MAUL FOSTER ALONGI
3140 NE Broadway | Portland, OR 97232 | 971 544-2139 | www.maulfoster.com

February 18, 2026
Project No. M0228.05.003

Robert Hood
Oregon Department of Environmental Quality
700 NE Multnomah Street, #600
Portland, Oregon, 97232

Re: Ecological Evaluation for Union MLK Cardlock

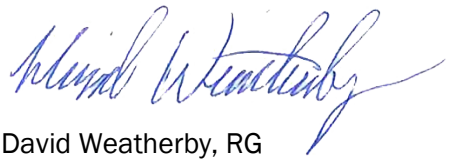
Dear Robert:

As requested in your February 5, 2026 email to Maul Foster & Alongi, please find attached the ecological evaluation checklist and supporting documentation for the Union MLK Cardlock located at 8100 NE Martin Luther King Jr. Boulevard, Portland (LUST File No. 26-21-1204).

As documented on the checklist, there is no significant ecological habitat on or near the site. Although there are curb-side planters and landscaping on side streets and at commercial businesses near the site, these areas are not considered significant ecological habitat. Therefore, the pathway for direct contact by ecological receptors with contaminated soil or groundwater at the site is incomplete.

Sincerely,

Maul Foster & Alongi, Inc.



David Weatherby, RG
Principal Geologist

Attachments

A—Ecological Evaluation Checklist

B—Site Zoning Information

C—Excerpt of USGS Topographic Map

D—MFA September 25, 2025 Site Assessment Report

E—Wetland Inventory Map

cc: Ron Beach, PetroCard, Inc.

Attachment A

Ecological Evaluation Checklist

MAUL FOSTER ALONGI

Appendix A1:
Basic Site Information Checklist

General Site Information
ECSI File No. or LUST File No.: 26-21-1204, Site ID 30885
Site Name: Union MLK Cardlock
Site Location (address, city, and/or county):8100 NE Martin Luther King Jr Boulevard, Portland
Latitude/Longitude or other location documentation for site: Lat. 45.582377°, Long. -122.661357°
Current and Historical Site Use (gas station, dry cleaner, jet hangar, etc.) [1]:Gas station
Zoning: Heavy industrial
Site[2] Features: The 960 sq. ft. site includes one storage building, two fuel islands with two dispensers each, all under one canopy. Two UST nests, with five USTs total. Entire site is paved. No grass, landscaping, wetlands, or vegetated areas on or near the site.
Chemicals of Interest[3]: Gasoline-, diesel-, and oil-range petroleum hydrocarbons, benzene, toluene, ethylbenzene, xylene, and naphthalene

[1] Include contaminant management, treatment, storage or disposal and areas where a release may have occurred. Historical sources should be identified using sources of information which help in identifying current or past uses or occupants of a site including aerial photographs, fire insurance maps, property tax files, recorded land title records, United States Geological Survey (USGS) 7.5 minute topographic maps, local street directories, building department records, zoning or land use records. Any previous site assessments, environmental assessments or studies should be summarized

[2] Facility or Site (OAR 340-122-0115(26)) means any building, structure, installation, equipment, pipe or pipeline including any pipe into a sewer or publicly owned treatment works, well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, above ground tank, underground storage tank, motor vehicle, rolling stock, aircraft, or any site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located and where a release has occurred or where there is a threat of a release, but does not include any consumer product in consumer use or any vessel.

[3] A COI list should include chemicals that are detected or are suspected to be present based on historical and current operations. For Stage 1, the site-specific history of hazardous substance uses and releases is usually the source of potential chemical information. Identify hazardous substances that have the potential to bioaccumulate in Section C2 of Attachment 1.

Site Conditions – Provide Approximate Areas (acreage or square feet)

These habitats may occur in a range of natural and protected areas, including parks and green space found within urban areas. More information and habitat classification can be found at: https://oregonexplorer.info/content/classification-wildlife-habitats

Site Adjacent to Site

_No_ _Yes_ **Terrestrial Open Habitat / Grasslands**: Dominated by short to medium-tall grasses, low to medium shrubs, or bare soil.

_No_ _Yes__ **Forest or Woodland Habitats:** Woodlands (maple, alder, aspen), conifer forest (Douglas fir, hemlock, cedar, spruce), mixed-woodland, juniper, pine (ponderosa, lodgepole).

_No_ _No__ **Wetland[4]:** May be either tidal or non-tidal wetlands with emergent herbaceous plants.

_No_ _No__ **Riparian Zone:** Patches or linear strips of land adjacent to waterbodies (rivers, streams, waterbodies), or on nearby floodplains and terraces. May be impacted by periodic riverine flooding or perennial flowing water**.** May or may not also contain wetlands.

_No_ _No_ **Aquatic Open Water:** Ponds, lakes, reservoirs, rivers, creeks, streams, bays estuaries, and nearshore marine and intertidal.

Yes _Yes_ **Impermeable Surface:** Pavement, structures.

Documentation

- Aerial Site Vicinity Map(s) identifying zoning and Site features. Include topographic map.
- Summarize known or potential contaminated soil, groundwater, migration pathways.
- Figure illustrating source/release areas, sample locations, estimated areas of contamination, and surface features such as pavement, stormwater catch basins/drainage system including outfalls, dry wells or stormwater swales.
- Aerial Map showing habitat types described above both within and adjacent to the Site by at least 1/4 mile from Site boundary. Definitions and tools[5] for identifying wetlands include:

[4] Covered Under Oregon Statewide Wetlands Inventory (ORS 196.674) https://www.oregon.gov/dsl/WW/Pages/SWI.aspx

[5] Information shown on the Local Wetland Inventory maps is for planning purposes only, as wetland information is subject to change. There may be unmapped wetland and waters subject to regulation and all wetlands and waters boundary mapping is approximate. In all cases, actual field conditions determine the presence, absence and boundaries of wetlands and waters.

https://www.oregon.gov/dsl/WW/Pages/Inventories.aspx http://tools.oregonexplorer.info/oe_map_viewer_2_0/viewer.html?Viewer=orwap National Wetlands Inventory: https://www.fws.gov/wetlands/Data/Mapper.html	
Checklist Completed By: David Weatherby, RG, Principal Geologist	Date: February 16, 2026

See Attachments:
B. Map with site zoning information.
C. Excerpt of USGS topographic map.
D. MFA September 25, 2025 Site Assessment report with information regarding known or potential contaminated soil, groundwater, migration pathways, figures illustrating source/release areas, sample locations, estimated areas of contamination, and surface features.
E. Wetland inventory map.

Attachment B

Site Zoning Information

MAUL FOSTER ALONGI

Attachment B – Site Zoning Information

Union MLK Cardlock

8100 NE Martin Luther King Jr Boulevard, Portland

8100 NE M L KING BLVD

PORTLAND, OR 97211

PROPERTY

Year Built	1953
Description	SERVICE STATION
Building Area	960 sq ft
Neighborhood	SUNDERLAND
Jurisdiction	Portland / Multnomah
City Council District	2
Zoning	IH - Heavy Industrial
Elevation	44 ft (approximate)
Owner	HARRIS ENTERPRISES INC
Owner Address	4800 MEADOWS RD STE 300 LAKE OSWEGO OR 97035
Related Accounts	

For more information about data updates or discrepancies, please contact Multnomah County Assessment, Recording & Taxation at (503) 988-2225 or propertytax@multco.us.

Attachment C

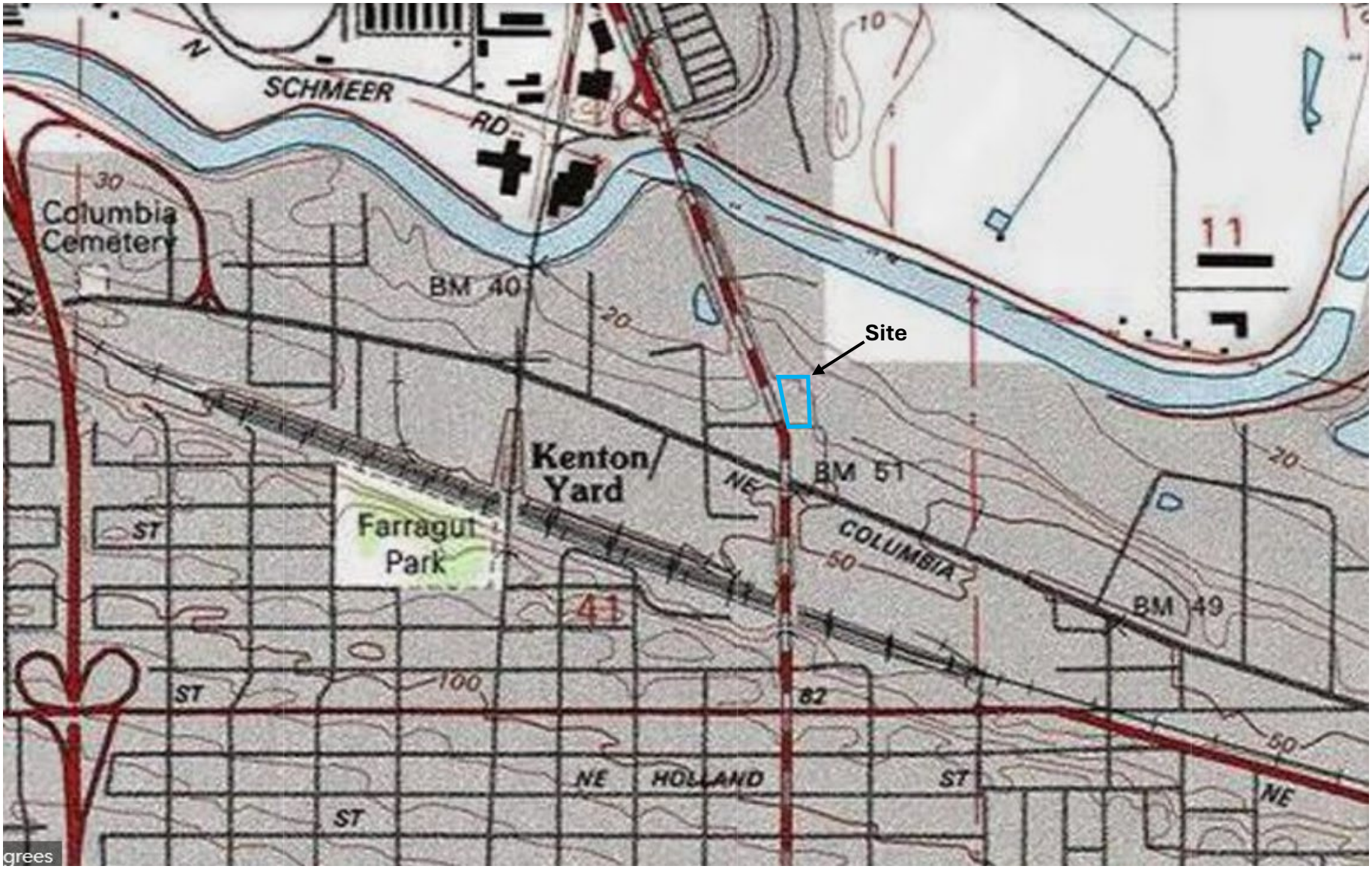
Excerpt of USGS Topographic Map

MAUL FOSTER ALONGI

Attachment C – Excerpt of USGS Topographic Map

Union MLK Cardlock

8100 NE Martin Luther King Jr Boulevard, Portland



Attachment D

MFA September 25, 2025 Site Assessment Report

MAUL
FOSTER
ALONGI

MAUL FOSTER ALONGI

3140 NE Broadway | Portland, OR 97232 | 971 544-2139 | www.maulfoster.com

September 25, 2025
Project No. M0228.05.003

Robert Hood
Oregon Department of Environmental Quality
700 NE Multnomah St. Suite 600
Portland, Oregon, 97232-4100

Re: Results of Site Investigation at Union MLK Cardlock, DEQ File No. 26-21-1204 Subject

Dear Robert:

This letter presents the results of the investigation of subsurface conditions associated with the underground storage tank (UST) system at the Union MLK Cardlock located at 8100 NE Martin Luther King Jr. Boulevard in Portland, Oregon (the site). The UST system is active and operated by PetroCard, Inc. (PetroCard). The investigation was completed in accordance with the work plan prepared by Maul Foster & Alongi, Inc (MFA), submitted to the Department of Environmental Quality (DEQ) on February 12, 2025, and approved by DEQ on March 21, 2025 (Attachment A). Background information describing the project history and the basis for DEQ's request for the current investigation is provided in the work plan.

The site investigation included the following DEQ-required elements:

- Assessment of three suspected abandoned USTs using ground penetrating radar (GPR), a magnetometer survey, and observation of conditions inside a pipe leading to a suspected UST.
- Groundwater level monitoring at monitoring wells KMW-01 through KMW-05, and groundwater sample collection from monitoring wells KMW-01 and KMW-03.

In addition, as described below, the abandoned UST assessment confirmed the presence of one heating oil tank (HOT) adjacent to the on-site building. The HOT was removed on June 19, 2025. During the removal, soil contamination was encountered that appears to be associated with the current UST system. The results of the removal and subsurface conditions encountered are included in this report.

Abandoned UST Assessment

As described in the work plan, BB&A Environmental (BB&A) identified three possible abandoned USTs at the site. These are shown on the BB&A site plan in Attachment A, and include the following:

- One abandoned and presumed diesel or heating oil UST adjacent to the south side of the building on site.
- One likely abandoned former 1,000-gallon gasoline UST south of the presumed diesel or heating oil UST.
- BB&A discovered a 2-inch-diameter metal cap connected to a metal pipe south of the southwest UST cavity. BB&A was able to open the cap and did not notice a petroleum odor. The bottom of the metal pipe was measured at 10 feet below ground surface (bgs) and was empty. BB&A suspected that the metal cap and pipe are associated with an additional former UST.

The possible abandoned USTs were assessed on April 21, 2025. GeoPotential, under the direction of MFA, completed GPR and magnetometer surveys of the three suspected USTs. The GeoPotential report is provided in Attachment B.

The GPR and magnetometer surveys confirmed the presence of one approximately 4-foot-diameter by 12-foot-long HOT adjacent to the south side of the building. The top of the HOT was estimated to be located 2 feet bgs. The approximate location of the HOT is shown on photos 1 and 2 (Attachment C).

South of the HOT, where BB&A suspected a 1,000-gallon gasoline UST may be present, the GPR and magnetometer surveys did not identify a UST. Instead, the GPR survey identified a backfill excavation at the location shown on photo 1. Within the footprint of the backfilled excavation, MFA identified a feature labeled as a monitoring well at the location shown on photos 1 and 2. MFA removed the well monument lid and observed a 4-inch-diameter vertical pipe with a cap shown on photo 3. MFA removed the cap, lowered an oil-water interface probe into the well, and detected about 0.7 feet of light non-aqueous phase liquid (LNAPL) beginning at a depth of 4.4 feet bgs. Owing to the presence of LNAPL, MFA did not measure the bottom of the well.

South of the gasoline USTs in the southwest corner of the site where BB&A identified a 2-inch-diameter metal cap connected to a metal pipe, MFA was unable to locate the cap. MFA identified a metal cap and vertical pipe near the southeast corner of the USTs as shown on photo 4. The pipe was filled with soil and contained a metal wire. The GPR and magnetometer surveys did not identify the presence of a UST or a former UST excavation anywhere adjacent to the existing gasoline USTs. The surveys did identify possible underground utilities and electrical lines leading northeast from the general vicinity of the metal cap and pipe with wire observed by MFA.

In summary, the presence of only one HOT was confirmed. As discussed further below, on June 19, 2025, the HOT was removed and subsurface conditions at the HOT and monitoring well were investigated, leading to the discovery of contamination associated with the active UST system.

Groundwater Monitoring

On April 21, 2025, MFA measured water levels at KMW-01 through KMW-05 and collected groundwater samples from KMW-01 and KMW-03. The depth to groundwater and groundwater elevations are shown on the table below.

April 21, 2025 Groundwater Depths and Elevations

Well	TOC Elevation (feet)[1]	DTW (feet)	Elevation (feet)
KMW-1	43.45	29.03	14.42
KMW-2	44.03	32.05	11.98
KMW-3	43.88	31.88	12.00
KMW-4	41.30	29.40	11.90
KMW-5	42.30	30.39	11.91

[1] Source: Kleinfelder. 2021. Second Quarter 2001 Groundwater Monitoring Report, Truax Harris Energy, LLC, #264, 8100 NE Martin Luther King, Jr., Blvd. Portland, Oregon. DEQ File No. 26-94-0022. August 16.
TOC = top of casing.
DTW = depth to water.

The groundwater elevations at KMW-1 through KMW-3 located near the diesel USTs (see well and UST locations on the site map in Attachment A) are higher than the elevations at KMW-4 and KMW-5 located further north, indicating the groundwater flow direction is to the north. This is consistent with the groundwater flow direction reported by Kleinfelder in the report referenced in the table above. MFA checked for the presence of LNAPL in each well using the oil-water interface probe; LNAPL was not detected.

Prior to groundwater sample collection, KMW-01 and KMW-03 were purged of groundwater. The work plan proposed the use of a peristaltic pump for this purpose. However, because the depth to groundwater exceeded the lifting capacity of the pump, MFA, using a dedicated, disposable bailer to purge and sample groundwater. Based on the depth to groundwater and the 40-foot depth of the monitoring wells, the casing volume of water was 1.8 gallons at KMW-1 and 1.3 gallons at KMW-3. MFA purged 5.3 gallons from KMW-1 and 3.7 gallons from KMW-3, equivalent to the removal of three casing volumes at each well. The purge water was colorless, not visually turbid, and no petroleum-like sheen or odor was observed on the purge water.

To collect the groundwater sample, the bailer was slowly lowered into the well until it contacted the water table. Then the bailer was lowered about 6 inches into the water table to partially fill the bailer and collect the groundwater sample from the top of the water column. Upon retrieving the bailer, MFA used a dedicated, low-flow spigot inserted into the end of the bailer to place the groundwater into the laboratory-provided sample containers. The sample containers were immediately placed in a cooler with ice and delivered under chain-of-custody to Apex Laboratories, Inc. (Apex) in Tigard, Oregon for analysis. In accordance with the work plan, the samples were analyzed for the following:

- Gasoline-, diesel-, and oil-range petroleum hydrocarbons by methods NWTPH-Gx and NWTPH-Dx.
- Benzene, toluene, ethylbenzene, xylene, and naphthalene by EPA Method 8260D.

The laboratory report is provided in Attachment D. The following is a summary of chemicals detected.

KMW-01

- Gasoline: 816 micrograms per liter (ug/L).
- Diesel: 1,680 ug/L.
- Benzene: 0.2 ug/L.

KMW-03

- Gas: 1,360 ug/L.
- Diesel: 1,070 ug/L.
- Benzene: 52.3 ug/L.
- Toluene: 12.0 ug/L.
- Ethylbenzene: 5.28 ug/L.
- Xylene. 38.4 ug/L.

The only potentially complete groundwater exposure pathway at the site is groundwater volatilization into indoor air in the building on site. As noted in the work plan, the building is not a commercial building in the traditional sense, but instead, is used for storage and electrical equipment; PetroCard employees typically occupy the building for less than 30 minutes once a week. As such, and in accordance with the work plan, the detected chemical concentrations were compared to the DEQ risk-based concentrations (RBCs) for groundwater volatilization to indoor air for commercial buildings. The following RBCs were exceeded:

- Gasoline at KMW-01 and KMW-03 exceeded the chronic RBC of 520 ug/L.
- Benzene at KMW-03 exceeded the chronic RBC of 12 ug/L.

Due to the depth of groundwater and thickness of the vadose zone at the site, there is likely good potential for biodegradation of gasoline and benzene in the vadose zone. This coupled with the fact that the RBCs exceedances were slight and the building is infrequently occupied for a short duration

suggests the risk to on-site workers from vapor intrusion in the building is low and requires no further assessment.

HOT Decommissioning and Monitoring Well Assessment

HOT Decommissioning and Sampling

The HOT was removed and assessed on June 19, 2025. The HOT decommissioning was performed by Cowlitz Clean Sweep (CCS), a division of PNE Corporation, under contract with PetroCard. MFA observed and documented the decommissioning work, including inspection of subsurface conditions in the UST excavation and collection of confirmation soil samples from the excavation and the excavated soil stockpile. Photos 5 through 9 document the work. A map of the excavation and soil sample locations is provided in Attachment E.

CCS removed 60.5 gallons of fuel from the HOT through its fill port. The fuel was transported to Orrco in Portland for disposal. The disposal receipt is provided in Attachment F. CCS then removed the overlying asphalt and excavated soil to a depth of about 2 feet bgs to expose the top of the HOT. Soil samples from immediately above the tank were collected, placed in sealable plastic bags, and then the headspace in the bags was assessed for organic vapors with a photoionization detector (PID). The PID readings ranged from 0 to 0.4 parts per million (ppm).

CCS then removed the HOT as shown on photo 5. A fuel line leading north from the tank towards the adjacent building was observed and removed. The fuel line was located about 1 foot bgs. No fuel or water was present in the fuel line. Soil sample Pipe1-1-S was collected from immediately under the pipe at a depth of 1 foot bgs for laboratory analysis. The PID headspace reading associated with this sample was 4.2 ppm. Once removed, the HOT was inspected and found to be in good condition with no obvious holes, as shown on photos 6 through 8. The metal HOT and other scrap metal was transported to Metro Metals Northwest in Portland for disposal. The disposal receipt is provided in Attachment F.

