Speedway 5325

(7-Eleven 46754 - Former TNS 52)

Q3 August 2024
GWM Event Report

ADEC File #2265.26.006

Stantec

AUTHORIZATION TO SUBMIT REPORT

Stantec has been authorized by the client, 7-Eleven (representative Paula Sime, PG, Manager – Environmental Services) to submit the enclosed report titled "Speedway 5325 (7-Eleven 46754 - Former TNS 52, 3Q August 2024 GWM Event Report" dated October 2024, to the Alaska Department of Environmental Conservation. If you have any questions or need additional information concerning this report, please contact me at (907) 227-9883 or via email at bob.gilfilian@stantec.com.

Regards,

STANTEC CONSULTING SERVICES, INC.

Bob Gilfilian

Robert (Bob) Gilfilian, P.E.

Project Technical Lead

Principal Senior Civil Engineer

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ACRONYMS AND ABBREVIATIONS

ADEC	Alaska Department of Environmental Conservation
AK	Alaska Test Method
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
DO	dissolved oxygen
DRO	diesel range organics
Chemox	chemical oxidation
CAP	corrective action plan
EPA	U.S. Environmental Protection Agency
gpm	gallons per minute
GRO	gasoline range organics
gcl	groundwater cleanup level
mg/L	milligrams per liter
mV	millivolts
ORP	oxidation-reduction potential
LOQ	laboratory limit of quantization
QA	quality assurance
QC	quality control
RDL	reported detection limit
SIM	selective ion method
SC	specific conductance
Stantec	Stantec Consulting Services Inc.
Tesoro	Tesoro Refining & Marketing Company
TNS	Tesoro North Store
TMB	Trimethylbenzene
μS/cm°C	microSiemens per centimeter ^{o}C
VOC	volatile organic compounds
VSC	vapor stripping and circulation

1.0 INTRODUCTION

This Groundwater Monitoring Event Report was prepared by Stantec Consulting Services Inc. (Stantec) on behalf of Speedway Store 5325, located at 7172 West Parks Highway, Wasilla, Alaska (**Figure 1**). Background and historical information for this site is summarized in **Appendix A**. The methods used for this monitoring event were conducted in accordance with the Alaska Department of Environmental Conservation (ADEC) approved 2024 Corrective Action Plan (CAP) for this site. The 2024 CAP work plan tasks are summarized in **Appendix B**.

This third quarter 2024 groundwater monitoring event was conducted on August 27, 2024, by Stantec environmental staff Bob Gilfilian, Principal Engineer; Sydney Souza, Environmental Geologist; and Remi Malenfant, Geologist-In-Training. In addition, the Stantec field staff completed the monthly chemical oxidation (chemox) injection event on August 29 and September 23, 2024.

2.0 FIELD ACTIVITIES

The following field activities were completed during the third quarter 2024 groundwater monitoring event and chemox injection for groundwater treatment:

- Measured depth to groundwater in wells G-1, G-3, G-4, G-5, G-7, former Remediation Well RW16-1, and monitoring well MW16-2.
- Measured field intrinsic water quality parameters in wells G-1, G-3, G-5, G-7, Well RW16-1, MW16-2.
- Collected groundwater samples from Monitoring Wells G-1, G-3, G-5, G-7, RW16-1 (with a duplicate sample), and MW16-2. Sample locations are shown on **Figure 2**. Samples were analyzed for the following groundwater contaminants:
    - Volatile organic compounds (VOCs) including benzene, toluene, ethylbenzene, and total xylenes (BTEX), 1,2,4-Trimethylbenzene (TMB), and 1,3,5-TMB by US Environmental Protection Agency (EPA) method 8260C; gasoline range organics (GRO) by Alaska test method (AK)101; diesel range organics (DRO) by AK102; polycyclic aromatic hydrocarbons (PAHs), specifically naphthalene, by EPA 8270D; and sodium to assess the extent of chemox treatment.

On August 29 and September 23, Stantec conducted a monthly injection of chemox into the remediation wells RW20-1 and RW20-2. The event included the injection of two 55-pound bags of Klozur® One per well, mixed with approximately 50 gallons each of water from the store's hose tap, for a total of 220 pounds of chemox product injected onsite. The chemox was subsequently hydraulically pushed into formation by the injection of an additional 100 gallons into RW20-2. RW20-1 is flushed continuously with water from the air-lift well recirculation system.

Field methods and procedures are provided in **Appendix B** and field measurements and notes are provided in **Appendix C**.

3.0 GROUNDWATER MONITORING RESULTS

3.1 GROUNDWATER ELEVATIONS

Table 1 presents groundwater elevations at this site based on the depths to static groundwater levels measured during the monitoring event.

Table 1 Groundwater Elevations
Measured on August 27, 2024

Monitoring Well Identification	Top of Casing Elevation[1] (feet)	Depth to Water (feet btoc)	Groundwater Elevation (feet)
G-1	99.29	22.62	76.67
G-2	99.25	NM	NM
G-3	99.13	25.04	74.09
G-4	98.28	24.47	73.81
G-5	101.45	27.53	73.92
G-7	99.42	25.68	73.74
RW16-1	99.44	25.40	74.04
MW16-2	99.21	25.01	74.20

Key:
1 – Well casing elevations surveyed on June 19, 2024. Elevations are presented in respect to a local benchmark with 100-foot datum.
btoc – below top of casing.
NM – not measured

The average groundwater gradient across the site was calculated to be approximately 0.002 feet per foot to the southwest at 201 degrees, as shown in **Figure 3**. The direction of flow and elevation gradient are comparable to historical measurements. A plot of groundwater elevation contours generated using the SampleServe® program, as well as a rose diagram, generated by the Surfer™ software program, of past groundwater direction and gradient, is included in **Figure 3**. All static water levels were measured with the groundwater recirculation system running. For purposes of generating the contours, the water elevation in well G-1 was left off the plot. The extremely high water level in G-1 indicates that the water percolates out of the well relatively slowly, and therefore its effect on the onsite flow regime is less than the water level would indicate.

3.2 FIELD PARAMETERS

Temperature, pH, dissolved oxygen (DO), oxidation-reduction potential (ORP), and specific conductance (SC) were measured following purging of the sampled wells. Monitoring and remediation wells were purged of three well volumes or until purged dry and allowed to recharge prior to sampling. Well G-1 was not purged due to water not being actively cycled through the system. Results of water quality parameter testing are presented in **Table 2**.

Table 2 Field Parameters
Measured on August 27, 2024

Monitoring Well Identification	Purged Volume (gallons)	Temp. (°C)	pH	DO (mg/L)	ORP (mV)	SC (µs/cm°C)
G-1	3	10.9	7.46	6.15	174.1	155.5
G-3	30	10.5	7.22	5.11	224.6	215.1
G-5	7	11.3	6.72	4.12	133.1	216.2
G-7	8	12.4	6.36	3.70	137.0	271.4
RW16-1	7.5	8.6	6.76	5.65	170.7	253.5
MW16-2	6	10.2	6.94	5.97	204.1	209.0

Key:
°C – degrees Celsius
NA – not applicable
µS/cm°C – microSiemens per centimeter °C
ORP – oxidation-reduction potential
DO – dissolved oxygen
pH – -log [H^+]
Temp. – temperature
mV – millivolts
mg/L – milligrams/liter
SC – specific conductance

A summary of field measurements and notes generated by the SampleServe™ program are provided in **Appendix C**.

3.3 GROUNDWATER SAMPLE ANALYTICAL RESULTS

Pace Analytical Laboratory performed all analysis of groundwater samples for this sampling event. Historical monitoring data for all the wells associated with this site are presented in **Appendix D**. Laboratory analytical results are summarized in **Table 3**. The laboratory analytical report is provided in **Appendix E**. Analytical sampling did not detect any analytes above GCLs.

Table 3 Groundwater Analytical Results
Samples collected on August 27, 2024

Sample Identification	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	GRO (mg/L)	DRO (mg/L)	Naphthalene (mg/L)	Sodium (mg/L)
G-1	U (0.00100)	U (0.00100)	U (0.00100)	U (0.00300)	0.535 B J	0.637 B J	U (0.000250)	5.83
G-3	U (0.00100)	U (0.00100)	0.000468 J	0.000194 J	0.0864 B J	0.826 B	U (0.000250)	5.68
G-5	U (0.00100)	U (0.00100)	U (0.00100)	U (0.00300)	0.0604 B J	0.197 B J	U (0.000250)	5.65
G-7	U (0.00100)	U (0.00100)	U (0.00100)	U (0.00300)	0.0569 B J	0.228 B J	U (0.000250)	4.63
RW16-1	0.000130 J	0.000374 J	0.00439	0.0119	0.278 B	0.391 B J	0.000472	14.8
Dup (duplicate of RW16-1)	0.000188 J	0.000344 J	0.00379	0.0104	0.402 B	0.432 B J	0.0000962 J	14.8
MW16-2	U (0.00100)	U (0.00100)	U (0.00100)	U (0.00300)	0.0582 B J	0.299 B J	U (0.000250)	8.39
GCLs	**0.0046**	**1.1**	**0.015**	**0.19**	**2.2**	**1.5**	**0.0017**	**N/A**

Key:

B - The same analyte is found in the associated blank
Bold - Indicates the concentration exceeds the GCL or, if not detected, the reported detection limit (RDL) exceeds the GCL.
DRO - Diesel range organics, analyzed by AK102
GCLs - Groundwater cleanup levels, per Alaska Department of Environmental Conservation 18 Alaska Administrative Code 75.345, Table C, updated September 29, 2018.
GRO - Gasoline range organics, analyzed by AK101
J - The identification of the analyte is acceptable; the reported value is an estimate
mg/L - Milligrams per Liter
NM - Not measured
TMB - Trimethylbenzene
U - Undetected above practical quantitation limits shown in parentheses

3.4 QUALITY ASSURANCE (QA)/QUALITY CONTROL (QC) REVIEW

Laboratory QC data and the ADEC Laboratory Data Review Checklist are included with the laboratory report in **Appendix E**.

A duplicate sample set was collected to determine the precision of the field collection and laboratory analysis for the sampling event. Sample Duplicate 1 is a duplicate of Sample RW16-1. Data presented in **Table 4** shows that the precision for the duplicate sample set is outside the established QA criteria tolerance for benzene, naphthalene, and GRO. Data flags for benzene and naphthalene indicate that the reported values are lower than the reporting limit, which may explain the lack of precision. All analytes were extracted and analyzed within the applicable hold time.

Table 4 Laboratory Quality Control Objectives

Quality Control Designation	Tolerance	Results for this Event
Holding Times		
DRO/Water/to analyze	40 days	10 days
GRO/Water/to analyze	14 days	9 days
VOCs/Water/to analyze	14 days	7 days
Field Duplicates – Precision		
Benzene/Water	± 30%	**36.5%**
Toluene/Water	± 30%	8.4%
Ethylbenzene/Water	± 30%	14.7%
Xylenes/Water	± 30%	9.9%
Naphthalene/Water	± 30%	**132.3%**
GRO/Water	± 30%	**36.5%**
DRO/Water	± 30%	9.9%
Sodium/Water	± 30%	0.0%

Key:

% - Percent
± - Plus or minus
Bold - Indicates the value is above the acceptable range
DRO - Diesel range organics
GRO - Gasoline range organics
PAHs - Polycyclic aromatic hydrocarbons, specifically naphthalene
TMB - Trimethylbenzene
VOCs - Volatile organic compounds

4.0 REMEDIATION SYSTEM

The on-site groundwater treatment process consists of a Vapor Stripping Circulation system (VSC) and routine injections of a chemox solution into the groundwater table via two remediation wells. An airlift well operates the VSC system.

The frequency of chemox injections is typically monthly, subject to ambient air temperatures being above freezing. The chemox solution consists of a mixture of water and a sodium persulfate compound sold as Klozur One®. Remediation wells RW20-1 and RW20-2 (**Figure 2**) are 4-inch diameter wells used for the chemox injection.

On August 29 and September 23, 2024, monthly remediation events were completed that involved the injection of chemox. Each chemox injection event consisted of 110 pounds of Klozur One® product combined with 110 gallons of potable water (from the store hose spigot) injected by gravity into each of the two remediation wells (RW20-1 and RW20-2) that are shown on **Figure 2**. The chemox solution was hydraulically "pushed" into the formation with additional injection of several hundred gallons of potable water into each of the remediation injection wells.

5.0 DISCUSSION OF FINDINGS

The laboratory analytical sample results did not detect petroleum-associated analytes at concentrations exceeding ADEC GCLs as listed in Alaska Administrative Code (AAC) 18AAC 75.345 Table C (9/18/2019). Historical results for the current and previous monitoring events are presented in **Appendix D**.

On August 29, Stantec conducted a monthly injection of chemox into the remediation wells RW20-1 and RW20-2. The event included the injection of two 55-pound bags of Klozur® One per well, mixed with approximately 50 gallons each of water from the store's hose tap, for a total of 220 pounds of chemox product injected onsite. The chemox was subsequently hydraulically pushed into formation by the injection of an additional 100 gallons into RW20-2. RW20-1 is flushed continuously with water from the air-lift well recirculation system.

The average groundwater gradient across the site was calculated to be approximately 0.002 feet per foot to the southwest at 201 degrees. The direction of flow and elevation gradient are comparable to historical measurements. All static water levels were measured with the groundwater recirculation system running. The extremely high-water level in G-1 indicates that the recirculated water percolates out of the well relatively slowly, and therefore its effect on the onsite flow regime is less than the water level would indicate.

6.0 CONCLUSIONS AND RECOMMENDATIONS

No anomalies were found during this third quarter 2024 monitoring event that require additional corrective action or changes to the approved year 2024 Corrective Action Work Plan for this site.

7.0 LIMITATIONS

Stantec conducted this monitoring event in accordance with the 2024 Corrective Action Work Plan approved by ADEC, and in a manner consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions. All sampling activities were completed in accordance with the ADEC *Underground Storage Tanks Procedures Manual – Standard Sampling Procedures* (March 22, 2017). The conclusions in this report are Stantec's professional opinion, as of the time of the report, and concerning the scope described in the report. The opinions in the document are based on conditions and information existing at the time the scope of work was conducted and do not consider any subsequent changes. This report relates solely to the specific project for which Stantec was retained and the stated purpose for which the report was prepared. The report is not to be used or relied on for any variation or extension of the project, or for any other project or purpose, and any unauthorized use or reliance is at the recipient's own risk.

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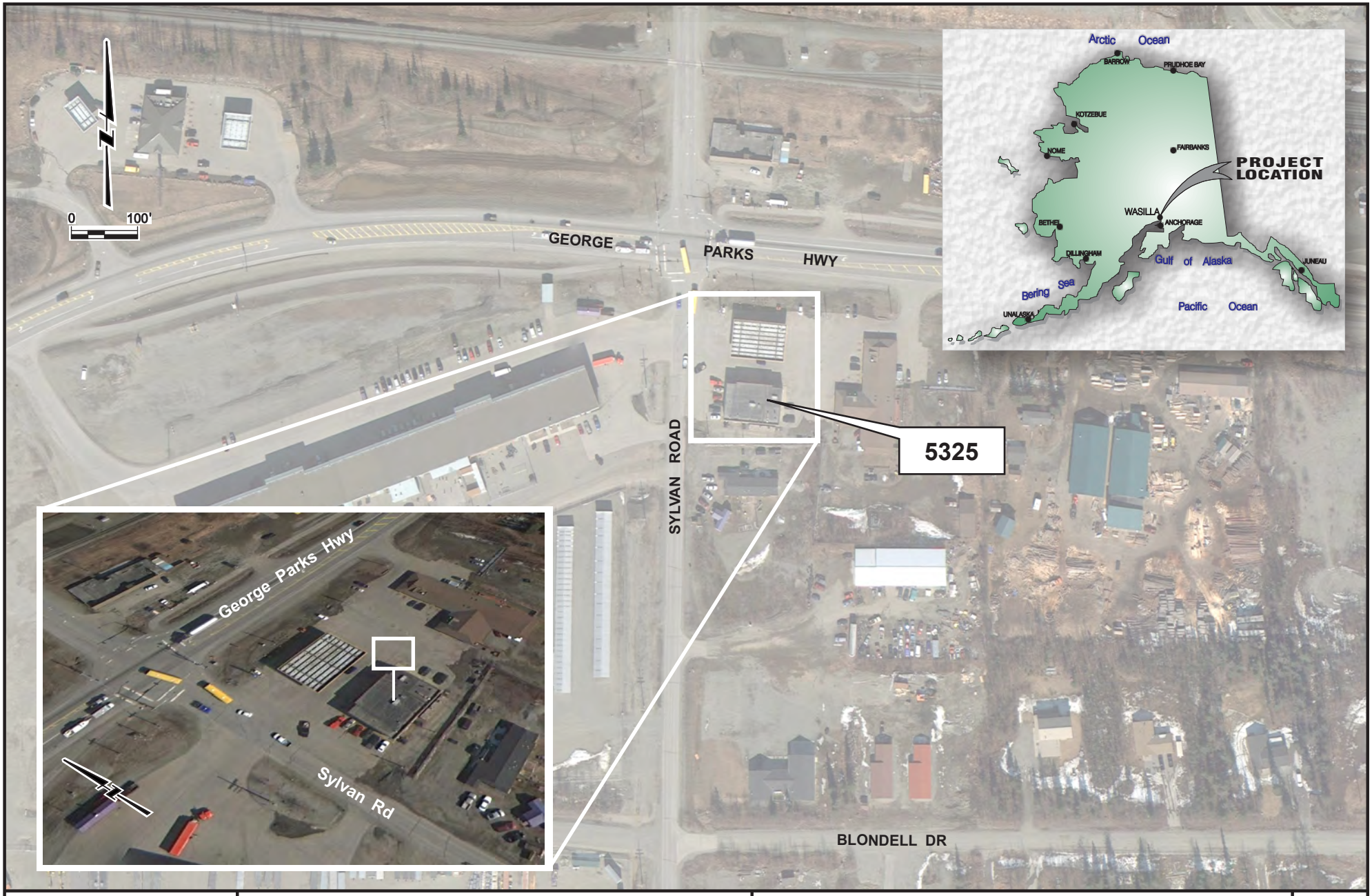
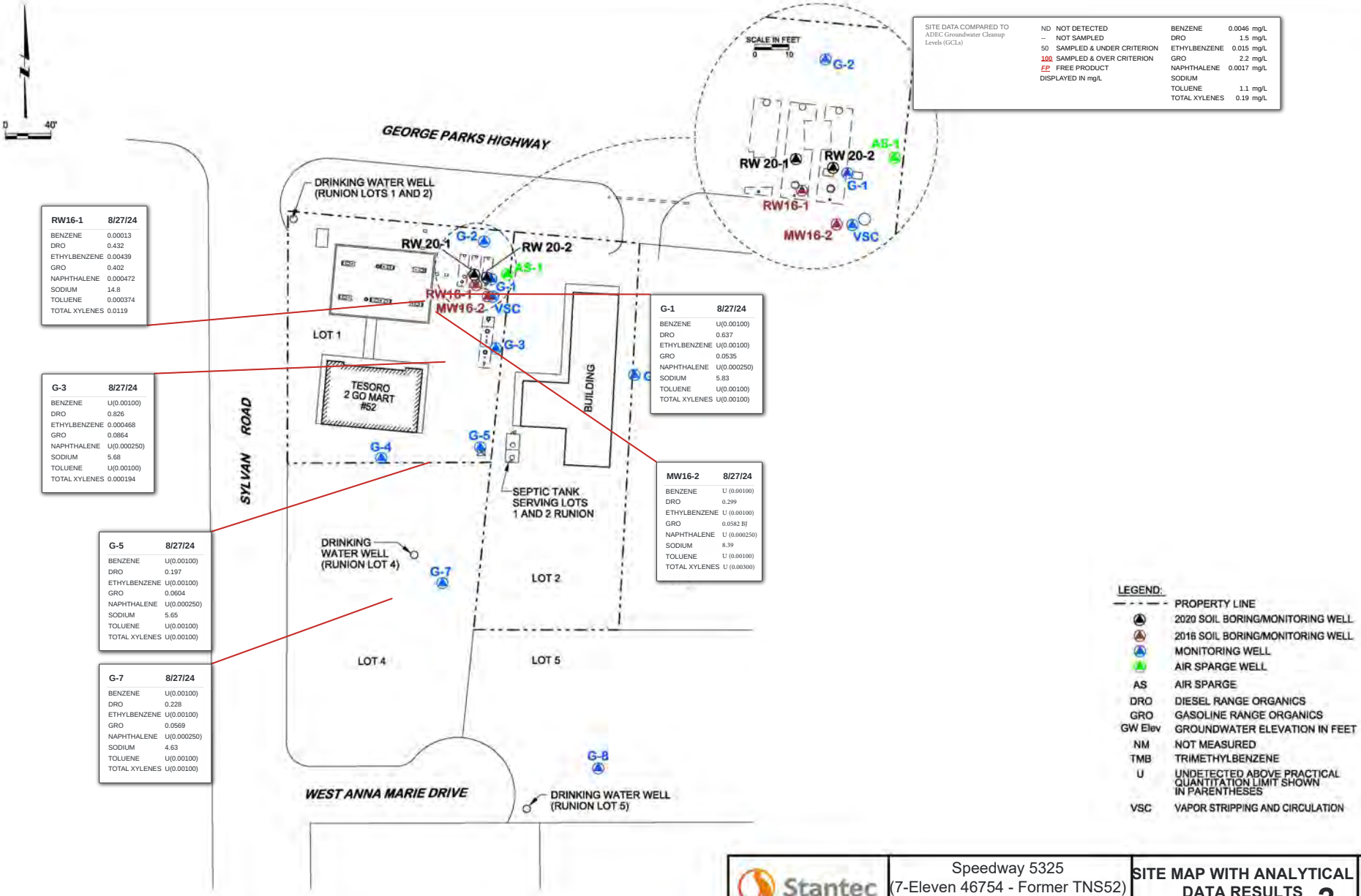
FIGURES



Stantec	SPEEDWAY 5325 (7-ELEVEN 46754 - FORMER TNS 52) Q3 AUGUST 2024 GWM REPORT	LOCATION AND VICINITY MAP	FIGURE 1



SITE DATA COMPARED TO ADEC Groundwater Cleanup Levels (GCLs)

ND	NOT DETECTED
--	NOT SAMPLED
50	SAMPLED & UNDER CRITERION
100	SAMPLED & OVER CRITERION
FP	FREE PRODUCT

DISPLAYED IN mg/L

BENZENE	0.0046 mg/L
DRO	1.5 mg/L
ETHYLBENZENE	0.015 mg/L
GRO	2.2 mg/L
NAPHTHALENE	0.0017 mg/L
SODIUM	
TOLUENE	1.1 mg/L
TOTAL XYLENES	0.19 mg/L

RW16-1	8/27/24
BENZENE	0.00013
DRO	0.432
ETHYLBENZENE	0.00439
GRO	0.402
NAPHTHALENE	0.000472
SODIUM	14.8
TOLUENE	0.000374
TOTAL XYLENES	0.0119

G-1	8/27/24
BENZENE	U(0.00100)
DRO	0.637
ETHYLBENZENE	U(0.00100)
GRO	0.0535
NAPHTHALENE	U(0.000250)
SODIUM	5.83
TOLUENE	U(0.00100)
TOTAL XYLENES	U(0.00100)

G-3	8/27/24
BENZENE	U(0.00100)
DRO	0.826
ETHYLBENZENE	0.000468
GRO	0.0864
NAPHTHALENE	U(0.000250)
SODIUM	5.68
TOLUENE	U(0.00100)
TOTAL XYLENES	0.000194

MW16-2	8/27/24
BENZENE	U (0.00100)
DRO	0.299
ETHYLBENZENE	U (0.00100)
GRO	0.0582 BJ
NAPHTHALENE	U (0.000250)
SODIUM	8.39
TOLUENE	U (0.00100)
TOTAL XYLENES	U (0.00300)

G-5	8/27/24
BENZENE	U(0.00100)
DRO	0.197
ETHYLBENZENE	U(0.00100)
GRO	0.0604
NAPHTHALENE	U(0.000250)
SODIUM	5.65
TOLUENE	U(0.00100)
TOTAL XYLENES	U(0.00100)

G-7	8/27/24
BENZENE	U(0.00100)
DRO	0.228
ETHYLBENZENE	U(0.00100)
GRO	0.0569
NAPHTHALENE	U(0.000250)
SODIUM	4.63
TOLUENE	U(0.00100)
TOTAL XYLENES	U(0.00100)

LEGEND:

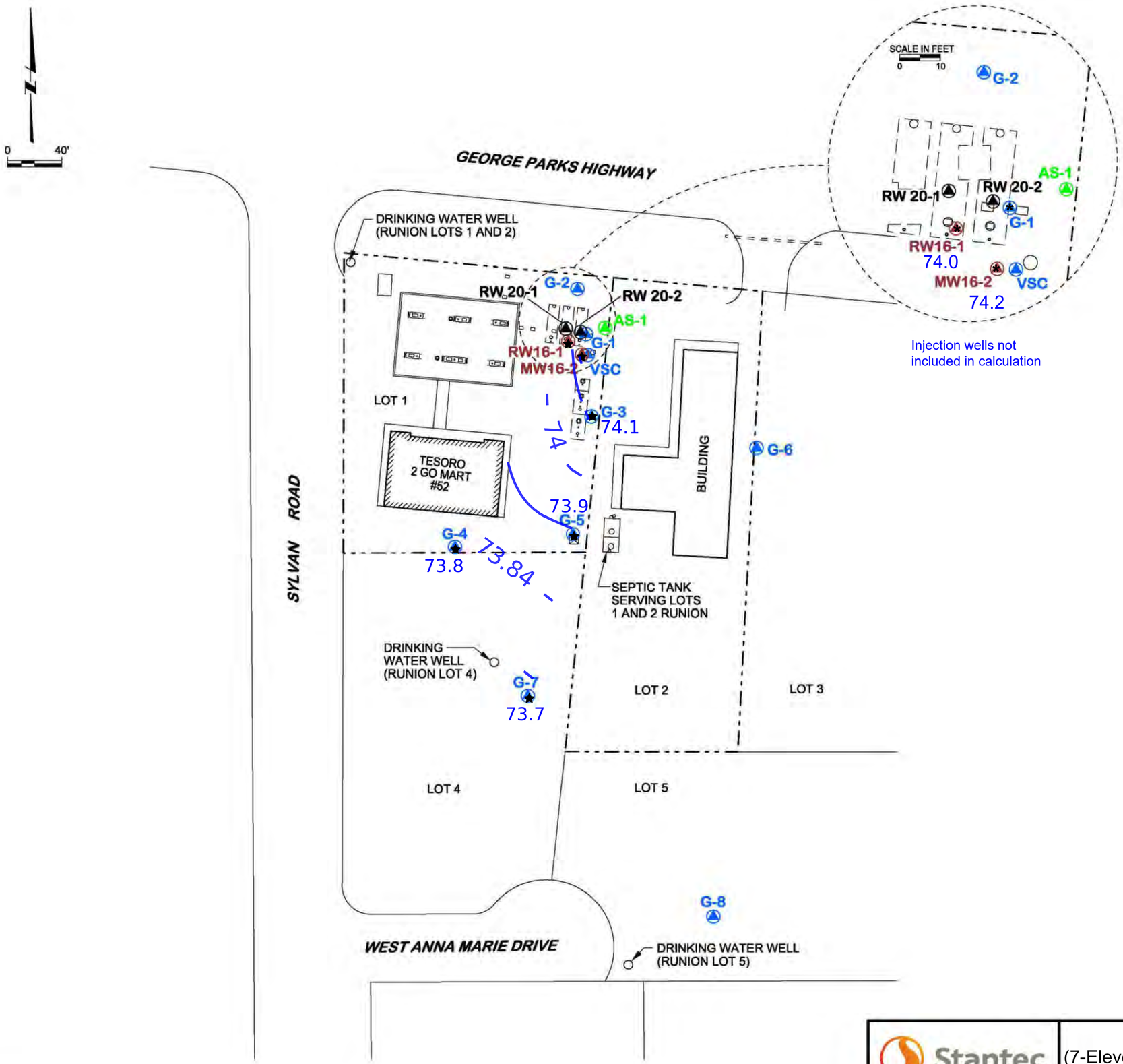
- PROPERTY LINE
- 2020 SOIL BORING/MONITORING WELL
- 2016 SOIL BORING/MONITORING WELL
- MONITORING WELL
- AIR SPARGE WELL

AS	AIR SPARGE
DRO	DIESEL RANGE ORGANICS
GRO	GASOLINE RANGE ORGANICS
GW Elev	GROUNDWATER ELEVATION IN FEET
NM	NOT MEASURED
TMB	TRIMETHYLBENZENE
U	UNDETECTED ABOVE PRACTICAL QUANTITATION LIMIT SHOWN IN PARENTHESES
VSC	VAPOR STRIPPING AND CIRCULATION

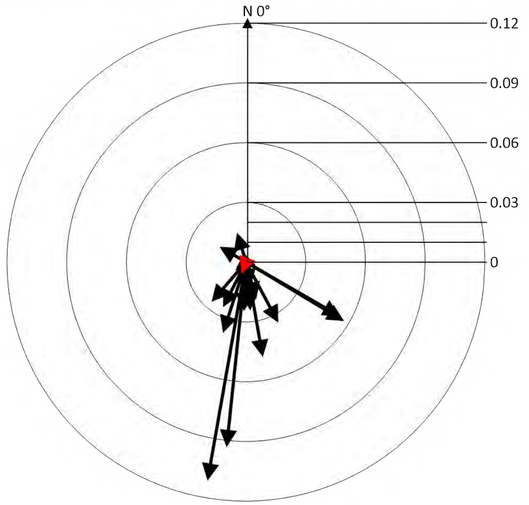
Stantec

Speedway 5325
(7-Eleven 46754 - Former TNS52)
Q3 AUGUST 2024 GWM Event

SITE MAP WITH ANALYTICAL DATA RESULTS **2**



Groundwater Flow Direction (degrees azimuthal) and Gradient (ft/ft)



August 27, 2024

LEGEND:

	PROPERTY LINE
	2020 SOIL BORING/MONITORING WELL
	2016 SOIL BORING/MONITORING WELL
	MONITORING WELL
	AIR SPARGE WELL
AS	AIR SPARGE
DRO	DIESEL RANGE ORGANICS
GRO	GASOLINE RANGE ORGANICS
GW Elev	GROUNDWATER ELEVATION IN FEET
NM	NOT MEASURED
TMB	TRIMETHYLBENZENE
U	UNDETECTED ABOVE PRACTICAL QUANTITATION LIMIT SHOWN IN PARENTHESES
VSC	VAPOR STRIPPING AND CIRCULATION

Stantec

Speedway 5325
(7-Eleven 46754 - Former TNS 52)
3Q 2024 GWM Event

Groundwater Elevation Contours

FIGURE
3

APPENDIX A
Site Background

APPENDIX A – SITE BACKGROUND

Speedway 5325 (Mile 49 Parks Highway, Wasilla, Alaska)
ADEC Facility ID #648; ADEC File #2265.26.006

September 1996. During the removal of the former underground storage tank (UST) fueling system (consisting of several fuel dispensers, two 12,000-gallon gasoline, and one 12,000-gallon diesel USTs) on September 7, 1996, petroleum contamination was encountered in the surrounding soil. Gilfilian Engineering conducted the UST site assessment work. Approximately 240 cubic yards of gasoline and 60 cubic yards of diesel contaminated soil was excavated and treated at Alaska Soil Recycling.

