ug/L			11/22/22 15:06	1
Bromomethane	ND		5.0		ug/L			11/22/22 15:06	1
Carbon disulfide	ND		5.0		ug/L			11/22/22 15:06	1
Carbon tetrachloride	ND		0.50		ug/L			11/22/22 15:06	1
Chlorobenzene	ND		0.50		ug/L			11/22/22 15:06	1
Chlorobromomethane	ND		0.50		ug/L			11/22/22 15:06	1
Chlorodibromomethane	ND		0.50		ug/L			11/22/22 15:06	1
Chloroethane	ND		1.0		ug/L			11/22/22 15:06	1
Chloroform	ND		0.50		ug/L			11/22/22 15:06	1
Chloromethane	ND		1.0		ug/L			11/22/22 15:06	1
cis-1,2-Dichloroethene	**4.8**		0.50		ug/L			11/22/22 15:06	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			11/22/22 15:06	1
Dibromomethane	ND		0.50		ug/L			11/22/22 15:06	1
Dichlorobromomethane	ND		0.50		ug/L			11/22/22 15:06	1
Dichlorodifluoromethane	ND		1.0		ug/L			11/22/22 15:06	1
Ethanol	ND		150		ug/L			11/22/22 15:06	1
Ethylbenzene	ND		0.50		ug/L			11/22/22 15:06	1
Ethylene Dibromide	ND		0.50		ug/L			11/23/22 14:32	1
Hexachlorobutadiene	ND		5.0		ug/L			11/22/22 15:06	1

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Deer Valley

Job ID: 550-193555-1
SDG: Phoenix, AZ

Client Sample ID: INF-22M11

Lab Sample ID: 550-193555-1

Date Collected: 11/11/22 10:59
Matrix: Water
Date Received: 11/11/22 11:55

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND		2.0	ug/L			11/22/22 15:06	1
Isopropylbenzene	ND		0.50	ug/L			11/22/22 15:06	1
Methyl tert-butyl ether	ND		0.50	ug/L			11/22/22 15:06	1
Methylene Chloride	ND		5.0	ug/L			11/22/22 15:06	1
m-Xylene & p-Xylene	ND		1.0	ug/L			11/22/22 15:06	1
Naphthalene	ND		5.0	ug/L			11/22/22 15:06	1
n-Butylbenzene	ND		1.0	ug/L			11/22/22 15:06	1
N-Propylbenzene	ND		0.50	ug/L			11/22/22 15:06	1
o-Xylene	ND		0.50	ug/L			11/22/22 15:06	1
sec-Butylbenzene	ND		0.50	ug/L			11/22/22 15:06	1
Styrene	ND		1.0	ug/L			11/22/22 15:06	1
tert-Butylbenzene	ND		0.50	ug/L			11/22/22 15:06	1
Tetrachloroethene	**1.3**		0.50	ug/L			11/22/22 15:06	1
Toluene	ND		0.50	ug/L			11/22/22 15:06	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			11/22/22 15:06	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			11/22/22 15:06	1
Trichloroethene	**30**		0.50	ug/L			11/22/22 15:06	1
Trichlorofluoromethane	ND		1.0	ug/L			11/22/22 15:06	1
Trihalomethanes, Total	ND	T5	0.50	ug/L			11/22/22 15:06	1
Vinyl acetate	ND		5.0	ug/L			11/22/22 15:06	1
Vinyl chloride	ND		1.0	ug/L			11/22/22 15:06	1
Xylenes, Total	ND		0.50	ug/L			11/22/22 15:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*60 - 140*		*11/22/22 15:06*	*1*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*11/23/22 14:32*	*1*
Dibromofluoromethane (Surr)	*91*		*60 - 140*		*11/22/22 15:06*	*1*
Dibromofluoromethane (Surr)	*96*		*60 - 140*		*11/23/22 14:32*	*1*
Toluene-d8 (Surr)	*92*		*60 - 140*		*11/22/22 15:06*	*1*
Toluene-d8 (Surr)	*94*		*60 - 140*		*11/23/22 14:32*	*1*

Client Sample ID: EFF-22M11

Lab Sample ID: 550-193555-2

Date Collected: 11/11/22 10:49
Matrix: Water
Date Received: 11/11/22 11:55

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			11/22/22 15:28	1
1,1,1-Trichloroethane	ND		0.50	ug/L			11/22/22 15:28	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			11/22/22 15:28	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			11/22/22 15:28	1
1,1,2-Trichloroethane	ND		0.50	ug/L			11/22/22 15:28	1
1,1-Dichloroethane	ND		0.50	ug/L			11/22/22 15:28	1
1,1-Dichloroethene	ND		0.50	ug/L			11/22/22 15:28	1
1,1-Dichloropropene	ND		0.50	ug/L			11/22/22 15:28	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			11/22/22 15:28	1
1,2,3-Trichloropropane	ND		2.0	ug/L			11/22/22 15:28	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0	ug/L			11/22/22 15:28	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			11/22/22 15:28	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			11/22/22 15:28	1

Client Sample ID: EFF-22M11

Date Collected: 11/11/22 10:49
Date Received: 11/11/22 11:55

Lab Sample ID: 550-193555-2

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		0.50		ug/L			11/22/22 15:28	1
1,2-Dichloroethane	ND		0.50		ug/L			11/22/22 15:28	1
1,2-Dichloropropane	ND		0.50		ug/L			11/22/22 15:28	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			11/22/22 15:28	1
1,3-Dichlorobenzene	ND		0.50		ug/L			11/22/22 15:28	1
1,3-Dichloropropane	ND		0.50		ug/L			11/22/22 15:28	1
1,4-Dichlorobenzene	ND		0.50		ug/L			11/22/22 15:28	1
2,2-Dichloropropane	ND		1.0		ug/L			11/22/22 15:28	1
2-Butanone (MEK)	ND		10		ug/L			11/22/22 15:28	1
2-Chlorotoluene	ND		0.50		ug/L			11/22/22 15:28	1
2-Hexanone	ND		5.0		ug/L			11/22/22 15:28	1
4-Chlorotoluene	ND		0.50		ug/L			11/22/22 15:28	1
4-Isopropyltoluene	ND		0.50		ug/L			11/22/22 15:28	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			11/22/22 15:28	1
Acetone	ND		10		ug/L			11/22/22 15:28	1
Benzene	ND		0.50		ug/L			11/22/22 15:28	1
Bromobenzene	ND		1.0		ug/L			11/22/22 15:28	1
Bromoform	ND		1.0		ug/L			11/22/22 15:28	1
Bromomethane	ND		5.0		ug/L			11/22/22 15:28	1
Carbon disulfide	ND		5.0		ug/L			11/22/22 15:28	1
Carbon tetrachloride	ND		0.50		ug/L			11/22/22 15:28	1
Chlorobenzene	ND		0.50		ug/L			11/22/22 15:28	1
Chlorobromomethane	ND		0.50		ug/L			11/22/22 15:28	1
Chlorodibromomethane	ND		0.50		ug/L			11/22/22 15:28	1
Chloroethane	ND		1.0		ug/L			11/22/22 15:28	1
Chloroform	ND		0.50		ug/L			11/22/22 15:28	1
Chloromethane	ND		1.0		ug/L			11/22/22 15:28	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			11/22/22 15:28	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			11/22/22 15:28	1
Dibromomethane	ND		0.50		ug/L			11/22/22 15:28	1
Dichlorobromomethane	ND		0.50		ug/L			11/22/22 15:28	1
Dichlorodifluoromethane	ND		1.0		ug/L			11/22/22 15:28	1
Ethanol	ND		150		ug/L			11/22/22 15:28	1
Ethylbenzene	ND		0.50		ug/L			11/22/22 15:28	1
Ethylene Dibromide	ND		0.50		ug/L			11/23/22 14:58	1
Hexachlorobutadiene	ND		5.0		ug/L			11/22/22 15:28	1
Iodomethane	ND		2.0		ug/L			11/22/22 15:28	1
Isopropylbenzene	ND		0.50		ug/L			11/22/22 15:28	1
Methyl tert-butyl ether	ND		0.50		ug/L			11/22/22 15:28	1
Methylene Chloride	ND		5.0		ug/L			11/22/22 15:28	1
m-Xylene & p-Xylene	ND		1.0		ug/L			11/22/22 15:28	1
Naphthalene	ND		5.0		ug/L			11/22/22 15:28	1
n-Butylbenzene	ND		1.0		ug/L			11/22/22 15:28	1
N-Propylbenzene	ND		0.50		ug/L			11/22/22 15:28	1
o-Xylene	ND		0.50		ug/L			11/22/22 15:28	1
sec-Butylbenzene	ND		0.50		ug/L			11/22/22 15:28	1
Styrene	ND		1.0		ug/L			11/22/22 15:28	1
tert-Butylbenzene	ND		0.50		ug/L			11/22/22 15:28	1
Tetrachloroethene	ND		0.50		ug/L			11/22/22 15:28	1

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Deer Valley

Job ID: 550-193555-1
SDG: Phoenix, AZ

Client Sample ID: EFF-22M11

Lab Sample ID: 550-193555-2

Date Collected: 11/11/22 10:49
Matrix: Water
Date Received: 11/11/22 11:55

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		0.50		ug/L			11/22/22 15:28	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			11/22/22 15:28	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			11/22/22 15:28	1
Trichloroethene	ND		0.50		ug/L			11/22/22 15:28	1
Trichlorofluoromethane	ND		1.0		ug/L			11/22/22 15:28	1
Trihalomethanes, Total	ND	T5	0.50		ug/L			11/22/22 15:28	1
Vinyl acetate	ND		5.0		ug/L			11/22/22 15:28	1
Vinyl chloride	ND		1.0		ug/L			11/22/22 15:28	1
Xylenes, Total	ND		0.50		ug/L			11/22/22 15:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*60 - 140*		*11/22/22 15:28*	*1*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*11/23/22 14:58*	*1*
Dibromofluoromethane (Surr)	*91*		*60 - 140*		*11/22/22 15:28*	*1*
Dibromofluoromethane (Surr)	*94*		*60 - 140*		*11/23/22 14:58*	*1*
Toluene-d8 (Surr)	*88*		*60 - 140*		*11/22/22 15:28*	*1*
Toluene-d8 (Surr)	*94*		*60 - 140*		*11/23/22 14:58*	*1*

Client Sample ID: GAC-2A-100-22M11

Lab Sample ID: 550-193555-3

Date Collected: 11/11/22 10:55
Matrix: Water
Date Received: 11/11/22 11:55

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			11/22/22 16:33	1
1,1,1-Trichloroethane	ND		0.50		ug/L			11/22/22 16:33	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			11/22/22 16:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			11/22/22 16:33	1
1,1,2-Trichloroethane	ND		0.50		ug/L			11/22/22 16:33	1
1,1-Dichloroethane	ND		0.50		ug/L			11/22/22 16:33	1
1,1-Dichloroethene	ND		0.50		ug/L			11/22/22 16:33	1
1,1-Dichloropropene	ND		0.50		ug/L			11/22/22 16:33	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			11/23/22 15:24	1
1,2,3-Trichloropropane	ND		2.0		ug/L			11/22/22 16:33	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0		ug/L			11/22/22 16:33	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			11/22/22 16:33	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			11/22/22 16:33	1
1,2-Dichlorobenzene	ND		0.50		ug/L			11/22/22 16:33	1
1,2-Dichloroethane	ND		0.50		ug/L			11/22/22 16:33	1
1,2-Dichloropropane	ND		0.50		ug/L			11/22/22 16:33	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			11/22/22 16:33	1
1,3-Dichlorobenzene	ND		0.50		ug/L			11/22/22 16:33	1
1,3-Dichloropropane	ND		0.50		ug/L			11/22/22 16:33	1
1,4-Dichlorobenzene	ND		0.50		ug/L			11/22/22 16:33	1
2,2-Dichloropropane	ND		1.0		ug/L			11/22/22 16:33	1
2-Butanone (MEK)	ND		10		ug/L			11/22/22 16:33	1
2-Chlorotoluene	ND		0.50		ug/L			11/22/22 16:33	1
2-Hexanone	ND		5.0		ug/L			11/22/22 16:33	1
4-Chlorotoluene	ND		0.50		ug/L			11/22/22 16:33	1
4-Isopropyltoluene	ND		0.50		ug/L			11/22/22 16:33	1

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Deer Valley

Job ID: 550-193555-1
SDG: Phoenix, AZ

Client Sample ID: GAC-2A-100-22M11

Lab Sample ID: 550-193555-3

Date Collected: 11/11/22 10:55
Date Received: 11/11/22 11:55

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	ND		2.5	ug/L			11/22/22 16:33	1
Acetone	ND		10	ug/L			11/22/22 16:33	1
Benzene	ND		0.50	ug/L			11/22/22 16:33	1
Bromobenzene	ND		1.0	ug/L			11/22/22 16:33	1
Bromoform	ND		1.0	ug/L			11/22/22 16:33	1
Bromomethane	ND		5.0	ug/L			11/22/22 16:33	1
Carbon disulfide	ND		5.0	ug/L			11/22/22 16:33	1
Carbon tetrachloride	ND		0.50	ug/L			11/22/22 16:33	1
Chlorobenzene	ND		0.50	ug/L			11/22/22 16:33	1
Chlorobromomethane	ND		0.50	ug/L			11/22/22 16:33	1
Chlorodibromomethane	ND		0.50	ug/L			11/22/22 16:33	1
Chloroethane	ND		1.0	ug/L			11/22/22 16:33	1
Chloroform	**0.68**		0.50	ug/L			11/22/22 16:33	1
Chloromethane	ND		1.0	ug/L			11/22/22 16:33	1
cis-1,2-Dichloroethene	**5.6**		0.50	ug/L			11/22/22 16:33	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			11/22/22 16:33	1
Dibromomethane	ND		0.50	ug/L			11/22/22 16:33	1
Dichlorobromomethane	ND		0.50	ug/L			11/22/22 16:33	1
Dichlorodifluoromethane	ND		1.0	ug/L			11/22/22 16:33	1
Ethanol	ND		150	ug/L			11/22/22 16:33	1
Ethylbenzene	ND		0.50	ug/L			11/22/22 16:33	1
Ethylene Dibromide	ND		0.50	ug/L			11/23/22 15:24	1
Hexachlorobutadiene	ND		5.0	ug/L			11/22/22 16:33	1
Iodomethane	ND		2.0	ug/L			11/22/22 16:33	1
Isopropylbenzene	ND		0.50	ug/L			11/22/22 16:33	1
Methyl tert-butyl ether	ND		0.50	ug/L			11/22/22 16:33	1
Methylene Chloride	ND		5.0	ug/L			11/22/22 16:33	1
m-Xylene & p-Xylene	ND		1.0	ug/L			11/22/22 16:33	1
Naphthalene	ND		5.0	ug/L			11/22/22 16:33	1
n-Butylbenzene	ND		1.0	ug/L			11/22/22 16:33	1
N-Propylbenzene	ND		0.50	ug/L			11/22/22 16:33	1
o-Xylene	ND		0.50	ug/L			11/22/22 16:33	1
sec-Butylbenzene	ND		0.50	ug/L			11/22/22 16:33	1
Styrene	ND		1.0	ug/L			11/22/22 16:33	1
tert-Butylbenzene	ND		0.50	ug/L			11/22/22 16:33	1
Tetrachloroethene	ND		0.50	ug/L			11/22/22 16:33	1
Toluene	ND		0.50	ug/L			11/22/22 16:33	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			11/22/22 16:33	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			11/22/22 16:33	1
Trichloroethene	ND		0.50	ug/L			11/22/22 16:33	1
Trichlorofluoromethane	ND		1.0	ug/L			11/22/22 16:33	1
Trihalomethanes, Total	**0.68**	**T5**	0.50	ug/L			11/22/22 16:33	1
Vinyl acetate	ND		5.0	ug/L			11/22/22 16:33	1
Vinyl chloride	ND		1.0	ug/L			11/22/22 16:33	1
Xylenes, Total	ND		0.50	ug/L			11/22/22 16:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*72*		*60 - 140*		*11/22/22 16:33*	*1*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*11/23/22 15:24*	*1*
Dibromofluoromethane (Surr)	*97*		*60 - 140*		*11/22/22 16:33*	*1*

Client Sample ID: GAC-2A-100-22M11

Lab Sample ID: 550-193555-3

Date Collected: 11/11/22 10:55
Matrix: Water
Date Received: 11/11/22 11:55

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*99*		*60 - 140*		*11/23/22 15:24*	*1*
Toluene-d8 (Surr)	*89*		*60 - 140*		*11/22/22 16:33*	*1*
Toluene-d8 (Surr)	*94*		*60 - 140*		*11/23/22 15:24*	*1*

Client Sample ID: GAC-2B-75-22M11

Lab Sample ID: 550-193555-4

Date Collected: 11/11/22 10:53
Matrix: Water
Date Received: 11/11/22 11:55

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			11/22/22 16:55	1
1,1,1-Trichloroethane	ND		0.50	ug/L			11/22/22 16:55	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			11/22/22 16:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			11/22/22 16:55	1
1,1,2-Trichloroethane	ND		0.50	ug/L			11/22/22 16:55	1
1,1-Dichloroethane	ND		0.50	ug/L			11/22/22 16:55	1
1,1-Dichloroethene	ND		0.50	ug/L			11/22/22 16:55	1
1,1-Dichloropropene	ND		0.50	ug/L			11/22/22 16:55	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			11/22/22 16:55	1
1,2,3-Trichloropropane	ND		2.0	ug/L			11/22/22 16:55	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0	ug/L			11/22/22 16:55	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			11/22/22 16:55	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			11/22/22 16:55	1
1,2-Dichlorobenzene	ND		0.50	ug/L			11/22/22 16:55	1
1,2-Dichloroethane	ND		0.50	ug/L			11/22/22 16:55	1
1,2-Dichloropropane	ND		0.50	ug/L			11/22/22 16:55	1
1,3,5-Trimethylbenzene	ND		0.50	ug/L			11/22/22 16:55	1
1,3-Dichlorobenzene	ND		0.50	ug/L			11/22/22 16:55	1
1,3-Dichloropropane	ND		0.50	ug/L			11/22/22 16:55	1
1,4-Dichlorobenzene	ND		0.50	ug/L			11/22/22 16:55	1
2,2-Dichloropropane	ND		1.0	ug/L			11/22/22 16:55	1
2-Butanone (MEK)	ND		10	ug/L			11/22/22 16:55	1
2-Chlorotoluene	ND		0.50	ug/L			11/22/22 16:55	1
2-Hexanone	ND		5.0	ug/L			11/22/22 16:55	1
4-Chlorotoluene	ND		0.50	ug/L			11/22/22 16:55	1
4-Isopropyltoluene	ND		0.50	ug/L			11/22/22 16:55	1
4-Methyl-2-pentanone (MIBK)	ND		2.5	ug/L			11/22/22 16:55	1
Acetone	ND		10	ug/L			11/22/22 16:55	1
Benzene	ND		0.50	ug/L			11/22/22 16:55	1
Bromobenzene	ND		1.0	ug/L			11/22/22 16:55	1
Bromoform	ND		1.0	ug/L			11/22/22 16:55	1
Bromomethane	ND		5.0	ug/L			11/22/22 16:55	1
Carbon disulfide	ND		5.0	ug/L			11/22/22 16:55	1
Carbon tetrachloride	ND		0.50	ug/L			11/22/22 16:55	1
Chlorobenzene	ND		0.50	ug/L			11/22/22 16:55	1
Chlorobromomethane	ND		0.50	ug/L			11/22/22 16:55	1
Chlorodibromomethane	ND		0.50	ug/L			11/22/22 16:55	1
Chloroethane	ND		1.0	ug/L			11/22/22 16:55	1
Chloroform	ND		0.50	ug/L			11/22/22 16:55	1

Client Sample ID: GAC-2B-75-22M11

Lab Sample ID: 550-193555-4

Date Collected: 11/11/22 10:53
Matrix: Water
Date Received: 11/11/22 11:55

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	ug/L			11/22/22 16:55	1
cis-1,2-Dichloroethene	ND		0.50	ug/L			11/22/22 16:55	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			11/22/22 16:55	1
Dibromomethane	ND		0.50	ug/L			11/22/22 16:55	1
Dichlorobromomethane	ND		0.50	ug/L			11/22/22 16:55	1
Dichlorodifluoromethane	ND		1.0	ug/L			11/22/22 16:55	1
Ethanol	ND		150	ug/L			11/22/22 16:55	1
Ethylbenzene	ND		0.50	ug/L			11/22/22 16:55	1
Ethylene Dibromide	ND		0.50	ug/L			11/23/22 15:50	1
Hexachlorobutadiene	ND		5.0	ug/L			11/22/22 16:55	1
Iodomethane	ND		2.0	ug/L			11/22/22 16:55	1
Isopropylbenzene	ND		0.50	ug/L			11/22/22 16:55	1
Methyl tert-butyl ether	ND		0.50	ug/L			11/22/22 16:55	1
Methylene Chloride	ND		5.0	ug/L			11/22/22 16:55	1
m-Xylene & p-Xylene	ND		1.0	ug/L			11/22/22 16:55	1
Naphthalene	ND		5.0	ug/L			11/22/22 16:55	1
n-Butylbenzene	ND		1.0	ug/L			11/22/22 16:55	1
N-Propylbenzene	ND		0.50	ug/L			11/22/22 16:55	1
o-Xylene	ND		0.50	ug/L			11/22/22 16:55	1
sec-Butylbenzene	ND		0.50	ug/L			11/22/22 16:55	1
Styrene	ND		1.0	ug/L			11/22/22 16:55	1
tert-Butylbenzene	ND		0.50	ug/L			11/22/22 16:55	1
Tetrachloroethene	ND		0.50	ug/L			11/22/22 16:55	1
Toluene	ND		0.50	ug/L			11/22/22 16:55	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			11/22/22 16:55	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			11/22/22 16:55	1
Trichloroethene	ND		0.50	ug/L			11/22/22 16:55	1
Trichlorofluoromethane	ND		1.0	ug/L			11/22/22 16:55	1
Trihalomethanes, Total	ND	T5	0.50	ug/L			11/22/22 16:55	1
Vinyl acetate	ND		5.0	ug/L			11/22/22 16:55	1
Vinyl chloride	ND		1.0	ug/L			11/22/22 16:55	1
Xylenes, Total	ND		0.50	ug/L			11/22/22 16:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*72*		*60 - 140*		*11/22/22 16:55*	*1*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*11/23/22 15:50*	*1*
Dibromofluoromethane (Surr)	*95*		*60 - 140*		*11/22/22 16:55*	*1*
Dibromofluoromethane (Surr)	*97*		*60 - 140*		*11/23/22 15:50*	*1*
Toluene-d8 (Surr)	*89*		*60 - 140*		*11/22/22 16:55*	*1*
Toluene-d8 (Surr)	*93*		*60 - 140*		*11/23/22 15:50*	*1*

Client Sample ID: TB-22M11

Lab Sample ID: 550-193555-5

Date Collected: 11/11/22 08:00
Matrix: Water
Date Received: 11/11/22 11:55

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			11/22/22 13:39	1
1,1,1-Trichloroethane	ND		0.50	ug/L			11/22/22 13:39	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			11/22/22 13:39	1

Client Sample ID: TB-22M11

Date Collected: 11/11/22 08:00
Date Received: 11/11/22 11:55

Lab Sample ID: 550-193555-5

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			11/22/22 13:39	1
1,1,2-Trichloroethane	ND		0.50		ug/L			11/22/22 13:39	1
1,1-Dichloroethane	ND		0.50		ug/L			11/22/22 13:39	1
1,1-Dichloroethene	ND		0.50		ug/L			11/22/22 13:39	1
1,1-Dichloropropene	ND		0.50		ug/L			11/22/22 13:39	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			11/22/22 13:39	1
1,2,3-Trichloropropane	ND		2.0		ug/L			11/22/22 13:39	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0		ug/L			11/22/22 13:39	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			11/22/22 13:39	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			11/22/22 13:39	1
1,2-Dichlorobenzene	ND		0.50		ug/L			11/22/22 13:39	1
1,2-Dichloroethane	ND		0.50		ug/L			11/22/22 13:39	1
1,2-Dichloropropane	ND		0.50		ug/L			11/22/22 13:39	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			11/22/22 13:39	1
1,3-Dichlorobenzene	ND		0.50		ug/L			11/22/22 13:39	1
1,3-Dichloropropane	ND		0.50		ug/L			11/22/22 13:39	1
1,4-Dichlorobenzene	ND		0.50		ug/L			11/22/22 13:39	1
2,2-Dichloropropane	ND		1.0		ug/L			11/22/22 13:39	1
2-Butanone (MEK)	ND		10		ug/L			11/22/22 13:39	1
2-Chlorotoluene	ND		0.50		ug/L			11/22/22 13:39	1
2-Hexanone	ND		5.0		ug/L			11/22/22 13:39	1
4-Chlorotoluene	ND		0.50		ug/L			11/22/22 13:39	1
4-Isopropyltoluene	ND		0.50		ug/L			11/22/22 13:39	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			11/22/22 13:39	1
Acetone	ND		10		ug/L			11/22/22 13:39	1
Benzene	ND		0.50		ug/L			11/22/22 13:39	1
Bromobenzene	ND		1.0		ug/L			11/22/22 13:39	1
Bromoform	ND		1.0		ug/L			11/22/22 13:39	1
Bromomethane	ND		5.0		ug/L			11/22/22 13:39	1
Carbon disulfide	ND		5.0		ug/L			11/22/22 13:39	1
Carbon tetrachloride	ND		0.50		ug/L			11/22/22 13:39	1
Chlorobenzene	ND		0.50		ug/L			11/22/22 13:39	1
Chlorobromomethane	ND		0.50		ug/L			11/22/22 13:39	1
Chlorodibromomethane	ND		0.50		ug/L			11/22/22 13:39	1
Chloroethane	ND		1.0		ug/L			11/22/22 13:39	1
Chloroform	ND		0.50		ug/L			11/22/22 13:39	1
Chloromethane	ND		1.0		ug/L			11/22/22 13:39	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			11/22/22 13:39	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			11/22/22 13:39	1
Dibromomethane	ND		0.50		ug/L			11/22/22 13:39	1
Dichlorobromomethane	ND		0.50		ug/L			11/22/22 13:39	1
Dichlorodifluoromethane	ND		1.0		ug/L			11/22/22 13:39	1
Ethanol	ND		150		ug/L			11/22/22 13:39	1
Ethylbenzene	ND		0.50		ug/L			11/22/22 13:39	1
Ethylene Dibromide	ND		0.50		ug/L			11/23/22 13:13	1
Hexachlorobutadiene	ND		5.0		ug/L			11/22/22 13:39	1
Iodomethane	ND		2.0		ug/L			11/22/22 13:39	1
Isopropylbenzene	ND		0.50		ug/L			11/22/22 13:39	1
Methyl tert-butyl ether	ND		0.50		ug/L			11/22/22 13:39	1

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Deer Valley

Job ID: 550-193555-1
SDG: Phoenix, AZ

Client Sample ID: TB-22M11

Date Collected: 11/11/22 08:00
Date Received: 11/11/22 11:55

Lab Sample ID: 550-193555-5

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		5.0		ug/L			11/22/22 13:39	1
m-Xylene & p-Xylene	ND		1.0		ug/L			11/22/22 13:39	1
Naphthalene	ND		5.0		ug/L			11/22/22 13:39	1
n-Butylbenzene	ND		1.0		ug/L			11/22/22 13:39	1
N-Propylbenzene	ND		0.50		ug/L			11/22/22 13:39	1
o-Xylene	ND		0.50		ug/L			11/22/22 13:39	1
sec-Butylbenzene	ND		0.50		ug/L			11/22/22 13:39	1
Styrene	ND		1.0		ug/L			11/22/22 13:39	1
tert-Butylbenzene	ND		0.50		ug/L			11/22/22 13:39	1
Tetrachloroethene	ND		0.50		ug/L			11/22/22 13:39	1
Toluene	ND		0.50		ug/L			11/22/22 13:39	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			11/22/22 13:39	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			11/22/22 13:39	1
Trichloroethene	ND		0.50		ug/L			11/22/22 13:39	1
Trichlorofluoromethane	ND		1.0		ug/L			11/22/22 13:39	1
Trihalomethanes, Total	ND	T5	0.50		ug/L			11/22/22 13:39	1
Vinyl acetate	ND		5.0		ug/L			11/22/22 13:39	1
Vinyl chloride	ND		1.0		ug/L			11/22/22 13:39	1
Xylenes, Total	ND		0.50		ug/L			11/22/22 13:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*60 - 140*		*11/22/22 13:39*	*1*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*11/23/22 13:13*	*1*
Dibromofluoromethane (Surr)	*91*		*60 - 140*		*11/22/22 13:39*	*1*
Dibromofluoromethane (Surr)	*95*		*60 - 140*		*11/23/22 13:13*	*1*
Toluene-d8 (Surr)	*88*		*60 - 140*		*11/22/22 13:39*	*1*
Toluene-d8 (Surr)	*94*		*60 - 140*		*11/23/22 13:13*	*1*

Surrogate Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Deer Valley

Job ID: 550-193555-1
SDG: Phoenix, AZ

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(60-140)	(60-140)	(60-140)
550-193555-1	INF-22M11	75	91	92
550-193555-1	INF-22M11	92	96	94
550-193555-1 MS	INF-22M11	116	111	111
550-193555-1 MSD	INF-22M11	120	117	119
550-193555-2	EFF-22M11	75	91	88
550-193555-2	EFF-22M11	94	94	94
550-193555-2 MS	EFF-22M11	100	100	98
550-193555-2 MSD	EFF-22M11	102	102	102
550-193555-3	GAC-2A-100-22M11	72	97	89
550-193555-3	GAC-2A-100-22M11	93	99	94
550-193555-4	GAC-2B-75-22M11	72	95	89
550-193555-4	GAC-2B-75-22M11	93	97	93
550-193555-5	TB-22M11	75	91	88
550-193555-5	TB-22M11	94	95	94
LCS 550-289242/3	Lab Control Sample	101	102	101
LCS 550-289363/3	Lab Control Sample	115	110	108
LCSD 550-289242/4	Lab Control Sample Dup	111	107	103
LCSD 550-289363/4	Lab Control Sample Dup	115	110	109
MB 550-289242/6	Method Blank	77	90	90
MB 550-289363/6	Method Blank	95	100	97

Surrogate Legend

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

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-289242/6
Matrix: Water
Analysis Batch: 289242

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		0.50		ug/L			11/22/22 13:17	1
1,1,1-Trichloroethane	ND		0.50		ug/L			11/22/22 13:17	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			11/22/22 13:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			11/22/22 13:17	1
1,1,2-Trichloroethane	ND		0.50		ug/L			11/22/22 13:17	1
1,1-Dichloroethane	ND		0.50		ug/L			11/22/22 13:17	1
1,1-Dichloroethene	ND		0.50		ug/L			11/22/22 13:17	1
1,1-Dichloropropene	ND		0.50		ug/L			11/22/22 13:17	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			11/22/22 13:17	1
1,2,3-Trichloropropane	ND		2.0		ug/L			11/22/22 13:17	1
1,2,4-Trichlorobenzene	ND	T2	2.0		ug/L			11/22/22 13:17	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			11/22/22 13:17	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			11/22/22 13:17	1
1,2-Dichlorobenzene	ND		0.50		ug/L			11/22/22 13:17	1
1,2-Dichloroethane	ND		0.50		ug/L			11/22/22 13:17	1
1,2-Dichloropropane	ND		0.50		ug/L			11/22/22 13:17	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			11/22/22 13:17	1
1,3-Dichlorobenzene	ND		0.50		ug/L			11/22/22 13:17	1
1,3-Dichloropropane	ND		0.50		ug/L			11/22/22 13:17	1
1,4-Dichlorobenzene	ND		0.50		ug/L			11/22/22 13:17	1
2,2-Dichloropropane	ND		1.0		ug/L			11/22/22 13:17	1
2-Butanone (MEK)	ND		10		ug/L			11/22/22 13:17	1
2-Chlorotoluene	ND		0.50		ug/L			11/22/22 13:17	1
2-Hexanone	ND		5.0		ug/L			11/22/22 13:17	1
4-Chlorotoluene	ND		0.50		ug/L			11/22/22 13:17	1
4-Isopropyltoluene	ND		0.50		ug/L			11/22/22 13:17	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			11/22/22 13:17	1
Acetone	ND		10		ug/L			11/22/22 13:17	1
Benzene	ND		0.50		ug/L			11/22/22 13:17	1
Bromobenzene	ND		1.0		ug/L			11/22/22 13:17	1
Bromoform	ND		1.0		ug/L			11/22/22 13:17	1
Bromomethane	ND		5.0		ug/L			11/22/22 13:17	1
Carbon disulfide	ND		5.0		ug/L			11/22/22 13:17	1
Carbon tetrachloride	ND		0.50		ug/L			11/22/22 13:17	1
Chlorobenzene	ND		0.50		ug/L			11/22/22 13:17	1
Chlorobromomethane	ND		0.50		ug/L			11/22/22 13:17	1
Chlorodibromomethane	ND		0.50		ug/L			11/22/22 13:17	1
Chloroethane	ND		1.0		ug/L			11/22/22 13:17	1
Chloroform	ND		0.50		ug/L			11/22/22 13:17	1
Chloromethane	ND		1.0		ug/L			11/22/22 13:17	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			11/22/22 13:17	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			11/22/22 13:17	1
Dibromomethane	ND		0.50		ug/L			11/22/22 13:17	1
Dichlorobromomethane	ND		0.50		ug/L			11/22/22 13:17	1
Dichlorodifluoromethane	ND		1.0		ug/L			11/22/22 13:17	1
Ethanol	ND		150		ug/L			11/22/22 13:17	1
Ethylbenzene	ND		0.50		ug/L			11/22/22 13:17	1
Ethylene Dibromide	ND		0.50		ug/L			11/22/22 13:17	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-289242/6
Matrix: Water
Analysis Batch: 289242

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		5.0		ug/L			11/22/22 13:17	1
Iodomethane	ND		2.0		ug/L			11/22/22 13:17	1
Isopropylbenzene	ND		0.50		ug/L			11/22/22 13:17	1
Methyl tert-butyl ether	ND		0.50		ug/L			11/22/22 13:17	1
Methylene Chloride	ND		5.0		ug/L			11/22/22 13:17	1
m-Xylene & p-Xylene	ND		1.0		ug/L			11/22/22 13:17	1
Naphthalene	ND		5.0		ug/L			11/22/22 13:17	1
n-Butylbenzene	ND		1.0		ug/L			11/22/22 13:17	1
N-Propylbenzene	ND		0.50		ug/L			11/22/22 13:17	1
o-Xylene	ND		0.50		ug/L			11/22/22 13:17	1
sec-Butylbenzene	ND		0.50		ug/L			11/22/22 13:17	1
Styrene	ND		1.0		ug/L			11/22/22 13:17	1
tert-Butylbenzene	ND		0.50		ug/L			11/22/22 13:17	1
Tetrachloroethene	ND		0.50		ug/L			11/22/22 13:17	1
Toluene	ND		0.50		ug/L			11/22/22 13:17	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			11/22/22 13:17	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			11/22/22 13:17	1
Trichloroethene	ND		0.50		ug/L			11/22/22 13:17	1
Trichlorofluoromethane	ND		1.0		ug/L			11/22/22 13:17	1
Trihalomethanes, Total	ND		0.50		ug/L			11/22/22 13:17	1
Vinyl acetate	ND		5.0		ug/L			11/22/22 13:17	1
Vinyl chloride	ND		1.0		ug/L			11/22/22 13:17	1
Xylenes, Total	ND		0.50		ug/L			11/22/22 13:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*60 - 140*		*11/22/22 13:17*	*1*
Dibromofluoromethane (Surr)	*90*		*60 - 140*		*11/22/22 13:17*	*1*
Toluene-d8 (Surr)	*90*		*60 - 140*		*11/22/22 13:17*	*1*

Lab Sample ID: LCS 550-289242/3
Matrix: Water
Analysis Batch: 289242

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	51.2		ug/L		102	60 - 140
1,1,1-Trichloroethane	50.0	48.7		ug/L		97	70 - 130
1,1,2,2-Tetrachloroethane	50.0	57.1		ug/L		114	60 - 140
1,1,2-Trichloroethane	50.0	49.0		ug/L		98	70 - 130
1,1-Dichloroethane	50.0	45.6		ug/L		91	70 - 130
1,1-Dichloroethene	50.0	52.5		ug/L		105	50 - 150
1,1-Dichloropropene	50.0	46.6		ug/L		93	60 - 140
1,2,3-Trichlorobenzene	50.0	63.0		ug/L		126	60 - 140
1,2,3-Trichloropropane	50.0	59.1		ug/L		118	60 - 140
1,2,4-Trichlorobenzene	50.0	58.6	T2	ug/L		117	60 - 140
1,2,4-Trimethylbenzene	50.0	57.9		ug/L		116	60 - 140
1,2-Dibromo-3-Chloropropane	50.0	57.7		ug/L		115	60 - 140
1,2-Dichlorobenzene	50.0	53.6		ug/L		107	65 - 135
1,2-Dichloroethane	50.0	47.4		ug/L		95	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-289242/3
Matrix: Water
Analysis Batch: 289242

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dichloropropane	50.0	44.9		ug/L		90	35 - 165
1,3,5-Trimethylbenzene	50.0	63.2		ug/L		126	60 - 140
1,3-Dichlorobenzene	50.0	50.7		ug/L		101	70 - 130
1,3-Dichloropropane	50.0	48.7		ug/L		97	60 - 140
1,4-Dichlorobenzene	50.0	49.6		ug/L		99	65 - 135
2,2-Dichloropropane	50.0	48.8		ug/L		98	60 - 140
2-Butanone (MEK)	50.0	45.1		ug/L		90	60 - 140
2-Chlorotoluene	50.0	56.0		ug/L		112	60 - 140
2-Hexanone	50.0	38.8		ug/L		78	60 - 140
4-Chlorotoluene	50.0	49.5		ug/L		99	60 - 140
4-Isopropyltoluene	50.0	64.7		ug/L		129	60 - 140
4-Methyl-2-pentanone (MIBK)	50.0	44.4		ug/L		89	60 - 140
Acetone	50.0	46.0		ug/L		92	18 - 150
Benzene	50.0	43.5		ug/L		87	65 - 135
Bromobenzene	50.0	55.4		ug/L		111	60 - 140
Bromoform	50.0	51.1		ug/L		102	70 - 130
Bromomethane	50.0	60.1		ug/L		120	15 - 185
Carbon disulfide	50.0	44.3		ug/L		89	60 - 140
Carbon tetrachloride	50.0	48.6		ug/L		97	70 - 130
Chlorobenzene	50.0	47.8		ug/L		96	65 - 135
Chlorobromomethane	50.0	49.7		ug/L		99	60 - 140
Chlorodibromomethane	50.0	49.8		ug/L		100	70 - 135
Chloroethane	50.0	53.9		ug/L		108	40 - 160
Chloroform	50.0	45.5		ug/L		91	70 - 135
Chloromethane	50.0	43.9		ug/L		88	10 - 205
cis-1,2-Dichloroethene	50.0	44.7		ug/L		89	60 - 140
cis-1,3-Dichloropropene	50.0	46.7		ug/L		93	25 - 175
Dibromomethane	50.0	46.0		ug/L		92	70 - 130
Dichlorobromomethane	50.0	44.0		ug/L		88	65 - 135
Dichlorodifluoromethane	50.0	59.3		ug/L		119	60 - 140
Ethanol	1000	770		ug/L		77	60 - 140
Ethylbenzene	50.0	46.0		ug/L		92	60 - 140
Ethylene Dibromide	50.0	47.3		ug/L		95	60 - 140
Hexachlorobutadiene	50.0	67.0		ug/L		134	60 - 140
Iodomethane	50.0	46.5		ug/L		93	60 - 140
Isopropylbenzene	50.0	65.7		ug/L		131	60 - 140
Methyl tert-butyl ether	50.0	43.6		ug/L		87	60 - 140
Methylene Chloride	50.0	49.7		ug/L		99	60 - 140
m-Xylene & p-Xylene	50.0	60.4		ug/L		121	60 - 140
Naphthalene	50.0	60.5		ug/L		121	60 - 140
n-Butylbenzene	50.0	55.4		ug/L		111	60 - 140
N-Propylbenzene	50.0	57.0		ug/L		114	60 - 140
o-Xylene	50.0	62.2		ug/L		124	60 - 140
sec-Butylbenzene	50.0	68.3		ug/L		137	60 - 140
Styrene	50.0	54.2		ug/L		108	60 - 140
tert-Butylbenzene	50.0	58.8		ug/L		118	60 - 140
Tetrachloroethene	50.0	53.6		ug/L		107	70 - 130
Toluene	50.0	47.8		ug/L		96	70 - 130
trans-1,2-Dichloroethene	50.0	47.2		ug/L		94	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-289242/3
Matrix: Water
Analysis Batch: 289242

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
trans-1,3-Dichloropropene	50.0	48.0		ug/L		96	50 - 150
Trichloroethene	50.0	45.3		ug/L		91	65 - 135
Trichlorofluoromethane	50.0	56.6		ug/L		113	50 - 150
Vinyl acetate	50.0	45.6		ug/L		91	60 - 140
Vinyl chloride	50.0	50.3		ug/L		101	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*60 - 140*
Dibromofluoromethane (Surr)	*102*		*60 - 140*
Toluene-d8 (Surr)	*101*		*60 - 140*

Lab Sample ID: LCSD 550-289242/4
Matrix: Water
Analysis Batch: 289242

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	49.5		ug/L		99	60 - 140	3	20
1,1,1-Trichloroethane	50.0	50.2		ug/L		100	70 - 130	3	20
1,1,2,2-Tetrachloroethane	50.0	55.7		ug/L		111	60 - 140	2	20
1,1,2-Trichloroethane	50.0	49.4		ug/L		99	70 - 130	1	20
1,1-Dichloroethane	50.0	46.7		ug/L		93	70 - 130	2	20
1,1-Dichloroethene	50.0	53.9		ug/L		108	50 - 150	3	20
1,1-Dichloropropene	50.0	47.3		ug/L		95	60 - 140	2	20
1,2,3-Trichlorobenzene	50.0	60.6		ug/L		121	60 - 140	4	20
1,2,3-Trichloropropane	50.0	59.2		ug/L		118	60 - 140	0	20
1,2,4-Trichlorobenzene	50.0	57.8	T2	ug/L		116	60 - 140	1	20
1,2,4-Trimethylbenzene	50.0	59.2		ug/L		118	60 - 140	2	20
1,2-Dibromo-3-Chloropropane	50.0	53.9		ug/L		108	60 - 140	7	20
1,2-Dichlorobenzene	50.0	54.0		ug/L		108	65 - 135	1	20
1,2-Dichloroethane	50.0	46.7		ug/L		93	70 - 130	1	20
1,2-Dichloropropane	50.0	44.4		ug/L		89	35 - 165	1	20
1,3,5-Trimethylbenzene	50.0	63.8		ug/L		128	60 - 140	1	20
1,3-Dichlorobenzene	50.0	53.9		ug/L		108	70 - 130	6	20
1,3-Dichloropropane	50.0	50.2		ug/L		100	60 - 140	3	20
1,4-Dichlorobenzene	50.0	52.5		ug/L		105	65 - 135	6	20
2,2-Dichloropropane	50.0	49.9		ug/L		100	60 - 140	2	20
2-Butanone (MEK)	50.0	43.4		ug/L		87	60 - 140	4	20
2-Chlorotoluene	50.0	58.4		ug/L		117	60 - 140	4	20
2-Hexanone	50.0	38.0		ug/L		76	60 - 140	2	20
4-Chlorotoluene	50.0	52.7		ug/L		105	60 - 140	6	20
4-Isopropyltoluene	50.0	66.6		ug/L		133	60 - 140	3	20
4-Methyl-2-pentanone (MIBK)	50.0	40.4		ug/L		81	60 - 140	9	20
Acetone	50.0	42.2		ug/L		84	18 - 150	9	20
Benzene	50.0	43.0		ug/L		86	65 - 135	1	20
Bromobenzene	50.0	58.6		ug/L		117	60 - 140	6	20
Bromoform	50.0	52.4		ug/L		105	70 - 130	2	20
Bromomethane	50.0	60.7		ug/L		121	15 - 185	1	20
Carbon disulfide	50.0	44.9		ug/L		90	60 - 140	1	20

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 550-289242/4
Matrix: Water
Analysis Batch: 289242

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 tetrachloride	50.0	48.1		ug/L		96	70 - 130	1	20
Chlorobenzene	50.0	50.3		ug/L		101	65 - 135	5	20
Chlorobromomethane	50.0	49.9		ug/L		100	60 - 140	0	20
Chlorodibromomethane	50.0	51.3		ug/L		103	70 - 135	3	20
Chloroethane	50.0	54.9		ug/L		110	40 - 160	2	20
Chloroform	50.0	46.1		ug/L		92	70 - 135	1	20
Chloromethane	50.0	43.9		ug/L		88	10 - 205	0	20
cis-1,2-Dichloroethene	50.0	43.9		ug/L		88	60 - 140	2	20
cis-1,3-Dichloropropene	50.0	48.4		ug/L		97	25 - 175	4	20
Dibromomethane	50.0	45.3		ug/L		91	70 - 130	2	20
Dichlorobromomethane	50.0	43.7		ug/L		87	65 - 135	1	20
Dichlorodifluoromethane	50.0	61.1		ug/L		122	60 - 140	3	20
Ethanol	1000	879		ug/L		88	60 - 140	13	20
Ethylbenzene	50.0	47.4		ug/L		95	60 - 140	3	20
Ethylene Dibromide	50.0	49.2		ug/L		98	60 - 140	4	20
Hexachlorobutadiene	50.0	70.2		ug/L		140	60 - 140	5	20
Iodomethane	50.0	46.4		ug/L		93	60 - 140	0	20
Isopropylbenzene	50.0	66.5		ug/L		133	60 - 140	1	20
Methyl tert-butyl ether	50.0	42.3		ug/L		85	60 - 140	3	20
Methylene Chloride	50.0	49.9		ug/L		100	60 - 140	0	20
m-Xylene & p-Xylene	50.0	63.3		ug/L		127	60 - 140	5	20
Naphthalene	50.0	57.6		ug/L		115	60 - 140	5	20
n-Butylbenzene	50.0	57.7		ug/L		115	60 - 140	4	20
N-Propylbenzene	50.0	59.9		ug/L		120	60 - 140	5	20
o-Xylene	50.0	63.3		ug/L		127	60 - 140	2	20
sec-Butylbenzene	50.0	69.4		ug/L		139	60 - 140	2	20
Styrene	50.0	58.1		ug/L		116	60 - 140	7	20
tert-Butylbenzene	50.0	60.1		ug/L		120	60 - 140	2	20
Tetrachloroethene	50.0	55.7		ug/L		111	70 - 130	4	20
Toluene	50.0	48.8		ug/L		98	70 - 130	2	20
trans-1,2-Dichloroethene	50.0	48.9		ug/L		98	70 - 130	3	20
trans-1,3-Dichloropropene	50.0	50.5		ug/L		101	50 - 150	5	20
Trichloroethene	50.0	46.2		ug/L		92	65 - 135	2	20
Trichlorofluoromethane	50.0	58.3		ug/L		117	50 - 150	3	20
Vinyl acetate	50.0	48.3		ug/L		97	60 - 140	6	20
Vinyl chloride	50.0	50.7		ug/L		101	5 - 195	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*60 - 140*
Dibromofluoromethane (Surr)	*107*		*60 - 140*
Toluene-d8 (Surr)	*103*		*60 - 140*

Lab Sample ID: 550-193555-2 MS
Matrix: Water
Analysis Batch: 289242

Client Sample ID: EFF-22M11
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	49.3		ug/L		99	50 - 150		

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-193555-2 MS
Matrix: Water
Analysis Batch: 289242

Client Sample ID: EFF-22M11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	ND		50.0	47.1		ug/L		94	52 - 162
1,1,2,2-Tetrachloroethane	ND		50.0	53.4		ug/L		107	46 - 157
1,1,2-Trichloroethane	ND		50.0	46.8		ug/L		94	52 - 150
1,1-Dichloroethane	ND		50.0	44.3		ug/L		89	59 - 155
1,1-Dichloroethene	ND		50.0	49.2		ug/L		98	10 - 234
1,1-Dichloropropene	ND		50.0	47.6		ug/L		95	50 - 150
1,2,3-Trichlorobenzene	ND		50.0	56.2		ug/L		112	50 - 150
1,2,3-Trichloropropane	ND		50.0	54.2		ug/L		108	50 - 150
1,2,4-Trichlorobenzene	ND	T5 T2	50.0	53.7	T2	ug/L		107	50 - 150
1,2,4-Trimethylbenzene	ND		50.0	55.0		ug/L		110	50 - 150
1,2-Dibromo-3-Chloropropane	ND		50.0	50.4		ug/L		101	50 - 150
1,2-Dichlorobenzene	ND		50.0	51.8		ug/L		104	18 - 190
1,2-Dichloroethane	ND		50.0	46.9		ug/L		94	49 - 155
1,2-Dichloropropane	ND		50.0	44.2		ug/L		88	10 - 210
1,3,5-Trimethylbenzene	ND		50.0	59.2		ug/L		118	50 - 150
1,3-Dichlorobenzene	ND		50.0	50.3		ug/L		101	59 - 156
1,3-Dichloropropane	ND		50.0	46.8		ug/L		94	50 - 150
1,4-Dichlorobenzene	ND		50.0	50.2		ug/L		100	18 - 190
2,2-Dichloropropane	ND		50.0	46.5		ug/L		93	50 - 150
2-Butanone (MEK)	ND		50.0	39.7		ug/L		79	50 - 150
2-Chlorotoluene	ND		50.0	54.2		ug/L		108	50 - 150
2-Hexanone	ND		50.0	35.4		ug/L		71	50 - 150
4-Chlorotoluene	ND		50.0	49.0		ug/L		98	50 - 150
4-Isopropyltoluene	ND		50.0	61.3		ug/L		123	50 - 150
4-Methyl-2-pentanone (MIBK)	ND		50.0	40.2		ug/L		80	50 - 150
Acetone	ND		50.0	36.4		ug/L		73	18 - 150
Benzene	ND		50.0	43.3		ug/L		87	35 - 151
Bromobenzene	ND		50.0	54.6		ug/L		109	50 - 150
Bromoform	ND		50.0	48.8		ug/L		98	45 - 169
Bromomethane	ND		50.0	58.3		ug/L		117	10 - 242
Carbon disulfide	ND		50.0	41.4		ug/L		83	50 - 150
Carbon tetrachloride	ND		50.0	48.2		ug/L		96	70 - 140
Chlorobenzene	ND		50.0	47.1		ug/L		94	37 - 160
Chlorobromomethane	ND		50.0	48.7		ug/L		97	50 - 150
Chlorodibromomethane	ND		50.0	48.4		ug/L		97	53 - 149
Chloroethane	ND		50.0	52.4		ug/L		105	14 - 230
Chloroform	ND		50.0	44.3		ug/L		89	51 - 138
Chloromethane	ND		50.0	41.2		ug/L		82	10 - 273
cis-1,2-Dichloroethene	ND		50.0	44.1		ug/L		88	50 - 150
cis-1,3-Dichloropropene	ND		50.0	45.8		ug/L		92	10 - 227
Dibromomethane	ND		50.0	45.5		ug/L		91	50 - 150
Dichlorobromomethane	ND		50.0	43.6		ug/L		87	35 - 155
Dichlorodifluoromethane	ND		50.0	56.3		ug/L		113	50 - 150
Ethanol	ND		1000	842		ug/L		84	50 - 150
Ethylbenzene	ND		50.0	45.6		ug/L		91	37 - 162
Ethylene Dibromide	ND		50.0	45.7		ug/L		91	50 - 150
Hexachlorobutadiene	ND		50.0	62.9		ug/L		126	50 - 150
Iodomethane	ND		50.0	43.3		ug/L		87	50 - 150
Isopropylbenzene	ND		50.0	61.7		ug/L		123	50 - 150

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-193555-2 MS
Matrix: Water
Analysis Batch: 289242

Client Sample ID: EFF-22M11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Methyl tert-butyl ether	ND		50.0	40.9		ug/L		82	50 - 150
Methylene Chloride	ND		50.0	46.7		ug/L		93	10 - 221
m-Xylene & p-Xylene	ND		50.0	57.8		ug/L		116	50 - 150
Naphthalene	ND		50.0	53.4		ug/L		107	50 - 150
n-Butylbenzene	ND		50.0	53.8		ug/L		108	50 - 150
N-Propylbenzene	ND		50.0	55.0		ug/L		110	50 - 150
o-Xylene	ND		50.0	58.7		ug/L		117	50 - 150
sec-Butylbenzene	ND		50.0	64.7		ug/L		129	50 - 150
Styrene	ND		50.0	53.2		ug/L		106	50 - 150
tert-Butylbenzene	ND		50.0	56.0		ug/L		112	50 - 150
Tetrachloroethene	ND		50.0	52.8		ug/L		106	64 - 148
Toluene	ND		50.0	47.0		ug/L		94	47 - 150
trans-1,2-Dichloroethene	ND		50.0	45.2		ug/L		90	54 - 156
trans-1,3-Dichloropropene	ND		50.0	46.2		ug/L		92	17 - 183
Trichloroethene	ND		50.0	45.7		ug/L		91	70 - 157
Trichlorofluoromethane	ND		50.0	54.8		ug/L		110	17 - 181
Vinyl acetate	ND		50.0	43.0		ug/L		86	50 - 150
Vinyl chloride	ND		50.0	48.0		ug/L		96	10 - 251

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*
Dibromofluoromethane (Surr)	*100*		*60 - 140*
Toluene-d8 (Surr)	*98*		*60 - 140*

Lab Sample ID: 550-193555-2 MSD
Matrix: Water
Analysis Batch: 289242

Client Sample ID: EFF-22M11
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	53.9		ug/L		108	50 - 150	9	35
1,1,1-Trichloroethane	ND		50.0	52.1		ug/L		104	52 - 162	10	36
1,1,2,2-Tetrachloroethane	ND		50.0	55.9		ug/L		112	46 - 157	5	61
1,1,2-Trichloroethane	ND		50.0	48.5		ug/L		97	52 - 150	3	45
1,1-Dichloroethane	ND		50.0	46.9		ug/L		94	59 - 155	6	40
1,1-Dichloroethene	ND		50.0	55.1		ug/L		110	10 - 234	11	32
1,1-Dichloropropene	ND		50.0	51.1		ug/L		102	50 - 150	7	35
1,2,3-Trichlorobenzene	ND		50.0	61.6		ug/L		123	50 - 150	9	35
1,2,3-Trichloropropane	ND		50.0	59.7		ug/L		119	50 - 150	10	35
1,2,4-Trichlorobenzene	ND	T5 T2	50.0	57.5	T2	ug/L		115	50 - 150	7	35
1,2,4-Trimethylbenzene	ND		50.0	58.3		ug/L		117	50 - 150	6	35
1,2-Dibromo-3-Chloropropane	ND		50.0	54.1		ug/L		108	50 - 150	7	35
1,2-Dichlorobenzene	ND		50.0	54.6		ug/L		109	18 - 190	5	57
1,2-Dichloroethane	ND		50.0	49.0		ug/L		98	49 - 155	5	49
1,2-Dichloropropane	ND		50.0	46.8		ug/L		94	10 - 210	6	55
1,3,5-Trimethylbenzene	ND		50.0	63.6		ug/L		127	50 - 150	7	35
1,3-Dichlorobenzene	ND		50.0	52.5		ug/L		105	59 - 156	4	43
1,3-Dichloropropane	ND		50.0	47.5		ug/L		95	50 - 150	1	35
1,4-Dichlorobenzene	ND		50.0	51.0		ug/L		102	18 - 190	2	57

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-193555-2 MSD
Matrix: Water
Analysis Batch: 289242

Client Sample ID: EFF-22M11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,2-Dichloropropane	ND		50.0	50.7		ug/L		101	50 - 150	9	35
2-Butanone (MEK)	ND		50.0	42.0		ug/L		84	50 - 150	6	35
2-Chlorotoluene	ND		50.0	57.2		ug/L		114	50 - 150	5	35
2-Hexanone	ND		50.0	36.7		ug/L		73	50 - 150	3	35
4-Chlorotoluene	ND		50.0	51.2		ug/L		102	50 - 150	4	35
4-Isopropyltoluene	ND		50.0	66.2		ug/L		132	50 - 150	8	35
4-Methyl-2-pentanone (MIBK)	ND		50.0	43.9		ug/L		88	50 - 150	9	35
Acetone	ND		50.0	43.8		ug/L		88	18 - 150	18	35
Benzene	ND		50.0	46.9		ug/L		94	35 - 151	8	61
Bromobenzene	ND		50.0	57.4		ug/L		115	50 - 150	5	35
Bromoform	ND		50.0	50.2		ug/L		100	45 - 169	3	42
Bromomethane	ND		50.0	63.0		ug/L		126	10 - 242	8	61
Carbon disulfide	ND		50.0	46.3		ug/L		93	50 - 150	11	35
Carbon tetrachloride	ND		50.0	54.1		ug/L		108	70 - 140	12	41
Chlorobenzene	ND		50.0	48.8		ug/L		98	37 - 160	3	53
Chlorobromomethane	ND		50.0	50.3		ug/L		101	50 - 150	3	35
Chlorodibromomethane	ND		50.0	49.8		ug/L		100	53 - 149	3	50
Chloroethane	ND		50.0	57.0		ug/L		114	14 - 230	8	78
Chloroform	ND		50.0	46.4		ug/L		93	51 - 138	5	54
Chloromethane	ND		50.0	44.5		ug/L		89	10 - 273	8	60
cis-1,2-Dichloroethene	ND		50.0	47.4		ug/L		95	50 - 150	7	35
cis-1,3-Dichloropropene	ND		50.0	47.4		ug/L		95	10 - 227	3	58
Dibromomethane	ND		50.0	47.8		ug/L		96	50 - 150	5	35
Dichlorobromomethane	ND		50.0	46.6		ug/L		93	35 - 155	7	56
Dichlorodifluoromethane	ND		50.0	59.3		ug/L		119	50 - 150	5	35
Ethanol	ND		1000	867		ug/L		87	50 - 150	3	35
Ethylbenzene	ND		50.0	49.1		ug/L		98	37 - 162	7	63
Ethylene Dibromide	ND		50.0	47.0		ug/L		94	50 - 150	3	35
Hexachlorobutadiene	ND		50.0	66.6		ug/L		133	50 - 150	6	35
Iodomethane	ND		50.0	47.5		ug/L		95	50 - 150	9	35
Isopropylbenzene	ND		50.0	67.3		ug/L		135	50 - 150	9	35
Methyl tert-butyl ether	ND		50.0	43.1		ug/L		86	50 - 150	5	35
Methylene Chloride	ND		50.0	50.4		ug/L		101	10 - 221	8	28
m-Xylene & p-Xylene	ND		50.0	60.2		ug/L		120	50 - 150	4	35
Naphthalene	ND		50.0	58.3		ug/L		117	50 - 150	9	35
n-Butylbenzene	ND		50.0	57.1		ug/L		114	50 - 150	6	35
N-Propylbenzene	ND		50.0	59.2		ug/L		118	50 - 150	7	35
o-Xylene	ND		50.0	62.8		ug/L		126	50 - 150	7	35
sec-Butylbenzene	ND		50.0	70.3		ug/L		141	50 - 150	8	35
Styrene	ND		50.0	55.0		ug/L		110	50 - 150	3	35
tert-Butylbenzene	ND		50.0	59.4		ug/L		119	50 - 150	6	35
Tetrachloroethene	ND		50.0	56.9		ug/L		114	64 - 148	7	39
Toluene	ND		50.0	49.9		ug/L		100	47 - 150	6	41
trans-1,2-Dichloroethene	ND		50.0	48.4		ug/L		97	54 - 156	7	45
trans-1,3-Dichloropropene	ND		50.0	46.8		ug/L		94	17 - 183	1	86
Trichloroethene	ND		50.0	48.5		ug/L		97	70 - 157	6	48
Trichlorofluoromethane	ND		50.0	60.8		ug/L		122	17 - 181	10	84
Vinyl acetate	ND		50.0	45.7		ug/L		91	50 - 150	6	35
Vinyl chloride	ND		50.0	52.1		ug/L		104	10 - 251	8	66

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		60 - 140
Dibromofluoromethane (Surr)	102		60 - 140
Toluene-d8 (Surr)	102		60 - 140

Lab Sample ID: MB 550-289363/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 289363

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	ND		3.0		ug/L			11/23/22 12:47	1
Ethylene Dibromide	ND		0.50		ug/L			11/23/22 12:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		60 - 140		11/23/22 12:47	1
Dibromofluoromethane (Surr)	100		60 - 140		11/23/22 12:47	1
Toluene-d8 (Surr)	97		60 - 140		11/23/22 12:47	1

Lab Sample ID: LCS 550-289363/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 289363

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2,3-Trichlorobenzene			50.0	55.0		ug/L		110	60 - 140		
Ethylene Dibromide			50.0	51.6		ug/L		103	60 - 140		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		60 - 140
Dibromofluoromethane (Surr)	110		60 - 140
Toluene-d8 (Surr)	108		60 - 140

Lab Sample ID: LCSD 550-289363/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 289363

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,3-Trichlorobenzene			50.0	55.9		ug/L		112	60 - 140	1	20
Ethylene Dibromide			50.0	51.0		ug/L		102	60 - 140	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		60 - 140
Dibromofluoromethane (Surr)	110		60 - 140
Toluene-d8 (Surr)	109		60 - 140

Lab Sample ID: 550-193555-1 MS — **Client Sample ID: INF-22M11**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 289363

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2,3-Trichlorobenzene	4.3		50.0	52.8		ug/L		97	50 - 150		
Ethylene Dibromide	ND		50.0	50.0		ug/L		100	50 - 150		

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-193555-1 MS
Matrix: Water
Analysis Batch: 289363

Client Sample ID: INF-22M11
Prep Type: Total/NA

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*60 - 140*
Dibromofluoromethane (Surr)	*111*		*60 - 140*
Toluene-d8 (Surr)	*111*		*60 - 140*

Lab Sample ID: 550-193555-1 MSD
Matrix: Water
Analysis Batch: 289363

Client Sample ID: INF-22M11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,3-Trichlorobenzene	4.3		50.0	60.9		ug/L		113	50 - 150	14	35
Ethylene Dibromide	ND		50.0	54.3		ug/L		109	50 - 150	8	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*120*		*60 - 140*
Dibromofluoromethane (Surr)	*117*		*60 - 140*
Toluene-d8 (Surr)	*119*		*60 - 140*

QC Association Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Deer Valley

Job ID: 550-193555-1
SDG: Phoenix, AZ

GC/MS VOA

Analysis Batch: 289242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-193555-1	INF-22M11	Total/NA	Water	624.1	
550-193555-2	EFF-22M11	Total/NA	Water	624.1	
550-193555-3	GAC-2A-100-22M11	Total/NA	Water	624.1	
550-193555-4	GAC-2B-75-22M11	Total/NA	Water	624.1	
550-193555-5	TB-22M11	Total/NA	Water	624.1	
MB 550-289242/6	Method Blank	Total/NA	Water	624.1	
LCS 550-289242/3	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-289242/4	Lab Control Sample Dup	Total/NA	Water	624.1	
550-193555-2 MS	EFF-22M11	Total/NA	Water	624.1	
550-193555-2 MSD	EFF-22M11	Total/NA	Water	624.1	

Analysis Batch: 289363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-193555-1	INF-22M11	Total/NA	Water	624.1	
550-193555-2	EFF-22M11	Total/NA	Water	624.1	
550-193555-3	GAC-2A-100-22M11	Total/NA	Water	624.1	
550-193555-4	GAC-2B-75-22M11	Total/NA	Water	624.1	
550-193555-5	TB-22M11	Total/NA	Water	624.1	
MB 550-289363/6	Method Blank	Total/NA	Water	624.1	
LCS 550-289363/3	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-289363/4	Lab Control Sample Dup	Total/NA	Water	624.1	
550-193555-1 MS	INF-22M11	Total/NA	Water	624.1	
550-193555-1 MSD	INF-22M11	Total/NA	Water	624.1	

Lab Chronicle

Client: Jacobs Engineering Group, Inc.
Project/Site: Deer Valley

Job ID: 550-193555-1
SDG: Phoenix, AZ

Client Sample ID: INF-22M11 — Lab Sample ID: 550-193555-1

Date Collected: 11/11/22 10:59
Date Received: 11/11/22 11:55
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	289242	R1K	EET PHX	11/22/22 15:06
Total/NA	Analysis	624.1		1	289363	TC1	EET PHX	11/23/22 14:32

Client Sample ID: EFF-22M11 — Lab Sample ID: 550-193555-2

Date Collected: 11/11/22 10:49
Date Received: 11/11/22 11:55
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	289242	R1K	EET PHX	11/22/22 15:28
Total/NA	Analysis	624.1		1	289363	TC1	EET PHX	11/23/22 14:58

Client Sample ID: GAC-2A-100-22M11 — Lab Sample ID: 550-193555-3

Date Collected: 11/11/22 10:55
Date Received: 11/11/22 11:55
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	289242	R1K	EET PHX	11/22/22 16:33
Total/NA	Analysis	624.1		1	289363	TC1	EET PHX	11/23/22 15:24

Client Sample ID: GAC-2B-75-22M11 — Lab Sample ID: 550-193555-4

Date Collected: 11/11/22 10:53
Date Received: 11/11/22 11:55
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	289242	R1K	EET PHX	11/22/22 16:55
Total/NA	Analysis	624.1		1	289363	TC1	EET PHX	11/23/22 15:50

Client Sample ID: TB-22M11 — Lab Sample ID: 550-193555-5

Date Collected: 11/11/22 08:00
Date Received: 11/11/22 11:55
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	289242	R1K	EET PHX	11/22/22 13:39
Total/NA	Analysis	624.1		1	289363	TC1	EET PHX	11/23/22 13:13

Laboratory References:

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Deer Valley

Job ID: 550-193555-1
SDG: Phoenix, AZ

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
624.1		Water	1,2,4-Trichlorobenzene
624.1		Water	Trihalomethanes, Total

Method Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Deer Valley

Job ID: 550-193555-1
SDG: Phoenix, AZ

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	EET PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

Laboratory References:

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

193555

Test America Phoenix
4625 East Cotton CTr Blvd Suite 189
Phoenix, AZ 85040
602-437-3340

Honeywell — Chain Of Custody / Analysis Request

AESI Ref:	44876.45643		
COC#	37553-111122		
Lab Proj # (SDG):			
Lab ID	TAL-PHX		
Site ID	DEERV		
Lab Job #			
Authorized User:	Honeywell		
Text & Excel File Drive	Excel & Text File Order		

Privileged & Confidential | 55014762 | Site Name: Deer Valley | Phase: | Lab Proj # (SDG):

Sampling Co.: Jacobs | EDD To: Bernice Kidd, Jacobs HTS | Location of Site: Phoenix AZ. | Sampling Program: Monthly Groundwater Monitoring Program

Client Contact: (name, co., address) | Sampler: T. Kearsley

Jacobs | PO # 4500178520

1501 W. Fountainhead Parkway (suite 401) | Analysis Turnaround Time (TAT): 10

Tempe, AZ 85282 | Consultant: Jacobs

Preliminary Data To: Berney Kidd Jacobs, Lakshmi Gavi HTS, | Laboratory Contact: Danielle Roberts

Sample Receipt Acknowledgement To: Site Distribution List | Report Tier Level: 2

Hard Copy To: Berney Kidd Jacobs, | Full Report TAT: 10

Invoice To: Tao Wu, Honeywell/Copy Berney Kidd | HTS

Preservative: 8 | 0

Copyright AESI: Version 10.0 (11-25-08) Unauthorized use strictly prohibited.

	Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	E624 (Total VOCs)	E300 0 (Nitrite-Nitrate)	MS/MSD	Sampling Method (code)	Lab Sample Numbers
	Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID							Units						
1	Influent			INF-22M11	11/11/2022	10:59	GW-GWS	WATER	REG	3	grab	N	X		-01		
2	Effluent			EFF-22M11	11/11/2022	10:49	GW-GWS	WATER	REG	3	grab	N	X		-02		
3	GAC2A Effluent			GAC-2A-100-22M11	11/11/2022	10:55	GW-GWS	WATER	REG	3	grab	N	X		-03		
4	GAC2B 75%			GAC-2B-75-22M11	11/11/2022	10:53	GW-GWS	WATER	REG	3	grab	N	X		-04		
5	TRIPBLANK			TB-22M11	11/11/2022	8:00	GW-GWS	WATER	REG	1	grab	N	X		-05		
6																	
7																	
8																	
9																	
10																	
11																	
12																	

550-193555 Chain of Custody

Relinquished by: T. Kearsley	Company: Jacobs	Received by:	Company: FETA-PHX	Condition		Custody Seals Intact	
Date/Time: 11/11/22 11:55			Date/Time: 11/11/22 11:55	Cooler Temp.	2.5°		
Relinquished by	Company	Received by	Company	Condition		Custody Seals Intact	
	Date/Time		Date/Time	Cooler Temp.			

Preservatives: (Other; Specify):

0 (none); 1 (4 Deg C); 2 (HCl, pH<2); 3 (HNO3, pH<2); 4 (H2SO4, pH<2); 5 (NaOH, pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4, pH<2, 4 Deg C)); 8 (HCl, pH<2, 4 Deg C); 9 (HCl, 4 Deg C); 10 (HNO3, pH<2, 4 Deg C); 11 (NaOH. pH>12, 4 Deg, Ascorbic Acid); 12 (H2SO4, Na2S2O3, 4 Deg C, pH<2); 13 (Zn Acetate); 14 (1-MeOH, 4 Deg C and 2-NaHSO4, 4 Deg C): 15 (NaOH, pH>12, 4 Deg C); sp (special instructions)

CDO 2.5°

193555

Test America Phoenix
4625 East Cotton CTr Blvd Suite 189
Phoenix, AZ 85040
602-437-3340

Honeywell — Chain Of Custody / Analysis Request

AESI Ref:	44876.45643		
COC#	37553-111122		
Lab Proj # (SDG):			
Lab ID	TAL-PHX		
Site ID	DEERV		
Lab Job #			
Authorized User:	Honeywell		

Privileged & Confidential | 55014762 | Site Name: Deer Valley | Phase: | Sampling Program: Monthly Groundwater Monitoring Program

EDD To: Bernice Kidd, Jacobs HTS | Location of Site: Phoenix AZ.

Sampling Co.: Jacobs

Client Contact: (name, co., address)
Jacobs
1501 W. Fountainhead Parkway (suite 401)
Tempe, AZ 85282

Sampler: T. Kearsley
PO #: 4500178520
Analysis Turnaround Time (TAT): 10
Consultant: Jacobs
Laboratory Contact: Danielle Roberts
Report Tier Level: 2
Full Report TAT: 10 HTS

Preliminary Data To: Bernie Kidd Jacobs, Lakshmi Devi HTS,
Sample Receipt Acknowledgement To: Site Distribution List
Hard Copy To: Bernie Kidd Jacobs,
Invoice To: Tao Wu, Honeywell/Copy Bernie Kidd

Excel & Text File Order

Copyright AESI: Version 10.0 (11-25-08) Unauthorized use strictly prohibited.

	Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	E624 (Total VOCs)	E300 0 (Nitrite-Nitrate)	MS/MSD	Sampling Method (code)	Lab Sample Numbers
	Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID							Units						
1	Influent			INF-22M11	11/11/2022	10:59	GW-GWS	WATER	REG	3	grab	N	X		-01		
2	Effluent			EFF-22M11	11/11/2022	10:49	GW-GWS	WATER	REG	3	grab	N	X		-02		
3	GAC2A Effluent			GAC-2A-100-22M11	11/11/2022	10:55	GW-GWS	WATER	REG	3	grab	N	X		-03		
4	GAC2B 75%			GAC-2B-75-22M11	11/11/2022	10:53	GW-GWS	WATER	REG	3	grab	N	X		-04		
5	TRIPBLANK			TB-22M11	11/11/2022	8:00	GW-GWS	WATER	REG	1	grab	N	X		-05		
6																	
7																	
8																	
9																	
10																	
11																	
12																	

550-193555 Chain of Custody

Relinquished by: T. Kearsley	Company: Jacobs	Received by:	Company: FETA-PHX	Condition		Custody Seals Intact	
Date/Time: 11/11/22 11:55			Date/Time: 11/11/22 11:55	Cooler Temp.	2.5°		
Relinquished by	Company	Received by	Company	Condition		Custody Seals Intact	
	Date/Time		Date/Time	Cooler Temp.			

Preservatives: (Other; Specify):

0 (none); 1 (4 Deg C); 2 (HCl, pH<2); 3 (HNO3, pH<2); 4 (H2SO4, pH<2); 5 (NaOH, pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4, pH<2, 4 Deg C)); 8 (HCl, pH<2, 4 Deg C); 9 (HCl, 4 Deg C); 10 (HNO3, pH<2, 4 Deg C); 11 (NaOH. pH>12, 4 Deg, Ascorbic Acid); 12 (H2SO4, Na2S2O3, 4 Deg C, pH<2); 13 (Zn Acetate); 14 (1-MeOH, 4 Deg C and 2-NaHSO4, 4 Deg C): 15 (NaOH, pH>12, 4 Deg C); sp (special instructions)

CDO 2.5°C

11/28/2022

193555

Test America Phoenix
4625 East Cotton CTr Blvd Suite 189
Phoenix, AZ 85040
602-437-3340

Honeywell — Chain Of Custody / Analysis Request

AESI Ref:	44876.45643
COC#	37553-111122
Lab Proj # (SDG):	
Lab ID	TAL-PHX
Site ID	DEERV
Lab Job #	
Authorized User:	Honeywell

Privileged & Confidential | 55014762

Site Name: Deer Valley
Location of Site: Phoenix AZ.
Phase:
Sampling Program: Monthly Groundwater Monitoring Program

Sampling Co.: Jacobs
EDD To: Bernice Kidd, Jacobs HTS
Client Contact: (name, co., address)
Jacobs
1501 W. Fountainhead Parkway (suite 401)
Tempe, AZ 85282
Sampler: T. Kearsley
PO #: 4500178520
Analysis Turnaround Time (TAT): 10
Consultant: Jacobs
Laboratory Contact: Danielle Roberts
Report Tier Level: 2
Full Report TAT: 10
HTS

Preliminary Data To: Berney Kidd Jacobs, Lakshmi Devi HTS,
Sample Receipt Acknowledgement To: Site Distrbution List
Hard Copy To: Berney Kidd Jacobs,
Invoice To: Tao Wu, Honeywell/Copy Berney Kidd

Text & Excel File Drive | Excel & Text File Order

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Preservative: 8 | 0

	Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID	Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	E624 (Total VOCs)	E300 0 (Nitrite-Nitrate)	MS/MSD	Sampling Method (code)	Lab Sample Numbers
											Units						
1	Influent			INF-22M11	11/11/2022	10:59	GW-GWS	WATER	REG	3	grab	N	X		-01		
2	Effluent			EFF-22M11	11/11/2022	10:49	GW-GWS	WATER	REG	3	grab	N	X		-02		
3	GAC2A Effluent			GAC-2A-100-22M11	11/11/2022	10:55	GW-GWS	WATER	REG	3	grab	N	X		-03		
4	GAC2B 75%			GAC-2B-75-22M11	11/11/2022	10:53	GW-GWS	WATER	REG	3	grab	N	X		-04		
5	TRIPBLANK			TB-22M11	11/11/2022	8:00	GW-GWS	WATER	REG	1	grab	N	X		-05		
6																	
7																	
8																	
9																	
10																	
11																	
12																	

550-193555 Chain of Custody

Relinquished by: T. Kearsley	Company: Jacobs	Received by:	Company: FETA-PHX	Condition		Custody Seals Intact	
Date/Time: 11/11/22 11:55			Date/Time: 11/11/22 11:55	Cooler Temp.	2.5°		
Relinquished by	Company	Received by	Company	Condition		Custody Seals Intact	
	Date/Time		Date/Time	Cooler Temp.			

Preservatives: (Other; Specify):

0 (none); 1 (4 Deg C); 2 (HCl, pH<2); 3 (HNO3, pH<2); 4 (H2SO4, pH<2); 5 (NaOH, pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4, pH<2, 4 Deg C)); 8 (HCl, pH<2, 4 Deg C); 9 (HCl, 4 Deg C); 10 (HNO3, pH<2, 4 Deg C); 11 (NaOH. pH>12, 4 Deg, Ascorbic Acid); 12 (H2SO4, Na2S2O3, 4 Deg C, pH<2); 13 (Zn Acetate); 14 (1-MeOH, 4 Deg C and 2-NaHSO4, 4 Deg C): 15 (NaOH, pH>12, 4 Deg C); sp (special instructions)

CDO 2.5°C

Login Sample Receipt Checklist

Client: Jacobs Engineering Group, Inc.

Job Number: 550-193555-1
SDG Number: Phoenix, AZ

Login Number: 193555
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.

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Bernice Kidd
Jacobs Engineering Group, Inc.
1501 W Fountainhead Parkway
Suite 401
Tempe, Arizona 85282

Generated 12/17/2022 9:54:41 AM

JOB DESCRIPTION

Monthly Groundwater Monitoring Program
SDG NUMBER Deer Valley

JOB NUMBER

550-194524-1

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

See page two for job notes and contact information.

my EOL

Eurofins Phoenix

Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

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

Generated
12/17/2022 9:54:41 AM

Authorized for release by
Danielle Roberts, Senior Project Manager
Danielle.Roberts@et.eurofinsus.com
(657)210-6355

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Sample Summary 6
Detection Summary 7
Client Sample Results 8
Surrogate Summary 17
QC Sample Results 18
QC Association Summary 43
Lab Chronicle 44
Certification Summary 45
Method Summary 46
Chain of Custody 47
Receipt Checklists 48

Definitions/Glossary

Client: Jacobs Engineering Group, Inc.
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-194524-1
SDG: Deer Valley

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
T2	Cited ADHS licensed method does not contain this analyte as part of the method compound list.
T5	Laboratory not licensed for this parameter

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: 550-194524-1

Laboratory: Eurofins Phoenix

Narrative

Job Narrative
550-194524-1

Comments
No additional comments.

Receipt
The samples were received on 12/6/2022 12:12 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.4º C.

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

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

Sample Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-194524-1
SDG: Deer Valley

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-194524-1	INF-22M12	Water	12/06/22 10:30	12/06/22 12:12
550-194524-2	EFF-22M12	Water	12/06/22 10:18	12/06/22 12:12
550-194524-3	GAC-2A-100-22M12	Water	12/06/22 10:25	12/06/22 12:12
550-194524-4	GAC-2B-75-22M12	Water	12/06/22 10:23	12/06/22 12:12
550-194524-5	TB-22M12	Water	12/06/22 08:00	12/06/22 12:12

Detection Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-194524-1
SDG: Deer Valley

Client Sample ID: INF-22M12 — Lab Sample ID: 550-194524-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.66		0.50		ug/L	1		624.1	Total/NA
cis-1,2-Dichloroethene	5.1		0.50		ug/L	1		624.1	Total/NA
Tetrachloroethene	1.4		0.50		ug/L	1		624.1	Total/NA
Trichloroethene	32		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	0.66	T5	0.50		ug/L	1		624.1	Total/NA

Client Sample ID: EFF-22M12 — Lab Sample ID: 550-194524-2

No Detections.

Client Sample ID: GAC-2A-100-22M12 — Lab Sample ID: 550-194524-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.53		0.50		ug/L	1		624.1	Total/NA
Chloroform	0.71		0.50		ug/L	1		624.1	Total/NA
cis-1,2-Dichloroethene	5.0		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	0.71	T5	0.50		ug/L	1		624.1	Total/NA

Client Sample ID: GAC-2B-75-22M12 — Lab Sample ID: 550-194524-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.63		0.50		ug/L	1		624.1	Total/NA
cis-1,2-Dichloroethene	1.0		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	0.63	T5	0.50		ug/L	1		624.1	Total/NA

Client Sample ID: TB-22M12 — Lab Sample ID: 550-194524-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-194524-1
SDG: Deer Valley

Client Sample ID: INF-22M12

Date Collected: 12/06/22 10:30
Date Received: 12/06/22 12:12

Lab Sample ID: 550-194524-1

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			12/14/22 03:38	1
1,1,1-Trichloroethane	ND		0.50		ug/L			12/14/22 03:38	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			12/14/22 03:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			12/14/22 03:38	1
1,1,2-Trichloroethane	ND		0.50		ug/L			12/14/22 03:38	1
1,1-Dichloroethane	ND		0.50		ug/L			12/14/22 03:38	1
1,1-Dichloroethene	ND		0.50		ug/L			12/14/22 03:38	1
1,1-Dichloropropene	ND		0.50		ug/L			12/14/22 03:38	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			12/14/22 03:38	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/14/22 03:38	1
1,2,4-Trichlorobenzene	ND	T5	2.0		ug/L			12/14/22 03:38	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			12/14/22 03:38	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			12/14/22 03:38	1
1,2-Dichlorobenzene	ND		0.50		ug/L			12/14/22 03:38	1
1,2-Dichloroethane	ND		0.50		ug/L			12/14/22 03:38	1
1,2-Dichloropropane	ND		0.50		ug/L			12/14/22 03:38	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			12/14/22 03:38	1
1,3-Dichlorobenzene	ND		0.50		ug/L			12/14/22 03:38	1
1,3-Dichloropropane	ND		0.50		ug/L			12/14/22 03:38	1
1,4-Dichlorobenzene	ND		0.50		ug/L			12/14/22 03:38	1
2,2-Dichloropropane	ND		1.0		ug/L			12/14/22 03:38	1
2-Butanone (MEK)	ND		10		ug/L			12/14/22 03:38	1
2-Chlorotoluene	ND		0.50		ug/L			12/14/22 03:38	1
2-Hexanone	ND		5.0		ug/L			12/14/22 03:38	1
4-Chlorotoluene	ND		0.50		ug/L			12/14/22 03:38	1
4-Isopropyltoluene	ND		0.50		ug/L			12/14/22 03:38	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			12/14/22 03:38	1
Acetone	ND		10		ug/L			12/14/22 03:38	1
Benzene	ND		0.50		ug/L			12/14/22 03:38	1
Bromobenzene	ND		1.0		ug/L			12/14/22 03:38	1
Bromoform	ND		1.0		ug/L			12/14/22 03:38	1
Bromomethane	ND		5.0		ug/L			12/14/22 03:38	1
Carbon disulfide	ND		5.0		ug/L			12/14/22 03:38	1
Carbon tetrachloride	ND		0.50		ug/L			12/14/22 03:38	1
Chlorobenzene	ND		0.50		ug/L			12/14/22 03:38	1
Chlorobromomethane	ND		0.50		ug/L			12/14/22 03:38	1
Chlorodibromomethane	ND		0.50		ug/L			12/14/22 03:38	1
Chloroethane	ND		1.0		ug/L			12/14/22 03:38	1
Chloroform	**0.66**		0.50		ug/L			12/14/22 03:38	1
Chloromethane	ND		1.0		ug/L			12/14/22 03:38	1
cis-1,2-Dichloroethene	**5.1**		0.50		ug/L			12/14/22 03:38	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			12/14/22 03:38	1
Dibromomethane	ND		0.50		ug/L			12/14/22 03:38	1
Dichlorobromomethane	ND		0.50		ug/L			12/14/22 03:38	1
Dichlorodifluoromethane	ND		1.0		ug/L			12/14/22 03:38	1
Ethanol	ND		150		ug/L			12/14/22 03:38	1
Ethylbenzene	ND		0.50		ug/L			12/14/22 03:38	1
Ethylene Dibromide	ND		0.50		ug/L			12/14/22 03:38	1
Hexachlorobutadiene	ND		5.0		ug/L			12/14/22 03:38	1

Client Sample ID: INF-22M12

Lab Sample ID: 550-194524-1

Date Collected: 12/06/22 10:30
Matrix: Water
Date Received: 12/06/22 12:12

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND		2.0	ug/L			12/14/22 03:38	1
Isopropylbenzene	ND		0.50	ug/L			12/14/22 03:38	1
Methyl tert-butyl ether	ND		0.50	ug/L			12/14/22 03:38	1
Methylene Chloride	ND		5.0	ug/L			12/14/22 03:38	1
m-Xylene & p-Xylene	ND		1.0	ug/L			12/14/22 03:38	1
Naphthalene	ND		5.0	ug/L			12/14/22 03:38	1
n-Butylbenzene	ND		1.0	ug/L			12/14/22 03:38	1
N-Propylbenzene	ND		0.50	ug/L			12/14/22 03:38	1
o-Xylene	ND		0.50	ug/L			12/14/22 03:38	1
sec-Butylbenzene	ND		0.50	ug/L			12/14/22 03:38	1
Styrene	ND		1.0	ug/L			12/14/22 03:38	1
tert-Butylbenzene	ND		0.50	ug/L			12/14/22 03:38	1
Tetrachloroethene	**1.4**		0.50	ug/L			12/14/22 03:38	1
Toluene	ND		0.50	ug/L			12/14/22 03:38	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			12/14/22 03:38	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			12/14/22 03:38	1
Trichloroethene	**32**		0.50	ug/L			12/14/22 03:38	1
Trichlorofluoromethane	ND		1.0	ug/L			12/14/22 03:38	1
Trihalomethanes, Total	**0.66**	**T5**	0.50	ug/L			12/14/22 03:38	1
Vinyl acetate	ND		5.0	ug/L			12/14/22 03:38	1
Vinyl chloride	ND		1.0	ug/L			12/14/22 03:38	1
Xylenes, Total	ND		0.50	ug/L			12/14/22 03:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*12/14/22 03:38*	*1*
Dibromofluoromethane (Surr)	*122*		*60 - 140*		*12/14/22 03:38*	*1*
Toluene-d8 (Surr)	*99*		*60 - 140*		*12/14/22 03:38*	*1*

Client Sample ID: EFF-22M12

Lab Sample ID: 550-194524-2

Date Collected: 12/06/22 10:18
Matrix: Water
Date Received: 12/06/22 12:12

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			12/14/22 12:32	1
1,1,1-Trichloroethane	ND		0.50	ug/L			12/14/22 12:32	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			12/14/22 12:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			12/14/22 12:32	1
1,1,2-Trichloroethane	ND		0.50	ug/L			12/14/22 12:32	1
1,1-Dichloroethane	ND		0.50	ug/L			12/14/22 12:32	1
1,1-Dichloroethene	ND		0.50	ug/L			12/14/22 12:32	1
1,1-Dichloropropene	ND		0.50	ug/L			12/14/22 12:32	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			12/14/22 12:32	1
1,2,3-Trichloropropane	ND		2.0	ug/L			12/14/22 12:32	1
1,2,4-Trichlorobenzene	ND	T5	2.0	ug/L			12/14/22 12:32	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			12/14/22 12:32	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			12/14/22 12:32	1
1,2-Dichlorobenzene	ND		0.50	ug/L			12/14/22 12:32	1
1,2-Dichloroethane	ND		0.50	ug/L			12/14/22 12:32	1
1,2-Dichloropropane	ND		0.50	ug/L			12/14/22 12:32	1

Client Sample ID: EFF-22M12

Date Collected: 12/06/22 10:18
Date Received: 12/06/22 12:12

Lab Sample ID: 550-194524-2

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		0.50		ug/L			12/14/22 12:32	1
1,3-Dichlorobenzene	ND		0.50		ug/L			12/14/22 12:32	1
1,3-Dichloropropane	ND		0.50		ug/L			12/14/22 12:32	1
1,4-Dichlorobenzene	ND		0.50		ug/L			12/14/22 12:32	1
2,2-Dichloropropane	ND		1.0		ug/L			12/14/22 12:32	1
2-Butanone (MEK)	ND		10		ug/L			12/14/22 12:32	1
2-Chlorotoluene	ND		0.50		ug/L			12/14/22 12:32	1
2-Hexanone	ND		5.0		ug/L			12/14/22 12:32	1
4-Chlorotoluene	ND		0.50		ug/L			12/14/22 12:32	1
4-Isopropyltoluene	ND		0.50		ug/L			12/14/22 12:32	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			12/14/22 12:32	1
Acetone	ND		10		ug/L			12/14/22 12:32	1
Benzene	ND		0.50		ug/L			12/14/22 12:32	1
Bromobenzene	ND		1.0		ug/L			12/14/22 12:32	1
Bromoform	ND		1.0		ug/L			12/14/22 12:32	1
Bromomethane	ND		5.0		ug/L			12/14/22 12:32	1
Carbon disulfide	ND		5.0		ug/L			12/14/22 12:32	1
Carbon tetrachloride	ND		0.50		ug/L			12/14/22 12:32	1
Chlorobenzene	ND		0.50		ug/L			12/14/22 12:32	1
Chlorobromomethane	ND		0.50		ug/L			12/14/22 12:32	1
Chlorodibromomethane	ND		0.50		ug/L			12/14/22 12:32	1
Chloroethane	ND		1.0		ug/L			12/14/22 12:32	1
Chloroform	ND		0.50		ug/L			12/14/22 12:32	1
Chloromethane	ND		1.0		ug/L			12/14/22 12:32	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			12/14/22 12:32	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			12/14/22 12:32	1
Dibromomethane	ND		0.50		ug/L			12/14/22 12:32	1
Dichlorobromomethane	ND		0.50		ug/L			12/14/22 12:32	1
Dichlorodifluoromethane	ND		1.0		ug/L			12/14/22 12:32	1
Ethanol	ND		150		ug/L			12/14/22 12:32	1
Ethylbenzene	ND		0.50		ug/L			12/14/22 12:32	1
Ethylene Dibromide	ND		0.50		ug/L			12/14/22 12:32	1
Hexachlorobutadiene	ND		5.0		ug/L			12/14/22 12:32	1
Iodomethane	ND		2.0		ug/L			12/14/22 12:32	1
Isopropylbenzene	ND		0.50		ug/L			12/14/22 12:32	1
Methyl tert-butyl ether	ND		0.50		ug/L			12/14/22 12:32	1
Methylene Chloride	ND		5.0		ug/L			12/14/22 12:32	1
m-Xylene & p-Xylene	ND		1.0		ug/L			12/14/22 12:32	1
Naphthalene	ND		5.0		ug/L			12/14/22 12:32	1
n-Butylbenzene	ND		1.0		ug/L			12/14/22 12:32	1
N-Propylbenzene	ND		0.50		ug/L			12/14/22 12:32	1
o-Xylene	ND		0.50		ug/L			12/14/22 12:32	1
sec-Butylbenzene	ND		0.50		ug/L			12/14/22 12:32	1
Styrene	ND		1.0		ug/L			12/14/22 12:32	1
tert-Butylbenzene	ND		0.50		ug/L			12/14/22 12:32	1
Tetrachloroethene	ND		0.50		ug/L			12/14/22 12:32	1
Toluene	ND		0.50		ug/L			12/14/22 12:32	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			12/14/22 12:32	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			12/14/22 12:32	1

Client Sample ID: EFF-22M12

Lab Sample ID: 550-194524-2

Date Collected: 12/06/22 10:18
Matrix: Water
Date Received: 12/06/22 12:12

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		0.50	ug/L			12/14/22 12:32	1
Trichlorofluoromethane	ND		1.0	ug/L			12/14/22 12:32	1
Trihalomethanes, Total	ND	T5	0.50	ug/L			12/14/22 12:32	1
Vinyl acetate	ND		5.0	ug/L			12/14/22 12:32	1
Vinyl chloride	ND		1.0	ug/L			12/14/22 12:32	1
Xylenes, Total	ND		0.50	ug/L			12/14/22 12:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*12/14/22 12:32*	*1*
Dibromofluoromethane (Surr)	*104*		*60 - 140*		*12/14/22 12:32*	*1*
Toluene-d8 (Surr)	*85*		*60 - 140*		*12/14/22 12:32*	*1*

Client Sample ID: GAC-2A-100-22M12

Lab Sample ID: 550-194524-3

Date Collected: 12/06/22 10:25
Matrix: Water
Date Received: 12/06/22 12:12

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			12/14/22 13:35	1
1,1,1-Trichloroethane	ND		0.50	ug/L			12/14/22 13:35	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			12/14/22 13:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			12/14/22 13:35	1
1,1,2-Trichloroethane	ND		0.50	ug/L			12/14/22 13:35	1
1,1-Dichloroethane	ND		0.50	ug/L			12/14/22 13:35	1
1,1-Dichloroethene	**0.53**		0.50	ug/L			12/14/22 13:35	1
1,1-Dichloropropene	ND		0.50	ug/L			12/14/22 13:35	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			12/14/22 13:35	1
1,2,3-Trichloropropane	ND		2.0	ug/L			12/14/22 13:35	1
1,2,4-Trichlorobenzene	ND	T5	2.0	ug/L			12/14/22 13:35	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			12/14/22 13:35	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			12/14/22 13:35	1
1,2-Dichlorobenzene	ND		0.50	ug/L			12/14/22 13:35	1
1,2-Dichloroethane	ND		0.50	ug/L			12/14/22 13:35	1
1,2-Dichloropropane	ND		0.50	ug/L			12/14/22 13:35	1
1,3,5-Trimethylbenzene	ND		0.50	ug/L			12/14/22 13:35	1
1,3-Dichlorobenzene	ND		0.50	ug/L			12/14/22 13:35	1
1,3-Dichloropropane	ND		0.50	ug/L			12/14/22 13:35	1
1,4-Dichlorobenzene	ND		0.50	ug/L			12/14/22 13:35	1
2,2-Dichloropropane	ND		1.0	ug/L			12/14/22 13:35	1
2-Butanone (MEK)	ND		10	ug/L			12/14/22 13:35	1
2-Chlorotoluene	ND		0.50	ug/L			12/14/22 13:35	1
2-Hexanone	ND		5.0	ug/L			12/14/22 13:35	1
4-Chlorotoluene	ND		0.50	ug/L			12/14/22 13:35	1
4-Isopropyltoluene	ND		0.50	ug/L			12/14/22 13:35	1
4-Methyl-2-pentanone (MIBK)	ND		2.5	ug/L			12/14/22 13:35	1
Acetone	ND		10	ug/L			12/14/22 13:35	1
Benzene	ND		0.50	ug/L			12/14/22 13:35	1
Bromobenzene	ND		1.0	ug/L			12/14/22 13:35	1
Bromoform	ND		1.0	ug/L			12/14/22 13:35	1
Bromomethane	ND		5.0	ug/L			12/14/22 13:35	1

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-194524-1
SDG: Deer Valley

Client Sample ID: GAC-2A-100-22M12

Lab Sample ID: 550-194524-3

Date Collected: 12/06/22 10:25
Matrix: Water
Date Received: 12/06/22 12:12

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		5.0		ug/L			12/14/22 13:35	1
Carbon tetrachloride	ND		0.50		ug/L			12/14/22 13:35	1
Chlorobenzene	ND		0.50		ug/L			12/14/22 13:35	1
Chlorobromomethane	ND		0.50		ug/L			12/14/22 13:35	1
Chlorodibromomethane	ND		0.50		ug/L			12/14/22 13:35	1
Chloroethane	ND		1.0		ug/L			12/14/22 13:35	1
Chloroform	**0.71**		0.50		ug/L			12/14/22 13:35	1
Chloromethane	ND		1.0		ug/L			12/14/22 13:35	1
cis-1,2-Dichloroethene	**5.0**		0.50		ug/L			12/14/22 13:35	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			12/14/22 13:35	1
Dibromomethane	ND		0.50		ug/L			12/14/22 13:35	1
Dichlorobromomethane	ND		0.50		ug/L			12/14/22 13:35	1
Dichlorodifluoromethane	ND		1.0		ug/L			12/14/22 13:35	1
Ethanol	ND		150		ug/L			12/14/22 13:35	1
Ethylbenzene	ND		0.50		ug/L			12/14/22 13:35	1
Ethylene Dibromide	ND		0.50		ug/L			12/14/22 13:35	1
Hexachlorobutadiene	ND		5.0		ug/L			12/14/22 13:35	1
Iodomethane	ND		2.0		ug/L			12/14/22 13:35	1
Isopropylbenzene	ND		0.50		ug/L			12/14/22 13:35	1
Methyl tert-butyl ether	ND		0.50		ug/L			12/14/22 13:35	1
Methylene Chloride	ND		5.0		ug/L			12/14/22 13:35	1
m-Xylene & p-Xylene	ND		1.0		ug/L			12/14/22 13:35	1
Naphthalene	ND		5.0		ug/L			12/14/22 13:35	1
n-Butylbenzene	ND		1.0		ug/L			12/14/22 13:35	1
N-Propylbenzene	ND		0.50		ug/L			12/14/22 13:35	1
o-Xylene	ND		0.50		ug/L			12/14/22 13:35	1
sec-Butylbenzene	ND		0.50		ug/L			12/14/22 13:35	1
Styrene	ND		1.0		ug/L			12/14/22 13:35	1
tert-Butylbenzene	ND		0.50		ug/L			12/14/22 13:35	1
Tetrachloroethene	ND		0.50		ug/L			12/14/22 13:35	1
Toluene	ND		0.50		ug/L			12/14/22 13:35	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			12/14/22 13:35	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			12/14/22 13:35	1
Trichloroethene	ND		0.50		ug/L			12/14/22 13:35	1
Trichlorofluoromethane	ND		1.0		ug/L			12/14/22 13:35	1
Trihalomethanes, Total	**0.71**	**T5**	0.50		ug/L			12/14/22 13:35	1
Vinyl acetate	ND		5.0		ug/L			12/14/22 13:35	1
Vinyl chloride	ND		1.0		ug/L			12/14/22 13:35	1
Xylenes, Total	ND		0.50		ug/L			12/14/22 13:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*		*12/14/22 13:35*	*1*
Dibromofluoromethane (Surr)	*104*		*60 - 140*		*12/14/22 13:35*	*1*
Toluene-d8 (Surr)	*87*		*60 - 140*		*12/14/22 13:35*	*1*

