7-Eleven Store #46754

(Former Speedway Store 5325 - TNS #52)

ADEC File #2265.26.006

4Q October 2022 GWM Event

Prepared For

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 to the Alaska Department of Environmental Conservation. If you have any questions or need additional information concerning this groundwater monitoring report, please contact me at (907) 227-9883 or via email at bob.gilfilian@stantec.com.

Regards,

STANTEC CONSULTING SERVICES, INC.

Robert 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.
RDL	reported detection limit
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 fourth quarter 2022 Groundwater Monitoring Event Report was prepared by Stantec Consulting Services Inc. (Stantec) on behalf of 7-Eleven for 7-Eleven Store 46754 (formerly Speedway 5325- TNS 52), 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 2022 Corrective Action Plan (CAP) for this site. The 2022 CAP work plan tasks are summarized in **Appendix B**.

This 4Q 2022 groundwater monitoring event was conducted on October 12, 2022, by Stantec environmental staff who included: Bob Gilfilian, Lead Project Engineer; John Marshall, Environmental Scientist; and Jeremiah Malenfant, Geologist-in-Training. In addition, the Stantec field staff completed the monthly injection of Chemox on September 28, 2022.

2.0 FIELD ACTIVITIES

The following field activities were completed during the fourth quarter 2022 groundwater monitoring event and chemox injection for groundwater treatment:

- Measured depth to groundwater in wells G-1, G-2, G-3, G-4, G-5, G-6, G-7, former Remediation Well RW 16-1, and MW 16-2.
- Measured field intrinsic water quality parameters in groundwater monitoring wells G-1, G-3, G-5, G-7, RW 16-1 and MW 16-2.
- Collected water samples from Monitoring Wells G-1, G-3, G-5, G-6, G-7, MW 16-2 (with a duplicate sample), RW 16-1, and drinking water wells Runion Lots 1 and 2, Runion Lot 4, and Runion Lot 5 (sample locations shown on **Figure 2**).

On September 28, prior to the completion of the groundwater monitoring event, Stantec conducted a monthly injection of chemox into the remediation wells RW 20-1 and RW 20-2.

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 October 12, 2022

Monitoring Well Identification	Top of Casing Elevation[1] (feet)	Depth to Water (feet btoc)	Groundwater Elevation (feet)
G-1	99.29	19.09	80.20
G-2	99.25	19.06	80.19
G-3	99.13	19.03	80.10
G-4	98.29	18.58	79.71
G-5	101.44	21.51	79.93
G-6	102.32	22.01	80.31
G-7	99.42	19.73	79.69
RW 16-1	99.44	19.46	79.98
MW 16-2	99.20	19.08	80.12

Key:
1 – G-1, G-2, G-3, G-4, G-5, G-6, G-7, RW16-1, and MW16-2 surveyed on May 17, 2022. Elevations are presented in respect to a local benchmark with 100-foot datum.
btoc – below top of casing.

The average groundwater gradient across the site was calculated to be approximately 0.0024 feet per foot to the southwest at 232 degrees, as shown in **Table 2**. 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 in the general area during the second half of the summer. A plot of groundwater elevation contours generated using the SampleServe® software program is included in **Figure 3**.

All static water levels were measured with the groundwater recirculation system not running. The compressor which operates the air lift well was taken offsite for maintenance on September 28 after it was discovered not to be running during the chemox event. The compressor was reinstalled on October 12 but not placed into operation until after the groundwater levels were measured in the monitoring wells.

Table 2 Historical Groundwater Flow Direction and Gradient

Date	Flow Direction (azimuth)	Gradient (ft/ft)
10/25/2018	175°	0.02
2/26/2019	152°	0.03
4/23/2019	183°	0.02
7/16/2019	300°	0.011
10/17/2019	221°	0.022
8/12/2020	171°	0.018
10/2/2020	191°	0.007
5/18/2021	182°	0.02
7/21/2021	207°	0.021
10/13/2021	171°	0.008
3/18/2022	198°	0.033
5/17/2022	343°	0.011
7/19/2022	226°	0.0018
10/12/2022	232°	0.0024

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. Results of water quality parameter testing are presented in **Table 3**.

Table 3 Field Parameters
Measured on October 12, 2022

Monitoring Well Identification	Purged Volume (gallons)	Temp. (°C)	pH	DO (mg/L)	ORP (mV)	SC (µs/cm°C)
G-1	5	7.8	6.63	0.92	231	134.4
G-3	28	10	6.91	7.35	371.7	223.2
G-5	3.5	10.5	6.17	5.96	197.3	208
G-7	3.5	11.4	5.38	7.54	228.2	225.9
RW16-1	3.5	8.1	6.54	7.2	281.9	364.4
MW16-2	3	9.2	6.52	8.07	296.8	224.8

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

Monitoring well G-1 receives about half of the flow from the air lift recirculation well when the air-lift pump system is running. The system had been inoperative for two weeks prior to sampling, contributing to cooler and less oxygenated water in G-1 than was measured in previous events. 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 of the wells associated with this site are presented in **Appendix D**. Laboratory analytical results are summarized in **Table 4**. The laboratory analytical report is provided in **Appendix E**.

Results of the analytical sampling did not show petroleum hydrocarbon contaminant concentrations exceeding the GCLs in any of the sampled wells. The only analytes detected above laboratory limits of quantization (LOQs) were 1,2,4-TMB in G-3 and total xylenes, GRO, naphthalene, and 1,2,4-TMB in RW16-1.

Table 4a Groundwater Analytical Results for BTEX, GRO, and DRO
Samples collected on October 12, 2022

Sample Identification	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	GRO (mg/L)	DRO (mg/L)
G-1	U (0.00100)	U (0.00100)	U (0.00100)	U (0.00300)	U (0.100)	0.565 J (0.800)
G-3	U (0.00100)	U (0.00100)	0.000464 J (0.00100)	0.000449 J (0.00300)	0.0349 J (0.100)	0.392 J (0.800)
G-5	U (0.00100)	U (0.00100)	U (0.00100)	U (0.00300)	U (0.100)	U (0.800)
G-7	U (0.00100)	U (0.00100)	U (0.00100)	U (0.00300)	U (0.100)	U (0.800)
RW16-1	0.000309 J (0.00100)	0.000380 J (0.00100)	0.000383 J (0.00100)	0.001300	0.322	0.500 J (0.800)
MW16-2	U (0.00100)	U (0.00100)	U (0.00100)	U (0.00300)	U (0.100)	U (0.800)
DUP-01 (duplicate of MW16-2)	U (0.00100)	U (0.00100)	U (0.00100)	U (0.00300)	0.0294 J (0.100)	U (0.800)
GCLs	**0.0046**	**1.1**	**0.015**	**0.19**	**2.2**	**1.5**

Table 4b Groundwater Analytical Results for Naphthalene, Trimethylbenzene (TMB) and Sodium

Samples collected on October 12, 2022

Sample Identification	Naphthalene[1] (mg/L)	1,2,4-TMB (mg/L)	1,3,5-TMB (mg/L)	Sodium (mg/L)
G-1	U (0.000250)	U (0.00100)	U (0.00100)	7.81
G-3	U (0.000250)	0.00118	0.000508 J (0.00100)	7.96
G-5	U (0.000250)	U (0.00100)	U (0.00100)	8.87
G-7	U (0.000250)	U (0.00100)	U (0.00100)	6.88
RW16-1	0.00110	0.00241	U (0.00100)	26.7
MW16-2	U (0.000250)	0.000523 J (0.00100)	0.000487 J (0.00100)	9.84
DUP-01 (duplicate of MW16-2)	U (0.000250)	0.000523 J (0.00100)	0.000423 J (0.00100)	8.91
GCLs	**0.0017**	**0.056**	**0.060**	**NA**

Table 4c Groundwater Analytical Results in Drinking Water and Historical Wells

Samples collected on October 12, 2022

Sample Identification	Benzene[2] (mg/L)	Toluene[2] (mg/L)	Ethylbenzene[2] (mg/L)	Xylenes[2] (mg/L)	DRO (mg/L)	1,2,4-TMB (mg/L)	1,3,5-TMB (mg/L)
Runion Lot 4	U (0.000500)	U (0.00100)	U (0.000500)	U (0.000500)	U (0.800)	NM	NM
Runion Lot 5	U (0.000500)	U (0.00100)	U (0.000500)	0.000303 J (0.000500)	U (0.800)	NM	NM
Runion Lots 1 and 2	U (0.000500)	U (0.00100)	U (0.000500)	U (0.000500)	U (0.800)	NM	NM
G-6	U (0.00100)	U (0.00100)	U (0.00100)	U (0.00300)	U (0.800)	U (0.00100)	U (0.00100)
GCLs	**0.0046**	**1.1**	**0.015**	**0.19**	**1.5**	**0.056**	**0.060**

Key:

1 – Analyzed by EPA Method 8270D-SIM

2 – Analyzed by EPA Method 524.2/8260C (except G-6)

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

U – Undetected above practical quantitation limits shown in parentheses

Bold – indicates the concentration exceeds the GCL or, if not detected, the reported detection limit (RDL) exceeds the GCL.

NM – Not Measured

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 Dup-01 is a duplicate of Sample MW 16-2. Data presented in **Table 5** show that the precision for the duplicate sample set was inside the established QA criteria tolerances for all analytes for which it could be calculated. Precision could not be calculated for benzene, toluene, ethylbenzene, xylenes, GRO, or DRO because they were not detected above the LOQ in one or more samples. The holding times for all analytes were within established criteria.

Table 5 Laboratory Quality Control Objectives

Quality Control Designation	Tolerance	Results for this Event
Holding Times		
DRO/Water/to analyze	40 days	7 days
DRO/Water/to extract	14 days	6 days
GRO/Water/to analyze	14 days	6 days
VOCs/Water/to analyze	14 days	5-6 days
PAHs/Water/to extract	7 days	5 days
PAHs/Water/to analyze	40 days	6 days
Field Duplicates – Precision		
Benzene/Water	± 30%	NC
Toluene/Water	± 30%	NC
Ethylbenzene/Water	± 30%	NC
Xylenes/Water	± 30%	NC
GRO/Water	± 30%	NC
DRO/Water	± 30%	NC
1,2,4-TMB/Water	± 30%	0%
1,3,5-TMB/Water	± 30%	14%

Key:
% – percent
± – plus or minus
DRO – diesel range organics
GRO – gasoline range organics
NC – Not calculated because the analyte was not detected above the practical quantitation limit in one or more sample
TMB – trimethylbenzene
VOCs – volatile organic compounds
Bold – indicates the value is above acceptable limits

4.0 REMEDIATION SYSTEM

The on-site groundwater treatment process consists of a VSC (vapor stripping circulation) system and routine injections of a chemox solution into the groundwater table via 2 remediation wells. An airlift well is used for operating 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 an oxidant product commercially referred to as Klozur One®, which is a sodium persulfate compound. In 2020, Stantec installed two 4-inch diameter chemox injection wells, RW 20-1 and RW 20-2, located approximately 10-feet northwest and northeast (upgradient) of Remediation Well RW 16-1 (**Figure 2**). These 4-inch diameter wells are used for the chemox injection.

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) 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.

In July of this 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.

5.0 DISCUSSION OF FINDINGS

Results of the analytical sampling completed during this groundwater monitoring event showed no petroleum hydrocarbon contaminant concentrations that exceeded the ADEC GCLs. Wells G-3 and RW 16-2 have historically been contaminated and these 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. Historical results for the current and previous monitoring events are presented in **Appendix D**.

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.

6.0 CONCLUSIONS AND RECOMMENDATIONS

No anomalies were found during this fourth quarter 2022 monitoring event that require additional corrective action or changes to the approved year 2022 Corrective Action Work Plan for this site. The

findings of no contaminates in the groundwater that were above the GCLs indicates the chemox injection treatment process with the circulation of groundwater via the VSC system may be an effective method for remediation of this site. Stantec recommends continuation of the treatment process for next year (2023) for confirmation of reaching consistent monitoring results below ADEC GCLs for closure of the site.

7.0 LIMITATIONS

Stantec conducted this monitoring event in accordance with the 2022 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 take into account 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.

This report is intended solely for use by the client in accordance with Stantec's contract with the client. While the report may be provided to applicable authorities having jurisdiction and others for whom the client is responsible, Stantec does not warrant the services to any third party. The report may not be relied upon by any other party without the express written consent of Stantec, which may be withheld at Stantec's discretion.

FIGURES

FILE: .....\CAD\Proj\Speedway_Tesoro\Speedway5325(TGMart052)\MonEvent\2021\4Q-November2021\Fig01-Location and Vicinity Map

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7-ELEVEN STORE 46754
(formerly SPEEDWAY STORE 5325 - TNS 52)
4Q - OCTOBER 2022 GWM EVENT REPORT

LOCATION AND VICINITY MAP

FIGURE
1
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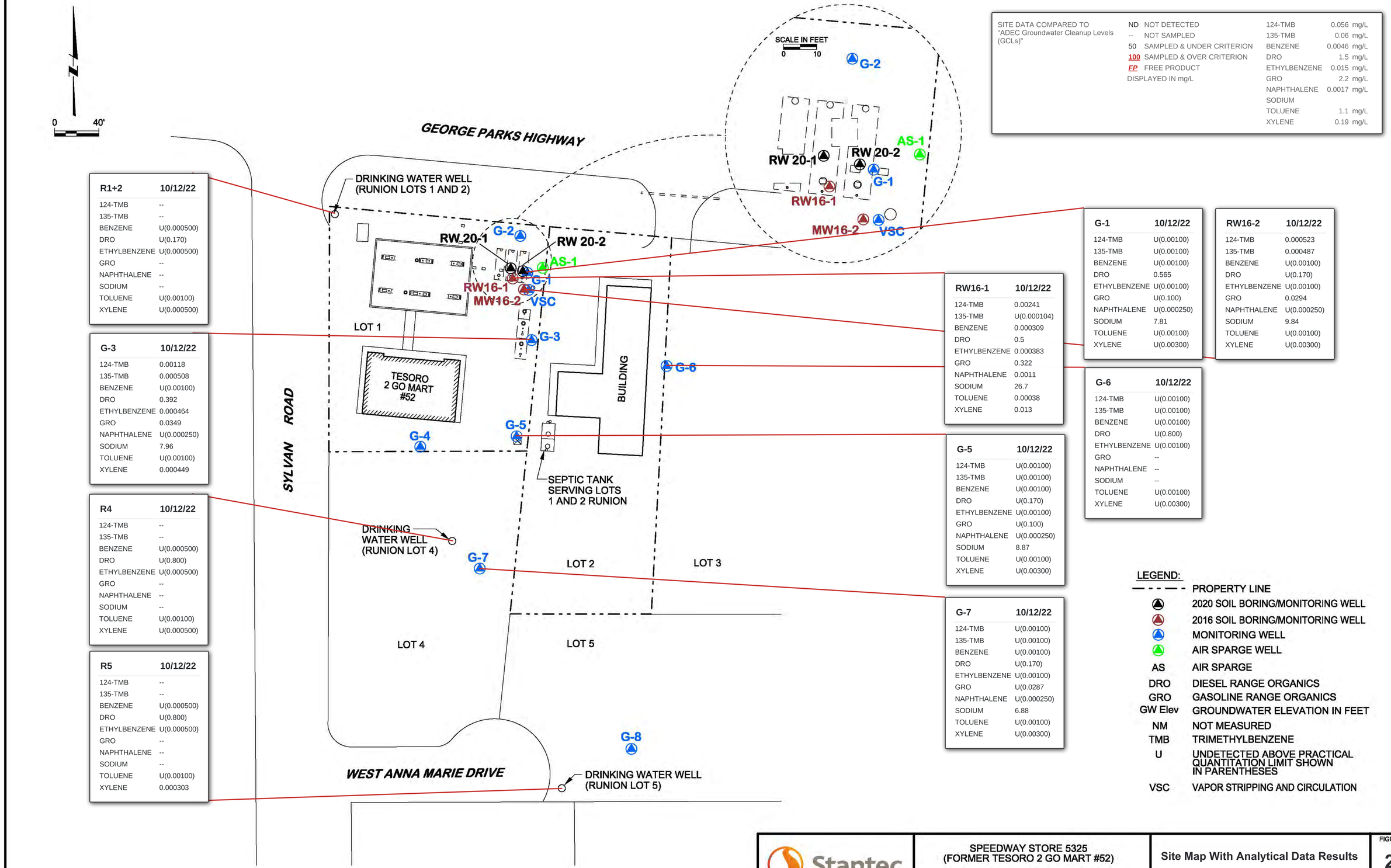

SITE DATA COMPARED TO "ADEC Groundwater Cleanup Levels (GCLs)"

ND	NOT DETECTED	124-TMB	0.056 mg/L
--	NOT SAMPLED	135-TMB	0.06 mg/L
50	SAMPLED & UNDER CRITERION	BENZENE	0.0046 mg/L
100	SAMPLED & OVER CRITERION	DRO	1.5 mg/L
FP	FREE PRODUCT	ETHYLBENZENE	0.015 mg/L
DISPLAYED IN mg/L		GRO	2.2 mg/L
		NAPHTHALENE	0.0017 mg/L
		SODIUM	
		TOLUENE	1.1 mg/L
		XYLENE	0.19 mg/L

R1+2	10/12/22
124-TMB	--
135-TMB	--
BENZENE	U(0.000500)
DRO	U(0.170)
ETHYLBENZENE	U(0.000500)
GRO	--
NAPHTHALENE	--
SODIUM	--
TOLUENE	U(0.00100)
XYLENE	U(0.000500)

G-3	10/12/22
124-TMB	0.00118
135-TMB	0.000508
BENZENE	U(0.00100)
DRO	0.392
ETHYLBENZENE	0.000464
GRO	0.0349
NAPHTHALENE	U(0.000250)
SODIUM	7.96
TOLUENE	U(0.00100)
XYLENE	0.000449

R4	10/12/22
124-TMB	--
135-TMB	--
BENZENE	U(0.000500)
DRO	U(0.800)
ETHYLBENZENE	U(0.000500)
GRO	--
NAPHTHALENE	--
SODIUM	--
TOLUENE	U(0.00100)
XYLENE	U(0.000500)

R5	10/12/22
124-TMB	--
135-TMB	--
BENZENE	U(0.000500)
DRO	U(0.800)
ETHYLBENZENE	U(0.000500)
GRO	--
NAPHTHALENE	--
SODIUM	--
TOLUENE	U(0.00100)
XYLENE	0.000303

RW16-1	10/12/22
124-TMB	0.00241
135-TMB	U(0.000104)
BENZENE	0.000309
DRO	0.5
ETHYLBENZENE	0.000383
GRO	0.322
NAPHTHALENE	0.0011
SODIUM	26.7
TOLUENE	0.00038
XYLENE	0.013

G-5	10/12/22
124-TMB	U(0.00100)
135-TMB	U(0.00100)
BENZENE	U(0.00100)
DRO	U(0.170)
ETHYLBENZENE	U(0.00100)
GRO	U(0.100)
NAPHTHALENE	U(0.000250)
SODIUM	8.87
TOLUENE	U(0.00100)
XYLENE	U(0.00300)

G-7	10/12/22
124-TMB	U(0.00100)
135-TMB	U(0.00100)
BENZENE	U(0.00100)
DRO	U(0.170)
ETHYLBENZENE	U(0.00100)
GRO	U(0.0287
NAPHTHALENE	U(0.000250)
SODIUM	6.88
TOLUENE	U(0.00100)
XYLENE	U(0.00300)