February 1997. The Alaska Department of Environmental Conservation (ADEC) reviewed the UST Closure Site Assessment Report prepared by Gilfilian Engineering. Subsequently, a Release Investigation (RI) Work Plan prepared by Gilfilian Engineering was approved by ADEC.

April 1997. The findings of the RI (later referred to as Phase I RI) showed high levels of diesel contamination under the diesel dispenser islands and gasoline contamination under the unleaded gasoline UST to 36 feet below ground surface (bgs). The RI included drilling five soil borings and installing and sampling one groundwater monitoring well (identified as G-1). Groundwater was also found to be contaminated. Subsequently, an ADEC-approved work plan was prepared by Gilfilian Engineering for Phase II RI.

December 1997. Phase II RI report submitted to ADEC. The RI included drilling soil borings and installing and sampling four groundwater monitoring wells (G-2, G-3, G-4 and G-5).

April 1998. ADEC approved the installation of a Soil Vapor Extraction (SVE) system.

June 1998. Gilfilian Engineering submitted a Well Search report to ADEC. The well search targeted an area of 0.25-mile radius centered on the gas station site.

July 1998. ADEC approved the work plan prepared by Gilfilian Engineering for a Phase III RI.

August 1998. A Phase III RI was completed at the site by Gilfilian Engineering. The RI included installing and sampling three groundwater monitoring wells (G-6, G-7, and G-8).

January 2002. Several “rising and falling head hydraulic conductivity tests” (slug tests using the Hvorslev method) were performed by Gilfilian Engineering on January 9, 2002. The hydraulic conductivity at Monitoring Wells G-4 and G-7 exceeded 171 feet/day. Based on the high hydraulic conductivity values, Gilfilian Engineering recommended a pilot test to determine the effectiveness of treating the groundwater with a vapor stripping and circulation (VSC) well.

March/April 2002. One soil boring was drilled on March 6, 2002, for installation of a VSC well. Benzene, toluene, ethylbenzene, and xylenes (BTEX), gasoline range organics (GRO), and diesel

range organics (DRO) tested in soil samples collected from the soil boring were detected above ADEC soil cleanup levels (SCLs). In addition, a second soil boring was drilled for installation of an air sparge (AS) well that was designated AS-1. Benzene, ethylbenzene, and GRO were detected above SCLs and BTEX and GRO were above the ADEC groundwater cleanup levels (GCLs) in AS-1. Pilot testing conducted in March and April 2002 showed the hydrogeological formation could not provide adequate water to operate a VSC or AS system at this site. Continued operation of the SVE system only was recommended, and the VSC well was subsequently connected to the SVE system.

June 2002. The SVE system was re-started on June 25, 2002, and was set to withdraw vapors from Wells SVE-1, SVE-5, and SVE-6. A significant increase in the volatile contaminant concentrations to 139 parts per million by volume (ppmv) as measured by a photoionization detector (PID), was noted in the SVE system discharge. By July 3, 2002, the volatile levels dropped to 58.5 ppmv, which was possibly related to the significant decrease in the thickness of free product measured in Monitoring Well G-1 (SVE-1).

December 2002. An SVE pilot study using a 5-horsepower FL-707 Rotron blower was conducted on December 19, 2002. The purpose was to determine if the use of a larger capacity blower would increase the recovery of volatile petroleum contaminants. The dramatic rise in PID readings during the second quarter of 2002 is attributed to the addition of SVE Wells 5, 6, and VSC.

October 2003. A 1-horsepower air compressor was installed for operation of the AS system. The AS well (AS-1) was previously installed at the site in 2002. The VSC manhole was reconfigured to enhance SVE system performance.

July 2004. The AS system was converted into a VSC system for pilot testing on July 21, 2004. Down well piping was installed in Monitoring Well VSC and connected to the compressor air supply line. Pilot testing indicated the system could be an effective groundwater treatment option. The AS compressor was removed from the site for maintenance.

September 2, 2004. The VSC system was activated following ADEC approval. The VSC system was treating approximately 1 gallon of contaminated groundwater per minute, or 1,440 gallons per day. The treated water was transferred (pumped by air) from the VSC well to Monitoring Well G-1 for circulation.

October 2007. Ten confirmation soil borings (CSB-1 through CSB-10) were installed on October 3 through 9, 2007, near the former USTs and areas of previous investigations across the site. Benzene, ethylbenzene, xylenes, GRO, and DRO were detected above the SCLs in two or more borings. Toluene was the only analyte not detected above the SCLs in any soil boring.

September 2008. Three chemical oxidation applications were completed by MWH Americas, Inc. (MWH). Sampling of groundwater monitoring wells noted benzene, ethylbenzene, and GRO detected above the GCLs in Monitoring Well G-3.

February 2009. Monitoring Well G-3 showed a consistent trend in increased hydrocarbon concentrations, and a fine sediment with a hydrocarbon odor was found in the bottom of the monitoring well. MWH recommended that the well be re-developed to remove the sediment build-up.

March 2009. Monitoring Well G-3 was redeveloped to remove the dark colored sediment. The sediment was noted to have a slight petroleum odor and heavy sheen.

January/June/August 2010. MWH performed potassium permanganate chemical oxidation treatments on January 27 and 28, June 11, and August 20, 2010. A solution of 3 percent potassium permanganate (180, 646, and 767 gallons, respectively) was injected into several groundwater monitoring wells.

October 30, 2012. The chemical oxidant Klozur CR® was injected into three on-site wells (Monitoring Well G-1 and SVE Wells SVE-5 and SVE-6). The Klozur CR® injection process was conducted to test the use of the existing remediation infrastructure for a means of delivering the chemical oxidant into the contaminated groundwater aquifer at the site, as well as evaluating the effectiveness of the chemical oxidant.

October 2012. Groundwater sample results were non-detect in all four monitoring wells sampled. The water table was considerably higher than normal, and the absence of dissolved contaminants was assumed to be associated with the high water table. The last time a high water table was observed was in October 2006, and the concentrations were all non-detects in all monitoring wells except for G-3, which was lower than historical concentrations at that time.

January 30, 2013. DRO was detected in Monitoring Wells G-1, G-3, and G-7, and toluene, ethylbenzene, and xylenes were detected in G-3 – with all analytes below the GCLs. The water table was higher than normal, and the concentrations detected were not believed to be indicative of the groundwater conditions at the site.

December 19, 2013. A chemical oxidation application of Klozur CR® was injected into three on-site wells: Monitoring Well G-1 and Remediation Wells SVE-5 and SVE-6.

February 2014. Groundwater sampling showed contaminant levels in all monitoring wells that were sampled remained below the GCLs for the last seven monitoring events.

May 2014. DRO was detected in Monitoring Well G-3 at 3.3 milligrams per liter (mg/L), exceeding the GCL for the first time since February 2011. The remediation system was operating on a full-time basis.

October 2014. Groundwater sampling showed contaminant levels in all monitoring wells were below GCLs. The remediation system was operating on a full-time basis.

February 2015. GRO and DRO were detected at 4.8 and 12 mg/L, respectively, in Monitoring Well G-3. All other analytes were below GCLs. Remediation system operating on full-time basis.

May 2015. GRO was detected at 2.6 mg/L in the duplicate sample collected from Monitoring Well G-3, the primary and all other analytes were below GCLs.

September 2015. Groundwater sampling showed contaminant levels in all monitoring wells were below GCLs. The remediation system was operating on a full-time basis.

October 2015. Three CSBs were installed by MWH to investigate the extent of any remaining soil contamination at the site. Two areas were investigated: the former diesel dispensers and the former gas dispensers and USTs. Soils encountered in the area of the former diesel dispensers had elevated headspace field screening results; however, DRO concentrations were below laboratory practical quantitation limits (PQLs). Soils encountered in the area of the former gas dispensers and USTs had detectable concentrations of GRO and one exceedance above the SCLs established for the site. Soil GRO contamination was limited to below the current groundwater level at the site. Similar observations were documented in 2007. Analytical results collected from the 2015 CSBs indicate that concentrations of petroleum contamination remaining at the site are generally decreasing when compared to the analytical results from the 2007 CSBs. Future management strategies at the site may include targeted chemical oxidation in the area of the former gas dispensers and USTs as represented by CSB 9-3, with no further cleanup action at the former diesel dispensers.

November 2015. GRO was detected at 3.2 mg/L in Monitoring Well G-3. An analytical sample was collected from the VSC well which indicated all analytes were below GCLs for the first time since September 2004. The remediation system was offline upon arrival at the site and remained offline pending groundwater conditions and further analytical sampling.

January 2016. The first quarter 2016 monitoring event was conducted on January 28, 2016. Results of the analytical sampling showed that all analytes were below GCLs, except GRO concentrations in Monitoring Well G-3. One or more analytes were detected above the PQLs in all the monitoring wells sampled, except Monitoring Well G-5. Analytical results from Remediation Well VSC were below PQLs.

May 2016. The second quarter 2016 monitoring event was conducted on May 9, 2016. All analytes were below the GCLs, only Monitoring Well G-3 had analytes detected above PQLs. Monitoring Wells G-2 and G-5 had insufficient water for sampling.

Four CSBs were placed at four locations surrounding the 2015 CSB 9-3, to the north, south, east, and west. Two discrete analytical soil samples were collected from CSB 16-1, CSB 16-2, and CSB 16-4, and one sample from CSB 16-3. These samples were collected from the locations with the highest PID readings, or at the water table interface if no detections were observed in field screened samples.

CSB 16-1 and CSB 16-2 (Samples CSB 16-1 38 and CSB 16-2 39), which were the closest to the former USTs and located to the north and east of 2015 CSB 9-3, respectively, both had GRO exceedances similar to the findings of the nearby 2015 Boring CSB 9-3. All the samples which exceeded SCLs were below the water table that was measured at a depth of 35.48 feet btoc in nearby Monitoring Well G-3 at the time of drilling. Analytical results at the water table interface

at three locations were below laboratory PQLs. The CSB 16-3 and CSB 16-4, located at a greater distance from the former USTs compared to CSB 16-1 and CSB 16-3 and to the south and west of 2015 CSB 9-3, did not have analyte exceedances. Soil Borings CSB 16-1 and CSB 16-2 were completed with PVC riser and screen assemblies to provide future access points for monitoring and/or remediation activities.

October 2016. The third quarter 2016 monitoring event took place on October 24, 2016. All wells listed in the 2016 Work Plan to be sampled in the third quarter had sufficient water for sampling. Monitoring Well G-3 had GRO detected above GCL. New Wells RW16-1 and MW16-2 were sampled for the first time. Remediation Well RW16-1 had all analytes, except benzene and toluene, detected above their GCLs. Monitoring Well MW16-2 had analytes detected above PQLs, but none above GCLs. The VSC system was not operating.

December 2016. The fourth quarter 2016 monitoring event took place on December 9, 2016. All wells listed in the 2016 Work Plan to be sampled in the fourth quarter had sufficient water for sampling. Monitoring Well G-3 had GRO detected above GCL (update effective November 6, 2016). Drinking water samples had no detections above PQLs. The VSC system was not operating.

February 2017. The first quarter 2017 monitoring event took place on February 8, 2017. Monitoring Wells G-1 and G-3 purged dry and did not recover sufficiently to allow for sampling. Monitoring Well G-5 was dry upon arrival at the site. Remediation Well RW16-1 and Monitoring Well MW16-2 were sampled. Ethylbenzene, xylenes, GRO, and DRO were detected above GCLs in both wells. The VSC system remained off-line due to low groundwater conditions and/or frozen circulation line. The SVE treatment system was not operational and will require maintenance to the blower system following spring breakup.

April and May 2017. The second quarter 2017 monitoring event took place on April 25, 2017. Analytes were detected above their GCLs in Monitoring Wells G-3, G-5, and MW16-2, and Remediation Well RW16-1. These wells had exceedances of specific volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) consisting of 1,2,4- and 1,3,5-trimethylbenzene compounds and naphthalene.

Routine maintenance was conducted on the SVE and VSC systems, but due to unresolved electrical power/control issues, both systems are currently not operating until additional corrective action services are provided by an electrician.

Also, representative water samples were collected from the domestic water systems serving the existing buildings on Lots 1, 3 and 4 in Runion Subdivision, and were analyzed for public drinking water VOCs and DRO. No detectable levels of contaminants were found in any of the domestic drinking water wells.

On May 3, 2017, the first phase of the pilot test was initiated with an injection of a chemical oxidant (chemox) consisting of Klozur CR® into the new Remediation Well RW16-1. The pilot test will be continued during the third and fourth quarters of 2017, when the wells will be resampled to determine the impact of the chemox injection. Subject to the findings of the 2017

monitoring events, the pilot test may be continued in 2018 with several more injections of Klozur CR®.

October 2017. The fourth quarter 2017 monitoring event took place on October 20, 2017. DRO was detected above the GCL in Monitoring Well G-3. Analytes detected above their GCLs in MW16-2 included: ethylbenzene, GRO, naphthalene, and 1,2,4-trimethylbenzene.

The SVE and VSC treatment systems were not operating due to electrical control systems malfunctions. The treatment systems are scheduled for replacement and/or upgrade in 2018.

The pilot test program for the chemox injection was initiated in May 2017 in accordance with the ADEC approved work plan for the 2017 Work Plan Task 3. The test results for intrinsic parameters measured during the October 2017 monitoring event indicate no unusual findings and will be monitored in future quarterly monitoring events scheduled for 2018 with additional applications of Klozur CR® into Remediation Well RW16-1.

February 2018. The first quarter 2018 monitoring event took place on February 13, 2018. Analytes detected above their GCLs included ethylbenzene and GRO in Monitoring Well MW16-2 and DRO in Monitoring Well G-3.

The SVE treatment system was off-line pending repairs. The operation of the VSC system was interrupted in the second quarter of 2017 relating to an issue with the variable frequency drive on the compressor and will be brought back online when the system can be evaluated by a licensed electrician.

Ongoing monitoring of sodium and total organic carbon, relating to the May 2017 chemical oxidation pilot test, showed elevated concentrations of both analytes in Monitoring Well G-3. Conductivity was also found to be elevated in Monitoring Well G-1, which may also indicate the presence of residual chemical oxidant.

August 2018. The third quarter monitoring event took place on August 17, 2018. Results of the analytical sampling showed petroleum hydrocarbon contaminant concentrations exceeding the GCLs for: DRO in Monitoring Wells G-1 and G-3; GRO in Monitoring Well 16-2, and ethylbenzene, xylenes, GRO, and DRO in Remediation Well 16-1.

Several analytes for VOCs and polynuclear aromatic hydrocarbons (PAHs) were reported as undetected but had laboratory reporting limits that equaled or exceeded their corresponding GCLs. These undetected analytes were noted in all the wells that were sampled.

Also, representative water samples were collected from the domestic water systems serving the existing buildings on Lots 1&2, 4, and 5 in Runion Subdivision, and were analyzed for public drinking water VOCs. All the domestic drinking water wells were found to have no detectable levels of contaminants of concern.

The SVE and VSC treatment systems are not operating pending future repairs and/or modifications to the electrical systems which will be evaluated by a licensed electrician.

October 2018. The fourth quarter groundwater monitoring event was conducted on October 25, 2018. The monitoring event included measuring depth to water, field intrinsic water quality parameters, and collecting and analyzing groundwater samples from Monitoring Wells G-1, G-3, G-5, G-7, and MW16-2. Results of the analytical sampling showed petroleum hydrocarbon contaminant concentrations exceeding the GCLs for: DRO in Monitoring Well G-3; and 1,2,4-trimethylbenzene in Monitoring Well 16-2.

The VSC treatment system is currently operating and pumping, via the air-lift pump, approximately 2 to 3 gallons per minute on a continuous basis. During the 3rd quarter of 2018, Stantec completed a chemox injection Klozur One®. Fifty-five pounds of Klozur One® was mixed with approximately 100 gallons of clean water. The chemox solution was injected into Remediation Well RW 16-1.

February 2019. The first quarter 2019 monitoring event took place on February 26, 2019. The monitoring event included measuring depth to water, field intrinsic water quality parameters, and collecting and analyzing groundwater samples from Monitoring Wells G-1, G-3, G-5, G-7, and MW16-2. The depth to water and field intrinsic water quality parameters were also measured in Remediation Well RW16-1. Results of the analytical sampling showed petroleum hydrocarbon contaminant concentrations exceeding the GCLs for: DRO in Monitoring Well G-3 and GRO in Monitoring Well 16-2.

The VSC and SVE treatment systems were found to be off (inoperative) upon arrival at the site due to an apparent power surge. Upon restart of the systems, the recirculation line was found to be frozen. The VSC and SVE systems were left off until spring thaw.

April 2019. The second quarter 2019 groundwater monitoring event was conducted on April 23 and 24, 2019. The monitoring event included measuring depth to groundwater and field intrinsic water quality parameters and collecting and analyzing groundwater samples from Monitoring Wells G-1, G-2, G-3, G-4, G-5, G-7, and MW16-2 and Remediation Well RW16-1.

Based on the groundwater depth measurements, the average hydraulic gradient was determined to be flowing to the south at a bearing of 183 degrees with a gradient of 0.02 feet per foot. Groundwater flow direction and gradient was noted to be consistent with the historical results for this site.

Results of the analytical sampling showed petroleum hydrocarbon contaminant concentrations exceeded the GCLs for the following monitoring wells:

- Monitoring Well G-3 –DRO, 1,2,4-Trimethylbenzene, and 1,3,5-Trimethylbenzene
- Monitoring Well MW16-2 –GRO, 1,2,4-Trimethylbenzene, and 1,3,5-Trimethylbenzene

Representative water samples were also collected from the domestic water systems serving the existing buildings on Lots 1&2, 4, and 5 in Runion Subdivision, and were analyzed for drinking water analyses and DRO. All the domestic drinking water wells were found to have no detectable levels of contaminants of concern.

During this monitoring event, the on-site groundwater remediation system, consisting of a VSC system was inspected to determine its operational condition. The VSC treatment system was found to be off (in-operative) upon arrival at the site due to an apparent power surge. The VSC system was left off until such time the electrical supply system could be evaluated to determine the cause of the power outages to the VSC compressor.

July 2019. The third quarter 2019 groundwater monitoring event was conducted on July 16, 2019. The monitoring event included measuring depth to groundwater and field intrinsic water quality parameters and collecting and analyzing groundwater samples from Monitoring Wells G-1, G-3, G-5, G-7, and MW16-2. In addition, depth to groundwater was measured at Monitoring Well G-4 and Remediation Well RW16-1 and field intrinsic water quality parameters were measured at Remediation Well RW16-1.

Based on the groundwater depth measurements, the average hydraulic gradient was determined to be flowing to the south at a bearing of 300 degrees with a gradient of 0.011 feet per foot. Groundwater flow direction and gradient were noted to be inconsistent with the historical results for this site. The change in groundwater flow may be a result of elevation changes due to "frost jacking" of the well casings on one or more monitoring wells that were noted during the sampling event. The elevations of the wells will be resurveyed during the 4th quarter monitoring event.

Results of the analytical sampling showed petroleum hydrocarbon contaminant concentrations exceeded the GCLs for the following monitoring wells:

- Monitoring Well G-1 –DRO
- Monitoring Well G-3 –DRO
- Monitoring Well MW16-2 –GRO

The VSC groundwater treatment system was found to be off (inoperative) upon arrival at the site due to an apparent power surge. On a subsequent site visit conducted during the week of July 22, the VSC compressor was activated and currently remains operational. On July 25, 2019, Stantec injected a chemox solution consisting of 55 pounds of Klozur One® via a pressurized pump system into the remediation well RW 16-1.

October 2019. The fourth quarter 2019 groundwater monitoring event was conducted on October 17, 2019. The monitoring event included measuring depth to groundwater and field intrinsic water quality parameters and collecting and analyzing groundwater samples from Monitoring Wells G-1, G-3, G-5, G-7, and MW16-2. In addition, depth to groundwater was measured at Monitoring Well G-4.

Based on the groundwater depth measurements, the average hydraulic gradient was determined to be flowing to the southwest at a bearing of 221 degrees with a gradient of 0.022 feet per foot. Groundwater flow direction and gradient were noted to be consistent with the historical results for this site. The elevations of the wells were resurveyed during this monitoring event.

Results of the analytical sampling showed petroleum hydrocarbon contaminant concentrations exceeded the GCLs for the following monitoring wells:

- Monitoring Well G-3: DRO
- Monitoring Well MW16-2: 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene

The VSC groundwater treatment system was found to be operating within the normal range of performance with the production of 1 to 2 gallons per minute of recirculated groundwater with an air lift pump in the VSC well. Stantec injected a chemox solution consisting of 55 pounds of Klozur One® via gravity flow into the remediation well RW 16-1.

August 2020. This third quarter 2020 Monitoring Event Report was conducted on August 12, 2020, and included the following tasks: Measuring depth to groundwater, measuring field intrinsic water quality parameters, checking the operation of the in-situ remediation system, and collecting and analyzing groundwater samples from Monitoring Wells G-1, G-3, G-5, MW16-2, and remediation well RW16-1.

Results of the analytical sampling showed petroleum hydrocarbon contaminant concentrations exceeded the groundwater cleanup levels (GCLs) for the following monitoring wells:

- Remediation Well RW16-1: Ethylbenzene, xylenes, diesel range organics (DRO), and gasoline range organics (GRO)

Based on the groundwater depth measurements and the elevation survey of the tops of the monitoring wells, the average hydraulic gradient was determined to be flowing to the south-southeast at a bearing of 171 degrees with a gradient of 0.018 feet per foot. Groundwater flow direction and gradient were noted to be consistent with the historical results for this site.

During this monitoring event, the on-site groundwater remediation system, consisting of a vapor stripping and circulation (VSC) system was inspected to determine operational condition. The VSC compressor that operates the air-lift well was not operating due to a recent power outage. The compressor was activated and the flow from the air-lift well was adjusted to provide a constant flow of approximately 1 to 2 gallons per minute of aerated groundwater that is discharged into MW-1 for recirculation.

October 2020. This fourth quarter 2020 Monitoring Event was conducted on October 2, 2020. Results of the analytical sampling showed petroleum hydrocarbon contaminant concentrations exceeded the groundwater cleanup levels (GCLs) for the following monitoring well:

- Remediation Well RW16-1: Ethylbenzene, xylenes, diesel range organics (DRO), and gasoline range organics (GRO).

Analytical results by Test Method 545.1 showed no evidence of contamination for the on-site and nearby drinking water wells serving the following properties: Runion Subdivision Lots 1 and 2, Runion Subdivision Lot 4, and Runion Subdivision Lot 5.

Based on the groundwater depth measurements and the elevation survey of the tops of the monitoring wells, the average hydraulic gradient was determined to be flowing to the south-southwest at a bearing of 191 degrees with a gradient of 0.007 feet per foot. Groundwater flow direction and gradient were noted to be similar with the historical results but slightly lower gradient, as shown on the groundwater flow summary ("rose diagram") presented on Figure 2.

During this monitoring event, the on-site groundwater remediation system, consisting of a vapor stripping and circulation (VSC) system (see Figure 3) was inspected to determine operational condition. The VSC compressor that operates the air-lift well was operational and providing adequate flow upon arrival on site.

On October 27, 2020, Stantec finished the installation and development of two 4-inch diameter chemox injection wells, RW 20-1 and RW 20-2, located north of Remediation Well RW16-1. On November 27, 2020, Stantec conducted the first 2020 injection of a Klozur One® solution into the new chemox injection remediation wells, RW 20-1 and RW 20-2. The installation of the new wells will be described in a technical memorandum that will be submitted to ADEC.