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-194524-1
SDG: Deer Valley

Client Sample ID: GAC-2B-75-22M12

Lab Sample ID: 550-194524-4

Date Collected: 12/06/22 10:23
Matrix: Water
Date Received: 12/06/22 12:12

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			12/14/22 19:27	1
1,1,1-Trichloroethane	ND		0.50		ug/L			12/14/22 19:27	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			12/14/22 19:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			12/14/22 19:27	1
1,1,2-Trichloroethane	ND		0.50		ug/L			12/14/22 19:27	1
1,1-Dichloroethane	ND		0.50		ug/L			12/14/22 19:27	1
1,1-Dichloroethene	ND		0.50		ug/L			12/14/22 19:27	1
1,1-Dichloropropene	ND		0.50		ug/L			12/14/22 19:27	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			12/14/22 19:27	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/14/22 19:27	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0		ug/L			12/14/22 19:27	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			12/14/22 19:27	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			12/14/22 19:27	1
1,2-Dichlorobenzene	ND		0.50		ug/L			12/14/22 19:27	1
1,2-Dichloroethane	ND		0.50		ug/L			12/14/22 19:27	1
1,2-Dichloropropane	ND		0.50		ug/L			12/14/22 19:27	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			12/14/22 19:27	1
1,3-Dichlorobenzene	ND		0.50		ug/L			12/14/22 19:27	1
1,3-Dichloropropane	ND		0.50		ug/L			12/14/22 19:27	1
1,4-Dichlorobenzene	ND		0.50		ug/L			12/14/22 19:27	1
2,2-Dichloropropane	ND		1.0		ug/L			12/14/22 19:27	1
2-Butanone (MEK)	ND		10		ug/L			12/14/22 19:27	1
2-Chlorotoluene	ND		0.50		ug/L			12/14/22 19:27	1
2-Hexanone	ND		5.0		ug/L			12/14/22 19:27	1
4-Chlorotoluene	ND		0.50		ug/L			12/14/22 19:27	1
4-Isopropyltoluene	ND		0.50		ug/L			12/14/22 19:27	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			12/14/22 19:27	1
Acetone	ND		10		ug/L			12/14/22 19:27	1
Benzene	ND		0.50		ug/L			12/14/22 19:27	1
Bromobenzene	ND		1.0		ug/L			12/14/22 19:27	1
Bromoform	ND		1.0		ug/L			12/14/22 19:27	1
Bromomethane	ND		5.0		ug/L			12/14/22 19:27	1
Carbon disulfide	ND		5.0		ug/L			12/14/22 19:27	1
Carbon tetrachloride	ND		0.50		ug/L			12/14/22 19:27	1
Chlorobenzene	ND		0.50		ug/L			12/14/22 19:27	1
Chlorobromomethane	ND		0.50		ug/L			12/14/22 19:27	1
Chlorodibromomethane	ND		0.50		ug/L			12/14/22 19:27	1
Chloroethane	ND		1.0		ug/L			12/14/22 19:27	1
Chloroform	**0.63**		0.50		ug/L			12/14/22 19:27	1
Chloromethane	ND		1.0		ug/L			12/14/22 19:27	1
cis-1,2-Dichloroethene	**1.0**		0.50		ug/L			12/14/22 19:27	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			12/14/22 19:27	1
Dibromomethane	ND		0.50		ug/L			12/14/22 19:27	1
Dichlorobromomethane	ND		0.50		ug/L			12/14/22 19:27	1
Dichlorodifluoromethane	ND		1.0		ug/L			12/14/22 19:27	1
Ethanol	ND		150		ug/L			12/14/22 19:27	1
Ethylbenzene	ND		0.50		ug/L			12/14/22 19:27	1
Ethylene Dibromide	ND		0.50		ug/L			12/14/22 19:27	1
Hexachlorobutadiene	ND		5.0		ug/L			12/14/22 19:27	1

Client Sample ID: GAC-2B-75-22M12

Lab Sample ID: 550-194524-4

Date Collected: 12/06/22 10:23
Matrix: Water
Date Received: 12/06/22 12:12

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND		2.0		ug/L			12/14/22 19:27	1
Isopropylbenzene	ND		0.50		ug/L			12/14/22 19:27	1
Methyl tert-butyl ether	ND		0.50		ug/L			12/14/22 19:27	1
Methylene Chloride	ND		5.0		ug/L			12/14/22 19:27	1
m-Xylene & p-Xylene	ND		1.0		ug/L			12/14/22 19:27	1
Naphthalene	ND		5.0		ug/L			12/14/22 19:27	1
n-Butylbenzene	ND		1.0		ug/L			12/14/22 19:27	1
N-Propylbenzene	ND		0.50		ug/L			12/14/22 19:27	1
o-Xylene	ND		0.50		ug/L			12/14/22 19:27	1
sec-Butylbenzene	ND		0.50		ug/L			12/14/22 19:27	1
Styrene	ND		1.0		ug/L			12/14/22 19:27	1
tert-Butylbenzene	ND		0.50		ug/L			12/14/22 19:27	1
Tetrachloroethene	ND		0.50		ug/L			12/14/22 19:27	1
Toluene	ND		0.50		ug/L			12/14/22 19:27	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			12/14/22 19:27	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			12/14/22 19:27	1
Trichloroethene	ND		0.50		ug/L			12/14/22 19:27	1
Trichlorofluoromethane	ND		1.0		ug/L			12/14/22 19:27	1
Trihalomethanes, Total	**0.63**	**T5**	0.50		ug/L			12/14/22 19:27	1
Vinyl acetate	ND		5.0		ug/L			12/14/22 19:27	1
Vinyl chloride	ND		1.0		ug/L			12/14/22 19:27	1
Xylenes, Total	ND		0.50		ug/L			12/14/22 19:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*12/14/22 19:27*	*1*
Dibromofluoromethane (Surr)	*95*		*60 - 140*		*12/14/22 19:27*	*1*
Toluene-d8 (Surr)	*88*		*60 - 140*		*12/14/22 19:27*	*1*

Client Sample ID: TB-22M12

Lab Sample ID: 550-194524-5

Date Collected: 12/06/22 08:00
Matrix: Water
Date Received: 12/06/22 12:12

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			12/14/22 11:51	1
1,1,1-Trichloroethane	ND		0.50		ug/L			12/14/22 11:51	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			12/14/22 11:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			12/14/22 11:51	1
1,1,2-Trichloroethane	ND		0.50		ug/L			12/14/22 11:51	1
1,1-Dichloroethane	ND		0.50		ug/L			12/14/22 11:51	1
1,1-Dichloroethene	ND		0.50		ug/L			12/14/22 11:51	1
1,1-Dichloropropene	ND		0.50		ug/L			12/14/22 11:51	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			12/14/22 11:51	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/14/22 11:51	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0		ug/L			12/14/22 11:51	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			12/14/22 11:51	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			12/14/22 11:51	1
1,2-Dichlorobenzene	ND		0.50		ug/L			12/14/22 11:51	1
1,2-Dichloroethane	ND		0.50		ug/L			12/14/22 11:51	1
1,2-Dichloropropane	ND		0.50		ug/L			12/14/22 11:51	1

Client Sample ID: TB-22M12

Date Collected: 12/06/22 08:00
Date Received: 12/06/22 12:12

Lab Sample ID: 550-194524-5

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		0.50		ug/L			12/14/22 11:51	1
1,3-Dichlorobenzene	ND		0.50		ug/L			12/14/22 11:51	1
1,3-Dichloropropane	ND		0.50		ug/L			12/14/22 11:51	1
1,4-Dichlorobenzene	ND		0.50		ug/L			12/14/22 11:51	1
2,2-Dichloropropane	ND		1.0		ug/L			12/14/22 11:51	1
2-Butanone (MEK)	ND		10		ug/L			12/14/22 11:51	1
2-Chlorotoluene	ND		0.50		ug/L			12/14/22 11:51	1
2-Hexanone	ND		5.0		ug/L			12/14/22 11:51	1
4-Chlorotoluene	ND		0.50		ug/L			12/14/22 11:51	1
4-Isopropyltoluene	ND		0.50		ug/L			12/14/22 11:51	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			12/14/22 11:51	1
Acetone	ND		10		ug/L			12/14/22 11:51	1
Benzene	ND		0.50		ug/L			12/14/22 11:51	1
Bromobenzene	ND		1.0		ug/L			12/14/22 11:51	1
Bromoform	ND		1.0		ug/L			12/14/22 11:51	1
Bromomethane	ND		5.0		ug/L			12/14/22 11:51	1
Carbon disulfide	ND		5.0		ug/L			12/14/22 11:51	1
Carbon tetrachloride	ND		0.50		ug/L			12/14/22 11:51	1
Chlorobenzene	ND		0.50		ug/L			12/14/22 11:51	1
Chlorobromomethane	ND		0.50		ug/L			12/14/22 11:51	1
Chlorodibromomethane	ND		0.50		ug/L			12/14/22 11:51	1
Chloroethane	ND		1.0		ug/L			12/14/22 11:51	1
Chloroform	ND		0.50		ug/L			12/14/22 11:51	1
Chloromethane	ND		1.0		ug/L			12/14/22 11:51	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			12/14/22 11:51	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			12/14/22 11:51	1
Dibromomethane	ND		0.50		ug/L			12/14/22 11:51	1
Dichlorobromomethane	ND		0.50		ug/L			12/14/22 11:51	1
Dichlorodifluoromethane	ND		1.0		ug/L			12/14/22 11:51	1
Ethanol	ND		150		ug/L			12/14/22 11:51	1
Ethylbenzene	ND		0.50		ug/L			12/14/22 11:51	1
Ethylene Dibromide	ND		0.50		ug/L			12/14/22 11:51	1
Hexachlorobutadiene	ND		5.0		ug/L			12/14/22 11:51	1
Iodomethane	ND		2.0		ug/L			12/14/22 11:51	1
Isopropylbenzene	ND		0.50		ug/L			12/14/22 11:51	1
Methyl tert-butyl ether	ND		0.50		ug/L			12/14/22 11:51	1
Methylene Chloride	ND		5.0		ug/L			12/14/22 11:51	1
m-Xylene & p-Xylene	ND		1.0		ug/L			12/14/22 11:51	1
Naphthalene	ND		5.0		ug/L			12/14/22 11:51	1
n-Butylbenzene	ND		1.0		ug/L			12/14/22 11:51	1
N-Propylbenzene	ND		0.50		ug/L			12/14/22 11:51	1
o-Xylene	ND		0.50		ug/L			12/14/22 11:51	1
sec-Butylbenzene	ND		0.50		ug/L			12/14/22 11:51	1
Styrene	ND		1.0		ug/L			12/14/22 11:51	1
tert-Butylbenzene	ND		0.50		ug/L			12/14/22 11:51	1
Tetrachloroethene	ND		0.50		ug/L			12/14/22 11:51	1
Toluene	ND		0.50		ug/L			12/14/22 11:51	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			12/14/22 11:51	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			12/14/22 11:51	1

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-194524-1
SDG: Deer Valley

Client Sample ID: TB-22M12

Lab Sample ID: 550-194524-5

Date Collected: 12/06/22 08:00
Matrix: Water
Date Received: 12/06/22 12:12

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		0.50		ug/L			12/14/22 11:51	1
Trichlorofluoromethane	ND		1.0		ug/L			12/14/22 11:51	1
Trihalomethanes, Total	ND	T5	0.50		ug/L			12/14/22 11:51	1
Vinyl acetate	ND		5.0		ug/L			12/14/22 11:51	1
Vinyl chloride	ND		1.0		ug/L			12/14/22 11:51	1
Xylenes, Total	ND		0.50		ug/L			12/14/22 11:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*12/14/22 11:51*	*1*
Dibromofluoromethane (Surr)	*95*		*60 - 140*		*12/14/22 11:51*	*1*
Toluene-d8 (Surr)	*88*		*60 - 140*		*12/14/22 11:51*	*1*

Surrogate Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-194524-1
SDG: Deer Valley

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
		BFB	DBFM	TOL					
Lab Sample ID	**Client Sample ID**	**(60-140)**	**(60-140)**	**(60-140)**					
550-194524-1	INF-22M12	89	122	99					
550-194524-2	EFF-22M12	91	104	85					
550-194524-3	GAC-2A-100-22M12	90	104	87					
550-194524-3 MS	GAC-2A-100-22M12	103	99	95					
550-194524-3 MSD	GAC-2A-100-22M12	104	96	95					
550-194524-4	GAC-2B-75-22M12	93	95	88					
550-194524-5	TB-22M12	93	95	88					
550-194578-A-6 MS	Matrix Spike	114	109	101					
550-194578-A-6 MSD	Matrix Spike Duplicate	116	116	106					
550-194704-A-6 MS	Matrix Spike	109	93	97					
550-194704-A-6 MSD	Matrix Spike Duplicate	105	93	96					
LCS 550-290710/4	Lab Control Sample	115	110	101					
LCS 550-290730/3	Lab Control Sample	101	101	96					
LCS 550-290731/3	Lab Control Sample	101	92	95					
LCSD 550-290710/5	Lab Control Sample Dup	113	109	101					
LCSD 550-290730/4	Lab Control Sample Dup	95	94	89					
LCSD 550-290731/4	Lab Control Sample Dup	104	96	96					
MB 550-290710/7	Method Blank	86	121	101					
MB 550-290730/6	Method Blank	90	101	87					
MB 550-290731/6	Method Blank	93	97	90					

Surrogate Legend

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

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-290710/7
Matrix: Water
Analysis Batch: 290710

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		0.50		ug/L			12/14/22 00:29	1
1,1,1-Trichloroethane	ND		0.50		ug/L			12/14/22 00:29	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			12/14/22 00:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			12/14/22 00:29	1
1,1,2-Trichloroethane	ND		0.50		ug/L			12/14/22 00:29	1
1,1-Dichloroethane	ND		0.50		ug/L			12/14/22 00:29	1
1,1-Dichloroethene	ND		0.50		ug/L			12/14/22 00:29	1
1,1-Dichloropropene	ND		0.50		ug/L			12/14/22 00:29	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			12/14/22 00:29	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/14/22 00:29	1
1,2,4-Trichlorobenzene	ND		2.0		ug/L			12/14/22 00:29	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			12/14/22 00:29	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			12/14/22 00:29	1
1,2-Dichlorobenzene	ND		0.50		ug/L			12/14/22 00:29	1
1,2-Dichloroethane	ND		0.50		ug/L			12/14/22 00:29	1
1,2-Dichloropropane	ND		0.50		ug/L			12/14/22 00:29	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			12/14/22 00:29	1
1,3-Dichlorobenzene	ND		0.50		ug/L			12/14/22 00:29	1
1,3-Dichloropropane	ND		0.50		ug/L			12/14/22 00:29	1
1,4-Dichlorobenzene	ND		0.50		ug/L			12/14/22 00:29	1
2,2-Dichloropropane	ND		1.0		ug/L			12/14/22 00:29	1
2-Butanone (MEK)	ND		10		ug/L			12/14/22 00:29	1
2-Chlorotoluene	ND		0.50		ug/L			12/14/22 00:29	1
2-Hexanone	ND		5.0		ug/L			12/14/22 00:29	1
4-Chlorotoluene	ND		0.50		ug/L			12/14/22 00:29	1
4-Isopropyltoluene	ND		0.50		ug/L			12/14/22 00:29	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			12/14/22 00:29	1
Acetone	ND		10		ug/L			12/14/22 00:29	1
Benzene	ND		0.50		ug/L			12/14/22 00:29	1
Bromobenzene	ND		1.0		ug/L			12/14/22 00:29	1
Bromoform	ND		1.0		ug/L			12/14/22 00:29	1
Bromomethane	ND		5.0		ug/L			12/14/22 00:29	1
Carbon disulfide	ND		5.0		ug/L			12/14/22 00:29	1
Carbon tetrachloride	ND		0.50		ug/L			12/14/22 00:29	1
Chlorobenzene	ND		0.50		ug/L			12/14/22 00:29	1
Chlorobromomethane	ND		0.50		ug/L			12/14/22 00:29	1
Chlorodibromomethane	ND		0.50		ug/L			12/14/22 00:29	1
Chloroethane	ND		1.0		ug/L			12/14/22 00:29	1
Chloroform	ND		0.50		ug/L			12/14/22 00:29	1
Chloromethane	ND		1.0		ug/L			12/14/22 00:29	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			12/14/22 00:29	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			12/14/22 00:29	1
Dibromomethane	ND		0.50		ug/L			12/14/22 00:29	1
Dichlorobromomethane	ND		0.50		ug/L			12/14/22 00:29	1
Dichlorodifluoromethane	ND		1.0		ug/L			12/14/22 00:29	1
Ethanol	ND		150		ug/L			12/14/22 00:29	1
Ethylbenzene	ND		0.50		ug/L			12/14/22 00:29	1
Ethylene Dibromide	ND		0.50		ug/L			12/14/22 00:29	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-290710/7
Matrix: Water
Analysis Batch: 290710

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		5.0		ug/L			12/14/22 00:29	1
Iodomethane	ND		2.0		ug/L			12/14/22 00:29	1
Isopropylbenzene	ND		0.50		ug/L			12/14/22 00:29	1
Methyl tert-butyl ether	ND		0.50		ug/L			12/14/22 00:29	1
Methylene Chloride	ND		5.0		ug/L			12/14/22 00:29	1
m-Xylene & p-Xylene	ND		1.0		ug/L			12/14/22 00:29	1
Naphthalene	ND		5.0		ug/L			12/14/22 00:29	1
n-Butylbenzene	ND		1.0		ug/L			12/14/22 00:29	1
N-Propylbenzene	ND		0.50		ug/L			12/14/22 00:29	1
o-Xylene	ND		0.50		ug/L			12/14/22 00:29	1
sec-Butylbenzene	ND		0.50		ug/L			12/14/22 00:29	1
Styrene	ND		1.0		ug/L			12/14/22 00:29	1
tert-Butylbenzene	ND		0.50		ug/L			12/14/22 00:29	1
Tetrachloroethene	ND		0.50		ug/L			12/14/22 00:29	1
Toluene	ND		0.50		ug/L			12/14/22 00:29	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			12/14/22 00:29	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			12/14/22 00:29	1
Trichloroethene	ND		0.50		ug/L			12/14/22 00:29	1
Trichlorofluoromethane	ND		1.0		ug/L			12/14/22 00:29	1
Trihalomethanes, Total	ND		0.50		ug/L			12/14/22 00:29	1
Vinyl acetate	ND		5.0		ug/L			12/14/22 00:29	1
Vinyl chloride	ND		1.0		ug/L			12/14/22 00:29	1
Xylenes, Total	ND		0.50		ug/L			12/14/22 00:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*60 - 140*		*12/14/22 00:29*	*1*
Dibromofluoromethane (Surr)	*121*		*60 - 140*		*12/14/22 00:29*	*1*
Toluene-d8 (Surr)	*101*		*60 - 140*		*12/14/22 00:29*	*1*

Lab Sample ID: LCS 550-290710/4
Matrix: Water
Analysis Batch: 290710

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	44.5		ug/L		89	60 - 140
1,1,1-Trichloroethane	50.0	48.9		ug/L		98	70 - 130
1,1,2,2-Tetrachloroethane	50.0	51.8		ug/L		104	60 - 140
1,1,2-Trichloroethane	50.0	50.8		ug/L		102	70 - 130
1,1-Dichloroethane	50.0	49.3		ug/L		99	70 - 130
1,1-Dichloroethene	50.0	49.8		ug/L		100	50 - 150
1,1-Dichloropropene	50.0	43.6		ug/L		87	60 - 140
1,2,3-Trichlorobenzene	50.0	46.6		ug/L		93	60 - 140
1,2,3-Trichloropropane	50.0	52.0		ug/L		104	60 - 140
1,2,4-Trichlorobenzene	50.0	45.2		ug/L		90	60 - 140
1,2,4-Trimethylbenzene	50.0	51.2		ug/L		102	60 - 140
1,2-Dibromo-3-Chloropropane	50.0	50.3		ug/L		101	60 - 140
1,2-Dichlorobenzene	50.0	47.5		ug/L		95	65 - 135
1,2-Dichloroethane	50.0	43.4		ug/L		87	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-290710/4
Matrix: Water
Analysis Batch: 290710

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dichloropropane	50.0	45.7		ug/L		91	35 - 165
1,3,5-Trimethylbenzene	50.0	52.5		ug/L		105	60 - 140
1,3-Dichlorobenzene	50.0	48.6		ug/L		97	70 - 130
1,3-Dichloropropane	50.0	49.1		ug/L		98	60 - 140
1,4-Dichlorobenzene	50.0	47.1		ug/L		94	65 - 135
2,2-Dichloropropane	50.0	48.4		ug/L		97	60 - 140
2-Butanone (MEK)	50.0	57.7		ug/L		115	60 - 140
2-Chlorotoluene	50.0	51.7		ug/L		103	60 - 140
2-Hexanone	50.0	44.6		ug/L		89	60 - 140
4-Chlorotoluene	50.0	51.3		ug/L		103	60 - 140
4-Isopropyltoluene	50.0	52.3		ug/L		105	60 - 140
4-Methyl-2-pentanone (MIBK)	50.0	48.8		ug/L		98	60 - 140
Acetone	50.0	50.6		ug/L		101	18 - 150
Benzene	50.0	42.6		ug/L		85	65 - 135
Bromobenzene	50.0	53.2		ug/L		106	60 - 140
Bromoform	50.0	47.4		ug/L		95	70 - 130
Bromomethane	50.0	56.4		ug/L		113	15 - 185
Carbon disulfide	50.0	46.5		ug/L		93	60 - 140
Carbon tetrachloride	50.0	45.1		ug/L		90	70 - 130
Chlorobenzene	50.0	48.7		ug/L		97	65 - 135
Chlorobromomethane	50.0	50.9		ug/L		102	60 - 140
Chlorodibromomethane	50.0	47.1		ug/L		94	70 - 135
Chloroethane	50.0	56.1		ug/L		112	40 - 160
Chloroform	50.0	48.9		ug/L		98	70 - 135
Chloromethane	50.0	60.6		ug/L		121	10 - 205
cis-1,2-Dichloroethene	50.0	45.7		ug/L		91	60 - 140
cis-1,3-Dichloropropene	50.0	49.1		ug/L		98	25 - 175
Dibromomethane	50.0	44.6		ug/L		89	70 - 130
Dichlorobromomethane	50.0	44.7		ug/L		89	65 - 135
Dichlorodifluoromethane	50.0	67.3		ug/L		135	60 - 140
Ethanol	1000	730		ug/L		73	60 - 140
Ethylbenzene	50.0	46.3		ug/L		93	60 - 140
Ethylene Dibromide	50.0	47.0		ug/L		94	60 - 140
Hexachlorobutadiene	50.0	53.0		ug/L		106	60 - 140
Iodomethane	50.0	47.6		ug/L		95	60 - 140
Isopropylbenzene	50.0	53.5		ug/L		107	60 - 140
Methyl tert-butyl ether	50.0	50.5		ug/L		101	60 - 140
Methylene Chloride	50.0	52.7		ug/L		105	60 - 140
m-Xylene & p-Xylene	50.0	50.5		ug/L		101	60 - 140
Naphthalene	50.0	47.2		ug/L		94	60 - 140
n-Butylbenzene	50.0	47.6		ug/L		95	60 - 140
N-Propylbenzene	50.0	51.5		ug/L		103	60 - 140
o-Xylene	50.0	52.9		ug/L		106	60 - 140
sec-Butylbenzene	50.0	50.1		ug/L		100	60 - 140
Styrene	50.0	50.8		ug/L		102	60 - 140
tert-Butylbenzene	50.0	48.0		ug/L		96	60 - 140
Tetrachloroethene	50.0	45.8		ug/L		92	70 - 130
Toluene	50.0	46.3		ug/L		93	70 - 130
trans-1,2-Dichloroethene	50.0	49.0		ug/L		98	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-290710/4
Matrix: Water
Analysis Batch: 290710

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
trans-1,3-Dichloropropene	50.0	49.2		ug/L		98	50 - 150
Trichloroethene	50.0	44.7		ug/L		89	65 - 135
Trichlorofluoromethane	50.0	56.2		ug/L		112	50 - 150
Vinyl acetate	50.0	43.3		ug/L		87	60 - 140
Vinyl chloride	50.0	54.8		ug/L		110	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*115*		*60 - 140*
Dibromofluoromethane (Surr)	*110*		*60 - 140*
Toluene-d8 (Surr)	*101*		*60 - 140*

Lab Sample ID: LCSD 550-290710/5
Matrix: Water
Analysis Batch: 290710

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	46.1		ug/L		92	60 - 140	4	20
1,1,1-Trichloroethane	50.0	48.6		ug/L		97	70 - 130	1	20
1,1,2,2-Tetrachloroethane	50.0	54.8		ug/L		110	60 - 140	6	20
1,1,2-Trichloroethane	50.0	51.7		ug/L		103	70 - 130	2	20
1,1-Dichloroethane	50.0	49.3		ug/L		99	70 - 130	0	20
1,1-Dichloroethene	50.0	49.5		ug/L		99	50 - 150	1	20
1,1-Dichloropropene	50.0	44.6		ug/L		89	60 - 140	2	20
1,2,3-Trichlorobenzene	50.0	49.4		ug/L		99	60 - 140	6	20
1,2,3-Trichloropropane	50.0	54.8		ug/L		110	60 - 140	5	20
1,2,4-Trichlorobenzene	50.0	48.4		ug/L		97	60 - 140	7	20
1,2,4-Trimethylbenzene	50.0	53.6		ug/L		107	60 - 140	5	20
1,2-Dibromo-3-Chloropropane	50.0	54.5		ug/L		109	60 - 140	8	20
1,2-Dichlorobenzene	50.0	49.2		ug/L		98	65 - 135	4	20
1,2-Dichloroethane	50.0	46.2		ug/L		92	70 - 130	6	20
1,2-Dichloropropane	50.0	47.4		ug/L		95	35 - 165	4	20
1,3,5-Trimethylbenzene	50.0	54.6		ug/L		109	60 - 140	4	20
1,3-Dichlorobenzene	50.0	49.2		ug/L		98	70 - 130	1	20
1,3-Dichloropropane	50.0	50.2		ug/L		100	60 - 140	2	20
1,4-Dichlorobenzene	50.0	48.0		ug/L		96	65 - 135	2	20
2,2-Dichloropropane	50.0	47.4		ug/L		95	60 - 140	2	20
2-Butanone (MEK)	50.0	62.6		ug/L		125	60 - 140	8	20
2-Chlorotoluene	50.0	53.5		ug/L		107	60 - 140	3	20
2-Hexanone	50.0	47.3		ug/L		95	60 - 140	6	20
4-Chlorotoluene	50.0	51.7		ug/L		103	60 - 140	1	20
4-Isopropyltoluene	50.0	54.4		ug/L		109	60 - 140	4	20
4-Methyl-2-pentanone (MIBK)	50.0	53.9		ug/L		108	60 - 140	10	20
Acetone	50.0	58.2		ug/L		116	18 - 150	14	20
Benzene	50.0	43.9		ug/L		88	65 - 135	3	20
Bromobenzene	50.0	54.1		ug/L		108	60 - 140	2	20
Bromoform	50.0	50.0		ug/L		100	70 - 130	5	20
Bromomethane	50.0	54.3		ug/L		109	15 - 185	4	20
Carbon disulfide	50.0	46.8		ug/L		94	60 - 140	1	20

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 550-290710/5
Matrix: Water
Analysis Batch: 290710

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 tetrachloride	50.0	46.2		ug/L		92	70 - 130	2	20
Chlorobenzene	50.0	49.3		ug/L		99	65 - 135	1	20
Chlorobromomethane	50.0	52.4		ug/L		105	60 - 140	3	20
Chlorodibromomethane	50.0	48.7		ug/L		97	70 - 135	3	20
Chloroethane	50.0	55.3		ug/L		111	40 - 160	1	20
Chloroform	50.0	49.1		ug/L		98	70 - 135	0	20
Chloromethane	50.0	58.9		ug/L		118	10 - 205	3	20
cis-1,2-Dichloroethene	50.0	47.5		ug/L		95	60 - 140	4	20
cis-1,3-Dichloropropene	50.0	51.3		ug/L		103	25 - 175	4	20
Dibromomethane	50.0	46.6		ug/L		93	70 - 130	4	20
Dichlorobromomethane	50.0	46.4		ug/L		93	65 - 135	4	20
Dichlorodifluoromethane	50.0	61.3		ug/L		123	60 - 140	9	20
Ethanol	1000	732		ug/L		73	60 - 140	0	20
Ethylbenzene	50.0	46.8		ug/L		94	60 - 140	1	20
Ethylene Dibromide	50.0	48.8		ug/L		98	60 - 140	4	20
Hexachlorobutadiene	50.0	54.2		ug/L		108	60 - 140	2	20
Iodomethane	50.0	47.6		ug/L		95	60 - 140	0	20
Isopropylbenzene	50.0	55.4		ug/L		111	60 - 140	4	20
Methyl tert-butyl ether	50.0	51.9		ug/L		104	60 - 140	3	20
Methylene Chloride	50.0	53.0		ug/L		106	60 - 140	1	20
m-Xylene & p-Xylene	50.0	52.0		ug/L		104	60 - 140	3	20
Naphthalene	50.0	49.8		ug/L		100	60 - 140	5	20
n-Butylbenzene	50.0	49.8		ug/L		100	60 - 140	4	20
N-Propylbenzene	50.0	53.8		ug/L		108	60 - 140	4	20
o-Xylene	50.0	54.7		ug/L		109	60 - 140	3	20
sec-Butylbenzene	50.0	51.7		ug/L		103	60 - 140	3	20
Styrene	50.0	51.8		ug/L		104	60 - 140	2	20
tert-Butylbenzene	50.0	49.5		ug/L		99	60 - 140	3	20
Tetrachloroethene	50.0	47.0		ug/L		94	70 - 130	3	20
Toluene	50.0	47.2		ug/L		94	70 - 130	2	20
trans-1,2-Dichloroethene	50.0	48.8		ug/L		98	70 - 130	0	20
trans-1,3-Dichloropropene	50.0	50.6		ug/L		101	50 - 150	3	20
Trichloroethene	50.0	45.9		ug/L		92	65 - 135	3	20
Trichlorofluoromethane	50.0	55.1		ug/L		110	50 - 150	2	20
Vinyl acetate	50.0	45.8		ug/L		92	60 - 140	6	20
Vinyl chloride	50.0	52.9		ug/L		106	5 - 195	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*60 - 140*
Dibromofluoromethane (Surr)	*109*		*60 - 140*
Toluene-d8 (Surr)	*101*		*60 - 140*

Lab Sample ID: 550-194578-A-6 MS
Matrix: Water
Analysis Batch: 290710

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	47.7		ug/L		95	50 - 150		

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-194578-A-6 MS
Matrix: Water
Analysis Batch: 290710

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-Trichloroethane	ND		50.0	48.7		ug/L		97	52 - 162
1,1,2,2-Tetrachloroethane	ND		50.0	54.2		ug/L		108	46 - 157
1,1,2-Trichloroethane	ND		50.0	51.2		ug/L		102	52 - 150
1,1-Dichloroethane	ND		50.0	48.9		ug/L		98	59 - 155
1,1-Dichloroethene	ND		50.0	50.9		ug/L		102	10 - 234
1,1-Dichloropropene	ND		50.0	44.9		ug/L		90	50 - 150
1,2,3-Trichlorobenzene	ND		50.0	49.7		ug/L		97	50 - 150
1,2,3-Trichloropropane	ND		50.0	53.0		ug/L		106	50 - 150
1,2,4-Trichlorobenzene	ND		50.0	46.7		ug/L		93	50 - 150
1,2,4-Trimethylbenzene	ND		50.0	53.9		ug/L		108	50 - 150
1,2-Dibromo-3-Chloropropane	ND		50.0	51.2		ug/L		102	50 - 150
1,2-Dichlorobenzene	ND		50.0	50.1		ug/L		100	18 - 190
1,2-Dichloroethane	ND		50.0	47.4		ug/L		95	49 - 155
1,2-Dichloropropane	ND		50.0	48.4		ug/L		97	10 - 210
1,3,5-Trimethylbenzene	ND		50.0	57.5		ug/L		115	50 - 150
1,3-Dichlorobenzene	ND		50.0	48.8		ug/L		98	59 - 156
1,3-Dichloropropane	ND		50.0	49.2		ug/L		98	50 - 150
1,4-Dichlorobenzene	ND		50.0	47.8		ug/L		96	18 - 190
2,2-Dichloropropane	ND		50.0	47.4		ug/L		95	50 - 150
2-Butanone (MEK)	ND		50.0	56.0		ug/L		112	50 - 150
2-Chlorotoluene	ND		50.0	54.6		ug/L		109	50 - 150
2-Hexanone	ND		50.0	42.1		ug/L		84	50 - 150
4-Chlorotoluene	ND		50.0	51.3		ug/L		103	50 - 150
4-Isopropyltoluene	ND		50.0	55.3		ug/L		111	50 - 150
4-Methyl-2-pentanone (MIBK)	ND		50.0	49.5		ug/L		99	50 - 150
Acetone	ND		50.0	52.3		ug/L		105	18 - 150
Benzene	ND		50.0	44.8		ug/L		90	35 - 151
Bromobenzene	ND		50.0	54.9		ug/L		110	50 - 150
Bromoform	ND		50.0	48.9		ug/L		98	45 - 169
Bromomethane	ND		50.0	59.4		ug/L		119	10 - 242
Carbon disulfide	ND		50.0	48.8		ug/L		98	50 - 150
Carbon tetrachloride	ND		50.0	48.5		ug/L		97	70 - 140
Chlorobenzene	ND		50.0	48.7		ug/L		97	37 - 160
Chlorobromomethane	ND		50.0	52.5		ug/L		105	50 - 150
Chlorodibromomethane	ND		50.0	48.8		ug/L		98	53 - 149
Chloroethane	ND		50.0	57.5		ug/L		115	14 - 230
Chloroform	ND		50.0	49.1		ug/L		98	51 - 138
Chloromethane	ND		50.0	60.2		ug/L		120	10 - 273
cis-1,2-Dichloroethene	ND		50.0	49.1		ug/L		98	50 - 150
cis-1,3-Dichloropropene	ND		50.0	50.3		ug/L		101	10 - 227
Dibromomethane	ND		50.0	46.9		ug/L		94	50 - 150
Dichlorobromomethane	ND		50.0	47.2		ug/L		94	35 - 155
Dichlorodifluoromethane	ND		50.0	61.4		ug/L		123	50 - 150
Ethanol	ND		1000	735		ug/L		73	50 - 150
Ethylbenzene	ND		50.0	46.4		ug/L		93	37 - 162
Ethylene Dibromide	ND		50.0	47.6		ug/L		95	50 - 150
Hexachlorobutadiene	ND		50.0	56.3		ug/L		113	50 - 150
Iodomethane	ND		50.0	49.3		ug/L		99	50 - 150
Isopropylbenzene	0.58		50.0	57.8		ug/L		114	50 - 150

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-194578-A-6 MS
Matrix: Water
Analysis Batch: 290710

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
Methyl tert-butyl ether	ND		50.0	51.3		ug/L		103	50 - 150
Methylene Chloride	ND		50.0	54.5		ug/L		109	10 - 221
m-Xylene & p-Xylene	ND		50.0	52.9		ug/L		104	50 - 150
Naphthalene	ND		50.0	49.8		ug/L		100	50 - 150
n-Butylbenzene	ND		50.0	48.9		ug/L		98	50 - 150
N-Propylbenzene	ND		50.0	53.2		ug/L		106	50 - 150
o-Xylene	ND		50.0	55.5		ug/L		111	50 - 150
sec-Butylbenzene	ND		50.0	54.4		ug/L		108	50 - 150
Styrene	ND		50.0	51.5		ug/L		103	50 - 150
tert-Butylbenzene	0.62		50.0	53.3		ug/L		105	50 - 150
Tetrachloroethene	ND		50.0	45.9		ug/L		92	64 - 148
Toluene	ND		50.0	47.5		ug/L		95	47 - 150
trans-1,2-Dichloroethene	ND		50.0	49.2		ug/L		98	54 - 156
trans-1,3-Dichloropropene	ND		50.0	49.6		ug/L		99	17 - 183
Trichloroethene	ND		50.0	46.0		ug/L		92	70 - 157
Trichlorofluoromethane	ND		50.0	57.1		ug/L		114	17 - 181
Vinyl acetate	ND		50.0	45.5		ug/L		91	50 - 150
Vinyl chloride	ND		50.0	54.9		ug/L		110	10 - 251

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*60 - 140*
Dibromofluoromethane (Surr)	*109*		*60 - 140*
Toluene-d8 (Surr)	*101*		*60 - 140*

Lab Sample ID: 550-194578-A-6 MSD
Matrix: Water
Analysis Batch: 290710

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	49.6		ug/L		99	50 - 150	4	35
1,1,1-Trichloroethane	ND		50.0	50.9		ug/L		102	52 - 162	5	36
1,1,2,2-Tetrachloroethane	ND		50.0	53.7		ug/L		107	46 - 157	1	61
1,1,2-Trichloroethane	ND		50.0	52.6		ug/L		105	52 - 150	3	45
1,1-Dichloroethane	ND		50.0	49.9		ug/L		100	59 - 155	2	40
1,1-Dichloroethene	ND		50.0	52.9		ug/L		106	10 - 234	4	32
1,1-Dichloropropene	ND		50.0	45.7		ug/L		91	50 - 150	2	35
1,2,3-Trichlorobenzene	ND		50.0	49.8		ug/L		97	50 - 150	0	35
1,2,3-Trichloropropane	ND		50.0	53.1		ug/L		106	50 - 150	0	35
1,2,4-Trichlorobenzene	ND		50.0	47.4		ug/L		95	50 - 150	1	35
1,2,4-Trimethylbenzene	ND		50.0	53.5		ug/L		107	50 - 150	1	35
1,2-Dibromo-3-Chloropropane	ND		50.0	51.3		ug/L		103	50 - 150	0	35
1,2-Dichlorobenzene	ND		50.0	49.2		ug/L		98	18 - 190	2	57
1,2-Dichloroethane	ND		50.0	47.4		ug/L		95	49 - 155	0	49
1,2-Dichloropropane	ND		50.0	49.1		ug/L		98	10 - 210	1	55
1,3,5-Trimethylbenzene	ND		50.0	55.6		ug/L		111	50 - 150	3	35
1,3-Dichlorobenzene	ND		50.0	49.6		ug/L		99	59 - 156	2	43
1,3-Dichloropropane	ND		50.0	50.2		ug/L		100	50 - 150	2	35
1,4-Dichlorobenzene	ND		50.0	48.2		ug/L		96	18 - 190	1	57

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-194578-A-6 MSD
Matrix: Water
Analysis Batch: 290710

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
2,2-Dichloropropane	ND		50.0	48.6		ug/L		97	50 - 150	2	35
2-Butanone (MEK)	ND		50.0	58.3		ug/L		117	50 - 150	4	35
2-Chlorotoluene	ND		50.0	53.0		ug/L		106	50 - 150	3	35
2-Hexanone	ND		50.0	44.6		ug/L		89	50 - 150	6	35
4-Chlorotoluene	ND		50.0	50.9		ug/L		102	50 - 150	1	35
4-Isopropyltoluene	ND		50.0	54.5		ug/L		109	50 - 150	1	35
4-Methyl-2-pentanone (MIBK)	ND		50.0	52.2		ug/L		104	50 - 150	5	35
Acetone	ND		50.0	52.8		ug/L		106	18 - 150	1	35
Benzene	ND		50.0	45.9		ug/L		92	35 - 151	2	61
Bromobenzene	ND		50.0	53.2		ug/L		106	50 - 150	3	35
Bromoform	ND		50.0	48.0		ug/L		96	45 - 169	2	42
Bromomethane	ND		50.0	61.6		ug/L		123	10 - 242	4	61
Carbon disulfide	ND		50.0	50.9		ug/L		102	50 - 150	4	35
Carbon tetrachloride	ND		50.0	51.4		ug/L		103	70 - 140	6	41
Chlorobenzene	ND		50.0	49.8		ug/L		100	37 - 160	2	53
Chlorobromomethane	ND		50.0	54.1		ug/L		108	50 - 150	3	35
Chlorodibromomethane	ND		50.0	50.3		ug/L		101	53 - 149	3	50
Chloroethane	ND		50.0	60.3		ug/L		121	14 - 230	5	78
Chloroform	ND		50.0	50.5		ug/L		101	51 - 138	3	54
Chloromethane	ND		50.0	61.8		ug/L		124	10 - 273	3	60
cis-1,2-Dichloroethene	ND		50.0	51.2		ug/L		102	50 - 150	4	35
cis-1,3-Dichloropropene	ND		50.0	51.2		ug/L		102	10 - 227	2	58
Dibromomethane	ND		50.0	49.1		ug/L		98	50 - 150	5	35
Dichlorobromomethane	ND		50.0	48.5		ug/L		97	35 - 155	3	56
Dichlorodifluoromethane	ND		50.0	69.2		ug/L		138	50 - 150	12	35
Ethanol	ND		1000	705		ug/L		71	50 - 150	4	35
Ethylbenzene	ND		50.0	47.1		ug/L		94	37 - 162	1	63
Ethylene Dibromide	ND		50.0	49.0		ug/L		98	50 - 150	3	35
Hexachlorobutadiene	ND		50.0	54.7		ug/L		109	50 - 150	3	35
Iodomethane	ND		50.0	51.2		ug/L		102	50 - 150	4	35
Isopropylbenzene	0.58		50.0	56.4		ug/L		112	50 - 150	2	35
Methyl tert-butyl ether	ND		50.0	53.7		ug/L		107	50 - 150	4	35
Methylene Chloride	ND		50.0	57.0		ug/L		114	10 - 221	4	28
m-Xylene & p-Xylene	ND		50.0	51.0		ug/L		100	50 - 150	4	35
Naphthalene	ND		50.0	50.7		ug/L		101	50 - 150	2	35
n-Butylbenzene	ND		50.0	48.4		ug/L		97	50 - 150	1	35
N-Propylbenzene	ND		50.0	52.2		ug/L		104	50 - 150	2	35
o-Xylene	ND		50.0	54.5		ug/L		109	50 - 150	2	35
sec-Butylbenzene	ND		50.0	52.4		ug/L		104	50 - 150	4	35
Styrene	ND		50.0	50.5		ug/L		101	50 - 150	2	35
tert-Butylbenzene	0.62		50.0	51.2		ug/L		101	50 - 150	4	35
Tetrachloroethene	ND		50.0	46.4		ug/L		93	64 - 148	1	39
Toluene	ND		50.0	48.0		ug/L		96	47 - 150	1	41
trans-1,2-Dichloroethene	ND		50.0	50.3		ug/L		101	54 - 156	2	45
trans-1,3-Dichloropropene	ND		50.0	50.0		ug/L		100	17 - 183	1	86
Trichloroethene	ND		50.0	46.8		ug/L		94	70 - 157	2	48
Trichlorofluoromethane	ND		50.0	57.1		ug/L		114	17 - 181	0	84
Vinyl acetate	ND		50.0	46.3		ug/L		93	50 - 150	2	35
Vinyl chloride	ND		50.0	56.3		ug/L		113	10 - 251	3	66

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		60 - 140
Dibromofluoromethane (Surr)	116		60 - 140
Toluene-d8 (Surr)	106		60 - 140

Lab Sample ID: MB 550-290730/6
Matrix: Water
Analysis Batch: 290730

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		0.50		ug/L			12/14/22 11:28	1
1,1,1-Trichloroethane	ND		0.50		ug/L			12/14/22 11:28	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			12/14/22 11:28	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			12/14/22 11:28	1
1,1,2-Trichloroethane	ND		0.50		ug/L			12/14/22 11:28	1
1,1-Dichloroethane	ND		0.50		ug/L			12/14/22 11:28	1
1,1-Dichloroethene	ND		0.50		ug/L			12/14/22 11:28	1
1,1-Dichloropropene	ND		0.50		ug/L			12/14/22 11:28	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			12/14/22 11:28	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/14/22 11:28	1
1,2,4-Trichlorobenzene	ND		2.0		ug/L			12/14/22 11:28	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			12/14/22 11:28	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			12/14/22 11:28	1
1,2-Dichlorobenzene	ND		0.50		ug/L			12/14/22 11:28	1
1,2-Dichloroethane	ND		0.50		ug/L			12/14/22 11:28	1
1,2-Dichloropropane	ND		0.50		ug/L			12/14/22 11:28	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			12/14/22 11:28	1
1,3-Dichlorobenzene	ND		0.50		ug/L			12/14/22 11:28	1
1,3-Dichloropropane	ND		0.50		ug/L			12/14/22 11:28	1
1,4-Dichlorobenzene	ND		0.50		ug/L			12/14/22 11:28	1
2,2-Dichloropropane	ND		1.0		ug/L			12/14/22 11:28	1
2-Butanone (MEK)	ND		10		ug/L			12/14/22 11:28	1
2-Chlorotoluene	ND		0.50		ug/L			12/14/22 11:28	1
2-Hexanone	ND		5.0		ug/L			12/14/22 11:28	1
4-Chlorotoluene	ND		0.50		ug/L			12/14/22 11:28	1
4-Isopropyltoluene	ND		0.50		ug/L			12/14/22 11:28	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			12/14/22 11:28	1
Acetone	ND		10		ug/L			12/14/22 11:28	1
Benzene	ND		0.50		ug/L			12/14/22 11:28	1
Bromobenzene	ND		1.0		ug/L			12/14/22 11:28	1
Bromoform	ND		1.0		ug/L			12/14/22 11:28	1
Bromomethane	ND		5.0		ug/L			12/14/22 11:28	1
Carbon disulfide	ND		5.0		ug/L			12/14/22 11:28	1
Carbon tetrachloride	ND		0.50		ug/L			12/14/22 11:28	1
Chlorobenzene	ND		0.50		ug/L			12/14/22 11:28	1
Chlorobromomethane	ND		0.50		ug/L			12/14/22 11:28	1
Chlorodibromomethane	ND		0.50		ug/L			12/14/22 11:28	1
Chloroethane	ND		1.0		ug/L			12/14/22 11:28	1
Chloroform	ND		0.50		ug/L			12/14/22 11:28	1
Chloromethane	ND		1.0		ug/L			12/14/22 11:28	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			12/14/22 11:28	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			12/14/22 11:28	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-290730/6
Matrix: Water
Analysis Batch: 290730

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	ND		0.50	ug/L			12/14/22 11:28	1
Dichlorobromomethane	ND		0.50	ug/L			12/14/22 11:28	1
Dichlorodifluoromethane	ND		1.0	ug/L			12/14/22 11:28	1
Ethanol	ND		150	ug/L			12/14/22 11:28	1
Ethylbenzene	ND		0.50	ug/L			12/14/22 11:28	1
Ethylene Dibromide	ND		0.50	ug/L			12/14/22 11:28	1
Hexachlorobutadiene	ND		5.0	ug/L			12/14/22 11:28	1
Iodomethane	ND		2.0	ug/L			12/14/22 11:28	1
Isopropylbenzene	ND		0.50	ug/L			12/14/22 11:28	1
Methyl tert-butyl ether	ND		0.50	ug/L			12/14/22 11:28	1
Methylene Chloride	ND		5.0	ug/L			12/14/22 11:28	1
m-Xylene & p-Xylene	ND		1.0	ug/L			12/14/22 11:28	1
Naphthalene	ND		5.0	ug/L			12/14/22 11:28	1
n-Butylbenzene	ND		1.0	ug/L			12/14/22 11:28	1
N-Propylbenzene	ND		0.50	ug/L			12/14/22 11:28	1
o-Xylene	ND		0.50	ug/L			12/14/22 11:28	1
sec-Butylbenzene	ND		0.50	ug/L			12/14/22 11:28	1
Styrene	ND		1.0	ug/L			12/14/22 11:28	1
tert-Butylbenzene	ND		0.50	ug/L			12/14/22 11:28	1
Tetrachloroethene	ND		0.50	ug/L			12/14/22 11:28	1
Toluene	ND		0.50	ug/L			12/14/22 11:28	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			12/14/22 11:28	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			12/14/22 11:28	1
Trichloroethene	ND		0.50	ug/L			12/14/22 11:28	1
Trichlorofluoromethane	ND		1.0	ug/L			12/14/22 11:28	1
Trihalomethanes, Total	ND		0.50	ug/L			12/14/22 11:28	1
Vinyl acetate	ND		5.0	ug/L			12/14/22 11:28	1
Vinyl chloride	ND		1.0	ug/L			12/14/22 11:28	1
Xylenes, Total	ND		0.50	ug/L			12/14/22 11:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*		*12/14/22 11:28*	*1*
Dibromofluoromethane (Surr)	*101*		*60 - 140*		*12/14/22 11:28*	*1*
Toluene-d8 (Surr)	*87*		*60 - 140*		*12/14/22 11:28*	*1*

Lab Sample ID: LCS 550-290730/3
Matrix: Water
Analysis Batch: 290730

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	50.6		ug/L		101	60 - 140
1,1,1-Trichloroethane	50.0	42.7		ug/L		85	70 - 130
1,1,2,2-Tetrachloroethane	50.0	49.1		ug/L		98	60 - 140
1,1,2-Trichloroethane	50.0	51.2		ug/L		102	70 - 130
1,1-Dichloroethane	50.0	44.9		ug/L		90	70 - 130
1,1-Dichloroethene	50.0	41.2		ug/L		82	50 - 150
1,1-Dichloropropene	50.0	42.2		ug/L		84	60 - 140
1,2,3-Trichlorobenzene	50.0	49.7		ug/L		99	60 - 140

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-290730/3
Matrix: Water
Analysis Batch: 290730

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	48.8		ug/L		98	60 - 140
1,2,4-Trichlorobenzene	50.0	50.3		ug/L		101	60 - 140
1,2,4-Trimethylbenzene	50.0	47.6		ug/L		95	60 - 140
1,2-Dibromo-3-Chloropropane	50.0	44.1		ug/L		88	60 - 140
1,2-Dichlorobenzene	50.0	48.1		ug/L		96	65 - 135
1,2-Dichloroethane	50.0	47.7		ug/L		95	70 - 130
1,2-Dichloropropane	50.0	48.4		ug/L		97	35 - 165
1,3,5-Trimethylbenzene	50.0	45.3		ug/L		91	60 - 140
1,3-Dichlorobenzene	50.0	48.0		ug/L		96	70 - 130
1,3-Dichloropropane	50.0	50.5		ug/L		101	60 - 140
1,4-Dichlorobenzene	50.0	47.6		ug/L		95	65 - 135
2,2-Dichloropropane	50.0	43.1		ug/L		86	60 - 140
2-Butanone (MEK)	50.0	42.3		ug/L		85	60 - 140
2-Chlorotoluene	50.0	46.7		ug/L		93	60 - 140
2-Hexanone	50.0	49.9		ug/L		100	60 - 140
4-Chlorotoluene	50.0	47.4		ug/L		95	60 - 140
4-Isopropyltoluene	50.0	46.7		ug/L		93	60 - 140
4-Methyl-2-pentanone (MIBK)	50.0	49.8		ug/L		100	60 - 140
Acetone	50.0	43.7		ug/L		87	18 - 150
Benzene	50.0	44.8		ug/L		90	65 - 135
Bromobenzene	50.0	49.3		ug/L		99	60 - 140
Bromoform	50.0	52.2		ug/L		104	70 - 130
Bromomethane	50.0	46.8		ug/L		94	15 - 185
Carbon disulfide	50.0	40.2		ug/L		80	60 - 140
Carbon tetrachloride	50.0	41.6		ug/L		83	70 - 130
Chlorobenzene	50.0	48.9		ug/L		98	65 - 135
Chlorobromomethane	50.0	49.1		ug/L		98	60 - 140
Chlorodibromomethane	50.0	58.4		ug/L		117	70 - 135
Chloroethane	50.0	45.6		ug/L		91	40 - 160
Chloroform	50.0	45.0		ug/L		90	70 - 135
Chloromethane	50.0	46.3		ug/L		93	10 - 205
cis-1,2-Dichloroethene	50.0	46.5		ug/L		93	60 - 140
cis-1,3-Dichloropropene	50.0	57.5		ug/L		115	25 - 175
Dibromomethane	50.0	48.0		ug/L		96	70 - 130
Dichlorobromomethane	50.0	50.7		ug/L		101	65 - 135
Dichlorodifluoromethane	50.0	51.4		ug/L		103	60 - 140
Ethanol	1000	1000		ug/L		100	60 - 140
Ethylbenzene	50.0	46.6		ug/L		93	60 - 140
Ethylene Dibromide	50.0	52.1		ug/L		104	60 - 140
Hexachlorobutadiene	50.0	46.5		ug/L		93	60 - 140
Iodomethane	50.0	41.0		ug/L		82	60 - 140
Isopropylbenzene	50.0	45.5		ug/L		91	60 - 140
Methyl tert-butyl ether	50.0	51.8		ug/L		104	60 - 140
Methylene Chloride	50.0	45.8		ug/L		92	60 - 140
m-Xylene & p-Xylene	50.0	44.6		ug/L		89	60 - 140
Naphthalene	50.0	47.3		ug/L		95	60 - 140
n-Butylbenzene	50.0	46.3		ug/L		93	60 - 140
N-Propylbenzene	50.0	45.3		ug/L		91	60 - 140
o-Xylene	50.0	47.0		ug/L		94	60 - 140

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-290730/3
Matrix: Water
Analysis Batch: 290730

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
sec-Butylbenzene	50.0	45.3		ug/L		91	60 - 140
Styrene	50.0	50.8		ug/L		102	60 - 140
tert-Butylbenzene	50.0	45.8		ug/L		92	60 - 140
Tetrachloroethene	50.0	43.5		ug/L		87	70 - 130
Toluene	50.0	44.2		ug/L		88	70 - 130
trans-1,2-Dichloroethene	50.0	44.5		ug/L		89	70 - 130
trans-1,3-Dichloropropene	50.0	51.4		ug/L		103	50 - 150
Trichloroethene	50.0	44.8		ug/L		90	65 - 135
Trichlorofluoromethane	50.0	44.0		ug/L		88	50 - 150
Vinyl acetate	50.0	48.1		ug/L		96	60 - 140
Vinyl chloride	50.0	49.8		ug/L		100	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*60 - 140*
Dibromofluoromethane (Surr)	*101*		*60 - 140*
Toluene-d8 (Surr)	*96*		*60 - 140*

Lab Sample ID: LCSD 550-290730/4
Matrix: Water
Analysis Batch: 290730

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	49.6		ug/L		99	60 - 140	2	20
1,1,1-Trichloroethane	50.0	41.5		ug/L		83	70 - 130	3	20
1,1,2,2-Tetrachloroethane	50.0	49.0		ug/L		98	60 - 140	0	20
1,1,2-Trichloroethane	50.0	50.7		ug/L		101	70 - 130	1	20
1,1-Dichloroethane	50.0	43.6		ug/L		87	70 - 130	3	20
1,1-Dichloroethene	50.0	40.1		ug/L		80	50 - 150	3	20
1,1-Dichloropropene	50.0	41.9		ug/L		84	60 - 140	1	20
1,2,3-Trichlorobenzene	50.0	49.7		ug/L		99	60 - 140	0	20
1,2,3-Trichloropropane	50.0	48.7		ug/L		97	60 - 140	0	20
1,2,4-Trichlorobenzene	50.0	48.5		ug/L		97	60 - 140	4	20
1,2,4-Trimethylbenzene	50.0	46.4		ug/L		93	60 - 140	2	20
1,2-Dibromo-3-Chloropropane	50.0	44.4		ug/L		89	60 - 140	1	20
1,2-Dichlorobenzene	50.0	47.8		ug/L		96	65 - 135	1	20
1,2-Dichloroethane	50.0	46.5		ug/L		93	70 - 130	2	20
1,2-Dichloropropane	50.0	47.4		ug/L		95	35 - 165	2	20
1,3,5-Trimethylbenzene	50.0	44.6		ug/L		89	60 - 140	1	20
1,3-Dichlorobenzene	50.0	47.4		ug/L		95	70 - 130	1	20
1,3-Dichloropropane	50.0	49.7		ug/L		99	60 - 140	2	20
1,4-Dichlorobenzene	50.0	46.8		ug/L		94	65 - 135	2	20
2,2-Dichloropropane	50.0	41.9		ug/L		84	60 - 140	3	20
2-Butanone (MEK)	50.0	41.0		ug/L		82	60 - 140	3	20
2-Chlorotoluene	50.0	46.1		ug/L		92	60 - 140	1	20
2-Hexanone	50.0	49.4		ug/L		99	60 - 140	1	20
4-Chlorotoluene	50.0	46.5		ug/L		93	60 - 140	2	20
4-Isopropyltoluene	50.0	46.6		ug/L		93	60 - 140	0	20
4-Methyl-2-pentanone (MIBK)	50.0	49.0		ug/L		98	60 - 140	2	20

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 550-290730/4
Matrix: Water
Analysis Batch: 290730

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
Acetone			50.0	43.8		ug/L		88	18 - 150	0	20
Benzene			50.0	44.1		ug/L		88	65 - 135	2	20
Bromobenzene			50.0	49.2		ug/L		98	60 - 140	0	20
Bromoform			50.0	52.4		ug/L		105	70 - 130	0	20
Bromomethane			50.0	45.2		ug/L		90	15 - 185	4	20
Carbon disulfide			50.0	38.8		ug/L		78	60 - 140	3	20
Carbon tetrachloride			50.0	41.4		ug/L		83	70 - 130	0	20
Chlorobenzene			50.0	47.7		ug/L		95	65 - 135	2	20
Chlorobromomethane			50.0	47.7		ug/L		95	60 - 140	3	20
Chlorodibromomethane			50.0	58.0		ug/L		116	70 - 135	1	20
Chloroethane			50.0	43.8		ug/L		88	40 - 160	4	20
Chloroform			50.0	43.3		ug/L		87	70 - 135	4	20
Chloromethane			50.0	44.9		ug/L		90	10 - 205	3	20
cis-1,2-Dichloroethene			50.0	46.1		ug/L		92	60 - 140	1	20
cis-1,3-Dichloropropene			50.0	55.8		ug/L		112	25 - 175	3	20
Dibromomethane			50.0	47.7		ug/L		95	70 - 130	1	20
Dichlorobromomethane			50.0	49.5		ug/L		99	65 - 135	3	20
Dichlorodifluoromethane			50.0	50.9		ug/L		102	60 - 140	1	20
Ethanol			1000	980		ug/L		98	60 - 140	2	20
Ethylbenzene			50.0	46.0		ug/L		92	60 - 140	1	20
Ethylene Dibromide			50.0	51.5		ug/L		103	60 - 140	1	20
Hexachlorobutadiene			50.0	46.3		ug/L		93	60 - 140	0	20
Iodomethane			50.0	37.3		ug/L		75	60 - 140	9	20
Isopropylbenzene			50.0	44.9		ug/L		90	60 - 140	1	20
Methyl tert-butyl ether			50.0	49.9		ug/L		100	60 - 140	4	20
Methylene Chloride			50.0	43.8		ug/L		88	60 - 140	5	20
m-Xylene & p-Xylene			50.0	43.9		ug/L		88	60 - 140	1	20
Naphthalene			50.0	48.1		ug/L		96	60 - 140	2	20
n-Butylbenzene			50.0	46.3		ug/L		93	60 - 140	0	20
N-Propylbenzene			50.0	45.5		ug/L		91	60 - 140	0	20
o-Xylene			50.0	46.0		ug/L		92	60 - 140	2	20
sec-Butylbenzene			50.0	45.5		ug/L		91	60 - 140	0	20
Styrene			50.0	49.7		ug/L		99	60 - 140	2	20
tert-Butylbenzene			50.0	46.2		ug/L		92	60 - 140	1	20
Tetrachloroethene			50.0	43.2		ug/L		86	70 - 130	1	20
Toluene			50.0	43.4		ug/L		87	70 - 130	2	20
trans-1,2-Dichloroethene			50.0	42.9		ug/L		86	70 - 130	4	20
trans-1,3-Dichloropropene			50.0	50.6		ug/L		101	50 - 150	1	20
Trichloroethene			50.0	43.6		ug/L		87	65 - 135	3	20
Trichlorofluoromethane			50.0	43.6		ug/L		87	50 - 150	1	20
Vinyl acetate			50.0	48.0		ug/L		96	60 - 140	0	20
Vinyl chloride			50.0	49.1		ug/L		98	5 - 195	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*60 - 140*
Dibromofluoromethane (Surr)	*94*		*60 - 140*
Toluene-d8 (Surr)	*89*		*60 - 140*

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-194524-3 MS
Matrix: Water
Analysis Batch: 290730

Client Sample ID: GAC-2A-100-22M12
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	52.0		ug/L		104	50 - 150
1,1,1-Trichloroethane	ND		50.0	41.3		ug/L		83	52 - 162
1,1,2,2-Tetrachloroethane	ND		50.0	52.3		ug/L		105	46 - 157
1,1,2-Trichloroethane	ND		50.0	52.9		ug/L		106	52 - 150
1,1-Dichloroethane	ND		50.0	43.3		ug/L		87	59 - 155
1,1-Dichloroethene	0.53		50.0	39.7		ug/L		78	10 - 234
1,1-Dichloropropene	ND		50.0	42.3		ug/L		85	50 - 150
1,2,3-Trichlorobenzene	ND		50.0	52.3		ug/L		102	50 - 150
1,2,3-Trichloropropane	ND		50.0	50.3		ug/L		101	50 - 150
1,2,4-Trichlorobenzene	ND	T5	50.0	52.4		ug/L		105	50 - 150
1,2,4-Trimethylbenzene	ND		50.0	49.0		ug/L		98	50 - 150
1,2-Dibromo-3-Chloropropane	ND		50.0	44.2		ug/L		88	50 - 150
1,2-Dichlorobenzene	ND		50.0	50.0		ug/L		99	18 - 190
1,2-Dichloroethane	ND		50.0	48.6		ug/L		97	49 - 155
1,2-Dichloropropane	ND		50.0	49.0		ug/L		98	10 - 210
1,3,5-Trimethylbenzene	ND		50.0	49.6		ug/L		99	50 - 150
1,3-Dichlorobenzene	ND		50.0	49.3		ug/L		98	59 - 156
1,3-Dichloropropane	ND		50.0	51.8		ug/L		104	50 - 150
1,4-Dichlorobenzene	ND		50.0	49.2		ug/L		98	18 - 190
2,2-Dichloropropane	ND		50.0	41.3		ug/L		83	50 - 150
2-Butanone (MEK)	ND		50.0	40.5		ug/L		81	50 - 150
2-Chlorotoluene	ND		50.0	47.8		ug/L		96	50 - 150
2-Hexanone	ND		50.0	49.5		ug/L		99	50 - 150
4-Chlorotoluene	ND		50.0	50.3		ug/L		101	50 - 150
4-Isopropyltoluene	ND		50.0	47.3		ug/L		95	50 - 150
4-Methyl-2-pentanone (MIBK)	ND		50.0	50.0		ug/L		100	50 - 150
Acetone	ND		50.0	38.7		ug/L		77	18 - 150
Benzene	ND		50.0	44.8		ug/L		90	35 - 151
Bromobenzene	ND		50.0	51.8		ug/L		104	50 - 150
Bromoform	ND		50.0	55.7		ug/L		111	45 - 169
Bromomethane	ND		50.0	43.5		ug/L		87	10 - 242
Carbon disulfide	ND		50.0	38.1		ug/L		76	50 - 150
Carbon tetrachloride	ND		50.0	42.2		ug/L		84	70 - 140
Chlorobenzene	ND		50.0	49.8		ug/L		100	37 - 160
Chlorobromomethane	ND		50.0	48.1		ug/L		96	50 - 150
Chlorodibromomethane	ND		50.0	60.7		ug/L		121	53 - 149
Chloroethane	ND		50.0	39.8		ug/L		80	14 - 230
Chloroform	0.71		50.0	44.2		ug/L		87	51 - 138
Chloromethane	ND		50.0	43.3		ug/L		87	10 - 273
cis-1,2-Dichloroethene	5.0		50.0	52.9		ug/L		96	50 - 150
cis-1,3-Dichloropropene	ND		50.0	58.2		ug/L		116	10 - 227
Dibromomethane	ND		50.0	49.8		ug/L		100	50 - 150
Dichlorobromomethane	ND		50.0	52.0		ug/L		104	35 - 155
Dichlorodifluoromethane	ND		50.0	48.8		ug/L		98	50 - 150
Ethanol	ND		1000	942		ug/L		94	50 - 150
Ethylbenzene	ND		50.0	47.4		ug/L		95	37 - 162
Ethylene Dibromide	ND		50.0	52.9		ug/L		106	50 - 150
Hexachlorobutadiene	ND		50.0	46.7		ug/L		93	50 - 150

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-194524-3 MS
Matrix: Water
Analysis Batch: 290730

Client Sample ID: GAC-2A-100-22M12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iodomethane	ND		50.0	36.8		ug/L		74	50 - 150
Isopropylbenzene	ND		50.0	46.8		ug/L		94	50 - 150
Methyl tert-butyl ether	ND		50.0	50.4		ug/L		101	50 - 150
Methylene Chloride	ND		50.0	43.9		ug/L		88	10 - 221
m-Xylene & p-Xylene	ND		50.0	46.8		ug/L		94	50 - 150
Naphthalene	ND		50.0	48.8		ug/L		98	50 - 150
n-Butylbenzene	ND		50.0	47.2		ug/L		94	50 - 150
N-Propylbenzene	ND		50.0	46.6		ug/L		93	50 - 150
o-Xylene	ND		50.0	48.7		ug/L		97	50 - 150
sec-Butylbenzene	ND		50.0	46.3		ug/L		93	50 - 150
Styrene	ND		50.0	52.4		ug/L		105	50 - 150
tert-Butylbenzene	ND		50.0	47.4		ug/L		95	50 - 150
Tetrachloroethene	ND		50.0	44.0		ug/L		88	64 - 148
Toluene	ND		50.0	46.4		ug/L		93	47 - 150
trans-1,2-Dichloroethene	ND		50.0	42.6		ug/L		85	54 - 156
trans-1,3-Dichloropropene	ND		50.0	52.3		ug/L		105	17 - 183
Trichloroethene	ND		50.0	45.3		ug/L		90	70 - 157
Trichlorofluoromethane	ND		50.0	42.3		ug/L		85	17 - 181
Vinyl acetate	ND		50.0	48.0		ug/L		96	50 - 150
Vinyl chloride	ND		50.0	47.4		ug/L		95	10 - 251

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*60 - 140*
Dibromofluoromethane (Surr)	*99*		*60 - 140*
Toluene-d8 (Surr)	*95*		*60 - 140*

Lab Sample ID: 550-194524-3 MSD
Matrix: Water
Analysis Batch: 290730

Client Sample ID: GAC-2A-100-22M12
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	51.8		ug/L		104	50 - 150	1	35
1,1,1-Trichloroethane	ND		50.0	41.8		ug/L		84	52 - 162	1	36
1,1,2,2-Tetrachloroethane	ND		50.0	52.4		ug/L		105	46 - 157	0	61
1,1,2-Trichloroethane	ND		50.0	52.7		ug/L		105	52 - 150	0	45
1,1-Dichloroethane	ND		50.0	43.5		ug/L		87	59 - 155	1	40
1,1-Dichloroethene	0.53		50.0	40.5		ug/L		80	10 - 234	2	32
1,1-Dichloropropene	ND		50.0	43.7		ug/L		87	50 - 150	3	35
1,2,3-Trichlorobenzene	ND		50.0	52.8		ug/L		103	50 - 150	1	35
1,2,3-Trichloropropane	ND		50.0	50.2		ug/L		100	50 - 150	0	35
1,2,4-Trichlorobenzene	ND	T5	50.0	52.3		ug/L		105	50 - 150	0	35
1,2,4-Trimethylbenzene	ND		50.0	50.6		ug/L		101	50 - 150	3	35
1,2-Dibromo-3-Chloropropane	ND		50.0	45.2		ug/L		90	50 - 150	2	35
1,2-Dichlorobenzene	ND		50.0	51.5		ug/L		102	18 - 190	3	57
1,2-Dichloroethane	ND		50.0	48.3		ug/L		97	49 - 155	1	49
1,2-Dichloropropane	ND		50.0	50.0		ug/L		100	10 - 210	2	55
1,3,5-Trimethylbenzene	ND		50.0	49.7		ug/L		99	50 - 150	0	35
1,3-Dichlorobenzene	ND		50.0	51.1		ug/L		102	59 - 156	4	43

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-194524-3 MSD
Matrix: Water
Analysis Batch: 290730

Client Sample ID: GAC-2A-100-22M12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3-Dichloropropane	ND		50.0	51.5		ug/L		103	50 - 150	1	35
1,4-Dichlorobenzene	ND		50.0	50.0		ug/L		99	18 - 190	2	57
2,2-Dichloropropane	ND		50.0	41.6		ug/L		83	50 - 150	1	35
2-Butanone (MEK)	ND		50.0	37.9		ug/L		76	50 - 150	7	35
2-Chlorotoluene	ND		50.0	49.1		ug/L		98	50 - 150	3	35
2-Hexanone	ND		50.0	48.4		ug/L		97	50 - 150	2	35
4-Chlorotoluene	ND		50.0	51.2		ug/L		102	50 - 150	2	35
4-Isopropyltoluene	ND		50.0	49.3		ug/L		99	50 - 150	4	35
4-Methyl-2-pentanone (MIBK)	ND		50.0	48.9		ug/L		98	50 - 150	2	35
Acetone	ND		50.0	38.2		ug/L		76	18 - 150	1	35
Benzene	ND		50.0	45.7		ug/L		91	35 - 151	2	61
Bromobenzene	ND		50.0	52.5		ug/L		105	50 - 150	1	35
Bromoform	ND		50.0	56.3		ug/L		113	45 - 169	1	42
Bromomethane	ND		50.0	45.7		ug/L		91	10 - 242	5	61
Carbon disulfide	ND		50.0	38.7		ug/L		77	50 - 150	2	35
Carbon tetrachloride	ND		50.0	43.2		ug/L		86	70 - 140	2	41
Chlorobenzene	ND		50.0	49.9		ug/L		100	37 - 160	0	53
Chlorobromomethane	ND		50.0	48.1		ug/L		96	50 - 150	0	35
Chlorodibromomethane	ND		50.0	60.9		ug/L		122	53 - 149	0	50
Chloroethane	ND		50.0	43.9		ug/L		88	14 - 230	10	78
Chloroform	0.71		50.0	44.2		ug/L		87	51 - 138	0	54
Chloromethane	ND		50.0	44.1		ug/L		88	10 - 273	2	60
cis-1,2-Dichloroethene	5.0		50.0	53.5		ug/L		97	50 - 150	1	35
cis-1,3-Dichloropropene	ND		50.0	58.6		ug/L		117	10 - 227	1	58
Dibromomethane	ND		50.0	49.8		ug/L		100	50 - 150	0	35
Dichlorobromomethane	ND		50.0	51.9		ug/L		104	35 - 155	0	56
Dichlorodifluoromethane	ND		50.0	49.8		ug/L		100	50 - 150	2	35
Ethanol	ND		1000	986		ug/L		99	50 - 150	5	35
Ethylbenzene	ND		50.0	47.8		ug/L		96	37 - 162	1	63
Ethylene Dibromide	ND		50.0	53.6		ug/L		107	50 - 150	1	35
Hexachlorobutadiene	ND		50.0	48.9		ug/L		98	50 - 150	5	35
Iodomethane	ND		50.0	36.9		ug/L		74	50 - 150	0	35
Isopropylbenzene	ND		50.0	48.3		ug/L		97	50 - 150	3	35
Methyl tert-butyl ether	ND		50.0	49.7		ug/L		99	50 - 150	2	35
Methylene Chloride	ND		50.0	44.1		ug/L		88	10 - 221	0	28
m-Xylene & p-Xylene	ND		50.0	48.5		ug/L		97	50 - 150	4	35
Naphthalene	ND		50.0	50.2		ug/L		100	50 - 150	3	35
n-Butylbenzene	ND		50.0	49.2		ug/L		98	50 - 150	4	35
N-Propylbenzene	ND		50.0	48.1		ug/L		96	50 - 150	3	35
o-Xylene	ND		50.0	50.3		ug/L		101	50 - 150	3	35
sec-Butylbenzene	ND		50.0	48.2		ug/L		96	50 - 150	4	35
Styrene	ND		50.0	53.7		ug/L		107	50 - 150	3	35
tert-Butylbenzene	ND		50.0	50.0		ug/L		100	50 - 150	5	35
Tetrachloroethene	ND		50.0	45.2		ug/L		90	64 - 148	3	39
Toluene	ND		50.0	46.7		ug/L		93	47 - 150	1	41
trans-1,2-Dichloroethene	ND		50.0	43.0		ug/L		86	54 - 156	1	45
trans-1,3-Dichloropropene	ND		50.0	52.7		ug/L		105	17 - 183	1	86
Trichloroethene	ND		50.0	46.2		ug/L		92	70 - 157	2	48
Trichlorofluoromethane	ND		50.0	43.1		ug/L		86	17 - 181	2	84

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-194524-3 MSD
Matrix: Water
Analysis Batch: 290730

Client Sample ID: GAC-2A-100-22M12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Vinyl acetate	ND		50.0	47.7		ug/L		95	50 - 150	1	35
Vinyl chloride	ND		50.0	48.6		ug/L		97	10 - 251	3	66

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*60 - 140*
Dibromofluoromethane (Surr)	*96*		*60 - 140*
Toluene-d8 (Surr)	*95*		*60 - 140*

Lab Sample ID: MB 550-290731/6
Matrix: Water
Analysis Batch: 290731

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		0.50		ug/L			12/14/22 11:24	1
1,1,1-Trichloroethane	ND		0.50		ug/L			12/14/22 11:24	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			12/14/22 11:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			12/14/22 11:24	1
1,1,2-Trichloroethane	ND		0.50		ug/L			12/14/22 11:24	1
1,1-Dichloroethane	ND		0.50		ug/L			12/14/22 11:24	1
1,1-Dichloroethene	ND		0.50		ug/L			12/14/22 11:24	1
1,1-Dichloropropene	ND		0.50		ug/L			12/14/22 11:24	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			12/14/22 11:24	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/14/22 11:24	1
1,2,4-Trichlorobenzene	ND	T2	2.0		ug/L			12/14/22 11:24	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			12/14/22 11:24	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			12/14/22 11:24	1
1,2-Dichlorobenzene	ND		0.50		ug/L			12/14/22 11:24	1
1,2-Dichloroethane	ND		0.50		ug/L			12/14/22 11:24	1
1,2-Dichloropropane	ND		0.50		ug/L			12/14/22 11:24	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			12/14/22 11:24	1
1,3-Dichlorobenzene	ND		0.50		ug/L			12/14/22 11:24	1
1,3-Dichloropropane	ND		0.50		ug/L			12/14/22 11:24	1
1,4-Dichlorobenzene	ND		0.50		ug/L			12/14/22 11:24	1
2,2-Dichloropropane	ND		1.0		ug/L			12/14/22 11:24	1
2-Butanone (MEK)	ND		10		ug/L			12/14/22 11:24	1
2-Chlorotoluene	ND		0.50		ug/L			12/14/22 11:24	1
2-Hexanone	ND		5.0		ug/L			12/14/22 11:24	1
4-Chlorotoluene	ND		0.50		ug/L			12/14/22 11:24	1
4-Isopropyltoluene	ND		0.50		ug/L			12/14/22 11:24	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			12/14/22 11:24	1
Acetone	ND		10		ug/L			12/14/22 11:24	1
Benzene	ND		0.50		ug/L			12/14/22 11:24	1
Bromobenzene	ND		1.0		ug/L			12/14/22 11:24	1
Bromoform	ND		1.0		ug/L			12/14/22 11:24	1
Bromomethane	ND		5.0		ug/L			12/14/22 11:24	1
Carbon disulfide	ND		5.0		ug/L			12/14/22 11:24	1
Carbon tetrachloride	ND		0.50		ug/L			12/14/22 11:24	1
Chlorobenzene	ND		0.50		ug/L			12/14/22 11:24	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-290731/6
Matrix: Water
Analysis Batch: 290731

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chlorobromomethane	ND		0.50		ug/L			12/14/22 11:24	1
Chlorodibromomethane	ND		0.50		ug/L			12/14/22 11:24	1
Chloroethane	ND		1.0		ug/L			12/14/22 11:24	1
Chloroform	ND		0.50		ug/L			12/14/22 11:24	1
Chloromethane	ND		1.0		ug/L			12/14/22 11:24	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			12/14/22 11:24	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			12/14/22 11:24	1
Dibromomethane	ND		0.50		ug/L			12/14/22 11:24	1
Dichlorobromomethane	ND		0.50		ug/L			12/14/22 11:24	1
Dichlorodifluoromethane	ND		1.0		ug/L			12/14/22 11:24	1
Ethanol	ND		150		ug/L			12/14/22 11:24	1
Ethylbenzene	ND		0.50		ug/L			12/14/22 11:24	1
Ethylene Dibromide	ND		0.50		ug/L			12/14/22 11:24	1
Hexachlorobutadiene	ND		5.0		ug/L			12/14/22 11:24	1
Iodomethane	ND		2.0		ug/L			12/14/22 11:24	1
Isopropylbenzene	ND		0.50		ug/L			12/14/22 11:24	1
Methyl tert-butyl ether	ND		0.50		ug/L			12/14/22 11:24	1
Methylene Chloride	ND		5.0		ug/L			12/14/22 11:24	1
m-Xylene & p-Xylene	ND		1.0		ug/L			12/14/22 11:24	1
Naphthalene	ND		5.0		ug/L			12/14/22 11:24	1
n-Butylbenzene	ND		1.0		ug/L			12/14/22 11:24	1
N-Propylbenzene	ND		0.50		ug/L			12/14/22 11:24	1
o-Xylene	ND		0.50		ug/L			12/14/22 11:24	1
sec-Butylbenzene	ND		0.50		ug/L			12/14/22 11:24	1
Styrene	ND		1.0		ug/L			12/14/22 11:24	1
tert-Butylbenzene	ND		0.50		ug/L			12/14/22 11:24	1
Tetrachloroethene	ND		0.50		ug/L			12/14/22 11:24	1
Toluene	ND		0.50		ug/L			12/14/22 11:24	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			12/14/22 11:24	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			12/14/22 11:24	1
Trichloroethene	ND		0.50		ug/L			12/14/22 11:24	1
Trichlorofluoromethane	ND		1.0		ug/L			12/14/22 11:24	1
Trihalomethanes, Total	ND		0.50		ug/L			12/14/22 11:24	1
Vinyl acetate	ND		5.0		ug/L			12/14/22 11:24	1
Vinyl chloride	ND		1.0		ug/L			12/14/22 11:24	1
Xylenes, Total	ND		0.50		ug/L			12/14/22 11:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*12/14/22 11:24*	*1*
Dibromofluoromethane (Surr)	*97*		*60 - 140*		*12/14/22 11:24*	*1*
Toluene-d8 (Surr)	*90*		*60 - 140*		*12/14/22 11:24*	*1*

Lab Sample ID: LCS 550-290731/3
Matrix: Water
Analysis Batch: 290731

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	50.2		ug/L		100	60 - 140		

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-290731/3
Matrix: Water
Analysis Batch: 290731

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-Trichloroethane	50.0	43.5		ug/L		87	70 - 130
1,1,2,2-Tetrachloroethane	50.0	41.7		ug/L		83	60 - 140
1,1,2-Trichloroethane	50.0	45.7		ug/L		91	70 - 130
1,1-Dichloroethane	50.0	43.2		ug/L		86	70 - 130
1,1-Dichloroethene	50.0	41.3		ug/L		83	50 - 150
1,1-Dichloropropene	50.0	43.9		ug/L		88	60 - 140
1,2,3-Trichlorobenzene	50.0	48.3		ug/L		97	60 - 140
1,2,3-Trichloropropane	50.0	40.7		ug/L		81	60 - 140
1,2,4-Trichlorobenzene	50.0	48.8	T2	ug/L		98	60 - 140
1,2,4-Trimethylbenzene	50.0	47.9		ug/L		96	60 - 140
1,2-Dibromo-3-Chloropropane	50.0	39.1		ug/L		78	60 - 140
1,2-Dichlorobenzene	50.0	48.3		ug/L		97	65 - 135
1,2-Dichloroethane	50.0	47.1		ug/L		94	70 - 130
1,2-Dichloropropane	50.0	46.6		ug/L		93	35 - 165
1,3,5-Trimethylbenzene	50.0	48.3		ug/L		97	60 - 140
1,3-Dichlorobenzene	50.0	49.5		ug/L		99	70 - 130
1,3-Dichloropropane	50.0	46.1		ug/L		92	60 - 140
1,4-Dichlorobenzene	50.0	48.5		ug/L		97	65 - 135
2,2-Dichloropropane	50.0	44.3		ug/L		89	60 - 140
2-Butanone (MEK)	50.0	34.6		ug/L		69	60 - 140
2-Chlorotoluene	50.0	47.7		ug/L		95	60 - 140
2-Hexanone	50.0	36.0		ug/L		72	60 - 140
4-Chlorotoluene	50.0	48.2		ug/L		96	60 - 140
4-Isopropyltoluene	50.0	49.1		ug/L		98	60 - 140
4-Methyl-2-pentanone (MIBK)	50.0	36.6		ug/L		73	60 - 140
Acetone	50.0	38.2		ug/L		76	18 - 150
Benzene	50.0	46.5		ug/L		93	65 - 135
Bromobenzene	50.0	49.5		ug/L		99	60 - 140
Bromoform	50.0	44.0		ug/L		88	70 - 130
Bromomethane	50.0	54.7		ug/L		109	15 - 185
Carbon disulfide	50.0	40.3		ug/L		81	60 - 140
Carbon tetrachloride	50.0	44.6		ug/L		89	70 - 130
Chlorobenzene	50.0	48.6		ug/L		97	65 - 135
Chlorobromomethane	50.0	46.8		ug/L		94	60 - 140
Chlorodibromomethane	50.0	48.0		ug/L		96	70 - 135
Chloroethane	50.0	44.7		ug/L		89	40 - 160
Chloroform	50.0	44.8		ug/L		90	70 - 135
Chloromethane	50.0	48.3		ug/L		97	10 - 205
cis-1,2-Dichloroethene	50.0	48.1		ug/L		96	60 - 140
cis-1,3-Dichloropropene	50.0	47.8		ug/L		96	25 - 175
Dibromomethane	50.0	45.5		ug/L		91	70 - 130
Dichlorobromomethane	50.0	47.5		ug/L		95	65 - 135
Dichlorodifluoromethane	50.0	57.1		ug/L		114	60 - 140
Ethanol	1000	886		ug/L		89	60 - 140
Ethylbenzene	50.0	47.8		ug/L		96	60 - 140
Ethylene Dibromide	50.0	46.6		ug/L		93	60 - 140
Hexachlorobutadiene	50.0	45.0		ug/L		90	60 - 140
Iodomethane	50.0	44.9		ug/L		90	60 - 140
Isopropylbenzene	50.0	47.5		ug/L		95	60 - 140

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-290731/3
Matrix: Water
Analysis Batch: 290731

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methyl tert-butyl ether	50.0	44.6		ug/L		89	60 - 140
Methylene Chloride	50.0	47.0		ug/L		94	60 - 140
m-Xylene & p-Xylene	50.0	46.5		ug/L		93	60 - 140
Naphthalene	50.0	43.8		ug/L		88	60 - 140
n-Butylbenzene	50.0	46.3		ug/L		93	60 - 140
N-Propylbenzene	50.0	46.4		ug/L		93	60 - 140
o-Xylene	50.0	49.0		ug/L		98	60 - 140
sec-Butylbenzene	50.0	47.0		ug/L		94	60 - 140
Styrene	50.0	48.0		ug/L		96	60 - 140
tert-Butylbenzene	50.0	48.9		ug/L		98	60 - 140
Tetrachloroethene	50.0	47.0		ug/L		94	70 - 130
Toluene	50.0	46.2		ug/L		92	70 - 130
trans-1,2-Dichloroethene	50.0	43.8		ug/L		88	70 - 130
trans-1,3-Dichloropropene	50.0	46.7		ug/L		93	50 - 150
Trichloroethene	50.0	47.3		ug/L		95	65 - 135
Trichlorofluoromethane	50.0	45.8		ug/L		92	50 - 150
Vinyl acetate	50.0	40.2		ug/L		80	60 - 140
Vinyl chloride	50.0	44.9		ug/L		90	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*60 - 140*
Dibromofluoromethane (Surr)	*92*		*60 - 140*
Toluene-d8 (Surr)	*95*		*60 - 140*

Lab Sample ID: LCSD 550-290731/4
Matrix: Water
Analysis Batch: 290731

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	49.8		ug/L		100	60 - 140	1	20
1,1,1-Trichloroethane	50.0	42.9		ug/L		86	70 - 130	1	20
1,1,2,2-Tetrachloroethane	50.0	41.5		ug/L		83	60 - 140	0	20
1,1,2-Trichloroethane	50.0	46.3		ug/L		93	70 - 130	1	20
1,1-Dichloroethane	50.0	44.3		ug/L		89	70 - 130	3	20
1,1-Dichloroethene	50.0	39.9		ug/L		80	50 - 150	3	20
1,1-Dichloropropene	50.0	44.8		ug/L		90	60 - 140	2	20
1,2,3-Trichlorobenzene	50.0	48.0		ug/L		96	60 - 140	1	20
1,2,3-Trichloropropane	50.0	40.6		ug/L		81	60 - 140	0	20
1,2,4-Trichlorobenzene	50.0	48.7	T2	ug/L		97	60 - 140	0	20
1,2,4-Trimethylbenzene	50.0	48.0		ug/L		96	60 - 140	0	20
1,2-Dibromo-3-Chloropropane	50.0	37.4		ug/L		75	60 - 140	4	20
1,2-Dichlorobenzene	50.0	48.6		ug/L		97	65 - 135	1	20
1,2-Dichloroethane	50.0	47.2		ug/L		94	70 - 130	0	20
1,2-Dichloropropane	50.0	47.3		ug/L		95	35 - 165	1	20
1,3,5-Trimethylbenzene	50.0	48.2		ug/L		96	60 - 140	0	20
1,3-Dichlorobenzene	50.0	49.5		ug/L		99	70 - 130	0	20
1,3-Dichloropropane	50.0	46.0		ug/L		92	60 - 140	0	20
1,4-Dichlorobenzene	50.0	48.7		ug/L		97	65 - 135	1	20

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 550-290731/4
Matrix: Water
Analysis Batch: 290731

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
2,2-Dichloropropane	50.0	42.7		ug/L		85	60 - 140	4	20
2-Butanone (MEK)	50.0	35.3		ug/L		71	60 - 140	2	20
2-Chlorotoluene	50.0	48.1		ug/L		96	60 - 140	1	20
2-Hexanone	50.0	33.9		ug/L		68	60 - 140	6	20
4-Chlorotoluene	50.0	48.3		ug/L		97	60 - 140	0	20
4-Isopropyltoluene	50.0	48.5		ug/L		97	60 - 140	1	20
4-Methyl-2-pentanone (MIBK)	50.0	35.5		ug/L		71	60 - 140	3	20
Acetone	50.0	36.6		ug/L		73	18 - 150	4	20
Benzene	50.0	47.5		ug/L		95	65 - 135	2	20
Bromobenzene	50.0	49.9		ug/L		100	60 - 140	1	20
Bromoform	50.0	44.8		ug/L		90	70 - 130	2	20
Bromomethane	50.0	50.4		ug/L		101	15 - 185	8	20
Carbon disulfide	50.0	39.3		ug/L		79	60 - 140	2	20
Carbon tetrachloride	50.0	44.9		ug/L		90	70 - 130	1	20
Chlorobenzene	50.0	48.6		ug/L		97	65 - 135	0	20
Chlorobromomethane	50.0	47.5		ug/L		95	60 - 140	2	20
Chlorodibromomethane	50.0	48.2		ug/L		96	70 - 135	0	20
Chloroethane	50.0	42.3		ug/L		85	40 - 160	5	20
Chloroform	50.0	45.9		ug/L		92	70 - 135	2	20
Chloromethane	50.0	45.7		ug/L		91	10 - 205	6	20
cis-1,2-Dichloroethene	50.0	49.4		ug/L		99	60 - 140	3	20
cis-1,3-Dichloropropene	50.0	48.6		ug/L		97	25 - 175	2	20
Dibromomethane	50.0	46.6		ug/L		93	70 - 130	2	20
Dichlorobromomethane	50.0	48.9		ug/L		98	65 - 135	3	20
Dichlorodifluoromethane	50.0	53.5		ug/L		107	60 - 140	6	20
Ethanol	1000	932		ug/L		93	60 - 140	5	20
Ethylbenzene	50.0	46.9		ug/L		94	60 - 140	2	20
Ethylene Dibromide	50.0	46.1		ug/L		92	60 - 140	1	20
Hexachlorobutadiene	50.0	44.7		ug/L		89	60 - 140	1	20
Iodomethane	50.0	44.0		ug/L		88	60 - 140	2	20
Isopropylbenzene	50.0	48.0		ug/L		96	60 - 140	1	20
Methyl tert-butyl ether	50.0	44.5		ug/L		89	60 - 140	0	20
Methylene Chloride	50.0	47.0		ug/L		94	60 - 140	0	20
m-Xylene & p-Xylene	50.0	46.8		ug/L		94	60 - 140	1	20
Naphthalene	50.0	42.3		ug/L		85	60 - 140	3	20
n-Butylbenzene	50.0	45.6		ug/L		91	60 - 140	2	20
N-Propylbenzene	50.0	46.4		ug/L		93	60 - 140	0	20
o-Xylene	50.0	49.8		ug/L		100	60 - 140	1	20
sec-Butylbenzene	50.0	46.7		ug/L		93	60 - 140	1	20
Styrene	50.0	48.8		ug/L		98	60 - 140	2	20
tert-Butylbenzene	50.0	49.2		ug/L		98	60 - 140	0	20
Tetrachloroethene	50.0	46.6		ug/L		93	70 - 130	1	20
Toluene	50.0	46.5		ug/L		93	70 - 130	1	20
trans-1,2-Dichloroethene	50.0	44.5		ug/L		89	70 - 130	2	20
trans-1,3-Dichloropropene	50.0	46.7		ug/L		93	50 - 150	0	20
Trichloroethene	50.0	48.0		ug/L		96	65 - 135	1	20
Trichlorofluoromethane	50.0	42.9		ug/L		86	50 - 150	7	20
Vinyl acetate	50.0	39.6		ug/L		79	60 - 140	2	20
Vinyl chloride	50.0	42.0		ug/L		84	5 - 195	7	20

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		60 - 140
Dibromofluoromethane (Surr)	96		60 - 140
Toluene-d8 (Surr)	96		60 - 140

Lab Sample ID: 550-194704-A-6 MS
Matrix: Water
Analysis Batch: 290731

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	51.0		ug/L		102	50 - 150
1,1,1-Trichloroethane	ND		50.0	41.1		ug/L		82	52 - 162
1,1,2,2-Tetrachloroethane	ND		50.0	46.4		ug/L		93	46 - 157
1,1,2-Trichloroethane	ND		50.0	50.8		ug/L		102	52 - 150
1,1-Dichloroethane	ND		50.0	42.0		ug/L		84	59 - 155
1,1-Dichloroethene	ND		50.0	38.9		ug/L		78	10 - 234
1,1-Dichloropropene	ND		50.0	45.5		ug/L		91	50 - 150
1,2,3-Trichlorobenzene	ND		50.0	46.0		ug/L		86	50 - 150
1,2,3-Trichloropropane	ND		50.0	45.3		ug/L		91	50 - 150
1,2,4-Trichlorobenzene	ND	T2	50.0	47.8	T2	ug/L		93	50 - 150
1,2,4-Trimethylbenzene	0.87		50.0	50.3		ug/L		99	50 - 150
1,2-Dibromo-3-Chloropropane	ND		50.0	41.4		ug/L		83	50 - 150
1,2-Dichlorobenzene	ND		50.0	49.9		ug/L		99	18 - 190
1,2-Dichloroethane	ND		50.0	48.9		ug/L		98	49 - 155
1,2-Dichloropropane	ND		50.0	48.2		ug/L		96	10 - 210
1,3,5-Trimethylbenzene	ND		50.0	49.7		ug/L		99	50 - 150
1,3-Dichlorobenzene	ND		50.0	51.7		ug/L		103	59 - 156
1,3-Dichloropropane	ND		50.0	47.9		ug/L		96	50 - 150
1,4-Dichlorobenzene	ND		50.0	50.1		ug/L		100	18 - 190
2,2-Dichloropropane	ND		50.0	41.6		ug/L		83	50 - 150
2-Butanone (MEK)	ND		50.0	34.0		ug/L		68	50 - 150
2-Chlorotoluene	ND		50.0	49.7		ug/L		99	50 - 150
2-Hexanone	ND		50.0	36.6		ug/L		73	50 - 150
4-Chlorotoluene	ND		50.0	48.9		ug/L		98	50 - 150
4-Isopropyltoluene	ND		50.0	48.8		ug/L		98	50 - 150
4-Methyl-2-pentanone (MIBK)	ND		50.0	40.7		ug/L		81	50 - 150
Acetone	10		50.0	45.9		ug/L		72	18 - 150
Benzene	0.79		50.0	49.0		ug/L		96	35 - 151
Bromobenzene	ND		50.0	52.1		ug/L		104	50 - 150
Bromoform	ND		50.0	48.8		ug/L		98	45 - 169
Bromomethane	ND		50.0	50.4		ug/L		101	10 - 242
Carbon disulfide	ND		50.0	37.8		ug/L		76	50 - 150
Carbon tetrachloride	ND		50.0	45.1		ug/L		90	70 - 140
Chlorobenzene	ND		50.0	49.5		ug/L		99	37 - 160
Chlorobromomethane	ND		50.0	46.4		ug/L		93	50 - 150
Chlorodibromomethane	ND		50.0	49.7		ug/L		99	53 - 149
Chloroethane	ND		50.0	41.4		ug/L		83	14 - 230
Chloroform	ND		50.0	44.2		ug/L		88	51 - 138
Chloromethane	ND		50.0	44.7		ug/L		89	10 - 273
cis-1,2-Dichloroethene	ND		50.0	50.2		ug/L		100	50 - 150
cis-1,3-Dichloropropene	ND		50.0	49.8		ug/L		100	10 - 227
Dibromomethane	ND		50.0	48.8		ug/L		98	50 - 150

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-194704-A-6 MS
Matrix: Water
Analysis Batch: 290731

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
Dichlorobromomethane	ND		50.0	50.0		ug/L		100	35 - 155
Dichlorodifluoromethane	ND		50.0	49.6		ug/L		99	50 - 150
Ethanol	ND		1000	899		ug/L		90	50 - 150
Ethylbenzene	ND		50.0	47.9		ug/L		96	37 - 162
Ethylene Dibromide	ND		50.0	48.3		ug/L		97	50 - 150
Hexachlorobutadiene	ND		50.0	40.6		ug/L		81	50 - 150
Iodomethane	ND		50.0	41.9		ug/L		84	50 - 150
Isopropylbenzene	0.80		50.0	50.8		ug/L		100	50 - 150
Methyl tert-butyl ether	ND		50.0	44.2		ug/L		88	50 - 150
Methylene Chloride	ND		50.0	46.5		ug/L		93	10 - 221
m-Xylene & p-Xylene	ND		50.0	50.8		ug/L		102	50 - 150
Naphthalene	ND		50.0	42.0		ug/L		77	50 - 150
n-Butylbenzene	ND		50.0	45.7		ug/L		91	50 - 150
N-Propylbenzene	ND		50.0	48.0		ug/L		96	50 - 150
o-Xylene	ND		50.0	52.6		ug/L		105	50 - 150
sec-Butylbenzene	1.6		50.0	48.7		ug/L		94	50 - 150
Styrene	ND		50.0	51.5		ug/L		103	50 - 150
tert-Butylbenzene	ND		50.0	49.8		ug/L		100	50 - 150
Tetrachloroethene	ND		50.0	47.2		ug/L		94	64 - 148
Toluene	ND		50.0	48.9		ug/L		98	47 - 150
trans-1,2-Dichloroethene	ND		50.0	42.6		ug/L		85	54 - 156
trans-1,3-Dichloropropene	ND		50.0	48.3		ug/L		97	17 - 183
Trichloroethene	ND		50.0	48.5		ug/L		97	70 - 157
Trichlorofluoromethane	ND		50.0	41.2		ug/L		82	17 - 181
Vinyl acetate	ND		50.0	43.1		ug/L		86	50 - 150
Vinyl chloride	ND		50.0	40.1		ug/L		80	10 - 251

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*60 - 140*
Dibromofluoromethane (Surr)	*93*		*60 - 140*
Toluene-d8 (Surr)	*97*		*60 - 140*

Lab Sample ID: 550-194704-A-6 MSD
Matrix: Water
Analysis Batch: 290731

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	51.0		ug/L		102	50 - 150	0	35
1,1,1-Trichloroethane	ND		50.0	41.0		ug/L		82	52 - 162	0	36
1,1,2,2-Tetrachloroethane	ND		50.0	46.7		ug/L		93	46 - 157	1	61
1,1,2-Trichloroethane	ND		50.0	51.7		ug/L		103	52 - 150	2	45
1,1-Dichloroethane	ND		50.0	42.5		ug/L		85	59 - 155	1	40
1,1-Dichloroethene	ND		50.0	38.3		ug/L		77	10 - 234	2	32
1,1-Dichloropropene	ND		50.0	44.4		ug/L		89	50 - 150	2	35
1,2,3-Trichlorobenzene	ND		50.0	49.0		ug/L		92	50 - 150	6	35
1,2,3-Trichloropropane	ND		50.0	46.0		ug/L		92	50 - 150	2	35
1,2,4-Trichlorobenzene	ND	T2	50.0	49.8	T2	ug/L		96	50 - 150	4	35
1,2,4-Trimethylbenzene	0.87		50.0	49.5		ug/L		97	50 - 150	1	35

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-194704-A-6 MSD
Matrix: Water
Analysis Batch: 290731

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
1,2-Dibromo-3-Chloropropane	ND		50.0	43.6		ug/L		87	50 - 150	5	35
1,2-Dichlorobenzene	ND		50.0	50.3		ug/L		100	18 - 190	1	57
1,2-Dichloroethane	ND		50.0	49.3		ug/L		99	49 - 155	1	49
1,2-Dichloropropane	ND		50.0	47.2		ug/L		94	10 - 210	2	55
1,3,5-Trimethylbenzene	ND		50.0	48.8		ug/L		98	50 - 150	2	35
1,3-Dichlorobenzene	ND		50.0	51.3		ug/L		103	59 - 156	1	43
1,3-Dichloropropane	ND		50.0	48.9		ug/L		98	50 - 150	2	35
1,4-Dichlorobenzene	ND		50.0	50.7		ug/L		101	18 - 190	1	57
2,2-Dichloropropane	ND		50.0	41.0		ug/L		82	50 - 150	2	35
2-Butanone (MEK)	ND		50.0	37.6		ug/L		75	50 - 150	10	35
2-Chlorotoluene	ND		50.0	49.0		ug/L		98	50 - 150	1	35
2-Hexanone	ND		50.0	39.5		ug/L		79	50 - 150	8	35
4-Chlorotoluene	ND		50.0	49.0		ug/L		98	50 - 150	0	35
4-Isopropyltoluene	ND		50.0	48.7		ug/L		97	50 - 150	0	35
4-Methyl-2-pentanone (MIBK)	ND		50.0	42.1		ug/L		84	50 - 150	3	35
Acetone	10		50.0	49.6		ug/L		79	18 - 150	8	35
Benzene	0.79		50.0	48.1		ug/L		95	35 - 151	2	61
Bromobenzene	ND		50.0	52.2		ug/L		104	50 - 150	0	35
Bromoform	ND		50.0	49.7		ug/L		99	45 - 169	2	42
Bromomethane	ND		50.0	48.3		ug/L		97	10 - 242	4	61
Carbon disulfide	ND		50.0	37.4		ug/L		75	50 - 150	1	35
Carbon tetrachloride	ND		50.0	43.6		ug/L		87	70 - 140	4	41
Chlorobenzene	ND		50.0	49.9		ug/L		100	37 - 160	1	53
Chlorobromomethane	ND		50.0	47.6		ug/L		95	50 - 150	2	35
Chlorodibromomethane	ND		50.0	51.3		ug/L		103	53 - 149	3	50
Chloroethane	ND		50.0	41.2		ug/L		82	14 - 230	0	78
Chloroform	ND		50.0	44.5		ug/L		89	51 - 138	1	54
Chloromethane	ND		50.0	42.6		ug/L		85	10 - 273	5	60
cis-1,2-Dichloroethene	ND		50.0	49.6		ug/L		99	50 - 150	1	35
cis-1,3-Dichloropropene	ND		50.0	49.5		ug/L		99	10 - 227	1	58
Dibromomethane	ND		50.0	48.5		ug/L		97	50 - 150	1	35
Dichlorobromomethane	ND		50.0	49.5		ug/L		99	35 - 155	1	56
Dichlorodifluoromethane	ND		50.0	48.7		ug/L		97	50 - 150	2	35
Ethanol	ND		1000	905		ug/L		91	50 - 150	1	35
Ethylbenzene	ND		50.0	48.4		ug/L		97	37 - 162	1	63
Ethylene Dibromide	ND		50.0	49.7		ug/L		99	50 - 150	3	35
Hexachlorobutadiene	ND		50.0	45.1		ug/L		90	50 - 150	10	35
Iodomethane	ND		50.0	42.1		ug/L		84	50 - 150	0	35
Isopropylbenzene	0.80		50.0	49.0		ug/L		96	50 - 150	4	35
Methyl tert-butyl ether	ND		50.0	47.2		ug/L		94	50 - 150	7	35
Methylene Chloride	ND		50.0	46.3		ug/L		93	10 - 221	0	28
m-Xylene & p-Xylene	ND		50.0	48.9		ug/L		98	50 - 150	4	35
Naphthalene	ND		50.0	45.8		ug/L		84	50 - 150	8	35
n-Butylbenzene	ND		50.0	46.9		ug/L		94	50 - 150	3	35
N-Propylbenzene	ND		50.0	47.4		ug/L		95	50 - 150	1	35
o-Xylene	ND		50.0	51.0		ug/L		102	50 - 150	3	35
sec-Butylbenzene	1.6		50.0	48.4		ug/L		93	50 - 150	1	35
Styrene	ND		50.0	49.9		ug/L		100	50 - 150	3	35
tert-Butylbenzene	ND		50.0	49.1		ug/L		98	50 - 150	1	35

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-194704-A-6 MSD
Matrix: Water
Analysis Batch: 290731

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
Tetrachloroethene	ND		50.0	47.4		ug/L		95	64 - 148	1	39
Toluene	ND		50.0	48.4		ug/L		97	47 - 150	1	41
trans-1,2-Dichloroethene	ND		50.0	43.2		ug/L		86	54 - 156	1	45
trans-1,3-Dichloropropene	ND		50.0	49.0		ug/L		98	17 - 183	2	86
Trichloroethene	ND		50.0	47.4		ug/L		95	70 - 157	2	48
Trichlorofluoromethane	ND		50.0	41.9		ug/L		84	17 - 181	2	84
Vinyl acetate	ND		50.0	44.2		ug/L		88	50 - 150	2	35
Vinyl chloride	ND		50.0	37.9		ug/L		76	10 - 251	6	66

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*60 - 140*
Dibromofluoromethane (Surr)	*93*		*60 - 140*
Toluene-d8 (Surr)	*96*		*60 - 140*

QC Association Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-194524-1
SDG: Deer Valley

GC/MS VOA

Analysis Batch: 290710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-194524-1	INF-22M12	Total/NA	Water	624.1	
MB 550-290710/7	Method Blank	Total/NA	Water	624.1	
LCS 550-290710/4	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-290710/5	Lab Control Sample Dup	Total/NA	Water	624.1	
550-194578-A-6 MS	Matrix Spike	Total/NA	Water	624.1	
550-194578-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	624.1	

Analysis Batch: 290730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-194524-2	EFF-22M12	Total/NA	Water	624.1	
550-194524-3	GAC-2A-100-22M12	Total/NA	Water	624.1	
MB 550-290730/6	Method Blank	Total/NA	Water	624.1	
LCS 550-290730/3	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-290730/4	Lab Control Sample Dup	Total/NA	Water	624.1	
550-194524-3 MS	GAC-2A-100-22M12	Total/NA	Water	624.1	
550-194524-3 MSD	GAC-2A-100-22M12	Total/NA	Water	624.1	

Analysis Batch: 290731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-194524-4	GAC-2B-75-22M12	Total/NA	Water	624.1	
550-194524-5	TB-22M12	Total/NA	Water	624.1	
MB 550-290731/6	Method Blank	Total/NA	Water	624.1	
LCS 550-290731/3	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-290731/4	Lab Control Sample Dup	Total/NA	Water	624.1	
550-194704-A-6 MS	Matrix Spike	Total/NA	Water	624.1	
550-194704-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	624.1	

Lab Chronicle

Client: Jacobs Engineering Group, Inc.
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-194524-1
SDG: Deer Valley

Client Sample ID: INF-22M12 — Lab Sample ID: 550-194524-1

Date Collected: 12/06/22 10:30 — **Matrix: Water**
Date Received: 12/06/22 12:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	290710	JHU	EET PHX	12/14/22 03:38

Client Sample ID: EFF-22M12 — Lab Sample ID: 550-194524-2

Date Collected: 12/06/22 10:18 — **Matrix: Water**
Date Received: 12/06/22 12:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	290730	TC1	EET PHX	12/14/22 12:32

Client Sample ID: GAC-2A-100-22M12 — Lab Sample ID: 550-194524-3

Date Collected: 12/06/22 10:25 — **Matrix: Water**
Date Received: 12/06/22 12:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	290730	TC1	EET PHX	12/14/22 13:35

Client Sample ID: GAC-2B-75-22M12 — Lab Sample ID: 550-194524-4

Date Collected: 12/06/22 10:23 — **Matrix: Water**
Date Received: 12/06/22 12:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	290731	R1K	EET PHX	12/14/22 19:27

Client Sample ID: TB-22M12 — Lab Sample ID: 550-194524-5

Date Collected: 12/06/22 08:00 — **Matrix: Water**
Date Received: 12/06/22 12:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	290731	R1K	EET PHX	12/14/22 11:51

Laboratory References:

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-194524-1
SDG: Deer Valley

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
624.1		Water	1,2,4-Trichlorobenzene
624.1		Water	Trihalomethanes, Total

Method Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Monthly Groundwater Monitoring Program

Job ID: 550-194524-1
SDG: Deer Valley

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	EET PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

Laboratory References:

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

194524

12/17/2022

Test America Phoenix
4625 East Cotton CTr Blvd Suite 189
Phoenix, AZ 85040
602-437-3340

Honeywell — Chain Of Custody / Analysis Request

AESI Ref: 44901.45778
COC#: 37553-120622

Privileged & Confidential | 55014762
Site Name: Deer Valley
Phase:
Lab Proj # (SDG):
Sampling Co.: Jacobs
EDD To: Bernice Kidd, Jacobs HTS
Location of Site: Phoenix AZ.
Sampling Program: Monthly Groundwater Monitoring Program
Lab ID: TAL-PHX
Site ID: DEERV
Client Contact: (name, co., address)
Jacobs
1501 W. Fountainhead Parkway (suite 401)
Tempe, AZ 85282
Sampler: T. Kearsley
PO #: A001036349
Analysis Turnaround Time (TAT): 10
Consultant: Jacobs
Laboratory Contact: Danielle Roberts
Report Tier Level: 2
Full Report TAT: 10
HTS
Lab Job #:
Authorized User: Honeywell
Preliminary Data To: Berney Kidd Jacobs, Lakshmi Devi HTS,
Sample Receipt Acknowledgement To: Site Distribution List
Hard Copy To: Berney Kidd Jacobs,
Invoice To: Per OM&M Program process Tao Wu, Honeywell/Copy Berney Kidd
Test & Excel File Drive | Excel & Text File Order

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	Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	E624 (Total VOCs)	E300 0 (Nitrite-Nitrate)	MS/MSD	Sampling Method (code)	Lab Sample Numbers
	Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID							Units						
1	Influent			INF-22M12	12/6/2022	10:30	GW-GWS	WATER	REG	3	grab	N	X				-1
2	Effluent			EFF-22M12	12/6/2022	10:18	GW-GWS	WATER	REG	3	grab	N	X				-2
3	GAC2A Effluent			GAC-2A-100-22M12	12/6/2022	10:25	GW-GWS	WATER	REG	3	grab	N	X				-3
4	GAC2B 75%			GAC-2B-75-22M12	12/6/2022	10:23	GW-GWS	WATER	REG	3	grab	N	X				-4
5	TRIPBLANK			TB-22M12	12/6/2022	8:00	GW-GWS	WATER	REG	1	grab	N	X				-5
6																	
7																	
8																	
9																	
10																	
11																	
12																	

Preservative: 8 | 0

550-194524 Chain of Custody

Relinquished by	Company	Received by	Company	Condition	Custody Seals Intact
T. Kearsley	Jacobs				
Date/Time 12/6/22 12:00		Date/Time		Cooler Temp.	
Relinquished by	Company	Received by	Company	Condition	Custody Seals Intact
Date/Time		Date/Time 12/6/22 12:00		Cooler Temp.	