Using the excavator provided by CCS, soil samples were collected from the bottom of the HOT excavation. Samples T1WB-S-6 and T1EB-S-6 were collected at a depth of 6 feet bgs from the west and east ends of the excavation, respectively, for laboratory analysis. The PID headspace readings associated with the west and east sample locations were 465 ppm and 292 ppm, respectively. Aside from the PID readings and gasoline-like odors emanating from the excavation, no other indicators of contamination such as staining or a sheen were observed (such as would be expected for diesel/oil fuel mixtures associated with a HOT).

Owing to the elevated PID readings in the bottom of the HOT excavation, the excavation was advanced to a depth of 11 feet bgs. Sample T1MB-1-S-11 was collected at a depth of 11 feet bgs from the middle of the excavation bottom for laboratory analysis. The PID headspace reading associated with the sample was 155 ppm.

In total, four soil samples were collected from the HOT excavation. The sample locations and corresponding PID readings are shown on the figure in Attachment E. The sample containers were immediately placed in a cooler with ice, delivered under chain-of-custody to Apex, and analyzed for the following:

- Gasoline-, diesel-, and oil-range petroleum hydrocarbons by methods NWTPH-Gx and NWTPH-Dx.
- Benzene, toluene, ethylbenzene, xylene, and naphthalene by EPA Method 8260D.

The laboratory report and a data validation memorandum are provided in Attachment G. The soil sample results are summarized on the attached table and discussed below.

Monitoring Well Assessment, Removal, and Sampling

Prior to the assessment of the monitoring well, CCS removed approximately 0.5 gallons of fuel from the monitoring well. The fuel was combined with the 60.5 gallons of fuel removed from the HOT and transported to Orrco for disposal.

CCS then removed the concrete and asphalt around the monitoring well and began excavating soil to expose the well shown on photos 9 and 10. The monitoring well was determined to be a 6-foot-deep, fiberglass condensate sump attached to fiberglass vapor recovery pipes associated with the active UST system. Two east-west-oriented horizontal vapor recovery pipes were exposed in the excavation at the location shown on the figure in Attachment E. After removal of the sump shown on photo 11, the excavation was advanced west and east to confirm the orientation of the vapor recovery pipes. Using a metal measuring tape, the pipes were confirmed to lead west to the active gasoline USTs to the west of the sump. Obvious gasoline-like odors were emanating from the excavation.

Sample VL-1-S-6 was collected at a depth of 6 feet bgs from under the removed sump for laboratory analysis. The PID headspace reading associated with the sample was 1,419 ppm. Owing to this elevated reading, the excavation in the vicinity of the sump was advanced to a depth of 9 feet bgs. The PID headspace reading for soil collected from the bottom of the excavation was 1,310 ppm. A soil sample was not collected for laboratory analysis.

The sample containers were immediately placed in a cooler with ice, delivered under chain-of-custody to Apex, and analyzed for the following:

- Gasoline-, diesel-, and oil-range petroleum hydrocarbons by methods NWTPH-Gx and NWTPH-Dx.
- Benzene, toluene, ethylbenzene, xylene, and naphthalene by EPA Method 8260D.

The laboratory report and a data validation memorandum are provided in Attachment G. The soil sample results are summarized on the attached table and discussed below.

HOT and Monitoring Well Assessment Soil Sample Results

As shown on the attached table:

- Gasoline-range petroleum hydrocarbons were detected in every sample. Consistent with the PID readings, which were highest at the sump and decreased with increasing distance within the HOT excavation, the gasoline concentration was by far the highest at the sump (sample VL-1-S-6), deceased at the west end of the HOT excavation (sample T1WB-S-6), and decreased again further east at the east end of the HOT excavation (sample T1EB-S-6). This pattern indicates the gasoline detected everywhere in the two excavations is associated with the active UST system.
- Diesel-range petroleum hydrocarbons were detected in every sample and at relatively similar concentrations.
- Oil-range petroleum hydrocarbons were not detected in any sample.
- Like the distribution of the gasoline detections, the suite of volatile organic compounds (benzene, toluene, ethylbenzene, xylene, and naphthalene) was detected at the highest concentrations at the sump and significantly decreased in concentrations within the HOT excavation.

As shown on the table, the data were compared to the following RBCs for potentially complete exposure pathways at the site:

- Occupational, construction, and excavation worker soil direct contact.
- Soil volatilization to outdoor air for occupational workers.

The only RBC exceedances are for gasoline, ethylbenzene, and naphthalene in sample VL-1-S-6 at the vapor recovery sump, indicating that the potential risk of exposure is solely for chemicals associated with the active UST system and not the HOT.

PetroCard repaired the vapor recovery pipes by splicing new pipe into the segments removed when the sump was removed, and the excavation was backfilled to grade with ¾-inch minus gravel obtained from Porter-Yett in Portland. As such, there is no complete pathway for occupational worker direct contact with soil contamination remaining. PetroCard has no plans for construction at the site into the foreseeable future. In any event, future construction worker exposure to gasoline contamination remaining in soil can be managed through worker notification of the contamination, implementation of health and safety protocols to prevent exposure, and soil management procedures that ensure contaminated soils encountered during future construction work are appropriately identified and managed to prevent exposure.

Occupational work exposure to ethylbenzene in outdoor air is unlikely. The ethylbenzene concentration only slightly exceeded the RBC, and on average, PetroCard employees are typically on site only four days a week for an hour, and much less than the typical occupational worker scenario of 8 hours per day, 5 days per week.

Excavated Soil Management

All soil excavated from the HOT and monitoring well excavations was placed into a single soil stockpile on plastic sheeting adjacent to the excavations. MFA collected a 5-point composite soil sample from the stockpile. The sample containers were immediately placed in a cooler with ice, delivered under chain-of-custody to Apex, composited into a single sample by Apex, and analyzed for the following:

- Gasoline-, diesel-, and oil-range petroleum hydrocarbons by methods NWTPH-Gx and NWTPH-Dx.
- Benzene, toluene, ethylbenzene, xylene, and naphthalene by EPA Method 8260D.
- Toxicity characteristic leaching procedure for lead by EPA Method 1311/6020B.

The results are provided on the attached table. Chemical detections included gasoline- and diesel-range petroleum hydrocarbons, benzene, toluene, ethylbenzene, xylene, and naphthalene. Lead was not detected. All detected concentrations were much less than the potentially applicable RBCs for the site. A total of 48.5 tons of soil was transported to the Waste Management Hillsboro Landfill for disposal. The disposal receipts are provided in Attachment F.

UST System Testing Records

The results of the site investigation indicate a gasoline release occurred at the sump associated with the vapor recovery system for the active UST system. The UST system testing records for January through June 2025 provided in Attachment H confirm the system has passed the inspections. There are no indications of a release from the system other than that associated with the sump that has now been removed.

Conclusions

The DEQ-requested investigation of the UST system is complete. One HOT was identified and decommissioned by removal. Although chemical concentrations in soil and groundwater exceed RBCs for on-site workers, the current site conditions and infrequent and short-duration use of the site by PetroCard employees indicate the potential for exposure to contamination remaining is very low and requires no further investigation or remediation.

Sincerely,

Maul Foster & Alongi, Inc.

EXPIRES: 6/1/2026
This digital seal certifies the signatory and document content.

David Weatherby, RG
Principal Geologist

Steven Chapman

Steven Chapman, GIT
Staff Geologist

Attachments

Limitations

Table

A—Work Plan for Site Investigation at Union MLK Cardlock, DEQ File No. 26-21-1204 B—GeoPotential Report

C—Photo Log

D—Groundwater Laboratory Report

E—Sample Location Map

F—Disposal Receipts

G—Soil Laboratory Report and Data Validation Memorandum

H—UST System Testing Records

cc: Ron Beach, PetroCard, Inc.

Limitations

The services undertaken in completing this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

Table

MAUL
FOSTER
ALONGI

Table
Soil Analytical Results
8100 NE Martin Luther King Jr. Boulevard
PetroCard, Inc.

Location:	RBC, Soil Ingestion, Dermal Contact, and Inhalation[1]			RBC, Soil, Volatilization to Outdoor Air[1]	Monitoring Well Excavation	Heating Oil Tank Excavation				Soil Stockpile
Sample Name:					VL-1-S-6	T1WB-S-6	T1EB-S-6	T1MB-1-S-11	Pipe1-1-S	SP1-Comp-S
Collection Date:	Occupational	Construction Worker	Excavation Worker	Occupational	06/19/2025	06/19/2025	06/19/2025	06/19/2025	06/19/2025	06/19/2025
Collection Depth (ft bgs):					6.0	6.0	6.0	11.0	1.0	0.25
TPH (mg/kg)										
Gasoline-range hydrocarbons	20,000	9,700	NV	69,000	20,900	1,300	369	773	129	1,680
Diesel-range hydrocarbons	14,000	4,600	NV	NV	459 J+	4,390	1,190	2,780	1,450	3,530
Oil-range hydrocarbons	14,000[a]	4,600[a]	NV	NV	44.7 U	438 U	43.0 U	218 U	43.5 U	452 U
TCLP Metals (mg/L)										
Lead	NV	NV	NV	NV	--	--	--	--	--	0.05 U
VOCs (mg/kg)										
Benzene	37	380	11,000	50	30.7	5.23	0.0149 U	0.361	0.0152 U	3.94
Ethylbenzene	150	1,700	49,000	160	257	16.0	0.554	6.29	0.0380 U	18.5
Naphthalene	23	580	16,000	83	65.9	15.3	4.06	6.19	0.334 U	8.72
Toluene	88,000	28,000	770,000	NV	672	7.13	0.0744 U	0.557	0.0760 U	49.9
Xylenes (total)	25,000	20,000	560,000	NV	1,400	6.67	0.112 U	3.65	0.114 U	108

Notes

Shading (color key below) indicates values that exceed screening criteria; non-detects (U) were not compared with screening criteria. Where multiple criteria are exceeded, results are shaded based on the highest value.

RBC, Soil Ingestion, Dermal Contact, and Inhalation, Occupational

RBC, Soil Ingestion, Dermal Contact, and Inhalation, Construction Worker

RBC, Soil, Volatilization to Outdoor Air, Occupational

-- = not analyzed.

ft bgs = feet below ground surface.

J+ = result is estimated, but the result may be biased high.

mg/kg = milligrams per kilogram.

mg/L = milligrams per liter.

NV = no value.

RBC = risk-based concentration.

TCLP = toxicity characteristic leaching procedure.

TPH = total petroleum hydrocarbons.

U = result is non-detect at the method reporting limit.

VOC = volatile organic compound.

[a]Value is for generic diesel/heating oil, since a generic oil-range hydrocarbons value is not available.

Reference

[1]DEQ. 2023. Table: *Risk-Based Concentrations for Individual Chemicals.* Oregon Department of Environmental Quality, Environmental Cleanup Program. August.

Attachment A

Work Plan for Site Investigation at Union MLK Cardlock, DEQ File No. 26-21-1204

MAUL FOSTER ALONGI

MAUL FOSTER ALONGI
3140 NE Broadway | Portland, OR 97232 | 971 544-2139 | www.maulfoster.com

February 12, 2025
Project No. 0228.05.002

Rob Hood
Oregon Department of Environmental Quality
700 NE Multnomah Street, Suite 600
Portland, Oregon 97232

Re: Work Plan for Site Investigation at Union MLK Cardlock, DEQ File No. 26-21-1204

Dear Rob:

This letter presents the revised work plan for the investigation of subsurface conditions associated with the underground storage tank (UST) system at the Union MLK Cardlock located at 8100 NE Martin Luther King Jr. Boulevard in Portland, Oregon (the site). The UST system is active and operated by PetroCard, Inc. (PetroCard). The work plan was originally prepared and submitted to the Department of Environmental Quality (DEQ) by Maul Foster & Alongi, Inc (MFA) in September 2023 as requested by Jim Orr, DEQ, in a July 18, 2023 letter to Ron Beach at PetroCard. The work plan had been revised to address your work plan review comments provided to MFA via email on November 7, 2024.

Background

On December 2 and 3, 2021, BB&A Environmental (BB&A) completed a focused Phase II environmental site assessment (ESA) at the site. BB&A collected soil and groundwater samples from soil borings and monitoring wells for laboratory analysis. MFA staff accompanied BB&A and collected collocated and additional soil samples for laboratory analysis from the borings advanced by BB&A. The laboratory results for the samples collected by MFA together with the BB&A ESA report were provided to the DEQ in MFA's January 21, 2022, Initial (Twenty Day) Report.

The results of the BB&A ESA, tank integrity testing, and exposure assessment Indicated that a localized area of soil contamination is present at boring P3 along the east side of the southwest UST cluster and is not the result of an ongoing release. As human exposure to this contamination is unlikely or can be controlled with appropriate health and safety measures if future construction or utility work is planned, PetroCard did not intend to further assess the contamination nor enter into the DEQ's voluntary cleanup program.

Based on review of the BB&A and MFA investigation results, in a letter dated July 18, 2023, DEQ requested a workplan to address the following:

1. Locate all abandoned underground storage tanks and properly decommission them.
2. Sample indoor air and subslab vapors to screen the site for volatile contamination.
3. Evaluate the nature and extent of hydrocarbons in soil and groundwater.

This work plan addresses items 1 and 3 above. Item 2 (indoor air and subslab vapor sampling) is not proposed at this time. The single building on site is used for storage and electrical equipment. PetroCard employees typically occupy the building for less than 30 minutes once a week. As

described below, MFA will assess conditions at monitoring wells KMW-01 and KMW-03 located adjacent to the building. MFA may recommend additional on-site work if warranted based on the KMW-01 and KMW-03 data and current and likely future use of the building.

Regarding item 3, evaluation of the nature and extent of the localized hydrocarbons in soil associated with BB&A boring P3 is not proposed at this time. As described in the January 21, 2022, Initial (Twenty Day) Report, BB&A and MFA collected a soil sample from P3 at a depth of 18 to 19 feet below ground surface (bgs). Gasoline-range hydrocarbons were detected in the BB&A sample at a concentration of 42,400 milligrams per kilogram (mg/kg) and in the MFA sample at a concentration of 16,300 mg/kg (see the BB&A Table 1 and MFA table in the attachments). Benzene, toluene, ethylbenzene, and xylene were also detected in the BB&A and MFA samples, and diesel-range hydrocarbons were detected in the MFA sample.

To assess the vertical extent of contamination at P3, MFA collected a second soil sample at boring P3 at a depth of 32 to 33 feet bgs. Gasoline- and diesel range hydrocarbons, benzene, toluene, and ethylbenzene were not detected. Only xylene was detected in this sample at a concentration much lower than applicable risk-based concentrations (RBCs). In addition, photoionization detector (PID) readings in soil at the boring were elevated (1,624 parts per million) at the 18- to 19-foot depth, corresponding to the depth of the BB&A and MFA soil samples with the RBC exceedances (see the P3 boring log in the attachment). At greater depth, the PID readings quickly decreased by one- to three-orders of magnitude, and the PID reading was only 10 parts per million at the 32- to 33-foot depth of the MFA sample with no RBC exceedances. The PID data together with the MFA sample data delineate the vertical extent of contamination at boring P3 and confirm the contamination does not extend to the water table, precluding the need to sample groundwater at the P3 location.

The BB&A and MFA soil sample results have also delineated the horizontal extent of soil contamination associated with BB&A boring P3. The BB&A site plan in the attachment includes the BB&A sample locations for borings P1 through P13. The corresponding soil sample data from these borings is included on BB&A Table 1 in the attachment. On the site plan, I have highlighted the P3 boring location in yellow, corresponding to the elevated gasoline-range hydrocarbon, benzene, and ethylbenzene concentrations that exceeded one or more RBCs at this location. All remaining BB&A boring locations are highlighted green on the site plan, corresponding to non-detections of hydrocarbons in soil, or detections that are much less than the concentrations at P3 and less than the RBCs, indicating the horizontal extent of contamination is delineated.

Work Plan

The following activities are proposed to locate abandoned underground storage tanks and evaluate the nature and extent of indoor air vapor intrusion RBC exceedances in groundwater.

Abandoned UST Assessment

BB&A identified three possible abandoned USTs at the site. These are shown on the BB&A site plan in the attachment, and include the following:

- One abandoned and presumed diesel or heating oil UST was identified adjacent to the south side of the building on site.
- One likely abandoned former 1,000-gallon gasoline UST was identified south of the presumed diesel or heating oil UST.
- BB&A discovered a 2-inch-diameter metal cap connected to a metal pipe south of the southwest UST cavity. BB&A was able to open the cap and did not notice a petroleum odor. The bottom of

the metal pipe was measured at 10 feet bgs and was empty. BB&A suspected that the metal cap and pipe are associated with an additional former UST.

To confirm the presence of these suspected abandoned USTs, MFA will conduct a ground penetrating radar and magnetometer survey of the suspect UST locations. MFA will also examine any fill ports or other access points to the USTs, if present, including measuring the bottom of the metal pipe and checking for the presence of petroleum hydrocarbons using an oil-water interface probe. If recoverable petroleum product is encountered in the USTs, it will be removed.

Nature and Extent Assessment

The BB&A focused Phase II ESA included groundwater sample collection from two existing monitoring wells (KMW-01 and KMW-02), one temporary monitoring well (TMW-P9), and one soil boring (P8). The locations of these wells and boring are shown on the site plan, and the groundwater data are provided on BB&A Table 2 in the attachment.

- At KMW-01, the diesel concentration exceeded the RBC for groundwater volatilization to indoor air of 1,700 micrograms per liter for commercial buildings.
- At KMW-02, there were no exceedances of the RBCs.
- At TMW-P9, the benzene concentration slightly exceeded the RBC for groundwater volatilization to indoor air of 12 micrograms per liter for commercial buildings.
- At P8, there were no exceedances of the RBCs.

These RBC exceedance locations are highlighted in yellow on the site plan and Table 2 in the attachment. There are no commercial buildings downgradient of KMW-01[1], but the building on site is near KMW-01 and TMW-P9.

To confirm whether diesel and benzene concentrations in groundwater exceed the indoor air RBC near the building, MFA will collect a groundwater sample from KMW-01 and KMW-03. MFA will measure the water level at KMW-01 through KMW-05 monthly beginning in January 2024, and sample KMW-01 and KMW-03 if and when sufficient groundwater is present for sample collection.

During sample collection, groundwater will be purged with a peristaltic pump and new, disposable tubing, using low-flow purging procedures. Periodically, a water quality meter will be used to measure the following groundwater parameters during purging: temperature, pH, specific conductance, dissolved oxygen, oxidation-reduction potential, and turbidity. These parameters will be recorded on the field sampling datasheet. The groundwater samples will be collected after three consecutive groundwater parameter readings indicate that the parameters have stabilized. The samples will be collected directly into laboratory-supplied containers, placed in an iced cooler, and submitted to the laboratory under standard chain-of-custody procedures. The groundwater samples will be analyzed for the following:

- Gasoline-, diesel-, and oil-range petroleum hydrocarbons by methods NWTPH-Gx and NWTPH-Dx.
- Benzene, toluene, ethylbenzene, xylene, and naphthalene by EPA Method 8260D.

[1] The BB&A site plan in the attachment includes a label “Office & Shops” to the north and downgradient of KMW-01. This is an error. There are no buildings at this location, and none are proposed.

Reporting

Following completion of the abandoned tank assessment and nature and extent assessment, MFA will prepare a brief letter report summarizing the results of the site investigation. The report will include the following:

- Description of activities completed.
- Results of the abandoned tank assessment, including confirmation of tank presence/absence, presence/absence of petroleum product, and volume of product removed, if any.
- KMW-01 and KMW-03 groundwater sampling results and comparison of the results to the RBCs for groundwater volatilization to indoor air for commercial buildings.
- Photo log.
- Laboratory report.
- Recommendations for additional work at the site, if warranted, based on the results of site investigation.

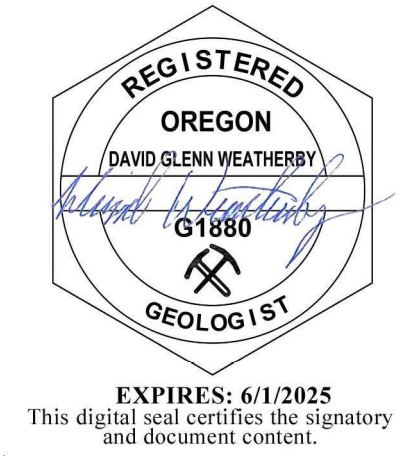
Summary

In summary, the site investigation will include the following elements:

- Assessment of the suspected abandoned USTs using ground penetrating radar, a magnetometer survey, and observation of conditions inside the pipe and USTs if present and accessible. Recoverable petroleum product will be removed from the tanks, if encountered.
- Groundwater level monitoring at KMW-01 through KMW-05.
- Groundwater sample collection from KMW-01 and KMW-03.
- Reporting the results to DEQ.

Sincerely,

Maul Foster & Alongi, Inc.



David Weatherby, RG
Principal Geologist

Attachment

BB&A Site Plan, Tables, and Boring Log; MFA Table

cc: Ron Beach, PetroCard.

Attachment

BB&A Site Plan, Tables, and Boring Log; MFA Table

MAUL FOSTER ALONGI

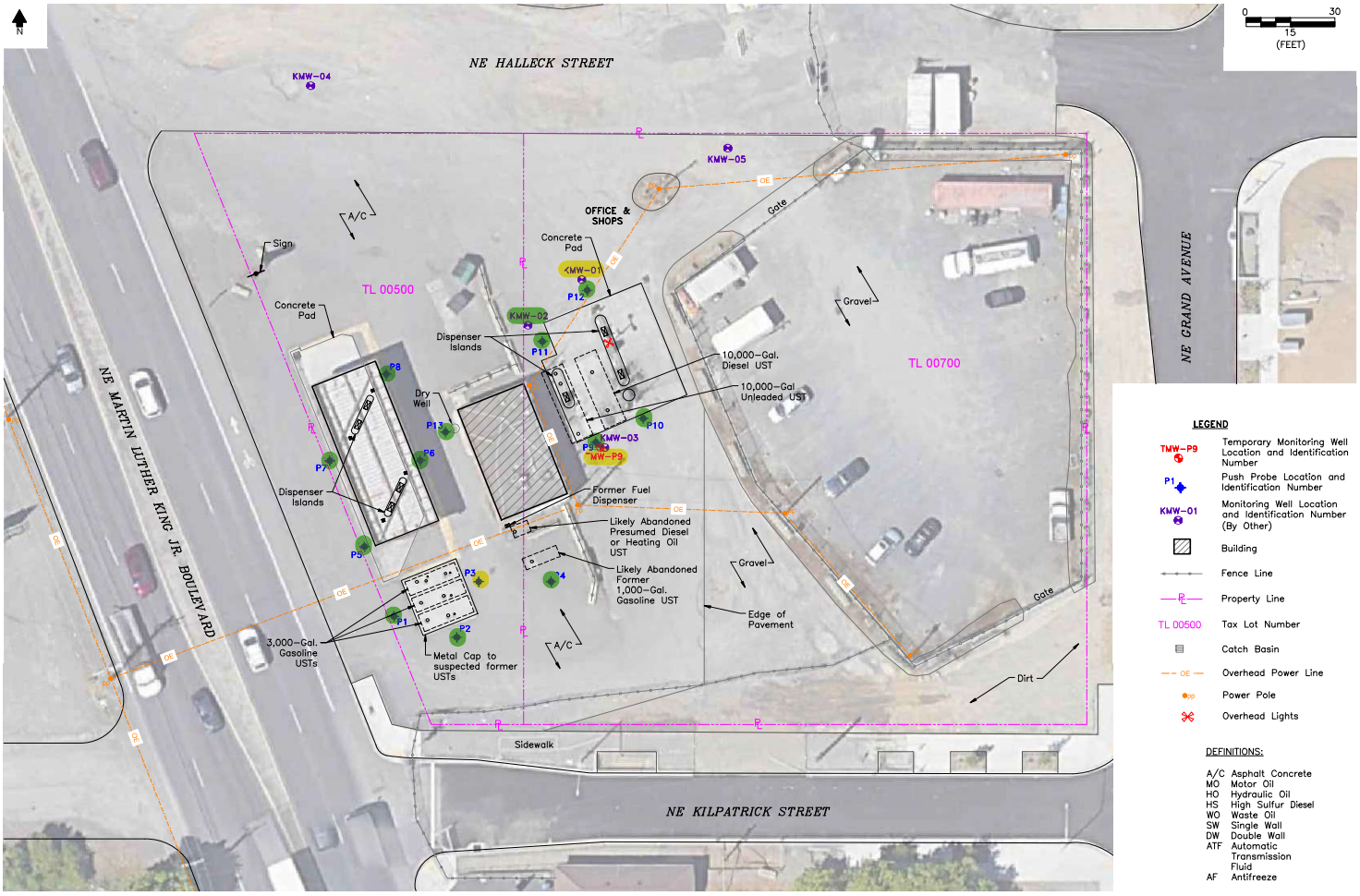


FIGURE # 3

SITE PLAN
COMMERCIAL PROPERTY
8100 NE MARTIN LUTHER KING JR. BLVD., PORTLAND, OREGON

PROJECT CODE: 2106PH2.21E | DATE: 12/10/21 | SCALE: 1"=30' | DRAWN: K.D.DESIGNS | CHECKED: RANDALL ROESE

EUGENE OFFICE
32986 Roberts Ct.
Coburg, OR
ph: 541.484.9484

PORTLAND OFFICE
25195 SW Parkway Ave, #207
Wilsonville, OR
ph: 503.570.9484

www.BBAENV.COM

BB&A ENVIRONMENTAL

Table 1. Soil Analytical Results

8100 NE MLK Blvd. Portland, OR

UNITS: TPH and BTEX concentrations in milligrams per kilogram (mg/kg), or parts per million (ppm).
>Max: The constituent RBC for this pathway is greater than 100,000 mg/Kg.
>Csat: Soil RBC exceeds three-phase equilibrium partitioning.
NS: No standard
ND: no hydrocarbons detected.
DET: hydrocarbons detected
<0.05 Indicates contaminant was not detected above method-reporting limit.
Shaded where not analyzed
BOLD: Indicates the contaminant was detected above the method-reporting limit
Highlight: Indicates the contaminant was detected above one or more RBCs.
RBCs: Risk-Based Concentration (RBC) for applicable exposure pathways including Soil ingestion, Dermal contact, and Inhalation (RBCss), Volatilization to Outdoor Air (RBCso) and Vapor Intrusion into Buildings (RBCsi)
Occ : Occupational receptor scenario CW: Construction Worker receptor scenario EW: Excavation Worker receptor scenario
Note: If gasoline-, diesel-, or oil-range TPH were detected in the HCID analysis, TPH concentrations were quantified with the respective analytical method.

Sample ID Push Probe - Depth Interval	Contaminant							
	HCID	Gasoline-range TPH	Diesel-range TPH	Oil-range TPH	Benzene	Toluene	Ethylbenzene	Xylenes
P1-11'	ND							
P2-8'-9'		**27.7**	<25.0	**141**	**1.250**	**0.127**	**1.130**	**4.410**
P2-12'-13'		**16.9**	<25.0	<50.0	**0.305**	<0.0593	**0.260**	**2.330**
P3-18'-19'		**42,400**	<25.0	<50.0	**96.4**	**2,090**	**730**	**4,610**
P4-7'-8'	DET		<25.0	**154**				
P5-11'-12'	ND							
P6-11'-12'	ND							
P7-11'-12'	ND							
P8-8'-9'	ND							
P9-14'-15'	DET		<25.0	**131**				
P10-11'-12'	DET		<25.0	**205**				
P11-14'-15'	DET		<25.0	**675**				
P12-7'-8'	DET		<25.0	**205**				
P13-17-18'	ND							
RBCss - Occ	NS	20,000	14,000	NS	37	88,000 >Csat	150	25,000 >Csat
RBCss - CW	NS	9,700	4,600	NS	380	28,000 >Csat	1,700 >Csat	20,000 >Csat
RBCss - EW	NS	>Max	>Max	NS	11,000	770,000 >Csat	49,000 >Csat	560,000 >Csat
RBCso	NS	69,000	>Max	NS	50	>Csat	160	>Csat
RBCsi	NS	>Max	>Max	NS	2.1	>Csat	17	>Csat

Table 2. Groundwater Analytical Results

8100 NE MLK Blvd. Portland, OR

All concentrations in parts per billion (ppb) or micrograms per Liter (ug/L).
NS: No standard
>S: This RBC exceeds the solubility limit.
<0.2 : Indicates not detected above method-reporting limit identified.
BOLD: Indicates the contaminant was detected above the method-reporting limit
Highlight: Indicates the contaminant was detected above one or more RBCs.
Shaded where not analyzed.
RBCs = Occupational Risk-Based Concentration (RBC) for applicable exposure pathways including the volatilization to out door air in an occupational scenario (RBCwo), vapor intrusion into buildings in an occupational scenario (RBCwi),and groundwater in excavation (RBCwe).

GROUNDWATER SAMPLE IDENTIFICATION (Location)	Total Petroleum Hydrocarbons (TPH)			Gasoline-Related Volatile Organic Compounds (VOCs)			
	Gasoline-Range TPH	Diesel-Range TPH	Oil-Range TPH	Benzene	Toluene	Ethylbenzene	Xylenes
P8-H2O	<100	**550**	**331**	<0.200	<1.00	<0.500	<1.50
KMW-01-H2O	**452**	**2,810**	<162	<0.200	**1.12**	**0.620**	**2.92**
KMW-02-H2O	<100	**130**	<178	<0.200	<1.00	<0.500	<1.50
TMWP9-H2O	**291**			**18.7**	**3.00**	<0.500	**1.53**
Risk-Based Concentrations (RBCs) from Appendix A of Oregon DEQ's *Risk-Based Decision Making for the Remediation of*							
RBCwo	>S	>S	NS	14,000	>S	43,000	>S
RBCwi	>S	>S	NS	280	>S	8,200	>S
RBCwe	14,000	>S	NS	1,800	220,000	4,500	23,000

PROBE LOG

PROBE NO.: P3
PROJECT CODE: T006PH2.21E
CADD FILE: T006PH2.21E
PROJECT: COMMERCIAL PROPERTY
LOCATION: 8100 NE MARTIN LUTHER KING JR. BLVD. PORTLAND, OREGON

TOTAL DEPTH: 40'
SURFACE ELEVATION:
PROBING METHOD: MACRO CORE
PROBED BY: BB&A ENVIRONMENTAL
LOGGED BY: MATTHEW LUCZAK
DATE COMPLETED: 12/02/21

DEPTH (feet)	SAMPLE IDENTIFICATION AND LAB RESULTS	MC RECOVERY	PID	H_2O LEVEL	LITHOLOGIC DESCRIPTION
0					ASPHALT
					GRAVEL (GM): fill
			0.0		SAND (SM): brown, coarse–fine grained, gravel cobbles at bottom
		30%	0.0		
			0.0		
			0.0		
5			0.0		SAND (SM): brown, coarse–fine grained, trace gravel pebbles
			0.0		
		20%	0.0		
			0.0		
			0.0		
10					SAND & SILT (SM/ML): brown–gray, fine grained sand
			0.9		
			6.2		SAND & SILT (SM/ML): brown, fine grained sand
		90%	57.2		SAND & SILT (SM/ML): brown–gray, fine grained sand
			137.6		
			110.4		
15					SILT (ML): brown, moist
					SAND & SILT (SM/ML): brown–gray, fine grained sand
			76.5		
		80%	896.1		
	P3–18'–19'		1624		SAND (SM): brown, medium–fine grained
			106.2		
20					SLOUGH
			100		SAND & SILT (SM/ML): brown–gray, fine grained sand
		90%			SAND (SM): brown–gray, medium–fine grained
					SAND & SILT (SM/ML): brown–gray, fine grained
25			20		

LEGEND

BLS Below Land Surface

PID Photo Ionization Detector, Units in parts per million (ppm)

NOTES:

NOTE: CLASSIFICATION OF SOILS BASED ON THE UNITED SOILS CLASSIFICATION SYSTEM.

BB&A ENVIRONMENTAL
EUGENE OFFICE
32986 Roberts Court Coburg, Oregon 97408
ph. 541.484.9484 fax. 541.484.4188
PORTLAND OFFICE
25195 SW Parkway Ave., Suite 207
Wilsonville, Oregon 97070
ph. 503.570.9484 fax. 503.570.0384

PROBE LOG

PROBE NO.: P3
PROJECT CODE: T006PH2.21E
CADD FILE: T006PH2.21E
PROJECT: COMMERCIAL PROPERTY
LOCATION: 8100 NE MARTIN LUTHER KING JR. BLVD.
PORTLAND, OREGON

TOTAL DEPTH: 40'
SURFACE ELEVATION:
PROBING METHOD: MACRO CORE
PROBED BY: BB&A ENVIRONMENTAL
LOGGED BY: MATTHEW LUCZAK
DATE COMPLETED: 12/02/21

DEPTH (feet)	SAMPLE IDENTIFICATION AND LAB RESULTS	MC RECOVERY	PID	H_2O LEVEL	LITHOLOGIC DESCRIPTION	LITHOLOGY	DEPTH (feet)	PROBE ABANDONMENT
25			20		SLOUGH SAND (SM): brown–gray, medium–fine grained		25	
		60%						
30			10 10		SLOUGH SAND (SM): gray, medium–fine grained, moist below 33.5'BLS		30	
	P3–32'–33'	90%						
35			2				35	
		0%						
40							40	
45							45	
50							50	

LEGEND

BLS Below Land Surface

PID Photo Ionization Detector, Units in parts per million (ppm)

NOTES:

NOTE: CLASSIFICATION OF SOILS BASED ON THE UNITED SOILS CLASSIFICATION SYSTEM.

BB&A ENVIRONMENTAL

EUGENE OFFICE
32986 Roberts Court Coburg, Oregon 97408
ph. 541.484.9484 fax. 541.484.4188

PORTLAND OFFICE
25195 SW Parkway Ave., Suite 207
Wilsonville, Oregon 97070
ph. 503.570.9484 fax. 503.570.0384

Table
Summary of Soil Analytical Results—8100 NE Martin Luther King Jr. Blvd.
PetroCard, Inc.

Location:	RBC, Soil Ingestion, Dermal Contact, and Inhalation[1]			RBC, Soil Vapor Intrusion into Building[1]	T006-P2		T006-P3		T006-P4	T006-P5	T006-P6	T006-P7	T006-P8	T006-P9	T006-P10
Sample Name:					T006-P2-8-9	T006-P2-12-13	T006-P3-18-19	T006-P3-32-33	T006-P4-7-8	T006-P5-11-12	T006-P6-11-12	T006-P7-11-12	T006-P8-8-9	T006-P9-14-15	T006-P10-11-12
Collection Date:					12/02/2021	12/02/2021	12/02/2021	12/02/2021	12/02/2021	12/02/2021	12/02/2021	12/02/2021	12/02/2021	12/02/2021	12/02/2021
Collection Depth (ft bgs):	Occupational	Construction Worker	Excavation Worker	Occupational	8-9	12-13	18-19	32-33	7-8	11-12	11-12	11-12	8-9	14-15	11-12
VOCs (mg/kg)															
Benzene	37	380	11,000	2.1	0.368 J	1.41 J	23.1	0.0129 U	0.0131 U	0.0131 U	0.0616	0.0129 U	0.0116 U	0.0114 U	0.012 U
Ethylbenzene	150	1,700	49,000	17	0.0592 U	0.262	620	0.0645 U	0.0657 U	0.0656 U	0.059 U	0.0645 U	0.058 U	0.0569 U	0.0599 U
Toluene	88,000	28,000	770,000	NV	0.20 J	3.32	254	0.0323 U	0.0329 U	0.0328 U	0.0295 U	0.0323 U	0.029 U	0.0285 U	0.030 U
Xylenes, total[a]	25,000	20,000	560,000	NV	0.738 J	31.8	1,620	0.129	0.0986 U	0.0983 U	0.0885 U	0.0968 U	0.0871 U	0.0854 U	0.0899 U
TPH (mg/kg)															
Gasoline-Range Hydrocarbons	20,000	9,700	NV	NV	5.92 U	228	16,300	6.45 U	6.57 U	6.56 U	5.9 U	6.45 U	5.8 U	5.69 U	5.99 U
Diesel-Range Hydrocarbons	14,000	4,600	NV	NV	25 U	25 U	116	25 U	25 U	25 U	25 U	25 U	25 U	117 U	25 U
Oil-Range Hydrocarbons	14,000[b]	4,600[b]	NV	NV	114	50 U	50 U	50 U	50 U	118	125	50 U	93.9	538	221

MAUL FOSTER ALONGI

Table
Summary of Soil Analytical Results—8100 NE Martin Luther King Jr. Blvd.
PetroCard, Inc.

Location:	RBC, Soil Ingestion, Dermal Contact, and Inhalation[1]			RBC, Soil, Vapor Intrusion into Building[1]	T006-P11	T006-P12	T006-P13
Sample Name:					T006-P11-14-15	T006-P12-7-8	T006-P13-17-18
Collection Date:	Occupational	Construction Worker	Excavation Worker	Occupational	12/02/2021	12/02/2021	12/02/2021
Collection Depth (ft bgs):					14-15	7-8	17-18
VOCs (mg/kg)							
Benzene	37	380	11,000	2.1	0.0111 U	0.0115 U	0.0113 U
Ethylbenzene	150	1,700	49,000	17	0.0555 U	0.0577 U	0.0565 U
Toluene	88,000	28,000	770,000	NV	0.0278 U	0.0289 U	0.0283 U
Xylenes, total[a]	25,000	20,000	560,000	NV	0.0833 U	0.134	0.0848 U
TPH (mg/kg)							
Gasoline-Range Hydrocarbons	20,000	9,700	NV	NV	5.55 U	5.77 U	5.65 U
Diesel-Range Hydrocarbons	14,000	4,600	NV	NV	47.8 U	25 U	25 U
Oil-Range Hydrocarbons	14,000[b]	4,600[b]	NV	NV	313	162	50 U

Table
Summary of Soil Analytical Results—8100 NE Martin Luther King Jr. Blvd.
PetroCard, Inc.

NOTES:
Shading (color key below) indicates values that exceed screening criteria; non-detects ("U") were not compared with screening criteria.
RBC, soil ingestion, dermal contact, and inhalation, occupational
RBC, soil ingestion, dermal contact, and inhalation, construction worker
RBC, soil, vapor intrusion into building, occupational
ft bgs = feet below ground surface.
J = result is estimated.
mg/kg = milligrams per kilogram.
NV = no value.
RBC = risk-based concentration.
TPH = total petroleum hydrocarbons.
U = result is non-detect to method reporting limit.
VOC = volatile organic compounds.
[a]Total xylenes are reported by the laboratory.
[b]Value is for generic diesel/heating oil, since generic residual-range hydrocarbon values are not available.
REFERENCE:
[1]Oregon Department of Environmental Quality. Table of risk-based concentrations for individual chemicals. May 2018.

Attachment B

GeoPotential Report

MAUL
FOSTER
ALONGI

GeoPotential
ENVIRONMENTAL & EXPLORATION GEOPHYSICS
330 Creekside Terrace, Fairview, OR 97024 Phone: (503) 912-6441 Fax: (503) 912-6448
WEB http://www.geopotential.biz/ E-MAIL GeoPotential@geopotential.biz

Letter Report

Subsurface Mapping Survey for
Underground Storage Tanks and Ancillary Piping

Petrocard Site
8100 NE Martin Luther King Jr. Blvd
Portland, Oregon

GeoPotential Project# 1717

Performed for:

Maul Foster Alongi
330 E Mill Plain Boulevard, Suite 405
Vancouver, Washington 98660

Survey Date: April 21, 2025

Report Date: April 21, 2025

Personnel: GeoPotential; Ralph Soule. MFA; David Weatherby

Geophysical Surveys Conducted: Ground Penetrating Radar (GPR) utilizing a Mala Easy Locator with a 425 MHz antenna. Magnetic scan with a Schonstedt GA52B Magnetic Gradiometer. Pipe and cable locating with a Heath Sure Lock and an Aqua-Tronics A6 Tracer.

Procedures: Surveys were conducted over the suspected locations of the suspected former locations of USTS shown on Figure 1. GPR Profiles and locating results were interpreted over the Site and marked on the Site with marking.

Results: Figure 1 shows the BB&A Site map provided by MFA to GeoPotential and shows the areas of interest. Results are shown on Figure 2 and were marked at the site with marking paint.

One Underground Storage Tank was detected by the SMS. It is 4X12 feet (1,000 gallons) at a depth of 2 feet bgs. A fill port, vent pipe and former dispenser island is associated with this UST.

A backfilled excavation 12X25 feet is located adjacent to the UST and is about 8 feet deep.

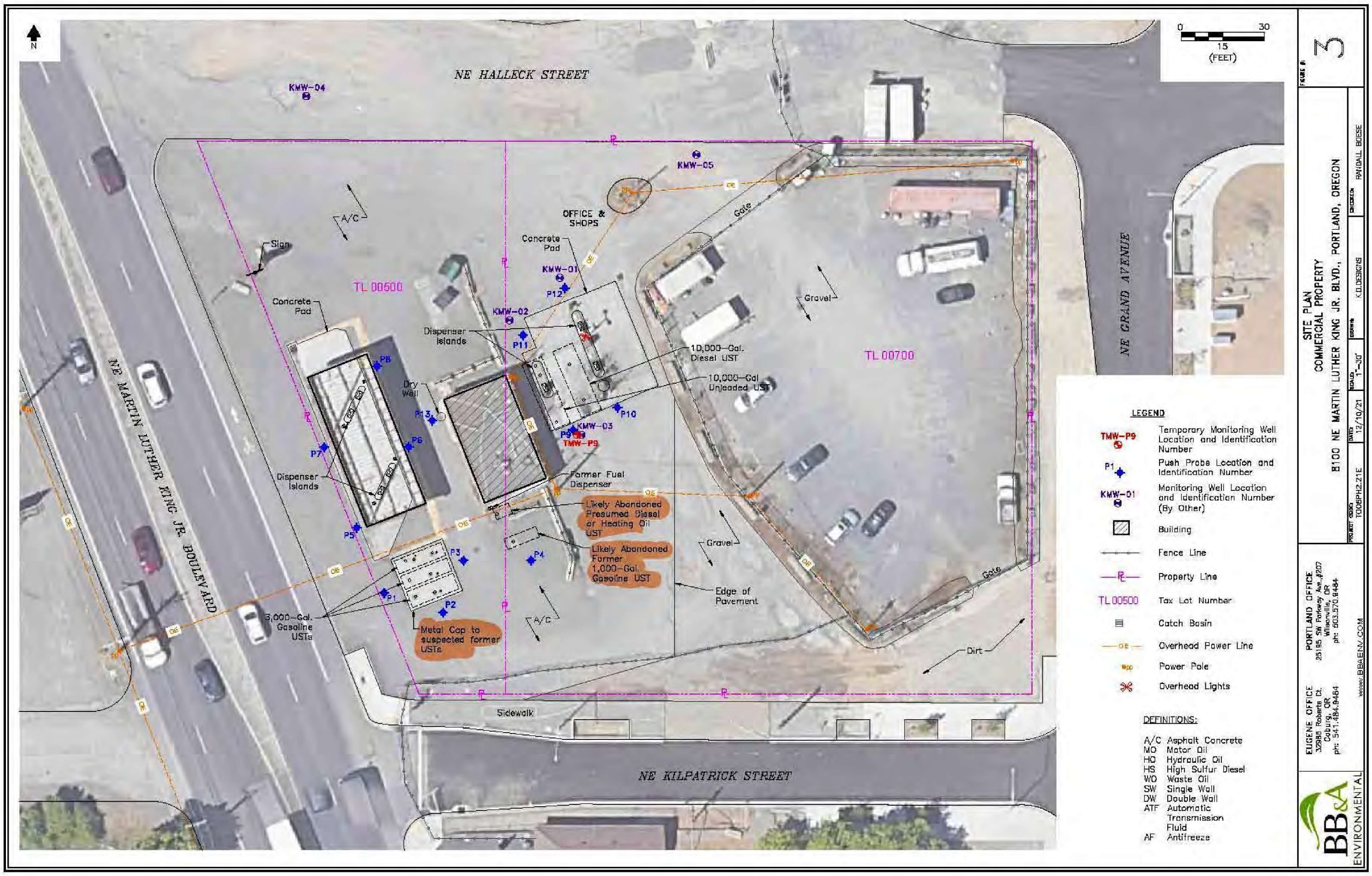
Three vent pipes and electrical lines run from the Station to the Tank nest located as shown on Figure 2.

LIMITATIONS

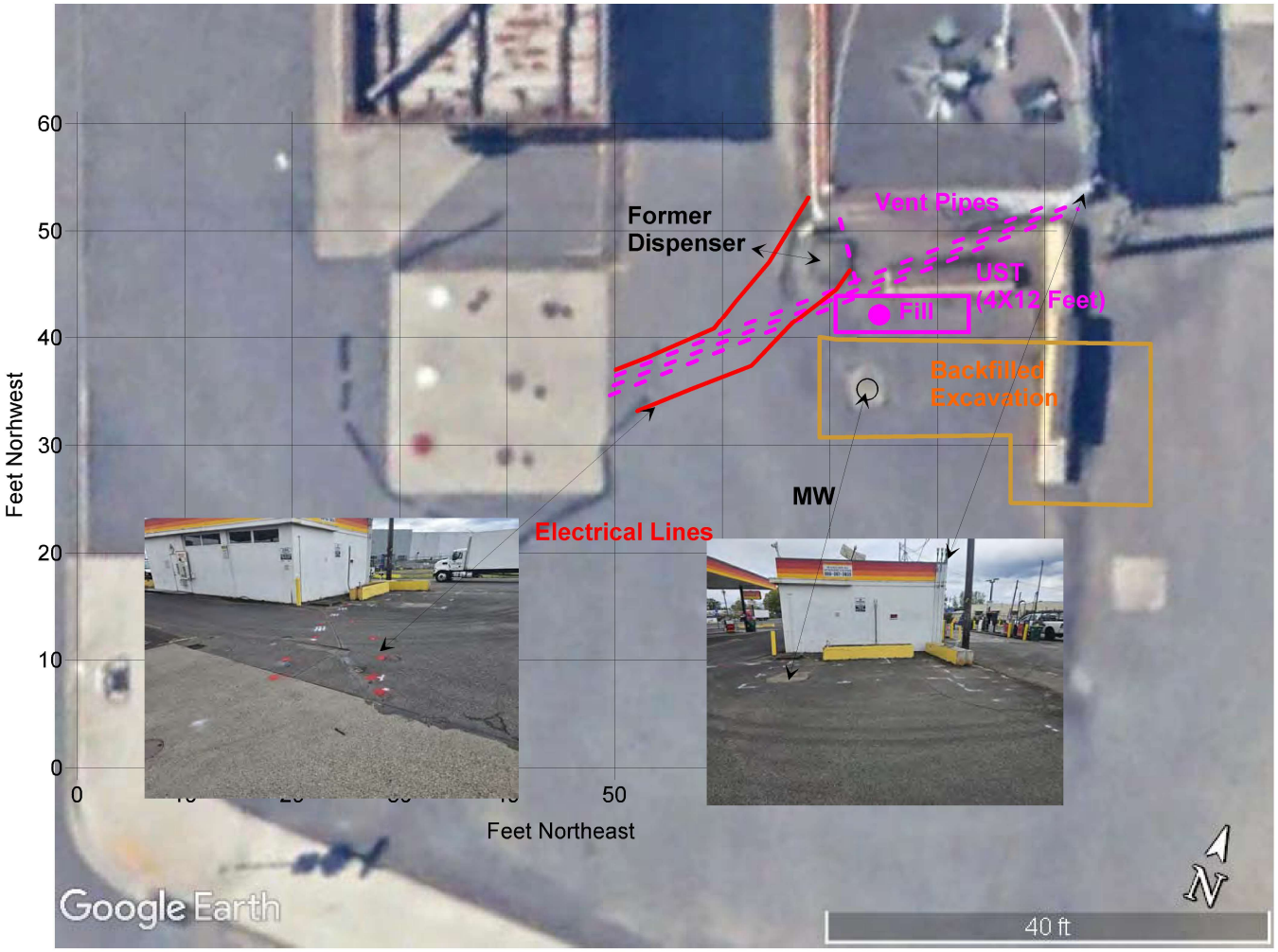
Limitations of GPR surveys can be seen in the Appendix.

Geophysical surveys consist of interpreting geophysical responses from subsurface features. Since a variety of subsurface features can produce identical geophysical responses, it is necessary to confirm the geophysical interpretation with intrusive investigations such as excavating or drilling. In addition, many subsurface features may produce no geophysical response.

Ralph Soule ***April 21, 2025***
GeoPotential



GeoPotential — ENVIRONMENTAL & EXPLORATION GEOPHYSICS 330 Creekside Terrace, Fairview, OR 97024 Phone: (503) 912-6441 Fax: (503) 912-6449 WEB http://www.geopotential.biz/ E-MAIL GeoPotential@geopotential.biz	LOCATION: Petrocard Site 8100 NE Martin Luther King Jr. Boulevard Portland, Oregon	**Figure 1: BB&A Site Map**
DATE: **April 2025** ***SUBSURFACE MAPPING SURVEY*** PROJECT No. **1717**	CLIENT: **MFA**	



GeoPotential ENVIRONMENTAL & EXPLORATION GEOPHYSICS 330 Creekside Terrace, Fairview, OR 97024 Phone: (503) 912-6441 Fax: (503) 912-6449 WEB http://www.geopotential.biz/ E-MAIL GeoPotential@geopotential.biz	LOCATION: Petrocard Site 8100 NE Martin Luther King Jr. Boulevard Portland, Oregon	Figure 2: Interpretation Results
DATE: April 2025 *SUBSURFACE MAPPING SURVEY* PROJECT No. 1717	CLIENT: MFA	

GeoPotential
ENVIRONMENTAL & EXPLORATION GEOPHYSICS
330 Creekside Terrace, Fairview, OR 97024 Phone: (503) 912-6441 Fax: (503) 912-6448
WEB http://www.geopotential.biz/ E-MAIL GeoPotential@geopotential.biz

GROUND PENETRATING RADAR SURVEYS

Ground Penetrating Radar (GPR) can be a valuable tool to accurately locate both metallic and non-metallic UST's and utilities, buried drums and hazardous material at some sites. It may detect objects below reinforced concrete floors and slabs. GPR may delineate trenches and excavations and, under some conditions, it may be used to locate contaminant plumes. It has been used as an archaeological tool to look for buried artifacts. It may accurately profile fresh water lake bottoms either from a boat or from a frozen lake surface. GPR may be used to locate voids below roads and runways. GPR has numerous engineering applications. It can be used in non-destructive testing of engineering material, for example, locating rebar in concrete structures and determining the thickness of concrete and other structural material.

GPR uses short impulses of high frequency radio waves directed into the ground to acquire information about the subsurface. The energy radiated into the ground is reflected back to the antenna by features having different electrical properties to that of the surrounding material. The greater the contrast, the stronger the reflection. Typical reflectors include water table, bedrock, bedding, fractures, voids, contaminant plumes and man-made objects such as UST's and metal and plastic utilities. Materials having little electrical contrast like clay and concrete pipes may not produce strong reflections and may not be seen. Data are digitally recorded or downloaded to a laptop computer for filtering and processing.

The frequency of the radar signal used for a survey is a trade off. Low frequencies (250 MHz – 50 MHz) give better penetration but low resolution so that pipes and utilities may not be seen. Pipes and utilities may be seen using higher frequencies (500 MHz) but the depth of penetration may be limited to only a few feet especially in the wet, clayey soils found in many areas of the NW USA. The GPR frequency is dependent upon the antenna. Once an antenna is selected, nothing the operator can do can increase the depth of penetration.

Radar data is ambiguous. Many buried objects produce echoes that may be similar to the echo expected from the target object. Boulders and debris produce reflections that are similar to pipes and tanks. Subtle changes in the electrical properties along a traverse caused by changes in soil type, mineralogy, grain size, and moisture content all produce “noise” that can make interpretation difficult. Interpreting radargrams is an art as much as a science.

Under some conditions, although a UST itself may not be clearly visible in a GPR record, the excavation or trench in which the UST is buried is evident. Usually GPR data is used to compliment data from other “tools”. For example, a trench-like reflection but no clear UST reflection, combined with a “tank” shaped magnetic anomaly suggests the presence of a UST. Although the UST itself could not be seen using GPR, the radar showed a trench-like reflection. The magnetic data showed a large ferrous object. We would report a possible UST at that location.

GPR is often used in conjunction with magnetometer surveys. Magnetometer Surveys are very fast and large areas can be covered cost effectively. Magnetic anomalies are marked in the field, and then may be further investigated using radar.

GPR, like other geophysical tools, is excellent at detecting changes across a site, but it is poor at actually identifying the cause of the change. **The only definite way to identify buried objects is through excavation.**

ADVANTAGES - General

- When GPR data is properly interpreted subsurface objects can usually be confidently identified. This often requires the GPR data be combined with other geophysical data, surface features and historical information.
- GPR provides continuous records along traverses which, depending on the goal of the survey, may be interpreted in the field.
- At flat, open sites, for reconnaissance purposes, the antenna can be towed behind a vehicle at several mph.
- Many GPR antennas are shielded and are unaffected by surface and overhead objects and power lines.
- GPR can be used in conjunction with magnetic or EM surveys to accurately locate buried objects.

ADVANTAGES – Site specific

- With a low frequency antenna, in clean, dry, sandy soil, reflections from targets as deep as 100 feet are possible. Geologic features such as bedrock and cross bedding may be seen at some sites.
- The resolution of data is very high particularly for high frequency antennas.
- Shallow, man-made objects generally can be detected.
- Fiberglass UST's and plastic pipes can be detected using GPR.

LIMITATIONS - General

- To acquire the highest quality data, proper coupling between the antenna and the ground surface is necessary. Poor data may be obtained at sites covered with debris, an uneven surface, tall grass and brush. Objects located at curbs are difficult to see.
- Acquiring GPR data is slow. The antenna must be over the target. The signal from the antenna is cone-shaped. Reflections from objects to the side of the antenna may be seen, but their actual location relative to the antenna is not obvious.
- Penetration of the GPR signal is "site specific" and its depth of penetration at a particular site cannot be predicted ahead of time. Near surface conductive material, such as salty or contaminated ground water and wet, clay-rich soil, may attenuate the radar signal, limiting the effective depth of the survey to several feet. Reinforced concrete also can attenuate the signal. Rebar may produce reflections that look like pipes.

- GPR may not be cost-effective for some projects. For a detailed survey mapping underground storage tanks and utilities, it may be necessary to collect data in orthogonal directions at 5-foot line spacing.

LIMITATIONS – Interpretation

- Interpretation can be difficult. Radar data are ambiguous. Subsurface objects can be detected but, in general, they cannot be identified. USTs and utilities have a characteristic reflection, however, large rocks and boulders have a similar reflection.

- The reflection visible in a GPR record is very complex and may be caused by small changes in the electrical properties of the soil. The target in mind may not produce the reflection. Due to "noise", the target may be missed. USTs and deep utilities may be missed if they are under debris and/or other pipes.

- Other methods may be necessary to aid in the interpretation of the data (use a magnetometer to detect a large metallic mass, then GPR to determine if the object is tank-like, or a utility locator to determine if there are feed lines and fill pipes leading to the object).

- Adequate contrast between the ground and the target is required to obtain reflections. UST's may be missed if they are badly corroded. Utilities made of "earth" materials like clay and concrete may not be detected since their electrical properties are similar to the surrounding soil.

- To determine the depth to an object without "ground truth", assumptions must be made regarding soil properties. Even with ground truth at several locations on the same site, changes in material across a site (therefore changes in signal velocity) can cause errors in depth measurements at other locations.

Attachment C

Photo Log

MAUL FOSTER ALONGI

Photographs

Project Name: Site Investigation at Union MLK Cardlock
Project Number: M0228.05.003
Location: 8100 NE Martin Luther King Jr. Boulevard, Portland, Oregon

Photo No. 1.

Description

Vicinity of abandoned heating oil tank, backfilled excavation, and monitoring well adjacent to south side of building, looking north.

Photo No. 2.

Description

Close-up of abandoned heating oil tank and monitoring well locations adjacent to south side of building.

Photographs

Project Name: Site Investigation at Union MLK Cardlock
Project Number: M0228.05.003
Location: 8100 NE Martin Luther King Jr. Boulevard, Portland, Oregon

Photo No. 3.

Description

Close-up of feature labelled as a monitoring well.

Photo No. 4.

Description

Close-up of pipe with a cap and internal wire adjacent to the southeast corner of the active gasoline underground storage tanks.

Photographs

Project Name: Site Investigation at Union MLK Cardlock
Project Number: M0228.05.003
Location: 8100 NE Martin Luther King Jr. Boulevard, Portland, Oregon

Photo No. 5.

Description

Heating oil tank removal in progress.

Photo No. 6.

Description

Heating oil tank removed and inspected to document it is in good condition with no obvious holes.

Photographs

Project Name: Site Investigation at Union MLK Cardlock
Project Number: M0228.05.003
Location: 8100 NE Martin Luther King Jr. Boulevard, Portland, Oregon

Photo No. 7.

Description

Close-up of heating oil tank.

Photo No. 8.

Description

Heating oil tank interior inspected to document it is in good condition with no obvious holes.

Photographs

Project Name: Site Investigation at Union MLK Cardlock
Project Number: M0228.05.003
Location: 8100 NE Martin Luther King Jr. Boulevard, Portland, Oregon

Photo No. 9.

Description

Heating oil tank and monitoring well excavation areas.

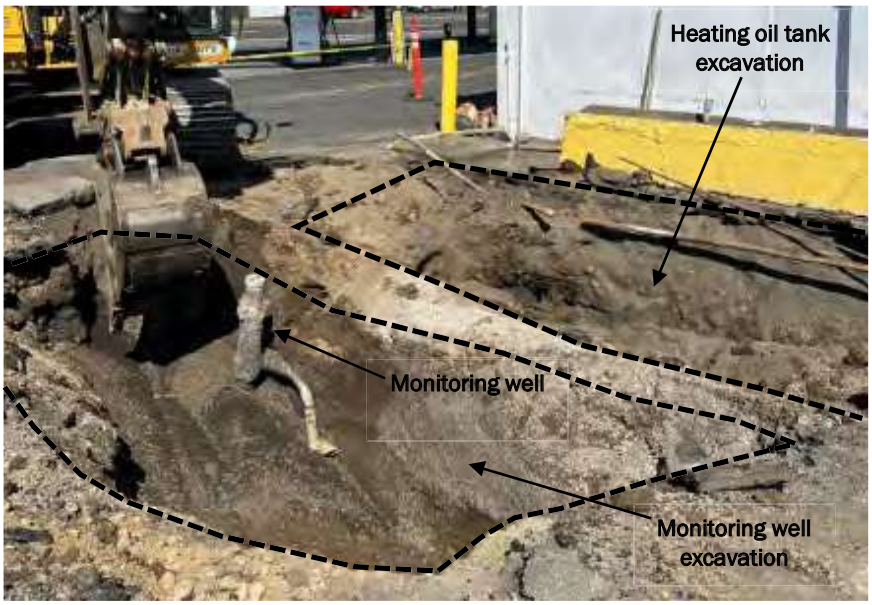


Photo No. 10.

Description

Close-up of monitoring well and vapor recovery pipes for the active underground storage tank system.

Photographs

Project Name: Site Investigation at Union MLK Cardlock
Project Number: M0228.05.003
Location: 8100 NE Martin Luther King Jr. Boulevard, Portland, Oregon

Photo No. 11.

Description

Close-up of removed monitoring well, monitoring well sump, and vapor recovery pipes for the active underground storage tank system.

Attachment D

Groundwater Laboratory Report

MAUL FOSTER ALONGI

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

ANALYTICAL REPORT

Friday, May 2, 2025

David Weatherby
Maul Foster & Alongi, INC.
3140 NE Broadway Street
Portland, OR 97232

RE: A5D1647 - Petrocard-MLK - M0228.05.003

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 A5D1647, which was received by the laboratory on 4/21/2025 at 5:20:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@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
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 0.2 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

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

Apex Laboratories, LLC

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.003**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5D1647 - 05 02 25 1746**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
KMW-01-GW	A5D1647-01	Water	04/21/25 14:10	04/21/25 17:20
KMW-03-GW	A5D1647-02	Water	04/21/25 13:45	04/21/25 17:20

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.003**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5D1647 - 05 02 25 1746**

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
KMW-01-GW (A5D1647-01)				**Matrix: Water**		**Batch: 25D1222**		
Diesel	**1.68**	---	0.0833	mg/L	1	05/01/25 00:07	NWTPH-Dx LL	
Oil	ND	---	0.167	mg/L	1	05/01/25 00:07	NWTPH-Dx LL	
Surrogate: o-Terphenyl (Surr)		*Recovery: 66 %*		*Limits: 50-150 %*	*1*	*05/01/25 00:07*	*NWTPH-Dx LL*	
KMW-03-GW (A5D1647-02)				**Matrix: Water**		**Batch: 25D1222**		
Diesel	**1.07**	---	0.0842	mg/L	1	05/01/25 00:27	NWTPH-Dx LL	**F-11**
Oil	ND	---	0.168	mg/L	1	05/01/25 00:27	NWTPH-Dx LL	
Surrogate: o-Terphenyl (Surr)		*Recovery: 74 %*		*Limits: 50-150 %*	*1*	*05/01/25 00:27*	*NWTPH-Dx LL*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.003**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5D1647 - 05 02 25 1746**

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
KMW-01-GW (A5D1647-01)				**Matrix: Water**		**Batch: 25D0878**		
Gasoline Range Organics	**0.816**	---	0.100	mg/L	1	04/22/25 18:54	NWTPH-Gx (MS)	**B-02, F-03**
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 105 %*		*Limits: 50-150 %*	*1*	*04/22/25 18:54*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*109 %*	*50-150 %*	*1*	*04/22/25 18:54*	*NWTPH-Gx (MS)*	
KMW-03-GW (A5D1647-02)				**Matrix: Water**		**Batch: 25D0878**		
Gasoline Range Organics	**1.36**	---	0.100	mg/L	1	04/22/25 19:16	NWTPH-Gx (MS)	**B-02, F-03**
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 99 %*		*Limits: 50-150 %*	*1*	*04/22/25 19:16*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*106 %*	*50-150 %*	*1*	*04/22/25 19:16*	*NWTPH-Gx (MS)*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.003**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5D1647 - 05 02 25 1746**

ANALYTICAL SAMPLE RESULTS

BTEX+N Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
KMW-01-GW (A5D1647-01)				**Matrix: Water**		**Batch: 25D0878**		
Benzene	**0.200**	---	0.200	ug/L	1	04/22/25 18:54	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	04/22/25 18:54	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	04/22/25 18:54	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	04/22/25 18:54	EPA 8260D	
Naphthalene	ND	---	5.00	ug/L	1	04/22/25 18:54	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits: 80-120 %*	*1*	*04/22/25 18:54*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*04/22/25 18:54*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*04/22/25 18:54*	*EPA 8260D*	
KMW-03-GW (A5D1647-02)				**Matrix: Water**		**Batch: 25D0878**		
Benzene	**52.3**	---	0.200	ug/L	1	04/22/25 19:16	EPA 8260D	
Toluene	**12.0**	---	1.00	ug/L	1	04/22/25 19:16	EPA 8260D	
Ethylbenzene	**5.28**	---	0.500	ug/L	1	04/22/25 19:16	EPA 8260D	
Xylenes, total	**38.4**	---	1.50	ug/L	1	04/22/25 19:16	EPA 8260D	
Naphthalene	ND	---	5.00	ug/L	1	04/22/25 19:16	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits: 80-120 %*	*1*	*04/22/25 19:16*	*EPA 8260D*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*04/22/25 19:16*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*04/22/25 19:16*	*EPA 8260D*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.003**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5D1647 - 05 02 25 1746**

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 25D1222 - EPA 3510C (Fuels/Acid Ext.)							**Water**					
Blank (25D1222-BLK1)			Prepared: 04/30/25 13:06		Analyzed: 04/30/25 20:00							
NWTPH-Dx LL												
Diesel	ND	---	0.0800	mg/L	1	---	---	---	---	---	---	
Oil	ND	---	0.160	mg/L	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 75 %*		*Limits: 50-150 %*			*Dilution: 1x*				
LCS (25D1222-BS1)			Prepared: 04/30/25 13:06		Analyzed: 04/30/25 20:20							
NWTPH-Dx LL												
Diesel	0.274	---	0.0800	mg/L	1	0.500	---	55	36-132%	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 79 %*		*Limits: 50-150 %*			*Dilution: 1x*				
LCS Dup (25D1222-BSD1)			Prepared: 04/30/25 13:06		Analyzed: 04/30/25 20:41							**Q-19**
NWTPH-Dx LL												
Diesel	0.259	---	0.0800	mg/L	1	0.500	---	52	36-132%	6	30%	
Surr: o-Terphenyl (Surr)			*Recovery: 77 %*		*Limits: 50-150 %*			*Dilution: 1x*				

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.003**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5D1647 - 05 02 25 1746**

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 25D0878 - EPA 5030C									Water			
Blank (25D0878-BLK1)			Prepared: 04/22/25 09:06		Analyzed: 04/22/25 11:22							
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	0.100	mg/L	1	---	---	---	---	---	---	B-02
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 100 %*	*Limits: 50-150 %*		*Dilution: 1x*							
1,4-Difluorobenzene (Sur)		*108 %*	*50-150 %*		*"*							
LCS (25D0878-BS2)			Prepared: 04/22/25 09:06		Analyzed: 04/22/25 11:00							
NWTPH-Gx (MS)												
Gasoline Range Organics	0.520	---	0.100	mg/L	1	0.500	---	104	80-120%	---	---	B-02
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 97 %*	*Limits: 50-150 %*		*Dilution: 1x*							
1,4-Difluorobenzene (Sur)		*103 %*	*50-150 %*		*"*							
Duplicate (25D0878-DUP1)			Prepared: 04/22/25 09:06		Analyzed: 04/22/25 12:48							
QC Source Sample: Non-SDG (A5D1643-02)												
Gasoline Range Organics	**2.24**	---	0.100	mg/L	1	---	2.37	---	---	6	30%	B-02
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 103 %*	*Limits: 50-150 %*		*Dilution: 1x*							
1,4-Difluorobenzene (Sur)		*103 %*	*50-150 %*		*"*							
Duplicate (25D0878-DUP2)			Prepared: 04/22/25 09:06		Analyzed: 04/22/25 18:11							
QC Source Sample: Non-SDG (A5D1593-01)												
Gasoline Range Organics	ND	---	0.100	mg/L	1	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 103 %*	*Limits: 50-150 %*		*Dilution: 1x*							
1,4-Difluorobenzene (Sur)		*110 %*	*50-150 %*		*"*							

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.003**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5D1647 - 05 02 25 1746**

QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX+N Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D0878 - EPA 5030C												**Water**
Blank (25D0878-BLK1)			Prepared: 04/22/25 09:06 Analyzed: 04/22/25 11:22									
EPA 8260D												
Benzene	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Toluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Xylenes, total	ND	---	1.50	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 103 %*	*Limits: 80-120 %*		*Dilution: 1x*							
Toluene-d8 (Surr)		*101 %*	*80-120 %*		*"*							
4-Bromofluorobenzene (Surr)		*101 %*	*80-120 %*		*"*							
LCS (25D0878-BS1)			Prepared: 04/22/25 09:06 Analyzed: 04/22/25 10:29									
EPA 8260D												
Benzene	22.4	---	0.200	ug/L	1	20.0	---	112	80-120%	---	---	
Toluene	21.5	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Ethylbenzene	22.7	---	0.500	ug/L	1	20.0	---	114	80-120%	---	---	
Xylenes, total	62.6	---	1.50	ug/L	1	60.0	---	104	80-120%	---	---	
Naphthalene	18.0	---	5.00	ug/L	1	20.0	---	90	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 99 %*	*Limits: 80-120 %*		*Dilution: 1x*							
Toluene-d8 (Surr)		*100 %*	*80-120 %*		*"*							
4-Bromofluorobenzene (Surr)		*101 %*	*80-120 %*		*"*							
Duplicate (25D0878-DUP1)			Prepared: 04/22/25 09:06 Analyzed: 04/22/25 12:48									
QC Source Sample: Non-SDG (A5D1643-02)												
Benzene	**6.43**	---	0.200	ug/L	1	---	6.77	---	---	5	30%	
Toluene	**1.57**	---	1.00	ug/L	1	---	1.65	---	---	5	30%	
Ethylbenzene	**9.51**	---	0.500	ug/L	1	---	9.81	---	---	3	30%	
Xylenes, total	**6.10**	---	1.50	ug/L	1	---	6.07	---	---	0.5	30%	
Naphthalene	**6.25**	---	5.00	ug/L	1	---	6.44	---	---	3	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 99 %*	*Limits: 80-120 %*		*Dilution: 1x*							
Toluene-d8 (Surr)		*100 %*	*80-120 %*		*"*							
4-Bromofluorobenzene (Surr)		*101 %*	*80-120 %*		*"*							
Duplicate (25D0878-DUP2)			Prepared: 04/22/25 09:06 Analyzed: 04/22/25 18:11									

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: Petrocard-MLK	
3140 NE Broadway Street	Project Number: M0228.05.003	Report ID:
Portland, OR 97232	Project Manager: David Weatherby	A5D1647 - 05 02 25 1746

QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX+N Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D0878 - EPA 5030C												**Water**
Duplicate (25D0878-DUP2)			Prepared: 04/22/25 09:06 Analyzed: 04/22/25 18:11									
QC Source Sample: Non-SDG (A5D1593-01)												
Benzene	ND	---	0.200	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Xylenes, total	ND	---	1.50	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*101 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*			*"*				
Matrix Spike (25D0878-MS1)			Prepared: 04/22/25 09:06 Analyzed: 04/22/25 15:19									
QC Source Sample: Non-SDG (A5D1651-01)												
EPA 8260D												
Benzene	24.4	---	0.200	ug/L	1	20.0	ND	**122**	**79-120%**	---	---	Q-01
Toluene	23.4	---	1.00	ug/L	1	20.0	ND	117	80-121%	---	---	
Ethylbenzene	24.8	---	0.500	ug/L	1	20.0	ND	**124**	**79-121%**	---	---	Q-01
Xylenes, total	68.2	---	1.50	ug/L	1	60.0	ND	114	79-121%	---	---	
Naphthalene	19.6	---	5.00	ug/L	1	20.0	ND	98	61-128%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*98 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*			*"*				

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.003**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5D1647 - 05 02 25 1746**

SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3510C (Fuels/Acid Ext.)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 25D1222							
A5D1647-01	Water	NWTPH-Dx LL	04/21/25 14:10	04/30/25 13:06	960mL/2mL	1000mL/2mL	1.04
A5D1647-02	Water	NWTPH-Dx LL	04/21/25 13:45	04/30/25 13:06	950mL/2mL	1000mL/2mL	1.05

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

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 25D0878							
A5D1647-01	Water	NWTPH-Gx (MS)	04/21/25 14:10	04/22/25 10:40	5mL/5mL	5mL/5mL	1.00
A5D1647-02	Water	NWTPH-Gx (MS)	04/21/25 13:45	04/22/25 10:40	5mL/5mL	5mL/5mL	1.00

BTEX+N Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 25D0878							
A5D1647-01	Water	EPA 8260D	04/21/25 14:10	04/22/25 10:40	5mL/5mL	5mL/5mL	1.00
A5D1647-02	Water	EPA 8260D	04/21/25 13:45	04/22/25 10:40	5mL/5mL	5mL/5mL	1.00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.003**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5D1647 - 05 02 25 1746**

QUALIFIER DEFINITIONS

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

Apex Laboratories

B-02	Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
F-03	The result for this hydrocarbon range is elevated due to the presence of individual analyte peaks in the quantitation range that are not representative of the fuel pattern reported.
F-11	The hydrocarbon pattern indicates possible weathered diesel, mineral oil, or a contribution from a related component.
Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-19	Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.003**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5D1647 - 05 02 25 1746**

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)

Validated 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 and Detection Limits: Default Limits

Default Reporting and Detection Limits are based on 100% dry weight with the minimum dilution for the analysis. Reporting and Detection Limits are raised due to moisture content, additional dilutions required for analysis, matrix interferences and in other cases, as necessary.

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

Philip Nerenberg, Lab Director

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.

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

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.003**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5D1647 - 05 02 25 1746**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-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

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.003**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5D1647 - 05 02 25 1746**

Decanted Samples:

Soils/Sediments:
Unless TCLP analysis is required or there is notification otherwise for a specific project, all Soil and Sediments containing excess water are decanted prior to analysis in order to provide the most representative sample for analysis.

Water Samples:
Water samples containing solids and sediment may need to be decanted in order to eliminate these particulates from the water extractions. In the case of organics extractions, a solvent rinse of the container will not be performed.

Volatiles Soils (5035s)
Samples that are field preserved by 5035 for volatiles are dry weight corrected using the same dry weight corretion as for normal analyses. In the case of decanted samples, the dry weight may be performed on a decanted sample, while the aliquot for 5035 may not have been treated the same way. If this is a concern, please submit separate containers for dry weight analysis for volatiles can be provided.

All samples decanted in the laboratory are noted in this report with the DCNT qualifier indicating the sample was decanted.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.003**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5D1647 - 05 02 25 1746**

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 provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

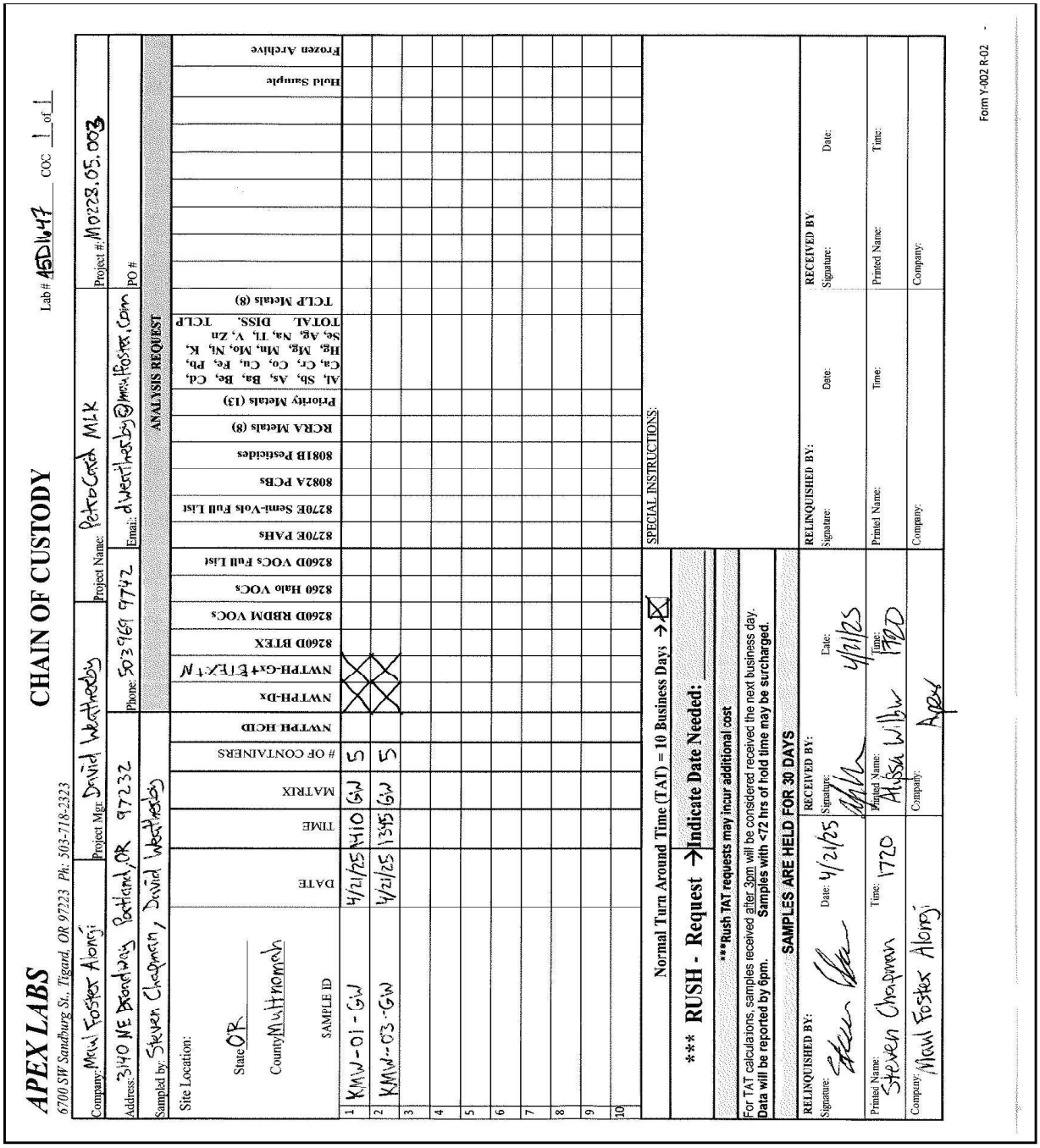
Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.003**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5D1647 - 05 02 25 1746**



APEX LABS — CHAIN OF CUSTODY

6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

Lab # A5D1647 COC 1 of 1

Company: Maul Foster Alongi | Project Mgr: David Weatherby | Project Name: PetroCard MLK | Project #: M0228.05.003

Address: 3140 NE Broadway Portland, OR 97232 | Phone: 503 769 9742 | Email: dweatherby@mfa-Foster.com | PO #

Sampled by: Steven Chapman, David Weatherby

Site Location: State OR County Multnomah

#	SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx+BTEX+N	8260D BTEX	8260D RBDM VOCs	8260 Halo VOCs	8260D VOCs Full List	8270E PAHs	8270E Semi-Vols Full List	8082A PCBs	8081B Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
1	KMW-01-GW	4/21/25	1410	GW	5		X	X													
2	KMW-03-GW	4/21/25	1345	GW	5		X	X													
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					

SPECIAL INSTRUCTIONS:

Normal Turn Around Time (TAT) = 10 Business Days → ☒

*** RUSH - Request → Indicate Date Needed: _____

**Rush TAT requests may incur additional cost

For TAT calculations, samples received after 3pm will be considered received the next business day. Data will be reported by 6pm. Samples with <72 hrs of hold time may be surcharged.

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Steven Chapman Date: 4/21/25 Printed Name: Steven Chapman Time: 1720 Company: Maul Foster Alongi

RECEIVED BY: Signature: Date: 4/21/25 Printed Name: Alyssa Wilbur Time: 1920 Company: Apex

RELINQUISHED BY: Signature: Date: Printed Name: Time: Company:

RECEIVED BY: Signature: Date: Printed Name: Time: Company:

Form Y-002 R-02

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.003**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5D1647 - 05 02 25 1746**

APEX LABS COOLER RECEIPT FORM

Client: Maul Foster Alongi Element WO#: A5D1647

Project/Project #: Petrocard MLK M0228.05.003

Delivery Info:

Date/time received: 4/21/25 @ 1720 By: DW

Delivered by: Apex__Client X ESS__FedEx__UPS__Radio__Morgan__SDS__Evergreen__Other__

From USDA Regulated Origin? Yes _____ No X

Cooler Inspection Date/time inspected: 4/21/25 @ 1720 By: DW

Chain of Custody included? Yes X No _____

Signed/dated by client? Yes X No _____

Contains USDA Reg. Soils? Yes _____ No X Unsure (email RegSoils) _____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	0.2						
Custody seals? (Y/N)	N						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	In						

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

Green dots applied to out of temperature samples? Yes (No)

Out of temperature samples form initiated? Yes (No)

Sample Inspection: Date/time inspected: 4/21/25 @ 17:31 By: KAM

All samples intact? Yes X No ___ Comments: _____

Bottle labels/COCs agree? Yes X KAM 4/21 No X Comments: Time on VOA's for KMW-03-GW read 13:50

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: _____

Do VOA vials have visible headspace? Yes ___ No X NA X agm 4/21

Comments _____

Water samples: pH checked: Yes X No ___ NA X KAM 4/21 pH appropriate? Yes X No ___ NA X KAM 4/21 pH ID: A23I172

Comments: _____

Labeled by: KAM Witness: Cooler Inspected by: KAM

Form Y-003 R-02

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

Attachment E

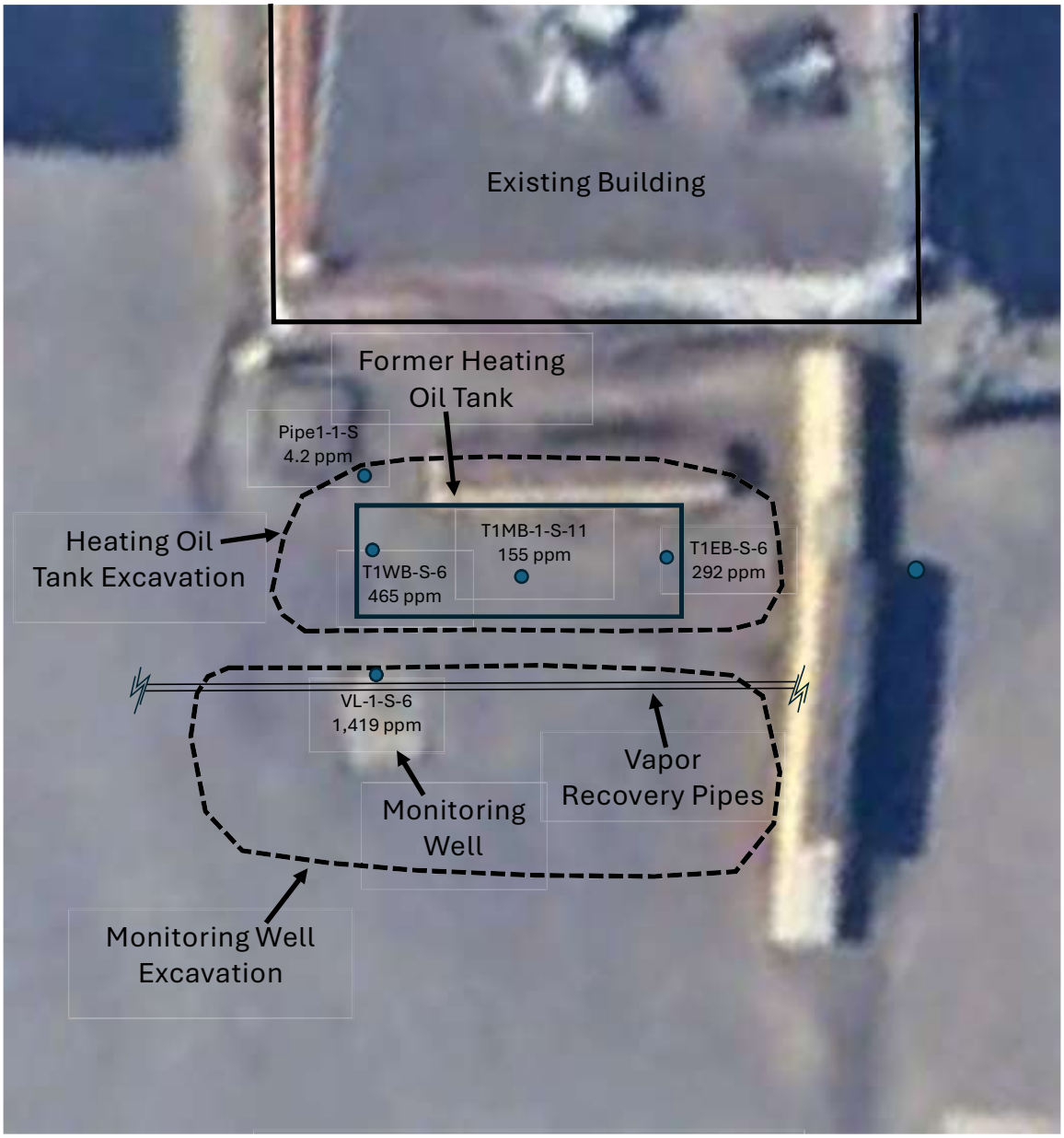
Soil Sample Location Map

MAUL FOSTER ALONGI

Soil Sample Locations

Union MLK Cardlock Site Investigation

8100 NE Martin Luther King Jr. Boulevard, Portland, Oregon



Approximate Horizontal Scale (feet)

0 5 10 15 20 25

North

Soil sample locations with sample IDs and photoionization detector readings in parts per million (ppm)

Attachment F

Disposal Receipts

MAUL FOSTER ALONGI

Hillsboro Landfill, Inc
3205 SE Minter Bridge
Hillsboro, OR, 97123
Ph: (503)-640-9427

Original
Ticket# 1759799

Customer Name COWLITZCLEAN COWLITZ CLEAN SW
Ticket Date 07/08/2025
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 8925089
Destination
PO 73547
Profile 145292OR (LF02 : PETROLEUM CONTAMINATED SOILS)
Generator PETROCARD-8100 PETROCARD 8100 NE MLK JR BLVD PORTLAND

Carrier MOORE AND SON TRUCK
Vehicle# 101-PUP Volume
Container
Driver SCOTT
Check#
Billing # 0000068
Gen EPA ID N/A
Grid

	Time	Scale	Operator	Inbound		
In	07/08/2025 13:18:23	Inbound 2	HOREGON		Gross	69640 lb
Out	07/08/2025 13:18:23		HOREGON		Tare	38520 lb
					Net	31120 lb
					Tons	15.56

Comments

Consumer Comments? We want to know. Please call.

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil Pet-RGC-	100	15.56	Tons				MULT-IN
2	EVC-Energy Surchar	100		%				

Total Tax
Total Ticket

Driver`s Signature

Hillsboro Landfill, Inc
3205 SE Minter Bridge
Hillsboro, OR, 97123
Ph: (503)-640-9427

Original
Ticket# 1759760

Customer Name COWLITZCLEAN COWLITZ CLEAN SW
Ticket Date 07/08/2025
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 8925089
Destination
PO 73547
Profile 145292OR (LF02 : PETROLEUM CONTAMINATED SOILS)
Generator PETROCARD-8100 PETROCARD 8100 NE MLK JR BLVD PORTLAND

Carrier MOORE AND SON TRUCK
Vehicle# 101-PUP
Container
Driver SCOTT
Check#
Billing # 0000068
Gen EPA ID N/A
Grid

Volume

	Time	Scale	Operator	Inbound		
In	07/08/2025 10:30:01	Inbound 1	sbodtker		Gross	104360 lb
Out	07/08/2025 10:51:05	Outbound	JPRIME		Tare	38520 lb
					Net	65840 lb
					Tons	32.92

Comments

Consumer Comments? We want to know. Please call.

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil Pet-RGC-	100	32.92	Tons				MULT-IN
2	EVC-Energy Surchar	100		%				MULT-IN

Total Tax
Total Ticket

Driver`s Signature

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number:
2. Page 1 of: 01
3. Emergency Response Phone: 888-423-8816
4. Waste Tracking Number: 8925089

5. Generator's Name and Mailing Address: Petrocid inc. 730 Central AVE S Kent WA USA

Generator's Site Address (if different than mailing address): 8100 NE MLK Blvd Portland OR 97211 USA

Generator's Phone: 800 950 3835

6. Transporter 1 Company Name: CCS - A DIVISION OF PNE LLC — U.S. EPA ID Number: WAH000014944

7. Transporter 2 Company Name: — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: HILLSBORO LANDFILL, INC, 3205 SE MINTER BRIDGE ROAD, HILLSBORO, OR 97123 U.S.A. — U.S. EPA ID Number:

Facility's Phone:

HM	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
	1. Material not regulated By DOT Petroleum impacted soil	01	D	30	T
	2.				
	3.				
	4.				

13. Special Handling Instructions and Additional Information:
WM PROFILE# 145290R CCS JOB/PO# 8925089 TRUCK# 101

SCALE TICKET #

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Noah Rounsley — Signature: [signature] — Month 7 Day 8 Year 25

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Scott Moore — Signature: [signature] — Month 7 Day 8 Year 25
Transporter 2 Printed/Typed Name: — Signature: — Month Day Year

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number:

Facility's Phone:
17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Himer Obregón — Signature: [signature] — Month 7 Day 8 Year 25

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone 888-423-6316	4. Waste Tracking Number 8925089

GENERATOR

5. Generator's Name and Mailing Address: PetroCard inc. 730 Central AVE S Kent WA USA.
Generator's Site Address (if different than mailing address): 8100 NE MLK Blvd Portland OR 97211 USA
Generator's Phone: 800 9503835

6. Transporter 1 Company Name: CCS - A DIVISION OF PNE LLC — U.S. EPA ID Number: WAH000014944

7. Transporter 2 Company Name: — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: HILLSBORO LANDFILL, INC 3205 SE MINTER BRIDGE ROAD HILLSBORO, OR 97123 U.S.A. — U.S. EPA ID Number:

Facility's Phone:

HM	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
	1. Material not regulated by DOT Petroleum impacted soil	01	DT	30	T
	2.				
	3.				
	4.				

13. Special Handling Instructions and Additional Information
WM PROFILE# 145290R CCS JOB/PO# 8925089 TRUCK# 101
SCALE TICKET #

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Noah Kansky — Signature: [signature] — Month 7 Day 8 Year 25

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Scott Moore — Signature: [signature] — Month 7 Day 8 Year 25
Transporter 2 Printed/Typed Name: — Signature: — Month Day Year

DESIGNATED FACILITY

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator) — U.S. EPA ID Number:
Facility's Phone:
17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Sue Boettker — Signature: [signature] — Month 7 Day 8 Year 25

Orrco™
The oil recycler.

Head Office
4150 N. Suttle Rd.
Portland, OR 97217
1-800-367-8894

RECEIVING RECORD

R 01-25-0627-005

Received From:
Cowlitz Clean Sweep
55 International Way
Longview WA 98632
EPA# WAD988467197
Phone: 360-423-6316
Customer ID# ***711***
Driver: JOEY

Receiving Location: Plant # 1
FPI
4150 N. Suttle Road
Portland, OR 97217

Phone 503-286-8352
EPA# ORD980975692

Date	Terms	Written By	Sales Rep.	Page
06/27/25	-0-	Jaymeson	84	***1*** of ***1***

Line	Qty.	Unit	Item	%H20	Manifest #	B/L#	Net Qty
1	*1*	*Each*	*XRF Analysis Testing* Generator ID# 711 Cowlitz Clean Sweep		*8925089*		
			Total Each 1.				
2	*61*	*Gal.*	*Emulsified Fuel* Generator ID# 711 Cowlitz Clean Sweep PROFILE ATTACHED-PETROCAID INC CL0106 8100 NE MLK JR BLVD PORTLAND OREGON 97211	*80 %*	*8925089*		
			Total Gal. 61.				

Customer warrents that the waste petroleum products being received do not contain any contaminants including, without limitation, pesticides, chlorinated solvents at total concentrations greater than 1000 PPM, PCB's greater than 2 PPM, or any other material classified as hazardous waste by 40 CFR part 261, Subparts C and D (implementing the Federal Resource Conservation and Recovery Act) or by any other state or local hazardous waste classification program. Should Laboratory tests find this product not in compliance with 40 CFR part 261 customer agrees to pay all disposal costs incurred.

Signed X _____ DATE: 6/27/2025

Please print or type
(Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number CFA	2. Page 1 of 1	3. Emergency Response Phone 888-423-6316	4. Waste Tracking Number 8925089

5. Generator's Name and Mailing Address: Petrocard Inc, 1602 Central Ave S, Kent, WA 98032 USA
Generator's Site Address (if different than mailing address): CL 0106, 5106 NE MLK Jr Blvd, Portland, OR 97211 USA
Generator's Phone:

6. Transporter 1 Company Name: CCS A Division of PNE LLC. — U.S. EPA ID Number: WAH000014944

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: ORRCO Inc. 4150 N Suttle Rd. Portland, OR 97217 EPA — U.S. EPA ID Number: ID #ORD980975692
Facility's Phone: (360) 280-7075

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1.	Material Not Regulated by DOT Emulsified Diesel + Water	01	TT	61	G
2.					
3.					
4.					

13. Special Handling Instructions and Additional Information
CCS Job # 3925089 Truck# 307

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Scott Gilliam on behalf of Petrocard — Signature: [signature] — Month 6 Day 19 Year 13

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Scott Gilliam — Signature: [signature] — Month 6 Day 19 Year 13
Transporter 2 Printed/Typed Name — Signature — Month Day Year

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: [illegible] Farrell — Signature: [signature] — Month 6 Day 21 Year 13

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

TRANSPORTER #1

FOR SECURITY PURPOSES - THIS DOCUMENT HAS SOLVENT STAIN PATTERNS PLUS VISIBLE AND INVISIBLE FLOURESCENT FIBERS

METRO METALS NORTHWEST, INC.
5611 N.E. Columbia Blvd.
Portland, Oregon 97218
(503) 287-8861

Wells Fargo Bank, N.A.

2110722

11-24
1210

2110722

PAY TO THE ORDER OF CCS A DIVISION OF PNE CORP.

Jun. 19, 2025

$ ***97.60

***97 Dollars and 60 Cents DOLLARS

CCS A DIVISION OF PNE CORP.
9420 NW ST. HELENS RD.
PORTLAND, OR 97231

TWO SIGNATURES REQUIRED OVER $5,000 DOLLARS

AUTHORIZED SIGNATURE

AUTHORIZED SIGNATURE

ORIGINAL CHECK IS PRINTED ON CHEMICAL REACTIVE PAPER WHICH CONTAINS A TRUE WATERMARK

⑈2110722⑈ ⑆121000248⑆ 4941136889⑈

METRO METALS NORTHWEST, INC.: FERROUS

2110722

Date: 06/19/2025

Vendor: 228658 CCS A DIVISION OF PNE CORP.
Paid To: CCS A DIVISION OF PNE CORP.
Truck#
Notes:

Total Wt: 1,220

2110722
Ticket#: 1399560
Descrip: WHT COMP TRK W/ TLR
Tot.Paid: 97.60

Commodity	Gross	Tare	Tare2 Contam	Net UM	Price	Total
#2 Steel Unprepared	16,780	15,560		1,220 N	160.00	97.60

Credit 8925089

From: Scott Gilfillan
To: David Weatherby
Subject: FW: Message from "RNP5838799255CE"
Date: Friday, August 29, 2025 12:26:12 PM
Attachments: 20250829122737779.pdf

[External Sender - Confirm Sender and Beware of Links and Attachments]

David:
Attached you will find the requested doc's for Petrocard MLK site.
Orrco disposal paperwork. 60.5 gallons of the 61 gallons was from the UST and triple rinse.
The remaining .5 gallons was from the vapor tank.
Scrap metal recycling receipt for the steel UST.
Waste Management disposal of PCS receipts. 2 loads of PCS hauled to Hillsboro Landfill.
Thank You Sir,
Scott

-----Original Message-----
From: ricohpdx@pnecorp.com <ricohpdx@pnecorp.com>
Sent: Friday, August 29, 2025 12:28 PM
To: Scott Gilfillan <scottg@ccs-pneco.com>
Subject: Message from "RNP5838799255CE"

This E-mail was sent from "RNP5838799255CE" (IM 3500).

Scan Date: 08.29.2025 12:27:37 (-0700)
Queries to: ricohpdx@pnecorp.com

Attachment G

Soil Laboratory Report and Data Validation Memorandum

MAUL FOSTER ALONGI

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

ANALYTICAL REPORT

Monday, July 7, 2025

David Weatherby
Maul Foster & Alongi, INC.
3140 NE Broadway Street
Portland, OR 97232

RE: A5F1504 - Petrocard-MLK - M0228.05.004

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 A5F1504, which was received by the laboratory on 6/19/2025 at 3:50:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@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
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 2.6 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

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.004**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5F1504 - 07 07 25 1513**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP1-Comp-S	A5F1504-01	Soil	06/19/25 12:00	06/19/25 15:50
T1EB-S-6	A5F1504-02	Soil	06/19/25 09:00	06/19/25 15:50
T1WB-S-6	A5F1504-03	Soil	06/19/25 10:05	06/19/25 15:50
Pipe1-1-S	A5F1504-04	Soil	06/19/25 08:50	06/19/25 15:50
VL-1-S-6	A5F1504-05	Soil	06/19/25 11:42	06/19/25 15:50
T1MB-1-S-11	A5F1504-06	Soil	06/19/25 11:30	06/19/25 15:50

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.004**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5F1504 - 07 07 25 1513**

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
SP1-Comp-S (A5F1504-01RE1)				**Matrix: Soil**		**Batch: 25F0707**		
Diesel	**3530**	---	226	mg/kg dry	10	06/23/25 10:53	NWTPH-Dx	
Oil	ND	---	452	mg/kg dry	10	06/23/25 10:53	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 102 %*	*Limits: 50-150 %*		*10*	*06/23/25 10:53*	*NWTPH-Dx*	*S-05*
T1EB-S-6 (A5F1504-02)				**Matrix: Soil**		**Batch: 25F0735**		
Diesel	**1190**	---	21.5	mg/kg dry	1	06/20/25 23:15	NWTPH-Dx	
Oil	ND	---	43.0	mg/kg dry	1	06/20/25 23:15	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 105 %*	*Limits: 50-150 %*		*1*	*06/20/25 23:15*	*NWTPH-Dx*	
T1WB-S-6 (A5F1504-03RE1)				**Matrix: Soil**		**Batch: 25F0735**		
Diesel	**4390**	---	219	mg/kg dry	10	06/23/25 09:06	NWTPH-Dx	
Oil	ND	---	438	mg/kg dry	10	06/23/25 09:06	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 100 %*	*Limits: 50-150 %*		*10*	*06/23/25 09:06*	*NWTPH-Dx*	*S-05*
Pipe1-1-S (A5F1504-04)				**Matrix: Soil**		**Batch: 25F0735**		
Diesel	**1450**	---	21.8	mg/kg dry	1	06/20/25 23:56	NWTPH-Dx	**F-11**
Oil	ND	---	43.5	mg/kg dry	1	06/20/25 23:56	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 101 %*	*Limits: 50-150 %*		*1*	*06/20/25 23:56*	*NWTPH-Dx*	
VL-1-S-6 (A5F1504-05)				**Matrix: Soil**		**Batch: 25F0735**		
Diesel	**459**	---	22.4	mg/kg dry	1	06/21/25 00:36	NWTPH-Dx	**F-18**
Oil	ND	---	44.7	mg/kg dry	1	06/21/25 00:36	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 102 %*	*Limits: 50-150 %*		*1*	*06/21/25 00:36*	*NWTPH-Dx*	
T1MB-1-S-11 (A5F1504-06RE1)				**Matrix: Soil**		**Batch: 25F0735**		
Diesel	**2780**	---	109	mg/kg dry	5	06/23/25 10:25	NWTPH-Dx	
Oil	ND	---	218	mg/kg dry	5	06/23/25 10:25	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 103 %*	*Limits: 50-150 %*		*5*	*06/23/25 10:25*	*NWTPH-Dx*	*S-05*

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.004**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5F1504 - 07 07 25 1513**

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
SP1-Comp-S (A5F1504-01)				**Matrix: Soil**		**Batch: 25F0719**		**V-15**
Gasoline Range Organics	**1680**	---	99.4	mg/kg dry	1000	06/20/25 22:54	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 104 %*	*Limits: 50-150 %*		*1*	*06/20/25 22:54*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*98 %*	*50-150 %*	*1*	*06/20/25 22:54*	*NWTPH-Gx (MS)*	
T1EB-S-6 (A5F1504-02)				**Matrix: Soil**		**Batch: 25F0719**		**V-15**
Gasoline Range Organics	**369**	---	7.44	mg/kg dry	50	06/20/25 21:32	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 117 %*	*Limits: 50-150 %*		*1*	*06/20/25 21:32*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*98 %*	*50-150 %*	*1*	*06/20/25 21:32*	*NWTPH-Gx (MS)*	
T1WB-S-6 (A5F1504-03)				**Matrix: Soil**		**Batch: 25F0719**		**V-15**
Gasoline Range Organics	**1300**	---	77.3	mg/kg dry	500	06/20/25 22:27	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 108 %*	*Limits: 50-150 %*		*1*	*06/20/25 22:27*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*98 %*	*50-150 %*	*1*	*06/20/25 22:27*	*NWTPH-Gx (MS)*	
Pipe1-1-S (A5F1504-04)				**Matrix: Soil**		**Batch: 25F0719**		**V-15**
Gasoline Range Organics	**129**	---	7.60	mg/kg dry	50	06/20/25 21:05	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 122 %*	*Limits: 50-150 %*		*1*	*06/20/25 21:05*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*100 %*	*50-150 %*	*1*	*06/20/25 21:05*	*NWTPH-Gx (MS)*	
VL-1-S-6 (A5F1504-05)				**Matrix: Soil**		**Batch: 25F0719**		**V-15**
Gasoline Range Organics	**20900**	---	310	mg/kg dry	2000	06/20/25 23:22	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 103 %*	*Limits: 50-150 %*		*1*	*06/20/25 23:22*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*100 %*	*50-150 %*	*1*	*06/20/25 23:22*	*NWTPH-Gx (MS)*	
T1MB-1-S-11 (A5F1504-06)				**Matrix: Soil**		**Batch: 25F0719**		**V-15**
Gasoline Range Organics	**773**	---	15.1	mg/kg dry	100	06/20/25 22:00	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 110 %*	*Limits: 50-150 %*		*1*	*06/20/25 22:00*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*100 %*	*50-150 %*	*1*	*06/20/25 22:00*	*NWTPH-Gx (MS)*	

Apex Laboratories

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.004**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5F1504 - 07 07 25 1513**

ANALYTICAL SAMPLE RESULTS

BTEX+N Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SP1-Comp-S (A5F1504-01)				**Matrix: Soil**		**Batch: 25F0719**		**V-15**
Benzene	**3940**	---	199	ug/kg dry	1000	06/20/25 22:54	5035A/8260D	
Toluene	**49900**	---	994	ug/kg dry	1000	06/20/25 22:54	5035A/8260D	
Ethylbenzene	**18500**	---	497	ug/kg dry	1000	06/20/25 22:54	5035A/8260D	
Xylenes, total	**108000**	---	1490	ug/kg dry	1000	06/20/25 22:54	5035A/8260D	
Naphthalene	**8720**	---	1990	ug/kg dry	1000	06/20/25 22:54	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*93 %*	*Limits: 80-120 %*	*1*	*06/20/25 22:54*	*5035A/8260D*	
Toluene-d8 (Surr)			*97 %*	*80-120 %*	*1*	*06/20/25 22:54*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*105 %*	*79-120 %*	*1*	*06/20/25 22:54*	*5035A/8260D*	
T1EB-S-6 (A5F1504-02)				**Matrix: Soil**		**Batch: 25F0719**		**V-15**
Benzene	ND	---	14.9	ug/kg dry	50	06/20/25 21:32	5035A/8260D	
Toluene	ND	---	74.4	ug/kg dry	50	06/20/25 21:32	5035A/8260D	
Ethylbenzene	**554**	---	37.2	ug/kg dry	50	06/20/25 21:32	5035A/8260D	
Xylenes, total	ND	---	112	ug/kg dry	50	06/20/25 21:32	5035A/8260D	
Naphthalene	**4060**	---	149	ug/kg dry	50	06/20/25 21:32	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*92 %*	*Limits: 80-120 %*	*1*	*06/20/25 21:32*	*5035A/8260D*	
Toluene-d8 (Surr)			*93 %*	*80-120 %*	*1*	*06/20/25 21:32*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*108 %*	*79-120 %*	*1*	*06/20/25 21:32*	*5035A/8260D*	
T1WB-S-6 (A5F1504-03)				**Matrix: Soil**		**Batch: 25F0719**		**V-15**
Benzene	**5230**	---	155	ug/kg dry	500	06/20/25 22:27	5035A/8260D	
Toluene	**7130**	---	773	ug/kg dry	500	06/20/25 22:27	5035A/8260D	
Ethylbenzene	**16000**	---	386	ug/kg dry	500	06/20/25 22:27	5035A/8260D	
Xylenes, total	**6670**	---	1160	ug/kg dry	500	06/20/25 22:27	5035A/8260D	
Naphthalene	**15300**	---	1550	ug/kg dry	500	06/20/25 22:27	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*95 %*	*Limits: 80-120 %*	*1*	*06/20/25 22:27*	*5035A/8260D*	
Toluene-d8 (Surr)			*95 %*	*80-120 %*	*1*	*06/20/25 22:27*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*105 %*	*79-120 %*	*1*	*06/20/25 22:27*	*5035A/8260D*	
Pipe1-1-S (A5F1504-04)				**Matrix: Soil**		**Batch: 25F0719**		**V-15**
Benzene	ND	---	15.2	ug/kg dry	50	06/20/25 21:05	5035A/8260D	
Toluene	ND	---	76.0	ug/kg dry	50	06/20/25 21:05	5035A/8260D	
Ethylbenzene	ND	---	38.0	ug/kg dry	50	06/20/25 21:05	5035A/8260D	
Xylenes, total	ND	---	114	ug/kg dry	50	06/20/25 21:05	5035A/8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.004**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5F1504 - 07 07 25 1513**

ANALYTICAL SAMPLE RESULTS

BTEX+N Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Pipe1-1-S (A5F1504-04)				**Matrix: Soil**		**Batch: 25F0719**		**V-15**
Naphthalene	ND	---	334	ug/kg dry	50	06/20/25 21:05	5035A/8260D	R-02
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*94 %*	*Limits: 80-120 %*	*1*	*06/20/25 21:05*	*5035A/8260D*	
Toluene-d8 (Surr)			*94 %*	*80-120 %*	*1*	*06/20/25 21:05*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*102 %*	*79-120 %*	*1*	*06/20/25 21:05*	*5035A/8260D*	
VL-1-S-6 (A5F1504-05)				**Matrix: Soil**		**Batch: 25F0719**		**V-15**
Benzene	**30700**	---	621	ug/kg dry	2000	06/20/25 23:22	5035A/8260D	
Ethylbenzene	**257000**	---	1550	ug/kg dry	2000	06/20/25 23:22	5035A/8260D	
Xylenes, total	**1400000**	---	4650	ug/kg dry	2000	06/20/25 23:22	5035A/8260D	
Naphthalene	**65900**	---	6210	ug/kg dry	2000	06/20/25 23:22	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*95 %*	*Limits: 80-120 %*	*1*	*06/20/25 23:22*	*5035A/8260D*	
Toluene-d8 (Surr)			*98 %*	*80-120 %*	*1*	*06/20/25 23:22*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*108 %*	*79-120 %*	*1*	*06/20/25 23:22*	*5035A/8260D*	
VL-1-S-6 (A5F1504-05RE1)				**Matrix: Soil**		**Batch: 25F0767**		**V-15**
Toluene	**672000**	---	15500	ug/kg dry	10000	06/23/25 21:40	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*92 %*	*Limits: 80-120 %*	*1*	*06/23/25 21:40*	*5035A/8260D*	
Toluene-d8 (Surr)			*97 %*	*80-120 %*	*1*	*06/23/25 21:40*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*101 %*	*79-120 %*	*1*	*06/23/25 21:40*	*5035A/8260D*	
T1MB-1-S-11 (A5F1504-06)				**Matrix: Soil**		**Batch: 25F0719**		**V-15**
Benzene	**361**	---	30.2	ug/kg dry	100	06/20/25 22:00	5035A/8260D	
Toluene	**557**	---	151	ug/kg dry	100	06/20/25 22:00	5035A/8260D	
Ethylbenzene	**6290**	---	75.5	ug/kg dry	100	06/20/25 22:00	5035A/8260D	
Xylenes, total	**3650**	---	226	ug/kg dry	100	06/20/25 22:00	5035A/8260D	
Naphthalene	**6190**	---	302	ug/kg dry	100	06/20/25 22:00	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*95 %*	*Limits: 80-120 %*	*1*	*06/20/25 22:00*	*5035A/8260D*	
Toluene-d8 (Surr)			*97 %*	*80-120 %*	*1*	*06/20/25 22:00*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*107 %*	*79-120 %*	*1*	*06/20/25 22:00*	*5035A/8260D*	

Apex Laboratories

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.004**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5F1504 - 07 07 25 1513**

ANALYTICAL SAMPLE RESULTS

TCLP Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SP1-Comp-S (A5F1504-01)				**Matrix: Soil**				
Batch: 25F0810								
Lead	ND	---	0.0500	mg/L	10	06/24/25 11:08	1311/6020B	

Apex Laboratories

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.004**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5F1504 - 07 07 25 1513**

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SP1-Comp-S (A5F1504-01)				**Matrix: Soil**		**Batch: 25F0722**		
% Solids	**77.9**	---	1.00	%	1	06/21/25 15:38	EPA 8000D	
T1EB-S-6 (A5F1504-02)				**Matrix: Soil**		**Batch: 25F0722**		
% Solids	**78.5**	---	1.00	%	1	06/21/25 15:38	EPA 8000D	
T1WB-S-6 (A5F1504-03)				**Matrix: Soil**		**Batch: 25F0722**		
% Solids	**77.5**	---	1.00	%	1	06/21/25 15:38	EPA 8000D	
Pipe1-1-S (A5F1504-04)				**Matrix: Soil**		**Batch: 25F0722**		
% Solids	**78.4**	---	1.00	%	1	06/21/25 15:38	EPA 8000D	
VL-1-S-6 (A5F1504-05)				**Matrix: Soil**		**Batch: 25F0722**		
% Solids	**76.5**	---	1.00	%	1	06/21/25 15:38	EPA 8000D	
T1MB-1-S-11 (A5F1504-06)				**Matrix: Soil**		**Batch: 25F0722**		
% Solids	**79.2**	---	1.00	%	1	06/21/25 15:38	EPA 8000D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.004**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5F1504 - 07 07 25 1513**

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 25F0707 - EPA 3546 (Fuels)								Soil				
Blank (25F0707-BLK1)			Prepared: 06/20/25 06:32		Analyzed: 06/20/25 20:03							
NWTPH-Dx												
Diesel	ND	---	20.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	40.0	mg/kg wet	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 82 %*	*Limits: 50-150 %*		*Dilution: 1x*							
LCS (25F0707-BS1)			Prepared: 06/20/25 06:32		Analyzed: 06/20/25 20:24							
NWTPH-Dx												
Diesel	109	---	20.0	mg/kg wet	1	125	---	87	38-132%	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 88 %*	*Limits: 50-150 %*		*Dilution: 1x*							
Duplicate (25F0707-DUP1)			Prepared: 06/20/25 06:32		Analyzed: 06/20/25 21:05							
QC Source Sample: Non-SDG (A5F1439-01)												
Diesel	ND	---	20.3	mg/kg dry	1	---	ND	---	---	---	30%	
Oil	ND	---	40.6	mg/kg dry	1	---	ND	---	---	---	30%	
Surr: o-Terphenyl (Surr)		*Recovery: 86 %*	*Limits: 50-150 %*		*Dilution: 1x*							
Duplicate (25F0707-DUP2)			Prepared: 06/20/25 06:32		Analyzed: 06/21/25 04:37							
QC Source Sample: Non-SDG (A5F1505-05)												
Diesel	ND	---	21.3	mg/kg dry	1	---	ND	---	---	---	30%	
Oil	ND	---	42.6	mg/kg dry	1	---	ND	---	---	---	30%	
Surr: o-Terphenyl (Surr)		*Recovery: 85 %*	*Limits: 50-150 %*		*Dilution: 1x*							
Batch 25F0735 - EPA 3546 (Fuels)								Soil				
Blank (25F0735-BLK1)			Prepared: 06/20/25 12:08		Analyzed: 06/20/25 20:12							
NWTPH-Dx												
Diesel	ND	---	20.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	40.0	mg/kg wet	1	---	---	---	---	---	---	
Mineral Oil	ND	---	40.0	mg/kg wet	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 99 %*	*Limits: 50-150 %*		*Dilution: 1x*							
LCS (25F0735-BS1)			Prepared: 06/20/25 12:08		Analyzed: 06/20/25 20:33							
NWTPH-Dx												

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.004**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5F1504 - 07 07 25 1513**

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 25F0735 - EPA 3546 (Fuels)							**Soil**					
LCS (25F0735-BS1)			Prepared: 06/20/25 12:08		Analyzed: 06/20/25 20:33							
Diesel	127	---	20.0	mg/kg wet	1	125	---	102	38-132%	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 106 %*	*Limits: 50-150 %*		*Dilution: 1x*							
Duplicate (25F0735-DUP2)			Prepared: 06/20/25 12:08		Analyzed: 06/21/25 01:57							
QC Source Sample: Non-SDG (A5F1531-01)												
Diesel	ND	---	18.7	mg/kg dry	1	---	ND	---	---	---	30%	
Oil	ND	---	37.3	mg/kg dry	1	---	ND	---	---	---	30%	
Mineral Oil	ND	---	37.3	mg/kg dry	1	---	ND	---	---	---	30%	
Surr: o-Terphenyl (Surr)		*Recovery: 91 %*	*Limits: 50-150 %*		*Dilution: 1x*							
Duplicate (25F0735-DUP3)			Prepared: 06/20/25 12:08		Analyzed: 06/23/25 10:40							**PRO**
QC Source Sample: Non-SDG (A5F1362-02RE1)												
Diesel	ND	---	179	mg/kg dry	10	---	ND	---	---	---	30%	
Oil	**2010**	---	358	mg/kg dry	10	---	1990	---	---	1	30%	
Mineral Oil	ND	---	358	mg/kg dry	10	---	ND	---	---	---	30%	
Surr: o-Terphenyl (Surr)		*Recovery: 99 %*	*Limits: 50-150 %*		*Dilution: 10x*							*S-05*

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.004**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5F1504 - 07 07 25 1513**

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 25F0719 - EPA 5035A								**Soil**				
Blank (25F0719-BLK1)			Prepared: 06/20/25 11:00 Analyzed: 06/20/25 13:47									
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	5.00	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 102 %*	*Limits: 50-150 %*		*Dilution: 1x*							
1,4-Difluorobenzene (Sur)			*101 %*	*50-150 %*			*"*					
LCS (25F0719-BS2)			Prepared: 06/20/25 11:00 Analyzed: 06/20/25 13:20									
NWTPH-Gx (MS)												
Gasoline Range Organics	27.3	---	5.00	mg/kg wet	50	25.0	---	109	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 102 %*	*Limits: 50-150 %*		*Dilution: 1x*							
1,4-Difluorobenzene (Sur)			*99 %*	*50-150 %*			*"*					
Duplicate (25F0719-DUP1)			Prepared: 06/19/25 14:50 Analyzed: 06/20/25 16:31									
QC Source Sample: Non-SDG (A5F1522-02)												
Gasoline Range Organics	**324**	---	6.52	mg/kg dry	50	---	328	---	---	1	30%	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 131 %*	*Limits: 50-150 %*		*Dilution: 1x*							
1,4-Difluorobenzene (Sur)			*103 %*	*50-150 %*			*"*					
Duplicate (25F0719-DUP2)			Prepared: 06/19/25 16:47 Analyzed: 06/20/25 23:49									**V-15**
QC Source Sample: VL-1-S-6 (A5F1504-05)												
NWTPH-Gx (MS)												
Gasoline Range Organics	**21100**	---	310	mg/kg dry	2000	---	20900	---	---	0.8	30%	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 103 %*	*Limits: 50-150 %*		*Dilution: 1x*							
1,4-Difluorobenzene (Sur)			*100 %*	*50-150 %*			*"*					

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: Petrocard-MLK	
3140 NE Broadway Street	Project Number: M0228.05.004	Report ID:
Portland, OR 97232	Project Manager: David Weatherby	A5F1504 - 07 07 25 1513

QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX+N Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25F0719 - EPA 5035A							Soil					
Blank (25F0719-BLK1)			Prepared: 06/20/25 11:00 Analyzed: 06/20/25 13:47									
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	---	---	---	---	---	---	
Naphthalene	ND	---	100	ug/kg wet	50	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 94 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*98 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*103 %*		*79-120 %*				*"*			
LCS (25F0719-BS1)			Prepared: 06/20/25 11:00 Analyzed: 06/20/25 12:25									
5035A/8260D												
Benzene	1020	---	10.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
Toluene	960	---	50.0	ug/kg wet	50	1000	---	96	80-120%	---	---	
Ethylbenzene	1110	---	25.0	ug/kg wet	50	1000	---	111	80-120%	---	---	
Xylenes, total	3230	---	75.0	ug/kg wet	50	3000	---	108	80-120%	---	---	
Naphthalene	901	---	100	ug/kg wet	50	1000	---	90	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 94 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*98 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*99 %*		*79-120 %*				*"*			
Duplicate (25F0719-DUP1)			Prepared: 06/19/25 14:50 Analyzed: 06/20/25 16:31									
QC Source Sample: Non-SDG (A5F1522-02)												
Benzene	ND	---	13.0	ug/kg dry	50	---	11.7	---	---	***	30%	
Toluene	**359**	---	65.2	ug/kg dry	50	---	349	---	---	3	30%	
Ethylbenzene	**535**	---	32.6	ug/kg dry	50	---	516	---	---	4	30%	
Xylenes, total	**13100**	---	97.8	ug/kg dry	50	---	13100	---	---	0.4	30%	
Naphthalene	**2040**	---	130	ug/kg dry	50	---	1980	---	---	3	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 95 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*93 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*105 %*		*79-120 %*				*"*			
Duplicate (25F0719-DUP2)			Prepared: 06/19/25 16:47 Analyzed: 06/20/25 23:49									**V-15**

Apex Laboratories

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.004**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5F1504 - 07 07 25 1513**

QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX+N Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25F0719 - EPA 5035A							**Soil**					
Duplicate (25F0719-DUP2)			Prepared: 06/19/25 16:47		Analyzed: 06/20/25 23:49							**V-15**
QC Source Sample: VL-1-S-6 (A5F1504-05)												
5035A/8260D												
Benzene	**31600**	---	621	ug/kg dry	2000	---	30700	---	---	3	30%	
Toluene	**687000**	---	3100	ug/kg dry	2000	---	671000	---	---	2	30%	E
Ethylbenzene	**262000**	---	1550	ug/kg dry	2000	---	257000	---	---	2	30%	
Xylenes, total	**1430000**	---	4650	ug/kg dry	2000	---	1400000	---	---	1	30%	
Naphthalene	**63600**	---	6210	ug/kg dry	2000	---	65900	---	---	4	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 95 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*106 %*		*79-120 %*			*"*				
Matrix Spike (25F0719-MS1)			Prepared: 06/19/25 15:11		Analyzed: 06/20/25 19:15							
QC Source Sample: Non-SDG (A5F1505-05)												
5035A/8260D												
Benzene	1610	---	15.6	ug/kg dry	50	1570	ND	103	77-121%	---	---	
Toluene	1550	---	78.2	ug/kg dry	50	1570	ND	99	77-121%	---	---	
Ethylbenzene	1770	---	39.1	ug/kg dry	50	1570	ND	113	76-122%	---	---	
Xylenes, total	5270	---	117	ug/kg dry	50	4700	ND	112	78-124%	---	---	
Naphthalene	1340	---	156	ug/kg dry	50	1570	ND	86	62-129%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 92 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*96 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*98 %*		*79-120 %*			*"*				

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.004**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5F1504 - 07 07 25 1513**

QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX+N Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25F0767 - EPA 5035A							**Soil**					
Blank (25F0767-BLK1)			Prepared: 06/23/25 09:40 Analyzed: 06/23/25 12:33									
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	---	---	---	---	---	---	
Naphthalene	ND	---	100	ug/kg wet	50	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*94 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*106 %*		*79-120 %*			*"*				
LCS (25F0767-BS1)			Prepared: 06/23/25 09:40 Analyzed: 06/23/25 11:10									
5035A/8260D												
Benzene	1050	---	10.0	ug/kg wet	50	1000	---	105	80-120%	---	---	
Toluene	1010	---	50.0	ug/kg wet	50	1000	---	101	80-120%	---	---	
Ethylbenzene	1150	---	25.0	ug/kg wet	50	1000	---	115	80-120%	---	---	
Xylenes, total	3460	---	75.0	ug/kg wet	50	3000	---	115	80-120%	---	---	
Naphthalene	1010	---	100	ug/kg wet	50	1000	---	101	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*95 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*101 %*		*79-120 %*			*"*				
Duplicate (25F0767-DUP1)			Prepared: 06/17/25 09:00 Analyzed: 06/23/25 13:27									
QC Source Sample: Non-SDG (A5F1451-02)												
Benzene	ND	---	37.7	ug/kg dry	100	---	ND	---	---	---	30%	
Toluene	ND	---	188	ug/kg dry	100	---	ND	---	---	---	30%	
Ethylbenzene	**245**	---	94.2	ug/kg dry	100	---	236	---	---	4	30%	
Xylenes, total	**3780**	---	283	ug/kg dry	100	---	3520	---	---	7	30%	
Naphthalene	ND	---	1770	ug/kg dry	100	---	ND	---	---	---	30%	R-02
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*106 %*		*79-120 %*			*"*				
Duplicate (25F0767-DUP2)			Prepared: 06/19/25 10:45 Analyzed: 06/23/25 18:28									

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.004**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5F1504 - 07 07 25 1513**

QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX+N Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25F0767 - EPA 5035A							**Soil**					
Duplicate (25F0767-DUP2)			Prepared: 06/19/25 10:45 Analyzed: 06/23/25 18:28									
QC Source Sample: Non-SDG (A5F1533-04)												
Benzene	**3580**	---	16.2	ug/kg dry	50	---	3640	---	---	2	30%	
Toluene	**13200**	---	80.9	ug/kg dry	50	---	13100	---	---	0.3	30%	
Ethylbenzene	**505**	---	40.4	ug/kg dry	50	---	502	---	---	0.6	30%	
Xylenes, total	**4080**	---	121	ug/kg dry	50	---	4060	---	---	0.5	30%	
Naphthalene	ND	---	162	ug/kg dry	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 91 %*	*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)			*97 %*	*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)			*113 %*	*79-120 %*			*"*					
Matrix Spike (25F0767-MS1)			Prepared: 06/19/25 18:21 Analyzed: 06/23/25 22:07									
QC Source Sample: Non-SDG (A5F1533-10)												
5035A/8260D												
Benzene	1220	---	11.9	ug/kg dry	50	1190	ND	102	77-121%	---	---	
Toluene	1150	---	59.6	ug/kg dry	50	1190	ND	97	77-121%	---	---	
Ethylbenzene	1300	---	29.8	ug/kg dry	50	1190	ND	109	76-122%	---	---	
Xylenes, total	3940	---	89.3	ug/kg dry	50	3570	54.8	109	78-124%	---	---	
Naphthalene	1050	---	119	ug/kg dry	50	1190	ND	89	62-129%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 94 %*	*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)			*95 %*	*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)			*100 %*	*79-120 %*			*"*					

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.004**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5F1504 - 07 07 25 1513**

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP 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 25F0810 - EPA 1311/3015A							Soil					
Blank (25F0810-BLK1)			Prepared: 06/24/25 07:35 Analyzed: 06/24/25 10:57									
1311/6020B												
Lead	ND	---	0.0500	mg/L	10	---	---	---	---	---	---	TCLP
LCS (25F0810-BS1)			Prepared: 06/24/25 07:35 Analyzed: 06/24/25 11:02									
1311/6020B												
Lead	5.14	---	0.0500	mg/L	10	5.00	---	103	80-120%	---	---	TCLP
Duplicate (25F0810-DUP1)			Prepared: 06/24/25 07:35 Analyzed: 06/24/25 11:13									
QC Source Sample: SP1-Comp-S (A5F1504-01)												
1311/6020B												
Lead	ND	---	0.0500	mg/L	10	---	ND	---	---	---	20%	
Matrix Spike (25F0810-MS1)			Prepared: 06/24/25 07:35 Analyzed: 06/24/25 11:19									
QC Source Sample: SP1-Comp-S (A5F1504-01)												
1311/6020B												
Lead	5.28	---	0.0500	mg/L	10	5.00	ND	106	50-150%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.004**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5F1504 - 07 07 25 1513**

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 25F0722 - Dry Weight Prep (EPA 8000D)							**Soil**					
Duplicate (25F0722-DUP1)			Prepared: 06/20/25 10:03		Analyzed: 06/21/25 15:38							
QC Source Sample: Non-SDG (A5F1505-01)												
% Solids	**81.7**	---	1.00	%	1	---	81.3	---	---	0.5	10%	
Duplicate (25F0722-DUP2)			Prepared: 06/20/25 10:03		Analyzed: 06/21/25 15:38							**CONT**
QC Source Sample: Non-SDG (A5F1495-01)												
% Solids	**84.5**	---	1.00	%	1	---	84.2	---	---	0.3	10%	
Duplicate (25F0722-DUP3)			Prepared: 06/20/25 13:57		Analyzed: 06/21/25 15:38							
QC Source Sample: Non-SDG (A5F1522-01)												
% Solids	**78.2**	---	1.00	%	1	---	78.5	---	---	0.4	10%	
Duplicate (25F0722-DUP4)			Prepared: 06/20/25 14:00		Analyzed: 06/21/25 15:38							
QC Source Sample: Non-SDG (A5F1528-15)												
% Solids	**75.4**	---	1.00	%	1	---	75.7	---	---	0.5	10%	
Duplicate (25F0722-DUP5)			Prepared: 06/20/25 19:03		Analyzed: 06/21/25 15:38							
QC Source Sample: Non-SDG (A5F1559-02)												
% Solids	**91.3**	---	1.00	%	1	---	90.9	---	---	0.4	10%	

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

Apex Laboratories

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.004**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5F1504 - 07 07 25 1513**

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: 25F0707							
A5F1504-01RE1	Soil	NWTPH-Dx	06/19/25 12:00	06/20/25 06:32	11.35g/5mL	10g/5mL	0.88
Batch: 25F0735							
A5F1504-02	Soil	NWTPH-Dx	06/19/25 09:00	06/20/25 12:08	11.83g/5mL	10g/5mL	0.85
A5F1504-03RE1	Soil	NWTPH-Dx	06/19/25 10:05	06/20/25 12:08	11.78g/5mL	10g/5mL	0.85
A5F1504-04	Soil	NWTPH-Dx	06/19/25 08:50	06/20/25 12:08	11.73g/5mL	10g/5mL	0.85
A5F1504-05	Soil	NWTPH-Dx	06/19/25 11:42	06/20/25 12:08	11.7g/5mL	10g/5mL	0.86
A5F1504-06RE1	Soil	NWTPH-Dx	06/19/25 11:30	06/20/25 12:08	11.6g/5mL	10g/5mL	0.86

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: 25F0719							
A5F1504-01	Soil	NWTPH-Gx (MS)	06/19/25 12:00	06/19/25 12:00	45.17g/25mL	5g/5mL	0.55
A5F1504-02	Soil	NWTPH-Gx (MS)	06/19/25 09:00	06/19/25 16:47	5.24g/5mL	5g/5mL	0.95
A5F1504-03	Soil	NWTPH-Gx (MS)	06/19/25 10:05	06/19/25 16:47	5.14g/5mL	5g/5mL	0.97
A5F1504-04	Soil	NWTPH-Gx (MS)	06/19/25 08:50	06/19/25 16:47	5.13g/5mL	5g/5mL	0.98
A5F1504-05	Soil	NWTPH-Gx (MS)	06/19/25 11:42	06/19/25 16:47	5.26g/5mL	5g/5mL	0.95
A5F1504-06	Soil	NWTPH-Gx (MS)	06/19/25 11:30	06/19/25 16:47	5.06g/5mL	5g/5mL	0.99

BTEX+N Compounds by EPA 8260D

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 25F0719							
A5F1504-01	Soil	5035A/8260D	06/19/25 12:00	06/19/25 12:00	45.17g/25mL	5g/5mL	0.55
A5F1504-02	Soil	5035A/8260D	06/19/25 09:00	06/19/25 16:47	5.24g/5mL	5g/5mL	0.95
A5F1504-03	Soil	5035A/8260D	06/19/25 10:05	06/19/25 16:47	5.14g/5mL	5g/5mL	0.97
A5F1504-04	Soil	5035A/8260D	06/19/25 08:50	06/19/25 16:47	5.13g/5mL	5g/5mL	0.98
A5F1504-05	Soil	5035A/8260D	06/19/25 11:42	06/19/25 16:47	5.26g/5mL	5g/5mL	0.95
A5F1504-06	Soil	5035A/8260D	06/19/25 11:30	06/19/25 16:47	5.06g/5mL	5g/5mL	0.99
Batch: 25F0767							
A5F1504-05RE1	Soil	5035A/8260D	06/19/25 11:42	06/19/25 16:47	5.26g/5mL	5g/5mL	0.95

TCLP Metals by EPA 6020B (ICPMS)

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.004**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5F1504 - 07 07 25 1513**

SAMPLE PREPARATION INFORMATION

TCLP Metals by EPA 6020B (ICPMS)

Prep: EPA 1311/3015A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 25F0810							
A5F1504-01	Soil	1311/6020B	06/19/25 12:00	06/24/25 07:35	10mL/50mL	10mL/50mL	1.00

Percent Dry Weight

Prep: Dry Weight Prep (EPA 8000D)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 25F0722							
A5F1504-01	Soil	EPA 8000D	06/19/25 12:00	06/20/25 10:03	1g	1g	1.00
A5F1504-02	Soil	EPA 8000D	06/19/25 09:00	06/20/25 14:00	1g	1g	1.00
A5F1504-03	Soil	EPA 8000D	06/19/25 10:05	06/20/25 14:00	1g	1g	1.00
A5F1504-04	Soil	EPA 8000D	06/19/25 08:50	06/20/25 14:00	1g	1g	1.00
A5F1504-05	Soil	EPA 8000D	06/19/25 11:42	06/20/25 14:00	1g	1g	1.00
A5F1504-06	Soil	EPA 8000D	06/19/25 11:30	06/20/25 14:00	1g	1g	1.00

TCLP Extraction by EPA 1311

Prep: EPA 1311 (TCLP)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 25F0798							
A5F1504-01	Soil	EPA 1311	06/19/25 12:00	06/23/25 14:28	99.9g/1998g	100g/2000g	NA

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.004**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5F1504 - 07 07 25 1513**

QUALIFIER DEFINITIONS

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

Apex Laboratories

CONT	The Sample Container provided for this analysis was not provided by Apex Laboratories, and has not been verified as part of the Apex Quality System.
E	Estimated Value. The result is above the calibration range of the instrument.
F-11	The hydrocarbon pattern indicates possible weathered diesel, mineral oil, or a contribution from a related component.
F-18	Result for Diesel (Diesel Range Organics, C12-C25) is due to overlap from Gasoline or a Gasoline Range product.
PRO	Sample has undergone sample processing prior to extraction and analysis.
R-02	The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
S-05	Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.
TCLP	This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 25F0798.
V-15	Sample aliquot was subsampled from the sample container in the laboratory. The subsampled aliquot was preserved in the laboratory within 48 hours of sampling.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.004**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5F1504 - 07 07 25 1513**

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)

Validated 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 and Detection Limits: Default Limits

Default Reporting and Detection Limits are based on 100% dry weight with the minimum dilution for the analysis. Reporting and Detection Limits are raised due to moisture content, additional dilutions required for analysis, matrix interferences and in other cases, as necessary.