March 2021. This first quarter 2021 monitoring event was conducted on March 31, 2021. Results of the analytical sampling showed petroleum hydrocarbon contaminant concentrations exceeded the groundwater cleanup levels (GCLs) for the following monitoring/remediation wells:

- Remediation Well RW 16-1: Ethylbenzene, xylenes, DRO, and GRO. Benzene practical quantitation limits exceeded ADEC groundwater cleanup levels (GCLs).
- Monitoring Well MW 16-2: GRO.

Due to limited data of groundwater elevations in measured wells and their linear positions across the site, the hydraulic gradient and flow direction of the groundwater table could not be calculated for this monitoring event.

During this monitoring event, the on-site groundwater remediation system, consisting of a vapor stripping and circulation (VSC) system (see Figure 3) was inspected to determine operational condition. The VSC compressor that operates the air-lift well was operational, but the air-lift well was not checked to determine if the well was discharging to the recirculation/receiving well (MW G-1). The staff noted there was a significant ice plug at the top of MW G-1 which prevented access to the well.

May 2021. This second quarter 2021 monitoring event was conducted on May 18, 2021. Results of the analytical sampling showed petroleum hydrocarbon contaminant concentrations exceeded the groundwater cleanup levels (GCLs) for the following monitoring wells:

- Remediation Well RW 16-1: Ethylbenzene, xylenes, diesel range organics (DRO), gasoline range organics (GRO), 1,2,4 trimethylbenzene, and 1,3,5 trimethylbenzene. Benzene practical quantitation limits exceeded ADEC groundwater cleanup levels (GCLs).
- Monitoring Well MW G-3: DRO.

- The naphthalene practical quantitation limits exceeded ADEC groundwater cleanup levels (GCLs) in all the wells sampled.

The hydraulic gradient across the site was found to be approximately 0.020 feet per foot directed toward the south at 182 degrees; however, the hydraulic flow of the groundwater does not consider the groundwater level in MW G-1 since this well receives influent pumped from the air-lift well described in the following paragraph. The groundwater gradient and flow direction are generally consistent with past monitoring events.

During this monitoring event, the on-site groundwater remediation system, consisting of a vapor stripping and circulation (VSC) system that includes of an air-lift well (see Figure 3), was inspected to determine operational condition. The VSC compressor that operates the air-lift well was operational and observed to be discharging to the recirculation/receiving well (MW G-1). In addition, a chemox injection into the groundwater table via remediation wells RW 20-1 and RW 20-2 was completed during the monitoring event. A total of 220 pounds of Klozur One® and approximately 500 gallons of clean water from the store's water system was injected.

July 2021. Results of the analytical sampling showed petroleum hydrocarbon contaminant concentrations exceeded the groundwater cleanup levels (GCLs) for the following monitoring well:

- Monitoring Well G-3: DRO, naphthalene, and both species of trimethylbenzene (TMB).
- Remediation Well RW 16-1: Benzene, ethylbenzene, xylenes, GRO, DRO, and both species of TMB.
- In addition, the RDL for naphthalene in all wells was above the GCL.

The average groundwater gradient across the site was calculated by triangulation to be 0.021 feet per foot to the south-southwest at 207 degrees. This is consistent with historical groundwater gradient and direction of flow data.

During this monitoring event, the on-site groundwater remediation system, consisting of a vapor stripping and circulation (VSC) system was inspected to determine operational condition. The VSC compressor that operates the air-lift well was not operational due to mechanical failure in one of the fins.

The remediation event on July 21st, 2021, consisted of a total chemical oxidation (chemox) injection of 220 pounds of Klozur® One product combined with 110 gallons of potable water from Tesoro store into two treatment points (RW 20-1 and RW 20-2). The solution was further pushed into the formation with an additional 420 gallons of water.

October 2021. Results of the analytical sampling showed petroleum hydrocarbon contaminant concentrations exceeded the groundwater cleanup levels (GCLs) for the following monitoring well:

- Remediation Well RW 16-1: Benzene, ethylbenzene, xylenes, GRO, DRO, 1,2,4- and 1,3,5-TMB. In addition, the lab RDL for naphthalene in this well was above the GCL.

Analytical results showed no evidence of VOC or DRO contamination for the on-site and nearby drinking water wells serving the following properties: Runion Subdivision Lots 1 and 2, Runion Subdivision Lot 4, and Runion Subdivision Lot 5.

Earlier this year the compressor for the VSC system seized up and was shut down for several months. In September of this year, Stantec ordered a replacement blower that consisted of a Becker compressor model DT-4.10, 0.6 horsepower. The blower was placed into operation on October 4, 2021, and continues to operate the air-lift well to this date on a continuous basis (24-hours per day). The VSC/air-lift well discharges into MW G-1 at an estimated rate of 1 to 2 gpm.

March 2022. Results of the analytical sampling showed petroleum hydrocarbon contaminant concentrations exceeded the groundwater cleanup levels (GCLs) for the following monitoring well:

- Remediation Well RW 16-1: Ethylbenzene, xylenes, gasoline range organics (GRO), diesel range organics (DRO), naphthalene, 1,2,4-Trimethylbenzene (TMB), and 1,3,5-TMB. In addition, the lab's reported detection limit (RDL) for benzene and toluene were above the GCL.
    - A duplicate sample was collected from RW16-1, and confirms the exceedances in ethylbenzene, xylenes, GRO, DRO, naphthalene, 1,2,4-TMB, and 1,3,5-TMB, but concentrations of benzene and toluene in the duplicate sample were below GCLs.

The average groundwater gradient across the site was calculated to be approximately 0.033 feet per foot to the south-southeast at 198 degrees. This is consistent with historical groundwater gradient and direction of flow data.

The on-site groundwater remediation system, consisting of a vapor stripping and circulation (VSC) system was not assessed due to the presence of ice in the receiving well, MW G-1. However, it was noted the VSC compressor that operates the air-lift well was operational upon arriving at the site. The air-lift well typically discharges an approximate flow rate of 1 to 2 gallons per minute (gpm) into MW G-1.

The remediation event on March 24, 2022, consisted of a chemical oxidation (chemox) injection of a total of 110 pounds of Klozur One® product mixed with 100 gallons of potable water from Tesoro store into each of the two injection wells (RW 20-1 and RW 20-2). The total amount of 220 pounds of chemox was injected into the groundwater table and an additional several hundred gallons of potable water used to hydraulically "push" the chemox solution into the aquifer.

May 2022. Results of the analytical sampling showed petroleum hydrocarbon contaminant concentrations exceeded the groundwater cleanup levels (GCLs) for the following monitoring well:

- Remediation Well RW 16-1: Ethylbenzene, xylenes, gasoline range organics (GRO), diesel range organics (DRO), naphthalene, 1,2,4-Trimethylbenzene (TMB), and 1,3,5-TMB. In addition, the lab's reported detection limit (RDL) for benzene was above the GCL.

The average groundwater gradient across the site was calculated to be approximately 0.011 feet per foot to the west-southwest at 343 degrees. This is further west than historical groundwater gradient and direction of flow data but is influenced by groundwater elevation data from MW-6, which has not been regularly included in groundwater calculations.

The operation of the on-site groundwater remediation system was assessed during the monitoring event. It was found that the PVC piping used for injecting air into the air-lift well had broken over the winter, making the well inoperable. This was repaired during the monitoring event, and the blower was restarted at 7.5 psi with water flowing into G-1. Subsequently it was found that the ground surface around the air lift manhole had subsided, creating a pothole in the parking lot. The blower was turned off in June 2022 to ensure it would not exacerbate the subsidence problem.

July 2022: A groundwater monitoring event was conducted on July 19, 2022, and included the following tasks:

- Measured depth to groundwater in wells G-1, G-4, G-5, G-7, RW 16-1, and MW 16-2.
- Measured field intrinsic water quality parameters in groundwater monitoring wells G-1, G-5, G-7, RW 16-1, and MW 16-2.
- Collected and analyzed groundwater samples from Monitoring Wells G-1, G-5, G-7, MW 16-2, former Remediation Well RW 16-1, and a duplicate sample of MW 16-2.

Results of the analytical sampling did not show petroleum hydrocarbon contaminant concentrations exceeding the groundwater cleanup levels (GCLs) in any of the sampled wells.
The average groundwater gradient across the site was calculated to be approximately 0.0018 feet per foot to the southwest at 226 degrees. The direction of flow was similar to historical groundwater flow measurements, but the gradient is much less than previous monitoring events. This may be the result of heavy rainfall at the site previous to this monitoring event. The pumping water level of well G-1 was recorded but not included in the groundwater contours because water had collected in the well nearly to the top of the casing.

On July 20, 2022, a remediation event was completed that consisted of a chemical oxidant (chemox) injection of a total of 110 pounds of Klozur One® product combined with 100 gallons of potable water from the 7-11 convenience store into each of the two injection wells (RW 20-1 and RW 20-2). The total amount of 220 pounds of chemox was injected into the groundwater table. The chemox solution was hydraulically “pushed” into the formation with additional injection of several hundred gallons of potable water.

The collapsed manhole housing the airlift VSC well was replaced on June 21, and included placing another manhole the same size over remediation well RW 20-1 to facilitate a change in plumbing of the remediation system. On July 5, Stantec installed buried insulated piping from the outlet of the VSC well to discharge on a continuous basis (24 hours per day) into RW 20-1. Flow discharged from the VSC well is split between MW G-1 and RW 20-1. During the chemox injection on July 20, flow into RW 20-1 was estimated at 1 to 2 gpm.

October 2022: The groundwater monitoring event was conducted on October 12, 2022. Results of the analytical sampling completed during this groundwater monitoring event showed no

petroleum hydrocarbon contaminant concentrations exceeded the groundwater cleanup levels (GCLs) for the sampled monitoring wells. Wells G-3 and RW 16-2 are historically contaminated and were the only wells in which analytes were detected above laboratory LOQs. In addition, no contaminants of concern were detected by EPA Test Method 524.2 in the drinking water samples collected from the drinking water wells located on Runion Lots 1 and 2, Runion Lot 4, and Runion Lot 5.

The average groundwater gradient across the site was calculated to be approximately 0.0024 feet per foot to the southwest at 232 degrees. The direction of flow was similar to historical groundwater flow measurements, but the gradient measured in this event and in the 3Q monitoring event are much less than in previous events. This may be the result of heavy rainfall at the site in the second half of the summer. All static water levels were measured with the groundwater recirculation system not running.

On September 28, 2022, a monthly remediation event was completed that involved the injection of a chemical oxidant (chemox). The chemox injection consisted of 110 pounds of Klozur One® product combined with 100 gallons of potable water (from the 7-Eleven convenience store) injected by gravity into each of the two injection wells RW 20-1 and RW 20-2. The chemox solution was hydraulically "pushed" into the formation with additional injection of several hundred gallons of potable water into each of the remediation injection wells.

In July 2022, the air lift VSC well was plumbed to split flow between G-1 and RW 20-1. Currently, excess flow from G-1 is diverted to RW 20-1 at a rate of approximately 1.5 gallons per minute. On September 28, the Becker blower which operates the air lift VSC well was taken out of commission for maintenance, including replacement of filters and graphite fins. The blower was re-installed on October 12 after the groundwater monitoring event. It is anticipated that the graphite fins on the blower will need to be replaced every 12 months, depending on the consistency of operation of the blower. During the chemox injection event the new manholes that were installed June 21 of this year were insulated, and the VSC system is expected to be operation through the winter.

March 2023: The laboratory analytical sample results showed petroleum associated analytes were present at concentrations exceeding ADEC GCLs for the following monitoring wells:

- Monitoring Well MW 16-2: 1,2,4- and 1,3,5-TMB.
- Former Remediation Well RW 16-1: Ethylbenzene, total xylenes, GRO, DRO, naphthalene, 1,2,4- and 1,3,5-TMB.

The average groundwater gradient across the site was calculated to be approximately 0.015 feet per foot to the southeast at 165 degrees. The direction of flow and elevation gradient are comparable to historical measurements. Low groundwater gradients measured in late 2022 may be the result of higher-than-average rainfall in the second half of the summer. All static water levels were measured with the groundwater recirculation system not running.

On March 29th, 2023, a monthly remediation event was completed that involved the injection of a chemical oxidant (chemox). The chemox injection consisted of 110 pounds of Klozur One® product combined with 100 gallons of potable water (from the 7-Eleven convenience store)

injected by gravity into each of the two injection wells RW 20-1 and RW 20-2. The chemox solution was hydraulically "pushed" into the formation with additional injection of several hundred gallons of potable water into each of the remediation injection wells.

On March 8th, 2023, the Becker blower was removed and taken out of commission for maintenance. Graphite fins in the blower were replaced and the blower was reinstalled on April 4th, 2023. It is anticipated that the graphite fins on the blower will need to be replaced every 12 months, depending on the consistency of operation of the blower.

April 2023: The laboratory analytical sample results showed petroleum associated analytes were present at concentrations exceeding ADEC GCLs as listed in Alaska Administrative Code (AAC) 18AAC 75.345 Table C (9/18/2019) for the following monitoring wells:

- Former Remediation Well RW 16-1: Ethylbenzene, Toluene, Total Xylenes, GRO, DRO, and Naphthalene

The average groundwater gradient across the site was calculated to be approximately 0.044 feet per foot to the southeast at 170 degrees. The direction of flow and elevation gradient are comparable to historical measurements. Low groundwater gradients measured in late 2022 may be the result of higher-than-average rainfall in the second half of the summer. All static water levels were measured with the groundwater recirculation system not running.

July 2023: The laboratory analytical sample results showed petroleum associated analytes were present at concentrations exceeding ADEC GCLs as listed in Alaska Administrative Code (AAC) 18AAC 75.345 Table C (9/18/2019) for the following monitoring wells:

- Monitoring Well G-3: DRO
- Remediation Well RW16-1 and Duplicate 1: 1,2,4-TMB

Well MW 16-2 has historically been contaminated but did not show signs of contamination according to the laboratory results for this event.

The average groundwater gradient across the site was calculated to be approximately 0.107 feet per foot to the southwest at 190 degrees. The direction of flow and elevation gradient are comparable to historical measurements, with a higher-than-typical gradient. The depth to groundwater in well G-1 is typically much higher than other wells onsite due to discharge from the vapor stripping circulation (VSC) well. The groundwater gradient calculation included well G-1, resulting in the higher average groundwater flow gradient.

On July 14, 2023, a monthly remediation event was completed that involved the injection of chemox. The chemox injection consisted of 100 pounds of Klozur One® product combined with 110 gallons of potable water (from the 7-Eleven convenience store) injected by gravity into each of the two injection wells (RW20-1 and RW20-2). The chemox solution was hydraulically "pushed" into the formation with additional injection of several hundred gallons of potable water into each of the remediation injection wells.

October 2023: The laboratory analytical sample results showed petroleum associated analytes were not present at concentrations exceeding ADEC GCLs as listed in Alaska Administrative Code (AAC) 18AAC 75.345 Table C (9/18/2019) in any sampled monitoring wells.

The average groundwater gradient across the site was calculated to be approximately 0.053 feet per foot to the southeast at 121 degrees. The direction of flow and elevation gradient are comparable to historical measurements, with a more easterly flow direction. The difference in groundwater flow patterns may be attributed to additional information gained by gauging the water level in monitoring well G-2, as well as the mounding of water in well G-1 from the VSC well. All static water levels were measured with the groundwater recirculation system running and successfully delivering water to well G-1 and RW20-1.

On October 9, 2023, a monthly remediation event was completed that involved the injection of chemox. The chemox injection consisted of 100 pounds of Klozur One® product combined with 110 gallons of potable water (from the 7-Eleven convenience store) injected by gravity into each of the two injection wells (RW20-1 and RW20-2). The chemox solution was hydraulically "pushed" into the formation with additional injection of several hundred gallons of potable water into each of the remediation injection wells.

March 2024: The laboratory analytical sample results showed petroleum associated analytes were present at concentrations exceeding ADEC GCLs as listed in Alaska Administrative Code (AAC) 18AAC 75.345 Table C (9/18/2019) in well RW16-1 and its duplicate only. In RW16-1, only benzene and toluene concentrations were not above GCLs.

On April 23, Stantec conducted a monthly injection of chemox into the remediation wells RW20-1 and RW20-2. The event included the injection of two 55-gallon bags of Klozur® One, mixed with approximately 50 gallons of water each from the store's hose tap, for a total of 110 pounds of chemox product and 100 gallons of tap water per well. The chemox was subsequently hydraulically pushed into formation by the injection of an additional 100-200 gallons of water each.

The average groundwater gradient across the site was calculated to be approximately 0.05 feet per foot to the southeast at 120 degrees. The direction of flow and elevation gradient are comparable to historical measurements, with a more easterly flow direction. The difference in groundwater flow patterns may be attributed to additional information gained by gauging the water level in monitoring well G-2, as well as the mounding of water in well G-1 from the VSC well. All static water levels were measured without the groundwater recirculation system. The pipes that circulate the water through the wells were frozen and were unable to successfully deliver water to wells G-1 and RW20-1.

June 2024: The laboratory analytical sample results do not detect petroleum-associated analytes at concentrations exceeding ADEC GCLs as listed in Alaska Administrative Code (AAC) 18AAC 75.345 Table C (9/18/2019). The detection level for benzene in RW16-1 was above the GCL, but it was not detected in the duplicate sample.

On June 19, Stantec conducted a monthly injection of chemox into the remediation wells RW20-1 and RW20-2. The event included the injection of two 55-pound bags of Klozur® One per well, mixed with approximately 50 gallons each of water from the store's hose tap, for a total of 220 pounds of chemox product injected onsite. The chemox was subsequently hydraulically pushed into formation by the injection of an additional 100 gallons into RW20-2. RW20-1 is flushed continuously with water from the airlift well recirculation system.

The average groundwater gradient across the site was calculated to be approximately 0.089 feet per foot to the southeast at 186 degrees. The direction of flow and elevation gradient are comparable to historical measurements. All static water levels were measured with the groundwater recirculation system running. The extremely high-water level in G-1 indicates that the recirculated water percolates out of the well relatively slowly, and therefore its effect on the onsite flow regime is less than the water level would indicate.

August 2024: The laboratory analytical sample results do not detect petroleum-associated analytes at concentrations exceeding ADEC GCLs as listed in Alaska Administrative Code (AAC) 18AAC 75.345 Table C (9/18/2019).

On August 29, Stantec conducted a monthly injection of chemox into the remediation wells RW20-1 and RW20-2. The event included the injection of two 55-pound bags of Klozur® One per well, mixed with approximately 50 gallons each of water from the store's hose tap, for a total of 220 pounds of chemox product injected onsite. The chemox was subsequently hydraulically pushed into formation by the injection of an additional 100 gallons into RW20-2. RW20-1 is flushed continuously with water from the air-lift well recirculation system.

The average groundwater gradient across the site was calculated to be approximately 0.002 feet per foot to the southwest at 201 degrees. The direction of flow and elevation gradient are comparable to historical measurements. All static water levels were measured with the groundwater recirculation system running. The extremely high-water level in G-1 indicates that the recirculated water percolates out of the well relatively slowly, and therefore its effect on the onsite flow regime is less than the water level would indicate.

APPENDIX B

Field Methods and Procedures

APPENDIX B – FIELD METHODS AND PROCEDURES

Speedway Store 5325

The following table presents the proposed tasks for the Alaska Department of Environmental Conservation (ADEC) approved 2024 Corrective Action Plan (CAP). The scope of these tasks is based on the results and findings of the monitoring and remediation completed to date at this site.

2024 Work Plan Schedule for Speedway Store 5325

Work Plan Task 2024		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Task 1	Monitoring Wells: G-1, G-3, G-5, G-7, MW16-2, and RW16-1	V, G, D, P, S & I	V, G, D, P, S, & I	V, G, D, P, S & I	V, G, D, P, S & I
	Monitoring Wells G-2 and G-4				V, G, D, P, S & I
	Drinking Water Wells serving Lots 1 and 2, Lot 4, and Lot 5 in Runion Subdivision				D & E
Task 2	O&M Air-Lift Well Remediation System	✓	✓	✓	✓
Task 3	Chemical Oxidation Treatment	✓	✓	✓	✓

Key:

AK – Alaska Test Method
D – Diesel range organics by AK102.
E – Drinking water parameters by EPA Method 524.2.
G – Gasoline range organics by AK101.
I – Intrinsic indicators include dissolved oxygen, specific conductance, oxygen-reduction potential, pH, and temperature.
O&M – Operation and Maintenance
V – Volatile organic compounds by EPA Test Method 8260C.
S – Sodium analyzed by Metals (ICP) Method 6010C.
P – Polynuclear aromatic hydrocarbons (PAHs), i.e., semi-volatile organic compounds associated with petroleum fuel, by EPA Test Method 8270D Selective Ion Monitoring (SIM).

The CAP for the year 2024 will be implemented by Stantec on behalf of Speedway. Groundwater monitoring will be conducted to track migration and trends of contaminants that are present at the site. All sampling activities will be completed in accordance with ADEC's *Underground Storage Tanks*

Procedures Manual– Standard Sampling Procedures (March 22, 2017). The methods that will be used for conducting a monitoring event, unless otherwise noted in the monitoring report, will include:

- The static water levels in the monitoring wells will be measured with respect to the top of each well casing. The elevation of the static water level will be based on an arbitrary datum established on-site during a vertical control survey that will be completed by Stantec on an annual basis. The survey will be performed during the summer after the seasonal frost layer thaws.
- The monitoring wells will be purged of a minimum of three well bore volumes prior to collecting the water samples. A new, disposable, Teflon® bailer will be used to sample each well. The first bail of water removed from each well will be examined for petroleum odor, sheen, and any other unique physical features.
- Water samples will be collected in laboratory-supplied sample containers. The samples will be delivered to an ADEC-approved laboratory in accordance with standard chain-of-custody procedures.
- Additional water samples will be collected from the monitoring wells after the well has been purged, as described above, and tested in the field for chemical and physical intrinsic parameters listed in the 2024 Work Plan Schedule shown above.

APPENDIX C

Field Measurements and Notes

SampleServe

Site Name: TNS #52 **Date:** 08/27/2024 **Name(s):** Sydney Souza

Well ID	Time of Day	Depth to Product	Depth to Water	Depth to Bottom	Product Thickness	Well Diameter	Well Material	Comment(s) on Condition of Well
G-1	8/27/24 11:53		22.62			4.0	PVC	
G-3	8/27/24 13:14		25.04			4		
G-4	10/7/24 15:48		24.47					
G-5	8/27/24 10:21		27.53					
G-7	8/27/24 09:54		25.68			2.0	pvc	
MW16-2	8/27/24 12:12		25.01					
RW16-1	8/27/24 11:13		25.40					

SampleServe

Site Name: TNS #52 **Date:** 08/27/2024, 12:06 PM **Name(s):** Sydney Souza

Well ID	Free Product (ft)	Water (ft)	Bottom (ft)
G-1	N/A	22.62	
TOC	Well Dia. (in)	Screen Length (ft)	Well Material
99.29	4.0		PVC
Latitude (decimal)	Longitude (decimal)	Weather	
61.5821862902	-149.630815567		

Type/Model Meter Used: _____
Calibrated: (date) _____ (time) _____ Cell Vol: _____
Type/Model Pump Used: _____
Pump Intake? _____ ft
Above / Below Bottom / TOC

Analytical Parameters	Bottles to be filled
PAH	2 X 40 mL Amber VOAs ✔
BTEX	3 X 40 mL Amber VOAs ✔
GRO	3 X 40 mL Amber VOAs ✔
DRO	2 X 100 mL Amber Glass ✔
Sodium	1 X 250 mL Poly ✔

Purge water disposal: Pour on ground

Time	Depth to Water (ft)	Flow Rate (ml/Min)	pH		Conductivity (ms/cm)		Turbidity (NTU)		Dissolved O2 (mg/l)		Temp. (Celsius)		Oxygen Reduction Potential (ORP) mv	
11:53	22.62	X	Reading	Change* (±0.1)	Reading	Change* (±3%)	Reading	Change* (±10% or <5)	Reading	Change* (±10% or <0.5)	Reading	Change* (±3%)	Reading	Change* (±10mv)

Sample Collected? Yes Time 12:06 Total Pumped from Well? 0 Gal

NOTES / COMMENTS:

*Minimum pumping time 15 Mins. - Collect data every 3 mins once flow through cell is full or once every volume of the flow through cell based on flow rate, which ever is longest. Indicator Parameters Have Stabilized When 3 Consecutive Readings Are Within: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for ORP; and ± 10% for Turbidity (when Turbidity is above 5 NTUs) or 3 readings less than 5.0 NTUs; ± 10% mg/l Dissolved Oxygen (when Dissolved Oxygen is above 0.5mg/l) or 3 readings less than 0.5 mg/l.

SampleServe

Site Name: TNS #52 **Date:** 08/27/2024, 1:47 PM **Name(s):** Sydney Souza

Well ID	Free Product (ft)	Water (ft)	Bottom (ft)
G-3	N/A	25.04	
TOC	Well Dia. (in)	Screen Length (ft)	Well Material
99.13	4		
Latitude (decimal)	Longitude (decimal)	Weather	
61.5820198468	-149.630777474		

Type/Model Meter Used: _____
Calibrated: (date) _____ (time) _____ Cell Vol: _____
Type/Model Pump Used: _____
Pump Intake? _____ ft
Above / Below Bottom / TOC

Analytical Parameters	Bottles to be filled
PAH	2 X 40 mL Amber VOAs ✔
BTEX	3 X 40 mL Amber VOAs ✔
GRO	3 X 40 mL Amber VOAs ✔
DRO	2 X 100 mL Amber Glass ✔
Sodium	1 X 250 mL Poly ✔

Purge water disposal: Pour on ground

Time	Depth to Water (ft)	Flow Rate (ml/Min)	pH		Conductivity (ms/cm)		Turbidity (NTU)		Dissolved O2 (mg/l)		Temp. (Celsius)		Oxygen Reduction Potential (ORP) mv	
13:14	25.04	X	Reading	Change* (±0.1)	Reading	Change* (±3%)	Reading	Change* (±10% or <5)	Reading	Change* (±10% or <0.5)	Reading	Change* (±3%)	Reading	Change* (±10mv)

Sample Collected? Yes Time 13:47 Total Pumped from Well? 0 Gal

NOTES / COMMENTS:

*Minimum pumping time 15 Mins. - Collect data every 3 mins once flow through cell is full or once every volume of the flow through cell based on flow rate, which ever is longest. Indicator Parameters Have Stabilized When 3 Consecutive Readings Are Within: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for ORP; and ± 10% for Turbidity (when Turbidity is above 5 NTUs) or 3 readings less than 5.0 NTUs; ± 10% mg/l Dissolved Oxygen (when Dissolved Oxygen is above 0.5mg/l) or 3 readings less than 0.5 mg/l.