EETA PHX

Preservatives: (Other; Specify): 2.4°C ice CO2

0 (none); 1 (4 Deg C); 2 (HCl, pH<2); 3 (HNO3, pH<2); 4 (H2SO4, pH<2); 5 (NaOH, pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4, pH<2, 4 Deg C)); 8 (HCl, pH<2, 4 Deg C); 9 (HCl, 4 Deg C); 10 (HNO3, pH<2, 4 Deg C); 11 (NaOH. pH>12, 4 Deg, Ascorbic Acid); 12 (H2SO4, Na2S2O3, 4 Deg C, pH<2); 13 (Zn Acetate); 14 (1-MeOH, 4 Deg C and 2-NaHSO4, 4 Deg C): 15 (NaOH, pH>12, 4 Deg C); sp (special instructions)

Login Sample Receipt Checklist

Client: Jacobs Engineering Group, Inc.

Job Number: 550-194524-1
SDG Number: Deer Valley

Login Number: 194524
List Number: 1
Creator: Maycock, Lisa

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.

Appendix B
Historical Influent and Effluent Sample Results

Appendix B. Historical Influent and Effluent Sample Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Field Sample ID	Sample Date	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
E-2	Effluent	01/06/00	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-2	Effluent	02/02/00	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-2	Effluent	02/02/00	--	--	--	--	--	--	28	0.30	29
E-2	Effluent	03/28/00	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.0	--	--	--
E-1 MAU & E-2	Effluent	04/13/00	--	--	--	--	--	--	37	0.10	37
E-1 MAU	Effluent	04/27/00	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	04/27/00	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	05/18/00	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	06/23/00	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	5.1	--	--	--
E-1 MAU	Effluent	07/28/00	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	--	--	--
E-1 MAU	Effluent	08/25/00	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.70	--	--	--
E-1 MAU	Effluent	09/12/00	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	10/24/00	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	32
E-1 MAU	Effluent	11/07/00	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	--
E-1 MAU	Effluent	12/11/00	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.5	--	--	--
E-2	Effluent	01/24/01	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	3.8	--	--	--
E-2	Effluent	02/26/01	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	--
E-2	Effluent	03/13/01	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	--
E-2	Effluent	03/20/01	--	--	--	--	--	--	31	0.20	31
E-2	Effluent	04/12/01	0.50 U	0.50 U	1.3	0.50 U	0.50 U	25	--	--	--
E-2	Effluent	05/10/01	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	5.1	--	--	--
E-2	Effluent	05/24/01	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.3	31	0.20	31
E-2	Effluent	06/29/01	0.50 U	0.70	0.60	0.50 U	0.50 U	6.7	--	--	--
E-2	Effluent	07/19/01	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	28	0.20	28
E-1 MAU	Effluent	08/16/01	0.50 U	0.50 U	0.60	0.50 U	0.50 U	4.4	--	--	--
E-1 MAU	Effluent	09/18/01	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	10/04/01	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	17	1.0 U	17
E-1 MAU & E-2	Effluent	11/02/01	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	3.3	--	--	--
E-1 MAU	Effluent	12/07/01	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.2	--	--	--
E-1 MAU	Effluent	01/07/02	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.95	17	1.0 U	17
E-2	Effluent	02/04/02	0.50 U	0.50 U	0.94	0.88	0.50 U	15	--	--	--
E-2	Effluent	02/24/02	0.50 U	0.51	1.9	1.0	0.50 U	20	--	--	--
E-2	Effluent	03/27/02	0.50 U	0.50 U	1.9	0.50 U	0.50 U	15	30	0.36	30
E-2	Effluent	03/28/02	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.85	--	--	--
E-2	Effluent	04/04/02	0.50 U	0.50 U	0.63	0.50 U	0.50 U	7.1	--	--	--
E-2	Effluent	04/04/02	0.50 U	0.51	0.50 U	0.50 U	0.50 U	7.6	--	--	--
E-2	Effluent	04/05/02	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.2	--	--	--
E-2	Effluent	04/05/02	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	3.1	--	--	--
E-2	Effluent	04/06/02	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.3	--	--	--
E-2	Effluent	04/06/02	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	3.2	--	--	--
E-1 MAU	Effluent	04/11/02	0.50 U	1.1	0.50 U	0.50 U	0.50 U	5.0	--	--	--
E-1 MAU	Effluent	04/13/02	0.50 U	0.63	0.50 U	0.50 U	0.50 U	1.7	--	--	--
E-1 MAU	Effluent	04/22/02	0.50 U	0.53	0.50 U	0.50 U	0.50 U	1.8	--	--	--
E-1 MAU	Effluent	04/22/02	0.50 U	0.59	0.50 U	0.50 U	0.50 U	2.4	--	--	--
E-1 MAU	Effluent	04/22/02	0.50 U	0.60	0.55	0.50 U	0.50 U	4.5	--	--	--
E-1 MAU	Effluent	04/29/02	0.50 U	0.53	0.50 U	0.50 U	0.50 U	2.8	--	--	--
E-1 MAU	Effluent	05/24/02	0.50 U	0.57	0.50 U	0.50 U	0.50 U	0.54	--	--	--

Appendix B. Historical Influent and Effluent Sample Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Field Sample ID	Sample Date	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
E-1 MAU	Effluent	06/05/02	0.50 U	0.51	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	06/28/02	0.50 U	0.66	1.3	0.50 U	0.50 U	10	--	--	--
E-1 MAU	Effluent	07/03/02	0.50 U	0.50 U	0.68	0.50 U	0.50 U	5.4	--	--	--
E-1 MAU	Effluent	07/08/02	0.50 U	0.50 U	0.53	0.50 U	0.50 U	3.7	--	--	--
E-1 MAU	Effluent	07/24/02	0.50 U	0.75	0.50 U	0.50 U	0.50 U	3.1	--	--	--
E-1 MAU	Effluent	09/03/02	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-2	Effluent	09/13/02	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.61	--	--	--
E-1 MAU	Effluent	10/01/02	--	--	--	--	--	--	20	0.10 U	20
E-1 MAU	Effluent	10/01/02	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	11/01/02	0.50 U	0.65	0.50 U	0.50 U	0.50 U	1.6	--	--	--
E-2	Effluent	12/02/02	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0	--	--	--
E-2	Effluent	01/02/03	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.2	39	0.12	--
E-2	Effluent	02/26/03	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	35	0.19	35
E-2	Effluent	03/05/03	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	03/26/03	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU & E-2	Effluent	04/02/03	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.74	22	0.15	23
E-1 MAU & E-2	Effluent	05/03/03	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU & E-2	Effluent	06/03/03	0.50 U	0.62	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	07/01/03	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	17	0.11	17
E-1 MAU & E-2	Effluent	08/01/03	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.61	--	--	--
E-1 MAU & E-2	Effluent	09/02/03	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.77	--	--	--
E-1 MAU & E-2	Effluent	10/02/03	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.2	23	0.20	23
E-1 MAU & E-2	Effluent	11/03/03	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU & E-2	Effluent	12/01/03	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU & E-2	Effluent	01/05/04	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	20	0.10 U	--
E-1 MAU & E-2	Effluent	02/03/04	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU & E-2	Effluent	03/03/04	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU & E-2	Effluent	04/01/04	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	22	0.10 U	22
E-1 MAU & E-2	Effluent	04/01/04	0.50 U	--	0.50 U	--	0.50 U	0.50	22	1.0 U	22
E-2	Effluent	05/05/04	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-2	Effluent	05/05/04	0.50 U	0.50 U	0.50	0.50 U	0.50 U	0.50	--	--	--
E-1 MAU & E-2	Effluent	06/02/04	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU & E-2	Effluent	07/01/04	0.50 U	0.50 U	1.0	0.50 U	0.50 U	0.50 U	--	0.10 U	21
E-2	Effluent	07/01/04	--	--	--	--	--	--	21	--	--
E-1 MAU & E-2	Effluent	08/02/04	0.50 U	0.65	6.0	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU & E-2	Effluent	09/02/04	0.50 U	0.56	8.0	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU & E-2	Effluent	10/01/04	0.50 U	0.63	12	0.50 U	0.50 U	0.50 U	19	0.10 U	--
E-1 MAU & E-2	Effluent	11/01/04	0.50 U	0.50 U	0.50 U	0.64	0.50 U	0.50 U	--	--	--
E-1 MAU & E-2	Effluent	12/01/04	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU & E-2	Effluent	01/03/05	0.50 U	0.50 U	3.7	0.50 U	0.50 U	0.50 U	21	0.10 U	--
E-1 MAU & E-2	Effluent	02/01/05	0.50 U	0.50 U	3.1	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU & E-2	Effluent	03/02/05	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU & E-2	Effluent	04/01/05	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	19	0.10 U	--
E-1 MAU & E-2	Effluent	05/03/05	0.50 U	0.50 U	1.8	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU & E-2	Effluent	06/03/05	0.50 U	0.50 U	4.6	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU & E-2	Effluent	07/07/05	0.50 U	0.50 U	6.9	0.50 U	0.50 U	0.50 U	21	0.10 U	--
E-1 MAU & E-2	Effluent	08/02/05	0.50 U	0.50 U	6.3	0.50 U	0.50 U	0.50 U	--	--	--

Appendix B. Historical Influent and Effluent Sample Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Field Sample ID	Sample Date	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
E-1 MAU	Effluent	09/06/05	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	10/03/05	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	19	0.10 U	19
E-1 MAU	Effluent	11/07/05	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU & E-2	Effluent	12/05/05	0.50 U	0.50 U	0.62	0.50 U	0.50 U	0.50 U	--	--	--
E-2	Effluent	01/02/06	0.50 U	0.50 U	3.1	0.50 U	0.50 U	0.50 U	18	0.10 U	18
E-2	Effluent	02/02/06	0.50 U	0.50 U	3.5	0.50 U	0.50 U	0.50 U	--	--	--
E-2	Effluent	03/01/06	0.50 U	0.50 U	3.4	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU & E-2	Effluent	04/04/06	0.50 U	0.50 U	8.4	0.50 U	0.50 U	0.50 U	23	0.10 U	--
E-1 MAU	Effluent	05/03/06	0.50 U	0.50 U	10	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	06/08/06	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-2	Effluent	07/05/06	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	22	0.10 U	22
E-2	Effluent	08/07/06	0.50 U	0.50 U	2.2	0.50 U	0.50 U	0.50 U	--	--	--
E-2	Effluent	09/06/06	0.50 U	0.62	9.0	0.50 U	0.50 U	0.78	--	--	--
E-1 MAU & E-2	Effluent	10/02/06	0.50 U	0.51	11	0.50 U	0.50 U	1.5	20	0.10 U	--
E-1 MAU & E-2	Effluent	12/04/06	0.50 U	0.50 U	2.6	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	01/02/07	0.50 U	0.50 U	1.8	0.50 U	0.50 U	0.50 U	21	0.10 U	21
E-1 MAU	Effluent	02/07/07	0.50 U	0.50 U	4.3	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	03/07/07	0.50 U	0.50 U	7.0	0.50 U	0.50 U	0.65	--	--	--
E-1 MAU	Effluent	04/02/07	0.50 U	0.50 U	0.96	0.50 U	0.50 U	0.50 U	25	1.0 U	25
E-1 MAU	Effluent	05/07/07	0.50 U	0.50 U	1.3	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	06/05/07	0.50 U	0.50 U	3.2 J	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	07/01/07	0.50 U	0.50 U	7.5	0.50 U	0.50 U	0.50 U	25 J	1.0 UJ	25 J
E-1 MAU	Effluent	08/07/07	0.50 U	0.50 U	6.8	0.50 U	0.50 U	3.7	--	--	--
E-1 MAU	Effluent	08/24/07	0.50 U	0.50 U	0.95	0.50 U	0.50 U	0.50 U	--	--	--
E-2	Effluent	08/27/07	0.50 U	0.50 U	1.3	0.50 U	0.50 U	0.50 U	--	--	--
E-2	Effluent	09/05/07	0.50 U	0.50 U	0.95	0.50 U	0.50 U	0.50 U	--	--	--
E-2	Effluent	10/02/07	0.50 U	0.50 U	0.86	0.50 U	0.50 U	0.50 U	17	0.10 U	17
E-2	Effluent	11/05/07	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-2	Effluent	12/08/07	1.4	0.56	24	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	01/02/08	--	--	--	--	--	--	16	--	--
E-2	Effluent	01/02/08	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.10 U	16
E-2	Effluent	01/03/08	--	0.50 U	--	0.50 U	--	0.50 U	--	--	--
E-2	Effluent	02/01/08	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-2	Effluent	03/01/08	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	04/08/08	0.50 U	0.50 U	--	--	--	0.50 U	22	2.0 U	--
E-2	Effluent	04/08/08	--	--	1.4	0.50 U	0.50 U	--	--	--	--
E-1 MAU	Effluent	05/07/08	0.50 U	0.50 U	10	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	06/06/08	0.50 U	0.50 U	12	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU & E-2	Effluent	07/02/08	0.54	0.50 U	13	0.50 U	0.50 U	1.0	--	--	--
E-1 MAU	Effluent	07/02/08	--	--	13	0.50 U	0.50 U	--	--	--	--
E-1 MAU & E-2	Effluent	07/02/08	0.50 U	0.50 U	--	--	--	1.0	--	--	--
E-1 MAU	Effluent	08/01/08	0.50 U	0.50 U	--	--	--	0.50 U	--	--	--
E-1 MAU & E-2	Effluent	08/01/08	--	--	0.50 U	0.50 U	0.50 U	--	--	--	--
E-1 MAU	Effluent	09/02/08	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	10/07/08	0.50 U	0.61	7.6	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	10/10/08	--	--	--	--	--	--	--	0.15 U	--
E-2	Effluent	10/10/08	--	--	--	--	--	--	22	--	--

Appendix B. Historical Influent and Effluent Sample Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Field Sample ID	Sample Date	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
E-1 MAU	Effluent	11/10/08	--	--	7.0	0.50 U	0.50 U	--	--	--	--
E-2	Effluent	11/10/08	0.50 U	0.50 U	--	--	--	0.50 U	--	--	--
E-2	Effluent	12/01/08	0.50 U	0.53	14	0.50 U	0.91	0.50 U	--	--	--
E-1 MAU	Effluent	01/02/09	0.50 U	0.50 U	17	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	02/03/09	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.59	--	--	--
E-1 MAU	Effluent	03/07/09	0.50 U	0.50 U	15	0.50 U	0.50 U	0.54	--	--	--
E-1 MAU	Effluent	04/04/09	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	06/01/09	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	07/02/09	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	08/01/09	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	09/04/09	0.50 U	0.51	5.3	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	10/07/09	0.50 U	0.58	15	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	11/01/09	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1 MAU	Effluent	12/07/09	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	01/04/10	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	23	--	--
E-1MAU	Effluent	02/08/10	0.50 U	0.50 U	2.3	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	03/02/10	0.50 U	0.50 U	6.6	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	04/16/10	0.50 U	0.50 U	4.2	0.50 U	0.50 U	0.50 U	32	--	--
E-1MAU	Effluent	05/04/10	0.50 U	0.50 U	10	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	06/02/10	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	07/05/10	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	21 J	--	--
E-1MAU	Effluent	08/02/10	0.50 U	0.50 U	2.1	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	09/09/10	0.50 U	0.58	9.4	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	10/02/10	0.50 U	0.71	17	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	11/03/10	0.50 U	0.50 U	0.61	0.50 U	0.50 U	0.50 U	22	--	--
E-1MAU	Effluent	12/07/10	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	01/10/11	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	22	--	--
E-1MAU	Effluent	02/01/11	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	03/07/11	0.50 U	0.50 U	0.52	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	04/04/11	0.50 U	0.50 U	1.6	0.50 U	0.50 U	0.50 U	23	--	--
E-1MAU	Effluent	05/03/11	0.50 U	0.63	10	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	06/08/11	0.50 U	0.50 U	0.55	0.50 U	0.50 U	0.55	--	--	--
E-2	Effluent	06/24/11	0.50 U	0.50 U	0.52	0.50 U	0.50 U	0.62	--	--	--
E-2	Effluent	07/06/11	0.50 U	0.50 U	0.73	0.50 U	0.50 U	0.41	32 J	--	--
E-2	Effluent	07/21/11	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-2	Effluent	08/09/11	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-2	Effluent	09/06/11	0.50 U	0.50 U	0.80	0.50 U	0.50 U	0.50 U	--	--	--
E-2	Effluent	09/19/11	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-2	Effluent	10/05/11	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	17 J	--	--
E-1MAU	Effluent	11/01/11	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	12/01/11	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	01/03/12	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	01/09/12	--	--	--	--	--	--	23	0.15 U	--
E-1MAU	Effluent	02/01/12	0.50 U	0.50 U	0.51	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	03/06/12	0.50 U	0.56	5.8	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	04/10/12	0.50 U	0.66	14	0.50 U	0.50 U	0.50 U	25 J	0.15 R	--
E-1MAU	Effluent	05/02/12	0.50 U	0.50 U	4.8	0.50 U	0.50 U	0.50 U	--	--	--

Appendix B. Historical Influent and Effluent Sample Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Field Sample ID	Sample Date	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
E-1MAU	Effluent	06/01/12	0.50 U	0.50 U	6.2	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	07/01/12	0.50 U	0.65	14	0.50 U	0.50 U	0.50 U	20 J	0.15 UJ	--
E-1MAU	Effluent	08/01/12	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	09/04/12	0.50 U	0.50 U	1.3	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	09/18/12	0.50 U	0.50 U	4.2	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	10/01/12	0.50 U	0.50 U	6.2	0.50 U	0.50 U	0.50 U	24	0.15 U	--
E-1MAU	Effluent	11/06/12	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	12/03/12	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	01/03/13	0.50 U	0.50 U	0.75	0.50 U	0.50 U	0.50 U	21	0.15 U	--
E-1MAU	Effluent	02/01/13	0.50 U	0.50 U	2.7	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	03/01/13	0.50 U	0.50 U	4.9	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	04/09/13	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	23	0.15 U	--
E-1MAU	Effluent	05/01/13	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	06/03/13	0.50 U	0.50 U	1.8	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	07/02/13	0.50 U	0.59	7.9	0.50 U	0.50 U	0.50 U	20	0.15 U	--
E-1MAU	Effluent	08/01/13	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ	--	--	--
E-1MAU	Effluent	09/03/13	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	10/02/13	0.50 U	0.50 U	5.4	0.50 U	0.50 U	0.50 U	22	0.15 U	--
E-1MAU	Effluent	11/10/13	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	12/01/13	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	01/02/14	0.50 U	0.50 U	4.8	0.50 U	0.50 U	0.50 U	23	0.15 U	--
E-1MAU	Effluent	02/03/14	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	03/02/14	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	04/08/14	1.0 U	1.0 U	5.8	1.0 U	1.0 U	1.0 U	23	0.15 U	--
E-1MAU	Effluent	05/16/14	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	06/02/14	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	07/01/14	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	21	0.15 U	--
E-1MAU	Effluent	08/05/14	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	09/02/14	0.50 U	0.54	3.4	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	10/02/14	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	28	0.15 U	--
E-1MAU	Effluent	11/03/14	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	12/01/14	0.50 U	0.50 U	0.73	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	01/04/15	0.50 U	0.50 U	2.1	0.50 U	0.50 U	0.50 U	21 J	0.15 U	--
E-1MAU	Effluent	02/02/15	0.50 U	0.50 U	2.0	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	09/08/15	--	--	--	--	--	--	21 J	0.16 J	--
E-1MAU	Effluent	09/30/15	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	10/01/15	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	25	0.15 U	--
E-1MAU	Effluent	11/09/15	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	12/01/15	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	01/05/16	0.50 U	0.50 U	1.5	0.50 U	0.50 U	0.50 U	24	--	--
E-1MAU	Effluent	02/04/16	0.50 U	0.50 U	3.1	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	03/03/16	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	04/07/16	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	23	--	--
E-1MAU	Effluent	05/04/16	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	06/08/16	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	07/05/16	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	22	--	--
E-1MAU	Effluent	08/11/16	0.50 U	0.50 U	1.1	0.50 U	0.50 U	0.50 U	--	--	--

Appendix B. Historical Influent and Effluent Sample Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Field Sample ID	Sample Date	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
E-1MAU	Effluent	09/12/16	0.50 U	0.30 J	2.4	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	10/06/16	0.50 U	0.50 U	1.7	0.50 U	0.50 U	0.50 U	24	--	--
E-1MAU	Effluent	11/16/16	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ	--	--	--
E-1MAU	Effluent	12/05/16	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
E-1MAU	Effluent	01/09/17	0.5 U	0.2 J	1.0	0.5 U	0.5 U	0.5 U	24	0.05 U	--
E-1MAU	Effluent	02/14/17	0.5 U	0.5 U	0.1 J	0.5 U	0.5 U	0.2 J	--	--	--
E-1MAU	Effluent	03/30/17	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.1 J	--	--	--
E-1MAU	Effluent	04/06/17	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	23	0.05 U	--
E-1MAU	Effluent	07/09/20	0.54 U	0.48 U	0.62 U	0.48 U	0.52 U	4.1	26	0.021 U	26
E-1MAU	Effluent	12/09/21	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	17	<0.050 U	17
E-1LAU and E-3UAU	Effluent	01/14/22	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	21	<0.050	21
E-1LAU and E-3UAU	Effluent	02/03/22	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--
E-1LAU and E-3UAU	Effluent	03/02/22	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--
E-1LAU and E-3UAU	Effluent	04/04/22	--	--	--	--	--	--	21	<0.050	21
E-1LAU and E-3UAU	Effluent	04/25/22	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--
E-1LAU and E-3UAU	Effluent	05/04/22	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--
E-1LAU and E-3UAU	Effluent	06/03/22	<0.50	0.62	<0.50	<0.50	<0.50	<0.50	--	--	--
E-1LAU and E-3UAU	Effluent	07/05/22	<0.50	0.98	2.0	<0.50	<0.50	<0.50	24	<0.050	24
E-1LAU and E-3UAU	Effluent	08/02/22	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--
E-1LAU and E-3UAU	Effluent	09/15/22	<0.5	<0.5	1.4	<0.5	<0.5	<0.5	--	--	--
E-1LAU and E-3UAU	Effluent	10/11/22	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	22	<0.050	22
E-1LAU and E-3UAU	Effluent	11/11/22	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--
E-1LAU and E-3UAU	Effluent	12/06/22	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--
E-2	Influent	01/06/00	1.2	0.50 U	19	3.0	0.50 U	196	--	--	--
E-2	Influent	01/06/00	--	--	--	--	--	--	33	0.20	33
E-2	Influent	02/02/00	2.0	0.70	29	3.1	0.50 U	245	--	--	--
E-2	Influent	03/28/00	2.0	1.1	25	4.1	0.50 U	238	--	--	--
E-1 MAU & E-2	Influent	04/13/00	--	--	--	--	--	--	36	0.10 U	36
E-1 MAU	Influent	04/27/00	0.50 U	0.50 U	3.5	0.50 U	0.50 U	34	--	--	--
E-1 MAU	Influent	05/18/00	0.50 U	0.50 U	5.3	0.50 U	0.50 U	54	--	--	--
E-1 MAU	Influent	06/23/00	0.50 U	0.50 U	3.6	0.50 U	0.50 U	59	--	--	--
E-1 MAU	Influent	07/28/00	2.0 U	2.0 U	5.1	2.0 U	2.0 U	57	--	--	--
E-1 MAU	Influent	08/25/00	0.50 U	0.50 U	9.5	0.50 U	0.50 U	88	--	--	--
E-1 MAU	Influent	09/12/00	0.50 U	0.50 U	7.8	0.50 U	0.50 U	74	--	--	--
E-1 MAU	Influent	10/24/00	0.50 U	0.50 U	9.9	0.50 U	0.50 U	96	--	--	32
E-1 MAU	Influent	11/07/00	1.0 U	1.0 U	6.2	1.0 U	1.0 U	63	--	--	--
E-1 MAU	Influent	12/11/00	1.0 U	1.0 U	7.0	1.0 U	1.0 U	69	--	--	--
E-2	Influent	01/24/01	1.0 U	1.0 U	6.4	1.0 U	1.0 U	67	--	--	--
E-2	Influent	02/26/01	1.0 U	1.0 U	7.8	1.0 U	1.0 U	143	--	--	--
E-2	Influent	03/13/01	1.0 U	1.0 U	15	1.0 U	1.0 U	181	--	--	--
E-2	Influent	03/20/01	--	--	--	--	--	--	35	0.10 U	35
E-2	Influent	04/12/01	1.8	1.0	26	4.7	0.50 U	219	--	--	--
E-2	Influent	05/24/01	2.0	0.60	22	5.0	0.50 U	238	31	0.10 U	31
E-2	Influent	06/29/01	1.7	1.0 U	22	3.3	1.0 U	195 J	--	--	--
E-2	Influent	07/19/01	1.9	1.0 U	24	2.7	1.0 U	190	28	0.10 U	28
E-1 MAU	Influent	08/16/01	0.80	0.70	7.8	0.60	0.50 U	43	--	--	--
E-1 MAU	Influent	09/18/01	1.0 U	1.0 U	4.7	1.0 U	1.0 U	36	--	--	--

Appendix B. Historical Influent and Effluent Sample Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Field Sample ID	Sample Date	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
E-1 MAU	Influent	10/04/01	1.0 U	1.0 U	4.4	1.0 U	1.0 U	32	17	0.10 U	17
E-1 MAU & E-2	Influent	11/02/01	2.5 U	2.5 U	11	2.5 U	2.5 U	110	--	--	--
E-1 MAU	Influent	12/07/01	1.0 U	1.0 U	3.9	1.0 U	1.0 U	33	--	--	--
E-1 MAU	Influent	01/07/02	0.50 U	0.50 U	4.7	0.50 U	0.50 U	39	18	1.0 U	18
E-2	Influent	02/04/02	1.5	0.74	26	5.6	0.50 U	180	--	--	--
E-2	Influent	02/24/02	--	--	--	--	--	210	--	--	--
E-2	Influent	02/24/02	1.5	0.57	25	4.7	0.50 U	--	--	--	--
E-2	Influent	02/24/02	5.0 U	5.0 U	26	5.0	5.0 U	--	--	--	--
E-2	Influent	03/27/02	1.1	0.53	13	3.3	0.50 U	140	35	1.0 U	35
E-2	Influent	03/28/02	2.5 U	2.5 U	19	2.9	2.5 U	160	--	--	--
E-2	Influent	04/04/02	1.2	0.59	14	3.6	0.50 U	150	--	--	--
E-2	Influent	04/05/02	1.1	0.50 U	19	2.9	0.50 U	180	--	--	--
E-2	Influent	04/06/02	0.50 U	0.50 U	8.8	1.8	0.50 U	89	--	--	--
E-1 MAU	Influent	04/11/02	0.50 U	1.0	8.0	0.69	0.50 U	72	--	--	--
E-1 MAU	Influent	04/13/02	0.50 U	0.86	7.2	0.65	0.50 U	62	--	--	--
E-1 MAU	Influent	04/22/02	0.50 U	0.65	7.0	0.57	0.50 U	49	--	--	--
E-1 MAU	Influent	04/22/02	0.50 U	0.67	7.2	0.57	0.50 U	49	--	--	--
E-1 MAU	Influent	04/22/02	0.50 U	0.67	7.5	0.58	0.50 U	50	--	--	--
E-1 MAU	Influent	04/29/02	0.50 U	0.64	7.8	0.63	0.50 U	52	--	--	--
E-1 MAU	Influent	04/30/02	--	--	--	--	--	--	21	1.0 U	--
E-1 MAU	Influent	05/24/02	0.50 U	0.64	6.4	0.76	0.50 U	47	--	--	--
E-1 MAU	Influent	06/28/02	0.50 U	0.75	8.4	0.92	0.50 U	56	--	--	--
E-1 MAU	Influent	07/03/02	0.50 U	0.96	7.8	0.85	0.50 U	57	--	--	--
E-1 MAU	Influent	07/08/02	0.50 U	0.83	8.0	0.71	0.50 U	53	--	--	--
E-1 MAU	Influent	07/24/02	0.50 U	1.0	7.3	0.68	0.50 U	55	--	--	--
E-1 MAU	Influent	09/03/02	0.50 U	0.50 U	6.0	0.50 U	0.50 U	46	--	--	--
E-2	Influent	09/13/02	0.53	0.50 U	5.6	0.91	0.50 U	76	--	--	--
E-1 MAU	Influent	10/01/02	0.50 U	0.77	7.0	0.50 U	0.50 U	42	--	--	--
E-1 MAU	Influent	11/01/02	0.50 U	1.1	8.7	0.70	0.50 U	59	--	--	--
E-2	Influent	12/02/02	2.0	0.50 U	12	3.1	0.50 U	150	--	--	--
E-2	Influent	01/02/03	1.3	0.54	12	2.5	0.50 U	140	--	--	--
E-2	Influent	02/26/03	0.80	0.50 U	6.0	1.7	0.50 U	89	40	0.10 U	40
E-1 MAU	Influent	03/26/03	0.50 U	0.91	6.0	0.50 U	0.50 U	38	--	--	--
E-1 MAU & E-2	Influent	04/02/03	0.75	0.64	8.0	1.2	0.50 U	70	23	0.10 U	23
E-1 MAU & E-2	Influent	05/03/03	0.77	0.56	9.9	1.5	0.50 U	79	--	--	--
E-1 MAU & E-2	Influent	06/03/03	0.50 U	0.85	6.4	0.59	0.50 U	43	--	--	--
E-1 MAU	Influent	07/01/03	0.50 U	0.53	4.7	0.50 U	0.50 U	28	18	0.10 U	18
E-1 MAU & E-2	Influent	08/01/03	0.70	0.71	7.8	1.2	0.50 U	66	--	--	--
E-1 MAU & E-2	Influent	09/02/03	0.78	0.57	9.3	1.1	0.50 U	76	--	--	--
E-1 MAU & E-2	Influent	10/02/03	0.59	0.50 U	8.4	1.2	0.50 U	65	22	0.10 U	22
E-1 MAU & E-2	Influent	11/03/03	0.77	0.59	10	1.4	0.50 U	86	--	--	--
E-1 MAU & E-2	Influent	12/01/03	0.76	0.53	8.8	1.2	0.50 U	69	--	--	--
E-1 MAU & E-2	Influent	01/05/04	0.50 U	0.50 U	8.4	0.86	0.50 U	61	20	0.10 U	--
E-1 MAU & E-2	Influent	02/03/04	0.62	0.50 U	9.1	1.4	0.50 U	74	--	--	--
E-1 MAU & E-2	Influent	03/03/04	0.67	0.50 U	9.3	1.2	0.50 U	70	--	--	--
E-1 MAU & E-2	Influent	04/01/04	0.57	0.52	9.8	1.2	0.50 U	71	21	1.0 U	21
E-2	Influent	05/05/04	1.7	0.50 U	21	3.2	0.50 U	170	--	--	--

Appendix B. Historical Influent and Effluent Sample Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Field Sample ID	Sample Date	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
E-1 MAU & E-2	Influent	06/02/04	0.56	0.50 U	7.9	1.0	0.50 U	64	--	--	--
E-1 MAU & E-2	Influent	07/01/04	0.50 U	0.50 U	4.1	0.69	0.50 U	32	--	0.10 U	21
E-2	Influent	07/01/04	--	--	--	--	--	--	21	--	--
E-1 MAU & E-2	Influent	08/02/04	0.57	0.50 U	8.2	1.1	0.50 U	62	--	--	--
E-1 MAU & E-2	Influent	09/02/04	0.50	0.50 U	7.8	1.1	0.50 U	59	--	--	--
E-1 MAU & E-2	Influent	10/01/04	0.65	0.50 U	9.2	1.1	0.50 U	64	--	0.10 U	--
E-2	Influent	10/01/04	--	--	--	--	--	--	20	--	--
E-1 MAU & E-2	Influent	11/01/04	0.66	0.50 U	8.0	1.5	0.50 U	58	--	--	--
E-1 MAU & E-2	Influent	12/01/04	0.50 U	0.50 U	8.3	0.91	0.50 U	56	--	--	--
E-1 MAU & E-2	Influent	01/03/05	0.56	0.50 U	9.0	1.1	0.50 U	64	20	0.10 U	--
E-1 MAU & E-2	Influent	02/01/05	0.50 U	0.50 U	7.7	0.99	0.50 U	55	--	--	--
E-1 MAU & E-2	Influent	03/02/05	0.50 U	0.50 U	8.0	1.1	0.50 U	55	--	--	--
E-1 MAU & E-2	Influent	04/01/05	0.50 U	0.50 U	7.3	0.86	0.50 U	49	19	0.10 U	--
E-1 MAU & E-2	Influent	05/03/05	0.50 U	0.50 U	7.4	0.88	0.50 U	52	--	--	--
E-1 MAU & E-2	Influent	06/03/05	0.50 U	0.50 U	6.4	0.50 U	0.50 U	25	--	--	--
E-1 MAU & E-2	Influent	07/07/05	0.50 U	0.50 U	5.5	0.50 U	0.50 U	31	22	0.10 U	--
E-1 MAU & E-2	Influent	08/02/05	--	0.50 U	6.0	0.85	0.50 U	43	--	--	--
E-1 MAU	Influent	09/06/05	0.50 U	0.50 U	5.1	0.50 U	0.50 U	21	--	--	--
E-1 MAU	Influent	10/03/05	0.50 U	0.50 U	5.9	0.50 U	0.50 U	24	20	0.10 U	20
E-1 MAU	Influent	11/07/05	0.50 U	0.50 U	5.5	0.50 U	0.50 U	21	--	--	--
E-1 MAU & E-2	Influent	12/04/05	0.50 U	0.50 U	8.5	0.89	0.50 U	54	--	--	--
E-2	Influent	01/03/06	0.63	0.50 U	13	0.83	0.50 U	120	17	0.10 U	17
E-2	Influent	02/02/06	0.64	0.50 U	12	1.5	0.50 U	120	--	--	--
E-2	Influent	03/01/06	0.81	0.50 U	12	1.0	0.50 U	140	--	--	--
E-1 MAU & E-2	Influent	04/03/06	0.50 U	0.50 U	7.6	0.67	0.50 U	50	22	0.10 U	--
E-1 MAU	Influent	05/03/06	0.50 U	0.50 U	7.0	0.60	0.50 U	28	--	--	--
E-1 MAU	Influent	06/08/06	0.50 U	0.50 U	6.7	0.63	0.50 U	24	--	--	--
E-2	Influent	07/05/06	0.50 U	0.50 U	7.6	0.56	0.50 U	45	19	0.10 U	19
E-2	Influent	08/07/06	0.50 U	0.50 U	7.7	0.61	0.50 U	63	--	--	--
E-2	Influent	09/06/06	0.50 U	0.50 U	7.2	0.87	0.50 U	54	--	--	--
E-1 MAU & E-2	Influent	10/02/06	0.50 U	0.50 U	6.6	0.69	0.50 U	41	20	0.10 U	--
E-1 MAU & E-2	Influent	12/04/06	0.50 U	0.50 U	8.1	0.79	0.50 U	46	--	--	--
E-1 MAU	Influent	01/02/07	0.50 U	0.50 U	7.2	0.63	0.50 U	42	22	0.10 U	22
E-1 MAU	Influent	02/07/07	0.50 U	0.50 U	7.7	0.76	0.50 U	27	--	--	--
E-1 MAU	Influent	03/07/07	0.50 U	0.50 U	8.5	0.81	0.50 U	31	--	--	--
E-1 MAU	Influent	04/02/07	0.50 U	0.50 U	7.8	0.94	0.50 U	29	21	1.0 U	21
E-1 MAU	Influent	05/07/07	0.50 U	0.50 U	7.0	0.78	0.50 U	25	--	--	--
E-1 MAU	Influent	06/05/07	0.50 U	0.50 U	8.4 J	0.93	0.50 U	30	--	--	--
E-1 MAU	Influent	07/01/07	0.50 U	0.50 U	8.3	1.0	0.50 U	31	25 J	1.0 UJ	25 J
E-1 MAU	Influent	08/07/07	0.50 U	0.50 U	10	0.81	0.50 U	31	--	--	--
E-2	Influent	08/27/07	0.58	0.50 U	2.2	0.68	0.50 U	39	--	--	--
E-2	Influent	09/05/07	0.67	0.50 U	5.2	0.77	0.50 U	60	--	--	--
E-2	Influent	10/02/07	0.71	0.50 U	8.8	0.69	0.50 U	89	17	0.10 U	17
E-2	Influent	11/05/07	0.50	0.50 U	8.3	0.68	0.50 U	76	--	--	--
E-2	Influent	12/08/07	0.74	0.50 U	9.8	0.75	0.50 U	91	--	--	--
E-1 MAU	Influent	01/02/08	--	--	--	--	--	--	16	--	--
E-2	Influent	01/02/08	0.69	0.50 U	8.6	0.77	0.50 U	86	--	0.10 U	16

Appendix B. Historical Influent and Effluent Sample Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Field Sample ID	Sample Date	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
E-2	Influent	02/01/08	0.64	0.50 U	7.7	0.85	0.50 U	85	--	--	--
E-2	Influent	03/01/08	0.71	0.50 U	7.7	0.84	0.50 U	78	--	--	--
E-1 MAU	Influent	04/08/08	--	--	--	--	--	--	23	2.0 U	--
E-2	Influent	04/08/08	0.50 U	0.50 U	9.3	1.2	0.50 U	36	--	--	--
E-1 MAU	Influent	05/07/08	0.50 U	0.50 U	7.8 J	1.1	0.50 U	34 J	--	--	--
E-1 MAU	Influent	06/06/08	0.50 U	0.50 U	7.2	1.1	0.50 U	32	--	--	--
E-1 MAU	Influent	07/02/08	0.50 U	0.50 U	8.8	1.2	0.50 U	33	--	--	--
E-1 MAU & E-2	Influent	08/01/08	0.50 U	0.50 U	9.6	1.4	0.50 U	39	--	--	--
E-1 MAU & E-2	Influent	09/02/08	0.50 U	0.50 U	7.1	1.3 U	1.2	34	--	--	--
E-1 MAU	Influent	10/07/08	0.50 U	0.50 U	9.8	1.5	0.50 U	40	--	0.15 U	--
E-2	Influent	10/07/08	--	--	--	--	--	--	24	--	--
E-1 MAU	Influent	11/10/08	0.58	0.50 U	5.1	0.91	0.50 U	64	--	--	--
E-1 MAU	Influent	12/01/08	0.50 U	0.50 U	10	2.0	0.50 U	45	--	--	--
E-1 MAU	Influent	01/02/09	0.50 U	0.50 U	11	1.7	0.50 U	44	--	--	--
E-1 MAU	Influent	02/03/09	0.50 U	0.50 U	8.6	1.3	0.50 U	39	--	--	--
E-1 MAU	Influent	03/07/09	0.50 U	0.50 U	12	1.5	0.50 U	42	--	--	--
E-1 MAU	Influent	04/04/09	0.50 U	0.50 U	10	1.7	0.64	48	--	--	--
E-1 MAU	Influent	06/01/09	0.60	0.50 U	13	2.5	0.50 U	63	--	--	--
E-1 MAU	Influent	07/02/09	0.50 U	0.50 U	10	1.8	0.50 U	46	--	--	--
E-1 MAU	Influent	08/01/09	0.50 U	0.50 U	13	1.9	0.50 U	52	--	--	--
E-1 MAU	Influent	09/04/09	0.50 U	0.50 U	11	1.9	0.50 U	54	--	--	--
E-1 MAU	Influent	10/07/09	0.50 U	0.50 U	9.9	1.7	0.50 U	45	--	--	--
E-1 MAU	Influent	11/01/09	0.50 U	0.50 U	9.5	1.5	0.50 U	44	--	--	--
E-1 MAU	Influent	12/07/09	0.50 U	0.50 U	9.9	1.4	0.50 U	40	--	--	--
E-1MAU	Influent	01/04/10	0.50 U	0.50 U	8.9	1.5	0.50 U	38	21	--	--
E-1MAU	Influent	02/08/10	0.50 U	0.53	12	1.3	0.50 U	44	--	--	--
E-1MAU	Influent	03/02/10	0.50 U	0.50 U	9.9	1.2	0.50 U	41	--	--	--
E-1MAU	Influent	04/16/10	0.50 U	0.69	13	4.3	0.50 U	110	34	--	--
E-1MAU	Influent	05/04/10	0.50 U	0.50 U	8.6	1.8	0.50 U	50	--	--	--
E-1MAU	Influent	06/02/10	0.50 U	0.50 U	9.0	1.6	0.50 U	44	--	--	--
E-1MAU	Influent	07/05/10	0.50 U	0.50 U	10	1.6	0.50 U	46	21 J	--	--
E-1MAU	Influent	08/02/10	0.50 U	0.50 U	9.4	1.6	0.50 U	40	--	--	--
E-1MAU	Influent	09/09/10	0.50 U	0.50 U	9.4	1.8	0.50 U	43	--	--	--
E-1MAU	Influent	10/02/10	0.50 U	0.50 U	11	1.6	0.50 U	42	--	--	--
E-1MAU	Influent	11/03/10	0.50 U	0.50 U	11	2.2	0.50 U	52	22	--	--
E-1MAU	Influent	12/07/10	0.66	0.50 U	13	3.4	0.50 U	90	--	--	--
E-1MAU	Influent	01/10/11	0.55	0.50 U	9.4	2.0	0.50 U	53	23	--	--
E-1MAU	Influent	02/01/11	0.50 U	0.50 U	8.4	1.6	0.50 U	45	--	--	--
E-1MAU	Influent	03/07/11	0.50 U	0.50 U	10	1.8	0.50 U	44	--	--	--
E-1MAU	Influent	04/04/11	0.50 U	0.50 U	9.1	1.7	0.50 U	40	22	--	--
E-1MAU	Influent	05/03/11	0.50 U	0.50 U	11	1.7	0.50 U	45	--	--	--
E-1MAU	Influent	06/08/11	0.50 U	0.50 U	9.3	1.5	0.50 U	36	--	--	--
E-2	Influent	07/06/11	0.57	0.36	2.2	1.2	0.50 U	35	32 J	--	--
E-2	Influent	08/09/11	0.50 U	0.50 U	5.2	0.93	0.50 U	56	--	--	--
E-2	Influent	09/06/11	0.50 U	0.50 U	3.2	1.4	0.50 U	52	--	--	--
E-2	Influent	09/19/11	0.55	0.50 U	7.0	1.3	0.50 U	80	--	--	--
E-2	Influent	10/05/11	0.63	0.50 U	8.6	1.2	0.50 U	86	19	--	--

Appendix B. Historical Influent and Effluent Sample Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Field Sample ID	Sample Date	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
E-1MAU	Influent	11/01/11	0.50 U	0.62	12	4.1	0.57	81	--	--	--
E-1MAU	Influent	12/01/11	0.52	0.50	12	2.0	0.50 U	51	--	--	--
E-1MAU	Influent	01/03/12	0.50 U	0.50 U	9.8	2.0	0.50 U	46	--	--	--
E-1MAU	Influent	01/09/12	--	--	--	--	--	--	23	0.15 U	--
E-1MAU	Influent	02/01/12	0.50 U	0.50 U	8.9	2.2	0.50 U	48	--	--	--
E-1MAU	Influent	03/06/12	0.50 U	0.50 U	10	1.8	0.50 U	43	--	--	--
E-1MAU	Influent	04/10/12	0.50 U	0.50 U	11	2.1	0.50 U	48	24 J	0.15 R	--
E-1MAU	Influent	05/02/12	0.50 U	0.50	10	2.5	0.50 U	50	--	--	--
E-1MAU	Influent	06/01/12	0.50 U	0.50 U	10	1.8	0.50 U	43	--	--	--
E-1MAU	Influent	07/01/12	0.50 U	0.50 U	11	2.0	0.50 U	42	22 J	0.15 UJ	--
E-1MAU	Influent	08/01/12	0.50 U	0.50 U	9.5	1.7	0.50 U	44	--	--	--
E-1MAU	Influent	09/04/12	0.50 U	0.50 U	9.6	1.8	0.50 U	38	--	--	--
E-1MAU	Influent	10/01/12	0.50 U	0.50 U	9.5	1.6	0.50 U	38	26	0.15 U	--
E-1MAU	Influent	11/06/12	0.50 U	0.50 U	10	1.8	0.50 U	39	--	--	--
E-1MAU	Influent	12/03/12	0.50 U	0.50 U	9.4	1.7	0.50 U	37	--	--	--
E-1MAU	Influent	01/02/13	0.50 U	0.50 U	9.9	1.3	0.50 U	32	21	0.15 U	--
E-1MAU	Influent	02/01/13	0.50 U	0.50 U	8.6	1.6	0.50 U	33	--	--	--
E-1MAU	Influent	03/01/13	0.50 U	0.50 U	8.5	1.3	0.50 U	31	--	--	--
E-1MAU	Influent	04/09/13	0.50 U	0.50 U	9.4	1.6	0.50 U	38	23	0.15 U	--
E-1MAU	Influent	05/01/13	0.50 U	0.50 U	9.7	1.5	0.50 U	39	--	--	--
E-1MAU	Influent	06/03/13	0.50 U	0.50 U	10	1.5	0.50 U	40	--	--	--
E-1MAU	Influent	07/02/13	0.50 U	0.50 U	9.0	1.5	0.50 U	33	21	0.15 U	--
E-1MAU	Influent	08/01/13	0.50 UJ	0.50 UJ	11 J	1.4 J	0.50 UJ	36 J	--	--	--
E-1MAU	Influent	09/03/13	0.50 U	0.50 U	7.1	1.6	0.50 U	39	--	--	--
E-1MAU	Influent	10/02/13	0.50 U	0.50 U	8.8	1.3	0.50 U	32	22	0.15 U	--
E-1MAU	Influent	11/10/13	0.50 U	0.50 U	8.2	1.6	0.50 U	34	--	--	--
E-1MAU	Influent	12/01/13	0.51	0.50 U	9.5	1.5	0.50 U	34	--	--	--
E-1MAU	Influent	01/02/14	0.50 U	0.50 U	9.5	1.2	0.50 U	31	23	0.15 U	--
E-1MAU	Influent	02/03/14	0.50 U	0.50 U	9.6	1.4	0.50 U	33	--	--	--
E-1MAU	Influent	03/02/14	0.50 U	0.50 U	9.4	1.6	0.50 U	35	--	--	--
E-1MAU	Influent	04/08/14	1.1	1.0 U	20	2.7	1.0 U	66	22	0.15 U	--
E-1MAU	Influent	05/16/14	0.50 U	0.50 U	12	2.0	0.50 U	51	--	--	--
E-1MAU	Influent	06/02/14	0.50 U	0.50 U	8.5	1.1	0.50 U	30	--	--	--
E-1MAU	Influent	07/01/14	0.50 U	0.50 U	8.6	1.2	0.50 U	29	21	0.15 U	--
E-1MAU	Influent	08/05/14	0.50 U	0.50 U	12	2.0	0.50 U	49	--	--	--
E-1MAU	Influent	09/02/14	0.50 U	0.50 U	6.8	1.0	0.50 U	27	--	--	--
E-1MAU	Influent	10/02/14	0.50 U	0.50 U	11	1.8	0.50 U	50	33	0.15 U	--
E-1MAU	Influent	11/03/14	0.50 U	0.50 U	8.5	1.2	0.50 U	28	--	--	--
E-1MAU	Influent	12/01/14	0.50 U	0.50 U	8.6	1.2	0.50 U	31	--	--	--
E-1MAU	Influent	01/04/15	0.50 U	0.50 U	9.0	1.4	0.50 U	32	21 J	0.15 U	--
E-1MAU	Influent	02/02/15	0.52	0.50 U	8.6	1.5	0.50 U	35	--	--	--
E-1MAU	Influent	09/08/15	--	--	--	--	--	--	33 J	0.10 UJ	--
E-1MAU	Influent	09/30/15	0.50 U	0.60	8.6	1.6	0.50 U	37	--	--	--
E-1MAU	Influent	10/01/15	0.50 U	0.50 U	8.1	1.5	0.50 U	35	25	0.15 U	--
E-1MAU	Influent	11/09/15	0.50 U	0.50 U	8.5	1.5	0.50 U	34	--	--	--
E-1MAU	Influent	12/01/15	0.50 U	0.50 U	7.3	1.5	0.50 U	33	--	--	--
E-1MAU	Influent	01/05/16	0.50 U	0.50 U	7.8	1.1	0.50 U	29	24	--	--

Appendix B. Historical Influent and Effluent Sample Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Field Sample ID	Sample Date	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
E-1MAU	Influent	02/04/16	0.50 U	0.50 U	8.0	1.3	0.50 U	29	--	--	--
E-1MAU	Influent	03/03/16	0.50 U	0.50 U	8.1	1.2	0.50 U	28	--	--	--
E-1MAU	Influent	04/07/16	0.50 U	0.50 U	8.5	1.2	0.50 U	29	23	--	--
E-1MAU	Influent	05/04/16	0.50 U	0.50 U	8.9	1.5	0.50 U	32	--	--	--
E-1MAU	Influent	06/08/16	0.27 J	0.31 J	7.2	1.2	0.50 U	25	--	--	--
E-1MAU	Influent	07/05/16	0.50 U	0.50 U	8.7	1.2	0.50 U	29	23	--	--
E-1MAU	Influent	08/11/16	0.60	0.50 U	8.9	1.3	0.50 U	33	--	--	--
E-1MAU	Influent	09/12/16	0.50	0.40 J	8.3	1.4	0.50 U	31	--	--	--
E-1MAU	Influent	10/06/16	0.50	0.50 U	12	1.9	0.40 J	47	32	--	--
E-1MAU	Influent	11/16/16	0.70 J	0.40 J	10 J	1.4 J	0.50 UJ	39 J	--	--	--
E-1MAU	Influent	12/05/16	0.50 J	0.40 J	8.5	1.3	0.50 U	31	--	--	--
E-1MAU	Influent	01/09/17	0.4 J	0.3 J	7.6	1.1	0.5 U	27	24	0.05 U	--
E-1MAU	Influent	02/14/17	0.4 J	0.4 J	8.2	1.2	0.5 U	28	--	--	--
E-1MAU	Influent	03/30/17	0.6 J	0.5 J	8.4 J	1.6 J	0.5 UJ	37 J	--	--	--
E-1MAU	Influent	04/06/17	0.5 J	0.4 J	8.0	1.1	0.5 U	28	23	0.05 U	--
E-1MAU	Influent	07/09/20	0.54 U	0.48 U	4.7	0.48 U	0.52 U	28 J	30	0.021 U	30
E-1LAU	Influent	12/09/21	<0.50 U	0.51	1.1	<0.50 U	<0.50 U	5.5	21	<0.050 U	21
E-1LAU and E-3UAU	Influent	01/14/22	<0.50	0.70	0.78	<0.50	<0.50	15	20	<0.050	20
E-1LAU and E-3UAU	Influent	02/03/22	<0.50	0.89	<0.50	<0.50	<0.50	<0.50	--	--	--
E-1LAU and E-3UAU	Influent	03/02/22	<0.50	<0.50	2.3	0.73	<0.50	18	--	--	--
E-1LAU and E-3UAU	Influent	04/04/22	--	--	--	--	--	--	21	<0.050	21
E-1LAU and E-3UAU	Influent	04/25/22	0.64	0.82	4.1	1.0	<0.50	29	--	--	--
E-1LAU and E-3UAU	Influent	05/04/22	<0.50	0.61	4.7	0.96	<0.50	28	--	--	--
E-1LAU and E-3UAU	Influent	06/03/22	0.55	0.65	4.2	1.2	<0.50	28	--	--	--
E-1LAU and E-3UAU	Influent	07/05/22	0.61	0.67	4.6	1.3	<0.50	30	23	<0.050	23
E-1LAU and E-3UAU	Influent	08/02/22	<0.50	0.60	4.4	1.2	<0.50	29	--	--	--
E-1LAU and E-3UAU	Influent	09/15/22	<0.5	0.51	4.5	1	<0.5	27	--	--	--
E-1LAU and E-3UAU	Influent	10/11/22	<0.50	0.54	4.3	1.1	<0.50	27	23	<0.050	23
E-1LAU and E-3UAU	Influent	11/11/22	<0.50	<0.50	4.8	1.3	<0.50	30	--	--	--
E-1LAU and E-3UAU	Influent	12/06/22	<0.50	0.66	5.1	1.4	<0.50	32	--	--	--

Notes:

More than one sample may have been collected on a single day

Samples analyzed for nitrate and nitrite using EPA Method 300.0

Samples analyzed for volatile organic compounds by EPA Method 624.1

"--" = not analyzed

1,1-DCE = 1,1-dichloroethene

CFM = chloroform

cis-1,2-DCE = cis-1,2-dichloroethene

ID = identification

J = estimated

µg/L = micrograms per liter (µg/L)

mg/L = milligrams per liter (mg/L)

PCE = tetrachloroethene

t-1,2-DCE = trans-1,2-dichloroethene

TCE = trichloroethene

U = not detected; value is the reporting limit

Originator: (print name) Parthiban P	*Parthiban P* (signature)
Checked by: (print name) Derek Foher	*Derek Foher* (signature)

Appendix C
Monitor Well Analytical Reports

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-191988-1
Laboratory Sample Delivery Group: Peoria, AZ
Client Project/Site: Peoria

For:
Jacobs Engineering Group, Inc.
1501 W Fountainhead Parkway
Suite 401
Tempe, Arizona 85282

Attn: Baine Foehr

Authorized for release by:
10/18/2022 5:44:54 AM

Danielle Roberts, Senior Project Manager
(657)210-6355
Danielle.Roberts@et.eurofinsus.com

LINKS

Review your project results through my EOL

Have a Question? Ask The Expert

Visit us at:
www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Sample Summary 5
Detection Summary 6
Client Sample Results 9
Surrogate Summary 38
QC Sample Results 39
QC Association Summary 49
Lab Chronicle 50
Certification Summary 53
Method Summary 54
Chain of Custody 55
Receipt Checklists 57

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
T2	Cited ADHS licensed method does not contain this analyte as part of the method compound list.
T5	Laboratory not licensed for this parameter

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: 550-191988-1

Laboratory: Eurofins Phoenix

Narrative

Job Narrative
550-191988-1

Comments
No additional comments.

Receipt
The samples were received on 10/13/2022 10:22 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.1º C.

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

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

Sample Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Peoria

Job ID: 550-191988-1
SDG: Peoria, AZ

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-191988-1	MW-01A-435-22A1	Water	10/12/22 11:07	10/13/22 10:22
550-191988-2	PHX-01-22A1	Water	10/12/22 11:08	10/13/22 10:22
550-191988-3	MW-03-355-22A1	Water	10/12/22 09:03	10/13/22 10:22
550-191988-4	MW-04-355-22A1	Water	10/12/22 09:33	10/13/22 10:22
550-191988-5	PHX-02-22A1	Water	10/12/22 09:34	10/13/22 10:22
550-191988-6	MW-05-310-22A1	Water	10/12/22 12:45	10/13/22 10:22
550-191988-7	TB-22A1	Water	10/12/22 08:00	10/13/22 10:22
550-191988-8	MW-10-22A1	Water	10/12/22 15:50	10/13/22 10:22
550-191988-9	EW-1-22A1	Water	10/12/22 11:27	10/13/22 10:22
550-191988-10	EW-2-360-22A1	Water	10/12/22 08:29	10/13/22 10:22
550-191988-11	MW-06-355-22A1	Water	10/12/22 13:33	10/13/22 10:22
550-191988-12	MW-08-355-22A1	Water	10/12/22 15:30	10/13/22 10:22
550-191988-13	MW-09-355-22A1	Water	10/12/22 10:36	10/13/22 10:22
550-191988-14	MW-12-410-22A1	Water	10/12/22 12:09	10/13/22 10:22
550-191988-15	MW-13-355-22A1	Water	10/12/22 16:48	10/13/22 10:22
550-191988-16	MW-14-350-22A1	Water	10/12/22 16:07	10/13/22 10:22
550-191988-17	MW-07-285-22A1	Water	10/12/22 10:03	10/13/22 10:22

Detection Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Peoria

Job ID: 550-191988-1
SDG: Peoria, AZ

Client Sample ID: MW-01A-435-22A1 — Lab Sample ID: 550-191988-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloroethane	9.6		0.50		ug/L	1		624.1	Total/NA
1,1-Dichloroethane	81		0.50		ug/L	1		624.1	Total/NA
Benzene	1.2		0.50		ug/L	1		624.1	Total/NA
Chloroform	20		0.50		ug/L	1		624.1	Total/NA
cis-1,2-Dichloroethene	8.7		0.50		ug/L	1		624.1	Total/NA
Tetrachloroethene	11		0.50		ug/L	1		624.1	Total/NA
trans-1,2-Dichloroethene	12		0.50		ug/L	1		624.1	Total/NA
Trichlorofluoromethane	2.0		1.0		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	20	T5	0.50		ug/L	1		624.1	Total/NA
Vinyl chloride	1.1		1.0		ug/L	1		624.1	Total/NA
1,1-Dichloroethene - DL	1300	D2	10		ug/L	20		624.1	Total/NA
Trichloroethene - DL	160	D2	10		ug/L	20		624.1	Total/NA

Client Sample ID: PHX-01-22A1 — Lab Sample ID: 550-191988-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloroethane	9.6		0.50		ug/L	1		624.1	Total/NA
1,1-Dichloroethane	83		0.50		ug/L	1		624.1	Total/NA
Benzene	1.2		0.50		ug/L	1		624.1	Total/NA
Chloroform	20		0.50		ug/L	1		624.1	Total/NA
cis-1,2-Dichloroethene	9.6		0.50		ug/L	1		624.1	Total/NA
Tetrachloroethene	11		0.50		ug/L	1		624.1	Total/NA
trans-1,2-Dichloroethene	13		0.50		ug/L	1		624.1	Total/NA
Trichlorofluoromethane	2.1		1.0		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	20	T5	0.50		ug/L	1		624.1	Total/NA
Vinyl chloride	1.2		1.0		ug/L	1		624.1	Total/NA
1,1-Dichloroethene - DL	1200	D2	10		ug/L	20		624.1	Total/NA
Trichloroethene - DL	150	D2	10		ug/L	20		624.1	Total/NA

Client Sample ID: MW-03-355-22A1 — Lab Sample ID: 550-191988-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	20		0.50		ug/L	1		624.1	Total/NA
Trichloroethene	26		0.50		ug/L	1		624.1	Total/NA

Client Sample ID: MW-04-355-22A1 — Lab Sample ID: 550-191988-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	16		0.50		ug/L	1		624.1	Total/NA
Trichloroethene	4.4		0.50		ug/L	1		624.1	Total/NA

Client Sample ID: PHX-02-22A1 — Lab Sample ID: 550-191988-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	17		0.50		ug/L	1		624.1	Total/NA
Trichloroethene	4.5		0.50		ug/L	1		624.1	Total/NA

Client Sample ID: MW-05-310-22A1 — Lab Sample ID: 550-191988-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	13		0.50		ug/L	1		624.1	Total/NA
Trichloroethene	8.2		0.50		ug/L	1		624.1	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Peoria

Job ID: 550-191988-1
SDG: Peoria, AZ

Client Sample ID: TB-22A1 — Lab Sample ID: 550-191988-7

No Detections.

Client Sample ID: MW-10-22A1 — Lab Sample ID: 550-191988-8

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.61		0.50		ug/L	1		624.1	Total/NA
1,1-Dichloroethene	18		0.50		ug/L	1		624.1	Total/NA
Trichloroethene	4.3		0.50		ug/L	1		624.1	Total/NA

Client Sample ID: EW-1-22A1 — Lab Sample ID: 550-191988-9

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloroethane	0.51		0.50		ug/L	1		624.1	Total/NA
1,1-Dichloroethane	4.4		0.50		ug/L	1		624.1	Total/NA
1,1-Dichloroethene	61		0.50		ug/L	1		624.1	Total/NA
Chloroform	1.1		0.50		ug/L	1		624.1	Total/NA
cis-1,2-Dichloroethene	0.57		0.50		ug/L	1		624.1	Total/NA
Trichloroethene	15		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	1.1	T5	0.50		ug/L	1		624.1	Total/NA

Client Sample ID: EW-2-360-22A1 — Lab Sample ID: 550-191988-10

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	25		0.50		ug/L	1		624.1	Total/NA
Trichloroethene	28		0.50		ug/L	1		624.1	Total/NA

Client Sample ID: MW-06-355-22A1 — Lab Sample ID: 550-191988-11

No Detections.

Client Sample ID: MW-08-355-22A1 — Lab Sample ID: 550-191988-12

No Detections.

Client Sample ID: MW-09-355-22A1 — Lab Sample ID: 550-191988-13

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.6		0.50		ug/L	1		624.1	Total/NA

Client Sample ID: MW-12-410-22A1 — Lab Sample ID: 550-191988-14

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	3.5		0.50		ug/L	1		624.1	Total/NA
Chloroform	4.6		0.50		ug/L	1		624.1	Total/NA
Dichlorobromomethane	1.0		0.50		ug/L	1		624.1	Total/NA
Trichloroethene	1.6		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	5.6	T5	0.50		ug/L	1		624.1	Total/NA

Client Sample ID: MW-13-355-22A1 — Lab Sample ID: 550-191988-15

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	1.3		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	1.3	T5	0.50		ug/L	1		624.1	Total/NA

Client Sample ID: MW-14-350-22A1 — Lab Sample ID: 550-191988-16

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Phoenix

Detection Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Peoria

Job ID: 550-191988-1
SDG: Peoria, AZ

Client Sample ID: MW-07-285-22A1

Lab Sample ID: 550-191988-17

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.7		0.50		ug/L	1		624.1	Total/NA
Chloroform	0.59		0.50		ug/L	1		624.1	Total/NA
Trichloroethene	1.0		0.50		ug/L	1		624.1	Total/NA
Trihalomethanes, Total	0.59	T5	0.50		ug/L	1		624.1	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Peoria

Job ID: 550-191988-1
SDG: Peoria, AZ

Client Sample ID: MW-01A-435-22A1

Lab Sample ID: 550-191988-1

Date Collected: 10/12/22 11:07
Date Received: 10/13/22 10:22

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			10/13/22 20:13	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/13/22 20:13	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/13/22 20:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			10/13/22 20:13	1
1,1,2-Trichloroethane	**9.6**		0.50		ug/L			10/13/22 20:13	1
1,1-Dichloroethane	**81**		0.50		ug/L			10/13/22 20:13	1
1,1-Dichloropropene	ND		0.50		ug/L			10/13/22 20:13	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			10/13/22 20:13	1
1,2,3-Trichloropropane	ND		2.0		ug/L			10/13/22 20:13	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0		ug/L			10/13/22 20:13	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			10/13/22 20:13	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/13/22 20:13	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/13/22 20:13	1
1,2-Dichloroethane	ND		0.50		ug/L			10/13/22 20:13	1
1,2-Dichloropropane	ND		0.50		ug/L			10/13/22 20:13	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			10/13/22 20:13	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/13/22 20:13	1
1,3-Dichloropropane	ND		0.50		ug/L			10/13/22 20:13	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/13/22 20:13	1
2,2-Dichloropropane	ND		1.0		ug/L			10/13/22 20:13	1
2-Butanone (MEK)	ND		10		ug/L			10/13/22 20:13	1
2-Chlorotoluene	ND		0.50		ug/L			10/13/22 20:13	1
2-Hexanone	ND		5.0		ug/L			10/13/22 20:13	1
4-Chlorotoluene	ND		0.50		ug/L			10/13/22 20:13	1
4-Isopropyltoluene	ND		0.50		ug/L			10/13/22 20:13	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			10/13/22 20:13	1
Acetone	ND		10		ug/L			10/13/22 20:13	1
Benzene	**1.2**		0.50		ug/L			10/13/22 20:13	1
Bromobenzene	ND		1.0		ug/L			10/13/22 20:13	1
Bromoform	ND		1.0		ug/L			10/13/22 20:13	1
Bromomethane	ND		5.0		ug/L			10/13/22 20:13	1
Carbon disulfide	ND		5.0		ug/L			10/13/22 20:13	1
Carbon tetrachloride	ND		0.50		ug/L			10/13/22 20:13	1
Chlorobenzene	ND		0.50		ug/L			10/13/22 20:13	1
Chlorobromomethane	ND		0.50		ug/L			10/13/22 20:13	1
Chlorodibromomethane	ND		0.50		ug/L			10/13/22 20:13	1
Chloroethane	ND		1.0		ug/L			10/13/22 20:13	1
Chloroform	**20**		0.50		ug/L			10/13/22 20:13	1
Chloromethane	ND		1.0		ug/L			10/13/22 20:13	1
cis-1,2-Dichloroethene	**8.7**		0.50		ug/L			10/13/22 20:13	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/13/22 20:13	1
Dibromomethane	ND		0.50		ug/L			10/13/22 20:13	1
Dichlorobromomethane	ND		0.50		ug/L			10/13/22 20:13	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/13/22 20:13	1
Ethanol	ND		150		ug/L			10/13/22 20:13	1
Ethylbenzene	ND		0.50		ug/L			10/13/22 20:13	1
Ethylene Dibromide	ND		0.50		ug/L			10/13/22 20:13	1
Hexachlorobutadiene	ND		5.0		ug/L			10/13/22 20:13	1
Iodomethane	ND		2.0		ug/L			10/13/22 20:13	1

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Peoria

Job ID: 550-191988-1
SDG: Peoria, AZ

Client Sample ID: MW-01A-435-22A1

Lab Sample ID: 550-191988-1
Date Collected: 10/12/22 11:07
Matrix: Water
Date Received: 10/13/22 10:22

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	ug/L			10/13/22 20:13	1
Methyl tert-butyl ether	ND		0.50	ug/L			10/13/22 20:13	1
Methylene Chloride	ND		5.0	ug/L			10/13/22 20:13	1
m-Xylene & p-Xylene	ND		1.0	ug/L			10/13/22 20:13	1
Naphthalene	ND		5.0	ug/L			10/13/22 20:13	1
n-Butylbenzene	ND		1.0	ug/L			10/13/22 20:13	1
N-Propylbenzene	ND		0.50	ug/L			10/13/22 20:13	1
o-Xylene	ND		0.50	ug/L			10/13/22 20:13	1
sec-Butylbenzene	ND		0.50	ug/L			10/13/22 20:13	1
Styrene	ND		1.0	ug/L			10/13/22 20:13	1
tert-Butylbenzene	ND		0.50	ug/L			10/13/22 20:13	1
Tetrachloroethene	**11**		0.50	ug/L			10/13/22 20:13	1
Toluene	ND		0.50	ug/L			10/13/22 20:13	1
trans-1,2-Dichloroethene	**12**		0.50	ug/L			10/13/22 20:13	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			10/13/22 20:13	1
Trichlorofluoromethane	**2.0**		1.0	ug/L			10/13/22 20:13	1
Trihalomethanes, Total	**20**	**T5**	0.50	ug/L			10/13/22 20:13	1
Vinyl acetate	ND		5.0	ug/L			10/13/22 20:13	1
Vinyl chloride	**1.1**		1.0	ug/L			10/13/22 20:13	1
Xylenes, Total	ND		0.50	ug/L			10/13/22 20:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*102*		*60 - 140*		*10/13/22 20:13*	*1*
Toluene-d8 (Surr)	*95*		*60 - 140*		*10/13/22 20:13*	*1*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*10/13/22 20:13*	*1*

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	**1300**	**D2**	10	ug/L			10/14/22 14:49	20
Trichloroethene	**160**	**D2**	10	ug/L			10/14/22 14:49	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*93*		*60 - 140*		*10/14/22 14:49*	*20*
Toluene-d8 (Surr)	*92*		*60 - 140*		*10/14/22 14:49*	*20*
4-Bromofluorobenzene (Surr)	*86*		*60 - 140*		*10/14/22 14:49*	*20*

Client Sample ID: PHX-01-22A1

Lab Sample ID: 550-191988-2
Date Collected: 10/12/22 11:08
Matrix: Water
Date Received: 10/13/22 10:22

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			10/13/22 20:36	1
1,1,1-Trichloroethane	ND		0.50	ug/L			10/13/22 20:36	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			10/13/22 20:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			10/13/22 20:36	1
1,1,2-Trichloroethane	**9.6**		0.50	ug/L			10/13/22 20:36	1
1,1-Dichloroethane	**83**		0.50	ug/L			10/13/22 20:36	1
1,1-Dichloropropene	ND		0.50	ug/L			10/13/22 20:36	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			10/13/22 20:36	1
1,2,3-Trichloropropane	ND		2.0	ug/L			10/13/22 20:36	1

Client Sample ID: PHX-01-22A1

Date Collected: 10/12/22 11:08
Date Received: 10/13/22 10:22

Lab Sample ID: 550-191988-2

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND	T2 T5	2.0		ug/L			10/13/22 20:36	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			10/13/22 20:36	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/13/22 20:36	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/13/22 20:36	1
1,2-Dichloroethane	ND		0.50		ug/L			10/13/22 20:36	1
1,2-Dichloropropane	ND		0.50		ug/L			10/13/22 20:36	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			10/13/22 20:36	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/13/22 20:36	1
1,3-Dichloropropane	ND		0.50		ug/L			10/13/22 20:36	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/13/22 20:36	1
2,2-Dichloropropane	ND		1.0		ug/L			10/13/22 20:36	1
2-Butanone (MEK)	ND		10		ug/L			10/13/22 20:36	1
2-Chlorotoluene	ND		0.50		ug/L			10/13/22 20:36	1
2-Hexanone	ND		5.0		ug/L			10/13/22 20:36	1
4-Chlorotoluene	ND		0.50		ug/L			10/13/22 20:36	1
4-Isopropyltoluene	ND		0.50		ug/L			10/13/22 20:36	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			10/13/22 20:36	1
Acetone	ND		10		ug/L			10/13/22 20:36	1
Benzene	**1.2**		0.50		ug/L			10/13/22 20:36	1
Bromobenzene	ND		1.0		ug/L			10/13/22 20:36	1
Bromoform	ND		1.0		ug/L			10/13/22 20:36	1
Bromomethane	ND		5.0		ug/L			10/13/22 20:36	1
Carbon disulfide	ND		5.0		ug/L			10/13/22 20:36	1
Carbon tetrachloride	ND		0.50		ug/L			10/13/22 20:36	1
Chlorobenzene	ND		0.50		ug/L			10/13/22 20:36	1
Chlorobromomethane	ND		0.50		ug/L			10/13/22 20:36	1
Chlorodibromomethane	ND		0.50		ug/L			10/13/22 20:36	1
Chloroethane	ND		1.0		ug/L			10/13/22 20:36	1
Chloroform	**20**		0.50		ug/L			10/13/22 20:36	1
Chloromethane	ND		1.0		ug/L			10/13/22 20:36	1
cis-1,2-Dichloroethene	**9.6**		0.50		ug/L			10/13/22 20:36	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/13/22 20:36	1
Dibromomethane	ND		0.50		ug/L			10/13/22 20:36	1
Dichlorobromomethane	ND		0.50		ug/L			10/13/22 20:36	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/13/22 20:36	1
Ethanol	ND		150		ug/L			10/13/22 20:36	1
Ethylbenzene	ND		0.50		ug/L			10/13/22 20:36	1
Ethylene Dibromide	ND		0.50		ug/L			10/13/22 20:36	1
Hexachlorobutadiene	ND		5.0		ug/L			10/13/22 20:36	1
Iodomethane	ND		2.0		ug/L			10/13/22 20:36	1
Isopropylbenzene	ND		0.50		ug/L			10/13/22 20:36	1
Methyl tert-butyl ether	ND		0.50		ug/L			10/13/22 20:36	1
Methylene Chloride	ND		5.0		ug/L			10/13/22 20:36	1
m-Xylene & p-Xylene	ND		1.0		ug/L			10/13/22 20:36	1
Naphthalene	ND		5.0		ug/L			10/13/22 20:36	1
n-Butylbenzene	ND		1.0		ug/L			10/13/22 20:36	1
N-Propylbenzene	ND		0.50		ug/L			10/13/22 20:36	1
o-Xylene	ND		0.50		ug/L			10/13/22 20:36	1
sec-Butylbenzene	ND		0.50		ug/L			10/13/22 20:36	1

Client Sample ID: PHX-01-22A1

Lab Sample ID: 550-191988-2

Date Collected: 10/12/22 11:08
Matrix: Water
Date Received: 10/13/22 10:22

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	ug/L			10/13/22 20:36	1
tert-Butylbenzene	ND		0.50	ug/L			10/13/22 20:36	1
Tetrachloroethene	**11**		0.50	ug/L			10/13/22 20:36	1
Toluene	ND		0.50	ug/L			10/13/22 20:36	1
trans-1,2-Dichloroethene	**13**		0.50	ug/L			10/13/22 20:36	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			10/13/22 20:36	1
Trichlorofluoromethane	**2.1**		1.0	ug/L			10/13/22 20:36	1
Trihalomethanes, Total	**20**	**T5**	0.50	ug/L			10/13/22 20:36	1
Vinyl acetate	ND		5.0	ug/L			10/13/22 20:36	1
Vinyl chloride	**1.2**		1.0	ug/L			10/13/22 20:36	1
Xylenes, Total	ND		0.50	ug/L			10/13/22 20:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*103*		*60 - 140*		*10/13/22 20:36*	*1*
Toluene-d8 (Surr)	*97*		*60 - 140*		*10/13/22 20:36*	*1*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*10/13/22 20:36*	*1*

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	**1200**	**D2**	10	ug/L			10/14/22 15:10	20
Trichloroethene	**150**	**D2**	10	ug/L			10/14/22 15:10	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*93*		*60 - 140*		*10/14/22 15:10*	*20*
Toluene-d8 (Surr)	*91*		*60 - 140*		*10/14/22 15:10*	*20*
4-Bromofluorobenzene (Surr)	*86*		*60 - 140*		*10/14/22 15:10*	*20*

Client Sample ID: MW-03-355-22A1

Lab Sample ID: 550-191988-3

Date Collected: 10/12/22 09:03
Matrix: Water
Date Received: 10/13/22 10:22

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			10/13/22 20:57	1
1,1,1-Trichloroethane	ND		0.50	ug/L			10/13/22 20:57	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			10/13/22 20:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			10/13/22 20:57	1
1,1,2-Trichloroethane	ND		0.50	ug/L			10/13/22 20:57	1
1,1-Dichloroethane	ND		0.50	ug/L			10/13/22 20:57	1
1,1-Dichloroethene	**20**		0.50	ug/L			10/14/22 14:28	1
1,1-Dichloropropene	ND		0.50	ug/L			10/13/22 20:57	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			10/13/22 20:57	1
1,2,3-Trichloropropane	ND		2.0	ug/L			10/13/22 20:57	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0	ug/L			10/13/22 20:57	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			10/13/22 20:57	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			10/13/22 20:57	1
1,2-Dichlorobenzene	ND		0.50	ug/L			10/13/22 20:57	1
1,2-Dichloroethane	ND		0.50	ug/L			10/13/22 20:57	1
1,2-Dichloropropane	ND		0.50	ug/L			10/13/22 20:57	1
1,3,5-Trimethylbenzene	ND		0.50	ug/L			10/13/22 20:57	1
1,3-Dichlorobenzene	ND		0.50	ug/L			10/13/22 20:57	1

Client Sample ID: MW-03-355-22A1

Lab Sample ID: 550-191988-3

Date Collected: 10/12/22 09:03

Matrix: Water

Date Received: 10/13/22 10:22

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichloropropane	ND		0.50		ug/L			10/13/22 20:57	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/13/22 20:57	1
2,2-Dichloropropane	ND		1.0		ug/L			10/13/22 20:57	1
2-Butanone (MEK)	ND		10		ug/L			10/13/22 20:57	1
2-Chlorotoluene	ND		0.50		ug/L			10/13/22 20:57	1
2-Hexanone	ND		5.0		ug/L			10/13/22 20:57	1
4-Chlorotoluene	ND		0.50		ug/L			10/13/22 20:57	1
4-Isopropyltoluene	ND		0.50		ug/L			10/13/22 20:57	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			10/13/22 20:57	1
Acetone	ND		10		ug/L			10/13/22 20:57	1
Benzene	ND		0.50		ug/L			10/13/22 20:57	1
Bromobenzene	ND		1.0		ug/L			10/13/22 20:57	1
Bromoform	ND		1.0		ug/L			10/13/22 20:57	1
Bromomethane	ND		5.0		ug/L			10/13/22 20:57	1
Carbon disulfide	ND		5.0		ug/L			10/13/22 20:57	1
Carbon tetrachloride	ND		0.50		ug/L			10/13/22 20:57	1
Chlorobenzene	ND		0.50		ug/L			10/13/22 20:57	1
Chlorobromomethane	ND		0.50		ug/L			10/13/22 20:57	1
Chlorodibromomethane	ND		0.50		ug/L			10/13/22 20:57	1
Chloroethane	ND		1.0		ug/L			10/13/22 20:57	1
Chloroform	ND		0.50		ug/L			10/13/22 20:57	1
Chloromethane	ND		1.0		ug/L			10/13/22 20:57	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			10/13/22 20:57	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/13/22 20:57	1
Dibromomethane	ND		0.50		ug/L			10/13/22 20:57	1
Dichlorobromomethane	ND		0.50		ug/L			10/13/22 20:57	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/13/22 20:57	1
Ethanol	ND		150		ug/L			10/13/22 20:57	1
Ethylbenzene	ND		0.50		ug/L			10/13/22 20:57	1
Ethylene Dibromide	ND		0.50		ug/L			10/13/22 20:57	1
Hexachlorobutadiene	ND		5.0		ug/L			10/13/22 20:57	1
Iodomethane	ND		2.0		ug/L			10/13/22 20:57	1
Isopropylbenzene	ND		0.50		ug/L			10/13/22 20:57	1
Methyl tert-butyl ether	ND		0.50		ug/L			10/13/22 20:57	1
Methylene Chloride	ND		5.0		ug/L			10/13/22 20:57	1
m-Xylene & p-Xylene	ND		1.0		ug/L			10/13/22 20:57	1
Naphthalene	ND		5.0		ug/L			10/13/22 20:57	1
n-Butylbenzene	ND		1.0		ug/L			10/13/22 20:57	1
N-Propylbenzene	ND		0.50		ug/L			10/13/22 20:57	1
o-Xylene	ND		0.50		ug/L			10/13/22 20:57	1
sec-Butylbenzene	ND		0.50		ug/L			10/13/22 20:57	1
Styrene	ND		1.0		ug/L			10/13/22 20:57	1
tert-Butylbenzene	ND		0.50		ug/L			10/13/22 20:57	1
Tetrachloroethene	ND		0.50		ug/L			10/13/22 20:57	1
Toluene	ND		0.50		ug/L			10/13/22 20:57	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/13/22 20:57	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/13/22 20:57	1
Trichloroethene	**26**		0.50		ug/L			10/13/22 20:57	1
Trichlorofluoromethane	ND		1.0		ug/L			10/13/22 20:57	1

Client Sample ID: MW-03-355-22A1

Lab Sample ID: 550-191988-3

Date Collected: 10/12/22 09:03
Matrix: Water
Date Received: 10/13/22 10:22

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Trihalomethanes, Total	ND	T5	0.50	ug/L			10/13/22 20:57	1
Vinyl acetate	ND		5.0	ug/L			10/13/22 20:57	1
Vinyl chloride	ND		1.0	ug/L			10/13/22 20:57	1
Xylenes, Total	ND		0.50	ug/L			10/13/22 20:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*102*		*60 - 140*		*10/13/22 20:57*	*1*
Dibromofluoromethane (Surr)	*93*		*60 - 140*		*10/14/22 14:28*	*1*
Toluene-d8 (Surr)	*96*		*60 - 140*		*10/13/22 20:57*	*1*
Toluene-d8 (Surr)	*93*		*60 - 140*		*10/14/22 14:28*	*1*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*10/13/22 20:57*	*1*
4-Bromofluorobenzene (Surr)	*85*		*60 - 140*		*10/14/22 14:28*	*1*

Client Sample ID: MW-04-355-22A1

Lab Sample ID: 550-191988-4

Date Collected: 10/12/22 09:33
Matrix: Water
Date Received: 10/13/22 10:22

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			10/13/22 21:20	1
1,1,1-Trichloroethane	ND		0.50	ug/L			10/13/22 21:20	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			10/13/22 21:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			10/13/22 21:20	1
1,1,2-Trichloroethane	ND		0.50	ug/L			10/13/22 21:20	1
1,1-Dichloroethane	ND		0.50	ug/L			10/13/22 21:20	1
1,1-Dichloroethene	**16**		0.50	ug/L			10/13/22 21:20	1
1,1-Dichloropropene	ND		0.50	ug/L			10/13/22 21:20	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			10/13/22 21:20	1
1,2,3-Trichloropropane	ND		2.0	ug/L			10/13/22 21:20	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0	ug/L			10/13/22 21:20	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			10/13/22 21:20	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			10/13/22 21:20	1
1,2-Dichlorobenzene	ND		0.50	ug/L			10/13/22 21:20	1
1,2-Dichloroethane	ND		0.50	ug/L			10/13/22 21:20	1
1,2-Dichloropropane	ND		0.50	ug/L			10/13/22 21:20	1
1,3,5-Trimethylbenzene	ND		0.50	ug/L			10/13/22 21:20	1
1,3-Dichlorobenzene	ND		0.50	ug/L			10/13/22 21:20	1
1,3-Dichloropropane	ND		0.50	ug/L			10/13/22 21:20	1
1,4-Dichlorobenzene	ND		0.50	ug/L			10/13/22 21:20	1
2,2-Dichloropropane	ND		1.0	ug/L			10/13/22 21:20	1
2-Butanone (MEK)	ND		10	ug/L			10/13/22 21:20	1
2-Chlorotoluene	ND		0.50	ug/L			10/13/22 21:20	1
2-Hexanone	ND		5.0	ug/L			10/13/22 21:20	1
4-Chlorotoluene	ND		0.50	ug/L			10/13/22 21:20	1
4-Isopropyltoluene	ND		0.50	ug/L			10/13/22 21:20	1
4-Methyl-2-pentanone (MIBK)	ND		2.5	ug/L			10/13/22 21:20	1
Acetone	ND		10	ug/L			10/13/22 21:20	1
Benzene	ND		0.50	ug/L			10/13/22 21:20	1
Bromobenzene	ND		1.0	ug/L			10/13/22 21:20	1
Bromoform	ND		1.0	ug/L			10/13/22 21:20	1

Client: Jacobs Engineering Group, Inc.
Project/Site: Peoria

Job ID: 550-191988-1
SDG: Peoria, AZ

Client Sample ID: MW-04-355-22A1
Date Collected: 10/12/22 09:33
Date Received: 10/13/22 10:22

