



19 September 2023

Project No. 16-3773

Ms. Rebecca Digiustino
Department of Environmental Quality
Northwest Region Cleanup Program
700 NE Multnomah Street, Suite 600
Portland, OR 97232

**Subject: Soil Sampling Report – August 2023
ESTES WEST – PORTLAND TERMINAL
13704 NE Airport Way, Portland, Oregon
(DEQ USTC File No. 26-16-0983; Facility ID No. 10679)**

Ms. Digiustino:

On behalf of Estes West, AdvancedGeo, Inc. (AGI) has prepared this *Soil Sampling Report* for the property located at 13704 NE Airport Way, Portland, Oregon (site or subject property).

The scope of work included the advancement of three (3) soil borings (B1, B2 and B3) to total depths of 6.0 feet below ground surface (bgs). The site and surrounding area are illustrated in Figure 1. A site plan depicting the maintenance shop, fueling area, and soil sampling locations is presented in Figure 2.

1.0. INTRODUCTION/BACKGROUND

Estes West operates a freight transportation and distribution facility at 13704 NE Airport Way, Portland, Multnomah County, Oregon. A maintenance shop is located on the northeast portion of the facility where truck and trailer repairs are performed. Fueling is performed on-site under a covered canopy area adjacent to the maintenance shop.

In February 2016, the Oregon Department of Environmental Quality (DEQ) performed a full compliance inspection at the Estes West – Portland Terminal. In February 2016, the fueling system was comprised of one diesel underground storage tank and two primary fuel dispensers (S-1 and S-2), each with two satellite dispensers to the north and south (Figure 1). The inspection revealed that the diesel satellite dispenser piping was made of iron and directly buried in cement after exiting the main dispenser. There was no cathodic protection on the pipe and a violation was noted. The DEQ Pre-Enforcement Notice is provided in Appendix A.

1.1. GEOLOGIC AND HYDROGEOLOGIC SETTINGS

The subject property is situated within the Willamette Valley geologic province, a level, elongated alluvial plain that extends from Eugene in the south to Portland in the north. It is bordered to the west by the coastal mountain range and to the east by the Cascade Mountains that extend along its length. The valley was formed in the middle Eocene, the result of an island archipelago that was thrust into the North American Plate. This block subsequently subsided and tilted creating a broad forearc trough. Following this, the Willamette Valley was impacted by large Pleistocene floods that came from glacial lakes formed in Montana. As these enormous floods swept down the Columbia River gorge, water back up in the Willamette Valley creating large lakes and strewing deposits throughout the valley. Most of the formations that make up the Willamette Valley are gravels, silts and clays deposited by rivers and streams from the coast and Cascade Mountain Ranges.

According to the Geologic Map of the Camas Quadrangle, Clark County Washington and Multnomah County, the geology in the region of the site consists of the Alluvium Columbia River floodplain and channel. The alluvium of the Columbia River floodplain includes unconsolidated fine sand, silt, and clay that underlies historic floodplain, islands, and bars of the Columbia River at elevations less than 30 feet. This unit includes local diatomaceous beds and layers of organic-rich sediment that probably formed in floodplain marshes, ponds, and lakes, as well as thin tephra beds from Holocene eruptions of Mount St. Helens.

The site is located within the Willamette Groundwater Basin which consists of seven regional hydrogeologic units. The Willamette Silt unit (WSU) and the middle sedimentary unit are the shallowest aquifer bearing zones. The WSU extends from near surface to approximately 30 feet bgs. Underlying the Willamette Silt is the middle sedimentary unit (MSU) which is approximately 20 feet thick. Beneath these units is the lower sedimentary unit, which consists of predominantly fine-grained sediments. In the northern part of the basin, lavas of the Columbia River basalt unit occur at the surface in uplands and beneath the basin-fill sedimentary units. The Columbia River basalt unit contains multiple productive water-bearing zones.

Based on information obtained from a recently closed DEQ investigation located approximately 1,500 feet southwest of the site, the depth to groundwater beneath the subject property is estimated to be between 10 and 20 feet bgs. The approximate groundwater flow direction is to the south.

The subject property is located at an elevation of approximately 28 feet above mean sea level (MSL), in an area of low topographic relief. The regional slope of the area is toward the general north of the subject property.

1.2. SATELLITE FUEL DISPENSER REMOVAL AND PIPING ABANDONMENT

Removal of the satellite fuel dispensers and abandonment of the fuel lines was proposed to correct the February 2016 violation. The UST system work was performed by 4C's Environmental Inc. (4C's) on behalf of IWS Environmental. The satellite fuel dispensers were removed, and the fuel lines were emptied, rinsed, and vacuumed cleaned.

Upon cleaning, the fuel lines were cut and capped at the surface where concrete cut-outs were exposed to access the piping; the cut-outs were then covered. The metal piping exiting the primary dispensers was removed. The remaining satellite dispenser piping was then plugged and capped at the surface. The work was completed under DEQ oversight in 2016. Results were originally provided to the DEQ Underground Storage Tank Compliance Group.

1.3. DISPENSER SOIL SAMPLE FINDINGS

On 13 July 2016, a total of eight (8) soil samples were collected at 3.5 feet bgs beneath each satellite fuel dispenser and along the fuel piping between the main and satellite dispensers. On 17 August 2016, a total of five (5) additional soil samples were collected at 6.0 feet bgs beneath each satellite dispenser and between Main Dispenser S-2 and the northern satellite dispenser (Figure 2). The deeper soil samples were collected in locations where diesel-range organics (DRO) were detected in the 3.5-foot samples. Soil samples were collected by coring through the concrete and using hand digging methods.

Diesel range organics (DRO) were detected at a maximum concentration of 6,340 mg/kg in the soil samples collected (S-2#4). The maximum DRO concentration was below the DEQ Risk-Based Concentration (RBC) of 14,000 mg/kg for Soil Ingestion, Dermal Contact, and Inhalation for occupational receptors. The maximum DRO concentration is also below the Leaching to Groundwater RBC of 9,500 mg/kg. However, the maximum concentration exceeds the soil ingestion, dermal contact, and inhalation risk-based concentration for construction worker receptors. DRO concentrations decreased to 68.6 mg/kg at 6.0 feet bgs beneath the northern satellite dispenser S-2 and to 497 mg/kg at 6.0 feet bgs beneath the southern satellite dispenser S-1. DRO were not detected above laboratory reporting limits in the remaining samples collected at 6.0 feet bgs.

Gasoline range organics GRO were detected at a maximum concentration of 65.1 mg/kg in the soil samples collected (S-2#3). The GRO concentration was below the DEQ RBC of 20,000 mg/kg for Soil Ingestion, Dermal Contact, and Inhalation for occupational receptors. The maximum GRO concentration is also below the Leaching to Groundwater RBC of 130 mg/kg for occupational receptors. No Occupational RBCs were exceeded during the investigation. Analytical results of GRO and DRO in soil samples are summarized in Table 1 and DRO concentrations are depicted in Figure 3.

Based on the analytical results of the soil samples collected beneath the dispensers and dispenser piping, the DEQ directed preparation of a work plan, by letter dated 16 March 2023, to assess the lateral and vertical extent of contamination that exceeds RBCs and to address data gaps identified by the DEQ. The scope of work was outlined in the *Site Assessment Work Plan* dated 26 June 2023. The Work Plan was approved by DEQ letter dated 11 July 2023 (Appendix B).

2.0. PRE-FIELD WORK ACTIVITY

A geophysical survey of the selected boring locations was performed by Ground Penetrating Radar System, LLC. (GPRS) using an underground GPR antenna and EM Pipe Locator. The survey was conducted to locate and clear any subsurface structures and utilities in the proposed boring locations.

The GPR survey did not indicate the presence of any subsurface structures or utilities in the locations of the proposed borings. A summary report provided by GPRS is included in Appendix C.

3.0. SOIL BORING ADVANCEMENT

On 09 August 2023, borings B1 through B3 were advanced at the site to 6.0 feet bgs to assess the lateral and vertical extent of soil impacts that exceed RBCs and to address identified data gaps. Each boring was advanced using a Geoprobe 7720DT direct-push drill rig equipped with 2.25-inch diameter hollow probing rods for soil sample collection. The direct-push drilling rig advances soil probe borings using a hydraulic hammer to drive sampling tools to specified depths.

Soil borings were advanced in the following locations:

- B1 was advanced approximately 20 feet to the north-northeast of S-2#4.
- B2 was advanced approximately 20 feet to the east-northeast of S-2#4.
- B3 was advanced immediately southwest of S-1#1.

Soil boring locations are illustrated in Figures 2 and 3.

3.1. SOIL SAMPLE COLLECTION AND ANALYSIS

Soil samples were collected continuously during boring advancement utilizing a 2.5-inch diameter Geoprobe soil sampling assembly loaded with four-foot long acetate sleeves. Discrete soil samples were preserved at 3 and 6 feet bgs in borings B1 through B3. Soil samples were collected into 8-oz glass sample jars with Teflon-lined lids and Terra Core

sampling devices, an EPA-compliant method for sampling under EPA Method 5035. Soil samples were labeled with the sample ID, project name, collection depth, date, time and sampler's initials then placed in a chilled container with sufficient ice.

Soil sample duplicates were extruded into plastic bags and field-screened for the presence of organic vapors using an organic vapor meter equipped with a photo-ionization detector (PID: MiniRAE 3000, 10.0 eV, calibrated to isobutylene), and were visually described in accordance with the Unified Soil Classification System (USCS).

The soil samples were transported under chain-of-custody to Apex Laboratories, LLC (Apex), an Oregon Environmental Laboratory Accreditation Program (ELAP)-Certified laboratory, for the following analysis:

- GRO by Northwest Total Petroleum Hydrocarbon Method (NWTPH-Gx).
- DRO and Oil by NWTPH-Dx.
- Risk-based decision making (RBDM) volatile organic compounds (VOCs) and n-propyl benzene in accordance with EPA Method 5035A/8260D.
- Polynuclear aromatic hydrocarbons (PAHs) in accordance with EPA Method 8270E SIM.
- Lead in accordance with EPA Method 6020B

Soil samples collected at 3.0 feet bgs were analyzed for all of the above constituents. Soil samples collected at 6.0 feet bgs were analyzed for GRO and DRO to avoid exceeding the holding time.

3.2. EQUIPMENT DECONTAMINATION/WASTE MANAGEMENT

New, clean sampling tools were utilized at each boring location. Soil generated during drilling activities was containerized in a properly labeled Department of Transportation (DOT)-approved 55-gallon drum and stored on-site in an area generally lacking public access. Disposal alternatives will be evaluated at a later date based on laboratory results of soil.

3.3. BORING ABANDONMENT

All soil borings were permanently sealed to prevent vertical migration of potential contaminants. Soil borings were abandoned by backfilling with Portland cement from the total depth to surface grade. The top three inches of the boring abandonments was completed flush to surface grade with concrete.

4.0. FINDINGS

The following findings are based on field observations and data collected during the August 2023 subsurface investigation.

- Concrete and gravel fill material was encountered in each boring from surface grade to approximately 2.5 feet bgs. Dry to moist, sandy silt and silt was encountered from 2.5 feet to 6.0 feet bgs in the borings.
- Field observations including odor, color/staining, and elevated PID readings did not indicate potential impact to soil.
- GRO, DRO, Oil, RBDM VOCs, and PAHs were not detected above laboratory reporting limits in the 3.0-foot soil samples collected from borings B1 through B3.
- GRO, DRO, and Oil were not detected above laboratory reporting limits in the 6.0-foot soil samples collected from borings B1 through B3.
- Lead (Pb) was detected in the 3.0-foot soil samples collected from borings B1 through B3 at concentrations ranging from 2.86 mg/kg in B1 to 9.68 mg/kg in B3. Lead concentrations were significantly below commercial RBCs for lead.

Analytical results of soil samples are summarized in Tables 1 through 3 and DRO concentrations are depicted in Figure 3. The laboratory reports (Apex Report ID: A3H0931), quality assurance and quality control (QA/QC) reports, and chain of custody forms are included in Appendix D.

5.0. EXPOSURE ASSESSMENT

An exposure assessment is the process by which human populations that could potentially encounter site-related hazardous chemicals, and the routes of potential exposure, are identified. This limited assessment includes identifying exposed populations, identifying exposure pathways, and quantifying exposure. The exposure assessment was performed only for the current site use.

The U.S. EPA describes exposure pathways consisting of four necessary elements:

1. a source and mechanism of chemical release
2. a retention or transport medium (or media in cases involving media transfer)
3. a point of potential human contact with the contaminated medium (referred to as an exposure point)
4. an exposure route at the exposure point. Human exposure to toxic substances may result from inhalation, ingestion, or dermal contact.

A pathway is considered complete only if these four conditions occur. There are no direct sources of emissions into the air within the property. Currently, site workers do not encounter soil or groundwater. Soil is not exposed on the property and groundwater is deeper than 10 feet bgs. Soil and groundwater direct contact and ingestion pathways are considered incomplete.

For volatile chemicals, the migration of vapor phase contaminants into occupied spaces (indoor air exposure) is considered a complete exposure pathway. However, VOCs were not detected during the investigation. Therefore, the vapor phase exposure pathway is incomplete for the existing commercial use setting. The potentially exposed population are the occupants (management and staff) occupying the building during working hours.

6.0. CONCLUSIONS

Based upon the environmental activities completed at the site, AGI concludes the following:

- No constituents were detected above laboratory reporting limits in the soil samples analyzed from borings B1 through B3 and no RBCs were exceeded during the investigation.
- The lateral and vertical extent of contamination that exceeds RBCs is defined by the soil samples collected from borings B1 through B3 (Table 1; Figure 3).
- Lead was detected at concentrations significantly below RBCs.

7.0. RECOMMENDATIONS

Based on the data collected, AGI recommends risk-based site closure and issuance of a No Further Action (NFA) letter by the DEQ.

8.0. LIMITATIONS

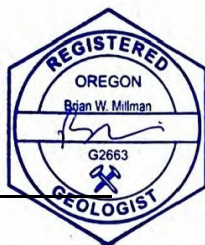
Our professional services were performed using that degree of care and skill ordinarily exercised by environmental consultants practicing in this or similar localities. The findings were based upon field measurements and analytical results provided by an independent laboratory. Evaluations of the hydrogeologic conditions at the site for the purpose of this investigation are made from a limited number of available data points (i.e., soil samples) and subsurface conditions may vary away from these data points. No other warranty, expressed or implied, is made as to the professional interpretations, opinions and recommendations contained in this report.

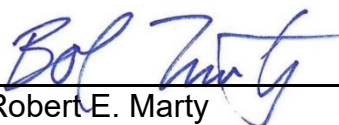
Should you have any questions or need more information, please contact our office at (800) 511-9300.

Sincerely,

AdvancedGeo, Inc.


Brian W. Millman
Senior Geologist
Oregon State Registered Geologist No. G2663
(exp. 6/24)



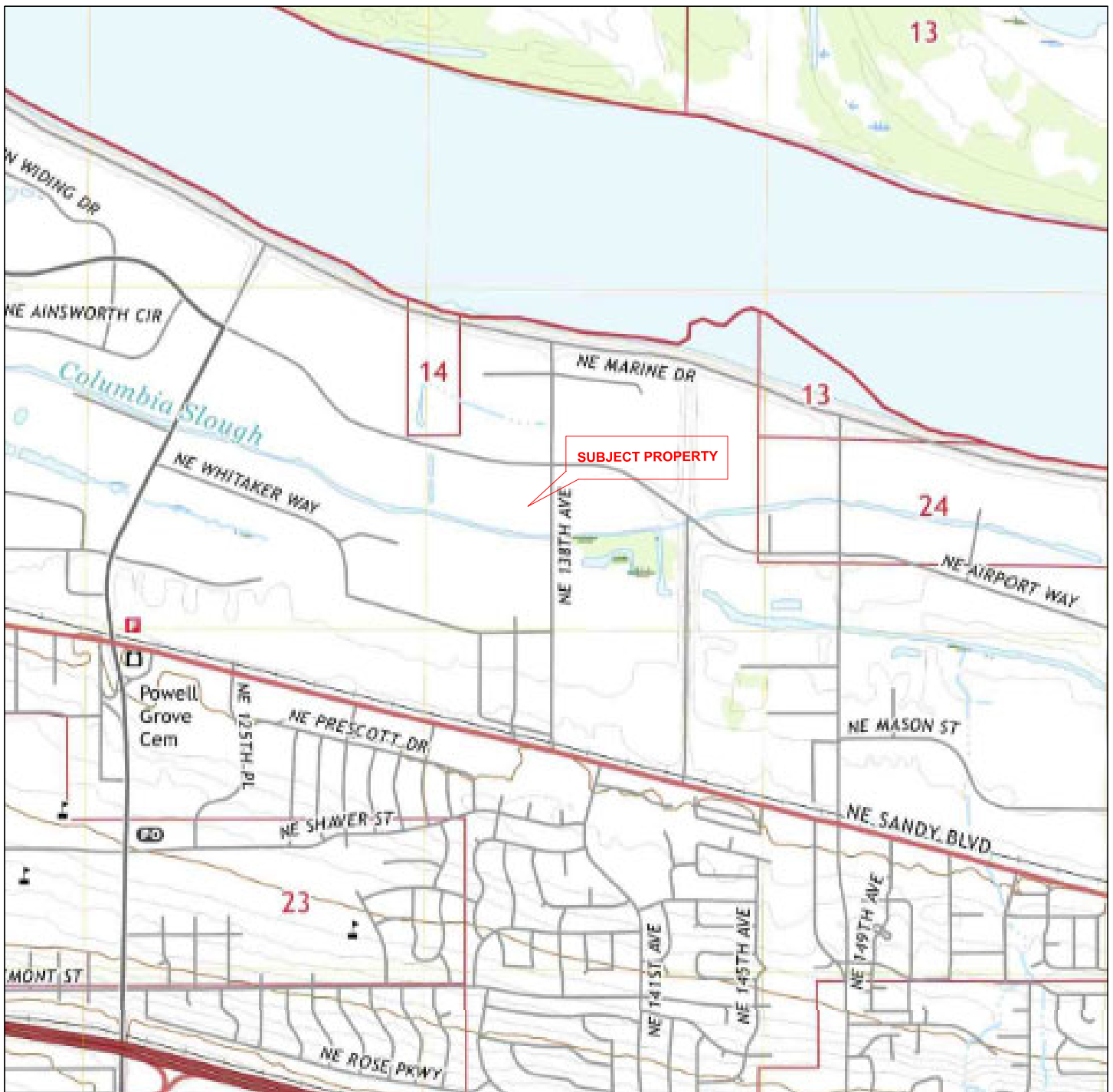

Robert E. Marty
President

cc: Ms. Angela Maidment, Estes Express
Mr. Curtis Carr, Estes Express

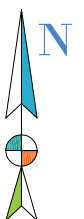
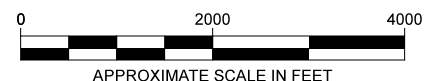
REFERENCES