SampleServe

Site Name: TNS #52 **Date:** 10/07/2024, 3:48 PM **Name(s):** Sydney Souza

Well ID	Free Product (ft)	Water (ft)	Bottom (ft)
G-4	N/A	24.47	
TOC	Well Dia. (in)	Screen Length (ft)	Well Material
98.29			
Latitude (decimal)		Longitude (decimal)	Weather
61.5817561273		-149.631357438	

Analytical Parameters	Bottles to be filled
N/A	

Purge water disposal: Pour on ground

Type/Model Meter Used: _____

Calibrated: (date) _____ (time) _____ Cell Vol: _____

Type/Model Pump Used: _____

Pump Intake? _____ ft

Above / Below Bottom / TOC

Time	Depth to Water (ft)	Flow Rate (ml/Min)	pH		Conductivity (ms/cm)		Turbidity (NTU)		Dissolved O2 (mg/l)		Temp. (Celsius)		Oxygen Reduction Potential (ORP) mv	
15:48	24.47	X	Reading	Change* (±0.1)	Reading	Change* (±3%)	Reading	Change* (±10% or <5)	Reading	Change* (±10% or <0.5)	Reading	Change* (±3%)	Reading	Change* (±10mv)

Sample Collected? No Time 15:48 Total Pumped from Well? 0.0 L

NOTES / COMMENTS:

*Minimum pumping time 15 Mins. - Collect data every 3 mins once flow through cell is full or once every volume of the flow through cell based on flow rate, which ever is longest. Indicator Parameters Have Stabilized When 3 Consecutive Readings Are Within: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for ORP; and ± 10% for Turbidity (when Turbidity is above 5 NTUs) or 3 readings less than 5.0 NTUs; ± 10% mg/l Dissolved Oxygen (when Dissolved Oxygen is above 0.5mg/l) or 3 readings less than 0.5 mg/l.

SampleServe

Site Name: TNS #52 **Date:** 08/27/2024, 10:44 AM **Name(s):** Sydney Souza

Well ID	Free Product (ft)	Water (ft)	Bottom (ft)
G-5	N/A	27.53	
TOC	Well Dia. (in)	Screen Length (ft)	Well Material
101.44			
Latitude (decimal)		Longitude (decimal)	Weather
61.581788987		-149.630862504	

Type/Model Meter Used: _____
Calibrated: (date) _____ (time) _____ Cell Vol: _____
Type/Model Pump Used: _____
Pump Intake? _____ ft
Above / Below Bottom / TOC

Analytical Parameters	Bottles to be filled
PAH	2 X 40 mL Amber VOAs ✔
BTEX	3 X 40 mL Amber VOAs ✔
GRO	3 X 40 mL Amber VOAs ✔
DRO	2 X 100 mL Amber Glass ✔
Sodium	1 X 250 mL Poly ✔



Purge water disposal: Pour on ground

Time	Depth to Water (ft)	Flow Rate (ml/Min)	pH		Conductivity (ms/cm)		Turbidity (NTU)		Dissolved O2 (mg/l)		Temp. (Celsius)		Oxygen Reduction Potential (ORP) mv	
10:21	27.53	X	Reading	Change* (±0.1)	Reading	Change* (±3%)	Reading	Change* (±10% or <5)	Reading	Change* (±10% or <0.5)	Reading	Change* (±3%)	Reading	Change* (±10mv)

Sample Collected? Yes Time 10:44 Total Pumped from Well? 0 Gal

NOTES / COMMENTS:

*Minimum pumping time 15 Mins. - Collect data every 3 mins once flow through cell is full or once every volume of the flow through cell based on flow rate, which ever is longest. Indicator Parameters Have Stabilized When 3 Consecutive Readings Are Within: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for ORP; and ± 10% for Turbidity (when Turbidity is above 5 NTUs) or 3 readings less than 5.0 NTUs; ± 10% mg/l Dissolved Oxygen (when Dissolved Oxygen is above 0.5mg/l) or 3 readings less than 0.5 mg/l.

SampleServe

Site Name: TNS #52 **Date:** 08/27/2024, 10:01 AM **Name(s):** Sydney Souza

Well ID	Free Product (ft)	Water (ft)	Bottom (ft)
G-7	N/A	25.68	
TOC	Well Dia. (in)	Screen Length (ft)	Well Material
99.42	2.0		pvc
Latitude (decimal)	Longitude (decimal)	Weather	
61.581454289	-149.631059783		

Type/Model Meter Used: _____
Calibrated: (date) _____ (time) _____ Cell Vol: _____
Type/Model Pump Used: _____
Pump Intake? _____ ft
Above / Below Bottom / TOC

Analytical Parameters	Bottles to be filled
PAH	2 X 40 mL Amber VOAs ✔
BTEX	3 X 40 mL Amber VOAs ✔
GRO	3 X 40 mL Amber VOAs ✔
DRO	2 X 100 mL Amber Glass ✔
Sodium	1 X 250 mL Poly ✔

Purge water disposal: Pour on ground

Time	Depth to Water (ft)	Flow Rate (ml/Min)	pH		Conductivity (ms/cm)		Turbidity (NTU)		Dissolved O2 (mg/l)		Temp. (Celsius)		Oxygen Reduction Potential (ORP) mv	
09:54	25.68	X	Reading	Change* (±0.1)	Reading	Change* (±3%)	Reading	Change* (±10% or <5)	Reading	Change* (±10% or <0.5)	Reading	Change* (±3%)	Reading	Change* (±10mv)

Sample Collected? Yes Time 10:01 Total Pumped from Well? 0 Gal

NOTES / COMMENTS:

*Minimum pumping time 15 Mins. - Collect data every 3 mins once flow through cell is full or once every volume of the flow through cell based on flow rate, which ever is longest. Indicator Parameters Have Stabilized When 3 Consecutive Readings Are Within: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for ORP; and ± 10% for Turbidity (when Turbidity is above 5 NTUs) or 3 readings less than 5.0 NTUs; ± 10% mg/l Dissolved Oxygen (when Dissolved Oxygen is above 0.5mg/l) or 3 readings less than 0.5 mg/l.

SampleServe

Site Name: TNS #52 **Date:** 08/27/2024, 12:37 PM **Name(s):** Sydney Souza

Well ID	Free Product (ft)	Water (ft)	Bottom (ft)
MW16-2	N/A	25.01	
TOC	Well Dia. (in)	Screen Length (ft)	Well Material
99.2			
Latitude (decimal)		Longitude (decimal)	Weather
61.5821668		-149.6308637	

Type/Model Meter Used: _____
Calibrated: (date) _____ (time) _____ Cell Vol: _____
Type/Model Pump Used: _____
Pump Intake? _____ ft
Above / Below Bottom / TOC

Analytical Parameters	Bottles to be filled
PAH	2 X 40 mL Amber VOAs ✔
BTEX	3 X 40 mL Amber VOAs ✔
GRO	3 X 40 mL Amber VOAs ✔
DRO	2 X 100 mL Amber Glass ✔
Sodium	1 X 250 mL Poly ✔


Purge water disposal: Pour on ground

Time	Depth to Water (ft)	Flow Rate (ml/Min)	pH		Conductivity (ms/cm)		Turbidity (NTU)		Dissolved O2 (mg/l)		Temp. (Celsius)		Oxygen Reduction Potential (ORP) mv	
12:12	25.01		Reading	Change* (±0.1)	Reading	Change* (±3%)	Reading	Change* (±10% or <5)	Reading	Change* (±10% or <0.5)	Reading	Change* (±3%)	Reading	Change* (±10mv)

Sample Collected? Yes Time 12:37 Total Pumped from Well? 0 Gal

NOTES / COMMENTS:

*Minimum pumping time 15 Mins. - Collect data every 3 mins once flow through cell is full or once every volume of the flow through cell based on flow rate, which ever is longest. Indicator Parameters Have Stabilized When 3 Consecutive Readings Are Within: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for ORP; and ± 10% for Turbidity (when Turbidity is above 5 NTUs) or 3 readings less than 5.0 NTUs; ± 10% mg/l Dissolved Oxygen (when Dissolved Oxygen is above 0.5mg/l) or 3 readings less than 0.5 mg/l.

SampleServe

Site Name: TNS #52 **Date:** 08/27/2024, 11:38 AM **Name(s):** Sydney Souza

Well ID	Free Product (ft)	Water (ft)	Bottom (ft)
RW16-1	N/A	25.40	
TOC	Well Dia. (in)	Screen Length (ft)	Well Material
99.44			
Latitude (decimal)		Longitude (decimal)	Weather
61.5821994		-149.6309133	

Type/Model Meter Used: _____
Calibrated: (date) _____ (time) _____ Cell Vol: _____
Type/Model Pump Used: _____
Pump Intake? _____ ft
Above / Below Bottom / TOC

Analytical Parameters	Bottles to be filled
PAH	2 X 40 mL Amber VOAs ✔
BTEX	3 X 40 mL Amber VOAs ✔
GRO	3 X 40 mL Amber VOAs ✔
DRO	2 X 100 mL Amber Glass ✔
Sodium	1 X 250 mL Poly ✔

Purge water disposal: Pour on ground
QA/QC:Duplicate #1

Time	Depth to Water (ft)	Flow Rate (ml/Min)	pH		Conductivity (ms/cm)		Turbidity (NTU)		Dissolved O2 (mg/l)		Temp. (Celsius)		Oxygen Reduction Potential (ORP) mv	
11:13	25.4	X	Reading	Change* (±0.1)	Reading	Change* (±3%)	Reading	Change* (±10% or <5)	Reading	Change* (±10% or <0.5)	Reading	Change* (±3%)	Reading	Change* (±10mv)

Sample Collected? Yes Time 11:38 Total Pumped from Well? 0 Gal

NOTES / COMMENTS:

*Minimum pumping time 15 Mins. - Collect data every 3 mins once flow through cell is full or once every volume of the flow through cell based on flow rate, which ever is longest. Indicator Parameters Have Stabilized When 3 Consecutive Readings Are Within: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for ORP; and ± 10% for Turbidity (when Turbidity is above 5 NTUs) or 3 readings less than 5.0 NTUs; ± 10% mg/l Dissolved Oxygen (when Dissolved Oxygen is above 0.5mg/l) or 3 readings less than 0.5 mg/l.

SampleServe

Site Name: TNS #52 **Date:** 08/27/2024, 12:06 PM **Name(s):** Sydney Souza

Location ID	GPS Latitude (decimal)	GPS Longitude (decimal)
G-1	61.5821862902	-149.630815567

Field Intrinsics	
Sampler Names: Sydney/Remi	Sheen/Odor?: None
pH: 7.46	Specific Conductance: 155.5
DO: 6.15	Temperature (C): 10.9
ORP: 174.1	Purge Volume (gal): 0
Notes:	

SampleServe

Site Name: TNS #52 **Date:** 08/27/2024, 1:47 PM **Name(s):** Sydney Souza

Location ID	GPS Latitude (decimal)	GPS Longitude (decimal)
G-3	61.5820198468	-149.630777474

Field Intrinsics	
Sampler Names: Sydney / Remi	Sheen/Odor?: None
pH: 7.22	Specific Conductance: 215.1
DO: 5.11	Temperature (C): 10.5
ORP: 224.6	Purge Volume (gal): 30
Notes:	

SampleServe

Site Name: TNS #52 **Date:** 08/27/2024, 10:44 AM **Name(s):** Sydney Souza

Location ID	GPS Latitude (decimal)	GPS Longitude (decimal)
G-5	61.581788987	-149.630862504

Field Intrinsics	
Sampler Names: Sydney , Remi	Sheen/Odor?: None
pH: 6.72	Specific Conductance: 216.2
DO: 4.12	Temperature (C): 11.3
ORP: 133.1	Purge Volume (gal): 7
Notes:	

SampleServe

Site Name: TNS #52 **Date:** 08/27/2024, 10:01 AM **Name(s):** Sydney Souza

Location ID	GPS Latitude (decimal)	GPS Longitude (decimal)
G-7	61.581454289	-149.631059783

Field Intrinsics	
Sampler Names: Remi, Sydney, bob	Sheen/Odor?: None
pH: 6.36	Specific Conductance: 271.4
DO: 3.70	Temperature (C): 12.4
ORP: 137.0	Purge Volume (gal): 8
Notes: Clear purge	

SampleServe

Site Name: TNS #52 **Date:** 08/27/2024, 12:37 PM **Name(s):** Sydney Souza

Location ID	GPS Latitude (decimal)	GPS Longitude (decimal)
MW16-2	61.5821668	-149.6308637

Field Intrinsics	
Sampler Names: Sydney/Remi	Sheen/Odor?: None
pH: 6.94	Specific Conductance: 209.0
DO: 5.97	Temperature (C): 10.2
ORP: 204.1	Purge Volume (gal): 6
Notes: Dirty looking water	

SampleServe

Site Name: TNS #52 **Date:** 08/27/2024, 11:38 AM **Name(s):** Sydney Souza

Location ID	GPS Latitude (decimal)	GPS Longitude (decimal)
RW16-1	61.5821994	-149.6309133

Field Intrinsics	
Sampler Names: Sydney/Remi	Sheen/Odor?: None
pH: 6.76	Specific Conductance: 253.5
DO: 5.65	Temperature (C): 8.6
ORP: 170.7	Purge Volume (gal): 7.5
Notes:	

APPENDIX D

Tables of Historical Monitoring Data

TNS #52
7-Eleven - Paula Sime
7172 W Parks Hwy
Wasilla, Alaska 99623

Unit	Well Screen Interval ft	Ground Water Elevation ft	124-TMB ppm	135-TMB ppm	Benzene ppm	DRO ppm	Ethylbenzene ppm	GRO ppm	Naphthalene ppm	Sodium ppm	Toluene ppm	Total Xylenes ppm
nan Health Cleanup			0.056	0.06	0.0046	1.5	0.015	2.2	0.0017		1.1	0.19
G-1												
04/24/1997	--	--	—	—	3.70	11.0	12.0	170	—	—	28.0	64.0
09/03/1997	--	--	—	—	0.00100	12.0	5.20	85.0	—	—	12.0	41.0
12/29/1997	--	--	—	—	0.0420	3.30	1.50	34.0	—	—	2.00	9.30
04/23/1998	--	--	—	—	0.13	8.30	4.10	91.0	—	—	3.90	23.0
08/03/1998	--	--	—	—	0.14	12.0	3.00	76.0	—	—	3.10	19.0
11/02/1998	--	--	—	—	0.121	5.58	4.76	70.0	—	—	4.59	27.12
02/12/1999	--	--	—	—	0.00100	19.0	4.00	91.0	—	—	5.40	24.0
08/30/1999	--	--	—	—	0.00100	10.0	5.60	190	—	—	3.10	36.0
10/29/1999	--	--	—	—	0.00100	0.45	0.0350	0.89	—	—	0.0260	0.21
02/08/2000	--	--	—	—	0.00100	—	4.40	10.0	—	—	3.30	26.0
06/08/2000	--	--	—	—	0.00100	0.33	0.11	2.30	—	—	0.0510	0.61
08/30/2000	--	--	—	—	0.00100	0.57	0.92	19.0	—	—	0.50	5.00
11/30/2000	--	--	—	—	0.00100	1.90	2.30	42.0	—	—	1.20	11.0
02/05/2001	--	--	—	—	0.00100	5.20	4.70	94.0	—	—	3.40	25.0
05/10/2001	--	--	—	—	0.00100	1.90	2.62	41.1	—	—	0.967	15.36
08/16/2001	--	--	—	—	0.0130	1.99	0.652	14.3	—	—	0.401	6.18
11/09/2001	--	--	—	—	0.0130	3.16	1.75	25.4	—	—	0.608	9.55
02/15/2002	--	--	—	—	0.0360	3.66	3.64	66.1	—	—	2.82	21.59
05/30/2002	--	--	—	—	0.00100	92.6	9.94	113	—	—	5.52	51.8
08/14/2002	--	--	—	—	0.0480	11.2	6.15	99.6	—	—	2.13	37.27
11/14/2002	--	--	—	—	0.0530	1.51	5.37	105	—	—	2.35	27.17
01/28/2003	--	--	—	—	U (0.025)	3.83	1.04	24.8	—	—	0.462	7.55
04/17/2003	--	--	—	—	0.217	4.70	4.55	117	—	—	1.15	26.9
07/17/2003	--	--	—	—	U (0.05)	8.34	6.00	104	—	—	1.81	35.6
10/02/2003	--	--	—	—	0.184	U (0.32)	5.34	137	—	—	1.84	33.4
01/20/2004	--	--	—	—	U (0.2)	10.6	5.90	100	—	—	2.46	34.8
04/13/2004	--	--	—	—	U (0.1)	6.97	6.37	109	—	—	1.49	37.5
07/20/2004	--	--	—	—	U (0.25)	8.09	2.67	87.1	—	—	0.612	26.2
09/02/2004	--	--	—	—	U (0.05)	4.94	2.60	48.5	—	—	0.38	18.4

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	Well Screen Interval	Ground Water Elevation	124-TMB	135-TMB	Benzene	DRO	Ethylbenzene	GRO	Naphthalene	Sodium	Toluene	Total Xylen
Unit	**ft**	**ft**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**
nan Health Cleanup			0.056	0.06	0.0046	1.5	0.015	2.2	0.0017		1.1	0.19
10/13/2004	--	--	—	—	U (0.005)	**1.90**	**0.232**	**5.98**	—	—	0.615	**1.87**
01/28/2005	--	--	—	—	U (0.0005)	0.818	**0.08430**	2.08	—	—	0.121	**0.582**
04/11/2005	--	--	—	—	U (0.0005)	0.78	**0.03740**	0.963	—	—	0.0690	**0.306**
08/12/2005	--	--	—	—	U (0.0005)	0.528	U (0.0005)	U (0.05)	—	—	U (0.0005)	0.003100
10/07/2005	--	--	—	—	U (0.0005)	U (0.397)	0.008200	0.24	—	—	0.01030	0.07130
02/14/2006	--	--	—	—	U (0.0005)	0.676	0.004100	0.141	—	—	0.0083100	0.04820
04/18/2006	--	--	—	—	**0.01470**	**8.37**	**0.962**	**24.8**	—	—	0.08740	**6.64**
07/06/2006	--	--	—	—	U (0.0005)	U (0.394)	0.0028900	0.153	—	—	0.0035900	0.05390
10/26/2006	--	--	—	—	U (0.0005)	U (0.391)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
02/02/2007	--	--	—	—	U (0.0005)	1.04	**0.257**	**7.79**	—	—	0.21	**1.95**
04/19/2007	--	--	—	—	U (0.0005)	0.894	**0.13**	**4.12**	—	—	0.165	**1.12**
08/07/2007	--	--	—	—	U (0.0005)	0.582	**0.03920**	0.891	—	—	0.05360	**0.277**
10/23/2007	--	--	—	—	U (0.0005)	U (0.424)	U (0.0005)	U (0.05)	—	—	U (0.0005)	0.0056600
02/22/2008	--	--	—	—	U (0.0005)	0.479	0.0071200	0.229	—	—	0.01290	0.0680
04/15/2008	--	--	—	—	U (0.0005)	0.667	0.01370	0.45	—	—	0.02470	0.116
08/27/2008	--	--	—	—	U (0.0005)	U (0.4)	0.0039700	0.172	—	—	0.0066200	0.04770
10/22/2008	--	--	—	—	U (0.0005)	U (0.427)	**0.02260**	0.742	—	—	0.0320	**0.255**
02/05/2009	--	--	—	—	U (0.0005)	U (0.463)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
04/08/2009	--	--	—	—	U (0.0005)	U (0.424)	U (0.0005)	U (0.05)	—	—	U (0.0005)	0.002100
07/09/2009	--	--	—	—	U (0.0005)	U (0.397)	U (0.001)	0.106	—	—	0.0013700	0.01880
11/04/2009	--	--	—	—	U (0.0005)	U (0.403)	0.0062400	0.271	—	—	0.0085600	0.06390
01/27/2010	--	--	—	—	U (0.0005)	0.844	U (0.001)	0.07570	—	—	0.0012300	0.01680
05/27/2010	--	--	—	—	U (0.0005)	0.538	0.01170	0.257	—	—	0.01140	0.09230
08/19/2010	--	--	—	—	U (0.0005)	U (0.455)	0.000537000	0.184	—	—	U (0.0005)	0.01890
10/26/2010	--	--	—	—	U (0.0005)	0.993	0.0044300	0.181	—	—	0.0044100	0.05740
02/17/2011	--	--	—	—	U (0.0005)	0.491	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
06/09/2011	--	--	—	—	U (0.0005)	0.635	0.000945000	0.143	—	—	0.000913000	0.04250
09/20/2011	--	--	—	—	U (0.0005)	U (0.431)	U (0.0005)	U (0.05)	—	—	U (0.0005)	0.0023600
10/21/2011	--	--	—	—	U (0.0005)	U (0.417)	**0.05650**	0.851	—	—	0.01210	**0.345**
02/17/2012	--	--	—	—	U (0.0005)	0.712	0.0023500	0.07870	—	—	0.0012800	0.0410

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Unit	Well Screen Interval ft	Ground Water Elevation ft	124-TMB ppm	135-TMB ppm	Benzene ppm	DRO ppm	Ethylbenzene ppm	GRO ppm	Naphthalene ppm	Sodium ppm	Toluene ppm	Total Xylen ppm
an Health Cleanup			0.056	0.06	0.0046	1.5	0.015	2.2	0.0017		1.1	0.19
05/17/2012	--	--	—	—	U (0.0005)	0.596	**0.0250**	0.941	—	—	0.0057200	**0.339**
09/05/2012	--	--	—	—	U (0.0005)	U (0.424)	0.01390	0.404	—	—	0.0046800	0.145
10/30/2012	--	--	—	—	U (0.0005)	U (0.439)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
01/30/2013	--	--	—	—	U (0.0005)	0.461	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/10/2013	--	--	—	—	U (0.0005)	U (0.424)	0.0140	0.248	—	—	0.00067000	0.166
10/11/2013	--	--	—	—	U (0.0005)	U (0.431)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
12/11/2013	--	--	—	—	U (0.0005)	U (0.403)	U (0.001)	U (0.05)	—	—	U (0.001)	U (0.003)
02/19/2014	--	--	—	—	U (0.0005)	U (0.403)	U (0.0005)	U (0.05)	—	—	0.000667000	0.0028100
05/01/2014	--	--	—	—	U (0.0005)	U (0.41)	0.003800	0.11	—	—	U (0.001)	0.0280
10/30/2014	--	--	—	—	U (0.0005)	U (0.41)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/15/2015	--	--	—	—	U (0.002)	0.34	U (0.003)	U (0.05)	—	—	U (0.002)	U (0.002)
09/02/2015	--	--	—	—	U (0.0002)	U (0.40)	U (0.001)	0.15	—	—	U (0.001)	U (0.003)
11/12/2015	--	--	—	—	U (0.0020)	0.63	U (0.0030)	U (0.050)	—	—	U (0.0020)	U (0.0020)
01/28/2016	--	--	—	—	U (0.0020)	0.88	U (0.0030)	U (0.050)	—	—	U (0.0020)	U (0.0020)
05/09/2016	--	--	—	—	U (0.0002)	U (0.41)	U (0.001)	U (0.1)	—	—	U (0.001)	U (0.003)
10/24/2016	--	--	—	—	U (0.0002)	U (0.41)	U (0.001)	U (0.1)	—	—	U (0.001)	U (0.003)
12/09/2016	--	--	—	—	U (0.002)	U (0.11)	U (0.003)	U (0.05)	—	—	U (0.002)	U (0.003)
04/25/2017	--	--	—	—	U (0.0002)	0.99	U (0.003)	U (1.0)	—	—	U (0.002)	U (0.002)
10/20/2017	--	--	—	—	U (0.002)	1.40	U (0.003)	U (1.0)	—	—	U (0.002)	U (0.003)
02/13/2018	--	--	—	—	U (0.002)	0.88	U (0.003)	U (1.0)	—	—	U (0.002)	U (0.002)
08/17/2018	--	--	—	—	U (0.015)	**1.60**	U (0.015)	U (0.25)	—	—	U (0.01)	U (0.015)
10/25/2018	--	--	—	—	U (0.003)	U (0.12)	U (0.003)	U (0.25)	—	—	U (0.002)	U (0.003)
02/26/2019	--	--	—	—	U (0.003)	0.51	0.006600	U (0.25)	—	—	U (0.002)	U (0.003)
04/24/2019	--	--	—	—	U (0.003)	U (0.25)	U (0.003)	U (0.25)	—	—	U (0.002)	U (0.003)
07/16/2019	--	--	—	—	U (0.003)	**1.60**	U (0.003)	U (0.25)	—	—	U (0.002)	U (0.003)
10/17/2019	--	--	—	—	U (0.003)	U (0.12)	U (0.003)	U (0.25)	—	—	U (0.002)	U (0.003)
08/12/2020	--	93.30	—	—	U (0.001)	0.242	U (0.001)	U (0.100)	—	23.4	U (0.001)	U (0.003)
10/02/2020	--	97.11	—	—	U (0.001)	U (0.824)	0.000248000	0.03370	—	—	U (0.001)	0.0026200
05/18/2021	--	97.04	U (0.00100)	U (0.00100)	U (0.001)	0.405	U (0.001)	0.01520	U (0.00500)	16.4	U (0.001)	U (0.002)
10/13/2021	--	--	0.000527000	0.000151000	0.000169000	0.518	0.000325000	0.182	U (0.000250)	56.7	U (0.001)	0.000554000

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	Well Screen Interval	Ground Water Elevation	124-TMB	135-TMB	Benzene	DRO	Ethylbenzene	GRO	Naphthalene	Sodium	Toluene	Total Xylen
Unit	ft	ft	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
nan Health Cleanup			0.056	0.06	0.0046	1.5	0.015	2.2	0.0017		1.1	0.19
05/11/2022	--	69.63	U(0.00100)	U(0.00100)	U(0.00100)	1.08	U(0.00100)	U(0.100)	U(0.000250)	23.9	U(0.00100)	U(0.00300)
07/19/2022	--	97.00	U(0.00100)	U(0.00100)	U(0.00100)	0.554	U(0.00100)	U(0.100)	U(0.0002500)	1.96	U(0.00100)	U(0.00300)
10/12/2022	--	80.20	U(0.00100)	U(0.00100)	U(0.00100)	0.565	U(0.00100)	U(0.100)	U(0.000250)	7.81	U(0.00100)	U(0.00300)
07/12/2023	--	97.41	U(0.00100)	U(0.00100)	U(0.00100)	1.21	U(0.00100)	0.0300	U(0.000250)	6.78	U(0.00100)	U(0.00100)
11/02/2023	--	97.11	U(0.00100)	U(0.00100)	U(0.00100)	1.13	U(0.00100)	0.04130	U(0.000250)	4.54	U(0.00100)	U(0.00300)
03/22/2024	--	66.54	U(0.00100)	U(0.00100)	U(0.00100)	0.312	U(0.00100)	0.08040	U(0.000250)	24.7	U(0.00100)	U(0.00100)
06/19/2024	--	97.78	U(0.00100)	U(0.00100)	U(0.00100)	0.449	U(0.00100)	U(0.100)	U(0.000250)	5.79	U(0.00100)	U(0.00300)
08/27/2024	--	76.67	—	—	U(0.00100)	0.637	U(0.00100)	0.05350	U(0.000250)	5.83	U(0.00100)	U(0.00100)
G-3												
04/24/1997	--	--	—	—	0.00100	5.10	5.40	70.0	—	—	7.60	26.0
09/03/1997	--	--	—	—	0.0800	7.50	1.40	21.0	—	—	2.00	7.70
12/29/1997	--	--	—	—	0.0570	3.50	1.50	19.0	—	—	0.43	4.70
04/23/1998	--	--	—	—	0.00100	6.90	3.10	40.0	—	—	0.49	10.0
08/03/1998	--	--	—	—	0.14	2.00	3.30	39.0	—	—	0.45	10.0
11/02/1998	--	--	—	—	0.00100	2.43	3.00	30.0	—	—	0.58	10.27
02/12/1999	--	--	—	—	0.00100	8.00	3.90	48.0	—	—	0.52	12.0
05/11/1999	--	--	—	—	0.0510	17.6	1.02	14.0	—	—	0.12	4.16
08/30/1999	--	--	—	—	0.00100	4.60	1.60	19.0	—	—	0.12	3.90
10/29/1999	--	--	—	—	0.001800	0.92	0.0170	0.32	—	—	0.001600	0.0730
02/08/2000	--	--	—	—	0.00700	0	0.47	4.00	—	—	0.0380	0.89
06/08/2000	--	--	—	—	0.00100	1.10	0.00300	0	—	—	U	0.0100
08/30/2000	--	--	—	—	0.00100	0.51	0.00400	0.12	—	—	0.001800	0.0300
11/30/2000	--	--	—	—	0.00600	5.50	0.32	2.90	—	—	0.0320	0.68
02/05/2001	--	--	—	—	0.00600	5.90	0.46	4.30	—	—	0.14	0.90
05/10/2001	--	--	—	—	0.00100	12.8	0.00300	0	—	—	U	0.00900
08/16/2001	--	--	—	—	0.00500	8.75	0.39	2.76	—	—	0.06130	0.856
11/09/2001	--	--	—	—	0.0340	1.57	0.0190	0.57	—	—	0.08280	0.103
02/15/2002	--	--	—	—	0.00800	70.7	0.0490	0.87	—	—	0.119	0.156
05/30/2002	--	--	—	—	0.0210	34.2	0.20	2.25	—	—	0.08090	0.605
08/14/2002	--	--	—	—	0.0290	5.68	0.488	5.44	—	—	0.147	1.49