G-1	10/12/22
124-TMB	U(0.00100)
135-TMB	U(0.00100)
BENZENE	U(0.00100)
DRO	0.565
ETHYLBENZENE	U(0.00100)
GRO	U(0.100)
NAPHTHALENE	U(0.000250)
SODIUM	7.81
TOLUENE	U(0.00100)
XYLENE	U(0.00300)

RW16-2	10/12/22
124-TMB	0.000523
135-TMB	0.000487
BENZENE	U(0.00100)
DRO	U(0.170)
ETHYLBENZENE	U(0.00100)
GRO	0.0294
NAPHTHALENE	U(0.000250)
SODIUM	9.84
TOLUENE	U(0.00100)
XYLENE	U(0.00300)

G-6	10/12/22
124-TMB	U(0.00100)
135-TMB	U(0.00100)
BENZENE	U(0.00100)
DRO	U(0.800)
ETHYLBENZENE	U(0.00100)
GRO	--
NAPHTHALENE	--
SODIUM	--
TOLUENE	U(0.00100)
XYLENE	U(0.00300)

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

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SPEEDWAY STORE 5325
(FORMER TESORO 2 GO MART #52)

Site Map With Analytical Data Results

FIGURE
2
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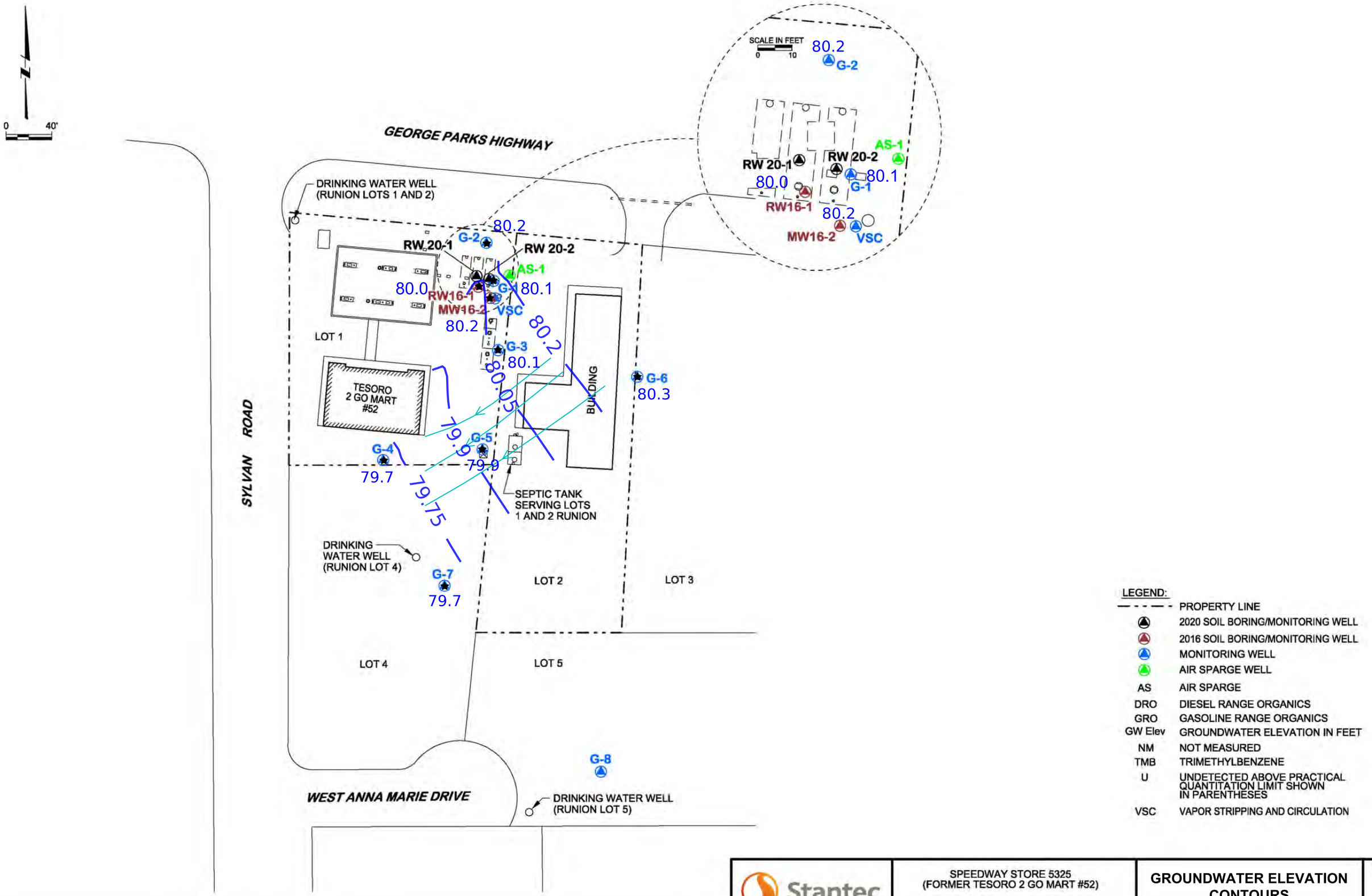

LEGEND:

— · — · —	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
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VSC	VAPOR STRIPPING AND CIRCULATION

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SPEEDWAY STORE 5325
(FORMER TESORO 2 GO MART #52)

GROUNDWATER ELEVATION CONTOURS
4Q October 2022 GWM Event

FIGURE
3
185705772

APPENDIX A

Site Background

APPENDIX A – SITE BACKGROUND

Tesoro 2 Go Mart #52 (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 (see **Appendix E**) 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 chemox 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 of 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 take into account 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, as shown in **Figure 3**. 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 (see **Figure 3**) 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. .

APPENDIX B

Field Methods and Procedures

APPENDIX B – FIELD METHODS AND PROCEDURES

7-11 Store 46754 (Speedway 5325 – TNS 52)

The following table presents the proposed tasks for the Alaska Department of Environmental Conservation (ADEC) approved 2022 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.

2022 Work Plan Schedule for 7-11 Store 46754

Work Plan Task 2022		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Task 1	Monitoring Wells: G-1, G-3, G-5, and G-7	V, G, D, S & I	V, G, D, S, & I	V, G, D, S & I	V, G, D, P, S & I
	RM 16-1 & MW 16-2	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 524.1.
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 2022 will be implemented by Stantec on behalf of 7-Eleven. 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 2022 Work Plan Schedule shown above.

APPENDIX C

Field Measurements and Notes

Site Name: 7-Eleven Store #46754 (former Speedway 5325 TNS 52)

Date: 10/06/2022

Name(s):

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-4	13:01		18.58					
RW16-2	14:06		19.08					
R5								
G-1	13:21		19.09	36.19		4.0	PVC	
G-7	11:54		19.73			2.0	pvc	
G-6	17:55		22.01	45.4				
RW16-1	14:06		19.46					
G-5	12:40		21.51					
R1+2								
G-2	13:21		19.06					
R4								
G-3	14:54		19.03					

Site Name: 7-Eleven Store #46754 (former Speedway 5325 TNS 52)

Date: 10/12/2022, 1:51 PM

Name(s): Remi Malenfant

Well ID	Free Product (ft)	Water (ft)	Bottom (ft)
G-1	N/A	19.09	36.19
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
BTEX	3 X 40 mL Amber VOAs ✓
DRO	2 X 100 mL Amber Glass ✓
GRO	3 X 40 mL Amber VOAs ✓
PAH	2 X 40 mL Amber VOAs ✓
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	
13:21	19.09		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 13:51 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.

Site Name: 7-Eleven Store #46754 (former Speedway 5325 TNS 52)

Date: 10/06/2022

Name(s):

Well ID	Free Product (ft)	Water (ft)	Bottom (ft)
G-2	N/A	19.06	
TOC	Well Dia. (in)	Screen Length (ft)	Well Material
99.25			
Latitude (decimal)		Longitude (decimal)	Weather
61.5822805547		-149.630865699	

Analytical Parameters	Bottles to be filled
N/A	

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	
13:21	19.06		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

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.

Site Name: 7-Eleven Store #46754 (former Speedway 5325 TNS 52)

Date: 10/12/2022, 5:31 PM

Name(s): Remi Malenfant

Well ID	Free Product (ft)	Water (ft)	Bottom (ft)
G-3	N/A	19.03	
TOC	Well Dia. (in)	Screen Length (ft)	Well Material
99.13			
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
Sodium	1 X 250 mL Poly ✓
PAH	2 X 40 mL Amber VOAs ✓
GRO	3 X 40 mL Amber VOAs ✓
BTEX	3 X 40 mL Amber VOAs ✓
DRO	2 X 100 mL Amber Glass ✓

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	
14:54	19.03		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 17:31 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.

Site Name: 7-Eleven Store #46754 (former Speedway 5325 TNS 52)

Date: 10/06/2022

Name(s):

Well ID	Free Product (ft)	Water (ft)	Bottom (ft)
G-4	N/A	18.58	
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	

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	
13:01	18.58		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

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.

Site Name: 7-Eleven Store #46754 (former Speedway 5325 TNS 52)

Date: 10/12/2022, 1:00 PM

Name(s): Remi Malenfant

Well ID	Free Product (ft)	Water (ft)	Bottom (ft)
G-5	N/A	21.51	
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 ✓
DRO	2 X 100 mL Amber Glass ✓
GRO	3 X 40 mL Amber VOAs ✓
Sodium	1 X 250 mL Poly ✓

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	
12:40	21.51		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 13:00 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.

Site Name: 7-Eleven Store #46754 (former Speedway 5325 TNS 52)

Date: 10/12/2022, 5:55 PM

Name(s): Remi Malenfant

Well ID	Free Product (ft)	Water (ft)	Bottom (ft)
G-6	N/A	22.01	45.4
TOC	Well Dia. (in)	Screen Length (ft)	Well Material
102.32			
Latitude (decimal)		Longitude (decimal)	Weather
61.5819442171		-149.630053558	

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
Sodium	1 X 250 mL Poly ✓
GRO	3 X 40 mL Amber VOAs ✓
DRO	2 X 100 mL Amber Glass ✓
PAH	2 X 40 mL Amber VOAs ✓
BTEX	3 X 40 mL Amber VOAs ✓

QA/QC: Duplicate #2

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	
17:55	22.01		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 17:55 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.

Site Name: 7-Eleven Store #46754 (former Speedway 5325 TNS 52)

Date: 10/17/2022, 8:24 AM

Name(s): Remi Malenfant

Well ID	Free Product (ft)	Water (ft)	Bottom (ft)
G-7	N/A	19.73	
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 ✓

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	
11:54	19.73	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 08:24 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.

Site Name: 7-Eleven Store #46754 (former Speedway 5325 TNS 52)

Date: 10/12/2022, 12:40 PM

Name(s): Remi Malenfant

Well ID	Free Product (ft)	Water (ft)	Bottom (ft)
R1+2	N/A		
TOC	Well Dia. (in)	Screen Length (ft)	Well Material
Latitude (decimal)		Longitude (decimal)	Weather

Analytical Parameters	Bottles to be filled
DRO	2 X 100 mL Amber Glass ✓
VOCs (PCE & TCE, only)	3 X 40 mL Clear VOAs ✓

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	
		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 12:40 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.

Site Name: 7-Eleven Store #46754 (former Speedway 5325 TNS 52)

Date: 10/12/2022, 12:11 PM

Name(s): Remi Malenfant

Well ID	Free Product (ft)	Water (ft)	Bottom (ft)
R4	N/A		
TOC	Well Dia. (in)	Screen Length (ft)	Well Material
Latitude (decimal)		Longitude (decimal)	Weather

Analytical Parameters	Bottles to be filled
DRO	2 X 100 mL Amber Glass ✓
VOCs (PCE & TCE, only)	3 X 40 mL Clear VOAs ✓

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	
			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 12:11 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.

Site Name: 7-Eleven Store #46754 (former Speedway 5325 TNS 52)

Date: 10/12/2022, 12:30 PM

Name(s): Remi Malenfant

Well ID	Free Product (ft)	Water (ft)	Bottom (ft)
R5	N/A		
TOC	Well Dia. (in)	Screen Length (ft)	Well Material
Latitude (decimal)		Longitude (decimal)	Weather

Analytical Parameters	Bottles to be filled
DRO	2 X 100 mL Amber Glass ✓
VOCs (PCE & TCE, only)	3 X 40 mL Clear VOAs ✓

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	
			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 12:30 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.

Site Name: 7-Eleven Store #46754 (former Speedway 5325 TNS 52)

Date: 10/12/2022, 2:18 PM

Name(s): Remi Malenfant

Well ID	Free Product (ft)	Water (ft)	Bottom (ft)
RW16-1	N/A	19.46	
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
Sodium	1 X 250 mL Poly ✓
BTEX	3 X 40 mL Amber VOAs ✓
PAH	2 X 40 mL Amber VOAs ✓
GRO	3 X 40 mL Amber VOAs ✓
DRO	2 X 100 mL Amber Glass ✓

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	
14:06	19.46	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 14:18 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.

Site Name: 7-Eleven Store #46754 (former Speedway 5325 TNS 52)

Date: 10/12/2022, 3:02 PM

Name(s): Remi Malenfant

Well ID	Free Product (ft)	Water (ft)	Bottom (ft)
RW16-2	N/A	19.08	
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
DRO	2 X 100 mL Amber Glass ✓
BTEX	3 X 40 mL Amber VOAs ✓
PAH	2 X 40 mL Amber VOAs ✓
Sodium	1 X 250 mL Poly ✓
GRO	3 X 40 mL Amber VOAs ✓

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	
14:06	19.08		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 15:02 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.

Site Name: 7-Eleven Store #46754 (former Speedway 5325 TNS 52)

Date: 10/12/2022, 1:51 PM

Name(s): Remi Malenfant

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

Field Data	
Sampler Names:	Sheen/Odor?:
pH: 6.63	Specific Conductance: 134.4
DO: 0.92	Temperature (C): 7.8
ORP: 231	Purge Volume (gal): 5
Notes: Dark brown sediment	

Site Name: 7-Eleven Store #46754 (former Speedway 5325 TNS 52)

Date: 10/06/2022

Name(s):

Location ID	GPS Latitude (decimal)	GPS Longitude (decimal)
G-2	61.5822805547	-149.630865699

Field Data	
Sampler Names:	Sheen/Odor?:
pH:	Specific Conductance:
DO:	Temperature (C):
ORP:	Purge Volume (gal):
Notes:	

Site Name: 7-Eleven Store #46754 (former Speedway 5325 TNS 52)

Date: 10/12/2022, 5:31 PM

Name(s): Remi Malenfant

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

Field Data	
Sampler Names: Jm, rm, bg	Sheen/Odor?:
pH: 6.91	Specific Conductance: 223.2
DO: 7.35	Temperature (C): 10
ORP: 371.7	Purge Volume (gal): 28
Notes: Light grey brown	

Site Name: 7-Eleven Store #46754 (former Speedway 5325 TNS 52)

Date: 10/06/2022

Name(s):

Location ID	GPS Latitude (decimal)	GPS Longitude (decimal)
G-4	61.5817561273	-149.631357438

Field Data	
Sampler Names:	Sheen/Odor?:
pH:	Specific Conductance:
DO:	Temperature (C):
ORP:	Purge Volume (gal):
Notes:	

Site Name: 7-Eleven Store #46754 (former Speedway 5325 TNS 52)

Date: 10/12/2022, 1:00 PM

Name(s): Remi Malenfant

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

Field Data	
Sampler Names: Jm, rm	Sheen/Odor?:
pH: 6.17	Specific Conductance: 208
DO: 5.96	Temperature (C): 10.5
ORP: 197.3	Purge Volume (gal): 3.5
Notes:	

Site Name: 7-Eleven Store #46754 (former Speedway 5325 TNS 52)

Date: 10/12/2022, 5:55 PM

Name(s): Remi Malenfant

Location ID	GPS Latitude (decimal)	GPS Longitude (decimal)
G-6	61.5819442171	-149.630053558

Field Data	
Sampler Names:	Sheen/Odor?:
pH:	Specific Conductance:
DO:	Temperature (C):
ORP:	Purge Volume (gal):
Notes:	

Site Name: 7-Eleven Store #46754 (former Speedway 5325 TNS 52)

Date: 10/17/2022, 8:24 AM

Name(s): Remi Malenfant

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

Field Data	
Sampler Names: Rm, jm	Sheen/Odor?:
pH: 5.38	Specific Conductance: 225.9
DO: 7.54	Temperature (C): 11.4
ORP: 228.2	Purge Volume (gal): 3.5
Notes:	

Site Name: 7-Eleven Store #46754 (former Speedway 5325 TNS 52)

Date: 10/12/2022, 12:40 PM

Name(s): Remi Malenfant

Location ID	GPS Latitude (decimal)	GPS Longitude (decimal)
R1+2		

Field Data	
Sampler Names:	Sheen/Odor?:
pH:	Specific Conductance:
DO:	Temperature (C):
ORP:	Purge Volume (gal):
Notes:	

Site Name: 7-Eleven Store #46754 (former Speedway 5325 TNS 52)

Date: 10/12/2022, 12:11 PM

Name(s): Remi Malenfant

Location ID	GPS Latitude (decimal)	GPS Longitude (decimal)
R4		

Field Data	
Sampler Names:	Sheen/Odor?:
pH:	Specific Conductance:
DO:	Temperature (C):
ORP:	Purge Volume (gal):
Notes:	

Site Name: 7-Eleven Store #46754 (former Speedway 5325 TNS 52)

Date: 10/12/2022, 12:30 PM

Name(s): Remi Malenfant

Location ID	GPS Latitude (decimal)	GPS Longitude (decimal)
R5		

Field Data	
Sampler Names:	Sheen/Odor?:
pH:	Specific Conductance:
DO:	Temperature (C):
ORP:	Purge Volume (gal):
Notes:	

Site Name: 7-Eleven Store #46754 (former Speedway 5325 TNS 52)

Date: 10/12/2022, 2:18 PM

Name(s): Remi Malenfant

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

Field Data	
Sampler Names: JM/RM	Sheen/Odor?: N/N
pH: 6.54	Specific Conductance: 364.4
DO: 7.2	Temperature (C): 8.1
ORP: 281.9	Purge Volume (gal): 3.5
Notes:	

Site Name: 7-Eleven Store #46754 (former Speedway 5325 TNS 52)

Date: 10/12/2022, 3:02 PM

Name(s): Remi Malenfant

Location ID	GPS Latitude (decimal)	GPS Longitude (decimal)
RW16-2	61.5821668	-149.6308637

Field Data	
Sampler Names: JM/RM	Sheen/Odor?: N/N
pH: 6.52	Specific Conductance: 224.8
DO: 8.07	Temperature (C): 9.2
ORP: 296.8	Purge Volume (gal): 3
Notes:	