- USGS Ground-Water Hydrology of the Willamette Basin, Oregon:
<https://pubs.usgs.gov/sir/2005/5168/>
- Department of Environmental Quality Environmental Cleanup Site Information Database: <https://www.deq.state.or.us/lq/ECSI/ecsiquery.asp>
- Department of Environmental Quality Leaking Underground Storage Tank Cleanup Site Database:
<https://www.deq.state.or.us/lq/tanks/lust/LustPublicLookup.asp>
- USGS Geologic Map of Camas Quadrangle, Clark County, Washington, and Multnomah County, Oregon: https://pubs.usgs.gov/sim/3017/camas_map.pdf
- USGS Estimated Depth to Groundwater in the Portland Oregon Area:
https://or.water.usgs.gov/projs_dir/puz/
- Risk-Based Decision Making for the Remediation of Contaminated Sites, DEQ
02 October 2017

FIGURES



MOUNT TABOR, OREGON 7.5 MINUTE SERIES
(U.S. GEOLOGICAL SURVEY)



AdvancedGeo
An Employee-Owned Company


www.advancedgeo.biz
(800) 511-9300

LOCATION MAP
ESTES WEST - PORTLAND TERMINAL
13704 NE AIRPORT WAY
PORTLAND, OREGON

DATE: MARCH 2023

FILE: LM

DRAWN BY: BWM

PROJECT NO. 16-3773

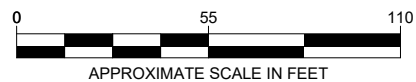
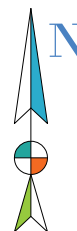
FIGURE: 1



LEGEND

B1 ● SOIL BORING LOCATION TO 6.0 FEET

#1-3.5' ● SOIL SAMPLE LOCATION



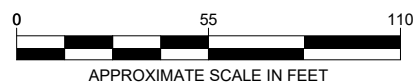
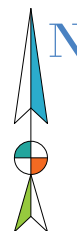


LEGEND

- B1
3.0': ND ● SOIL BORING LOCATION TO 6.0 FEET
- 3.5': 228 ● SOIL SAMPLE LOCATION, DRO CONCENTRATION AND DEPTH (mg/kg)

NOTES:

DRO: Diesel Range Organics
mg/kg: milligrams per kilogram
SD: Satellite Dispenser



AdvancedGeo
An Employee-Owned Company


www.advancedgeo.biz
(800) 511-9300

DRO CONCENTRATIONS
ESTES WEST - PORTLAND TERMINAL
13704 NE AIRPORT WAY
PORTLAND, OREGON

DATE: SEPTEMBER 2023

FILE: DRO

DRAWN BY: BWM

PROJECT NO. 16-3773

FIGURE: 3

TABLES

TABLE 1
ANALYTICAL RESULTS OF SOIL SAMPLES - TOTAL PETROLEUM HYDROCARBONS
ESTES WEST – PORTLAND TERMINAL
13704 NE Airport Way, Portland, Oregon

Sample ID	Depth bsg (Feet)	Date	NWTPH Methods: milligrams per kilogram (mg/kg)			
			NWTPH - HCID	NWTPH-Gx Gasoline	NWTPH-Dx	
					Diesel	Oil
S-1 #1	3.5	07/13/16	-	18.7	1,820	<50.0
S1-#5	6	08/17/16	-		68.6	<52.2
S-1 #2	3.5	07/13/16	<20.6 - <103	-	-	-
S-1 #3	3.5	07/13/16	<20.5 - <103	-	-	-
S-1 #4	3.5	07/13/16	-	17.8	1,240	<62.3
S1-#10	6	08/17/16	-		<25.9	<51.8
S-2 #1	3.5	07/13/16	Diesel - DET	-	228	<50.0
S2-#7	6	08/17/16	-		<25.0	<50.0
S-2 #2	3.5	07/13/16	<21.0 - <105	-	-	-
S-2 #3	3.5	07/13/16	-	65.1	1,020	<50.0
S2-#8	6	08/17/16	-	-	<25.3	<50.7
S-2 #4	3.5	07/13/16	-	7.71	6,340	<195
S2-#9	6	08/17/16	-	-	497	<50.0
B1-3	3	08/09/23	-	<6.10	<24.5	<49.1
B1-6	6	08/09/23	-	<6.54	<25.2	<50.4
B2-3	3	08/09/23	-	<6.60	<26.7	<53.4
B2-6	6	08/09/23	-	<5.38	<24.0	<48.1
B3-3	3	08/09/23	-	<7.23	<26.7	<53.4
B3-6	6	08/09/23	-	<6.79	<25.5	<51.1
RBCs	Soil Ingestion, Dermal Contact, and Inhalation	Res.	-	1,200	1,100	
		Urban Res.	-	2,500	2,200	
		Occ.	-	20,000	14,000	
		Co. Worker	-	9,700	4,600	
		Ex. Worker	-	>Max	>Max	
	Volatilization to Outdoor Air	Res.	-	5,900	>Max	
		Urban Res.	-	5,900	>Max	
		Occ.	-	69,000	>Max	
	Vapor Intrusion into Buildings	Res.	-	94	>Max	
		Urban Res.	-	94	>Max	
		Occ.	-	>Max	>Max	
	Leaching to Ground Water	Res.	-	31	9,500	
		Urban Res.	-	31	9,500	
		Occ.	-	130	>Max	

Notes:

mg/kg: milligrams per kilogram, or parts per million (ppm)
NWTPH-gx: Northwest Total Petroleum Hydrocarbons - Gasoline Range Hydrocarbons
NWTPH-dx: Northwest Total Petroleum Hydrocarbons - Diesel and Oil Range Hydrocarbons
RBCs: Risk Based Concentrations for Direct Contact (DC)
Res./Occ. Residential/Occupational

TABLE 2
ANALYTICAL RESULTS OF SOIL SAMPLES - VOLATILE ORGANIC COMPOUNDS
ESTES WEST – PORTLAND TERMINAL
13704 NE Airport Way, Portland, Oregon

Sample ID	Depth bsg (Feet)	Date	EPA 5035A/8260D											
			Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	EDB	EDC	Isopropylbenzene	n-propylbenzene	1,2,4-TMB	1,3,5-TMB
B1-3	3	08/09/23	<0.0120	<0.0610	<0.0305	<0.0915	<0.0610	<0.122	<0.0610	<0.0305	<0.0610	<0.0305	<0.0610	<0.0610
B2-3	3	08/09/23	<0.0132	<0.0660	<0.0330	<0.0990	<0.0660	<0.132	<0.0660	<0.0330	<0.0660	<0.0330	<0.0660	<0.0660
B3-3	3	08/09/23	<0.0145	<0.0723	<0.0361	<0.108	<0.0723	<0.145	<0.0723	<0.0361	<0.0723	<0.0361	<0.0723	<0.0723
RBCs	Soil Ingestion, Dermal Contact, and Inhalation	Res.	8.2	5,800	34	1,400	250	5.3	0.16	3.6	3,500	-	430	430
		Urban Res.	24.0	12,000	110	2,900	730	25	0.53	12.0	7,000	-	860	860
		Occ.	37	88,000	150	25,000	1,100	23	0.73	16.0	57,000	-	6,900	6,900
		Co. Worker	380	28,000	1,700	20,000	12,000	580	9.0	200	27,000	-	2,900	2900
		Ex. Worker	11,000	770,000	49,000	560,000	320,000	16000	250	5600	750,000	-	81,000	81,000
	Volatilization to Outdoor Air	Res.	11.0	-	36	-	340	6.4	0.15	3.4	-	-	-	-
		Urban Res.	27.0	-	85	-	810	15	0.35	8.1	-	-	-	-
		Occ.	50	-	160	-	1,500	83	0.65	15.0	-	-	-	-
	Vapor Intrusion into Buildings	Res.	0.16	-	1.30	160	8.5	6.4	0.012	0.077	-	-	140	98
		Urban Res.	0.36	-	3.00	160	20	15	0.028	0.18	-	-	140	98
		Occ.	2.10	-	17	-	110	83	0.160	1.0	-	-	-	-
	Leaching to Ground Water	Res.	0.023	84	0.22	23	0.11	0.077	0.00012	0.0028	96	-	10	11
		Urban Res.	0.10	340	0.94	87	0.50	0.37	0.00056	0.0130	-	-	43	45
		Occ.	0.10	490	0.90	100	0.54	0.34	0.00056	0.0130	-	-	48	53

Notes:

mg/kg: milligrams per kilogram, or parts per million (ppm)

MTBE Methyl tertiary-butyl ether

EDB: 1,2-dibromoethane

EDC 1,2-dichloroethane

1,2,4-TMB: 1- Trimethylbenzene

1,3,5-TMB: - Trimethylbenzene

-: Not analyzed for constituent

RBCs: Risk Based Concentrations for Direct Contact (DC)

Res./Occ. Residential/Occupational

Co./Ex. Construction/Excavation

TABLE 3
ANALYTICAL RESULTS OF SOIL SAMPLES: PAH and Lead
ESTES WEST – PORTLAND TERMINAL
13704 NE Airport Way, Portland, Oregon
EPA Method 8270E SIM (mg/kg)

Sample ID	Depth bsg (Feet)	Date	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) Anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene	Lead (Pb) EPA 6020B
B1-3	3	08/09/23	<0.0120	<0.0120	<0.0120	<0.0120	<0.0120	<0.0120	<0.0120	<0.0120	<0.0120	<0.0120	<0.0120	<0.0120	<0.0120	<0.0120	<0.0120	<0.0120	2.86
B2-3	3	08/09/23	<0.0130	<0.0130	<0.0130	<0.0130	<0.0130	<0.0130	<0.0130	<0.0130	<0.0130	<0.0130	<0.0130	<0.0130	<0.0130	<0.0130	<0.0130	<0.0130	8.88
B3-3	3	08/09/23	<0.0134	<0.0134	<0.0134	<0.0134	<0.0134	<0.0134	<0.0134	<0.0134	<0.0134	<0.0134	<0.0134	<0.0134	<0.0134	<0.0134	<0.0134	<0.0134	9.68
RBCs	Soil Ingestion, Dermal Contact, and Inhalation	Res.	4,700	-	23,000	1.1	0.11	1.1	-	11.0	110	0.11	2,400	3,100	1.1	5	-	1,800	400
		Urban Res.	9,400	-	47,000	2.5	0.25	2.5	-	25.0	250	0.25	4,800	6,300	2.5	25	-	3,600	400
		Occ.	70,000	-	350,000	21	2.1	21	-	210.0	2,100	2.10	30,000	47,000	21	23	-	23,000	800
		Co. Worker	21,000	-	110,000	170	17	170	-	1700	17,000	17	10,000	14,000	170	580	-	7,500	800
		Ex. Worker	590,000	-	-	4,800	490	4900	-	49000	490,000	490	280,000	390,000	4,900	16,000	-	210,000	800
	Volatili-zation to Outdoor Air	Res.	-	-	-	-	-	-	-	-	-	-	-	-	-	6.4	-	-	-
		Urban Res.	-	-	-	-	-	-	-	-	-	-	-	-	-	15	-	-	-
		Occ.	-	-	-	-	-	-	-	-	-	-	-	-	-	83	-	-	-
	Vapor Intrusion into Buildings	Res.	-	-	-	-	-	-	-	-	-	-	-	-	-	6.4	-	-	-
		Urban Res.	-	-	-	-	-	-	-	-	-	-	-	-	-	15	-	-	-
		Occ.	-	-	-	-	-	-	-	-	-	-	-	-	-	83	-	-	-
	Leaching to Ground Water	Res.	-	-	-	1.6	4.4	-	-	-	-	-	-	-	-	0.077	-	-	30
		Urban Res.	-	-	-	6.0	-	-	-	-	-	-	-	-	-	0.37	-	-	30
		Occ.	-	-	-	-	-	-	-	-	-	-	-	-	-	0.34	-	-	30

Notes:

mg/kg: milligrams per kilogram, or parts per million (ppm)

MTBE Methyl tertiary-butyl ether

EDB: 1,2-dibromoethane

EDC 1,2-dichloroethane

1,2,4-TMB: 1,2,4- Trimethylbenzene

PAHs: polycyclic aromatic hydrocarbons

1,3,5-TMB: 1,2,4- Trimethylbenzene

-: Not analyzed for constituent

RBCs: Risk Based Concentrations for Direct Contact (DC)

Res./Occ. Residential/Occupational

Co./Ex. Construction/Excavation

APPENDIX A

State of Oregon DEQ Letter 18 March 2016
and Historical Documents



Oregon

Kate Brown, Governor

Department of Environmental Quality
Northwest Region
700 NE Multnomah Street, Suite 600
Portland, OR 97232
(503) 229-5263
FAX (503) 229-6945
TTY 711

CERTIFIED MAIL NO. 70103090000021880858

March 18, 2016

Curtis Carr
3901 W. Broad Street
Richmond, VA 23230-3962

RE: Pre-Enforcement Notice
GI Trucking DBA Estes West
PEN - 2016 PEN 1406
FACILITY ID #10679
Multnomah County

Dear Mr. Carr:

On February 24, 2016 DEQ performed a Full Compliance Inspection at the GI Trucking, DBA Estes West facility located at 13704 NE Airport Way. During the inspection it was noted that the diesel satellite piping is iron pipe directly buried in cement after exiting the primary dispenser. There is no cathodic protection on this piping which routinely contains product.

The facility also failed to produce 2 of the last twelve months of tank tightness testing.

Based upon this inspection of your facility, the Department has concluded GI Trucking DBA Estes West is responsible for the following violations of Oregon environmental law:

VIOLATIONS:

- (1) [340-150-0320(3)]; (Class I). Failure to protect from corrosion any part of an UST system, including connected piping and fittings, that routinely contains a regulated substance.
- (2) [340-150-0450(5)]; (Class I). Failure to maintain adequate records of ATG monitoring and testing results.

Class I violations are the most serious violations; Class III violations are the least serious.

In order to correct the violation(s) or minimize the impacts of the violation(s) cited above, the Department is requesting you take the following actions by the date indicated:

Corrective Action(s) Requested

- 1) By April 22, 2016, submit UST system modification notice form and schedule of work to complete the removal and replacement of the iron pipe between the primary and satellite dispensers. The

modification notice should include a description of how you will perform site assessment sampling at the decommissioned piping according to OAR 340-150-0180.

- 2) Submit results of most recent month's tank testing record by the 10th of next month.

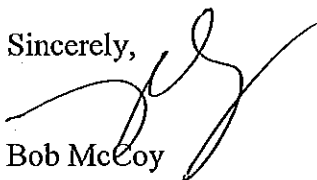
Your timely and responsive action on these items will be taken into consideration in any civil penalty assessment issued by the Department.

The violation(s) cited above posed the risk of significant environmental harm and the matter is being referred to the Department's Office of Compliance and Enforcement for formal enforcement action. Formal enforcement action may result in assessment of civil penalties and/or a Department order. A formal enforcement action may include a civil penalty assessment for each day of violation.

If you believe any of the facts in this Pre-Enforcement Notice are in error, you may provide written information to me at the address shown at the top of the letter. The Department will consider new information you submit and take appropriate action.

The Department endeavors to assist you in your compliance efforts. Should you have any questions about the content of this letter, or if you desire any follow-up technical assistance feel free contact me in writing or by phone at 503-229-52048.

Sincerely,



Bob McCoy
NRS III

Cc: Stephanie Holmes, Tanks, DEQ Headquarters
Office of Compliance and Enforcement, DEQ Headquarters



OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
UNDERGROUND STORAGE TANK PROGRAM

Initial (Twenty Day) Report Form for UST Cleanup Projects

This report is due twenty (20) days from the date of the release.