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	Well Screen Interval	Ground Water Elevation	124-TMB	135-TMB	Benzene	DRO	Ethylbenzene	GRO	Naphthalene	Sodium	Toluene	Total Xylen
Unit	ft	ft	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
an Health Cleanup			0.056	0.06	0.0046	1.5	0.015	2.2	0.0017		1.1	0.19
11/14/2002	--	--	—	—	**0.06580**	**4.08**	**0.804**	**8.97**	—	—	0.186	**1.9704**
01/28/2003	--	--	—	—	**0.05710**	**7.89**	**0.319**	**2.93**	—	—	0.09140	**0.644**
04/17/2003	--	--	—	—	0.0028800	**4.58**	**0.02820**	0.585	—	—	0.02740	0.0820
07/17/2003	--	--	—	—	U (0.0005)	**7.48**	0.01070	0.233	—	—	0.01650	0.03270
10/02/2003	--	--	—	—	U (0.0005)	1.14	0.000626000	U (0.08)	—	—	0.0022400	0.0023200
01/20/2004	--	--	—	—	U (0.0005)	**1.83**	0.0039900	0.144	—	—	0.04390	0.01270
04/13/2004	--	--	—	—	U (0.005)	**2.89**	**0.04720**	0.855	—	—	0.02610	0.148
07/20/2004	--	--	—	—	U (0.0005)	**19.4**	0.002800	0.164	—	—	0.03050	0.0085300
10/13/2004	--	--	—	—	U (0.0005)	**2.11**	U (0.0005)	U (0.08)	—	—	0.000537000	U (0.001)
01/28/2005	--	--	—	—	0.000857000	**3.65**	0.00078000	0.09730	—	—	0.02930	0.003800
04/11/2005	--	--	—	—	0.0031100	**2.58**	0.0023200	0.127	—	—	0.01130	0.02530
08/12/2005	--	--	—	—	U (0.0005)	1.14	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
10/07/2005	--	--	—	—	U (0.0005)	**2.85**	U (0.0005)	U (0.05)	—	—	0.0023400	U (0.0015)
02/14/2006	--	--	—	—	0.000874000	**3.00**	0.0012900	0.215	—	—	0.0760	0.007200
04/18/2006	--	--	—	—	U (0.0005)	**7.64**	0.000884000	0.181	—	—	0.06140	0.0035600
07/06/2006	--	--	—	—	U (0.0005)	**3.17**	U (0.0005)	U (0.05)	—	—	0.0025200	U (0.0015)
10/26/2006	--	--	—	—	U (0.0005)	1.06	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
02/02/2007	--	--	—	—	**0.0052800**	**2.27**	0.001700	0.236	—	—	0.05130	0.01540
08/07/2007	--	--	—	—	U (0.0005)	0.841	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
10/23/2007	--	--	—	—	**0.0050200**	1.41	**0.0200**	0.322	—	—	0.03580	0.03190
02/21/2008	--	--	—	—	**0.0051700**	0.93	**0.0670**	0.771	—	—	0.03070	0.144
04/15/2008	--	--	—	—	**0.0056200**	0.604	**0.135**	1.44	—	—	0.0400	**0.211**
08/27/2008	--	--	—	—	**0.01380**	0.978	**0.842**	**7.26**	—	—	0.436	**2.88**
10/22/2008	--	--	—	—	**0.01240**	0.83	**0.96**	**9.55**	—	—	0.514	**3.57**
02/05/2009	--	--	—	—	U (0.01)	0.909	**1.17**	**15.7**	—	—	0.234	**4.73**
02/19/2009	--	--	—	—	**0.007100**	**9.47**	**0.08340**	1.04	—	—	0.04930	**0.241**
04/08/2009	--	--	—	—	U (0.005)	**1.51**	**0.378**	**4.20**	—	—	0.07020	**1.43**
07/09/2009	--	--	—	—	U (0.0005)	**1.81**	**1.12**	**3.01**	—	—	0.04150	**4.32**
11/04/2009	--	--	—	—	U (0.0005)	U (0.400)	**0.579**	**12.7**	—	—	0.101	**2.55**
01/27/2010	--	--	—	—	U (0.0005)	1.12	**0.337**	**6.47**	—	—	0.01570	**2.01**

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	Well Screen Interval	Ground Water Elevation	124-TMB	135-TMB	Benzene	DRO	Ethylbenzene	GRO	Naphthalene	Sodium	Toluene	Total Xylen
Unit	ft	ft	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
an Health Cleanup			0.056	0.06	0.0046	1.5	0.015	2.2	0.0017		1.1	0.19
05/27/2010	--	--	—	—	U (0.0005)	1.01	**0.03790**	0.936	—	—	0.000748000	0.137
08/19/2010	--	--	—	—	U (0.0005)	U (0.403)	**0.03360**	0.933	—	—	0.000756000	0.12
10/26/2010	--	--	—	—	U (0.0025)	U (0.397)	**0.153**	**4.62**	—	—	U (0.0025)	**0.643**
02/17/2011	--	--	—	—	U (0.0005)	**4.10**	**0.06470**	2.11	—	—	0.0011200	**0.222**
06/09/2011	--	--	—	—	0.000536000	U (0.446)	**0.06660**	**2.26**	—	—	0.0018800	**0.232**
09/20/2011	--	--	—	—	U (0.0005)	U (0.400)	**0.02350**	1.69	—	—	0.000718000	0.07940
10/21/2011	--	--	—	—	0.0010700	U (0.417)	**0.03250**	**2.51**	—	—	0.0012600	0.105
02/17/2012	--	--	—	—	0.000809000	1.15	**0.05360**	**2.62**	—	—	0.000792000	0.131
05/17/2012	--	--	—	—	0.0011700	0.56	**0.08990**	**5.91**	—	—	0.0016400	**0.303**
09/05/2012	--	--	—	—	U (0.0005)	U (0.424)	**0.166**	0.71	—	—	U (0.0005)	0.04860
10/30/2012	--	--	—	—	U (0.0005)	U (0.431)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
01/30/2013	--	--	—	—	U (0.0005)	0.67	**0.01820**	0.818	—	—	0.0036400	0.05550
05/10/2013	--	--	—	—	0.0015300	U (0.439)	**0.05540**	1.35	—	—	0.0015100	0.167
10/11/2013	--	--	—	—	U (0.0005)	U (0.391)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
12/11/2013	--	--	—	—	U (0.0005)	U (0.417)	U (0.001)	U (0.05)	—	—	U (0.001)	U (0.003)
02/19/2014	--	--	—	—	U (0.0005)	0.928	0.00066000	U (0.05)	—	—	U (0.0005)	0.0017700
05/01/2014	--	--	—	—	U (0.0005)	**4.80**	0.006600	0.30	—	—	0.00100	0.0170
10/30/2014	--	--	—	—	U (0.0005)	1.00	0.009700	0.46	—	—	U (0.0005)	0.0230
02/11/2015	--	--	—	—	0.00200	**12.0**	**0.0870**	**4.80**	—	—	0.001100	**0.24**
05/15/2015	--	--	—	—	U (0.002)	1.30	0.007800	**2.60**	—	—	U (0.002)	0.0150
09/02/2015	--	--	—	—	U (0.0002)	U (0.40)	0.007900	1.10	—	—	U (0.001)	0.006400
11/12/2015	--	--	—	—	U (0.0020)	0.26	**0.0360**	**3.20**	—	—	U (0.0020)	0.0690
01/28/2016	--	--	—	—	U (0.0020)	0.76	**0.0270**	**3.20**	—	—	U (0.0020)	0.0520
05/09/2016	--	--	—	—	0.0002000	0.58	0.008600	1.60	—	—	U (0.001)	0.0120
10/24/2016	--	--	—	—	0.0002000	0.37	0.001700	**4.40**	—	—	U (0.001)	0.003600
12/09/2016	--	--	—	—	U (0.002)	0.48	0.00200	**4.20**	—	—	U (0.002)	0.003800
04/25/2017	--	--	—	—	U (0.0002)	**4.70**	0.008900	**2.30**	—	—	U (0.002)	0.0160
10/20/2017	--	--	—	—	U (0.002)	**3.00**	U (0.003)	U(1.0)	—	—	U (0.002)	U(0.003)
02/13/2018	--	--	—	—	U (0.002)	**6.70**	U (0.003)	U (1.0)	—	—	0.005400	0.004700
08/17/2018	--	--	—	—	U (0.003)	**3.20**	0.004700	0.99	—	—	0.00091000	0.0093800

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	Well Screen Interval	Ground Water Elevation	124-TMB	135-TMB	Benzene	DRO	Ethylbenzene	GRO	Naphthalene	Sodium	Toluene	Total Xylen
Unit	ft	ft	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
an Health Cleanup			0.056	0.06	0.0046	1.5	0.015	2.2	0.0017		1.1	0.19
10/25/2018	--	--	—	—	U (0.003)	2.30	U (0.003)	0.37	—	—	U (0.002)	U (0.003)
02/26/2019	--	--	—	—	U (0.003)	8.50	0.00600	1.70	—	—	U (0.002)	0.0130
04/24/2019	--	--	—	—	U (0.003)	7.70	0.003400	1.60	—	—	U (0.002)	0.006800
07/16/2019	--	--	—	—	U (0.003)	4.60	0.003300	1.30	—	—	U (0.002)	0.00600
10/17/2019	--	--	—	—	U (0.003)	3.60	U (0.003)	0.58	—	—	U (0.002)	U (0.003)
08/12/2020	--	67.25	—	—	U (0.001)	0.339	0.000754000	0.173	—	8.35	U (0.001)	0.0015900
10/02/2020	--	66.93	—	—	U (0.001)	1.45	0.000143000	0.12	—	—	U (0.001)	U (0.002)
03/03/2021	--	--	—	—	U (0.001)	1.47	0.00091000	1.01	—	—	U (0.001)	0.00086000
03/31/2021	--	62.99	—	—	—	—	—	—	—	123	—	—
05/18/2021	--	64.72	0.04520	0.04570	U (0.001)	8.48	U (0.001)	1.36	U (0.00500)	32.2	U (0.001)	U (0.002)
07/21/2021	--	64.55	0.05990	0.06690	U (0.001)	2.32	0.0016300	1.68	0.0020600	9.61	0.000279000	0.001500
10/13/2021	--	67.39	0.000928000	0.000365000	U (0.001)	0.865	U (0.001)	0.176	U (0.000250)	10.7	U (0.001)	U (0.002)
05/11/2022	--	67.75	U(0.00100)	U(0.00100)	U(0.00100)	U(0.800)	U(0.00100)	U(0.100)	U(0.000250)	22.0	U(0.00100)	U(0.00300)
10/12/2022	--	80.10	0.0011800	0.000508000	U(0.00100)	0.392	0.000464000	0.03490	U(0.000250)	7.96	U(0.00100)	0.000449000
04/28/2023	--	--	—	—	U(0.00100)	1.30	0.000565000	0.971	U(0.000250)	6.68	0.000797000	0.000581000
07/12/2023	--	73.70	0.000789000	U(0.00100)	U(0.00100)	1.61	0.000513000	0.07620	U(0.000250)	6.03	U(0.00100)	U(0.00100)
11/02/2023	--	74.43	0.005500	0.0028800	0.000151000	1.14	0.0031700	0.08810	U(0.000250)	5.00	0.01170	0.0024900
06/19/2024	--	73.48	0.000803000	U(0.00100)	U(0.00100)	U(0.800)	0.000439000	U(0.100)	U(0.000250)	6.12	U(0.00100)	U(0.00300)
08/27/2024	--	--	—	—	U(0.00100)	0.826	0.000468000	0.08640	U(0.000250)	5.68	U(0.00100)	0.000194000
G-5												
04/24/1997	--	--	—	—	0.0320	—	0.91	17.0	—	—	0.56	5.20
09/03/1997	--	--	—	—	0.00100	4.80	1.10	25.0	—	—	U	5.40
12/29/1997	--	--	—	—	0.0650	4.00	1.00	19.0	—	—	0.15	4.70
04/23/1998	--	--	—	—	0.0480	2.70	0.38	11.0	—	—	0.0680	1.70
08/03/1998	--	--	—	—	0.00100	0.27	U	0	—	—	U	0.001900
11/02/1998	--	--	—	—	0.0260	1.82	0.12	3.70	—	—	0.0100	0.27
08/31/1999	--	--	—	—	0.0110	0.95	0.34	4.60	—	—	0.0290	0.90
10/29/1999	--	--	—	—	0.0240	0.40	0.0660	2.70	—	—	0.00600	0.11
02/08/2000	--	--	—	—	0.00800	—	0.0530	4.20	—	—	0.00600	0.10
06/08/2000	--	--	—	—	0.00100	0	0.0230	0.61	—	—	U	0.0400

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	Well Screen Interval	Ground Water Elevation	124-TMB	135-TMB	Benzene	DRO	Ethylbenzene	GRO	Naphthalene	Sodium	Toluene	Total Xylen
Unit	ft	ft	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
nan Health Cleanup			0.056	0.06	0.0046	1.5	0.015	2.2	0.0017		1.1	0.19
08/30/2000	--	--	—	—	0.00100	0.00100	0.00400	0.22	—	—	U	0.00800
11/30/2000	--	--	—	—	**0.0120**	0.49	**0.0790**	**3.90**	—	—	0.00600	0.14
02/05/2001	--	--	—	—	**0.0150**	0.32	**0.0160**	2.10	—	—	0.00800	0.0260
05/10/2001	--	--	—	—	**0.00700**	0.00100	**0.0610**	1.62	—	—	U	0.10
08/16/2001	--	--	—	—	**0.0310**	U	**0.0420**	**2.74**	—	—	0.0110	0.0650
11/09/2001	--	--	—	—	0.00400	U	U	0.258	—	—	U	0.00200
08/14/2002	--	--	—	—	**0.0130**	0.552	**0.145**	**2.53**	—	—	0.00300	0.182
11/14/2002	--	--	—	—	0.0025700	U (0.5)	U (0.002)	0.137	—	—	U (0.002)	U (0.002)
01/28/2003	--	--	—	—	**0.0640**	1.20	**0.07330**	**2.40**	—	—	U (0.02)	0.06670
04/17/2003	--	--	—	—	**0.01810**	0.418	**0.08340**	**3.14**	—	—	0.00200	0.186
07/17/2003	--	--	—	—	U (0.005)	U (0.5)	**0.06660**	**2.72**	—	—	U (0.005)	0.184
10/02/2003	--	--	—	—	**0.01250**	U (0.32)	**0.127**	**4.33**	—	—	0.0057700	**0.217**
04/13/2004	--	--	—	—	U (0.0005)	U (0.5)	U (0.0005)	0.05390	—	—	U (0.0005)	U (0.0015)
07/20/2004	--	--	—	—	0.0035100	0.484	**0.05610**	1.70	—	—	U (0.0005)	0.02390
10/13/2004	--	--	—	—	**0.00900**	0.443	**0.08930**	**2.71**	—	—	0.0015500	0.113
01/28/2005	--	--	—	—	0.001100	0.45	**0.01830**	1.35	—	—	0.0019800	0.0200
04/11/2005	--	--	—	—	U (0.0005)	U (0.391)	0.01380	1.06	—	—	0.000845000	0.01170
08/12/2005	--	--	—	—	U (0.0005)	U (0.41)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
10/07/2005	--	--	—	—	U (0.0005)	U (0.407)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
02/14/2006	--	--	—	—	0.0018600	0.475	**0.01630**	1.34	—	—	0.0013600	0.006600
04/18/2006	--	--	—	—	0.001800	0.693	**0.153**	2.04	—	—	0.000663000	**0.24**
07/06/2006	--	--	—	—	0.0014100	U (0.41)	**0.09320**	1.14	—	—	0.0015800	0.103
10/26/2006	--	--	—	—	U (0.0005)	U (0.41)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
04/19/2007	--	--	—	—	U (0.0005)	U (0.435)	**0.01630**	0.774	—	—	U (0.0005)	0.02270
08/07/2007	--	--	—	—	0.0014700	U (0.407)	0.0061100	0.529	—	—	U (0.0005)	0.00700
10/23/2007	--	--	—	—	U (0.0005)	U (0.446)	0.0053400	0.40	—	—	U (0.0005)	0.0060300
02/21/2008	--	--	—	—	0.0023100	U (0.417)	**0.05920**	1.97	—	—	0.000739000	0.05230
08/27/2008	--	--	—	—	U (0.0005)	U (0.4)	**0.02030**	0.506	—	—	U (0.0005)	0.02430
10/22/2008	--	--	—	—	U (0.0005)	U (0.420)	0.0062900	0.35	—	—	U (0.0005)	0.0051200
02/05/2009	--	--	—	—	0.00093000	0.59	**0.08980**	2.02	—	—	0.0021100	0.101

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	Well Screen Interval	Ground Water Elevation	124-TMB	135-TMB	Benzene	DRO	Ethylbenzene	GRO	Naphthalene	Sodium	Toluene	Total Xylen
Unit	ft	ft	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
an Health Cleanup			0.056	0.06	0.0046	1.5	0.015	2.2	0.0017		1.1	0.19
02/19/2009	--	--	—	—	0.0024900	0.689	**0.129**	1.96	—	—	0.0028300	**0.262**
04/08/2009	--	--	—	—	**0.005800**	U (0.435)	**0.26**	**3.84**	—	—	0.169	**0.634**
07/09/2009	--	--	—	—	0.0026700	U (0.410)	**0.184**	**2.51**	—	—	0.0045200	**0.284**
11/04/2009	--	--	—	—	0.0036500	U (0.397)	**0.292**	**4.13**	—	—	0.0073900	**0.645**
01/27/2010	--	--	—	—	0.0038500	U (0.427)	**0.499**	**7.17**	—	—	0.03130	**1.51**
05/27/2010	--	--	—	—	0.002200	0.668	**0.406**	**5.19**	—	—	0.02180	**1.22**
08/19/2010	--	--	—	—	0.0010500	0.415	**0.233**	**3.27**	—	—	0.0030700	**0.977**
10/26/2010	--	--	—	—	U (0.0022)	U (0.403)	**0.04490**	0.741	—	—	U (0.0005)	0.07230
02/17/2011	--	--	—	—	0.0029100	U (0.410)	**0.108**	**3.11**	—	—	0.003400	**0.472**
06/09/2011	--	--	—	—	0.0019900	0.436	**0.173**	**5.08**	—	—	0.0040500	**0.856**
09/20/2011	--	--	—	—	0.0010100	U (0.403)	**0.03620**	0.975	—	—	0.0013300	0.138
10/21/2011	--	--	—	—	U (0.0005)	U (0.439)	0.01210	0.365	—	—	U (0.0005)	0.03030
02/17/2012	--	--	—	—	0.0040300	0.726	**0.08070**	**2.80**	—	—	0.0049700	**0.476**
05/17/2012	--	--	—	—	0.000704000	0.541	0.01250	0.683	—	—	0.000734000	0.03780
10/30/2012	--	--	—	—	U (0.0005)	U (0.410)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
01/30/2013	--	--	—	—	U (0.0005)	U (0.403)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/10/2013	--	--	—	—	0.00052000	U (0.400)	U (0.0005)	0.221	—	—	0.000627000	0.0019400
10/11/2013	--	--	—	—	U (0.0005)	U (0.439)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
12/11/2013	--	--	—	—	U (0.0005)	U (0.403)	U (0.001)	U (0.05)	—	—	U (0.001)	U (0.003)
02/19/2014	--	--	—	—	U (0.0005)	U (0.400)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/01/2014	--	--	—	—	U (0.005)	U (0.41)	U (0.001)	U (0.05)	—	—	U (0.001)	U (0.001)
10/30/2014	--	--	—	—	0.00086000	U (0.42)	U (0.0005)	0.19	—	—	U (0.0005)	U (0.0015)
02/11/2015	--	--	—	—	U (0.0005)	U (0.42)	0.003100	0.28	—	—	U (0.0005)	0.003100
11/12/2015	--	--	—	—	U (0.0020)	U (0.21)	U (0.0030)	0.32	—	—	U (0.0020)	U (0.0020)
01/28/2016	--	--	—	—	U (0.0020)	U (0.11)	U (0.0030)	U (0.050)	—	—	U (0.0020)	U (0.0020)
10/24/2016	--	--	—	—	U (0.0002)	U (0.41)	U (0.001)	U (0.1)	—	—	U (0.001)	U (0.003)
12/09/2016	--	--	—	—	U (0.002)	U (0.12)	0.006300	0.17	—	—	U (0.001)	0.003400
04/24/2017	--	--	—	—	U (0.0002)	0.22	**0.0850**	1.40	—	—	U (0.001)	**0.44**
10/20/2017	--	--	—	—	U (0.002)	U(0.110)	U (0.003)	U(1.0)	—	—	U (0.002)	U (0.003)
02/13/2018	--	--	—	—	U (0.002)	U (0.13)	U (0.003)	U (1.0)	—	—	U (0.002)	U (0.002)

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	Well Screen Interval	Ground Water Elevation	124-TMB	135-TMB	Benzene	DRO	Ethylbenzene	GRO	Naphthalene	Sodium	Toluene	Total Xylen
Unit	**ft**	**ft**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**
nan Health Cleanup			0.056	0.06	0.0046	1.5	0.015	2.2	0.0017		1.1	0.19
08/17/2018	--	--	—	—	U (0.003)	U (0.12)	U (0.003)	U (0.25)	—	—	U (0.002)	U (0.003)
10/25/2018	--	--	—	—	U (0.003)	U (0.12)	U (0.003)	U (0.25)	—	—	U (0.002)	U (0.003)
02/26/2019	--	--	—	—	U (0.003)	0.12	U (0.003)	U (0.25)	—	—	U (0.002)	U (0.003)
04/24/2019	--	--	—	—	U (0.003)	U (0.27)	0.008600	U (0.25)	—	—	U (0.002)	0.006800
07/16/2019	--	--	—	—	U (0.003)	U (0.12)	U (0.003)	U (0.25)	—	—	U (0.002)	U (0.003)
10/17/2019	--	--	—	—	U (0.003)	U (0.12)	U (0.003)	U (0.25)	—	—	U (0.002)	U (0.003)
08/12/2020	--	66.92	—	—	U (0.001)	U (0.864)	U (0.001)	U (0.100)	—	10.6	U (0.001)	U (0.003)
10/02/2020	--	66.29	—	—	0.000236000	0.406	U (0.001)	0.01890	—	—	U (0.001)	U (0.002)
05/18/2021	--	62.56	U (0.00100)	0.000191000	U (0.001)	U (0.800)	0.001700	0.06930	U (0.00500)	13.9	U (0.001)	U (0.002)
07/21/2021	--	62.64	0.000612000	0.000507000	U (0.001)	0.34	U (0.001)	0.04780	U (0.00500)	14.2	U (0.001)	U (0.003)
10/13/2021	--	66.89	U (0.00100)	U (0.00100)	0.000267000	0.402	U (0.001)	0.07760	U (0.000250)	20.3	U (0.001)	U (0.002)
03/18/2022	--	62.05	U (0.00100)	U (0.00100)	0.000264000	U(0.800)	0.000484000	0.08580	U (0.000250)	17.3	U(0.00100)	U(0.00300)
05/11/2022	--	67.47	U(0.00100)	U(0.00100)	U(0.00100)	U(0.800)	U(0.00100)	0.03450	U(0.000250)	20.2	U(0.00100)	U(0.00300)
07/19/2022	--	69.95	U(0.00100)	U(0.00100)	U(0.00100)	U(0.800)	U(0.00100)	U(0.100)	U(0.0002500)	8.41	U(0.00100)	U(0.00300)
10/12/2022	--	79.93	U(0.00100)	U(0.00100)	U(0.00100)	U(0.170)	U(0.00100)	U(0.100)	U(0.000250)	8.87	U(0.00100)	U(0.00300)
03/08/2023	--	65.87	U(0.00100)	U(0.00100)	0.0031900	U(0.170)	U(0.00100)	U(0.100)	U(0.000250)	9.82	U(0.00100)	U(0.00300)
04/28/2023	--	--	—	—	0.000126000	0.386	U(0.00100)	0.07080	U(0.000250)	18.5	U(0.00100)	U(0.00300)
07/12/2023	--	73.56	U(0.00100)	U(0.00100)	U(0.00100)	0.207	U(0.00100)	0.03590	U(0.000250)	6.18	U(0.00100)	U(0.00100)
11/02/2023	--	74.35	U(0.00100)	U(0.00100)	U(0.00100)	1.02	U(0.00100)	0.03580	U(0.000250)	5.24	U(0.00100)	U(0.00300)
03/22/2024	--	64.34	U(0.00100)	U(0.00100)	U(0.00100)	U(0.800)	U(0.00100)	0.186	U(0.000250)	11.0	U(0.00100)	U(0.00100)
06/19/2024	--	73.32	U(0.00100)	U(0.00100)	U(0.00100)	U(0.800)	U(0.00100)	U(0.100)	U(0.000250)	6.07	U(0.00100)	U(0.00300)
08/27/2024	--	--	—	—	U(0.00100)	0.197	U(0.00100)	0.06040	U(0.000250)	5.65	U(0.00100)	U(0.00100)
G-7												
08/03/1998	--	--	—	—	U	U	U	U	—	—	U	U
11/02/1998	--	--	—	—	U	U	0.0120	0.16	—	—	0.00500	0.0580
02/12/1999	--	--	—	—	U	0.79	U	U	—	—	U	U
05/10/1999	--	--	—	—	U	0.45	U	U	—	—	U	U
08/30/1999	--	--	—	—	U	U	U	U	—	—	U	U
10/29/1999	--	--	—	—	U	U	U	U	—	—	U	U
06/08/2000	--	--	—	—	U	U	U	U	—	—	U	U

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	Well Screen Interval	Ground Water Elevation	124-TMB	135-TMB	Benzene	DRO	Ethylbenzene	GRO	Naphthalene	Sodium	Toluene	Total Xylen
Unit	ft	ft	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
an Health Cleanup			0.056	0.06	0.0046	1.5	0.015	2.2	0.0017		1.1	0.19
11/30/2000	--	--	—	—	U	U	U	U	—	—	U	U
05/10/2001	--	--	—	—	U	U	U	U	—	—	U	U
11/09/2001	--	--	—	—	U	U	U	U	—	—	U	U
05/30/2002	--	--	—	—	U	**2.47**	U	U	—	—	U	U
04/17/2003	--	--	—	—	U (0.0005)	U (0.25)	U (0.0005)	U (0.08)	—	—	U (0.0005)	U (0.001)
04/13/2004	--	--	—	—	U (0.0005)	U (0.5)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
04/11/2005	--	--	—	—	U (0.0005)	U (0.435)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
04/18/2006	--	--	—	—	U (0.0005)	U (0.397)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
04/19/2007	--	--	—	—	U (0.0005)	U (0.42)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
04/15/2008	--	--	—	—	U (0.0005)	0.673	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
02/19/2009	--	--	—	—	U (0.0005)	U (0.455)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
01/27/2010	--	--	—	—	U (0.0005)	U (0.397)	U (0.001)	U (0.05)	—	—	U (0.001)	U (0.003)
05/27/2010	--	--	—	—	U (0.0005)	U (0.439)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
08/19/2010	--	--	—	—	U (0.0005)	U (0.410)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
10/26/2010	--	--	—	—	U (0.0005)	U (0.407)	U (0.0005)	U (0.08)	—	—	U (0.0005)	U (0.001)
02/17/2011	--	--	—	—	U (0.0005)	U (0.403)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
06/09/2011	--	--	—	—	U (0.0005)	U (0.439)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
09/20/2011	--	--	—	—	U (0.0005)	U (0.391)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
10/21/2011	--	--	—	—	U (0.0005)	U (0.413)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
02/17/2012	--	--	—	—	U (0.0005)	0.584	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/17/2012	--	--	—	—	U (0.0005)	0.628	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
07/18/2012	--	--	—	—	U (0.0005)	U (0.403)	U (0.0010)	U (0.05)	—	—	U (0.0010)	U (0.0030)
09/05/2012	--	--	—	—	U (0.0005)	U (0.400)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
10/30/2012	--	--	—	—	U (0.0005)	U (0.397)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
01/30/2013	--	--	—	—	U (0.0005)	0.531	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
02/15/2013	--	--	—	—	U (0.0005)	U (0.403)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/10/2013	--	--	—	—	U (0.0005)	U (0.417)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
10/11/2013	--	--	—	—	U (0.0005)	U (0.410)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
12/11/2013	--	--	—	—	U (0.0005)	U (0.410)	U (0.001)	U (0.05)	—	—	U (0.001)	U (0.003)
02/19/2014	--	--	—	—	U (0.0005)	U (0.407)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)

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	Well Screen Interval	Ground Water Elevation	124-TMB	135-TMB	Benzene	DRO	Ethylbenzene	GRO	Naphthalene	Sodium	Toluene	Total Xylen
Unit	ft	ft	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
an Health Cleanup			0.056	0.06	0.0046	1.5	0.015	2.2	0.0017		1.1	0.19
05/01/2014	--	--	—	—	U (0.0005)	U (0.39)	U (0.001)	U (0.05)	—	—	U (0.001)	U (0.001)
10/30/2014	--	--	—	—	U (0.0005)	U (0.39)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
02/11/2015	--	--	—	—	U (0.0005)	U (0.42)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
05/15/2015	--	--	—	—	U (0.0005)	U (0.42)	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
09/02/2015	--	--	—	—	U (0.0020)	U (0.42)	U (0.001)	0.16	—	—	U (0.001)	U (0.001)
11/12/2015	--	--	—	—	U (0.0020)	U (0.20)	U (0.0030)	U (0.050)	—	—	U (0.0020)	U (0.0020)
01/28/2016	--	--	—	—	U (0.0020)	0.23	U (0.0030)	U (0.050)	—	—	U (0.0020)	U (0.0020)
05/09/2016	--	--	—	—	U (0.0002)	U (0.41)	U (0.001)	U (0.1)	—	—	U (0.001)	U (0.003)
10/24/2016	--	--	—	—	U (0.0002)	U (0.41)	U (0.001)	U (0.1)	—	—	U (0.001)	U (0.003)
12/09/2016	--	--	—	—	U (0.002)	U (0.11)	U (0.003)	U (0.05)	—	—	U (0.002)	U (0.003)
02/08/2017	--	--	—	—	U (0.002)	U (0.11)	U (0.003)	U (0.05)	—	—	U (0.002)	U (0.002)
04/25/2017	--	--	—	—	U (0.0002)	U (0.11)	U (0.001)	U (1.0)	—	—	U (0.001)	U (0.003)
10/20/2017	--	--	—	—	U (0.002)	U (0.110)	U (0.003)	U (1.0)	—	—	U (0.002)	U (0.003)
02/13/2018	--	--	—	—	U (0.002)	U (0.12)	U (0.003)	U (1.0)	—	—	U (0.002)	U (0.002)
08/17/2018	--	--	—	—	U (0.003)	U (0.12)	U (0.003)	U (0.25)	—	—	U (0.002)	U (0.003)
10/25/2018	--	--	—	—	U (0.003)	U (0.12)	U (0.003)	U (0.25)	—	—	U (0.002)	U (0.003)
02/26/2019	--	--	—	—	U (0.003)	U (0.13)	U (0.003)	U (0.25)	—	—	U (0.002)	U (0.003)
04/24/2019	--	--	—	—	U (0.003)	U (0.26)	U (0.003)	U (0.25)	—	—	U (0.002)	U (0.003)
07/16/2019	--	--	—	—	U (0.003)	U (0.12)	U (0.003)	U (0.25)	—	—	U (0.002)	U (0.003)
10/17/2019	--	--	—	—	U (0.003)	U (0.12)	U (0.003)	U (0.25)	—	—	U (0.002)	U (0.003)
10/02/2020	--	67.10	—	—	U (0.001)	U (0.888)	U (0.001)	U (0.100)	—	—	U (0.001)	U (0.002)
05/18/2021	--	60.81	U (0.00100)	U (0.00100)	U (0.001)	U (0.800)	U (0.001)	0.0320	U (0.00500)	9.55	U (0.001)	U (0.002)
07/21/2021	--	61.67	U (0.00100)	U (0.00100)	U (0.001)	0.251	U (0.001)	U (0.100)	U (0.00500)	13.1	U (0.001)	U (0.003)
10/13/2021	--	66.63	U (0.00100)	U (0.00100)	U (0.001)	0.358	U (0.001)	0.05070	U (0.000250)	5.05	U (0.001)	U (0.002)
03/18/2022	--	59.20	U (0.00100)	U (0.00100)	U(0.00100)	U(0.800)	U(0.00100)	U(0.100)	U (0.000250)	14.3	U(0.00100)	U(0.00300)
05/11/2022	--	67.15	U(0.00100)	U(0.00100)	U(0.00100)	U(0.800)	U(0.00100)	U(0.100)	U(0.000250)	5.09	U(0.00100)	U(0.00300)
07/19/2022	--	69.89	U(0.00100)	U(0.00100)	U(0.00100)	U(0.800)	U(0.00100)	U(0.100)	U(0.0002500)	6.10	U(0.00100)	U(0.00300)
10/12/2022	--	79.69	U(0.00100)	U(0.00100)	U(0.00100)	U(0.170)	U(0.00100)	U(0.0287	U(0.000250)	6.88	U(0.00100)	U(0.00300)
03/08/2023	--	65.89	U(0.00100)	U(0.00100)	0.000124000	0.28	U(0.00100)	0.04930	U(0.000250)	4.35	U(0.00100)	U(0.00300)
04/28/2023	--	--	—	—	U(0.00100)	0.267	U(0.00100)	U(0.00100)	U(0.000250)	7.91	U(0.00100)	0.000431000

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		Well Screen Interval	Ground Water Elevation	124-TMB	135-TMB	Benzene	DRO	Ethylbenzene	GRO	Naphthalene	Sodium	Toluene	Total Xylen
Unit	**ft**	**ft**		**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**
an Health Cleanup				0.056	0.06	0.0046	1.5	0.015	2.2	0.0017		1.1	0.19
07/12/2023	--	73.37		U(0.00100)	U(0.00100)	U(0.00100)	0.216	U(0.00100)	0.04610	U(0.000250)	5.20	U(0.00100)	U(0.00100)
11/02/2023	--	74.17		U(0.00100)	U(0.00100)	U(0.00100)	0.563	U(0.00100)	0.0380	U(0.000250)	4.41	U(0.00100)	U(0.00300)
03/22/2024	--	64.30		U(0.00100)	U(0.00100)	U(0.00100)	U(0.840)	U(0.00100)	0.0430	U(0.000250)	4.67	U(0.00100)	U(0.00100)
06/19/2024	--	73.17		U(0.00100)	U(0.00100)	U(0.00100)	U(0.800)	U(0.00100)	0.04010	U(0.000250)	4.71	U(0.00100)	U(0.00300)
08/27/2024	--	73.74		—	—	U(0.00100)	0.228	U(0.00100)	0.05690	U(0.000250)	4.63	U(0.00100)	U(0.00100)
MW16-2													
12/09/2016	--	--		—	—	U (0.0002)	0.25	**0.0220**	2.00	—	—	U (0.001)	**0.429**
02/08/2017	--	--		—	—	U (0.002)	**2.10**	**0.44**	**19.0**	—	—	0.007800	**3.30**
04/25/2017	--	--		—	—	U (0.0002)	0.86	U (0.30)	**8.70**	—	—	U (0.002)	**1.00**
10/20/2017	--	--		—	—	U (0.002)	0.26	**0.0420**	2.20	—	—	U (0.002)	0.125
02/13/2018	--	--		—	—	U (0.002)	0.59	**0.0510**	**6.10**	—	—	U (0.002)	0.177
08/17/2018	--	--		—	—	U (0.003)	0.63	0.0150	**2.40**	—	—	U (0.002)	0.07710
10/25/2018	--	--		—	—	U (0.003)	0.31	0.003600	1.00	—	—	U (0.002)	0.0130
02/26/2019	--	--		—	—	U (0.003)	1.10	0.006600	**4.60**	—	—	U (0.002)	0.0230
04/24/2019	--	--		—	—	U (0.003)	0.58	0.006500	**4.20**	—	—	U (0.002)	0.0270
07/16/2019	--	--		—	—	U (0.003)	0.67	0.006600	**3.40**	—	—	U (0.002)	0.0310
10/17/2019	--	--		—	—	U (0.003)	0.30	0.005200	2.10	—	—	U (0.002)	0.0230
08/12/2020	--	67.36		—	—	U (0.001)	0.419	0.0016600	1.65	—	21.7	U (0.001)	0.0073500
10/02/2020	--	67.05		—	—	U (0.001)	0.25	0.00072000	0.967	—	—	U (0.001)	0.00277200
03/31/2021	--	65.19		—	—	U (0.001)	0.585	0.00100	**2.86**	—	4.42	U (0.001)	0.0027600
05/18/2021	--	66.27		0.0110	0.01030	U (0.001)	U (0.800)	U (0.001)	0.419	U (0.00500)	4.72	U (0.001)	U (0.002)
07/21/2021	--	66.08		0.01450	0.01260	U (0.001)	0.441	0.000569000	0.724	U (0.00500)	5.58	U (0.001)	0.0013500
10/13/2021	--	67.54		U (0.00100)	U (0.00100)	U (0.001)	0.819	U (0.001)	0.765	U (0.000250)	71.7	U (0.001)	U (0.002)
03/18/2022	--	65.86		0.03410	0.02310	U(0.00100)	0.643	0.00032000	1.95	0.000106000	6.93	U(0.00100)	U(0.00300)
05/11/2022	--	67.88		0.01240	0.0063100	0.000105000	0.49	U(0.00100)	0.658	U(0.000250)	21.6	U(0.00100)	U(0.00300)
07/19/2022	--	70.17		0.02030	0.01010	0.00013000	U(0.800)	U(0.00100)	0.354	U(0.000250)	9.06	U(0.00100)	U(0.00300)
10/12/2022	--	80.12		0.000523000	0.000487000	U(0.00100)	U(0.170)	U(0.00100)	0.02940	U(0.000250)	9.84	U(0.00100)	U(0.00300)
03/08/2023	--	66.69		**0.09380**	**0.06640**	0.0029300	1.46	0.000899000	1.61	0.000116000	180	0.00042000	0.000326000
04/28/2023	--	--		—	—	U(0.00100)	0.413	0.000143000	0.926	U(0.000250)	16.2	U(0.00100)	0.000357000
07/12/2023	--	73.75		U(0.00100)	U(0.00100)	U(0.00100)	0.21	U(0.00100)	U(0.100)	U(0.000263)	6.95	U(0.00100)	U(0.00100)

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		Well Screen Interval	Ground Water Elevation	124-TMB	135-TMB	Benzene	DRO	Ethylbenzene	GRO	Naphthalene	Sodium	Toluene	Total Xylen
Unit	**ft**	**ft**		**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**
an Health Cleanup				0.056	0.06	0.0046	1.5	0.015	2.2	0.0017		1.1	0.19
11/02/2023	--	74.47		U(0.00100)	U(0.00100)	U(0.00100)	0.449	U(0.00100)	0.03820	U(0.000250)	5.26	U(0.00100)	U(0.00300)
03/22/2024	--	66.62		0.01980	0.01260	U(0.00100)	U(0.800)	0.000346000	0.864	U(0.000250)	42.9	U(0.00100)	U(0.00100)
06/19/2024	--	73.52		U(0.00100)	U(0.00100)	U(0.00100)	U(0.800)	U(0.00100)	0.04740	U(0.000250)	6.16	U(0.00100)	U(0.00300)
RW16-1													
10/24/2016	--	--		—	—	U (0.0002)	**4.60**	**1.70**	**30.0**	—	—	0.0190	**10.1**
02/08/2017	--	--		—	—	U (0.002)	**2.70**	**7.90**	**25.0**	—	—	0.004800	**8.90**
04/25/2017	--	--		—	—	U (0.002)	**2.40**	U (0.750)	**12.0**	—	—	U (0.001)	**4.83**
08/17/2018	--	--		—	—	U (0.003)	**7.90**	**1.20**	**24.0**	—	—	0.001800	**8.50**
08/12/2020	--	67.49		—	—	0.00092000	**2.00**	**1.58**	**5.85**	—	65.8	0.0055800	**8.26**
10/02/2020	--	67.20		—	—	U (0.020)	**3.58**	**0.373**	**3.99**	—	—	0.01740	**1.721**
03/31/2021	--	67.77		—	—	U (0.020)	**4.72**	**1.33**	**14.0**	—	64.0	U (0.020)	**5.28**
05/18/2021	--	66.12		**2.50**	**0.53**	U (0.200)	**7.24**	**0.761**	**3.38**	U (1.00)	24.1	U (0.200)	**4.80**
07/21/2021	--	65.91		**2.90**	**0.597**	U (0.200)	**9.60**	**1.36**	**7.22**	U (1.00)	16.7	U (0.200)	**7.69**
10/13/2021	--	67.71		**1.83**	**0.28**	U (0.200)	**7.89**	**1.11**	**7.99**	U (1.00)	11.3	U (0.200)	**4.826**
03/18/2022	--	65.51		**4.04**	**0.868**	U(0.200)	**4.36**	**0.939**	**23.2**	**0.04860**	39.9	U(0.200)	**5.548**
05/11/2022	--	68.00		**3.88**	**0.756**	U(0.0500)	**5.82**	**0.533**	**17.7**	**0.06120**	56.9	U(0.0500)	**2.773**
07/19/2022	--	70.05		0.03960	0.01150	0.000116000	0.572	0.0024200	0.247	0.0010400	33.2	0.00028000	0.033910
10/12/2022	--	79.98		0.0024100	U(0.000104)	0.000309000	0.50	0.000383000	0.322	0.001100	26.7	0.00038000	0.0130
03/08/2023	--	66.64		**2.47**	**0.328**	0.0017400	**5.76**	**0.661**	**2.61**	**0.03170**	274	0.0044300	**0.531**
04/28/2023	--	--		—	—	U(0.00100)	**3.69**	**0.437**	**7.51**	**0.03820**	161	U(0.00100)	**2.14**
07/12/2023	--	73.62		**0.172**	0.05050	0.000595000	0.607	0.0080800	1.48	0.000706000	18.3	0.0015300	0.01910
11/02/2023	--	74.50		U(0.00100)	0.000216000	U(0.00100)	0.626	U(0.00100)	0.09130	U(0.000250)	9.90	U(0.00100)	U(0.00300)
03/22/2024	--	66.37		**2.47**	**0.458**	0.000964000	**2.56**	**0.534**	**14.9**	**0.04920**	102	0.0042500	**0.584**
06/19/2024	--	73.50		0.02710	0.0034900	U(0.00500)	U(0.800)	0.0074900	0.58	0.000851000	14.6	U(0.00500)	0.033930
08/27/2024	--	74.04		—	—	0.00013000	0.432	0.0043900	0.402	0.000472000	14.8	0.000374000	0.01190

APPENDIX E

PACE Laboratory Analytical Report and ADEC Laboratory Data Review Checklist

ANALYTICAL REPORT

September 18, 2024

7-11 Stantec - Anchorage, AK

Sample Delivery Group:	L1773530
Samples Received:	08/31/2024
Project Number:	203723785
Description:	Store 5325
Site:	TNS 52
Report To:	Ms. Sydney Souza 725 E Fireweed Lane Suite 200 Anchorage, AK 99503

Entire Report Reviewed By:

Craig Cothron
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

G-7 L1773530-01 GW

Collected by: Sydney Souza | Collected date/time: 08/27/24 10:03 | Received date/time: 08/31/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2357388	1	09/17/24 18:22	09/17/24 21:25	MAP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method AK101	WG2357521	1	09/06/24 17:57	09/06/24 17:57	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2354947	1	09/03/24 02:58	09/03/24 02:58	DYW	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2355602	1	09/04/24 08:40	09/05/24 08:27	MAA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG2354470	1	09/02/24 08:38	09/05/24 18:13	MKM	Mt. Juliet, TN

G-5 L1773530-02 GW

Collected by: Sydney Souza | Collected date/time: 08/27/24 10:44 | Received date/time: 08/31/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2357388	1	09/17/24 18:22	09/17/24 21:27	MAP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method AK101	WG2357521	1	09/06/24 17:34	09/06/24 17:34	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2354947	1	09/03/24 03:21	09/03/24 03:21	DYW	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2355602	1	09/04/24 08:40	09/05/24 08:47	MAA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG2354470	1	09/02/24 08:38	09/05/24 18:30	MKM	Mt. Juliet, TN

RM16-1 L1773530-03 GW

Collected by: Sydney Souza | Collected date/time: 08/27/24 11:38 | Received date/time: 08/31/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2357388	1	09/17/24 18:22	09/17/24 21:29	MAP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method AK101	WG2357521	1	09/06/24 17:12	09/06/24 17:12	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2358427	1	09/08/24 19:31	09/08/24 19:31	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2355602	1	09/04/24 08:40	09/05/24 09:07	MAA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG2354470	1	09/02/24 08:38	09/05/24 18:48	MKM	Mt. Juliet, TN

G-1 L1773530-04 GW

Collected by: Sydney Souza | Collected date/time: 08/27/24 12:06 | Received date/time: 08/31/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2357388	1	09/17/24 18:22	09/17/24 21:31	MAP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method AK101	WG2357521	1	09/06/24 16:49	09/06/24 16:49	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2354947	1	09/03/24 03:43	09/03/24 03:43	DYW	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2355602	1	09/04/24 08:40	09/05/24 13:30	MAA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG2354470	1	09/02/24 08:38	09/05/24 20:14	MKM	Mt. Juliet, TN

MW16-2 L1773530-05 GW

Collected by: Sydney Souza | Collected date/time: 08/27/24 12:37 | Received date/time: 08/31/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2357388	1	09/17/24 18:22	09/17/24 21:32	MAP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method AK101	WG2357521	1	09/06/24 16:26	09/06/24 16:26	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2354947	1	09/03/24 04:06	09/03/24 04:06	DYW	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2355602	1	09/04/24 08:40	09/05/24 12:30	MAA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG2354470	1	09/02/24 08:38	09/05/24 20:32	MKM	Mt. Juliet, TN

G-3 L1773530-06 GW

Collected by: Sydney Souza | Collected date/time: 08/27/24 13:47 | Received date/time: 08/31/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2357388	1	09/17/24 18:22	09/17/24 21:34	MAP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method AK101	WG2357521	1	09/06/24 16:04	09/06/24 16:04	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2354947	1	09/03/24 04:28	09/03/24 04:28	DYW	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2355602	1	09/04/24 08:40	09/05/24 12:50	MAA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG2354470	1	09/02/24 08:38	09/05/24 19:05	MKM	Mt. Juliet, TN

DUP L1773530-07 GW

Collected by: Sydney Souza | Collected date/time: 08/27/24 00:00 | Received date/time: 08/31/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2357388	1	09/17/24 18:22	09/17/24 21:36	MAP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method AK101	WG2357521	1	09/06/24 15:41	09/06/24 15:41	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2355541	1	09/03/24 22:48	09/03/24 22:48	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2355602	1	09/04/24 08:40	09/05/24 13:10	MAA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG2354470	1	09/02/24 08:38	09/05/24 19:22	MKM	Mt. Juliet, TN

TRIP BLANK L1773530-08 GW

Collected by: Sydney Souza | Collected date/time: 08/27/24 00:00 | Received date/time: 08/31/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2358821	1	09/09/24 20:39	09/09/24 20:39	ACG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Craig Cothron
Project Manager

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Sodium	4.63		0.504	3.00	1	09/17/2024 21:25	WG2357388

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPHGAK C6 to C10	0.0569	B J	0.0287	0.100	1	09/06/2024 17:57	WG2357521
(S) a,a,a-Trifluorotoluene(FID)	*91.8*			*50.0-150*		*09/06/2024 17:57*	WG2357521
(S) a,a,a-Trifluorotoluene(PID)	*104*			*79.0-125*		*09/06/2024 17:57*	WG2357521

Volatile Organic Compounds (GC/MS) by Method 8260B/8260D

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0000941	0.00100	1	09/03/2024 02:58	WG2354947
Toluene	U		0.000278	0.00100	1	09/03/2024 02:58	WG2354947
Ethylbenzene	U		0.000137	0.00100	1	09/03/2024 02:58	WG2354947
Total Xylenes	U		0.000174	0.00300	1	09/03/2024 02:58	WG2354947
(S) Toluene-d8	*109*			*80.0-120*		*09/03/2024 02:58*	WG2354947
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*09/03/2024 02:58*	WG2354947
(S) 1,2-Dichloroethane-d4	*91.4*			*70.0-130*		*09/03/2024 02:58*	WG2354947

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	0.228	B J	0.170	0.800	1	09/05/2024 08:27	WG2355602
(S) o-Terphenyl	*105*			*50.0-150*		*09/05/2024 08:27*	WG2355602

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000190	0.0000500	1	09/05/2024 18:13	WG2354470
Acenaphthene	U		0.0000190	0.0000500	1	09/05/2024 18:13	WG2354470
Acenaphthylene	U		0.0000171	0.0000500	1	09/05/2024 18:13	WG2354470
Benzo(a)anthracene	U		0.0000203	0.0000500	1	09/05/2024 18:13	WG2354470
Benzo(a)pyrene	U		0.0000184	0.0000500	1	09/05/2024 18:13	WG2354470
Benzo(b)fluoranthene	U		0.0000168	0.0000500	1	09/05/2024 18:13	WG2354470
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	1	09/05/2024 18:13	WG2354470
Benzo(k)fluoranthene	U		0.0000202	0.0000500	1	09/05/2024 18:13	WG2354470
Chrysene	U		0.0000179	0.0000500	1	09/05/2024 18:13	WG2354470
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	1	09/05/2024 18:13	WG2354470
Fluoranthene	U		0.0000270	0.000100	1	09/05/2024 18:13	WG2354470
Fluorene	U		0.0000169	0.0000500	1	09/05/2024 18:13	WG2354470
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	1	09/05/2024 18:13	WG2354470
Naphthalene	U		0.0000917	0.000250	1	09/05/2024 18:13	WG2354470
Phenanthrene	U		0.0000180	0.0000500	1	09/05/2024 18:13	WG2354470
Pyrene	U		0.0000169	0.0000500	1	09/05/2024 18:13	WG2354470
1-Methylnaphthalene	U		0.0000687	0.000250	1	09/05/2024 18:13	WG2354470
2-Methylnaphthalene	U		0.0000674	0.000250	1	09/05/2024 18:13	WG2354470
2-Chloronaphthalene	U		0.0000682	0.000250	1	09/05/2024 18:13	WG2354470
(S) Nitrobenzene-d5	*105*			*31.0-160*		*09/05/2024 18:13*	WG2354470
(S) 2-Fluorobiphenyl	*94.7*			*48.0-148*		*09/05/2024 18:13*	WG2354470
(S) p-Terphenyl-d14	*89.5*			*37.0-146*		*09/05/2024 18:13*	WG2354470

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Sodium	5.65		0.504	3.00	1	09/17/2024 21:27	WG2357388

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPHGAK C6 to C10	0.0604	B J	0.0287	0.100	1	09/06/2024 17:34	WG2357521
(S) a,a,a-Trifluorotoluene(FID)	*92.0*			*50.0-150*		*09/06/2024 17:34*	WG2357521
(S) a,a,a-Trifluorotoluene(PID)	*104*			*79.0-125*		*09/06/2024 17:34*	WG2357521

Volatile Organic Compounds (GC/MS) by Method 8260B/8260D

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0000941	0.00100	1	09/03/2024 03:21	WG2354947
Toluene	U		0.000278	0.00100	1	09/03/2024 03:21	WG2354947
Ethylbenzene	U		0.000137	0.00100	1	09/03/2024 03:21	WG2354947
Total Xylenes	U		0.000174	0.00300	1	09/03/2024 03:21	WG2354947
(S) Toluene-d8	*110*			*80.0-120*		*09/03/2024 03:21*	WG2354947
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*09/03/2024 03:21*	WG2354947
(S) 1,2-Dichloroethane-d4	*91.8*			*70.0-130*		*09/03/2024 03:21*	WG2354947

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	0.197	B J	0.170	0.800	1	09/05/2024 08:47	WG2355602
(S) o-Terphenyl	*103*			*50.0-150*		*09/05/2024 08:47*	WG2355602

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000190	0.0000500	1	09/05/2024 18:30	WG2354470
Acenaphthene	U		0.0000190	0.0000500	1	09/05/2024 18:30	WG2354470
Acenaphthylene	U		0.0000171	0.0000500	1	09/05/2024 18:30	WG2354470
Benzo(a)anthracene	U		0.0000203	0.0000500	1	09/05/2024 18:30	WG2354470
Benzo(a)pyrene	U		0.0000184	0.0000500	1	09/05/2024 18:30	WG2354470
Benzo(b)fluoranthene	U		0.0000168	0.0000500	1	09/05/2024 18:30	WG2354470
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	1	09/05/2024 18:30	WG2354470
Benzo(k)fluoranthene	U		0.0000202	0.0000500	1	09/05/2024 18:30	WG2354470
Chrysene	U		0.0000179	0.0000500	1	09/05/2024 18:30	WG2354470
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	1	09/05/2024 18:30	WG2354470
Fluoranthene	U		0.0000270	0.000100	1	09/05/2024 18:30	WG2354470
Fluorene	U		0.0000169	0.0000500	1	09/05/2024 18:30	WG2354470
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	1	09/05/2024 18:30	WG2354470
Naphthalene	U		0.0000917	0.000250	1	09/05/2024 18:30	WG2354470
Phenanthrene	U		0.0000180	0.0000500	1	09/05/2024 18:30	WG2354470
Pyrene	U		0.0000169	0.0000500	1	09/05/2024 18:30	WG2354470
1-Methylnaphthalene	U		0.0000687	0.000250	1	09/05/2024 18:30	WG2354470
2-Methylnaphthalene	U		0.0000674	0.000250	1	09/05/2024 18:30	WG2354470
2-Chloronaphthalene	U		0.0000682	0.000250	1	09/05/2024 18:30	WG2354470
(S) Nitrobenzene-d5	*105*			*31.0-160*		*09/05/2024 18:30*	WG2354470
(S) 2-Fluorobiphenyl	*95.8*			*48.0-148*		*09/05/2024 18:30*	WG2354470
(S) p-Terphenyl-d14	*86.3*			*37.0-146*		*09/05/2024 18:30*	WG2354470

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Sodium	14.8		0.504	3.00	1	09/17/2024 21:29	WG2357388

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPHGAK C6 to C10	0.278	B	0.0287	0.100	1	09/06/2024 17:12	WG2357521
(S) a,a,a-Trifluorotoluene(FID)	*89.1*			*50.0-150*		*09/06/2024 17:12*	WG2357521
(S) a,a,a-Trifluorotoluene(PID)	*105*			*79.0-125*		*09/06/2024 17:12*	WG2357521

Volatile Organic Compounds (GC/MS) by Method 8260B/8260D

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.000130	J	0.0000941	0.00100	1	09/08/2024 19:31	WG2358427
Toluene	0.000374	J	0.000278	0.00100	1	09/08/2024 19:31	WG2358427
Ethylbenzene	0.00439		0.000137	0.00100	1	09/08/2024 19:31	WG2358427
Total Xylenes	0.0119		0.000174	0.00300	1	09/08/2024 19:31	WG2358427
(S) Toluene-d8	*106*			*80.0-120*		*09/08/2024 19:31*	WG2358427
(S) 4-Bromofluorobenzene	*96.6*			*77.0-126*		*09/08/2024 19:31*	WG2358427
(S) 1,2-Dichloroethane-d4	*118*			*70.0-130*		*09/08/2024 19:31*	WG2358427

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	0.391	B J	0.170	0.800	1	09/05/2024 09:07	WG2355602
(S) o-Terphenyl	*83.4*			*50.0-150*		*09/05/2024 09:07*	WG2355602

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000190	0.0000500	1	09/05/2024 18:48	WG2354470
Acenaphthene	U		0.0000190	0.0000500	1	09/05/2024 18:48	WG2354470
Acenaphthylene	U		0.0000171	0.0000500	1	09/05/2024 18:48	WG2354470
Benzo(a)anthracene	U		0.0000203	0.0000500	1	09/05/2024 18:48	WG2354470
Benzo(a)pyrene	U		0.0000184	0.0000500	1	09/05/2024 18:48	WG2354470
Benzo(b)fluoranthene	U		0.0000168	0.0000500	1	09/05/2024 18:48	WG2354470
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	1	09/05/2024 18:48	WG2354470
Benzo(k)fluoranthene	U		0.0000202	0.0000500	1	09/05/2024 18:48	WG2354470
Chrysene	U		0.0000179	0.0000500	1	09/05/2024 18:48	WG2354470
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	1	09/05/2024 18:48	WG2354470
Fluoranthene	U		0.0000270	0.000100	1	09/05/2024 18:48	WG2354470
Fluorene	U		0.0000169	0.0000500	1	09/05/2024 18:48	WG2354470
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	1	09/05/2024 18:48	WG2354470
Naphthalene	0.000472		0.0000917	0.000250	1	09/05/2024 18:48	WG2354470
Phenanthrene	U		0.0000180	0.0000500	1	09/05/2024 18:48	WG2354470
Pyrene	U		0.0000169	0.0000500	1	09/05/2024 18:48	WG2354470
1-Methylnaphthalene	0.000180	J	0.0000687	0.000250	1	09/05/2024 18:48	WG2354470
2-Methylnaphthalene	0.000162	J	0.0000674	0.000250	1	09/05/2024 18:48	WG2354470
2-Chloronaphthalene	U		0.0000682	0.000250	1	09/05/2024 18:48	WG2354470
(S) Nitrobenzene-d5	*105*			*31.0-160*		*09/05/2024 18:48*	WG2354470
(S) 2-Fluorobiphenyl	*94.2*			*48.0-148*		*09/05/2024 18:48*	WG2354470
(S) p-Terphenyl-d14	*88.4*			*37.0-146*		*09/05/2024 18:48*	WG2354470

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Sodium	5.83		0.504	3.00	1	09/17/2024 21:31	WG2357388

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPHGAK C6 to C10	0.0535	B J	0.0287	0.100	1	09/06/2024 16:49	WG2357521
(S) a,a,a-Trifluorotoluene(FID)	*87.9*			*50.0-150*		*09/06/2024 16:49*	WG2357521
(S) a,a,a-Trifluorotoluene(PID)	*103*			*79.0-125*		*09/06/2024 16:49*	WG2357521

Volatile Organic Compounds (GC/MS) by Method 8260B/8260D

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0000941	0.00100	1	09/03/2024 03:43	WG2354947
Toluene	U		0.000278	0.00100	1	09/03/2024 03:43	WG2354947
Ethylbenzene	U		0.000137	0.00100	1	09/03/2024 03:43	WG2354947
Total Xylenes	U		0.000174	0.00300	1	09/03/2024 03:43	WG2354947
(S) Toluene-d8	*109*			*80.0-120*		*09/03/2024 03:43*	WG2354947
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*09/03/2024 03:43*	WG2354947
(S) 1,2-Dichloroethane-d4	*91.6*			*70.0-130*		*09/03/2024 03:43*	WG2354947

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	0.637	B J	0.170	0.800	1	09/05/2024 13:30	WG2355602
(S) o-Terphenyl	*94.5*			*50.0-150*		*09/05/2024 13:30*	WG2355602

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000190	0.0000500	1	09/05/2024 20:14	WG2354470
Acenaphthene	U		0.0000190	0.0000500	1	09/05/2024 20:14	WG2354470
Acenaphthylene	U		0.0000171	0.0000500	1	09/05/2024 20:14	WG2354470
Benzo(a)anthracene	U		0.0000203	0.0000500	1	09/05/2024 20:14	WG2354470
Benzo(a)pyrene	U		0.0000184	0.0000500	1	09/05/2024 20:14	WG2354470
Benzo(b)fluoranthene	U		0.0000168	0.0000500	1	09/05/2024 20:14	WG2354470
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	1	09/05/2024 20:14	WG2354470
Benzo(k)fluoranthene	U		0.0000202	0.0000500	1	09/05/2024 20:14	WG2354470
Chrysene	U		0.0000179	0.0000500	1	09/05/2024 20:14	WG2354470
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	1	09/05/2024 20:14	WG2354470
Fluoranthene	U		0.0000270	0.000100	1	09/05/2024 20:14	WG2354470
Fluorene	U		0.0000169	0.0000500	1	09/05/2024 20:14	WG2354470
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	1	09/05/2024 20:14	WG2354470
Naphthalene	U		0.0000917	0.000250	1	09/05/2024 20:14	WG2354470
Phenanthrene	U		0.0000180	0.0000500	1	09/05/2024 20:14	WG2354470
Pyrene	U		0.0000169	0.0000500	1	09/05/2024 20:14	WG2354470
1-Methylnaphthalene	U		0.0000687	0.000250	1	09/05/2024 20:14	WG2354470
2-Methylnaphthalene	U		0.0000674	0.000250	1	09/05/2024 20:14	WG2354470
2-Chloronaphthalene	U		0.0000682	0.000250	1	09/05/2024 20:14	WG2354470
(S) Nitrobenzene-d5	*109*			*31.0-160*		*09/05/2024 20:14*	WG2354470
(S) 2-Fluorobiphenyl	*96.8*			*48.0-148*		*09/05/2024 20:14*	WG2354470
(S) p-Terphenyl-d14	*87.9*			*37.0-146*		*09/05/2024 20:14*	WG2354470

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Sodium	8.39		0.504	3.00	1	09/17/2024 21:32	WG2357388

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPHGAK C6 to C10	0.0582	B J	0.0287	0.100	1	09/06/2024 16:26	WG2357521
(S) a,a,a-Trifluorotoluene(FID)	*88.6*			*50.0-150*		*09/06/2024 16:26*	WG2357521
(S) a,a,a-Trifluorotoluene(PID)	*103*			*79.0-125*		*09/06/2024 16:26*	WG2357521

Volatile Organic Compounds (GC/MS) by Method 8260B/8260D

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0000941	0.00100	1	09/03/2024 04:06	WG2354947
Toluene	U		0.000278	0.00100	1	09/03/2024 04:06	WG2354947
Ethylbenzene	U		0.000137	0.00100	1	09/03/2024 04:06	WG2354947
Total Xylenes	U		0.000174	0.00300	1	09/03/2024 04:06	WG2354947
(S) Toluene-d8	*107*			*80.0-120*		*09/03/2024 04:06*	WG2354947
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*09/03/2024 04:06*	WG2354947
(S) 1,2-Dichloroethane-d4	*91.7*			*70.0-130*		*09/03/2024 04:06*	WG2354947

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	0.299	B J	0.170	0.800	1	09/05/2024 12:30	WG2355602
(S) o-Terphenyl	*34.3*	J2		*50.0-150*		*09/05/2024 12:30*	WG2355602

Sample Narrative:

L1773530-05 WG2355602: Surrogate failure due to matrix interference during extraction procedure.

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000190	0.0000500	1	09/05/2024 20:32	WG2354470
Acenaphthene	U		0.0000190	0.0000500	1	09/05/2024 20:32	WG2354470
Acenaphthylene	U		0.0000171	0.0000500	1	09/05/2024 20:32	WG2354470
Benzo(a)anthracene	U		0.0000203	0.0000500	1	09/05/2024 20:32	WG2354470
Benzo(a)pyrene	U		0.0000184	0.0000500	1	09/05/2024 20:32	WG2354470
Benzo(b)fluoranthene	U		0.0000168	0.0000500	1	09/05/2024 20:32	WG2354470
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	1	09/05/2024 20:32	WG2354470
Benzo(k)fluoranthene	U		0.0000202	0.0000500	1	09/05/2024 20:32	WG2354470
Chrysene	U		0.0000179	0.0000500	1	09/05/2024 20:32	WG2354470
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	1	09/05/2024 20:32	WG2354470
Fluoranthene	U		0.0000270	0.000100	1	09/05/2024 20:32	WG2354470
Fluorene	U		0.0000169	0.0000500	1	09/05/2024 20:32	WG2354470
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	1	09/05/2024 20:32	WG2354470
Naphthalene	U		0.0000917	0.000250	1	09/05/2024 20:32	WG2354470
Phenanthrene	U		0.0000180	0.0000500	1	09/05/2024 20:32	WG2354470
Pyrene	0.0000194	J	0.0000169	0.0000500	1	09/05/2024 20:32	WG2354470
1-Methylnaphthalene	U		0.0000687	0.000250	1	09/05/2024 20:32	WG2354470
2-Methylnaphthalene	U		0.0000674	0.000250	1	09/05/2024 20:32	WG2354470
2-Chloronaphthalene	U		0.0000682	0.000250	1	09/05/2024 20:32	WG2354470
(S) Nitrobenzene-d5	*109*			*31.0-160*		*09/05/2024 20:32*	WG2354470
(S) 2-Fluorobiphenyl	*87.9*			*48.0-148*		*09/05/2024 20:32*	WG2354470

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
(S) p-Terphenyl-d14	*58.4*			*37.0-146*		*09/05/2024 20:32*	WG2354470

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Sodium	5.68		0.504	3.00	1	09/17/2024 21:34	WG2357388

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPHGAK C6 to C10	0.0864	B J	0.0287	0.100	1	09/06/2024 16:04	WG2357521
(S) a,a,a-Trifluorotoluene(FID)	*93.6*			*50.0-150*		*09/06/2024 16:04*	WG2357521
(S) a,a,a-Trifluorotoluene(PID)	*103*			*79.0-125*		*09/06/2024 16:04*	WG2357521

Volatile Organic Compounds (GC/MS) by Method 8260B/8260D

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0000941	0.00100	1	09/03/2024 04:28	WG2354947
Toluene	U		0.000278	0.00100	1	09/03/2024 04:28	WG2354947
Ethylbenzene	0.000468	J	0.000137	0.00100	1	09/03/2024 04:28	WG2354947
Total Xylenes	0.000194	J	0.000174	0.00300	1	09/03/2024 04:28	WG2354947
(S) Toluene-d8	*109*			*80.0-120*		*09/03/2024 04:28*	WG2354947
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*09/03/2024 04:28*	WG2354947
(S) 1,2-Dichloroethane-d4	*92.6*			*70.0-130*		*09/03/2024 04:28*	WG2354947

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	0.826	B	0.170	0.800	1	09/05/2024 12:50	WG2355602
(S) o-Terphenyl	*90.6*			*50.0-150*		*09/05/2024 12:50*	WG2355602

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000190	0.0000500	1	09/05/2024 19:05	WG2354470
Acenaphthene	U		0.0000190	0.0000500	1	09/05/2024 19:05	WG2354470
Acenaphthylene	U		0.0000171	0.0000500	1	09/05/2024 19:05	WG2354470
Benzo(a)anthracene	U		0.0000203	0.0000500	1	09/05/2024 19:05	WG2354470
Benzo(a)pyrene	U		0.0000184	0.0000500	1	09/05/2024 19:05	WG2354470
Benzo(b)fluoranthene	U		0.0000168	0.0000500	1	09/05/2024 19:05	WG2354470
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	1	09/05/2024 19:05	WG2354470
Benzo(k)fluoranthene	U		0.0000202	0.0000500	1	09/05/2024 19:05	WG2354470
Chrysene	U		0.0000179	0.0000500	1	09/05/2024 19:05	WG2354470
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	1	09/05/2024 19:05	WG2354470
Fluoranthene	U		0.0000270	0.000100	1	09/05/2024 19:05	WG2354470
Fluorene	U		0.0000169	0.0000500	1	09/05/2024 19:05	WG2354470
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	1	09/05/2024 19:05	WG2354470
Naphthalene	U		0.0000917	0.000250	1	09/05/2024 19:05	WG2354470
Phenanthrene	U		0.0000180	0.0000500	1	09/05/2024 19:05	WG2354470
Pyrene	U		0.0000169	0.0000500	1	09/05/2024 19:05	WG2354470
1-Methylnaphthalene	U		0.0000687	0.000250	1	09/05/2024 19:05	WG2354470
2-Methylnaphthalene	U		0.0000674	0.000250	1	09/05/2024 19:05	WG2354470
2-Chloronaphthalene	U		0.0000682	0.000250	1	09/05/2024 19:05	WG2354470
(S) Nitrobenzene-d5	*107*			*31.0-160*		*09/05/2024 19:05*	WG2354470
(S) 2-Fluorobiphenyl	*94.7*			*48.0-148*		*09/05/2024 19:05*	WG2354470
(S) p-Terphenyl-d14	*84.2*			*37.0-146*		*09/05/2024 19:05*	WG2354470

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Sodium	14.8		0.504	3.00	1	09/17/2024 21:36	WG2357388

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPHGAK C6 to C10	0.402	B	0.0287	0.100	1	09/06/2024 15:41	WG2357521
(S) a,a,a-Trifluorotoluene(FID)	*87.5*			*50.0-150*		*09/06/2024 15:41*	WG2357521
(S) a,a,a-Trifluorotoluene(PID)	*106*			*79.0-125*		*09/06/2024 15:41*	WG2357521

Volatile Organic Compounds (GC/MS) by Method 8260B/8260D

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.000188	J	0.0000941	0.00100	1	09/03/2024 22:48	WG2355541
Toluene	0.000344	J	0.000278	0.00100	1	09/03/2024 22:48	WG2355541
Ethylbenzene	0.00379		0.000137	0.00100	1	09/03/2024 22:48	WG2355541
Total Xylenes	0.0104		0.000174	0.00300	1	09/03/2024 22:48	WG2355541
(S) Toluene-d8	*101*			*80.0-120*		*09/03/2024 22:48*	WG2355541
(S) 4-Bromofluorobenzene	*95.4*			*77.0-126*		*09/03/2024 22:48*	WG2355541
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*09/03/2024 22:48*	WG2355541

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	0.432	B J	0.170	0.800	1	09/05/2024 13:10	WG2355602
(S) o-Terphenyl	*83.5*			*50.0-150*		*09/05/2024 13:10*	WG2355602

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000190	0.0000500	1	09/05/2024 19:22	WG2354470
Acenaphthene	U		0.0000190	0.0000500	1	09/05/2024 19:22	WG2354470
Acenaphthylene	U		0.0000171	0.0000500	1	09/05/2024 19:22	WG2354470
Benzo(a)anthracene	U		0.0000203	0.0000500	1	09/05/2024 19:22	WG2354470
Benzo(a)pyrene	U		0.0000184	0.0000500	1	09/05/2024 19:22	WG2354470
Benzo(b)fluoranthene	U		0.0000168	0.0000500	1	09/05/2024 19:22	WG2354470
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	1	09/05/2024 19:22	WG2354470
Benzo(k)fluoranthene	U		0.0000202	0.0000500	1	09/05/2024 19:22	WG2354470
Chrysene	U		0.0000179	0.0000500	1	09/05/2024 19:22	WG2354470
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	1	09/05/2024 19:22	WG2354470
Fluoranthene	U		0.0000270	0.000100	1	09/05/2024 19:22	WG2354470
Fluorene	U		0.0000169	0.0000500	1	09/05/2024 19:22	WG2354470
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	1	09/05/2024 19:22	WG2354470
Naphthalene	0.0000962	J	0.0000917	0.000250	1	09/05/2024 19:22	WG2354470
Phenanthrene	U		0.0000180	0.0000500	1	09/05/2024 19:22	WG2354470
Pyrene	U		0.0000169	0.0000500	1	09/05/2024 19:22	WG2354470
1-Methylnaphthalene	U		0.0000687	0.000250	1	09/05/2024 19:22	WG2354470
2-Methylnaphthalene	U		0.0000674	0.000250	1	09/05/2024 19:22	WG2354470
2-Chloronaphthalene	U		0.0000682	0.000250	1	09/05/2024 19:22	WG2354470
(S) Nitrobenzene-d5	*106*			*31.0-160*		*09/05/2024 19:22*	WG2354470
(S) 2-Fluorobiphenyl	*97.9*			*48.0-148*		*09/05/2024 19:22*	WG2354470
(S) p-Terphenyl-d14	*87.4*			*37.0-146*		*09/05/2024 19:22*	WG2354470

Volatile Organic Compounds (GC/MS) by Method 8260B/8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	0.0149	J	0.0113	0.0500	1	09/09/2024 20:39	WG2358821
Acrolein	U	J3 J4	0.00254	0.0500	1	09/09/2024 20:39	WG2358821
Acrylonitrile	U		0.000671	0.0100	1	09/09/2024 20:39	WG2358821
Benzene	U		0.0000941	0.00100	1	09/09/2024 20:39	WG2358821
Bromobenzene	U		0.000118	0.00100	1	09/09/2024 20:39	WG2358821
Bromodichloromethane	U		0.000136	0.00100	1	09/09/2024 20:39	WG2358821
Bromoform	U		0.000129	0.00100	1	09/09/2024 20:39	WG2358821
Bromomethane	U		0.000605	0.00500	1	09/09/2024 20:39	WG2358821
n-Butylbenzene	U		0.000157	0.00100	1	09/09/2024 20:39	WG2358821
sec-Butylbenzene	U		0.000125	0.00100	1	09/09/2024 20:39	WG2358821
tert-Butylbenzene	U		0.000127	0.00100	1	09/09/2024 20:39	WG2358821
Carbon tetrachloride	U		0.000128	0.00100	1	09/09/2024 20:39	WG2358821
Chlorobenzene	U		0.000116	0.00100	1	09/09/2024 20:39	WG2358821
Chlorodibromomethane	U		0.000140	0.00100	1	09/09/2024 20:39	WG2358821
Chloroethane	U		0.000192	0.00500	1	09/09/2024 20:39	WG2358821
Chloroform	U		0.000111	0.00500	1	09/09/2024 20:39	WG2358821
Chloromethane	U		0.000960	0.00250	1	09/09/2024 20:39	WG2358821
2-Chlorotoluene	U		0.000106	0.00100	1	09/09/2024 20:39	WG2358821
4-Chlorotoluene	U		0.000114	0.00100	1	09/09/2024 20:39	WG2358821
1,2-Dibromo-3-Chloropropane	U		0.000276	0.00500	1	09/09/2024 20:39	WG2358821
1,2-Dibromoethane	U		0.000126	0.00100	1	09/09/2024 20:39	WG2358821
Dibromomethane	U		0.000122	0.00100	1	09/09/2024 20:39	WG2358821
1,2-Dichlorobenzene	U		0.000107	0.00100	1	09/09/2024 20:39	WG2358821
1,3-Dichlorobenzene	U		0.000110	0.00100	1	09/09/2024 20:39	WG2358821
1,4-Dichlorobenzene	U		0.000120	0.00100	1	09/09/2024 20:39	WG2358821
Dichlorodifluoromethane	U		0.000374	0.00500	1	09/09/2024 20:39	WG2358821
1,1-Dichloroethane	U		0.000100	0.00100	1	09/09/2024 20:39	WG2358821
1,2-Dichloroethane	U		0.0000819	0.00100	1	09/09/2024 20:39	WG2358821
1,1-Dichloroethene	U		0.000188	0.00100	1	09/09/2024 20:39	WG2358821
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	09/09/2024 20:39	WG2358821
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	09/09/2024 20:39	WG2358821
1,2-Dichloropropane	U		0.000149	0.00100	1	09/09/2024 20:39	WG2358821
1,1-Dichloropropene	U		0.000142	0.00100	1	09/09/2024 20:39	WG2358821
1,3-Dichloropropane	U		0.000110	0.00100	1	09/09/2024 20:39	WG2358821
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	09/09/2024 20:39	WG2358821
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	09/09/2024 20:39	WG2358821
2,2-Dichloropropane	U		0.000161	0.00100	1	09/09/2024 20:39	WG2358821
Di-isopropyl ether	U		0.000105	0.00100	1	09/09/2024 20:39	WG2358821
Ethylbenzene	U		0.000137	0.00100	1	09/09/2024 20:39	WG2358821
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	09/09/2024 20:39	WG2358821
Isopropylbenzene	U		0.000105	0.00100	1	09/09/2024 20:39	WG2358821
p-Isopropyltoluene	U		0.000120	0.00100	1	09/09/2024 20:39	WG2358821
2-Butanone (MEK)	U		0.00119	0.0100	1	09/09/2024 20:39	WG2358821
Methylene Chloride	U		0.000430	0.00500	1	09/09/2024 20:39	WG2358821
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	09/09/2024 20:39	WG2358821
Methyl tert-butyl ether	U		0.000101	0.00100	1	09/09/2024 20:39	WG2358821
Naphthalene	U		0.00100	0.00500	1	09/09/2024 20:39	WG2358821
n-Propylbenzene	U		0.0000993	0.00100	1	09/09/2024 20:39	WG2358821
Styrene	U		0.000118	0.00100	1	09/09/2024 20:39	WG2358821
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	09/09/2024 20:39	WG2358821
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	09/09/2024 20:39	WG2358821
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100	1	09/09/2024 20:39	WG2358821
Tetrachloroethene	U		0.000300	0.00100	1	09/09/2024 20:39	WG2358821
Toluene	U		0.000278	0.00100	1	09/09/2024 20:39	WG2358821
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	09/09/2024 20:39	WG2358821
1,2,4-Trichlorobenzene	U		0.000481	0.00100	1	09/09/2024 20:39	WG2358821

Volatile Organic Compounds (GC/MS) by Method 8260B/8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
1,1,1-Trichloroethane	U		0.000149	0.00100	1	09/09/2024 20:39	WG2358821
1,1,2-Trichloroethane	U		0.000158	0.00100	1	09/09/2024 20:39	WG2358821
Trichloroethene	U		0.000190	0.00100	1	09/09/2024 20:39	WG2358821
Trichlorofluoromethane	U		0.000160	0.00500	1	09/09/2024 20:39	WG2358821
1,2,3-Trichloropropane	U		0.000237	0.00250	1	09/09/2024 20:39	WG2358821
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	09/09/2024 20:39	WG2358821
1,2,3-Trimethylbenzene	U		0.000104	0.00100	1	09/09/2024 20:39	WG2358821
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	09/09/2024 20:39	WG2358821
Vinyl chloride	U		0.000234	0.00100	1	09/09/2024 20:39	WG2358821
Xylenes, Total	U		0.000174	0.00300	1	09/09/2024 20:39	WG2358821
(S) Toluene-d8	*108*			*80.0-120*		*09/09/2024 20:39*	WG2358821
(S) 4-Bromofluorobenzene	*100*			*77.0-126*		*09/09/2024 20:39*	WG2358821
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*09/09/2024 20:39*	WG2358821

Method Blank (MB)

(MB) R4121003-1 09/17/24 20:59

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Sodium	U		0.504	3.00

Laboratory Control Sample (LCS)

(LCS) R4121003-2 09/17/24 21:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sodium	10.0	9.71	97.1	80.0-120	

L1773512-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1773512-04 09/17/24 21:03 • (MS) R4121003-4 09/17/24 21:06 • (MSD) R4121003-5 09/17/24 21:08

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sodium	10.0	U	9.53	9.55	95.3	95.5	1	75.0-125			0.274	20

Method Blank (MB)

(MB) R4118027-2 09/06/24 14:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPHGAK C6 to C10	0.0995	J	0.0287	0.100
(S) a,a,a-Trifluorotoluene(FID)	*92.1*			*60.0-120*
(S) a,a,a-Trifluorotoluene(PID)	*104*			*79.0-125*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4118027-1 09/06/24 11:29 • (LCSD) R4118027-3 09/06/24 18:41

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPHGAK C6 to C10	5.00	4.81	4.66	96.2	93.2	60.0-120			3.17	20
(S) a,a,a-Trifluorotoluene(FID)				*108*	*106*	*60.0-120*				
(S) a,a,a-Trifluorotoluene(PID)				*115*	*115*	*79.0-125*				

Method Blank (MB)

(MB) R4117572-4 09/09/24 20:00

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Acrolein	U		0.00254	0.0500
Acrylonitrile	U		0.000671	0.0100
Benzene	U		0.0000941	0.00100
Bromobenzene	U		0.000118	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
tert-Butylbenzene	U		0.000127	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
2-Chlorotoluene	U		0.000106	0.00100
4-Chlorotoluene	U		0.000114	0.00100
1,2-Dibromo-3-Chloropropane	U		0.000276	0.00500
1,2-Dibromoethane	U		0.000126	0.00100
Dibromomethane	U		0.000122	0.00100
1,2-Dichlorobenzene	U		0.000107	0.00100
1,3-Dichlorobenzene	U		0.000110	0.00100
1,4-Dichlorobenzene	U		0.000120	0.00100
Dichlorodifluoromethane	U		0.000374	0.00500
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
1,1-Dichloropropene	U		0.000142	0.00100
1,3-Dichloropropane	U		0.000110	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
2,2-Dichloropropane	U		0.000161	0.00100
Di-isopropyl ether	U		0.000105	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100

Method Blank (MB)

(MB) R4117572-4 09/09/24 20:00

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,2,3-Trichlorobenzene	U		0.000230	0.00100
1,2,4-Trichlorobenzene	U		0.000481	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100
Trichloroethene	U		0.000190	0.00100
Trichlorofluoromethane	U		0.000160	0.00500
1,2,3-Trichloropropane	U		0.000237	0.00250
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,2,3-Trimethylbenzene	U		0.000104	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	*107*			*80.0-120*
(S) 4-Bromofluorobenzene	*98.9*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4117572-1 09/09/24 18:24 • (LCSD) R4117572-2 09/09/24 18:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0213	0.0266	85.2	106	19.0-160	J	J	22.1	27
Acrolein	0.0250	0.0446	0.0678	178	271	10.0-160	J J4	J3 J4	41.3	26
Acrylonitrile	0.0250	0.0224	0.0252	89.6	101	55.0-149			11.8	20
Benzene	0.00500	0.00495	0.00480	99.0	96.0	70.0-123			3.08	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4117572-1 09/09/24 18:24 • (LCSD) R4117572-2 09/09/24 18:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromobenzene	0.00500	0.00460	0.00471	92.0	94.2	73.0-121			2.36	20
Bromodichloromethane	0.00500	0.00512	0.00515	102	103	75.0-120			0.584	20
Bromoform	0.00500	0.00483	0.00470	96.6	94.0	68.0-132			2.73	20
Bromomethane	0.00500	0.00430	0.00427	86.0	85.4	10.0-160	J	J	0.700	25
n-Butylbenzene	0.00500	0.00444	0.00465	88.8	93.0	73.0-125			4.62	20
sec-Butylbenzene	0.00500	0.00479	0.00490	95.8	98.0	75.0-125			2.27	20
tert-Butylbenzene	0.00500	0.00461	0.00471	92.2	94.2	76.0-124			2.15	20
Carbon tetrachloride	0.00500	0.00515	0.00537	103	107	68.0-126			4.18	20
Chlorobenzene	0.00500	0.00493	0.00470	98.6	94.0	80.0-121			4.78	20
Chlorodibromomethane	0.00500	0.00460	0.00452	92.0	90.4	77.0-125			1.75	20
Chloroethane	0.00500	0.00413	0.00387	82.6	77.4	47.0-150	J	J	6.50	20
Chloroform	0.00500	0.00506	0.00504	101	101	73.0-120			0.396	20
Chloromethane	0.00500	0.00441	0.00434	88.2	86.8	41.0-142			1.60	20
2-Chlorotoluene	0.00500	0.00480	0.00490	96.0	98.0	76.0-123			2.06	20
4-Chlorotoluene	0.00500	0.00491	0.00454	98.2	90.8	75.0-122			7.83	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00376	0.00414	75.2	82.8	58.0-134	J	J	9.62	20
1,2-Dibromoethane	0.00500	0.00462	0.00459	92.4	91.8	80.0-122			0.651	20
Dibromomethane	0.00500	0.00466	0.00491	93.2	98.2	80.0-120			5.22	20
1,2-Dichlorobenzene	0.00500	0.00492	0.00511	98.4	102	79.0-121			3.79	20
1,3-Dichlorobenzene	0.00500	0.00490	0.00497	98.0	99.4	79.0-120			1.42	20
1,4-Dichlorobenzene	0.00500	0.00487	0.00479	97.4	95.8	79.0-120			1.66	20
Dichlorodifluoromethane	0.00500	0.00554	0.00525	111	105	51.0-149			5.38	20
1,1-Dichloroethane	0.00500	0.00508	0.00508	102	102	70.0-126			0.000	20
1,2-Dichloroethane	0.00500	0.00513	0.00545	103	109	70.0-128			6.05	20
1,1-Dichloroethene	0.00500	0.00428	0.00448	85.6	89.6	71.0-124			4.57	20
cis-1,2-Dichloroethene	0.00500	0.00466	0.00484	93.2	96.8	73.0-120			3.79	20
trans-1,2-Dichloroethene	0.00500	0.00430	0.00470	86.0	94.0	73.0-120			8.89	20
1,2-Dichloropropane	0.00500	0.00471	0.00482	94.2	96.4	77.0-125			2.31	20
1,1-Dichloropropene	0.00500	0.00480	0.00492	96.0	98.4	74.0-126			2.47	20
1,3-Dichloropropane	0.00500	0.00487	0.00453	97.4	90.6	80.0-120			7.23	20
cis-1,3-Dichloropropene	0.00500	0.00486	0.00486	97.2	97.2	80.0-123			0.000	20
trans-1,3-Dichloropropene	0.00500	0.00481	0.00480	96.2	96.0	78.0-124			0.208	20
2,2-Dichloropropane	0.00500	0.00550	0.00535	110	107	58.0-130			2.76	20
Di-isopropyl ether	0.00500	0.00482	0.00491	96.4	98.2	58.0-138			1.85	20
Ethylbenzene	0.00500	0.00484	0.00451	96.8	90.2	79.0-123			7.06	20
Hexachloro-1,3-butadiene	0.00500	0.00529	0.00562	106	112	54.0-138			6.05	20
Isopropylbenzene	0.00500	0.00490	0.00471	98.0	94.2	76.0-127			3.95	20
p-Isopropyltoluene	0.00500	0.00459	0.00480	91.8	96.0	76.0-125			4.47	20
2-Butanone (MEK)	0.0250	0.0199	0.0231	79.6	92.4	44.0-160			14.9	20
Methylene Chloride	0.00500	0.00442	0.00445	88.4	89.0	67.0-120	J	J	0.676	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4117572-1 09/09/24 18:24 • (LCSD) R4117572-2 09/09/24 18:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
4-Methyl-2-pentanone (MIBK)	0.0250	0.0239	0.0247	95.6	98.8	68.0-142			3.29	20
Methyl tert-butyl ether	0.00500	0.00496	0.00518	99.2	104	68.0-125			4.34	20
Naphthalene	0.00500	0.00400	0.00477	80.0	95.4	54.0-135	J	J	17.6	20
n-Propylbenzene	0.00500	0.00473	0.00478	94.6	95.6	77.0-124			1.05	20
Styrene	0.00500	0.00462	0.00444	92.4	88.8	73.0-130			3.97	20
1,1,1,2-Tetrachloroethane	0.00500	0.00481	0.00487	96.2	97.4	75.0-125			1.24	20
1,1,2,2-Tetrachloroethane	0.00500	0.00448	0.00469	89.6	93.8	65.0-130			4.58	20
1,1,2-Trichlorotrifluoroethane	0.00500	0.00579	0.00563	116	113	69.0-132			2.80	20
Tetrachloroethene	0.00500	0.00517	0.00507	103	101	72.0-132			1.95	20
Toluene	0.00500	0.00484	0.00450	96.8	90.0	79.0-120			7.28	20
1,2,3-Trichlorobenzene	0.00500	0.00500	0.00531	100	106	50.0-138			6.01	20
1,2,4-Trichlorobenzene	0.00500	0.00468	0.00496	93.6	99.2	57.0-137			5.81	20
1,1,1-Trichloroethane	0.00500	0.00532	0.00524	106	105	73.0-124			1.52	20
1,1,2-Trichloroethane	0.00500	0.00467	0.00456	93.4	91.2	80.0-120			2.38	20
Trichloroethene	0.00500	0.00522	0.00529	104	106	78.0-124			1.33	20
Trichlorofluoromethane	0.00500	0.00565	0.00569	113	114	59.0-147			0.705	20
1,2,3-Trichloropropane	0.00500	0.00452	0.00496	90.4	99.2	73.0-130			9.28	20
1,2,4-Trimethylbenzene	0.00500	0.00458	0.00466	91.6	93.2	76.0-121			1.73	20
1,2,3-Trimethylbenzene	0.00500	0.00454	0.00471	90.8	94.2	77.0-120			3.68	20
1,3,5-Trimethylbenzene	0.00500	0.00480	0.00476	96.0	95.2	76.0-122			0.837	20
Vinyl chloride	0.00500	0.00419	0.00387	83.8	77.4	67.0-131			7.94	20
Xylenes, Total	0.0150	0.0147	0.0135	98.0	90.0	79.0-123			8.51	20
(S) Toluene-d8				*103*	*100*	*80.0-120*				
(S) 4-Bromofluorobenzene				*97.4*	*94.5*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*113*	*119*	*70.0-130*				

Method Blank (MB)

(MB) R4116921-3 09/02/24 21:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
Toluene	U		0.000278	0.00100
Ethylbenzene	U		0.000137	0.00100
Total Xylenes	U		0.000174	0.00300
(S) Toluene-d8	*109*			*80.0-120*
(S) 4-Bromofluorobenzene	*103*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*90.1*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4116921-1 09/02/24 20:32 • (LCSD) R4116921-2 09/02/24 20:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00452	0.00449	90.4	89.8	70.0-123			0.666	20
Toluene	0.00500	0.00459	0.00460	91.8	92.0	79.0-120			0.218	20
Ethylbenzene	0.00500	0.00453	0.00435	90.6	87.0	79.0-123			4.05	20
Total Xylenes	0.0150	0.0131	0.0131	87.3	87.3	79.0-123			0.000	20
(S) Toluene-d8				*107*	*110*	*80.0-120*				
(S) 4-Bromofluorobenzene				*109*	*108*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*87.7*	*89.3*	*70.0-130*				

Method Blank (MB)

(MB) R4115274-3 09/03/24 18:49

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
Toluene	U		0.000278	0.00100
Ethylbenzene	U		0.000137	0.00100
Total Xylenes	U		0.000174	0.00300
(S) Toluene-d8	*100*			*80.0-120*
(S) 4-Bromofluorobenzene	*90.1*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4115274-1 09/03/24 17:50 • (LCSD) R4115274-2 09/03/24 18:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00550	0.00578	110	116	70.0-123			4.96	20
Toluene	0.00500	0.00457	0.00488	91.4	97.6	79.0-120			6.56	20
Ethylbenzene	0.00500	0.00479	0.00525	95.8	105	79.0-123			9.16	20
Total Xylenes	0.0150	0.0137	0.0150	91.3	100	79.0-123			9.06	20
(S) Toluene-d8				*92.9*	*96.1*	*80.0-120*				
(S) 4-Bromofluorobenzene				*91.3*	*92.9*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*102*	*101*	*70.0-130*				

Method Blank (MB)

(MB) R4117878-3 09/08/24 17:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
Toluene	U		0.000278	0.00100
Ethylbenzene	U		0.000137	0.00100
Total Xylenes	U		0.000174	0.00300
(S) Toluene-d8	*106*			*80.0-120*
(S) 4-Bromofluorobenzene	*98.9*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*115*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4117878-1 09/08/24 15:54 • (LCSD) R4117878-2 09/08/24 17:16

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00466	0.00464	93.2	92.8	70.0-123			0.430	20
Toluene	0.00500	0.00500	0.00471	100	94.2	79.0-120			5.97	20
Ethylbenzene	0.00500	0.00529	0.00457	106	91.4	79.0-123			14.6	20
Total Xylenes	0.0150	0.0151	0.0145	101	96.7	79.0-123			4.05	20
(S) Toluene-d8				*103*	*99.2*	*80.0-120*				
(S) 4-Bromofluorobenzene				*91.5*	*94.6*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*116*	*116*	*70.0-130*				

Method Blank (MB)

(MB) R4115857-1 09/05/24 02:55

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
AK102 DRO C10-C25	0.187	J	0.170	0.800
(S) o-Terphenyl	*114*			*60.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4115857-2 09/05/24 03:15 • (LCSD) R4115857-3 09/05/24 03:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
AK102 DRO C10-C25	6.00	5.46	6.33	91.0	105	75.0-125			14.8	20
(S) o-Terphenyl				*79.7*	*98.1*	*60.0-120*				

L1771328-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1771328-01 09/05/24 03:55 • (MS) R4115857-4 09/05/24 05:45 • (MSD) R4115857-5 09/05/24 06:05

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
AK102 DRO C10-C25	6.00	0.254	5.83	5.14	92.9	81.4	1	75.0-125			12.6	20
(S) o-Terphenyl					*93.3*	*80.3*		*50.0-150*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R4116536-2 09/05/24 16:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000190	0.0000500
Acenaphthene	U		0.0000190	0.0000500
Acenaphthylene	U		0.0000171	0.0000500
Benzo(a)anthracene	U		0.0000203	0.0000500
Benzo(a)pyrene	U		0.0000184	0.0000500
Benzo(b)fluoranthene	U		0.0000168	0.0000500
Benzo(g,h,i)perylene	U		0.0000184	0.0000500
Benzo(k)fluoranthene	U		0.0000202	0.0000500
Chrysene	U		0.0000179	0.0000500
Dibenz(a,h)anthracene	U		0.0000160	0.0000500
Fluoranthene	U		0.0000270	0.000100
Fluorene	U		0.0000169	0.0000500
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500
Naphthalene	U		0.0000917	0.000250
Phenanthrene	U		0.0000180	0.0000500
Pyrene	U		0.0000169	0.0000500
1-Methylnaphthalene	U		0.0000687	0.000250
2-Methylnaphthalene	U		0.0000674	0.000250
2-Chloronaphthalene	U		0.0000682	0.000250
(S) Nitrobenzene-d5	*104*			*31.0-160*
(S) 2-Fluorobiphenyl	*121*			*48.0-148*
(S) p-Terphenyl-d14	*109*			*37.0-146*

Laboratory Control Sample (LCS)

(LCS) R4116536-1 09/05/24 16:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.00200	0.00217	108	67.0-150	
Acenaphthene	0.00200	0.00214	107	65.0-138	
Acenaphthylene	0.00200	0.00224	112	66.0-140	
Benzo(a)anthracene	0.00200	0.00199	99.5	61.0-140	
Benzo(a)pyrene	0.00200	0.00178	89.0	60.0-143	
Benzo(b)fluoranthene	0.00200	0.00211	105	58.0-141	
Benzo(g,h,i)perylene	0.00200	0.00173	86.5	52.0-153	
Benzo(k)fluoranthene	0.00200	0.00182	91.0	58.0-148	
Chrysene	0.00200	0.00218	109	64.0-144	
Dibenz(a,h)anthracene	0.00200	0.00167	83.5	52.0-155	
Fluoranthene	0.00200	0.00235	117	69.0-153	

Laboratory Control Sample (LCS)

(LCS) R4116536-1 09/05/24 16:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.00200	0.00233	117	64.0-136	
Indeno(1,2,3-cd)pyrene	0.00200	0.00159	79.5	54.0-153	
Naphthalene	0.00200	0.00222	111	61.0-137	
Phenanthrene	0.00200	0.00241	120	62.0-137	
Pyrene	0.00200	0.00239	119	60.0-142	
1-Methylnaphthalene	0.00200	0.00231	115	66.0-142	
2-Methylnaphthalene	0.00200	0.00219	109	62.0-136	
2-Chloronaphthalene	0.00200	0.00235	117	64.0-140	
(S) Nitrobenzene-d5			*105*	*31.0-160*	
(S) 2-Fluorobiphenyl			*120*	*48.0-148*	
(S) p-Terphenyl-d14			*93.5*	*37.0-146*	

L1773430-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1773430-08 09/05/24 16:29 • (MS) R4116486-1 09/05/24 16:47 • (MSD) R4116486-2 09/05/24 17:04

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00190	U	0.00176	0.00173	92.6	91.1	1	56.0-156			1.72	20
Acenaphthene	0.00190	U	0.00175	0.00168	92.1	88.4	1	44.0-153			4.08	20
Acenaphthylene	0.00190	U	0.00184	0.00176	96.8	92.6	1	53.0-150			4.44	20
Benzo(a)anthracene	0.00190	U	0.00182	0.00175	95.8	92.1	1	47.0-151			3.92	20
Benzo(a)pyrene	0.00190	U	0.00175	0.00170	92.1	89.5	1	45.0-146			2.90	20
Benzo(b)fluoranthene	0.00190	U	0.00196	0.00184	103	96.8	1	43.0-142			6.32	20
Benzo(g,h,i)perylene	0.00190	U	0.00182	0.00178	95.8	93.7	1	40.0-147			2.22	20
Benzo(k)fluoranthene	0.00190	U	0.00176	0.00173	92.6	91.1	1	43.0-148			1.72	21
Chrysene	0.00190	U	0.00192	0.00184	101	96.8	1	50.0-148			4.26	20
Dibenz(a,h)anthracene	0.00190	U	0.00184	0.00181	96.8	95.3	1	37.0-151			1.64	20
Fluoranthene	0.00190	U	0.00193	0.00192	102	101	1	56.0-157			0.519	20
Fluorene	0.00190	U	0.00198	0.00189	104	99.5	1	48.0-148			4.65	20
Indeno(1,2,3-cd)pyrene	0.00190	U	0.00180	0.00171	94.7	90.0	1	41.0-148			5.13	20
Naphthalene	0.00190	U	0.00186	0.00182	97.9	95.8	1	10.0-160			2.17	20
Phenanthrene	0.00190	U	0.00188	0.00185	98.9	97.4	1	47.0-147			1.61	20
Pyrene	0.00190	U	0.00189	0.00181	99.5	95.3	1	51.0-148			4.32	20
1-Methylnaphthalene	0.00190	U	0.00194	0.00190	102	100	1	21.0-160			2.08	20
2-Methylnaphthalene	0.00190	U	0.00187	0.00182	98.4	95.8	1	31.0-160			2.71	20
2-Chloronaphthalene	0.00190	U	0.00182	0.00176	95.8	92.6	1	52.0-148			3.35	20
(S) Nitrobenzene-d5					*109*	*106*		*31.0-160*				
(S) 2-Fluorobiphenyl					*96.8*	*93.7*		*48.0-148*				
(S) p-Terphenyl-d14					*88.9*	*85.8*		*37.0-146*				

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
7-11 Stantec - Anchorage, AK

725 E Fireweed Lane
Suite 200
Anchorage, AK 99503

Billing Information:
Attn Paula Sime
PO Box 711 - Loc. 0148
Dallas, TX 75221

Pres Chk

Report to:
Ms. Sydney Souza

Email To: **craig.cothron@pacelabs.com**
sydney.souza@stantec.com

Project Description:
20372385

City/State Collected: Wasilla, AK

Please Circle: PT MT CT ET

Phone: **907-266-1108**

Client Project #
~~20372385~~
20372385

Lab Project #
~~20~~ 11

Collected by (print):
Sydney Souza

Site/Facility ID #
TNS 52

P.O. #
20372385

Collected by(signature):

Immediately Packed on Ice N ___ Y V

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	AK101 40mlAmb HCl	AK102 100ml Amb HCl	NAICP 250mlHDPE-HNO3	PAHSIMLVID 40mlAmb-NoPres-WT	V8260BTEXC 40mlAmb-HCl	V8260C 40mlAmb-HCl-BIK					Remarks	Sample # (lab only)
G-7	G	GW		8/27/24	1003	11	X	X	X	X	X							-01
G-5		GW			1044	11	X	X	X	X	X							-02
RM16-1		GW			1138	11	X	X	X	X	X							-03
G-1		GW			1206	11	X	X	X	X	X							-04
MW16-2		GW			1237	11	X	X	X	X	X							-05
G-3		GW			1347	11	X	X	X	X	X							-06
DUP		GW			—	11	X	X	X	X	X						Duplicate	-07
trip blank	—	—	—		—	1						X						-08

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1773530
D049

Acctnum: **STAAAKSSA**
Template: **T257087**
Prelogin: **P1096183**
PM: **034 - Craig Cothron**
PB:

Shipped Via: **FedEX 2nd Day**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 4047 5446 4821

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR
	8/28/24	1700		1
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.4 °C Bottles Received: 11
				1.7 +0.3 = 2.0
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 8/31/24 Time: 0900
			Chase	

If pres... Date/Time

PH-10BDH0941 TRC-3327...

Hold:

Condition: NCF / OK

ADEC Contaminated Sites Program Laboratory Data Review Checklist

Completed By:	Sydney Souza	**CS Site Name:**	5325 / Tesoro North Store 52	**Lab Name:**	Pace Analytical
Title:	Environmental Geologist	**ADEC File No.:**	2265.26.006	**Lab Report No.:**	L1773530
Consulting Firm:	Stantec Consulting Services Inc.	**Hazard ID No.:**	23769	**Lab Report Date:**	September 18, 2024

Note: *Any N/A or No box checked must have an explanation in the comments box.*

1. **Laboratory**

   a. Did an ADEC Contaminated Sites Laboratory Approval Program (CS-LAP) approved laboratory receive and perform all the submitted sample analyses?
   Yes ☒ No ☐ N/A ☐
   Comments: Click or tap here to enter text.

   b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses CS-LAP approved?
   Yes ☐ No ☐ N/A ☒
   Comments: Samples were not transferred

2. **Chain of Custody (CoC)**

   a. Is the CoC information completed, signed, and dated (including released/received by)?
   Yes ☒ No ☐ N/A ☐
   Comments: Click or tap here to enter text.

   b. Were the correct analyses requested?
   Yes ☒ No ☐ N/A ☐
   Analyses requested: AK101, AK102, 8260, 8270SIM, and sodium
   Comments: Click or tap here to enter text.

3. **Laboratory Sample Receipt Documentation**

   a. Is the sample/cooler temperature documented and within range at receipt (0° to 6° C)?
   Yes ☒ No ☐ N/A ☐
   Cooler temperature(s): 2.0° C
   Comments: Click or tap here to enter text.

b. Is the sample preservation acceptable – acidified waters, methanol preserved soil (GRO, BTEX, VOCs, etc.)?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

c. Is the sample condition documented – broken, leaking, zero headspace (VOA vials); canister vacuum/pressure checked and no open valves, etc.?
Yes ☒ No ☐ N/A ☐
Comments: Sample condition documented as OK

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, canister not holding a vacuum, etc.?
Yes ☐ No ☐ N/A ☒
Comments: None

e. Is the data quality or usability affected?
Yes ☐ No ☐ N/A ☒
Comments: Click or tap here to enter text.

4. Case Narrative

a. Is the case narrative present and understandable?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

b. Are there discrepancies, errors, or QC failures identified by the lab?
Yes ☐ No ☒ N/A ☐
Comments: Case narrative documents no errors or discrepancies “unless qualified or notated within report”

c. Were all the corrective actions documented?
Yes ☐ No ☐ N/A ☒
Comments: No corrective actions taken

d. What is the effect on data quality/usability according to the case narrative?
Comments: No effect on data quality/usability

5. Sample Results

a. Are the correct analyses performed/reported as requested on CoC?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

b. Are all applicable holding times met?
Yes ☒ No ☐ N/A ☐

Comments: Click or tap here to enter text.

c. Are all soils reported on a dry weight basis?
Yes ☐ No ☐ N/A ☒
Comments: No soil samples submitted to the lab

d. Are the reported limits of quantitation (LoQ) or limits of detections (LOD), or reporting limits (RL) less than the Cleanup Level or the action level for the project?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

e. Is the data quality or usability affected?
Yes ☐ No ☐ N/A ☒
Comments: Click or tap here to enter text.

6. QC Samples

a. Method Blank

i. Was one method blank reported per matrix, analysis, and 20 samples?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

ii. Are all method blank results less than LOQ (or RL)?
Yes ☒ No ☐
Comments: Click or tap here to enter text.

iii. If above LoQ or RL, what samples are affected?
Comments: Click or tap here to enter text.

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?
Yes ☐ No ☐ N/A ☒
Comments:

v. Data quality or usability affected?
Yes ☐ No ☐ N/A ☒
Comments: Click or tap here to enter text.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – Are one LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)
Yes ☒ No ☐ N/A ☐

Comments: Click or tap here to enter text.

ii. Metals/Inorganics – Are one LCS and one sample duplicate reported per matrix, analysis and 20 samples?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

iii. Accuracy – Are all percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable? (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

iv. Precision – Are all relative percent differences (RPD) reported and less than method or laboratory limits and project specified objectives, if applicable? Was the RPD reported from LCS/LCSD, and or sample/sample duplicate? (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

v. If %R or RPD is outside of acceptable limits, what samples are affected?
Comments: N/A

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?
Yes ☐ No ☐ N/A ☒
Comments: No affected samples

vii. Is the data quality or usability affected?
Yes ☐ No ☐ N/A ☒
Comments: Click or tap here to enter text.

c. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

i. Organics – Are one MS/MSD reported per matrix, analysis and 20 samples?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

ii. Metals/Inorganics – Are one MS/MSD reported per matrix, analysis and 20 samples?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

iii. Accuracy – Are all percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

iv. Precision – Are all relative percent differences (RPD) reported and less than method or laboratory limits and project specified objectives, if applicable? RPD reported from MS/MSD, and or sample/sample duplicate.
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

v. If %R or RPD is outside of acceptable limits, what samples are affected?
Comments: N/A

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?
Yes ☐ No ☐ N/A ☒
Comments: No affected samples

vii. Is the data quality or usability affected?
Yes ☐ No ☐ N/A ☒
Comments: Click or tap here to enter text.

d. Surrogates – Organics Only or Isotope Dilution Analytes (IDA) – Isotope Dilution Methods Only

i. Are surrogate/IDA recoveries reported for organic analyses – field, QC, and laboratory samples?
Yes ☐ No ☐ N/A ☒
Comments: Click or tap here to enter text.

ii. Accuracy – Are all percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable? (AK Petroleum methods 50-150 %R for field samples and 60-120 %R for QC samples; all other analyses see the laboratory report pages)
Yes ☐ No ☐ N/A ☒
Comments: Click or tap here to enter text.

iii. Do the sample results with failed surrogate/IDA recoveries have data flags? If so, are the data flags clearly defined?
Yes ☐ No ☐ N/A ☒
Comments: None failed

iv. Is the data quality or usability affected?
Yes ☐ No ☐ N/A ☒

Comments: Click or tap here to enter text.

e. Trip Blanks

i. Is one trip blank reported per matrix, analysis, and for each cooler containing volatile samples? Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

ii. Are all results less than LoQ or RL?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

iii. If above LoQ or RL, what samples are affected?
Comments: Click or tap here to enter text.

iv. Is the data quality or usability affected?
Yes ☐ No ☐ N/A ☒
Comments: No affected samples

f. Field Duplicate

i. Are one field duplicate submitted per matrix, analysis, and 10 project samples?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

ii. Was the duplicate submitted blind to lab?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.

iii. Precision – All relative percent differences (RPD) less than specified project objectives? (Recommended: 30% water or air, 50% soil)

$$RPD\ (\%) = \left| \frac{R_1 - R_2}{\left(\frac{R_1 + R_2}{2}\right)} \right| X\ 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

Is the data quality or usability affected? (Explain)

Yes ☐ No ☒ N/A ☐
Comments: Benzene, naphthalene, and GRO are outside precision tolerance.

iv. Is the data quality or usability affected? (Explain)
Yes ☐ No ☒ N/A ☐

Comments: Benzene, naphthalene, and GRO are well below GCL in both samples

g. Decontamination or Equipment Blanks

i. Were decontamination or equipment blanks collected?
Yes ☐ No ☐ N/A ☒
Comments: Used disposable equipment

ii. Are all results less than LoQ or RL?
Yes ☐ No ☐ N/A ☒
Comments: Used disposable equipment

iii. If above LoQ or RL, specify what samples are affected.
Comments: Click or tap here to enter text.

iv. Are data quality or usability affected?
Yes ☐ No ☐ N/A ☒
Comments: Click or tap here to enter text.

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Are they defined and appropriate?
Yes ☒ No ☐ N/A ☐
Comments: Click or tap here to enter text.