APPENDIX D

Tables of Historical Monitoring Data

Analytical Data Results Table

7-Eleven Store #46754 (former Speedway 5325 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	Xylene ppm
GW Human 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	--	--	—	—	3.7	11	12	170	—	—	28	64
09/03/1997	--	--	—	—	0.001	12	5.2	85	—	—	12	41
12/29/1997	--	--	—	—	0.042	3.3	1.5	34	—	—	2	9.3
04/23/1998	--	--	—	—	0.13	8.3	4.1	91	—	—	3.9	23
08/03/1998	--	--	—	—	0.14	12	3	76	—	—	3.1	19
11/02/1998	--	--	—	—	0.121	5.58	4.76	70	—	—	4.59	27.12
02/12/1999	--	--	—	—	0.001	19	4	91	—	—	5.4	24
08/30/1999	--	--	—	—	0.001	10	5.6	190	—	—	3.1	36
10/29/1999	--	--	—	—	0.001	0.45	0.035	0.89	—	—	0.026	0.21
02/08/2000	--	--	—	—	0.001	—	4.4	10	—	—	3.3	26
06/08/2000	--	--	—	—	0.001	0.33	0.11	2.3	—	—	0.051	0.61
08/30/2000	--	--	—	—	0.001	0.57	0.92	19	—	—	0.5	5
11/30/2000	--	--	—	—	0.001	1.9	2.3	42	—	—	1.2	11
02/05/2001	--	--	—	—	0.001	5.2	4.7	94	—	—	3.4	25
05/10/2001	--	--	—	—	0.001	1.9	2.62	41.1	—	—	0.967	15.36
08/16/2001	--	--	—	—	0.013	1.99	0.652	14.3	—	—	0.401	6.18
11/09/2001	--	--	—	—	0.013	3.16	1.75	25.4	—	—	0.608	9.55
02/15/2002	--	--	—	—	0.036	3.66	3.64	66.1	—	—	2.82	21.59
05/30/2002	--	--	—	—	0.001	92.6	9.94	113	—	—	5.52	51.8
08/14/2002	--	--	—	—	0.048	11.2	6.15	99.6	—	—	2.13	37.27
11/14/2002	--	--	—	—	0.053	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	4.7	4.55	117	—	—	1.15	26.9
07/17/2003	--	--	—	—	U (0.05)	8.34	6	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	5.9	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	2.6	48.5	—	—	0.38	18.4
10/13/2004	--	--	—	—	U (0.005)	1.9	0.232	5.98	—	—	0.615	1.87
01/28/2005	--	--	—	—	U (0.0005)	0.818	0.0843	2.08	—	—	0.121	0.582
04/11/2005	--	--	—	—	U (0.0005)	0.78	0.0374	0.963	—	—	0.069	0.306
08/12/2005	--	--	—	—	U (0.0005)	0.528	U (0.0005)	U (0.05)	—	—	U (0.0005)	0.0031
10/07/2005	--	--	—	—	U (0.0005)	U (0.397)	0.0082	0.24	—	—	0.0103	0.0713
02/14/2006	--	--	—	—	U (0.0005)	0.676	0.0041	0.141	—	—	0.00831	0.0482
04/18/2006	--	--	—	—	0.0147	8.37	0.962	24.8	—	—	0.0874	6.64
07/06/2006	--	--	—	—	U (0.0005)	U (0.394)	0.00289	0.153	—	—	0.00359	0.0539
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

Analytical Data Results Table

7-Eleven Store #46754 (former Speedway 5325 TNS 52)
7-Eleven - Paula Sime
7172 W Parks Hwy
Wasilla, Alaska 99623

	Well Screen Interval	Ground Water Elevation	124-TMB	135-TMB	Benzene	DRO	Ethylbenzene	GRO	Naphthalene	Sodium	Toluene	Xylene
Unit	**ft**	**ft**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**
GW Human Health Cleanup			0.056	0.06	0.0046	1.5	0.015	2.2	0.0017		1.1	0.19
04/19/2007	--	--	—	—	U (0.0005)	0.894	**0.13**	**4.12**	—	—	0.165	**1.12**
08/07/2007	--	--	—	—	U (0.0005)	0.582	**0.0392**	0.891	—	—	0.0536	**0.277**
10/23/2007	--	--	—	—	U (0.0005)	U (0.424)	U (0.0005)	U (0.05)	—	—	U (0.0005)	0.00566
02/22/2008	--	--	—	—	U (0.0005)	0.479	0.00712	0.229	—	—	0.0129	0.068
04/15/2008	--	--	—	—	U (0.0005)	0.667	0.0137	0.45	—	—	0.0247	0.116
08/27/2008	--	--	—	—	U (0.0005)	U (0.4)	0.00397	0.172	—	—	0.00662	0.0477
10/22/2008	--	--	—	—	U (0.0005)	U (0.427)	**0.0226**	0.742	—	—	0.032	**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)	0.0021
07/09/2009	--	--	—	—	U (0.0005)	U (0.397)	U (0.001)	0.106	—	—	0.00137	0.0188
11/04/2009	--	--	—	—	U (0.0005)	U (0.403)	0.00624	0.271	—	—	0.00856	0.0639
01/27/2010	--	--	—	—	U (0.0005)	0.844	U (0.001)	0.0757	—	—	0.00123	0.0168
05/27/2010	--	--	—	—	U (0.0005)	0.538	0.0117	0.257	—	—	0.0114	0.0923
08/19/2010	--	--	—	—	U (0.0005)	U (0.455)	0.000537	0.184	—	—	U (0.0005)	0.0189
10/26/2010	--	--	—	—	U (0.0005)	0.993	0.00443	0.181	—	—	0.00441	0.0574
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	0.000945	0.143	—	—	0.000913	0.0425
09/20/2011	--	--	—	—	U (0.0005)	U (0.431)	U (0.0005)	U (0.05)	—	—	U (0.0005)	0.00236
10/21/2011	--	--	—	—	U (0.0005)	U (0.417)	**0.0565**	0.851	—	—	0.0121	**0.345**
02/17/2012	--	--	—	—	U (0.0005)	0.712	0.00235	0.0787	—	—	0.00128	0.041
05/17/2012	--	--	—	—	U (0.0005)	0.596	**0.025**	0.941	—	—	0.00572	**0.339**
09/05/2012	--	--	—	—	U (0.0005)	U (0.424)	0.0139	0.404	—	—	0.00468	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)	0.014	0.248	—	—	0.00067	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)	—	—	0.000667	0.00281
05/01/2014	--	--	—	—	U (0.0005)	U (0.41)	0.0038	0.11	—	—	U (0.001)	0.028
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)	1.4	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)	**1.6**	U (0.015)	U (0.25)	—	—	U (0.01)	U (0.015)

Analytical Data Results Table

7-Eleven Store #46754 (former Speedway 5325 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	Xylene ppm
GW Human 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)	U (0.12)	U (0.003)	U (0.25)	—	—	U (0.002)	U (0.003)
02/26/2019	--	--	—	—	U (0.003)	0.51	0.0066	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)	1.6	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	--	93.3	—	—	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)	0.000248	0.0337	—	—	U (0.001)	0.00262
05/18/2021	--	97.04	U (0.00100)	U (0.00100)	U (0.001)	0.405	U (0.001)	0.0152	U (0.00500)	16.4	U (0.001)	U (0.002)
10/13/2021	--	--	0.000527	0.000151	0.000169	0.518	0.000325	0.182	U (0.000250)	56.7	U (0.001)	0.000554
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	--	97.0	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	--	80.2	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)
G-3												
04/24/1997	--	--	—	—	0.001	5.1	5.4	70	—	—	7.6	26
09/03/1997	--	--	—	—	0.08	7.5	1.4	21	—	—	2	7.7
12/29/1997	--	--	—	—	0.057	3.5	1.5	19	—	—	0.43	4.7
04/23/1998	--	--	—	—	0.001	6.9	3.1	40	—	—	0.49	10
08/03/1998	--	--	—	—	0.14	2	3.3	39	—	—	0.45	10
11/02/1998	--	--	—	—	0.001	2.43	3	30	—	—	0.58	10.27
02/12/1999	--	--	—	—	0.001	8	3.9	48	—	—	0.52	12
05/11/1999	--	--	—	—	0.051	17.6	1.02	14	—	—	0.12	4.16
08/30/1999	--	--	—	—	0.001	4.6	1.6	19	—	—	0.12	3.9
10/29/1999	--	--	—	—	0.0018	0.92	0.017	0.32	—	—	0.0016	0.073
02/08/2000	--	--	—	—	0.007	0	0.47	4	—	—	0.038	0.89
06/08/2000	--	--	—	—	0.001	1.1	0.003	0	—	—	U	0.01
08/30/2000	--	--	—	—	0.001	0.51	0.004	0.12	—	—	0.0018	0.03
11/30/2000	--	--	—	—	0.006	5.5	0.32	2.9	—	—	0.032	0.68
02/05/2001	--	--	—	—	0.006	5.9	0.46	4.3	—	—	0.14	0.9
05/10/2001	--	--	—	—	0.001	12.8	0.003	0	—	—	U	0.009
08/16/2001	--	--	—	—	0.005	8.75	0.39	2.76	—	—	0.0613	0.856
11/09/2001	--	--	—	—	0.034	1.57	0.019	0.57	—	—	0.0828	0.103
02/15/2002	--	--	—	—	0.008	70.7	0.049	0.87	—	—	0.119	0.156
05/30/2002	--	--	—	—	0.021	34.2	0.2	2.25	—	—	0.0809	0.605
08/14/2002	--	--	—	—	0.029	5.68	0.488	5.44	—	—	0.147	1.49
11/14/2002	--	--	—	—	0.0658	4.08	0.804	8.97	—	—	0.186	1.9704
01/28/2003	--	--	—	—	0.0571	7.89	0.319	2.93	—	—	0.0914	0.644
04/17/2003	--	--	—	—	0.00288	4.58	0.0282	0.585	—	—	0.0274	0.082
07/17/2003	--	--	—	—	U (0.0005)	7.48	0.0107	0.233	—	—	0.0165	0.0327
10/02/2003	--	--	—	—	U (0.0005)	1.14	0.000626	U (0.08)	—	—	0.00224	0.00232
01/20/2004	--	--	—	—	U (0.0005)	1.83	0.00399	0.144	—	—	0.0439	0.0127

Analytical Data Results Table

7-Eleven Store #46754 (former Speedway 5325 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	Xylene ppm
GW Human Health Cleanup			0.056	0.06	0.0046	1.5	0.015	2.2	0.0017		1.1	0.19
04/13/2004	--	--	—	—	U (0.005)	**2.89**	**0.0472**	0.855	—	—	0.0261	0.148
07/20/2004	--	--	—	—	U (0.0005)	**19.4**	0.0028	0.164	—	—	0.0305	0.00853
10/13/2004	--	--	—	—	U (0.0005)	**2.11**	U (0.0005)	U (0.08)	—	—	0.000537	U (0.001)
01/28/2005	--	--	—	—	0.000857	**3.65**	0.00078	0.0973	—	—	0.0293	0.0038
04/11/2005	--	--	—	—	0.00311	**2.58**	0.00232	0.127	—	—	0.0113	0.0253
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)	—	—	0.00234	U (0.0015)
02/14/2006	--	--	—	—	0.000874	**3**	0.00129	0.215	—	—	0.076	0.0072
04/18/2006	--	--	—	—	U (0.0005)	**7.64**	0.000884	0.181	—	—	0.0614	0.00356
07/06/2006	--	--	—	—	U (0.0005)	**3.17**	U (0.0005)	U (0.05)	—	—	0.00252	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	--	--	—	—	**0.00528**	**2.27**	0.0017	0.236	—	—	0.0513	0.0154
08/07/2007	--	--	—	—	U (0.0005)	0.841	U (0.0005)	U (0.05)	—	—	U (0.0005)	U (0.0015)
10/23/2007	--	--	—	—	**0.00502**	1.41	**0.02**	0.322	—	—	0.0358	0.0319
02/21/2008	--	--	—	—	**0.00517**	0.93	**0.067**	0.771	—	—	0.0307	0.144
04/15/2008	--	--	—	—	**0.00562**	0.604	**0.135**	1.44	—	—	0.04	**0.211**
08/27/2008	--	--	—	—	**0.0138**	0.978	**0.842**	**7.26**	—	—	0.436	**2.88**
10/22/2008	--	--	—	—	**0.0124**	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	--	--	—	—	**0.0071**	**9.47**	**0.0834**	1.04	—	—	0.0493	**0.241**
04/08/2009	--	--	—	—	U (0.005)	**1.51**	**0.378**	**4.2**	—	—	0.0702	**1.43**
07/09/2009	--	--	—	—	U (0.0005)	**1.81**	**1.12**	**3.01**	—	—	0.0415	**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**	—	—	0.0157	**2.01**
05/27/2010	--	--	—	—	U (0.0005)	1.01	**0.0379**	0.936	—	—	0.000748	0.137
08/19/2010	--	--	—	—	U (0.0005)	U (0.403)	**0.0336**	0.933	—	—	0.000756	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)	**4.1**	**0.0647**	2.11	—	—	0.00112	**0.222**
06/09/2011	--	--	—	—	0.000536	U (0.446)	**0.0666**	**2.26**	—	—	0.00188	**0.232**
09/20/2011	--	--	—	—	U (0.0005)	U (0.400)	**0.0235**	1.69	—	—	0.000718	0.0794
10/21/2011	--	--	—	—	0.00107	U (0.417)	**0.0325**	**2.51**	—	—	0.00126	0.105
02/17/2012	--	--	—	—	0.000809	1.15	**0.0536**	**2.62**	—	—	0.000792	0.131
05/17/2012	--	--	—	—	0.00117	0.56	**0.0899**	**5.91**	—	—	0.00164	**0.303**
09/05/2012	--	--	—	—	U (0.0005)	U (0.424)	**0.166**	0.71	—	—	U (0.0005)	0.0486
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	**0.0182**	0.818	—	—	0.00364	0.0555
05/10/2013	--	--	—	—	0.00153	U (0.439)	**0.0554**	1.35	—	—	0.00151	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	0.00066	U (0.05)	—	—	U (0.0005)	0.00177
05/01/2014	--	--	—	—	U (0.0005)	**4.8**	0.0066	0.3	—	—	0.001	0.017

Analytical Data Results Table

7-Eleven Store #46754 (former Speedway 5325 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	Xylene ppm
GW Human Health Cleanup			0.056	0.06	0.0046	1.5	0.015	2.2	0.0017		1.1	0.19
10/30/2014	--	--	—	—	U (0.0005)	1	0.0097	0.46	—	—	U (0.0005)	0.023
02/11/2015	--	--	—	—	0.002	**12**	**0.087**	**4.8**	—	—	0.0011	**0.24**
05/15/2015	--	--	—	—	U (0.002)	1.3	0.0078	**2.6**	—	—	U (0.002)	0.015
09/02/2015	--	--	—	—	U (0.0002)	U (0.40)	0.0079	1.1	—	—	U (0.001)	0.0064
11/12/2015	--	--	—	—	U (0.0020)	0.26	**0.036**	**3.2**	—	—	U (0.0020)	0.069
01/28/2016	--	--	—	—	U (0.0020)	0.76	**0.027**	**3.2**	—	—	U (0.0020)	0.052
05/09/2016	--	--	—	—	0.0002	0.58	0.0086	1.6	—	—	U (0.001)	0.012
10/24/2016	--	--	—	—	0.0002	0.37	0.0017	**4.4**	—	—	U (0.001)	0.0036
12/09/2016	--	--	—	—	U (0.002)	0.48	0.002	**4.2**	—	—	U (0.002)	0.0038
04/25/2017	--	--	—	—	U (0.0002)	**4.7**	0.0089	**2.3**	—	—	U (0.002)	0.016
10/20/2017	--	--	—	—	U (0.002)	**3**	U (0.003)	U(1.0)	—	—	U (0.002)	U(0.003)
02/13/2018	--	--	—	—	U (0.002)	**6.7**	U (0.003)	U (1.0)	—	—	0.0054	0.0047
08/17/2018	--	--	—	—	U (0.003)	**3.2**	0.0047	0.99	—	—	0.00091	0.00938
10/25/2018	--	--	—	—	U (0.003)	**2.3**	U (0.003)	0.37	—	—	U (0.002)	U (0.003)
02/26/2019	--	--	—	—	U (0.003)	**8.5**	0.006	1.7	—	—	U (0.002)	0.013
04/24/2019	--	--	—	—	U (0.003)	**7.7**	0.0034	1.6	—	—	U (0.002)	0.0068
07/16/2019	--	--	—	—	U (0.003)	**4.6**	0.0033	1.3	—	—	U (0.002)	0.006
10/17/2019	--	--	—	—	U (0.003)	**3.6**	U (0.003)	0.58	—	—	U (0.002)	U (0.003)
08/12/2020	--	67.25	—	—	U (0.001)	0.339	0.000754	0.173	—	8.35	U (0.001)	0.00159
10/02/2020	--	66.93	—	—	U (0.001)	1.45	0.000143	0.12	—	—	U (0.001)	U (0.002)
03/03/2021	--	--	—	—	U (0.001)	1.47	0.00091	1.01	—	—	U (0.001)	0.00086
03/31/2021	--	62.99	—	—	—	—	—	—	—	123	—	—
05/18/2021	--	64.72	0.0452	0.0457	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	**0.0599**	**0.0669**	U (0.001)	**2.32**	0.00163	1.68	**0.00206**	9.61	0.000279	0.0015
10/13/2021	--	67.39	0.000928	0.000365	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	U(0.00100)	U(0.00300)
10/12/2022	--	80.1	0.00118	0.000508	U(0.00100)	0.392	0.000464	0.0349	U(0.000250)	7.96	U(0.00100)	0.000449
G-5												
04/24/1997	--	--	—	—	**0.032**	—	**0.91**	**17**	—	—	0.56	**5.2**
09/03/1997	--	--	—	—	0.001	**4.8**	**1.1**	**25**	—	—	U	**5.4**
12/29/1997	--	--	—	—	**0.065**	**4**	**1**	**19**	—	—	0.15	**4.7**
04/23/1998	--	--	—	—	**0.048**	**2.7**	**0.38**	**11**	—	—	0.068	**1.7**
08/03/1998	--	--	—	—	0.001	0.27	U	0	—	—	U	0.0019
11/02/1998	--	--	—	—	**0.026**	**1.82**	**0.12**	**3.7**	—	—	0.01	**0.27**
08/31/1999	--	--	—	—	**0.011**	0.95	**0.34**	**4.6**	—	—	0.029	**0.9**
10/29/1999	--	--	—	—	**0.024**	0.4	**0.066**	**2.7**	—	—	0.006	0.11
02/08/2000	--	--	—	—	**0.008**	—	**0.053**	**4.2**	—	—	0.006	0.1
06/08/2000	--	--	—	—	0.001	0	**0.023**	0.61	—	—	U	0.04
08/30/2000	--	--	—	—	0.001	0.001	0.004	0.22	—	—	U	0.008
11/30/2000	--	--	—	—	**0.012**	0.49	**0.079**	**3.9**	—	—	0.006	0.14