Lab Sample ID: 550-191988-4
Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		5.0	ug/L			10/13/22 21:20	1
Carbon disulfide	ND		5.0	ug/L			10/13/22 21:20	1
Carbon tetrachloride	ND		0.50	ug/L			10/13/22 21:20	1
Chlorobenzene	ND		0.50	ug/L			10/13/22 21:20	1
Chlorobromomethane	ND		0.50	ug/L			10/13/22 21:20	1
Chlorodibromomethane	ND		0.50	ug/L			10/13/22 21:20	1
Chloroethane	ND		1.0	ug/L			10/13/22 21:20	1
Chloroform	ND		0.50	ug/L			10/13/22 21:20	1
Chloromethane	ND		1.0	ug/L			10/13/22 21:20	1
cis-1,2-Dichloroethene	ND		0.50	ug/L			10/13/22 21:20	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			10/13/22 21:20	1
Dibromomethane	ND		0.50	ug/L			10/13/22 21:20	1
Dichlorobromomethane	ND		0.50	ug/L			10/13/22 21:20	1
Dichlorodifluoromethane	ND		1.0	ug/L			10/13/22 21:20	1
Ethanol	ND		150	ug/L			10/13/22 21:20	1
Ethylbenzene	ND		0.50	ug/L			10/13/22 21:20	1
Ethylene Dibromide	ND		0.50	ug/L			10/13/22 21:20	1
Hexachlorobutadiene	ND		5.0	ug/L			10/13/22 21:20	1
Iodomethane	ND		2.0	ug/L			10/13/22 21:20	1
Isopropylbenzene	ND		0.50	ug/L			10/13/22 21:20	1
Methyl tert-butyl ether	ND		0.50	ug/L			10/13/22 21:20	1
Methylene Chloride	ND		5.0	ug/L			10/13/22 21:20	1
m-Xylene & p-Xylene	ND		1.0	ug/L			10/13/22 21:20	1
Naphthalene	ND		5.0	ug/L			10/13/22 21:20	1
n-Butylbenzene	ND		1.0	ug/L			10/13/22 21:20	1
N-Propylbenzene	ND		0.50	ug/L			10/13/22 21:20	1
o-Xylene	ND		0.50	ug/L			10/13/22 21:20	1
sec-Butylbenzene	ND		0.50	ug/L			10/13/22 21:20	1
Styrene	ND		1.0	ug/L			10/13/22 21:20	1
tert-Butylbenzene	ND		0.50	ug/L			10/13/22 21:20	1
Tetrachloroethene	ND		0.50	ug/L			10/13/22 21:20	1
Toluene	ND		0.50	ug/L			10/13/22 21:20	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			10/13/22 21:20	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			10/13/22 21:20	1
Trichloroethene	**4.4**		0.50	ug/L			10/13/22 21:20	1
Trichlorofluoromethane	ND		1.0	ug/L			10/13/22 21:20	1
Trihalomethanes, Total	ND	T5	0.50	ug/L			10/13/22 21:20	1
Vinyl acetate	ND		5.0	ug/L			10/13/22 21:20	1
Vinyl chloride	ND		1.0	ug/L			10/13/22 21:20	1
Xylenes, Total	ND		0.50	ug/L			10/13/22 21:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*100*		*60 - 140*		*10/13/22 21:20*	*1*
Toluene-d8 (Surr)	*95*		*60 - 140*		*10/13/22 21:20*	*1*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*10/13/22 21:20*	*1*

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Peoria

Job ID: 550-191988-1
SDG: Peoria, AZ

Client Sample ID: PHX-02-22A1

Date Collected: 10/12/22 09:34
Date Received: 10/13/22 10:22

Lab Sample ID: 550-191988-5

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			10/13/22 21:42	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/13/22 21:42	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/13/22 21:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			10/13/22 21:42	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/13/22 21:42	1
1,1-Dichloroethane	ND		0.50		ug/L			10/13/22 21:42	1
1,1-Dichloroethene	**17**		0.50		ug/L			10/13/22 21:42	1
1,1-Dichloropropene	ND		0.50		ug/L			10/13/22 21:42	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			10/13/22 21:42	1
1,2,3-Trichloropropane	ND		2.0		ug/L			10/13/22 21:42	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0		ug/L			10/13/22 21:42	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			10/13/22 21:42	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/13/22 21:42	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/13/22 21:42	1
1,2-Dichloroethane	ND		0.50		ug/L			10/13/22 21:42	1
1,2-Dichloropropane	ND		0.50		ug/L			10/13/22 21:42	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			10/13/22 21:42	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/13/22 21:42	1
1,3-Dichloropropane	ND		0.50		ug/L			10/13/22 21:42	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/13/22 21:42	1
2,2-Dichloropropane	ND		1.0		ug/L			10/13/22 21:42	1
2-Butanone (MEK)	ND		10		ug/L			10/13/22 21:42	1
2-Chlorotoluene	ND		0.50		ug/L			10/13/22 21:42	1
2-Hexanone	ND		5.0		ug/L			10/13/22 21:42	1
4-Chlorotoluene	ND		0.50		ug/L			10/13/22 21:42	1
4-Isopropyltoluene	ND		0.50		ug/L			10/13/22 21:42	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			10/13/22 21:42	1
Acetone	ND		10		ug/L			10/13/22 21:42	1
Benzene	ND		0.50		ug/L			10/13/22 21:42	1
Bromobenzene	ND		1.0		ug/L			10/13/22 21:42	1
Bromoform	ND		1.0		ug/L			10/13/22 21:42	1
Bromomethane	ND		5.0		ug/L			10/13/22 21:42	1
Carbon disulfide	ND		5.0		ug/L			10/13/22 21:42	1
Carbon tetrachloride	ND		0.50		ug/L			10/13/22 21:42	1
Chlorobenzene	ND		0.50		ug/L			10/13/22 21:42	1
Chlorobromomethane	ND		0.50		ug/L			10/13/22 21:42	1
Chlorodibromomethane	ND		0.50		ug/L			10/13/22 21:42	1
Chloroethane	ND		1.0		ug/L			10/13/22 21:42	1
Chloroform	ND		0.50		ug/L			10/13/22 21:42	1
Chloromethane	ND		1.0		ug/L			10/13/22 21:42	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			10/13/22 21:42	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/13/22 21:42	1
Dibromomethane	ND		0.50		ug/L			10/13/22 21:42	1
Dichlorobromomethane	ND		0.50		ug/L			10/13/22 21:42	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/13/22 21:42	1
Ethanol	ND		150		ug/L			10/13/22 21:42	1
Ethylbenzene	ND		0.50		ug/L			10/13/22 21:42	1
Ethylene Dibromide	ND		0.50		ug/L			10/13/22 21:42	1
Hexachlorobutadiene	ND		5.0		ug/L			10/13/22 21:42	1

Client Sample ID: PHX-02-22A1

Lab Sample ID: 550-191988-5

Date Collected: 10/12/22 09:34
Matrix: Water
Date Received: 10/13/22 10:22

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND		2.0	ug/L			10/13/22 21:42	1
Isopropylbenzene	ND		0.50	ug/L			10/13/22 21:42	1
Methyl tert-butyl ether	ND		0.50	ug/L			10/13/22 21:42	1
Methylene Chloride	ND		5.0	ug/L			10/13/22 21:42	1
m-Xylene & p-Xylene	ND		1.0	ug/L			10/13/22 21:42	1
Naphthalene	ND		5.0	ug/L			10/13/22 21:42	1
n-Butylbenzene	ND		1.0	ug/L			10/13/22 21:42	1
N-Propylbenzene	ND		0.50	ug/L			10/13/22 21:42	1
o-Xylene	ND		0.50	ug/L			10/13/22 21:42	1
sec-Butylbenzene	ND		0.50	ug/L			10/13/22 21:42	1
Styrene	ND		1.0	ug/L			10/13/22 21:42	1
tert-Butylbenzene	ND		0.50	ug/L			10/13/22 21:42	1
Tetrachloroethene	ND		0.50	ug/L			10/13/22 21:42	1
Toluene	ND		0.50	ug/L			10/13/22 21:42	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			10/13/22 21:42	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			10/13/22 21:42	1
Trichloroethene	**4.5**		0.50	ug/L			10/13/22 21:42	1
Trichlorofluoromethane	ND		1.0	ug/L			10/13/22 21:42	1
Trihalomethanes, Total	ND	T5	0.50	ug/L			10/13/22 21:42	1
Vinyl acetate	ND		5.0	ug/L			10/13/22 21:42	1
Vinyl chloride	ND		1.0	ug/L			10/13/22 21:42	1
Xylenes, Total	ND		0.50	ug/L			10/13/22 21:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*100*		*60 - 140*		*10/13/22 21:42*	*1*
Toluene-d8 (Surr)	*94*		*60 - 140*		*10/13/22 21:42*	*1*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*10/13/22 21:42*	*1*

Client Sample ID: MW-05-310-22A1

Lab Sample ID: 550-191988-6

Date Collected: 10/12/22 12:45
Matrix: Water
Date Received: 10/13/22 10:22

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			10/13/22 22:04	1
1,1,1-Trichloroethane	ND		0.50	ug/L			10/13/22 22:04	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			10/13/22 22:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			10/13/22 22:04	1
1,1,2-Trichloroethane	ND		0.50	ug/L			10/13/22 22:04	1
1,1-Dichloroethane	ND		0.50	ug/L			10/13/22 22:04	1
1,1-Dichloroethene	**13**		0.50	ug/L			10/13/22 22:04	1
1,1-Dichloropropene	ND		0.50	ug/L			10/13/22 22:04	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			10/13/22 22:04	1
1,2,3-Trichloropropane	ND		2.0	ug/L			10/13/22 22:04	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0	ug/L			10/13/22 22:04	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			10/13/22 22:04	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			10/13/22 22:04	1
1,2-Dichlorobenzene	ND		0.50	ug/L			10/13/22 22:04	1
1,2-Dichloroethane	ND		0.50	ug/L			10/13/22 22:04	1
1,2-Dichloropropane	ND		0.50	ug/L			10/13/22 22:04	1

Client: Jacobs Engineering Group, Inc.
Project/Site: Peoria

Job ID: 550-191988-1
SDG: Peoria, AZ

Client Sample ID: MW-05-310-22A1
Date Collected: 10/12/22 12:45
Date Received: 10/13/22 10:22

Lab Sample ID: 550-191988-6
Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		0.50		ug/L			10/13/22 22:04	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/13/22 22:04	1
1,3-Dichloropropane	ND		0.50		ug/L			10/13/22 22:04	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/13/22 22:04	1
2,2-Dichloropropane	ND		1.0		ug/L			10/13/22 22:04	1
2-Butanone (MEK)	ND		10		ug/L			10/13/22 22:04	1
2-Chlorotoluene	ND		0.50		ug/L			10/13/22 22:04	1
2-Hexanone	ND		5.0		ug/L			10/13/22 22:04	1
4-Chlorotoluene	ND		0.50		ug/L			10/13/22 22:04	1
4-Isopropyltoluene	ND		0.50		ug/L			10/13/22 22:04	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			10/13/22 22:04	1
Acetone	ND		10		ug/L			10/13/22 22:04	1
Benzene	ND		0.50		ug/L			10/13/22 22:04	1
Bromobenzene	ND		1.0		ug/L			10/13/22 22:04	1
Bromoform	ND		1.0		ug/L			10/13/22 22:04	1
Bromomethane	ND		5.0		ug/L			10/13/22 22:04	1
Carbon disulfide	ND		5.0		ug/L			10/13/22 22:04	1
Carbon tetrachloride	ND		0.50		ug/L			10/13/22 22:04	1
Chlorobenzene	ND		0.50		ug/L			10/13/22 22:04	1
Chlorobromomethane	ND		0.50		ug/L			10/13/22 22:04	1
Chlorodibromomethane	ND		0.50		ug/L			10/13/22 22:04	1
Chloroethane	ND		1.0		ug/L			10/13/22 22:04	1
Chloroform	ND		0.50		ug/L			10/13/22 22:04	1
Chloromethane	ND		1.0		ug/L			10/13/22 22:04	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			10/13/22 22:04	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/13/22 22:04	1
Dibromomethane	ND		0.50		ug/L			10/13/22 22:04	1
Dichlorobromomethane	ND		0.50		ug/L			10/13/22 22:04	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/13/22 22:04	1
Ethanol	ND		150		ug/L			10/13/22 22:04	1
Ethylbenzene	ND		0.50		ug/L			10/13/22 22:04	1
Ethylene Dibromide	ND		0.50		ug/L			10/13/22 22:04	1
Hexachlorobutadiene	ND		5.0		ug/L			10/13/22 22:04	1
Iodomethane	ND		2.0		ug/L			10/13/22 22:04	1
Isopropylbenzene	ND		0.50		ug/L			10/13/22 22:04	1
Methyl tert-butyl ether	ND		0.50		ug/L			10/13/22 22:04	1
Methylene Chloride	ND		5.0		ug/L			10/13/22 22:04	1
m-Xylene & p-Xylene	ND		1.0		ug/L			10/13/22 22:04	1
Naphthalene	ND		5.0		ug/L			10/13/22 22:04	1
n-Butylbenzene	ND		1.0		ug/L			10/13/22 22:04	1
N-Propylbenzene	ND		0.50		ug/L			10/13/22 22:04	1
o-Xylene	ND		0.50		ug/L			10/13/22 22:04	1
sec-Butylbenzene	ND		0.50		ug/L			10/13/22 22:04	1
Styrene	ND		1.0		ug/L			10/13/22 22:04	1
tert-Butylbenzene	ND		0.50		ug/L			10/13/22 22:04	1
Tetrachloroethene	ND		0.50		ug/L			10/13/22 22:04	1
Toluene	ND		0.50		ug/L			10/13/22 22:04	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/13/22 22:04	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/13/22 22:04	1

Client Sample ID: MW-05-310-22A1

Lab Sample ID: 550-191988-6

Date Collected: 10/12/22 12:45
Matrix: Water
Date Received: 10/13/22 10:22

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**8.2**		0.50		ug/L			10/13/22 22:04	1
Trichlorofluoromethane	ND		1.0		ug/L			10/13/22 22:04	1
Trihalomethanes, Total	ND	T5	0.50		ug/L			10/13/22 22:04	1
Vinyl acetate	ND		5.0		ug/L			10/13/22 22:04	1
Vinyl chloride	ND		1.0		ug/L			10/13/22 22:04	1
Xylenes, Total	ND		0.50		ug/L			10/13/22 22:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*102*		*60 - 140*		*10/13/22 22:04*	*1*
Toluene-d8 (Surr)	*95*		*60 - 140*		*10/13/22 22:04*	*1*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*10/13/22 22:04*	*1*

Client Sample ID: TB-22A1

Lab Sample ID: 550-191988-7

Date Collected: 10/12/22 08:00
Matrix: Water
Date Received: 10/13/22 10:22

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			10/13/22 18:45	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/13/22 18:45	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/13/22 18:45	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/13/22 18:45	1
1,1-Dichloroethane	ND		0.50		ug/L			10/13/22 18:45	1
1,1-Dichloroethene	ND		0.50		ug/L			10/13/22 18:45	1
1,1-Dichloropropene	ND		0.50		ug/L			10/13/22 18:45	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0		ug/L			10/13/22 18:45	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			10/13/22 18:45	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			10/13/22 18:45	1
1,2,3-Trichloropropane	ND		2.0		ug/L			10/13/22 18:45	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/13/22 18:45	1
Ethylene Dibromide	ND		0.50		ug/L			10/13/22 18:45	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/13/22 18:45	1
1,3-Dichloropropane	ND		0.50		ug/L			10/13/22 18:45	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/13/22 18:45	1
1,2-Dichloroethane	ND		0.50		ug/L			10/13/22 18:45	1
1,2-Dichloropropane	ND		0.50		ug/L			10/13/22 18:45	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			10/13/22 18:45	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/13/22 18:45	1
2,2-Dichloropropane	ND		1.0		ug/L			10/13/22 18:45	1
2-Butanone (MEK)	ND		10		ug/L			10/13/22 18:45	1
2-Chlorotoluene	ND		0.50		ug/L			10/13/22 18:45	1
2-Hexanone	ND		5.0		ug/L			10/13/22 18:45	1
4-Chlorotoluene	ND		0.50		ug/L			10/13/22 18:45	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			10/13/22 18:45	1
Acetone	ND		10		ug/L			10/13/22 18:45	1
Benzene	ND		0.50		ug/L			10/13/22 18:45	1
Bromobenzene	ND		1.0		ug/L			10/13/22 18:45	1
Chlorobromomethane	ND		0.50		ug/L			10/13/22 18:45	1
Dichlorobromomethane	ND		0.50		ug/L			10/13/22 18:45	1
Bromoform	ND		1.0		ug/L			10/13/22 18:45	1

Client: Jacobs Engineering Group, Inc.
Project/Site: Peoria

Job ID: 550-191988-1
SDG: Peoria, AZ

Client Sample ID: TB-22A1

Date Collected: 10/12/22 08:00
Date Received: 10/13/22 10:22

Lab Sample ID: 550-191988-7

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		5.0	ug/L			10/13/22 18:45	1
Carbon disulfide	ND		5.0	ug/L			10/13/22 18:45	1
Carbon tetrachloride	ND		0.50	ug/L			10/13/22 18:45	1
Chlorobenzene	ND		0.50	ug/L			10/13/22 18:45	1
Chloroethane	ND		1.0	ug/L			10/13/22 18:45	1
Chloroform	ND		0.50	ug/L			10/13/22 18:45	1
Chloromethane	ND		1.0	ug/L			10/13/22 18:45	1
cis-1,2-Dichloroethene	ND		0.50	ug/L			10/13/22 18:45	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			10/13/22 18:45	1
Chlorodibromomethane	ND		0.50	ug/L			10/13/22 18:45	1
Dibromomethane	ND		0.50	ug/L			10/13/22 18:45	1
Dichlorodifluoromethane	ND		1.0	ug/L			10/13/22 18:45	1
Ethanol	ND		150	ug/L			10/13/22 18:45	1
Ethylbenzene	ND		0.50	ug/L			10/13/22 18:45	1
Hexachlorobutadiene	ND		5.0	ug/L			10/13/22 18:45	1
Iodomethane	ND		2.0	ug/L			10/13/22 18:45	1
Isopropylbenzene	ND		0.50	ug/L			10/13/22 18:45	1
m-Xylene & p-Xylene	ND		1.0	ug/L			10/13/22 18:45	1
Methylene Chloride	ND		5.0	ug/L			10/13/22 18:45	1
Methyl tert-butyl ether	ND		0.50	ug/L			10/13/22 18:45	1
Naphthalene	ND		5.0	ug/L			10/13/22 18:45	1
n-Butylbenzene	ND		1.0	ug/L			10/13/22 18:45	1
N-Propylbenzene	ND		0.50	ug/L			10/13/22 18:45	1
o-Xylene	ND		0.50	ug/L			10/13/22 18:45	1
4-Isopropyltoluene	ND		0.50	ug/L			10/13/22 18:45	1
sec-Butylbenzene	ND		0.50	ug/L			10/13/22 18:45	1
Styrene	ND		1.0	ug/L			10/13/22 18:45	1
tert-Butylbenzene	ND		0.50	ug/L			10/13/22 18:45	1
Tetrachloroethene	ND		0.50	ug/L			10/13/22 18:45	1
Toluene	ND		0.50	ug/L			10/13/22 18:45	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			10/13/22 18:45	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			10/13/22 18:45	1
Trichloroethene	ND		0.50	ug/L			10/13/22 18:45	1
Trichlorofluoromethane	ND		1.0	ug/L			10/13/22 18:45	1
Vinyl chloride	ND		1.0	ug/L			10/13/22 18:45	1
Vinyl acetate	ND		5.0	ug/L			10/13/22 18:45	1
Xylenes, Total	ND		0.50	ug/L			10/13/22 18:45	1
Trihalomethanes, Total	ND	T5	0.50	ug/L			10/13/22 18:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			10/13/22 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*102*		*60 - 140*		*10/13/22 18:45*	*1*
Toluene-d8 (Surr)	*94*		*60 - 140*		*10/13/22 18:45*	*1*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*10/13/22 18:45*	*1*

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Peoria

Job ID: 550-191988-1
SDG: Peoria, AZ

Client Sample ID: MW-10-22A1

Date Collected: 10/12/22 15:50
Date Received: 10/13/22 10:22

Lab Sample ID: 550-191988-8

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			10/13/22 22:26	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/13/22 22:26	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/13/22 22:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			10/13/22 22:26	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/13/22 22:26	1
1,1-Dichloroethane	**0.61**		0.50		ug/L			10/13/22 22:26	1
1,1-Dichloroethene	**18**		0.50		ug/L			10/13/22 22:26	1
1,1-Dichloropropene	ND		0.50		ug/L			10/13/22 22:26	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			10/13/22 22:26	1
1,2,3-Trichloropropane	ND		2.0		ug/L			10/13/22 22:26	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0		ug/L			10/13/22 22:26	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			10/13/22 22:26	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/13/22 22:26	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/13/22 22:26	1
1,2-Dichloroethane	ND		0.50		ug/L			10/13/22 22:26	1
1,2-Dichloropropane	ND		0.50		ug/L			10/13/22 22:26	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			10/13/22 22:26	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/13/22 22:26	1
1,3-Dichloropropane	ND		0.50		ug/L			10/13/22 22:26	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/13/22 22:26	1
2,2-Dichloropropane	ND		1.0		ug/L			10/13/22 22:26	1
2-Butanone (MEK)	ND		10		ug/L			10/13/22 22:26	1
2-Chlorotoluene	ND		0.50		ug/L			10/13/22 22:26	1
2-Hexanone	ND		5.0		ug/L			10/13/22 22:26	1
4-Chlorotoluene	ND		0.50		ug/L			10/13/22 22:26	1
4-Isopropyltoluene	ND		0.50		ug/L			10/13/22 22:26	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			10/13/22 22:26	1
Acetone	ND		10		ug/L			10/13/22 22:26	1
Benzene	ND		0.50		ug/L			10/13/22 22:26	1
Bromobenzene	ND		1.0		ug/L			10/13/22 22:26	1
Bromoform	ND		1.0		ug/L			10/13/22 22:26	1
Bromomethane	ND		5.0		ug/L			10/13/22 22:26	1
Carbon disulfide	ND		5.0		ug/L			10/13/22 22:26	1
Carbon tetrachloride	ND		0.50		ug/L			10/13/22 22:26	1
Chlorobenzene	ND		0.50		ug/L			10/13/22 22:26	1
Chlorobromomethane	ND		0.50		ug/L			10/13/22 22:26	1
Chlorodibromomethane	ND		0.50		ug/L			10/13/22 22:26	1
Chloroethane	ND		1.0		ug/L			10/13/22 22:26	1
Chloroform	ND		0.50		ug/L			10/13/22 22:26	1
Chloromethane	ND		1.0		ug/L			10/13/22 22:26	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			10/13/22 22:26	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/13/22 22:26	1
Dibromomethane	ND		0.50		ug/L			10/13/22 22:26	1
Dichlorobromomethane	ND		0.50		ug/L			10/13/22 22:26	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/13/22 22:26	1
Ethanol	ND		150		ug/L			10/13/22 22:26	1
Ethylbenzene	ND		0.50		ug/L			10/13/22 22:26	1
Ethylene Dibromide	ND		0.50		ug/L			10/13/22 22:26	1
Hexachlorobutadiene	ND		5.0		ug/L			10/13/22 22:26	1

Client Sample ID: MW-10-22A1

Lab Sample ID: 550-191988-8

Date Collected: 10/12/22 15:50
Matrix: Water
Date Received: 10/13/22 10:22

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND		2.0	ug/L			10/13/22 22:26	1
Isopropylbenzene	ND		0.50	ug/L			10/13/22 22:26	1
Methyl tert-butyl ether	ND		0.50	ug/L			10/13/22 22:26	1
Methylene Chloride	ND		5.0	ug/L			10/13/22 22:26	1
m-Xylene & p-Xylene	ND		1.0	ug/L			10/13/22 22:26	1
Naphthalene	ND		5.0	ug/L			10/13/22 22:26	1
n-Butylbenzene	ND		1.0	ug/L			10/13/22 22:26	1
N-Propylbenzene	ND		0.50	ug/L			10/13/22 22:26	1
o-Xylene	ND		0.50	ug/L			10/13/22 22:26	1
sec-Butylbenzene	ND		0.50	ug/L			10/13/22 22:26	1
Styrene	ND		1.0	ug/L			10/13/22 22:26	1
tert-Butylbenzene	ND		0.50	ug/L			10/13/22 22:26	1
Tetrachloroethene	ND		0.50	ug/L			10/13/22 22:26	1
Toluene	ND		0.50	ug/L			10/13/22 22:26	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			10/13/22 22:26	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			10/13/22 22:26	1
Trichloroethene	**4.3**		0.50	ug/L			10/13/22 22:26	1
Trichlorofluoromethane	ND		1.0	ug/L			10/13/22 22:26	1
Trihalomethanes, Total	ND	T5	0.50	ug/L			10/13/22 22:26	1
Vinyl acetate	ND		5.0	ug/L			10/13/22 22:26	1
Vinyl chloride	ND		1.0	ug/L			10/13/22 22:26	1
Xylenes, Total	ND		0.50	ug/L			10/13/22 22:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*102*		*60 - 140*		*10/13/22 22:26*	*1*
Toluene-d8 (Surr)	*95*		*60 - 140*		*10/13/22 22:26*	*1*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*10/13/22 22:26*	*1*

Client Sample ID: EW-1-22A1

Lab Sample ID: 550-191988-9

Date Collected: 10/12/22 11:27
Matrix: Water
Date Received: 10/13/22 10:22

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			10/13/22 22:48	1
1,1,1-Trichloroethane	ND		0.50	ug/L			10/13/22 22:48	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			10/13/22 22:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			10/13/22 22:48	1
1,1,2-Trichloroethane	**0.51**		0.50	ug/L			10/13/22 22:48	1
1,1-Dichloroethane	**4.4**		0.50	ug/L			10/13/22 22:48	1
1,1-Dichloroethene	**61**		0.50	ug/L			10/13/22 22:48	1
1,1-Dichloropropene	ND		0.50	ug/L			10/13/22 22:48	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			10/13/22 22:48	1
1,2,3-Trichloropropane	ND		2.0	ug/L			10/13/22 22:48	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0	ug/L			10/13/22 22:48	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			10/13/22 22:48	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			10/13/22 22:48	1
1,2-Dichlorobenzene	ND		0.50	ug/L			10/13/22 22:48	1
1,2-Dichloroethane	ND		0.50	ug/L			10/13/22 22:48	1
1,2-Dichloropropane	ND		0.50	ug/L			10/13/22 22:48	1

Client Sample ID: EW-1-22A1

Date Collected: 10/12/22 11:27
Date Received: 10/13/22 10:22

Lab Sample ID: 550-191988-9

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		0.50		ug/L			10/13/22 22:48	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/13/22 22:48	1
1,3-Dichloropropane	ND		0.50		ug/L			10/13/22 22:48	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/13/22 22:48	1
2,2-Dichloropropane	ND		1.0		ug/L			10/13/22 22:48	1
2-Butanone (MEK)	ND		10		ug/L			10/13/22 22:48	1
2-Chlorotoluene	ND		0.50		ug/L			10/13/22 22:48	1
2-Hexanone	ND		5.0		ug/L			10/13/22 22:48	1
4-Chlorotoluene	ND		0.50		ug/L			10/13/22 22:48	1
4-Isopropyltoluene	ND		0.50		ug/L			10/13/22 22:48	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			10/13/22 22:48	1
Acetone	ND		10		ug/L			10/13/22 22:48	1
Benzene	ND		0.50		ug/L			10/13/22 22:48	1
Bromobenzene	ND		1.0		ug/L			10/13/22 22:48	1
Bromoform	ND		1.0		ug/L			10/13/22 22:48	1
Bromomethane	ND		5.0		ug/L			10/13/22 22:48	1
Carbon disulfide	ND		5.0		ug/L			10/13/22 22:48	1
Carbon tetrachloride	ND		0.50		ug/L			10/13/22 22:48	1
Chlorobenzene	ND		0.50		ug/L			10/13/22 22:48	1
Chlorobromomethane	ND		0.50		ug/L			10/13/22 22:48	1
Chlorodibromomethane	ND		0.50		ug/L			10/13/22 22:48	1
Chloroethane	ND		1.0		ug/L			10/13/22 22:48	1
Chloroform	**1.1**		0.50		ug/L			10/13/22 22:48	1
Chloromethane	ND		1.0		ug/L			10/13/22 22:48	1
cis-1,2-Dichloroethene	**0.57**		0.50		ug/L			10/13/22 22:48	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/13/22 22:48	1
Dibromomethane	ND		0.50		ug/L			10/13/22 22:48	1
Dichlorobromomethane	ND		0.50		ug/L			10/13/22 22:48	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/13/22 22:48	1
Ethanol	ND		150		ug/L			10/13/22 22:48	1
Ethylbenzene	ND		0.50		ug/L			10/13/22 22:48	1
Ethylene Dibromide	ND		0.50		ug/L			10/13/22 22:48	1
Hexachlorobutadiene	ND		5.0		ug/L			10/13/22 22:48	1
Iodomethane	ND		2.0		ug/L			10/13/22 22:48	1
Isopropylbenzene	ND		0.50		ug/L			10/13/22 22:48	1
Methyl tert-butyl ether	ND		0.50		ug/L			10/13/22 22:48	1
Methylene Chloride	ND		5.0		ug/L			10/13/22 22:48	1
m-Xylene & p-Xylene	ND		1.0		ug/L			10/13/22 22:48	1
Naphthalene	ND		5.0		ug/L			10/13/22 22:48	1
n-Butylbenzene	ND		1.0		ug/L			10/13/22 22:48	1
N-Propylbenzene	ND		0.50		ug/L			10/13/22 22:48	1
o-Xylene	ND		0.50		ug/L			10/13/22 22:48	1
sec-Butylbenzene	ND		0.50		ug/L			10/13/22 22:48	1
Styrene	ND		1.0		ug/L			10/13/22 22:48	1
tert-Butylbenzene	ND		0.50		ug/L			10/13/22 22:48	1
Tetrachloroethene	ND		0.50		ug/L			10/13/22 22:48	1
Toluene	ND		0.50		ug/L			10/13/22 22:48	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/13/22 22:48	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/13/22 22:48	1

Client Sample ID: EW-1-22A1

Lab Sample ID: 550-191988-9

Date Collected: 10/12/22 11:27
Matrix: Water
Date Received: 10/13/22 10:22

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**15**		0.50	ug/L			10/13/22 22:48	1
Trichlorofluoromethane	ND		1.0	ug/L			10/13/22 22:48	1
Trihalomethanes, Total	**1.1**	**T5**	0.50	ug/L			10/13/22 22:48	1
Vinyl acetate	ND		5.0	ug/L			10/13/22 22:48	1
Vinyl chloride	ND		1.0	ug/L			10/13/22 22:48	1
Xylenes, Total	ND		0.50	ug/L			10/13/22 22:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*99*		*60 - 140*		*10/13/22 22:48*	*1*
Toluene-d8 (Surr)	*94*		*60 - 140*		*10/13/22 22:48*	*1*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*10/13/22 22:48*	*1*

Client Sample ID: EW-2-360-22A1

Lab Sample ID: 550-191988-10

Date Collected: 10/12/22 08:29
Matrix: Water
Date Received: 10/13/22 10:22

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			10/13/22 23:10	1
1,1,1-Trichloroethane	ND		0.50	ug/L			10/13/22 23:10	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			10/13/22 23:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			10/13/22 23:10	1
1,1,2-Trichloroethane	ND		0.50	ug/L			10/13/22 23:10	1
1,1-Dichloroethane	ND		0.50	ug/L			10/13/22 23:10	1
1,1-Dichloroethene	**25**		0.50	ug/L			10/13/22 23:10	1
1,1-Dichloropropene	ND		0.50	ug/L			10/13/22 23:10	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			10/13/22 23:10	1
1,2,3-Trichloropropane	ND		2.0	ug/L			10/13/22 23:10	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0	ug/L			10/13/22 23:10	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			10/13/22 23:10	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			10/13/22 23:10	1
1,2-Dichlorobenzene	ND		0.50	ug/L			10/13/22 23:10	1
1,2-Dichloroethane	ND		0.50	ug/L			10/13/22 23:10	1
1,2-Dichloropropane	ND		0.50	ug/L			10/13/22 23:10	1
1,3,5-Trimethylbenzene	ND		0.50	ug/L			10/13/22 23:10	1
1,3-Dichlorobenzene	ND		0.50	ug/L			10/13/22 23:10	1
1,3-Dichloropropane	ND		0.50	ug/L			10/13/22 23:10	1
1,4-Dichlorobenzene	ND		0.50	ug/L			10/13/22 23:10	1
2,2-Dichloropropane	ND		1.0	ug/L			10/13/22 23:10	1
2-Butanone (MEK)	ND		10	ug/L			10/13/22 23:10	1
2-Chlorotoluene	ND		0.50	ug/L			10/13/22 23:10	1
2-Hexanone	ND		5.0	ug/L			10/13/22 23:10	1
4-Chlorotoluene	ND		0.50	ug/L			10/13/22 23:10	1
4-Isopropyltoluene	ND		0.50	ug/L			10/13/22 23:10	1
4-Methyl-2-pentanone (MIBK)	ND		2.5	ug/L			10/13/22 23:10	1
Acetone	ND		10	ug/L			10/13/22 23:10	1
Benzene	ND		0.50	ug/L			10/13/22 23:10	1
Bromobenzene	ND		1.0	ug/L			10/13/22 23:10	1
Bromoform	ND		1.0	ug/L			10/13/22 23:10	1
Bromomethane	ND		5.0	ug/L			10/13/22 23:10	1

Client: Jacobs Engineering Group, Inc.
Project/Site: Peoria

Job ID: 550-191988-1
SDG: Peoria, AZ

Client Sample ID: EW-2-360-22A1

Date Collected: 10/12/22 08:29
Date Received: 10/13/22 10:22

Lab Sample ID: 550-191988-10

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		5.0	ug/L			10/13/22 23:10	1
Carbon tetrachloride	ND		0.50	ug/L			10/13/22 23:10	1
Chlorobenzene	ND		0.50	ug/L			10/13/22 23:10	1
Chlorobromomethane	ND		0.50	ug/L			10/13/22 23:10	1
Chlorodibromomethane	ND		0.50	ug/L			10/13/22 23:10	1
Chloroethane	ND		1.0	ug/L			10/13/22 23:10	1
Chloroform	ND		0.50	ug/L			10/13/22 23:10	1
Chloromethane	ND		1.0	ug/L			10/13/22 23:10	1
cis-1,2-Dichloroethene	ND		0.50	ug/L			10/13/22 23:10	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			10/13/22 23:10	1
Dibromomethane	ND		0.50	ug/L			10/13/22 23:10	1
Dichlorobromomethane	ND		0.50	ug/L			10/13/22 23:10	1
Dichlorodifluoromethane	ND		1.0	ug/L			10/13/22 23:10	1
Ethanol	ND		150	ug/L			10/13/22 23:10	1
Ethylbenzene	ND		0.50	ug/L			10/13/22 23:10	1
Ethylene Dibromide	ND		0.50	ug/L			10/13/22 23:10	1
Hexachlorobutadiene	ND		5.0	ug/L			10/13/22 23:10	1
Iodomethane	ND		2.0	ug/L			10/13/22 23:10	1
Isopropylbenzene	ND		0.50	ug/L			10/13/22 23:10	1
Methyl tert-butyl ether	ND		0.50	ug/L			10/13/22 23:10	1
Methylene Chloride	ND		5.0	ug/L			10/13/22 23:10	1
m-Xylene & p-Xylene	ND		1.0	ug/L			10/13/22 23:10	1
Naphthalene	ND		5.0	ug/L			10/13/22 23:10	1
n-Butylbenzene	ND		1.0	ug/L			10/13/22 23:10	1
N-Propylbenzene	ND		0.50	ug/L			10/13/22 23:10	1
o-Xylene	ND		0.50	ug/L			10/13/22 23:10	1
sec-Butylbenzene	ND		0.50	ug/L			10/13/22 23:10	1
Styrene	ND		1.0	ug/L			10/13/22 23:10	1
tert-Butylbenzene	ND		0.50	ug/L			10/13/22 23:10	1
Tetrachloroethene	ND		0.50	ug/L			10/13/22 23:10	1
Toluene	ND		0.50	ug/L			10/13/22 23:10	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			10/13/22 23:10	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			10/13/22 23:10	1
Trichloroethene	**28**		0.50	ug/L			10/13/22 23:10	1
Trichlorofluoromethane	ND		1.0	ug/L			10/13/22 23:10	1
Trihalomethanes, Total	ND	T5	0.50	ug/L			10/13/22 23:10	1
Vinyl acetate	ND		5.0	ug/L			10/13/22 23:10	1
Vinyl chloride	ND		1.0	ug/L			10/13/22 23:10	1
Xylenes, Total	ND		0.50	ug/L			10/13/22 23:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*103*		*60 - 140*		*10/13/22 23:10*	*1*
Toluene-d8 (Surr)	*95*		*60 - 140*		*10/13/22 23:10*	*1*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*10/13/22 23:10*	*1*

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Peoria

Job ID: 550-191988-1
SDG: Peoria, AZ

Client Sample ID: MW-06-355-22A1

Date Collected: 10/12/22 13:33
Date Received: 10/13/22 10:22

Lab Sample ID: 550-191988-11

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			10/13/22 19:51	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/13/22 19:51	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/13/22 19:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			10/13/22 19:51	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/13/22 19:51	1
1,1-Dichloroethane	ND		0.50		ug/L			10/13/22 19:51	1
1,1-Dichloroethene	ND		0.50		ug/L			10/13/22 19:51	1
1,1-Dichloropropene	ND		0.50		ug/L			10/13/22 19:51	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			10/13/22 19:51	1
1,2,3-Trichloropropane	ND		2.0		ug/L			10/13/22 19:51	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0		ug/L			10/13/22 19:51	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			10/13/22 19:51	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/13/22 19:51	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/13/22 19:51	1
1,2-Dichloroethane	ND		0.50		ug/L			10/13/22 19:51	1
1,2-Dichloropropane	ND		0.50		ug/L			10/13/22 19:51	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			10/13/22 19:51	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/13/22 19:51	1
1,3-Dichloropropane	ND		0.50		ug/L			10/13/22 19:51	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/13/22 19:51	1
2,2-Dichloropropane	ND		1.0		ug/L			10/13/22 19:51	1
2-Butanone (MEK)	ND		10		ug/L			10/13/22 19:51	1
2-Chlorotoluene	ND		0.50		ug/L			10/13/22 19:51	1
2-Hexanone	ND		5.0		ug/L			10/13/22 19:51	1
4-Chlorotoluene	ND		0.50		ug/L			10/13/22 19:51	1
4-Isopropyltoluene	ND		0.50		ug/L			10/13/22 19:51	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			10/13/22 19:51	1
Acetone	ND		10		ug/L			10/13/22 19:51	1
Benzene	ND		0.50		ug/L			10/13/22 19:51	1
Bromobenzene	ND		1.0		ug/L			10/13/22 19:51	1
Bromoform	ND		1.0		ug/L			10/13/22 19:51	1
Bromomethane	ND		5.0		ug/L			10/13/22 19:51	1
Carbon disulfide	ND		5.0		ug/L			10/13/22 19:51	1
Carbon tetrachloride	ND		0.50		ug/L			10/13/22 19:51	1
Chlorobenzene	ND		0.50		ug/L			10/13/22 19:51	1
Chlorobromomethane	ND		0.50		ug/L			10/13/22 19:51	1
Chlorodibromomethane	ND		0.50		ug/L			10/13/22 19:51	1
Chloroethane	ND		1.0		ug/L			10/13/22 19:51	1
Chloroform	ND		0.50		ug/L			10/13/22 19:51	1
Chloromethane	ND		1.0		ug/L			10/13/22 19:51	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			10/13/22 19:51	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/13/22 19:51	1
Dibromomethane	ND		0.50		ug/L			10/13/22 19:51	1
Dichlorobromomethane	ND		0.50		ug/L			10/13/22 19:51	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/13/22 19:51	1
Ethanol	ND		150		ug/L			10/13/22 19:51	1
Ethylbenzene	ND		0.50		ug/L			10/13/22 19:51	1
Ethylene Dibromide	ND		0.50		ug/L			10/13/22 19:51	1
Hexachlorobutadiene	ND		5.0		ug/L			10/13/22 19:51	1

Client Sample ID: MW-06-355-22A1

Lab Sample ID: 550-191988-11

Date Collected: 10/12/22 13:33
Matrix: Water
Date Received: 10/13/22 10:22

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND		2.0	ug/L			10/13/22 19:51	1
Isopropylbenzene	ND		0.50	ug/L			10/13/22 19:51	1
Methyl tert-butyl ether	ND		0.50	ug/L			10/13/22 19:51	1
Methylene Chloride	ND		5.0	ug/L			10/13/22 19:51	1
m-Xylene & p-Xylene	ND		1.0	ug/L			10/13/22 19:51	1
Naphthalene	ND		5.0	ug/L			10/13/22 19:51	1
n-Butylbenzene	ND		1.0	ug/L			10/13/22 19:51	1
N-Propylbenzene	ND		0.50	ug/L			10/13/22 19:51	1
o-Xylene	ND		0.50	ug/L			10/13/22 19:51	1
sec-Butylbenzene	ND		0.50	ug/L			10/13/22 19:51	1
Styrene	ND		1.0	ug/L			10/13/22 19:51	1
tert-Butylbenzene	ND		0.50	ug/L			10/13/22 19:51	1
Tetrachloroethene	ND		0.50	ug/L			10/13/22 19:51	1
Toluene	ND		0.50	ug/L			10/13/22 19:51	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			10/13/22 19:51	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			10/13/22 19:51	1
Trichloroethene	ND		0.50	ug/L			10/13/22 19:51	1
Trichlorofluoromethane	ND		1.0	ug/L			10/13/22 19:51	1
Trihalomethanes, Total	ND	T5	0.50	ug/L			10/13/22 19:51	1
Vinyl acetate	ND		5.0	ug/L			10/13/22 19:51	1
Vinyl chloride	ND		1.0	ug/L			10/13/22 19:51	1
Xylenes, Total	ND		0.50	ug/L			10/13/22 19:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*101*		*60 - 140*		*10/13/22 19:51*	*1*
Toluene-d8 (Surr)	*95*		*60 - 140*		*10/13/22 19:51*	*1*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*10/13/22 19:51*	*1*

Client Sample ID: MW-08-355-22A1

Lab Sample ID: 550-191988-12

Date Collected: 10/12/22 15:30
Matrix: Water
Date Received: 10/13/22 10:22

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			10/13/22 23:31	1
1,1,1-Trichloroethane	ND		0.50	ug/L			10/13/22 23:31	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			10/13/22 23:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			10/13/22 23:31	1
1,1,2-Trichloroethane	ND		0.50	ug/L			10/13/22 23:31	1
1,1-Dichloroethane	ND		0.50	ug/L			10/13/22 23:31	1
1,1-Dichloroethene	ND		0.50	ug/L			10/13/22 23:31	1
1,1-Dichloropropene	ND		0.50	ug/L			10/13/22 23:31	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			10/13/22 23:31	1
1,2,3-Trichloropropane	ND		2.0	ug/L			10/13/22 23:31	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0	ug/L			10/13/22 23:31	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			10/13/22 23:31	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			10/13/22 23:31	1
1,2-Dichlorobenzene	ND		0.50	ug/L			10/13/22 23:31	1
1,2-Dichloroethane	ND		0.50	ug/L			10/13/22 23:31	1
1,2-Dichloropropane	ND		0.50	ug/L			10/13/22 23:31	1

Client Sample ID: MW-08-355-22A1

Date Collected: 10/12/22 15:30
Date Received: 10/13/22 10:22

Lab Sample ID: 550-191988-12

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		0.50	ug/L			10/13/22 23:31	1
1,3-Dichlorobenzene	ND		0.50	ug/L			10/13/22 23:31	1
1,3-Dichloropropane	ND		0.50	ug/L			10/13/22 23:31	1
1,4-Dichlorobenzene	ND		0.50	ug/L			10/13/22 23:31	1
2,2-Dichloropropane	ND		1.0	ug/L			10/13/22 23:31	1
2-Butanone (MEK)	ND		10	ug/L			10/13/22 23:31	1
2-Chlorotoluene	ND		0.50	ug/L			10/13/22 23:31	1
2-Hexanone	ND		5.0	ug/L			10/13/22 23:31	1
4-Chlorotoluene	ND		0.50	ug/L			10/13/22 23:31	1
4-Isopropyltoluene	ND		0.50	ug/L			10/13/22 23:31	1
4-Methyl-2-pentanone (MIBK)	ND		2.5	ug/L			10/13/22 23:31	1
Acetone	ND		10	ug/L			10/13/22 23:31	1
Benzene	ND		0.50	ug/L			10/13/22 23:31	1
Bromobenzene	ND		1.0	ug/L			10/13/22 23:31	1
Bromoform	ND		1.0	ug/L			10/13/22 23:31	1
Bromomethane	ND		5.0	ug/L			10/13/22 23:31	1
Carbon disulfide	ND		5.0	ug/L			10/13/22 23:31	1
Carbon tetrachloride	ND		0.50	ug/L			10/13/22 23:31	1
Chlorobenzene	ND		0.50	ug/L			10/13/22 23:31	1
Chlorobromomethane	ND		0.50	ug/L			10/13/22 23:31	1
Chlorodibromomethane	ND		0.50	ug/L			10/13/22 23:31	1
Chloroethane	ND		1.0	ug/L			10/13/22 23:31	1
Chloroform	ND		0.50	ug/L			10/13/22 23:31	1
Chloromethane	ND		1.0	ug/L			10/13/22 23:31	1
cis-1,2-Dichloroethene	ND		0.50	ug/L			10/13/22 23:31	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			10/13/22 23:31	1
Dibromomethane	ND		0.50	ug/L			10/13/22 23:31	1
Dichlorobromomethane	ND		0.50	ug/L			10/13/22 23:31	1
Dichlorodifluoromethane	ND		1.0	ug/L			10/13/22 23:31	1
Ethanol	ND		150	ug/L			10/13/22 23:31	1
Ethylbenzene	ND		0.50	ug/L			10/13/22 23:31	1
Ethylene Dibromide	ND		0.50	ug/L			10/13/22 23:31	1
Hexachlorobutadiene	ND		5.0	ug/L			10/13/22 23:31	1
Iodomethane	ND		2.0	ug/L			10/13/22 23:31	1
Isopropylbenzene	ND		0.50	ug/L			10/13/22 23:31	1
Methyl tert-butyl ether	ND		0.50	ug/L			10/13/22 23:31	1
Methylene Chloride	ND		5.0	ug/L			10/13/22 23:31	1
m-Xylene & p-Xylene	ND		1.0	ug/L			10/13/22 23:31	1
Naphthalene	ND		5.0	ug/L			10/13/22 23:31	1
n-Butylbenzene	ND		1.0	ug/L			10/13/22 23:31	1
N-Propylbenzene	ND		0.50	ug/L			10/13/22 23:31	1
o-Xylene	ND		0.50	ug/L			10/13/22 23:31	1
sec-Butylbenzene	ND		0.50	ug/L			10/13/22 23:31	1
Styrene	ND		1.0	ug/L			10/13/22 23:31	1
tert-Butylbenzene	ND		0.50	ug/L			10/13/22 23:31	1
Tetrachloroethene	ND		0.50	ug/L			10/13/22 23:31	1
Toluene	ND		0.50	ug/L			10/13/22 23:31	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			10/13/22 23:31	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			10/13/22 23:31	1

Client Sample ID: MW-08-355-22A1

Lab Sample ID: 550-191988-12

Date Collected: 10/12/22 15:30
Matrix: Water
Date Received: 10/13/22 10:22

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		0.50	ug/L			10/13/22 23:31	1
Trichlorofluoromethane	ND		1.0	ug/L			10/13/22 23:31	1
Trihalomethanes, Total	ND	T5	0.50	ug/L			10/13/22 23:31	1
Vinyl acetate	ND		5.0	ug/L			10/13/22 23:31	1
Vinyl chloride	ND		1.0	ug/L			10/13/22 23:31	1
Xylenes, Total	ND		0.50	ug/L			10/13/22 23:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*98*		*60 - 140*		*10/13/22 23:31*	*1*
Toluene-d8 (Surr)	*93*		*60 - 140*		*10/13/22 23:31*	*1*
4-Bromofluorobenzene (Surr)	*97*		*60 - 140*		*10/13/22 23:31*	*1*

Client Sample ID: MW-09-355-22A1

Lab Sample ID: 550-191988-13

Date Collected: 10/12/22 10:36
Matrix: Water
Date Received: 10/13/22 10:22

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			10/13/22 23:53	1
1,1,1-Trichloroethane	ND		0.50	ug/L			10/13/22 23:53	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			10/13/22 23:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			10/13/22 23:53	1
1,1,2-Trichloroethane	ND		0.50	ug/L			10/13/22 23:53	1
1,1-Dichloroethane	ND		0.50	ug/L			10/13/22 23:53	1
1,1-Dichloroethene	**1.6**		0.50	ug/L			10/13/22 23:53	1
1,1-Dichloropropene	ND		0.50	ug/L			10/13/22 23:53	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			10/13/22 23:53	1
1,2,3-Trichloropropane	ND		2.0	ug/L			10/13/22 23:53	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0	ug/L			10/13/22 23:53	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			10/13/22 23:53	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			10/13/22 23:53	1
1,2-Dichlorobenzene	ND		0.50	ug/L			10/13/22 23:53	1
1,2-Dichloroethane	ND		0.50	ug/L			10/13/22 23:53	1
1,2-Dichloropropane	ND		0.50	ug/L			10/13/22 23:53	1
1,3,5-Trimethylbenzene	ND		0.50	ug/L			10/13/22 23:53	1
1,3-Dichlorobenzene	ND		0.50	ug/L			10/13/22 23:53	1
1,3-Dichloropropane	ND		0.50	ug/L			10/13/22 23:53	1
1,4-Dichlorobenzene	ND		0.50	ug/L			10/13/22 23:53	1
2,2-Dichloropropane	ND		1.0	ug/L			10/13/22 23:53	1
2-Butanone (MEK)	ND		10	ug/L			10/13/22 23:53	1
2-Chlorotoluene	ND		0.50	ug/L			10/13/22 23:53	1
2-Hexanone	ND		5.0	ug/L			10/13/22 23:53	1
4-Chlorotoluene	ND		0.50	ug/L			10/13/22 23:53	1
4-Isopropyltoluene	ND		0.50	ug/L			10/13/22 23:53	1
4-Methyl-2-pentanone (MIBK)	ND		2.5	ug/L			10/13/22 23:53	1
Acetone	ND		10	ug/L			10/13/22 23:53	1
Benzene	ND		0.50	ug/L			10/13/22 23:53	1
Bromobenzene	ND		1.0	ug/L			10/13/22 23:53	1
Bromoform	ND		1.0	ug/L			10/13/22 23:53	1
Bromomethane	ND		5.0	ug/L			10/13/22 23:53	1

Client: Jacobs Engineering Group, Inc.
Project/Site: Peoria

Job ID: 550-191988-1
SDG: Peoria, AZ

Client Sample ID: MW-09-355-22A1
Date Collected: 10/12/22 10:36
Date Received: 10/13/22 10:22

Lab Sample ID: 550-191988-13
Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		5.0	ug/L			10/13/22 23:53	1
Carbon tetrachloride	ND		0.50	ug/L			10/13/22 23:53	1
Chlorobenzene	ND		0.50	ug/L			10/13/22 23:53	1
Chlorobromomethane	ND		0.50	ug/L			10/13/22 23:53	1
Chlorodibromomethane	ND		0.50	ug/L			10/13/22 23:53	1
Chloroethane	ND		1.0	ug/L			10/13/22 23:53	1
Chloroform	ND		0.50	ug/L			10/13/22 23:53	1
Chloromethane	ND		1.0	ug/L			10/13/22 23:53	1
cis-1,2-Dichloroethene	ND		0.50	ug/L			10/13/22 23:53	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			10/13/22 23:53	1
Dibromomethane	ND		0.50	ug/L			10/13/22 23:53	1
Dichlorobromomethane	ND		0.50	ug/L			10/13/22 23:53	1
Dichlorodifluoromethane	ND		1.0	ug/L			10/13/22 23:53	1
Ethanol	ND		150	ug/L			10/13/22 23:53	1
Ethylbenzene	ND		0.50	ug/L			10/13/22 23:53	1
Ethylene Dibromide	ND		0.50	ug/L			10/13/22 23:53	1
Hexachlorobutadiene	ND		5.0	ug/L			10/13/22 23:53	1
Iodomethane	ND		2.0	ug/L			10/13/22 23:53	1
Isopropylbenzene	ND		0.50	ug/L			10/13/22 23:53	1
Methyl tert-butyl ether	ND		0.50	ug/L			10/13/22 23:53	1
Methylene Chloride	ND		5.0	ug/L			10/13/22 23:53	1
m-Xylene & p-Xylene	ND		1.0	ug/L			10/13/22 23:53	1
Naphthalene	ND		5.0	ug/L			10/13/22 23:53	1
n-Butylbenzene	ND		1.0	ug/L			10/13/22 23:53	1
N-Propylbenzene	ND		0.50	ug/L			10/13/22 23:53	1
o-Xylene	ND		0.50	ug/L			10/13/22 23:53	1
sec-Butylbenzene	ND		0.50	ug/L			10/13/22 23:53	1
Styrene	ND		1.0	ug/L			10/13/22 23:53	1
tert-Butylbenzene	ND		0.50	ug/L			10/13/22 23:53	1
Tetrachloroethene	ND		0.50	ug/L			10/13/22 23:53	1
Toluene	ND		0.50	ug/L			10/13/22 23:53	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			10/13/22 23:53	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			10/13/22 23:53	1
Trichloroethene	ND		0.50	ug/L			10/13/22 23:53	1
Trichlorofluoromethane	ND		1.0	ug/L			10/13/22 23:53	1
Trihalomethanes, Total	ND	T5	0.50	ug/L			10/13/22 23:53	1
Vinyl acetate	ND		5.0	ug/L			10/13/22 23:53	1
Vinyl chloride	ND		1.0	ug/L			10/13/22 23:53	1
Xylenes, Total	ND		0.50	ug/L			10/13/22 23:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*101*		*60 - 140*		*10/13/22 23:53*	*1*
Toluene-d8 (Surr)	*95*		*60 - 140*		*10/13/22 23:53*	*1*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*10/13/22 23:53*	*1*

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Peoria

Job ID: 550-191988-1
SDG: Peoria, AZ

Client Sample ID: MW-12-410-22A1

Date Collected: 10/12/22 12:09
Date Received: 10/13/22 10:22

Lab Sample ID: 550-191988-14

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			10/14/22 00:15	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/14/22 00:15	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/14/22 00:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			10/14/22 00:15	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/14/22 00:15	1
1,1-Dichloroethane	ND		0.50		ug/L			10/14/22 00:15	1
1,1-Dichloroethene	**3.5**		0.50		ug/L			10/14/22 00:15	1
1,1-Dichloropropene	ND		0.50		ug/L			10/14/22 00:15	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			10/14/22 00:15	1
1,2,3-Trichloropropane	ND		2.0		ug/L			10/14/22 00:15	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0		ug/L			10/14/22 00:15	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			10/14/22 00:15	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/14/22 00:15	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/14/22 00:15	1
1,2-Dichloroethane	ND		0.50		ug/L			10/14/22 00:15	1
1,2-Dichloropropane	ND		0.50		ug/L			10/14/22 00:15	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			10/14/22 00:15	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/14/22 00:15	1
1,3-Dichloropropane	ND		0.50		ug/L			10/14/22 00:15	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/14/22 00:15	1
2,2-Dichloropropane	ND		1.0		ug/L			10/14/22 00:15	1
2-Butanone (MEK)	ND		10		ug/L			10/14/22 00:15	1
2-Chlorotoluene	ND		0.50		ug/L			10/14/22 00:15	1
2-Hexanone	ND		5.0		ug/L			10/14/22 00:15	1
4-Chlorotoluene	ND		0.50		ug/L			10/14/22 00:15	1
4-Isopropyltoluene	ND		0.50		ug/L			10/14/22 00:15	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			10/14/22 00:15	1
Acetone	ND		10		ug/L			10/14/22 00:15	1
Benzene	ND		0.50		ug/L			10/14/22 00:15	1
Bromobenzene	ND		1.0		ug/L			10/14/22 00:15	1
Bromoform	ND		1.0		ug/L			10/14/22 00:15	1
Bromomethane	ND		5.0		ug/L			10/14/22 00:15	1
Carbon disulfide	ND		5.0		ug/L			10/14/22 00:15	1
Carbon tetrachloride	ND		0.50		ug/L			10/14/22 00:15	1
Chlorobenzene	ND		0.50		ug/L			10/14/22 00:15	1
Chlorobromomethane	ND		0.50		ug/L			10/14/22 00:15	1
Chlorodibromomethane	ND		0.50		ug/L			10/14/22 00:15	1
Chloroethane	ND		1.0		ug/L			10/14/22 00:15	1
Chloroform	**4.6**		0.50		ug/L			10/14/22 00:15	1
Chloromethane	ND		1.0		ug/L			10/14/22 00:15	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			10/14/22 00:15	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/14/22 00:15	1
Dibromomethane	ND		0.50		ug/L			10/14/22 00:15	1
Dichlorobromomethane	**1.0**		0.50		ug/L			10/14/22 00:15	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/14/22 00:15	1
Ethanol	ND		150		ug/L			10/14/22 00:15	1
Ethylbenzene	ND		0.50		ug/L			10/14/22 00:15	1
Ethylene Dibromide	ND		0.50		ug/L			10/14/22 00:15	1
Hexachlorobutadiene	ND		5.0		ug/L			10/14/22 00:15	1

Client Sample ID: MW-12-410-22A1

Lab Sample ID: 550-191988-14

Date Collected: 10/12/22 12:09
Matrix: Water
Date Received: 10/13/22 10:22

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND		2.0	ug/L			10/14/22 00:15	1
Isopropylbenzene	ND		0.50	ug/L			10/14/22 00:15	1
Methyl tert-butyl ether	ND		0.50	ug/L			10/14/22 00:15	1
Methylene Chloride	ND		5.0	ug/L			10/14/22 00:15	1
m-Xylene & p-Xylene	ND		1.0	ug/L			10/14/22 00:15	1
Naphthalene	ND		5.0	ug/L			10/14/22 00:15	1
n-Butylbenzene	ND		1.0	ug/L			10/14/22 00:15	1
N-Propylbenzene	ND		0.50	ug/L			10/14/22 00:15	1
o-Xylene	ND		0.50	ug/L			10/14/22 00:15	1
sec-Butylbenzene	ND		0.50	ug/L			10/14/22 00:15	1
Styrene	ND		1.0	ug/L			10/14/22 00:15	1
tert-Butylbenzene	ND		0.50	ug/L			10/14/22 00:15	1
Tetrachloroethene	ND		0.50	ug/L			10/14/22 00:15	1
Toluene	ND		0.50	ug/L			10/14/22 00:15	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			10/14/22 00:15	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			10/14/22 00:15	1
Trichloroethene	**1.6**		0.50	ug/L			10/14/22 00:15	1
Trichlorofluoromethane	ND		1.0	ug/L			10/14/22 00:15	1
Trihalomethanes, Total	**5.6**	**T5**	0.50	ug/L			10/14/22 00:15	1
Vinyl acetate	ND		5.0	ug/L			10/14/22 00:15	1
Vinyl chloride	ND		1.0	ug/L			10/14/22 00:15	1
Xylenes, Total	ND		0.50	ug/L			10/14/22 00:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*99*		*60 - 140*		*10/14/22 00:15*	*1*
Toluene-d8 (Surr)	*94*		*60 - 140*		*10/14/22 00:15*	*1*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*10/14/22 00:15*	*1*

Client Sample ID: MW-13-355-22A1

Lab Sample ID: 550-191988-15

Date Collected: 10/12/22 16:48
Matrix: Water
Date Received: 10/13/22 10:22

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			10/14/22 00:37	1
1,1,1-Trichloroethane	ND		0.50	ug/L			10/14/22 00:37	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			10/14/22 00:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			10/14/22 00:37	1
1,1,2-Trichloroethane	ND		0.50	ug/L			10/14/22 00:37	1
1,1-Dichloroethane	ND		0.50	ug/L			10/14/22 00:37	1
1,1-Dichloroethene	ND		0.50	ug/L			10/14/22 00:37	1
1,1-Dichloropropene	ND		0.50	ug/L			10/14/22 00:37	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			10/14/22 00:37	1
1,2,3-Trichloropropane	ND		2.0	ug/L			10/14/22 00:37	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0	ug/L			10/14/22 00:37	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			10/14/22 00:37	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			10/14/22 00:37	1
1,2-Dichlorobenzene	ND		0.50	ug/L			10/14/22 00:37	1
1,2-Dichloroethane	ND		0.50	ug/L			10/14/22 00:37	1
1,2-Dichloropropane	ND		0.50	ug/L			10/14/22 00:37	1

Client Sample ID: MW-13-355-22A1

Date Collected: 10/12/22 16:48
Date Received: 10/13/22 10:22

Lab Sample ID: 550-191988-15

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		0.50		ug/L			10/14/22 00:37	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/14/22 00:37	1
1,3-Dichloropropane	ND		0.50		ug/L			10/14/22 00:37	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/14/22 00:37	1
2,2-Dichloropropane	ND		1.0		ug/L			10/14/22 00:37	1
2-Butanone (MEK)	ND		10		ug/L			10/14/22 00:37	1
2-Chlorotoluene	ND		0.50		ug/L			10/14/22 00:37	1
2-Hexanone	ND		5.0		ug/L			10/14/22 00:37	1
4-Chlorotoluene	ND		0.50		ug/L			10/14/22 00:37	1
4-Isopropyltoluene	ND		0.50		ug/L			10/14/22 00:37	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			10/14/22 00:37	1
Acetone	ND		10		ug/L			10/14/22 00:37	1
Benzene	ND		0.50		ug/L			10/14/22 00:37	1
Bromobenzene	ND		1.0		ug/L			10/14/22 00:37	1
Bromoform	ND		1.0		ug/L			10/14/22 00:37	1
Bromomethane	ND		5.0		ug/L			10/14/22 00:37	1
Carbon disulfide	ND		5.0		ug/L			10/14/22 00:37	1
Carbon tetrachloride	ND		0.50		ug/L			10/14/22 00:37	1
Chlorobenzene	ND		0.50		ug/L			10/14/22 00:37	1
Chlorobromomethane	ND		0.50		ug/L			10/14/22 00:37	1
Chlorodibromomethane	ND		0.50		ug/L			10/14/22 00:37	1
Chloroethane	ND		1.0		ug/L			10/14/22 00:37	1
Chloroform	**1.3**		0.50		ug/L			10/14/22 00:37	1
Chloromethane	ND		1.0		ug/L			10/14/22 00:37	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			10/14/22 00:37	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/14/22 00:37	1
Dibromomethane	ND		0.50		ug/L			10/14/22 00:37	1
Dichlorobromomethane	ND		0.50		ug/L			10/14/22 00:37	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/14/22 00:37	1
Ethanol	ND		150		ug/L			10/14/22 00:37	1
Ethylbenzene	ND		0.50		ug/L			10/14/22 00:37	1
Ethylene Dibromide	ND		0.50		ug/L			10/14/22 00:37	1
Hexachlorobutadiene	ND		5.0		ug/L			10/14/22 00:37	1
Iodomethane	ND		2.0		ug/L			10/14/22 00:37	1
Isopropylbenzene	ND		0.50		ug/L			10/14/22 00:37	1
Methyl tert-butyl ether	ND		0.50		ug/L			10/14/22 00:37	1
Methylene Chloride	ND		5.0		ug/L			10/14/22 00:37	1
m-Xylene & p-Xylene	ND		1.0		ug/L			10/14/22 00:37	1
Naphthalene	ND		5.0		ug/L			10/14/22 00:37	1
n-Butylbenzene	ND		1.0		ug/L			10/14/22 00:37	1
N-Propylbenzene	ND		0.50		ug/L			10/14/22 00:37	1
o-Xylene	ND		0.50		ug/L			10/14/22 00:37	1
sec-Butylbenzene	ND		0.50		ug/L			10/14/22 00:37	1
Styrene	ND		1.0		ug/L			10/14/22 00:37	1
tert-Butylbenzene	ND		0.50		ug/L			10/14/22 00:37	1
Tetrachloroethene	ND		0.50		ug/L			10/14/22 00:37	1
Toluene	ND		0.50		ug/L			10/14/22 00:37	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/14/22 00:37	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/14/22 00:37	1

Client Sample ID: MW-13-355-22A1

Lab Sample ID: 550-191988-15

Date Collected: 10/12/22 16:48
Matrix: Water
Date Received: 10/13/22 10:22

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		0.50	ug/L			10/14/22 00:37	1
Trichlorofluoromethane	ND		1.0	ug/L			10/14/22 00:37	1
Trihalomethanes, Total	**1.3**	**T5**	0.50	ug/L			10/14/22 00:37	1
Vinyl acetate	ND		5.0	ug/L			10/14/22 00:37	1
Vinyl chloride	ND		1.0	ug/L			10/14/22 00:37	1
Xylenes, Total	ND		0.50	ug/L			10/14/22 00:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*100*		*60 - 140*		*10/14/22 00:37*	*1*
Toluene-d8 (Surr)	*94*		*60 - 140*		*10/14/22 00:37*	*1*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*10/14/22 00:37*	*1*

Client Sample ID: MW-14-350-22A1

Lab Sample ID: 550-191988-16

Date Collected: 10/12/22 16:07
Matrix: Water
Date Received: 10/13/22 10:22

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			10/14/22 00:59	1
1,1,1-Trichloroethane	ND		0.50	ug/L			10/14/22 00:59	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			10/14/22 00:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			10/14/22 00:59	1
1,1,2-Trichloroethane	ND		0.50	ug/L			10/14/22 00:59	1
1,1-Dichloroethane	ND		0.50	ug/L			10/14/22 00:59	1
1,1-Dichloroethene	ND		0.50	ug/L			10/14/22 00:59	1
1,1-Dichloropropene	ND		0.50	ug/L			10/14/22 00:59	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			10/14/22 00:59	1
1,2,3-Trichloropropane	ND		2.0	ug/L			10/14/22 00:59	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0	ug/L			10/14/22 00:59	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			10/14/22 00:59	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			10/14/22 00:59	1
1,2-Dichlorobenzene	ND		0.50	ug/L			10/14/22 00:59	1
1,2-Dichloroethane	ND		0.50	ug/L			10/14/22 00:59	1
1,2-Dichloropropane	ND		0.50	ug/L			10/14/22 00:59	1
1,3,5-Trimethylbenzene	ND		0.50	ug/L			10/14/22 00:59	1
1,3-Dichlorobenzene	ND		0.50	ug/L			10/14/22 00:59	1
1,3-Dichloropropane	ND		0.50	ug/L			10/14/22 00:59	1
1,4-Dichlorobenzene	ND		0.50	ug/L			10/14/22 00:59	1
2,2-Dichloropropane	ND		1.0	ug/L			10/14/22 00:59	1
2-Butanone (MEK)	ND		10	ug/L			10/14/22 00:59	1
2-Chlorotoluene	ND		0.50	ug/L			10/14/22 00:59	1
2-Hexanone	ND		5.0	ug/L			10/14/22 00:59	1
4-Chlorotoluene	ND		0.50	ug/L			10/14/22 00:59	1
4-Isopropyltoluene	ND		0.50	ug/L			10/14/22 00:59	1
4-Methyl-2-pentanone (MIBK)	ND		2.5	ug/L			10/14/22 00:59	1
Acetone	ND		10	ug/L			10/14/22 00:59	1
Benzene	ND		0.50	ug/L			10/14/22 00:59	1
Bromobenzene	ND		1.0	ug/L			10/14/22 00:59	1
Bromoform	ND		1.0	ug/L			10/14/22 00:59	1
Bromomethane	ND		5.0	ug/L			10/14/22 00:59	1

Client Sample ID: MW-14-350-22A1

Lab Sample ID: 550-191988-16

Date Collected: 10/12/22 16:07
Matrix: Water
Date Received: 10/13/22 10:22

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		5.0	ug/L			10/14/22 00:59	1
Carbon tetrachloride	ND		0.50	ug/L			10/14/22 00:59	1
Chlorobenzene	ND		0.50	ug/L			10/14/22 00:59	1
Chlorobromomethane	ND		0.50	ug/L			10/14/22 00:59	1
Chlorodibromomethane	ND		0.50	ug/L			10/14/22 00:59	1
Chloroethane	ND		1.0	ug/L			10/14/22 00:59	1
Chloroform	ND		0.50	ug/L			10/14/22 00:59	1
Chloromethane	ND		1.0	ug/L			10/14/22 00:59	1
cis-1,2-Dichloroethene	ND		0.50	ug/L			10/14/22 00:59	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			10/14/22 00:59	1
Dibromomethane	ND		0.50	ug/L			10/14/22 00:59	1
Dichlorobromomethane	ND		0.50	ug/L			10/14/22 00:59	1
Dichlorodifluoromethane	ND		1.0	ug/L			10/14/22 00:59	1
Ethanol	ND		150	ug/L			10/14/22 00:59	1
Ethylbenzene	ND		0.50	ug/L			10/14/22 00:59	1
Ethylene Dibromide	ND		0.50	ug/L			10/14/22 00:59	1
Hexachlorobutadiene	ND		5.0	ug/L			10/14/22 00:59	1
Iodomethane	ND		2.0	ug/L			10/14/22 00:59	1
Isopropylbenzene	ND		0.50	ug/L			10/14/22 00:59	1
Methyl tert-butyl ether	ND		0.50	ug/L			10/14/22 00:59	1
Methylene Chloride	ND		5.0	ug/L			10/14/22 00:59	1
m-Xylene & p-Xylene	ND		1.0	ug/L			10/14/22 00:59	1
Naphthalene	ND		5.0	ug/L			10/14/22 00:59	1
n-Butylbenzene	ND		1.0	ug/L			10/14/22 00:59	1
N-Propylbenzene	ND		0.50	ug/L			10/14/22 00:59	1
o-Xylene	ND		0.50	ug/L			10/14/22 00:59	1
sec-Butylbenzene	ND		0.50	ug/L			10/14/22 00:59	1
Styrene	ND		1.0	ug/L			10/14/22 00:59	1
tert-Butylbenzene	ND		0.50	ug/L			10/14/22 00:59	1
Tetrachloroethene	ND		0.50	ug/L			10/14/22 00:59	1
Toluene	ND		0.50	ug/L			10/14/22 00:59	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			10/14/22 00:59	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			10/14/22 00:59	1
Trichloroethene	ND		0.50	ug/L			10/14/22 00:59	1
Trichlorofluoromethane	ND		1.0	ug/L			10/14/22 00:59	1
Trihalomethanes, Total	ND	T5	0.50	ug/L			10/14/22 00:59	1
Vinyl acetate	ND		5.0	ug/L			10/14/22 00:59	1
Vinyl chloride	ND		1.0	ug/L			10/14/22 00:59	1
Xylenes, Total	ND		0.50	ug/L			10/14/22 00:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*99*		*60 - 140*		*10/14/22 00:59*	*1*
Toluene-d8 (Surr)	*93*		*60 - 140*		*10/14/22 00:59*	*1*
4-Bromofluorobenzene (Surr)	*98*		*60 - 140*		*10/14/22 00:59*	*1*

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Peoria

Job ID: 550-191988-1
SDG: Peoria, AZ

Client Sample ID: MW-07-285-22A1

Date Collected: 10/12/22 10:03
Date Received: 10/13/22 10:22

Lab Sample ID: 550-191988-17

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			10/14/22 01:21	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/14/22 01:21	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/14/22 01:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			10/14/22 01:21	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/14/22 01:21	1
1,1-Dichloroethane	ND		0.50		ug/L			10/14/22 01:21	1
1,1-Dichloroethene	**1.7**		0.50		ug/L			10/14/22 01:21	1
1,1-Dichloropropene	ND		0.50		ug/L			10/14/22 01:21	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			10/14/22 01:21	1
1,2,3-Trichloropropane	ND		2.0		ug/L			10/14/22 01:21	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0		ug/L			10/14/22 01:21	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			10/14/22 01:21	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/14/22 01:21	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/14/22 01:21	1
1,2-Dichloroethane	ND		0.50		ug/L			10/14/22 01:21	1
1,2-Dichloropropane	ND		0.50		ug/L			10/14/22 01:21	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			10/14/22 01:21	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/14/22 01:21	1
1,3-Dichloropropane	ND		0.50		ug/L			10/14/22 01:21	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/14/22 01:21	1
2,2-Dichloropropane	ND		1.0		ug/L			10/14/22 01:21	1
2-Butanone (MEK)	ND		10		ug/L			10/14/22 01:21	1
2-Chlorotoluene	ND		0.50		ug/L			10/14/22 01:21	1
2-Hexanone	ND		5.0		ug/L			10/14/22 01:21	1
4-Chlorotoluene	ND		0.50		ug/L			10/14/22 01:21	1
4-Isopropyltoluene	ND		0.50		ug/L			10/14/22 01:21	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			10/14/22 01:21	1
Acetone	ND		10		ug/L			10/14/22 01:21	1
Benzene	ND		0.50		ug/L			10/14/22 01:21	1
Bromobenzene	ND		1.0		ug/L			10/14/22 01:21	1
Bromoform	ND		1.0		ug/L			10/14/22 01:21	1
Bromomethane	ND		5.0		ug/L			10/14/22 01:21	1
Carbon disulfide	ND		5.0		ug/L			10/14/22 01:21	1
Carbon tetrachloride	ND		0.50		ug/L			10/14/22 01:21	1
Chlorobenzene	ND		0.50		ug/L			10/14/22 01:21	1
Chlorobromomethane	ND		0.50		ug/L			10/14/22 01:21	1
Chlorodibromomethane	ND		0.50		ug/L			10/14/22 01:21	1
Chloroethane	ND		1.0		ug/L			10/14/22 01:21	1
Chloroform	**0.59**		0.50		ug/L			10/14/22 01:21	1
Chloromethane	ND		1.0		ug/L			10/14/22 01:21	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			10/14/22 01:21	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/14/22 01:21	1
Dibromomethane	ND		0.50		ug/L			10/14/22 01:21	1
Dichlorobromomethane	ND		0.50		ug/L			10/14/22 01:21	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/14/22 01:21	1
Ethanol	ND		150		ug/L			10/14/22 01:21	1
Ethylbenzene	ND		0.50		ug/L			10/14/22 01:21	1
Ethylene Dibromide	ND		0.50		ug/L			10/14/22 01:21	1
Hexachlorobutadiene	ND		5.0		ug/L			10/14/22 01:21	1

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Peoria

Job ID: 550-191988-1
SDG: Peoria, AZ

Client Sample ID: MW-07-285-22A1

Date Collected: 10/12/22 10:03
Date Received: 10/13/22 10:22

Lab Sample ID: 550-191988-17

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND		2.0		ug/L			10/14/22 01:21	1
Isopropylbenzene	ND		0.50		ug/L			10/14/22 01:21	1
Methyl tert-butyl ether	ND		0.50		ug/L			10/14/22 01:21	1
Methylene Chloride	ND		5.0		ug/L			10/14/22 01:21	1
m-Xylene & p-Xylene	ND		1.0		ug/L			10/14/22 01:21	1
Naphthalene	ND		5.0		ug/L			10/14/22 01:21	1
n-Butylbenzene	ND		1.0		ug/L			10/14/22 01:21	1
N-Propylbenzene	ND		0.50		ug/L			10/14/22 01:21	1
o-Xylene	ND		0.50		ug/L			10/14/22 01:21	1
sec-Butylbenzene	ND		0.50		ug/L			10/14/22 01:21	1
Styrene	ND		1.0		ug/L			10/14/22 01:21	1
tert-Butylbenzene	ND		0.50		ug/L			10/14/22 01:21	1
Tetrachloroethene	ND		0.50		ug/L			10/14/22 01:21	1
Toluene	ND		0.50		ug/L			10/14/22 01:21	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			10/14/22 01:21	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			10/14/22 01:21	1
Trichloroethene	**1.0**		0.50		ug/L			10/14/22 01:21	1
Trichlorofluoromethane	ND		1.0		ug/L			10/14/22 01:21	1
Trihalomethanes, Total	**0.59**	**T5**	0.50		ug/L			10/14/22 01:21	1
Vinyl acetate	ND		5.0		ug/L			10/14/22 01:21	1
Vinyl chloride	ND		1.0		ug/L			10/14/22 01:21	1
Xylenes, Total	ND		0.50		ug/L			10/14/22 01:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*100*		*60 - 140*		*10/14/22 01:21*	*1*
Toluene-d8 (Surr)	*95*		*60 - 140*		*10/14/22 01:21*	*1*
4-Bromofluorobenzene (Surr)	*97*		*60 - 140*		*10/14/22 01:21*	*1*

Surrogate Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Peoria

Job ID: 550-191988-1
SDG: Peoria, AZ

Method: 624.1 - 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	(60-140)	(60-140)	(60-140)					
550-191988-1	MW-01A-435-22A1	102	95	94					
550-191988-1 - DL	MW-01A-435-22A1	93	92	86					
550-191988-2	PHX-01-22A1	103	97	92					
550-191988-2 - DL	PHX-01-22A1	93	91	86					
550-191988-3	MW-03-355-22A1	102	96	94					
550-191988-3	MW-03-355-22A1	93	93	85					
550-191988-4	MW-04-355-22A1	100	95	96					
550-191988-5	PHX-02-22A1	100	94	94					
550-191988-6	MW-05-310-22A1	102	95	93					
550-191988-7	TB-22A1	102	94	96					
550-191988-8	MW-10-22A1	102	95	94					
550-191988-9	EW-1-22A1	99	94	96					
550-191988-10	EW-2-360-22A1	103	95	96					
550-191988-11	MW-06-355-22A1	101	95	93					
550-191988-11 MS	MW-06-355-22A1	101	90	92					
550-191988-11 MSD	MW-06-355-22A1	101	93	96					
550-191988-12	MW-08-355-22A1	98	93	97					
550-191988-13	MW-09-355-22A1	101	95	96					
550-191988-14	MW-12-410-22A1	99	94	96					
550-191988-15	MW-13-355-22A1	100	94	94					
550-191988-16	MW-14-350-22A1	99	93	98					
550-191988-17	MW-07-285-22A1	100	95	97					
550-192043-D-1 MS	Matrix Spike	75	69	83					
550-192043-D-1 MSD	Matrix Spike Duplicate	74	71	82					
LCS 550-286326/3	Lab Control Sample	98	92	96					
LCS 550-286412/3	Lab Control Sample	85	84	84					
LCSD 550-286326/4	Lab Control Sample Dup	103	94	99					
LCSD 550-286412/4	Lab Control Sample Dup	84	85	82					
MB 550-286326/6	Method Blank	100	96	95					
MB 550-286412/6	Method Blank	90	93	86					

Surrogate Legend

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

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-286326/6
Matrix: Water
Analysis Batch: 286326

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		0.50		ug/L			10/13/22 18:23	1
1,1,1-Trichloroethane	ND		0.50		ug/L			10/13/22 18:23	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/13/22 18:23	1
1,1,2-Trichloroethane	ND		0.50		ug/L			10/13/22 18:23	1
1,1-Dichloroethane	ND		0.50		ug/L			10/13/22 18:23	1
1,1-Dichloroethene	ND		0.50		ug/L			10/13/22 18:23	1
1,1-Dichloropropene	ND		0.50		ug/L			10/13/22 18:23	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			10/13/22 18:23	1
1,2,3-Trichloropropane	ND		2.0		ug/L			10/13/22 18:23	1
1,2,4-Trichlorobenzene	ND	T2	2.0		ug/L			10/13/22 18:23	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			10/13/22 18:23	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/13/22 18:23	1
1,2-Dichlorobenzene	ND		0.50		ug/L			10/13/22 18:23	1
1,2-Dichloroethane	ND		0.50		ug/L			10/13/22 18:23	1
1,2-Dichloropropane	ND		0.50		ug/L			10/13/22 18:23	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			10/13/22 18:23	1
1,3-Dichlorobenzene	ND		0.50		ug/L			10/13/22 18:23	1
1,3-Dichloropropane	ND		0.50		ug/L			10/13/22 18:23	1
1,4-Dichlorobenzene	ND		0.50		ug/L			10/13/22 18:23	1
2,2-Dichloropropane	ND		1.0		ug/L			10/13/22 18:23	1
2-Butanone (MEK)	ND		10		ug/L			10/13/22 18:23	1
2-Chlorotoluene	ND		0.50		ug/L			10/13/22 18:23	1
2-Hexanone	ND		5.0		ug/L			10/13/22 18:23	1
4-Chlorotoluene	ND		0.50		ug/L			10/13/22 18:23	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			10/13/22 18:23	1
Acetone	ND		10		ug/L			10/13/22 18:23	1
Benzene	ND		0.50		ug/L			10/13/22 18:23	1
Bromobenzene	ND		1.0		ug/L			10/13/22 18:23	1
Bromoform	ND		1.0		ug/L			10/13/22 18:23	1
Bromomethane	ND		5.0		ug/L			10/13/22 18:23	1
Carbon disulfide	ND		5.0		ug/L			10/13/22 18:23	1
Carbon tetrachloride	ND		0.50		ug/L			10/13/22 18:23	1
Chlorobenzene	ND		0.50		ug/L			10/13/22 18:23	1
Chlorobromomethane	ND		0.50		ug/L			10/13/22 18:23	1
Chloroethane	ND		1.0		ug/L			10/13/22 18:23	1
Chlorodibromomethane	ND		0.50		ug/L			10/13/22 18:23	1
Chloroform	ND		0.50		ug/L			10/13/22 18:23	1
Chloromethane	ND		1.0		ug/L			10/13/22 18:23	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			10/13/22 18:23	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			10/13/22 18:23	1
Dibromomethane	ND		0.50		ug/L			10/13/22 18:23	1
Dichlorobromomethane	ND		0.50		ug/L			10/13/22 18:23	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/13/22 18:23	1
Ethanol	ND		150		ug/L			10/13/22 18:23	1
Ethylbenzene	ND		0.50		ug/L			10/13/22 18:23	1
Ethylene Dibromide	ND		0.50		ug/L			10/13/22 18:23	1
Hexachlorobutadiene	ND		5.0		ug/L			10/13/22 18:23	1
Iodomethane	ND		2.0		ug/L			10/13/22 18:23	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-286326/6
Matrix: Water
Analysis Batch: 286326

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	ug/L			10/13/22 18:23	1
Methyl tert-butyl ether	ND		0.50	ug/L			10/13/22 18:23	1
Methylene Chloride	ND		5.0	ug/L			10/13/22 18:23	1
4-Isopropyltoluene	ND		0.50	ug/L			10/13/22 18:23	1
m-Xylene & p-Xylene	ND		1.0	ug/L			10/13/22 18:23	1
Naphthalene	ND		5.0	ug/L			10/13/22 18:23	1
n-Butylbenzene	ND		1.0	ug/L			10/13/22 18:23	1
N-Propylbenzene	ND		0.50	ug/L			10/13/22 18:23	1
o-Xylene	ND		0.50	ug/L			10/13/22 18:23	1
sec-Butylbenzene	ND		0.50	ug/L			10/13/22 18:23	1
Styrene	ND		1.0	ug/L			10/13/22 18:23	1
tert-Butylbenzene	ND		0.50	ug/L			10/13/22 18:23	1
Tetrachloroethene	ND		0.50	ug/L			10/13/22 18:23	1
Toluene	ND		0.50	ug/L			10/13/22 18:23	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			10/13/22 18:23	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			10/13/22 18:23	1
Trichloroethene	ND		0.50	ug/L			10/13/22 18:23	1
Trichlorofluoromethane	ND		1.0	ug/L			10/13/22 18:23	1
Trihalomethanes, Total	ND		0.50	ug/L			10/13/22 18:23	1
Vinyl acetate	ND		5.0	ug/L			10/13/22 18:23	1
Vinyl chloride	ND		1.0	ug/L			10/13/22 18:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	ug/L			10/13/22 18:23	1
Xylenes, Total	ND		0.50	ug/L			10/13/22 18:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*100*		*60 - 140*		*10/13/22 18:23*	*1*
Toluene-d8 (Surr)	*96*		*60 - 140*		*10/13/22 18:23*	*1*
4-Bromofluorobenzene (Surr)	*95*		*60 - 140*		*10/13/22 18:23*	*1*

Lab Sample ID: LCS 550-286326/3
Matrix: Water
Analysis Batch: 286326

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	48.5		ug/L		97	60 - 140
1,1,1-Trichloroethane	50.0	49.0		ug/L		98	70 - 130
1,1,2,2-Tetrachloroethane	50.0	46.9		ug/L		94	60 - 140
1,1,2-Trichloroethane	50.0	50.9		ug/L		102	70 - 130
1,1-Dichloroethane	50.0	48.7		ug/L		97	70 - 130
1,1-Dichloroethene	50.0	58.9		ug/L		118	50 - 150
1,1-Dichloropropene	50.0	45.9		ug/L		92	60 - 140
1,2,3-Trichlorobenzene	50.0	51.4		ug/L		103	60 - 140
1,2,3-Trichloropropane	50.0	48.5		ug/L		97	60 - 140
1,2,4-Trichlorobenzene	50.0	49.8	T2	ug/L		100	60 - 140
1,2,4-Trimethylbenzene	50.0	45.2		ug/L		90	60 - 140
1,2-Dibromo-3-Chloropropane	50.0	44.1		ug/L		88	60 - 140
1,2-Dichlorobenzene	50.0	48.6		ug/L		97	65 - 135
1,2-Dichloroethane	50.0	46.1		ug/L		92	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-286326/3
Matrix: Water
Analysis Batch: 286326

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dichloropropane	50.0	46.1		ug/L		92	35 - 165
1,3,5-Trimethylbenzene	50.0	45.8		ug/L		92	60 - 140
1,3-Dichlorobenzene	50.0	50.0		ug/L		100	70 - 130
1,3-Dichloropropane	50.0	51.4		ug/L		103	60 - 140
1,4-Dichlorobenzene	50.0	50.5		ug/L		101	65 - 135
2,2-Dichloropropane	50.0	49.7		ug/L		99	60 - 140
2-Butanone (MEK)	50.0	45.3		ug/L		91	60 - 140
2-Chlorotoluene	50.0	46.4		ug/L		93	60 - 140
2-Hexanone	50.0	45.2		ug/L		90	60 - 140
4-Chlorotoluene	50.0	47.9		ug/L		96	60 - 140
4-Methyl-2-pentanone (MIBK)	50.0	43.3		ug/L		87	60 - 140
Acetone	50.0	45.9		ug/L		92	18 - 150
Benzene	50.0	45.3		ug/L		91	65 - 135
Bromobenzene	50.0	50.1		ug/L		100	60 - 140
Bromoform	50.0	49.6		ug/L		99	70 - 130
Bromomethane	50.0	53.8		ug/L		108	15 - 185
Carbon disulfide	50.0	43.3		ug/L		87	60 - 140
Carbon tetrachloride	50.0	44.2		ug/L		88	70 - 130
Chlorobenzene	50.0	50.7		ug/L		101	65 - 135
Chlorobromomethane	50.0	50.1		ug/L		100	60 - 140
Chloroethane	50.0	48.2		ug/L		96	40 - 160
Chlorodibromomethane	50.0	50.6		ug/L		101	70 - 135
Chloroform	50.0	48.5		ug/L		97	70 - 135
Chloromethane	50.0	44.7		ug/L		89	10 - 205
cis-1,2-Dichloroethene	50.0	44.8		ug/L		90	60 - 140
cis-1,3-Dichloropropene	50.0	49.4		ug/L		99	25 - 175
Dibromomethane	50.0	46.1		ug/L		92	70 - 130
Dichlorobromomethane	50.0	45.8		ug/L		92	65 - 135
Dichlorodifluoromethane	50.0	43.5		ug/L		87	60 - 140
Ethanol	1000	1140		ug/L		114	60 - 140
Ethylbenzene	50.0	48.0		ug/L		96	60 - 140
Ethylene Dibromide	50.0	52.7		ug/L		105	60 - 140
Hexachlorobutadiene	50.0	52.2		ug/L		104	60 - 140
Iodomethane	50.0	45.5		ug/L		91	60 - 140
Isopropylbenzene	50.0	44.3		ug/L		89	60 - 140
Methyl tert-butyl ether	50.0	48.6		ug/L		97	60 - 140
Methylene Chloride	50.0	54.0		ug/L		108	60 - 140
4-Isopropyltoluene	50.0	47.5		ug/L		95	60 - 140
m-Xylene & p-Xylene	50.0	47.0		ug/L		94	60 - 140
Naphthalene	50.0	51.0		ug/L		102	60 - 140
n-Butylbenzene	50.0	47.9		ug/L		96	60 - 140
N-Propylbenzene	50.0	47.0		ug/L		94	60 - 140
o-Xylene	50.0	45.1		ug/L		90	60 - 140
sec-Butylbenzene	50.0	47.1		ug/L		94	60 - 140
Styrene	50.0	49.1		ug/L		98	60 - 140
tert-Butylbenzene	50.0	49.9		ug/L		100	60 - 140
Tetrachloroethene	50.0	49.8		ug/L		100	70 - 130
Toluene	50.0	48.2		ug/L		96	70 - 130
trans-1,2-Dichloroethene	50.0	50.5		ug/L		101	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-286326/3
Matrix: Water
Analysis Batch: 286326

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
trans-1,3-Dichloropropene	50.0	51.0		ug/L		102	50 - 150
Trichloroethene	50.0	46.2		ug/L		92	65 - 135
Trichlorofluoromethane	50.0	48.9		ug/L		98	50 - 150
Vinyl acetate	50.0	53.8		ug/L		108	60 - 140
Vinyl chloride	50.0	45.4		ug/L		91	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*98*		*60 - 140*
Toluene-d8 (Surr)	*92*		*60 - 140*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*

Lab Sample ID: LCSD 550-286326/4
Matrix: Water
Analysis Batch: 286326

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	51.0		ug/L		102	60 - 140	5	20
1,1,1-Trichloroethane	50.0	51.1		ug/L		102	70 - 130	4	20
1,1,2,2-Tetrachloroethane	50.0	48.8		ug/L		98	60 - 140	4	20
1,1,2-Trichloroethane	50.0	51.0		ug/L		102	70 - 130	0	20
1,1-Dichloroethane	50.0	51.3		ug/L		103	70 - 130	5	20
1,1-Dichloroethene	50.0	61.1		ug/L		122	50 - 150	4	20
1,1-Dichloropropene	50.0	48.8		ug/L		98	60 - 140	6	20
1,2,3-Trichlorobenzene	50.0	50.0		ug/L		100	60 - 140	3	20
1,2,3-Trichloropropane	50.0	49.8		ug/L		100	60 - 140	3	20
1,2,4-Trichlorobenzene	50.0	49.3	T2	ug/L		99	60 - 140	1	20
1,2,4-Trimethylbenzene	50.0	47.1		ug/L		94	60 - 140	4	20
1,2-Dibromo-3-Chloropropane	50.0	45.4		ug/L		91	60 - 140	3	20
1,2-Dichlorobenzene	50.0	49.8		ug/L		100	65 - 135	2	20
1,2-Dichloroethane	50.0	48.1		ug/L		96	70 - 130	4	20
1,2-Dichloropropane	50.0	47.9		ug/L		96	35 - 165	4	20
1,3,5-Trimethylbenzene	50.0	47.9		ug/L		96	60 - 140	5	20
1,3-Dichlorobenzene	50.0	50.9		ug/L		102	70 - 130	2	20
1,3-Dichloropropane	50.0	51.4		ug/L		103	60 - 140	0	20
1,4-Dichlorobenzene	50.0	50.9		ug/L		102	65 - 135	1	20
2,2-Dichloropropane	50.0	50.0		ug/L		100	60 - 140	1	20
2-Butanone (MEK)	50.0	46.3		ug/L		93	60 - 140	2	20
2-Chlorotoluene	50.0	48.3		ug/L		97	60 - 140	4	20
2-Hexanone	50.0	45.7		ug/L		91	60 - 140	1	20
4-Chlorotoluene	50.0	48.4		ug/L		97	60 - 140	1	20
4-Methyl-2-pentanone (MIBK)	50.0	44.1		ug/L		88	60 - 140	2	20
Acetone	50.0	50.9		ug/L		102	18 - 150	10	20
Benzene	50.0	48.6		ug/L		97	65 - 135	7	20
Bromobenzene	50.0	51.1		ug/L		102	60 - 140	2	20
Bromoform	50.0	51.6		ug/L		103	70 - 130	4	20
Bromomethane	50.0	52.8		ug/L		106	15 - 185	2	20
Carbon disulfide	50.0	45.4		ug/L		91	60 - 140	5	20
Carbon tetrachloride	50.0	48.4		ug/L		97	70 - 130	9	20

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 550-286326/4
Matrix: Water
Analysis Batch: 286326

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
Chlorobenzene	50.0	51.2		ug/L		102	65 - 135	1	20
Chlorobromomethane	50.0	53.9		ug/L		108	60 - 140	7	20
Chloroethane	50.0	46.8		ug/L		94	40 - 160	3	20
Chlorodibromomethane	50.0	51.4		ug/L		103	70 - 135	2	20
Chloroform	50.0	50.8		ug/L		102	70 - 135	5	20
Chloromethane	50.0	44.5		ug/L		89	10 - 205	0	20
cis-1,2-Dichloroethene	50.0	49.4		ug/L		99	60 - 140	10	20
cis-1,3-Dichloropropene	50.0	50.0		ug/L		100	25 - 175	1	20
Dibromomethane	50.0	48.5		ug/L		97	70 - 130	5	20
Dichlorobromomethane	50.0	47.9		ug/L		96	65 - 135	4	20
Dichlorodifluoromethane	50.0	44.4		ug/L		89	60 - 140	2	20
Ethanol	1000	1090		ug/L		109	60 - 140	5	20
Ethylbenzene	50.0	48.6		ug/L		97	60 - 140	1	20
Ethylene Dibromide	50.0	52.2		ug/L		104	60 - 140	1	20
Hexachlorobutadiene	50.0	52.2		ug/L		104	60 - 140	0	20
Iodomethane	50.0	46.6		ug/L		93	60 - 140	2	20
Isopropylbenzene	50.0	47.0		ug/L		94	60 - 140	6	20
Methyl tert-butyl ether	50.0	51.4		ug/L		103	60 - 140	6	20
Methylene Chloride	50.0	57.5		ug/L		115	60 - 140	6	20
4-Isopropyltoluene	50.0	48.9		ug/L		98	60 - 140	3	20
m-Xylene & p-Xylene	50.0	48.5		ug/L		97	60 - 140	3	20
Naphthalene	50.0	50.3		ug/L		101	60 - 140	1	20
n-Butylbenzene	50.0	48.8		ug/L		98	60 - 140	2	20
N-Propylbenzene	50.0	48.3		ug/L		97	60 - 140	3	20
o-Xylene	50.0	48.2		ug/L		96	60 - 140	7	20
sec-Butylbenzene	50.0	48.2		ug/L		96	60 - 140	2	20
Styrene	50.0	50.4		ug/L		101	60 - 140	2	20
tert-Butylbenzene	50.0	50.9		ug/L		102	60 - 140	2	20
Tetrachloroethene	50.0	51.2		ug/L		102	70 - 130	3	20
Toluene	50.0	49.7		ug/L		99	70 - 130	3	20
trans-1,2-Dichloroethene	50.0	53.7		ug/L		107	70 - 130	6	20
trans-1,3-Dichloropropene	50.0	50.9		ug/L		102	50 - 150	0	20
Trichloroethene	50.0	48.6		ug/L		97	65 - 135	5	20
Trichlorofluoromethane	50.0	48.6		ug/L		97	50 - 150	1	20
Vinyl acetate	50.0	53.1		ug/L		106	60 - 140	1	20
Vinyl chloride	50.0	43.9		ug/L		88	5 - 195	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*103*		*60 - 140*
Toluene-d8 (Surr)	*94*		*60 - 140*
4-Bromofluorobenzene (Surr)	*99*		*60 - 140*

Lab Sample ID: 550-191988-11 MS
Matrix: Water
Analysis Batch: 286326

Client Sample ID: MW-06-355-22A1
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	50.6		ug/L		101	50 - 150

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-191988-11 MS
Matrix: Water
Analysis Batch: 286326

Client Sample ID: MW-06-355-22A1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	ND		50.0	50.8		ug/L		102	52 - 162
1,1,2,2-Tetrachloroethane	ND		50.0	48.9		ug/L		98	46 - 157
1,1,2-Trichloroethane	ND		50.0	50.7		ug/L		101	52 - 150
1,1-Dichloroethane	ND		50.0	51.1		ug/L		102	59 - 155
1,1-Dichloroethene	ND		50.0	61.0		ug/L		122	10 - 234
1,1-Dichloropropene	ND		50.0	46.9		ug/L		94	50 - 150
1,2,3-Trichlorobenzene	ND		50.0	48.3		ug/L		94	50 - 150
1,2,3-Trichloropropane	ND		50.0	50.8		ug/L		102	50 - 150
1,2,4-Trichlorobenzene	ND	T2 T5	50.0	47.6	T2	ug/L		93	50 - 150
1,2,4-Trimethylbenzene	ND		50.0	44.7		ug/L		89	50 - 150
1,2-Dibromo-3-Chloropropane	ND		50.0	45.6		ug/L		91	50 - 150
1,2-Dichlorobenzene	ND		50.0	48.0		ug/L		95	18 - 190
1,2-Dichloroethane	ND		50.0	47.1		ug/L		94	49 - 155
1,2-Dichloropropane	ND		50.0	46.8		ug/L		94	10 - 210
1,3,5-Trimethylbenzene	ND		50.0	45.1		ug/L		90	50 - 150
1,3-Dichlorobenzene	ND		50.0	48.6		ug/L		97	59 - 156
1,3-Dichloropropane	ND		50.0	51.7		ug/L		103	50 - 150
1,4-Dichlorobenzene	ND		50.0	49.2		ug/L		98	18 - 190
2,2-Dichloropropane	ND		50.0	49.8		ug/L		100	50 - 150
2-Butanone (MEK)	ND		50.0	47.7		ug/L		95	50 - 150
2-Chlorotoluene	ND		50.0	46.1		ug/L		92	50 - 150
2-Hexanone	ND		50.0	48.1		ug/L		96	50 - 150
4-Chlorotoluene	ND		50.0	45.8		ug/L		92	50 - 150
4-Isopropyltoluene	ND		50.0	46.2		ug/L		92	50 - 150
4-Methyl-2-pentanone (MIBK)	ND		50.0	46.5		ug/L		93	50 - 150
Acetone	ND		50.0	43.1		ug/L		86	18 - 150
Benzene	ND		50.0	47.1		ug/L		94	35 - 151
Bromobenzene	ND		50.0	49.2		ug/L		98	50 - 150
Bromoform	ND		50.0	51.0		ug/L		102	45 - 169
Bromomethane	ND		50.0	53.2		ug/L		106	10 - 242
Carbon disulfide	ND		50.0	42.9		ug/L		86	50 - 150
Carbon tetrachloride	ND		50.0	46.7		ug/L		93	70 - 140
Chlorobenzene	ND		50.0	50.3		ug/L		101	37 - 160
Chlorobromomethane	ND		50.0	54.3		ug/L		109	50 - 150
Chlorodibromomethane	ND		50.0	51.8		ug/L		104	53 - 149
Chloroethane	ND		50.0	44.6		ug/L		89	14 - 230
Chloroform	ND		50.0	50.9		ug/L		102	51 - 138
Chloromethane	ND		50.0	43.5		ug/L		87	10 - 273
cis-1,2-Dichloroethene	ND		50.0	48.3		ug/L		97	50 - 150
cis-1,3-Dichloropropene	ND		50.0	48.7		ug/L		97	10 - 227
Dibromomethane	ND		50.0	48.5		ug/L		97	50 - 150
Dichlorobromomethane	ND		50.0	47.4		ug/L		95	35 - 155
Dichlorodifluoromethane	ND		50.0	41.4		ug/L		83	50 - 150
Ethanol	ND		1000	1090		ug/L		109	50 - 150
Ethylbenzene	ND		50.0	47.2		ug/L		94	37 - 162
Ethylene Dibromide	ND		50.0	52.3		ug/L		105	50 - 150
Hexachlorobutadiene	ND		50.0	49.4		ug/L		99	50 - 150
Iodomethane	ND		50.0	46.6		ug/L		93	50 - 150
Isopropylbenzene	ND		50.0	44.2		ug/L		88	50 - 150

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-191988-11 MS
Matrix: Water
Analysis Batch: 286326

Client Sample ID: MW-06-355-22A1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Methyl tert-butyl ether	ND		50.0	52.5		ug/L		105	50 - 150
Methylene Chloride	ND		50.0	58.3		ug/L		117	10 - 221
m-Xylene & p-Xylene	ND		50.0	45.4		ug/L		91	50 - 150
Naphthalene	ND		50.0	49.5		ug/L		99	50 - 150
n-Butylbenzene	ND		50.0	46.3		ug/L		93	50 - 150
N-Propylbenzene	ND		50.0	45.8		ug/L		92	50 - 150
o-Xylene	ND		50.0	44.8		ug/L		90	50 - 150
sec-Butylbenzene	ND		50.0	45.6		ug/L		91	50 - 150
Styrene	ND		50.0	47.1		ug/L		94	50 - 150
tert-Butylbenzene	ND		50.0	48.0		ug/L		96	50 - 150
Tetrachloroethene	ND		50.0	49.8		ug/L		100	64 - 148
Toluene	ND		50.0	48.1		ug/L		96	47 - 150
trans-1,2-Dichloroethene	ND		50.0	54.7		ug/L		109	54 - 156
trans-1,3-Dichloropropene	ND		50.0	50.0		ug/L		100	17 - 183
Trichloroethene	ND		50.0	47.2		ug/L		94	70 - 157
Trichlorofluoromethane	ND		50.0	47.6		ug/L		95	17 - 181
Vinyl acetate	ND		50.0	51.4		ug/L		103	50 - 150
Vinyl chloride	ND		50.0	43.7		ug/L		87	10 - 251

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*101*		*60 - 140*
Toluene-d8 (Surr)	*90*		*60 - 140*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*

Lab Sample ID: 550-191988-11 MSD
Matrix: Water
Analysis Batch: 286326

Client Sample ID: MW-06-355-22A1
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	48.5		ug/L		97	50 - 150	4	35
1,1,1-Trichloroethane	ND		50.0	49.2		ug/L		98	52 - 162	3	36
1,1,2,2-Tetrachloroethane	ND		50.0	44.9		ug/L		90	46 - 157	9	61
1,1,2-Trichloroethane	ND		50.0	49.2		ug/L		98	52 - 150	3	45
1,1-Dichloroethane	ND		50.0	49.3		ug/L		99	59 - 155	4	40
1,1-Dichloroethene	ND		50.0	60.5		ug/L		121	10 - 234	1	32
1,1-Dichloropropene	ND		50.0	47.5		ug/L		95	50 - 150	1	35
1,2,3-Trichlorobenzene	ND		50.0	48.4		ug/L		94	50 - 150	0	35
1,2,3-Trichloropropane	ND		50.0	47.8		ug/L		96	50 - 150	6	35
1,2,4-Trichlorobenzene	ND	T2 T5	50.0	47.8	T2	ug/L		94	50 - 150	0	35
1,2,4-Trimethylbenzene	ND		50.0	45.0		ug/L		90	50 - 150	1	35
1,2-Dibromo-3-Chloropropane	ND		50.0	41.0		ug/L		82	50 - 150	11	35
1,2-Dichlorobenzene	ND		50.0	48.4		ug/L		96	18 - 190	1	57
1,2-Dichloroethane	ND		50.0	45.6		ug/L		91	49 - 155	3	49
1,2-Dichloropropane	ND		50.0	45.6		ug/L		91	10 - 210	2	55
1,3,5-Trimethylbenzene	ND		50.0	45.8		ug/L		92	50 - 150	1	35
1,3-Dichlorobenzene	ND		50.0	49.5		ug/L		98	59 - 156	2	43
1,3-Dichloropropane	ND		50.0	49.5		ug/L		99	50 - 150	4	35
1,4-Dichlorobenzene	ND		50.0	49.4		ug/L		98	18 - 190	0	57

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-191988-11 MSD
Matrix: Water
Analysis Batch: 286326

Client Sample ID: MW-06-355-22A1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,2-Dichloropropane	ND		50.0	48.4		ug/L		97	50 - 150	3	35
2-Butanone (MEK)	ND		50.0	40.6		ug/L		81	50 - 150	16	35
2-Chlorotoluene	ND		50.0	46.4		ug/L		93	50 - 150	1	35
2-Hexanone	ND		50.0	41.8		ug/L		84	50 - 150	14	35
4-Chlorotoluene	ND		50.0	47.1		ug/L		94	50 - 150	3	35
4-Isopropyltoluene	ND		50.0	47.3		ug/L		95	50 - 150	2	35
4-Methyl-2-pentanone (MIBK)	ND		50.0	40.1		ug/L		80	50 - 150	15	35
Acetone	ND		50.0	37.5		ug/L		75	18 - 150	14	35
Benzene	ND		50.0	46.6		ug/L		93	35 - 151	1	61
Bromobenzene	ND		50.0	49.6		ug/L		99	50 - 150	1	35
Bromoform	ND		50.0	48.5		ug/L		97	45 - 169	5	42
Bromomethane	ND		50.0	52.0		ug/L		104	10 - 242	2	61
Carbon disulfide	ND		50.0	43.0		ug/L		86	50 - 150	0	35
Carbon tetrachloride	ND		50.0	45.4		ug/L		91	70 - 140	3	41
Chlorobenzene	ND		50.0	50.3		ug/L		101	37 - 160	0	53
Chlorobromomethane	ND		50.0	50.5		ug/L		101	50 - 150	7	35
Chlorodibromomethane	ND		50.0	50.0		ug/L		100	53 - 149	4	50
Chloroethane	ND		50.0	46.6		ug/L		93	14 - 230	4	78
Chloroform	ND		50.0	49.0		ug/L		98	51 - 138	4	54
Chloromethane	ND		50.0	42.9		ug/L		86	10 - 273	1	60
cis-1,2-Dichloroethene	ND		50.0	46.7		ug/L		93	50 - 150	3	35
cis-1,3-Dichloropropene	ND		50.0	48.4		ug/L		97	10 - 227	1	58
Dibromomethane	ND		50.0	46.2		ug/L		92	50 - 150	5	35
Dichlorobromomethane	ND		50.0	45.8		ug/L		92	35 - 155	3	56
Dichlorodifluoromethane	ND		50.0	39.0		ug/L		78	50 - 150	6	35
Ethanol	ND		1000	1140		ug/L		114	50 - 150	4	35
Ethylbenzene	ND		50.0	47.9		ug/L		96	37 - 162	1	63
Ethylene Dibromide	ND		50.0	50.2		ug/L		100	50 - 150	4	35
Hexachlorobutadiene	ND		50.0	51.4		ug/L		103	50 - 150	4	35
Iodomethane	ND		50.0	45.5		ug/L		91	50 - 150	2	35
Isopropylbenzene	ND		50.0	44.7		ug/L		89	50 - 150	1	35
Methyl tert-butyl ether	ND		50.0	46.3		ug/L		93	50 - 150	12	35
Methylene Chloride	ND		50.0	55.1		ug/L		110	10 - 221	6	28
m-Xylene & p-Xylene	ND		50.0	46.5		ug/L		93	50 - 150	3	35
Naphthalene	ND		50.0	47.8		ug/L		96	50 - 150	4	35
n-Butylbenzene	ND		50.0	47.6		ug/L		95	50 - 150	3	35
N-Propylbenzene	ND		50.0	47.2		ug/L		94	50 - 150	3	35
o-Xylene	ND		50.0	45.3		ug/L		91	50 - 150	1	35
sec-Butylbenzene	ND		50.0	46.7		ug/L		93	50 - 150	2	35
Styrene	ND		50.0	48.6		ug/L		97	50 - 150	3	35
tert-Butylbenzene	ND		50.0	49.6		ug/L		99	50 - 150	3	35
Tetrachloroethene	ND		50.0	49.7		ug/L		99	64 - 148	0	39
Toluene	ND		50.0	48.4		ug/L		97	47 - 150	1	41
trans-1,2-Dichloroethene	ND		50.0	52.2		ug/L		104	54 - 156	5	45
trans-1,3-Dichloropropene	ND		50.0	48.8		ug/L		98	17 - 183	2	86
Trichloroethene	ND		50.0	46.8		ug/L		94	70 - 157	1	48
Trichlorofluoromethane	ND		50.0	47.4		ug/L		95	17 - 181	1	84
Vinyl acetate	ND		50.0	49.6		ug/L		99	50 - 150	4	35
Vinyl chloride	ND		50.0	43.4		ug/L		87	10 - 251	1	66

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Dibromofluoromethane (Surr)	*101*		*60 - 140*
Toluene-d8 (Surr)	*93*		*60 - 140*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*

Lab Sample ID: MB 550-286412/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 286412

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		0.50	ug/L			10/14/22 10:26	1
Trichloroethene	ND		0.50	ug/L			10/14/22 10:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*90*		*60 - 140*		*10/14/22 10:26*	*1*
Toluene-d8 (Surr)	*93*		*60 - 140*		*10/14/22 10:26*	*1*
4-Bromofluorobenzene (Surr)	*86*		*60 - 140*		*10/14/22 10:26*	*1*

Lab Sample ID: LCS 550-286412/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 286412

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	50.0	45.7		ug/L		91	50 - 150
Trichloroethene	50.0	46.1		ug/L		92	65 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	*85*		*60 - 140*
Toluene-d8 (Surr)	*84*		*60 - 140*
4-Bromofluorobenzene (Surr)	*84*		*60 - 140*

Lab Sample ID: LCSD 550-286412/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 286412

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethene	50.0	47.4		ug/L		95	50 - 150	4	20
Trichloroethene	50.0	47.7		ug/L		95	65 - 135	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Dibromofluoromethane (Surr)	*84*		*60 - 140*
Toluene-d8 (Surr)	*85*		*60 - 140*
4-Bromofluorobenzene (Surr)	*82*		*60 - 140*

Lab Sample ID: 550-192043-D-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 286412

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	ND		50.0	28.6		ug/L		57	10 - 234
Trichloroethene	ND		50.0	39.6		ug/L		79	70 - 157

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-192043-D-1 MS
Matrix: Water
Analysis Batch: 286412

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

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*75*		*60 - 140*
Toluene-d8 (Surr)	*69*		*60 - 140*
4-Bromofluorobenzene (Surr)	*83*		*60 - 140*

Lab Sample ID: 550-192043-D-1 MSD
Matrix: Water
Analysis Batch: 286412

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-Dichloroethene	ND		50.0	25.2		ug/L		50	10 - 234	13	32
Trichloroethene	ND		50.0	39.1		ug/L		78	70 - 157	1	48

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*74*		*60 - 140*
Toluene-d8 (Surr)	*71*		*60 - 140*
4-Bromofluorobenzene (Surr)	*82*		*60 - 140*

QC Association Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Peoria

Job ID: 550-191988-1
SDG: Peoria, AZ

GC/MS VOA

Analysis Batch: 286326

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-191988-1	MW-01A-435-22A1	Total/NA	Water	624.1	
550-191988-2	PHX-01-22A1	Total/NA	Water	624.1	
550-191988-3	MW-03-355-22A1	Total/NA	Water	624.1	
550-191988-4	MW-04-355-22A1	Total/NA	Water	624.1	
550-191988-5	PHX-02-22A1	Total/NA	Water	624.1	
550-191988-6	MW-05-310-22A1	Total/NA	Water	624.1	
550-191988-7	TB-22A1	Total/NA	Water	624.1	
550-191988-8	MW-10-22A1	Total/NA	Water	624.1	
550-191988-9	EW-1-22A1	Total/NA	Water	624.1	
550-191988-10	EW-2-360-22A1	Total/NA	Water	624.1	
550-191988-11	MW-06-355-22A1	Total/NA	Water	624.1	
550-191988-12	MW-08-355-22A1	Total/NA	Water	624.1	
550-191988-13	MW-09-355-22A1	Total/NA	Water	624.1	
550-191988-14	MW-12-410-22A1	Total/NA	Water	624.1	
550-191988-15	MW-13-355-22A1	Total/NA	Water	624.1	
550-191988-16	MW-14-350-22A1	Total/NA	Water	624.1	
550-191988-17	MW-07-285-22A1	Total/NA	Water	624.1	
MB 550-286326/6	Method Blank	Total/NA	Water	624.1	
LCS 550-286326/3	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-286326/4	Lab Control Sample Dup	Total/NA	Water	624.1	
550-191988-11 MS	MW-06-355-22A1	Total/NA	Water	624.1	
550-191988-11 MSD	MW-06-355-22A1	Total/NA	Water	624.1	

Analysis Batch: 286412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-191988-1 - DL	MW-01A-435-22A1	Total/NA	Water	624.1	
550-191988-2 - DL	PHX-01-22A1	Total/NA	Water	624.1	
550-191988-3	MW-03-355-22A1	Total/NA	Water	624.1	
MB 550-286412/6	Method Blank	Total/NA	Water	624.1	
LCS 550-286412/3	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-286412/4	Lab Control Sample Dup	Total/NA	Water	624.1	
550-192043-D-1 MS	Matrix Spike	Total/NA	Water	624.1	
550-192043-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	624.1	

Lab Chronicle

Client: Jacobs Engineering Group, Inc.
Project/Site: Peoria

Job ID: 550-191988-1
SDG: Peoria, AZ

Client Sample ID: MW-01A-435-22A1 — Lab Sample ID: 550-191988-1

Date Collected: 10/12/22 11:07 — **Matrix: Water**
Date Received: 10/13/22 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1	DL	20	286412	R1K	EET PHX	10/14/22 14:49
Total/NA	Analysis	624.1		1	286326	R1K	EET PHX	10/13/22 20:13

Client Sample ID: PHX-01-22A1 — Lab Sample ID: 550-191988-2

Date Collected: 10/12/22 11:08 — **Matrix: Water**
Date Received: 10/13/22 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1	DL	20	286412	R1K	EET PHX	10/14/22 15:10
Total/NA	Analysis	624.1		1	286326	R1K	EET PHX	10/13/22 20:36

Client Sample ID: MW-03-355-22A1 — Lab Sample ID: 550-191988-3

Date Collected: 10/12/22 09:03 — **Matrix: Water**
Date Received: 10/13/22 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	286412	R1K	EET PHX	10/14/22 14:28
Total/NA	Analysis	624.1		1	286326	R1K	EET PHX	10/13/22 20:57

Client Sample ID: MW-04-355-22A1 — Lab Sample ID: 550-191988-4

Date Collected: 10/12/22 09:33 — **Matrix: Water**
Date Received: 10/13/22 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	286326	R1K	EET PHX	10/13/22 21:20

Client Sample ID: PHX-02-22A1 — Lab Sample ID: 550-191988-5

Date Collected: 10/12/22 09:34 — **Matrix: Water**
Date Received: 10/13/22 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	286326	R1K	EET PHX	10/13/22 21:42

Client Sample ID: MW-05-310-22A1 — Lab Sample ID: 550-191988-6

Date Collected: 10/12/22 12:45 — **Matrix: Water**
Date Received: 10/13/22 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	286326	R1K	EET PHX	10/13/22 22:04

Client Sample ID: TB-22A1 — Lab Sample ID: 550-191988-7

Date Collected: 10/12/22 08:00 — **Matrix: Water**
Date Received: 10/13/22 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	286326	R1K	EET PHX	10/13/22 18:45

Lab Chronicle

Client: Jacobs Engineering Group, Inc.
Project/Site: Peoria

Job ID: 550-191988-1
SDG: Peoria, AZ

Client Sample ID: MW-10-22A1
Lab Sample ID: 550-191988-8
Date Collected: 10/12/22 15:50
Matrix: Water
Date Received: 10/13/22 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	286326	R1K	EET PHX	10/13/22 22:26

Client Sample ID: EW-1-22A1
Lab Sample ID: 550-191988-9
Date Collected: 10/12/22 11:27
Matrix: Water
Date Received: 10/13/22 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	286326	R1K	EET PHX	10/13/22 22:48

Client Sample ID: EW-2-360-22A1
Lab Sample ID: 550-191988-10
Date Collected: 10/12/22 08:29
Matrix: Water
Date Received: 10/13/22 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	286326	R1K	EET PHX	10/13/22 23:10

Client Sample ID: MW-06-355-22A1
Lab Sample ID: 550-191988-11
Date Collected: 10/12/22 13:33
Matrix: Water
Date Received: 10/13/22 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	286326	R1K	EET PHX	10/13/22 19:51

Client Sample ID: MW-08-355-22A1
Lab Sample ID: 550-191988-12
Date Collected: 10/12/22 15:30
Matrix: Water
Date Received: 10/13/22 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	286326	R1K	EET PHX	10/13/22 23:31

Client Sample ID: MW-09-355-22A1
Lab Sample ID: 550-191988-13
Date Collected: 10/12/22 10:36
Matrix: Water
Date Received: 10/13/22 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	286326	R1K	EET PHX	10/13/22 23:53

Client Sample ID: MW-12-410-22A1
Lab Sample ID: 550-191988-14
Date Collected: 10/12/22 12:09
Matrix: Water
Date Received: 10/13/22 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	286326	R1K	EET PHX	10/14/22 00:15

Lab Chronicle

Client: Jacobs Engineering Group, Inc.
Project/Site: Peoria

Job ID: 550-191988-1
SDG: Peoria, AZ

Client Sample ID: MW-13-355-22A1

Lab Sample ID: 550-191988-15

Date Collected: 10/12/22 16:48
Matrix: Water
Date Received: 10/13/22 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	286326	R1K	EET PHX	10/14/22 00:37

Client Sample ID: MW-14-350-22A1

Lab Sample ID: 550-191988-16

Date Collected: 10/12/22 16:07
Matrix: Water
Date Received: 10/13/22 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	286326	R1K	EET PHX	10/14/22 00:59

Client Sample ID: MW-07-285-22A1

Lab Sample ID: 550-191988-17

Date Collected: 10/12/22 10:03
Matrix: Water
Date Received: 10/13/22 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	286326	R1K	EET PHX	10/14/22 01:21

Laboratory References:

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Peoria

Job ID: 550-191988-1
SDG: Peoria, AZ

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
624.1		Water	1,2,4-Trichlorobenzene
624.1		Water	Trihalomethanes, Total

Method Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Peoria

Job ID: 550-191988-1
SDG: Peoria, AZ

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	EET PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

Laboratory References:

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

191988

Page 1 of 2

10/18/2022

Test America - Phoenix
4625 East Cotton CTr Blvd Suite 189
Phoenix, AZ 85040
602-437-3340

Honeywell — Chain Of Custody / Analysis Request

AESI Ref:	44847.37435
COC#	35008_101322-1
Lab Proj # (SDG):	
Lab ID	CTEnthalpy
Site ID	
Lab Job #	
Authorized User:	Honeywell

Privileged & Confidential | 55014762 | Site Name: Peoria (AZ) | Phase: | Sampling Program: Annual

Sampling Co.: Jacobs | EDD To: Bernice Kidd, Jacobs HTS | Location of Site: Phoenix, AZ

Client Contact: (name, co., address)
CH2M HILL
1501 W. Fountainhead Parkway
Tempe, AZ 85282

Sampler: T. Kearsley
PO #: A000651433
Preservative: 8
Analysis Turnaround Time (TAT): 10
Consultant: Jacobs
Laboratory Contact: Danielle Roberts
Report Tier Level: 2
Full Report TAT: 10
HTS

Preliminary Data To: Berney Kidd Jacobs, Lakshmi Devi HTS
Sample Receipt Acknowledgement To: Site Distribution List
Hard Copy To: Berney Kidd Jacobs,
Invoice To: Tao Wu, Honeywell/Copy Berney Kidd

Text & Excel File Drive | Excel & Text File Order

Copyright AESI: Version 10.0 (11-25-08) Unauthorized use strictly prohibited.

	Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	E624 (VOC)	Sampling Method (code)	Lab Sample Numbers
	Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID							Units				
1	MW-1a	435.0	435.0	MW-01A-435-22A1	10/12/2022	11:07	GW-GWS	WATER	REG	3	grab	N	X		-01
2	MW-1a	350.0	350.0	PHX-01-22A1	10/12/2022	11:08	GW-GWS	WATER	REG	3	grab	N	X		-02
3	MW-3	355.0	355.0	MW-03-355-22A1	10/12/2022	9:03	GW-GWS	WATER	REG	3	grab	N	X		-03
4	MW-4	355.0	355.0	MW-04-355-22A1	10/12/2022	9:33	GW-GWS	WATER	REG	3	grab	N	X		-04
5	MW-4	355.0	355.0	PHX-02-22A1	10/12/2022	9:34	GW-GWS	WATER	FD	3	grab	N	X		-05
6	MW-5	310.0	310.0	MW-05-310-22A1	10/12/2022	12:45	GW-GWS	WATER	REG	3	grab	N	X		-06
7	Trip Blank			TB-22A1	10/12/2022	8:00	BLKWATER	WATER	TB	1	grab	N	X		-07
8	MW-10			MW-10-22A1	10/12/2022	15:50	GW-GWS	WATER	TB	3	grab	N	X		-08
9	EW-1			EW-1-22A1	10/12/2022	11:27	GW-GWS	WATER	REG	3	grab	N	X		-09
10	EW-2	360.0	360.0	EW--2-360-22A1	10/13/2022	8:29	GW-GWS	WATER	REG	3	grab	N	X		-10
11															
12															

550-191988 Chain of Custody

Relinquished by: T. Kearsley	Company: CH2MHILL	Received by: FedEx	Company:	Condition:	Custody Seals Intact:		
	Date/Time: 10/13/22 10:22		10/13/22	Date/Time:	Cooler Temp.:		
Relinquished by:	Company:	Received by: EETA-PHX	Company:	Condition:	Custody Seals Intact:		
	Date/Time:		Date/Time: 10/13/22 10:22	Cooler Temp.: 1.2			

Preservatives: (Other; Specify):

0 (none); 1 (4 Deg C); 2 (HCl, pH<2); 3 (HNO3, pH<2); 4 (H2SO4, pH<2); 5 (NaOH, pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4, pH<2, 4 Deg C)); 8 (HCl, pH<2, 4 Deg C); 9 (HCl, 4 Deg C); 10 (HNO3, pH<2, 4 Deg C); 11 (NaOH. pH>12, 4 Deg, Ascorbic Acid); 12 (H2SO4, Na2S2O3, 4 Deg C, pH<2); 13 (Zn Acetate); 14 (1-MeOH, 4 Deg C and 2-NaHSO4, 4 Deg C): 15 (NaOH, pH>12, 4 Deg C); sp (special instructions)

CDO

191988

Page 2 of 2

10/18/2022

Test America - Phoenix
4625 East Cotton CTr Blvd Suite 189
Phoenix, AZ 85040
602-437-3340

Honeywell — Chain Of Custody / Analysis Request

AESI Ref:	44847.37587		
COC#	35008_101322-2		
Lab Proj # (SDG):			
Lab ID	TAMI		
Site ID	Peoria		
Lab Job #			
Authorized User:	Honeywell		

Privileged & Confidential		55014762	
Site Name:	Peoria (AZ)	Phase:	
Location of Site:	PHOENIX, AZ	Sampling Program	Annual
Sampling Co.:	Jacobs	EDD To:	Bernice Kidd, Jacobs HTS
Sampler:	T. Kearsley		
PO #	A000651433	Preservative	8
Analysis Turnaround Time (TAT):	10		
Consultant	Jacobs		
Laboratory Contact	Danielle Roberts		
Report Tier Level	2		
Full Report TAT:	10		
	HTS		

Client Contact: (name, co., address)
CH2M HILL
1501 W. Fountainhead Parkway
Tempe, AZ 85282

Preliminary Data To	Berney Kidd Jacobs, Lakshmi@levi HTS,
Sample Receipt Acknowledgement To	Site Distribution List
Hard Copy To	Berney Kidd Jacobs,
Invoice To:	Tao Wu, Honeywell/Copy Berney Kidd

Text & Excel File Drive | Excel & Text File Order

Copyright AESI: Version 10.0 (11-25-08) Unauthorized use strictly prohibited.

	Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	E624 (VOC)	Sampling Method (code)	Lab Sample Numbers
	Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID							Units				
1	MW-6	355.0	355.0	MW-06-355-22A1	10/12/2022	13:33	GW-GWS	WATER	REG	3	grab	N	X		-11
2	MW-6	355.0	355.0	MW-06-355-22A1-MS	10/12/2022	13:34	GW-GWS	WATER	MS	3	grab	N	X		~~-12~~ -12
3	MW-6	355.0	355.0	MW-06-355-22A1-MSD	10/12/2022	13:35	GW-GWS	WATER	MSD	3	grab	N	X		~~-13~~ -13
4	MW-8	355.0	355.0	MW-08-355-22A1	10/12/2022	15:30	GW-GWS	WATER	REG	3	grab	N	X		~~-14~~ -14
5	MW-9	355.0	355.0	MW-09-355-22A1	10/12/2022	10:36	GW-GWS	WATER	REG	3	grab	N	X		~~-15~~ -13
6	MW-12	410.0	410.0	MW-12-410-22A1	10/12/2022	12:09	GW-GWS	WATER	REG	3	grab	N	X		~~-16~~ -14
7	MW-13	355.0	355.0	MW-13-355-22A1	10/12/2022	16:48	GW-GWS	WATER	REG	3	grab	N	X		~~-17~~ -15
8	MW-14	350.0	350.0	MW-14-350-22A1	10/12/2022	16:07	GW-GWS	WATER	REG	3	grab	N	X		~~-18~~ -16
9	MW-7	285.0	285.0	MW-07-285-22A1	10/12/2022	10:03	GW-GWS	WATER	REG	3	grab	N	X		~~-19~~ -17
10															
11															
12															

Relinquished by	T. Kearsley	Company	CH2MHILL	Received by	Company	Condition	Custody Seals Intact
		Date/Time	10/13/22 10:22	FedEx AG 10/13/22	Date/Time	Cooler Temp.	
Relinquished by		Company		Received by	Company	Condition	Custody Seals Intact
		Date/Time			Date/Time 10/13/22 10:22	Cooler Temp. 1.1	

EETA-PHX

Preservatives: (Other; Specify):

0 (none); 1 (4 Deg C); 2 (HCl, pH<2); 3 (HNO3, pH<2); 4 (H2SO4, pH<2); 5 (NaOH, pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4, pH<2, 4 Deg C)); 8 (HCl, pH<2, 4 Deg C); 9 (HCl, 4 Deg C); 10 (HNO3, pH<2, 4 Deg C); 11 (NaOH. pH>12, 4 Deg, Ascorbic Acid); 12 (H2SO4, Na2S2O3, 4 Deg C, pH<2); 13 (Zn Acetate); 14 (1-MeOH, 4 Deg C and 2-NaHSO4, 4 Deg C): 15 (NaOH, pH>12, 4 Deg C); sp (special instructions)

CDO

Login Sample Receipt Checklist

Client: Jacobs Engineering Group, Inc.

Job Number: 550-191988-1
SDG Number: Peoria, AZ

Login Number: 191988
List Number: 1
Creator: Maycock, Lisa

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.

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Bernice Kidd
Jacobs Engineering Group, Inc.
1501 W Fountainhead Parkway
Suite 401
Tempe Arizona 85282

Generated 11/18/2022 5:25:45 AM

JOB DESCRIPTION

Deer Valley
SDG NUMBER Phoenix, AZ

JOB NUMBER

550-193681-1

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

my EOL

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Sample Summary 5
Detection Summary 6
Client Sample Results 7
Surrogate Summary 12
QC Sample Results 13
QC Association Summary 22
Lab Chronicle 23
Certification Summary 24
Method Summary 25
Chain of Custody 26
Receipt Checklists 27
Appendix 28

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
R13	MS/MSD RPD exceeded the method acceptance limit. Matrix spike recovery was outside acceptance criteria. Batch precision and accuracy were demonstrated.
T2	Cited ADHS licensed method does not contain this analyte as part of the method compound list.
T5	Laboratory not licensed for this parameter

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: 550-193681-1

Laboratory: Eurofins Phoenix

Narrative

Job Narrative
550-193681-1

Comments
No additional comments.

Receipt
The samples were received on 11/15/2022 1:34 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.6º C.

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

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

Sample Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Deer Valley

Job ID: 550-193681-1
SDG: Phoenix, AZ

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-193681-1	HM-13MA-450-22A1-2	Water	11/15/22 09:45	11/15/22 13:34
550-193681-2	HM-17MA-731-22A1	Water	11/15/22 11:23	11/15/22 13:34
550-193681-3	TB-22A1-2	Water	11/15/22 08:00	11/15/22 13:34

Detection Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Deer Valley

Job ID: 550-193681-1
SDG: Phoenix, AZ

Client Sample ID: HM-13MA-450-22A1-2 — Lab Sample ID: 550-193681-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	4.8		0.50		ug/L	1		624.1	Total/NA
Trichloroethene	14		0.50		ug/L	1		624.1	Total/NA

Client Sample ID: HM-17MA-731-22A1 — Lab Sample ID: 550-193681-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.81		0.50		ug/L	1		624.1	Total/NA
Toluene	0.55		0.50		ug/L	1		624.1	Total/NA
Trichloroethene	4.4		0.50		ug/L	1		624.1	Total/NA

Client Sample ID: TB-22A1-2 — Lab Sample ID: 550-193681-3

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Deer Valley

Job ID: 550-193681-1
SDG: Phoenix, AZ

Client Sample ID: HM-13MA-450-22A1-2

Lab Sample ID: 550-193681-1

Date Collected: 11/15/22 09:45
Matrix: Water
Date Received: 11/15/22 13:34

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			11/16/22 13:42	1
1,1,1-Trichloroethane	ND		0.50		ug/L			11/16/22 13:42	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			11/16/22 13:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0		ug/L			11/16/22 13:42	1
1,1,2-Trichloroethane	ND		0.50		ug/L			11/16/22 13:42	1
1,1-Dichloroethane	ND		0.50		ug/L			11/16/22 13:42	1
1,1-Dichloroethene	ND		0.50		ug/L			11/16/22 13:42	1
1,1-Dichloropropene	ND		0.50		ug/L			11/16/22 13:42	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			11/16/22 13:42	1
1,2,3-Trichloropropane	ND		2.0		ug/L			11/16/22 13:42	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0		ug/L			11/16/22 13:42	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			11/16/22 13:42	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			11/16/22 13:42	1
1,2-Dichlorobenzene	ND		0.50		ug/L			11/16/22 13:42	1
1,2-Dichloroethane	ND		0.50		ug/L			11/16/22 13:42	1
1,2-Dichloropropane	ND		0.50		ug/L			11/16/22 13:42	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			11/16/22 13:42	1
1,3-Dichlorobenzene	ND		0.50		ug/L			11/16/22 13:42	1
1,3-Dichloropropane	ND		0.50		ug/L			11/16/22 13:42	1
1,4-Dichlorobenzene	ND		0.50		ug/L			11/16/22 13:42	1
2,2-Dichloropropane	ND		1.0		ug/L			11/16/22 13:42	1
2-Butanone (MEK)	ND		10		ug/L			11/16/22 13:42	1
2-Chlorotoluene	ND		0.50		ug/L			11/16/22 13:42	1
2-Hexanone	ND		5.0		ug/L			11/16/22 13:42	1
4-Chlorotoluene	ND		0.50		ug/L			11/16/22 13:42	1
4-Isopropyltoluene	ND		0.50		ug/L			11/16/22 13:42	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			11/16/22 13:42	1
Acetone	ND		10		ug/L			11/16/22 13:42	1
Benzene	ND		0.50		ug/L			11/16/22 13:42	1
Bromobenzene	ND		1.0		ug/L			11/16/22 13:42	1
Bromoform	ND		1.0		ug/L			11/16/22 13:42	1
Bromomethane	ND		5.0		ug/L			11/16/22 13:42	1
Carbon disulfide	ND		5.0		ug/L			11/16/22 13:42	1
Carbon tetrachloride	ND		0.50		ug/L			11/16/22 13:42	1
Chlorobenzene	ND		0.50		ug/L			11/16/22 13:42	1
Chlorobromomethane	ND		0.50		ug/L			11/16/22 13:42	1
Chlorodibromomethane	ND		0.50		ug/L			11/16/22 13:42	1
Chloroethane	ND		1.0		ug/L			11/16/22 13:42	1
Chloroform	ND		0.50		ug/L			11/16/22 13:42	1
Chloromethane	ND		1.0		ug/L			11/16/22 13:42	1
cis-1,2-Dichloroethene	**4.8**		0.50		ug/L			11/16/22 13:42	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			11/16/22 13:42	1
Dibromomethane	ND		0.50		ug/L			11/16/22 13:42	1
Dichlorobromomethane	ND		0.50		ug/L			11/16/22 13:42	1
Dichlorodifluoromethane	ND		1.0		ug/L			11/16/22 13:42	1
Ethanol	ND		150		ug/L			11/16/22 13:42	1
Ethylbenzene	ND		0.50		ug/L			11/16/22 13:42	1
Ethylene Dibromide	ND		0.50		ug/L			11/16/22 13:42	1
Hexachlorobutadiene	ND		5.0		ug/L			11/16/22 13:42	1

Client Sample ID: HM-13MA-450-22A1-2

Lab Sample ID: 550-193681-1

Date Collected: 11/15/22 09:45
Matrix: Water
Date Received: 11/15/22 13:34

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	ND		2.0	ug/L			11/16/22 13:42	1
Isopropylbenzene	ND		0.50	ug/L			11/16/22 13:42	1
Methyl tert-butyl ether	ND		0.50	ug/L			11/16/22 13:42	1
Methylene Chloride	ND		5.0	ug/L			11/16/22 13:42	1
m-Xylene & p-Xylene	ND		1.0	ug/L			11/16/22 13:42	1
Naphthalene	ND		5.0	ug/L			11/16/22 13:42	1
n-Butylbenzene	ND		1.0	ug/L			11/16/22 13:42	1
N-Propylbenzene	ND		0.50	ug/L			11/16/22 13:42	1
o-Xylene	ND		0.50	ug/L			11/16/22 13:42	1
sec-Butylbenzene	ND		0.50	ug/L			11/16/22 13:42	1
Styrene	ND		1.0	ug/L			11/16/22 13:42	1
tert-Butylbenzene	ND		0.50	ug/L			11/16/22 13:42	1
Tetrachloroethene	ND		0.50	ug/L			11/16/22 13:42	1
Toluene	ND		0.50	ug/L			11/16/22 13:42	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			11/16/22 13:42	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			11/16/22 13:42	1
Trichloroethene	**14**		0.50	ug/L			11/16/22 13:42	1
Trichlorofluoromethane	ND		1.0	ug/L			11/16/22 13:42	1
Trihalomethanes, Total	ND	T5	0.50	ug/L			11/16/22 13:42	1
Vinyl acetate	ND		5.0	ug/L			11/16/22 13:42	1
Vinyl chloride	ND		1.0	ug/L			11/16/22 13:42	1
Xylenes, Total	ND		0.50	ug/L			11/16/22 13:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*60 - 140*		*11/16/22 13:42*	*1*
Dibromofluoromethane (Surr)	*93*		*60 - 140*		*11/16/22 13:42*	*1*
Toluene-d8 (Surr)	*86*		*60 - 140*		*11/16/22 13:42*	*1*

Client Sample ID: HM-17MA-731-22A1

Lab Sample ID: 550-193681-2

Date Collected: 11/15/22 11:23
Matrix: Water
Date Received: 11/15/22 13:34

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			11/16/22 12:39	1
1,1,1-Trichloroethane	ND		0.50	ug/L			11/16/22 12:39	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			11/16/22 12:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			11/16/22 12:39	1
1,1,2-Trichloroethane	ND		0.50	ug/L			11/16/22 12:39	1
1,1-Dichloroethane	ND		0.50	ug/L			11/16/22 12:39	1
1,1-Dichloroethene	ND		0.50	ug/L			11/16/22 12:39	1
1,1-Dichloropropene	ND		0.50	ug/L			11/16/22 12:39	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			11/16/22 12:39	1
1,2,3-Trichloropropane	ND		2.0	ug/L			11/16/22 12:39	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0	ug/L			11/16/22 12:39	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			11/16/22 12:39	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			11/16/22 12:39	1
1,2-Dichlorobenzene	ND		0.50	ug/L			11/16/22 12:39	1
1,2-Dichloroethane	ND		0.50	ug/L			11/16/22 12:39	1
1,2-Dichloropropane	ND		0.50	ug/L			11/16/22 12:39	1

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Deer Valley

Job ID: 550-193681-1
SDG: Phoenix, AZ

Client Sample ID: HM-17MA-731-22A1

Lab Sample ID: 550-193681-2

Date Collected: 11/15/22 11:23
Date Received: 11/15/22 13:34

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		0.50	ug/L			11/16/22 12:39	1
1,3-Dichlorobenzene	ND		0.50	ug/L			11/16/22 12:39	1
1,3-Dichloropropane	ND		0.50	ug/L			11/16/22 12:39	1
1,4-Dichlorobenzene	ND		0.50	ug/L			11/16/22 12:39	1
2,2-Dichloropropane	ND		1.0	ug/L			11/16/22 12:39	1
2-Butanone (MEK)	ND		10	ug/L			11/16/22 12:39	1
2-Chlorotoluene	ND		0.50	ug/L			11/16/22 12:39	1
2-Hexanone	ND		5.0	ug/L			11/16/22 12:39	1
4-Chlorotoluene	ND		0.50	ug/L			11/16/22 12:39	1
4-Isopropyltoluene	ND		0.50	ug/L			11/16/22 12:39	1
4-Methyl-2-pentanone (MIBK)	ND		2.5	ug/L			11/16/22 12:39	1
Acetone	ND		10	ug/L			11/16/22 12:39	1
Benzene	ND		0.50	ug/L			11/16/22 12:39	1
Bromobenzene	ND		1.0	ug/L			11/16/22 12:39	1
Bromoform	ND		1.0	ug/L			11/16/22 12:39	1
Bromomethane	ND		5.0	ug/L			11/16/22 12:39	1
Carbon disulfide	ND		5.0	ug/L			11/16/22 12:39	1
Carbon tetrachloride	ND		0.50	ug/L			11/16/22 12:39	1
Chlorobenzene	ND		0.50	ug/L			11/16/22 12:39	1
Chlorobromomethane	ND		0.50	ug/L			11/16/22 12:39	1
Chlorodibromomethane	ND		0.50	ug/L			11/16/22 12:39	1
Chloroethane	ND		1.0	ug/L			11/16/22 12:39	1
Chloroform	ND		0.50	ug/L			11/16/22 12:39	1
Chloromethane	ND		1.0	ug/L			11/16/22 12:39	1
cis-1,2-Dichloroethene	**0.81**		0.50	ug/L			11/16/22 12:39	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			11/16/22 12:39	1
Dibromomethane	ND		0.50	ug/L			11/16/22 12:39	1
Dichlorobromomethane	ND		0.50	ug/L			11/16/22 12:39	1
Dichlorodifluoromethane	ND		1.0	ug/L			11/16/22 12:39	1
Ethanol	ND	M1 R13	150	ug/L			11/16/22 12:39	1
Ethylbenzene	ND		0.50	ug/L			11/16/22 12:39	1
Ethylene Dibromide	ND		0.50	ug/L			11/16/22 12:39	1
Hexachlorobutadiene	ND		5.0	ug/L			11/16/22 12:39	1
Iodomethane	ND		2.0	ug/L			11/16/22 12:39	1
Isopropylbenzene	ND		0.50	ug/L			11/16/22 12:39	1
Methyl tert-butyl ether	ND		0.50	ug/L			11/16/22 12:39	1
Methylene Chloride	ND		5.0	ug/L			11/16/22 12:39	1
m-Xylene & p-Xylene	ND		1.0	ug/L			11/16/22 12:39	1
Naphthalene	ND		5.0	ug/L			11/16/22 12:39	1
n-Butylbenzene	ND		1.0	ug/L			11/16/22 12:39	1
N-Propylbenzene	ND		0.50	ug/L			11/16/22 12:39	1
o-Xylene	ND		0.50	ug/L			11/16/22 12:39	1
sec-Butylbenzene	ND		0.50	ug/L			11/16/22 12:39	1
Styrene	ND		1.0	ug/L			11/16/22 12:39	1
tert-Butylbenzene	ND		0.50	ug/L			11/16/22 12:39	1
Tetrachloroethene	ND		0.50	ug/L			11/16/22 12:39	1
Toluene	**0.55**		0.50	ug/L			11/16/22 12:39	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			11/16/22 12:39	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			11/16/22 12:39	1

Client Sample ID: HM-17MA-731-22A1

Lab Sample ID: 550-193681-2

Date Collected: 11/15/22 11:23
Matrix: Water
Date Received: 11/15/22 13:34

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**4.4**		0.50	ug/L			11/16/22 12:39	1
Trichlorofluoromethane	ND		1.0	ug/L			11/16/22 12:39	1
Trihalomethanes, Total	ND	T5	0.50	ug/L			11/16/22 12:39	1
Vinyl acetate	ND		5.0	ug/L			11/16/22 12:39	1
Vinyl chloride	ND		1.0	ug/L			11/16/22 12:39	1
Xylenes, Total	ND		0.50	ug/L			11/16/22 12:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*60 - 140*		*11/16/22 12:39*	*1*
Dibromofluoromethane (Surr)	*93*		*60 - 140*		*11/16/22 12:39*	*1*
Toluene-d8 (Surr)	*86*		*60 - 140*		*11/16/22 12:39*	*1*

Client Sample ID: TB-22A1-2

Lab Sample ID: 550-193681-3

Date Collected: 11/15/22 08:00
Matrix: Water
Date Received: 11/15/22 13:34

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			11/16/22 12:18	1
1,1,1-Trichloroethane	ND		0.50	ug/L			11/16/22 12:18	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			11/16/22 12:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	T5	5.0	ug/L			11/16/22 12:18	1
1,1,2-Trichloroethane	ND		0.50	ug/L			11/16/22 12:18	1
1,1-Dichloroethane	ND		0.50	ug/L			11/16/22 12:18	1
1,1-Dichloroethene	ND		0.50	ug/L			11/16/22 12:18	1
1,1-Dichloropropene	ND		0.50	ug/L			11/16/22 12:18	1
1,2,3-Trichlorobenzene	ND		3.0	ug/L			11/16/22 12:18	1
1,2,3-Trichloropropane	ND		2.0	ug/L			11/16/22 12:18	1
1,2,4-Trichlorobenzene	ND	T2 T5	2.0	ug/L			11/16/22 12:18	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			11/16/22 12:18	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			11/16/22 12:18	1
1,2-Dichlorobenzene	ND		0.50	ug/L			11/16/22 12:18	1
1,2-Dichloroethane	ND		0.50	ug/L			11/16/22 12:18	1
1,2-Dichloropropane	ND		0.50	ug/L			11/16/22 12:18	1
1,3,5-Trimethylbenzene	ND		0.50	ug/L			11/16/22 12:18	1
1,3-Dichlorobenzene	ND		0.50	ug/L			11/16/22 12:18	1
1,3-Dichloropropane	ND		0.50	ug/L			11/16/22 12:18	1
1,4-Dichlorobenzene	ND		0.50	ug/L			11/16/22 12:18	1
2,2-Dichloropropane	ND		1.0	ug/L			11/16/22 12:18	1
2-Butanone (MEK)	ND		10	ug/L			11/16/22 12:18	1
2-Chlorotoluene	ND		0.50	ug/L			11/16/22 12:18	1
2-Hexanone	ND		5.0	ug/L			11/16/22 12:18	1
4-Chlorotoluene	ND		0.50	ug/L			11/16/22 12:18	1
4-Isopropyltoluene	ND		0.50	ug/L			11/16/22 12:18	1
4-Methyl-2-pentanone (MIBK)	ND		2.5	ug/L			11/16/22 12:18	1
Acetone	ND		10	ug/L			11/16/22 12:18	1
Benzene	ND		0.50	ug/L			11/16/22 12:18	1
Bromobenzene	ND		1.0	ug/L			11/16/22 12:18	1
Bromoform	ND		1.0	ug/L			11/16/22 12:18	1
Bromomethane	ND		5.0	ug/L			11/16/22 12:18	1

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Deer Valley

Job ID: 550-193681-1
SDG: Phoenix, AZ

Client Sample ID: TB-22A1-2

Date Collected: 11/15/22 08:00
Date Received: 11/15/22 13:34

Lab Sample ID: 550-193681-3

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		5.0	ug/L			11/16/22 12:18	1
Carbon tetrachloride	ND		0.50	ug/L			11/16/22 12:18	1
Chlorobenzene	ND		0.50	ug/L			11/16/22 12:18	1
Chlorobromomethane	ND		0.50	ug/L			11/16/22 12:18	1
Chlorodibromomethane	ND		0.50	ug/L			11/16/22 12:18	1
Chloroethane	ND		1.0	ug/L			11/16/22 12:18	1
Chloroform	ND		0.50	ug/L			11/16/22 12:18	1
Chloromethane	ND		1.0	ug/L			11/16/22 12:18	1
cis-1,2-Dichloroethene	ND		0.50	ug/L			11/16/22 12:18	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			11/16/22 12:18	1
Dibromomethane	ND		0.50	ug/L			11/16/22 12:18	1
Dichlorobromomethane	ND		0.50	ug/L			11/16/22 12:18	1
Dichlorodifluoromethane	ND		1.0	ug/L			11/16/22 12:18	1
Ethanol	ND		150	ug/L			11/16/22 12:18	1
Ethylbenzene	ND		0.50	ug/L			11/16/22 12:18	1
Ethylene Dibromide	ND		0.50	ug/L			11/16/22 12:18	1
Hexachlorobutadiene	ND		5.0	ug/L			11/16/22 12:18	1
Iodomethane	ND		2.0	ug/L			11/16/22 12:18	1
Isopropylbenzene	ND		0.50	ug/L			11/16/22 12:18	1
Methyl tert-butyl ether	ND		0.50	ug/L			11/16/22 12:18	1
Methylene Chloride	ND		5.0	ug/L			11/16/22 12:18	1
m-Xylene & p-Xylene	ND		1.0	ug/L			11/16/22 12:18	1
Naphthalene	ND		5.0	ug/L			11/16/22 12:18	1
n-Butylbenzene	ND		1.0	ug/L			11/16/22 12:18	1
N-Propylbenzene	ND		0.50	ug/L			11/16/22 12:18	1
o-Xylene	ND		0.50	ug/L			11/16/22 12:18	1
sec-Butylbenzene	ND		0.50	ug/L			11/16/22 12:18	1
Styrene	ND		1.0	ug/L			11/16/22 12:18	1
tert-Butylbenzene	ND		0.50	ug/L			11/16/22 12:18	1
Tetrachloroethene	ND		0.50	ug/L			11/16/22 12:18	1
Toluene	ND		0.50	ug/L			11/16/22 12:18	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			11/16/22 12:18	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			11/16/22 12:18	1
Trichloroethene	ND		0.50	ug/L			11/16/22 12:18	1
Trichlorofluoromethane	ND		1.0	ug/L			11/16/22 12:18	1
Trihalomethanes, Total	ND	T5	0.50	ug/L			11/16/22 12:18	1
Vinyl acetate	ND		5.0	ug/L			11/16/22 12:18	1
Vinyl chloride	ND		1.0	ug/L			11/16/22 12:18	1
Xylenes, Total	ND		0.50	ug/L			11/16/22 12:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*60 - 140*		*11/16/22 12:18*	*1*
Dibromofluoromethane (Surr)	*91*		*60 - 140*		*11/16/22 12:18*	*1*
Toluene-d8 (Surr)	*88*		*60 - 140*		*11/16/22 12:18*	*1*

Surrogate Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Deer Valley

Job ID: 550-193681-1
SDG: Phoenix, AZ

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	**Client Sample ID**	**(60-140)**	**(60-140)**	**(60-140)**
550-193681-1	HM-13MA-450-22A1-2	78	93	86
550-193681-2	HM-17MA-731-22A1	79	93	86
550-193681-2 MS	HM-17MA-731-22A1	78	92	83
550-193681-2 MSD	HM-17MA-731-22A1	79	91	82
550-193681-3	TB-22A1-2	80	91	88
LCS 550-288762/1002	Lab Control Sample	86	96	93
LCSD 550-288762/4	Lab Control Sample Dup	85	96	89
MB 550-288762/6	Method Blank	77	93	88

Surrogate Legend

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

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-288762/6
Matrix: Water
Analysis Batch: 288762

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		0.50		ug/L			11/16/22 11:58	1
1,1,1-Trichloroethane	ND		0.50		ug/L			11/16/22 11:58	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			11/16/22 11:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			11/16/22 11:58	1
1,1,2-Trichloroethane	ND		0.50		ug/L			11/16/22 11:58	1
1,1-Dichloroethane	ND		0.50		ug/L			11/16/22 11:58	1
1,1-Dichloroethene	ND		0.50		ug/L			11/16/22 11:58	1
1,1-Dichloropropene	ND		0.50		ug/L			11/16/22 11:58	1
1,2,3-Trichlorobenzene	ND		3.0		ug/L			11/16/22 11:58	1
1,2,3-Trichloropropane	ND		2.0		ug/L			11/16/22 11:58	1
1,2,4-Trichlorobenzene	ND	T2	2.0		ug/L			11/16/22 11:58	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			11/16/22 11:58	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			11/16/22 11:58	1
1,2-Dichlorobenzene	ND		0.50		ug/L			11/16/22 11:58	1
1,2-Dichloroethane	ND		0.50		ug/L			11/16/22 11:58	1
1,2-Dichloropropane	ND		0.50		ug/L			11/16/22 11:58	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			11/16/22 11:58	1
1,3-Dichlorobenzene	ND		0.50		ug/L			11/16/22 11:58	1
1,3-Dichloropropane	ND		0.50		ug/L			11/16/22 11:58	1
1,4-Dichlorobenzene	ND		0.50		ug/L			11/16/22 11:58	1
2,2-Dichloropropane	ND		1.0		ug/L			11/16/22 11:58	1
2-Butanone (MEK)	ND		10		ug/L			11/16/22 11:58	1
2-Chlorotoluene	ND		0.50		ug/L			11/16/22 11:58	1
2-Hexanone	ND		5.0		ug/L			11/16/22 11:58	1
4-Chlorotoluene	ND		0.50		ug/L			11/16/22 11:58	1
4-Isopropyltoluene	ND		0.50		ug/L			11/16/22 11:58	1
4-Methyl-2-pentanone (MIBK)	ND		2.5		ug/L			11/16/22 11:58	1
Acetone	ND		10		ug/L			11/16/22 11:58	1
Benzene	ND		0.50		ug/L			11/16/22 11:58	1
Bromobenzene	ND		1.0		ug/L			11/16/22 11:58	1
Bromoform	ND		1.0		ug/L			11/16/22 11:58	1
Bromomethane	ND		5.0		ug/L			11/16/22 11:58	1
Carbon disulfide	ND		5.0		ug/L			11/16/22 11:58	1
Carbon tetrachloride	ND		0.50		ug/L			11/16/22 11:58	1
Chlorobenzene	ND		0.50		ug/L			11/16/22 11:58	1
Chlorobromomethane	ND		0.50		ug/L			11/16/22 11:58	1
Chlorodibromomethane	ND		0.50		ug/L			11/16/22 11:58	1
Chloroethane	ND		1.0		ug/L			11/16/22 11:58	1
Chloroform	ND		0.50		ug/L			11/16/22 11:58	1
Chloromethane	ND		1.0		ug/L			11/16/22 11:58	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			11/16/22 11:58	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			11/16/22 11:58	1
Dibromomethane	ND		0.50		ug/L			11/16/22 11:58	1
Dichlorobromomethane	ND		0.50		ug/L			11/16/22 11:58	1
Dichlorodifluoromethane	ND		1.0		ug/L			11/16/22 11:58	1
Ethanol	ND		150		ug/L			11/16/22 11:58	1
Ethylbenzene	ND		0.50		ug/L			11/16/22 11:58	1
Ethylene Dibromide	ND		0.50		ug/L			11/16/22 11:58	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 550-288762/6
Matrix: Water
Analysis Batch: 288762

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		5.0	ug/L			11/16/22 11:58	1
Iodomethane	ND		2.0	ug/L			11/16/22 11:58	1
Isopropylbenzene	ND		0.50	ug/L			11/16/22 11:58	1
Methyl tert-butyl ether	ND		0.50	ug/L			11/16/22 11:58	1
Methylene Chloride	ND		5.0	ug/L			11/16/22 11:58	1
m-Xylene & p-Xylene	ND		1.0	ug/L			11/16/22 11:58	1
Naphthalene	ND		5.0	ug/L			11/16/22 11:58	1
n-Butylbenzene	ND		1.0	ug/L			11/16/22 11:58	1
N-Propylbenzene	ND		0.50	ug/L			11/16/22 11:58	1
o-Xylene	ND		0.50	ug/L			11/16/22 11:58	1
sec-Butylbenzene	ND		0.50	ug/L			11/16/22 11:58	1
Styrene	ND		1.0	ug/L			11/16/22 11:58	1
tert-Butylbenzene	ND		0.50	ug/L			11/16/22 11:58	1
Tetrachloroethene	ND		0.50	ug/L			11/16/22 11:58	1
Toluene	ND		0.50	ug/L			11/16/22 11:58	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			11/16/22 11:58	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			11/16/22 11:58	1
Trichloroethene	ND		0.50	ug/L			11/16/22 11:58	1
Trichlorofluoromethane	ND		1.0	ug/L			11/16/22 11:58	1
Trihalomethanes, Total	ND		0.50	ug/L			11/16/22 11:58	1
Vinyl acetate	ND		5.0	ug/L			11/16/22 11:58	1
Vinyl chloride	ND		1.0	ug/L			11/16/22 11:58	1
Xylenes, Total	ND		0.50	ug/L			11/16/22 11:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*60 - 140*		*11/16/22 11:58*	*1*
Dibromofluoromethane (Surr)	*93*		*60 - 140*		*11/16/22 11:58*	*1*
Toluene-d8 (Surr)	*88*		*60 - 140*		*11/16/22 11:58*	*1*

Lab Sample ID: LCS 550-288762/1002
Matrix: Water
Analysis Batch: 288762

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	44.4		ug/L		89	60 - 140
1,1,1-Trichloroethane	50.0	51.2		ug/L		102	70 - 130
1,1,2,2-Tetrachloroethane	50.0	43.1		ug/L		86	60 - 140
1,1,2-Trichloroethane	50.0	43.4		ug/L		87	70 - 130
1,1-Dichloroethane	50.0	51.5		ug/L		103	70 - 130
1,1-Dichloroethene	50.0	51.6		ug/L		103	50 - 150
1,1-Dichloropropene	50.0	49.2		ug/L		98	60 - 140
1,2,3-Trichlorobenzene	50.0	45.3		ug/L		91	60 - 140
1,2,3-Trichloropropane	50.0	41.3		ug/L		83	60 - 140
1,2,4-Trichlorobenzene	50.0	47.2	T2	ug/L		94	60 - 140
1,2,4-Trimethylbenzene	50.0	46.9		ug/L		94	60 - 140
1,2-Dibromo-3-Chloropropane	50.0	48.2		ug/L		96	60 - 140
1,2-Dichlorobenzene	50.0	42.5		ug/L		85	65 - 135
1,2-Dichloroethane	50.0	43.4		ug/L		87	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-288762/1002
Matrix: Water
Analysis Batch: 288762

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dichloropropane	50.0	46.4		ug/L		93	35 - 165
1,3,5-Trimethylbenzene	50.0	48.5		ug/L		97	60 - 140
1,3-Dichlorobenzene	50.0	44.0		ug/L		88	70 - 130
1,3-Dichloropropane	50.0	44.2		ug/L		88	60 - 140
1,4-Dichlorobenzene	50.0	43.7		ug/L		87	65 - 135
2,2-Dichloropropane	50.0	55.2		ug/L		110	60 - 140
2-Butanone (MEK)	50.0	51.7		ug/L		103	60 - 140
2-Chlorotoluene	50.0	45.9		ug/L		92	60 - 140
2-Hexanone	50.0	52.9		ug/L		106	60 - 140
4-Chlorotoluene	50.0	44.4		ug/L		89	60 - 140
4-Isopropyltoluene	50.0	49.6		ug/L		99	60 - 140
4-Methyl-2-pentanone (MIBK)	50.0	50.4		ug/L		101	60 - 140
Acetone	50.0	48.2		ug/L		96	18 - 150
Benzene	50.0	46.5		ug/L		93	65 - 135
Bromobenzene	50.0	42.5		ug/L		85	60 - 140
Bromoform	50.0	38.3		ug/L		77	70 - 130
Bromomethane	50.0	52.4		ug/L		105	15 - 185
Carbon disulfide	50.0	59.1		ug/L		118	60 - 140
Carbon tetrachloride	50.0	48.4		ug/L		97	70 - 130
Chlorobenzene	50.0	44.1		ug/L		88	65 - 135
Chlorobromomethane	50.0	47.6		ug/L		95	60 - 140
Chlorodibromomethane	50.0	45.1		ug/L		90	70 - 135
Chloroethane	50.0	56.6		ug/L		113	40 - 160
Chloroform	50.0	48.9		ug/L		98	70 - 135
Chloromethane	50.0	48.7		ug/L		97	10 - 205
cis-1,2-Dichloroethene	50.0	46.4		ug/L		93	60 - 140
cis-1,3-Dichloropropene	50.0	48.2		ug/L		96	25 - 175
Dibromomethane	50.0	44.5		ug/L		89	70 - 130
Dichlorobromomethane	50.0	45.4		ug/L		91	65 - 135
Dichlorodifluoromethane	50.0	50.3		ug/L		101	60 - 140
Ethanol	1000	876		ug/L		88	60 - 140
Ethylbenzene	50.0	47.0		ug/L		94	60 - 140
Ethylene Dibromide	50.0	44.7		ug/L		89	60 - 140
Hexachlorobutadiene	50.0	52.7		ug/L		105	60 - 140
Iodomethane	50.0	51.6		ug/L		103	60 - 140
Isopropylbenzene	50.0	48.0		ug/L		96	60 - 140
Methyl tert-butyl ether	50.0	48.2		ug/L		96	60 - 140
Methylene Chloride	50.0	48.5		ug/L		97	60 - 140
m-Xylene & p-Xylene	50.0	46.6		ug/L		93	60 - 140
Naphthalene	50.0	44.6		ug/L		89	60 - 140
n-Butylbenzene	50.0	52.6		ug/L		105	60 - 140
N-Propylbenzene	50.0	48.2		ug/L		96	60 - 140
o-Xylene	50.0	45.7		ug/L		91	60 - 140
sec-Butylbenzene	50.0	49.2		ug/L		98	60 - 140
Styrene	50.0	45.1		ug/L		90	60 - 140
tert-Butylbenzene	50.0	48.2		ug/L		96	60 - 140
Tetrachloroethene	50.0	47.2		ug/L		94	70 - 130
Toluene	50.0	46.8		ug/L		94	70 - 130
trans-1,2-Dichloroethene	50.0	51.5		ug/L		103	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 550-288762/1002
Matrix: Water
Analysis Batch: 288762

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
trans-1,3-Dichloropropene	50.0	48.4		ug/L		97	50 - 150
Trichloroethene	50.0	47.2		ug/L		94	65 - 135
Trichlorofluoromethane	50.0	54.5		ug/L		109	50 - 150
Vinyl acetate	50.0	55.4		ug/L		111	60 - 140
Vinyl chloride	50.0	62.2		ug/L		124	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*86*		*60 - 140*
Dibromofluoromethane (Surr)	*96*		*60 - 140*
Toluene-d8 (Surr)	*93*		*60 - 140*

Lab Sample ID: LCSD 550-288762/4
Matrix: Water
Analysis Batch: 288762

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	44.3		ug/L		89	60 - 140	0	20
1,1,1-Trichloroethane	50.0	51.0		ug/L		102	70 - 130	0	20
1,1,2,2-Tetrachloroethane	50.0	43.7		ug/L		87	60 - 140	1	20
1,1,2-Trichloroethane	50.0	44.7		ug/L		89	70 - 130	3	20
1,1-Dichloroethane	50.0	51.6		ug/L		103	70 - 130	0	20
1,1-Dichloroethene	50.0	51.0		ug/L		102	50 - 150	1	20
1,1-Dichloropropene	50.0	47.2		ug/L		94	60 - 140	4	20
1,2,3-Trichlorobenzene	50.0	43.5		ug/L		87	60 - 140	4	20
1,2,3-Trichloropropane	50.0	42.0		ug/L		84	60 - 140	2	20
1,2,4-Trichlorobenzene	50.0	45.9	T2	ug/L		92	60 - 140	3	20
1,2,4-Trimethylbenzene	50.0	46.7		ug/L		93	60 - 140	0	20
1,2-Dibromo-3-Chloropropane	50.0	47.3		ug/L		95	60 - 140	2	20
1,2-Dichlorobenzene	50.0	42.3		ug/L		85	65 - 135	1	20
1,2-Dichloroethane	50.0	43.7		ug/L		87	70 - 130	1	20
1,2-Dichloropropane	50.0	45.9		ug/L		92	35 - 165	1	20
1,3,5-Trimethylbenzene	50.0	46.4		ug/L		93	60 - 140	4	20
1,3-Dichlorobenzene	50.0	44.6		ug/L		89	70 - 130	1	20
1,3-Dichloropropane	50.0	45.6		ug/L		91	60 - 140	3	20
1,4-Dichlorobenzene	50.0	43.6		ug/L		87	65 - 135	0	20
2,2-Dichloropropane	50.0	54.3		ug/L		109	60 - 140	2	20
2-Butanone (MEK)	50.0	56.0		ug/L		112	60 - 140	8	20
2-Chlorotoluene	50.0	45.8		ug/L		92	60 - 140	0	20
2-Hexanone	50.0	54.7		ug/L		109	60 - 140	3	20
4-Chlorotoluene	50.0	45.3		ug/L		91	60 - 140	2	20
4-Isopropyltoluene	50.0	50.4		ug/L		101	60 - 140	1	20
4-Methyl-2-pentanone (MIBK)	50.0	51.7		ug/L		103	60 - 140	3	20
Acetone	50.0	48.7		ug/L		97	18 - 150	1	20
Benzene	50.0	45.1		ug/L		90	65 - 135	3	20
Bromobenzene	50.0	42.5		ug/L		85	60 - 140	0	20
Bromoform	50.0	38.8		ug/L		78	70 - 130	1	20
Bromomethane	50.0	50.5		ug/L		101	15 - 185	4	20
Carbon disulfide	50.0	58.2		ug/L		116	60 - 140	1	20

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 550-288762/4
Matrix: Water
Analysis Batch: 288762

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 tetrachloride	50.0	46.4		ug/L		93	70 - 130	4	20
Chlorobenzene	50.0	44.4		ug/L		89	65 - 135	1	20
Chlorobromomethane	50.0	48.5		ug/L		97	60 - 140	2	20
Chlorodibromomethane	50.0	45.9		ug/L		92	70 - 135	2	20
Chloroethane	50.0	57.5		ug/L		115	40 - 160	2	20
Chloroform	50.0	49.6		ug/L		99	70 - 135	2	20
Chloromethane	50.0	47.3		ug/L		95	10 - 205	3	20
cis-1,2-Dichloroethene	50.0	44.8		ug/L		90	60 - 140	4	20
cis-1,3-Dichloropropene	50.0	47.8		ug/L		96	25 - 175	1	20
Dibromomethane	50.0	44.5		ug/L		89	70 - 130	0	20
Dichlorobromomethane	50.0	45.4		ug/L		91	65 - 135	0	20
Dichlorodifluoromethane	50.0	48.1		ug/L		96	60 - 140	5	20
Ethanol	1000	820		ug/L		82	60 - 140	7	20
Ethylbenzene	50.0	46.8		ug/L		94	60 - 140	0	20
Ethylene Dibromide	50.0	46.0		ug/L		92	60 - 140	3	20
Hexachlorobutadiene	50.0	51.6		ug/L		103	60 - 140	2	20
Iodomethane	50.0	51.2		ug/L		102	60 - 140	1	20
Isopropylbenzene	50.0	47.2		ug/L		94	60 - 140	2	20
Methyl tert-butyl ether	50.0	50.3		ug/L		101	60 - 140	4	20
Methylene Chloride	50.0	48.7		ug/L		97	60 - 140	1	20
m-Xylene & p-Xylene	50.0	45.6		ug/L		91	60 - 140	2	20
Naphthalene	50.0	44.1		ug/L		88	60 - 140	1	20
n-Butylbenzene	50.0	52.1		ug/L		104	60 - 140	1	20
N-Propylbenzene	50.0	48.1		ug/L		96	60 - 140	0	20
o-Xylene	50.0	45.4		ug/L		91	60 - 140	1	20
sec-Butylbenzene	50.0	49.4		ug/L		99	60 - 140	0	20
Styrene	50.0	45.0		ug/L		90	60 - 140	0	20
tert-Butylbenzene	50.0	48.8		ug/L		98	60 - 140	1	20
Tetrachloroethene	50.0	46.8		ug/L		94	70 - 130	1	20
Toluene	50.0	45.9		ug/L		92	70 - 130	2	20
trans-1,2-Dichloroethene	50.0	51.1		ug/L		102	70 - 130	1	20
trans-1,3-Dichloropropene	50.0	48.9		ug/L		98	50 - 150	1	20
Trichloroethene	50.0	46.1		ug/L		92	65 - 135	2	20
Trichlorofluoromethane	50.0	53.9		ug/L		108	50 - 150	1	20
Vinyl acetate	50.0	58.6		ug/L		117	60 - 140	6	20
Vinyl chloride	50.0	60.6		ug/L		121	5 - 195	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*85*		*60 - 140*
Dibromofluoromethane (Surr)	*96*		*60 - 140*
Toluene-d8 (Surr)	*89*		*60 - 140*

Lab Sample ID: 550-193681-2 MS
Matrix: Water
Analysis Batch: 288762

Client Sample ID: HM-17MA-731-22A1
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	43.6		ug/L		87	50 - 150

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-193681-2 MS
Matrix: Water
Analysis Batch: 288762

Client Sample ID: HM-17MA-731-22A1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	ND		50.0	48.0		ug/L		96	52 - 162
1,1,2,2-Tetrachloroethane	ND		50.0	41.4		ug/L		83	46 - 157
1,1,2-Trichloroethane	ND		50.0	42.8		ug/L		86	52 - 150
1,1-Dichloroethane	ND		50.0	49.3		ug/L		99	59 - 155
1,1-Dichloroethene	ND		50.0	47.4		ug/L		95	10 - 234
1,1-Dichloropropene	ND		50.0	43.0		ug/L		86	50 - 150
1,2,3-Trichlorobenzene	ND		50.0	43.0		ug/L		86	50 - 150
1,2,3-Trichloropropane	ND		50.0	39.0		ug/L		78	50 - 150
1,2,4-Trichlorobenzene	ND	T5 T2	50.0	44.3	T2	ug/L		89	50 - 150
1,2,4-Trimethylbenzene	ND		50.0	43.2		ug/L		86	50 - 150
1,2-Dibromo-3-Chloropropane	ND		50.0	43.6		ug/L		87	50 - 150
1,2-Dichlorobenzene	ND		50.0	41.1		ug/L		82	18 - 190
1,2-Dichloroethane	ND		50.0	42.1		ug/L		84	49 - 155
1,2-Dichloropropane	ND		50.0	43.9		ug/L		88	10 - 210
1,3,5-Trimethylbenzene	ND		50.0	42.2		ug/L		84	50 - 150
1,3-Dichlorobenzene	ND		50.0	41.7		ug/L		83	59 - 156
1,3-Dichloropropane	ND		50.0	43.3		ug/L		87	50 - 150
1,4-Dichlorobenzene	ND		50.0	41.2		ug/L		82	18 - 190
2,2-Dichloropropane	ND		50.0	50.2		ug/L		100	50 - 150
2-Butanone (MEK)	ND		50.0	49.5		ug/L		99	50 - 150
2-Chlorotoluene	ND		50.0	42.8		ug/L		86	50 - 150
2-Hexanone	ND		50.0	53.5		ug/L		107	50 - 150
4-Chlorotoluene	ND		50.0	42.3		ug/L		85	50 - 150
4-Isopropyltoluene	ND		50.0	44.6		ug/L		89	50 - 150
4-Methyl-2-pentanone (MIBK)	ND		50.0	46.5		ug/L		93	50 - 150
Acetone	ND		50.0	40.3		ug/L		81	18 - 150
Benzene	ND		50.0	43.2		ug/L		86	35 - 151
Bromobenzene	ND		50.0	40.7		ug/L		81	50 - 150
Bromoform	ND		50.0	37.2		ug/L		74	45 - 169
Bromomethane	ND		50.0	47.6		ug/L		95	10 - 242
Carbon disulfide	ND		50.0	53.5		ug/L		107	50 - 150
Carbon tetrachloride	ND		50.0	43.1		ug/L		86	70 - 140
Chlorobenzene	ND		50.0	42.7		ug/L		85	37 - 160
Chlorobromomethane	ND		50.0	47.9		ug/L		96	50 - 150
Chlorodibromomethane	ND		50.0	45.1		ug/L		90	53 - 149
Chloroethane	ND		50.0	51.2		ug/L		102	14 - 230
Chloroform	ND		50.0	47.7		ug/L		95	51 - 138
Chloromethane	ND		50.0	52.2		ug/L		104	10 - 273
cis-1,2-Dichloroethene	0.81		50.0	44.1		ug/L		87	50 - 150
cis-1,3-Dichloropropene	ND		50.0	45.9		ug/L		92	10 - 227
Dibromomethane	ND		50.0	42.9		ug/L		86	50 - 150
Dichlorobromomethane	ND		50.0	43.9		ug/L		88	35 - 155
Dichlorodifluoromethane	ND		50.0	47.9		ug/L		96	50 - 150
Ethanol	ND	M1 R13	1000	1520	M1	ug/L		152	50 - 150
Ethylbenzene	ND		50.0	43.7		ug/L		87	37 - 162
Ethylene Dibromide	ND		50.0	43.2		ug/L		86	50 - 150
Hexachlorobutadiene	ND		50.0	46.5		ug/L		93	50 - 150
Iodomethane	ND		50.0	49.5		ug/L		99	50 - 150
Isopropylbenzene	ND		50.0	43.0		ug/L		86	50 - 150

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-193681-2 MS
Matrix: Water
Analysis Batch: 288762

Client Sample ID: HM-17MA-731-22A1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Methyl tert-butyl ether	ND		50.0	50.4		ug/L		101	50 - 150
Methylene Chloride	ND		50.0	47.1		ug/L		94	10 - 221
m-Xylene & p-Xylene	ND		50.0	42.0		ug/L		84	50 - 150
Naphthalene	ND		50.0	41.7		ug/L		83	50 - 150
n-Butylbenzene	ND		50.0	45.5		ug/L		91	50 - 150
N-Propylbenzene	ND		50.0	43.0		ug/L		86	50 - 150
o-Xylene	ND		50.0	42.1		ug/L		84	50 - 150
sec-Butylbenzene	ND		50.0	43.9		ug/L		88	50 - 150
Styrene	ND		50.0	42.2		ug/L		84	50 - 150
tert-Butylbenzene	ND		50.0	43.9		ug/L		88	50 - 150
Tetrachloroethene	ND		50.0	42.6		ug/L		85	64 - 148
Toluene	0.55		50.0	43.7		ug/L		86	47 - 150
trans-1,2-Dichloroethene	ND		50.0	47.9		ug/L		96	54 - 156
trans-1,3-Dichloropropene	ND		50.0	46.4		ug/L		93	17 - 183
Trichloroethene	4.4		50.0	46.3		ug/L		84	70 - 157
Trichlorofluoromethane	ND		50.0	47.8		ug/L		96	17 - 181
Vinyl acetate	ND		50.0	55.8		ug/L		112	50 - 150
Vinyl chloride	ND		50.0	50.1		ug/L		100	10 - 251

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*78*		*60 - 140*
Dibromofluoromethane (Surr)	*92*		*60 - 140*
Toluene-d8 (Surr)	*83*		*60 - 140*

Lab Sample ID: 550-193681-2 MSD
Matrix: Water
Analysis Batch: 288762

Client Sample ID: HM-17MA-731-22A1
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	44.6		ug/L		89	50 - 150	2	35
1,1,1-Trichloroethane	ND		50.0	49.3		ug/L		99	52 - 162	3	36
1,1,2,2-Tetrachloroethane	ND		50.0	41.7		ug/L		83	46 - 157	1	61
1,1,2-Trichloroethane	ND		50.0	43.6		ug/L		87	52 - 150	2	45
1,1-Dichloroethane	ND		50.0	50.9		ug/L		102	59 - 155	3	40
1,1-Dichloroethene	ND		50.0	48.7		ug/L		97	10 - 234	3	32
1,1-Dichloropropene	ND		50.0	44.3		ug/L		89	50 - 150	3	35
1,2,3-Trichlorobenzene	ND		50.0	44.0		ug/L		88	50 - 150	2	35
1,2,3-Trichloropropane	ND		50.0	39.3		ug/L		79	50 - 150	1	35
1,2,4-Trichlorobenzene	ND	T5 T2	50.0	45.4	T2	ug/L		91	50 - 150	3	35
1,2,4-Trimethylbenzene	ND		50.0	44.2		ug/L		88	50 - 150	2	35
1,2-Dibromo-3-Chloropropane	ND		50.0	44.3		ug/L		89	50 - 150	2	35
1,2-Dichlorobenzene	ND		50.0	41.9		ug/L		84	18 - 190	2	57
1,2-Dichloroethane	ND		50.0	42.8		ug/L		86	49 - 155	2	49
1,2-Dichloropropane	ND		50.0	45.3		ug/L		91	10 - 210	3	55
1,3,5-Trimethylbenzene	ND		50.0	43.4		ug/L		87	50 - 150	3	35
1,3-Dichlorobenzene	ND		50.0	43.3		ug/L		87	59 - 156	4	43
1,3-Dichloropropane	ND		50.0	43.8		ug/L		88	50 - 150	1	35
1,4-Dichlorobenzene	ND		50.0	43.0		ug/L		86	18 - 190	4	57

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 550-193681-2 MSD
Matrix: Water
Analysis Batch: 288762

Client Sample ID: HM-17MA-731-22A1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,2-Dichloropropane	ND		50.0	52.0		ug/L		104	50 - 150	4	35
2-Butanone (MEK)	ND		50.0	50.0		ug/L		100	50 - 150	1	35
2-Chlorotoluene	ND		50.0	44.2		ug/L		88	50 - 150	3	35
2-Hexanone	ND		50.0	53.5		ug/L		107	50 - 150	0	35
4-Chlorotoluene	ND		50.0	43.4		ug/L		87	50 - 150	3	35
4-Isopropyltoluene	ND		50.0	46.6		ug/L		93	50 - 150	4	35
4-Methyl-2-pentanone (MIBK)	ND		50.0	46.1		ug/L		92	50 - 150	1	35
Acetone	ND		50.0	40.8		ug/L		82	18 - 150	1	35
Benzene	ND		50.0	44.4		ug/L		88	35 - 151	3	61
Bromobenzene	ND		50.0	41.9		ug/L		84	50 - 150	3	35
Bromoform	ND		50.0	38.2		ug/L		76	45 - 169	3	42
Bromomethane	ND		50.0	46.9		ug/L		94	10 - 242	2	61
Carbon disulfide	ND		50.0	55.1		ug/L		110	50 - 150	3	35
Carbon tetrachloride	ND		50.0	44.2		ug/L		88	70 - 140	3	41
Chlorobenzene	ND		50.0	43.4		ug/L		87	37 - 160	2	53
Chlorobromomethane	ND		50.0	48.9		ug/L		98	50 - 150	2	35
Chlorodibromomethane	ND		50.0	45.8		ug/L		92	53 - 149	2	50
Chloroethane	ND		50.0	50.9		ug/L		102	14 - 230	1	78
Chloroform	ND		50.0	49.1		ug/L		98	51 - 138	3	54
Chloromethane	ND		50.0	51.4		ug/L		103	10 - 273	1	60
cis-1,2-Dichloroethene	0.81		50.0	44.9		ug/L		88	50 - 150	2	35
cis-1,3-Dichloropropene	ND		50.0	46.8		ug/L		94	10 - 227	2	58
Dibromomethane	ND		50.0	43.3		ug/L		87	50 - 150	1	35
Dichlorobromomethane	ND		50.0	45.0		ug/L		90	35 - 155	2	56
Dichlorodifluoromethane	ND		50.0	47.5		ug/L		95	50 - 150	1	35
Ethanol	ND	M1 R13	1000	919	R13	ug/L		92	50 - 150	49	35
Ethylbenzene	ND		50.0	45.1		ug/L		90	37 - 162	3	63
Ethylene Dibromide	ND		50.0	44.0		ug/L		88	50 - 150	2	35
Hexachlorobutadiene	ND		50.0	48.4		ug/L		97	50 - 150	4	35
Iodomethane	ND		50.0	49.3		ug/L		99	50 - 150	0	35
Isopropylbenzene	ND		50.0	44.7		ug/L		89	50 - 150	4	35
Methyl tert-butyl ether	ND		50.0	51.1		ug/L		102	50 - 150	1	35
Methylene Chloride	ND		50.0	48.5		ug/L		97	10 - 221	3	28
m-Xylene & p-Xylene	ND		50.0	44.0		ug/L		88	50 - 150	5	35
Naphthalene	ND		50.0	43.1		ug/L		86	50 - 150	3	35
n-Butylbenzene	ND		50.0	47.2		ug/L		94	50 - 150	4	35
N-Propylbenzene	ND		50.0	44.5		ug/L		89	50 - 150	4	35
o-Xylene	ND		50.0	43.9		ug/L		88	50 - 150	4	35
sec-Butylbenzene	ND		50.0	45.4		ug/L		91	50 - 150	3	35
Styrene	ND		50.0	43.6		ug/L		87	50 - 150	3	35
tert-Butylbenzene	ND		50.0	45.9		ug/L		92	50 - 150	4	35
Tetrachloroethene	ND		50.0	44.1		ug/L		88	64 - 148	3	39
Toluene	0.55		50.0	44.6		ug/L		88	47 - 150	2	41
trans-1,2-Dichloroethene	ND		50.0	49.5		ug/L		99	54 - 156	3	45
trans-1,3-Dichloropropene	ND		50.0	47.2		ug/L		94	17 - 183	2	86
Trichloroethene	4.4		50.0	47.9		ug/L		87	70 - 157	3	48
Trichlorofluoromethane	ND		50.0	49.2		ug/L		98	17 - 181	3	84
Vinyl acetate	ND		50.0	54.2		ug/L		108	50 - 150	3	35
Vinyl chloride	ND		50.0	52.4		ug/L		105	10 - 251	5	66

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	79		60 - 140
Dibromofluoromethane (Surr)	91		60 - 140
Toluene-d8 (Surr)	82		60 - 140

QC Association Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Deer Valley

Job ID: 550-193681-1
SDG: Phoenix, AZ

GC/MS VOA

Analysis Batch: 288762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-193681-1	HM-13MA-450-22A1-2	Total/NA	Water	624.1	
550-193681-2	HM-17MA-731-22A1	Total/NA	Water	624.1	
550-193681-3	TB-22A1-2	Total/NA	Water	624.1	
MB 550-288762/6	Method Blank	Total/NA	Water	624.1	
LCS 550-288762/1002	Lab Control Sample	Total/NA	Water	624.1	
LCSD 550-288762/4	Lab Control Sample Dup	Total/NA	Water	624.1	
550-193681-2 MS	HM-17MA-731-22A1	Total/NA	Water	624.1	
550-193681-2 MSD	HM-17MA-731-22A1	Total/NA	Water	624.1	

Lab Chronicle

Client: Jacobs Engineering Group, Inc.
Project/Site: Deer Valley

Job ID: 550-193681-1
SDG: Phoenix, AZ

Client Sample ID: HM-13MA-450-22A1-2

Lab Sample ID: 550-193681-1
Matrix: Water
Date Collected: 11/15/22 09:45
Date Received: 11/15/22 13:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	288762	R1K	EET PHX	11/16/22 13:42

Client Sample ID: HM-17MA-731-22A1

Lab Sample ID: 550-193681-2
Matrix: Water
Date Collected: 11/15/22 11:23
Date Received: 11/15/22 13:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	288762	R1K	EET PHX	11/16/22 12:39

Client Sample ID: TB-22A1-2

Lab Sample ID: 550-193681-3
Matrix: Water
Date Collected: 11/15/22 08:00
Date Received: 11/15/22 13:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	288762	R1K	EET PHX	11/16/22 12:18

Laboratory References:

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Deer Valley

Job ID: 550-193681-1
SDG: Phoenix, AZ

Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-10-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
624.1		Water	1,2,4-Trichlorobenzene
624.1		Water	Trihalomethanes, Total

Method Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Deer Valley

Job ID: 550-193681-1
SDG: Phoenix, AZ

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	EET PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

Laboratory References:

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

193681

11/18/2022

Page 26 of 28

Test America Phoenix
4625 East Cotton CTr Blvd Suite 189
Phoenix, AZ 85040
602-437-3340

Honeywell — Chain Of Custody / Analysis Request

AESI Ref:	44880.49982		
COC#	37553-111522		
Lab Proj # (SDG):			
Lab ID	CTBERK		
Site ID	DEERV		
Lab Job #			
Authorized User:	Honeywell		

Privileged & Confidential | 55014762 | Site Name: Deer Valley | Phase:
Sampling Co.: Jacobs | EDD To: Bernice Kidd, Jacobs HTS | Location of Site: Phoenix AZ. | Sampling Program: Annual

Client Contact: (name, co., address)
Jacobs
1501 W. Fountainhead Parkway (suite 401)
Tempe, AZ 85282

Sampler: T. Kearsley
PO #: A000651433
Analysis Turnaround Time (TAT): 5
Consultant: Jacobs
Laboratory Contact: Danielle Roberts
Report Tier Level: 2
Full Report TAT: 10
HTS

Preliminary Data To: Berney Kidd Jacobs, Lakshmi Devi HTS,
Sample Receipt Acknowledgement To: Site Distribution List
Hard Copy To: Berney Kidd Jacobs,
Invoice To: Tao Wu, Honeywell/Copy Berney Kidd

Preservative: 8

Text & Excel File Drive | Excel & Text File Order

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	Sample Identification: Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID	Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	E624 (Total VOCs)	MS/MSD	Sampling Method (code)	Lab Sample Numbers
											Units					
1	HM-13MA	450.0	450.0	HM-13MA-450-22A1-2	11/15/2022	9:45	GW-GWS	WATER	REG	3	grab	N	X			-01
2	HM-17MA	731.0	731.0	HM-17MA-731-22A1	11/15/2022	11:23	GW-GWS	WATER	REG	3	grab	N	X			-02
3	Trip Blank			TB-22A1-2	11/15/2022	8:00	BLKWATER	WATER	TB	1	grab	N	X			-03
4																
5																
6																
7																
8																
9																
10																
11																
12																

550-193681 Chain of Custody

RUSH

Relinquished by	Company: Jacobs	Received by	Company		Condition		Custody Seals Intact
	Date/Time: 11/15/22 13:34		Date/Time		Cooler Temp.		
Relinquished by	Company	Received by	Company		Condition		Custody Seals Intact
	Date/Time		Date/Time 11/17/22 1334	EETA-PHX	Cooler Temp.		

Preservatives: (Other; Specify): 1 of 1 COC's

0 (none); 1 (4 Deg C); 2 (HCl, pH<2); 3 (HNO3, pH<2); 4 (H2SO4, pH<2); 5 (NaOH, pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4, pH<2, 4 Deg C)); 8 (HCl, pH<2, 4 Deg C); 9 (HCl, 4 Deg C); 10 (HNO3, pH<2, 4 Deg C); 11 (NaOH. pH>12, 4 Deg, Ascorbic Acid); 12 (H2SO4, Na2S2O3, 4 Deg C, pH<2); 13 (Zn Acetate); 14 (1-MeOH, 4 Deg C and 2-NaHSO4, 4 Deg C): 15 (NaOH, pH>12, 4 Deg C); sp (special instructions)

0.62 LB CO2

Login Sample Receipt Checklist

Client: Jacobs Engineering Group, Inc.

Job Number: 550-193681-1
SDG Number: Phoenix, AZ

Login Number: 193681
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.

Eurofins Phoenix

Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

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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11/18/2022 5:25:45 AM

Authorized for release by
Danielle Roberts, Senior Project Manager
Danielle.Roberts@et.eurofinsus.com
(657)210-6355

Appendix D
Historical Groundwater Monitoring Results

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
COP-238	02/20/04	R	--	--	--	--	--	--	14	0.10 U	--
COP-238	02/23/05	R	--	--	--	--	--	--	9.8	--	--
COP-238	02/21/06	R	--	--	--	--	--	--	14	0.10 U	14
HM-01MA	02/25/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-01MA	05/08/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-01MA	08/21/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	18	--	--
HM-01MA	11/23/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	22	--	--
HM-01MA	02/15/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-01MA	05/20/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-01MA	08/16/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-01MA	11/04/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	43	--	--
HM-01MA	03/21/00	R	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	0.10 U	30
HM-01MA	06/20/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.80	--	--	--
HM-01MA	09/27/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.10 U	20
HM-01MA	12/14/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.2	--	0.50 U	19
HM-01MA	03/05/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.5	--	0.10 U	19
HM-01MA	06/18/01	R	0.50 U	0.50 U	0.80 J	0.50 U	0.50 U	11	--	0.10 U	28
HM-01MA	08/27/01	R	0.50 U	0.50	0.70	0.50 U	0.50 U	7.1	--	0.10 U	24 U
HM-01MA	11/13/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	4.5	--	1.0 U	26
HM-01MA	02/04/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	5.2	27	1.0 U	27
HM-01MA	02/04/02	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	5.1	--	--	--
HM-01MA	09/17/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.2	21	0.10 U	21
HM-01MA	10/30/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.9	21	0.10 U	21
HM-01MA	10/30/02	R	--	--	--	--	--	--	21	1.0 U	22
HM-01MA	02/25/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.0	20	0.10 U	--
HM-01MA	05/20/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.92	23	0.10 U	23
HM-01MA	08/26/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	18	0.10 U	18
HM-01MA	10/28/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.69	19	0.10 U	--
HM-01MA	02/17/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	20	1.0 U	--
HM-01MA	05/25/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	20	--	--
HM-01MA	08/31/04	R	0.50 U	0.53	3.6	0.50 U	0.56	0.93	20	0.10 U	20
HM-01MA	11/15/04	R	0.50 U	0.50 U	3.6	0.50 U	0.50 U	0.50 U	20	--	--
HM-01MA	02/22/05	R	0.50 U	0.50 U	3.0	0.50 U	0.50 U	0.50 U	20	--	--
HM-01MA	05/18/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.2	21	0.10 U	--
HM-01MA	08/29/05	R	0.50 U	0.50 U	5.5	0.50 U	0.50 U	0.50 U	--	0.10 U	--
HM-01MA	11/07/05	R	0.50 U	0.50 U	0.67	0.50 U	0.50 U	0.50 U	21	0.10 U	--
HM-01MA	02/21/06	R	0.50 U	0.50 U	1.4	0.50 U	0.50 U	0.50 U	20	0.10 U	20
HM-01MA	08/15/06	R	0.50 U	0.50 U	0.75	0.50 U	0.50 U	0.50 U	19	0.10 U	--
HM-01MA	04/23/07	R	0.50 U	0.50 U	5.0	0.50 U	0.50 U	0.50 U	24	1.0 U	24
HM-01MA	10/17/07	R	1.0 U	0.50 U	3.1 J	0.50 U	0.50 U	1.3	21	0.10 U	--
HM-01MA	04/15/08	R	0.50 U	0.50 U	0.52	0.50 U	0.50 U	0.50 U	--	--	--
HM-01MA	10/21/08	R	0.50 U	0.50 U	2.0	0.50 U	0.50 U	0.50 U	--	--	--
HM-01MA	04/07/09	R	0.50 U	0.50 U	11	0.50 U	0.50 U	0.50	--	--	--
HM-01MA	10/26/09	R	0.50 U	0.50 U	6.2	0.50 U	0.50 U	0.50 U	--	--	--
HM-01MA	10/29/10	R	0.50 U	0.50 U	7.5	0.50 U	0.50 U	0.50 U	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-01MA	10/21/11	R	0.50 U	0.50 U	0.67	0.50 U	0.50 U	0.50 U	--	--	--
HM-01MA	10/21/11	R	0.50 U	0.50 U	0.72	0.50 U	0.50 U	0.50 U	--	--	--
HM-01MA	10/21/11	R	0.50 U	0.50 U	0.75	0.50 U	0.50 U	0.50 U	--	--	--
HM-01MA	10/21/11	R	0.50 U	0.50 U	0.77	0.50 U	0.50 U	0.50 U	--	--	--
HM-01MA	10/21/11	R	0.50 U	0.50 U	0.78	0.50 U	0.50 U	0.50 U	--	--	--
HM-01MA	10/21/11	R	0.50 U	0.50 U	0.86	0.50 U	0.50 U	0.50 U	--	--	--
HM-01MA	10/21/11	R	0.50 U	0.50 U	0.88	0.50 U	0.50 U	0.50 U	--	--	--
HM-01MA	10/21/11	R	0.50 U	0.50 U	0.92	0.50 U	0.50 U	0.50 U	--	--	--
HM-01MA	10/21/11	R	0.50 U	0.50 U	0.93	0.50 U	0.50 U	0.50 U	--	--	--
HM-01MA	10/21/11	R	0.50 U	0.50 U	0.93	0.50 U	0.50 U	0.50 U	--	--	--
HM-01MA	10/21/11	D	0.50 U	0.50 U	0.81	0.50 U	0.50 U	0.50 U	--	--	--
HM-01MA	10/23/12	R	0.50 U	0.50 U	3.3	0.50 U	0.50 U	0.50 U	--	--	--
HM-01MA	11/12/13	R	0.50 U	0.50 U	2.6	0.50 U	0.50 U	0.50 U	--	--	--
HM-01MA	11/05/14	R	0.50 U	0.50 U	0.91	0.50 U	0.50 U	0.50 U	--	--	--
HM-01MA	08/26/15	R	0.50 U	0.50 U	1.6	0.50 U	0.50 U	0.50 U	--	--	--
HM-01MA	10/04/16	R	0.50 U	0.20 J	1.0	0.50 U	0.50 U	0.50 U	--	--	--
HM-01MA	10/24/17	R	0.5 U	0.5 U	0.1 J	0.5 U	0.5 U	0.5 U	--	--	--
HM-01MA	10/31/18	R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--
HM-01MA	12/11/19	R	0.5 U	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--
HM-01MA	11/19/20	R	0.54 U	0.48 U	0.62 U	0.48 U	0.52 U	0.54 U	--	--	--
HM-01MA	11/23/21	R	0.50 U	0.50 U	0.72	0.50 U	0.50 U	0.50 U	--	--	--
HM-01MA	10/20/22	R	0.50	0.50	0.59	0.50	0.50	0.50	--	--	--
HM-02MA	02/01/98	R	NS	NS	NS	NS	NS	NS	--	--	--
HM-02MA	05/08/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-02MA	08/20/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	31	--	--
HM-02MA	11/23/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	17	--	--
HM-02MA	02/22/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-02MA	05/20/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-02MA	08/16/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-02MA	11/04/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	34	--	--
HM-02MA	03/21/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.10 U	33
HM-02MA	06/21/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-02MA	09/27/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.10 U	28
HM-02MA	12/14/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U	23
HM-02MA	03/05/01	R	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	0.10 U	30
HM-02MA	06/18/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.10 U	30
HM-02MA	08/27/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	28	--	0.10 U
HM-02MA	11/13/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	1.0 U	33
HM-02MA	02/04/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	30	3.0	33
HM-02MA	02/04/02	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-02MA	05/07/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	30	1.0 U	30
HM-02MA	09/17/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	27	0.10 U	27
HM-02MA	02/25/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	38	0.10 U	--
HM-02MA	05/20/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	37	0.10 U	37
HM-02MA	08/26/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	36	0.10 U	36

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-02MA	10/28/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	37	0.10 U	--
HM-02MA	02/17/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	39	0.10 U	--
HM-02MA	05/25/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	39	--	--
HM-02MA	08/31/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	39	0.10 U	39
HM-02MA	11/15/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	39	--	--
HM-02MA	02/22/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	47	--	--
HM-02MA	05/18/05	R	0.50 U	0.50 U	1.7	0.50 U	0.50 U	0.50 U	41	0.10 U	--
HM-02MA	08/29/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.10 U	--
HM-02MA	11/07/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	43	0.10 U	--
HM-02MA	11/07/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	43	0.10 U	--
HM-02MA	02/20/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	48	0.10 U	48
HM-02MA	08/14/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	39	0.10 U	--
HM-02MA	04/23/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	48 J	1.0 U	48
HM-02MA	04/18/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-02MA	04/18/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-02MA	04/18/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-02MA	04/18/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-02MA	10/30/08	R	0.50 U	0.50 U	0.77	0.50 U	0.50 U	0.50 U	--	--	--
HM-02MA	10/30/08	R	0.50 U	0.50 U	0.85	0.50 U	0.50 U	0.50 U	--	--	--
HM-02MA	10/30/08	R	0.50 U	0.50 U	0.96	0.50 U	0.50 U	0.50 U	--	--	--
HM-02MA	10/30/08	R	0.50 U	0.50 U	1.2	0.50 U	0.50 U	0.50 U	--	--	--
HM-02MA	04/20/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-02MA	10/29/09	R	0.50 U	0.50 U	0.73	0.50 U	0.50 U	0.50 U	--	--	--
HM-02MA	12/09/10	R	0.50 U	0.50 U	0.87	0.50 U	0.50 U	0.50 U	--	--	--
HM-02MA	10/21/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-02MA	10/23/12	R	0.50 U	0.50 U	1.3	0.50 U	0.50 U	0.50 U	--	--	--
HM-02MA	11/12/13	R	0.50 U	0.50 U	0.70	0.50 U	0.50 U	0.50 U	--	--	--
HM-02MA	11/05/14	R	0.50 U	0.50 U	1.2	0.50 U	0.50 U	0.50 U	--	--	--
HM-02MA	08/25/15	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-02MA	10/04/16	R	0.50 U	0.20 J	0.60	0.50 U	0.50 U	0.50 U	--	--	--
HM-02MA	10/24/17	R	0.5 U	0.1 J	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--
HM-02MA	10/31/18	R	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	--	--	--
HM-02MA	12/11/19	R	0.5 U	2.0 U	0.2 J	0.5 U	0.5 U	0.5 U	--	--	--
HM-02MA	11/19/20	R	0.54 U	0.48 U	0.62 U	0.48 U	0.52 U	0.54 U	--	--	--
HM-02MA	11/23/21	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-02MA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HM-03MA	02/20/98	R	1.2	2.7	61	8.6	1.1	495	--	--	--
HM-03MA	05/13/98	R	0.50 U	1.1	82	11	0.50	613	--	--	--
HM-03MA	08/17/98	R	1.5	4.1	110	10	1.3	990	--	--	--
HM-03MA	11/18/98	R	1.6	2.0	113	13	0.50 U	761	--	--	--
HM-03MA	02/16/99	R	0.90	1.4	76	8.4	0.50 U	485	--	--	--
HM-03MA	05/19/99	R	2.1	1.0	69	8.4	0.50 U	466	--	--	--
HM-03MA	08/19/99	R	1.8	1.7	70	12	0.50 U	491	--	--	--
HM-03MA	11/03/99	R	2.0 U	2.0 U	85	11	2.0 U	459	--	--	--
HM-03MA	03/20/00	R	1.9	1.3	62	12	0.50 U	443	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-03MA	06/21/00	R	1.6	1.6	69	14	0.50 U	427	--	--	--
HM-03MA	09/26/00	R	1.7	1.1	53	15	0.50 U	397	--	--	--
HM-03MA	09/26/00	D	1.7	1.0	51	16	0.50 U	405	--	--	--
HM-03MA	12/14/00	R	1.1	1.0 U	61	19	1.0 U	356	--	--	--
HM-03MA	03/06/01	R	1.4	1.3	50	21	0.50 U	318	--	0.10 U	54
HM-03MA	06/18/01	R	2.9	1.0 U	49	25	1.0 U	261	--	--	--
HM-03MA	08/27/01	R	3.2	2.9	67	31	0.50 U	370	--	--	--
HM-03MA	08/27/01	D	2.7	2.7	75	28	1.5	430	--	--	--
HM-03MA	11/13/01	R	10 U	10 U	43	23	10 U	300	--	--	--
HM-03MA	11/13/01	D	10 U	10 U	41	25	10 U	300	--	--	--
HM-03MA	02/05/02	R	5.2	2.1	58	60	1.5	340	--	--	--
HM-03MA	05/06/02	R	5.0 U	0.93	62	67	0.85	340	--	--	--
HM-03MA	05/06/02	R	6.1	5.0 U	65	68	5.0 U	--	--	--	--
HM-03MA	09/16/02	R	5.2	1.2	88	49	1.6	460	--	--	--
HM-03MA	10/28/02	R	1.7	1.3	90	47	5.4	570	--	--	--
HM-03MA	10/28/02	R	5.0 U	5.0 U	100	54	6.3	--	--	--	--
HM-03MA	02/24/03	R	1.7	1.5	84	38	3.3	580	--	--	--
HM-03MA	05/19/03	R	0.96	1.4	73	39	5.0	510	--	--	--
HM-03MA	08/25/03	R	5.5	1.8	75	41	0.74	510	--	--	--
HM-03MA	10/30/03	R	5.0	1.8	72	44	1.4	480	--	--	--
HM-03MA	02/23/04	R	4.1	1.2	52	44	0.89	500	--	--	--
HM-03MA	05/27/04	R	5.3	0.97	43	38	0.50 U	340	--	--	--
HM-03MA	09/02/04	R	0.50 U	0.99	36	44	4.2	320	--	--	--
HM-03MA	11/16/04	R	5.4	0.85	37	43	0.50 U	270	--	--	--
HM-03MA	02/23/05	R	4.2	0.63	30	44	0.54	220	--	--	--
HM-03MA	05/20/05	R	0.50 U	0.59	27	44	3.9	170	--	--	--
HM-03MA	08/22/05	R	0.50 U	0.52	23	43	3.3	120	--	--	--
HM-03MA	11/07/05	R	3.1	0.50 U	24	44	0.50 U	170	--	--	--
HM-03MA	02/22/06	R	1.6	0.50 U	19	32	0.50 U	140	--	--	--
HM-03MA	08/17/06	R	2.0	0.50 U	15	28	0.50 U	110	--	--	--
HM-03MA	04/27/07	R	2.0	0.50	14	18	0.50	80	--	--	--
HM-03MA	04/27/07	D	1.8	0.50	14	22	0.50	95	--	--	--
HM-03MA	10/16/07	R	1.5	0.50 U	14	19	0.50 U	77	--	--	--
HM-03MA	04/14/08	R	0.50 U	0.50 U	10	21	1.5	83	--	--	--
HM-03MA	10/27/08	R	0.99	0.50 U	7.2	16	0.50 U	53	--	--	--
HM-03MA	04/10/09	R	0.58	0.50 U	8.7	16	0.50 U	54	--	--	--
HM-03MA	10/27/09	R	1.0	0.50 U	7.3	16	0.50 U	49	--	--	--
HM-03MA	10/29/10	R	0.50 U	0.50 U	4.5	13	0.50 U	28	--	--	--
HM-03MA	10/21/11	R	0.52	0.50 U	3.9	12	0.50 U	18	--	--	--
HM-03MA	10/21/11	R	0.54	0.50 U	4.0	12	0.50 U	18	--	--	--
HM-03MA	10/21/11	R	0.54	0.50 U	4.0	12	0.50 U	18	--	--	--
HM-03MA	10/21/11	R	0.56	0.50 U	4.1	12	0.50 U	18	--	--	--
HM-03MA	10/23/12	R	0.50 U	0.50 U	2.0	6.1	0.50 U	3.9	--	--	--
HM-03MA	11/13/13	R	0.50 U	0.50 U	2.0	4.2	0.50 U	2.8	--	--	--
HM-03MA	11/05/14	R	0.50 U	0.50 U	3.0	3.0	0.50 U	2.1	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-03MA	08/25/15	R	0.50 U	0.50 U	5.1	4.5	0.50 U	7.0	--	--	--
HM-03MA	10/04/16	R	0.50 U	0.20 J	3.7	2.0	0.50 U	1.7	--	--	--
HM-03MA	10/24/17	R	0.1 J	0.2 J	3.8 J	1.8 J	0.5 UJ	2.8 J	--	--	--
HM-03MA	10/31/18	R	0.5 U	0.2 J	1.8	0.7	0.5 U	1.0	--	--	--
HM-03MA	12/11/19	R	0.5 U	2.0 U	0.6	0.4 J	0.5 U	0.5	--	--	--
HM-03MA	11/17/20	R	0.54 U	0.48 U	3.9	1.6 J	0.52 U	3.8	--	--	--
HM-03MA	11/23/21	R	0.50 U	0.50 U	2.6	2.1	0.50 U	4.3	--	--	--
HM-03MA	10/20/22	R	0.50	0.50	2.8	1.2	0.50	2.1	--	--	--
HM-04MA	02/19/98	R	5.6	0.70	37	67	0.50 U	65	--	--	--
HM-04MA	05/08/98	R	0.90	0.50 U	37	71	4.4	64	--	--	--
HM-04MA	08/18/98	R	3.4	1.8	44	47	0.50 U	50	--	--	--
HM-04MA	11/17/98	R	3.1	0.50 U	31	57	0.50 U	55	--	--	--
HM-04MA	02/17/99	R	1.4	0.50 U	24	39	0.50 U	39	--	--	--
HM-04MA	05/19/99	R	4.9	0.50 U	21	36	0.50 U	47	--	--	--
HM-04MA	08/17/99	R	2.1	0.50 U	20	39	0.60	51	--	--	--
HM-04MA	11/04/99	R	1.0 U	1.0 U	1.4	1.0 U	1.0 U	46	--	--	--
HM-04MA	03/20/00	R	2.9	0.50 U	16	31	0.50 U	49	--	--	--
HM-04MA	06/21/00	R	1.5	0.50 U	14	26	0.50 U	35	--	--	--
HM-04MA	09/26/00	R	0.50 U	0.50 U	5.2	9.7	0.50 U	14	--	--	--
HM-04MA	12/14/00	R	0.50 U	0.50 U	0.50 U	1.7	0.50 U	8.0	--	--	--
HM-04MA	03/06/01	R	1.0 U	1.0 U	11	21	1.0 U	29	--	0.10 U	27
HM-04MA	06/18/01	R	1.7	1.0 U	9.9	20	1.0 U	24	--	--	--
HM-04MA	08/27/01	R	1.8	0.50 U	14	22	0.50 U	25	--	--	--
HM-04MA	11/12/01	R	50 U	50 U	50 U	50 U	50 U	1100	--	--	--
HM-04MA	12/13/01	R	50 U	50 U	50 U	50 U	50 U	1200	--	--	--
HM-04MA	12/13/01	D	50 U	50 U	50 U	50 U	50 U	1200	--	--	--
HM-04MA	02/04/02	R	11	12	2.2	8.3	0.50 U	780	--	--	--
HM-04MA	05/06/02	R	3.5	5.8	2.1	6.7	0.50 U	190	--	--	--
HM-04MA	05/06/02	D	2.3	5.6	2.0	6.7	0.50 U	190	--	--	--
HM-04MA	09/16/02	R	1.9	2.0	2.6	3.5	0.50 U	100	--	--	--
HM-04MA	09/16/02	D	1.0	2.0	2.6	3.7	0.50 U	100	--	--	--
HM-04MA	10/30/02	R	0.87	1.6	5.4	3.8	0.50 U	96	--	--	--
HM-04MA	10/30/02	D	0.92	1.6	5.5	3.9	0.50 U	97	--	--	--
HM-04MA	02/24/03	R	1.9	2.8	15	12	0.70	180	--	--	--
HM-04MA	05/19/03	R	0.50 U	2.4	14	13	1.1	160	--	--	--
HM-04MA	08/25/03	R	2.6	2.4	14	14	0.58	170	--	--	--
HM-04MA	10/28/03	R	1.8	2.1	13	13	0.70	160	--	--	--
HM-04MA	02/16/04	R	2.4	1.2	7.1	8.9	0.50 U	93	--	--	--
HM-04MA	05/27/04	R	0.50 U	0.80	4.3	5.4	0.50 U	53	--	--	--
HM-04MA	08/30/04	R	0.60	0.98	4.1	5.2	0.50 U	64	--	--	--
HM-04MA	11/15/04	R	1.4	0.92	3.2	4.0	0.50 U	55	--	--	--
HM-04MA	02/21/05	R	1.6	1.2	3.6	4.9	0.50 U	72	--	--	--
HM-04MA	05/16/05	R	0.50 U	0.95	3.1	4.2	0.50 U	51	--	--	--
HM-04MA	08/22/05	R	0.50 U	0.88	4.4	6.6	0.68	52	--	--	--
HM-04MA	11/07/05	R	1.1	0.71	4.7	5.7	0.50 U	55	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-04MA	02/21/06	R	1.0	0.81	3.9	4.9	0.50 U	63	--	--	--
HM-04MA	08/15/06	R	0.58	0.50 U	3.4	3.6	0.50 U	23	--	--	--
HM-04MA	04/24/07	R	0.64	0.53	3.6	3.8	0.50 U	33	--	--	--
HM-04MA	10/15/07	R	0.56	0.61	3.1 J	4.2	0.50 U	33	--	--	--
HM-04MA	04/14/08	R	0.50 U	0.50 U	2.4	1.8	0.50 U	10	--	--	--
HM-04MA	10/23/08	R	0.50 U	0.50 U	2.5	1.7	0.50 U	6.0	--	--	--
HM-04MA	04/10/09	R	0.50 U	0.50 U	3.1	3.0	0.50 U	20	--	--	--
HM-04MA	10/27/09	R	0.50 U	0.50 U	3.1	1.3	0.50 U	5.1	--	--	--
HM-04MA	10/29/10	R	0.50 U	0.52	3.3	2.9	0.50 U	18	--	--	--
HM-04MA	10/24/11	R	0.50 U	0.50 U	3.7	1.7	0.50 U	12	--	--	--
HM-04MA	10/24/11	R	0.50 U	0.50 U	3.7	1.8	0.50 U	12	--	--	--
HM-04MA	10/24/11	R	0.50 U	0.50 U	3.8	1.8	0.50 U	13	--	--	--
HM-04MA	10/24/11	R	0.50 U	0.50 U	3.8	2.0	0.50 U	13	--	--	--
HM-04MA	10/24/11	D	0.50 U	0.50 U	3.8	1.8	0.50 U	13	--	--	--
HM-04MA	10/24/12	R	0.50 U	0.50 U	3.9	0.62	0.50 U	3.4	--	--	--
HM-04MA	11/12/13	R	0.50 U	0.50 U	3.2	0.95	0.50 U	4.0	--	--	--
HM-04MA	11/05/14	R	0.50 U	0.50 U	3.4	0.50 U	0.50 U	2.4	--	--	--
HM-04MA	08/25/15	R	0.50 U	0.50 U	4.0	2.2	0.50 U	10	--	--	--
HM-04MA	10/04/16	R	0.50 U	0.20 J	2.8	0.60	0.50 U	2.2	--	--	--
HM-04MA	10/24/17	R	0.2 J	0.2 J	3.0 J	1.5 J	0.5 UJ	5.1 J	--	--	--
HM-04MA	10/31/18	R	0.5 U	0.3 J	2.5	1.7	0.5 U	5.1	--	--	--
HM-04MA	12/11/19	R	0.5 U	2.0 U	2.2	1.4	0.5 U	4.6	--	--	--
HM-04MA	11/17/20	R	0.54 U	0.48 U	3.1	2.1	0.52 U	4.7	--	--	--
HM-04MA	11/23/21	R	0.50 U	0.50 U	2.4	0.50 U	0.50 U	6	--	--	--
HM-04MA	10/20/22	R	0.50	0.50	1.7	0.62	0.50	2.2	--	--	--
HM-05MA	02/19/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	05/07/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	08/18/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	11/16/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	02/17/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	05/17/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	08/18/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	11/01/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	03/20/00	R	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	--
HM-05MA	03/20/00	D	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	--
HM-05MA	06/21/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	09/27/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	12/14/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	03/06/01	R	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	--	--	--
HM-05MA	06/18/01	R	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	--
HM-05MA	08/27/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	11/12/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.87	--	--	--
HM-05MA	02/04/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	09/16/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	10/28/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-05MA	02/24/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.58	--	--	--
HM-05MA	05/20/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.53	--	--	--
HM-05MA	08/28/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	10/27/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	02/17/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	05/28/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	09/03/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	11/18/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	05/18/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	08/26/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	11/08/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	02/20/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	08/14/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	04/23/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	10/15/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	04/20/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	04/20/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	04/20/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	10/29/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	10/29/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	12/09/10	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	12/09/10	R	0.50 U	0.50 U	0.53	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	10/21/11	R	0.50 U	0.50 U	0.50	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	10/21/11	R	0.50 U	0.50 U	0.59	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	10/23/12	R	0.50 U	0.50 U	1.3	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	11/12/13	R	0.50 U	0.50 U	2.0	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	11/05/14	R	0.50 U	0.50 U	3.3	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	08/26/15	R	0.50 U	0.50 U	3.1	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	10/04/16	R	0.50 U	0.20 J	3.3	0.50 U	0.50 U	0.30 J	--	--	--
HM-05MA	10/24/17	R	0.5 UJ	0.2 J	2.7 J	0.5 UJ	0.5 UJ	0.2 J	--	--	--
HM-05MA	10/31/18	R	0.5 U	0.3 J	2.5	0.5 U	0.5 U	0.3 J	--	--	--
HM-05MA	12/11/19	R	0.5 U	2.0 U	2.5	0.5 U	0.5 U	0.2 J	--	--	--
HM-05MA	11/17/20	R	0.54 U	0.48 U	3.2	0.48 U	0.52 U	0.54 U	--	--	--
HM-05MA	11/23/21	R	0.50 U	0.50 U	2.2	0.50 U	0.50 U	0.50 U	--	--	--
HM-05MA	10/21/22	R	0.50	0.50	2.4	0.50	0.50	0.50	--	--	--
HM-06MA	02/20/98	R	0.50 U	0.50 U	2.1	0.50 U	0.50 U	32	--	--	--
HM-06MA	05/11/98	R	0.50 U	0.50 U	5.0	0.50 U	0.50 U	102	--	--	--
HM-06MA	08/19/98	R	0.50 U	0.50 U	4.4	0.50 U	0.50 U	98	--	--	--
HM-06MA	11/17/98	R	0.50 U	0.50 U	4.8	0.50 U	0.50 U	82	--	--	--
HM-06MA	02/19/99	R	0.50 U	0.50 U	3.3	0.50 U	0.50 U	56	--	--	--
HM-06MA	05/18/99	R	0.50 U	0.50 U	3.4	0.50 U	0.50 U	75	--	--	--
HM-06MA	08/20/99	R	0.50 U	0.50 U	4.4	0.50 U	0.50 U	82	--	--	--
HM-06MA	11/03/99	R	0.50 U	0.50 U	4.4	0.50 U	0.50 U	83	--	--	--
HM-06MA	03/21/00	R	1.0 U	1.0 U	3.6	1.0 U	1.0 U	93	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-06MA	06/22/00	R	0.50 U	0.60	13	0.50 U	0.50 U	142	--	--	--
HM-06MA	09/29/00	R	0.50 U	0.50 U	16	0.80	0.50 U	148	--	--	--
HM-06MA	12/15/00	R	0.80	0.50 U	26	2.3	0.50 U	204	--	--	--
HM-06MA	12/15/00	D	0.90	0.50 U	26	2.4	0.50 U	205	--	--	--
HM-06MA	03/08/01	R	1.0 U	1.0 U	28	2.1	1.0 U	210	--	0.10 U	42
HM-06MA	06/19/01	R	2.0	2.0 U	26	2.7	2.0 U	244	--	--	--
HM-06MA	08/28/01	R	0.80	1.6	27	2.3	0.50 U	140 J	--	--	--
HM-06MA	11/12/01	R	0.50 U	0.50 U	19	1.4	0.50 U	94	--	--	--
HM-06MA	02/04/02	R	0.50 U	0.50 U	27	2.1	0.50 U	130	--	--	--
HM-06MA	05/07/02	R	0.50 U	0.50 U	15	1.1	0.50 U	59	--	--	--
HM-06MA	09/18/02	R	0.50	0.50 U	23	0.97	0.50 U	80	--	--	--
HM-06MA	09/18/02	D	0.50 U	0.50 U	23	1.1	0.50 U	80	--	--	--
HM-06MA	11/01/02	R	0.50 U	0.50 U	23	0.93	0.50 U	78	--	--	--
HM-06MA	02/25/03	R	0.89	0.64	21	2.6	0.50 U	170	--	--	--
HM-06MA	05/22/03	R	0.50 U	0.50 U	26	1.4	0.50 U	86	--	--	--
HM-06MA	08/28/03	R	0.50 U	0.50 U	13	0.50 U	0.50 U	43	--	--	--
HM-06MA	10/27/03	R	0.50 U	0.50 U	13	0.50 U	0.50 U	45	--	--	--
HM-06MA	02/23/04	R	0.50 U	0.50 U	7.0	0.50 U	0.50 U	27	--	--	--
HM-06MA	05/28/04	R	0.50 U	0.50 U	6.0	0.50 U	0.50 U	20	--	--	--
HM-06MA	08/30/04	R	0.50 U	0.50 U	6.3	0.50 U	0.50 U	19	--	--	--
HM-06MA	11/15/04	R	0.50 U	0.50 U	6.0	0.50 U	0.50 U	18	--	--	--
HM-06MA	02/22/05	R	0.50 U	0.50 U	5.4	0.50 U	0.50 U	14	--	--	--
HM-06MA	05/19/05	R	0.50 U	0.50 U	5.0	0.50 U	0.50 U	12	--	--	--
HM-06MA	08/26/05	R	0.50 U	0.50 U	6.4	0.50 U	0.50 U	14	--	--	--
HM-06MA	11/08/05	R	0.50 U	0.50 U	6.7	0.50 U	0.50 U	16	--	--	--
HM-06MA	02/21/06	R	0.50 U	0.50 U	13	2.3	0.50 U	90	--	--	--
HM-06MA	08/15/06	R	0.50 U	0.50 U	9.3	0.50 U	0.50 U	20	--	--	--
HM-06MA	04/24/07	R	0.50 U	0.50 U	14	0.50 U	0.50 U	25	--	--	--
HM-06MA	10/15/07	R	0.50 U	0.50 U	37	3.1	1.1	100	--	--	--
HM-06MA	04/17/08	R	0.50 U	0.50 U	36	1.5	2.7	91	--	--	--
HM-06MA	10/27/08	R	0.50 U	0.50 U	51	0.50 U	0.75	93	--	--	--
HM-06MA	04/09/09	R	0.50 U	0.50 U	60	0.50 U	0.70	98	--	--	--
HM-06MA	10/28/09	R	0.50 U	0.50 U	44	0.50 U	2.3	69	--	--	--
HM-06MA	10/29/10	R	0.50 U	0.50 U	48	0.50 U	0.50 U	91	--	--	--
HM-06MA	10/24/11	R	0.50 U	0.50 U	8.2	0.50 U	0.50 U	8.1	--	--	--
HM-06MA	10/24/11	R	0.50 U	0.50 U	8.6	0.50 U	0.50 U	8.2	--	--	--
HM-06MA	10/24/11	R	0.50 U	0.50 U	8.9	0.50 U	0.50 U	8.9	--	--	--
HM-06MA	10/24/11	R	0.50 U	0.50 U	92	0.50 U	0.50 U	140	--	--	--
HM-06MA	10/24/11	R	0.50 U	0.50 U	93	0.50 U	0.50 U	140	--	--	--
HM-06MA	10/24/11	R	0.50 U	0.50 U	93	0.54	0.50 U	150	--	--	--
HM-06MA	10/24/11	D	0.50 U	0.50 U	95	0.50 U	0.50 U	150	--	--	--
HM-06MA	10/23/12	R	0.50 U	0.50 U	30	0.50 U	0.50 U	58	--	--	--
HM-06MA	11/13/13	R	0.50 U	0.50 U	14	0.50 U	0.50 U	31	--	--	--
HM-06MA	11/05/14	R	0.50 U	0.50 U	15	0.50 U	0.50 U	30	--	--	--
HM-06MA	08/25/15	R	5.0 U	5.0 U	81	5.0 U	5.0 U	170	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-06MA	09/08/15	R	1.5 J	1.0 UJ	64 J	5.1 J	1.0 UJ	142 J	--	--	--
HM-06MA	10/04/16	R	0.20 J	0.20 J	9.0	0.50 J	0.50 U	21	--	--	--
HM-06MA	10/24/17	R	1.5	1.2	11	3.9	0.5 U	87	--	--	--
HM-06MA	10/30/18	R	0.9	0.8	4.8	1.3	0.5 U	47	--	--	--
HM-06MA	12/12/19	R	0.4 J	2.0 U	2.4	1	0.5 U	27	--	--	--
HM-06MA	12/09/20	R	0.56 J	0.66 J	3.7	0.96 J	0.52 U	37	--	--	--
HM-06MA	11/24/21	R	0.50 U	0.50 U	2.4	0.75	0.50 U	22	--	--	--
HM-06MA	10/20/22	R	0.50	0.57	21	0.82	0.50	200	--	--	--
HM-07MA	02/19/98	R	0.50 U	0.50 U	5.3	0.50 U	0.50 U	8.0	--	--	--
HM-07MA	05/07/98	R	0.50 U	0.50 U	6.6	0.50 U	0.50 U	11	--	--	--
HM-07MA	08/18/98	R	0.50 U	0.50 U	7.7	0.50 U	0.50 U	9.9	--	--	--
HM-07MA	11/17/98	R	0.50 U	0.50 U	5.9	0.50 U	0.50 U	10	--	--	--
HM-07MA	02/17/99	R	0.50 U	0.50 U	4.5	0.50 U	0.50 U	6.6	--	--	--
HM-07MA	05/17/99	R	0.50 U	0.50 U	5.6	0.50 U	0.50 U	8.6	--	--	--
HM-07MA	08/18/99	R	0.50 U	0.50 U	3.8	0.50 U	0.50 U	7.4	--	--	--
HM-07MA	11/01/99	R	0.50 U	0.50 U	0.90	0.50 U	0.50 U	2.6	--	--	--
HM-07MA	03/21/00	R	1.0 U	1.0 U	5.9	1.0 U	1.0 U	13	--	--	--
HM-07MA	06/23/00	R	0.50 U	0.50 U	6.6	0.50 U	0.50 U	14	--	--	--
HM-07MA	09/29/00	R	0.50 U	0.50 U	13	0.50 U	0.50 U	22	--	--	--
HM-07MA	12/15/00	R	0.50 U	0.50 U	27	0.50 U	0.50 U	45	--	--	--
HM-07MA	03/06/01	R	2.0 U	2.0 U	49	2.0 U	2.0 U	78	--	0.10 U	51
HM-07MA	06/21/01	R	1.0 U	1.0 U	54	1.0 U	1.0 U	78	--	--	--
HM-07MA	06/21/01	D	1.0 U	1.0 U	53	1.0 U	1.0 U	77	--	--	--
HM-07MA	08/28/01	R	0.50 U	0.50 U	89	0.50 U	0.50 U	120	--	--	--
HM-07MA	11/15/01	R	5.0 U	5.0 U	68	5.0 U	5.0 U	110	--	--	--
HM-07MA	02/05/02	R	0.50 U	0.50 U	16	0.50 U	0.50 U	45	--	--	--
HM-07MA	05/07/02	R	0.50 U	0.50 U	87	0.50 U	1.4	120	--	--	--
HM-07MA	09/16/02	R	0.50 U	0.50 U	110	0.50 U	0.69	160	--	--	--
HM-07MA	11/01/02	R	0.50 U	0.50 U	130	0.50 U	2.1	190	--	--	--
HM-07MA	02/24/03	R	0.50 U	0.50 U	130	0.50 U	2.4	230	--	--	--
HM-07MA	02/24/03	D	0.50 U	0.50 U	140	0.50 U	1.1	230	--	--	--
HM-07MA	05/19/03	R	0.50 U	0.50 U	130	0.50 U	5.7	190	--	--	--
HM-07MA	05/19/03	D	0.50 U	0.50 U	120	0.50 U	6.4	180	--	--	--
HM-07MA	08/26/03	R	0.55	0.50 U	140	0.50 U	1.6	210	--	--	--
HM-07MA	08/26/03	D	0.55	0.50 U	140	0.50 U	2.4	230	--	--	--
HM-07MA	10/27/03	R	0.65	0.50 U	160	0.50 U	1.4	260	--	--	--
HM-07MA	10/27/03	D	0.65	0.50 U	160	0.50 U	1.5	250	--	--	--
HM-07MA	02/16/04	R	0.50 U	0.50 U	130	0.50 U	2.4	210	--	--	--
HM-07MA	02/16/04	D	0.50 U	0.50 U	130	0.50 U	2.2	220	--	--	--
HM-07MA	05/24/04	R	0.50 U	0.50 U	130	0.50 U	0.91	200	--	--	--
HM-07MA	05/24/04	D	0.50 U	0.50 U	140	0.50 U	1.6	200	--	--	--
HM-07MA	08/30/04	R	0.50 U	0.50 U	160	0.50 U	3.8	240	--	--	--
HM-07MA	08/30/04	R	0.50 U	0.50 U	180	0.50 U	6.4	260	--	--	--
HM-07MA	11/19/04	R	0.77	0.50 U	240	0.50 U	1.3	300	--	--	--
HM-07MA	11/19/04	D	0.61	0.50 U	240	0.50 U	3.7	300	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-07MA	02/22/05	R	0.68	0.50 U	250	0.50 U	1.9	330	--	--	--
HM-07MA	02/22/05	D	0.65	0.50 U	250	0.50 U	1.9	320	--	--	--
HM-07MA	05/19/05	R	0.50 U	0.50 U	290	0.50 U	28	370	--	--	--
HM-07MA	05/19/05	D	0.55	0.50 U	290	0.50 U	7.1	350	--	--	--
HM-07MA	08/23/05	R	0.50 U	0.50 U	320	0.50 U	32	430	--	--	--
HM-07MA	08/23/05	D	0.50 U	0.50 U	300	0.50 U	32	430	--	--	--
HM-07MA	11/08/05	R	0.90	0.50 U	340	0.50 U	4.4	470	--	--	--
HM-07MA	11/08/05	D	0.99	0.50 U	330	0.50 U	4.9	450	--	--	--
HM-07MA	02/21/06	R	0.52	0.50 U	290	0.50 U	7.6	420	--	--	--
HM-07MA	08/14/06	R	0.74	0.50 U	180	0.59	2.6	270	--	--	--
HM-07MA	08/14/06	D	0.69	0.50 U	190	0.50 U	3.2	270	--	--	--
HM-07MA	04/26/07	R	0.66	0.50 U	160	1.2	2.8	290	--	--	--
HM-07MA	10/17/07	R	1.0 U	0.50 U	140 J	2.4	2.5	310	--	--	--
HM-07MA	10/19/07	D	1.2	0.50 U	140 J	2.5	2.2	240	--	--	--
HM-07MA	04/17/08	R	1.2 U	1.2 U	110	3.6	3.2	250	--	--	--
HM-07MA	04/17/08	D	1.2 U	1.2 U	110	3.6	2.9	260	--	--	--
HM-07MA	10/27/08	R	0.99	0.50 U	81	7.0	3.0	220	--	--	--
HM-07MA	10/27/08	D	1.1	0.59 U	31	2.2	0.50 U	240	--	--	--
HM-07MA	04/10/09	R	0.61	0.50 U	67	9.7	1.9	170	--	--	--
HM-07MA	04/10/09	R	0.95	0.50 U	69	10	2.8	170	--	--	--
HM-07MA	10/29/09	R	0.74	0.50 U	41	10	1.0	140	--	--	--
HM-07MA	10/29/09	R	1.0 U	1.0 U	45	11	1.3	140	--	--	--
HM-07MA	11/01/10	R	0.50 U	0.50 U	22	19	2.4	83	--	--	--
HM-07MA	11/01/10	D	0.50 U	0.50 U	22	18	2.1	82	--	--	--
HM-07MA	10/24/11	R	0.50 U	0.50 U	5.8	0.50 U	0.50 U	17	--	--	--
HM-07MA	10/24/11	R	0.50 U	0.50 U	7.9	0.65	0.50 U	22	--	--	--
HM-07MA	10/24/11	R	0.75	0.50 U	19	4.9	0.50 U	69	--	--	--
HM-07MA	10/24/11	R	2.0	0.50 U	19	18	0.50 U	73	--	--	--
HM-07MA	10/24/11	R	2.0	0.50 U	19	19	0.50 U	73	--	--	--
HM-07MA	10/24/11	R	2.1	0.50 U	20	19	0.50 U	74	--	--	--
HM-07MA	10/24/11	D	0.83	0.50 U	19	4.7	0.50 U	68	--	--	--
HM-07MA	10/23/12	R	2.0	0.50 U	19	14	0.50 U	80	--	--	--
HM-07MA	10/24/12	D	2.0	0.50 U	23	14	0.50 U	78	--	--	--
HM-07MA	11/12/13	R	1.8	0.50 U	14	11	0.50 U	70	--	--	--
HM-07MA	11/12/13	D	1.8	0.50 U	15	11	0.50 U	71	--	--	--
HM-07MA	11/05/14	R	1.9	0.71	15	7.1	0.50 U	58	--	--	--
HM-07MA	11/05/14	D	2.0	0.78	16	7.3	0.50 U	62	--	--	--
HM-07MA	08/25/15	R	2.0 U	2.0 U	16	7.1	2.0 U	62	--	--	--
HM-07MA	08/25/15	D	2.4	0.79	17	7.2	0.50 U	59	--	--	--
HM-07MA	09/08/15	R	1.0 UJ	1.0 UJ	15 J	5.5 J	1.5 J	60 J	--	--	--
HM-07MA	10/04/16	R	4.2	0.50	21	6.3	0.50 U	79	--	--	--
HM-07MA	10/04/16	D	4.0	0.50	20	6.4	0.50 U	80	--	--	--
HM-07MA	10/24/17	R	3.3	0.6	14	5.1	0.5 U	64	--	--	--
HM-07MA	10/24/17	D	3.5	0.6	14	5.1	0.5 U	67	--	--	--
HM-07MA	10/30/18	R	2.4	0.5	8.4	4.6	0.5 U	43	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-07MA	10/30/18	D	2.7	0.6	9.3	5.5	0.5 U	48	--	--	--
HM-07MA	12/11/19	R	3.2	2.0 U	9.1	4.8	0.5 U	46	--	--	--
HM-07MA	12/11/19	D	3.3	2.0 U	9.2	4.7	0.5 U	45	--	--	--
HM-07MA	11/17/20	R	4.1 J	0.62 J	17	7.5	0.52 U	78	--	--	--
HM-07MA	11/17/20	D	4.1 J	0.63 J	16	7.2	0.52 U	75	--	--	--
HM-07MA	11/23/21	R	4	0.50 U	20	6.2	0.50 U	92	--	--	--
HM-07MA	11/23/21	D	4.4	0.50 U	20	6.6	0.50 U	97	--	--	--
HM-07MA	10/18/22	R	5.5	0.53	36	4.9	0.50	160	--	--	--
HM-07MA	10/18/22	D	5.4	0.55	36	4.7	0.50	170	--	--	--
HM-08MA	02/19/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	05/06/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	08/18/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	11/16/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	02/17/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	05/17/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	08/18/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	11/01/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	03/21/00	R	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	--
HM-08MA	06/23/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	09/29/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	12/15/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.60	--	--	--
HM-08MA	03/06/01	R	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	--
HM-08MA	06/19/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	08/28/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	11/13/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	02/05/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	05/07/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	09/16/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	11/01/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	02/24/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	05/20/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	08/26/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	10/27/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	02/20/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	05/24/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	08/30/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	11/19/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	02/21/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	05/18/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	08/23/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	11/08/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	02/20/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	10/17/07	R	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	10/17/07	R	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	10/17/07	R	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-08MA	10/17/07	R	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	10/17/07	R	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.52	--	--	--
HM-08MA	04/18/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	04/18/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	04/18/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	04/18/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	04/18/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	04/18/08	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	10/30/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	10/30/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	10/30/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	10/30/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	10/30/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	10/30/08	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	04/20/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	04/20/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	04/20/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	10/29/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	10/29/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	10/29/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	12/07/10	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	12/07/10	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	12/07/10	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	10/25/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	10/25/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	10/25/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	10/24/12	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	11/13/13	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	11/05/14	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	08/26/15	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	10/04/16	R	0.50 U	0.50 U	0.50 J	0.50 U	0.50 U	0.20 J	--	--	--
HM-08MA	10/24/17	R	0.5 U	0.5 U	0.6	0.5 U	0.5 U	0.3 J	--	--	--
HM-08MA	10/30/18	R	0.5 U	0.5 U	0.8	0.5 U	0.5 U	0.2 J	--	--	--
HM-08MA	12/11/19	R	0.5 U	2.0 U	0.7	0.5 U	0.5 U	0.2 J	--	--	--
HM-08MA	11/17/20	R	0.54 U	0.48 U	0.62 U	0.48 U	0.52 U	0.54 U	--	--	--
HM-08MA	11/23/21	R	0.50 U	0.50 U	0.80	0.50 U	0.50 U	0.50 U	--	--	--
HM-08MA	10/18/22	R	0.50	0.50	0.69	0.50	0.50	0.50	--	--	--
HM-09MA	02/19/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	05/06/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	08/20/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	11/18/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	02/18/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	05/17/99	R	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	--
HM-09MA	08/18/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	11/01/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-09MA	03/21/00	R	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	--
HM-09MA	06/20/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	09/27/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	12/15/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	03/06/01	R	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	--	--	--
HM-09MA	06/18/01	R	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	--
HM-09MA	08/27/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	11/13/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	02/05/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	05/06/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	09/16/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	10/28/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	02/24/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	05/19/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	08/25/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	10/27/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	02/16/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	05/24/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	11/15/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	02/21/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	05/16/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	08/29/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	11/08/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.56	--	--	--
HM-09MA	02/20/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.67	--	--	--
HM-09MA	08/14/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.69	--	--	--
HM-09MA	04/24/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.1	--	--	--
HM-09MA	10/15/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.1	--	--	--
HM-09MA	04/17/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.67	--	--	--
HM-09MA	10/21/08	R	0.50 U	0.50 U	0.58	0.50 U	0.50 U	0.83	--	--	--
HM-09MA	04/07/09	R	0.50 U	0.50 U	0.82	0.50 U	0.50 U	0.63	--	--	--
HM-09MA	10/26/09	R	0.50 U	0.50 U	0.88	0.50 U	0.50 U	0.56	--	--	--
HM-09MA	11/01/10	R	0.50 U	0.50 U	1.5	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	10/24/11	R	0.50 U	0.50 U	1.6	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	10/24/11	R	0.50 U	0.50 U	1.7	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	10/24/11	R	0.50 U	0.50 U	2.0	0.50 U	0.50 U	0.51	--	--	--
HM-09MA	10/24/11	R	0.50 U	0.50 U	2.0	0.50 U	0.50 U	0.60	--	--	--
HM-09MA	10/24/12	R	0.50 U	0.50 U	1.8	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	11/14/13	R	0.50 U	0.50 U	1.5	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	11/05/14	R	0.50 U	0.50 U	2.1	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	08/25/15	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	10/04/16	R	0.50 U	0.20 J	2.5	0.50 U	0.50 U	0.40 J	--	--	--
HM-09MA	10/24/17	R	NS	NS	NS	NS	NS	NS	NS	NS	NS
HM-09MA	11/06/18	R	0.5 U	0.5 U	1.2	0.5 U	0.5 U	0.2 J	--	--	--
HM-09MA	12/11/19	R	0.5 U	2.0 U	0.8	0.5 U	0.5 U	0.2 J	--	--	--
HM-09MA	11/19/20	R	0.54 U	0.48 U	0.81 J	0.48 U	0.52 U	0.54 U	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-09MA	11/23/21	R	0.50 U	0.50 U	0.61	0.50 U	0.50 U	0.50 U	--	--	--
HM-09MA	10/20/22	R	0.50	0.50	0.50	0.50	0.50	0.50	--	--	--
HM-10MA	02/01/98	R	NS	NS	NS	NS	NS	NS	--	--	--
HM-10MA	05/11/98	R	0.50 U	0.50 U	5.1	0.50 U	0.50 U	94	--	--	--
HM-10MA	08/18/98	R	0.50 U	0.82	0.50 U	0.50 U	0.50 U	63	--	--	--
HM-10MA	11/17/98	R	0.50 U	0.50 U	4.9	0.50 U	0.50 U	88	--	--	--
HM-10MA	02/22/99	R	0.50 U	0.50 U	4.3	0.50 U	0.50 U	62	--	--	--
HM-10MA	05/17/99	R	0.50 U	0.50 U	3.3	0.50 U	0.50 U	79	--	--	--
HM-10MA	08/20/99	R	0.50 U	0.50 U	3.7	0.50 U	0.50 U	75	--	--	--
HM-10MA	11/01/99	R	0.50 U	0.50 U	3.8	0.50 U	0.50 U	86	--	--	--
HM-10MA	03/21/00	R	1.0 U	1.0 U	2.2	1.0 U	1.0 U	61	--	--	--
HM-10MA	06/21/00	R	0.50 U	0.50 U	2.4	0.50 U	0.50 U	62	--	--	--
HM-10MA	09/27/00	R	0.50 U	0.50 U	2.9	0.50 U	0.50 U	67	--	--	--
HM-10MA	12/15/00	R	1.0 U	1.0 U	2.3	1.0 U	1.0 U	73	--	--	--
HM-10MA	03/08/01	R	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	35	--	--	--
HM-10MA	06/19/01	R	1.0 U	1.0 U	2.8	1.0 U	1.0 U	60	--	--	--
HM-10MA	08/27/01	R	0.50 U	0.50 U	3.3	0.50 U	0.50 U	59	--	--	--
HM-10MA	11/12/01	R	1.0 U	1.0 U	2.1	1.0 U	1.0 U	54	--	--	--
HM-10MA	02/07/02	R	0.50 U	0.50 U	1.6	0.50 U	0.50 U	29	--	--	--
HM-10MA	05/06/02	R	0.50 U	0.50 U	0.70	0.50 U	0.50 U	19	--	--	--
HM-10MA	09/16/02	R	0.50 U	0.50 U	0.56	0.50 U	0.50 U	13	--	--	--
HM-10MA	10/28/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	13	--	--	--
HM-10MA	02/24/03	R	0.50 U	0.50 U	0.75	0.50 U	0.50 U	19	--	--	--
HM-10MA	05/22/03	R	0.50 U	0.50 U	1.2	0.50 U	0.50 U	24	--	--	--
HM-10MA	08/25/03	R	0.50 U	0.50 U	1.6	0.50 U	0.50 U	31	--	--	--
HM-10MA	10/27/03	R	0.50 U	0.50 U	0.97	0.50 U	0.50 U	18	--	--	--
HM-10MA	02/16/04	R	0.50 U	0.50 U	1.5	0.50 U	0.50 U	30	--	--	--
HM-10MA	05/24/04	R	0.50 U	0.50 U	1.0	0.50 U	0.50 U	20	--	--	--
HM-10MA	08/30/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	8.9	--	--	--
HM-10MA	11/15/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	7.8	--	--	--
HM-10MA	02/21/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	6.6	--	--	--
HM-10MA	05/18/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	6.2	--	--	--
HM-10MA	08/23/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	5.9	--	--	--
HM-10MA	11/08/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	6.4	--	--	--
HM-10MA	02/20/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	3.7	--	--	--
HM-10MA	08/14/06	R	0.50 U	0.50 U	0.59	0.50 U	0.50 U	3.8	--	--	--
HM-10MA	04/24/07	R	0.50 U	0.50 U	0.52	0.50 U	0.50 U	3.4	--	--	--
HM-10MA	10/15/07	R	0.50 U	0.50 U	0.59 J	0.50 U	0.50 U	3.3	--	--	--
HM-10MA	04/17/08	R	0.50 U	0.50 U	0.55	0.50 U	0.50 U	4.8	--	--	--
HM-10MA	10/21/08	R	0.50 U	0.50 U	0.75	0.50 U	0.50 U	3.8	--	--	--
HM-10MA	04/07/09	R	0.50 U	0.50 U	1.0	0.50 U	0.50 U	3.7	--	--	--
HM-10MA	10/27/09	R	0.50 U	0.50 U	0.91	0.50 U	0.50 U	3.0	--	--	--
HM-10MA	12/27/10	R	0.50 U	0.50 U	1.6	0.50 U	0.50 U	2.0	--	--	--
HM-10MA	12/27/10	R	0.50 U	0.50 U	1.6	0.50 U	0.50 U	2.1	--	--	--
HM-10MA	12/27/10	R	0.50 U	0.50 U	1.8	0.50 U	0.50 U	2.2	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-10MA	12/27/10	R	0.50 U	0.50 U	1.8	0.50 U	0.50 U	2.3	--	--	--
HM-10MA	12/27/10	R	0.50 U	0.50 U	1.9	0.50 U	0.50 U	2.3	--	--	--
HM-10MA	10/24/11	R	0.50 U	0.50 U	2.4	0.50 U	0.50 U	1.4	--	--	--
HM-10MA	10/24/11	D	0.50 U	0.50 U	2.1	0.50 U	0.50 U	1.4	--	--	--
HM-10MA	10/24/12	R	0.50 U	0.50 U	2.8	0.50 U	0.50 U	2.9	--	--	--
HM-10MA	11/14/13	R	0.50 U	0.50 U	2.4	0.50 U	0.50 U	2.2	--	--	--
HM-10MA	11/05/14	R	0.50 U	0.50 U	3.3	0.50 U	0.50 U	2.2	--	--	--
HM-10MA	08/27/15	R	0.50 U	0.50 U	3.5	0.50 U	0.50 U	1.8	--	--	--
HM-10MA	10/04/16	R	0.50 UJ	0.20 J	3.3 J	0.50 UJ	0.50 UJ	2.1 J	--	--	--
HM-10MA	10/25/17	R	0.5 U	0.3 J	2.4	0.5 U	0.5 U	9.4	--	--	--
HM-10MA	10/31/18	R	0.5 U	0.3 J	2.1	0.5 U	0.5 U	19	--	--	--
HM-10MA	12/16/19	R	0.5 U	2.0 U	2.2	0.1 J	0.5 U	27	--	--	--
HM-10MA	11/18/20	R	0.54 U	0.48 U	3.6	0.48 U	0.52 U	8.7	--	--	--
HM-10MA	11/24/21	R	0.50 U	0.50 U	2.4	0.50 U	0.50 U	6.3	--	--	--
HM-10MA	10/18/22	R	0.50	0.50	2.8	0.50	0.50	27	--	--	--
HM-11MA	02/24/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	05/11/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	08/20/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	11/19/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	02/19/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	05/18/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	08/19/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	11/03/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	03/22/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	03/22/00	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	06/20/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	09/29/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.90	--	--	--
HM-11MA	12/19/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	03/08/01	R	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	0.10 U	28
HM-11MA	06/19/01	R	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	--
HM-11MA	08/28/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	11/16/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	02/06/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	05/07/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	09/19/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	11/01/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	02/25/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	05/22/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	08/26/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	10/27/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	02/16/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	05/24/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	08/31/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	11/15/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	02/21/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-11MA	05/18/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	08/26/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	11/07/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	02/20/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	08/14/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	04/24/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	10/15/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	04/14/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	10/21/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	04/07/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	10/26/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	10/27/10	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	10/25/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	10/25/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	10/25/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	10/25/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	10/25/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	10/25/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	10/25/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	10/25/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	10/25/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-11MA	10/24/12	R	0.50 U	0.50 U	0.52	0.50 U	0.50 U	0.67	--	--	--
HM-11MA	11/14/13	R	0.50 U	0.50 U	0.53	0.50 U	0.50 U	0.53	--	--	--
HM-11MA	11/05/14	R	0.50 U	0.50 U	0.94	0.50 U	0.50 U	0.53	--	--	--
HM-11MA	08/26/15	R	0.50 U	0.50 U	1.2	0.50 U	0.50 U	0.68	--	--	--
HM-11MA	10/05/16	R	0.50 U	0.20 J	1.7	0.50 U	0.50 U	0.70	--	--	--
HM-11MA	10/25/17	R	0.5 UJ	0.2 J	1.9 J	0.5 UJ	0.5 UJ	0.7 J	--	--	--
HM-11MA	10/31/18	R	0.5 U	0.2 J	2.0	0.5 U	0.5 U	0.6	--	--	--
HM-11MA	12/16/19	R	0.5 U	2.0 U	1.8	0.5 U	0.5 U	0.6	--	--	--
HM-11MA	11/18/20	R	0.54 U	0.48 U	2.2	0.48 U	0.52 U	0.77 J	--	--	--
HM-11MA	11/24/21	R	0.50 U	0.50 U	1.5	0.50 U	0.50 U	0.56	--	--	--
HM-11MA	10/18/22	R	0.50	0.50	1.3	0.50	0.50	0.50	--	--	--
HM-12MA	02/23/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	05/13/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	08/01/98	R	NS	NS	NS	NS	NS	NS	--	--	--
HM-12MA	11/23/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	02/19/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	05/18/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	08/19/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	11/02/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	03/22/00	R	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	--
HM-12MA	06/23/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	09/29/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	12/19/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-12MA	03/09/01	R	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	--	--	--
HM-12MA	06/21/01	R	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	--
HM-12MA	08/30/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	11/16/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	02/07/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	05/07/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	09/19/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	10/30/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	02/25/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	05/20/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	08/25/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	10/27/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	02/16/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	05/24/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	08/31/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	11/15/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	02/21/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	05/18/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	08/26/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	11/08/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	02/20/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	08/14/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	04/23/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	10/15/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	04/14/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	10/21/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	04/07/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	10/26/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	10/27/10	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	10/25/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	10/25/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	10/25/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	10/25/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	10/25/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	10/25/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	10/25/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	10/25/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	10/25/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	10/25/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	10/25/11	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	10/24/12	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	11/13/13	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	11/03/14	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	08/26/15	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-12MA	10/05/16	R	0.50 U	0.50 U	0.30 J	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	10/25/17	R	0.5 U	0.5 U	0.6	0.5 U	0.5 U	0.5 U	--	--	--
HM-12MA	10/31/18	R	0.5 U	0.5 U	0.5 J	0.5 U	0.5 U	0.2 J	--	--	--
HM-12MA	12/16/19	R	0.5 U	2.0 U	0.6	0.5 U	0.5 U	0.5 U	--	--	--
HM-12MA	11/18/20	R	0.54 U	0.48 U	0.68 J	0.48 U	0.52 U	0.54 U	--	--	--
HM-12MA	11/24/21	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-12MA	10/18/22	R	0.50	0.50	0.50	0.50	0.50	0.50	--	--	--
HM-13MA	02/01/98	R	NS	NS	NS	NS	NS	NS	--	--	--
HM-13MA	05/08/98	R	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	--
HM-13MA	08/18/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	11/16/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	02/17/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	05/20/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.80	--	--	--
HM-13MA	08/20/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	11/01/99	R	NS	NS	NS	NS	NS	NS	--	--	--
HM-13MA	03/22/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.8	--	--	--
HM-13MA	06/23/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.60	--	--	--
HM-13MA	09/26/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	12/15/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	03/06/01	R	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	--
HM-13MA	06/21/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	11/16/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.51	--	--	--
HM-13MA	02/07/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	05/09/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	09/19/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/28/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	02/27/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	05/23/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	08/28/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/27/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	02/23/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	05/24/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	11/18/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	02/21/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	09/18/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	09/18/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	09/18/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	09/18/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	09/18/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	09/18/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	09/18/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	09/18/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	09/18/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	05/16/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-13MA	05/16/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	05/16/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	05/16/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	05/16/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	05/16/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/19/07	R	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/19/07	R	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/19/07	R	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/19/07	R	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/19/07	R	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/19/07	R	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	04/18/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	04/18/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	04/18/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	04/18/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	04/18/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	04/18/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/30/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/30/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/30/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/30/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/30/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	04/20/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	04/20/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	04/20/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	04/20/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	04/20/09	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	06/04/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/29/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/29/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/29/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/29/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/29/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/29/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	12/07/10	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	12/07/10	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	12/07/10	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	12/07/10	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	12/07/10	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	12/07/10	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-13MA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/26/11	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/24/12	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	11/14/13	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	11/04/14	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	08/25/15	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/05/16	R	0.50 U	0.10 J	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-13MA	10/25/17	R	0.5 U	0.1 J	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--
HM-13MA	10/30/18	R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.1 J	--	--	--
HM-13MA	12/12/19	R	0.5 U	2.0 U	0.2 J	0.5 U	0.5 U	1.5	--	--	--
HM-13MA	11/17/20	R	0.54 U	0.48 U	2.7	0.48 U	0.52 U	11	--	--	--
HM-13MA	02/02/21	R	0.54 U	0.48 U	2.5	0.48 U	0.52 U	9.3	--	--	--
HM-13MA	11/23/21	R	0.50 U	0.50 U	5.3	0.50 U	0.50 U	18	--	--	--
HM-13MA	12/13/21	R	0.50 U	0.50 U	5.7	0.50 U	0.50 U	16	--	--	--
HM-13MA	10/20/22	R	0.50	0.50	6.4	0.50	0.50	18	--	--	--
HM-13MA	11/15/22	R	0.50	0.50	4.8	0.50	0.50	14	--	--	--
HM-14MA	02/23/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	05/07/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	08/20/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	11/16/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	02/19/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	05/18/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	08/20/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	11/03/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	03/23/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	06/22/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	09/28/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.70	--	--	--
HM-14MA	12/18/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	03/07/01	R	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	0.10 U	12
HM-14MA	06/20/01	R	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	--
HM-14MA	08/29/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	11/14/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	02/06/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	05/08/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	09/18/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	10/31/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	02/26/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	05/23/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	08/28/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	10/30/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	02/20/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	05/26/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	09/02/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	11/18/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-14MA	02/25/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	05/18/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	08/24/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	11/09/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	02/21/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	08/16/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	04/26/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	10/17/07	R	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	04/17/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	10/21/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	04/07/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	10/26/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	10/27/10	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	10/26/11	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	10/25/12	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	11/13/13	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	11/03/14	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	08/25/15	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	10/05/16	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	10/25/17	R	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.1 J	--	--	--
HM-14MA	10/30/18	R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--
HM-14MA	12/12/19	R	0.5 U	2.0 U	0.2 J	0.5 U	0.5 U	0.3 J	--	--	--
HM-14MA	11/18/20	R	0.54 U	0.48 U	0.62 U	0.48 U	0.52 U	0.54 U	--	--	--
HM-14MA	11/22/21	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-14MA	10/21/22	R	0.50	0.50	0.50	0.50	0.50	0.50	--	--	--
HM-15MA	02/24/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	66	--	--	--
HM-15MA	05/11/98	R	0.50 U	0.50 U	3.9	0.50 U	0.50 U	78	--	--	--
HM-15MA	08/19/98	R	0.50 U	0.50 U	4.3	0.50 U	0.50 U	89	--	--	--
HM-15MA	11/17/98	R	0.50 U	0.50 U	5.1	0.50 U	0.50 U	93	--	--	--
HM-15MA	02/18/99	R	0.50 U	0.50 U	5.0	0.50 U	0.50 U	69	--	--	--
HM-15MA	05/19/99	R	0.50 U	0.50 U	3.5	0.50 U	0.50 U	85	--	--	--
HM-15MA	08/19/99	R	0.50 U	0.50 U	4.4	0.50 U	0.50 U	75	--	--	--
HM-15MA	11/02/99	R	0.50 U	0.50 U	4.7	0.50 U	0.50 U	85	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-15MA	03/24/00	R	0.50 U	0.50 U	4.0	0.50 U	0.50 U	78	--	--	--
HM-15MA	06/20/00	R	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	--
HM-15MA	09/29/00	R	0.50 U	0.50 U	3.8	0.50 U	0.50 U	66	--	--	--
HM-15MA	12/19/00	R	1.0 U	1.0 U	3.0	1.0 U	1.0 U	72	--	--	--
HM-15MA	03/08/01	R	1.0 U	1.0 U	1.2	1.0 U	1.0 U	53	--	0.10 U	33
HM-15MA	06/21/01	R	1.0 U	1.0 U	2.8	1.0 U	1.0 U	51	--	--	--
HM-15MA	08/30/01	R	0.50 U	0.50 U	2.3	0.50 U	0.50 U	48	--	--	--
HM-15MA	11/16/01	R	0.50 U	0.50 U	0.79	0.50 U	0.50 U	29	--	--	--
HM-15MA	02/05/02	R	0.50 U	0.50 U	0.94	0.50 U	0.50 U	30	--	--	--
HM-15MA	05/07/02	R	0.50 U	0.50 U	0.88	0.50 U	0.50 U	25	--	--	--
HM-15MA	09/17/02	R	0.50 U	0.50 U	0.84	0.50 U	0.50 U	20	--	--	--
HM-15MA	10/30/02	R	0.50 U	0.50 U	1.0	0.50 U	0.50 U	24	--	--	--
HM-15MA	02/25/03	R	0.50 U	0.50 U	0.88	0.50 U	0.50 U	21	--	--	--
HM-15MA	05/23/03	R	0.50 U	0.50 U	0.76	0.50 U	0.50 U	18	--	--	--
HM-15MA	05/23/03	D	0.50 U	0.50 U	0.76	0.50 U	0.50 U	18	--	--	--
HM-15MA	08/28/03	R	0.50 U	0.50 U	0.66	0.50 U	0.50 U	17	--	--	--
HM-15MA	10/30/03	R	0.50 U	0.50 U	0.75	0.50 U	0.50 U	16	--	--	--
HM-15MA	10/30/03	D	0.50 U	0.50 U	0.75	0.50 U	0.50 U	16	--	--	--
HM-15MA	02/17/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	14	--	--	--
HM-15MA	02/17/04	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	14	--	--	--
HM-15MA	05/25/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	11	--	--	--
HM-15MA	05/25/04	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	12	--	--	--
HM-15MA	08/31/04	R	0.50 U	0.50 U	0.57	0.50 U	0.50 U	14	--	--	--
HM-15MA	08/31/04	D	0.50 U	0.50 U	0.57	0.50 U	0.50 U	14	--	--	--
HM-15MA	11/15/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	12	--	--	--
HM-15MA	11/15/04	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	12	--	--	--
HM-15MA	02/22/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	11	--	--	--
HM-15MA	02/22/05	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	10	--	--	--
HM-15MA	05/20/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	10	--	--	--
HM-15MA	05/20/05	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	9.9	--	--	--
HM-15MA	08/29/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	11	--	--	--
HM-15MA	08/29/05	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	10	--	--	--
HM-15MA	11/10/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	11	--	--	--
HM-15MA	11/10/05	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	11	--	--	--
HM-15MA	02/20/06	R	0.50 U	0.50 U	0.53	0.50 U	0.50 U	14	--	--	--
HM-15MA	02/20/06	D	0.50 U	0.50 U	0.59	0.50 U	0.50 U	14	--	--	--
HM-15MA	08/15/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	8.0	--	--	--
HM-15MA	04/24/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	7.8	--	--	--
HM-15MA	04/24/07	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	8.0	--	--	--
HM-15MA	10/16/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	8.8	--	--	--
HM-15MA	10/16/07	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	9.2	--	--	--
HM-15MA	04/16/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	8.1	--	--	--
HM-15MA	04/16/08	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	8.7	--	--	--
HM-15MA	10/23/08	R	0.50 U	0.50 U	0.53	0.50 U	0.50 U	12	--	--	--
HM-15MA	10/23/08	D	0.50 U	0.50 U	0.52	0.50 U	0.50 U	12	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-15MA	04/09/09	R	0.50 U	0.50 U	0.90	0.50 U	0.50 U	15	--	--	--
HM-15MA	04/09/09	D	0.50 U	0.50 U	0.82	0.50 U	0.50 U	15	--	--	--
HM-15MA	10/26/09	R	0.50 U	0.50 U	0.61	0.50 U	0.50 U	13	--	--	--
HM-15MA	10/26/09	D	0.50 U	0.50 U	0.58	0.50 U	0.50 U	12	--	--	--
HM-15MA	10/28/10	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	6.3	--	--	--
HM-15MA	12/01/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.8	--	--	--
HM-15MA	12/01/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.9	--	--	--
HM-15MA	12/01/11	R	0.50 U	0.50 U	0.51	0.50 U	0.50 U	2.9	--	--	--
HM-15MA	12/01/11	R	0.50 U	0.50 U	0.59	0.50 U	0.50 U	2.9	--	--	--
HM-15MA	12/01/11	R	0.50 U	0.50 U	0.59	0.50 U	0.50 U	3.0	--	--	--
HM-15MA	12/01/11	R	0.50 U	0.50 U	0.61	0.50 U	0.50 U	3.0	--	--	--
HM-15MA	12/01/11	R	0.50 U	0.50 U	0.61	0.50 U	0.50 U	3.0	--	--	--
HM-15MA	10/24/12	R	0.50 U	0.50 U	0.99	0.50 U	0.50 U	2.5	--	--	--
HM-15MA	10/24/12	D	0.50 U	0.50 U	1.0	0.50 U	0.50 U	2.6	--	--	--
HM-15MA	11/13/13	R	0.50 U	0.50 U	1.3	0.50 U	0.50 U	1.7	--	--	--
HM-15MA	11/13/13	D	0.50 U	0.50 U	1.3	0.50 U	0.50 U	1.7	--	--	--
HM-15MA	11/03/14	R	0.50 U	0.50 U	2.0	0.50 U	0.50 U	1.5	--	--	--
HM-15MA	11/03/14	D	0.50 U	0.50 U	1.8	0.50 U	0.50 U	1.6	--	--	--
HM-15MA	08/27/15	R	0.50 U	0.50 U	2.0	0.50 U	0.50 U	1.3	--	--	--
HM-15MA	08/27/15	D	0.50 U	0.50 U	2.1	0.50 U	0.50 U	1.5	--	--	--
HM-15MA	10/05/16	R	0.50 U	0.20 J	2.1	0.50 U	0.50 U	1.4	--	--	--
HM-15MA	10/05/16	D	0.50 U	0.30 J	2.1	0.50 U	0.50 U	1.4	--	--	--
HM-15MA	11/01/17	R	0.5 U	0.5 U	0.7	0.5 U	0.5 U	4.9	--	--	--
HM-15MA	11/01/17	D	0.5 U	0.5 U	0.6	0.5 U	0.5 U	4.5	--	--	--
HM-15MA	10/31/18	R	0.5 U	0.3 J	1.7	0.5 U	0.5 U	1.2	--	--	--
HM-15MA	10/31/18	D	0.5 U	0.3 J	2.1	0.5 U	0.5 U	1.2	--	--	--
HM-15MA	12/16/19	R	0.5 U	2.0 U	1.6	0.5 U	0.5 U	1.1	--	--	--
HM-15MA	12/16/19	D	0.5 U	2.0 U	1.7	0.5 U	0.5 U	1.1	--	--	--
HM-15MA	11/17/20	R	0.54 U	0.48 U	2.2	0.48 U	0.52 U	1.4 J	--	--	--
HM-15MA	11/17/20	D	0.54 U	0.48 U	2.2	0.48 U	0.52 U	1.5 J	--	--	--
HM-15MA	11/24/21	R	0.50 U	0.50 U	1.7	0.50 U	0.50 U	1.2	--	--	--
HM-15MA	11/24/21	D	0.50 U	0.50 U	1.7	0.50 U	0.50 U	1.3	--	--	--
HM-15MA	10/21/22	R	0.50	0.50	2.5	0.50	0.50	2.4	--	--	--
HM-15MA	10/21/22	D	0.50	0.50	2.5	0.50	0.50	2.4	--	--	--
HM-16MA	02/25/98	R	0.50 U	0.60	8.3	0.50 U	0.50 U	74	--	--	--
HM-16MA	05/12/98	R	0.50 U	0.50 U	12	0.50 U	0.50 U	110	--	--	--
HM-16MA	08/21/98	R	0.50 U	0.50 U	12	0.50 U	0.50 U	127	--	--	--
HM-16MA	11/19/98	R	0.50 U	0.50 U	12	0.50 U	0.50 U	127	--	--	--
HM-16MA	02/23/99	R	0.50 U	0.50 U	12	0.50 U	0.50 U	125	--	--	--
HM-16MA	05/20/99	R	1.0 U	1.0 U	17	1.0 U	1.0 U	178	--	--	--
HM-16MA	08/17/99	R	0.50 U	0.50 U	11	0.50 U	0.50 U	135	--	--	--
HM-16MA	11/05/99	R	0.50 U	0.50 U	13	0.50 U	0.50 U	142	--	--	--
HM-16MA	03/22/00	R	1.0 U	1.0 U	22	1.0 U	1.0 U	284	--	--	--
HM-16MA	06/21/00	R	0.50 U	0.50	18	0.50 U	0.50 U	184	--	--	--
HM-16MA	09/27/00	R	0.50 U	0.50 U	15	0.50 U	0.50 U	144	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-16MA	12/15/00	R	0.50 U	0.50 U	13	0.50 U	0.50 U	162	--	--	--
HM-16MA	03/09/01	R	2.0 U	2.0 U	12	2.0 U	2.0 U	153	--	0.10 U	9.8
HM-16MA	06/19/01	R	1.4	1.0 U	25	1.0 U	1.0 U	286	--	--	--
HM-16MA	06/19/01	D	1.5	1.0 U	24	1.0 U	1.0 U	273	--	--	--
HM-16MA	08/28/01	R	1.1	1.5	31	1.6	0.50 U	290	--	--	--
HM-16MA	08/28/01	D	1.1	1.5	29	1.2	0.50 U	260	--	--	--
HM-16MA	11/15/01	R	12 U	12 U	13	12 U	12 U	270	--	--	--
HM-16MA	11/15/01	D	12 U	12 U	14	12 U	12 U	250	--	--	--
HM-16MA	02/05/02	R	0.53	0.50 U	19	0.80	0.50 U	200	--	--	--
HM-16MA	05/09/02	R	0.89	0.50 U	18	1.2	0.50 U	150	--	--	--
HM-16MA	05/09/02	D	0.87	0.50 U	18	1.1	0.50 U	160	--	--	--
HM-16MA	09/19/02	R	0.99	0.50 U	19	0.84	0.50 U	190	--	--	--
HM-16MA	11/01/02	R	0.84	0.50 U	20	0.78	0.50 U	200	--	--	--
HM-16MA	02/27/03	R	0.51	0.50 U	18	0.79	0.50 U	230	--	--	--
HM-16MA	05/22/03	R	1.2	0.69	25	1.2	0.57	330	--	--	--
HM-16MA	08/29/03	R	1.4	0.59	23	1.1	0.50 U	270	--	--	--
HM-16MA	10/28/03	R	1.5	0.78	29	1.4	0.50 U	300	--	--	--
HM-16MA	02/20/04	R	1.3	0.67	23	1.4	0.50 U	370	--	--	--
HM-16MA	05/27/04	R	1.3	0.75	24	1.5	0.50 U	330	--	--	--
HM-16MA	09/02/04	R	1.2	0.68	23	1.5	0.50 U	350	--	--	--
HM-16MA	11/18/04	R	1.3	0.79	29	1.4	0.50 U	350	--	--	--
HM-16MA	02/23/05	R	1.3	0.75	22	1.6	0.50 U	320	--	--	--
HM-16MA	05/19/05	R	1.4	0.86	23	1.4	0.50 U	380	--	--	--
HM-16MA	08/26/05	R	1.4	0.93	25	1.8	0.50 U	330	--	--	--
HM-16MA	08/26/05	D	2.2	0.97	55	2.8	0.73	430	--	--	--
HM-16MA	11/10/05	R	1.0	0.68	25	1.4	0.50 U	320	--	--	--
HM-16MA	02/21/06	R	1.3	0.91	22	1.8	0.50 U	280	--	--	--
HM-16MA	08/15/06	R	1.0	0.77	18	1.4	0.50 U	240	--	--	--
HM-16MA	04/26/07	R	0.95	0.68	21 J	1.3	0.50 U	270	--	--	--
HM-16MA	10/16/07	R	1.0	0.80	20 J	1.5	0.50 U	280	--	--	--
HM-16MA	04/14/08	R	0.87	0.63	19	1.6	0.50 U	240	--	--	--
HM-16MA	10/27/08	R	1.1	0.74 U	26	1.8	0.50 U	270	--	--	--
HM-16MA	10/27/08	D	0.81	0.50 U	79	7.2	3.8	210	--	--	--
HM-16MA	04/09/09	R	0.89	0.70	29	1.9	0.50 U	260	--	--	--
HM-16MA	10/27/09	R	1.2 U	1.2 U	30	1.5	1.2 U	300	--	--	--
HM-16MA	11/01/10	R	0.72	0.50 U	29	1.7	0.84	240	--	--	--
HM-16MA	10/26/11	R	0.69	0.52	20	1.0	0.50 U	230	--	--	--
HM-16MA	10/26/11	R	0.80	0.53	21	1.3	0.50 U	230	--	--	--
HM-16MA	10/26/11	R	0.83	0.62	22	1.5	0.50 U	230	--	--	--
HM-16MA	10/25/12	R	2.0 U	2.0 U	32	2.0 U	2.0 U	290	--	--	--
HM-16MA	11/12/13	R	2.0 U	2.0 U	26	2.0 U	2.0 U	250	--	--	--
HM-16MA	11/04/14	R	2.5 U	2.5 U	28	2.5 U	2.5 U	230	--	--	--
HM-16MA	08/25/15	R	0.82	0.50 U	31	1.3	0.50 U	210	--	--	--
HM-16MA	09/08/15	R	1.0 UJ	1.0 UJ	28 J	1.4 J	1.0 UJ	215 J	--	--	--
HM-16MA	10/05/16	R	0.80 J	0.40 J	24	1.0 J	2.0 U	200	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-16MA	10/24/17	R	0.6 J	1.7 U	16	1.1 J	1.7 U	160	--	--	--
HM-16MA	10/24/17	D	0.5 J	1.7 U	17	1.0 J	1.7 U	160	--	--	--
HM-16MA	10/30/18	R	1.7 U	1.7 U	16	1.5 J	1.7 U	170	--	--	--
HM-16MA	10/30/18	D	1.7 U	1.7 U	16	1.0 J	1.7 U	160	--	--	--
HM-16MA	12/11/19	R	1.0	2.0 U	24	0.9	0.1 J	150	--	--	--
HM-16MA	12/11/19	D	0.7 J	2.0 U	17	0.8 J	0.4 J	160	--	--	--
HM-16MA	11/18/20	R	0.54 U	0.48 U	22	1.4 J	0.52 U	150	--	--	--
HM-16MA	11/18/20	D	0.90 J	0.48 U	24	1.1 J	0.52 U	160	--	--	--
HM-16MA	11/23/21	R	0.58	0.50 U	18	1.4	0.50 U	150	--	--	--
HM-16MA	11/23/21	D	0.62	0.50 U	18	1.2	0.50 U	150	--	--	--
HM-16MA	10/20/22	R	0.90	0.50	23	1.1	0.50	150	--	--	--
HM-16MA	10/20/22	D	0.50	0.50	13	0.63	0.50	140	--	--	--
HM-17MA	02/24/98	R	0.50 U	0.50 U	2.2	0.50 U	0.50 U	22	--	--	--
HM-17MA	05/11/98	R	0.50 U	0.50 U	3.1	0.50 U	0.50 U	27	--	--	--
HM-17MA	08/19/98	R	0.50 U	0.50 U	2.0	0.50 U	0.50 U	22	--	--	--
HM-17MA	11/18/98	R	0.50 U	0.50 U	2.0	0.50 U	0.50 U	23	--	--	--
HM-17MA	02/01/99	R	NS	NS	NS	NS	NS	NS	--	--	--
HM-17MA	05/19/99	R	0.50 U	0.50 U	1.9	0.50 U	0.50 U	20	--	--	--
HM-17MA	08/19/99	R	0.50 U	0.50 U	2.1	0.50 U	0.50 U	22	--	--	--
HM-17MA	11/02/99	R	0.50 U	0.50 U	2.0	0.50 U	0.50 U	22	--	--	--
HM-17MA	03/24/00	R	0.50 U	0.50 U	1.6	0.50 U	0.50 U	19	--	--	--
HM-17MA	06/20/00	R	0.50 U	0.50 U	1.8	0.50 U	0.50 U	21	--	--	--
HM-17MA	09/29/00	R	0.50 U	0.50 U	2.9	0.50 U	0.50 U	31	--	--	--
HM-17MA	12/19/00	R	1.0 U	1.0 U	2.3	1.0 U	1.0 U	30	--	--	--
HM-17MA	03/08/01	R	1.0 U	1.0 U	1.8	1.0 U	1.0 U	27	--	0.10 U	7.2
HM-17MA	06/21/01	R	1.0 U	1.0 U	2.5	1.0 U	1.0 U	21	--	--	--
HM-17MA	08/30/01	R	0.50 U	0.50 U	2.6	0.50 U	0.50 U	26	--	--	--
HM-17MA	11/16/01	R	0.50 U	0.50 U	1.9	0.50 U	0.50 U	19	--	--	--
HM-17MA	02/05/02	R	0.50 U	0.50 U	2.1	0.50 U	0.50 U	19	--	--	--
HM-17MA	05/07/02	R	0.50 U	0.50 U	2.0	0.50 U	0.50 U	16	--	--	--
HM-17MA	09/17/02	R	0.50 U	0.50 U	1.7	0.50 U	0.50 U	13	--	--	--
HM-17MA	10/30/02	R	0.50 U	0.50 U	2.1	0.50 U	0.50 U	17	--	--	--
HM-17MA	02/25/03	R	0.50 U	0.50 U	1.5	0.50 U	0.50 U	14	--	--	--
HM-17MA	02/25/03	D	0.50 U	0.50 U	1.8	0.50 U	0.50 U	14	--	--	--
HM-17MA	05/23/03	R	0.50 U	0.50 U	1.5	0.50 U	0.50 U	11	--	--	--
HM-17MA	08/28/03	R	0.50 U	0.50 U	1.6	0.50 U	0.50 U	11	--	--	--
HM-17MA	08/28/03	D	0.50 U	0.50 U	1.5	0.50 U	0.50 U	11	--	--	--
HM-17MA	10/30/03	R	0.50 U	0.50 U	1.2	0.50 U	0.50 U	8.5	--	--	--
HM-17MA	02/17/04	R	0.50 U	0.50 U	0.94	0.50 U	0.50 U	7.8	--	--	--
HM-17MA	05/25/04	R	0.50 U	0.50 U	0.93	0.50 U	0.50 U	7.8	--	--	--
HM-17MA	08/31/04	R	0.50 U	0.50 U	1.2	0.50 U	0.50 U	11	--	--	--
HM-17MA	11/15/04	R	0.50 U	0.50 U	1.1	0.50 U	0.50 U	11	--	--	--
HM-17MA	02/22/05	R	0.50 U	0.50 U	1.2	0.50 U	0.50 U	12	--	--	--
HM-17MA	05/20/05	R	0.50 U	0.50 U	1.0	0.50 U	0.50 U	12	--	--	--
HM-17MA	08/30/05	R	0.50 U	0.50 U	0.89	0.50 U	0.50 U	9.3	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-17MA	11/08/05	R	0.50 U	0.50 U	0.80	0.50 U	0.50 U	7.9	--	--	--
HM-17MA	02/20/06	R	0.50 U	0.50 U	0.81	0.50 U	0.50 U	12	--	--	--
HM-17MA	08/17/06	R	0.50 U	0.50 U	0.52	0.50 U	0.50 U	9.1	--	--	--
HM-17MA	04/24/07	R	0.50 U	0.50 U	0.57 J	0.50 U	0.50 U	8.2	--	--	--
HM-17MA	10/16/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	7.7	--	--	--
HM-17MA	04/15/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	4.7	--	--	--
HM-17MA	10/23/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	6.5	--	--	--
HM-17MA	04/09/09	R	0.50 U	0.50 U	0.60	0.50 U	0.50 U	13	--	--	--
HM-17MA	10/26/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	8.6	--	--	--
HM-17MA	10/28/10	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	8.1	--	--	--
HM-17MA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	4.7	--	--	--
HM-17MA	12/01/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	3.6	--	--	--
HM-17MA	12/01/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	3.8	--	--	--
HM-17MA	12/01/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	3.9	--	--	--
HM-17MA	12/01/11	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	3.6	--	--	--
HM-17MA	10/24/12	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	4.4	--	--	--
HM-17MA	11/14/13	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	4.5	--	--	--
HM-17MA	11/03/14	R	0.50 U	0.50 U	0.73	0.50 U	0.50 U	6.4	--	--	--
HM-17MA	08/25/15	R	0.50 U	0.50 U	0.78	0.50 U	0.50 U	6.3	--	--	--
HM-17MA	10/05/16	R	0.50 U	0.50 U	0.90	0.50 U	0.50 U	6.8	--	--	--
HM-17MA	10/25/17	R	0.5 U	0.5 U	0.5	0.5 U	0.5 U	4.6	--	--	--
HM-17MA	10/31/18	R	0.5 U	0.5 U	0.6	0.5 U	0.5 U	4.3	--	--	--
HM-17MA	12/11/19	R	0.2 J	2.0 U	0.6	0.5 U	0.5 U	4.0	--	--	--
HM-17MA	11/17/20	R	0.54 U	0.48 U	1.1 J	0.48 U	0.52 U	8.4	--	--	--
HM-17MA	11/24/21	R	0.50 U	0.50 U	0.81	0.50 U	0.50 U	5.4	--	--	--
HM-17MA	11/15/22	R	0.50	0.50	0.81	0.50	0.50	4.4	--	--	--
HM-18LA	02/01/98	R	NS	NS	NS	NS	NS	NS	--	--	--
HM-18LA	05/13/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	08/21/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	11/19/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	02/23/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	05/21/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	08/17/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	11/05/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	03/22/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	06/23/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	06/23/00	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	09/27/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	12/15/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	03/09/01	R	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	0.10 U	7.2
HM-18LA	06/19/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	08/28/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	11/15/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.53	--	--	--
HM-18LA	02/05/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	02/05/02	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-18LA	05/09/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	09/19/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	11/01/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	02/27/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	05/22/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	08/29/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	10/28/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	02/20/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	05/27/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	09/02/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	11/18/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	02/23/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	05/19/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	08/26/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	11/10/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	02/23/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	08/17/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	04/26/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	10/16/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	04/15/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	10/23/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	04/09/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	10/27/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	10/27/10	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	10/25/12	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	11/12/13	R	0.50 U	0.56	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	11/04/14	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	08/25/15	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	10/05/16	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	10/24/17	R	0.5 U	0.6	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--
HM-18LA	10/30/18	R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--
HM-18LA	12/11/19	R	0.5 U	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--
HM-18LA	11/18/20	R	0.54 U	0.96 J	0.62 U	0.48 U	0.52 U	0.54 U	--	--	--
HM-18LA	11/23/21	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-18LA	10/20/22	R	0.50	0.50	0.50	0.50	0.50	0.50	--	--	--
HM-19MA	02/24/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	05/11/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	08/19/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	11/18/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	02/18/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	05/19/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	08/18/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-19MA	11/02/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	03/24/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	03/24/00	D	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	--
HM-19MA	06/20/00	R	0.50 U	0.50 U	2.6	0.50 U	0.50 U	66 J	--	--	--
HM-19MA	09/29/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	09/29/00	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	12/19/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	12/19/00	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	03/08/01	R	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	0.10 U	1.7
HM-19MA	06/21/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	08/30/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	11/16/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	02/05/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	05/07/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	09/17/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	10/30/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	02/25/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	05/23/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	08/28/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	10/29/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	02/17/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	05/25/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	08/31/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	11/15/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	02/22/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	05/19/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	08/29/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	11/11/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	02/20/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	08/15/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	08/15/06	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	7.9	--	--	--
HM-19MA	04/24/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	10/16/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	04/15/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	10/21/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	04/07/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	10/26/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	10/28/10	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	10/28/10	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	10/24/12	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	11/13/13	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	11/03/14	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-19MA	08/27/15	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	10/05/16	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	10/25/17	R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--
HM-19MA	10/31/18	R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--
HM-19MA	12/16/19	R	0.5 U	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--
HM-19MA	12/09/20	R	0.54 U	0.48 U	0.62 U	0.48 U	0.52 U	0.54 U	--	--	--
HM-19MA	11/24/21	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-19MA	10/21/22	R	0.50	0.50	0.50	0.50	0.50	0.50	--	--	--
HM-20MA	02/25/98	R	2.6	0.50 U	53	1.1	0.70	258	--	--	--
HM-20MA	05/12/98	R	4.2	1.6	96	6.7	0.50 U	790	--	--	--
HM-20MA	08/17/98	R	2.8	4.5	110	6.3	1.9	660	--	--	--
HM-20MA	11/19/98	R	3.4	1.7	50	6.1	0.80	374	--	--	--
HM-20MA	02/16/99	R	2.2	1.2	78	3.8	0.50 U	561	--	--	--
HM-20MA	05/21/99	R	3.2	1.0 U	76	5.0	1.0 U	580	--	--	--
HM-20MA	08/17/99	R	3.9	1.9	85	6.0	0.70	526	--	--	--
HM-20MA	11/05/99	R	3.4	1.7	68	5.6	1.3	745	--	--	--
HM-20MA	03/22/00	R	3.0	1.6	70	4.9	0.50 U	754	--	--	--
HM-20MA	06/21/00	R	3.3	2.2	82	5.1	0.90	643	--	--	--
HM-20MA	06/21/00	D	2.8	1.2	79	5.0	3.5	659	--	--	--
HM-20MA	09/27/00	R	3.6	1.3	63	5.3	0.50 U	609	--	--	--
HM-20MA	09/27/00	D	3.4	1.3	65	5.2	0.50 U	621	--	--	--
HM-20MA	12/15/00	R	2.5	1.0 U	75	3.9	1.0 U	798	--	--	--
HM-20MA	03/09/01	R	1.7	1.0 U	76	3.4	1.0 U	631	--	0.10 U	23
HM-20MA	03/09/01	D	1.5	1.0 U	75	3.1	1.0 U	594	--	--	--
HM-20MA	06/19/01	R	3.4	1.9	78	5.2	1.0 U	606	--	--	--
HM-20MA	06/19/01	D	2.9	2.2	79	5.7	0.50 U	631	--	--	--
HM-20MA	08/28/01	R	3.4	4.8	87	5.1	0.50 U	670	--	--	--
HM-20MA	08/28/01	D	3.1	4.5	82	4.8	1.5	570	--	--	--
HM-20MA	11/15/01	R	12 U	12 U	68	12 U	12 U	600	--	--	--
HM-20MA	11/15/01	D	12 U	12 U	62	12 U	12 U	550	--	--	--
HM-20MA	02/05/02	R	2.1	0.98	70	3.9	0.59	580	--	--	--
HM-20MA	05/09/02	R	2.8	1.2	62	4.6	0.62	470	--	--	--
HM-20MA	05/09/02	R	5.0 U	5.0 U	65	5.0 U	5.0 U	--	--	--	--
HM-20MA	09/19/02	R	3.2	1.3	73	4.2	0.61	560	--	--	--
HM-20MA	09/19/02	D	3.2	1.3	73	4.0	0.50 U	560	--	--	--
HM-20MA	11/01/02	R	2.8	1.4	73	3.9	0.50 U	600	--	--	--
HM-20MA	11/01/02	D	2.6	1.4	75	4.0	1.0	590	--	--	--
HM-20MA	02/27/03	R	2.1	1.8	56	3.0	0.53	490	--	--	--
HM-20MA	02/27/03	D	2.1	1.7	62	3.3	0.50 U	330	--	--	--
HM-20MA	05/22/03	R	2.9	1.6	79	3.8	0.50 U	540	--	--	--
HM-20MA	05/22/03	D	3.0	1.4	76	3.6	0.50 U	580	--	--	--
HM-20MA	08/29/03	R	2.8	1.1	65	3.7	0.50 U	550	--	--	--
HM-20MA	08/29/03	D	2.0	1.0	61	3.3	0.50 U	520	--	--	--
HM-20MA	10/28/03	R	2.1	1.4	76	3.6	2.2	420	--	--	--
HM-20MA	10/28/03	D	2.5	1.3	75	3.5	2.0	500	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-20MA	02/20/04	R	2.1	0.91	57	2.9	0.50 U	540	--	--	--
HM-20MA	02/20/04	D	2.4	1.0	63	3.4	0.50 U	550	--	--	--
HM-20MA	05/27/04	R	1.9	0.82	55	2.6	0.50 U	450	--	--	--
HM-20MA	05/27/04	D	1.9	0.85	56	2.6	0.50 U	460	--	--	--
HM-20MA	09/02/04	R	1.8	0.85	57	2.8	0.55	460	--	--	--
HM-20MA	09/02/04	D	1.8	0.79	54	2.7	0.50 U	470	--	--	--
HM-20MA	11/18/04	R	2.0	0.88	65	2.7	0.50 U	450	--	--	--
HM-20MA	11/18/04	D	1.8	0.76	62	2.6	0.50 U	450	--	--	--
HM-20MA	02/23/05	R	1.9	0.79	50	2.7	0.50 U	450	--	--	--
HM-20MA	02/23/05	D	2.0	0.79	52	2.7	0.50 U	420	--	--	--
HM-20MA	05/19/05	R	1.9	0.83	51	2.3	0.63	440	--	--	--
HM-20MA	05/19/05	D	1.7	0.82	49	2.4	0.91	450	--	--	--
HM-20MA	08/26/05	R	1.8	0.94	59	2.5	1.7	450	--	--	--
HM-20MA	11/11/05	R	1.5	0.69	49	2.4	0.65	390	--	--	--
HM-20MA	11/11/05	D	1.6	0.82	53	2.5	0.50 U	430	--	--	--
HM-20MA	02/21/06	R	1.2	0.80	49	2.6	0.81	360	--	--	--
HM-20MA	02/21/06	D	0.51	0.50 U	52	0.50 U	0.50 U	350	--	--	--
HM-20MA	02/21/06	D	1.6	0.84	290	2.8	5.2	410	--	--	--
HM-20MA	08/15/06	R	1.2	0.70	43	2.5	0.63	310	--	--	--
HM-20MA	08/15/06	D	1.1	0.68	41	2.3	1.0	300	--	--	--
HM-20MA	04/26/07	R	1.4	0.65	42	2.2	0.50 U	370	--	--	--
HM-20MA	04/26/07	D	1.4	0.68	42	2.0	0.50 U	350	--	--	--
HM-20MA	10/17/07	R	1.4	0.74	44 J	2.4	0.53	280	--	--	--
HM-20MA	10/19/07	D	1.4	0.69	44 J	2.2	0.50 U	280	--	--	--
HM-20MA	04/15/08	R	0.94	0.57	38	2.4	0.68	290	--	--	--
HM-20MA	04/15/08	D	0.97	0.55	35	2.2	0.50 U	270	--	--	--
HM-20MA	10/27/08	R	1.1	0.61 U	32	2.2	0.57	240	--	--	--
HM-20MA	04/09/09	R	0.85	0.62	38	2.2	0.73	260	--	--	--
HM-20MA	04/09/09	D	1.2	0.57	39	2.3	0.50 U	260	--	--	--
HM-20MA	10/27/09	R	1.2 U	1.2 U	36	2.3	1.2 U	290	--	--	--
HM-20MA	10/27/09	D	1.2	1.2 U	37	1.8	1.2 U	310	--	--	--
HM-20MA	11/01/10	R	0.50 U	0.50 U	33	2.2	2.8	240	--	--	--
HM-20MA	10/26/11	R	0.97	0.50 U	35	1.4	0.50 U	210	--	--	--
HM-20MA	10/26/11	R	1.2	0.58	39	1.9	0.50 U	260	--	--	--
HM-20MA	10/26/11	R	1.2	0.61	41	2.1	0.50 U	270	--	--	--
HM-20MA	10/26/11	D	1.1	0.53	39	2.3	0.50 U	270	--	--	--
HM-20MA	10/25/12	R	0.67	0.50 U	17 J	1.3	0.50 U	140 J	--	--	--
HM-20MA	10/25/12	D	1.3 U	1.3 U	33 J	2.1	1.3 U	300 J	--	--	--
HM-20MA	11/12/13	D	1.3	0.52	33	2.0	0.50 U	270	--	--	--
HM-20MA	11/13/13	R	2.0 U	2.0 U	24	2.0 U	2.0 U	220	--	--	--
HM-20MA	11/04/14	R	2.5 U	2.5 U	29	2.5 U	2.5 U	210	--	--	--
HM-20MA	11/04/14	D	2.5 U	2.5 U	31	2.5 U	2.5 U	220	--	--	--
HM-20MA	08/25/15	R	0.94	0.50 U	32	2.0	0.50 U	220	--	--	--
HM-20MA	08/25/15	D	0.94	0.50 U	30	1.8	0.50 U	200	--	--	--
HM-20MA	10/05/16	R	1.2 J	0.50 J	26	1.8	1.7 U	200	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-20MA	10/05/16	D	1.2 J	0.50 J	26	1.7	1.7 U	200	--	--	--
HM-20MA	10/24/17	R	1.0 J	0.4 J	22	1.6 J	1.7 U	180	--	--	--
HM-20MA	10/30/18	R	0.9 J	1.7 U	20	2.0	1.7 U	180	--	--	--
HM-20MA	12/11/19	R	1.0 J	5.0 U	21	1.3	1.3 U	180	--	--	--
HM-20MA	11/18/20	R	1.2 J	0.48 U	25	2.6	0.52 U	180	--	--	--
HM-20MA	11/23/21	R	0.8	0.50 U	22	2.2	0.50 U	170	--	--	--
HM-20MA	10/20/22	R	0.67	0.50	16	1.2	0.50	160	--	--	--
HM-21LA	02/01/98	R	NS	NS	NS	NS	NS	NS	--	--	--
HM-21LA	05/20/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21LA	08/24/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21LA	11/20/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21LA	02/24/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21LA	05/24/99	R	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.70	--	--	--
HM-21LA	08/23/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21LA	11/08/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21LA	03/23/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21LA	06/22/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21LA	09/28/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.70	--	--	--
HM-21LA	12/18/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.60	--	--	--
HM-21LA	03/07/01	R	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	--
HM-21LA	06/20/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.60	--	--	--
HM-21LA	08/29/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.70	--	--	--
HM-21LA	11/14/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21LA	02/06/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.66	--	--	--
HM-21LA	05/08/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.96	--	--	--
HM-21LA	09/18/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.80	--	--	--
HM-21LA	10/31/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.83	--	--	--
HM-21LA	02/26/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.3	--	--	--
HM-21LA	05/21/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.83	--	--	--
HM-21LA	08/27/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.93	--	--	--
HM-21LA	10/29/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.93	--	--	--
HM-21LA	02/18/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.3	--	--	--
HM-21LA	05/26/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0	--	--	--
HM-21LA	09/01/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.99	--	--	--
HM-21LA	11/17/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.3	--	--	--
HM-21LA	02/24/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.6	--	--	--
HM-21LA	05/17/05	R	0.50 U	0.50 U	0.54	0.50 U	0.50 U	3.6	--	--	--
HM-21LA	08/24/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.99	--	--	--
HM-21LA	11/09/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.95	--	--	--
HM-21LA	02/22/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.1	--	--	--
HM-21LA	08/16/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0	--	--	--
HM-21LA	04/25/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.4	--	--	--
HM-21LA	10/18/07	R	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	1.2	--	--	--
HM-21LA	04/16/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.2	--	--	--
HM-21LA	10/22/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.83	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-21LA	04/08/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.4	--	--	--
HM-21LA	10/28/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.90	--	--	--
HM-21LA	11/02/10	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.2	--	--	--
HM-21LA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21LA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21LA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21LA	10/26/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21LA	10/25/12	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21LA	11/13/13	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21LA	11/03/14	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21LA	08/25/15	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21LA	10/05/16	R	0.50 UJ	0.60 J	0.50 UJ	0.50 UJ	0.50 UJ	0.30 J	--	--	--
HM-21LA	10/25/17	R	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	--	--	--
HM-21LA	10/30/18	R	0.5 U	0.5	0.5 U	0.5 U	0.5 U	0.1 J	--	--	--
HM-21LA	12/12/19	R	0.5 U	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--
HM-21LA	12/09/20	R	0.54 U	0.61 J	0.62 U	0.48 U	0.52 U	0.54 U	--	--	--
HM-21LA	11/22/21	R	0.50 U	0.61	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21LA	10/21/22	R	0.50	0.50	0.50	0.50	0.50	0.50	--	--	--
HM-21MA	02/01/98	R	NS	NS	NS	NS	NS	NS	--	--	--
HM-21MA	05/20/98	R	0.50 U	0.50 U	1.2	0.50 U	0.50 U	14	--	--	--
HM-21MA	08/24/98	R	0.50 U	0.50 U	0.60	0.50 U	0.50 U	12	--	--	--
HM-21MA	11/20/98	R	0.50 U	0.50 U	0.70	0.50 U	0.50 U	13	--	--	--
HM-21MA	02/24/99	R	0.50 U	0.50 U	1.1	0.50 U	0.50 U	11	--	--	--
HM-21MA	05/24/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	9.0	--	--	--
HM-21MA	08/23/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	7.9	--	--	--
HM-21MA	11/08/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	10	--	--	--
HM-21MA	03/23/00	R	0.50 U	0.50 U	0.50	0.50 U	0.50 U	8.9	--	--	--
HM-21MA	06/22/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	11	--	--	--
HM-21MA	09/28/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	12	--	--	--
HM-21MA	12/18/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	9.1	--	--	--
HM-21MA	03/07/01	R	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.2	--	0.10 U	7.0
HM-21MA	06/20/01	R	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	7.6	--	--	--
HM-21MA	08/29/01	R	0.50 U	0.50 U	0.90	0.50 U	0.50 U	9.1	--	--	--
HM-21MA	11/14/01	R	0.50 U	0.50 U	0.50	0.50 U	0.50 U	7.3	--	--	--
HM-21MA	02/06/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	6.8	--	--	--
HM-21MA	05/08/02	R	0.50 U	0.50 U	0.97	0.50 U	0.50 U	8.6	--	--	--
HM-21MA	05/08/02	D	0.50 U	0.50 U	1.0	0.50 U	0.50 U	9.2	--	--	--
HM-21MA	09/18/02	R	0.50 U	0.50 U	0.85	0.50 U	0.50 U	7.2	--	--	--
HM-21MA	10/31/02	R	0.50 U	0.50 U	0.83	0.50 U	0.50 U	7.0	--	--	--
HM-21MA	10/31/02	D	0.50 U	0.50 U	0.90	0.50 U	0.50 U	7.5	--	--	--
HM-21MA	02/26/03	R	0.50 U	0.50 U	0.83	0.50 U	0.50 U	6.0	--	--	--
HM-21MA	05/21/03	R	0.50 U	0.50 U	1.1	0.50 U	0.50 U	7.2	--	--	--
HM-21MA	08/27/03	R	0.50 U	0.50 U	0.98	0.50 U	0.50 U	6.4	--	--	--
HM-21MA	10/29/03	R	0.50 U	0.50 U	0.85	0.50 U	0.50 U	6.2	--	--	--
HM-21MA	02/18/04	R	0.50 U	0.50 U	0.61	0.50 U	0.50 U	4.8	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-21MA	05/26/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	4.2	--	--	--
HM-21MA	09/01/04	R	0.50 U	0.50 U	0.52	0.50 U	0.50 U	4.6	--	--	--
HM-21MA	11/17/04	R	0.50 U	0.50 U	0.60	0.50 U	0.50 U	4.2	--	--	--
HM-21MA	02/24/05	R	0.50 U	0.50 U	0.54	0.50 U	0.50 U	4.1	--	--	--
HM-21MA	05/17/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	3.2	--	--	--
HM-21MA	08/24/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	3.6	--	--	--
HM-21MA	11/10/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	3.5	--	--	--
HM-21MA	02/22/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.1	--	--	--
HM-21MA	08/16/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.7	--	--	--
HM-21MA	04/25/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.3	--	--	--
HM-21MA	10/18/07	R	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	1.3	--	--	--
HM-21MA	04/16/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.97	--	--	--
HM-21MA	10/22/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0	--	--	--
HM-21MA	04/08/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.84	--	--	--
HM-21MA	10/28/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.59	--	--	--
HM-21MA	11/02/10	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.64	--	--	--
HM-21MA	11/02/10	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.62	--	--	--
HM-21MA	12/01/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21MA	12/01/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21MA	12/01/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21MA	12/01/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21MA	10/25/12	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.52	--	--	--
HM-21MA	11/13/13	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21MA	11/03/14	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21MA	08/25/15	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21MA	10/05/16	R	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ	0.10 J	--	--	--
HM-21MA	10/25/17	R	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	--	--	--
HM-21MA	10/30/18	R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--
HM-21MA	12/12/19	R	0.5 U	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--
HM-21MA	11/18/20	R	0.54 U	0.48 U	0.62 U	0.48 U	0.52 U	0.54 U	--	--	--
HM-21MA	11/22/21	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-21MA	10/21/22	R	0.50	0.50	0.50	0.50	0.50	0.50	--	--	--
HM-22LA	02/01/98	R	NS	NS	NS	NS	NS	NS	--	--	--
HM-22LA	05/21/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	08/24/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	11/20/98	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	02/24/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	05/24/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	08/23/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	11/08/99	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	03/23/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	06/22/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	09/28/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	12/18/00	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-22LA	03/07/01	R	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	--
HM-22LA	06/20/01	R	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	--	--
HM-22LA	08/29/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	11/15/01	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	02/06/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	05/08/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	09/18/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	10/31/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	02/26/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	05/22/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	08/27/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	10/29/03	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	02/18/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	05/26/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	09/01/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	11/17/04	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	02/24/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	05/17/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	08/24/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	11/09/05	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	02/22/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	08/16/06	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	04/25/07	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	10/18/07	R	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	04/16/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	10/23/08	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	04/08/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	10/28/09	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	10/28/09	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	11/02/10	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	10/21/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	10/21/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	10/21/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	10/21/11	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	10/21/11	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	10/24/12	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	11/13/13	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	11/03/14	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	08/26/15	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	10/05/16	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	10/25/17	R	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	--	--	--
HM-22LA	10/31/18	R	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--
HM-22LA	12/16/19	R	0.5 U	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--	--
HM-22LA	11/17/20	R	0.54 U	0.48 U	0.62 U	0.48 U	0.52 U	0.54 U	--	--	--
HM-22LA	11/22/21	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	--	--
HM-22LA	10/18/22	R	0.50	0.50	0.50	0.50	0.50	0.50	--	--	--

Appendix C. Historical Groundwater Monitoring Results

Honeywell Deer Valley Computer Park Groundwater Treatment Facility, Phoenix, Arizona

Location ID	Sample Date	Sample Type	1,1-DCE µg/L	CFM µg/L	cis-1,2-DCE µg/L	PCE µg/L	t-1,2-DCE µg/L	TCE µg/L	Nitrogen, Nitrate (as N) mg/L	Nitrogen, Nitrite mg/L	Nitrogen, Nitrate-Nitrite mg/L
HM-23	02/27/02	R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	4.9	--	--	--
HM-23	02/27/02	D	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	4.9	--	--	--

Notes:

Samples analyzed for nitrate and nitrite using EPA Method 300.0

Samples analyzed for volatile organic compounds by EPA Method 624.1

"--" = not analyzed

1,1-DCE = 1,1-dichloroethene

CFM = chloroform

cis-1,2-DCE = cis-1,2-dichloroethene

D = duplicate sample

µg/L = micrograms per liter (µg/L)

mg/L = milligrams per liter (mg/L)

N = nitrogen

NS = not sampled

PCE = tetrachloroethene

R = regular sample

t-1,2-DCE = trans-1,2-dichloroethene

TCE = trichloroethene

Originator: (print name) Parthiban P	*Parthiban P*
	(signature)
Checked by: (print name) Derek Foher	*Derek Foher*
	(signature)

Appendix E
Trend Analysis—5 Years

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 4-Dec-22
Facility Name: Deer Valley
Conducted By: Victor Gamez Grijalva