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

Philip Nerenberg, Lab Director

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.

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

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.004**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5F1504 - 07 07 25 1513**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-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

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.004**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5F1504 - 07 07 25 1513**

Decanted Samples:

Soils/Sediments:
Unless TCLP analysis is required or there is notification otherwise for a specific project, all Soil and Sediments containing excess water are decanted prior to analysis in order to provide the most representative sample for analysis.

Water Samples:
Water samples containing solids and sediment may need to be decanted in order to eliminate these particulates from the water extractions. In the case of organics extractions, a solvent rinse of the container will not be performed.

Volatiles Soils (5035s)
Samples that are field preserved by 5035 for volatiles are dry weight corrected using the same dry weight corretion as for normal analyses. In the case of decanted samples, the dry weight may be performed on a decanted sample, while the aliquot for 5035 may not have been treated the same way. If this is a concern, please submit separate containers for dry weight analysis for volatiles can be provided.

All samples decanted in the laboratory are noted in this report with the DCNT qualifier indicating the sample was decanted.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.004**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5F1504 - 07 07 25 1513**

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 provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

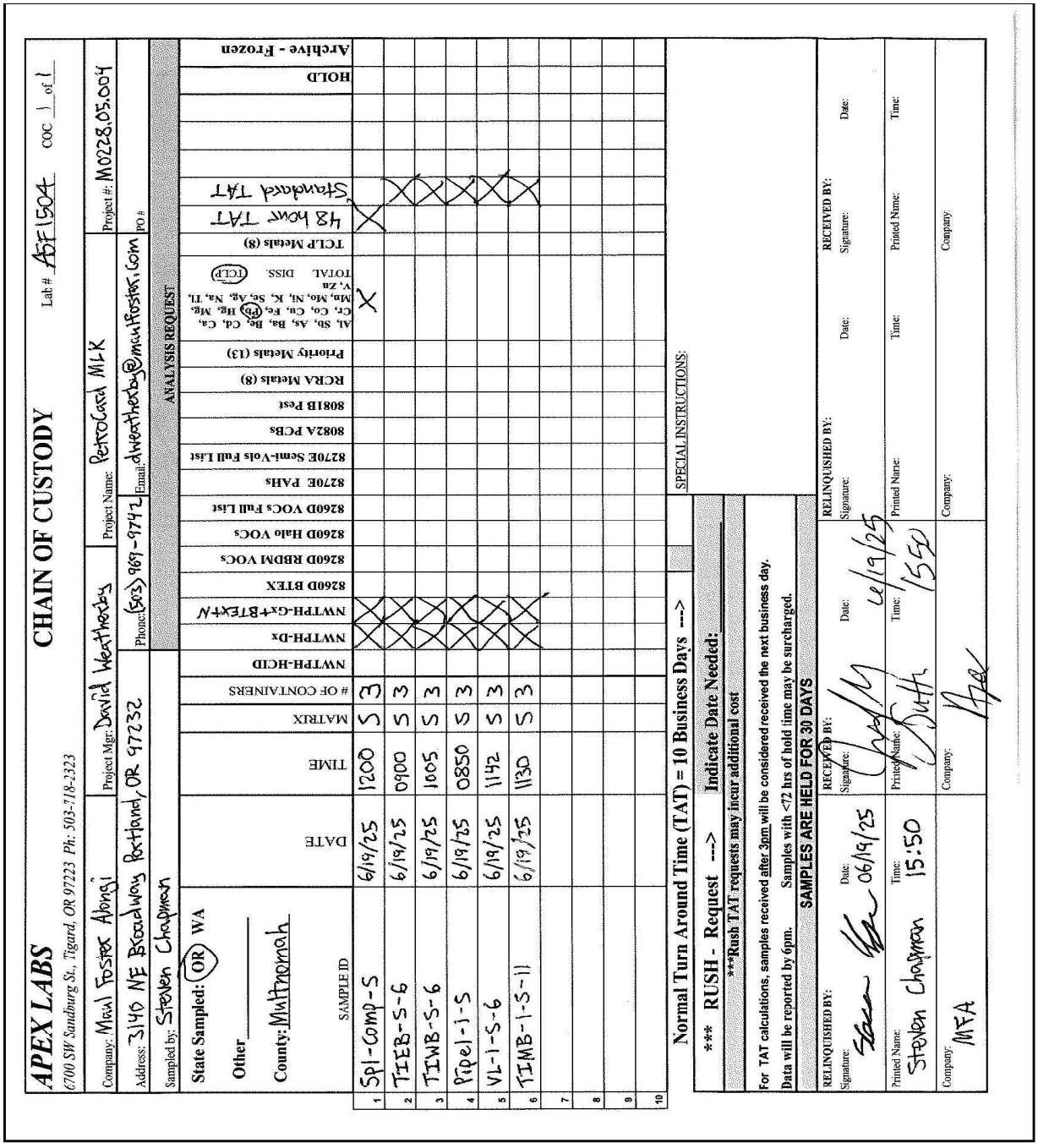
Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.004**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5F1504 - 07 07 25 1513**



APEX LABS — **CHAIN OF CUSTODY** — Lab # A5F1504 — COC 1 of 1

6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

Company: Maul Foster Alongi — Project Mgr: David Weatherby — Project Name: Petrocard MLK — Project #: M0228.05.004

Address: 3140 NE Broadway Portland, OR 97232 — Phone: (503) 967-9742 — Email: dweatherby@maulfoster.com — PO #

Sampled by: Steven Chapman

State Sampled: (OR) WA — Other ____ — County: Multnomah

ANALYSIS REQUEST

#	SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx+BTEX+N	8260D BTEX	8260D RBDM VOCs	8260D Halo VOCs	8260D VOCs Full List	8270E PAHs	8270E Semi-Vols Full List	8082A PCBs	8081B Pest	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, (Pb), Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	48 hour TAT	Standard TAT	HOLD	Archive - Frozen
1	SPI-Comp-S	6/19/25	1200	S	3		X	X											X				
2	TIEB-S-6	6/19/25	0900	S	3																X		
3	TIWB-S-6	6/19/25	1005	S	3																X		
4	Pipe1-1-S	6/19/25	0850	S	3																X		
5	VL-1-S-6	6/19/25	1142	S	3																X		
6	TIMB-1-S-11	6/19/25	1130	S	3																X		
7																							
8																							
9																							
10																							

SPECIAL INSTRUCTIONS:

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

*** RUSH - Request ---> Indicate Date Needed:

**Rush TAT requests may incur additional cost

For TAT calculations, samples received after 3pm will be considered received the next business day.
Data will be reported by 6pm. Samples with <72 hrs of hold time may be surcharged.

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	Date:	RECEIVED BY:	Date:	RELINQUISHED BY:	Date:	RECEIVED BY:	Date:
Signature:		Signature:		Signature:		Signature:	
Printed Name:	Time:	Printed Name:	Time:	Printed Name:	Time:	Printed Name:	Time:
Company: MFA		Company:		Company:		Company:	

RELINQUISHED BY: Signature: Steven Chapman — Date: 06/19/25 — Time: 15:50 — Company: MFA

RECEIVED BY: Signature: [signature] — Date: 6/19/25 — Time: 1550 — Company: [illegible]

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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.

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

ANALYTICAL REPORT

Maul Foster & Alongi, INC.	Project: **Petrocard-MLK**	
3140 NE Broadway Street	Project Number: **M0228.05.004**	**Report ID:**
Portland, OR 97232	Project Manager: **David Weatherby**	**A5F1504 - 07 07 25 1513**

APEX LABS COOLER RECEIPT FORM

Client: Maul Foster Alongi Element WO#: A5F1504

Project/Project #: PetroCard MLK M0228.05.004

Delivery Info:

Date/time received: 6/19/25 @ 1550 By: JS

Delivered by: Apex__Client_X_ESS___FedEx__UPS__Radio___Morgan ___SDS___Evergreen___Other ___

From USDA Regulated Origin? Yes _____ No X

Cooler Inspection Date/time inspected: 6/19/25 @ 1551 By: JS

Chain of Custody included? Yes X No _____

Signed/dated by client? Yes X No _____

Contains USDA Reg. Soils? Yes _____ No X Unsure (email RegSoils) _____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	2.6						
Custody seals? (Y/N)	N						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	N						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	In						

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

Green dots applied to out of temperature samples? Yes (No)

Out of temperature samples form initiated? Yes/No

Sample Inspection: Date/time inspected: 6/19/25 @ 1557 By: KN

All 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 √ pH ID:_____

Comments: _____

Labeled by: KN Witness: JS Cooler Inspected by: KN

Form Y-003 R-02 -

Apex Laboratories

Philip Nerenberg

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.

Philip Nerenberg, Lab Director

Data Validation Memorandum

Project No. M0228.05.004 | July 15, 2025 | PetroCard, Inc.

Maul Foster & Alongi, Inc. (MFA), conducted an independent Stage 2A review of the quality of analytical results for soil samples collected on June 19, 2025, at 8100 NE Martin Luther King Jr, Boulevard, Portland, Oregon.

Apex Laboratories, LLC (Apex), performed the analyses. MFA reviewed Apex report number A5F1504. The analyses performed and the samples analyzed are listed in the following tables. Not all analyses were performed on all samples.

Analysis	Reference
Diesel- and oil-range hydrocarbons	NWTPH-Dx
Gasoline-range hydrocarbons	NWTPH-Gx
Percent dry weight	EPA 8000D
TCLP lead	EPA 1311/6020B
Volatile organic compounds	EPA 8260D

Notes
EPA = U.S. Environmental Protection Agency.
NWTPH = Northwest Total Petroleum Hydrocarbons.
TCLP = toxicity characteristic leaching procedure.

Samples Analyzed	
Report A5F1504	
SP1-Comp-S	Pipe1-1-S
T1EB-S-6	VL-1-S-6
T1WB-S-6	T1MB-1-S-11

Data Validation Procedures

Analytical results were evaluated according to applicable sections of U.S. Environmental Protection Agency (EPA) guidelines for data review (EPA 2020a, 2020b) and appropriate laboratory- and method-specific guidelines (Apex 2023, EPA 1986).

Data validation procedures were modified, as appropriate, to accommodate quality control requirements for methods that EPA data review guidelines do not specifically address (e.g., Northwest Total Petroleum Hydrocarbons [NWTPH]-Dx).

EPA Method 8000D percent dry-weight results reported by the laboratory for dry-weight correction were reviewed for completeness but were not included in Stage 2A data validation.

Based on the data quality assurance/quality control review described herein, the data, with the appropriate final data qualifiers assigned, are considered acceptable for their intended use. Final data qualifiers represent qualifiers originating from the laboratory and accepted by the reviewer, and data qualifiers assigned by the reviewer during validation.

Final data qualifiers:

- J+ = result is estimated, but the result may be biased high.
- U = result is non-detect at the method reporting limit (MRL).

General Qualifications

According to report A5F1504, NWTPH-Dx diesel-range hydrocarbons result for sample Pipe1-1-S as flagged by the laboratory due to a chromatographic pattern indicating possible weathered diesel, mineral oil, or a contribution from a related component. Results were reported as diesel-range hydrocarbons instead of specific fuel products; thus, qualification was not required.

According to report A5F1504, NWTPH-Dx diesel-range hydrocarbons result for sample VL-1-S-6 was flagged by the laboratory due to overlap from gasoline-range hydrocarbons. The reviewer qualified associated sample results with J+, as shown in the following table.

Report	Sample	Analyte	Original Result (mg/kg)	Qualified Result (mg/kg)
A5F1504	VL-1-S-6	Diesel-range hydrocarbons	459	459 J+

Notes
J+ = result is estimated, but the result may be biased high.
mg/kg = milligrams per kilogram.

Sample Conditions

Sample Custody

Sample custody was appropriately documented on the chain-of-custody form accompanying the report.

Holding Times

Extractions and analyses were performed within the recommended holding times.

Preservation and Sample Storage

According to report A5F1504, the NWTPH-Gx and EPA Method 8260D fractions of all samples were prepared in the laboratory from subsampled aliquots taken from the original sample. Apex noted that the aliquots were subsampled and preserved in the laboratory within 48 hours of sampling; thus, qualification by the reviewer was not required.

The samples were preserved and stored appropriately.

Reporting Limits

The laboratory evaluated results to MRLs. Samples that required dilutions because of high analyte concentrations, matrix interferences, and/or dilutions necessary for preparation and/or analysis were reported with raised MRLs.

Apex noted that the sample Pipe1-1-S EPA Method 8260D naphthalene MRL was raised to account for interference from coeluting organic compounds present in the sample. Qualification by the reviewer was not required.

Blank Results

Method Blanks

Laboratory method blanks are used to evaluate whether laboratory contamination was introduced during sample preparation and analysis. Laboratory method blank analyses were performed at the required frequencies, in accordance with laboratory- and method-specific requirements.

All laboratory method blank results were non-detect to MRLs.

Equipment Rinsate Blanks

Equipment rinsate blanks are used to evaluate the adequacy of the field equipment decontamination process when decontaminated sampling equipment is used to collect samples.

These blanks were not required for this sampling event, as all samples were collected using dedicated or single-use equipment.

Trip Blanks

Trip blanks are used to evaluate whether volatile organic compound contamination was introduced during shipping and field handling procedures.

No trip blank samples were submitted for analysis. The reviewer was unable to evaluate field samples for possible volatile organic compound contamination.

Laboratory Control Sample and Laboratory Control Sample Duplicate Results

Laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) results are used to evaluate laboratory precision and accuracy. No LCSD were reported; all LCS were prepared and analyzed at the required frequency, in accordance with laboratory- and method-specific requirements.

All LCS results were within acceptance limits for percent recovery.

Laboratory Duplicate Results

Laboratory duplicate results are used to evaluate laboratory precision and sample homogeneity. All laboratory duplicate samples were prepared and analyzed at the required frequency, in accordance with laboratory- and method-specific requirements.

Laboratory duplicate results greater than five times the MRL were evaluated using laboratory relative percent difference control limits. A secondary criterion was used when laboratory duplicate results were non-detect or less than five times the MRL. Results meet the secondary criterion if the absolute difference of the laboratory duplicate sample result and the parent sample result, or the MRL for non-detects, is equal to or less than the MRL value of the parent sample.

All laboratory duplicate results met the acceptance criteria.

Matrix Spike and Matrix Spike Duplicate Results

Matrix spike (MS) and matrix spike duplicate (MSD) results are used to evaluate laboratory precision, accuracy, and the effect of the sample matrix on sample preparation and target analyte recovery. No MSD results were reported; all MS samples were prepared and analyzed at the required frequency, in accordance with laboratory- and method-specific requirements.

All MS results were within acceptance limits for percent recovery.

Surrogate Results

Surrogate results are used to evaluate laboratory performance of target organic compounds for individual samples.

All surrogate results were within percent recovery acceptance limits.

Field Duplicate Results

Field duplicate results are used to evaluate field precision and sample homogeneity. No field duplicate samples were submitted for analysis.

Data Package

The data package was reviewed for transcription errors, omissions, and anomalies.

The reviewer confirmed that the MFA project manager had the laboratory update the sample names after sample receipt to meet project needs. The "I" as written on the chain-of-custody form for samples T1EB-S-6, T1WB-S-6, and T1MB-1-S-11 was updated to a "1."

No other issues were found.

References

Apex. 2023. *Quality Systems Manual.* Rev. 11. Apex Laboratories, LLC: Tigard, OR. June 20.

EPA. 1986. *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.* EPA publication SW-846. 3rd ed. U.S. Environmental Protection Agency. Final updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), V (2015), VI phase I (2017), VI phase II (2018), VI phase III (2019), VII phase I (2019), and VII phase II (2020).

EPA. 2020a. *National Functional Guidelines for Inorganic Superfund Methods Data Review.* EPA 542-R-20-006. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation: Washington, DC. November.

EPA. 2020b. *National Functional Guidelines for Organic Superfund Methods Data Review.* EPA 540-R-20-005. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation: Washington, DC. November.

Attachment H

UST System Testing Records

MAUL FOSTER ALONGI

Portland MLK Jr Blvd

Show Less

Gas Brand: **Unbranded**
State ID: **PP T6**
UST Registered: **5**
Last Poll: **9/16/2025 11:06 AM**
66 min ago

Status: **Software Only**
Internal ID: **0106**
ATG: -

Location: **8100 N.E. MLK Jr. Blvd., Portland, OR 97211**
Phone:
County: **Multnomah County**

Facility Groups: **Region OR - State, Region OR - Portland, ATG - Veeder-Root, <Global>**
Site Notes: -

ATG Tank Test

Month/Year September 2025

ATG Monthly Results from October 2024 to September 2025

Tank #	Tank Cert #	Capacity	Contents	Release Detection Methods	Result Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1 - BIODIESEL B5 (JEAC)	10,310	Diesel Renewable (R99)	ATG Tank Test	ATG	P	P	P	P	P	P	P	P	P	P	P	P
3	3 - UNLEADED FRT (JEAE)	3,007	Unleaded (E10)	ATG Tank Test	ATG	P	P	P	P	P	P	P	P	P	P	P	P
4	4 - UNLEADED FRT (JEAF)	3,007	Unleaded (E10)	ATG Tank Test	ATG	P	P	P	P	P	P	P	P	P	P	P	P
5	5 - PREMIUM (JEAD)	3,007	Unleaded Premium (E10)	ATG Tank Test	ATG	P	P	P	P	P	P	P	P	P	P	P	P
6	6 - UNLEADED REAR (JEAH)	10,310	Unleaded (E10)	ATG Tank Test	ATG	P	P	P	P	P	P	P	P	P	P	P	P

P-Pass, F-Fail, I-Inconclusive, Q-In Queue, R-Received, (-)-No Result Available

Update ATG/CSLD Information

Attachment E

Wetland Inventory Map

MAUL FOSTER ALONGI

Figure
Wetlands near the Site

8100 NE Martin Luther King Jr Boulevard Portland, OR

Legend

- Property Boundary
- Quarter-mile Property Buffer

Wetlands

- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

0 280
Feet

Data Sources
Aerial photograph (2024) obtained from the City of Portland; tax lot data obtained from Oregon Metro; wetland data obtained from the the U.S. Fish and Wildlife Service.

MAUL FOSTER ALONGI
p. 971 544 2139 | www.maulfoster.com

Path: X:\O_MFA_Projects\M0228\05\003\Pro\M0228_05_003_004.aprx\Fig Site Conditions
Project: M0228.05.003 Produced By: sturner Reviewed By: dweatherby Print Date: 2/16/2026