Analytical Data Results Table

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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	Xylene ppm
GW Human Health Cleanup			0.056	0.06	0.0046	1.5	0.015	2.2	0.0017		1.1	0.19
02/05/2001	--	--	—	—	**0.015**	0.32	**0.016**	2.1	—	—	0.008	0.026
05/10/2001	--	--	—	—	**0.007**	0.001	**0.061**	1.62	—	—	U	0.1
08/16/2001	--	--	—	—	**0.031**	U	**0.042**	**2.74**	—	—	0.011	0.065
11/09/2001	--	--	—	—	0.004	U	U	0.258	—	—	U	0.002
08/14/2002	--	--	—	—	**0.013**	0.552	**0.145**	**2.53**	—	—	0.003	0.182
11/14/2002	--	--	—	—	0.00257	U (0.5)	U (0.002)	0.137	—	—	U (0.002)	U (0.002)
01/28/2003	--	--	—	—	**0.064**	1.2	**0.0733**	**2.4**	—	—	U (0.02)	0.0667
04/17/2003	--	--	—	—	**0.0181**	0.418	**0.0834**	**3.14**	—	—	0.002	0.186
07/17/2003	--	--	—	—	U (0.005)	U (0.5)	**0.0666**	**2.72**	—	—	U (0.005)	0.184
10/02/2003	--	--	—	—	**0.0125**	U (0.32)	**0.127**	**4.33**	—	—	0.00577	**0.217**
04/13/2004	--	--	—	—	U (0.0005)	U (0.5)	U (0.0005)	0.0539	—	—	U (0.0005)	U (0.0015)
07/20/2004	--	--	—	—	0.00351	0.484	**0.0561**	1.7	—	—	U (0.0005)	0.0239
10/13/2004	--	--	—	—	**0.009**	0.443	**0.0893**	**2.71**	—	—	0.00155	0.113
01/28/2005	--	--	—	—	0.0011	0.45	**0.0183**	1.35	—	—	0.00198	0.02
04/11/2005	--	--	—	—	U (0.0005)	U (0.391)	0.0138	1.06	—	—	0.000845	0.0117
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	--	--	—	—	0.00186	0.475	**0.0163**	1.34	—	—	0.00136	0.0066
04/18/2006	--	--	—	—	0.0018	0.693	**0.153**	2.04	—	—	0.000663	**0.24**
07/06/2006	--	--	—	—	0.00141	U (0.41)	**0.0932**	1.14	—	—	0.00158	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)	**0.0163**	0.774	—	—	U (0.0005)	0.0227
08/07/2007	--	--	—	—	0.00147	U (0.407)	0.00611	0.529	—	—	U (0.0005)	0.007
10/23/2007	--	--	—	—	U (0.0005)	U (0.446)	0.00534	0.4	—	—	U (0.0005)	0.00603
02/21/2008	--	--	—	—	0.00231	U (0.417)	**0.0592**	1.97	—	—	0.000739	0.0523
08/27/2008	--	--	—	—	U (0.0005)	U (0.4)	**0.0203**	0.506	—	—	U (0.0005)	0.0243
10/22/2008	--	--	—	—	U (0.0005)	U (0.420)	0.00629	0.35	—	—	U (0.0005)	0.00512
02/05/2009	--	--	—	—	0.00093	0.59	**0.0898**	2.02	—	—	0.00211	0.101
02/19/2009	--	--	—	—	0.00249	0.689	**0.129**	1.96	—	—	0.00283	**0.262**
04/08/2009	--	--	—	—	**0.0058**	U (0.435)	**0.26**	**3.84**	—	—	0.169	**0.634**
07/09/2009	--	--	—	—	0.00267	U (0.410)	**0.184**	**2.51**	—	—	0.00452	**0.284**
11/04/2009	--	--	—	—	0.00365	U (0.397)	**0.292**	**4.13**	—	—	0.00739	**0.645**
01/27/2010	--	--	—	—	0.00385	U (0.427)	**0.499**	**7.17**	—	—	0.0313	**1.51**
05/27/2010	--	--	—	—	0.0022	0.668	**0.406**	**5.19**	—	—	0.0218	**1.22**
08/19/2010	--	--	—	—	0.00105	0.415	**0.233**	**3.27**	—	—	0.00307	**0.977**
10/26/2010	--	--	—	—	U (0.0022)	U (0.403)	**0.0449**	0.741	—	—	U (0.0005)	0.0723
02/17/2011	--	--	—	—	0.00291	U (0.410)	**0.108**	**3.11**	—	—	0.0034	**0.472**
06/09/2011	--	--	—	—	0.00199	0.436	**0.173**	**5.08**	—	—	0.00405	**0.856**
09/20/2011	--	--	—	—	0.00101	U (0.403)	**0.0362**	0.975	—	—	0.00133	0.138
10/21/2011	--	--	—	—	U (0.0005)	U (0.439)	0.0121	0.365	—	—	U (0.0005)	0.0303
02/17/2012	--	--	—	—	0.00403	0.726	**0.0807**	**2.8**	—	—	0.00497	**0.476**

Analytical Data Results Table

7-Eleven Store #46754 (former Speedway 5325 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	Xylene ppm
GW Human Health Cleanup			0.056	0.06	0.0046	1.5	0.015	2.2	0.0017		1.1	0.19
05/17/2012	--	--	—	—	0.000704	0.541	0.0125	0.683	—	—	0.000734	0.0378
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	--	--	—	—	0.00052	U (0.400)	U (0.0005)	0.221	—	—	0.000627	0.00194
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	--	--	—	—	0.00086	U (0.42)	U (0.0005)	0.19	—	—	U (0.0005)	U (0.0015)
02/11/2015	--	--	—	—	U (0.0005)	U (0.42)	0.0031	0.28	—	—	U (0.0005)	0.0031
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)	0.0063	0.17	—	—	U (0.001)	0.0034
04/24/2017	--	--	—	—	U (0.0002)	0.22	**0.085**	1.4	—	—	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)
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)	0.0086	U (0.25)	—	—	U (0.002)	0.0068
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	—	—	0.000236	0.406	U (0.001)	0.0189	—	—	U (0.001)	U (0.002)
05/18/2021	--	62.56	U (0.00100)	0.000191	U (0.001)	U (0.800)	0.0017	0.0693	U (0.00500)	13.9	U (0.001)	U (0.002)
07/21/2021	--	62.64	0.000612	0.000507	U (0.001)	0.34	U (0.001)	0.0478	U (0.00500)	14.2	U (0.001)	U (0.003)
10/13/2021	--	66.89	U (0.00100)	U (0.00100)	0.000267	0.402	U (0.001)	0.0776	U (0.000250)	20.3	U (0.001)	U (0.002)
03/18/2022	--	62.05	U (0.00100)	U (0.00100)	0.000264	U(0.800)	0.000484	0.0858	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)	0.0345	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)
G-6												
09/03/1997	--	--	—	—	U	**13**	0.006	0.088	—	—	0.013	0.042
12/29/1997	--	--	—	—	**0.039**	**3.6**	0.0014	0.031	—	—	0.0019	0.0087
08/03/1998	--	--	—	—	U	U	U	U	—	—	U	U
11/02/1998	--	--	—	—	0.001	U	0.014	0.19	—	—	0.0085	0.07
02/12/1999	--	--	—	—	U	U	U	U	—	—	U	U
05/11/1999	--	--	—	—	U	U	U	U	—	—	U	0.0026
08/30/1999	--	--	—	—	U	U	U	U	—	—	U	U

Analytical Data Results Table

7-Eleven Store #46754 (former Speedway 5325 TNS 52)
7-Eleven - Paula Sime
7172 W Parks Hwy
Wasilla, Alaska 99623

	Well Screen Interval	Ground Water Elevation	124-TMB	135-TMB	Benzene	DRO	Ethylbenzene	GRO	Naphthalene	Sodium	Toluene	Xylene
Unit	**ft**	**ft**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**
GW Human Health Cleanup			0.056	0.06	0.0046	1.5	0.015	2.2	0.0017		1.1	0.19
10/29/1999	--	--	—	—	U	U	U	U	—	—	U	U
06/08/2000	--	--	—	—	U	U	U	U	—	—	U	U
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	U	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)
10/12/2022	--	80.31	U(0.00100)	U(0.00100)	U(0.00100)	U(0.800)	U(0.00100)	—	—	—	U(0.00100)	U(0.00300)
G-7												
08/03/1998	--	--	—	—	U	U	U	U	—	—	U	U
11/02/1998	--	--	—	—	U	U	0.012	0.16	—	—	0.005	0.058
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
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)

Analytical Data Results Table

7-Eleven Store #46754 (former Speedway 5325 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	Xylene ppm
GW Human Health Cleanup			0.056	0.06	0.0046	1.5	0.015	2.2	0.0017		1.1	0.19
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)
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	--	67.1	—	—	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)	0.032	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)	0.0507	U (0.000250)	5.05	U (0.001)	U (0.002)
03/18/2022	--	59.2	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)	6.1	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)
R1+2												
12/09/2016	--	--	—	—	U	U	U	—	—	—	U	U
04/25/2017	--	--	—	—	U	U	U	—	—	—	U	U
08/17/2018	--	--	—	—	U	U	U	—	—	—	U	U
04/23/2019	--	--	—	—	U	U(0.26)	U	—	—	—	U	U

Analytical Data Results Table

7-Eleven Store #46754 (former Speedway 5325 TNS 52)
7-Eleven - Paula Sime
7172 W Parks Hwy
Wasilla, Alaska 99623

	Well Screen Interval	Ground Water Elevation	124-TMB	135-TMB	Benzene	DRO	Ethylbenzene	GRO	Naphthalene	Sodium	Toluene	Xylene
Unit	**ft**	**ft**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**
GW Human Health Cleanup			0.056	0.06	0.0046	1.5	0.015	2.2	0.0017		1.1	0.19
10/02/2020	--	--	—	—	U(0.000500)	U(0.240)	U(0.000500)	—	—	—	U(0.00100)	U(0.000500)
10/13/2021	--	--	—	—	U(0.000500)	0.343	U(0.000500)	—	—	—	U(0.00100)	U(0.000500)
10/12/2022	--	--	—	—	U(0.000500)	U(0.170)	U(0.000500)	—	—	—	U(0.00100)	U(0.000500)
R4												
12/09/2016	--	--	—	—	U	U	U	—	—	—	U	U
04/25/2017	--	--	—	—	U	U	U	—	—	—	U	U
08/17/2018	--	--	—	—	U	U	U	—	—	—	U	U
04/23/2019	--	--	—	—	U	U(0.25)	U	—	—	—	U	U
10/02/2020	--	--	—	—	U(0.000500)	U(0.840)	U(0.000500)	—	—	—	U(0.00100)	U(0.000500)
10/13/2021	--	--	—	—	U(0.000500)	0.327	U(0.000500)	—	—	—	U(0.00100)	U(0.000500)
10/12/2022	--	--	—	—	U(0.000500)	U(0.800)	U(0.000500)	—	—	—	U(0.00100)	U(0.000500)
R5												
12/09/2016	--	--	—	—	U	U	U	—	—	—	U	U
04/25/2017	--	--	—	—	U	U	U	—	—	—	U	U
08/17/2018	--	--	—	—	U	U	U	—	—	—	U	U
04/23/2019	--	--	—	—	U	U(0.27)	U	—	—	—	U	U
10/02/2020	--	--	—	—	U(0.000500)	U(0.800)	U(0.000500)	—	—	—	U(0.00100)	U(0.000500)
10/13/2021	--	--	—	—	U(0.000500)	0.273	U(0.000500)	—	—	—	U(0.00100)	U(0.000500)
10/12/2022	--	--	—	—	U(0.000500)	U(0.800)	U(0.000500)	—	—	—	U(0.00100)	0.000303
RW16-1												
10/24/2016	--	--	—	—	U (0.0002)	4.6	1.7	30	—	—	0.019	10.1
02/08/2017	--	--	—	—	U (0.002)	2.7	7.9	25	—	—	0.0048	8.9
04/25/2017	--	--	—	—	U (0.002)	2.4	U (0.750)	12	—	—	U (0.001)	4.83
08/17/2018	--	--	—	—	U (0.003)	7.9	1.2	24	—	—	0.0018	8.5
08/12/2020	--	67.49	—	—	0.00092	2	1.58	5.85	—	65.8	0.00558	8.26
10/02/2020	--	67.2	—	—	U (0.020)	3.58	0.373	3.99	—	—	0.0174	1.721
03/31/2021	--	67.77	—	—	U (0.020)	4.72	1.33	14	—	64	U (0.020)	5.28
05/18/2021	--	66.12	2.5	0.53	U (0.200)	7.24	0.761	3.38	U (1.00)	24.1	U (0.200)	4.8
07/21/2021	--	65.91	2.9	0.597	U (0.200)	9.6	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	0.0486	39.9	U(0.200)	5.548
05/11/2022	--	68.0	3.88	0.756	U(0.0500)	5.82	0.533	17.7	0.0612	56.9	U(0.0500)	2.773
07/19/2022	--	70.05	0.0396	0.0115	0.000116	0.572	0.00242	0.247	0.00104	33.2	0.00028	0.03391
10/12/2022	--	79.98	0.00241	U(0.000104)	0.000309	0.5	0.000383	0.322	0.0011	26.7	0.00038	0.013
RW16-2												
12/09/2016	--	--	—	—	U (0.0002)	0.25	0.022	2	—	—	U (0.001)	0.429
02/08/2017	--	--	—	—	U (0.002)	2.1	0.44	19	—	—	0.0078	3.3
04/25/2017	--	--	—	—	U (0.0002)	0.86	U (0.30)	8.7	—	—	U (0.002)	1
10/20/2017	--	--	—	—	U (0.002)	0.26	0.042	2.2	—	—	U (0.002)	0.125

Analytical Data Results Table

7-Eleven Store #46754 (former Speedway 5325 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	Xylene ppm
GW Human Health Cleanup			0.056	0.06	0.0046	1.5	0.015	2.2	0.0017		1.1	0.19
02/13/2018	--	--	—	—	U (0.002)	0.59	**0.051**	**6.1**	—	—	U (0.002)	0.177
08/17/2018	--	--	—	—	U (0.003)	0.63	0.015	**2.4**	—	—	U (0.002)	0.0771
10/25/2018	--	--	—	—	U (0.003)	0.31	0.0036	1	—	—	U (0.002)	0.013
02/26/2019	--	--	—	—	U (0.003)	1.1	0.0066	**4.6**	—	—	U (0.002)	0.023
04/24/2019	--	--	—	—	U (0.003)	0.58	0.0065	**4.2**	—	—	U (0.002)	0.027
07/16/2019	--	--	—	—	U (0.003)	0.67	0.0066	**3.4**	—	—	U (0.002)	0.031
10/17/2019	--	--	—	—	U (0.003)	0.3	0.0052	2.1	—	—	U (0.002)	0.023
08/12/2020	--	67.36	—	—	U (0.001)	0.419	0.00166	1.65	—	21.7	U (0.001)	0.00735
10/02/2020	--	67.05	—	—	U (0.001)	0.25	0.00072	0.967	—	—	U (0.001)	0.002772
03/31/2021	--	65.19	—	—	U (0.001)	0.585	0.001	**2.86**	—	4.42	U (0.001)	0.00276
05/18/2021	--	66.27	0.011	0.0103	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	0.0145	0.0126	U (0.001)	0.441	0.000569	0.724	U (0.00500)	5.58	U (0.001)	0.00135
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	0.0341	0.0231	U(0.00100)	0.643	0.00032	1.95	0.000106	6.93	U(0.00100)	U(0.00300)
05/11/2022	--	67.88	0.0124	0.00631	0.000105	0.49	U(0.00100)	0.658	U(0.000250)	21.6	U(0.00100)	U(0.00300)
07/19/2022	--	70.17	0.0203	0.0101	0.00013	U(0.800)	U(0.00100)	0.354	U(0.000250)	9.06	U(0.00100)	U(0.00300)
10/12/2022	--	80.12	0.000523	0.000487	U(0.00100)	U(0.170)	U(0.00100)	0.0294	U(0.000250)	9.84	U(0.00100)	U(0.00300)

APPENDIX E

PACE Laboratory Analytical Report and ADEC Laboratory Data Review Checklist

ANALYTICAL REPORT

October 26, 2022

Stantec - 7-11

Sample Delivery Group:	L1546587
Samples Received:	10/14/2022
Project Number:	185705773
Description:	Speedway 5325
Site:	0005325
Report To:	Mr. John Marshall 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.

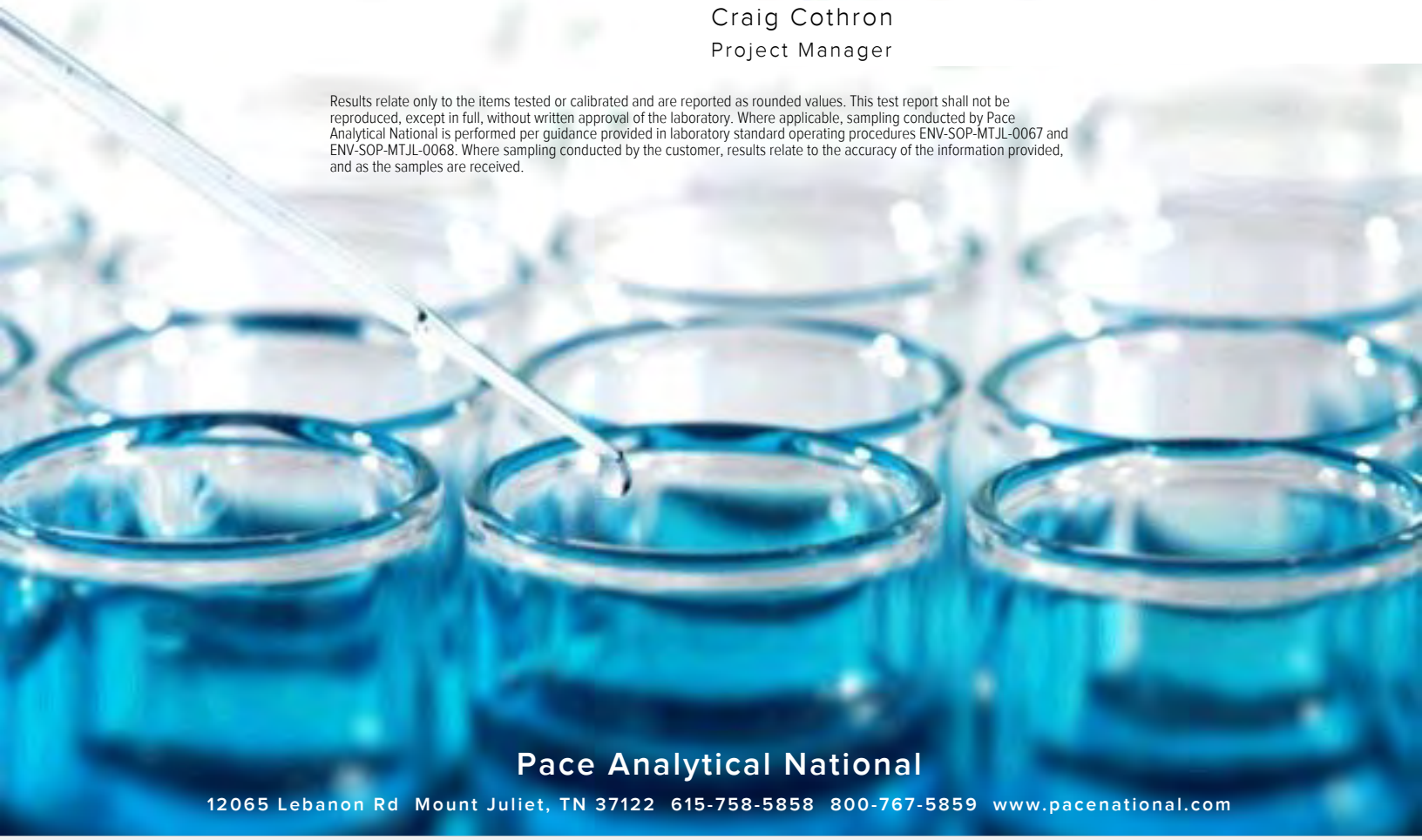

TABLE OF CONTENTS

G-01 L1546587-01 GW

Collected by: JM | Collected date/time: 10/12/22 13:51 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010	WG1946741	1	10/21/22 09:44	10/24/22 21:34	EJS	Allen, TX
Volatile Organic Compounds (GC) by Method AK101	WG1943483	1	10/18/22 02:04	10/18/22 02:04	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1944667	1	10/18/22 13:49	10/18/22 13:49	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG1943589	1	10/18/22 13:53	10/19/22 12:59	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1944201	1	10/17/22 16:25	10/18/22 06:35	AGW	Mt. Juliet, TN