Job ID:
Constituent: HM-01MA
Concentration Units: ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-01MA CONCENTRATION (ug/L)						
1	31-Oct-18	0.5	0.5	0.5	0.5	0.5	0.5	
2	11-Dec-19	0.5	2	0.5	0.5	0.5	0.5	
3	19-Nov-20	0.54	0.48	0.62	0.48	0.52	0.54	
4	23-Nov-21	0.5	0.5	0.72	0.5	0.5	0.5	
5	20-Oct-22	0.5	0.5	0.59	0.5	0.5	0.5	
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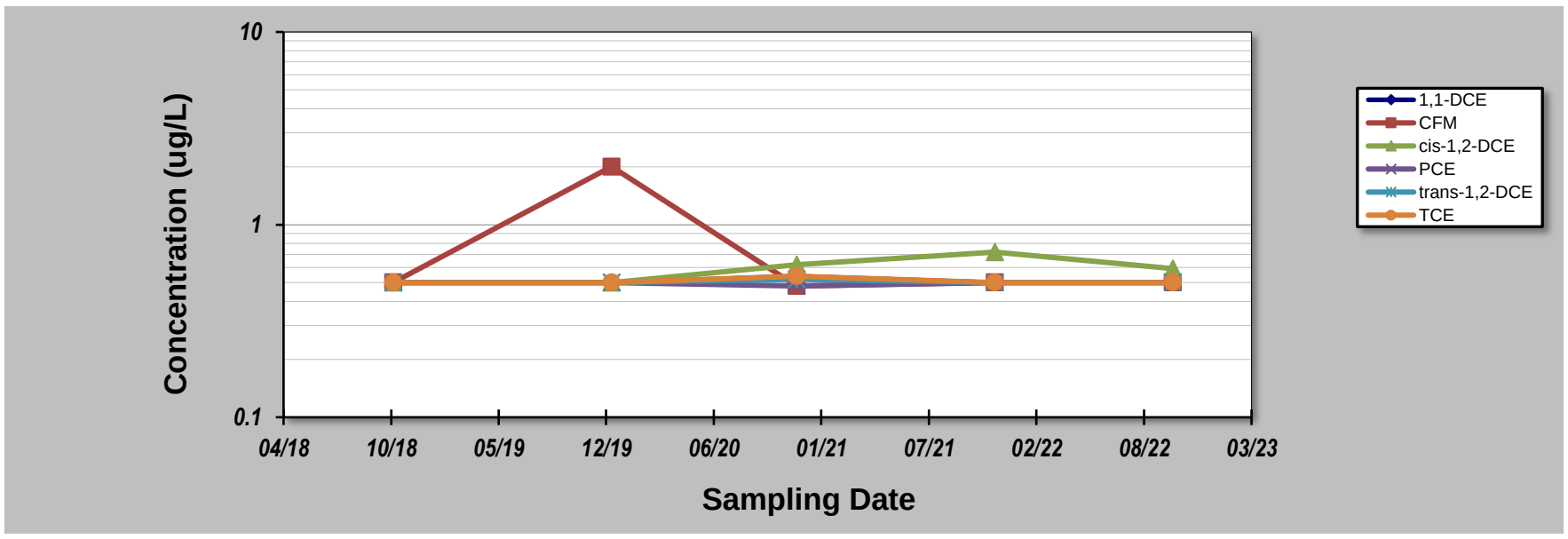
Coefficient of Variation:		0.04	0.85	0.16	0.02	0.02	0.04	
Mann-Kendall Statistic (S):		0	-1	5	0	0	0	
Confidence Factor:		40.8%	50.0%	82.1%	40.8%	40.8%	40.8%	
Concentration Trend:		Stable	Stable	No Trend	Stable	Stable	Stable	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-02MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-02MA CONCENTRATION (ug/L)						
1	31-Oct-18	0.5	0.5	0.2	0.5	0.5	0.5	
2	11-Dec-19	0.5	2	0.2	0.5	0.5	0.5	
3	19-Nov-20	0.54	0.48	0.62	0.48	0.52	0.54	
4	23-Nov-21	0.5	0.5	0.5	0.5	0.5	0.5	
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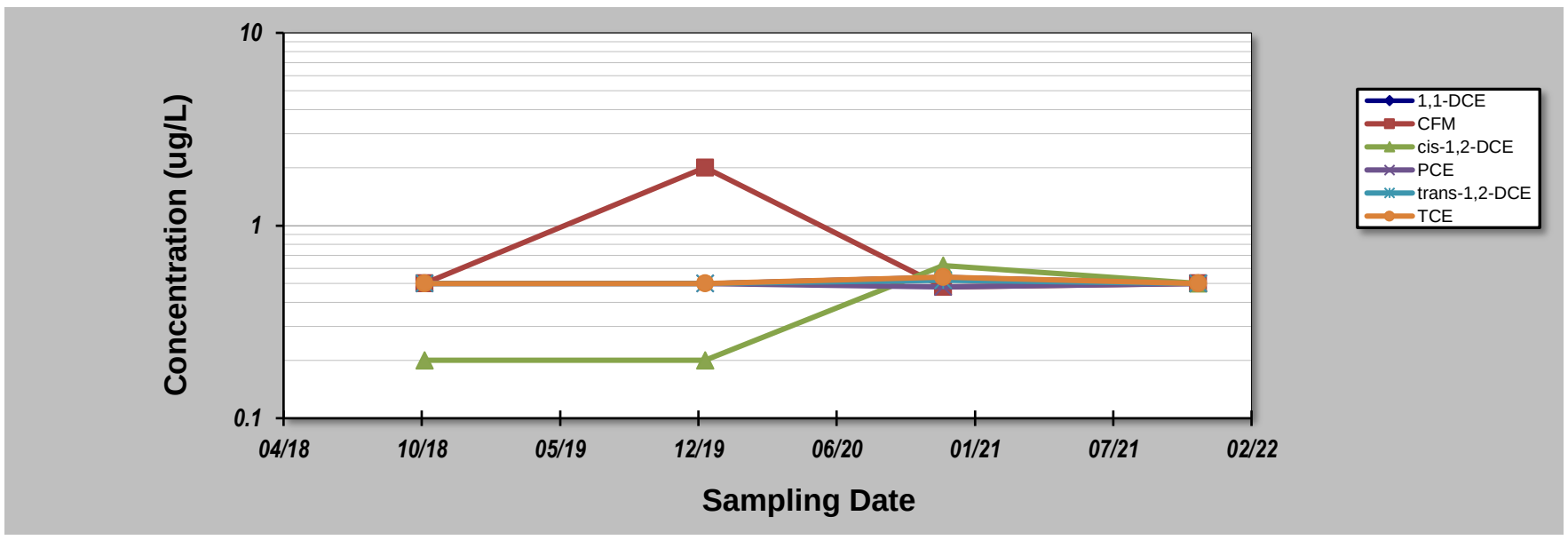
Coefficient of Variation:		0.04	0.87	0.56	0.02	0.02	0.04	
Mann-Kendall Statistic (S):		1	-1	3	-1	1	1	
Confidence Factor:		50.0%	50.0%	72.9%	50.0%	50.0%	50.0%	
Concentration Trend:		No Trend	Stable	No Trend	Stable	No Trend	No Trend	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 4-Dec-22
Facility Name: Deer Valley
Conducted By: Victor Gamez Grijalva

Job ID:
Constituent: HM-03MA
Concentration Units: ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-03MA CONCENTRATION (ug/L)						
1	31-Oct-18	0.5	0.2	1.8	0.7	0.5	1	
2	11-Dec-19	0.5	2	0.6	0.4	0.5	0.5	
3	17-Nov-20	0.54	0.48	3.9	1.6	0.52	3.8	
4	23-Nov-21	0.5	0.5	2.6	2.1	0.5	4.3	
5	20-Oct-22	0.5	0.5	2.8	1.2	0.5	2.1	
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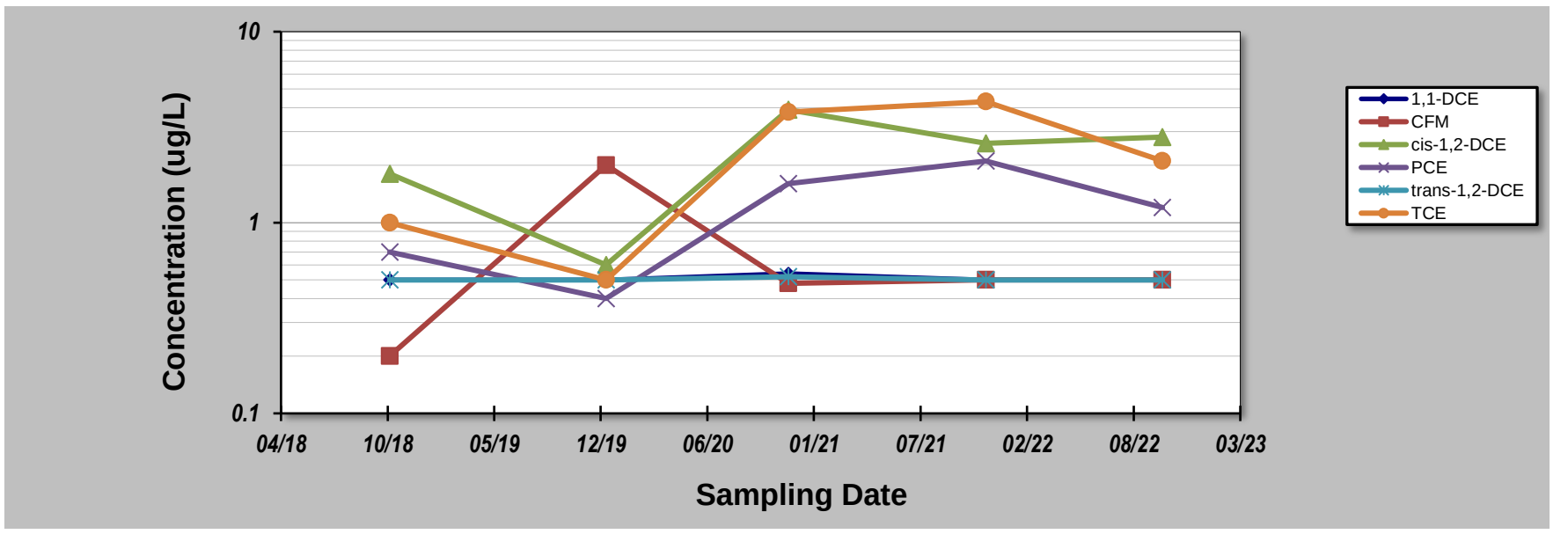
Coefficient of Variation:		0.04	0.98	0.52	0.57	0.02	0.72	
Mann-Kendall Statistic (S):		0	3	4	4	0	4	
Confidence Factor:		40.8%	67.5%	75.8%	75.8%	40.8%	75.8%	
Concentration Trend:		Stable	No Trend	No Trend	No Trend	Stable	No Trend	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 4-Dec-22
Facility Name: Deer Valley
Conducted By: Victor Gamez Grijalva

Job ID:
Constituent: HM-04MA
Concentration Units: ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-04MA CONCENTRATION (ug/L)						
1	31-Oct-18	0.5	0.3	2.5	1.7	0.5	5.1	
2	11-Dec-19	0.5	2	2.2	1.4	0.5	4.6	
3	17-Nov-20	0.54	0.48	3.1	2.1	0.52	4.7	
4	23-Nov-21	0.5	0.5	2.4	0.5	0.5	6	
5	20-Oct-22	0.5	0.5	1.7	0.62	0.5	2.2	
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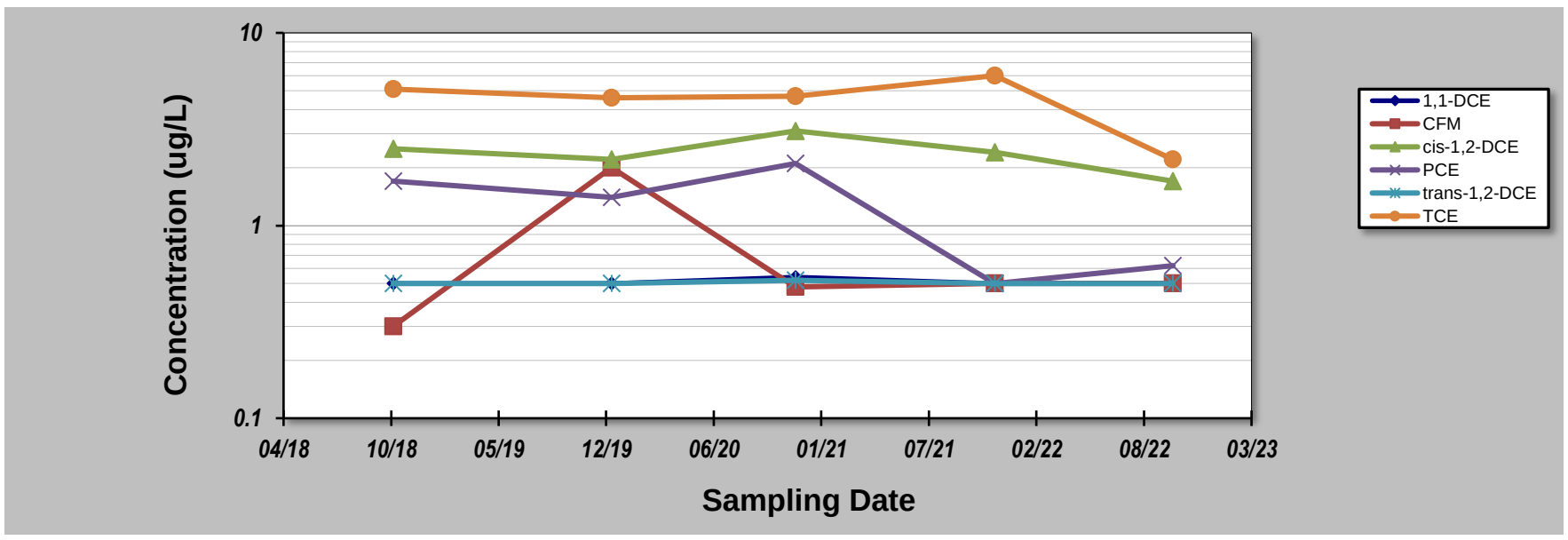
Coefficient of Variation:		0.04	0.93	0.21	0.55	0.02	0.31	
Mann-Kendall Statistic (S):		0	3	-4	-4	0	-2	
Confidence Factor:		40.8%	67.5%	75.8%	75.8%	40.8%	59.2%	
Concentration Trend:		Stable	No Trend	Stable	Stable	Stable	Stable	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 4-Dec-22
Facility Name: Deer Valley
Conducted By: Victor Gamez Grijalva

Job ID:
Constituent: HM-05MA
Concentration Units: ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-05MA CONCENTRATION (ug/L)						
1	31-Oct-18	0.5	0.3	2.5	0.5	0.5	0.3	
2	11-Dec-19	0.5	2	2.5	0.5	0.5	0.2	
3	17-Nov-20	0.54	0.48	3.2	0.48	0.52	0.54	
4	23-Nov-21	0.5	0.5	2.2	0.5	0.5	0.5	
5	20-Oct-22	0.5	0.5	2.4	0.5	0.5	0.5	
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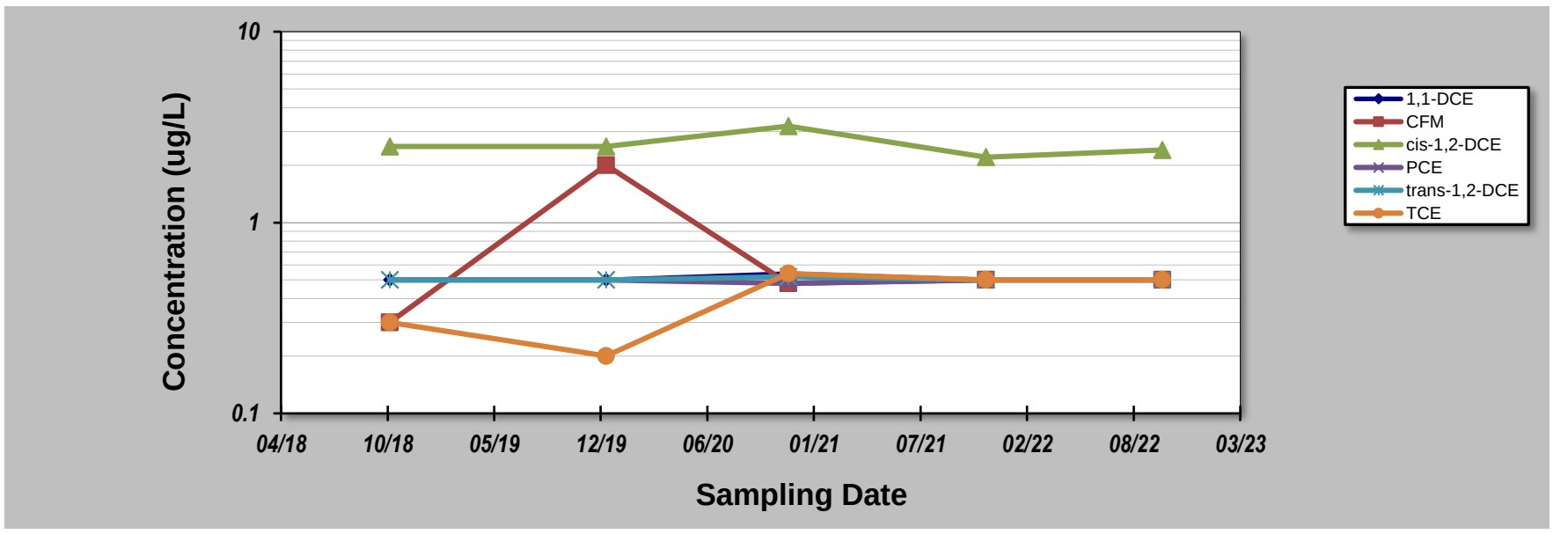
Coefficient of Variation:		0.04	0.93	0.15	0.02	0.02	0.37	
Mann-Kendall Statistic (S):		0	3	-3	0	0	3	
Confidence Factor:		40.8%	67.5%	67.5%	40.8%	40.8%	67.5%	
Concentration Trend:		Stable	No Trend	Stable	Stable	Stable	No Trend	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-06MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-06MA CONCENTRATION (ug/L)						
1	30-Oct-18	0.9	0.8	4.8	1.3	0.5	47	
2	12-Dec-19	0.4	2	2.4	1	0.5	27	
3	9-Dec-20	0.56	0.66	3.7	0.48	0.52	37	
4	24-Nov-21	0.5	0.5	2.4	0.75	0.5	22	
5	20-Oct-22	0.5	0.57	21	0.82	0.5	200	
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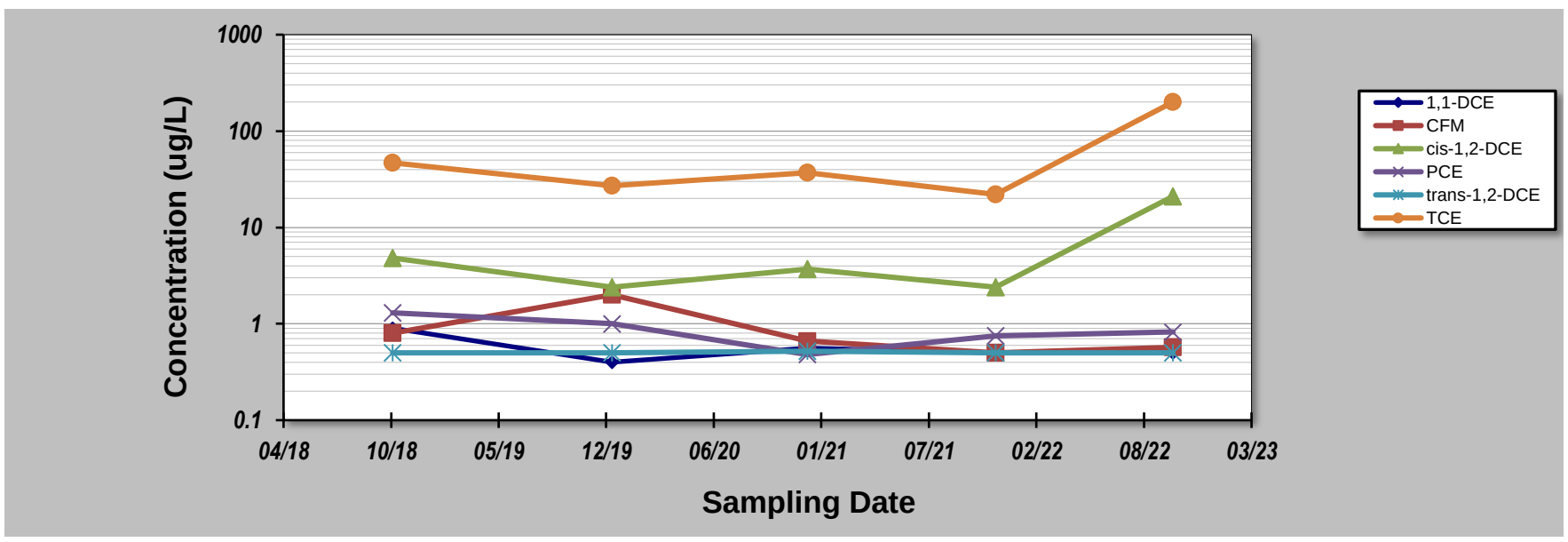
Coefficient of Variation:		0.34	0.69	1.16	0.35	0.02	1.13	
Mann-Kendall Statistic (S):		-3	-6	1	-4	0	0	
Confidence Factor:		67.5%	88.3%	50.0%	75.8%	40.8%	40.8%	
Concentration Trend:		Stable	Stable	No Trend	Stable	Stable	No Trend	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-07MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-07MA CONCENTRATION (ug/L)						
1	30-Oct-18	2.4	0.5	8.4	4.6	0.5	43	
2	11-Dec-19	3.2	2	9.1	4.8	0.5	46	
3	17-Nov-20	4.1	0.63	17	7.5	0.52	78	
4	23-Nov-21	4.4	0.5	20	6.6	0.5	97	
5	20-Oct-22	5.5	0.53	36	4.9	0.5	160	
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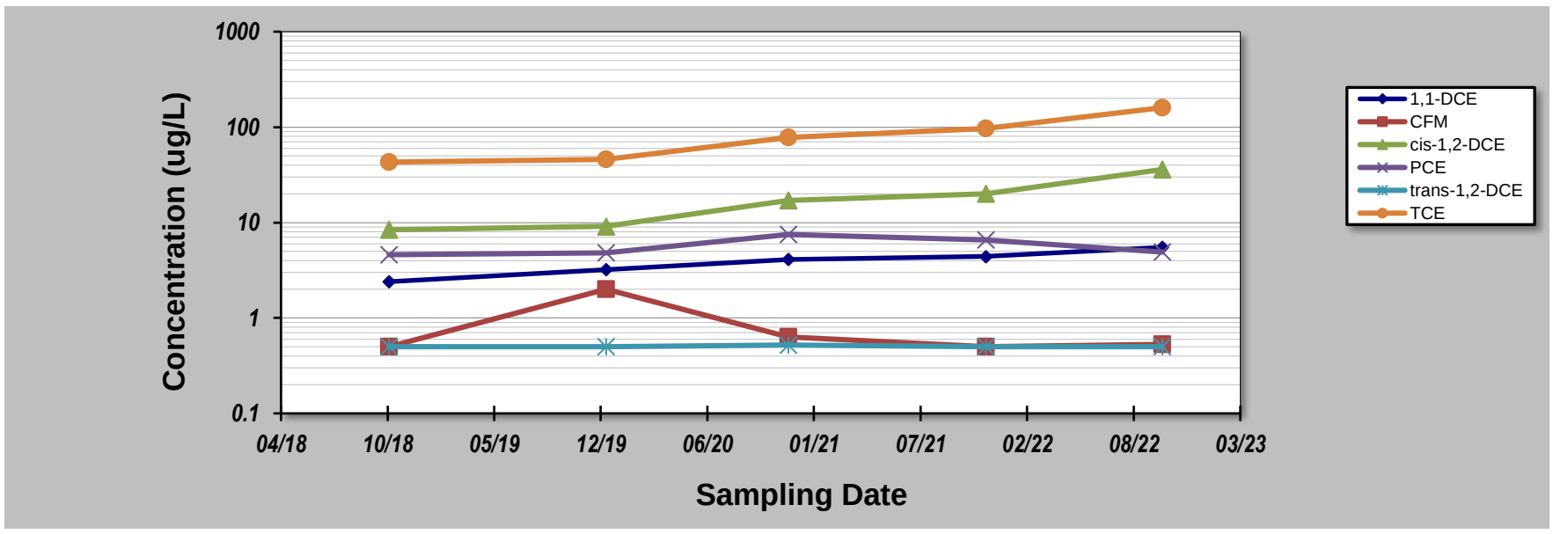
Coefficient of Variation:		0.30	0.79	0.62	0.23	0.02	0.56	
Mann-Kendall Statistic (S):		10	-1	10	4	0	10	
Confidence Factor:		99.2%	50.0%	99.2%	75.8%	40.8%	99.2%	
Concentration Trend:		Increasing	Stable	Increasing	No Trend	Stable	Increasing	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 4-Dec-22
Facility Name: Deer Valley
Conducted By: Victor Gamez Grijalva

Job ID:
Constituent: HM-08MA
Concentration Units: ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-08MA CONCENTRATION (ug/L)						
1	30-Oct-18	0.5	0.5	0.8	0.5	0.5	0.2	
2	11-Dec-19	0.5	2	0.7	0.5	0.5	0.2	
3	17-Nov-20	0.54	0.48	0.62	0.48	0.52	0.54	
4	23-Nov-21	0.5	0.5	0.8	0.5	0.5	0.5	
5	20-Oct-22	0.5	0.5	0.69	0.5	0.5	0.5	
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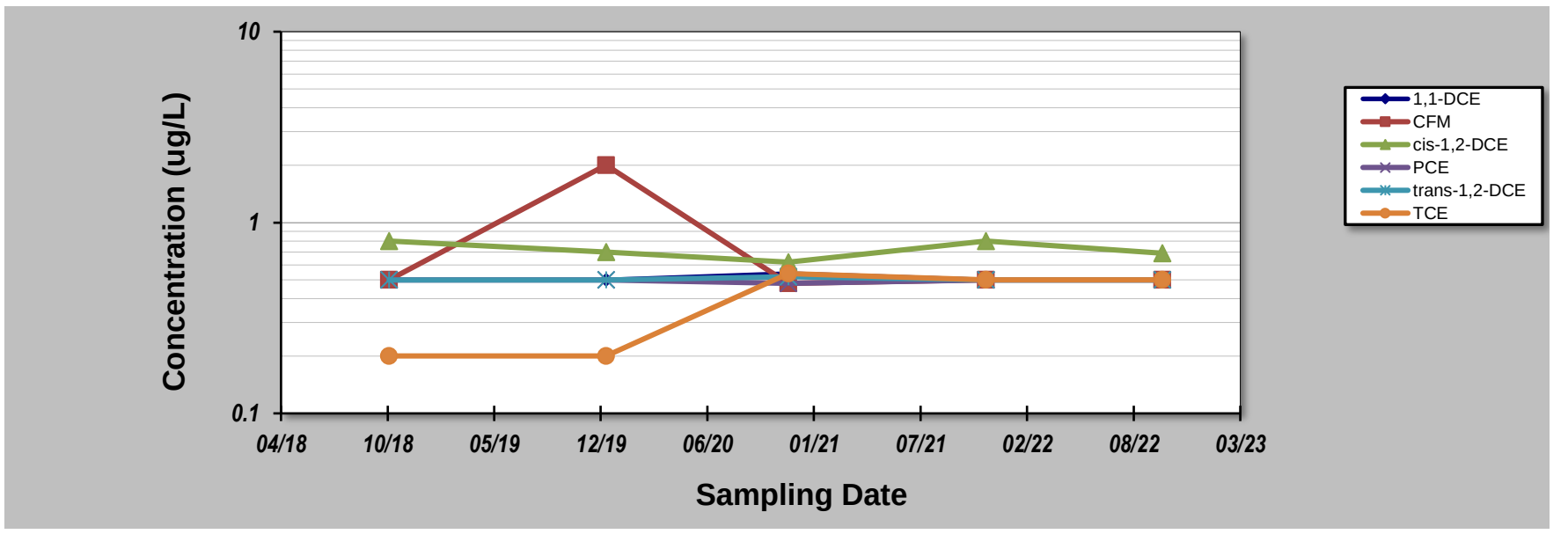
Coefficient of Variation:		0.04	0.85	0.11	0.02	0.02	0.44	
Mann-Kendall Statistic (S):		0	-1	-3	0	0	4	
Confidence Factor:		40.8%	50.0%	67.5%	40.8%	40.8%	75.8%	
Concentration Trend:		Stable	Stable	Stable	Stable	Stable	No Trend	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 4-Dec-22
Facility Name: Deer Valley
Conducted By: Victor Gamez Grijalva

Job ID:
Constituent: HM-09MA
Concentration Units: ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-09MA CONCENTRATION (ug/L)						
1	6-Nov-18	0.5	0.5	1.2	0.5	0.5	0.2	
2	11-Dec-19	0.5	2	0.8	0.5	0.5	0.2	
3	19-Nov-20	0.54	0.48	0.81	0.48	0.52	0.54	
4	23-Nov-21	0.5	0.5	0.61	0.5	0.5	0.5	
5	20-Oct-22	0.5	0.5	0.5	0.5	0.5	0.5	
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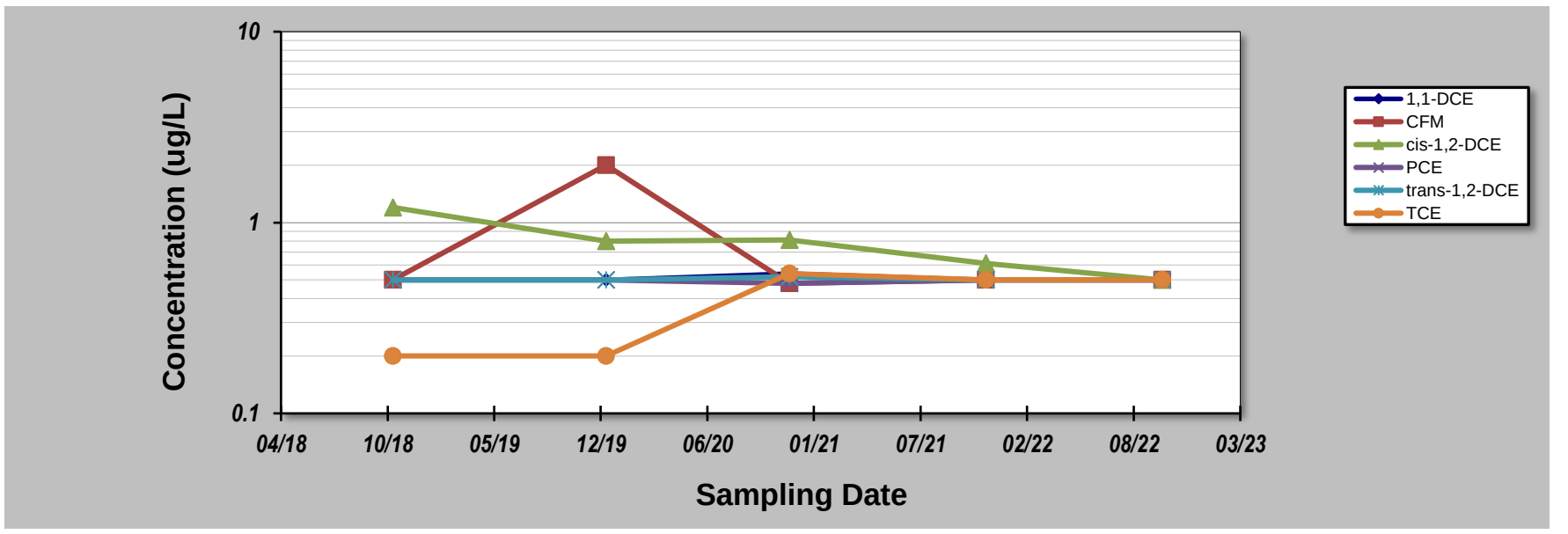
Coefficient of Variation:		0.04	0.85	0.34	0.02	0.02	0.44	
Mann-Kendall Statistic (S):		0	-1	-8	0	0	4	
Confidence Factor:		40.8%	50.0%	95.8%	40.8%	40.8%	75.8%	
Concentration Trend:		Stable	Stable	Decreasing	Stable	Stable	No Trend	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 4-Dec-22
Facility Name: Deer Valley
Conducted By: Victor Gamez Grijalva

Job ID:
Constituent: HM-10MA
Concentration Units: ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-10MA CONCENTRATION (ug/L)						
1	31-Oct-18	0.5	0.3	2.1	0.5	0.5	19	
2	16-Dec-19	0.5	2	2.2	0.1	0.5	27	
3	18-Nov-20	0.54	0.48	3.6	0.48	0.52	8.7	
4	24-Nov-21	0.5	0.5	2.4	0.5	0.5	6.3	
5	20-Oct-22	0.5	0.5	2.8	0.5	0.5	27	
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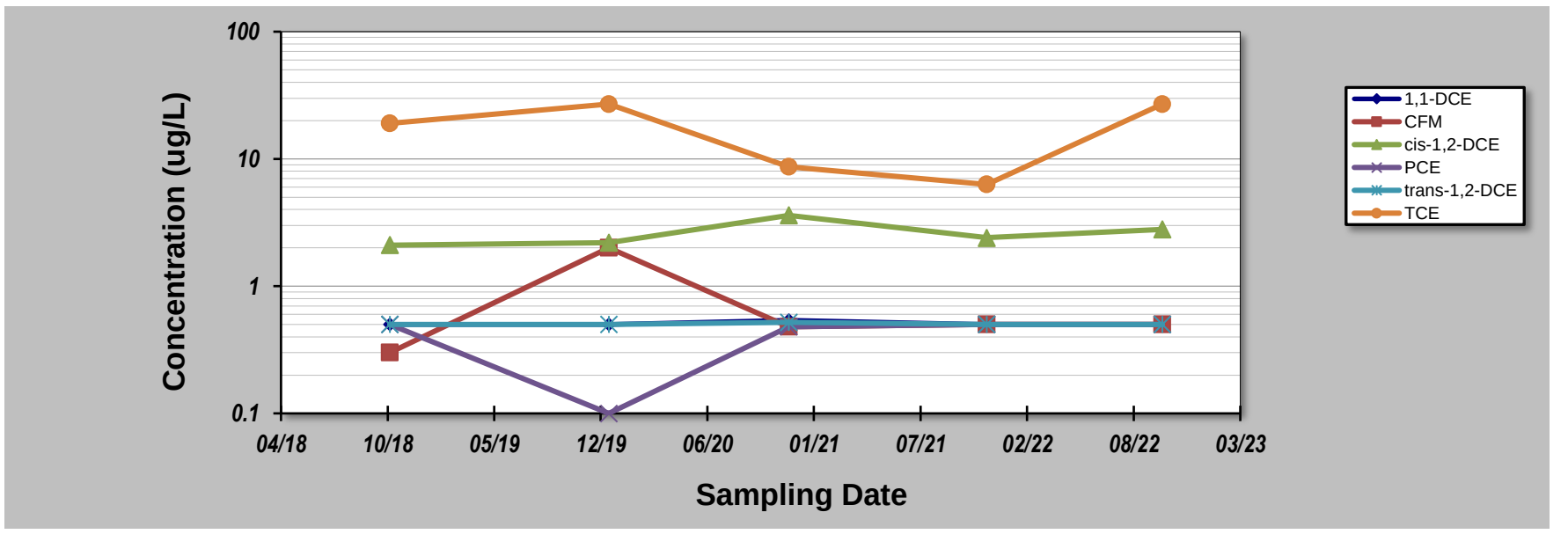
Coefficient of Variation:		0.04	0.93	0.23	0.43	0.02	0.56	
Mann-Kendall Statistic (S):		0	3	6	3	0	-1	
Confidence Factor:		40.8%	67.5%	88.3%	67.5%	40.8%	50.0%	
Concentration Trend:		Stable	No Trend	No Trend	No Trend	Stable	Stable	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-11MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-11MA CONCENTRATION (ug/L)						
1	31-Oct-18	0.5	0.2	2	0.5	0.5	0.6	
2	16-Dec-19	0.5	2	1.8	0.5	0.5	0.6	
3	18-Nov-20	0.54	0.48	2.2	0.48	0.52	0.77	
4	24-Nov-21	0.5	0.5	1.5	0.5	0.5	0.56	
5	20-Oct-22	0.5	0.5	1.3	0.5	0.5	0.5	
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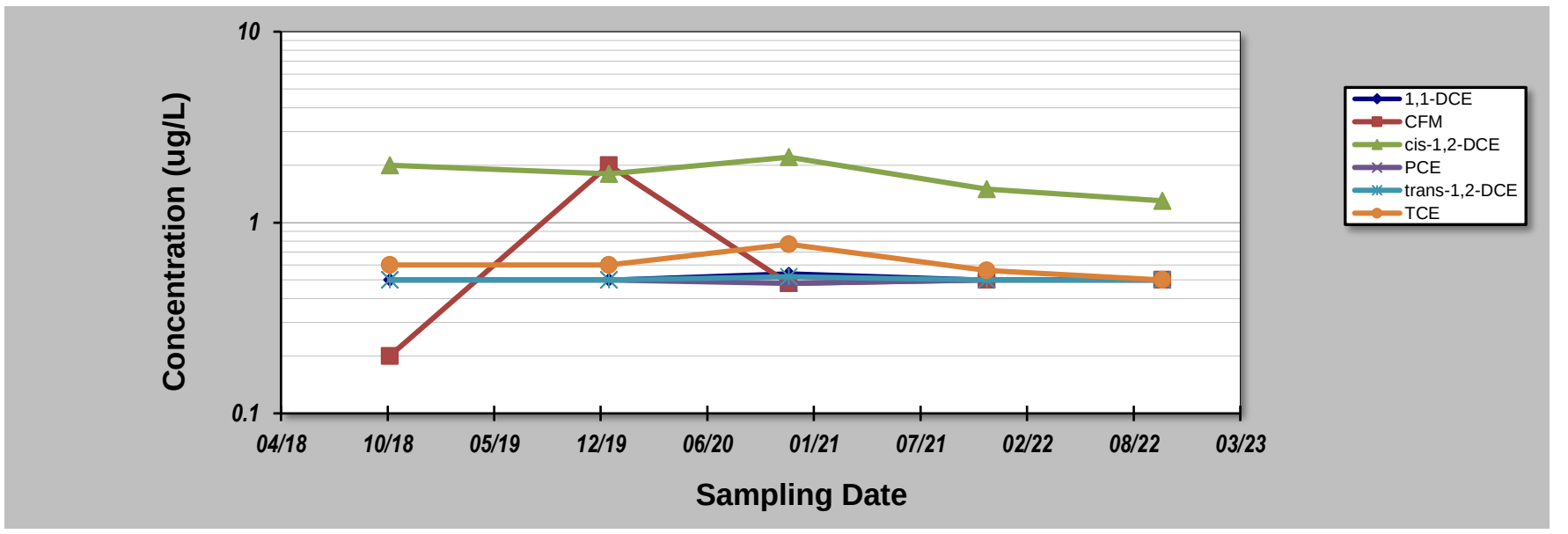
Coefficient of Variation:		0.04	0.98	0.21	0.02	0.02	0.17	
Mann-Kendall Statistic (S):		0	3	-6	0	0	-5	
Confidence Factor:		40.8%	67.5%	88.3%	40.8%	40.8%	82.1%	
Concentration Trend:		Stable	No Trend	Stable	Stable	Stable	Stable	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-12MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-12MA CONCENTRATION (ug/L)						
1	31-Oct-18	0.5	0.5	0.5	0.5	0.5	0.2	
2	16-Dec-19	0.5	2	0.6	0.5	0.5	0.5	
3	18-Nov-20	0.54	0.48	0.68	0.48	0.52	0.54	
4	24-Nov-21	0.5	0.5	0.5	0.5	0.5	0.5	
5	20-Oct-22	0.5	0.5	0.5	0.5	0.5	0.5	
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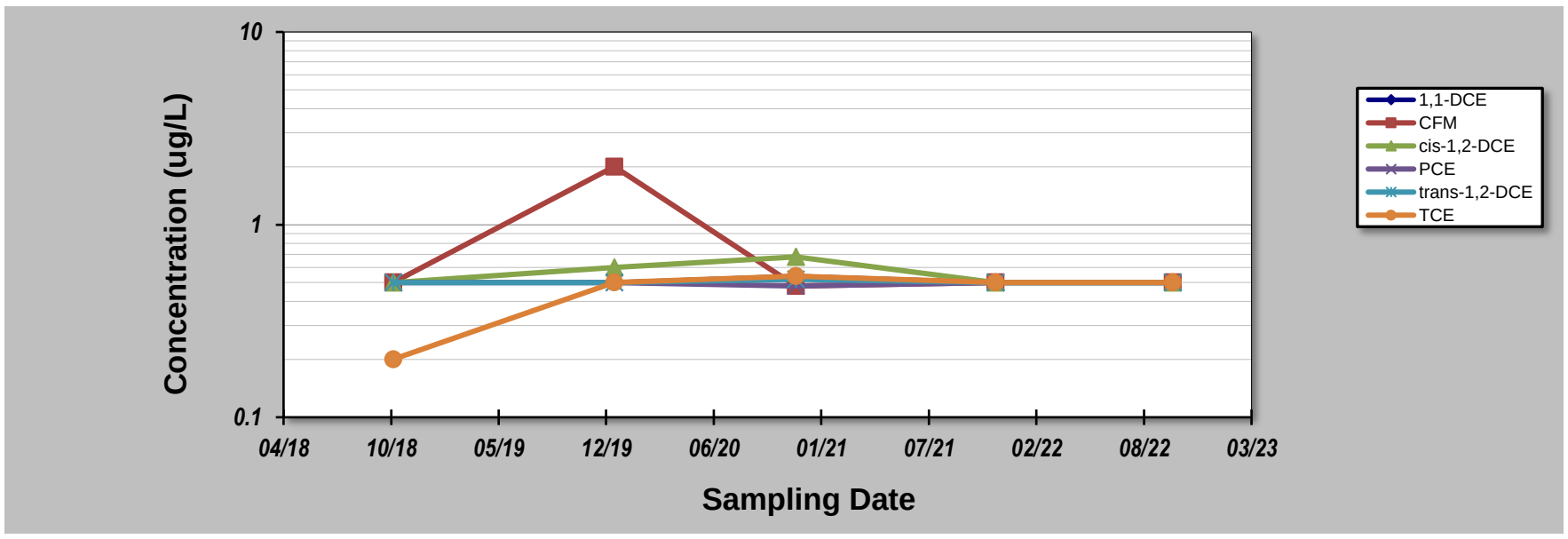
Coefficient of Variation:		0.04	0.85	0.15	0.02	0.02	0.31	
Mann-Kendall Statistic (S):		0	-1	-1	0	0	3	
Confidence Factor:		40.8%	50.0%	50.0%	40.8%	40.8%	67.5%	
Concentration Trend:		Stable	Stable	Stable	Stable	Stable	No Trend	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 4-Dec-22
Facility Name: Deer Valley
Conducted By: Victor Gamez Grijalva

Job ID:
Constituent: HM-13MA
Concentration Units: ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-13MA CONCENTRATION (ug/L)						
1	30-Oct-18	0.5	0.5	0.5	0.5	0.5	0.1	
2	12-Dec-19	0.5	2	0.2	0.5	0.5	1.5	
3	17-Nov-20	0.54	0.48	2.7	0.48	0.52	11	
4	2-Feb-21	0.54	0.48	2.5	0.48	0.52	9.3	
5	23-Nov-21	0.5	0.5	5.3	0.5	0.5	18	
6	13-Dec-21	0.5	0.5	5.7	0.5	0.5	16	
7	20-Oct-22	0.5	0.5	6.4	0.5	0.5	18	
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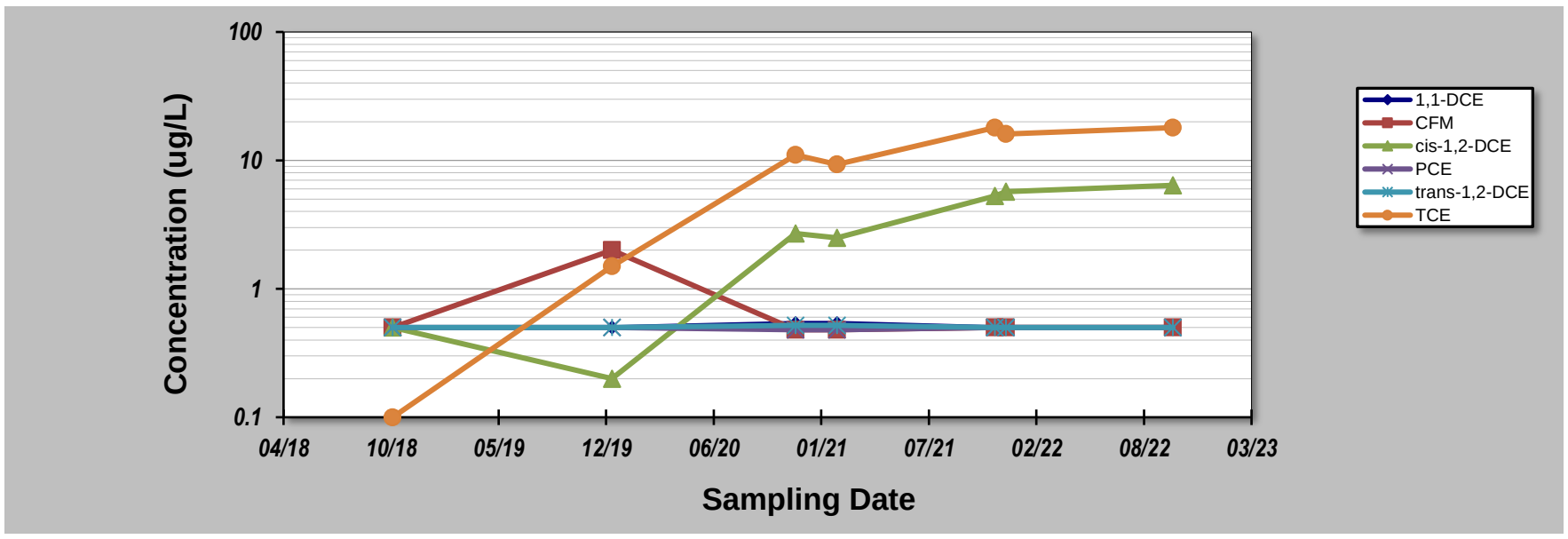
Coefficient of Variation:		0.04	0.80	0.75	0.02	0.02	0.71	
Mann-Kendall Statistic (S):		-2	0	17	2	-2	16	
Confidence Factor:		55.7%	37.9%	99.5%	55.7%	55.7%	99.0%	
Concentration Trend:		Stable	Stable	Increasing	No Trend	Stable	Increasing	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 4-Dec-22
Facility Name: Deer Valley
Conducted By: Victor Gamez Grijalva

Job ID:
Constituent: HM-14MA
Concentration Units: ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-14MA CONCENTRATION (ug/L)						
1	30-Oct-18	0.5	0.5	0.5	0.5	0.5	0.5	
2	12-Dec-19	0.5	2	0.2	0.5	0.5	0.3	
3	18-Nov-20	0.54	0.48	0.62	0.48	0.52	0.54	
4	22-Nov-21	0.5	0.5	0.5	0.5	0.5	0.5	
5	20-Oct-22	0.5	0.5	0.5	0.5	0.5	0.5	
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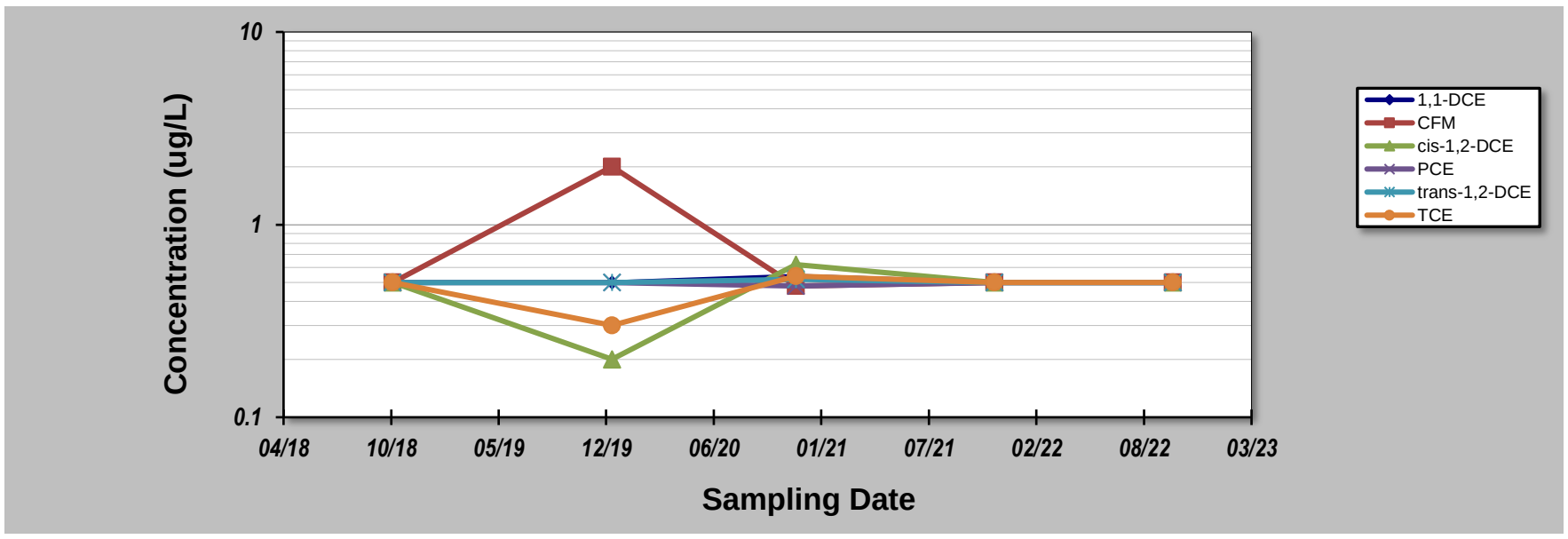
Coefficient of Variation:		0.04	0.85	0.34	0.02	0.02	0.20	
Mann-Kendall Statistic (S):		0	-1	1	0	0	1	
Confidence Factor:		40.8%	50.0%	50.0%	40.8%	40.8%	50.0%	
Concentration Trend:		Stable	Stable	No Trend	Stable	Stable	No Trend	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-15MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:	1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	**Sampling Date**	**HM-15MA CONCENTRATION (ug/L)**					
1	31-Oct-18	0.5	0.3	1.7	0.5	0.5	1.2	
2	16-Dec-19	0.5	2	1.6	0.5	0.5	1.1	
3	17-Nov-20	0.54	0.48	2.2	0.48	0.52	1.5	
4	24-Nov-21	0.5	0.5	1.7	0.5	0.5	1.2	
5	20-Oct-22	0.5	0.5	2.5	0.5	0.5	2.4	
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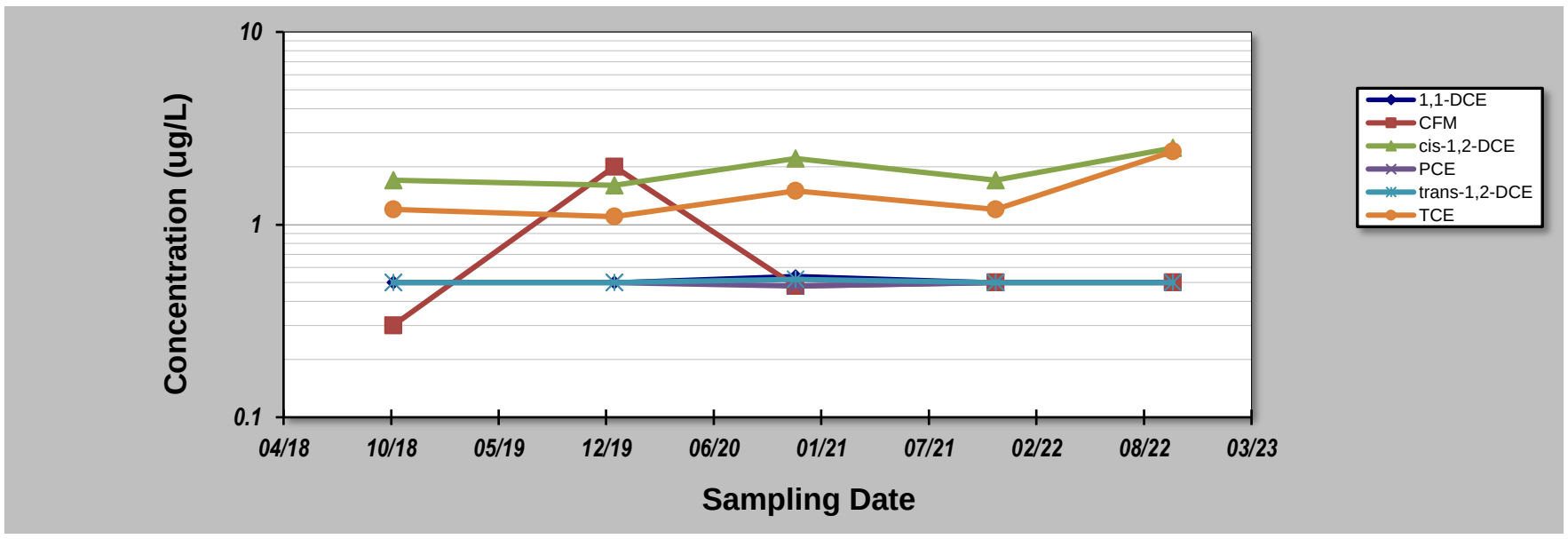
Coefficient of Variation:		0.04	0.93	0.20	0.02	0.02	0.36	
Mann-Kendall Statistic (S):		0	3	5	0	0	5	
Confidence Factor:		40.8%	67.5%	82.1%	40.8%	40.8%	82.1%	
Concentration Trend:		Stable	No Trend	No Trend	Stable	Stable	No Trend	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 4-Dec-22
Facility Name: Deer Valley
Conducted By: Victor Gamez Grijalva

Job ID:
Constituent: HM-16MA
Concentration Units: ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-16MA CONCENTRATION (ug/L)						
1	30-Oct-18	1.7	1.7	16	1.5	1.7	170	
2	11-Dec-19	1	2	24	0.9	0.1	150	
3	18-Nov-20	0.9	0.48	24	1.4	0.52	160	
4	23-Nov-21	0.62	0.5	18	1.4	0.5	150	
5	20-Oct-22	0.9	0.5	23	1.1	0.5	150	
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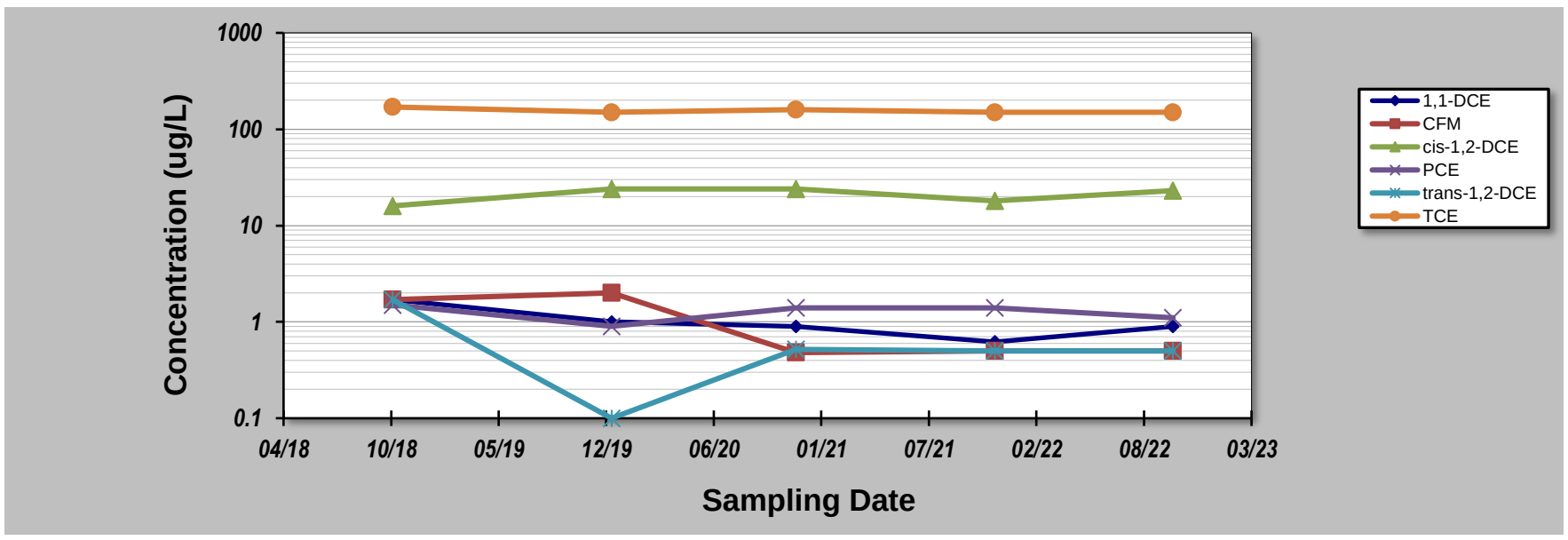
Coefficient of Variation:		0.39	0.72	0.18	0.20	0.91	0.06	
Mann-Kendall Statistic (S):		-7	-3	1	-3	-3	-5	
Confidence Factor:		92.1%	67.5%	50.0%	67.5%	67.5%	82.1%	
Concentration Trend:		Prob. Decreasing	Stable	No Trend	Stable	Stable	Stable	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-17MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-17MA CONCENTRATION (ug/L)						
1	31-Oct-18	0.5	0.5	0.6	0.5	0.5	4.3	
2	11-Dec-19	0.2	2	0.6	0.5	0.5	4	
3	17-Nov-20	0.54	0.48	1.1	0.48	0.52	8.4	
4	24-Nov-21	0.5	0.5	0.81	0.5	0.5	5.4	
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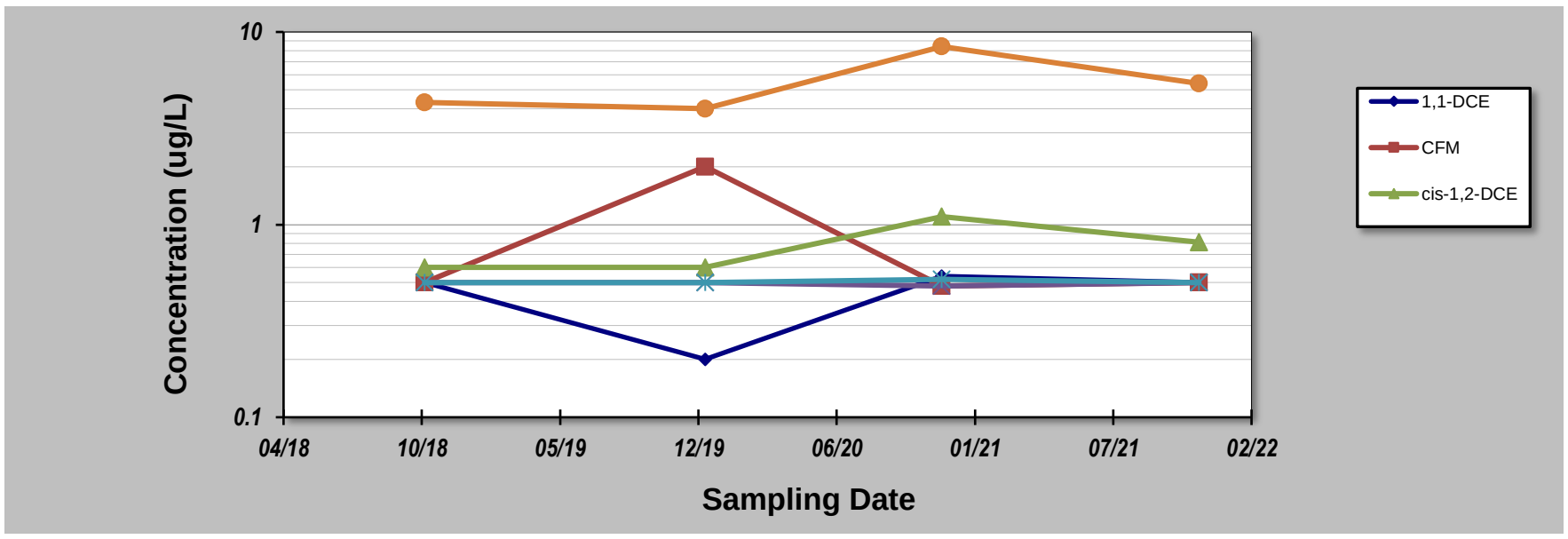
Coefficient of Variation:		0.36	0.87	0.30	0.02	0.02	0.36	
Mann-Kendall Statistic (S):		1	-1	3	-1	1	2	
Confidence Factor:		50.0%	50.0%	72.9%	50.0%	50.0%	62.5%	
Concentration Trend:		No Trend	Stable	No Trend	Stable	No Trend	No Trend	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-18LA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-18LA CONCENTRATION (ug/L)						
1	30-Oct-18	0.5	0.5	0.5	0.5	0.5	0.5	
2	11-Dec-19	0.5	2	0.5	0.5	0.5	0.5	
3	18-Nov-20	0.54	0.96	0.62	0.48	0.52	0.54	
4	23-Nov-21	0.5	0.5	0.5	0.5	0.5	0.5	
5	20-Oct-22	0.5	0.5	0.5	0.5	0.5	0.5	
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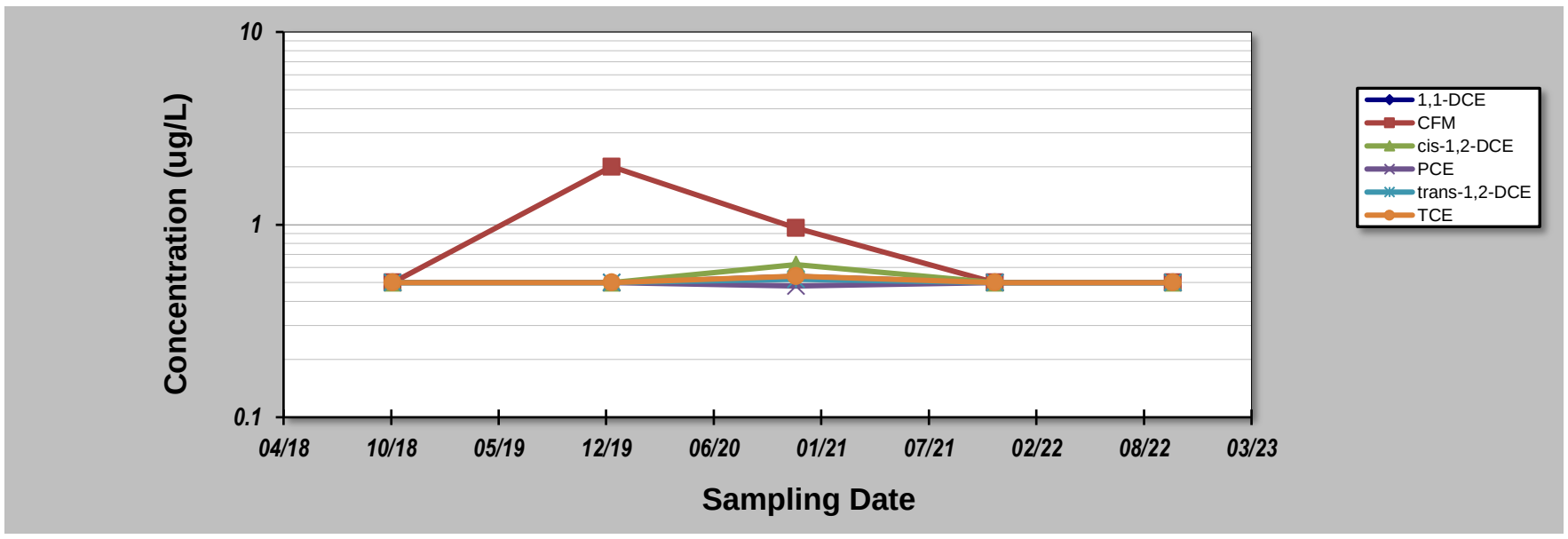
Coefficient of Variation:		0.04	0.73	0.10	0.02	0.02	0.04	
Mann-Kendall Statistic (S):		0	-3	0	0	0	0	
Confidence Factor:		40.8%	67.5%	40.8%	40.8%	40.8%	40.8%	
Concentration Trend:		Stable	Stable	Stable	Stable	Stable	Stable	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 4-Dec-22
Facility Name: Deer Valley
Conducted By: Victor Gamez Grijalva

Job ID:
Constituent: HM-19MA
Concentration Units: ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-19MA CONCENTRATION (ug/L)						
1	31-Oct-18	0.5	0.5	0.5	0.5	0.5	0.5	
2	16-Dec-19	0.5	2	0.5	0.5	0.5	0.5	
3	9-Dec-20	0.54	0.48	0.62	0.48	0.52	0.54	
4	24-Nov-21	0.5	0.5	0.5	0.5	0.5	0.5	
5	20-Oct-22	0.5	0.5	0.5	0.5	0.5	0.5	
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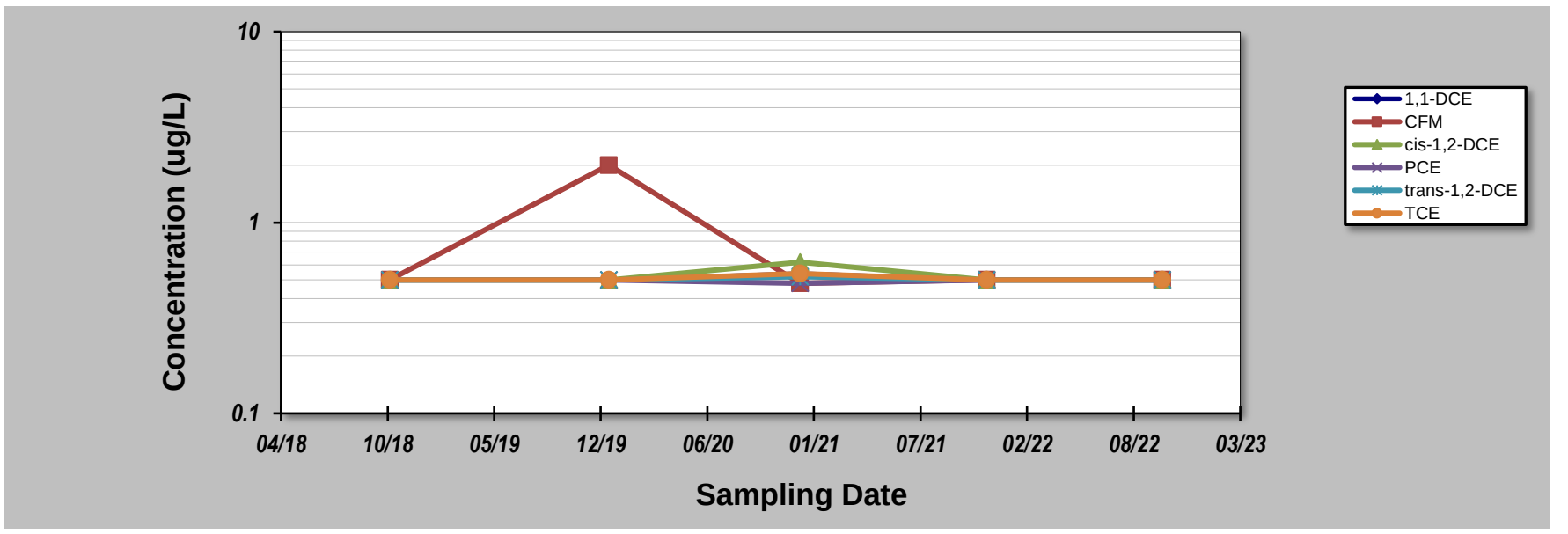
Coefficient of Variation:		0.04	0.85	0.10	0.02	0.02	0.04	
Mann-Kendall Statistic (S):		0	-1	0	0	0	0	
Confidence Factor:		40.8%	50.0%	40.8%	40.8%	40.8%	40.8%	
Concentration Trend:		Stable	Stable	Stable	Stable	Stable	Stable	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 4-Dec-22
Facility Name: Deer Valley
Conducted By: Victor Gamez Grijalva

Job ID:
Constituent: HM-20MA
Concentration Units: ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-20MA CONCENTRATION (ug/L)						
1	30-Oct-18	0.9	1.7	20	2	1.7	180	
2	11-Dec-19	1	5	21	1.3	1.3	180	
3	18-Nov-20	1.2	0.48	25	2.6	0.52	180	
4	23-Nov-21	0.8	0.5	22	2.2	0.5	170	
5	20-Oct-22	0.67	0.5	16	1.2	0.5	160	
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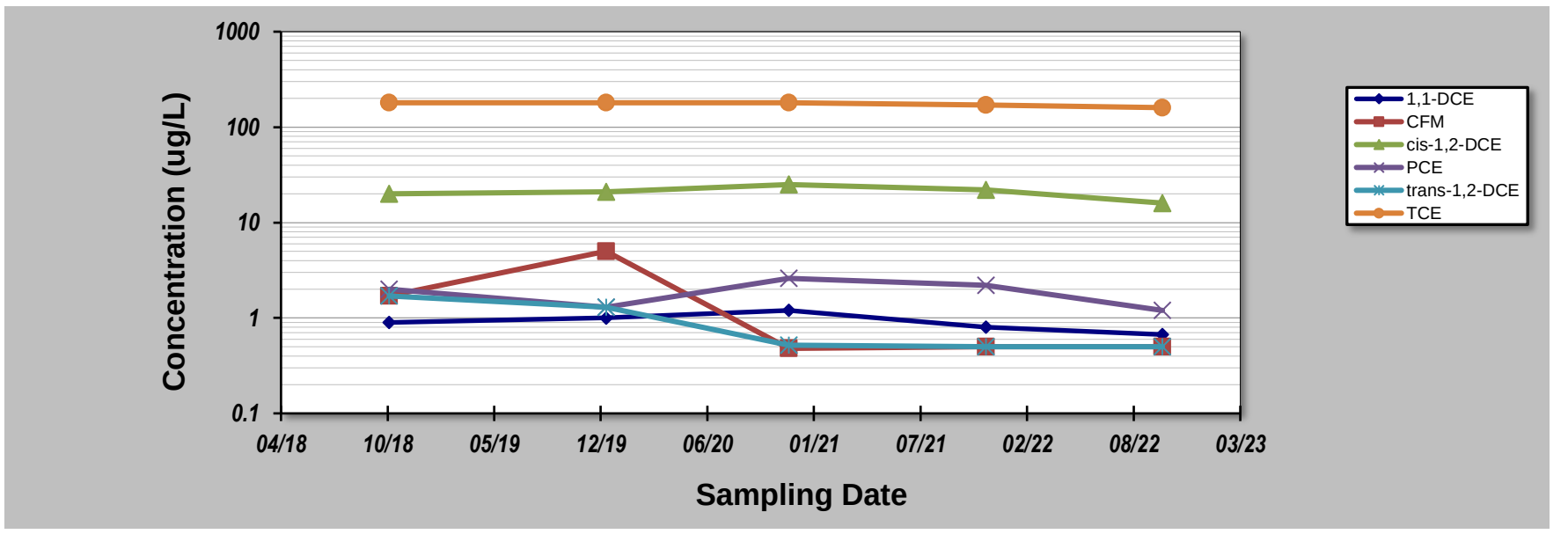
Coefficient of Variation:		0.22	1.19	0.16	0.32	0.62	0.05	
Mann-Kendall Statistic (S):		-4	-3	0	-2	-9	-7	
Confidence Factor:		75.8%	67.5%	40.8%	59.2%	97.5%	92.1%	
Concentration Trend:		Stable	No Trend	Stable	Stable	Decreasing	Prob. Decreasing	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: 4-Dec-22
Facility Name: Deer Valley
Conducted By: Victor Gamez Grijalva

Job ID:
Constituent: HM-21LA
Concentration Units: ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-21LA CONCENTRATION (ug/L)						
1	30-Oct-18	0.5	0.5	0.5	0.5	0.5	0.1	
2	12-Dec-19	0.5	2	0.5	0.5	0.5	0.5	
3	9-Dec-20	0.54	0.61	0.62	0.48	0.52	0.54	
4	22-Nov-21	0.5	0.61	0.5	0.5	0.5	0.5	
5	20-Oct-22	0.5	0.5	0.5	0.5	0.5	0.5	
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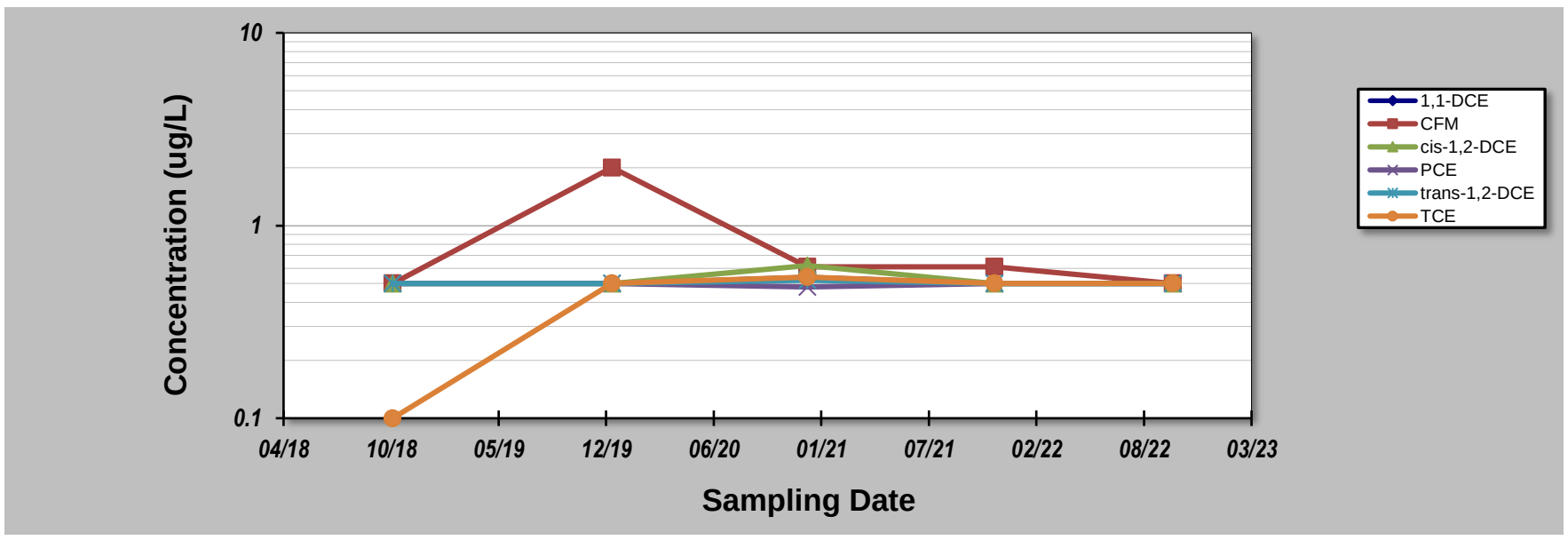
Coefficient of Variation:		0.04	0.77	0.10	0.02	0.02	0.43	
Mann-Kendall Statistic (S):		0	-2	0	0	0	3	
Confidence Factor:		40.8%	59.2%	40.8%	40.8%	40.8%	67.5%	
Concentration Trend:		Stable	Stable	Stable	Stable	Stable	No Trend	



Notes:

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2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-21MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-21MA CONCENTRATION (ug/L)						
1	30-Oct-18	0.5	0.5	0.5	0.5	0.5	0.5	
2	12-Dec-19	0.5	2	0.5	0.5	0.5	0.5	
3	18-Nov-20	0.54	0.48	0.62	0.48	0.52	0.54	
4	22-Nov-21	0.5	0.5	0.5	0.5	0.5	0.5	
5	20-Oct-22	0.5	0.5	0.5	0.5	0.5	0.5	
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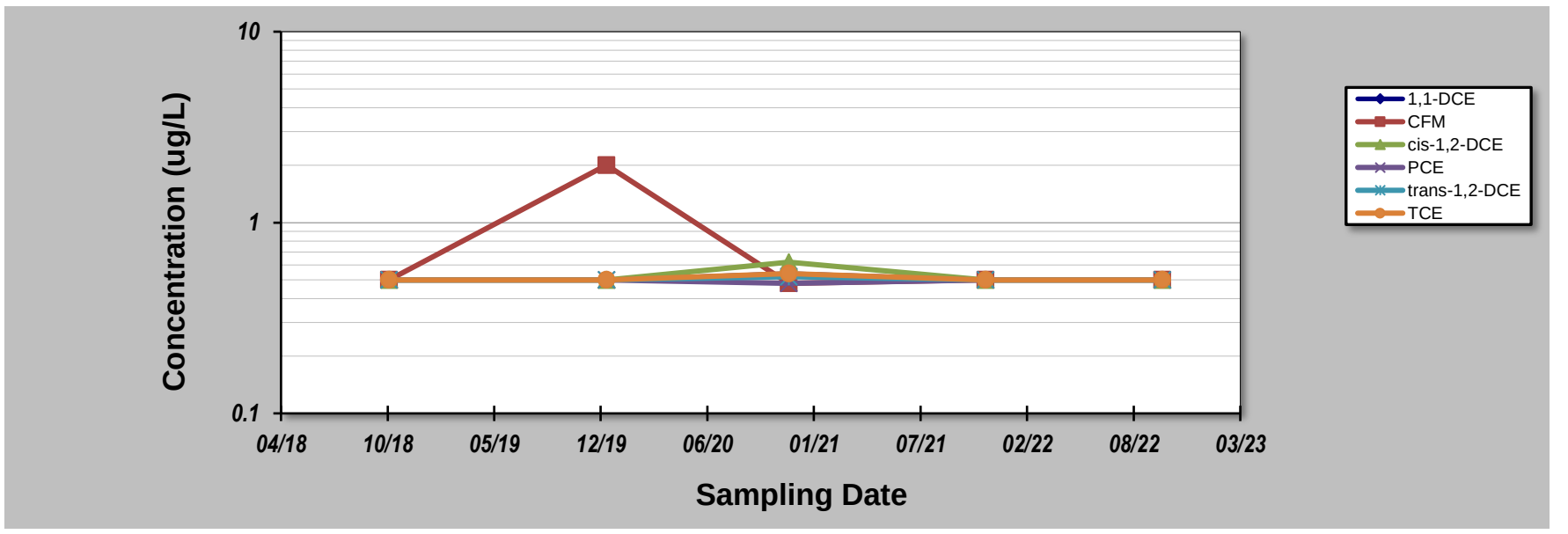
Coefficient of Variation:		0.04	0.85	0.10	0.02	0.02	0.04	
Mann-Kendall Statistic (S):		0	-1	0	0	0	0	
Confidence Factor:		40.8%	50.0%	40.8%	40.8%	40.8%	40.8%	
Concentration Trend:		Stable	Stable	Stable	Stable	Stable	Stable	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-22LA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-22LA CONCENTRATION (ug/L)						
1	31-Oct-18	0.5	0.5	0.5	0.5	0.5	0.5	
2	16-Dec-19	0.5	2	0.5	0.5	0.5	0.5	
3	17-Nov-20	0.54	0.48	0.62	0.48	0.52	0.54	
4	22-Nov-21	0.5	0.5	0.5	0.5	0.5	0.5	
5	20-Oct-22	0.5	0.5	0.5	0.5	0.5	0.5	
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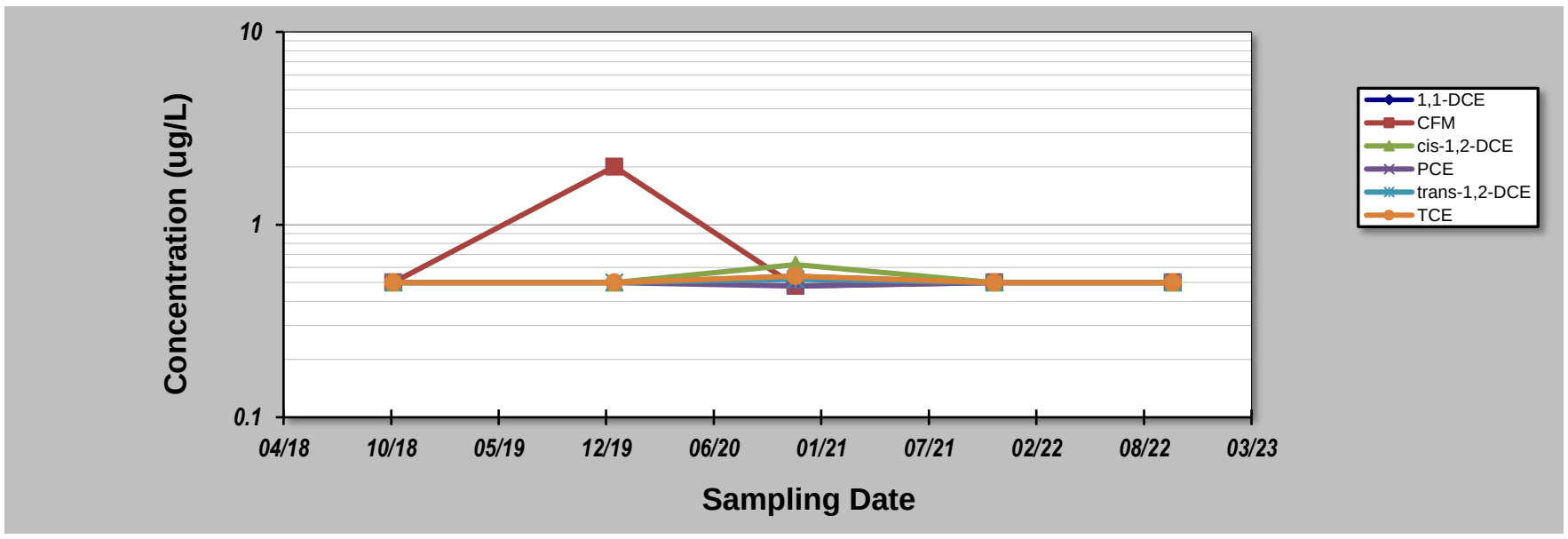
Coefficient of Variation:		0.04	0.85	0.10	0.02	0.02	0.04	
Mann-Kendall Statistic (S):		0	-1	0	0	0	0	
Confidence Factor:		40.8%	50.0%	40.8%	40.8%	40.8%	40.8%	
Concentration Trend:		Stable	Stable	Stable	Stable	Stable	Stable	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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Table E-1. Summary of Mann-Kendall Trend Statistical Analysis - 5 Years
2022 Annual Groundwater Monitoring Report
Honeywell Deer Valley Site, Phoenix, Arizona

	1,1-DCE		CFM		Cis-1,2-DCE		PCE		t-1,2-DCE		TCE	
Well	Trend	Concentration Range	Trend	Concentration Range	Trend	Concentration Range	Trend	Concentration Range	Trend	Concentration Range	Trend	Concentration Range
HM-01MA	Stable	0.5 - 0.54 ug/L	Stable	0.48 - 2 ug/L	No Trend	0.5 - 0.72 ug/L	Stable	0.48 - 0.5 ug/L	Stable	0.5 - 0.52 ug/L	Stable	0.5 - 0.54 ug/L
HM-02MA	No Trend	0.5 - 0.54 ug/L	Stable	0.48 - 2 ug/L	No Trend	0.2 - 0.62 ug/L	Stable	0.48 - 0.5 ug/L	No Trend	0.5 - 0.52 ug/L	No Trend	0.5 - 0.54 ug/L
HM-03MA	Stable	0.5 - 0.54 ug/L	No Trend	0.2 - 2 ug/L	No Trend	0.6 - 3.9 ug/L	No Trend	0.4 - 2.1 ug/L	Stable	0.5 - 0.52 ug/L	No Trend	0.5 - 4.3 ug/L
HM-04MA	Stable	0.5 - 0.54 ug/L	No Trend	0.3 - 2 ug/L	Stable	1.7 - 3.1 ug/L	Stable	0.5 - 2.1 ug/L	Stable	0.5 - 0.52 ug/L	Stable	2.2 - 6 ug/L
HM-05MA	Stable	0.5 - 0.54 ug/L	No Trend	0.3 - 2 ug/L	Stable	2.2 - 3.2 ug/L	Stable	0.48 - 0.5 ug/L	Stable	0.5 - 0.52 ug/L	No Trend	0.2 - 0.54 ug/L
HM-06MA	Stable	0.4 - 0.9 ug/L	Stable	0.5 - 2 ug/L	No Trend	2.4 - 21 ug/L	Stable	0.48 - 1.3 ug/L	Stable	0.5 - 0.52 ug/L	No Trend	22 - 200 ug/L
HM-07MA	Increasing	2.4 - 5.5 ug/L	Stable	0.5 - 2 ug/L	Increasing	8.4 - 36 ug/L	No Trend	4.6 - 7.5 ug/L	Stable	0.5 - 0.52 ug/L	Increasing	43 - 160 ug/L
HM-08MA	Stable	0.5 - 0.54 ug/L	Stable	0.48 - 2 ug/L	Stable	0.62 - 0.8 ug/L	Stable	0.48 - 0.5 ug/L	Stable	0.5 - 0.52 ug/L	No Trend	0.2 - 0.54 ug/L
HM-09MA	Stable	0.5 - 0.54 ug/L	Stable	0.48 - 2 ug/L	Decreasing	0.5 - 1.2 ug/L	Stable	0.48 - 0.5 ug/L	Stable	0.5 - 0.52 ug/L	No Trend	0.2 - 0.54 ug/L
HM-10MA	Stable	0.5 - 0.54 ug/L	No Trend	0.3 - 2 ug/L	No Trend	2.1 - 3.6 ug/L	No Trend	0.1 - 0.5 ug/L	Stable	0.5 - 0.52 ug/L	Stable	6.3 - 27 ug/L
HM-11MA	Stable	0.5 - 0.54 ug/L	No Trend	0.2 - 2 ug/L	Stable	1.3 - 2.2 ug/L	Stable	0.48 - 0.5 ug/L	Stable	0.5 - 0.52 ug/L	Stable	0.5 - 0.77 ug/L
HM-12MA	Stable	0.5 - 0.54 ug/L	Stable	0.48 - 2 ug/L	Stable	0.5 - 0.68 ug/L	Stable	0.48 - 0.5 ug/L	Stable	0.5 - 0.52 ug/L	No Trend	0.2 - 0.54 ug/L
HM-13MA	Stable	0.5 - 0.54 ug/L	Stable	0.48 - 2 ug/L	Increasing	0.2 - 6.4 ug/L	No Trend	0.48 - 0.5 ug/L	Stable	0.5 - 0.52 ug/L	Increasing	0.1 - 18 ug/L
HM-14MA	Stable	0.5 - 0.54 ug/L	Stable	0.48 - 2 ug/L	No Trend	0.2 - 0.62 ug/L	Stable	0.48 - 0.5 ug/L	Stable	0.5 - 0.52 ug/L	No Trend	0.3 - 0.54 ug/L
HM-15MA	Stable	0.5 - 0.54 ug/L	No Trend	0.3 - 2 ug/L	No Trend	1.6 - 2.5 ug/L	Stable	0.48 - 0.5 ug/L	Stable	0.5 - 0.52 ug/L	No Trend	1.1 - 2.4 ug/L
HM-16MA	Prob. Decreasing	0.62 - 1.7 ug/L	Stable	0.48 - 2 ug/L	No Trend	16 - 24 ug/L	Stable	0.9 - 1.5 ug/L	Stable	0.1 - 1.7 ug/L	Stable	150 - 170 ug/L
HM-17MA	No Trend	0.2 - 0.54 ug/L	Stable	0.48 - 2 ug/L	No Trend	0.6 - 1.1 ug/L	Stable	0.48 - 0.5 ug/L	No Trend	0.5 - 0.52 ug/L	No Trend	4 - 8.4 ug/L
HM-18LA	Stable	0.5 - 0.54 ug/L	Stable	0.5 - 2 ug/L	Stable	0.5 - 0.62 ug/L	Stable	0.48 - 0.5 ug/L	Stable	0.5 - 0.52 ug/L	Stable	0.5 - 0.54 ug/L
HM-19MA	Stable	0.5 - 0.54 ug/L	Stable	0.48 - 2 ug/L	Stable	0.5 - 0.62 ug/L	Stable	0.48 - 0.5 ug/L	Stable	0.5 - 0.52 ug/L	Stable	0.5 - 0.54 ug/L
HM-20MA	Stable	0.67 - 1.2 ug/L	No Trend	0.48 - 5 ug/L	Stable	16 - 25 ug/L	Stable	1.2 - 2.6 ug/L	Decreasing	0.5 - 1.7 ug/L	Prob. Decreasing	160 - 180 ug/L
HM-21LA	Stable	0.5 - 0.54 ug/L	Stable	0.5 - 2 ug/L	Stable	0.5 - 0.62 ug/L	Stable	0.48 - 0.5 ug/L	Stable	0.5 - 0.52 ug/L	No Trend	0.1 - 0.54 ug/L
HM-21MA	Stable	0.5 - 0.54 ug/L	Stable	0.48 - 2 ug/L	Stable	0.5 - 0.62 ug/L	Stable	0.48 - 0.5 ug/L	Stable	0.5 - 0.52 ug/L	Stable	0.5 - 0.54 ug/L
HM-22LA	Stable	0.5 - 0.54 ug/L	Stable	0.48 - 2 ug/L	Stable	0.5 - 0.62 ug/L	Stable	0.48 - 0.5 ug/L	Stable	0.5 - 0.52 ug/L	Stable	0.5 - 0.54 ug/L

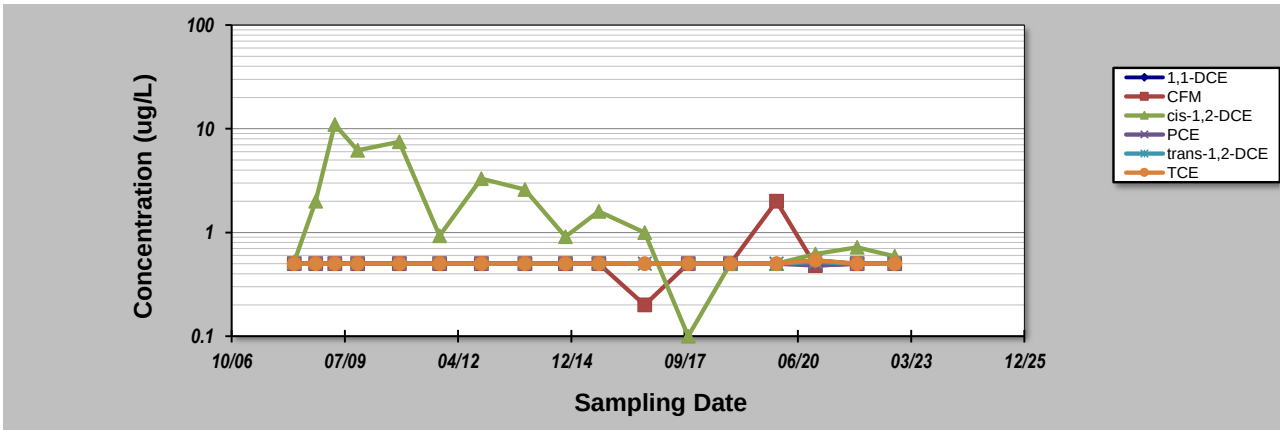
Notes:
Non-detect concentrations were used at their detection level for purposes of the evaluation.
NA = Not Available
NA = Not Available
µg/L = micrograms per liter

Appendix F
Trend Analysis—15 Years

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-01MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-01MA CONCENTRATION (ug/L)						
1	15-Apr-08	0.5	0.5	0.52	0.5	0.5	0.5	
2	21-Oct-08	0.5	0.5	2	0.5	0.5	0.5	
3	7-Apr-09	0.5	0.5	11	0.5	0.5	0.5	
4	26-Oct-09	0.5	0.5	6.2	0.5	0.5	0.5	
5	29-Oct-10	0.5	0.5	7.5	0.5	0.5	0.5	
6	21-Oct-11	0.5	0.5	0.93	0.5	0.5	0.5	
7	23-Oct-12	0.5	0.5	3.3	0.5	0.5	0.5	
8	12-Nov-13	0.5	0.5	2.6	0.5	0.5	0.5	
9	5-Nov-14	0.5	0.5	0.91	0.5	0.5	0.5	
10	26-Aug-15	0.5	0.5	1.6	0.5	0.5	0.5	
11	4-Oct-16	0.5	0.2	1	0.5	0.5	0.5	
12	24-Oct-17	0.5	0.5	0.1	0.5	0.5	0.5	
13	31-Oct-18	0.5	0.5	0.5	0.5	0.5	0.5	
14	11-Dec-19	0.5	2	0.5	0.5	0.5	0.5	
15	19-Nov-20	0.54	0.48	0.62	0.48	0.52	0.54	
16	23-Nov-21	0.5	0.5	0.72	0.5	0.5	0.5	
17	20-Oct-22	0.5	0.5	0.59	0.5	0.5	0.5	
18								
19								
20								
Coefficient of Variation:		0.02	0.66	1.27	0.01	0.01	0.02	
Mann-Kendall Statistic (S):		12	-5	-61	-12	12	12	
Confidence Factor:		67.2%	56.4%	99.4%	67.2%	67.2%	67.2%	
Concentration Trend:		No Trend	Stable	Decreasing	Stable	No Trend	No Trend	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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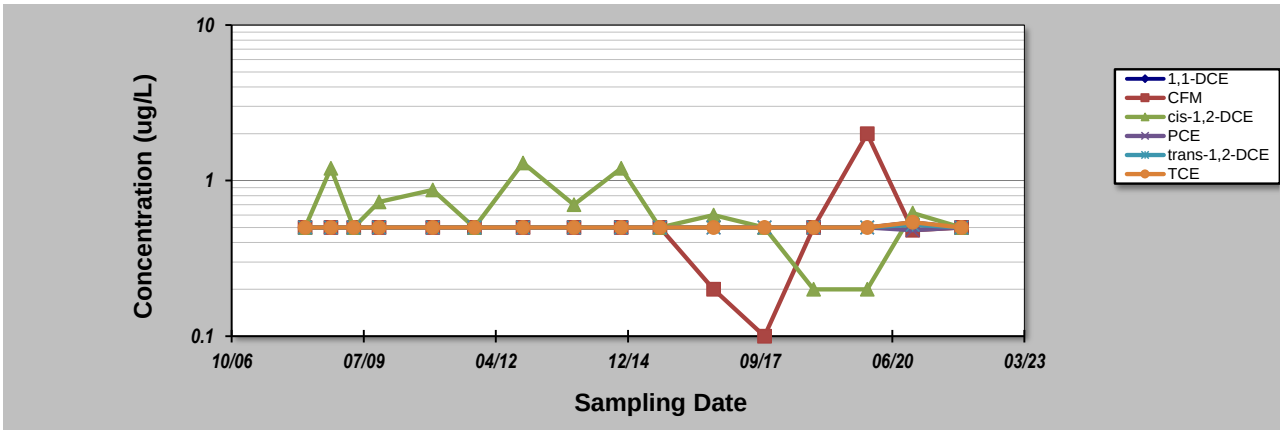
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-02MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-02MA CONCENTRATION (ug/L)						
1	18-Apr-08	0.5	0.5	0.5	0.5	0.5	0.5	
2	30-Oct-08	0.5	0.5	1.2	0.5	0.5	0.5	
3	20-Apr-09	0.5	0.5	0.5	0.5	0.5	0.5	
4	29-Oct-09	0.5	0.5	0.73	0.5	0.5	0.5	
5	9-Dec-10	0.5	0.5	0.87	0.5	0.5	0.5	
6	21-Oct-11	0.5	0.5	0.5	0.5	0.5	0.5	
7	23-Oct-12	0.5	0.5	1.3	0.5	0.5	0.5	
8	12-Nov-13	0.5	0.5	0.7	0.5	0.5	0.5	
9	5-Nov-14	0.5	0.5	1.2	0.5	0.5	0.5	
10	25-Aug-15	0.5	0.5	0.5	0.5	0.5	0.5	
11	4-Oct-16	0.5	0.2	0.6	0.5	0.5	0.5	
12	24-Oct-17	0.5	0.1	0.5	0.5	0.5	0.5	
13	31-Oct-18	0.5	0.5	0.2	0.5	0.5	0.5	
14	11-Dec-19	0.5	2	0.2	0.5	0.5	0.5	
15	19-Nov-20	0.54	0.48	0.62	0.48	0.52	0.54	
16	23-Nov-21	0.5	0.5	0.5	0.5	0.5	0.5	
17								
18								
19								
20								
Coefficient of Variation:		0.02	0.74	0.50	0.01	0.01	0.02	
Mann-Kendall Statistic (S):		13	-14	-33	-13	13	13	
Confidence Factor:		70.3%	71.8%	92.4%	70.3%	70.3%	70.3%	
Concentration Trend:		No Trend	Stable	Prob. Decreasing	Stable	No Trend	No Trend	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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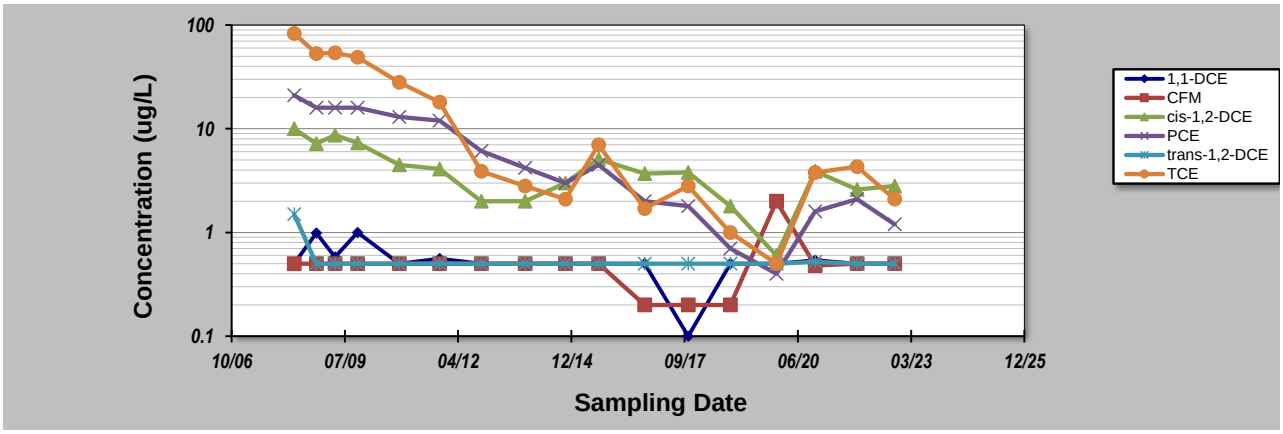
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-03MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-03MA CONCENTRATION (ug/L)						
1	14-Apr-08	0.5	0.5	10	21	1.5	83	
2	27-Oct-08	0.99	0.5	7.2	16	0.5	53	
3	10-Apr-09	0.58	0.5	8.7	16	0.5	54	
4	27-Oct-09	1	0.5	7.3	16	0.5	49	
5	29-Oct-10	0.5	0.5	4.5	13	0.5	28	
6	21-Oct-11	0.56	0.5	4.1	12	0.5	18	
7	23-Oct-12	0.5	0.5	2	6.1	0.5	3.9	
8	13-Nov-13	0.5	0.5	2	4.2	0.5	2.8	
9	5-Nov-14	0.5	0.5	3	3	0.5	2.1	
10	25-Aug-15	0.5	0.5	5.1	4.5	0.5	7	
11	4-Oct-16	0.5	0.2	3.7	2	0.5	1.7	
12	24-Oct-17	0.1	0.2	3.8	1.8	0.5	2.8	
13	31-Oct-18	0.5	0.2	1.8	0.7	0.5	1	
14	11-Dec-19	0.5	2	0.6	0.4	0.5	0.5	
15	17-Nov-20	0.54	0.48	3.9	1.6	0.52	3.8	
16	23-Nov-21	0.5	0.5	2.6	2.1	0.5	4.3	
17	20-Oct-22	0.5	0.5	2.8	1.2	0.5	2.1	
18								
19								
20								
Coefficient of Variation:		0.36	0.74	0.60	0.96	0.43	1.36	
Mann-Kendall Statistic (S):		-39	-19	-71	-111	-5	-88	
Confidence Factor:		94.1%	76.8%	99.9%	>99.9%	56.4%	>99.9%	
Concentration Trend:		Prob. Decreasing	Stable	Decreasing	Decreasing	Stable	Decreasing	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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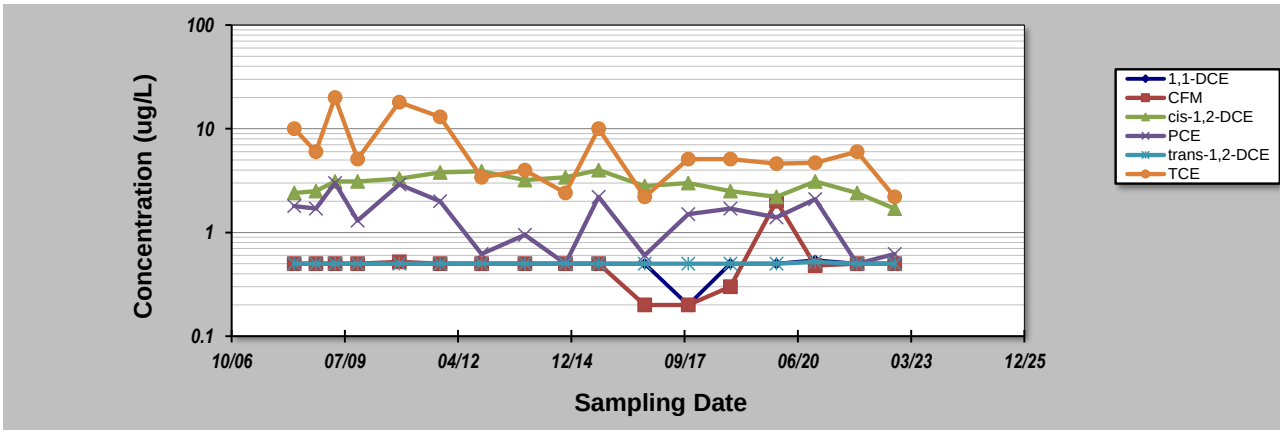
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-04MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-04MA CONCENTRATION (ug/L)						
1	14-Apr-08	0.5	0.5	2.4	1.8	0.5	10	
2	23-Oct-08	0.5	0.5	2.5	1.7	0.5	6	
3	10-Apr-09	0.5	0.5	3.1	3	0.5	20	
4	27-Oct-09	0.5	0.5	3.1	1.3	0.5	5.1	
5	29-Oct-10	0.5	0.52	3.3	2.9	0.5	18	
6	24-Oct-11	0.5	0.5	3.8	2	0.5	13	
7	24-Oct-12	0.5	0.5	3.9	0.62	0.5	3.4	
8	12-Nov-13	0.5	0.5	3.2	0.95	0.5	4	
9	5-Nov-14	0.5	0.5	3.4	0.5	0.5	2.4	
10	25-Aug-15	0.5	0.5	4	2.2	0.5	10	
11	4-Oct-16	0.5	0.2	2.8	0.6	0.5	2.2	
12	24-Oct-17	0.2	0.2	3	1.5	0.5	5.1	
13	31-Oct-18	0.5	0.3	2.5	1.7	0.5	5.1	
14	11-Dec-19	0.5	2	2.2	1.4	0.5	4.6	
15	17-Nov-20	0.54	0.48	3.1	2.1	0.52	4.7	
16	23-Nov-21	0.5	0.5	2.4	0.5	0.5	6	
17	20-Oct-22	0.5	0.5	1.7	0.62	0.5	2.2	
18								
19								
20								
Coefficient of Variation:		0.15	0.72	0.21	0.53	0.01	0.75	
Mann-Kendall Statistic (S):		5	-20	-27	-39	12	-50	
Confidence Factor:		56.4%	78.0%	85.6%	94.1%	67.2%	97.9%	
Concentration Trend:		No Trend	Stable	Stable	Prob. Decreasing	No Trend	Decreasing	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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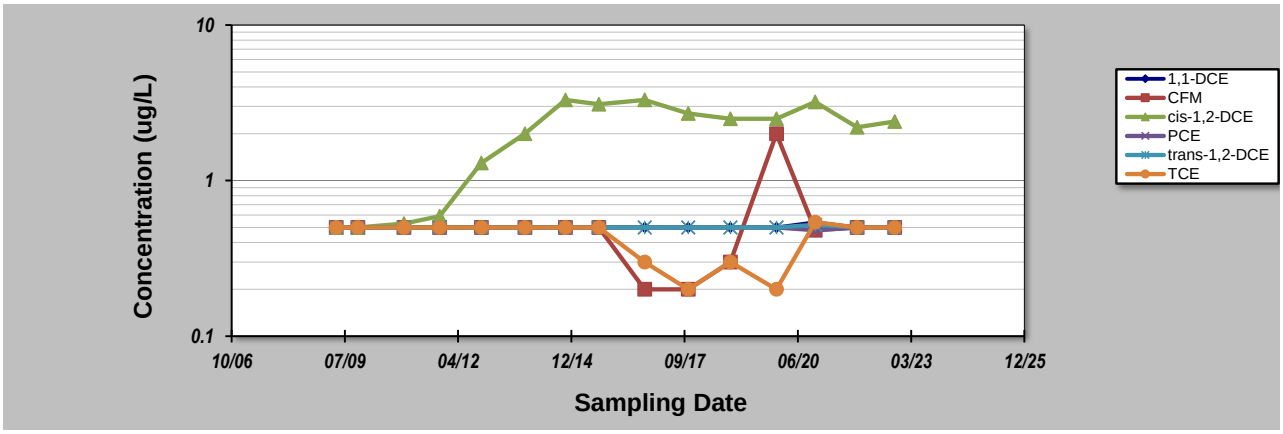
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-05MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-05MA CONCENTRATION (ug/L)						
1	20-Apr-09	0.5	0.5	0.5	0.5	0.5	0.5	
2	29-Oct-09	0.5	0.5	0.5	0.5	0.5	0.5	
3	9-Dec-10	0.5	0.5	0.53	0.5	0.5	0.5	
4	21-Oct-11	0.5	0.5	0.59	0.5	0.5	0.5	
5	23-Oct-12	0.5	0.5	1.3	0.5	0.5	0.5	
6	12-Nov-13	0.5	0.5	2	0.5	0.5	0.5	
7	5-Nov-14	0.5	0.5	3.3	0.5	0.5	0.5	
8	26-Aug-15	0.5	0.5	3.1	0.5	0.5	0.5	
9	4-Oct-16	0.5	0.2	3.3	0.5	0.5	0.3	
10	24-Oct-17	0.5	0.2	2.7	0.5	0.5	0.2	
11	31-Oct-18	0.5	0.3	2.5	0.5	0.5	0.3	
12	11-Dec-19	0.5	2	2.5	0.5	0.5	0.2	
13	17-Nov-20	0.54	0.48	3.2	0.48	0.52	0.54	
14	23-Nov-21	0.5	0.5	2.2	0.5	0.5	0.5	
15	20-Oct-22	0.5	0.5	2.4	0.5	0.5	0.5	
16								
17								
18								
19								
20								
Coefficient of Variation:		0.02	0.77	0.53	0.01	0.01	0.27	
Mann-Kendall Statistic (S):		10	-11	46	-10	10	-16	
Confidence Factor:		66.9%	68.7%	98.8%	66.9%	66.9%	76.7%	
Concentration Trend:		No Trend	Stable	Increasing	Stable	No Trend	Stable	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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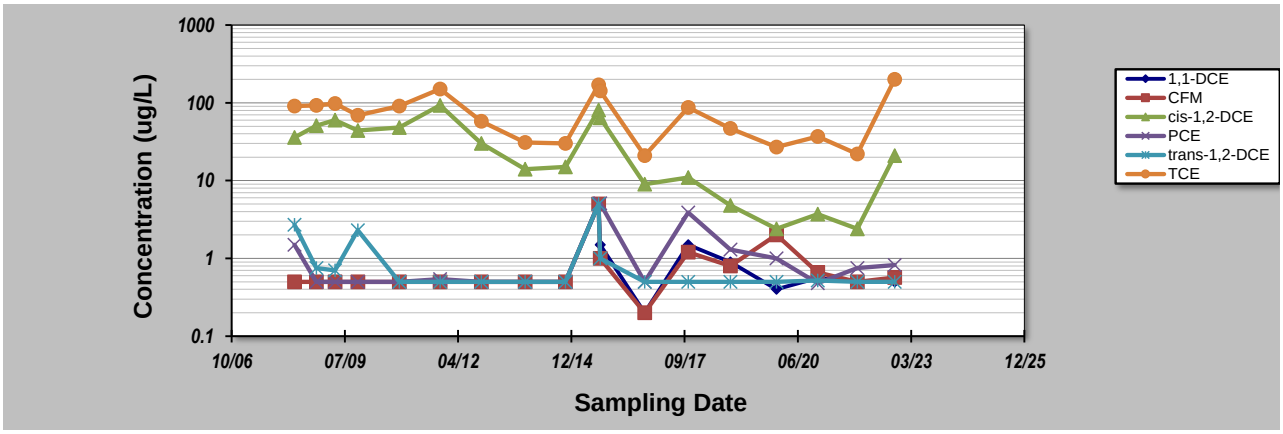
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-06MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-06MA CONCENTRATION (ug/L)						
1	17-Apr-08	0.5	0.5	36	1.5	2.7	91	
2	27-Oct-08	0.5	0.5	51	0.5	0.75	93	
3	9-Apr-09	0.5	0.5	60	0.5	0.7	98	
4	28-Oct-09	0.5	0.5	44	0.5	2.3	69	
5	29-Oct-10	0.5	0.5	48	0.5	0.5	91	
6	24-Oct-11	0.5	0.5	93	0.54	0.5	150	
7	23-Oct-12	0.5	0.5	30	0.5	0.5	58	
8	13-Nov-13	0.5	0.5	14	0.5	0.5	31	
9	5-Nov-14	0.5	0.5	15	0.5	0.5	30	
10	25-Aug-15	5	5	81	5	5	170	
11	8-Sep-15	1.5	1	64	5.1	1	142	
12	4-Oct-16	0.2	0.2	9	0.5	0.5	21	
13	24-Oct-17	1.5	1.2	11	3.9	0.5	87	
14	30-Oct-18	0.9	0.8	4.8	1.3	0.5	47	
15	12-Dec-19	0.4	2	2.4	1	0.5	27	
16	9-Dec-20	0.56	0.66	3.7	0.48	0.52	37	
17	24-Nov-21	0.5	0.5	2.4	0.75	0.5	22	
18	20-Oct-22	0.5	0.57	21	0.82	0.5	200	
19								
20								
Coefficient of Variation:		1.26	1.20	0.87	1.16	1.15	0.67	
Mann-Kendall Statistic (S):		11	40	-76	19	-44	-38	
Confidence Factor:		64.6%	92.9%	99.9%	75.0%	94.8%	91.8%	
Concentration Trend:		No Trend	Prob. Increasing	Decreasing	No Trend	Prob. Decreasing	Prob. Decreasing	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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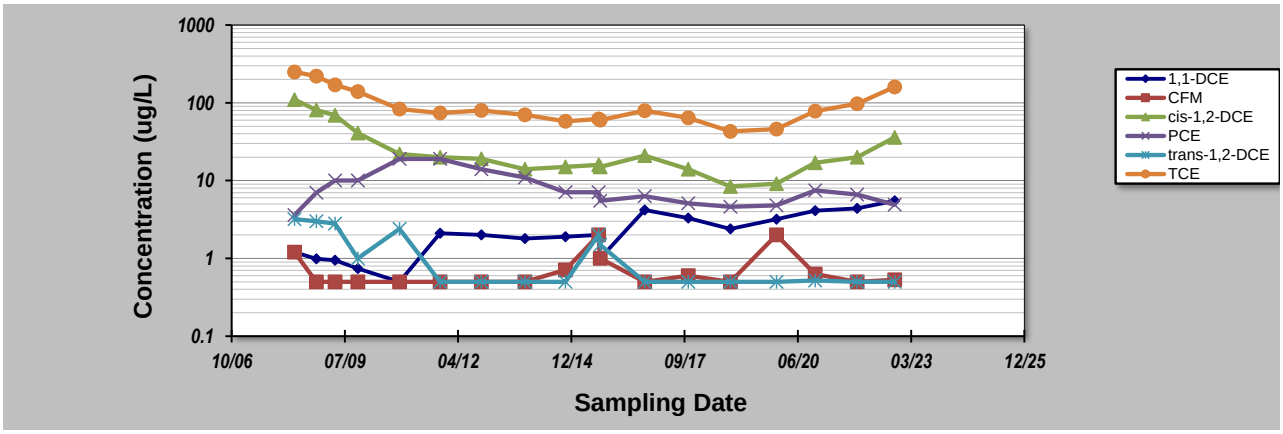
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-07MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-07MA CONCENTRATION (ug/L)						
1	17-Apr-08	1.2	1.2	110	3.6	3.2	250	
2	27-Oct-08	0.99	0.5	81	7	3	220	
3	10-Apr-09	0.95	0.5	69	10	2.8	170	
4	29-Oct-09	0.74	0.5	41	10	1	140	
5	1-Nov-10	0.5	0.5	22	19	2.4	83	
6	24-Oct-11	2.1	0.5	20	19	0.5	74	
7	23-Oct-12	2	0.5	19	14	0.5	80	
8	12-Nov-13	1.8	0.5	14	11	0.5	70	
9	5-Nov-14	1.9	0.71	15	7.1	0.5	58	
10	25-Aug-15	2	2	16	7.1	2	62	
11	8-Sep-15	1	1	15	5.5	1.5	60	
12	4-Oct-16	4.2	0.5	21	6.3	0.5	79	
13	24-Oct-17	3.3	0.6	14	5.1	0.5	64	
14	30-Oct-18	2.4	0.5	8.4	4.6	0.5	43	
15	11-Dec-19	3.2	2	9.1	4.8	0.5	46	
16	17-Nov-20	4.1	0.63	17	7.5	0.52	78	
17	23-Nov-21	4.4	0.5	20	6.6	0.5	97	
18	20-Oct-22	5.5	0.53	36	4.9	0.5	160	
19								
20								
Coefficient of Variation:		0.62	0.65	0.92	0.54	0.85	0.59	
Mann-Kendall Statistic (S):		96	23	-70	-50	-70	-61	
Confidence Factor:		>99.9%	79.5%	99.7%	96.9%	99.7%	98.9%	
Concentration Trend:		Increasing	No Trend	Decreasing	Decreasing	Decreasing	Decreasing	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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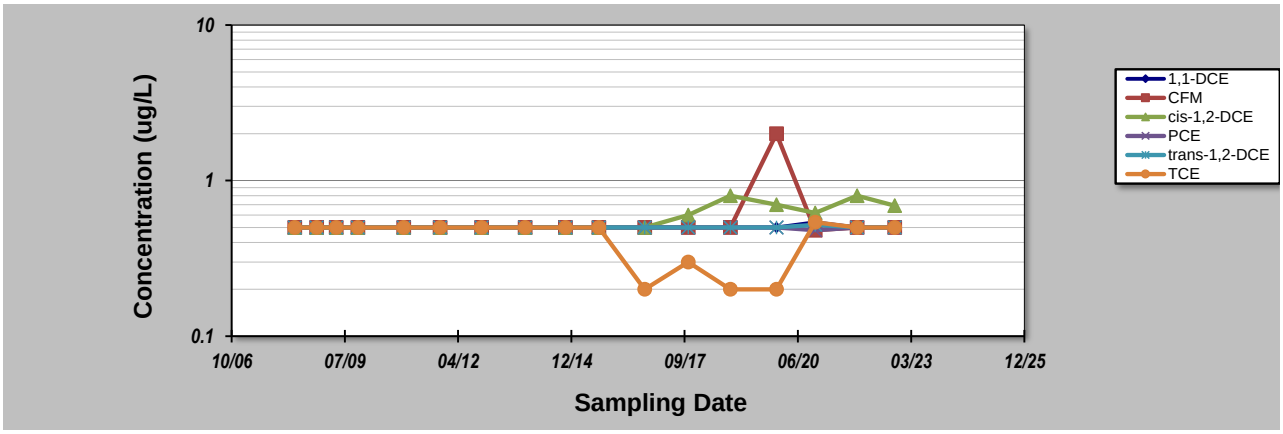
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-08MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-08MA CONCENTRATION (ug/L)						
1	18-Apr-08	0.5	0.5	0.5	0.5	0.5	0.5	
2	30-Oct-08	0.5	0.5	0.5	0.5	0.5	0.5	
3	20-Apr-09	0.5	0.5	0.5	0.5	0.5	0.5	
4	29-Oct-09	0.5	0.5	0.5	0.5	0.5	0.5	
5	7-Dec-10	0.5	0.5	0.5	0.5	0.5	0.5	
6	25-Oct-11	0.5	0.5	0.5	0.5	0.5	0.5	
7	24-Oct-12	0.5	0.5	0.5	0.5	0.5	0.5	
8	13-Nov-13	0.5	0.5	0.5	0.5	0.5	0.5	
9	5-Nov-14	0.5	0.5	0.5	0.5	0.5	0.5	
10	26-Aug-15	0.5	0.5	0.5	0.5	0.5	0.5	
11	4-Oct-16	0.5	0.5	0.5	0.5	0.5	0.2	
12	24-Oct-17	0.5	0.5	0.6	0.5	0.5	0.3	
13	30-Oct-18	0.5	0.5	0.8	0.5	0.5	0.2	
14	11-Dec-19	0.5	2	0.7	0.5	0.5	0.2	
15	17-Nov-20	0.54	0.48	0.62	0.48	0.52	0.54	
16	23-Nov-21	0.5	0.5	0.8	0.5	0.5	0.5	
17	20-Oct-22	0.5	0.5	0.69	0.5	0.5	0.5	
18								
19								
20								
Coefficient of Variation:		0.02	0.62	0.19	0.01	0.01	0.28	
Mann-Kendall Statistic (S):		12	-1	68	-12	12	-21	
Confidence Factor:		67.2%	50.0%	99.8%	67.2%	67.2%	79.2%	
Concentration Trend:		No Trend	Stable	Increasing	Stable	No Trend	Stable	



Notes:

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3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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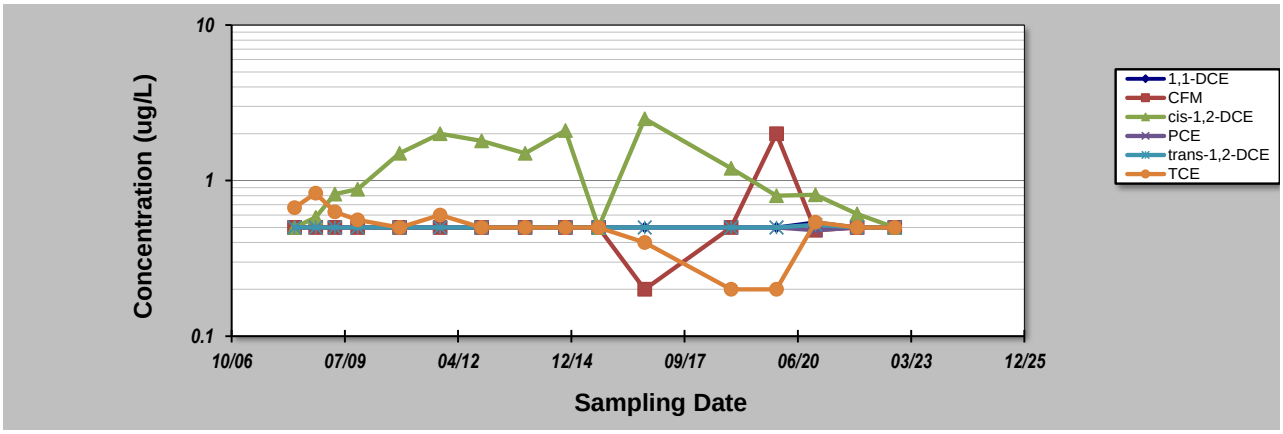
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-09MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-09MA CONCENTRATION (ug/L)						
1	17-Apr-08	0.5	0.5	0.5	0.5	0.5	0.67	
2	21-Oct-08	0.5	0.5	0.58	0.5	0.5	0.83	
3	7-Apr-09	0.5	0.5	0.82	0.5	0.5	0.63	
4	26-Oct-09	0.5	0.5	0.88	0.5	0.5	0.56	
5	1-Nov-10	0.5	0.5	1.5	0.5	0.5	0.5	
6	24-Oct-11	0.5	0.5	2	0.5	0.5	0.6	
7	24-Oct-12	0.5	0.5	1.8	0.5	0.5	0.5	
8	14-Nov-13	0.5	0.5	1.5	0.5	0.5	0.5	
9	5-Nov-14	0.5	0.5	2.1	0.5	0.5	0.5	
10	25-Aug-15	0.5	0.5	0.5	0.5	0.5	0.5	
11	4-Oct-16	0.5	0.2	2.5	0.5	0.5	0.4	
12	6-Nov-18	0.5	0.5	1.2	0.5	0.5	0.2	
13	11-Dec-19	0.5	2	0.8	0.5	0.5	0.2	
14	19-Nov-20	0.54	0.48	0.81	0.48	0.52	0.54	
15	23-Nov-21	0.5	0.5	0.61	0.5	0.5	0.5	
16	20-Oct-22	0.5	0.5	0.5	0.5	0.5	0.5	
17								
18								
19								
20								
Coefficient of Variation:		0.02	0.68	0.56	0.01	0.01	0.30	
Mann-Kendall Statistic (S):		11	-6	-2	-11	11	-64	
Confidence Factor:		67.1%	58.8%	51.8%	67.1%	67.1%	99.8%	
Concentration Trend:		No Trend	Stable	Stable	Stable	No Trend	Decreasing	



Notes:

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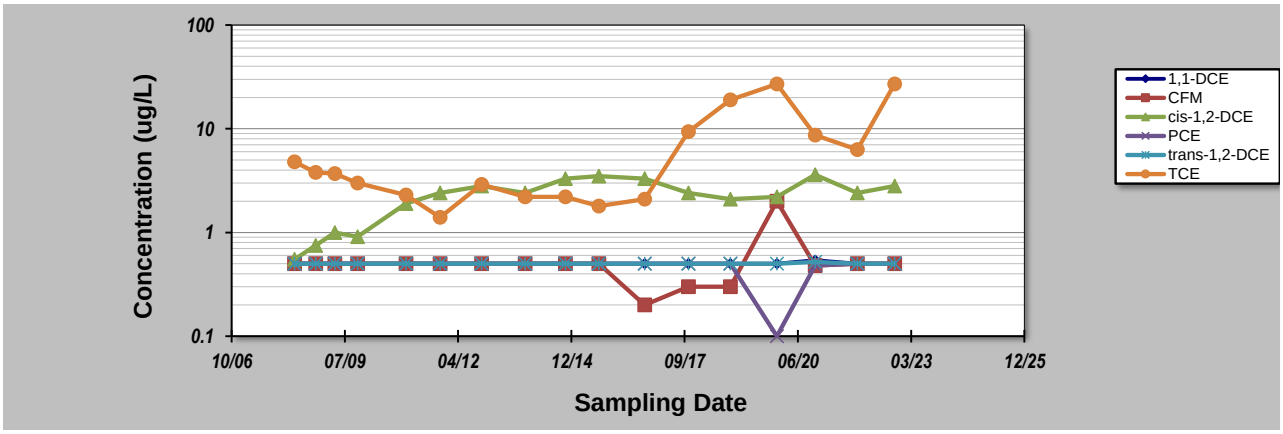
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-10MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-10MA CONCENTRATION (ug/L)						
1	17-Apr-08	0.5	0.5	0.55	0.5	0.5	4.8	
2	21-Oct-08	0.5	0.5	0.75	0.5	0.5	3.8	
3	7-Apr-09	0.5	0.5	1	0.5	0.5	3.7	
4	27-Oct-09	0.5	0.5	0.91	0.5	0.5	3	
5	27-Dec-10	0.5	0.5	1.9	0.5	0.5	2.3	
6	24-Oct-11	0.5	0.5	2.4	0.5	0.5	1.4	
7	24-Oct-12	0.5	0.5	2.8	0.5	0.5	2.9	
8	14-Nov-13	0.5	0.5	2.4	0.5	0.5	2.2	
9	5-Nov-14	0.5	0.5	3.3	0.5	0.5	2.2	
10	27-Aug-15	0.5	0.5	3.5	0.5	0.5	1.8	
11	4-Oct-16	0.5	0.2	3.3	0.5	0.5	2.1	
12	25-Oct-17	0.5	0.3	2.4	0.5	0.5	9.4	
13	31-Oct-18	0.5	0.3	2.1	0.5	0.5	19	
14	16-Dec-19	0.5	2	2.2	0.1	0.5	27	
15	18-Nov-20	0.54	0.48	3.6	0.48	0.52	8.7	
16	24-Nov-21	0.5	0.5	2.4	0.5	0.5	6.3	
17	20-Oct-22	0.5	0.5	2.8	0.5	0.5	27	
18								
19								
20								
Coefficient of Variation:		0.02	0.71	0.43	0.20	0.01	1.13	
Mann-Kendall Statistic (S):		12	-17	68	-21	12	26	
Confidence Factor:		67.2%	74.2%	99.8%	79.2%	67.2%	84.6%	
Concentration Trend:		No Trend	Stable	Increasing	Stable	No Trend	No Trend	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
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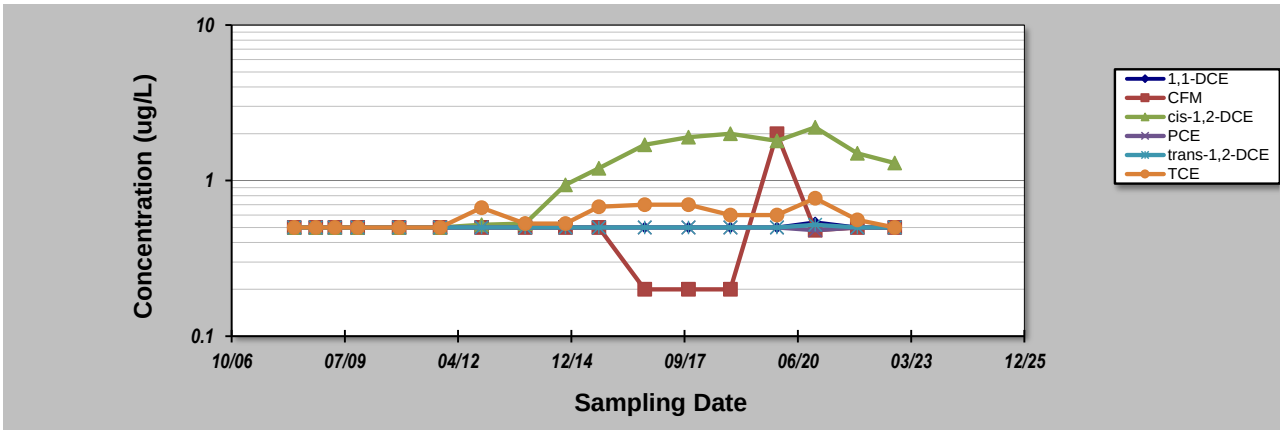
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-11MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-11MA CONCENTRATION (ug/L)						
1	14-Apr-08	0.5	0.5	0.5	0.5	0.5	0.5	
2	21-Oct-08	0.5	0.5	0.5	0.5	0.5	0.5	
3	7-Apr-09	0.5	0.5	0.5	0.5	0.5	0.5	
4	26-Oct-09	0.5	0.5	0.5	0.5	0.5	0.5	
5	27-Oct-10	0.5	0.5	0.5	0.5	0.5	0.5	
6	25-Oct-11	0.5	0.5	0.5	0.5	0.5	0.5	
7	24-Oct-12	0.5	0.5	0.52	0.5	0.5	0.67	
8	14-Nov-13	0.5	0.5	0.53	0.5	0.5	0.53	
9	5-Nov-14	0.5	0.5	0.94	0.5	0.5	0.53	
10	26-Aug-15	0.5	0.5	1.2	0.5	0.5	0.68	
11	5-Oct-16	0.5	0.2	1.7	0.5	0.5	0.7	
12	25-Oct-17	0.5	0.2	1.9	0.5	0.5	0.7	
13	31-Oct-18	0.5	0.2	2	0.5	0.5	0.6	
14	16-Dec-19	0.5	2	1.8	0.5	0.5	0.6	
15	18-Nov-20	0.54	0.48	2.2	0.48	0.52	0.77	
16	24-Nov-21	0.5	0.5	1.5	0.5	0.5	0.56	
17	20-Oct-22	0.5	0.5	1.3	0.5	0.5	0.5	
18								
19								
20								
Coefficient of Variation:		0.02	0.74	0.59	0.01	0.01	0.16	
Mann-Kendall Statistic (S):		12	-19	95	-12	12	58	
Confidence Factor:		67.2%	76.8%	>99.9%	67.2%	67.2%	99.1%	
Concentration Trend:		No Trend	Stable	Increasing	Stable	No Trend	Increasing	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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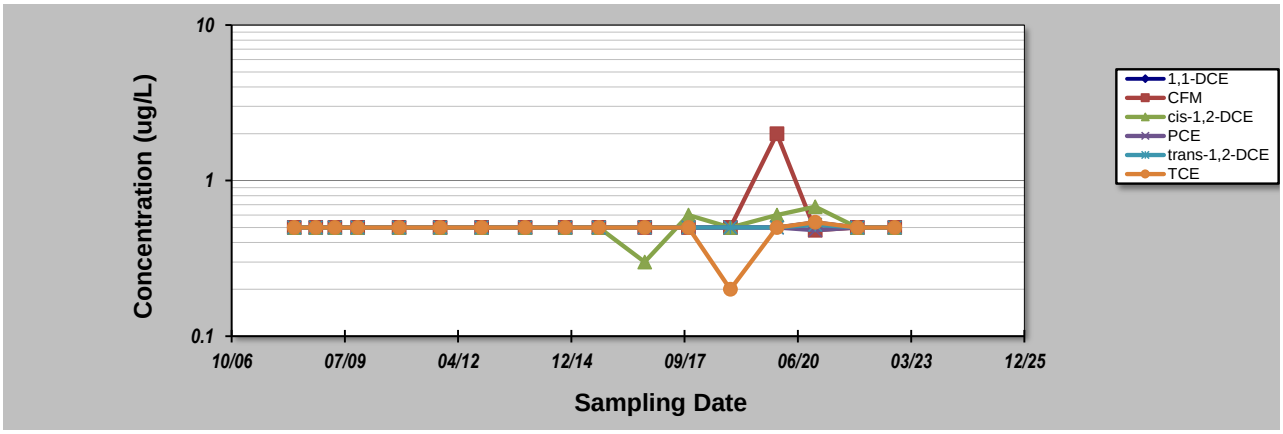
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-12MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-12MA CONCENTRATION (ug/L)						
1	14-Apr-08	0.5	0.5	0.5	0.5	0.5	0.5	
2	21-Oct-08	0.5	0.5	0.5	0.5	0.5	0.5	
3	7-Apr-09	0.5	0.5	0.5	0.5	0.5	0.5	
4	26-Oct-09	0.5	0.5	0.5	0.5	0.5	0.5	
5	27-Oct-10	0.5	0.5	0.5	0.5	0.5	0.5	
6	25-Oct-11	0.5	0.5	0.5	0.5	0.5	0.5	
7	24-Oct-12	0.5	0.5	0.5	0.5	0.5	0.5	
8	13-Nov-13	0.5	0.5	0.5	0.5	0.5	0.5	
9	3-Nov-14	0.5	0.5	0.5	0.5	0.5	0.5	
10	26-Aug-15	0.5	0.5	0.5	0.5	0.5	0.5	
11	5-Oct-16	0.5	0.5	0.3	0.5	0.5	0.5	
12	25-Oct-17	0.5	0.5	0.6	0.5	0.5	0.5	
13	31-Oct-18	0.5	0.5	0.5	0.5	0.5	0.2	
14	16-Dec-19	0.5	2	0.6	0.5	0.5	0.5	
15	18-Nov-20	0.54	0.48	0.68	0.48	0.52	0.54	
16	24-Nov-21	0.5	0.5	0.5	0.5	0.5	0.5	
17	20-Oct-22	0.5	0.5	0.5	0.5	0.5	0.5	
18								
19								
20								
Coefficient of Variation:		0.02	0.62	0.15	0.01	0.01	0.15	
Mann-Kendall Statistic (S):		12	-1	23	-12	12	3	
Confidence Factor:		67.2%	50.0%	81.5%	67.2%	67.2%	53.2%	
Concentration Trend:		No Trend	Stable	No Trend	Stable	No Trend	No Trend	



Notes:

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3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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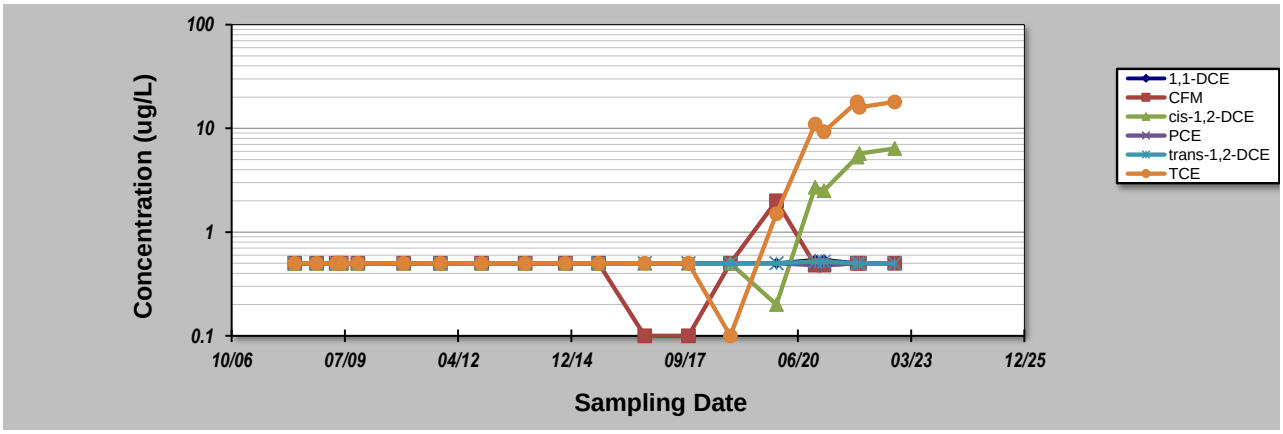
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-13MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-13MA CONCENTRATION (ug/L)						
1	18-Apr-08	0.5	0.5	0.5	0.5	0.5	0.5	
2	30-Oct-08	0.5	0.5	0.5	0.5	0.5	0.5	
3	20-Apr-09	0.5	0.5	0.5	0.5	0.5	0.5	
4	4-Jun-09	0.5	0.5	0.5	0.5	0.5	0.5	
5	29-Oct-09	0.5	0.5	0.5	0.5	0.5	0.5	
6	7-Dec-10	0.5	0.5	0.5	0.5	0.5	0.5	
7	26-Oct-11	0.5	0.5	0.5	0.5	0.5	0.5	
8	24-Oct-12	0.5	0.5	0.5	0.5	0.5	0.5	
9	14-Nov-13	0.5	0.5	0.5	0.5	0.5	0.5	
10	4-Nov-14	0.5	0.5	0.5	0.5	0.5	0.5	
11	25-Aug-15	0.5	0.5	0.5	0.5	0.5	0.5	
12	5-Oct-16	0.5	0.1	0.5	0.5	0.5	0.5	
13	25-Oct-17	0.5	0.1	0.5	0.5	0.5	0.5	
14	30-Oct-18	0.5	0.5	0.5	0.5	0.5	0.1	
15	12-Dec-19	0.5	2	0.2	0.5	0.5	1.5	
16	17-Nov-20	0.54	0.48	2.7	0.48	0.52	11	
17	2-Feb-21	0.54	0.48	2.5	0.48	0.52	9.3	
18	23-Nov-21	0.5	0.5	5.3	0.5	0.5	18	
19	13-Dec-21	0.5	0.5	5.7	0.5	0.5	16	
20	20-Oct-22	0.5	0.5	6.4	0.5	0.5	18	
21								
22								
23								
24								
25								
Coefficient of Variation:		0.02	0.69	1.33	0.01	0.01	1.61	
Mann-Kendall Statistic (S):		24	-19	69	-24	24	81	
Confidence Factor:		77.0%	71.8%	98.7%	77.0%	77.0%	99.6%	
Concentration Trend:		No Trend	Stable	Increasing	Stable	No Trend	Increasing	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
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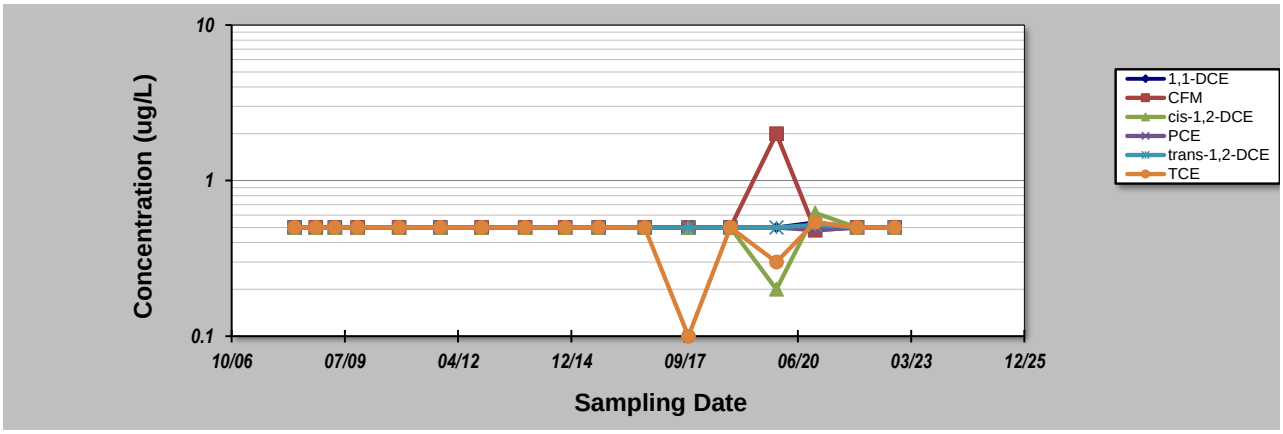
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-14MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-14MA CONCENTRATION (ug/L)						
1	17-Apr-08	0.5	0.5	0.5	0.5	0.5	0.5	
2	21-Oct-08	0.5	0.5	0.5	0.5	0.5	0.5	
3	7-Apr-09	0.5	0.5	0.5	0.5	0.5	0.5	
4	26-Oct-09	0.5	0.5	0.5	0.5	0.5	0.5	
5	27-Oct-10	0.5	0.5	0.5	0.5	0.5	0.5	
6	26-Oct-11	0.5	0.5	0.5	0.5	0.5	0.5	
7	25-Oct-12	0.5	0.5	0.5	0.5	0.5	0.5	
8	13-Nov-13	0.5	0.5	0.5	0.5	0.5	0.5	
9	3-Nov-14	0.5	0.5	0.5	0.5	0.5	0.5	
10	25-Aug-15	0.5	0.5	0.5	0.5	0.5	0.5	
11	5-Oct-16	0.5	0.5	0.5	0.5	0.5	0.5	
12	25-Oct-17	0.5	0.5	0.5	0.5	0.5	0.1	
13	30-Oct-18	0.5	0.5	0.5	0.5	0.5	0.5	
14	12-Dec-19	0.5	2	0.2	0.5	0.5	0.3	
15	18-Nov-20	0.54	0.48	0.62	0.48	0.52	0.54	
16	22-Nov-21	0.5	0.5	0.5	0.5	0.5	0.5	
17	20-Oct-22	0.5	0.5	0.5	0.5	0.5	0.5	
18								
19								
20								
Coefficient of Variation:		0.02	0.62	0.16	0.01	0.01	0.23	
Mann-Kendall Statistic (S):		12	-1	1	-12	12	-5	
Confidence Factor:		67.2%	50.0%	50.0%	67.2%	67.2%	56.4%	
Concentration Trend:		No Trend	Stable	No Trend	Stable	No Trend	Stable	



Notes:

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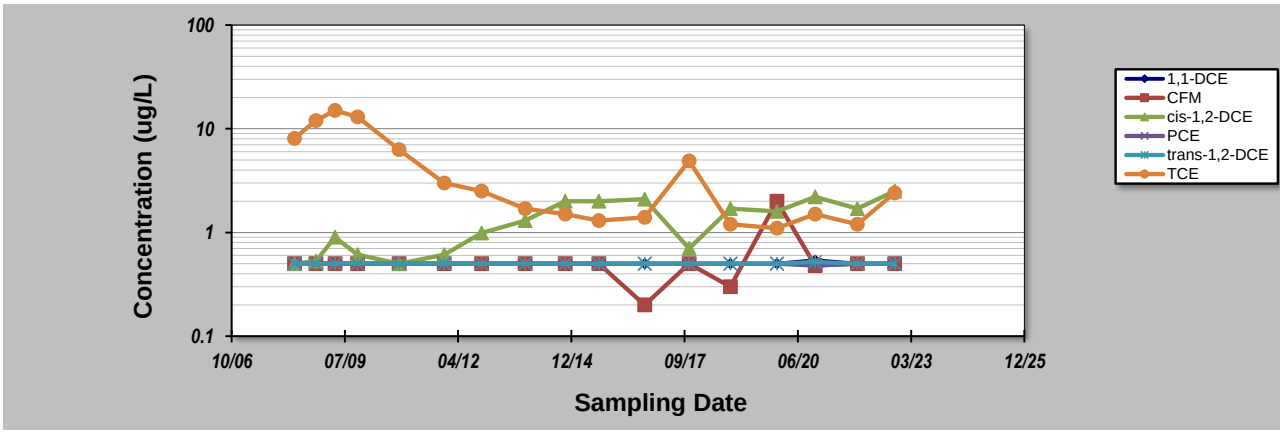
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-15MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-15MA CONCENTRATION (ug/L)						
1	16-Apr-08	0.5	0.5	0.5	0.5	0.5	8.1	
2	23-Oct-08	0.5	0.5	0.53	0.5	0.5	12	
3	9-Apr-09	0.5	0.5	0.9	0.5	0.5	15	
4	26-Oct-09	0.5	0.5	0.61	0.5	0.5	13	
5	28-Oct-10	0.5	0.5	0.5	0.5	0.5	6.3	
6	1-Dec-11	0.5	0.5	0.61	0.5	0.5	3	
7	24-Oct-12	0.5	0.5	0.99	0.5	0.5	2.5	
8	13-Nov-13	0.5	0.5	1.3	0.5	0.5	1.7	
9	3-Nov-14	0.5	0.5	2	0.5	0.5	1.5	
10	27-Aug-15	0.5	0.5	2	0.5	0.5	1.3	
11	5-Oct-16	0.5	0.2	2.1	0.5	0.5	1.4	
12	1-Nov-17	0.5	0.5	0.7	0.5	0.5	4.9	
13	31-Oct-18	0.5	0.3	1.7	0.5	0.5	1.2	
14	16-Dec-19	0.5	2	1.6	0.5	0.5	1.1	
15	17-Nov-20	0.54	0.48	2.2	0.48	0.52	1.5	
16	24-Nov-21	0.5	0.5	1.7	0.5	0.5	1.2	
17	20-Oct-22	0.5	0.5	2.5	0.5	0.5	2.4	
18								
19								
20								
Coefficient of Variation:		0.02	0.68	0.53	0.01	0.01	1.01	
Mann-Kendall Statistic (S):		12	-12	88	-12	12	-84	
Confidence Factor:		67.2%	67.2%	>99.9%	67.2%	67.2%	>99.9%	
Concentration Trend:		No Trend	Stable	Increasing	Stable	No Trend	Decreasing	



Notes:

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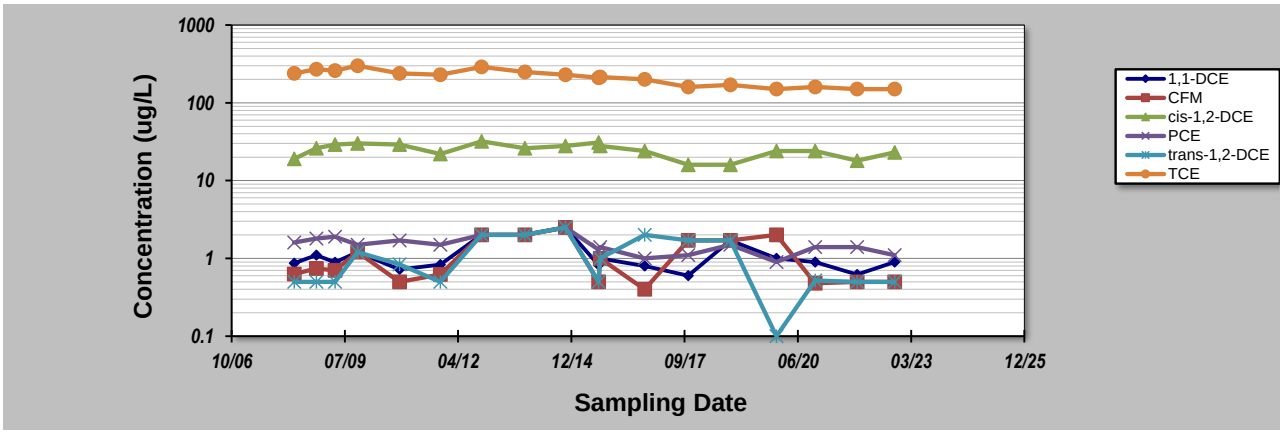
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-16MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-16MA CONCENTRATION (ug/L)						
1	14-Apr-08	0.87	0.63	19	1.6	0.5	240	
2	27-Oct-08	1.1	0.74	26	1.8	0.5	270	
3	9-Apr-09	0.89	0.7	29	1.9	0.5	260	
4	27-Oct-09	1.2	1.2	30	1.5	1.2	300	
5	1-Nov-10	0.72	0.5	29	1.7	0.84	240	
6	26-Oct-11	0.83	0.62	22	1.5	0.5	230	
7	25-Oct-12	2	2	32	2	2	290	
8	12-Nov-13	2	2	26	2	2	250	
9	4-Nov-14	2.5	2.5	28	2.5	2.5	230	
10	25-Aug-15	0.82	0.5	31	1.3	0.5	210	
11	8-Sep-15	1	1	28	1.4	1	215	
12	5-Oct-16	0.8	0.4	24	1	2	200	
13	24-Oct-17	0.6	1.7	16	1.1	1.7	160	
14	30-Oct-18	1.7	1.7	16	1.5	1.7	170	
15	11-Dec-19	1	2	24	0.9	0.1	150	
16	18-Nov-20	0.9	0.48	24	1.4	0.52	160	
17	23-Nov-21	0.62	0.5	18	1.4	0.5	150	
18	20-Oct-22	0.9	0.5	23	1.1	0.5	150	
19								
20								
Coefficient of Variation:		0.48	0.63	0.20	0.26	0.69	0.23	
Mann-Kendall Statistic (S):		-18	-11	-46	-63	0	-115	
Confidence Factor:		73.8%	64.6%	95.6%	99.1%	48.5%	>99.9%	
Concentration Trend:		Stable	Stable	Decreasing	Decreasing	Stable	Decreasing	



Notes:

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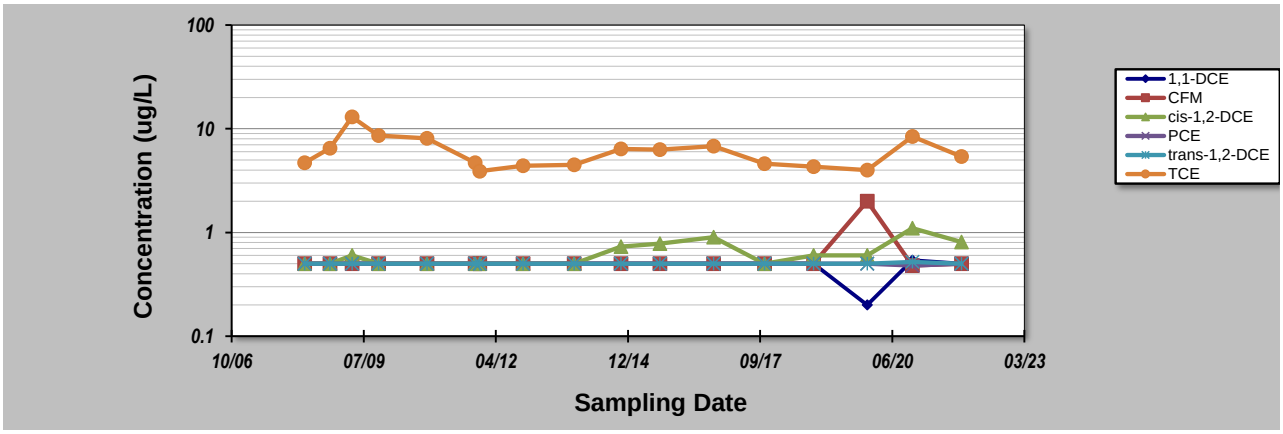
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-17MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-17MA CONCENTRATION (ug/L)						
1	15-Apr-08	0.5	0.5	0.5	0.5	0.5	4.7	
2	23-Oct-08	0.5	0.5	0.5	0.5	0.5	6.5	
3	9-Apr-09	0.5	0.5	0.6	0.5	0.5	13	
4	26-Oct-09	0.5	0.5	0.5	0.5	0.5	8.6	
5	28-Oct-10	0.5	0.5	0.5	0.5	0.5	8.1	
6	26-Oct-11	0.5	0.5	0.5	0.5	0.5	4.7	
7	1-Dec-11	0.5	0.5	0.5	0.5	0.5	3.9	
8	24-Oct-12	0.5	0.5	0.5	0.5	0.5	4.4	
9	14-Nov-13	0.5	0.5	0.5	0.5	0.5	4.5	
10	3-Nov-14	0.5	0.5	0.73	0.5	0.5	6.4	
11	25-Aug-15	0.5	0.5	0.78	0.5	0.5	6.3	
12	5-Oct-16	0.5	0.5	0.9	0.5	0.5	6.8	
13	25-Oct-17	0.5	0.5	0.5	0.5	0.5	4.6	
14	31-Oct-18	0.5	0.5	0.6	0.5	0.5	4.3	
15	11-Dec-19	0.2	2	0.6	0.5	0.5	4	
16	17-Nov-20	0.54	0.48	1.1	0.48	0.52	8.4	
17	24-Nov-21	0.5	0.5	0.81	0.5	0.5	5.4	
18								
19								
20								
Coefficient of Variation:		0.15	0.62	0.29	0.01	0.01	0.38	
Mann-Kendall Statistic (S):		1	-1	61	-14	14	-27	
Confidence Factor:		50.0%	50.0%	99.4%	70.1%	70.1%	85.6%	
Concentration Trend:		No Trend	Stable	Increasing	Stable	No Trend	Stable	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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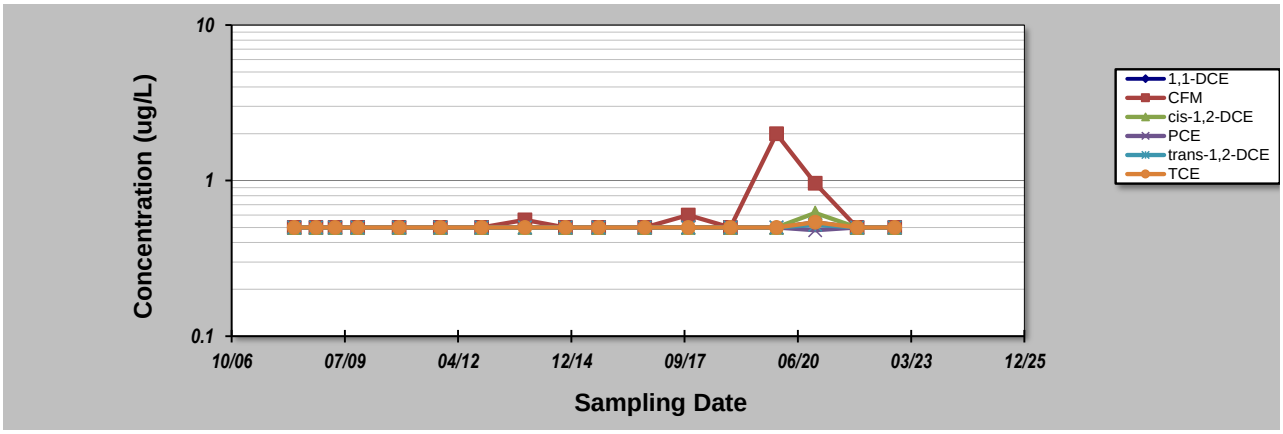
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-18LA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-18LA CONCENTRATION (ug/L)						
1	15-Apr-08	0.5	0.5	0.5	0.5	0.5	0.5	
2	23-Oct-08	0.5	0.5	0.5	0.5	0.5	0.5	
3	9-Apr-09	0.5	0.5	0.5	0.5	0.5	0.5	
4	27-Oct-09	0.5	0.5	0.5	0.5	0.5	0.5	
5	27-Oct-10	0.5	0.5	0.5	0.5	0.5	0.5	
6	26-Oct-11	0.5	0.5	0.5	0.5	0.5	0.5	
7	25-Oct-12	0.5	0.5	0.5	0.5	0.5	0.5	
8	12-Nov-13	0.5	0.56	0.5	0.5	0.5	0.5	
9	4-Nov-14	0.5	0.5	0.5	0.5	0.5	0.5	
10	25-Aug-15	0.5	0.5	0.5	0.5	0.5	0.5	
11	5-Oct-16	0.5	0.5	0.5	0.5	0.5	0.5	
12	24-Oct-17	0.5	0.6	0.5	0.5	0.5	0.5	
13	30-Oct-18	0.5	0.5	0.5	0.5	0.5	0.5	
14	11-Dec-19	0.5	2	0.5	0.5	0.5	0.5	
15	18-Nov-20	0.54	0.96	0.62	0.48	0.52	0.54	
16	23-Nov-21	0.5	0.5	0.5	0.5	0.5	0.5	
17	20-Oct-22	0.5	0.5	0.5	0.5	0.5	0.5	
18								
19								
20								
Coefficient of Variation:		0.02	0.60	0.06	0.01	0.01	0.02	
Mann-Kendall Statistic (S):		12	30	12	-12	12	12	
Confidence Factor:		67.2%	88.2%	67.2%	67.2%	67.2%	67.2%	
Concentration Trend:		No Trend	No Trend	No Trend	Stable	No Trend	No Trend	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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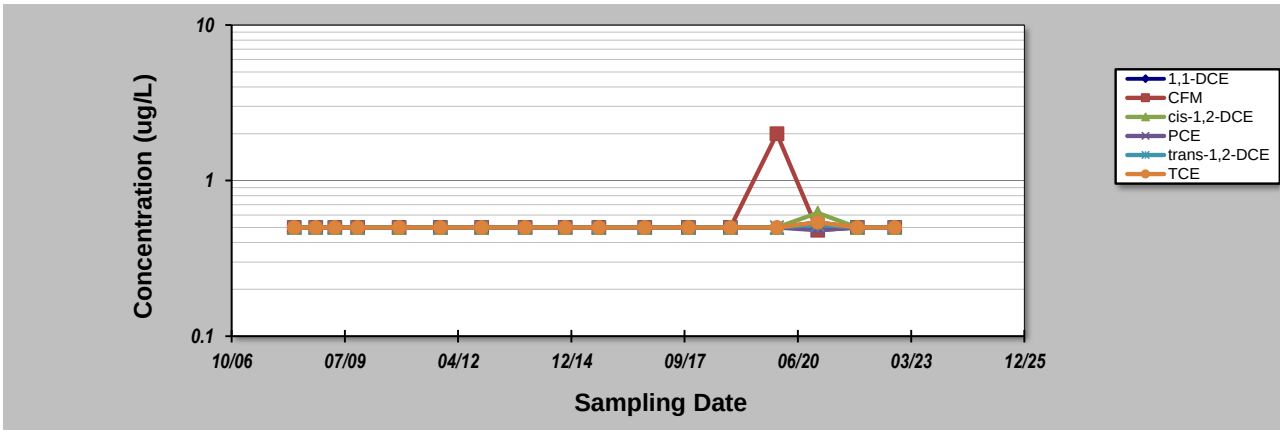
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-19MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-19MA CONCENTRATION (ug/L)						
1	15-Apr-08	0.5	0.5	0.5	0.5	0.5	0.5	
2	21-Oct-08	0.5	0.5	0.5	0.5	0.5	0.5	
3	7-Apr-09	0.5	0.5	0.5	0.5	0.5	0.5	
4	26-Oct-09	0.5	0.5	0.5	0.5	0.5	0.5	
5	28-Oct-10	0.5	0.5	0.5	0.5	0.5	0.5	
6	26-Oct-11	0.5	0.5	0.5	0.5	0.5	0.5	
7	24-Oct-12	0.5	0.5	0.5	0.5	0.5	0.5	
8	13-Nov-13	0.5	0.5	0.5	0.5	0.5	0.5	
9	3-Nov-14	0.5	0.5	0.5	0.5	0.5	0.5	
10	27-Aug-15	0.5	0.5	0.5	0.5	0.5	0.5	
11	5-Oct-16	0.5	0.5	0.5	0.5	0.5	0.5	
12	25-Oct-17	0.5	0.5	0.5	0.5	0.5	0.5	
13	31-Oct-18	0.5	0.5	0.5	0.5	0.5	0.5	
14	16-Dec-19	0.5	2	0.5	0.5	0.5	0.5	
15	9-Dec-20	0.54	0.48	0.62	0.48	0.52	0.54	
16	24-Nov-21	0.5	0.5	0.5	0.5	0.5	0.5	
17	20-Oct-22	0.5	0.5	0.5	0.5	0.5	0.5	
18								
19								
20								
Coefficient of Variation:		0.02	0.62	0.06	0.01	0.01	0.02	
Mann-Kendall Statistic (S):		12	-1	12	-12	12	12	
Confidence Factor:		67.2%	50.0%	67.2%	67.2%	67.2%	67.2%	
Concentration Trend:		No Trend	Stable	No Trend	Stable	No Trend	No Trend	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
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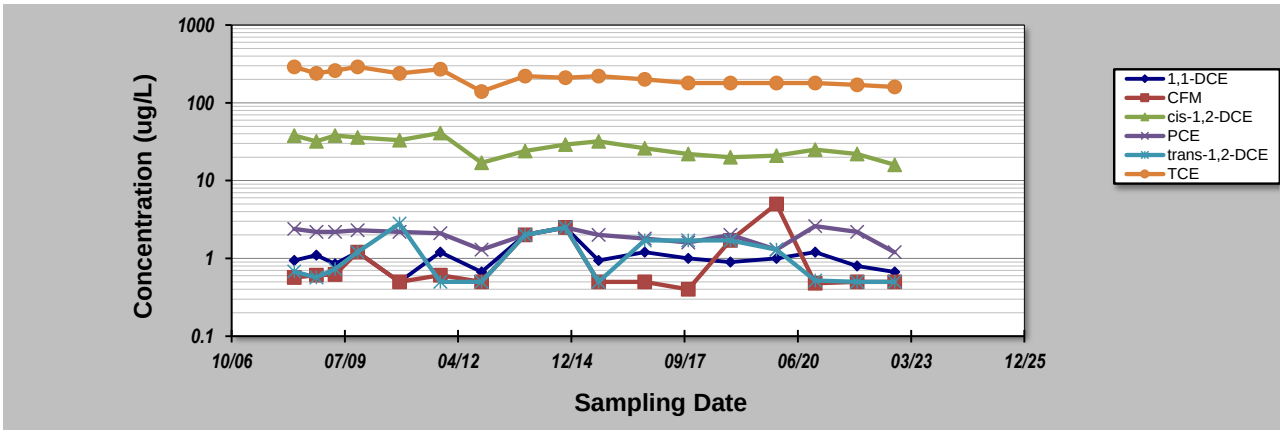
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-20MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-20MA CONCENTRATION (ug/L)						
1	15-Apr-08	0.94	0.57	38	2.4	0.68	290	
2	27-Oct-08	1.1	0.61	32	2.2	0.57	240	
3	9-Apr-09	0.85	0.62	38	2.2	0.73	260	
4	27-Oct-09	1.2	1.2	36	2.3	1.2	290	
5	1-Nov-10	0.5	0.5	33	2.2	2.8	240	
6	26-Oct-11	1.2	0.61	41	2.1	0.5	270	
7	25-Oct-12	0.67	0.5	17	1.3	0.5	140	
8	13-Nov-13	2	2	24	2	2	220	
9	4-Nov-14	2.5	2.5	29	2.5	2.5	210	
10	25-Aug-15	0.94	0.5	32	2	0.5	220	
11	5-Oct-16	1.2	0.5	26	1.8	1.7	200	
12	24-Oct-17	1	0.4	22	1.6	1.7	180	
13	30-Oct-18	0.9	1.7	20	2	1.7	180	
14	11-Dec-19	1	5	21	1.3	1.3	180	
15	18-Nov-20	1.2	0.48	25	2.6	0.52	180	
16	23-Nov-21	0.8	0.5	22	2.2	0.5	170	
17	20-Oct-22	0.67	0.5	16	1.2	0.5	160	
18								
19								
20								
Coefficient of Variation:		0.44	1.08	0.28	0.21	0.66	0.21	
Mann-Kendall Statistic (S):		-9	-18	-77	-48	-17	-93	
Confidence Factor:		62.7%	75.5%	100.0%	97.4%	74.2%	>99.9%	
Concentration Trend:		Stable	No Trend	Decreasing	Decreasing	Stable	Decreasing	



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3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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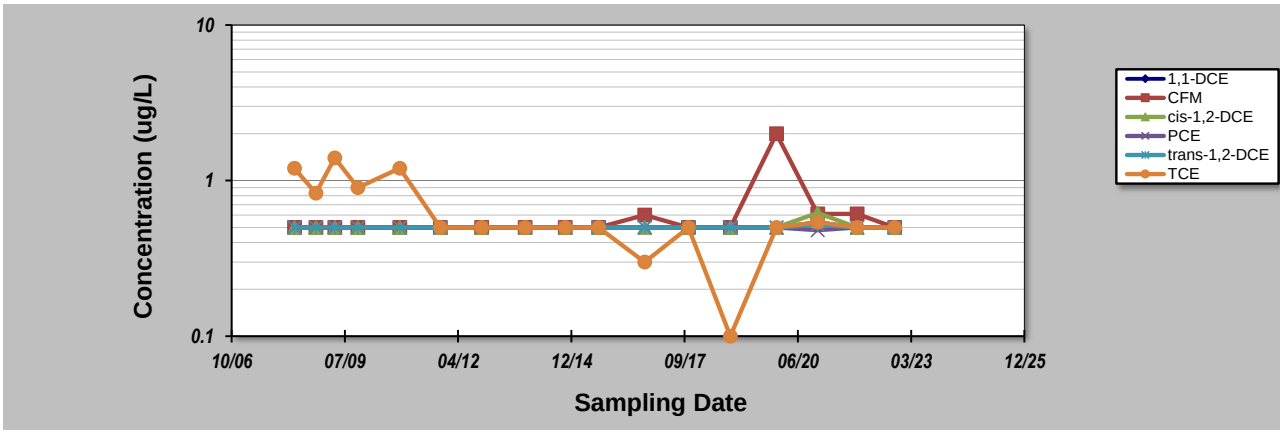
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-21LA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-21LA CONCENTRATION (ug/L)						
1	16-Apr-08	0.5	0.5	0.5	0.5	0.5	1.2	
2	22-Oct-08	0.5	0.5	0.5	0.5	0.5	0.83	
3	8-Apr-09	0.5	0.5	0.5	0.5	0.5	1.4	
4	28-Oct-09	0.5	0.5	0.5	0.5	0.5	0.9	
5	2-Nov-10	0.5	0.5	0.5	0.5	0.5	1.2	
6	26-Oct-11	0.5	0.5	0.5	0.5	0.5	0.5	
7	25-Oct-12	0.5	0.5	0.5	0.5	0.5	0.5	
8	13-Nov-13	0.5	0.5	0.5	0.5	0.5	0.5	
9	3-Nov-14	0.5	0.5	0.5	0.5	0.5	0.5	
10	25-Aug-15	0.5	0.5	0.5	0.5	0.5	0.5	
11	5-Oct-16	0.5	0.6	0.5	0.5	0.5	0.3	
12	25-Oct-17	0.5	0.5	0.5	0.5	0.5	0.5	
13	30-Oct-18	0.5	0.5	0.5	0.5	0.5	0.1	
14	12-Dec-19	0.5	2	0.5	0.5	0.5	0.5	
15	9-Dec-20	0.54	0.61	0.62	0.48	0.52	0.54	
16	22-Nov-21	0.5	0.61	0.5	0.5	0.5	0.5	
17	20-Oct-22	0.5	0.5	0.5	0.5	0.5	0.5	
18								
19								
20								
Coefficient of Variation:		0.02	0.60	0.06	0.01	0.01	0.53	
Mann-Kendall Statistic (S):		12	41	12	-12	12	-57	
Confidence Factor:		67.2%	95.0%	67.2%	67.2%	67.2%	99.0%	
Concentration Trend:		No Trend	Prob. Increasing	No Trend	Stable	No Trend	Decreasing	



Notes:

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3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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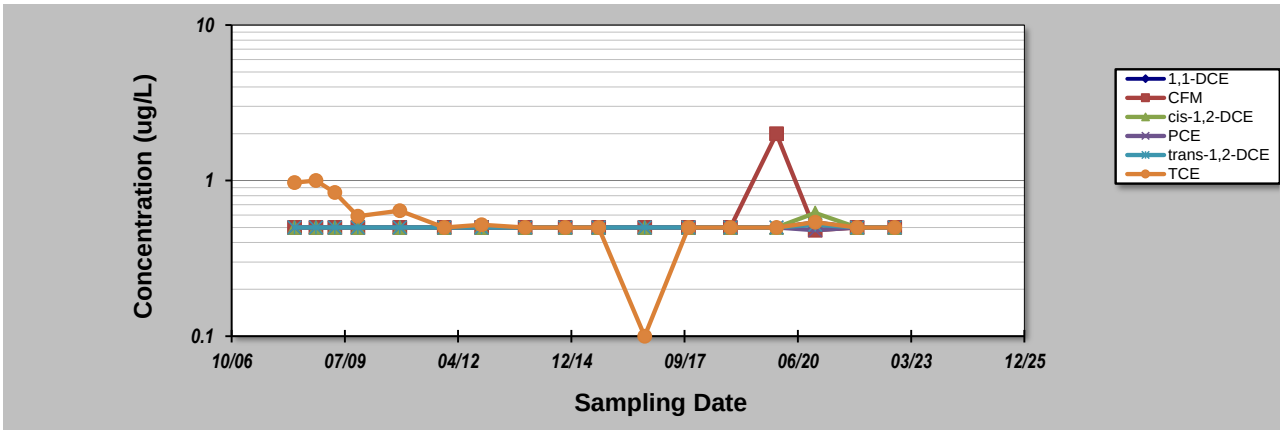
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-21MA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-21MA CONCENTRATION (ug/L)						
1	16-Apr-08	0.5	0.5	0.5	0.5	0.5	0.97	
2	22-Oct-08	0.5	0.5	0.5	0.5	0.5	1	
3	8-Apr-09	0.5	0.5	0.5	0.5	0.5	0.84	
4	28-Oct-09	0.5	0.5	0.5	0.5	0.5	0.59	
5	2-Nov-10	0.5	0.5	0.5	0.5	0.5	0.64	
6	1-Dec-11	0.5	0.5	0.5	0.5	0.5	0.5	
7	25-Oct-12	0.5	0.5	0.5	0.5	0.5	0.52	
8	13-Nov-13	0.5	0.5	0.5	0.5	0.5	0.5	
9	3-Nov-14	0.5	0.5	0.5	0.5	0.5	0.5	
10	25-Aug-15	0.5	0.5	0.5	0.5	0.5	0.5	
11	5-Oct-16	0.5	0.5	0.5	0.5	0.5	0.1	
12	25-Oct-17	0.5	0.5	0.5	0.5	0.5	0.5	
13	30-Oct-18	0.5	0.5	0.5	0.5	0.5	0.5	
14	12-Dec-19	0.5	2	0.5	0.5	0.5	0.5	
15	18-Nov-20	0.54	0.48	0.62	0.48	0.52	0.54	
16	22-Nov-21	0.5	0.5	0.5	0.5	0.5	0.5	
17	20-Oct-22	0.5	0.5	0.5	0.5	0.5	0.5	
18								
19								
20								
Coefficient of Variation:		0.02	0.62	0.06	0.01	0.01	0.36	
Mann-Kendall Statistic (S):		12	-1	12	-12	12	-66	
Confidence Factor:		67.2%	50.0%	67.2%	67.2%	67.2%	99.7%	
Concentration Trend:		No Trend	Stable	No Trend	Stable	No Trend	Decreasing	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
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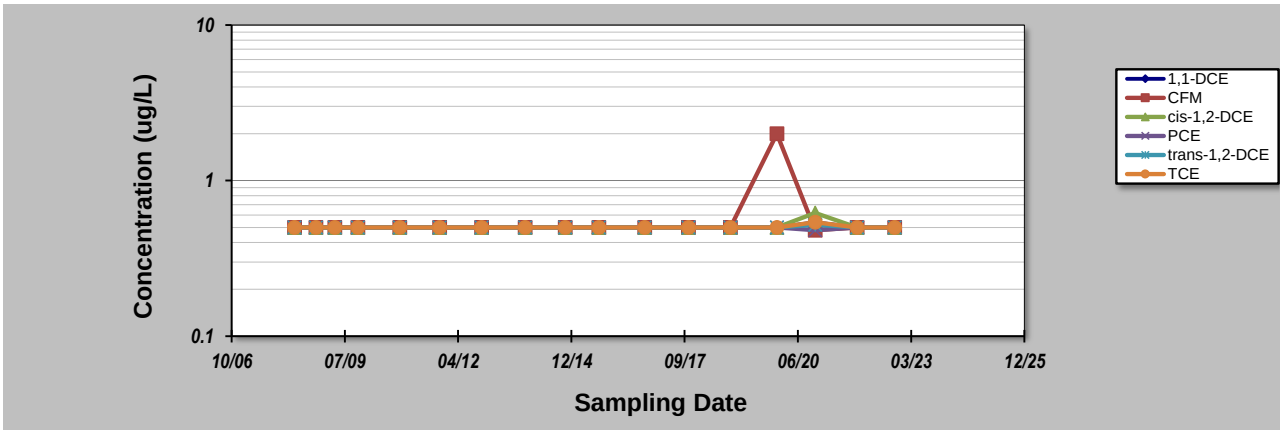
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Dec-22	Job ID:	
Facility Name:	Deer Valley	Constituent:	HM-22LA
Conducted By:	Victor Gamez Grijalva	Concentration Units:	ug/L

Sampling Point ID:		1,1-DCE	CFM	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	
Sampling Event	Sampling Date	HM-22LA CONCENTRATION (ug/L)						
1	16-Apr-08	0.5	0.5	0.5	0.5	0.5	0.5	
2	23-Oct-08	0.5	0.5	0.5	0.5	0.5	0.5	
3	8-Apr-09	0.5	0.5	0.5	0.5	0.5	0.5	
4	28-Oct-09	0.5	0.5	0.5	0.5	0.5	0.5	
5	2-Nov-10	0.5	0.5	0.5	0.5	0.5	0.5	
6	21-Oct-11	0.5	0.5	0.5	0.5	0.5	0.5	
7	24-Oct-12	0.5	0.5	0.5	0.5	0.5	0.5	
8	13-Nov-13	0.5	0.5	0.5	0.5	0.5	0.5	
9	3-Nov-14	0.5	0.5	0.5	0.5	0.5	0.5	
10	26-Aug-15	0.5	0.5	0.5	0.5	0.5	0.5	
11	5-Oct-16	0.5	0.5	0.5	0.5	0.5	0.5	
12	25-Oct-17	0.5	0.5	0.5	0.5	0.5	0.5	
13	31-Oct-18	0.5	0.5	0.5	0.5	0.5	0.5	
14	16-Dec-19	0.5	2	0.5	0.5	0.5	0.5	
15	17-Nov-20	0.54	0.48	0.62	0.48	0.52	0.54	
16	22-Nov-21	0.5	0.5	0.5	0.5	0.5	0.5	
17	20-Oct-22	0.5	0.5	0.5	0.5	0.5	0.5	
18								
19								
20								
Coefficient of Variation:		0.02	0.62	0.06	0.01	0.01	0.02	
Mann-Kendall Statistic (S):		12	-1	12	-12	12	12	
Confidence Factor:		67.2%	50.0%	67.2%	67.2%	67.2%	67.2%	
Concentration Trend:		No Trend	Stable	No Trend	Stable	No Trend	No Trend	



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

DISCLAIMER: *The GSI Mann-Kendall Toolkit is available "as is". Considerable care has been exercised in preparing this software product; however, no party, including without limitation GSI Environmental Inc., makes any representation or warranty regarding the accuracy, correctness, or completeness of the information contained herein, and no such party shall be liable for any direct, indirect, consequential, incidental or other damages resulting from the use of this product or the information contained herein. Information in this publication is subject to change without notice. GSI Environmental Inc., disclaims any responsibility or obligation to update the information contained herein.*

GSI Environmental Inc., www.gsi-net.com

Table F-1. Summary of Mann-Kendall Trend Statistical Analysis - 15 Years

2022 Annual Groundwater Monitoring Report

Honeywell Peoria Avenue Site, Phoenix, Arizona

Well	1,1-DCE		1,1-DCA		Trans-1,2-DCE		Chloroform		1,1,2-TCA		PCE		TCE	
	Trend	Concentration Range	Trend	Concentration Range	Trend	Concentration Range	Trend	Concentration Range	Trend	Concentration Range	Trend	Concentration Range	Trend	Concentration Range
MW-1a	Decreasing	120 - 2700 ug/L	Decreasing	6.9 - 180 ug/L	Prob. Decreasing	0.9 - 25 ug/L	Decreasing	1.8 - 50 ug/L	Decreasing	0.7 - 26 ug/L	Decreasing	1.2 - 25 ug/L	Decreasing	35 - 310 ug/L
MW-2	Stable	82 - 1600 ug/L	Decreasing	7.8 - 290 ug/L	Prob. Decreasing	0.6 - 19 ug/L	Decreasing	0.2 - 39 ug/L	Decreasing	0.5 - 35 ug/L	Prob. Decreasing	0.8 - 22 ug/L	Prob. Decreasing	6.8 - 320 ug/L
MW-3	No Trend	0.5 - 30 ug/L	Prob. Decreasing	0.5 - 1.3 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.1 - 2 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	No Trend	1.2 - 26 ug/L
MW-4	Increasing	0.5 - 16 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	No Trend	0.5 - 2 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	Increasing	0.5 - 4.4 ug/L
MW-5	Decreasing	6.2 - 38 ug/L	Decreasing	0.3 - 2.2 ug/L	Stable	0.1 - 0.5 ug/L	Stable	0.2 - 2 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	No Trend	2 - 15 ug/L
MW-6	Stable	0.5 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	No Trend	0.5 - 2 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L
MW-7	No Trend	0.5 - 18 ug/L	Stable	0.1 - 0.71 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.3 - 0.59 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	No Trend	0.5 - 17 ug/L
MW-8	Stable	0.2 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.2 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	Prob. Decreasing	0.1 - 0.78 ug/L
MW-9	No Trend	0.59 - 3.9 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.2 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.5 - 4.6 ug/L
MW-10	Stable	11 - 34 ug/L	Decreasing	0.51 - 1.7 ug/L	Stable	0.2 - 0.5 ug/L	Prob. Decreasing	0.5 - 0.7 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.1 - 0.5 ug/L	Decreasing	3.5 - 8.9 ug/L
MW-12	Increasing	0.3 - 3.5 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	No Trend	1.8 - 4.9 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	Prob. Increasing	0.2 - 1.6 ug/L
MW-13	Stable	0.5 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	No Trend	0.5 - 1.3 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L
MW-14	Stable	0.5 - 2.7 ug/L	No Trend	0.2 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	No Trend	0.4 - 0.58 ug/L
EW-1	Decreasing	41 - 170 ug/L	Decreasing	3.2 - 14 ug/L	Decreasing	0.5 - 1.4 ug/L	Decreasing	0.95 - 3.7 ug/L	Decreasing	0.5 - 2.1 ug/L	Decreasing	0.5 - 1.1 ug/L	Decreasing	12 - 33 ug/L
EW-2	Increasing	10 - 25 ug/L	Prob. Decreasing	0.3 - 0.75 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.2 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	Stable	0.5 - 0.5 ug/L	Increasing	4.3 - 33 ug/L

Notes:

Non-detect concentrations were used at their detection level for purposes of the evaluation.

NA = Not Available

µg/L = micrograms per liter

Appendix G
Proposed Updates to Extraction Well Metrics

Appendix G
Proposed Updates to Extraction Well Metrics
Honeywell Deer Valley Computer Park, Phoenix, Arizona

Metric	Proposed Metric	Contingency Actions
Extraction remains at or above established flow rates. Flow rates for the following extraction wells will be determined after system startup and stabilized operating conditions are achieved: LAU extraction well E-1 UAU extraction well E-3	Average extraction rates to be maintained at or above established flow rates with a flow rate tolerance of 10 percent. Average flow rates are calculated on a quarterly basis using the volume extracted per well over the time that the well pump was operated. Planned or unplanned downtimes are not included in the calculation. Extraction rates can be re-established if site conditions change, or new objectives are required. Flow rates for the following extraction wells were determined after system startup and stabilized operating conditions were achieved: LAU extraction well E-1: 200 gpm UAU extraction well E-3: 230 gpm	If the metric is not met, the associated contingency actions include: - Notify ADEQ. - Take steps to resume extraction flow rates. - Evaluate capture at achieved flow rates if target flow rates are not resumed. - Evaluate additional mitigation actions to resume the target flow rate and capture, including pump replacement, well rehabilitation, or other appropriate actions.
Extraction well mass removal doesn't indicate a reducing trend. Mass removal trends for the following extraction wells will be determined after system startup and stabilized operating conditions are achieved: LAU extraction well E-1 UAU extraction well E-3	Extraction well mass removal doesn't indicate a reducing trend. Trends will be calculated using statistical analysis (e.g. Mann-Kendall Trend Analysis). Mass removal trends for the following extraction wells will be determined semiannually after system startup and stabilized operating conditions are achieved: LAU extraction well E-1 UAU extraction well E-3	If the metric is not met, the associated contingency actions include: - Notify ADEQ. - Evaluate factors contributing to changes in mass removal and explain overall impacts to remediation. - Evaluate actions to be taken to change mass removal rates, as needed. - Evaluate mass removal metric and update to reflect current conditions, as needed.

Notes:
LAU = Lower Alluvial Unit
UAU = Upper Alluvial Unit
gpm = Gallons Per Minute
ADEQ = Arizona Department of Environmental Quality

Appendix I
ADEQ Review of Proposal to Eliminate Nitrate from Remediation Metrics

ARIZONA DEPARTMENT
OF
ENVIRONMENTAL QUALITY

Katie Hobbs
Governor

Karen Peters
Director

Sent via Email
March 6, 2023
VRP 23-093

Mr. Tao Wu
Manager, Remediation and Evaluation
Services Honeywell International, Inc.
111 S. 34th Street, Mail Stop
158 Phoenix, Arizona 85034

RE: Review of Proposal to Eliminate Nitrate from Remediation Metrics
Honeywell Deer Valley Computer Park
Phoenix, Arizona
Site Code: 502825-00

Dear Mr. Wu:

The Arizona Department of Environmental Quality Voluntary Remediation Program (VRP) has completed its review of the *Proposal to Eliminate Nitrate from Remediation Metrics* (the Proposal) dated December 14, 2022, and prepared by Jacobs on behalf of Honeywell International Inc. (Honeywell) for the Honeywell Deer Valley Computer Park VRP site (the Site). When evaluating the Proposal, the VRP also reviewed the *Annual Report for 2021* dated March 28, 2022 to better understand recent nitrate concentrations in the treatment system influent and effluent. In the Proposal, Honeywell requested nitrate be eliminated as a constituent of concern (COC) that triggers Site Metric contingency actions if concentrations exceeding an Aquifer Water Quality Standard are identified in the treatment system effluent. The Proposal provided the following multiple lines of evidence to support eliminating nitrate as a COC:

- Nitrate is not related to historical Site operations and is not considered a COC;
- Nitrate in groundwater is believed to be a result of historical agricultural practices in the area; and
- The groundwater extraction and treatment system at the Site is not designed to treat nitrate.

The VRP approves the Proposal. For future monitoring, remedial, and reporting efforts, Honeywell is no longer required to do the following for a nitrate exceedance in the effluent:

- Notify ADEQ;
- Resample the treatment system effluent;
- Evaluate the factors relating to a nitrate exceedance;
- Increase monitoring frequency; and
- Conduct additional mitigation actions and/or contingency actions.

How to Respond and Submit

A response is not required at this time. The next Annual Monitoring Report shall incorporate the above-mentioned changes. Please contact me at widlowski.jennifer@azdeq.gov if you have any questions or concerns.

Sincerely,

Jennifer Widlowski

Jennifer Widlowski, Project Manager
Voluntary Remediation Program

cc: Baine Foehr, Project Manager, Jacobs – *via email*

Appendix H
Proposal to Eliminate Nitrate from Remediation Metrics

1501 W. Fountainhead Pkwy
Suite 401
Tempe, Arizona 85282
F +1 480 966 9450
www.jacobs.com

December 14, 2022

Jennifer Widlowski
Project Manager
Arizona Department of Environmental Quality
1110 West Washington Street
Phoenix, AZ 85007

Subject: **Proposal to Eliminate Nitrate from Remediation Metrics, Honeywell Deer Valley Computer Park, Voluntary Remediation Program Site No. 502825-00.**

Dear Ms. Widlowski:

Several operational and monitoring metrics are in place for the Deer Valley Computer Park site. One of these metrics, as stated in the annual reports for the site, is:

> *"Trichloroethene (TCE) or other constituents of concern (COCs) are below their corresponding Arizona Aquifer Water Quality Standards in treatment plant effluent."*

The Arizona Department of Environmental Quality (ADEQ), Honeywell International Inc. (Honeywell), and Jacobs Project Management Co. (Jacobs) have discussed whether nitrate should be included as a COC for the purposes of evaluating this metric. During a teleconference held on August 15, 2022, ADEQ provided guidance that if nitrate was not requested as a COC in the site application to the Voluntary Remediation Program (VRP), it does not need to be included as a COC for the purposes of evaluating site metrics.

Section II, point 2 of the VRP application requested a list of the contaminants to be remediated among other information. Honeywell's response to this point described TCE as the primary contaminant and refers to the first quarter 1999 groundwater monitoring report for a complete list of contaminants, which included 7 volatile organic compounds and nitrate. The application then states:

> *"The nitrates shown are throughout the entire area of Phoenix. They are the result of past agricultural practices and will not be remediated by this remedial action."*

The relevant page of the application is attached to this letter.

The nitrate observed in groundwater at the site is not related to historical site activities and, according to the VRP application, was not intended to be remediated as part of the groundwater extraction and treatment remedy. Therefore, nitrate should not be included as a COC for the purposes of evaluating site metrics. Jacobs proposes that the metric be revised as follows:

"TCE or other *volatile organic* [emphasis added] constituents of concern are below their corresponding Arizona Aquifer Water Quality Standards in treatment plant effluent."

Honeywell has amassed an extensive data set of nitrate concentrations in groundwater and in treatment system influent and effluent. Nitrate is not a COC for site groundwater, and no additional sampling for nitrate is needed.

December 14, 2022
Ms. Jennifer Widlowski
Arizona Department of Environmental Quality
Re: Eliminate Nitrate Metric

If you have any questions or concerns regarding this proposal to remove nitrate as a COC for purposes of site metrics evaluation, please contact me at 602-327-3807.

Sincerely,

Jacobs Project Management Co.

Baine Foehr
Project Manager

Cc: Tao Wu, Honeywell International Inc.
Steve Bowles, Jacobs Project Management Co.

Enclosures:

Section II, Honeywell Deer Valley Computer Park WQARF Voluntary Remediation Program Application

SECTION II: SCOPE OF WORK

The following information must accompany this application:

1. Boundaries of the Property and boundaries of the potion of the Property (site) being investigated and/or remediated, if known;

   Please see map of the groundwater plume included as Figure 2 in the First Quarter 1999 Groundwater Monitoring Report that is included as Tab H of this application.

2. A list of the contaminants to be remediated, as well as the nature and geographical areal extent of the contamination by hazardous substances and/or pollutants, if known;

   The principal contaminant is Trichloroethylene (TCE). A First Quarter 1999 Groundwater Monitoring Report of the area of this application was completed April 30, 1999 and is included as Tab H of this application. This report gives all the contaminants. The nitrates shown are throughout the entire area of Phoenix. They are the result of past agricultural practices and will not be remediated by this remedial action.

3. Description of the remediation proposed, a schedule for performance of the remediation and the rationale for the selection of the remediation level, if appropriate;

   The remediation was proposed to ADEQ in the following reports:

   A. ___, 1987. Work Plan for Remedial Investigation / Feasibility Study, Deer Valley Computer Park, Honeywell Bull Inc., Maricopa County, Arizona. October 23, 1987.

   B. ___, 1991. Remedial Investigation Report, Deer Valley Computer Park, Maricopa County, Arizona. February 1991.

   C. Donohue & Associates, Inc., 1991. Feasibility Study Report, Deer Valley Computer Park, Maricopa County, Arizona. August 1991.

   D. RUST Environment & Infrastructure, 1993. Remedial Action Plan for groundwater remediation in the vicinity of Deer Valley Computer Park, Maricopa County, Arizona. September 1993.

   E. ___, 1994. Addendum A to Remedial Action Plan for groundwater remediation in the vicinity of Deer Valley Computer Park, Maricopa County, Arizona. May 1994.

   F. ___, 1994. Addendum B to Remedial Action Plan for groundwater remediation in the vicinity of Deer Valley Computer Park, Maricopa County, Arizona. September 1994.

   G. ___, 1995. Addendum C to Remedial Action Plan for groundwater remediation in the vicinity of Deer Valley Computer Park, Maricopa County, Arizona. March 1995.

   H. GPI Engineers, Inc., 1995. Technical specifications, groundwater remediation project, Deer Valley Computer Park, Phoenix, Arizona. August 25, 1995.

   I. GPI Engineers, Inc., 1996. Groundwater Remediation Project Groundwater Treatment Plant Initial Start-up. November 25, 1996 as amended by Honeywell 3/21/97 responses to ADEQ letter of 2/26/97.

CURRENT STATUS OF PROJECT

The project was completely under the review of the Department of Environmental Quality (ADEQ) until April 16, 1998 when they notified Honeywell that resource limitations required them to assign their resources to sites that were of the highest priority. Thus the Superfund Projects Section was no longer able to provide the assistance they had been providing. Honeywell was informed that ADEQ approval of the remedial activities was not required under WQARF.

ADEQ had reviewed, commented upon and approved the various reports and actions up to that date. They included the various reports listed above as well as start up activities.

To date approximately 11 million gallons of groundwater has been extracted, treated to reduce TCE levels below 5 parts per billion, and injected. The vast majority of this water was extracted from EW-2M and injected into 1W-1 during system operation from March 8 through March 30. Startup and testing performed to date has provided validation of the extraction, treatment, and injection concept, prompted modifications to the treatment facility, and identified the need for significant rehabilitation and retrofit of the two injection wells. A schedule for rehabilitation and retrofit has been established together with additional testing and troubleshooting.

Extraction Wells. Extraction wells have been pumped for sufficient duration to more closely establish long term sustainable pumping rates, presently estimated as follows:

- EW-1M 690 to 710 gallons per minter
- EW 1L approx. 100 gallons per minute
- EW-2M 340 to 360 gallons per minute
- Total 1130 to 1170 gallons per minute

Treatment Facility. The ultraviolet-peroxide treatment process has been operated for sufficient duration, approx. 565 hours, during testing of the injection wells to address most of the normal startup issues to validate the desired system performance with respect to TCE removal, and to verify capacity consistent with extraction pumping capacity. Changes that have been made include the following:

- the hydrogen peroxide injectors have been changed out to improve injection efficiency.
- The control system has been reprogrammed to improve operational performance of the treated water equalization tanks and pumps.
- Tests were run for the peroxide dosage and UV optimization.

Injection Wells. Testing before, during, and after system operation identified the need for better control of the injection rate during the injection cycle and increased extraction pumping capacity to reverse the flow during the extraction cleaning cycle. It also identified the need to address potentially serious plugging issues to ensure long term operation of the injection wells. To address these needs, both wells will be rehabilitated and retrofitted. Rehabilitation entails the addition of a down hole valve to provide the required control during the injection cycle, and the addition of a larger down hole pump to provide a greater reversal of flow to dislodge and remove particulate during the extraction cleaning cycle. Additional analysis is presently being conducted to determine the need for chemical feed facilities to prevent chemical precipitation through proper pH control.

Implementation Schedule. An aggressive schedule for rehabilitation and retrofit of the two existing injection wells (IW-1 and IW-2), and resumption of system operation has been established. Preliminary planning for a third injection well (IW-3) to achieve full extraction and treatment capacity is also underway. The current implementation schedule is as follows:

- Retrofit design mid June through mid July 1999
- Rehabilitation July 1999

• Equipment procurement	mid July through August 1999
• Retrofit IW-1 & IW-2 and startup of EW-1M & EW-1L	September 1999
• Additional testing/troubleshooting	October through December 1999
• IW-3 Design	November through December 1999
• IW-3 Procurement	January through February 2000
• IW-3 Installation and startup	March through April 2000
• Additional testing/troubleshooting	May through June 2000

4. Proposal for public notice and comment appropriate to the schedule and scope of work proposed;

   The past work on the project was under the overview of the Department of Environmental Quality. Each report was reviewed, commented upon and approved. At appropriate times there was public notice and there were public meetings. One such public meeting was November 18, 1993 at the Desert Foothills Junior High School. A copy of the notice of that meeting is enclosed.

5. The procedural requirements the volunteer proposes to be waived under the voluntary remediation,

   None

6. A list of the persons the Applicant believes may be responsible for the release or threatened release of hazardous substances and/or pollutants at the Property and the basis for that belief;

   Not Applicable. Honeywell has assumed responsibility for the groundwater remediation.

7. For the remediation of soil, a description of how the selected remediation is consistent with the soil remediation standards adopted pursuant to A.R.S. § 49-152.

   Not Applicable

8. A list of the persons the Applicant believes may be responsible for the release or threatened release of hazardous substances and/or pollutants that have migrated to the Property and the basis for that belief;

   Not Applicable. Honeywell has assumed responsibility for the groundwater remediation.

9. If applicable, a list of the actions of the Director that the Applicant proposes to be suspended by the voluntary remediation

   Honeywell requests suspension for the Preliminary Investigation process and any Registry Listing activities.

By signing this application, the applicant agrees to include the following items within the workplan submitted for the proposed remedial actions.

1. A description of how the remediation will assure the protection of human health, welfare and the environment.

2. To the extent practicable, a description of the plan to provide for the control, management or cleanup of the hazardous wastes and/or pollutants so as to allow the maximum beneficial use of the waters of the State.

3. A description of how the remediation proposed is reasonable, necessary, cost-effective and technically feasible.

4. A description of how the selected remediation shall address, at a minimum, any well that at the time of selection of the remediation either supplies water for municipal, domestic, industrial, irrigation or agricultural uses or is part of a public water system if the well would now or in the reasonably foreseeable future produce water that would not be fit for its current or reasonably foreseeable end uses without treatment due to the release of hazardous wastes and/or pollutants. The specific measures to address any such well shall not reduce the supply of water available to the owner of the well.

Applicant's Approval Objectives

Preliminary Assessment
Preliminary Investigation of a Release to:
- Soil
- Groundwater
- Surface water and sediment

Feasibility Study

Remedial Investigation
- Soil
- Groundwater
- Surface water and sediment

Remedial Action Plan Approval

All of the above have been completed and previously approved by ADEQ

Letter of Completion **When remediation is complete.**

Applicant's remediation Objectives

Soil Cleanup to: **Not applicable**
- Residential Soil Remediation Levels
- Non-residential Soil Remediation Levels
- Groundwater protection levels
- Background levels
- Property specific risk-based residential levels
- Property specific risk-based non-residential levels
- Intended cleanup level not known at this time

Water Cleanup to:
- Aquifer water quality standards
- Surface water quality standards
- Other **See Remediation Goals below**

Remediation Goals from the Remedial Action Plan (RAP) approved by ADEQ, June 22, 1994, page 1-1
The goals of this remediation are:

1. **Contain the zone of impacted groundwater to prevent further migration of VOC's in the aquifer and to reduce the concentration of VOC's in the currently impacted portion of the aquifer. This will be achieved through groundwater extraction within the zone of impacted groundwater.**

2. **Treat the extracted groundwater to reduce the concentration of TCE to less than 5 micrograms per liter (ug/l), the current drinking water Maximum Contaminant Level (MCL).**

3. **Discharge the treated groundwater to the Arizona Canal.**

4. **Install additional monitor wells to augment information concerning the extent of the zone of impacted groundwater, to allow evaluation of the success of the remedial action, and to obtain additional information needed to modify the remedy in the future, if necessary.**

Addendum A, B, and C were approved for the Remedial Action by ADEQ. They modified the RAP when Honeywell purchased 5 City of Phoenix water wells and when the discharge was changed from the Arizona Canal to injection wells. Those changes removed goals #3 and #4 above.