DEQ USTC File No. 26-16-0983
DEQ Facility ID No. 10679
Site Name: GI Trucking dba Estes West
Site Address: 13704 NE Airport Way, Portland, OR 97230

INITIAL CLEANUP INFORMATION

(1) Type of contamination (check ☒ all that apply):

☐ Gasoline ☒ Diesel ☐ Waste Oil ☐ Heating Oil
☐ Other (specify) _____

(2) Estimate quantity of release (based on information known to date – • select only one):

☒ <100 gal. ☐ 100-499 gal. ☐ 500-999 gal. ☐ 1,000-5,000 gal. ☐ >5,000 gal.

SITE INFORMATION (check ☒ yes or ☒ no)

(3) ☐ Y ☒ N Did any water enter the excavation? If yes, please describe and identify the depth to groundwater in feet below ground surface: _____

(4) ☐ Y ☒ N Was a sheen or odor observed on any water in the excavation?

Note: If groundwater is encountered, soil samples from the soil/water interface must be collected and analyzed for BTEX and by the appropriate TPH method.

At sites where diesel or other non-gasoline products have been released, the water may also have to be screened or tested for polynuclear aromatic hydrocarbons (PAHs). *Please refer to OAR 340-122-0218.*

(5) ☐ Y ☒ N Was water pumped from the excavation?

☐ Y ☒ N If yes, did groundwater recharge within 24 hours after pumping?

Please describe the pumping procedure and disposal option selected for the purged excavation water:

(6) ☐ Y ☒ N Were any water samples collected from the excavation? If yes, please describe: _____

(7) ☒ Y ☐ N Have any soil and/or water sample results been received at this time?
If so, please attach any lab reports.

IF GROUNDWATER HAS BEEN ENCOUNTERED, PLEASE ANSWER QUESTIONS #8-13, BELOW.

IF NO WATER HAS BEEN ENCOUNTERED, PLEASE SKIP TO QUESTION #14

(8) What are the known uses of groundwater within a 500-foot radius of the release site (check ☒ all that apply)?

☐ non-use ☐ industrial ☐ agricultural ☐ drinking supply

(9) If groundwater in this area is being used as a drinking water supply, please check ☒ the type and size of population served by the supply:

☐ Community (community well used for drinking water year round – • select only one)

size: ☐ <1,000 people ☐ 1,000 - 5,000 people ☐ >5,000 people

☐ Intermittent use (public water used for drinking water only on a part-time basis – • select only one)

size: ☐ <50 people ☐ 50 - 300 people ☐ > 300 people

☐ Private wells (individual private well or wells used for drinking water – • select only one)

size: ☐ <10 people ☐ 10 - 25 people ☐ >25 people

(10) ☐ Y ☐ N Is there any evidence this water supply has been or is likely to be impacted from the petroleum product release? If yes, estimate how difficult it would be to replace the existing supply:

☐ bottled water is the only alternative

☐ on-site water treatment; bulk water delivery; new wells are available

☐ able to connect to existing water supply

☐ do not know what alternatives would be available

(11) ☐ Y ☐ N Are/were vapors present in on-site or nearby buildings? If yes:

A. Are you monitoring and/or mitigating any potential fire and safety hazards posed by vapors and free product? Explain: _____

B. Estimate the number of people potentially affected by vapors – • select only one:

☐ 1-2 people ☐ 3-10 people ☐ >10 people

(12) ☐ Y ☐ N Are vapors or is petroleum contamination present in the utility corridors?

If yes, please explain: _____

(13) ☐ Y ☐ N Are natural areas located within 1/4 mile of the site? If so, please describe types (parks, rivers, wetlands, sensitive habitats, etc.) and proximity: _____

(14) ☐ Y ☐ N If groundwater was not encountered in the excavation, do you believe that this cleanup project can be conducted under the requirements for an UST Cleanup Matrix site? If yes, then refer to OAR 340-122-0305 through 0360.

AREA/SITE CONDITIONS:

- (15) Mean annual rainfall: ☐ <20 inches ☐ 20-45 inches ☒ >45 inches
- (16) Soil type(s) of the naturally occurring soils, not the backfill around the tank – • select only one:
- ☐ clays, compact tills, shales, and unfractured metamorphic and igneous rocks
- ☐ sandy loams, loamy sands, silty clays, clay loams, moderately permeable limestone, dolomite, sandstones, moderately fractured igneous and metamorphic rock
- ☒ fine and silty sands, sands and gravels, highly fractured igneous and metamorphic rock, permeable basalts and lavas, karst limestones and dolomites

SOIL MANAGEMENT

- (17) If soil sample results have been received:
☐ Y ☒ N Will the level of contamination detected require removal of contaminated soil for treatment or disposal?
- (18) All contaminated soil temporarily stockpiled on-site prior to treatment or disposal must be contained within a bermed area, kept covered, and the entire area secured to prevent unauthorized access by the public. If you haven't done this, please explain why:

Note: It is a violation to stockpile petroleum contaminated soil (PCS) on-site for greater than 30 days without a DEQ Solid Waste Letter Authorization (SWLA) Permit.

- (19) If contaminated soil is currently stockpiled on-site, please indicate when disposal will occur or when treatment will begin: N/A

- (20) Estimated volume of contaminated soil (specify tons or cubic yards):

- (21) Intended disposition of soils (please • select only one):

- ☐ On-site/off-site treatment, Solid Waste Letter Authorization Permit Application attached.
- ☐ Thermal treatment off-site at an authorized facility.
 Facility name:
- ☒ Landfill disposal.
 Name of Landfill:

Note: Please attach additional information as necessary to explain any unusual circumstances associated with this project.

This initial report is intended to provide the Department with the basic initial information about activities associated with the release. Future reports should provide a more detailed and complete picture of the cleanup project.

Please be aware that a DEQ permit/authorization is required for the following activities:

- 1) Soil aeration, bioremediation (on-site or off-site), or on-site thermal treatment.
- 2) Water discharges to a stream/storm drain from the excavation or treatment tank.

If these activities will be included in your cleanup project, contact the regional DEQ office for the appropriate application forms, information on permit fees and guidance documents.

THIS REPORT WAS PREPARED BY:

Individual:	Casey Michaels	Date:	8/19/16
Company:	4C's Environmental Inc.	Phone:	503-606-3020
Address:	1590 SE Uglow Ave		
City:	Dallas	State:	OR Zip 97338

**1. Please return this form to the regional office in which the site is located.
If you have questions, call the contact person in your regional office.**

2. For all tanks, except heating oil tanks, you must submit an *UST Decommissioning Checklist and Site Assessment Report* to the appropriate regional office within 30 days of the UST decommissioning.

**Failure to do so can result in delays to your project and
may result in continued billing for the annual tank permit fees.**

**3. Addresses and phone numbers for the regional offices can be found in the
UST Cleanup Manual or viewed and downloaded from this DEQ Webpage:
<http://www.deq.state.or.us/about/locations.htm>**

**4. Copies of the *UST Cleanup Manual* and other UST program forms and checklists
can be viewed and downloaded from DEQ's Website:
<http://www.deq.state.or.us/lq/tanks/ust/index.htm>**

or in the Portland area by calling Steve Paiko at 503-229-6652

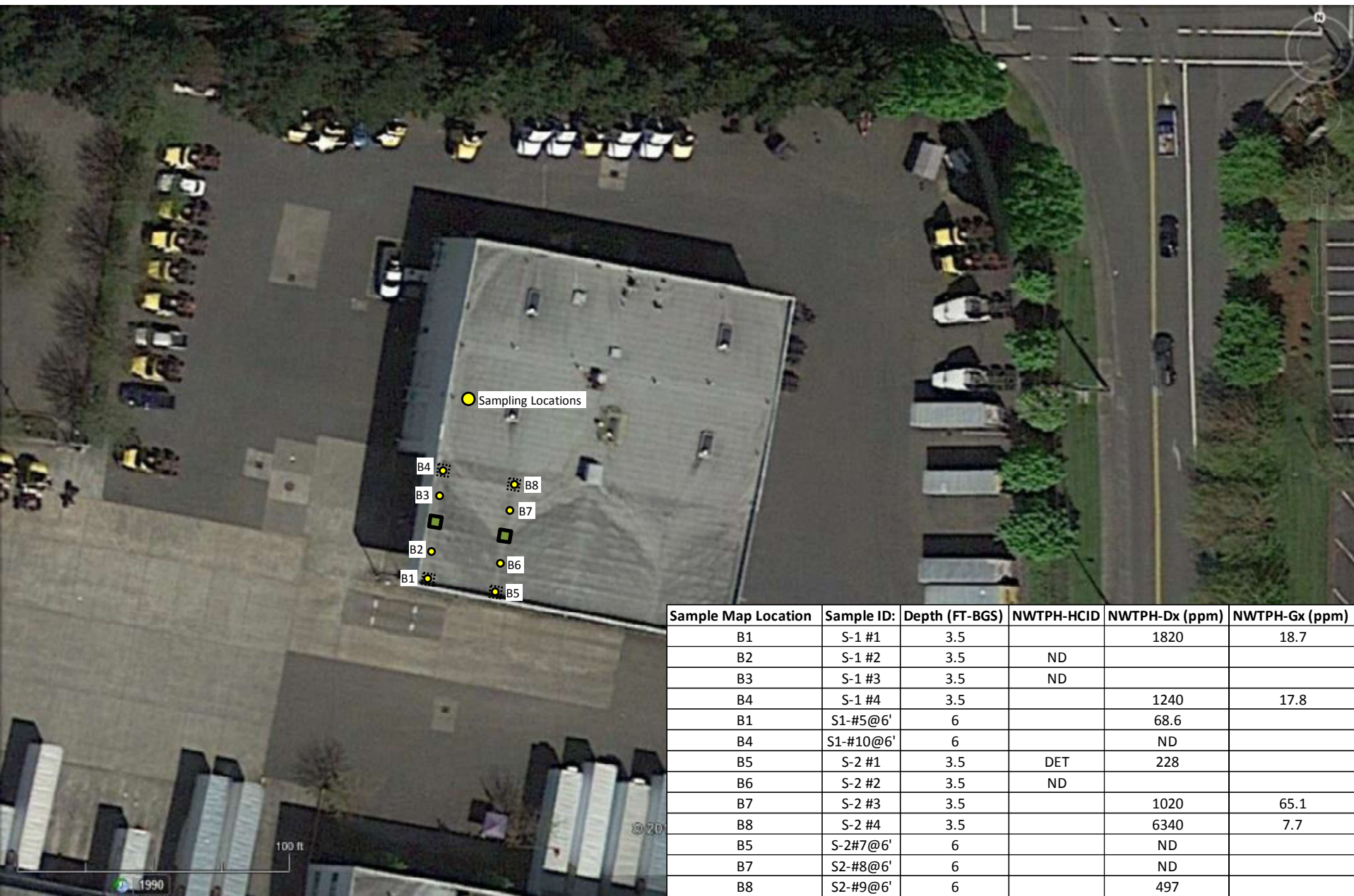
**or outside the Portland area leaving a message on the
UST Help Line (toll-free in Oregon) at 1-800-742-7878**

KEEP A COPY OF THIS REPORT FOR YOUR FACILITY RECORDS

The fueling system consisted of two main dispensers and four satellite dispensers. Each main dispenser had two associated satellite dispensers. The modification was initiated after a DEQ inspection which revealed metal pipe existing the main dispensers and going underground to satellite dispensers. The use of the satellites was stopped. 4C's removed a section of concrete in front of one of the main dispensers and excavated down to the fuel pipe associated with the satellite dispenser. The pipe underground between the main dispensers and satellite was double wall fiberglass. It is assumed that the metal pipe existing the main dispenser goes below ground and connects to a 90 degree fiberglass elbow; there are no UDC's. It was decided by the system owner to remove the satellites, abandon the satellite fuel lines, and only use the two main dispensers. 4C's removed the satellites and left on-site for the owner. The underground satellite fuel lines were removed of fuel, rinsed, and vacuumed. The fuel lines were capped and the cut outs in the concrete islands covered. The metal lines exiting the main dispensers were removed and plugged in the dispenser and capped at the concrete surface. Soil samples were collected below each satellite dispenser location and along the fuel pipe between the main dispensers and satellite.



Site Map



Sample Locations

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Tuesday, August 2, 2016

Casey Michaels
4C's Environmental Inc.
1590 SE Uglow Ave
Dallas, OR 97338

RE: ESTES/1305

Enclosed are the results of analyses for work order A6G0447, which was received by the laboratory on 7/13/2016 at 3:06:00PM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: DAuvil@apex-labs.com, or by phone at 503-718-2323.

Apex Laboratories



Darrell Auvil, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

4C's Environmental Inc.

Project/#: ESTES/1305

1590 SE Uglow Ave
Dallas, OR 97338

Project Manager: Casey Michaels

Reported:
08/02/16 11:40

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-1 #1	A6G0447-01	Soil	07/13/16 10:22	07/13/16 15:06
S-1 #2	A6G0447-02	Soil	07/13/16 10:50	07/13/16 15:06
S-1 #3	A6G0447-03	Soil	07/13/16 11:10	07/13/16 15:06
S-1 #4	A6G0447-04	Soil	07/13/16 11:10	07/13/16 15:06
S-2 #1	A6G0447-05	Soil	07/13/16 11:22	07/13/16 15:06
S-2 #2	A6G0447-06	Soil	07/13/16 11:34	07/13/16 15:06
S-2 #3	A6G0447-07	Soil	07/13/16 12:11	07/13/16 15:06
S-2 #4	A6G0447-08	Soil	07/13/16 12:18	07/13/16 15:06

Apex Laboratories



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Project Manager

4C's Environmental Inc.

Project/#: ESTES/1305

1590 SE Uglow Ave
Dallas, OR 97338

Project Manager: Casey Michaels

Reported:
08/02/16 11:40

ANALYTICAL SAMPLE RESULTS

Hydrocarbon Identification Screen by NWTPH-HCID

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
S-1 #2 (A6G0447-02)			Matrix: Soil		Batch: 6070360			
Gasoline Range Organics	ND	---	20.6	mg/kg dry	1	07/14/16 06:22	NWTPH-HCID	
Diesel Range Organics	ND	---	51.5	"	"	"	"	
Oil Range Organics	ND	---	103	"	"	"	"	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 101 %</i>	<i>Limits: 50-150 %</i>	"	"	"	
<i>4-Bromofluorobenzene (Surr)</i>			<i>97 %</i>	<i>Limits: 50-150 %</i>	"	"	"	
S-1 #3 (A6G0447-03)			Matrix: Soil		Batch: 6070360			
Gasoline Range Organics	ND	---	20.5	mg/kg dry	1	07/14/16 06:43	NWTPH-HCID	
Diesel Range Organics	ND	---	51.3	"	"	"	"	
Oil Range Organics	ND	---	103	"	"	"	"	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 102 %</i>	<i>Limits: 50-150 %</i>	"	"	"	
<i>4-Bromofluorobenzene (Surr)</i>			<i>99 %</i>	<i>Limits: 50-150 %</i>	"	"	"	
S-2 #1 (A6G0447-05)			Matrix: Soil		Batch: 6070360			
Gasoline Range Organics	ND	---	20.7	mg/kg dry	1	07/14/16 07:05	NWTPH-HCID	
Diesel Range Organics	DET	---	51.9	"	"	"	"	F-11
Oil Range Organics	ND	---	104	"	"	"	"	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 104 %</i>	<i>Limits: 50-150 %</i>	"	"	"	
<i>4-Bromofluorobenzene (Surr)</i>			<i>99 %</i>	<i>Limits: 50-150 %</i>	"	"	"	
S-2 #2 (A6G0447-06)			Matrix: Soil		Batch: 6070360			
Gasoline Range Organics	ND	---	21.0	mg/kg dry	1	07/14/16 07:26	NWTPH-HCID	
Diesel Range Organics	ND	---	52.5	"	"	"	"	
Oil Range Organics	ND	---	105	"	"	"	"	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 99 %</i>	<i>Limits: 50-150 %</i>	"	"	"	
<i>4-Bromofluorobenzene (Surr)</i>			<i>97 %</i>	<i>Limits: 50-150 %</i>	"	"	"	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Darrell Auvil, Project Manager

4C's Environmental Inc.