G-03 L1546587-02 GW

Collected by: JM | Collected date/time: 10/12/22 17:31 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010	WG1946741	1	10/21/22 09:44	10/24/22 21:39	EJS	Allen, TX
Volatile Organic Compounds (GC) by Method AK101	WG1943483	1	10/18/22 02:31	10/18/22 02:31	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1944667	1	10/18/22 14:08	10/18/22 14:08	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG1943589	1	10/18/22 13:53	10/19/22 13:19	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1944201	1	10/17/22 16:25	10/18/22 06:01	AGW	Mt. Juliet, TN

G-05 L1546587-03 GW

Collected by: JM | Collected date/time: 10/12/22 13:00 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010	WG1946741	1	10/21/22 09:44	10/24/22 21:45	EJS	Allen, TX
Volatile Organic Compounds (GC) by Method AK101	WG1943483	1	10/18/22 02:57	10/18/22 02:57	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1944667	1	10/18/22 14:27	10/18/22 14:27	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG1943589	1	10/18/22 13:53	10/19/22 13:40	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1944201	1	10/17/22 16:25	10/18/22 03:59	AGW	Mt. Juliet, TN

G-07 L1546587-04 GW

Collected by: JM | Collected date/time: 10/12/22 12:11 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010	WG1946741	1	10/21/22 09:44	10/24/22 21:50	EJS	Allen, TX
Volatile Organic Compounds (GC) by Method AK101	WG1943483	1	10/18/22 03:23	10/18/22 03:23	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1944667	1	10/18/22 14:46	10/18/22 14:46	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG1943589	1	10/18/22 13:53	10/19/22 14:00	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1944201	1	10/17/22 16:25	10/18/22 02:33	AGW	Mt. Juliet, TN

MW16-02 L1546587-05 GW

Collected by: JM | Collected date/time: 10/12/22 15:02 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010	WG1946741	1	10/21/22 09:44	10/24/22 21:55	EJS	Allen, TX
Volatile Organic Compounds (GC) by Method AK101	WG1944501	1	10/18/22 17:59	10/18/22 17:59	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1944667	1	10/18/22 15:05	10/18/22 15:05	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG1943589	1	10/18/22 13:53	10/19/22 14:20	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1944201	1	10/17/22 16:25	10/18/22 02:50	AGW	Mt. Juliet, TN

DUP1 L1546587-06 GW

Collected by: JM | Collected date/time: 10/12/22 00:00 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010	WG1946741	1	10/21/22 09:44	10/24/22 22:00	EJS	Allen, TX
Volatile Organic Compounds (GC) by Method AK101	WG1944501	1	10/18/22 18:26	10/18/22 18:26	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1944667	1	10/18/22 15:24	10/18/22 15:24	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG1943589	1	10/18/22 13:53	10/19/22 14:40	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1944201	1	10/17/22 16:25	10/18/22 03:07	AGW	Mt. Juliet, TN

TRIP BLANK L1546587-07 GW

Collected by: JM | Collected date/time: 10/12/22 00:00 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1944667	1	10/18/22 12:13	10/18/22 12:13	DWR	Mt. Juliet, TN

RW16-01 L1546587-08 GW

Collected by: JM | Collected date/time: 10/12/22 14:18 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010	WG1946741	1	10/21/22 09:44	10/24/22 22:05	EJS	Allen, TX
Volatile Organic Compounds (GC) by Method AK101	WG1944501	1	10/18/22 19:03	10/18/22 19:03	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1944667	1	10/18/22 15:44	10/18/22 15:44	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG1943589	1	10/18/22 13:53	10/19/22 15:01	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1944201	1	10/17/22 16:25	10/18/22 05:43	AGW	Mt. Juliet, TN

RUNION LOT4 L1546587-09 GW

Collected by: JM | Collected date/time: 10/12/22 12:11 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 524.2	WG1943882	1	10/17/22 12:08	10/17/22 12:08	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG1943589	1	10/18/22 13:53	10/19/22 15:21	TJD	Mt. Juliet, TN

RUNION LOT5 L1546587-10 GW

Collected by: JM | Collected date/time: 10/12/22 12:30 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 524.2	WG1943882	1	10/17/22 12:30	10/17/22 12:30	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG1943589	1	10/18/22 13:53	10/19/22 15:41	TJD	Mt. Juliet, TN

RUNION LOTS 1 AND 2 L1546587-11 GW

Collected by: JM | Collected date/time: 10/12/22 12:40 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 524.2	WG1943882	1	10/17/22 12:53	10/17/22 12:53	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG1943589	1	10/18/22 13:53	10/19/22 16:01	TJD	Mt. Juliet, TN

G-06 L1546587-12 GW

Collected by: JM | Collected date/time: 10/12/22 17:55 | Received date/time: 10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1944667	1	10/18/22 16:03	10/18/22 16:03	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG1943589	1	10/18/22 13:53	10/19/22 16:22	TJD	Mt. Juliet, TN

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

TRIP BLANK L1546587-13 GW

Collected by	Collected date/time	Received date/time
JM	10/12/22 00:00	10/14/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1944667	1	10/18/22 12:32	10/18/22 12:32	DWR	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 6010

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Sodium	7.81		0.304	1.00	1	10/24/2022 21:34	WG1946741

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	U		0.0287	0.100	1	10/18/2022 02:04	WG1943483
(S) a,a,a-Trifluorotoluene(FID)	*88.7*			*50.0-150*		*10/18/2022 02:04*	WG1943483
(S) a,a,a-Trifluorotoluene(PID)	*102*			*79.0-125*		*10/18/2022 02:04*	WG1943483

Volatile Organic Compounds (GC/MS) by Method 524.2/8260C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0000941	0.00100	1	10/18/2022 13:49	WG1944667
n-Butylbenzene	U		0.000157	0.00100	1	10/18/2022 13:49	WG1944667
sec-Butylbenzene	U		0.000125	0.00100	1	10/18/2022 13:49	WG1944667
tert-Butylbenzene	U		0.000127	0.00100	1	10/18/2022 13:49	WG1944667
Ethylbenzene	U		0.000137	0.00100	1	10/18/2022 13:49	WG1944667
Isopropylbenzene	U		0.000105	0.00100	1	10/18/2022 13:49	WG1944667
Naphthalene	U		0.00100	0.00500	1	10/18/2022 13:49	WG1944667
Toluene	U		0.000278	0.00100	1	10/18/2022 13:49	WG1944667
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/18/2022 13:49	WG1944667
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/18/2022 13:49	WG1944667
m&p-Xylene	U		0.000430	0.00200	1	10/18/2022 13:49	WG1944667
o-Xylene	U		0.000174	0.00100	1	10/18/2022 13:49	WG1944667
(S) Toluene-d8	*109*			*80.0-120*		*10/18/2022 13:49*	WG1944667
(S) 4-Bromofluorobenzene	*110*			*77.0-126*		*10/18/2022 13:49*	WG1944667
(S) 1,2-Dichloroethane-d4	*118*			*70.0-130*		*10/18/2022 13:49*	WG1944667

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	0.565	J	0.170	0.800	1	10/19/2022 12:59	WG1943589
(S) o-Terphenyl	*84.3*			*50.0-150*		*10/19/2022 12:59*	WG1943589

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	10/18/2022 06:35	WG1944201
Acenaphthene	U		0.0000190	0.0000500	1	10/18/2022 06:35	WG1944201
Acenaphthylene	U		0.0000171	0.0000500	1	10/18/2022 06:35	WG1944201
Benzo(a)anthracene	U		0.0000203	0.0000500	1	10/18/2022 06:35	WG1944201
Benzo(a)pyrene	U		0.0000184	0.0000500	1	10/18/2022 06:35	WG1944201
Benzo(b)fluoranthene	U		0.0000168	0.0000500	1	10/18/2022 06:35	WG1944201
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	1	10/18/2022 06:35	WG1944201
Benzo(k)fluoranthene	U		0.0000202	0.0000500	1	10/18/2022 06:35	WG1944201
Chrysene	U		0.0000179	0.0000500	1	10/18/2022 06:35	WG1944201
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	1	10/18/2022 06:35	WG1944201
Fluoranthene	U		0.0000270	0.000100	1	10/18/2022 06:35	WG1944201
Fluorene	U		0.0000169	0.0000500	1	10/18/2022 06:35	WG1944201
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	1	10/18/2022 06:35	WG1944201
Naphthalene	U		0.0000917	0.000250	1	10/18/2022 06:35	WG1944201
Phenanthrene	U		0.0000180	0.0000500	1	10/18/2022 06:35	WG1944201
Pyrene	0.0000252	J	0.0000169	0.0000500	1	10/18/2022 06:35	WG1944201

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	
1-Methylnaphthalene	U		0.0000687	0.000250	1	10/18/2022 06:35	WG1944201
2-Methylnaphthalene	U		0.0000674	0.000250	1	10/18/2022 06:35	WG1944201
(S) Nitrobenzene-d5	*101*			*31.0-160*		*10/18/2022 06:35*	WG1944201
(S) 2-Fluorobiphenyl	*87.5*			*48.0-148*		*10/18/2022 06:35*	WG1944201
(S) p-Terphenyl-d14	*77.5*			*37.0-146*		*10/18/2022 06:35*	WG1944201

Metals (ICP) by Method 6010

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Sodium	7.96		0.304	1.00	1	10/24/2022 21:39	WG1946741

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	0.0349	J	0.0287	0.100	1	10/18/2022 02:31	WG1943483
(S) a,a,a-Trifluorotoluene(FID)	*86.2*			*50.0-150*		*10/18/2022 02:31*	WG1943483
(S) a,a,a-Trifluorotoluene(PID)	*101*			*79.0-125*		*10/18/2022 02:31*	WG1943483

Volatile Organic Compounds (GC/MS) by Method 524.2/8260C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0000941	0.00100	1	10/18/2022 14:08	WG1944667
n-Butylbenzene	U		0.000157	0.00100	1	10/18/2022 14:08	WG1944667
sec-Butylbenzene	U		0.000125	0.00100	1	10/18/2022 14:08	WG1944667
tert-Butylbenzene	U		0.000127	0.00100	1	10/18/2022 14:08	WG1944667
Ethylbenzene	0.000464	J	0.000137	0.00100	1	10/18/2022 14:08	WG1944667
Isopropylbenzene	0.000218	J	0.000105	0.00100	1	10/18/2022 14:08	WG1944667
Naphthalene	U		0.00100	0.00500	1	10/18/2022 14:08	WG1944667
Toluene	U		0.000278	0.00100	1	10/18/2022 14:08	WG1944667
1,2,4-Trimethylbenzene	0.00118		0.000322	0.00100	1	10/18/2022 14:08	WG1944667
1,3,5-Trimethylbenzene	0.000508	J	0.000104	0.00100	1	10/18/2022 14:08	WG1944667
m&p-Xylene	0.000449	J	0.000430	0.00200	1	10/18/2022 14:08	WG1944667
o-Xylene	U		0.000174	0.00100	1	10/18/2022 14:08	WG1944667
(S) Toluene-d8	*107*			*80.0-120*		*10/18/2022 14:08*	WG1944667
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*10/18/2022 14:08*	WG1944667
(S) 1,2-Dichloroethane-d4	*115*			*70.0-130*		*10/18/2022 14:08*	WG1944667

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	0.392	J	0.170	0.800	1	10/19/2022 13:19	WG1943589
(S) o-Terphenyl	*83.0*			*50.0-150*		*10/19/2022 13:19*	WG1943589

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	10/18/2022 06:01	WG1944201
Acenaphthene	U		0.0000190	0.0000500	1	10/18/2022 06:01	WG1944201
Acenaphthylene	U		0.0000171	0.0000500	1	10/18/2022 06:01	WG1944201
Benzo(a)anthracene	U		0.0000203	0.0000500	1	10/18/2022 06:01	WG1944201
Benzo(a)pyrene	U		0.0000184	0.0000500	1	10/18/2022 06:01	WG1944201
Benzo(b)fluoranthene	U		0.0000168	0.0000500	1	10/18/2022 06:01	WG1944201
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	1	10/18/2022 06:01	WG1944201
Benzo(k)fluoranthene	U		0.0000202	0.0000500	1	10/18/2022 06:01	WG1944201
Chrysene	0.0000235	J	0.0000179	0.0000500	1	10/18/2022 06:01	WG1944201
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	1	10/18/2022 06:01	WG1944201
Fluoranthene	U		0.0000270	0.000100	1	10/18/2022 06:01	WG1944201
Fluorene	U		0.0000169	0.0000500	1	10/18/2022 06:01	WG1944201
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	1	10/18/2022 06:01	WG1944201
Naphthalene	U		0.0000917	0.000250	1	10/18/2022 06:01	WG1944201
Phenanthrene	U		0.0000180	0.0000500	1	10/18/2022 06:01	WG1944201
Pyrene	0.0000187	J	0.0000169	0.0000500	1	10/18/2022 06:01	WG1944201

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	
1-Methylnaphthalene	U		0.0000687	0.000250	1	10/18/2022 06:01	WG1944201
2-Methylnaphthalene	0.0000836	J	0.0000674	0.000250	1	10/18/2022 06:01	WG1944201
(S) Nitrobenzene-d5	*103*			*31.0-160*		*10/18/2022 06:01*	WG1944201
(S) 2-Fluorobiphenyl	*100*			*48.0-148*		*10/18/2022 06:01*	WG1944201
(S) p-Terphenyl-d14	*98.5*			*37.0-146*		*10/18/2022 06:01*	WG1944201

Metals (ICP) by Method 6010

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Sodium	8.87		0.304	1.00	1	10/24/2022 21:45	WG1946741

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	U		0.0287	0.100	1	10/18/2022 02:57	WG1943483
(S) a,a,a-Trifluorotoluene(FID)	*89.1*			*50.0-150*		*10/18/2022 02:57*	WG1943483
(S) a,a,a-Trifluorotoluene(PID)	*102*			*79.0-125*		*10/18/2022 02:57*	WG1943483

Volatile Organic Compounds (GC/MS) by Method 524.2/8260C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0000941	0.00100	1	10/18/2022 14:27	WG1944667
n-Butylbenzene	U		0.000157	0.00100	1	10/18/2022 14:27	WG1944667
sec-Butylbenzene	U		0.000125	0.00100	1	10/18/2022 14:27	WG1944667
tert-Butylbenzene	U		0.000127	0.00100	1	10/18/2022 14:27	WG1944667
Ethylbenzene	U		0.000137	0.00100	1	10/18/2022 14:27	WG1944667
Isopropylbenzene	U		0.000105	0.00100	1	10/18/2022 14:27	WG1944667
Naphthalene	U		0.00100	0.00500	1	10/18/2022 14:27	WG1944667
Toluene	U		0.000278	0.00100	1	10/18/2022 14:27	WG1944667
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/18/2022 14:27	WG1944667
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/18/2022 14:27	WG1944667
m&p-Xylene	U		0.000430	0.00200	1	10/18/2022 14:27	WG1944667
o-Xylene	U		0.000174	0.00100	1	10/18/2022 14:27	WG1944667
(S) Toluene-d8	*109*			*80.0-120*		*10/18/2022 14:27*	WG1944667
(S) 4-Bromofluorobenzene	*109*			*77.0-126*		*10/18/2022 14:27*	WG1944667
(S) 1,2-Dichloroethane-d4	*118*			*70.0-130*		*10/18/2022 14:27*	WG1944667

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	U		0.170	0.800	1	10/19/2022 13:40	WG1943589
(S) o-Terphenyl	*83.8*			*50.0-150*		*10/19/2022 13:40*	WG1943589

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	10/18/2022 03:59	WG1944201
Acenaphthene	U		0.0000190	0.0000500	1	10/18/2022 03:59	WG1944201
Acenaphthylene	U		0.0000171	0.0000500	1	10/18/2022 03:59	WG1944201
Benzo(a)anthracene	U		0.0000203	0.0000500	1	10/18/2022 03:59	WG1944201
Benzo(a)pyrene	U		0.0000184	0.0000500	1	10/18/2022 03:59	WG1944201
Benzo(b)fluoranthene	U		0.0000168	0.0000500	1	10/18/2022 03:59	WG1944201
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	1	10/18/2022 03:59	WG1944201
Benzo(k)fluoranthene	U		0.0000202	0.0000500	1	10/18/2022 03:59	WG1944201
Chrysene	U		0.0000179	0.0000500	1	10/18/2022 03:59	WG1944201
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	1	10/18/2022 03:59	WG1944201
Fluoranthene	U		0.0000270	0.000100	1	10/18/2022 03:59	WG1944201
Fluorene	U		0.0000169	0.0000500	1	10/18/2022 03:59	WG1944201
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	1	10/18/2022 03:59	WG1944201
Naphthalene	U		0.0000917	0.000250	1	10/18/2022 03:59	WG1944201
Phenanthrene	U		0.0000180	0.0000500	1	10/18/2022 03:59	WG1944201
Pyrene	U		0.0000169	0.0000500	1	10/18/2022 03:59	WG1944201

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	
1-Methylnaphthalene	U		0.0000687	0.000250	1	10/18/2022 03:59	WG1944201
2-Methylnaphthalene	U		0.0000674	0.000250	1	10/18/2022 03:59	WG1944201
(S) Nitrobenzene-d5	*103*			*31.0-160*		*10/18/2022 03:59*	WG1944201
(S) 2-Fluorobiphenyl	*97.5*			*48.0-148*		*10/18/2022 03:59*	WG1944201
(S) p-Terphenyl-d14	*94.5*			*37.0-146*		*10/18/2022 03:59*	WG1944201

Metals (ICP) by Method 6010

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Sodium	6.88		0.304	1.00	1	10/24/2022 21:50	WG1946741

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPHGAK C6 to C10	U		0.0287	0.100	1	10/18/2022 03:23	WG1943483
(S) a,a,a-Trifluorotoluene(FID)	*87.2*			*50.0-150*		*10/18/2022 03:23*	WG1943483
(S) a,a,a-Trifluorotoluene(PID)	*102*			*79.0-125*		*10/18/2022 03:23*	WG1943483

Volatile Organic Compounds (GC/MS) by Method 524.2/8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Benzene	U		0.0000941	0.00100	1	10/18/2022 14:46	WG1944667
n-Butylbenzene	U		0.000157	0.00100	1	10/18/2022 14:46	WG1944667
sec-Butylbenzene	U		0.000125	0.00100	1	10/18/2022 14:46	WG1944667
tert-Butylbenzene	U		0.000127	0.00100	1	10/18/2022 14:46	WG1944667
Ethylbenzene	U		0.000137	0.00100	1	10/18/2022 14:46	WG1944667
Isopropylbenzene	U		0.000105	0.00100	1	10/18/2022 14:46	WG1944667
Naphthalene	U		0.00100	0.00500	1	10/18/2022 14:46	WG1944667
Toluene	U		0.000278	0.00100	1	10/18/2022 14:46	WG1944667
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/18/2022 14:46	WG1944667
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/18/2022 14:46	WG1944667
m&p-Xylene	U		0.000430	0.00200	1	10/18/2022 14:46	WG1944667
o-Xylene	U		0.000174	0.00100	1	10/18/2022 14:46	WG1944667
(S) Toluene-d8	*109*			*80.0-120*		*10/18/2022 14:46*	WG1944667
(S) 4-Bromofluorobenzene	*109*			*77.0-126*		*10/18/2022 14:46*	WG1944667
(S) 1,2-Dichloroethane-d4	*121*			*70.0-130*		*10/18/2022 14:46*	WG1944667

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
AK102 DRO C10-C25	U		0.170	0.800	1	10/19/2022 14:00	WG1943589
(S) o-Terphenyl	*86.5*			*50.0-150*		*10/19/2022 14:00*	WG1943589

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	
Anthracene	U		0.0000190	0.0000500	1	10/18/2022 02:33	WG1944201
Acenaphthene	U		0.0000190	0.0000500	1	10/18/2022 02:33	WG1944201
Acenaphthylene	U		0.0000171	0.0000500	1	10/18/2022 02:33	WG1944201
Benzo(a)anthracene	U		0.0000203	0.0000500	1	10/18/2022 02:33	WG1944201
Benzo(a)pyrene	U		0.0000184	0.0000500	1	10/18/2022 02:33	WG1944201
Benzo(b)fluoranthene	U		0.0000168	0.0000500	1	10/18/2022 02:33	WG1944201
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	1	10/18/2022 02:33	WG1944201
Benzo(k)fluoranthene	U		0.0000202	0.0000500	1	10/18/2022 02:33	WG1944201
Chrysene	U		0.0000179	0.0000500	1	10/18/2022 02:33	WG1944201
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	1	10/18/2022 02:33	WG1944201
Fluoranthene	U		0.0000270	0.000100	1	10/18/2022 02:33	WG1944201
Fluorene	U		0.0000169	0.0000500	1	10/18/2022 02:33	WG1944201
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	1	10/18/2022 02:33	WG1944201
Naphthalene	U		0.0000917	0.000250	1	10/18/2022 02:33	WG1944201
Phenanthrene	U		0.0000180	0.0000500	1	10/18/2022 02:33	WG1944201
Pyrene	U		0.0000169	0.0000500	1	10/18/2022 02:33	WG1944201

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	
1-Methylnaphthalene	U		0.0000687	0.000250	1	10/18/2022 02:33	WG1944201
2-Methylnaphthalene	U		0.0000674	0.000250	1	10/18/2022 02:33	WG1944201
(S) Nitrobenzene-d5	*101*			*31.0-160*		*10/18/2022 02:33*	WG1944201
(S) 2-Fluorobiphenyl	*101*			*48.0-148*		*10/18/2022 02:33*	WG1944201
(S) p-Terphenyl-d14	*103*			*37.0-146*		*10/18/2022 02:33*	WG1944201

Metals (ICP) by Method 6010

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Sodium	9.84		0.304	1.00	1	10/24/2022 21:55	WG1946741

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	U		0.0287	0.100	1	10/18/2022 17:59	WG1944501
(S) a,a,a-Trifluorotoluene(FID)	*87.4*			*50.0-150*		*10/18/2022 17:59*	WG1944501
(S) a,a,a-Trifluorotoluene(PID)	*103*			*79.0-125*		*10/18/2022 17:59*	WG1944501

Volatile Organic Compounds (GC/MS) by Method 524.2/8260C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0000941	0.00100	1	10/18/2022 15:05	WG1944667
n-Butylbenzene	U		0.000157	0.00100	1	10/18/2022 15:05	WG1944667
sec-Butylbenzene	U		0.000125	0.00100	1	10/18/2022 15:05	WG1944667
tert-Butylbenzene	U		0.000127	0.00100	1	10/18/2022 15:05	WG1944667
Ethylbenzene	U		0.000137	0.00100	1	10/18/2022 15:05	WG1944667
Isopropylbenzene	U		0.000105	0.00100	1	10/18/2022 15:05	WG1944667
Naphthalene	U		0.00100	0.00500	1	10/18/2022 15:05	WG1944667
Toluene	U		0.000278	0.00100	1	10/18/2022 15:05	WG1944667
1,2,4-Trimethylbenzene	0.000523	J	0.000322	0.00100	1	10/18/2022 15:05	WG1944667
1,3,5-Trimethylbenzene	0.000487	J	0.000104	0.00100	1	10/18/2022 15:05	WG1944667
m&p-Xylene	U		0.000430	0.00200	1	10/18/2022 15:05	WG1944667
o-Xylene	U		0.000174	0.00100	1	10/18/2022 15:05	WG1944667
(S) Toluene-d8	*110*			*80.0-120*		*10/18/2022 15:05*	WG1944667
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*10/18/2022 15:05*	WG1944667
(S) 1,2-Dichloroethane-d4	*119*			*70.0-130*		*10/18/2022 15:05*	WG1944667

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	U		0.170	0.800	1	10/19/2022 14:20	WG1943589
(S) o-Terphenyl	*84.8*			*50.0-150*		*10/19/2022 14:20*	WG1943589

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	10/18/2022 02:50	WG1944201
Acenaphthene	U		0.0000190	0.0000500	1	10/18/2022 02:50	WG1944201
Acenaphthylene	U		0.0000171	0.0000500	1	10/18/2022 02:50	WG1944201
Benzo(a)anthracene	U		0.0000203	0.0000500	1	10/18/2022 02:50	WG1944201
Benzo(a)pyrene	U		0.0000184	0.0000500	1	10/18/2022 02:50	WG1944201
Benzo(b)fluoranthene	U		0.0000168	0.0000500	1	10/18/2022 02:50	WG1944201
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	1	10/18/2022 02:50	WG1944201
Benzo(k)fluoranthene	U		0.0000202	0.0000500	1	10/18/2022 02:50	WG1944201
Chrysene	U		0.0000179	0.0000500	1	10/18/2022 02:50	WG1944201
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	1	10/18/2022 02:50	WG1944201
Fluoranthene	U		0.0000270	0.000100	1	10/18/2022 02:50	WG1944201
Fluorene	U		0.0000169	0.0000500	1	10/18/2022 02:50	WG1944201
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	1	10/18/2022 02:50	WG1944201
Naphthalene	U		0.0000917	0.000250	1	10/18/2022 02:50	WG1944201
Phenanthrene	U		0.0000180	0.0000500	1	10/18/2022 02:50	WG1944201
Pyrene	U		0.0000169	0.0000500	1	10/18/2022 02:50	WG1944201

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
1-Methylnaphthalene	U		0.0000687	0.000250	1	10/18/2022 02:50	WG1944201
2-Methylnaphthalene	U		0.0000674	0.000250	1	10/18/2022 02:50	WG1944201
(S) Nitrobenzene-d5	*100*			*31.0-160*		*10/18/2022 02:50*	WG1944201
(S) 2-Fluorobiphenyl	*98.5*			*48.0-148*		*10/18/2022 02:50*	WG1944201
(S) p-Terphenyl-d14	*101*			*37.0-146*		*10/18/2022 02:50*	WG1944201

Metals (ICP) by Method 6010

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Sodium	8.91		0.304	1.00	1	10/24/2022 22:00	WG1946741

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	0.0294	J	0.0287	0.100	1	10/18/2022 18:26	WG1944501
(S) a,a,a-Trifluorotoluene(FID)	*91.1*			*50.0-150*		*10/18/2022 18:26*	WG1944501
(S) a,a,a-Trifluorotoluene(PID)	*102*			*79.0-125*		*10/18/2022 18:26*	WG1944501

Volatile Organic Compounds (GC/MS) by Method 524.2/8260C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0000941	0.00100	1	10/18/2022 15:24	WG1944667
n-Butylbenzene	U		0.000157	0.00100	1	10/18/2022 15:24	WG1944667
sec-Butylbenzene	U		0.000125	0.00100	1	10/18/2022 15:24	WG1944667
tert-Butylbenzene	U		0.000127	0.00100	1	10/18/2022 15:24	WG1944667
Ethylbenzene	U		0.000137	0.00100	1	10/18/2022 15:24	WG1944667
Isopropylbenzene	U		0.000105	0.00100	1	10/18/2022 15:24	WG1944667
Naphthalene	U		0.00100	0.00500	1	10/18/2022 15:24	WG1944667
Toluene	U		0.000278	0.00100	1	10/18/2022 15:24	WG1944667
1,2,4-Trimethylbenzene	0.000523	J	0.000322	0.00100	1	10/18/2022 15:24	WG1944667
1,3,5-Trimethylbenzene	0.000423	J	0.000104	0.00100	1	10/18/2022 15:24	WG1944667
m&p-Xylene	U		0.000430	0.00200	1	10/18/2022 15:24	WG1944667
o-Xylene	U		0.000174	0.00100	1	10/18/2022 15:24	WG1944667
(S) Toluene-d8	*112*			*80.0-120*		*10/18/2022 15:24*	WG1944667
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*10/18/2022 15:24*	WG1944667
(S) 1,2-Dichloroethane-d4	*118*			*70.0-130*		*10/18/2022 15:24*	WG1944667

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	U		0.170	0.800	1	10/19/2022 14:40	WG1943589
(S) o-Terphenyl	*92.0*			*50.0-150*		*10/19/2022 14:40*	WG1943589

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	10/18/2022 03:07	WG1944201
Acenaphthene	U		0.0000190	0.0000500	1	10/18/2022 03:07	WG1944201
Acenaphthylene	U		0.0000171	0.0000500	1	10/18/2022 03:07	WG1944201
Benzo(a)anthracene	U		0.0000203	0.0000500	1	10/18/2022 03:07	WG1944201
Benzo(a)pyrene	U		0.0000184	0.0000500	1	10/18/2022 03:07	WG1944201
Benzo(b)fluoranthene	U		0.0000168	0.0000500	1	10/18/2022 03:07	WG1944201
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	1	10/18/2022 03:07	WG1944201
Benzo(k)fluoranthene	U		0.0000202	0.0000500	1	10/18/2022 03:07	WG1944201
Chrysene	U		0.0000179	0.0000500	1	10/18/2022 03:07	WG1944201
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	1	10/18/2022 03:07	WG1944201
Fluoranthene	U		0.0000270	0.000100	1	10/18/2022 03:07	WG1944201
Fluorene	U		0.0000169	0.0000500	1	10/18/2022 03:07	WG1944201
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	1	10/18/2022 03:07	WG1944201
Naphthalene	U		0.0000917	0.000250	1	10/18/2022 03:07	WG1944201
Phenanthrene	U		0.0000180	0.0000500	1	10/18/2022 03:07	WG1944201
Pyrene	U		0.0000169	0.0000500	1	10/18/2022 03:07	WG1944201

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	
1-Methylnaphthalene	U		0.0000687	0.000250	1	10/18/2022 03:07	WG1944201
2-Methylnaphthalene	U		0.0000674	0.000250	1	10/18/2022 03:07	WG1944201
(S) Nitrobenzene-d5	*103*			*31.0-160*		*10/18/2022 03:07*	WG1944201
(S) 2-Fluorobiphenyl	*100*			*48.0-148*		*10/18/2022 03:07*	WG1944201
(S) p-Terphenyl-d14	*102*			*37.0-146*		*10/18/2022 03:07*	WG1944201

Volatile Organic Compounds (GC/MS) by Method 524.2/8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Benzene	U		0.0000941	0.00100	1	10/18/2022 12:13	WG1944667
n-Butylbenzene	U		0.000157	0.00100	1	10/18/2022 12:13	WG1944667
sec-Butylbenzene	U		0.000125	0.00100	1	10/18/2022 12:13	WG1944667
tert-Butylbenzene	U		0.000127	0.00100	1	10/18/2022 12:13	WG1944667
Ethylbenzene	U		0.000137	0.00100	1	10/18/2022 12:13	WG1944667
Isopropylbenzene	U		0.000105	0.00100	1	10/18/2022 12:13	WG1944667
Naphthalene	U		0.00100	0.00500	1	10/18/2022 12:13	WG1944667
Toluene	U		0.000278	0.00100	1	10/18/2022 12:13	WG1944667
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/18/2022 12:13	WG1944667
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/18/2022 12:13	WG1944667
m&p-Xylene	U		0.000430	0.00200	1	10/18/2022 12:13	WG1944667
o-Xylene	U		0.000174	0.00100	1	10/18/2022 12:13	WG1944667
(S) Toluene-d8	*111*			*80.0-120*		*10/18/2022 12:13*	WG1944667
(S) 4-Bromofluorobenzene	*110*			*77.0-126*		*10/18/2022 12:13*	WG1944667
(S) 1,2-Dichloroethane-d4	*120*			*70.0-130*		*10/18/2022 12:13*	WG1944667

Metals (ICP) by Method 6010

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Sodium	26.7		0.304	1.00	1	10/24/2022 22:05	WG1946741

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	0.322		0.0287	0.100	1	10/18/2022 19:03	WG1944501
(S) a,a,a-Trifluorotoluene(FID)	*85.6*			*50.0-150*		*10/18/2022 19:03*	WG1944501
(S) a,a,a-Trifluorotoluene(PID)	*101*			*79.0-125*		*10/18/2022 19:03*	WG1944501

Volatile Organic Compounds (GC/MS) by Method 524.2/8260C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.000309	J	0.0000941	0.00100	1	10/18/2022 15:44	WG1944667
n-Butylbenzene	U		0.000157	0.00100	1	10/18/2022 15:44	WG1944667
sec-Butylbenzene	U		0.000125	0.00100	1	10/18/2022 15:44	WG1944667
tert-Butylbenzene	U		0.000127	0.00100	1	10/18/2022 15:44	WG1944667
Ethylbenzene	0.000383	J	0.000137	0.00100	1	10/18/2022 15:44	WG1944667
Isopropylbenzene	0.000147	J	0.000105	0.00100	1	10/18/2022 15:44	WG1944667
Naphthalene	U		0.00100	0.00500	1	10/18/2022 15:44	WG1944667
Toluene	0.000380	J	0.000278	0.00100	1	10/18/2022 15:44	WG1944667
1,2,4-Trimethylbenzene	0.00241		0.000322	0.00100	1	10/18/2022 15:44	WG1944667
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/18/2022 15:44	WG1944667
m&p-Xylene	0.00953		0.000430	0.00200	1	10/18/2022 15:44	WG1944667
o-Xylene	0.00347		0.000174	0.00100	1	10/18/2022 15:44	WG1944667
(S) Toluene-d8	*108*			*80.0-120*		*10/18/2022 15:44*	WG1944667
(S) 4-Bromofluorobenzene	*110*			*77.0-126*		*10/18/2022 15:44*	WG1944667
(S) 1,2-Dichloroethane-d4	*121*			*70.0-130*		*10/18/2022 15:44*	WG1944667

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	0.500	J	0.170	0.800	1	10/19/2022 15:01	WG1943589
(S) o-Terphenyl	*87.5*			*50.0-150*		*10/19/2022 15:01*	WG1943589

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	10/18/2022 05:43	WG1944201
Acenaphthene	U		0.0000190	0.0000500	1	10/18/2022 05:43	WG1944201
Acenaphthylene	U		0.0000171	0.0000500	1	10/18/2022 05:43	WG1944201
Benzo(a)anthracene	U		0.0000203	0.0000500	1	10/18/2022 05:43	WG1944201
Benzo(a)pyrene	U		0.0000184	0.0000500	1	10/18/2022 05:43	WG1944201
Benzo(b)fluoranthene	U		0.0000168	0.0000500	1	10/18/2022 05:43	WG1944201
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	1	10/18/2022 05:43	WG1944201
Benzo(k)fluoranthene	U		0.0000202	0.0000500	1	10/18/2022 05:43	WG1944201
Chrysene	U		0.0000179	0.0000500	1	10/18/2022 05:43	WG1944201
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	1	10/18/2022 05:43	WG1944201
Fluoranthene	U		0.0000270	0.000100	1	10/18/2022 05:43	WG1944201
Fluorene	0.0000297	J	0.0000169	0.0000500	1	10/18/2022 05:43	WG1944201
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	1	10/18/2022 05:43	WG1944201
Naphthalene	0.00110		0.0000917	0.000250	1	10/18/2022 05:43	WG1944201
Phenanthrene	U		0.0000180	0.0000500	1	10/18/2022 05:43	WG1944201
Pyrene	U		0.0000169	0.0000500	1	10/18/2022 05:43	WG1944201

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
1-Methylnaphthalene	0.000499		0.0000687	0.000250	1	10/18/2022 05:43	WG1944201
2-Methylnaphthalene	0.000667		0.0000674	0.000250	1	10/18/2022 05:43	WG1944201
(S) Nitrobenzene-d5	*92.5*			*31.0-160*		*10/18/2022 05:43*	WG1944201
(S) 2-Fluorobiphenyl	*91.5*			*48.0-148*		*10/18/2022 05:43*	WG1944201
(S) p-Terphenyl-d14	*80.0*			*37.0-146*		*10/18/2022 05:43*	WG1944201