Project/#: ESTES/1305

1590 SE Uglow Ave
Dallas, OR 97338

Project Manager: Casey Michaels

Reported:
08/02/16 11:40

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
S-1 #1 (A6G0447-01)			Matrix: Soil	Batch: 6070369				
Diesel	1820	---	25.0	mg/kg dry	1	07/14/16 00:34	NWTPH-Dx	F-11
Oil	ND	---	50.0	"	"	"	"	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 114 %</i>	<i>Limits: 50-150 %</i>	"	"	"	
S-1 #4 (A6G0447-04)			Matrix: Soil	Batch: 6070369				
Diesel	1240	---	31.2	mg/kg dry	1	07/14/16 00:54	NWTPH-Dx	F-11
Oil	ND	---	62.3	"	"	"	"	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 110 %</i>	<i>Limits: 50-150 %</i>	"	"	"	
S-2 #1 (A6G0447-05)			Matrix: Soil	Batch: 6070460				
Diesel	228	---	25.0	mg/kg dry	1	07/15/16 23:41	NWTPH-Dx	F-11
Oil	ND	---	50.0	"	"	"	"	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 73 %</i>	<i>Limits: 50-150 %</i>	"	"	"	
S-2 #3 (A6G0447-07)			Matrix: Soil	Batch: 6070369				
Diesel	1020	---	25.0	mg/kg dry	1	07/14/16 01:14	NWTPH-Dx	
Oil	ND	---	50.0	"	"	"	"	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 115 %</i>	<i>Limits: 50-150 %</i>	"	"	"	
S-2 #4 (A6G0447-08)			Matrix: Soil	Batch: 6070369				
Diesel	6340	---	97.7	mg/kg dry	5	07/14/16 01:34	NWTPH-Dx	
Oil	ND	---	195	"	"	"	"	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 122 %</i>	<i>Limits: 50-150 %</i>	"	"	"	

Apex Laboratories



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Project Manager

4C's Environmental Inc.
1590 SE Uglow Ave
Dallas, OR 97338

Project/#: ESTES/1305

Project Manager: Casey Michaels

Reported:
08/02/16 11:40

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
S-1 #1 (A6G0447-01)			Matrix: Soil		Batch: 6070397		V-15	
Gasoline Range Organics	18.7	---	6.78	mg/kg dry	50	07/14/16 11:50	NWTPH-Gx (MS)	F-09
Surrogate: 4-Bromofluorobenzene (Sur)			Recovery: 130 %	Limits: 50-150 %	1	"	"	
1,4-Difluorobenzene (Sur)			107 %	Limits: 50-150 %	"	"	"	
S-1 #4 (A6G0447-04)			Matrix: Soil		Batch: 6070397		V-15	
Gasoline Range Organics	17.8	---	11.0	mg/kg dry	50	07/14/16 12:15	NWTPH-Gx (MS)	F-09
Surrogate: 4-Bromofluorobenzene (Sur)			Recovery: 120 %	Limits: 50-150 %	1	"	"	
1,4-Difluorobenzene (Sur)			103 %	Limits: 50-150 %	"	"	"	
S-2 #3 (A6G0447-07)			Matrix: Soil		Batch: 6070397		V-15	
Gasoline Range Organics	65.1	---	4.97	mg/kg dry	50	07/14/16 12:40	NWTPH-Gx (MS)	F-09
Surrogate: 4-Bromofluorobenzene (Sur)			Recovery: 134 %	Limits: 50-150 %	1	"	"	
1,4-Difluorobenzene (Sur)			101 %	Limits: 50-150 %	"	"	"	
S-2 #4 (A6G0447-08)			Matrix: Soil		Batch: 6070397		V-15	
Gasoline Range Organics	7.71	---	5.20	mg/kg dry	50	07/14/16 13:06	NWTPH-Gx (MS)	F-09
Surrogate: 4-Bromofluorobenzene (Sur)			Recovery: 104 %	Limits: 50-150 %	1	"	"	
1,4-Difluorobenzene (Sur)			96 %	Limits: 50-150 %	"	"	"	

Apex Laboratories



Darrell Auvil, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

4C's Environmental Inc.

1590 SE Uglow Ave
Dallas, OR 97338

Project/#: ESTES/1305

Project Manager: Casey Michaels

Reported:

08/02/16 11:40

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight								
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
S-1 #1 (A6G0447-01)			Matrix: Soil		Batch: 6070365			
% Solids	83.2	---	1.00	% by Weight	1	07/14/16 09:30	EPA 8000C	
S-1 #2 (A6G0447-02)			Matrix: Soil		Batch: 6070365			
% Solids	94.4	---	1.00	% by Weight	1	07/14/16 09:30	EPA 8000C	
S-1 #3 (A6G0447-03)			Matrix: Soil		Batch: 6070365			
% Solids	94.6	---	1.00	% by Weight	1	07/14/16 09:30	EPA 8000C	
S-1 #4 (A6G0447-04)			Matrix: Soil		Batch: 6070365			
% Solids	60.3	---	1.00	% by Weight	1	07/14/16 09:30	EPA 8000C	
S-2 #1 (A6G0447-05)			Matrix: Soil		Batch: 6070365			
% Solids	92.3	---	1.00	% by Weight	1	07/14/16 09:30	EPA 8000C	
S-2 #2 (A6G0447-06)			Matrix: Soil		Batch: 6070365			
% Solids	93.6	---	1.00	% by Weight	1	07/14/16 09:30	EPA 8000C	
S-2 #3 (A6G0447-07)			Matrix: Soil		Batch: 6070365			
% Solids	92.5	---	1.00	% by Weight	1	07/14/16 09:30	EPA 8000C	
S-2 #4 (A6G0447-08)			Matrix: Soil		Batch: 6070365			
% Solids	91.0	---	1.00	% by Weight	1	07/14/16 09:30	EPA 8000C	

Apex Laboratories



Darrell Auvil, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

4C's Environmental Inc.

Project/#: ESTES/1305

1590 SE Uglow Ave
Dallas, OR 97338

Project Manager: Casey Michaels

Reported:
08/02/16 11:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Hydrocarbon Identification Screen by NWTPH-HCID

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070360 - NWTPH-HCID (Soil)							Soil					
Blank (6070360-BLK1)				Prepared: 07/13/16 13:06		Analyzed: 07/14/16 04:13						
NWTPH-HCID												
Gasoline Range Organics	ND	---	18.2	mg/kg wet	1	---	---	---	---	---	---	
Diesel Range Organics	ND	---	45.5	"	"	---	---	---	---	---	---	
Oil Range Organics	ND	---	90.9	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		Recovery: 104 %		Limits: 50-150 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		101 %		50-150 %		"						

Apex Laboratories



Darrell Auvil, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

4C's Environmental Inc.

Project#: ESTES/1305

1590 SE Uglow Ave
Dallas, OR 97338

Project Manager: Casey Michaels

Reported:
08/02/16 11:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070369 - EPA 3546 (Fuels)						Soil						
Blank (6070369-BLK1)						Prepared: 07/13/16 15:13		Analyzed: 07/13/16 21:56				
NWTPH-Dx												
Diesel	ND	---	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	50.0	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		Recovery: 110 %		Limits: 50-150 %		Dilution: 1x						
LCS (6070369-BS1)						Prepared: 07/13/16 15:13		Analyzed: 07/13/16 22:16				
NWTPH-Dx												
Diesel	116	---	25.0	mg/kg wet	1	125	---	93	76-115%	---	---	
Surr: o-Terphenyl (Surr)		Recovery: 98 %		Limits: 50-150 %		Dilution: 1x						

Apex Laboratories



Darrell Auvil, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

4C's Environmental Inc.

Project/#: ESTES/1305

1590 SE Uglow Ave
Dallas, OR 97338

Project Manager: Casey Michaels

Reported:
08/02/16 11:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070460 - EPA 3546 (Fuels)						Soil						
Blank (6070460-BLK1)						Prepared: 07/15/16 12:07		Analyzed: 07/15/16 20:42				
NWTPH-Dx												
Diesel	ND	---	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	50.0	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		Recovery: 86 %		Limits: 50-150 %		Dilution: 1x						
LCS (6070460-BS1)						Prepared: 07/15/16 12:07		Analyzed: 07/15/16 21:02				
NWTPH-Dx												
Diesel	106	---	25.0	mg/kg wet	1	125	---	85	76-115%	---	---	
Surr: o-Terphenyl (Surr)		Recovery: 79 %		Limits: 50-150 %		Dilution: 1x						

Apex Laboratories



Darrell Auvil, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

4C's Environmental Inc.

Project/#: ESTES/1305

1590 SE Uglow Ave
Dallas, OR 97338

Project Manager: Casey Michaels

Reported:
08/02/16 11:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070397 - EPA 5035A						Soil						
Blank (6070397-BLK1)						Prepared: 07/14/16 08:00		Analyzed: 07/14/16 11:25				
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	3.33	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 114 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		107 %		50-150 %		"						
LCS (6070397-BS2)						Prepared: 07/14/16 08:00		Analyzed: 07/14/16 11:00				
NWTPH-Gx (MS)												
Gasoline Range Organics	20.1	---	5.00	mg/kg wet	50	25.0	---	80	70-130%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 111 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		105 %		50-150 %		"						

Apex Laboratories



Darrell Auvil, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

4C's Environmental Inc.

Project/#: ESTES/1305

1590 SE Uglow Ave
Dallas, OR 97338

Project Manager: Casey Michaels

Reported:
08/02/16 11:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070365 - Total Solids (Dry Weight)							Soil					
Duplicate (6070365-DUP3)					Prepared: 07/13/16 17:56		Analyzed: 07/14/16 09:30					
QC Source Sample: S-1 #1 (A6G0447-01)												
EPA 8000C												
% Solids	83.0	---	1.00	% by Weight	1	---	83.2	---	---	0.3	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

Apex Laboratories



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Project Manager

4C's Environmental Inc.

Project#: ESTES/1305

1590 SE Uglow Ave
Dallas, OR 97338

Project Manager: Casey Michaels

Reported:
08/02/16 11:40

SAMPLE PREPARATION INFORMATION

Hydrocarbon Identification Screen by NWTPH-HCID

Prep: NWTPH-HCID (Soil)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6070360							
A6G0447-02	Soil	NWTPH-HCID	07/13/16 10:50	07/13/16 18:12	10.28g/10mL	10g/10mL	0.97
A6G0447-03	Soil	NWTPH-HCID	07/13/16 11:10	07/13/16 18:12	10.3g/10mL	10g/10mL	0.97
A6G0447-05	Soil	NWTPH-HCID	07/13/16 11:22	07/13/16 18:12	10.44g/10mL	10g/10mL	0.96
A6G0447-06	Soil	NWTPH-HCID	07/13/16 11:34	07/13/16 18:12	10.17g/10mL	10g/10mL	0.98

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6070369							
A6G0447-01	Soil	NWTPH-Dx	07/13/16 10:22	07/13/16 17:54	11.44g/5mL	10g/5mL	0.87
A6G0447-04	Soil	NWTPH-Dx	07/13/16 11:10	07/13/16 17:54	10.64g/5mL	10g/5mL	0.94
A6G0447-07	Soil	NWTPH-Dx	07/13/16 12:11	07/13/16 17:54	10.89g/5mL	10g/5mL	0.92
A6G0447-08	Soil	NWTPH-Dx	07/13/16 12:18	07/13/16 17:54	11.25g/5mL	10g/5mL	0.89
Batch: 6070460							
A6G0447-05	Soil	NWTPH-Dx	07/13/16 11:22	07/15/16 15:14	11.25g/5mL	10g/5mL	0.89

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6070397							
A6G0447-01	Soil	NWTPH-Gx (MS)	07/13/16 10:22	07/13/16 17:25	5.205g/5mL	5g/5mL	0.96
A6G0447-04	Soil	NWTPH-Gx (MS)	07/13/16 11:10	07/13/16 17:25	5.404g/5mL	5g/5mL	0.93
A6G0447-07	Soil	NWTPH-Gx (MS)	07/13/16 12:11	07/13/16 17:25	5.92g/5mL	5g/5mL	0.85
A6G0447-08	Soil	NWTPH-Gx (MS)	07/13/16 12:18	07/13/16 17:25	5.85g/5mL	5g/5mL	0.86

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6070365							
A6G0447-01	Soil	EPA 8000C	07/13/16 10:22	07/13/16 17:56	1N/A/1N/A	1N/A/1N/A	NA
A6G0447-02	Soil	EPA 8000C	07/13/16 10:50	07/13/16 17:56	1N/A/1N/A	1N/A/1N/A	NA
A6G0447-03	Soil	EPA 8000C	07/13/16 11:10	07/13/16 17:56	1N/A/1N/A	1N/A/1N/A	NA

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Darrell Auvil, Project Manager

4C's Environmental Inc.

Project/#: ESTES/1305

1590 SE Uglow Ave
Dallas, OR 97338

Project Manager: Casey Michaels

Reported:
08/02/16 11:40

SAMPLE PREPARATION INFORMATION

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A6G0447-04	Soil	EPA 8000C	07/13/16 11:10	07/13/16 17:56	1N/A/1N/A	1N/A/1N/A	NA
A6G0447-05	Soil	EPA 8000C	07/13/16 11:22	07/13/16 17:56	1N/A/1N/A	1N/A/1N/A	NA
A6G0447-06	Soil	EPA 8000C	07/13/16 11:34	07/13/16 17:56	1N/A/1N/A	1N/A/1N/A	NA
A6G0447-07	Soil	EPA 8000C	07/13/16 12:11	07/13/16 17:56	1N/A/1N/A	1N/A/1N/A	NA
A6G0447-08	Soil	EPA 8000C	07/13/16 12:18	07/13/16 17:56	1N/A/1N/A	1N/A/1N/A	NA

Apex Laboratories



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Project Manager

4C's Environmental Inc.

Project#: ESTES/1305

1590 SE Uglow Ave
Dallas, OR 97338

Project Manager: Casey Michaels

Reported:
08/02/16 11:40

Notes and Definitions

Qualifiers:

- F-09 Results in the Gasoline Range are primarily due to overlap from a heavier fuel hydrocarbon product.
- F-11 The hydrocarbon pattern indicates possible weathered diesel, or a contribution from a related component.
- V-15 Sample aliquot was subsampled from the sample container. The subsampled aliquot was preserved in the laboratory within 48 hours of sampling.

Notes and Conventions:

- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry' designation are not dry weight corrected.
- RPD Relative Percent Difference
- MDL If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
- WMSC Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
- Batch QC Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.
- Blank Policy Apex assesses blank data for potential high bias down to a level equal to 1/2 the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses.

For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor.

Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.
- QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.
- *** Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Darrell Auvil, Project Manager

4C's Environmental Inc.
1590 SE Uglow Ave
Dallas, OR 97338

Project#: ESTES/1305

Project Manager: Casey Michaels

Reported:
08/02/16 11:40

CHAIN OF CUSTODY

Lab # 106647 COC 1 of 1

APEX LABS

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Company: 4C's Environmental Inc.		Project Name: ESTES		Project #: 1305	
Address: 1590 SE Uglow Ave.		Phone: 503-404-5000		Fax: 503-404-3700	
Sampled by: Casey		Project Mgr: Casey		Email: Casey@4c.com	
ANALYSIS REQUEST					
Site Location: OR WA		Matrix: Soil		1200-Z	
Other: None		TIME		1200-COLS	
LAB ID #		DATE		TOTAL DISS TCLP	
SAMPLE ID		TIME		As, Pb, Cu, Fe, Mn, Ni, Zn	
1 S-1 #1		7/5 10:22		Hg, Cd, Cr, Co, Cu, Fe, Pb, Ni, Zn	
2 S-1 #2		7/5 10:50		Al, Sb, As, Ba, Be, Cd, Cr, Co, Cu, Fe, Mn, Ni, Zn	
3 S-1 #3		7/5 11:10		TCLP Metals (8)	
4 S-1 #4		7/5 11:15		RCRA Metals (8)	
5 S-2 #1		7/5 11:22		600 TTO	
6 S-2 #2		7/5 11:34		8082 PCBs	
7 S-2 #3		7/5 12:11		8270 SIM PAHs	
8 S-2 #4		7/5 12:18		8270 SVOC	
9				8260 BTEX	
10				8260 RBDM VOCs	
				8260 VOC	
				NWTPH-GX	
				NWTPH-DX	
				NWTPH-HCID	
				# OF CONTAINERS	
				MATRIX	
				YES NO	
				Normal Turn Around Time (TAT) = 7-10 Business Days	
				1 Day 2 Day 3 Day	
				TAT Requested (circle)	
				4 DAY 5 DAY Other:	
SAMPLES ARE HELD FOR 30 DAYS					
RELINQUISHED BY:		RECEIVED BY:		RELINQUISHED BY:	
Signature: <i>[Signature]</i>		Signature: <i>[Signature]</i>		Signature: <i>[Signature]</i>	
Date: 7/13/16		Date: 7/13/16		Date: 7/13/16	
Printed Name: <i>[Name]</i>		Printed Name: <i>[Name]</i>		Printed Name: <i>[Name]</i>	
Time: 3:06		Time: 3:06		Time: 15:00	
Company: <i>[Company]</i>		Company: <i>[Company]</i>		Company: <i>[Company]</i>	

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Friday, August 19, 2016

Casey Michaels
4C's Environmental Inc.
1590 SE Uglow Ave
Dallas, OR 97338

RE: Ester Trucking-Satelites/1305

Enclosed are the results of analyses for work order A6H0572, which was received by the laboratory on 8/17/2016 at 4:47:00PM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: DAuvil@apex-labs.com, or by phone at 503-718-2323.

Apex Laboratories



Darrell Auvil, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

4C's Environmental Inc.

1590 SE Uglow Ave
Dallas, OR 97338

Project/#: Ester Trucking-Satelites/1305

Project Manager: Casey Michaels

Reported:

08/19/16 11:21

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S1-#5@6'	A6H0572-01	Soil	08/17/16 12:53	08/17/16 16:47
S2-#7@6'	A6H0572-02	Soil	08/17/16 13:38	08/17/16 16:47
S2-#8@6'	A6H0572-03	Soil	08/17/16 14:14	08/17/16 16:47
S2-#9@6'	A6H0572-04	Soil	08/17/16 14:58	08/17/16 16:47
S1-#10@6'	A6H0572-05	Soil	08/17/16 15:15	08/17/16 16:47

Apex Laboratories



Darrell Auvil, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

4C's Environmental Inc.

1590 SE Uglow Ave
Dallas, OR 97338

Project/#: Ester Trucking-Satelites/1305

Project Manager: Casey Michaels

Reported:

08/19/16 11:21

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
S1-#5@6' (A6H0572-01)			Matrix: Soil		Batch: 6080630			
Diesel	68.6	---	26.1	mg/kg dry	1	08/17/16 22:32	NWTPH-Dx	F-11
Oil	ND	---	52.2	"	"	"	"	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 85 %</i>	<i>Limits: 50-150 %</i>	"	"	"	
S2-#7@6' (A6H0572-02)			Matrix: Soil		Batch: 6080630			
Diesel	ND	---	25.0	mg/kg dry	1	08/17/16 22:53	NWTPH-Dx	
Oil	ND	---	50.0	"	"	"	"	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 88 %</i>	<i>Limits: 50-150 %</i>	"	"	"	
S2-#8@6' (A6H0572-03)			Matrix: Soil		Batch: 6080630			
Diesel	ND	---	25.3	mg/kg dry	1	08/17/16 23:13	NWTPH-Dx	
Oil	ND	---	50.7	"	"	"	"	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 100 %</i>	<i>Limits: 50-150 %</i>	"	"	"	
S2-#9@6' (A6H0572-04)			Matrix: Soil		Batch: 6080630			
Diesel	497	---	25.0	mg/kg dry	1	08/17/16 23:33	NWTPH-Dx	F-11
Oil	ND	---	50.0	"	"	"	"	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 95 %</i>	<i>Limits: 50-150 %</i>	"	"	"	
S1-#10@6' (A6H0572-05)			Matrix: Soil		Batch: 6080630			
Diesel	ND	---	25.9	mg/kg dry	1	08/17/16 23:53	NWTPH-Dx	
Oil	ND	---	51.8	"	"	"	"	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 91 %</i>	<i>Limits: 50-150 %</i>	"	"	"	

Apex Laboratories



Darrell Auvil, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

4C's Environmental Inc.

Project/#: Ester Trucking-Satelites/1305

1590 SE Uglow Ave
Dallas, OR 97338

Project Manager: Casey Michaels

Reported:
08/19/16 11:21

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight								
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
S1-#5@6' (A6H0572-01)			Matrix: Soil		Batch: 6080623			
% Solids	70.9	---	1.00	% by Weight	1	08/18/16 07:50	EPA 8000C	
S2-#7@6' (A6H0572-02)			Matrix: Soil		Batch: 6080623			
% Solids	75.7	---	1.00	% by Weight	1	08/18/16 07:50	EPA 8000C	
S2-#8@6' (A6H0572-03)			Matrix: Soil		Batch: 6080623			
% Solids	74.5	---	1.00	% by Weight	1	08/18/16 07:50	EPA 8000C	
S2-#9@6' (A6H0572-04)			Matrix: Soil		Batch: 6080623			
% Solids	81.1	---	1.00	% by Weight	1	08/18/16 07:50	EPA 8000C	
S1-#10@6' (A6H0572-05)			Matrix: Soil		Batch: 6080623			
% Solids	73.7	---	1.00	% by Weight	1	08/18/16 07:50	EPA 8000C	

Apex Laboratories



Darrell Auvil, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

4C's Environmental Inc.

Project/#: Ester Trucking-Satelites/1305

1590 SE Uglow Ave
Dallas, OR 97338

Project Manager: Casey Michaels

Reported:
08/19/16 11:21

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6080630 - EPA 3546 (Fuels)						Soil						
Blank (6080630-BLK1)						Prepared: 08/17/16 15:25 Analyzed: 08/17/16 20:46						
NWTPH-Dx												
Diesel	ND	---	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	50.0	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		Recovery: 92 %		Limits: 50-150 %		Dilution: 1x						
LCS (6080630-BS1)						Prepared: 08/17/16 15:25 Analyzed: 08/17/16 21:05						
NWTPH-Dx												
Diesel	118	---	25.0	mg/kg wet	1	125	---	94	76-115%	---	---	
Surr: o-Terphenyl (Surr)		Recovery: 100 %		Limits: 50-150 %		Dilution: 1x						
Duplicate (6080630-DUP2)						Prepared: 08/17/16 18:25 Analyzed: 08/18/16 00:13						
QC Source Sample: S1-#10@6' (A6H0572-05)												
NWTPH-Dx												
Diesel	ND	---	25.9	mg/kg dry	1	---	ND	---	---	---	30%	
Oil	ND	---	51.7	"	"	---	ND	---	---	---	30%	
Surr: o-Terphenyl (Surr)		Recovery: 92 %		Limits: 50-150 %		Dilution: 1x						

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Darrell Auvil, Project Manager

4C's Environmental Inc.

Project/#: Ester Trucking-Satelites/1305

1590 SE Uglow Ave
Dallas, OR 97338

Project Manager: Casey Michaels

Reported:
08/19/16 11:21

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----	-----------------	-------	------	--------------	---------------	------	-------------	-----	-----------	-------

Batch 6080623 - Total Solids (Dry Weight)

Soil

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

Apex Laboratories



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Project Manager

4C's Environmental Inc.

Project/#: Ester Trucking-Satelites/1305

1590 SE Uglow Ave
Dallas, OR 97338

Project Manager: Casey Michaels

Reported:
08/19/16 11:21

SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6080630							
A6H0572-01	Soil	NWTPH-Dx	08/17/16 12:53	08/17/16 18:25	10.81g/5mL	10g/5mL	0.93
A6H0572-02	Soil	NWTPH-Dx	08/17/16 13:38	08/17/16 18:25	10.89g/5mL	10g/5mL	0.92
A6H0572-03	Soil	NWTPH-Dx	08/17/16 14:14	08/17/16 18:25	10.6g/5mL	10g/5mL	0.94
A6H0572-04	Soil	NWTPH-Dx	08/17/16 14:58	08/17/16 18:25	10.57g/5mL	10g/5mL	0.95
A6H0572-05	Soil	NWTPH-Dx	08/17/16 15:15	08/17/16 18:25	10.48g/5mL	10g/5mL	0.95

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 6080623							
A6H0572-01	Soil	EPA 8000C	08/17/16 12:53	08/17/16 19:53	1N/A/1N/A	1N/A/1N/A	NA
A6H0572-02	Soil	EPA 8000C	08/17/16 13:38	08/17/16 19:53	1N/A/1N/A	1N/A/1N/A	NA
A6H0572-03	Soil	EPA 8000C	08/17/16 14:14	08/17/16 19:53	1N/A/1N/A	1N/A/1N/A	NA
A6H0572-04	Soil	EPA 8000C	08/17/16 14:58	08/17/16 19:53	1N/A/1N/A	1N/A/1N/A	NA
A6H0572-05	Soil	EPA 8000C	08/17/16 15:15	08/17/16 19:53	1N/A/1N/A	1N/A/1N/A	NA

Apex Laboratories



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil, Project Manager

4C's Environmental Inc.

Project/#: Ester Trucking-Satelites/1305

1590 SE Uglow Ave
Dallas, OR 97338

Project Manager: Casey Michaels

Reported:
08/19/16 11:21

Notes and Definitions

Qualifiers:

F-11 The hydrocarbon pattern indicates possible weathered diesel, or a contribution from a related component.

Notes and Conventions:

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry' designation are not dry weight corrected.

RPD Relative Percent Difference

MDL If MDL is not listed, data has been evaluated to the Method Reporting Limit only.

WMSC Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.

Batch QC Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.

Blank Policy Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses.

For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor.

Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.

--- QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

*** Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Darrell Auvil, Project Manager

4C's Environmental Inc. 1590 SE Uglow Ave Dallas, OR 97338	Project/#: Ester Trucking-Satelites/1305 Project Manager: Casey Michaels	Reported: 08/19/16 11:21
---	--	------------------------------------

APEX LABS

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

CHAIN OF CUSTODY

Lab # AL40572 COC 1 of 1

Project Name: Estes Trucking-SuperSite Project # 1325

Address: 1590 SE Uglow Ave. Phone: 503 606 3040 Fax: 503 606 3120 Email:

Company: 4C's Environmental Inc. Project Mgr: CASEY

Address: Dallas, OR 97338

Normal Turn Around Time (TAT) = 7-10 Business Days

YES NO

1 Day 2 Day 3 Day

TAT Requested (circle) 4 DAY 5 DAY Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RECEIVED BY: [Signature] Date: 8/17/16

Printed Name: Thom Ziegler Time: 4:47

Company: Apex

RELINQUISHED BY: [Signature] Date: 8/17/16

Printed Name: [Signature] Time: 16:47

Company: Apex

RECEIVED BY: _____ Date: _____

Signature: _____ Date: _____

Printed Name: _____ Time: _____

Company: _____

LAB ID # DATE TIME # OF CONTAINERS NWTPH-ACID NWTPH-DX NWTPH-GX 50% VOC 8260 VOC 8260 RBDM VOCs 8260 BTEX 8270 SVOC 8270 SIM PAHs 8082 PCBs 600 TTO RCRA Metals (8) TCLP Metals (8) AL, SB, AS, BA, BE, CA, CR, CU, CO, FE, NI, PB, SE, SI, MN, MO, NI, ZN TOTAL DISS TCLP 1200-COLS 1200-Z

SAMPLE ID

1 S1 - # 506

2 S2 - # 706

3 S2 - # 806

4 S2 - # 906

5 S1 - # 1006

W.A

OR

ANALYSIS REQUEST

APPENDIX B

State of Oregon DEQ Approval Letter 11 July 2023



Oregon

Tina Kotek, Governor

Department of Environmental Quality

Northwest Region

700 NE Multnomah Street, Suite 600

Portland, OR 97232

(503) 229-5263

FAX (503) 229-6945

TTY 711

July 11, 2023

via electronic delivery

AdvancedGeo, Inc.
Brian Millman
Senior Geologist
bmillman@advancedgeo.biz

Re: **DEQ Review of Site Assessment Work Plan**
Estes West – Portland Terminal, 13704 NE Airport Way, Portland, Oregon (26-16-0983)

Dear Mr. Millman,

Oregon Department of Environmental Quality (DEQ) has reviewed the document entitled ***Site Assessment Work Plan*** (Work Plan), prepared by AdvancedGeo, Inc. (AdvancedGeo) on behalf of Estes Express and submitted on June 26, 2023. The work plan adequately addresses DEQ's comment letter provided by DEQ to AdvancedGeo on March 16, 2023. However, DEQ does have a clarification noted below.

Section 3.2 Soil Sample Collection and Analysis: On July 6, 2023, DEQ requested clarification about what criteria would be used to determine if the 6.0 feet below ground surface (bgs) soil samples would be analyzed. AdvancedGeo responded via email that if a 3.0 feet bgs soil sample exhibited concentrations greater than any risk-based concentration (RBC), the associated 6.0 feet bgs soil sample would be analyzed.

DEQ approves the work plan. If you have any questions, please contact me at (503) 926-2257.

Sincerely,

Rebecca Digiustino
Project Manager
NWR Cleanup Section

cc: Robert Marty, President, AdvancedGeo, Inc.

APPENDIX C

GPRS Survey



JOB SUMMARY

Customer: ADVANCED GEO INC
Service Completed Date: 08/09/2023
Phone Number:

Billing Address	City	State	Zip
837 SHAW RD	STOCKTON	CA	95215

Job Details

Jobsite Location	City	State	Zip
13704 NE Airport Way	Portland	OR	97230

Work Order Number	580565-84555	Customer Service Phone Num
Job Num	Estes – Portland	PO Num

Project Manager: Evan Lambka
Email: Evan.Lambka@gprsinc.com

Thank you for using GPRS on your project. We appreciate the opportunity to work with you. If you have questions regarding the results of this scanning, please contact the lead GPRS technician on this project.

EQUIPMENT USED

The following equipment was used on this project:

- **Underground GPR Antenna:** This GPR Antenna uses frequencies ranging from 250 MHz to 450 MHz and is mounted in a stroller frame that rolls over the surface. Data is displayed on a screen and marked in the field in real-time. The surface needs to be reasonably smooth and unobstructed to obtain readable scans. Obstructions such as curbs, landscaping, and vegetation will limit the efficacy of GPR. The total effective scan depth can be as much as 8' or more with this antenna but can vary widely depending on the soil conditions and composition. Some soil types, such as clay, may limit maximum depths to 3' or less. As depth increases, targets must be larger to be detected, and non-metallic targets can be challenging to locate. The depths provided should always be treated as estimates as their accuracy can be affected by multiple factors. For more information, please visit: [Link](#)
- **EM Pipe Locator:** Electromagnetic Pipe and Cable Locator. Detects electromagnetic fields. Used to actively trace conductive pipes and tracer wires, or passively detect power and radio signals traveling along conductive pipes and utilities. For more information, please visit: [Link](#)



JOB SUMMARY

WORK PERFORMED

GPRS performed the following work on this project:

UNDERGROUND UTILITY

- The scope of work included scanning the areas around proposed soil borings. A radius of approximately 2 around each proposed soil boring was scanned unless otherwise noted.
- A total of 3 boring locations were scanned.
- The effective depth of GPR will vary throughout a site depending on a variety of factors such as surface type, surface conditions, soil type, and moisture content. At this site, the maximum effective GPR depth was approximately 3 feet.

RESULTS AND NOTES

Client performed 811 Location Request:	Yes	Marking Medium:	Spray Paint
Findings Walkthrough done with client:	Yes	Client Provided Drawings:	No
Client's Scope of Work:	Clear 3 locations for soil bores		



JOB SUMMARY

Image 1



Image 2



Image 3



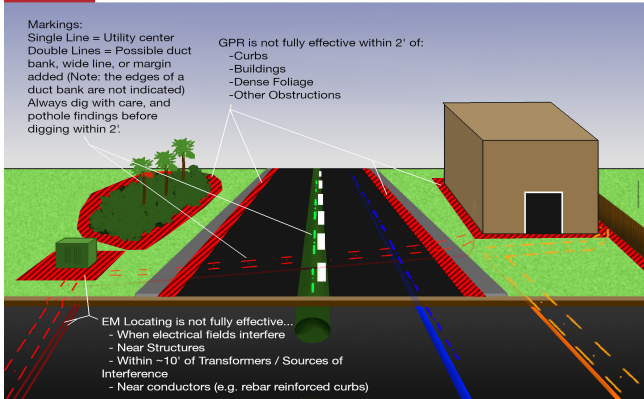


JOB SUMMARY



Common Utility Locating Limitations

There are many limitations to locating utilities, due to a variety of factors, with several more common examples illustrated here.



CONTACT / SIGNATURE INFORMATION

TERMS & CONDITIONS

<http://www.gprsinc.com/termsandconditions.html>

SIGNATURE

CONTACT NAME

Brian Millman

800-511-9300

**GPRS**

3D LASER SCANNING



**BUILD AT THE SPEED
OF *INSIGHT***

GPRS DELIVERS SINGULAR SOLUTIONS IN 3D TECHNOLOGY

GPRS intelligently visualizes The Built World™ above and below ground as the leading provider of accurate and creative 3D laser scanning solutions for the construction, architecture, and engineering industries.

3D laser scan technology is a cost-effective solution to your facility visualization needs. It can reduce and even eliminate costly errors to speed up your design, engineering, and construction process.

ABOVE AND BELOW GROUND DATA CAPTURE

The combination of laser scanning and ground penetrating radar allows you to visualize your facility effectively and accurately.

Our fully integrated service gives you accurate data to expedite design planning, extract 3D coordinates and measure distances, along with the ability to mark-up and share this with project teams. Receiving critical site information will lower project risks and increase project efficiency.

What can GPRS help you visualize?

SERVICES



- ✓ TRAINING
- ✓ EQUIPMENT
- ✓ METHODOLOGY

The use of proper training, multiple technologies and a field-tested methodology are the key to a successful utility locate. GPRS is a master of all three components through the utilization of the SIM Specification.

SIMSPEC.ORG

 **UTILITY
LOCATING**

 **VIDEO PIPE
INSPECTION**

 **LEAK
DETECTION**

 **MAPPING &
MODELING**

 **CONCRETE
IMAGING**

1.866.914.4718

GPRSINC.COM 

APPENDIX D

Laboratory Report



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Wednesday, August 23, 2023

Brian Millman
Advanced Geo, Inc.
837 Shaw Road
Stockton, CA 95215

RE: A3H0931 - Estes - Portland - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A3H0931, which was received by the laboratory on 8/9/2023 at 12:50:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: DAuvil@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information	
<u>Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.</u>	
(See Cooler Receipt Form for details)	
Default Cooler	4.5 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Advanced Geo, Inc.
837 Shaw Road
Stockton, CA 95215

Project: Estes - Portland
Project Number: [none]
Project Manager: Brian Millman

Report ID:
A3H0931 - 08 23 23 1050

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B1-3	A3H0931-01	Soil	08/09/23 09:25	08/09/23 12:50
B1-6	A3H0931-02	Soil	08/09/23 09:30	08/09/23 12:50
B2-3	A3H0931-03	Soil	08/09/23 09:40	08/09/23 12:50
B2-6	A3H0931-04	Soil	08/09/23 09:44	08/09/23 12:50
B3-3	A3H0931-05	Soil	08/09/23 10:12	08/09/23 12:50
B3-6	A3H0931-06	Soil	08/09/23 10:15	08/09/23 12:50

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323

ORELAP ID: OR100062

Advanced Geo, Inc.
837 Shaw Road
Stockton, CA 95215Project: Estes - Portland
Project Number: [none]
Project Manager: Brian MillmanReport ID:
A3H0931 - 08 23 23 1050

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B1-3 (A3H0931-01)		Matrix: Soil			Batch: 23H0731			
Diesel	ND	---	24.5	mg/kg dry	1	08/22/23 10:50	NWTPH-Dx	
Oil	ND	---	49.1	mg/kg dry	1	08/22/23 10:50	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 62 %		Limits: 50-150 %	1	08/22/23 10:50	NWTPH-Dx	
B1-6 (A3H0931-02)		Matrix: Soil			Batch: 23H0487			
Diesel	ND	---	25.2	mg/kg dry	1	08/15/23 06:36	NWTPH-Dx	
Oil	ND	---	50.4	mg/kg dry	1	08/15/23 06:36	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 67 %		Limits: 50-150 %	1	08/15/23 06:36	NWTPH-Dx	
B2-3 (A3H0931-03)		Matrix: Soil			Batch: 23H0731			
Diesel	ND	---	26.7	mg/kg dry	1	08/22/23 11:10	NWTPH-Dx	
Oil	ND	---	53.4	mg/kg dry	1	08/22/23 11:10	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 68 %		Limits: 50-150 %	1	08/22/23 11:10	NWTPH-Dx	
B2-6 (A3H0931-04)		Matrix: Soil			Batch: 23H0487			
Diesel	ND	---	24.0	mg/kg dry	1	08/15/23 06:56	NWTPH-Dx	
Oil	ND	---	48.1	mg/kg dry	1	08/15/23 06:56	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 70 %		Limits: 50-150 %	1	08/15/23 06:56	NWTPH-Dx	
B3-3 (A3H0931-05)		Matrix: Soil			Batch: 23H0731			
Diesel	ND	---	26.7	mg/kg dry	1	08/22/23 11:31	NWTPH-Dx	
Oil	ND	---	53.4	mg/kg dry	1	08/22/23 11:31	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 52 %		Limits: 50-150 %	1	08/22/23 11:31	NWTPH-Dx	
B3-6 (A3H0931-06)		Matrix: Soil			Batch: 23H0487			
Diesel	ND	---	25.5	mg/kg dry	1	08/15/23 07:17	NWTPH-Dx	
Oil	ND	---	51.1	mg/kg dry	1	08/15/23 07:17	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 64 %		Limits: 50-150 %	1	08/15/23 07:17	NWTPH-Dx	

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Advanced Geo, Inc.
837 Shaw Road
Stockton, CA 95215Project: Estes - Portland
Project Number: [none]
Project Manager: Brian MillmanReport ID:
A3H0931 - 08 23 23 1050

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B1-3 (A3H0931-01)		Matrix: Soil			Batch: 23H0598			
Gasoline Range Organics	ND	---	6.10	mg/kg dry	50	08/16/23 13:11	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 98 %	Limits: 50-150 %	1	08/16/23 13:11	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		104 %	50-150 %	1	08/16/23 13:11	NWTPH-Gx (MS)		
B1-6 (A3H0931-02)		Matrix: Soil			Batch: 23H0504			
Gasoline Range Organics	ND	---	6.54	mg/kg dry	50	08/14/23 16:50	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 104 %	Limits: 50-150 %	1	08/14/23 16:50	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		103 %	50-150 %	1	08/14/23 16:50	NWTPH-Gx (MS)		
B2-3 (A3H0931-03)		Matrix: Soil			Batch: 23H0598			
Gasoline Range Organics	ND	---	6.60	mg/kg dry	50	08/16/23 13:37	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 99 %	Limits: 50-150 %	1	08/16/23 13:37	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		104 %	50-150 %	1	08/16/23 13:37	NWTPH-Gx (MS)		
B2-6 (A3H0931-04)		Matrix: Soil			Batch: 23H0504			
Gasoline Range Organics	ND	---	5.38	mg/kg dry	50	08/14/23 17:41	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 101 %	Limits: 50-150 %	1	08/14/23 17:41	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		103 %	50-150 %	1	08/14/23 17:41	NWTPH-Gx (MS)		
B3-3 (A3H0931-05)		Matrix: Soil			Batch: 23H0598			
Gasoline Range Organics	ND	---	7.23	mg/kg dry	50	08/16/23 14:03	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 100 %	Limits: 50-150 %	1	08/16/23 14:03	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		103 %	50-150 %	1	08/16/23 14:03	NWTPH-Gx (MS)		
B3-6 (A3H0931-06)		Matrix: Soil			Batch: 23H0504			
Gasoline Range Organics	ND	---	6.79	mg/kg dry	50	08/14/23 18:07	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 105 %	Limits: 50-150 %	1	08/14/23 18:07	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		104 %	50-150 %	1	08/14/23 18:07	NWTPH-Gx (MS)		

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323

ORELAP ID: OR100062

Advanced Geo, Inc.
837 Shaw Road
Stockton, CA 95215Project: Estes - Portland
Project Number: [none]
Project Manager: Brian MillmanReport ID:
A3H0931 - 08 23 23 1050

ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B1-3 (A3H0931-01)		Matrix: Soil			Batch: 23H0598			
Benzene	ND	---	12.2	ug/kg dry	50	08/16/23 13:11	5035A/8260D	
Toluene	ND	---	61.0	ug/kg dry	50	08/16/23 13:11	5035A/8260D	
Ethylbenzene	ND	---	30.5	ug/kg dry	50	08/16/23 13:11	5035A/8260D	
Xylenes, total	ND	---	91.5	ug/kg dry	50	08/16/23 13:11	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	---	61.0	ug/kg dry	50	08/16/23 13:11	5035A/8260D	
Naphthalene	ND	---	122	ug/kg dry	50	08/16/23 13:11	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	---	61.0	ug/kg dry	50	08/16/23 13:11	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	30.5	ug/kg dry	50	08/16/23 13:11	5035A/8260D	
Isopropylbenzene	ND	---	61.0	ug/kg dry	50	08/16/23 13:11	5035A/8260D	
n-Propylbenzene	ND	---	30.5	ug/kg dry	50	08/16/23 13:11	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	61.0	ug/kg dry	50	08/16/23 13:11	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	61.0	ug/kg dry	50	08/16/23 13:11	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	98 %	Limits:	80-120 %	1	08/16/23 13:11	5035A/8260D
Toluene-d8 (Surr)			103 %		80-120 %	1	08/16/23 13:11	5035A/8260D
4-Bromofluorobenzene (Surr)			102 %		79-120 %	1	08/16/23 13:11	5035A/8260D
B2-3 (A3H0931-03)		Matrix: Soil			Batch: 23H0598			
Benzene	ND	---	13.2	ug/kg dry	50	08/16/23 13:37	5035A/8260D	
Toluene	ND	---	66.0	ug/kg dry	50	08/16/23 13:37	5035A/8260D	
Ethylbenzene	ND	---	33.0	ug/kg dry	50	08/16/23 13:37	5035A/8260D	
Xylenes, total	ND	---	99.0	ug/kg dry	50	08/16/23 13:37	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	---	66.0	ug/kg dry	50	08/16/23 13:37	5035A/8260D	
Naphthalene	ND	---	132	ug/kg dry	50	08/16/23 13:37	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	---	66.0	ug/kg dry	50	08/16/23 13:37	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	33.0	ug/kg dry	50	08/16/23 13:37	5035A/8260D	
Isopropylbenzene	ND	---	66.0	ug/kg dry	50	08/16/23 13:37	5035A/8260D	
n-Propylbenzene	ND	---	33.0	ug/kg dry	50	08/16/23 13:37	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	66.0	ug/kg dry	50	08/16/23 13:37	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	66.0	ug/kg dry	50	08/16/23 13:37	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	97 %	Limits:	80-120 %	1	08/16/23 13:37	5035A/8260D
Toluene-d8 (Surr)			102 %		80-120 %	1	08/16/23 13:37	5035A/8260D
4-Bromofluorobenzene (Surr)			101 %		79-120 %	1	08/16/23 13:37	5035A/8260D
B3-3 (A3H0931-05)		Matrix: Soil			Batch: 23H0598			

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323

ORELAP ID: OR100062

Advanced Geo, Inc.837 Shaw Road
Stockton, CA 95215Project: Estes - Portland

Project Number: [none]

Project Manager: Brian Millman

Report ID:

A3H0931 - 08 23 23 1050

ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B3-3 (A3H0931-05)		Matrix: Soil			Batch: 23H0598			
Benzene	ND	---	14.5	ug/kg dry	50	08/16/23 14:03	5035A/8260D	
Toluene	ND	---	72.3	ug/kg dry	50	08/16/23 14:03	5035A/8260D	
Ethylbenzene	ND	---	36.1	ug/kg dry	50	08/16/23 14:03	5035A/8260D	
Xylenes, total	ND	---	108	ug/kg dry	50	08/16/23 14:03	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	---	72.3	ug/kg dry	50	08/16/23 14:03	5035A/8260D	
Naphthalene	ND	---	145	ug/kg dry	50	08/16/23 14:03	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	---	72.3	ug/kg dry	50	08/16/23 14:03	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	36.1	ug/kg dry	50	08/16/23 14:03	5035A/8260D	
Isopropylbenzene	ND	---	72.3	ug/kg dry	50	08/16/23 14:03	5035A/8260D	
n-Propylbenzene	ND	---	36.1	ug/kg dry	50	08/16/23 14:03	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	72.3	ug/kg dry	50	08/16/23 14:03	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	72.3	ug/kg dry	50	08/16/23 14:03	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 96 %		Limits: 80-120 %	1	08/16/23 14:03	5035A/8260D	
Toluene-d8 (Surr)		101 %		80-120 %	1	08/16/23 14:03	5035A/8260D	
4-Bromofluorobenzene (Surr)		101 %		79-120 %	1	08/16/23 14:03	5035A/8260D	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager

Page 6 of 30



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323

ORELAP ID: OR100062

Advanced Geo, Inc.
837 Shaw Road
Stockton, CA 95215Project: Estes - Portland
Project Number: [none]
Project Manager: Brian MillmanReport ID:
A3H0931 - 08 23 23 1050

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (SIM)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B1-3 (A3H0931-01)		Matrix: Soil			Batch: 23H0700			
Acenaphthene	ND	---	12.0	ug/kg dry	1	08/18/23 15:51	EPA 8270E SIM	
Acenaphthylene	ND	---	12.0	ug/kg dry	1	08/18/23 15:51	EPA 8270E SIM	
Anthracene	ND	---	12.0	ug/kg dry	1	08/18/23 15:51	EPA 8270E SIM	
Benz(a)anthracene	ND	---	12.0	ug/kg dry	1	08/18/23 15:51	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	12.0	ug/kg dry	1	08/18/23 15:51	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	12.0	ug/kg dry	1	08/18/23 15:51	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	12.0	ug/kg dry	1	08/18/23 15:51	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	12.0	ug/kg dry	1	08/18/23 15:51	EPA 8270E SIM	
Chrysene	ND	---	12.0	ug/kg dry	1	08/18/23 15:51	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	12.0	ug/kg dry	1	08/18/23 15:51	EPA 8270E SIM	
Fluoranthene	ND	---	12.0	ug/kg dry	1	08/18/23 15:51	EPA 8270E SIM	
Fluorene	ND	---	12.0	ug/kg dry	1	08/18/23 15:51	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	12.0	ug/kg dry	1	08/18/23 15:51	EPA 8270E SIM	
Naphthalene	ND	---	12.0	ug/kg dry	1	08/18/23 15:51	EPA 8270E SIM	
Phenanthrene	ND	---	12.0	ug/kg dry	1	08/18/23 15:51	EPA 8270E SIM	
Pyrene	ND	---	12.0	ug/kg dry	1	08/18/23 15:51	EPA 8270E SIM	
Surrogate: 2-Fluorobiphenyl (Surr)		Recovery: 86 %		Limits: 44-120 %	1	08/18/23 15:51	EPA 8270E SIM	
p-Terphenyl-d14 (Surr)		96 %		54-127 %	1	08/18/23 15:51	EPA 8270E SIM	
B2-3 (A3H0931-03)		Matrix: Soil			Batch: 23H0700			
Acenaphthene	ND	---	13.0	ug/kg dry	1	08/18/23 17:33	EPA 8270E SIM	
Acenaphthylene	ND	---	13.0	ug/kg dry	1	08/18/23 17:33	EPA 8270E SIM	
Anthracene	ND	---	13.0	ug/kg dry	1	08/18/23 17:33	EPA 8270E SIM	
Benz(a)anthracene	ND	---	13.0	ug/kg dry	1	08/18/23 17:33	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	13.0	ug/kg dry	1	08/18/23 17:33	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	13.0	ug/kg dry	1	08/18/23 17:33	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	13.0	ug/kg dry	1	08/18/23 17:33	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	13.0	ug/kg dry	1	08/18/23 17:33	EPA 8270E SIM	
Chrysene	ND	---	13.0	ug/kg dry	1	08/18/23 17:33	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	13.0	ug/kg dry	1	08/18/23 17:33	EPA 8270E SIM	
Fluoranthene	ND	---	13.0	ug/kg dry	1	08/18/23 17:33	EPA 8270E SIM	
Fluorene	ND	---	13.0	ug/kg dry	1	08/18/23 17:33	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	13.0	ug/kg dry	1	08/18/23 17:33	EPA 8270E SIM	

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323

ORELAP ID: OR100062

Advanced Geo, Inc.
837 Shaw Road
Stockton, CA 95215Project: Estes - Portland
Project Number: [none]
Project Manager: Brian MillmanReport ID:
A3H0931 - 08 23 23 1050

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (SIM)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B2-3 (A3H0931-03)		Matrix: Soil			Batch: 23H0700			
Naphthalene	ND	---	13.0	ug/kg dry	1	08/18/23 17:33	EPA 8270E SIM	
Phenanthrene	ND	---	13.0	ug/kg dry	1	08/18/23 17:33	EPA 8270E SIM	
Pyrene	ND	---	13.0	ug/kg dry	1	08/18/23 17:33	EPA 8270E SIM	
Surrogate: 2-Fluorobiphenyl (Surr)		Recovery: 83 %		Limits: 44-120 %	1	08/18/23 17:33	EPA 8270E SIM	
p-Terphenyl-d14 (Surr)		89 %		54-127 %	1	08/18/23 17:33	EPA 8270E SIM	
B3-3 (A3H0931-05)		Matrix: Soil			Batch: 23H0700			
Acenaphthene	ND	---	13.4	ug/kg dry	1	08/18/23 17:59	EPA 8270E SIM	
Acenaphthylene	ND	---	13.4	ug/kg dry	1	08/18/23 17:59	EPA 8270E SIM	
Anthracene	ND	---	13.4	ug/kg dry	1	08/18/23 17:59	EPA 8270E SIM	
Benz(a)anthracene	ND	---	13.4	ug/kg dry	1	08/18/23 17:59	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	13.4	ug/kg dry	1	08/18/23 17:59	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	13.4	ug/kg dry	1	08/18/23 17:59	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	13.4	ug/kg dry	1	08/18/23 17:59	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	13.4	ug/kg dry	1	08/18/23 17:59	EPA 8270E SIM	
Chrysene	ND	---	13.4	ug/kg dry	1	08/18/23 17:59	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	13.4	ug/kg dry	1	08/18/23 17:59	EPA 8270E SIM	
Fluoranthene	ND	---	13.4	ug/kg dry	1	08/18/23 17:59	EPA 8270E SIM	
Fluorene	ND	---	13.4	ug/kg dry	1	08/18/23 17:59	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	13.4	ug/kg dry	1	08/18/23 17:59	EPA 8270E SIM	
Naphthalene	ND	---	13.4	ug/kg dry	1	08/18/23 17:59	EPA 8270E SIM	
Phenanthrene	ND	---	13.4	ug/kg dry	1	08/18/23 17:59	EPA 8270E SIM	
Pyrene	ND	---	13.4	ug/kg dry	1	08/18/23 17:59	EPA 8270E SIM	
Surrogate: 2-Fluorobiphenyl (Surr)		Recovery: 76 %		Limits: 44-120 %	1	08/18/23 17:59	EPA 8270E SIM	
p-Terphenyl-d14 (Surr)		85 %		54-127 %	1	08/18/23 17:59	EPA 8270E SIM	

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Advanced Geo, Inc.
837 Shaw Road
Stockton, CA 95215

Project: Estes - Portland
Project Number: [none]
Project Manager: Brian Millman

Report ID:
A3H0931 - 08 23 23 1050

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B1-3 (A3H0931-01)				Matrix: Soil				
Batch: 23H0655								
Lead	2.86	---	0.253	mg/kg dry	10	08/18/23 20:07	EPA 6020B	
B2-3 (A3H0931-03)				Matrix: Soil				
Batch: 23H0655								
Lead	8.88	---	0.271	mg/kg dry	10	08/18/23 20:22	EPA 6020B	
B3-3 (A3H0931-05)				Matrix: Soil				
Batch: 23H0655								
Lead	9.68	---	0.282	mg/kg dry	10	08/18/23 20:27	EPA 6020B	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323

ORELAP ID: OR100062

Advanced Geo, Inc.837 Shaw Road
Stockton, CA 95215Project: Estes - Portland

Project Number: [none]

Project Manager: Brian Millman

Report ID:

A3H0931 - 08 23 23 1050

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B1-3 (A3H0931-01)				Matrix: Soil		Batch: 23H0404		
% Solids	79.4	---	1.00	%	1	08/11/23 07:44	EPA 8000D	
B1-6 (A3H0931-02)				Matrix: Soil		Batch: 23H0404		
% Solids	72.2	---	1.00	%	1	08/11/23 07:44	EPA 8000D	
B2-3 (A3H0931-03)				Matrix: Soil		Batch: 23H0404		
% Solids	74.7	---	1.00	%	1	08/11/23 07:44	EPA 8000D	
B2-6 (A3H0931-04)				Matrix: Soil		Batch: 23H0404		
% Solids	81.8	---	1.00	%	1	08/11/23 07:44	EPA 8000D	
B3-3 (A3H0931-05)				Matrix: Soil		Batch: 23H0404		
% Solids	71.6	---	1.00	%	1	08/11/23 07:44	EPA 8000D	
B3-6 (A3H0931-06)				Matrix: Soil		Batch: 23H0404		
% Solids	74.6	---	1.00	%	1	08/11/23 07:44	EPA 8000D	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Advanced Geo, Inc.
837 Shaw Road
Stockton, CA 95215Project: Estes - Portland
Project Number: [none]
Project Manager: Brian MillmanReport ID:
A3H0931 - 08 23 23 1050

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 23H0487 - EPA 3546 (Fuels)						Soil							
Blank (23H0487-BLK1)			Prepared: 08/14/23 06:09 Analyzed: 08/14/23 21:16										
<u>NWTPH-Dx</u>													
Diesel	ND	---	20.0	mg/kg wet	1	---	---	---	---	---	---		
Oil	ND	---	40.0	mg/kg wet	1	---	---	---	---	---	---		
Surr: o-Terphenyl (Surr)		Recovery: 89 %		Limits: 50-150 %		Dilution: 1x							
LCS (23H0487-BS1)			Prepared: 08/14/23 06:09 Analyzed: 08/14/23 21:36										
<u>NWTPH-Dx</u>													
Diesel	104	---	20.0	mg/kg wet	1	125	---	83	38-132%	---	---		
Surr: o-Terphenyl (Surr)		Recovery: 89 %		Limits: 50-150 %		Dilution: 1x							
Duplicate (23H0487-DUP1)			Prepared: 08/14/23 06:09 Analyzed: 08/14/23 22:18										
<u>QC Source Sample: Non-SDG (A3H0867-01)</u>													
Diesel	ND	---	24.2	mg/kg dry	1	---	ND	---	---	---	30%		
Oil	ND	---	48.3	mg/kg dry	1	---	ND	---	---	---	30%		
Mineral Oil	ND	---	48.3	mg/kg dry	1	---	ND	---	---	---	30%		
Surr: o-Terphenyl (Surr)		Recovery: 46 %		Limits: 50-150 %		Dilution: 1x							S-03
Duplicate (23H0487-DUP2)			Prepared: 08/14/23 06:09 Analyzed: 08/15/23 07:59										
<u>QC Source Sample: B3-6 (A3H0931-06)</u>													
<u>NWTPH-Dx</u>													
Diesel	ND	---	24.9	mg/kg dry	1	---	ND	---	---	---	30%		
Oil	ND	---	49.8	mg/kg dry	1	---	ND	---	---	---	30%		
Mineral Oil	ND	---	49.8	mg/kg dry	1	---	ND	---	---	---	30%		
Surr: o-Terphenyl (Surr)		Recovery: 71 %		Limits: 50-150 %		Dilution: 1x							
Batch 23H0731 - EPA 3546 (Fuels)						Soil							
Blank (23H0731-BLK1)			Prepared: 08/21/23 05:47 Analyzed: 08/21/23 08:10										
<u>NWTPH-Dx</u>													
Diesel	ND	---	20.0	mg/kg wet	1	---	---	---	---	---	---		
Oil	ND	---	40.0	mg/kg wet	1	---	---	---	---	---	---		
Surr: o-Terphenyl (Surr)		Recovery: 94 %		Limits: 50-150 %		Dilution: 1x							

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Advanced Geo, Inc.

837 Shaw Road

Stockton, CA 95215

Project: **Estes - Portland**

Project Number: [none]

Project Manager: **Brian Millman****Report ID:****A3H0931 - 08 23 23 1050**

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H0731 - EPA 3546 (Fuels)						Soil						
LCS (23H0731-BS1)			Prepared: 08/21/23 05:47 Analyzed: 08/21/23 08:30									
<u>NWTPH-Dx</u>												
Diesel	125	---	20.0	mg/kg wet	1	125	---	100	38-132%	---	---	
Surr: o-Terphenyl (Surr)		Recovery: 106 %		Limits: 50-150 %		Dilution: 1x						
Duplicate (23H0731-DUP1)			Prepared: 08/21/23 05:47 Analyzed: 08/21/23 09:12									
<u>QC Source Sample: Non-SDG (A3H1205-01)</u>												
Diesel	875	---	23.5	mg/kg dry	1	---	1000	---	---	14	30%	
Oil	ND	---	47.0	mg/kg dry	1	---	ND	---	---	---	30%	
Surr: o-Terphenyl (Surr)		Recovery: 101 %		Limits: 50-150 %		Dilution: 1x						
Duplicate (23H0731-DUP2)			Prepared: 08/21/23 05:47 Analyzed: 08/21/23 10:14									
<u>QC Source Sample: Non-SDG (A3H1211-04)</u>												
Diesel	ND	---	21.8	mg/kg dry	1	---	ND	---	---	---	30%	
Oil	ND	---	43.6	mg/kg dry	1	---	ND	---	---	---	30%	
Surr: o-Terphenyl (Surr)		Recovery: 98 %		Limits: 50-150 %		Dilution: 1x						

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Advanced Geo, Inc.
837 Shaw Road
Stockton, CA 95215Project: Estes - Portland
Project Number: [none]
Project Manager: Brian MillmanReport ID:
A3H0931 - 08 23 23 1050

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H0504 - EPA 5035A						Soil						
Blank (23H0504-BLK1)			Prepared: 08/14/23 10:31 Analyzed: 08/14/23 13:21									
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	5.00	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery:	96 %	Limits:	50-150 %	Dilution: 1x						
1,4-Difluorobenzene (Sur)			100 %		50-150 %	"						
LCS (23H0504-BS2)			Prepared: 08/14/23 10:31 Analyzed: 08/14/23 12:51									
NWTPH-Gx (MS)												
Gasoline Range Organics	23.7	---	5.00	mg/kg wet	50	25.0	---	95	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery:	95 %	Limits:	50-150 %	Dilution: 1x						
1,4-Difluorobenzene (Sur)			98 %		50-150 %	"						
Duplicate (23H0504-DUP1)			Prepared: 08/10/23 13:57 Analyzed: 08/14/23 14:14									V-16
QC Source Sample: Non-SDG (A3H0962-01)												
Gasoline Range Organics	ND	---	11.1	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery:	103 %	Limits:	50-150 %	Dilution: 1x						
1,4-Difluorobenzene (Sur)			101 %		50-150 %	"						
Duplicate (23H0504-DUP2)			Prepared: 08/09/23 09:30 Analyzed: 08/14/23 17:15									
QC Source Sample: B1-6 (A3H0931-02)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	6.54	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery:	104 %	Limits:	50-150 %	Dilution: 1x						
1,4-Difluorobenzene (Sur)			103 %		50-150 %	"						

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Advanced Geo, Inc.
837 Shaw Road
Stockton, CA 95215Project: Estes - Portland
Project Number: [none]
Project Manager: Brian MillmanReport ID:
A3H0931 - 08 23 23 1050

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H0598 - EPA 5035A						Soil						
Blank (23H0598-BLK1)			Prepared: 08/16/23 10:04 Analyzed: 08/16/23 12:45									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	---	5.00	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery:	103 %	Limits:	50-150 %	Dilution: 1x						
1,4-Difluorobenzene (Sur)			103 %		50-150 %	"						
LCS (23H0598-BS2)			Prepared: 08/16/23 10:04 Analyzed: 08/16/23 12:16									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	28.0	---	5.00	mg/kg wet	50	25.0	---	112	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery:	109 %	Limits:	50-150 %	Dilution: 1x						
1,4-Difluorobenzene (Sur)			103 %		50-150 %	"						
Duplicate (23H0598-DUP1)			Prepared: 08/09/23 12:00 Analyzed: 08/16/23 15:46									
<u>QC Source Sample: Non-SDG (A3H1036-01)</u>												
Gasoline Range Organics	ND	---	7.11	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery:	107 %	Limits:	50-150 %	Dilution: 1x						
1,4-Difluorobenzene (Sur)			105 %		50-150 %	"						

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Advanced Geo, Inc.
837 Shaw Road
Stockton, CA 95215Project: **Estes - Portland**
Project Number: [none]
Project Manager: **Brian Millman****Report ID:**
A3H0931 - 08 23 23 1050

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H0598 - EPA 5035A						Soil						
Blank (23H0598-BLK1)			Prepared: 08/16/23 10:04		Analyzed: 08/16/23 12:45							
5035A/8260D												
Benzene	ND	---	10.0	ug/kg wet	50	---	---	---	---	---	---	
Toluene	ND	---	50.0	ug/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	---	25.0	ug/kg wet	50	---	---	---	---	---	---	
Xylenes, total	ND	---	75.0	ug/kg wet	50	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	50.0	ug/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	---	100	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	50.0	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	25.0	ug/kg wet	50	---	---	---	---	---	---	
Isopropylbenzene	ND	---	50.0	ug/kg wet	50	---	---	---	---	---	---	
n-Propylbenzene	ND	---	25.0	ug/kg wet	50	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	50.0	ug/kg wet	50	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	50.0	ug/kg wet	50	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 97 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		99 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		101 %		79-120 %		"						

LCS (23H0598-BS1) Prepared: 08/16/23 10:04 Analyzed: 08/16/23 11:50

5035A/8260D												
Benzene	990	---	10.0	ug/kg wet	50	1000	---	99	80-120%	---	---	
Toluene	976	---	50.0	ug/kg wet	50	1000	---	98	80-120%	---	---	
Ethylbenzene	1010	---	25.0	ug/kg wet	50	1000	---	101	80-120%	---	---	
Xylenes, total	3060	---	75.0	ug/kg wet	50	3000	---	102	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	946	---	50.0	ug/kg wet	50	1000	---	95	80-120%	---	---	
Naphthalene	985	---	100	ug/kg wet	50	1000	---	98	80-120%	---	---	
1,2-Dibromoethane (EDB)	1020	---	50.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
1,2-Dichloroethane (EDC)	945	---	25.0	ug/kg wet	50	1000	---	94	80-120%	---	---	
Isopropylbenzene	1030	---	50.0	ug/kg wet	50	1000	---	103	80-120%	---	---	
n-Propylbenzene	1030	---	25.0	ug/kg wet	50	1000	---	103	80-120%	---	---	
1,2,4-Trimethylbenzene	1150	---	50.0	ug/kg wet	50	1000	---	115	80-120%	---	---	
1,3,5-Trimethylbenzene	1080	---	50.0	ug/kg wet	50	1000	---	108	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr) Recovery: 97 % Limits: 80-120 % Dilution: 1x												
Toluene-d8 (Surr) 98 % 80-120 % "												
4-Bromofluorobenzene (Surr) 101 % 79-120 % "												

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Advanced Geo, Inc.

837 Shaw Road

Stockton, CA 95215

Project: Estes - Portland

Project Number: [none]

Project Manager: Brian Millman

Report ID:

A3H0931 - 08 23 23 1050

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H0598 - EPA 5035A						Soil						
Duplicate (23H0598-DUP1)												
QC Source Sample: Non-SDG (A3H1036-01)												
Benzene	46.2	---	14.2	ug/kg dry	50	---	47.7	---	---	3	30%	
Toluene	101	---	71.1	ug/kg dry	50	---	112	---	---	10	30%	
Ethylbenzene	ND	---	35.6	ug/kg dry	50	---	ND	---	---	---	30%	
Xylenes, total	ND	---	107	ug/kg dry	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	71.1	ug/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	ND	---	142	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	71.1	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	35.6	ug/kg dry	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	71.1	ug/kg dry	50	---	ND	---	---	---	30%	
n-Propylbenzene	ND	---	35.6	ug/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	71.1	ug/kg dry	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	71.1	ug/kg dry	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 96 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		99 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		101 %		79-120 %		"						

Matrix Spike (23H0598-MS1)

Prepared: 08/09/23 10:12 Analyzed: 08/16/23 14:28

QC Source Sample: B3-3 (A3H0931-05)

5035A/8260D

Benzene	1560	---	14.5	ug/kg dry	50	1450	ND	108	77-121%	---	---	
Toluene	1600	---	72.3	ug/kg dry	50	1450	ND	110	77-121%	---	---	
Ethylbenzene	1620	---	36.1	ug/kg dry	50	1450	ND	112	76-122%	---	---	
Xylenes, total	4870	---	108	ug/kg dry	50	4340	ND	112	78-124%	---	---	
Methyl tert-butyl ether (MTBE)	1480	---	72.3	ug/kg dry	50	1450	ND	102	73-125%	---	---	
Naphthalene	1520	---	145	ug/kg dry	50	1450	ND	105	62-129%	---	---	
1,2-Dibromoethane (EDB)	1630	---	72.3	ug/kg dry	50	1450	ND	113	78-122%	---	---	
1,2-Dichloroethane (EDC)	1550	---	36.1	ug/kg dry	50	1450	ND	107	73-128%	---	---	
Isopropylbenzene	1600	---	72.3	ug/kg dry	50	1450	ND	110	68-134%	---	---	
n-Propylbenzene	1660	---	36.1	ug/kg dry	50	1450	ND	115	73-125%	---	---	
1,2,4-Trimethylbenzene	1820	---	72.3	ug/kg dry	50	1450	ND	126	75-123%	---	---	Q-01
1,3,5-Trimethylbenzene	1740	---	72.3	ug/kg dry	50	1450	ND	120	73-124%	---	---	
Surr: 1,4-Difluorobenzene (Surr) Recovery: 95 % Limits: 80-120 % Dilution: 1x												

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager

Page 16 of 30



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Advanced Geo, Inc.
837 Shaw Road
Stockton, CA 95215

Project: Estes - Portland
Project Number: [none]
Project Manager: Brian Millman

Report ID:
A3H0931 - 08 23 23 1050

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H0598 - EPA 5035A							Soil					
Matrix Spike (23H0598-MS1)			Prepared: 08/09/23 10:12 Analyzed: 08/16/23 14:28									
QC Source Sample: B3-3 (A3H0931-05)												
Surr: Toluene-d8 (Surr)		Recovery: 103 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		99 %		79-120 %		"						

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Advanced Geo, Inc.
837 Shaw Road
Stockton, CA 95215Project: Estes - Portland
Project Number: [none]
Project Manager: Brian MillmanReport ID:
A3H0931 - 08 23 23 1050

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (SIM)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H0700 - EPA 3546						Soil						
Blank (23H0700-BLK1)			Prepared: 08/18/23 11:06 Analyzed: 08/18/23 15:01									
EPA 8270E SIM												
Acenaphthene	ND	---	10.0	ug/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	10.0	ug/kg wet	1	---	---	---	---	---	---	
Anthracene	ND	---	10.0	ug/kg wet	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	10.0	ug/kg wet	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	10.0	ug/kg wet	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	10.0	ug/kg wet	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	10.0	ug/kg wet	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	10.0	ug/kg wet	1	---	---	---	---	---	---	
Chrysene	ND	---	10.0	ug/kg wet	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	10.0	ug/kg wet	1	---	---	---	---	---	---	
Fluoranthene	ND	---	10.0	ug/kg wet	1	---	---	---	---	---	---	
Fluorene	ND	---	10.0	ug/kg wet	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	10.0	ug/kg wet	1	---	---	---	---	---	---	
Naphthalene	ND	---	10.0	ug/kg wet	1	---	---	---	---	---	---	
Phenanthrene	ND	---	10.0	ug/kg wet	1	---	---	---	---	---	---	
Pyrene	ND	---	10.0	ug/kg wet	1	---	---	---	---	---	---	
Surr: 2-Fluorobiphenyl (Surr)		Recovery: 94 %		Limits: 44-120 %		Dilution: 1x						
p-Terphenyl-d14 (Surr)		104 %		54-127 %		"						

LCS (23H0700-BS1)

Prepared: 08/18/23 11:06 Analyzed: 08/18/23 15:26

EPA 8270E SIM												
Acenaphthene	740	---	10.0	ug/kg wet	1	800	---	92	40-123%	---	---	
Acenaphthylene	737	---	10.0	ug/kg wet	1	800	---	92	32-132%	---	---	
Anthracene	701	---	10.0	ug/kg wet	1	800	---	88	47-123%	---	---	
Benz(a)anthracene	691	---	10.0	ug/kg wet	1	800	---	86	49-126%	---	---	
Benzo(a)pyrene	739	---	10.0	ug/kg wet	1	800	---	92	45-129%	---	---	
Benzo(b)fluoranthene	698	---	10.0	ug/kg wet	1	800	---	87	45-132%	---	---	
Benzo(k)fluoranthene	753	---	10.0	ug/kg wet	1	800	---	94	47-132%	---	---	
Benzo(g,h,i)perylene	726	---	10.0	ug/kg wet	1	800	---	91	43-134%	---	---	
Chrysene	751	---	10.0	ug/kg wet	1	800	---	94	50-124%	---	---	
Dibenz(a,h)anthracene	702	---	10.0	ug/kg wet	1	800	---	88	45-134%	---	---	
Fluoranthene	771	---	10.0	ug/kg wet	1	800	---	96	50-127%	---	---	
Fluorene	735	---	10.0	ug/kg wet	1	800	---	92	43-125%	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Advanced Geo, Inc.

837 Shaw Road

Stockton, CA 95215

Project: **Estes - Portland**

Project Number: [none]

Project Manager: **Brian Millman****Report ID:****A3H0931 - 08 23 23 1050**

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (SIM)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H0700 - EPA 3546						Soil						
LCS (23H0700-BS1)			Prepared: 08/18/23 11:06		Analyzed: 08/18/23 15:26							
Indeno(1,2,3-cd)pyrene	753	---	10.0	ug/kg wet	1	800	---	94	45-133%	---	---	
Naphthalene	685	---	10.0	ug/kg wet	1	800	---	86	35-123%	---	---	
Phenanthrene	698	---	10.0	ug/kg wet	1	800	---	87	50-121%	---	---	
Pyrene	776	---	10.0	ug/kg wet	1	800	---	97	47-127%	---	---	
Surr: 2-Fluorobiphenyl (Surr)		Recovery: 90 %		Limits: 44-120 %		Dilution: 1x						
p-Terphenyl-d14 (Surr)		94 %		54-127 %		"						

Duplicate (23H0700-DUP1)

Prepared: 08/18/23 11:06 Analyzed: 08/18/23 16:17

QC Source Sample: B1-3 (A3H0931-01)**EPA 8270E SIM**

Acenaphthene	ND	---	12.0	ug/kg dry	1	---	ND	---	---	---	30%	
Acenaphthylene	ND	---	12.0	ug/kg dry	1	---	ND	---	---	---	30%	
Anthracene	ND	---	12.0	ug/kg dry	1	---	ND	---	---	---	30%	
Benz(a)anthracene	ND	---	12.0	ug/kg dry	1	---	ND	---	---	---	30%	
Benzo(a)pyrene	ND	---	12.0	ug/kg dry	1	---	ND	---	---	---	30%	
Benzo(b)fluoranthene	ND	---	12.0	ug/kg dry	1	---	ND	---	---	---	30%	
Benzo(k)fluoranthene	ND	---	12.0	ug/kg dry	1	---	ND	---	---	---	30%	
Benzo(g,h,i)perylene	ND	---	12.0	ug/kg dry	1	---	ND	---	---	---	30%	
Chrysene	ND	---	12.0	ug/kg dry	1	---	ND	---	---	---	30%	
Dibenz(a,h)anthracene	ND	---	12.0	ug/kg dry	1	---	ND	---	---	---	30%	
Fluoranthene	ND	---	12.0	ug/kg dry	1	---	ND	---	---	---	30%	
Fluorene	ND	---	12.0	ug/kg dry	1	---	ND	---	---	---	30%	
Indeno(1,2,3-cd)pyrene	ND	---	12.0	ug/kg dry	1	---	ND	---	---	---	30%	
Naphthalene	ND	---	12.0	ug/kg dry	1	---	ND	---	---	---	30%	
Phenanthrene	ND	---	12.0	ug/kg dry	1	---	ND	---	---	---	30%	
Pyrene	ND	---	12.0	ug/kg dry	1	---	ND	---	---	---	30%	
Surr: 2-Fluorobiphenyl (Surr)		Recovery: 85 %		Limits: 44-120 %		Dilution: 1x						
p-Terphenyl-d14 (Surr)		94 %		54-127 %		"						

Matrix Spike (23H0700-MS1)

Prepared: 08/18/23 11:06 Analyzed: 08/18/23 17:08

QC Source Sample: Non-SDG (A3H0996-07)**EPA 8270E SIM**

Acenaphthene	872	---	11.8	ug/kg dry	1	941	ND	93	40-123%	---	---	
--------------	-----	-----	------	-----------	---	-----	----	----	---------	-----	-----	--

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323

ORELAP ID: OR100062

Advanced Geo, Inc.
837 Shaw Road
Stockton, CA 95215Project: Estes - Portland
Project Number: [none]
Project Manager: Brian MillmanReport ID:
A3H0931 - 08 23 23 1050

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (SIM)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H0700 - EPA 3546						Soil						
Matrix Spike (23H0700-MS1)			Prepared: 08/18/23 11:06 Analyzed: 08/18/23 17:08									
QC Source Sample: Non-SDG (A3H0996-07)												
Acenaphthylene	864	---	11.8	ug/kg dry	1	941	ND	92	32-132%	---	---	
Anthracene	830	---	11.8	ug/kg dry	1	941	ND	88	47-123%	---	---	
Benz(a)anthracene	820	---	11.8	ug/kg dry	1	941	ND	87	49-126%	---	---	
Benzo(a)pyrene	867	---	11.8	ug/kg dry	1	941	ND	92	45-129%	---	---	
Benzo(b)fluoranthene	832	---	11.8	ug/kg dry	1	941	ND	88	45-132%	---	---	
Benzo(k)fluoranthene	887	---	11.8	ug/kg dry	1	941	ND	94	47-132%	---	---	
Benzo(g,h,i)perylene	841	---	11.8	ug/kg dry	1	941	ND	89	43-134%	---	---	
Chrysene	881	---	11.8	ug/kg dry	1	941	ND	94	50-124%	---	---	
Dibenz(a,h)anthracene	895	---	11.8	ug/kg dry	1	941	ND	95	45-134%	---	---	
Fluoranthene	901	---	11.8	ug/kg dry	1	941	ND	96	50-127%	---	---	
Fluorene	876	---	11.8	ug/kg dry	1	941	ND	93	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	881	---	11.8	ug/kg dry	1	941	ND	94	45-133%	---	---	
Naphthalene	798	---	11.8	ug/kg dry	1	941	ND	85	35-123%	---	---	
Phenanthrene	826	---	11.8	ug/kg dry	1	941	ND	88	50-121%	---	---	
Pyrene	912	---	11.8	ug/kg dry	1	941	ND	97	47-127%	---	---	
Surr: 2-Fluorobiphenyl (Surr)		Recovery: 83 %		Limits: 44-120 %		Dilution: 1x						
p-Terphenyl-d14 (Surr)		88 %		54-127 %		"						

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062Advanced Geo, Inc.
837 Shaw Road
Stockton, CA 95215Project: Estes - Portland
Project Number: [none]
Project Manager: Brian MillmanReport ID:
A3H0931 - 08 23 23 1050

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H0655 - EPA 3051A						Soil						
Blank (23H0655-BLK1)			Prepared: 08/18/23 10:46		Analyzed: 08/18/23 19:52							
EPA 6020B												
Lead	ND	---	0.200	mg/kg wet	10	---	---	---	---	---	---	
LCS (23H0655-BS1)			Prepared: 08/18/23 10:46		Analyzed: 08/18/23 20:02							
EPA 6020B												
Lead	51.7	---	0.200	mg/kg wet	10	50.0	---	103	80-120%	---	---	
Duplicate (23H0655-DUP1)			Prepared: 08/18/23 10:46		Analyzed: 08/18/23 21:59							
QC Source Sample: Non-SDG (A3H1144-01)												
Lead	95.8	---	0.305	mg/kg dry	10	---	105	---	---	9	20%	
Matrix Spike (23H0655-MS1)			Prepared: 08/18/23 10:46		Analyzed: 08/18/23 22:04							
QC Source Sample: Non-SDG (A3H1144-01)												
EPA 6020B												
Lead	231	---	0.313	mg/kg dry	10	78.3	105	161	75-125%	---	---	Q-04

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**Advanced Geo, Inc.**
837 Shaw Road
Stockton, CA 95215Project: **Estes - Portland**
Project Number: [none]
Project Manager: **Brian Millman****Report ID:**
A3H0931 - 08 23 23 1050**QUALITY CONTROL (QC) SAMPLE RESULTS****Percent Dry Weight**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23H0404 - Total Solids (Dry Weight) - 2022							Soil					
Duplicate (23H0404-DUP1)			Prepared: 08/10/23 11:25 Analyzed: 08/11/23 07:44									
QC Source Sample: Non-SDG (A3H0924-01)												
% Solids	91.9	---	1.00	%	1	---	92.5	---	---	0.7	10%	
Duplicate (23H0404-DUP2)			Prepared: 08/10/23 11:25 Analyzed: 08/11/23 07:44									
QC Source Sample: Non-SDG (A3H0924-02)												
% Solids	94.1	---	1.00	%	1	---	94.7	---	---	0.6	10%	
Duplicate (23H0404-DUP3)			Prepared: 08/10/23 11:25 Analyzed: 08/11/23 07:44									
QC Source Sample: Non-SDG (A3H0926-01)												
% Solids	81.9	---	1.00	%	1	---	84.2	---	---	3	10%	
Duplicate (23H0404-DUP4)			Prepared: 08/10/23 11:25 Analyzed: 08/11/23 07:44									
QC Source Sample: Non-SDG (A3H0926-02)												
% Solids	85.1	---	1.00	%	1	---	87.1	---	---	2	10%	
Duplicate (23H0404-DUP5)			Prepared: 08/10/23 11:25 Analyzed: 08/11/23 07:44									
QC Source Sample: Non-SDG (A3H0926-03)												
% Solids	86.7	---	1.00	%	1	---	88.7	---	---	2	10%	
Duplicate (23H0404-DUP6)			Prepared: 08/10/23 18:53 Analyzed: 08/11/23 07:44									
QC Source Sample: Non-SDG (A3H0970-01)												
% Solids	92.4	---	1.00	%	1	---	91.6	---	---	0.9	10%	
Duplicate (23H0404-DUP7)			Prepared: 08/10/23 18:53 Analyzed: 08/11/23 07:44									
QC Source Sample: Non-SDG (A3H0983-02)												
% Solids	84.2	---	1.00	%	1	---	84.9	---	---	0.9	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323

ORELAP ID: OR100062

Advanced Geo, Inc.
837 Shaw Road
Stockton, CA 95215Project: Estes - Portland
Project Number: [none]
Project Manager: Brian MillmanReport ID:
A3H0931 - 08 23 23 1050

SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23H0487							
A3H0931-02	Soil	NWTPH-Dx	08/09/23 09:30	08/14/23 06:09	10.99g/5mL	10g/5mL	0.91
A3H0931-04	Soil	NWTPH-Dx	08/09/23 09:44	08/14/23 06:09	10.17g/5mL	10g/5mL	0.98
A3H0931-06	Soil	NWTPH-Dx	08/09/23 10:15	08/14/23 06:09	10.5g/5mL	10g/5mL	0.95
Batch: 23H0731							
A3H0931-01	Soil	NWTPH-Dx	08/09/23 09:25	08/21/23 12:45	10.26g/5mL	10g/5mL	0.98
A3H0931-03	Soil	NWTPH-Dx	08/09/23 09:40	08/21/23 12:45	10.04g/5mL	10g/5mL	1.00
A3H0931-05	Soil	NWTPH-Dx	08/09/23 10:12	08/21/23 12:45	10.46g/5mL	10g/5mL	0.96

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23H0504							
A3H0931-02	Soil	NWTPH-Gx (MS)	08/09/23 09:30	08/09/23 09:30	7.5g/5mL	5g/5mL	0.67
A3H0931-04	Soil	NWTPH-Gx (MS)	08/09/23 09:44	08/09/23 09:44	7.17g/5mL	5g/5mL	0.70
A3H0931-06	Soil	NWTPH-Gx (MS)	08/09/23 10:15	08/09/23 10:15	6.6g/5mL	5g/5mL	0.76
Batch: 23H0598							
A3H0931-01	Soil	NWTPH-Gx (MS)	08/09/23 09:25	08/09/23 09:25	6.55g/5mL	5g/5mL	0.76
A3H0931-03	Soil	NWTPH-Gx (MS)	08/09/23 09:40	08/09/23 09:40	6.83g/5mL	5g/5mL	0.73
A3H0931-05	Soil	NWTPH-Gx (MS)	08/09/23 10:12	08/09/23 10:12	6.66g/5mL	5g/5mL	0.75

Selected Volatile Organic Compounds by EPA 5035A/8260D

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23H0598							
A3H0931-01	Soil	5035A/8260D	08/09/23 09:25	08/09/23 09:25	6.55g/5mL	5g/5mL	0.76
A3H0931-03	Soil	5035A/8260D	08/09/23 09:40	08/09/23 09:40	6.83g/5mL	5g/5mL	0.73
A3H0931-05	Soil	5035A/8260D	08/09/23 10:12	08/09/23 10:12	6.66g/5mL	5g/5mL	0.75

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (SIM)

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23H0700							

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager

Page 23 of 30

**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**Advanced Geo, Inc.**
837 Shaw Road
Stockton, CA 95215Project: **Estes - Portland**
Project Number: [none]
Project Manager: **Brian Millman****Report ID:**
A3H0931 - 08 23 23 1050**SAMPLE PREPARATION INFORMATION****Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (SIM)**Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A3H0931-01	Soil	EPA 8270E SIM	08/09/23 09:25	08/18/23 11:06	10.53g/5mL	10g/5mL	0.95
A3H0931-03	Soil	EPA 8270E SIM	08/09/23 09:40	08/18/23 11:06	10.28g/5mL	10g/5mL	0.97
A3H0931-05	Soil	EPA 8270E SIM	08/09/23 10:12	08/18/23 11:06	10.46g/5mL	10g/5mL	0.96

Total Metals by EPA 6020B (ICPMS)Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 23H0655</u>							
A3H0931-01	Soil	EPA 6020B	08/09/23 09:25	08/18/23 10:46	0.497g/50mL	0.5g/50mL	1.01
A3H0931-03	Soil	EPA 6020B	08/09/23 09:40	08/18/23 10:46	0.494g/50mL	0.5g/50mL	1.01
A3H0931-05	Soil	EPA 6020B	08/09/23 10:12	08/18/23 10:46	0.495g/50mL	0.5g/50mL	1.01

Percent Dry WeightPrep: Total Solids (Dry Weight) - 2022

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 23H0404</u>							
A3H0931-01	Soil	EPA 8000D	08/09/23 09:25	08/10/23 11:25			NA
A3H0931-02	Soil	EPA 8000D	08/09/23 09:30	08/10/23 11:25			NA
A3H0931-03	Soil	EPA 8000D	08/09/23 09:40	08/10/23 11:25			NA
A3H0931-04	Soil	EPA 8000D	08/09/23 09:44	08/10/23 11:25			NA
A3H0931-05	Soil	EPA 8000D	08/09/23 10:12	08/10/23 11:25			NA
A3H0931-06	Soil	EPA 8000D	08/09/23 10:15	08/10/23 11:25			NA

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Advanced Geo, Inc.
837 Shaw Road
Stockton, CA 95215

Project: **Estes - Portland**
Project Number: [none]
Project Manager: **Brian Millman**

Report ID:
A3H0931 - 08 23 23 1050

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- Q-01** Spike recovery and/or RPD is outside acceptance limits.
- Q-04** Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
- S-03** Sample re-extract, or the analysis of an associated Batch QC sample, confirms surrogate failure due to sample matrix effect.
- V-16** Sample aliquot was subsampled from the sample container in the laboratory. The subsampled aliquot was not preserved within 48 hours of sampling.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Advanced Geo, Inc.
837 Shaw Road
Stockton, CA 95215

Project: **Estes - Portland**
Project Number: [none]
Project Manager: **Brian Millman**

Report ID:
A3H0931 - 08 23 23 1050

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.
ND Analyte NOT DETECTED at or above the detection or reporting limit.
NR Result Not Reported
RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ("-----"), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a "dry weight" basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an "As Received" basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Darrell Auvi, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Advanced Geo, Inc.
837 Shaw Road
Stockton, CA 95215

Project: **Estes - Portland**
Project Number: [none]
Project Manager: **Brian Millman**

Report ID:
A3H0931 - 08 23 23 1050

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

- Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
- For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
 - For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
- For further details, please request a copy of this document.
- Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
- 'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Advanced Geo, Inc.
837 Shaw Road
Stockton, CA 95215

Project: **Estes - Portland**
Project Number: [none]
Project Manager: **Brian Millman**

Report ID:
A3H0931 - 08 23 23 1050

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -

EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
--------	----------	--------	---------	--------	---------------

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Advanced Geo, Inc.

837 Shaw Road

Stockton, CA 95215

Project: Estes - Portland

Project Number: [none]

Project Manager: Brian Millman

Report ID:

A3H0931 - 08 23 23 1050

APEX LABS COOLER RECEIPT FORM

Client: Advanced Geo Element WO#: A3 H0931Project/Project #: Estes Portland

Delivery Info:

Date/time received: 8/9/23 @ 1250 By: musDelivered by: Apex Client ☒ ESS FedEx UPS Radio Morgan SDS Evergreen OtherCooler Inspection Date/time inspected: 8/9/23 @ 1250 By: musChain of Custody included? Yes ☒ NoSigned/dated by client? Yes ☒ No

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>4.5</u>						
Custody seals? (Y/N)	<u>N</u>						
Received on ice? (Y/N)	<u>Y</u>						
Temp. blanks? (Y/N)	<u>Y</u>						
Ice type: (Gel/Real/Other)	<u>Real</u>						
Condition (In/Out):	<u>In</u>						

Cooler out of temp? (Y/N) Possible reason why:

Green dots applied to out of temperature samples? Yes ☒ NoOut of temperature samples form initiated? Yes ☒ NoSample Inspection: Date/time inspected: 8/9/23 @ 16:53 By: asmAll samples intact? Yes ☒ No Comments:Bottle labels/COCs agree? Yes ☒ No Comments:COC/container discrepancies form initiated? Yes No ☒Containers/volumes received appropriate for analysis? Yes ☒ No Comments:Do VOA vials have visible headspace? Yes No NA ☒

Comments:

Water samples: pH checked: Yes No NA ☒ pH appropriate? Yes No NA ☒

Comments:

Additional information:

Labeled by:

asm

Witness:

asm

Cooler Inspected by:

asm

Form Y-003 R-00

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.