Volatile Organic Compounds (GC/MS) by Method 524.2/8260C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0000490	0.000500	1	10/17/2022 12:08	WG1943882
Carbon tetrachloride	U		0.0000660	0.000500	1	10/17/2022 12:08	WG1943882
1,4-Dichlorobenzene	U		0.0000310	0.000500	1	10/17/2022 12:08	WG1943882
1,2-Dichloroethane	U		0.0000498	0.000500	1	10/17/2022 12:08	WG1943882
1,1-Dichloroethene	U		0.0000540	0.000500	1	10/17/2022 12:08	WG1943882
1,1,1-Trichloroethane	U		0.0000490	0.000500	1	10/17/2022 12:08	WG1943882
Trichloroethene	U		0.0000440	0.000500	1	10/17/2022 12:08	WG1943882
Vinyl chloride	U		0.0000260	0.000500	1	10/17/2022 12:08	WG1943882
1,2,4-Trichlorobenzene	U		0.0000530	0.000500	1	10/17/2022 12:08	WG1943882
cis-1,2-Dichloroethene	U		0.0000640	0.000500	1	10/17/2022 12:08	WG1943882
Xylenes, Total	U		0.000167	0.000500	1	10/17/2022 12:08	WG1943882
Methylene chloride	U		0.0000608	0.000500	1	10/17/2022 12:08	WG1943882
1,2-Dichlorobenzene	U		0.0000410	0.000500	1	10/17/2022 12:08	WG1943882
trans-1,2-Dichloroethene	U		0.000100	0.000500	1	10/17/2022 12:08	WG1943882
1,2-Dichloropropane	U		0.0000270	0.000500	1	10/17/2022 12:08	WG1943882
1,1,2-Trichloroethane	U		0.0000701	0.000500	1	10/17/2022 12:08	WG1943882
Tetrachloroethene	U		0.0000790	0.000500	1	10/17/2022 12:08	WG1943882
Chlorobenzene	U		0.0000370	0.000500	1	10/17/2022 12:08	WG1943882
Toluene	U		0.000412	0.00100	1	10/17/2022 12:08	WG1943882
Ethylbenzene	U		0.0000440	0.000500	1	10/17/2022 12:08	WG1943882
Styrene	U		0.0000360	0.000500	1	10/17/2022 12:08	WG1943882
Bromobenzene	U		0.0000490	0.000500	1	10/17/2022 12:08	WG1943882
Bromodichloromethane	U		0.0000810	0.000500	1	10/17/2022 12:08	WG1943882
Bromoform	U		0.0000800	0.000500	1	10/17/2022 12:08	WG1943882
Bromomethane	U		0.0000790	0.00100	1	10/17/2022 12:08	WG1943882
Chlorodibromomethane	U		0.0000930	0.000500	1	10/17/2022 12:08	WG1943882
Chloroethane	U		0.000190	0.000500	1	10/17/2022 12:08	WG1943882
Chloroform	U		0.0000800	0.000500	1	10/17/2022 12:08	WG1943882
Chloromethane	U		0.0000290	0.000500	1	10/17/2022 12:08	WG1943882
2-Chlorotoluene	U		0.0000480	0.000500	1	10/17/2022 12:08	WG1943882
4-Chlorotoluene	U		0.0000550	0.000500	1	10/17/2022 12:08	WG1943882
Dibromomethane	U		0.0000700	0.000500	1	10/17/2022 12:08	WG1943882
Methyl tert-butyl ether	U		0.0000530	0.000500	1	10/17/2022 12:08	WG1943882
1,3-Dichlorobenzene	U		0.0000360	0.000500	1	10/17/2022 12:08	WG1943882
1,1-Dichloroethane	U		0.0000240	0.000500	1	10/17/2022 12:08	WG1943882
1,3-Dichloropropane	U		0.0000230	0.000500	1	10/17/2022 12:08	WG1943882
2,2-Dichloropropane	U		0.0000680	0.000500	1	10/17/2022 12:08	WG1943882
1,1-Dichloropropene	U		0.0000450	0.000500	1	10/17/2022 12:08	WG1943882
1,3-Dichloropropene	U		0.000320	0.000500	1	10/17/2022 12:08	WG1943882
1,1,1,2-Tetrachloroethane	U		0.0000700	0.000500	1	10/17/2022 12:08	WG1943882
1,1,2,2-Tetrachloroethane	U		0.0000790	0.000500	1	10/17/2022 12:08	WG1943882
1,2,3-Trichloropropane	U		0.0000720	0.000500	1	10/17/2022 12:08	WG1943882
(S) 4-Bromofluorobenzene	*86.5*			*70.0-130*		*10/17/2022 12:08*	WG1943882
(S) 1,2-Dichlorobenzene-d4	*87.9*			*70.0-130*		*10/17/2022 12:08*	WG1943882

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	U		0.170	0.800	1	10/19/2022 15:21	WG1943589
(S) o-Terphenyl	*83.3*			*50.0-150*		*10/19/2022 15:21*	WG1943589

Volatile Organic Compounds (GC/MS) by Method 524.2/8260C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0000490	0.000500	1	10/17/2022 12:30	WG1943882
Carbon tetrachloride	U		0.0000660	0.000500	1	10/17/2022 12:30	WG1943882
1,4-Dichlorobenzene	U		0.0000310	0.000500	1	10/17/2022 12:30	WG1943882
1,2-Dichloroethane	U		0.0000498	0.000500	1	10/17/2022 12:30	WG1943882
1,1-Dichloroethene	U		0.0000540	0.000500	1	10/17/2022 12:30	WG1943882
1,1,1-Trichloroethane	U		0.0000490	0.000500	1	10/17/2022 12:30	WG1943882
Trichloroethene	U		0.0000440	0.000500	1	10/17/2022 12:30	WG1943882
Vinyl chloride	U		0.0000260	0.000500	1	10/17/2022 12:30	WG1943882
1,2,4-Trichlorobenzene	U		0.0000530	0.000500	1	10/17/2022 12:30	WG1943882
cis-1,2-Dichloroethene	U		0.0000640	0.000500	1	10/17/2022 12:30	WG1943882
Xylenes, Total	0.000303	J	0.000167	0.000500	1	10/17/2022 12:30	WG1943882
Methylene chloride	U		0.0000608	0.000500	1	10/17/2022 12:30	WG1943882
1,2-Dichlorobenzene	U		0.0000410	0.000500	1	10/17/2022 12:30	WG1943882
trans-1,2-Dichloroethene	U		0.000100	0.000500	1	10/17/2022 12:30	WG1943882
1,2-Dichloropropane	U		0.0000270	0.000500	1	10/17/2022 12:30	WG1943882
1,1,2-Trichloroethane	U		0.0000701	0.000500	1	10/17/2022 12:30	WG1943882
Tetrachloroethene	U		0.0000790	0.000500	1	10/17/2022 12:30	WG1943882
Chlorobenzene	U		0.0000370	0.000500	1	10/17/2022 12:30	WG1943882
Toluene	U		0.000412	0.00100	1	10/17/2022 12:30	WG1943882
Ethylbenzene	U		0.0000440	0.000500	1	10/17/2022 12:30	WG1943882
Styrene	U		0.0000360	0.000500	1	10/17/2022 12:30	WG1943882
Bromobenzene	U		0.0000490	0.000500	1	10/17/2022 12:30	WG1943882
Bromodichloromethane	U		0.0000810	0.000500	1	10/17/2022 12:30	WG1943882
Bromoform	U		0.0000800	0.000500	1	10/17/2022 12:30	WG1943882
Bromomethane	U		0.0000790	0.00100	1	10/17/2022 12:30	WG1943882
Chlorodibromomethane	U		0.0000930	0.000500	1	10/17/2022 12:30	WG1943882
Chloroethane	U		0.000190	0.000500	1	10/17/2022 12:30	WG1943882
Chloroform	U		0.0000800	0.000500	1	10/17/2022 12:30	WG1943882
Chloromethane	U		0.0000290	0.000500	1	10/17/2022 12:30	WG1943882
2-Chlorotoluene	U		0.0000480	0.000500	1	10/17/2022 12:30	WG1943882
4-Chlorotoluene	U		0.0000550	0.000500	1	10/17/2022 12:30	WG1943882
Dibromomethane	U		0.0000700	0.000500	1	10/17/2022 12:30	WG1943882
Methyl tert-butyl ether	U		0.0000530	0.000500	1	10/17/2022 12:30	WG1943882
1,3-Dichlorobenzene	U		0.0000360	0.000500	1	10/17/2022 12:30	WG1943882
1,1-Dichloroethane	U		0.0000240	0.000500	1	10/17/2022 12:30	WG1943882
1,3-Dichloropropane	U		0.0000230	0.000500	1	10/17/2022 12:30	WG1943882
2,2-Dichloropropane	U		0.0000680	0.000500	1	10/17/2022 12:30	WG1943882
1,1-Dichloropropene	U		0.0000450	0.000500	1	10/17/2022 12:30	WG1943882
1,3-Dichloropropene	U		0.000320	0.000500	1	10/17/2022 12:30	WG1943882
1,1,1,2-Tetrachloroethane	U		0.0000700	0.000500	1	10/17/2022 12:30	WG1943882
1,1,2,2-Tetrachloroethane	U		0.0000790	0.000500	1	10/17/2022 12:30	WG1943882
1,2,3-Trichloropropane	U		0.0000720	0.000500	1	10/17/2022 12:30	WG1943882
(S) 4-Bromofluorobenzene	*88.3*			*70.0-130*		*10/17/2022 12:30*	WG1943882
(S) 1,2-Dichlorobenzene-d4	*88.7*			*70.0-130*		*10/17/2022 12:30*	WG1943882

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	U		0.170	0.800	1	10/19/2022 15:41	WG1943589
(S) o-Terphenyl	*82.1*			*50.0-150*		*10/19/2022 15:41*	WG1943589

Volatile Organic Compounds (GC/MS) by Method 524.2/8260C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0000490	0.000500	1	10/17/2022 12:53	WG1943882
Carbon tetrachloride	U		0.0000660	0.000500	1	10/17/2022 12:53	WG1943882
1,4-Dichlorobenzene	U		0.0000310	0.000500	1	10/17/2022 12:53	WG1943882
1,2-Dichloroethane	U		0.0000498	0.000500	1	10/17/2022 12:53	WG1943882
1,1-Dichloroethene	U		0.0000540	0.000500	1	10/17/2022 12:53	WG1943882
1,1,1-Trichloroethane	U		0.0000490	0.000500	1	10/17/2022 12:53	WG1943882
Trichloroethene	U		0.0000440	0.000500	1	10/17/2022 12:53	WG1943882
Vinyl chloride	U		0.0000260	0.000500	1	10/17/2022 12:53	WG1943882
1,2,4-Trichlorobenzene	U		0.0000530	0.000500	1	10/17/2022 12:53	WG1943882
cis-1,2-Dichloroethene	U		0.0000640	0.000500	1	10/17/2022 12:53	WG1943882
Xylenes, Total	U		0.000167	0.000500	1	10/17/2022 12:53	WG1943882
Methylene chloride	U		0.0000608	0.000500	1	10/17/2022 12:53	WG1943882
1,2-Dichlorobenzene	U		0.0000410	0.000500	1	10/17/2022 12:53	WG1943882
trans-1,2-Dichloroethene	U		0.000100	0.000500	1	10/17/2022 12:53	WG1943882
1,2-Dichloropropane	U		0.0000270	0.000500	1	10/17/2022 12:53	WG1943882
1,1,2-Trichloroethane	U		0.0000701	0.000500	1	10/17/2022 12:53	WG1943882
Tetrachloroethene	U		0.0000790	0.000500	1	10/17/2022 12:53	WG1943882
Chlorobenzene	U		0.0000370	0.000500	1	10/17/2022 12:53	WG1943882
Toluene	U		0.000412	0.00100	1	10/17/2022 12:53	WG1943882
Ethylbenzene	U		0.0000440	0.000500	1	10/17/2022 12:53	WG1943882
Styrene	U		0.0000360	0.000500	1	10/17/2022 12:53	WG1943882
Bromobenzene	U		0.0000490	0.000500	1	10/17/2022 12:53	WG1943882
Bromodichloromethane	U		0.0000810	0.000500	1	10/17/2022 12:53	WG1943882
Bromoform	U		0.0000800	0.000500	1	10/17/2022 12:53	WG1943882
Bromomethane	U		0.0000790	0.00100	1	10/17/2022 12:53	WG1943882
Chlorodibromomethane	U		0.0000930	0.000500	1	10/17/2022 12:53	WG1943882
Chloroethane	U		0.000190	0.000500	1	10/17/2022 12:53	WG1943882
Chloroform	U		0.0000800	0.000500	1	10/17/2022 12:53	WG1943882
Chloromethane	U		0.0000290	0.000500	1	10/17/2022 12:53	WG1943882
2-Chlorotoluene	U		0.0000480	0.000500	1	10/17/2022 12:53	WG1943882
4-Chlorotoluene	U		0.0000550	0.000500	1	10/17/2022 12:53	WG1943882
Dibromomethane	U		0.0000700	0.000500	1	10/17/2022 12:53	WG1943882
Methyl tert-butyl ether	U		0.0000530	0.000500	1	10/17/2022 12:53	WG1943882
1,3-Dichlorobenzene	U		0.0000360	0.000500	1	10/17/2022 12:53	WG1943882
1,1-Dichloroethane	U		0.0000240	0.000500	1	10/17/2022 12:53	WG1943882
1,3-Dichloropropane	U		0.0000230	0.000500	1	10/17/2022 12:53	WG1943882
2,2-Dichloropropane	U		0.0000680	0.000500	1	10/17/2022 12:53	WG1943882
1,1-Dichloropropene	U		0.0000450	0.000500	1	10/17/2022 12:53	WG1943882
1,3-Dichloropropene	U		0.000320	0.000500	1	10/17/2022 12:53	WG1943882
1,1,1,2-Tetrachloroethane	U		0.0000700	0.000500	1	10/17/2022 12:53	WG1943882
1,1,2,2-Tetrachloroethane	U		0.0000790	0.000500	1	10/17/2022 12:53	WG1943882
1,2,3-Trichloropropane	U		0.0000720	0.000500	1	10/17/2022 12:53	WG1943882
(S) 4-Bromofluorobenzene	*90.0*			*70.0-130*		*10/17/2022 12:53*	WG1943882
(S) 1,2-Dichlorobenzene-d4	*91.3*			*70.0-130*		*10/17/2022 12:53*	WG1943882

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	U		0.170	0.800	1	10/19/2022 16:01	WG1943589
(S) o-Terphenyl	*82.7*			*50.0-150*		*10/19/2022 16:01*	WG1943589

Volatile Organic Compounds (GC/MS) by Method 524.2/8260C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0000941	0.00100	1	10/18/2022 16:03	WG1944667
n-Butylbenzene	U		0.000157	0.00100	1	10/18/2022 16:03	WG1944667
sec-Butylbenzene	U		0.000125	0.00100	1	10/18/2022 16:03	WG1944667
tert-Butylbenzene	U		0.000127	0.00100	1	10/18/2022 16:03	WG1944667
Ethylbenzene	U		0.000137	0.00100	1	10/18/2022 16:03	WG1944667
Isopropylbenzene	U		0.000105	0.00100	1	10/18/2022 16:03	WG1944667
Naphthalene	U		0.00100	0.00500	1	10/18/2022 16:03	WG1944667
Toluene	U		0.000278	0.00100	1	10/18/2022 16:03	WG1944667
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/18/2022 16:03	WG1944667
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/18/2022 16:03	WG1944667
m&p-Xylene	U		0.000430	0.00200	1	10/18/2022 16:03	WG1944667
o-Xylene	U		0.000174	0.00100	1	10/18/2022 16:03	WG1944667
(S) Toluene-d8	*111*			*80.0-120*		*10/18/2022 16:03*	WG1944667
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*10/18/2022 16:03*	WG1944667
(S) 1,2-Dichloroethane-d4	*119*			*70.0-130*		*10/18/2022 16:03*	WG1944667

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	U		0.170	0.800	1	10/19/2022 16:22	WG1943589
(S) o-Terphenyl	*83.4*			*50.0-150*		*10/19/2022 16:22*	WG1943589

Volatile Organic Compounds (GC/MS) by Method 524.2/8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Benzene	U		0.0000941	0.00100	1	10/18/2022 12:32	WG1944667
n-Butylbenzene	U		0.000157	0.00100	1	10/18/2022 12:32	WG1944667
sec-Butylbenzene	U		0.000125	0.00100	1	10/18/2022 12:32	WG1944667
tert-Butylbenzene	U		0.000127	0.00100	1	10/18/2022 12:32	WG1944667
Ethylbenzene	U		0.000137	0.00100	1	10/18/2022 12:32	WG1944667
Isopropylbenzene	U		0.000105	0.00100	1	10/18/2022 12:32	WG1944667
Naphthalene	U		0.00100	0.00500	1	10/18/2022 12:32	WG1944667
Toluene	U		0.000278	0.00100	1	10/18/2022 12:32	WG1944667
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/18/2022 12:32	WG1944667
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/18/2022 12:32	WG1944667
m&p-Xylene	U		0.000430	0.00200	1	10/18/2022 12:32	WG1944667
o-Xylene	U		0.000174	0.00100	1	10/18/2022 12:32	WG1944667
(S) Toluene-d8	*111*			*80.0-120*		*10/18/2022 12:32*	WG1944667
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*10/18/2022 12:32*	WG1944667
(S) 1,2-Dichloroethane-d4	*119*			*70.0-130*		*10/18/2022 12:32*	WG1944667

QUALITY CONTROL SUMMARY

L1546587-01,02,03,04,05,06,08

Method Blank (MB)

(MB) R3852450-1 10/24/22 20:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Sodium	U		0.304	1.00

Laboratory Control Sample (LCS)

(LCS) R3852450-2 10/24/22 20:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sodium	10.0	10.0	100	80.0-120	

L1545356-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1545356-01 10/24/22 20:22 • (MS) R3852450-3 10/24/22 20:27 • (MSD) R3852450-4 10/24/22 20:32

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	5.15	15.0	15.2	98.4	100	1	75.0-125			1.19	20

Method Blank (MB)

(MB) R3851075-2 10/17/22 12:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPHGAK C6 to C10	U		0.0287	0.100
(S) a,a,a-Trifluorotoluene(FID)	*83.2*			*60.0-120*
(S) a,a,a-Trifluorotoluene(PID)	*102*			*79.0-125*

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

(LCS) R3851075-1 10/17/22 10:49 • (LCSD) R3851075-3 10/17/22 13:13

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	4.74	5.19	94.8	104	60.0-120			9.06	20
(S) a,a,a-Trifluorotoluene(FID)				*97.7*	*100*	*60.0-120*				
(S) a,a,a-Trifluorotoluene(PID)				*117*	*119*	*79.0-125*				

Method Blank (MB)

(MB) R3852875-2 10/18/22 14:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPHGAK C6 to C10	U		0.0287	0.100
(S) a,a,a-Trifluorotoluene(FID)	*91.0*			*60.0-120*
(S) a,a,a-Trifluorotoluene(PID)	*103*			*79.0-125*

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

(LCS) R3852875-1 10/18/22 13:08 • (LCSD) R3852875-7 10/19/22 11:14

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	4.36	4.32	87.2	86.4	60.0-120			0.922	20
(S) a,a,a-Trifluorotoluene(FID)				*99.1*	*100*	*60.0-120*				
(S) a,a,a-Trifluorotoluene(PID)				*116*	*116*	*79.0-125*				

L1546626-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546626-01 10/18/22 19:29 • (MS) R3852875-3 10/19/22 08:30 • (MSD) R3852875-4 10/19/22 09:26

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 %
TPHGAK C6 to C10	5.00	U	4.53	2.97	90.6	59.4	1	70.0-130		J3 J6	41.6	20
(S) a,a,a-Trifluorotoluene(FID)					*96.8*	*94.3*		*50.0-150*				
(S) a,a,a-Trifluorotoluene(PID)					*111*	*112*		*79.0-125*				

L1546657-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1546657-01 10/18/22 23:43 • (MS) R3852875-5 10/19/22 09:54 • (MSD) R3852875-6 10/19/22 10:21

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 %
TPHGAK C6 to C10	5.00	0.175	1.64	0.864	29.3	13.8	1	70.0-130	J6	J3 J6	62.0	20
(S) a,a,a-Trifluorotoluene(FID)					*90.8*	*78.2*		*50.0-150*				
(S) a,a,a-Trifluorotoluene(PID)					*105*	*101*		*79.0-125*				

Method Blank (MB)

(MB) R3851891-2 10/17/22 10:02

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000490	0.000500
Carbon tetrachloride	U		0.0000660	0.000500
1,4-Dichlorobenzene	U		0.0000310	0.000500
1,2-Dichloroethane	U		0.0000498	0.000500
1,1-Dichloroethene	U		0.0000540	0.000500
1,1,1-Trichloroethane	U		0.0000490	0.000500
Trichloroethene	U		0.0000440	0.000500
Vinyl chloride	U		0.0000260	0.000500
1,2,4-Trichlorobenzene	U		0.0000530	0.000500
cis-1,2-Dichloroethene	U		0.0000640	0.000500
Xylenes, Total	U		0.000167	0.000500
Methylene chloride	U		0.0000608	0.000500
1,2-Dichlorobenzene	U		0.0000410	0.000500
trans-1,2-Dichloroethene	U		0.000100	0.000500
1,2-Dichloropropane	U		0.0000270	0.000500
1,1,2-Trichloroethane	U		0.0000701	0.000500
Tetrachloroethene	U		0.0000790	0.000500
Chlorobenzene	U		0.0000370	0.000500
Toluene	U		0.000412	0.00100
Ethylbenzene	U		0.0000440	0.000500
Styrene	U		0.0000360	0.000500
Bromobenzene	U		0.0000490	0.000500
Bromodichloromethane	U		0.0000810	0.000500
Bromoform	U		0.0000800	0.000500
Bromomethane	U		0.0000790	0.00100
Chlorodibromomethane	U		0.0000930	0.000500
Chloroethane	U		0.000190	0.000500
Chloroform	U		0.0000800	0.000500
Chloromethane	U		0.0000290	0.000500
2-Chlorotoluene	U		0.0000480	0.000500
4-Chlorotoluene	U		0.0000550	0.000500
Dibromomethane	U		0.0000700	0.000500
Methyl tert-butyl ether	U		0.0000530	0.000500
1,3-Dichlorobenzene	U		0.0000360	0.000500
1,1-Dichloroethane	U		0.0000240	0.000500
1,3-Dichloropropane	U		0.0000230	0.000500
2,2-Dichloropropane	U		0.0000680	0.000500
1,1-Dichloropropene	U		0.0000450	0.000500
1,3-Dichloropropene	U		0.000320	0.000500
1,1,1,2-Tetrachloroethane	U		0.0000700	0.000500

Method Blank (MB)

(MB) R3851891-2 10/17/22 10:02

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,1,2,2-Tetrachloroethane	U		0.0000790	0.000500
1,2,3-Trichloropropane	U		0.0000720	0.000500
(S) 4-Bromofluorobenzene	*87.4*			*70.0-130*
(S) 1,2-Dichlorobenzene-d4	*89.3*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3851891-1 10/17/22 09:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.00500	0.00574	115	70.0-130	
Carbon tetrachloride	0.00500	0.00551	110	70.0-130	
1,4-Dichlorobenzene	0.00500	0.00574	115	70.0-130	
1,2-Dichloroethane	0.00500	0.00532	106	70.0-130	
1,1-Dichloroethene	0.00500	0.00547	109	70.0-130	
1,1,1-Trichloroethane	0.00500	0.00540	108	70.0-130	
Trichloroethene	0.00500	0.00618	124	70.0-130	
Vinyl chloride	0.00500	0.00519	104	70.0-130	
1,2,4-Trichlorobenzene	0.00500	0.00548	110	70.0-130	
cis-1,2-Dichloroethene	0.00500	0.00582	116	70.0-130	
Xylenes, Total	0.0150	0.0164	109	70.0-130	
Methylene chloride	0.00500	0.00570	114	70.0-130	
1,2-Dichlorobenzene	0.00500	0.00554	111	70.0-130	
trans-1,2-Dichloroethene	0.00500	0.00559	112	70.0-130	
1,2-Dichloropropane	0.00500	0.00562	112	70.0-130	
1,1,2-Trichloroethane	0.00500	0.00560	112	70.0-130	
Tetrachloroethene	0.00500	0.00596	119	70.0-130	
Chlorobenzene	0.00500	0.00586	117	70.0-130	
Toluene	0.00500	0.00598	120	70.0-130	
Ethylbenzene	0.00500	0.00593	119	70.0-130	
Styrene	0.00500	0.00584	117	70.0-130	
Bromobenzene	0.00500	0.00566	113	70.0-130	
Bromodichloromethane	0.00500	0.00536	107	70.0-130	
Bromoform	0.00500	0.00540	108	70.0-130	
Bromomethane	0.00500	0.00630	126	70.0-130	
Chlorodibromomethane	0.00500	0.00535	107	70.0-130	
Chloroethane	0.00500	0.00596	119	70.0-130	
Chloroform	0.00500	0.00573	115	70.0-130	
Chloromethane	0.00500	0.00557	111	70.0-130	

Laboratory Control Sample (LCS)

(LCS) R3851891-1 10/17/22 09:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
2-Chlorotoluene	0.00500	0.00601	120	70.0-130	
4-Chlorotoluene	0.00500	0.00580	116	70.0-130	
Dibromomethane	0.00500	0.00581	116	70.0-130	
Methyl tert-butyl ether	0.00500	0.00536	107	70.0-130	
1,3-Dichlorobenzene	0.00500	0.00561	112	70.0-130	
1,1-Dichloroethane	0.00500	0.00560	112	70.0-130	
1,3-Dichloropropane	0.00500	0.00547	109	70.0-130	
2,2-Dichloropropane	0.00500	0.00599	120	70.0-130	
1,1-Dichloropropene	0.00500	0.00555	111	70.0-130	
1,3-Dichloropropene	0.0100	0.0114	114	70.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00552	110	70.0-130	
1,1,2,2-Tetrachloroethane	0.00500	0.00551	110	70.0-130	
1,2,3-Trichloropropane	0.00500	0.00559	112	70.0-130	
(S) 4-Bromofluorobenzene			*105*	*70.0-130*	
(S) 1,2-Dichlorobenzene-d4			*101*	*70.0-130*	

Method Blank (MB)

(MB) R3850174-3 10/18/22 10:46

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
tert-Butylbenzene	U		0.000127	0.00100
Ethylbenzene	U		0.000137	0.00100
Isopropylbenzene	U		0.000105	0.00100
Naphthalene	U		0.00100	0.00500
Toluene	U		0.000278	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
m&p-Xylenes	U		0.000430	0.00200
o-Xylene	U		0.000174	0.00100
(S) Toluene-d8	*112*			*80.0-120*
(S) 4-Bromofluorobenzene	*107*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*116*			*70.0-130*

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

(LCS) R3850174-1 10/18/22 09:48 • (LCSD) R3850174-2 10/18/22 10:07

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	0.00545	0.00496	109	99.2	70.0-123			9.41	20
n-Butylbenzene	0.00500	0.00526	0.00456	105	91.2	73.0-125			14.3	20
sec-Butylbenzene	0.00500	0.00500	0.00438	100	87.6	75.0-125			13.2	20
tert-Butylbenzene	0.00500	0.00508	0.00450	102	90.0	76.0-124			12.1	20
Ethylbenzene	0.00500	0.00531	0.00472	106	94.4	79.0-123			11.8	20
Isopropylbenzene	0.00500	0.00518	0.00451	104	90.2	76.0-127			13.8	20
Naphthalene	0.00500	0.00430	0.00412	86.0	82.4	54.0-135			4.28	20
Toluene	0.00500	0.00482	0.00442	96.4	88.4	79.0-120			8.66	20
1,2,4-Trimethylbenzene	0.00500	0.00511	0.00445	102	89.0	76.0-121			13.8	20
1,3,5-Trimethylbenzene	0.00500	0.00498	0.00443	99.6	88.6	76.0-122			11.7	20
m&p-Xylenes	0.0100	0.0103	0.00937	103	93.7	80.0-122			9.46	20
o-Xylene	0.00500	0.00514	0.00464	103	92.8	80.0-122			10.2	20
(S) Toluene-d8				*108*	*109*	*80.0-120*				
(S) 4-Bromofluorobenzene				*107*	*104*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*118*	*121*	*70.0-130*				

Method Blank (MB)

(MB) R3850346-1 10/19/22 09:14

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
AK102 DRO C10-C25	U		0.170	0.800
(S) o-Terphenyl	*89.1*			*60.0-120*

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

(LCS) R3850346-2 10/19/22 09:34 • (LCSD) R3850346-3 10/19/22 09:54

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 %
AK102 DRO C10-C25	6.00	6.99	6.90	117	115	75.0-125			1.30	20
(S) o-Terphenyl				*92.3*	*92.9*	*60.0-120*				

Method Blank (MB)

(MB) R3849701-3 10/18/22 01:06

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
(S) Nitrobenzene-d5	*99.5*			*31.0-160*
(S) 2-Fluorobiphenyl	*99.0*			*48.0-148*
(S) p-Terphenyl-d14	*95.0*			*37.0-146*

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

(LCS) R3849701-1 10/18/22 00:32 • (LCSD) R3849701-2 10/18/22 00:49

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 %
Anthracene	0.00200	0.00198	0.00193	99.0	96.5	67.0-150			2.56	20
Acenaphthene	0.00200	0.00218	0.00212	109	106	65.0-138			2.79	20
Acenaphthylene	0.00200	0.00209	0.00203	104	102	66.0-140			2.91	20
Benzo(a)anthracene	0.00200	0.00185	0.00179	92.5	89.5	61.0-140			3.30	20
Benzo(a)pyrene	0.00200	0.00181	0.00181	90.5	90.5	60.0-143			0.000	20
Benzo(b)fluoranthene	0.00200	0.00177	0.00179	88.5	89.5	58.0-141			1.12	20
Benzo(g,h,i)perylene	0.00200	0.00158	0.00163	79.0	81.5	52.0-153			3.12	20
Benzo(k)fluoranthene	0.00200	0.00174	0.00169	87.0	84.5	58.0-148			2.92	20
Chrysene	0.00200	0.00196	0.00197	98.0	98.5	64.0-144			0.509	20
Dibenz(a,h)anthracene	0.00200	0.00157	0.00161	78.5	80.5	52.0-155			2.52	20
Fluoranthene	0.00200	0.00213	0.00208	106	104	69.0-153			2.38	20
Fluorene	0.00200	0.00219	0.00214	109	107	64.0-136			2.31	20

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

(LCS) R3849701-1 10/18/22 00:32 • (LCSD) R3849701-2 10/18/22 00:49

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 %
Indeno(1,2,3-cd)pyrene	0.00200	0.00155	0.00153	77.5	76.5	54.0-153			1.30	20
Naphthalene	0.00200	0.00221	0.00217	111	108	61.0-137			1.83	20
Phenanthrene	0.00200	0.00207	0.00199	104	99.5	62.0-137			3.94	20
Pyrene	0.00200	0.00223	0.00223	111	111	60.0-142			0.000	20
1-Methylnaphthalene	0.00200	0.00214	0.00208	107	104	66.0-142			2.84	20
2-Methylnaphthalene	0.00200	0.00218	0.00214	109	107	62.0-136			1.85	20
(S) Nitrobenzene-d5				*107*	*102*	*31.0-160*				
(S) 2-Fluorobiphenyl				*99.5*	*99.0*	*48.0-148*				
(S) p-Terphenyl-d14				*89.5*	*92.0*	*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
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

ACCREDITATIONS & LOCATIONS

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	LAO00356
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		

Pace Analytical Services, LLC -Dallas 400 W. Bethany Drive Suite 190 Allen, TX 75013

Arkansas	88-0647	Kansas	E10388
Florida	E871118	Texas	T104704232-22-37
Iowa	408	Oklahoma	8727
Louisiana	30686		

[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:
Stantec - 7-11

725 E Fireweed Lane
Suite 200
Anchorage. AK 99503

Billing Information:
Paula Sime
P.O. Box 711 - Loc. 0148
Dallas, TX 75221

Pres Chk

Report to:
Mr. John Marshall

Email To: john.marshall@stantec.com

Project Description:
Speedway 5325

City/State Collected: Wasilla, AK

Please Circle: PT MT CT ET

Phone: 907-266-1108

Client Project # 185705773

Lab Project # 711STANTEC-5325AK

Collected by (print): SM

Site/Facility ID # 0005325

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed

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	V524GW 40mlAmb-AscAcid+HCl	V8260C 40mlAmb-HCl	V8260C 40mlAmb-HCl-Blk				Remarks	Sample # (lab only)
G-01	G	GW	—	10/12/22	1351	11	X	X	X	X		X						-01
G-03		GW	—		1731	11	X	X	X	X		X						-02
G-05		GW	—		1300	11	X	X	X	X		X						-03
G-07		GW	—		1211	11	X	X	X	X		X						-04
MW16-02		GW	—		1502	11	X	X	X	X		X						-05
DUP1		GW	—		—	11	X	X	X	X		X						-06
TRIP BLANK		GW	—		—	1							X				Cooler 1	-07
RW16-01		GW	—		1418	11	X	X	X	X		X						-08
RUNION LOT4		GW	—		1211	5		X			X							-09
RUNION LOT5		GW	—		1230	5		X			X							-10

* 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 #

Relinquished by : (Signature) | Date: 10/13/22 | Time: 0938 | Received by: (Signature)

Relinquished by : (Signature) | Date: | Time: | Received by: (Signature)

Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) | Date: 10/14/22 | Time: 900

Trip Blank Received: Yes / No
HCL / MeoH
TBR
2

Temp: °C Bottles Received: 105

If preservation required by Login: Date/Time

Hold: | Condition: NCF / OK

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: X N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Chain of Custody Page 1 of 2

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 # L1546587

G133

Acctnum: 711STANTEC
Template: T175035
Prelogin: P952903
PM: 034 - Craig Cothron
PB: 9/23/22

Shipped Via: FedEX 2nd Day

Company Name/Address:
Stantec - 7-11

725 E Fireweed Lane
Suite 200
Anchorage, AK 99503

Billing Information:
Paula Sime
P.O. Box 711 - Loc. 0148
Dallas, TX 75221

Pres Chk

Report to:
Mr. John Marshall

Email To: **john.marshall@stantec.com**

Project Description:
Speedway 5325

City/State Collected: Wasilla, AK

Please Circle: PT MT CT ET

Phone: **907-266-1108**

Client Project #
1857057773

Lab Project #
711STANTEC-5325AK

Collected by (print):
BM

Site/Facility ID #
0005325

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

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 #

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	V524GW 40mlAmb-AscAcid+HCl	V8260C 40mlAmb-HCl	V8260C 40mlAmb-HCl-Blk				Remarks	Sample # (lab only)
RUNION LOTS 1 AND 2	G	GW	—	10/12/22	1240	5		X			X							-11
G-06	↓	GW	—	↓	1755	4		X				X						-12
Trip Blank	↓	DW	—	↓	—	1							X				Cooler 2	-13

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

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 # L1545587

Table #

Acctnum: **711STANTEC**
Template: **T175035**
Prelogin: **P952903**
PM: 034 - Craig Cothron
PB: CB 9/23/22

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 #

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
	10/13/22	0938		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/14/22 Time: 900

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

L1546587

Tracking Numbers	Temperature
5882 7562 1526	GBA7 2.5 to 2.5
1537	GBA7 2.2 to 2.2

Laboratory Data Review Checklist

Completed By:

Jeremiah Malenfant

Title:

Geologist-In-Training

Date:

10/27/2022

Consultant Firm:

Stantec Consulting Services Inc.

Laboratory Name:

Pace Analytical

Laboratory Report Number:

L1546587

Laboratory Report Date:

10/26/2022

CS Site Name:

Speedway 5325 (Former T2GM #52)

ADEC File Number:

2265.26.006

Hazard Identification Number:

23769

L1546587

Laboratory Report Date:

10/26/2022

CS Site Name:

Speedway 5325 (Former T2GM #52)

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

1. Laboratory

   a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

   Yes☒ No☐ N/A☐ Comments:

   b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

   Yes☐ No☐ N/A☒ Comments:

   Samples not transferred

2. Chain of Custody (CoC)

   a. CoC information completed, signed, and dated (including released/received by)?

   Yes☒ No☐ N/A☐ Comments:

   b. Correct analyses requested?

   Yes☒ No☐ N/A☐ Comments:

3. Laboratory Sample Receipt Documentation

   a. Sample/cooler temperature documented and within range at receipt (0° to 6° C)?

   Yes☒ No☐ N/A☐ Comments:

   2.5 °C

   b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

   Yes☒ No☐ N/A☐ Comments:

L1546587

Laboratory Report Date:

10/26/2022

CS Site Name:

Speedway 5325 (Former T2GM #52)

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

Yes☒ No☐ N/A☐ Comments:

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, etc.?

Yes☐ No☐ N/A☒ Comments:

No discrepancies documented.

e. Data quality or usability affected?

Comments:

No.

4. Case Narrative

a. Present and understandable?

Yes☒ No☐ N/A☐ Comments:

b. 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 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.

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5. Samples Results

a. Correct analyses performed/reported as requested on COC?

Yes☒ No☐ N/A☐ Comments:

b. All applicable holding times met?

Yes☒ No☐ N/A☐ Comments:

c. All soils reported on a dry weight basis?

Yes☐ No☐ N/A☒ Comments:

No soil samples submitted to lab.

d. Are the reported LOQs less than the Cleanup Level or the minimum required detection level for the project?

Yes☒ No☐ N/A☐ Comments:

e. Data quality or usability affected?

No.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

Yes☒ No☐ N/A☐ Comments:

ii. All method blank results less than limit of quantitation (LOQ) or project specified objectives?

Yes☒ No☐ N/A☐ Comments:

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iii. If above LOQ or project specified objectives, what samples are affected?

Comments:

None.

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes☐ No☐ N/A☒ Comments:

No samples affected.

v. Data quality or usability affected?

Comments:

No.

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

i. Organics – 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:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

Yes☒ No☐ N/A☐ Comments:

iii. Accuracy – 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:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits and project specified objectives, if applicable? 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:

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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. Data quality or usability affected? (Use comment box to explain.)

Comments:

No.

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

Note: Leave blank if not required for project

i. Organics – One MS/MSD reported per matrix, analysis and 20 samples?

Yes☒ No☐ N/A☐ Comments:

ii. Metals/Inorganics – one MS and one MSD reported per matrix, analysis and 20 samples?

Yes☒ No☐ N/A☐ Comments:

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable?

Yes☐ No☒ N/A☐ Comments:

GRO by method AK101 matrix interference in MW16-2.

iv. Precision – 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:

GRO by method AK101 matrix interference in G-5 and MW16-2.

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v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

G-5 and MW16-2

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes☒ No☐ N/A☐ Comments:

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

No; detection well below GCL and is flagged.

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:

Not included.

ii. Accuracy – 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:

Not included.

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:

Not included.

iv. Data quality or usability affected?

Comments:

No affected samples.

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e. Trip Blanks

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

Yes☒ No☐ N/A☐ Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

Yes☒ No☐ N/A☐ Comments:

iii. All results less than LOQ and project specified objectives?

Yes☒ No☐ N/A☐ Comments:

iv. If above LOQ or project specified objectives, what samples are affected?

Comments:

No affected samples.

v. Data quality or usability affected?

Comments:

No affected samples.

f. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

Yes☒ No☐ N/A☐ Comments:

ii. Submitted blind to lab?

Yes☒ No☐ N/A☐ Comments:

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

RPD (%) = Absolute value of: $\frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

Yes☒ No☐ N/A☐ Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

No.

g. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below)?

Yes☐ No☐ N/A☒ Comments:

All disposable equipment.

i. All results less than LOQ and project specified objectives?

Yes☐ No☐ N/A☒ Comments:

All disposable equipment.

ii. If above LOQ or project specified objectives, what samples are affected?

Comments:

None.

iii. Data quality or usability affected?

Comments:

No.

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

   a. Defined and appropriate?

      Yes☒ No☐ N/A☐ Comments: