



August 25, 2022
Project No. M0553.10.001

David Gibson
Les Schwab
20900 Cooley Road
Bend, Oregon 97708

Re: Results of Soil and Groundwater Assessment at Les Schwab Facility, Springfield,
Oregon

Dear David Gibson:

In June 2022, during construction of a new addition to the existing building in the southeast corner of the Les Schwab facility located at 3294 Main Street in Springfield, Oregon (the site; see Figure 1), contaminated soil was encountered in an excavation associated with a buried, corrugated metal pipe. At the request of Les Schwab, Maul Foster & Alongi (MFA) conducted soil and groundwater sampling in June and July to assess the nature and, preliminarily, the extent of contamination within the excavation footprint of a proposed new addition. Results of MFA's assessment are described below. Assessment of subsurface media beyond the proposed building addition footprint has not been conducted at this time, and the nature and extent of contamination beyond the footprint are not known.

The results of this and prior assessments of the site, as documented below, indicate that current and future excavation, construction, and occupational workers are not at risk of exposure to soil and groundwater contamination detected within the proposed building addition footprint. Based on the results of this assessment, Les Schwab backfilled the excavation and continued with construction.

BACKGROUND

Site Description and History

The site is currently owned and operated by Les Schwab, an automotive tire service center, and consists of multiple commercial buildings, parking lots, and landscaped areas. The site and surrounding area are level and are approximately 479 feet above mean sea level. Historically, the site was used as a gasoline station before it was purchased by Les Schwab in 1969 (Wood Environment & Infrastructure Solutions, Inc. [Wood] 2020.)

Geology and Hydrogeology

Exploratory borings were advanced at the site by Krazan & Associates, Inc. (Krazan) during a Phase II limited subsurface assessment (Krazan 2017). Subsurface soils encountered were

described as silt with variable amounts of sand to a depth of approximately 10 feet below ground surface (bgs), below which weathered hard rock was reported. During the subsurface investigation conducted by MFA and reported herein, the hard rock was determined to be rounded gravel. Groundwater, which Krazan assumed to be perched groundwater, was observed in the borings at 5 feet and 8.5 feet bgs (Krazan 2017).

The site is on flat ground, about equidistant from the Willamette River to the south and the McKenzie River to the north. The direction of groundwater flow at the site has not been determined.

PREVIOUS ENVIRONMENTAL INVESTIGATIONS

Recent environmental investigations conducted at the site include the Phase II limited subsurface assessment (Krazan 2017) and the Phase I environmental site assessment (ESA) (Wood 2020). The findings of each as they relate to environmental conditions at the site are summarized below.

2017 Phase II Limited Subsurface Assessment

This investigation included the collection of soil and soil vapor samples for laboratory analysis from soil borings located within the approximate footprint of the proposed future building. Based on the laboratory results, Krazan concluded that “evidence of heavy oils and gasoline were [sic] noted in soils at concentrations above State of Oregon petroleum hydrocarbon unrestricted use threshold levels for soil.” MFA notes that the Oregon Department of Environmental Quality (DEQ) does not have “unrestricted use threshold levels.” It appears that Krazan was referring to the DEQ’s “risk-based concentrations” (RBCs) for residential exposure to soil and soil vapor intrusion into residential buildings, which are the most protective of the human health RBCs, and in that sense, the most “restrictive.” Detected concentrations of petroleum hydrocarbons did exceed the RBCs for residential exposure to soil and soil vapor.

MFA understands that Les Schwab proposes to maintain the current site use as an automotive tire service center into the foreseeable future and has no plans to redevelop the site for residential use. Therefore, comparison of soil and soil vapor data to residential exposure scenarios is inappropriate and overstates the potential risk of exposure by current and future users of the site. Appropriate RBCs for the current and reasonably likely future site use include:

- Occupational, construction, and excavation worker exposure to soil
- Volatilization to outdoor air—occupational worker exposure
- Vapor intrusion into buildings—occupational worker exposure
- Soil leaching to groundwater—occupational worker exposure

Based on MFA's review of the soil data provided by Krazan, petroleum hydrocarbon concentrations in soil and soil vapor exceed the soil leaching to groundwater RBCs for occupational worker exposure only. This exposure scenario assumes use of groundwater on site for occupational workers. However, the City of Springfield provides potable water to the site, and Les Schwab currently does not use and has no plans to use on-site groundwater for occupational workers. Therefore, this exposure pathway is incomplete. Based on these results, together with the current and proposed future site use, current and future workers at the site are not at risk of exposure to the contamination in soil and soil vapor identified by Krazan.

2020 Phase I Environmental Site Assessment

The Phase I ESA identified the following two on-site recognized environmental conditions (RECs) and two off-site RECs:

- The historical presence of one or more gasoline stations on site
- The current presence of in-ground hydraulic lifts on site
- The former use of an adjoining property to the south as a gasoline station
- Use of an adjoining property to the west that had a leaking underground storage tank

The locations of these RECs are shown on Figure 2 of the Phase I ESA (see Attachment A). This figure has been annotated to show the new building addition excavation footprint assessed by MFA. None of the RECs are located in or near the excavation for the proposed construction, which is located in the southeast corner of the site.

MFA SOIL AND GROUNDWATER INVESTIGATION

Field Investigation Activities

The MFA soil and groundwater assessment began in June 2022 when Les Schwab encountered a buried segment of corrugated metal pipe and associated stained soils in the excavation footprint. MFA conducted the soil and groundwater assessment field investigation during three sampling events on June 13, June 30, and July 8, 2022, as described below.

Concrete Slab Excavation Footprint Soil Sampling—June 13

After removal of an overhead canopy and excavation of the associated exterior concrete slab, contaminated soil (soil with dark staining and petroleum odors) was observed in the slab excavation, and a buried segment of corrugated metal pipe associated with contaminated soil was also encountered. MFA collected soil samples for laboratory analysis from the excavation area to assess areas of contaminated soil across the excavation surface and around the corrugated metal pipe.

Upon arriving, MFA observed the excavated area to be approximately 30 feet by 70 feet and graded to approximately 2 feet bgs. An approximately 12-foot-by-15-foot pit (referred to herein as the Main Pit), had been excavated to 5.5 feet bgs to uncover the corrugated metal pipe. The Main Pit was located near the southern end of the excavation area (Figure 2) and contained groundwater at 5.5 feet bgs with a slight sheen. The top of an approximately 4-foot-diameter, vertically oriented metal pipe segment was exposed in the bottom of the slab excavation near the west side of the excavation. A strong petroleum odor was noted in the vicinity of the Main Pit.

MFA collected four soil samples for laboratory analysis from each wall of the Main Pit, just above the water line. Four surface soil samples were also collected for laboratory analysis from the slab excavation footprint to assess the extent of other areas of suspected contamination. See Figure 2 for sample locations and other site features. A description of soil samples for this event is provided below:

Sample ID	Location	Description
061322-WP-01	West wall of Main Pit	Gray sandy silt with a strong petroleum odor and slight sheen. Collected at 5.5 feet bgs.
061322-SP-01	South wall of Main Pit	Gray sandy silt with a strong petroleum odor and slight sheen. Collected at 5.5 feet bgs.
061322-EP-01	East wall of Main Pit	Brown sandy silt with no odor or sheen. Collected at 5.5 feet bgs.
061322-NP-01	North wall of Main Pit	Brown sandy silt with no odor or sheen. Collected at 5.5 feet bgs.
061322-NW-01	Northwest surface of slab excavation	Gray sandy silt with a strong petroleum odor and very obvious sheen. Collected at 2 feet bgs.
061322-CW-01	Central west surface of slab excavation	Dark brown sandy silt with slight odor or sheen. Collected at 2 feet bgs.
061322-SE-01	Southeast surface of slab excavation	Dark brown sandy silt with no odor or sheen. Collected at 2 feet bgs.
Note feet bgs = feet below ground surface.		

Excavation Footprint Soil and Groundwater Sampling—June 30

MFA returned to assess soils remaining after the excavation contractor removed soils having field indicators of contamination. In addition, at MFA's direction, three test pits, referred to as the south, northeast, and north test pits, were excavated within the slab excavation footprint to provide a preliminary assessment of the extent of contamination in soil and the nature and extent of contamination in groundwater.

Upon arrival, MFA observed the excavation footprint to consist of multiple levels at various depths corresponding to the areas where overexcavation had been done to remove contaminated soils. The overexcavation on the south end of the slab excavation footprint had been advanced to 5.8 feet bgs. The Main Pit had been advanced to 9.8 feet bgs, and the metal pipe was removed. Groundwater was present in the Main Pit bottom. The south, northeast, and north test pits were excavated to 10.6 feet bgs, 7 feet bgs, and 8.4 feet bgs, respectively. Groundwater was present in the bottom of each test pit.

Three soil samples were collected for laboratory analysis from the south, west, and east side walls of the slab excavation at 3 feet bgs. Two soil samples were collected from the Main Pit to assess contaminated soils remaining after the overexcavation of visually contaminated soils. The excavation contractor was unable to remove all visually contaminated soil from the Main Pit because the contamination extended downward into rounded gravel and below the groundwater level; attempts to remove the material created a soil-groundwater slurry. A groundwater sample was collected from each of the test pits for laboratory analysis, using a peristaltic pump. A groundwater sample was not collected from the Main Pit due to the contaminated soil-groundwater slurry present at that time. See Figure 2 for sample locations. A description of the soil and groundwater samples for this event is provided below.

Groundwater Sample ID	Location	Description
063022-GWS-10.6-01	South Test Pit	Collected at 10.6 feet bgs. Slight sheen.
063022-GWNE-7-01	Northeast Test Pit	Collected at 7 feet bgs. Slight sheen.
063022-GWN-8.4-01	North Test Pit	Collected at 8.4 feet bgs. Slight to no sheen.

Soil Sample ID	Location	Description
063022-WW-3-01	West Wall of slab excavation	Dark brown to black sandy silt with no odor. Collected at 3 feet bgs.
063022-SW-3-01	South Wall of slab excavation	Dark brown to black sandy silt with no odor. Collected at 3 feet bgs.
063022-EW-3-01	East Wall of slab excavation	Dark brown to black sandy silt with no odor. Collected at 3 feet bgs.
063022-WP-9.8-01	West area of Main Pit bottom	Gray gravel and sandy silt slurry with a strong petroleum odor and very obvious sheen. Collected at 9.8 feet bgs.
063022-SP-7.3-01	South wall of Main Pit	Gray sandy silt with a strong petroleum odor and very obvious sheen. Collected at 7.3 feet bgs.

Note
 feet bgs = feet below ground surface.

Excavation Footprint Soil and Groundwater Sampling—July 8

MFA returned to further assess the extent of soil contamination in the test pits and the Main Pit. Activities included collecting soil samples from each test pit for laboratory analysis, collecting photoionization detector (PID) readings from representative test pit and Main Pit soils, and describing the test pit and Main Pit soil characteristics. Upon arrival, MFA observed that groundwater was present in the Main Pit at a depth of 7.1 feet bgs. Since sufficient time had passed to allow soil to settle out from the prior soil-groundwater slurry, a groundwater sample was collected from the Main Pit, using a peristaltic pump. See Figure 2 for sample locations. A description of the soil and groundwater samples for this event is provided below.

Soil Sample ID	Location	PID Reading	Soil Description	Soil Stratigraphy	Groundwater Description
070822-N-6.8	North Test Pit	0.3 ppm	Brown silty sand with gravel and no odor. Collected at 6.8 feet bgs.	Brown soil from 4 to 7 feet bgs.	Water level at 7 feet bgs with slight to no sheen.
070822-NE-7.0	Northeast Test Pit	823 ppm	Gray silty sand with gravel and a strong odor. Collected at 7 feet bgs.	Brown soil from 2.3 to 6 feet bgs. Gray soil from 6 to 7 feet bgs.	No water present.
070822-S-7.6	South Test Pit	367 ppm	Gray silty sand with gravel and a strong odor. Collected at 7.6 feet bgs.	Dark gray soil on south and southeast walls of pit at 5.8 to 7.6 feet bgs.	Water level at 7.6 feet bgs with very slight sheen.
Notes feet bgs = feet below ground surface. PID = photoionization detector. ppm = parts per million.					

Groundwater Sample ID	Location	Groundwater Description	Soil Stratigraphy
070822-GWMainPit-7.1	Main Pit	Water level at 7.1 feet bgs with a slight sheen.	Grayish brown soil with odor on all walls of pit at 5.8 to 7.1 feet bgs.

Main Pit PID Locations	PID Readings
Northwest pit wall at 6 feet bgs	1,355 ppm
West pit wall at 6 feet bgs	167 ppm
East pit wall at 6 feet bgs	1.2 ppm
Notes feet bgs = feet below ground surface. PID = photoionization detector. ppm = parts per million.	

Sample Handling

Proper sample handling and custody procedures are required in order to retain sample integrity, from collection in the field through laboratory analysis and data reporting. MFA was responsible for the collection, labeling, description, documentation, handling, packaging, storage, and delivery of the samples to the laboratory. All samples were placed in laboratory-supplied containers appropriate for the required analysis, labeled, and stored on ice. The samples were submitted to Apex Laboratories, located in Tigard, Oregon. Apex maintains laboratory certification under the Oregon Environmental Laboratory Accreditation Program (ORELAP ID: OR100062).

ANALYTICAL METHODS

Soil

As shown on Table 1, all soil samples were analyzed for the following:

- Gasoline-range hydrocarbons by Northwest Total Petroleum Hydrocarbons (NWTPH)-Gx and U.S. Environmental Protection Agency (EPA) Method 5035 for sample collection
- Diesel- and oil-range hydrocarbons by NWTPH-Dx

Selected soil samples were analyzed for the following:

- Total lead by EPA Method 6020B
- Polychlorinated biphenyls (PCBs) by EPA Method 8082A
- Benzene, toluene, ethylbenzene, and naphthalene by EPA Method 8260D
- Volatile organic compounds (VOCs) by EPA Method 8260D and EPA 5035 for sample collection
- Semivolatile organic compounds (SVOCs) by EPA Method 8270E
- Polycyclic aromatic hydrocarbons by EPA 8270E Selected Ion Monitoring.

Groundwater

As shown on Table 2, the four groundwater samples were analyzed for the following:

- Gasoline-range hydrocarbons by NWTPH-Gx
- Diesel- and oil-range hydrocarbons by NWTPH-Dx
- VOCs by EPA Method 8260D
- Polycyclic aromatic hydrocarbons by EPA Method 8270E Selected Ion Monitoring.

RISK-BASED CONCENTRATION

Based on MFA's understanding of the current and reasonably likely future use of the site, the soil analytical results shown on Table 1 are compared to the following DEQ RBCs:

- Occupational, construction, and excavation worker exposure to soil
- Vapor intrusion into buildings—occupational worker exposure

To provide a preliminary assessment of whether soil contamination has the potential to contaminate groundwater, the soil data are also compared to the RBCs for soil leaching to groundwater—occupational worker exposure. As noted above, these RBCs assume use of site groundwater by occupation workers. The City of Springfield provides potable water to the site, and Les Schwab currently does not use and has no plans to use on-site groundwater for occupational workers. Therefore, this exposure pathway is incomplete.

The groundwater analytical results shown on Table 2 are compared to the following DEQ RBCs:

- Groundwater in an excavation—construction and excavation worker exposure
- Vapor intrusion into buildings—occupational worker exposure
- Volatilization to outdoor air—occupational worker exposure
- Ingestion and inhalation from tap water—occupational worker exposure. As noted above, Les Schwab currently does not use and has no plans to use on-site groundwater for occupational workers. This exposure pathway is incomplete.

RESULTS

Field Indicators of Contamination

Soil

MFA observed staining, odor, and sheen as indicators of contamination in the Main Pit and the northeast and south test pits. These indicators were most obvious in the west and south

walls of the Main Pit and were associated with the highest PID reading on site of 1,355 parts per million (ppm) on the west wall. PID readings were lower in the northeast and south test pits (823 ppm and 367 ppm, respectively), and much lower in the north test pit (0.3 ppm). PID readings are shown on Figure 2.

Groundwater

MFA observed a slight sheen on groundwater in the Main Pit and in the northeast and south tests pits. A slight to no sheen was observed in the north test pit. Groundwater was encountered at depths similar to those observed by Krazan in 2017.

Analytical Results

The soil and groundwater analytical results are shown on Tables 1 and 2, respectively. Laboratory reports are provided in Attachment B, and the data validation memoranda are provided in Attachment C. Based on the results of the data quality review procedures described in Attachment C, the data, with the appropriate final data qualifiers assigned, are considered acceptable for their intended use.

Soil Results

Gasoline-Range Hydrocarbons

- Gasoline concentrations ranged from not detected to a maximum concentration of 2,310 mg/kg at the northeast test pit.
- Gasoline concentrations exceeded only the soil leaching to groundwater RBC at the Main Pit, northeast test pit, and south test pit.

Diesel-Range Hydrocarbons

- Diesel concentrations ranged from not detected to a maximum concentration of 3,160 mg/kg at the Main Pit.
- Diesel concentrations did not exceed any applicable RBCs.

Oil-Range Hydrocarbons

- Oil concentrations ranged from not detected to a maximum concentration of 1,900 mg/kg at the Main Pit.
- Oil concentrations did not exceed applicable RBCs.

Lead

- Lead concentrations were very consistent, ranging from 7.39 mg/kg to 16.8 mg/kg. Higher concentrations did not correlate to samples with higher gasoline

concentrations. All lead concentrations were less than the background concentration of 28 mg/kg for the south Willamette Valley (DEQ 2013).

PCBs

- PCBs were not detected.

VOCs

- There were few detections of VOCs. Seven VOCs were detected at the Main Pit, two at the south and northeast test pits, and none at the north test pit.
- Chlorinated solvents (tetrachloroethene and trichloroethene) were not detected.
- Naphthalene and ethylbenzene concentrations exceeded only the soil leaching to groundwater RBC at the Main Pit.

SVOCs

- There were few detections of SVOCs. Five SVOCs were detected at the Main Pit, four at the south and northeast test pits, and none at the north test pit.
- Naphthalene exceeded only the soil leaching to groundwater RBC at the Main Pit.

Groundwater Results

Gasoline-Range Hydrocarbons

- Gasoline concentrations ranged from 199 mg/kg to a maximum concentration of 7,330 mg/kg at the south test pit.
- Gasoline concentrations exceeded only the occupational worker RBC for the ingestion and inhalation from tap water at the northeast and south test pits.

Diesel-Range Hydrocarbons

- Diesel concentrations ranged from not detected to a maximum concentration of 3,440 mg/kg at south test pit.
- Diesel concentrations exceeded only the occupational worker RBC for ingestion and inhalation from tap water at the Main Pit and the northeast and south test pits.

Oil-Range Hydrocarbons

- Oil was detected only at the north test pit at a concentration of 2,380 mg/kg.
- The oil concentration exceeded only the occupational worker exposure RBC for ingestion and inhalation from tap water at the north test pit.

VOCs

- There were few detections of VOCs. Fifteen VOCs were detected at the south test pit, five at the northeast test pit, two at the Main Pit, and none at the north test pit.
- Chlorinated solvents (tetrachloroethene and trichloroethene) were not detected.
- Benzene, naphthalene, and ethylbenzene concentrations exceeded only the occupational worker RBC for ingestion and inhalation from tap water at the south test pit.

SVOCs

- There were few detections of SVOCs. Six SVOCs were detected at the south test pit, five at the northeast test pit, two at the north test pit, and none at the Mina Pit.
- Naphthalene exceeded only the occupational worker RBC for ingestion and inhalation from tap water at the south test pit.

In summary, no chemical concentrations exceeded RBCs for complete exposure pathways at the site.

Although gasoline, naphthalene, and ethylbenzene exceeded the soil leaching to groundwater RBCs for occupational worker exposure, and gasoline, diesel, oil, benzene, naphthalene, and ethylbenzene exceeded the occupational worker RBC for ingestion and inhalation from tap water, these RBCs assume that groundwater on site will be used for occupational workers. As stated previously, the City of Springfield provides potable water to the site, and Les Schwab currently does not use and has no plans to use on-site groundwater for occupational workers. Therefore, these exposure pathways are incomplete.

CONCLUSION

The results of the MFA soil and groundwater assessment, together with the results of the Phase II limited subsurface assessment (Krazan 2017) and the Phase I ESA (Wood 2020), indicate the following:

- Gasoline, diesel, oil, VOC, and SVOC contamination is present in soil and groundwater within the excavation footprint of the proposed new building addition. Generally, concentrations are higher in the southern portion of the addition footprint, at the northeast test pit, south test pit, and Main Pit.
- Lead is present in soil at lower concentrations than natural background concentrations and does not appear to be associated with the gasoline contamination.

- Assuming that the current site use will remain into the foreseeable future and that groundwater will not be used in the future for occupational workers, no chemical concentrations in soil and groundwater exceeded relevant RBCs for the current and future use of the site, indicating that current and future excavation, construction, and occupational workers are not at risk of exposure to soil and groundwater contamination detected at the areas investigated within the proposed building addition footprint.

DATA GAPS

Data gaps remaining following the work conducted by MFA, Krazan, and Wood include the following:

- The source of the contamination within the building addition excavation footprint is not known:
 - Although the corrugated metal pipe may have been a source (e.g., a drain feature during site use prior to Les Schwab's operations), some chemical concentrations were higher at locations other than the Main Pit where the pipe is located. In groundwater, oil was higher in the north test pit, and gas and diesel were higher in the northeast and south test pits. In soil, the highest gasoline concentration was at the northeast test pit.
 - Potential sources of contamination associated with the RECs identified in the Phase I ESA are located north, off-property to the west, and off property to the south relative to the building excavation (Attachment A).
- The extent of soil contamination outside the excavation footprint is not known.
- The extent of groundwater contamination outside the excavation footprint is not known.
- The direction of groundwater flow is not known, although generally, shallow groundwater can be expected to flow toward nearby surface water features. As shown in blue on Figure 1, surface water features near the site are located somewhat equidistant to the northeast and southwest from the site, and therefore a likely assumed direction of groundwater flow is not readily apparent from the site's landscape setting.
- The potential for off-site human exposure to contaminated groundwater originating from the site is not known.
 - RBCs for residential and urban residential tap water consumption are not shown on Table 2, but since these RBCs are more conservative than the occupational worker RBCs for ingestion and inhalation from tap water, any

exceedances of the occupational RBC will also exceed RBCs for residential exposure scenarios. Residential and urban residential development is located less than 200 feet east and south of the soil and groundwater contamination in the excavation footprint.

- The pathway for off-site exposure from ingestion and inhalation of tap water would be complete only if groundwater were used. MFA conducted a preliminary search of the Oregon Water Resources Well Log database and identified only two wells within 0.5 miles of the site that extract groundwater for industrial purposes.

RECOMMENDATIONS

To address the data gaps identified above, MFA recommends the following:

- Conduct a limited soil and groundwater assessment with the objective of establishing the lateral limits of the soil and groundwater contamination encountered in the excavation footprint.
 - Advance soil borings north, west, and south of the excavation. Advancing soil borings to the east would require drilling inside the building or drilling along the east property boundary beyond the building.
 - Collect soil and reconnaissance groundwater samples for laboratory analysis of petroleum hydrocarbons.

If this assessment confirms that soil and groundwater contamination does not extend off site, and contaminant concentrations do not exceed construction, excavation, and occupational worker RBCs, then further assessment may not be needed.

If contamination does extend to the site boundary at concentrations exceeding potentially applicable RBCs for off-site receptors, further investigation would be prudent and may include the following:

- Installing groundwater monitoring wells on site to establish the groundwater flow direction.
- Conducting a limited soil and reconnaissance groundwater assessment off site, similar to that described above.
- Finalize the beneficial water use determination to confirm whether there are potential off-site users of groundwater.

David Gibson
August 25, 2022
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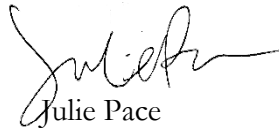
Thank you for the opportunity to support Les Schwab on this project. Please reach out to Merideth D'Andrea or Julie Pace if you have any questions.

Sincerely,

Maul Foster & Alongi, Inc.



Merideth D'Andrea, RG
Principal Geologist



Julie Pace
Staff Health and Safety Specialist

Attachments: Limitations
References
Tables
Figures
A—Phase I ESA Figure 2
B—Laboratory Reports
C—Data Validation Memoranda

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.

REFERENCES

DEQ. 2013. *Development of Oregon Background Metals Concentrations in Soil*. Oregon Department of Environmental Quality. March.

Krazan. 2017. *Phase II Limited Subsurface Assessment, Les Schwab, Springfield, 3294 Main St, Springfield, OR 97478*. Prepared for SFP-E LLC. Krazan & Associates, Inc., Lynnwood, Washington. September 20.

Wood. 2020. *Phase I Environmental Site Assessment, Les Schwab, Store No. 27, 3294 Main St, Springfield, OR 97478*. Prepared for Perkins Coie LLP. Wood Environment & Infrastructure Solutions, Inc., Portland, Oregon. February 28.

TABLES



Table 1
Summary of Soil Analytical Results
Les Schwab, 3294 Main Street, Springfield, Oregon

Excavation Area:	RBC, Soil, Ingestion, Dermal Contact, and Inhalation ⁽¹⁾			RBC, Soil, Vapor Intrusion into Buildings ⁽¹⁾	RBC, Soil, Leaching to Groundwater ⁽¹⁾	Main Pit						Slab Excavation		
						Location:	Occupational	Construction Worker	Excavation Worker	Occupational	Occupational	Main Pit—East	Main Pit—North	Main Pit—South
Sample Name:	Occupational	Construction Worker	Excavation Worker	Occupational	Occupational	061322-EP-01	061322-NP-01	061322-SP-01	063022-SP-7.3-01	061322-WP-01	063022-WP-9.8-01	061322-CW-01	063022-EW-3-01	061322-NW-01
Collection Date:						06/13/2022	06/13/2022	06/13/2022	06/30/2022	06/13/2022	06/30/2022	06/13/2022	06/30/2022	06/13/2022
Collection Depth (ft bgs):						5.5	5.5	5.5	7.3	5.5	9.8	0.25	3.0	0.25
TPH (mg/kg)														
Gasoline-range hydrocarbons	20,000	9,700	NV	NV	130	9.75 U	9.75 U	441	77.2	440	1,200	7.1 U	106	6.43 U
Diesel-range hydrocarbons	14,000	4,600	NV	NV	NV	57.1	29 U	2,830	102	3,160	212 J	25 U	49.1	25.6 U
Oil-range hydrocarbons	14,000 ^(a)	4,600 ^(a)	NV	NV	NV	56.7 U	58 U	55.2 U	60.5 U	1,900	66.5 U	50 U	50.4 U	383
Total Metals (mg/kg)														
Lead	800	800	800	NV	30	9.21	15.5	8.35	--	11	--	7.87	--	16.8
PCB Aroclors (mg/kg)														
Aroclor 1016	NV	NV	NV	NV	NV	0.0137 U	0.0149 U	0.0137 U	--	0.0145 U	--	--	--	0.0124 U
Aroclor 1221	NV	NV	NV	NV	NV	0.0137 U	0.0149 U	0.0137 U	--	0.0145 U	--	--	--	0.0124 U
Aroclor 1232	NV	NV	NV	NV	NV	0.0137 U	0.0149 U	0.0137 U	--	0.0145 U	--	--	--	0.0124 U
Aroclor 1242	NV	NV	NV	NV	NV	0.0137 U	0.0149 U	0.0137 U	--	0.0145 U	--	--	--	0.0124 U
Aroclor 1248	NV	NV	NV	NV	NV	0.0137 U	0.0149 U	0.0137 U	--	0.0145 U	--	--	--	0.0124 U
Aroclor 1254	NV	NV	NV	NV	NV	0.0137 U	0.0149 U	0.0137 U	--	0.0145 U	--	--	--	0.0124 U
Aroclor 1260	NV	NV	NV	NV	NV	0.0137 U	0.0149 U	0.0137 U	--	0.0145 U	--	--	--	0.0124 U
Total PCBs ^(b)	0.59	4.9	140	NV	1.1	0.0137 U	0.0149 U	0.0137 U	--	0.0145 U	--	--	--	0.0124 U
VOCs (mg/kg)														
1,1,1,2-Tetrachloroethane	NV	NV	NV	NV	NV	--	--	--	--	--	0.852 U	--	--	--
1,1,1-Trichloroethane	870,000	470,000	NV	NV	880	--	--	--	--	--	0.852 U	--	--	--
1,1,2,2-Tetrachloroethane	NV	NV	NV	NV	NV	--	--	--	--	--	1.7 U	--	--	--
1,1,2-Trichloroethane	26	54	1,500	4.2	0.029	--	--	--	--	--	0.852 U	--	--	--
1,1-Dichloroethane	260	3,200	89,000	5.9	0.2	--	--	--	--	--	0.852 U	--	--	--
1,1-Dichloroethene	29,000	13,000	370,000	680	32	--	--	--	--	--	0.852 U	--	--	--
1,1-Dichloropropene	NV	NV	NV	NV	NV	--	--	--	--	--	1.7 U	--	--	--
1,2,3-Trichlorobenzene	NV	NV	NV	NV	NV	--	--	--	--	--	8.52 U	--	--	--
1,2,3-Trichloropropane	NV	NV	NV	NV	NV	--	--	--	--	--	1.7 U	--	--	--
1,2,4-Trichlorobenzene	NV	NV	NV	NV	NV	--	--	--	--	--	8.52 U	--	--	--
1,2,4-Trimethylbenzene	6,900	2,900	81,000	NV	48	--	--	--	--	--	19.6	--	--	--
1,2-Dibromo-3-chloropropane	NV	NV	NV	NV	NV	--	--	--	--	--	8.52 U	--	--	--
1,2-Dibromoethane	0.73	9	250	0.16	0.00056	--	--	--	--	--	1.7 U	--	--	--
1,2-Dichlorobenzene	36,000	20,000	560,000	NV	160	--	--	--	--	--	0.852 U	--	--	--
1,2-Dichloroethane	16	200	5,600	1	0.013	--	--	--	--	--	0.852 U	--	--	--
1,2-Dichloropropane	NV	NV	NV	NV	NV	--	--	--	--	--	0.852 U	--	--	--
1,3,5-Trimethylbenzene	6900	2,900	81,000	NV	53	--	--	--	--	--	6.68	--	--	--
1,3-Dichlorobenzene	NV	NV	NV	NV	NV	--	--	--	--	--	0.852 U	--	--	--
1,3-Dichloropropane	NV	NV	NV	NV	NV	--	--	--	--	--	1.7 U	--	--	--
1,4-Dichlorobenzene	64	1,300	36,000	13	0.25	--	--	--	--	--	0.852 U	--	--	--
2,2-Dichloropropane	NV	NV	NV	NV	NV	--	--	--	--	--	1.7 U	--	--	--
2-Butanone	NV	NV	NV	NV	NV	--	--	--	--	--	17 UJ	--	--	--
2-Chlorotoluene	NV	NV	NV	NV	NV	--	--	--	--	--	1.7 U	--	--	--
2-Hexanone	NV	NV	NV	NV	NV	--	--	--	--	--	17 U	--	--	--
4-Chlorotoluene	NV	NV	NV	NV	NV	--	--	--	--	--	1.7 U	--	--	--
4-Isopropyltoluene	NV	NV	NV	NV	NV	--	--	--	--	--	1.7 U	--	--	--
4-Methyl-2-pentanone	NV	NV	NV	NV	NV	--	--	--	--	--	17 U	--	--	--
Acetone	NV	NV	NV	NV	NV	--	--	--	--	--	34.1 UJ	--	--	--
Acrylonitrile	4	40	1,100	1	0.0017	--	--	--	--	--	4.26 U	--	--	--

Table 1
Summary of Soil Analytical Results
Les Schwab, 3294 Main Street, Springfield, Oregon

Excavation Area:	RBC, Soil, Ingestion, Dermal Contact, and Inhalation ⁽¹⁾			RBC, Soil, Vapor Intrusion into Buildings ⁽¹⁾	RBC, Soil, Leaching to Groundwater ⁽¹⁾	Main Pit						Slab Excavation			
	Location:	Occupational	Construction Worker	Excavation Worker	Occupational	Occupational	Main Pit—East	Main Pit—North	Main Pit—South		Main Pit—West		Slab—Central West	Slab—East	Slab—Northwest
Sample Name:	061322-EP-01						061322-NP-01	061322-SP-01	063022-SP-7.3-01	061322-WP-01	063022-WP-9.8-01	061322-CW-01	063022-EW-3-01	061322-NW-01	
Collection Date:							06/13/2022	06/13/2022	06/13/2022	06/30/2022	06/13/2022	06/30/2022	06/13/2022	06/30/2022	06/13/2022
Collection Depth (ft bgs):							5.5	5.5	5.5	7.3	5.5	9.8	0.25	3.0	0.25
Benzene	37	380	11,000	2.1	0.1	0.0195 U	0.0195 U	0.0171 U	--	0.0183 U	0.341 U	0.0142 U	--	0.0129 U	
Bromobenzene	NV	NV	NV	NV	NV	--	--	--	--	--	0.852 U	--	--	--	
Bromodichloromethane	15	230	6,300	0.53	0.0088	--	--	--	--	--	1.7 U	--	--	--	
Bromoform	260	2,700	74,000	110	0.22	--	--	--	--	--	3.41 U	--	--	--	
Bromomethane	750	370	10,000	17	0.4	--	--	--	--	--	17 U	--	--	--	
Carbon disulfide	NV	NV	NV	NV	NV	--	--	--	--	--	17 U	--	--	--	
Carbon tetrachloride	34	320	8,900	1.6	0.058	--	--	--	--	--	1.7 U	--	--	--	
Chlorobenzene	8,700	4,700	130,000	NV	27	--	--	--	--	--	0.852 U	--	--	--	
Chlorobromomethane	NV	NV	NV	NV	NV	--	--	--	--	--	1.7 U	--	--	--	
Chloroethane	NV	NV	NV	NV	1,300	--	--	--	--	--	17 U	--	--	--	
Chloroform	26	410	11,000	0.41	0.015	--	--	--	--	--	1.7 U	--	--	--	
Chloromethane	25,000	25,000	700,000	300	9.1	--	--	--	--	--	8.52 U	--	--	--	
cis-1,2-Dichloroethene	2,300	710	20,000	NV	4.5	--	--	--	--	--	0.852 U	--	--	--	
cis-1,3-Dichloropropene	NV	NV	NV	NV	NV	--	--	--	--	--	1.7 U	--	--	--	
Dibromochloromethane	17	210	5,800	2.9	0.011	--	--	--	--	--	3.41 U	--	--	--	
Dibromomethane	NV	NV	NV	NV	NV	--	--	--	--	--	1.7 U	--	--	--	
Dichlorodifluoromethane (Freon 12)	NV	NV	NV	NV	NV	--	--	--	--	--	3.41 U	--	--	--	
Ethylbenzene	150	1,700	49,000	17	0.9	0.0487 U	0.0488 U	0.0427 U	--	0.0457 U	5.92	0.0355 U	--	0.0321 U	
Hexachlorobutadiene	NV	NV	NV	NV	NV	--	--	--	--	--	3.41 U	--	--	--	
Isopropylbenzene	57,000	27,000	750,000	NV	NV	--	--	--	--	--	1.7 U	--	--	--	
m,p-Xylene	NV	NV	NV	NV	NV	--	--	--	--	--	5.78	--	--	--	
Methyl tert-butyl ether	1,100	12,000	320,000	110	0.54	--	--	--	--	--	1.7 U	--	--	--	
Methylene chloride	1,600	2,100	58,000	950	2.4	--	--	--	--	--	17 U	--	--	--	
Naphthalene	23	580	16,000	83	0.34	0.195 U	0.195 U	0.256 U	--	0.183 U	3.7	0.142 U	--	0.129 U	
n-Butylbenzene	NV	NV	NV	NV	NV	--	--	--	--	--	2.61 J	--	--	--	
n-Propylbenzene	NV	NV	NV	NV	NV	--	--	--	--	--	5.23	--	--	--	
o-Xylene	NV	NV	NV	NV	NV	--	--	--	--	--	0.852 U	--	--	--	
sec-Butylbenzene	NV	NV	NV	NV	NV	--	--	--	--	--	1.7 U	--	--	--	
Styrene	130,000	56,000	NV	NV	800	--	--	--	--	--	1.7 U	--	--	--	
tert-Butylbenzene	NV	NV	NV	NV	NV	--	--	--	--	--	1.7 U	--	--	--	
Tetrachloroethene	1,000	1,800	50,000	36	1.9	--	--	--	--	--	0.852 U	--	--	--	
Toluene	88,000	28,000	770,000	NV	490	0.0975 U	0.0975 U	0.0854 U	--	0.0915 U	1.7 U	0.071 U	--	0.0643 U	
trans-1,2-Dichloroethene	23,000	7,100	200,000	NV	51	--	--	--	--	--	0.852 U	--	--	--	
trans-1,3-Dichloropropene	NV	NV	NV	NV	NV	--	--	--	--	--	1.7 U	--	--	--	
Trichloroethene	51	130	3,700	2.3	0.087	--	--	--	--	--	0.852 U	--	--	--	
Trichlorofluoromethane (Freon 11)	130,000	69,000	NV	NV	280	--	--	--	--	--	3.41 U	--	--	--	
Vinyl chloride	4.4	34	950	2.2	0.01	--	--	--	--	--	0.852 U	--	--	--	
Xylenes, total ^(c)	25,000	20,000	560,000	NV	100	0.146 U	0.146 U	0.128 U	--	0.137 U	6.21	0.107 U	--	0.0964 U	
SVOCs (mg/kg)															
1,2,4-Trichlorobenzene	NV	NV	NV	NV	NV	--	--	--	--	--	0.0446 U	--	--	--	
1,2-Dichlorobenzene	36,000	20,000	560,000	NV	160	--	--	--	--	--	0.0446 U	--	--	--	
1,2-Dinitrobenzene	NV	NV	NV	NV	NV	--	--	--	--	--	0.446 U	--	--	--	
1,3-Dichlorobenzene	NV	NV	NV	NV	NV	--	--	--	--	--	0.0446 U	--	--	--	
1,3-Dinitrobenzene	NV	NV	NV	NV	NV	--	--	--	--	--	0.446 U	--	--	--	
1,4-Dichlorobenzene	64	1,300	36,000	13	0.25	--	--	--	--	--	0.0446 U	--	--	--	

Table 1
Summary of Soil Analytical Results
Les Schwab, 3294 Main Street, Springfield, Oregon

Excavation Area:	RBC, Soil, Ingestion, Dermal Contact, and Inhalation ⁽¹⁾			RBC, Soil, Vapor Intrusion into Buildings ⁽¹⁾	RBC, Soil, Leaching to Groundwater ⁽¹⁾	Main Pit						Slab Excavation		
	Location:	Occupational	Construction Worker	Excavation Worker	Occupational	Occupational	Main Pit—East	Main Pit—North	Main Pit—South		Main Pit—West		Slab—Central West	Slab—East
Sample Name:	061322-EP-01						061322-NP-01	061322-SP-01	063022-SP-7.3-01	061322-WP-01	063022-WP-9.8-01	061322-CW-01	063022-EW-3-01	061322-NW-01
Collection Date:	06/13/2022	06/13/2022	06/13/2022	06/13/2022	06/13/2022	06/13/2022	06/13/2022	06/13/2022	06/13/2022	06/13/2022	06/13/2022	06/13/2022	06/13/2022	06/13/2022
Collection Depth (ft bgs):	5.5	5.5	5.5	7.3	5.5	9.8	0.25	3.0	0.25					
1,4-Dinitrobenzene	NV	NV	NV	NV	NV	--	--	--	--	--	0.446 U	--	--	--
1-Methylnaphthalene	NV	NV	NV	NV	NV	--	--	--	--	--	1.73	--	--	--
2,3,4,6-Tetrachlorophenol	NV	NV	NV	NV	NV	--	--	--	--	--	0.089 U	--	--	--
2,3,5,6-Tetrachlorophenol	NV	NV	NV	NV	NV	--	--	--	--	--	0.089 U	--	--	--
2,4,5-Trichlorophenol	NV	NV	NV	NV	NV	--	--	--	--	--	0.089 U	--	--	--
2,4,6-Trichlorophenol	210	270	7,400	NV	8.9	--	--	--	--	--	0.089 U	--	--	--
2,4-Dichlorophenol	NV	NV	NV	NV	NV	--	--	--	--	--	0.089 U	--	--	--
2,4-Dimethylphenol	NV	NV	NV	NV	NV	--	--	--	--	--	0.089 U	--	--	--
2,4-Dinitrophenol	NV	NV	NV	NV	NV	--	--	--	--	--	0.446 U	--	--	--
2,4-Dinitrotoluene	NV	NV	NV	NV	NV	--	--	--	--	--	0.179 U	--	--	--
2,6-Dinitrotoluene	1.5	13	350	NV	0.049	--	--	--	--	--	0.179 U	--	--	--
2-Chloronaphthalene	NV	NV	NV	NV	NV	--	--	--	--	--	0.0179 U	--	--	--
2-Chlorophenol	NV	NV	NV	NV	NV	--	--	--	--	--	0.089 U	--	--	--
2-Methylnaphthalene	NV	NV	NV	NV	NV	--	--	--	--	--	3.67	--	--	--
2-Methylphenol	NV	NV	NV	NV	NV	--	--	--	--	--	0.0446 U	--	--	--
2-Nitroaniline	NV	NV	NV	NV	NV	--	--	--	--	--	0.357 U	--	--	--
2-Nitrophenol	NV	NV	NV	NV	NV	--	--	--	--	--	0.179 U	--	--	--
3- & 4-Methylphenol (m,p-Cresol)	NV	NV	NV	NV	NV	--	--	--	--	--	0.0446 U	--	--	--
3,3-Dichlorobenzidine	5.1	42	1,200	NV	1	--	--	--	--	--	0.357 UJ	--	--	--
3-Nitroaniline	NV	NV	NV	NV	NV	--	--	--	--	--	0.357 U	--	--	--
4,6-Dinitro-2-methylphenol	NV	NV	NV	NV	NV	--	--	--	--	--	0.446 U	--	--	--
4-Bromophenylphenyl ether	NV	NV	NV	NV	NV	--	--	--	--	--	0.0446 U	--	--	--
4-Chloro-3-methylphenol	NV	NV	NV	NV	NV	--	--	--	--	--	0.179 U	--	--	--
4-Chloroaniline	NV	NV	NV	NV	NV	--	--	--	--	--	0.0446 U	--	--	--
4-Chlorophenylphenyl ether	NV	NV	NV	NV	NV	--	--	--	--	--	0.0446 U	--	--	--
4-Nitroaniline	NV	NV	NV	NV	NV	--	--	--	--	--	0.357 U	--	--	--
4-Nitrophenol	NV	NV	NV	NV	NV	--	--	--	--	--	0.179 U	--	--	--
Acenaphthene	70,000	21,000	590,000	NV	NV	--	--	--	--	--	0.0314 U	--	--	--
Acenaphthylene	NV	NV	NV	NV	NV	--	--	--	--	--	0.0179 U	--	--	--
Aniline	NV	NV	NV	NV	NV	--	--	--	--	--	0.089 U	--	--	--
Anthracene	350,000	110,000	NV	NV	NV	--	--	--	--	--	0.0179 U	--	--	--
Benzo(a)anthracene	21	170	4,800	NV	NV	--	--	--	--	--	0.0179 U	--	--	--
Benzo(a)pyrene	2.1	17	490	NV	NV	--	--	--	--	--	0.0268 U	--	--	--
Benzo(b)fluoranthene	21	170	4,900	NV	NV	--	--	--	--	--	0.0268 U	--	--	--
Benzo(ghi)perylene	NV	NV	NV	NV	NV	--	--	--	--	--	0.0179 U	--	--	--
Benzo(k)fluoranthene	210	1,700	49,000	NV	NV	--	--	--	--	--	0.0268 U	--	--	--
Benzoic acid	NV	NV	NV	NV	NV	--	--	--	--	--	2.8 U	--	--	--
Benzyl alcohol	NV	NV	NV	NV	NV	--	--	--	--	--	0.089 U	--	--	--
Bis(2-chloroethoxy)methane	NV	NV	NV	NV	NV	--	--	--	--	--	0.114 U	--	--	--
Bis(2-chloroethyl)ether	1.3	16	450	6.9	0.00087	--	--	--	--	--	0.0446 U	--	--	--
Bis(2-chloroisopropyl)ether	NV	NV	NV	NV	NV	--	--	--	--	--	0.0446 U	--	--	--
Bis(2-ethylhexyl)phthalate	160	1,300	37,000	NV	NV	--	--	--	--	--	0.268 U	--	--	--
Butylbenzylphthalate	NV	NV	NV	NV	NV	--	--	--	--	--	0.179 U	--	--	--
Carbazole	NV	NV	NV	NV	NV	--	--	--	--	--	0.0268 U	--	--	--
Chrysene	2,100	17,000	490,000	NV	NV	--	--	--	--	--	0.0179 U	--	--	--

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						Location:	Occupational	Construction Worker	Excavation Worker	Occupational	Occupational	Main Pit—East	Main Pit—North	Main Pit—South
Sample Name:	Occupational	Construction Worker	Excavation Worker	Occupational	Occupational	061322-EP-01	061322-NP-01	061322-SP-01	063022-SP-7.3-01	061322-WP-01	063022-WP-9.8-01	061322-CW-01	063022-EW-3-01	061322-NW-01
Collection Date:						06/13/2022	06/13/2022	06/13/2022	06/30/2022	06/13/2022	06/30/2022	06/13/2022	06/30/2022	06/13/2022
Collection Depth (ft bgs):						5.5	5.5	5.5	7.3	5.5	9.8	0.25	3.0	0.25
Di(2-ethylhexyl)adipate	NV	NV	NV	NV	NV	--	--	--	--	--	0.446 U	--	--	--
Dibenzo(a,h)anthracene	2.1	17	490	NV	NV	--	--	--	--	--	0.0179 U	--	--	--
Dibenzofuran	NV	NV	NV	NV	NV	--	--	--	--	--	0.0214 U	--	--	--
Diethyl phthalate	NV	NV	NV	NV	NV	--	--	--	--	--	0.179 U	--	--	--
Dimethyl phthalate	NV	NV	NV	NV	NV	--	--	--	--	--	0.179 U	--	--	--
Di-n-butyl phthalate	NV	NV	NV	NV	NV	--	--	--	--	--	0.179 U	--	--	--
Di-n-octyl phthalate	NV	NV	NV	NV	NV	--	--	--	--	--	0.179 U	--	--	--
Fluoranthene	30,000	10,000	280,000	NV	NV	--	--	--	--	--	0.0179 U	--	--	--
Fluorene	47,000	14,000	390,000	NV	NV	--	--	--	--	--	0.0892	--	--	--
Hexachlorobenzene	0.93	11	320	13	0.084	--	--	--	--	--	0.0179 U	--	--	--
Hexachlorobutadiene	NV	NV	NV	NV	NV	--	--	--	--	--	0.0446 U	--	--	--
Hexachlorocyclopentadiene	NV	NV	NV	NV	NV	--	--	--	--	--	0.089 U	--	--	--
Hexachloroethane	32	180	5,100	7.6	0.087	--	--	--	--	--	0.0446 U	--	--	--
Hydrazine, 1,2-diphenyl	NV	NV	NV	NV	NV	--	--	--	--	--	0.0446 U	--	--	--
Indeno(1,2,3-cd)pyrene	21	170	4,900	NV	NV	--	--	--	--	--	0.0179 U	--	--	--
Isophorone	NV	NV	NV	NV	NV	--	--	--	--	--	0.0803 U	--	--	--
Naphthalene	23	580	16,000	83	0.34	--	--	--	--	--	1.12	--	--	--
Nitrobenzene	NV	NV	NV	NV	NV	--	--	--	--	--	0.248 U	--	--	--
N-Nitrosodimethylamine	NV	NV	NV	NV	NV	--	--	--	--	--	0.0446 U	--	--	--
N-Nitrosodiphenylamine	470	3,800	110,000	NV	45	--	--	--	--	--	0.181 U	--	--	--
N-Nitrosodipropylamine	0.33	2.7	74	NV	0.0054	--	--	--	--	--	0.207 U	--	--	--
Pentachlorophenol	4	34	960	NV	0.17	--	--	--	--	--	0.179 U	--	--	--
Phenanthrene	NV	NV	NV	NV	NV	--	--	--	--	--	0.126	--	--	--
Phenol	NV	NV	NV	NV	NV	--	--	--	--	--	0.0357 U	--	--	--
Pyrene	23,000	7,500	210,000	NV	NV	--	--	--	--	--	0.0179 U	--	--	--
Pyridine	NV	NV	NV	NV	NV	--	--	--	--	--	0.089 U	--	--	--
cPAH TEQ ^{(d)(2)}	2.1	17	490	NV	NV	--	--	--	--	--	0.0268 U	--	--	--

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Les Schwab, 3294 Main Street, Springfield, Oregon

Excavation Area: Location:	RBC, Soil, Ingestion, Dermal Contact, and Inhalation ⁽¹⁾			RBC, Soil, Vapor Intrusion into Buildings ⁽¹⁾	RBC, Soil, Leaching to Groundwater ⁽¹⁾	Slab Excavation (continued)			Additional Test Pits		
	Occupational	Construction Worker	Excavation Worker	Occupational	Occupational	Slab—South	Slab—Southeast	Slab—West	North Test Pit	Northeast Test Pit	South Test Pit
Sample Name:						063022-SW-3-01	061322-SE-01	063022-WW-3-01	070822-N-6.8	070822-NE-7.0	070822-S-7.6
Collection Date:						06/30/2022	06/13/2022	06/30/2022	07/08/2022	07/08/2022	07/08/2022
Collection Depth (ft bgs):						3.0	0.25	3.0	6.8	7.0	7.6
TPH (mg/kg)											
Gasoline-range hydrocarbons	20,000	9,700	NV	NV	130	38.3	7.31 U	35	7.77 U	2,310	306
Diesel-range hydrocarbons	14,000	4,600	NV	NV	NV	25 U	25.7 U	288	270	837 J	238
Oil-range hydrocarbons	14,000 ^(a)	4,600 ^(a)	NV	NV	NV	50 U	51.3 U	50.4 U	54.4 U	55.6 U	56.2 U
Total Metals (mg/kg)											
Lead	800	800	800	NV	30	--	7.39	--	--	--	--
PCB Aroclors (mg/kg)											
Aroclor 1016	NV	NV	NV	NV	NV	--	--	--	--	--	--
Aroclor 1221	NV	NV	NV	NV	NV	--	--	--	--	--	--
Aroclor 1232	NV	NV	NV	NV	NV	--	--	--	--	--	--
Aroclor 1242	NV	NV	NV	NV	NV	--	--	--	--	--	--
Aroclor 1248	NV	NV	NV	NV	NV	--	--	--	--	--	--
Aroclor 1254	NV	NV	NV	NV	NV	--	--	--	--	--	--
Aroclor 1260	NV	NV	NV	NV	NV	--	--	--	--	--	--
Total PCBs ^(b)	0.59	4.9	140	NV	1.1	--	--	--	--	--	--
VOCs (mg/kg)											
1,1,1,2-Tetrachloroethane	NV	NV	NV	NV	NV	--	--	--	0.0389 U	0.417 U	0.0436 U
1,1,1-Trichloroethane	870,000	470,000	NV	NV	880	--	--	--	0.0389 U	0.417 U	0.0436 U
1,1,2,2-Tetrachloroethane	NV	NV	NV	NV	NV	--	--	--	0.0777 U	0.834 U	0.0871 U
1,1,2-Trichloroethane	26	54	1,500	4.2	0.029	--	--	--	0.0389 U	0.417 U	0.0436 U
1,1-Dichloroethane	260	3,200	89,000	5.9	0.2	--	--	--	0.0389 U	0.417 U	0.0436 U
1,1-Dichloroethene	29,000	13,000	370,000	680	32	--	--	--	0.0389 U	0.417 U	0.0436 U
1,1-Dichloropropene	NV	NV	NV	NV	NV	--	--	--	0.0777 U	0.834 U	0.0871 U
1,2,3-Trichlorobenzene	NV	NV	NV	NV	NV	--	--	--	0.389 U	4.17 U	0.436 U
1,2,3-Trichloropropane	NV	NV	NV	NV	NV	--	--	--	0.0777 U	0.834 U	0.0871 U
1,2,4-Trichlorobenzene	NV	NV	NV	NV	NV	--	--	--	0.389 U	4.17 U	0.436 U
1,2,4-Trimethylbenzene	6,900	2,900	81,000	NV	48	--	--	--	0.0777 U	0.834 U	0.0871 U
1,2-Dibromo-3-chloropropane	NV	NV	NV	NV	NV	--	--	--	0.389 U	4.17 U	0.436 U
1,2-Dibromoethane	0.73	9	250	0.16	0.00056	--	--	--	0.0777 U	0.834 U	0.0871 U
1,2-Dichlorobenzene	36,000	20,000	560,000	NV	160	--	--	--	0.0389 U	0.417 U	0.0436 U
1,2-Dichloroethane	16	200	5,600	1	0.013	--	--	--	0.0389 U	0.417 U	0.0436 U
1,2-Dichloropropane	NV	NV	NV	NV	NV	--	--	--	0.0389 U	0.417 U	0.0436 U
1,3,5-Trimethylbenzene	6900	2,900	81,000	NV	53	--	--	--	0.0777 U	0.834 U	0.0871 U
1,3-Dichlorobenzene	NV	NV	NV	NV	NV	--	--	--	0.0389 U	0.417 U	0.0436 U
1,3-Dichloropropane	NV	NV	NV	NV	NV	--	--	--	0.0777 U	0.834 U	0.0871 U
1,4-Dichlorobenzene	64	1,300	36,000	13	0.25	--	--	--	0.0389 U	0.417 U	0.0436 U
2,2-Dichloropropane	NV	NV	NV	NV	NV	--	--	--	0.0777 U	0.834 U	0.0871 U
2-Butanone	NV	NV	NV	NV	NV	--	--	--	0.777 U	8.34 U	0.871 U
2-Chlorotoluene	NV	NV	NV	NV	NV	--	--	--	0.0777 U	0.834 U	0.0871 U
2-Hexanone	NV	NV	NV	NV	NV	--	--	--	0.777 U	8.34 U	0.871 U
4-Chlorotoluene	NV	NV	NV	NV	NV	--	--	--	0.0777 U	0.834 U	0.0871 U
4-Isopropyltoluene	NV	NV	NV	NV	NV	--	--	--	0.0777 U	0.834 U	0.0871 U
4-Methyl-2-pentanone	NV	NV	NV	NV	NV	--	--	--	0.777 U	13.3 U	0.871 U
Acetone	NV	NV	NV	NV	NV	--	--	--	1.55 U	16.7 U	1.74 U
Acrylonitrile	4	40	1,100	1	0.0017	--	--	--	0.155 U	1.67 U	0.174 U

Table 1
Summary of Soil Analytical Results
Les Schwab, 3294 Main Street, Springfield, Oregon

Excavation Area: Location:	RBC, Soil, Ingestion, Dermal Contact, and Inhalation ⁽¹⁾			RBC, Soil, Vapor Intrusion into Buildings ⁽¹⁾	RBC, Soil, Leaching to Groundwater ⁽¹⁾	Slab Excavation (continued)			Additional Test Pits		
	Occupational	Construction Worker	Excavation Worker	Occupational	Occupational	Slab—South	Slab—Southeast	Slab—West	North Test Pit	Northeast Test Pit	South Test Pit
Sample Name:						063022-SW-3-01	061322-SE-01	063022-WW-3-01	070822-N-6.8	070822-NE-7.0	070822-S-7.6
Collection Date:						06/30/2022	06/13/2022	06/30/2022	07/08/2022	07/08/2022	07/08/2022
Collection Depth (ft bgs):						3.0	0.25	3.0	6.8	7.0	7.6
Benzene	37	380	11,000	2.1	0.1	--	0.0146 U	--	0.0155 U	0.167 U	0.0174 U
Bromobenzene	NV	NV	NV	NV	NV	--	--	--	0.0389 U	0.417 U	0.0436 U
Bromodichloromethane	15	230	6,300	0.53	0.0088	--	--	--	0.0777 U	0.834 U	0.0871 U
Bromoform	260	2,700	74,000	110	0.22	--	--	--	0.155 U	1.67 U	0.174 U
Bromomethane	750	370	10,000	17	0.4	--	--	--	0.777 U	8.34 U	0.871 U
Carbon disulfide	NV	NV	NV	NV	NV	--	--	--	0.777 U	8.34 U	0.871 U
Carbon tetrachloride	34	320	8,900	1.6	0.058	--	--	--	0.0777 U	0.834 U	0.0871 U
Chlorobenzene	8,700	4,700	130,000	NV	27	--	--	--	0.0389 U	0.417 U	0.0436 U
Chlorobromomethane	NV	NV	NV	NV	NV	--	--	--	0.0777 U	0.834 U	0.0871 U
Chloroethane	NV	NV	NV	NV	1,300	--	--	--	0.777 U	8.34 U	0.871 U
Chloroform	26	410	11,000	0.41	0.015	--	--	--	0.0777 U	0.834 U	0.0871 U
Chloromethane	25,000	25,000	700,000	300	9.1	--	--	--	0.389 U	4.17 U	0.436 U
cis-1,2-Dichloroethene	2,300	710	20,000	NV	4.5	--	--	--	0.0389 U	0.417 U	0.0436 U
cis-1,3-Dichloropropene	NV	NV	NV	NV	NV	--	--	--	0.0777 U	0.834 U	0.0871 U
Dibromochloromethane	17	210	5,800	2.9	0.011	--	--	--	0.155 U	1.67 U	0.174 U
Dibromomethane	NV	NV	NV	NV	NV	--	--	--	0.0777 U	0.834 U	0.0871 U
Dichlorodifluoromethane (Freon 12)	NV	NV	NV	NV	NV	--	--	--	0.155 U	1.67 U	0.174 U
Ethylbenzene	150	1,700	49,000	17	0.9	--	0.0365 U	--	0.0389 U	0.417 U	0.0436 U
Hexachlorobutadiene	NV	NV	NV	NV	NV	--	--	--	0.155 U	1.67 U	0.174 U
Isopropylbenzene	57,000	27,000	750,000	NV	NV	--	--	--	0.0777 U	0.834 U	0.0871 U
m,p-Xylene	NV	NV	NV	NV	NV	--	--	--	0.0777 U	0.834 U	0.0871 U
Methyl tert-butyl ether	1,100	12,000	320,000	110	0.54	--	--	--	0.0777 U	0.834 U	0.0871 U
Methylene chloride	1,600	2,100	58,000	950	2.4	--	--	--	0.777 U	8.34 U	0.871 U
Naphthalene	23	580	16,000	83	0.34	--	0.146 U	--	0.155 U	1.67 U	0.174 U
n-Butylbenzene	NV	NV	NV	NV	NV	--	--	--	0.0777 U	4.38	0.169
n-Propylbenzene	NV	NV	NV	NV	NV	--	--	--	0.0389 U	3.04	0.0793
o-Xylene	NV	NV	NV	NV	NV	--	--	--	0.0389 U	0.417 U	0.0436 U
sec-Butylbenzene	NV	NV	NV	NV	NV	--	--	--	0.0777 U	1.46 J	0.0871 U
Styrene	130,000	56,000	NV	NV	800	--	--	--	0.0777 U	0.834 U	0.0871 U
tert-Butylbenzene	NV	NV	NV	NV	NV	--	--	--	0.0777 U	0.834 U	0.0871 U
Tetrachloroethene	1,000	1,800	50,000	36	1.9	--	--	--	0.0389 U	0.417 U	0.0436 U
Toluene	88,000	28,000	770,000	NV	490	--	0.0731 U	--	0.0777 U	0.834 U	0.0871 U
trans-1,2-Dichloroethene	23,000	7,100	200,000	NV	51	--	--	--	0.0389 U	0.417 U	0.0436 U
trans-1,3-Dichloropropene	NV	NV	NV	NV	NV	--	--	--	0.0777 U	0.834 U	0.0871 U
Trichloroethene	51	130	3,700	2.3	0.087	--	--	--	0.0389 U	0.417 U	0.0436 U
Trichlorofluoromethane (Freon 11)	130,000	69,000	NV	NV	280	--	--	--	0.155 U	1.67 U	0.174 U
Vinyl chloride	4.4	34	950	2.2	0.01	--	--	--	0.0389 U	0.417 U	0.0436 U
Xylenes, total ^(c)	25,000	20,000	560,000	NV	100	--	0.11 U	--	0.0777 U	0.834 U	0.0871 U
SVOCs (mg/kg)											
1,2,4-Trichlorobenzene	NV	NV	NV	NV	NV	--	--	--	--	--	--
1,2-Dichlorobenzene	36,000	20,000	560,000	NV	160	--	--	--	--	--	--
1,2-Dinitrobenzene	NV	NV	NV	NV	NV	--	--	--	--	--	--
1,3-Dichlorobenzene	NV	NV	NV	NV	NV	--	--	--	--	--	--
1,3-Dinitrobenzene	NV	NV	NV	NV	NV	--	--	--	--	--	--
1,4-Dichlorobenzene	64	1,300	36,000	13	0.25	--	--	--	--	--	--

Table 1
Summary of Soil Analytical Results
Les Schwab, 3294 Main Street, Springfield, Oregon

Excavation Area: Location:	RBC, Soil, Ingestion, Dermal Contact, and Inhalation ⁽¹⁾			RBC, Soil, Vapor Intrusion into Buildings ⁽¹⁾	RBC, Soil, Leaching to Groundwater ⁽¹⁾	Slab Excavation (continued)			Additional Test Pits		
	Occupational	Construction Worker	Excavation Worker	Occupational	Occupational	Slab—South	Slab—Southeast	Slab—West	North Test Pit	Northeast Test Pit	South Test Pit
Sample Name:						063022-SW-3-01	061322-SE-01	063022-WW-3-01	070822-N-6.8	070822-NE-7.0	070822-S-7.6
Collection Date:						06/30/2022	06/13/2022	06/30/2022	07/08/2022	07/08/2022	07/08/2022
Collection Depth (ft bgs):						3.0	0.25	3.0	6.8	7.0	7.6
1,4-Dinitrobenzene	NV	NV	NV	NV	NV	--	--	--	--	--	--
1-Methylnaphthalene	NV	NV	NV	NV	NV	--	--	--	0.0136 U	1.51	0.0409
2,3,4,6-Tetrachlorophenol	NV	NV	NV	NV	NV	--	--	--	--	--	--
2,3,5,6-Tetrachlorophenol	NV	NV	NV	NV	NV	--	--	--	--	--	--
2,4,5-Trichlorophenol	NV	NV	NV	NV	NV	--	--	--	--	--	--
2,4,6-Trichlorophenol	210	270	7,400	NV	8.9	--	--	--	--	--	--
2,4-Dichlorophenol	NV	NV	NV	NV	NV	--	--	--	--	--	--
2,4-Dimethylphenol	NV	NV	NV	NV	NV	--	--	--	--	--	--
2,4-Dinitrophenol	NV	NV	NV	NV	NV	--	--	--	--	--	--
2,4-Dinitrotoluene	NV	NV	NV	NV	NV	--	--	--	--	--	--
2,6-Dinitrotoluene	1.5	13	350	NV	0.049	--	--	--	--	--	--
2-Chloronaphthalene	NV	NV	NV	NV	NV	--	--	--	--	--	--
2-Chlorophenol	NV	NV	NV	NV	NV	--	--	--	--	--	--
2-Methylnaphthalene	NV	NV	NV	NV	NV	--	--	--	0.0136 U	1.65	0.0511
2-Methylphenol	NV	NV	NV	NV	NV	--	--	--	--	--	--
2-Nitroaniline	NV	NV	NV	NV	NV	--	--	--	--	--	--
2-Nitrophenol	NV	NV	NV	NV	NV	--	--	--	--	--	--
3- & 4-Methylphenol (m,p-Cresol)	NV	NV	NV	NV	NV	--	--	--	--	--	--
3,3-Dichlorobenzidine	5.1	42	1,200	NV	1	--	--	--	--	--	--
3-Nitroaniline	NV	NV	NV	NV	NV	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	NV	NV	NV	NV	NV	--	--	--	--	--	--
4-Bromophenylphenyl ether	NV	NV	NV	NV	NV	--	--	--	--	--	--
4-Chloro-3-methylphenol	NV	NV	NV	NV	NV	--	--	--	--	--	--
4-Chloroaniline	NV	NV	NV	NV	NV	--	--	--	--	--	--
4-Chlorophenylphenyl ether	NV	NV	NV	NV	NV	--	--	--	--	--	--
4-Nitroaniline	NV	NV	NV	NV	NV	--	--	--	--	--	--
4-Nitrophenol	NV	NV	NV	NV	NV	--	--	--	--	--	--
Acenaphthene	70,000	21,000	590,000	NV	NV	--	--	--	0.0136 U	0.0624 U	0.014 U
Acenaphthylene	NV	NV	NV	NV	NV	--	--	--	0.0136 U	0.0271 U	0.014 U
Aniline	NV	NV	NV	NV	NV	--	--	--	--	--	--
Anthracene	350,000	110,000	NV	NV	NV	--	--	--	0.0136 U	0.0258 U	0.0252 U
Benzo(a)anthracene	21	170	4,800	NV	NV	--	--	--	0.0136 U	0.0136 U	0.014 U
Benzo(a)pyrene	2.1	17	490	NV	NV	--	--	--	0.0136 U	0.0136 U	0.014 U
Benzo(b)fluoranthene	21	170	4,900	NV	NV	--	--	--	0.0136 U	0.0136 U	0.014 U
Benzo(ghi)perylene	NV	NV	NV	NV	NV	--	--	--	0.0136 U	0.0136 U	0.014 U
Benzo(k)fluoranthene	210	1,700	49,000	NV	NV	--	--	--	0.0136 U	0.0136 U	0.014 U
Benzoic acid	NV	NV	NV	NV	NV	--	--	--	--	--	--
Benzyl alcohol	NV	NV	NV	NV	NV	--	--	--	--	--	--
Bis(2-chloroethoxy)methane	NV	NV	NV	NV	NV	--	--	--	--	--	--
Bis(2-chloroethyl)ether	1.3	16	450	6.9	0.00087	--	--	--	--	--	--
Bis(2-chloroisopropyl)ether	NV	NV	NV	NV	NV	--	--	--	--	--	--
Bis(2-ethylhexyl)phthalate	160	1,300	37,000	NV	NV	--	--	--	--	--	--
Butylbenzylphthalate	NV	NV	NV	NV	NV	--	--	--	--	--	--
Carbazole	NV	NV	NV	NV	NV	--	--	--	--	--	--
Chrysene	2,100	17,000	490,000	NV	NV	--	--	--	0.0136 U	0.0136 U	0.014 U

Table 1
Summary of Soil Analytical Results
Les Schwab, 3294 Main Street, Springfield, Oregon

Excavation Area: Location:	RBC, Soil, Ingestion, Dermal Contact, and Inhalation ⁽¹⁾			RBC, Soil, Vapor Intrusion into Buildings ⁽¹⁾	RBC, Soil, Leaching to Groundwater ⁽¹⁾	Slab Excavation (continued)			Additional Test Pits		
	Occupational	Construction Worker	Excavation Worker	Occupational	Occupational	Slab—South	Slab—Southeast	Slab—West	North Test Pit	Northeast Test Pit	South Test Pit
Sample Name:						063022-SW-3-01	061322-SE-01	063022-WW-3-01	070822-N-6.8	070822-NE-7.0	070822-S-7.6
Collection Date:						06/30/2022	06/13/2022	06/30/2022	07/08/2022	07/08/2022	07/08/2022
Collection Depth (ft bgs):						3.0	0.25	3.0	6.8	7.0	7.6
Di(2-ethylhexyl)adipate	NV	NV	NV	NV	NV	--	--	--	--	--	--
Dibenzo(a,h)anthracene	2.1	17	490	NV	NV	--	--	--	0.0136 U	0.0136 U	0.014 U
Dibenzofuran	NV	NV	NV	NV	NV	--	--	--	0.0136 U	0.0543 U	0.014 U
Diethyl phthalate	NV	NV	NV	NV	NV	--	--	--	--	--	--
Dimethyl phthalate	NV	NV	NV	NV	NV	--	--	--	--	--	--
Di-n-butyl phthalate	NV	NV	NV	NV	NV	--	--	--	--	--	--
Di-n-octyl phthalate	NV	NV	NV	NV	NV	--	--	--	--	--	--
Fluoranthene	30,000	10,000	280,000	NV	NV	--	--	--	0.0136 U	0.0136 U	0.014 U
Fluorene	47,000	14,000	390,000	NV	NV	--	--	--	0.0136 U	0.184	0.0206
Hexachlorobenzene	0.93	11	320	13	0.084	--	--	--	--	--	--
Hexachlorobutadiene	NV	NV	NV	NV	NV	--	--	--	--	--	--
Hexachlorocyclopentadiene	NV	NV	NV	NV	NV	--	--	--	--	--	--
Hexachloroethane	32	180	5,100	7.6	0.087	--	--	--	--	--	--
Hydrazine, 1,2-diphenyl	NV	NV	NV	NV	NV	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	21	170	4,900	NV	NV	--	--	--	0.0136 U	0.0136 U	0.014 U
Isophorone	NV	NV	NV	NV	NV	--	--	--	--	--	--
Naphthalene	23	580	16,000	83	0.34	--	--	--	0.0136 U	0.16 U	0.028 U
Nitrobenzene	NV	NV	NV	NV	NV	--	--	--	--	--	--
N-Nitrosodimethylamine	NV	NV	NV	NV	NV	--	--	--	--	--	--
N-Nitrosodiphenylamine	470	3,800	110,000	NV	45	--	--	--	--	--	--
N-Nitrosodipropylamine	0.33	2.7	74	NV	0.0054	--	--	--	--	--	--
Pentachlorophenol	4	34	960	NV	0.17	--	--	--	--	--	--
Phenanthrene	NV	NV	NV	NV	NV	--	--	--	0.0136 U	0.208	0.0367
Phenol	NV	NV	NV	NV	NV	--	--	--	--	--	--
Pyrene	23,000	7,500	210,000	NV	NV	--	--	--	0.0136 U	0.0136 U	0.014 U
Pyridine	NV	NV	NV	NV	NV	--	--	--	--	--	--
cPAH TEQ ^{(d)(2)}	2.1	17	490	NV	NV	--	--	--	0.0136 U	0.0136 U	0.014 U

Notes
Shading indicates values that exceed screening criteria (color key below); non-detects (U or UJ) were not compared with screening criteria.

RBC, Soil, Leaching to Groundwater, Occupational

-- = not analyzed.

cPAH = carcinogenic polycyclic aromatic hydrocarbon.

DEQ = Oregon Department of Environmental Quality.

ft bgs = feet below ground surface.

J = result is estimated.

mg/kg = milligrams per kilogram.

NV = no value.

PCB = polychlorinated biphenyl.

RBC = risk-based concentration.

SVOC = semivolatile organic compound.

TEQ = toxicity equivalence.

TPH = total petroleum hydrocarbons.

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

UJ = result is non-detect with an estimated reporting limit.

VOC = volatile organic compound.

^(a)Screening level is for generic diesel/heating oil, as residual-range hydrocarbon values are not available.

^(b)Total PCBs is the sum of all PCB Aroclors. When all results are non-detect, the highest reporting limit is shown.

^(c)Total xylenes are reported by the laboratory or calculated as the sum of m,p-xylene and o-xylene. Non-detect results are summed at one-half the reporting limit. When both results are non-detect, the higher reporting limit is shown.

^(d)cPAH TEQ calculated by multiplying cPAH results by toxicity equivalence factors. Non-detect results are also multiplied by one-half. When all cPAHs are non-detect, the highest reporting limit is shown.

References

⁽¹⁾DEQ. 2018. Table: *Risk-Based Concentrations for Individual Chemicals*. Oregon Department of Environmental Quality, Environmental Cleanup Program. May.

⁽²⁾EPA. 1993. Table 8: *Provisional Guidance for Quantitative Risk Assessment of Polycyclic Aromatic Hydrocarbons*. 600/R-93/089. U.S. Environmental Protection Agency. July.

Table 2
Summary of Groundwater Analytical Results
Les Schwab, 3294 Main Street, Springfield, Oregon

Location:	RBC, GW, Ingestion & Inhalation from Tapwater ⁽¹⁾	RBC, GW, Volatilization to Outdoor Air ⁽¹⁾	RBC, GW, Vapor Intrusion into Buildings ⁽¹⁾	RBC, GW in Excavation	Main Pit	North Test Pit	Northeast Test Pit	South Test Pit
Sample Name:					070822-GWMAINPIT-7.1	063022-GWN-8.4-01	063022-GWNE-7.0-01	063022-GWS-10.6-01
Collection Date:					07/08/2022	06/30/2022	06/30/2022	06/30/2022
Collection Depth (ft bgs):	Occupational	Occupational	Occupational	Construction & Excavation Worker	7.1	8.4	7.0	10.6
TPH (ug/L)								
Gasoline-range hydrocarbons	450	NV	NV	14,000	199 J	296 J	5,460 J	7,330 J
Diesel-range hydrocarbons	430	NV	NV	NV	1,010	200 U	2,620 J	3,440 J
Oil-range hydrocarbons	430 ^(a)	NV	NV	NV	388 U	2,380	465 U	421 U
VOCs (ug/L)								
1,1,1,2-Tetrachloroethane	NV	NV	NV	NV	0.4 UJ	0.4 UJ	0.4 UJ	0.4 UJ
1,1,1-Trichloroethane	37,000	NV	NV	1,100,000	0.4 UJ	0.4 UJ	0.4 UJ	0.4 UJ
1,1,2,2-Tetrachloroethane	NV	NV	NV	NV	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
1,1,2-Trichloroethane	1.3	21,000	11,000	49	0.5 UJ	0.5 UJ	0.75 UJ	0.5 UJ
1,1-Dichloroethane	13	68,000	14,000	10,000	0.4 UJ	0.4 UJ	0.4 UJ	0.4 UJ
1,1-Dichloroethene	1,400	2,400,000	360,000	44,000	0.4 UJ	0.4 UJ	0.4 UJ	0.4 UJ
1,1-Dichloropropene	NV	NV	NV	NV	1 UJ	1 UJ	1 UJ	1 UJ
1,2,3-Trichlorobenzene	NV	NV	NV	NV	2 UJ	2 UJ	2 UJ	2 UJ
1,2,3-Trichloropropane	NV	NV	NV	NV	1 UJ	1 UJ	1 UJ	1 UJ
1,2,4-Trichlorobenzene	NV	NV	NV	NV	2 UJ	2 UJ	2 UJ	2 UJ
1,2,4-Trimethylbenzene	250	NV	NV	6,300	1 UJ	1 UJ	1 UJ	86.8 J
1,2-Dibromo-3-chloropropane	NV	NV	NV	NV	5 UJ	5 UJ	5 UJ	5 UJ
1,2-Dibromoethane	0.034	790	590	27	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
1,2-Dichlorobenzene	1,400	NV	NV	37,000	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
1,2-Dichloroethane	0.78	9,000	3,900	630	0.4 UJ	0.4 UJ	0.4 UJ	0.4 UJ
1,2-Dichloropropane	NV	NV	NV	NV	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
1,3,5-Trimethylbenzene	280	NV	NV	7,500	1 UJ	1 UJ	1 UJ	27.1 J
1,3-Dichlorobenzene	NV	NV	NV	NV	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
1,3-Dichloropropane	NV	NV	NV	NV	1 UJ	1 UJ	1 UJ	1 UJ
1,4-Dichlorobenzene	2.1	21,000	7,100	1,500	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
2,2-Dichloropropane	NV	NV	NV	NV	1 UJ	1 UJ	1 UJ	1 UJ
2-Butanone	NV	NV	NV	NV	10 UJ	10 UJ	10 UJ	10 UJ
2-Chlorotoluene	NV	NV	NV	NV	1 UJ	1 UJ	1 UJ	1 UJ
2-Hexanone	NV	NV	NV	NV	10 UJ	10 UJ	10 UJ	10 UJ
4-Chlorotoluene	NV	NV	NV	NV	1 UJ	1 UJ	1 UJ	1 UJ
4-Isopropyltoluene	NV	NV	NV	NV	1 UJ	1 UJ	2 UJ	1.95 J
4-Methyl-2-pentanone	NV	NV	NV	NV	10 UJ	10 UJ	10 UJ	10 UJ
Acetone	NV	NV	NV	NV	20 UJ	20 UJ	36 UJ	26.2 UJ
Acrylonitrile	0.25	9,800	9,200	250	2 UJ	2 UJ	2 UJ	2 UJ
Benzene	2.1	14,000	2,800	1,800	0.23 J	0.2 UJ	0.24 J	5.5 J
Bromobenzene	NV	NV	NV	NV	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
Bromodichloromethane	0.6	6,000	2,300	450	1 UJ	1 UJ	1 UJ	1 UJ
Bromoform	16	550,000	470,000	14,000	1 UJ	1 UJ	1 UJ	1 UJ
Bromomethane	36	130,000	27,000	1,200	5 R	5 UJ	5 UJ	5 UJ
Carbon disulfide	NV	NV	NV	NV	10 UJ	10 UJ	10 UJ	10 UJ
Carbon tetrachloride	2.1	7,700	1,200	1,800	1 UJ	1 UJ	1 UJ	1 UJ
Chlorobenzene	350	NV	NV	10,000	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
Chlorobromomethane	NV	NV	NV	NV	1 UJ	1 UJ	1 UJ	1 UJ
Chloroethane	88,000	NV	NV	2,400,000	10 UJ	5 UJ	5 UJ	5 UJ
Chloroform	0.98	6,300	1,600	720	1 UJ	1 UJ	1 UJ	7 UJ
Chloromethane	790	1,800,000	330,000	22,000	5 UJ	5 UJ	5 UJ	5 UJ

Table 2
Summary of Groundwater Analytical Results
Les Schwab, 3294 Main Street, Springfield, Oregon

Location:	RBC, GW, Ingestion & Inhalation from Tapwater ⁽¹⁾	RBC, GW, Volatilization to Outdoor Air ⁽¹⁾	RBC, GW, Vapor Intrusion into Buildings ⁽¹⁾	RBC, GW in Excavation	Main Pit	North Test Pit	Northeast Test Pit	South Test Pit
Sample Name:					070822-GWMAINPIT-7.1	063022-GWN-8.4-01	063022-GWNE-7.0-01	063022-GWS-10.6-01
Collection Date:					07/08/2022	06/30/2022	06/30/2022	06/30/2022
Collection Depth (ft bgs):				Construction & Excavation Worker	7.1	8.4	7.0	10.6
cis-1,2-Dichloroethene	260	NV	NV	18,000	0.4 UJ	0.4 UJ	0.4 UJ	0.4 UJ
cis-1,3-Dichloropropene	NV	NV	NV	NV	1 UJ	1 UJ	1 UJ	1 UJ
Dibromochloromethane	0.77	17,000	13,000	610	1 UJ	1 UJ	1 UJ	1 UJ
Dibromomethane	NV	NV	NV	NV	1 UJ	1 UJ	1 UJ	1 UJ
Dichlorodifluoromethane (Freon 12)	NV	NV	NV	NV	1 UJ	1 UJ	1 UJ	1 UJ
Ethylbenzene	6.4	43,000	8,200	4,500	0.5 UJ	0.5 UJ	0.5 UJ	34.1 J
Hexachlorobutadiene	NV	NV	NV	NV	5 UJ	5 UJ	5 UJ	5 UJ
Isopropylbenzene	2,000	NV	NV	51,000	1 I	1 UJ	5.08 J	35.7 J
m,p-Xylene	NV	NV	NV	NV	1 UJ	1 UJ	1 UJ	27.3 J
Methyl tert-butyl ether	68	1,500,000	870,000	63,000	1 UJ	1 UJ	1 UJ	1 UJ
Methylene chloride	200	13,000,000	3,300,000	79,000	10 UJ	10 UJ	10 UJ	10 UJ
Naphthalene	0.72	16,000	11,000	500	2 UJ	2 UJ	2 UJ	41.2 J
n-Butylbenzene	NV	NV	NV	NV	1 UJ	1 UJ	16.6 J	18.8 J
n-Propylbenzene	NV	NV	NV	NV	0.5 UJ	0.5 UJ	18.5 J	99.4 J
o-Xylene	NV	NV	NV	NV	0.5 UJ	0.5 UJ	0.5 UJ	3.22 J
sec-Butylbenzene	NV	NV	NV	NV	1 UJ	1 UJ	7 J	9.42 J
Styrene	5,700	NV	NV	170,000	1 UJ	1 UJ	1 UJ	1 UJ
tert-Butylbenzene	NV	NV	NV	NV	1 UJ	1 UJ	1 UJ	1.08 J
Tetrachloroethene	48	NV	48,000	5,600	0.4 UJ	0.4 UJ	0.4 UJ	0.4 UJ
Toluene	6,300	NV	NV	220,000	1 UJ	1 UJ	1 UJ	4.13 J
trans-1,2-Dichloroethene	2,600	NV	NV	180,000	0.4 UJ	0.4 UJ	0.4 UJ	0.4 UJ
trans-1,3-Dichloropropene	NV	NV	NV	NV	1 UJ	1 UJ	1 UJ	1 UJ
Trichloroethene	3.3	20,000	3,700	430	0.4 UJ	0.4 UJ	0.4 UJ	0.4 UJ
Trichlorofluoromethane (Freon 11)	5,200	NV	460,000	160,000	2 UJ	2 UJ	2 UJ	2 UJ
Vinyl chloride	0.49	5,900	880	960	0.4 UJ	0.4 UJ	0.4 UJ	0.4 UJ
Xylenes, total ^(b)	830	NV	NV	23,000	1 UJ	1 UJ	1 UJ	30.5 J
PAHs (ug/L)								
1-Methylnaphthalene	NV	NV	NV	NV	0.157 UJ	0.2 UJ	25.5 J	126 J
2-Methylnaphthalene	NV	NV	NV	NV	0.157 UJ	0.2 UJ	16.4 J	122 J
Acenaphthene	2,500	NV	NV	NV	0.0784 U	0.1 UJ	0.727 UJ	2.13 UJ
Acenaphthylene	NV	NV	NV	NV	0.0784 U	0.1 UJ	0.349 UJ	0.579 UJ
Anthracene	NV	NV	NV	NV	0.0784 U	0.1 UJ	0.116 UJ	0.263 UJ
Benzo(a)anthracene	0.38	NV	NV	NV	0.0784 U	0.1 UJ	0.116 UJ	0.105 UJ
Benzo(a)pyrene	0.47	NV	NV	NV	0.118 U	0.1 UJ	0.116 UJ	0.105 UJ
Benzo(b)fluoranthene	NV	NV	NV	NV	0.118 U	0.1 UJ	0.116 UJ	0.105 UJ
Benzo(ghi)perylene	NV	NV	NV	NV	0.0784 U	0.1 UJ	0.116 UJ	0.105 UJ
Benzo(k)fluoranthene	NV	NV	NV	NV	0.118 U	0.1 UJ	0.116 UJ	0.105 UJ
Carbazole	NV	NV	NV	NV	0.118 U	--	--	--
Chrysene	NV	NV	NV	NV	0.0784 U	0.1 UJ	0.116 UJ	0.105 UJ
Dibenzo(a,h)anthracene	0.47	NV	NV	NV	0.0784 U	0.1 UJ	0.116 UJ	0.105 UJ
Dibenzofuran	NV	NV	NV	NV	0.0784 U	0.1 UJ	0.498 J	1.99 J
Fluoranthene	NV	NV	NV	NV	0.0784 U	0.1 UJ	0.116 UJ	0.105 UJ
Fluorene	1,300	NV	NV	NV	0.0784 U	0.113 J	2.26 J	7.5 J
Indeno(1,2,3-cd)pyrene	NV	NV	NV	NV	0.0784 U	0.1 UJ	0.116 UJ	0.105 UJ
Naphthalene	0.72	16,000	11,000	500	0.157 UJ	0.2 UJ	2.03 UJ	33 J
Phenanthrene	NV	NV	NV	NV	0.0784 U	0.166 J	1.87 J	5.99 J

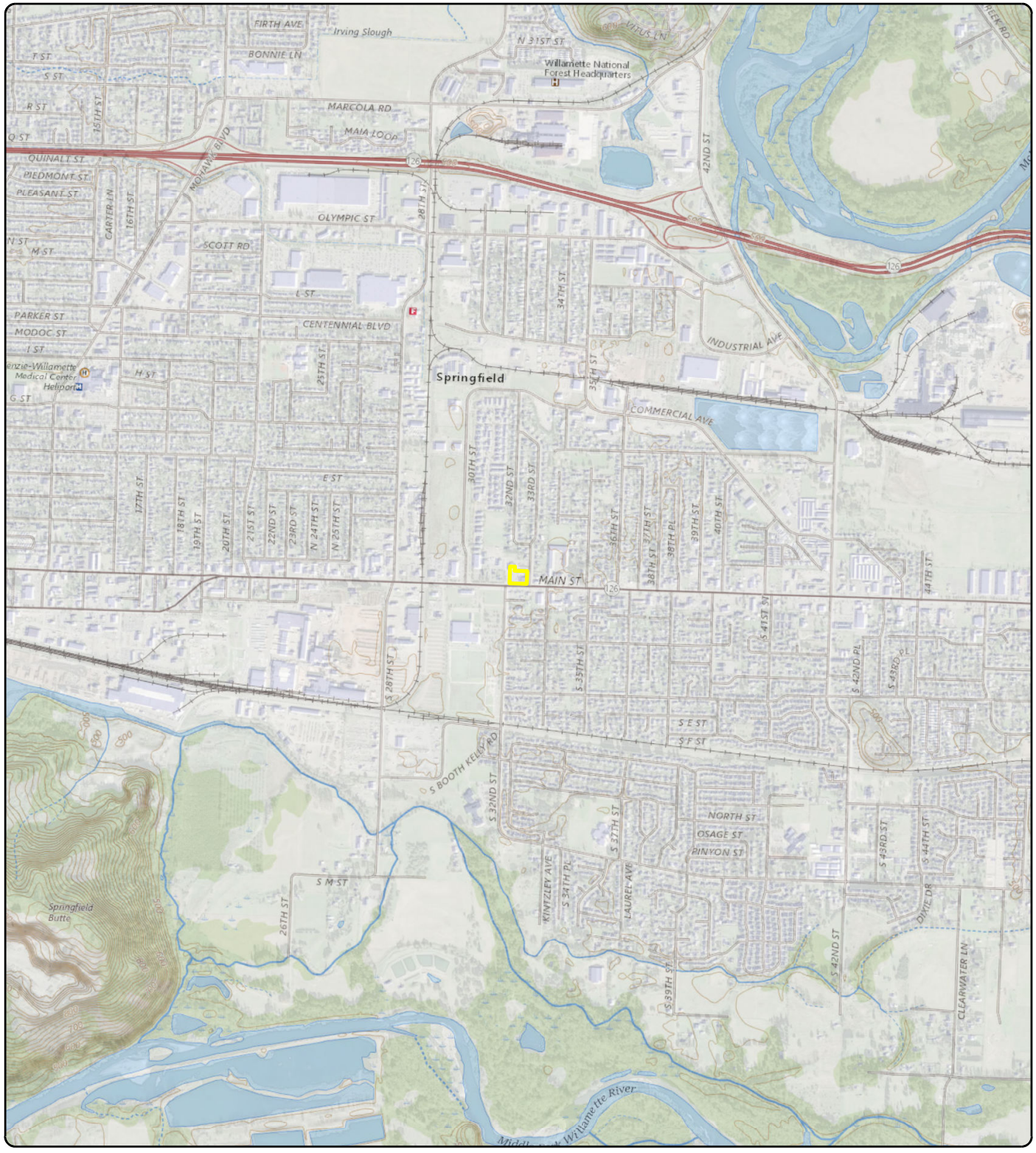
Table 2
Summary of Groundwater Analytical Results
Les Schwab, 3294 Main Street, Springfield, Oregon

Location:	RBC, GW, Ingestion & Inhalation from Tapwater ⁽¹⁾	RBC, GW, Volatilization to Outdoor Air ⁽¹⁾	RBC, GW, Vapor Intrusion into Buildings ⁽¹⁾	RBC, GW in Excavation	Main Pit	North Test Pit	Northeast Test Pit	South Test Pit
Sample Name:					070822-GWMAINPIT-7.1	063022-GWN-8.4-01	063022-GWNE-7.0-01	063022-GWS-10.6-01
Collection Date:	Occupational	Occupational	Occupational	Construction & Excavation Worker	07/08/2022	06/30/2022	06/30/2022	06/30/2022
Collection Depth (ft bgs):					7.1	8.4	7.0	10.6
Pyrene	NV	NV	NV	NV	0.0784 U	0.1 UJ	0.116 UJ	0.105 UJ
cPAH TEQ ^{(c)(2)}	0.47	NV	NV	NV	0.118 U	0.1 UJ	0.116 UJ	0.105 UJ

<p>Notes</p> <p>Shading indicates values that exceed screening criteria (color key below); non-detect results (U or UJ) and rejected results (R) were not compared with screening criteria.</p> <p>RBC, GW, Ingestion & Inhalation from Tapwater, Occupational</p> <p>-- = not analyzed.</p> <p>cPAH = carcinogenic polycyclic aromatic hydrocarbon.</p> <p>DEQ = Oregon Department of Environmental Quality.</p> <p>ft bgs = feet below ground surface.</p> <p>GW = groundwater.</p> <p>J = result is estimated.</p> <p>NV = no value.</p> <p>PAH = polycyclic aromatic hydrocarbons.</p> <p>R = result is rejected. The analyte may or may not be present in the sample. Rejected results are shown at the method reporting limit.</p> <p>RBC = risk-based concentration.</p> <p>TEQ = toxicity equivalence.</p> <p>TPH = total petroleum hydrocarbons.</p> <p>U = result is non-detect at the method reporting limit.</p> <p>ug/L = micrograms per liter.</p> <p>UJ = result is non-detect with an estimated reporting limit.</p> <p>VOC = volatile organic compound.</p> <p>^(a)Value is for generic diesel/heating oil, since generic residual-range hydrocarbons values are not available.</p> <p>^(b)Total xylenes are reported by the laboratory or calculated as the sum of m,p-xylene and o-xylene. When both results are non-detect, the higher reporting limit is shown.</p> <p>^(c)cPAH TEQ calculated by multiplying cPAH results by toxicity equivalence factors. Non-detect results are also multiplied by one-half. When all cPAHs are non-detect, the highest reporting limit is shown.</p> <p>Reference</p> <p>⁽¹⁾DEQ. 2018. Table: <i>Risk-Based Concentrations for Individual Chemicals</i>. Oregon Department of Environmental Quality, Environmental Cleanup Program. May.</p> <p>⁽²⁾EPA. 1993. Table 8: <i>Provisional Guidance for Quantitative Risk Assessment of Polycyclic Aromatic Hydrocarbons</i>. 600/R-93/089. U.S. Environmental Protection Agency. July.</p>

FIGURES





Notes:
 U.S. Geological Survey 7.5-minute
 topographic quadrangle: Springfield.
 Township 17 south, range 3 west, section 36.

Data Source:
 Property boundary obtained from Lane County.


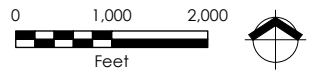
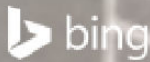
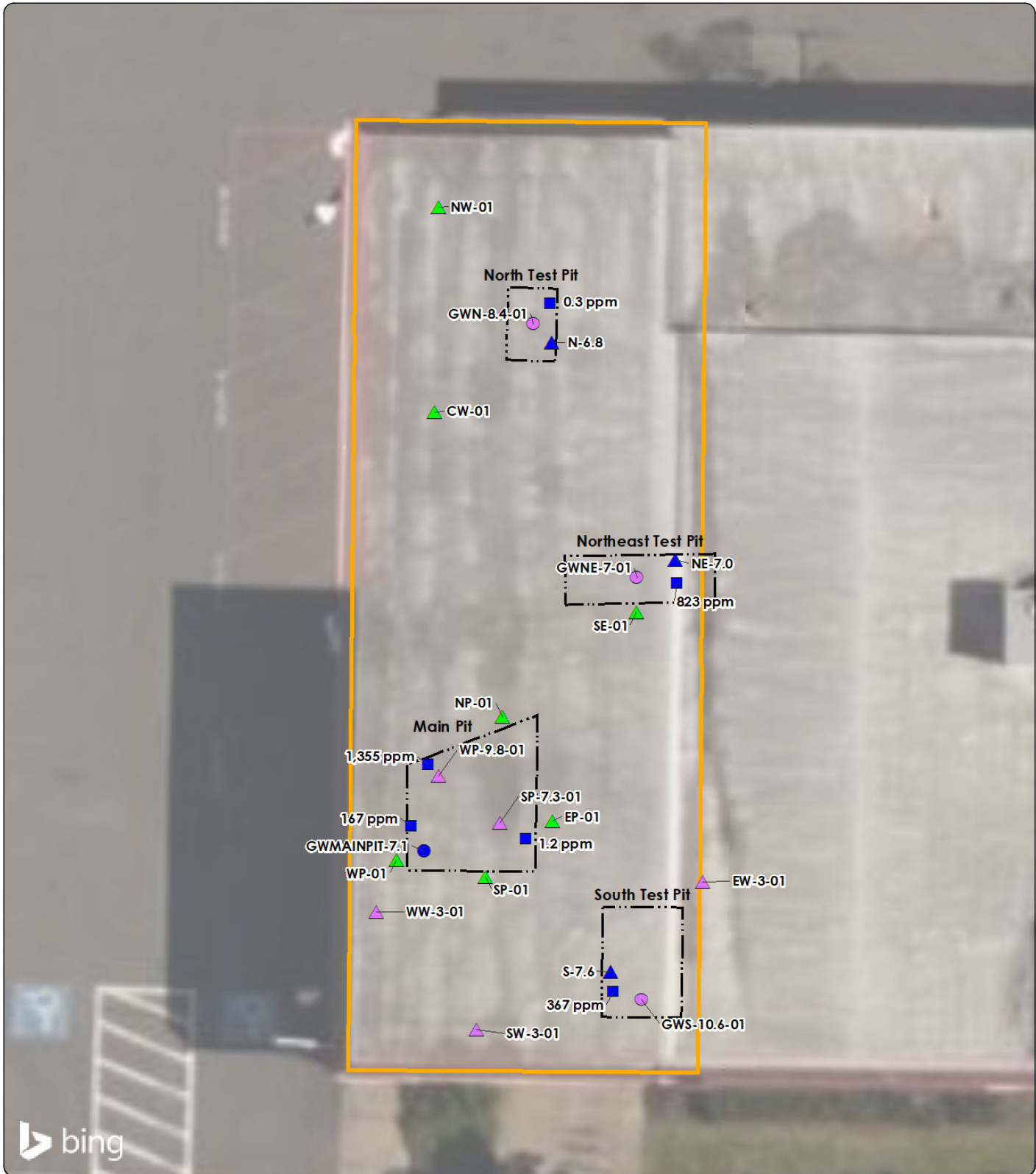
Legend
 Property Boundary

Figure 1
Site Vicinity
 Les Schwab
 Springfield, Oregon





Notes:
 PID = photoionization detector.
 ppm = parts per million.

Data Source:
 Aerial photograph obtained from Microsoft Bing.

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Legend

- PID Reading (7/8/2022)
- Groundwater Sample (7/8/2022)
- ▲ Soil Sample (7/8/2022)
- Groundwater Sample (6/30/2022)
- ▲ Soil Sample (6/30/2022)
- ▲ Soil Sample (6/13/2022)
- Pit Boundary
- Former Metal Pipe
- Excavation Footprint

Figure 2
Sample Locations

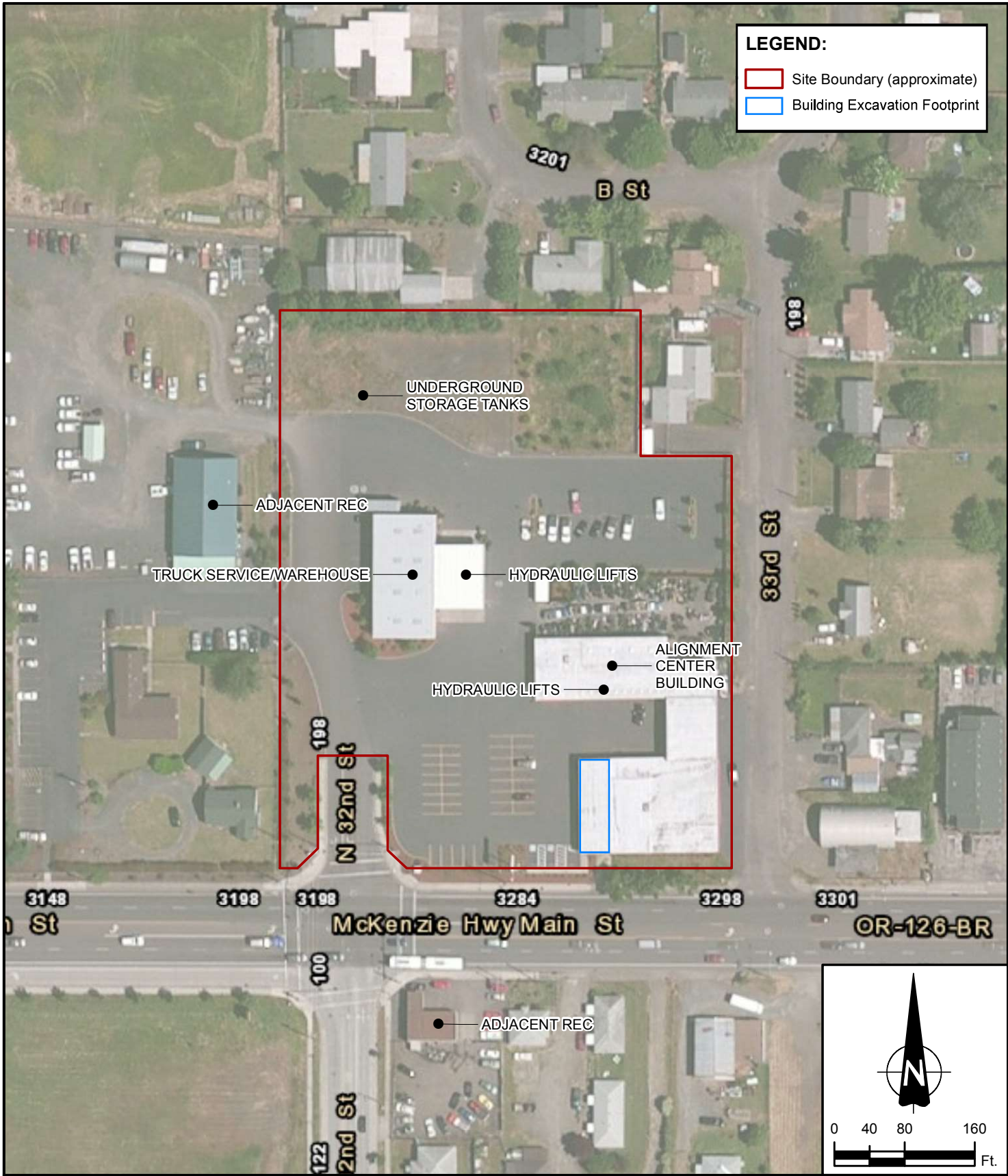
Les Schwab
 Springfield, Oregon



ATTACHMENT A

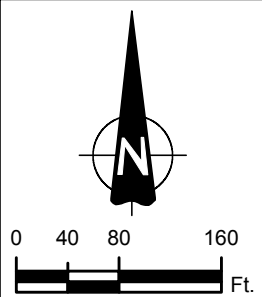
PHASE I ESA FIGURE 2





LEGEND:

- Site Boundary (approximate)
- Building Excavation Footprint



PRIVILEGED AND CONFIDENTIAL



PHASE I ESA
3294 MAIN ST
SPRINGFIELD, OR, 97478

DATE
FEBRUARY 2020
SCALE
1" = 150'

Wood Environment & Infrastructure Solutions, Inc.
15862 S.W. 72nd Avenue, Suite 150
Portland, OR 97224

SITE PLAN
STORE #0027

PROJECT NO.
961M135900
FIGURE
2

DRAWN BY: SD CHECKED BY: CD

ATTACHMENT B

LABORATORY REPORTS





ANALYTICAL REPORT

Apex Laboratories, LLC

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

Wednesday, June 29, 2022

Merideth D'Andrea
Maul Foster & Alongi, INC.
3140 NE Broadway Street
Portland, OR 97232

RE: A2F0432 - Les Schwab-Sub Slab Soil - [none]

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

Enclosed are the results of analyses for work order A2F0432, which was received by the laboratory on 6/13/2022 at 5:08:00PM.

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

(See Cooler Receipt Form for details)

Cooler #1	3.1 degC	Cooler #2	3.6 degC
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This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

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



Apex Laboratories

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

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

<u>Maul Foster & Alongi, INC.</u> 3140 NE Broadway Street Portland, OR 97232	Project: <u>Les Schwab-Sub Slab Soil</u> Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F0432 - 06 29 22 1059
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ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
061322-NP-01	A2F0432-01	Soil	06/13/22 10:55	06/13/22 17:08
061322-EP-01	A2F0432-02	Soil	06/13/22 10:59	06/13/22 17:08
061322-WP-01	A2F0432-03	Soil	06/13/22 11:15	06/13/22 17:08
061322-SP-01	A2F0432-04	Soil	06/13/22 11:25	06/13/22 17:08
061322-NE-01	A2F0432-05	Soil	06/13/22 11:35	06/13/22 17:08
061322-NW-01	A2F0432-06	Soil	06/13/22 11:50	06/13/22 17:08
061322-CE-01	A2F0432-07	Soil	06/13/22 12:05	06/13/22 17:08
061322-CW-01	A2F0432-08	Soil	06/13/22 12:15	06/13/22 17:08
061322-SE-01	A2F0432-09	Soil	06/13/22 12:30	06/13/22 17:08
061322-SW-01	A2F0432-10	Soil	06/13/22 12:45	06/13/22 17:08
061322-SKP-01	A2F0432-11	Soil	06/13/22 12:55	06/13/22 17:08

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F0432 - 06 29 22 1059
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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
061322-NP-01 (A2F0432-01)				Matrix: Soil		Batch: 22F0554		
Diesel	ND	---	29.0	mg/kg dry	1	06/15/22 22:21	NWTPH-Dx	
Oil	ND	---	58.0	mg/kg dry	1	06/15/22 22:21	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 70 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>06/15/22 22:21</i>	<i>NWTPH-Dx</i>
061322-EP-01 (A2F0432-02)				Matrix: Soil		Batch: 22F0554		
Diesel	57.1	---	28.4	mg/kg dry	1	06/15/22 22:42	NWTPH-Dx	F-11
Oil	ND	---	56.7	mg/kg dry	1	06/15/22 22:42	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 77 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>06/15/22 22:42</i>	<i>NWTPH-Dx</i>
061322-WP-01 (A2F0432-03)				Matrix: Soil		Batch: 22F0464		
Diesel	3160	---	27.8	mg/kg dry	1	06/14/22 00:44	NWTPH-Dx	
Oil	1900	---	55.6	mg/kg dry	1	06/14/22 00:44	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 89 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>06/14/22 00:44</i>	<i>NWTPH-Dx</i>
061322-SP-01 (A2F0432-04)				Matrix: Soil		Batch: 22F0464		
Diesel	2830	---	27.6	mg/kg dry	1	06/14/22 01:24	NWTPH-Dx	
Oil	ND	---	55.2	mg/kg dry	1	06/14/22 01:24	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 90 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>06/14/22 01:24</i>	<i>NWTPH-Dx</i>
061322-NW-01 (A2F0432-06)				Matrix: Soil		Batch: 22F0464		
Diesel	ND	---	25.6	mg/kg dry	1	06/14/22 01:45	NWTPH-Dx	
Oil	383	---	51.2	mg/kg dry	1	06/14/22 01:45	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 65 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>06/14/22 01:45</i>	<i>NWTPH-Dx</i>
061322-CW-01 (A2F0432-08)				Matrix: Soil		Batch: 22F0464		
Diesel	ND	---	25.0	mg/kg dry	1	06/14/22 03:26	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	06/14/22 03:26	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 74 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>06/14/22 03:26</i>	<i>NWTPH-Dx</i>
061322-SE-01 (A2F0432-09)				Matrix: Soil		Batch: 22F0554		
Diesel	ND	---	25.7	mg/kg dry	1	06/15/22 20:39	NWTPH-Dx	
Oil	ND	---	51.3	mg/kg dry	1	06/15/22 20:39	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 81 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>06/15/22 20:39</i>	<i>NWTPH-Dx</i>

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F0432 - 06 29 22 1059
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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
061322-NP-01 (A2F0432-01)				Matrix: Soil		Batch: 22F0575		
Gasoline Range Organics	ND	---	9.75	mg/kg dry	50	06/16/22 11:04	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 104 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>06/16/22 11:04</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>98 %</i>		<i>50-150 %</i>		<i>1</i>	<i>06/16/22 11:04</i>	<i>NWTPH-Gx (MS)</i>
061322-EP-01 (A2F0432-02)				Matrix: Soil		Batch: 22F0575		
Gasoline Range Organics	ND	---	9.75	mg/kg dry	50	06/16/22 11:31	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 104 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>06/16/22 11:31</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>98 %</i>		<i>50-150 %</i>		<i>1</i>	<i>06/16/22 11:31</i>	<i>NWTPH-Gx (MS)</i>
061322-WP-01 (A2F0432-03RE1)				Matrix: Soil		Batch: 22F0474		
Gasoline Range Organics	440	---	9.15	mg/kg dry	50	06/14/22 13:31	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 175 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>06/14/22 13:31</i>	<i>NWTPH-Gx (MS)</i> S-08
<i>1,4-Difluorobenzene (Sur)</i>		<i>115 %</i>		<i>50-150 %</i>		<i>1</i>	<i>06/14/22 13:31</i>	<i>NWTPH-Gx (MS)</i>
061322-SP-01 (A2F0432-04RE1)				Matrix: Soil		Batch: 22F0474		
Gasoline Range Organics	441	---	8.54	mg/kg dry	50	06/14/22 13:58	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 156 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>06/14/22 13:58</i>	<i>NWTPH-Gx (MS)</i> S-08
<i>1,4-Difluorobenzene (Sur)</i>		<i>101 %</i>		<i>50-150 %</i>		<i>1</i>	<i>06/14/22 13:58</i>	<i>NWTPH-Gx (MS)</i>
061322-NW-01 (A2F0432-06)				Matrix: Soil		Batch: 22F0474		
Gasoline Range Organics	ND	---	6.43	mg/kg dry	50	06/14/22 12:37	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 105 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>06/14/22 12:37</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>97 %</i>		<i>50-150 %</i>		<i>1</i>	<i>06/14/22 12:37</i>	<i>NWTPH-Gx (MS)</i>
061322-CW-01 (A2F0432-08)				Matrix: Soil		Batch: 22F0474		
Gasoline Range Organics	ND	---	7.10	mg/kg dry	50	06/14/22 13:04	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 104 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>06/14/22 13:04</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>96 %</i>		<i>50-150 %</i>		<i>1</i>	<i>06/14/22 13:04</i>	<i>NWTPH-Gx (MS)</i>
061322-SE-01 (A2F0432-09)				Matrix: Soil		Batch: 22F0575		
Gasoline Range Organics	ND	---	7.31	mg/kg dry	50	06/16/22 11:58	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 104 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>06/16/22 11:58</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>98 %</i>		<i>50-150 %</i>		<i>1</i>	<i>06/16/22 11:58</i>	<i>NWTPH-Gx (MS)</i>

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F0432 - 06 29 22 1059
--	--	---

ANALYTICAL SAMPLE RESULTS

BTEX+N Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
061322-NP-01 (A2F0432-01)				Matrix: Soil		Batch: 22F0575		
Benzene	ND	---	19.5	ug/kg dry	50	06/16/22 11:04	5035A/8260D	
Toluene	ND	---	97.5	ug/kg dry	50	06/16/22 11:04	5035A/8260D	
Ethylbenzene	ND	---	48.8	ug/kg dry	50	06/16/22 11:04	5035A/8260D	
Xylenes, total	ND	---	146	ug/kg dry	50	06/16/22 11:04	5035A/8260D	
Naphthalene	ND	---	195	ug/kg dry	50	06/16/22 11:04	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 99 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>06/16/22 11:04</i>	<i>5035A/8260D</i>
<i>Toluene-d8 (Surr)</i>		<i>101 %</i>		<i>80-120 %</i>		<i>1</i>	<i>06/16/22 11:04</i>	<i>5035A/8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>		<i>98 %</i>		<i>79-120 %</i>		<i>1</i>	<i>06/16/22 11:04</i>	<i>5035A/8260D</i>
061322-EP-01 (A2F0432-02)				Matrix: Soil		Batch: 22F0575		
Benzene	ND	---	19.5	ug/kg dry	50	06/16/22 11:31	5035A/8260D	
Toluene	ND	---	97.5	ug/kg dry	50	06/16/22 11:31	5035A/8260D	
Ethylbenzene	ND	---	48.7	ug/kg dry	50	06/16/22 11:31	5035A/8260D	
Xylenes, total	ND	---	146	ug/kg dry	50	06/16/22 11:31	5035A/8260D	
Naphthalene	ND	---	195	ug/kg dry	50	06/16/22 11:31	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 98 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>06/16/22 11:31</i>	<i>5035A/8260D</i>
<i>Toluene-d8 (Surr)</i>		<i>100 %</i>		<i>80-120 %</i>		<i>1</i>	<i>06/16/22 11:31</i>	<i>5035A/8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>		<i>98 %</i>		<i>79-120 %</i>		<i>1</i>	<i>06/16/22 11:31</i>	<i>5035A/8260D</i>
061322-WP-01 (A2F0432-03RE1)				Matrix: Soil		Batch: 22F0474		
Benzene	ND	---	18.3	ug/kg dry	50	06/14/22 13:31	5035A/8260D	
Toluene	ND	---	91.5	ug/kg dry	50	06/14/22 13:31	5035A/8260D	
Ethylbenzene	ND	---	45.7	ug/kg dry	50	06/14/22 13:31	5035A/8260D	
Xylenes, total	ND	---	137	ug/kg dry	50	06/14/22 13:31	5035A/8260D	
Naphthalene	ND	---	183	ug/kg dry	50	06/14/22 13:31	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>06/14/22 13:31</i>	<i>5035A/8260D</i>
<i>Toluene-d8 (Surr)</i>		<i>103 %</i>		<i>80-120 %</i>		<i>1</i>	<i>06/14/22 13:31</i>	<i>5035A/8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>		<i>97 %</i>		<i>79-120 %</i>		<i>1</i>	<i>06/14/22 13:31</i>	<i>5035A/8260D</i>
061322-SP-01 (A2F0432-04RE1)				Matrix: Soil		Batch: 22F0474		
Benzene	ND	---	17.1	ug/kg dry	50	06/14/22 13:58	5035A/8260D	
Toluene	ND	---	85.4	ug/kg dry	50	06/14/22 13:58	5035A/8260D	
Ethylbenzene	ND	---	42.7	ug/kg dry	50	06/14/22 13:58	5035A/8260D	
Xylenes, total	ND	---	128	ug/kg dry	50	06/14/22 13:58	5035A/8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F0432 - 06 29 22 1059
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ANALYTICAL SAMPLE RESULTS

BTEX+N Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
061322-SP-01 (A2F0432-04RE1)				Matrix: Soil		Batch: 22F0474		
Naphthalene	ND	---	256	ug/kg dry	50	06/14/22 13:58	5035A/8260D	R-02
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 100 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>06/14/22 13:58</i>	<i>5035A/8260D</i>
<i>Toluene-d8 (Surr)</i>		<i>99 %</i>		<i>80-120 %</i>		<i>1</i>	<i>06/14/22 13:58</i>	<i>5035A/8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>		<i>99 %</i>		<i>79-120 %</i>		<i>1</i>	<i>06/14/22 13:58</i>	<i>5035A/8260D</i>
061322-NW-01 (A2F0432-06)				Matrix: Soil		Batch: 22F0474		
Benzene	ND	---	12.9	ug/kg dry	50	06/14/22 12:37	5035A/8260D	
Toluene	ND	---	64.3	ug/kg dry	50	06/14/22 12:37	5035A/8260D	
Ethylbenzene	ND	---	32.1	ug/kg dry	50	06/14/22 12:37	5035A/8260D	
Xylenes, total	ND	---	96.4	ug/kg dry	50	06/14/22 12:37	5035A/8260D	
Naphthalene	ND	---	129	ug/kg dry	50	06/14/22 12:37	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 100 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>06/14/22 12:37</i>	<i>5035A/8260D</i>
<i>Toluene-d8 (Surr)</i>		<i>100 %</i>		<i>80-120 %</i>		<i>1</i>	<i>06/14/22 12:37</i>	<i>5035A/8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>		<i>100 %</i>		<i>79-120 %</i>		<i>1</i>	<i>06/14/22 12:37</i>	<i>5035A/8260D</i>
061322-CW-01 (A2F0432-08)				Matrix: Soil		Batch: 22F0474		
Benzene	ND	---	14.2	ug/kg dry	50	06/14/22 13:04	5035A/8260D	
Toluene	ND	---	71.0	ug/kg dry	50	06/14/22 13:04	5035A/8260D	
Ethylbenzene	ND	---	35.5	ug/kg dry	50	06/14/22 13:04	5035A/8260D	
Xylenes, total	ND	---	107	ug/kg dry	50	06/14/22 13:04	5035A/8260D	
Naphthalene	ND	---	142	ug/kg dry	50	06/14/22 13:04	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 100 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>06/14/22 13:04</i>	<i>5035A/8260D</i>
<i>Toluene-d8 (Surr)</i>		<i>101 %</i>		<i>80-120 %</i>		<i>1</i>	<i>06/14/22 13:04</i>	<i>5035A/8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>		<i>100 %</i>		<i>79-120 %</i>		<i>1</i>	<i>06/14/22 13:04</i>	<i>5035A/8260D</i>
061322-SE-01 (A2F0432-09)				Matrix: Soil		Batch: 22F0575		
Benzene	ND	---	14.6	ug/kg dry	50	06/16/22 11:58	5035A/8260D	
Toluene	ND	---	73.1	ug/kg dry	50	06/16/22 11:58	5035A/8260D	
Ethylbenzene	ND	---	36.5	ug/kg dry	50	06/16/22 11:58	5035A/8260D	
Xylenes, total	ND	---	110	ug/kg dry	50	06/16/22 11:58	5035A/8260D	
Naphthalene	ND	---	146	ug/kg dry	50	06/16/22 11:58	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 99 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>06/16/22 11:58</i>	<i>5035A/8260D</i>
<i>Toluene-d8 (Surr)</i>		<i>101 %</i>		<i>80-120 %</i>		<i>1</i>	<i>06/16/22 11:58</i>	<i>5035A/8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>		<i>98 %</i>		<i>79-120 %</i>		<i>1</i>	<i>06/16/22 11:58</i>	<i>5035A/8260D</i>

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F0432 - 06 29 22 1059
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ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
061322-NP-01 (A2F0432-01)			Matrix: Soil		Batch: 22F1005		C-07	
Aroclor 1016	ND	---	14.9	ug/kg dry	1	06/28/22 18:51	EPA 8082A	
Aroclor 1221	ND	---	14.9	ug/kg dry	1	06/28/22 18:51	EPA 8082A	
Aroclor 1232	ND	---	14.9	ug/kg dry	1	06/28/22 18:51	EPA 8082A	
Aroclor 1242	ND	---	14.9	ug/kg dry	1	06/28/22 18:51	EPA 8082A	
Aroclor 1248	ND	---	14.9	ug/kg dry	1	06/28/22 18:51	EPA 8082A	
Aroclor 1254	ND	---	14.9	ug/kg dry	1	06/28/22 18:51	EPA 8082A	
Aroclor 1260	ND	---	14.9	ug/kg dry	1	06/28/22 18:51	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 72 %</i>		<i>Limits: 60-125 %</i>		<i>1</i>	<i>06/28/22 18:51</i>	<i>EPA 8082A</i>
061322-EP-01 (A2F0432-02)			Matrix: Soil		Batch: 22F1005		C-07	
Aroclor 1016	ND	---	13.7	ug/kg dry	1	06/28/22 18:16	EPA 8082A	
Aroclor 1221	ND	---	13.7	ug/kg dry	1	06/28/22 18:16	EPA 8082A	
Aroclor 1232	ND	---	13.7	ug/kg dry	1	06/28/22 18:16	EPA 8082A	
Aroclor 1242	ND	---	13.7	ug/kg dry	1	06/28/22 18:16	EPA 8082A	
Aroclor 1248	ND	---	13.7	ug/kg dry	1	06/28/22 18:16	EPA 8082A	
Aroclor 1254	ND	---	13.7	ug/kg dry	1	06/28/22 18:16	EPA 8082A	
Aroclor 1260	ND	---	13.7	ug/kg dry	1	06/28/22 18:16	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 77 %</i>		<i>Limits: 60-125 %</i>		<i>1</i>	<i>06/28/22 18:16</i>	<i>EPA 8082A</i>
061322-WP-01 (A2F0432-03)			Matrix: Soil		Batch: 22F0742		C-07	
Aroclor 1016	ND	---	14.5	ug/kg dry	1	06/22/22 09:28	EPA 8082A	
Aroclor 1221	ND	---	14.5	ug/kg dry	1	06/22/22 09:28	EPA 8082A	
Aroclor 1232	ND	---	14.5	ug/kg dry	1	06/22/22 09:28	EPA 8082A	
Aroclor 1242	ND	---	14.5	ug/kg dry	1	06/22/22 09:28	EPA 8082A	
Aroclor 1248	ND	---	14.5	ug/kg dry	1	06/22/22 09:28	EPA 8082A	
Aroclor 1254	ND	---	14.5	ug/kg dry	1	06/22/22 09:28	EPA 8082A	
Aroclor 1260	ND	---	14.5	ug/kg dry	1	06/22/22 09:28	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 76 %</i>		<i>Limits: 60-125 %</i>		<i>1</i>	<i>06/22/22 09:28</i>	<i>EPA 8082A</i>
061322-SP-01 (A2F0432-04)			Matrix: Soil		Batch: 22F1005		C-07	
Aroclor 1016	ND	---	13.7	ug/kg dry	1	06/28/22 18:51	EPA 8082A	
Aroclor 1221	ND	---	13.7	ug/kg dry	1	06/28/22 18:51	EPA 8082A	
Aroclor 1232	ND	---	13.7	ug/kg dry	1	06/28/22 18:51	EPA 8082A	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F0432 - 06 29 22 1059
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ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
061322-SP-01 (A2F0432-04)				Matrix: Soil		Batch: 22F1005		C-07
Aroclor 1242	ND	---	13.7	ug/kg dry	1	06/28/22 18:51	EPA 8082A	
Aroclor 1248	ND	---	13.7	ug/kg dry	1	06/28/22 18:51	EPA 8082A	
Aroclor 1254	ND	---	13.7	ug/kg dry	1	06/28/22 18:51	EPA 8082A	
Aroclor 1260	ND	---	13.7	ug/kg dry	1	06/28/22 18:51	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 99 %</i>		<i>Limits: 60-125 %</i>		<i>1</i>	<i>06/28/22 18:51</i>	<i>EPA 8082A</i>
061322-NW-01 (A2F0432-06)				Matrix: Soil		Batch: 22F0742		C-07
Aroclor 1016	ND	---	12.4	ug/kg dry	1	06/22/22 09:30	EPA 8082A	
Aroclor 1221	ND	---	12.4	ug/kg dry	1	06/22/22 09:30	EPA 8082A	
Aroclor 1232	ND	---	12.4	ug/kg dry	1	06/22/22 09:30	EPA 8082A	
Aroclor 1242	ND	---	12.4	ug/kg dry	1	06/22/22 09:30	EPA 8082A	
Aroclor 1248	ND	---	12.4	ug/kg dry	1	06/22/22 09:30	EPA 8082A	
Aroclor 1254	ND	---	12.4	ug/kg dry	1	06/22/22 09:30	EPA 8082A	
Aroclor 1260	ND	---	12.4	ug/kg dry	1	06/22/22 09:30	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 68 %</i>		<i>Limits: 60-125 %</i>		<i>1</i>	<i>06/22/22 09:30</i>	<i>EPA 8082A</i>

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

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503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F0432 - 06 29 22 1059
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ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
061322-NP-01 (A2F0432-01)				Matrix: Soil				
Batch: 22F0553								
Lead	15.5	---	0.330	mg/kg dry	10	06/16/22 13:38	EPA 6020B	
061322-EP-01 (A2F0432-02)				Matrix: Soil				
Batch: 22F0553								
Lead	9.21	---	0.309	mg/kg dry	10	06/16/22 13:42	EPA 6020B	
061322-WP-01 (A2F0432-03)				Matrix: Soil				
Batch: 22F0457								
Lead	11.0	---	0.286	mg/kg dry	10	06/14/22 04:03	EPA 6020B	
061322-SP-01 (A2F0432-04)				Matrix: Soil				
Batch: 22F0457								
Lead	8.35	---	0.309	mg/kg dry	10	06/14/22 04:18	EPA 6020B	
061322-NW-01 (A2F0432-06)				Matrix: Soil				
Batch: 22F0457								
Lead	16.8	---	0.257	mg/kg dry	10	06/14/22 04:22	EPA 6020B	
061322-CW-01 (A2F0432-08)				Matrix: Soil				
Batch: 22F0457								
Lead	7.87	---	0.286	mg/kg dry	10	06/14/22 04:27	EPA 6020B	
061322-SE-01 (A2F0432-09)				Matrix: Soil				
Batch: 22F0553								
Lead	7.39	---	0.287	mg/kg dry	10	06/16/22 13:47	EPA 6020B	

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ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F0432 - 06 29 22 1059
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ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
061322-NP-01 (A2F0432-01)				Matrix: Soil		Batch: 22F0567		
% Solids	65.9	---	1.00	%	1	06/16/22 05:54	EPA 8000D	
061322-EP-01 (A2F0432-02)				Matrix: Soil		Batch: 22F0567		
% Solids	67.9	---	1.00	%	1	06/16/22 05:54	EPA 8000D	
061322-WP-01 (A2F0432-03)				Matrix: Soil		Batch: 22F0469		
% Solids	68.0	---	1.00	%	1	06/14/22 09:22	EPA 8000D	
061322-SP-01 (A2F0432-04)				Matrix: Soil		Batch: 22F0469		
% Solids	68.5	---	1.00	%	1	06/14/22 09:22	EPA 8000D	
061322-NW-01 (A2F0432-06)				Matrix: Soil		Batch: 22F0469		
% Solids	75.0	---	1.00	%	1	06/14/22 09:22	EPA 8000D	
061322-CW-01 (A2F0432-08)				Matrix: Soil		Batch: 22F0469		
% Solids	75.8	---	1.00	%	1	06/14/22 09:22	EPA 8000D	
061322-SE-01 (A2F0432-09)				Matrix: Soil		Batch: 22F0567		
% Solids	74.2	---	1.00	%	1	06/16/22 05:54	EPA 8000D	

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--	--	--

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 22F0464 - EPA 3546 (Fuels)						Soil						
Blank (22F0464-BLK1)			Prepared: 06/13/22 16:34 Analyzed: 06/13/22 20:40									
<u>NWTPH-Dx</u>												
Diesel	ND	---	18.2	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	36.4	mg/kg wet	1	---	---	---	---	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 95 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
LCS (22F0464-BS1)			Prepared: 06/13/22 16:34 Analyzed: 06/13/22 21:00									
<u>NWTPH-Dx</u>												
Diesel	107	---	20.0	mg/kg wet	1	125	---	86	38-132%	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 98 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
Duplicate (22F0464-DUP2)			Prepared: 06/13/22 18:16 Analyzed: 06/14/22 05:07									
<u>QC Source Sample: Non-SDG (A2F0434-02)</u>												
Diesel	2310	---	25.3	mg/kg dry	1	---	1990	---	---	15	30%	
Oil	ND	---	50.6	mg/kg dry	1	---	ND	---	---	---	30%	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 91 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
Duplicate (22F0464-DUP3)			Prepared: 06/13/22 16:34 Analyzed: 06/14/22 10:33									
<u>QC Source Sample: Non-SDG (A2F0423-01RE1)</u>												
Diesel	7410	---	433	mg/kg dry	20	---	9140	---	---	21	30%	
Oil	ND	---	866	mg/kg dry	20	---	ND	---	---	---	30%	
Mineral Oil	ND	---	866	mg/kg dry	20	---	ND	---	---	---	30%	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 20x</i>						S-01
Batch 22F0554 - EPA 3546 (Fuels)						Soil						
Blank (22F0554-BLK1)			Prepared: 06/15/22 13:54 Analyzed: 06/15/22 20:39									
<u>NWTPH-Dx</u>												
Diesel	ND	---	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	50.0	mg/kg wet	1	---	---	---	---	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 89 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
LCS (22F0554-BS1)			Prepared: 06/15/22 13:54 Analyzed: 06/15/22 20:59									
<u>NWTPH-Dx</u>												

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F0432 - 06 29 22 1059
--	--	--

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 22F0554 - EPA 3546 (Fuels)						Soil						
LCS (22F0554-BS1)						Prepared: 06/15/22 13:54 Analyzed: 06/15/22 20:59						
Diesel	103	---	20.0	mg/kg wet	1	125	---	83	38-132%	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 85 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
Duplicate (22F0554-DUP2)						Prepared: 06/15/22 17:48 Analyzed: 06/16/22 02:08						
QC Source Sample: Non-SDG (A2F0541-02)												
Diesel	ND	---	25.0	mg/kg dry	1	---	37.2	---	---	***	30%	Q-05
Oil	ND	---	50.0	mg/kg dry	1	---	ND	---	---	---	30%	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 88 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
Duplicate (22F0554-DUP3)						Prepared: 06/15/22 13:54 Analyzed: 06/16/22 08:07						
QC Source Sample: Non-SDG (A2F0054-02RE1)												
Diesel	ND	---	117	mg/kg dry	5	---	ND	---	---	---	30%	
Oil	277	---	234	mg/kg dry	5	---	1050	---	---	116	30%	Q-04
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 82 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 5x</i>						S-05

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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 22F0474 - EPA 5035A						Soil						
Blank (22F0474-BLK1)			Prepared: 06/14/22 08:00 Analyzed: 06/14/22 10:49									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	---	3.33	mg/kg wet	50	---	---	---	---	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 99 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>96 %</i>		<i>50-150 %</i>		<i>"</i>						
LCS (22F0474-BS2)			Prepared: 06/14/22 08:00 Analyzed: 06/14/22 10:23									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	27.9	---	5.00	mg/kg wet	50	25.0	---	112	80-120%	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 101 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>98 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (22F0474-DUP1)			Prepared: 06/13/22 11:15 Analyzed: 06/14/22 11:43									
<u>QC Source Sample: 061322-WP-01 (A2F0432-03)</u>												
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	342	---	183	mg/kg dry	1000	---	334	---	---	2	30%	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 102 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>98 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (22F0474-DUP2)			Prepared: 06/13/22 14:28 Analyzed: 06/14/22 16:13									
<u>QC Source Sample: Non-SDG (A2F0417-01)</u>												
Gasoline Range Organics	ND	---	5.77	mg/kg dry	50	---	ND	---	---	---	30%	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 101 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>94 %</i>		<i>50-150 %</i>		<i>"</i>						

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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 22F0575 - EPA 5035A						Soil						
Blank (22F0575-BLK1)						Prepared: 06/16/22 08:00 Analyzed: 06/16/22 10:37						
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	---	3.33	mg/kg wet	50	---	---	---	---	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 102 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>96 %</i>		<i>50-150 %</i>		<i>"</i>						
LCS (22F0575-BS2)						Prepared: 06/16/22 08:00 Analyzed: 06/16/22 10:10						
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	26.5	---	5.00	mg/kg wet	50	25.0	---	106	80-120%	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 104 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>100 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (22F0575-DUP1)						Prepared: 06/13/22 11:30 Analyzed: 06/16/22 19:36						
<u>QC Source Sample: Non-SDG (A2F0475-01)</u>												
Gasoline Range Organics	1550	---	72.2	mg/kg dry	500	---	1510	---	---	3	30%	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 106 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>99 %</i>		<i>50-150 %</i>		<i>"</i>						

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Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F0432 - 06 29 22 1059
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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 22F0474 - EPA 5035A												
Soil												
Blank (22F0474-BLK1)												
Prepared: 06/14/22 08:00 Analyzed: 06/14/22 10:49												
<u>5035A/8260D</u>												
Benzene	ND	---	6.67	ug/kg wet	50	---	---	---	---	---	---	
Toluene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Xylenes, total	ND	---	50.0	ug/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	---	66.7	ug/kg wet	50	---	---	---	---	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>102 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>100 %</i>		<i>79-120 %</i>		<i>"</i>						
LCS (22F0474-BS1)												
Prepared: 06/14/22 08:00 Analyzed: 06/14/22 09:44												
<u>5035A/8260D</u>												
Benzene	1010	---	10.0	ug/kg wet	50	1000	---	101	80-120%	---	---	
Toluene	974	---	50.0	ug/kg wet	50	1000	---	97	80-120%	---	---	
Ethylbenzene	1000	---	25.0	ug/kg wet	50	1000	---	100	80-120%	---	---	
Xylenes, total	3010	---	75.0	ug/kg wet	50	3000	---	100	80-120%	---	---	
Naphthalene	1010	---	100	ug/kg wet	50	1000	---	101	80-120%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>100 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>99 %</i>		<i>79-120 %</i>		<i>"</i>						
Duplicate (22F0474-DUP1)												
Prepared: 06/13/22 11:15 Analyzed: 06/14/22 11:43												
<u>QC Source Sample: 061322-WP-01 (A2F0432-03)</u>												
<u>5035A/8260D</u>												
Benzene	ND	---	366	ug/kg dry	1000	---	ND	---	---	---	30%	
Toluene	ND	---	1830	ug/kg dry	1000	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	915	ug/kg dry	1000	---	ND	---	---	---	30%	
Xylenes, total	ND	---	2740	ug/kg dry	1000	---	ND	---	---	---	30%	
Naphthalene	ND	---	3660	ug/kg dry	1000	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>101 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>99 %</i>		<i>79-120 %</i>		<i>"</i>						

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ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F0432 - 06 29 22 1059
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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 22F0474 - EPA 5035A						Soil							
Duplicate (22F0474-DUP2)			Prepared: 06/13/22 14:28 Analyzed: 06/14/22 16:13						V-15				
QC Source Sample: Non-SDG (A2F0417-01)													
Benzene	ND	---	11.5	ug/kg dry	50	---	ND	---	---	---	30%		
Toluene	ND	---	57.7	ug/kg dry	50	---	ND	---	---	---	30%		
Ethylbenzene	ND	---	28.9	ug/kg dry	50	---	ND	---	---	---	30%		
Xylenes, total	ND	---	86.6	ug/kg dry	50	---	ND	---	---	---	30%		
Naphthalene	256	---	115	ug/kg dry	50	---	254	---	---	0.7	30%		
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 100 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>							
<i>Toluene-d8 (Surr)</i>		<i>101 %</i>		<i>80-120 %</i>		<i>"</i>							
<i>4-Bromofluorobenzene (Surr)</i>		<i>100 %</i>		<i>79-120 %</i>		<i>"</i>							

Matrix Spike (22F0474-MS1)			Prepared: 06/10/22 10:40 Analyzed: 06/14/22 17:34										
QC Source Sample: Non-SDG (A2F0371-04)													
5035A/8260D													
Benzene	1540	---	14.8	ug/kg dry	50	1480	ND	104	77-121%	---	---		
Toluene	1510	---	74.2	ug/kg dry	50	1480	ND	102	77-121%	---	---		
Ethylbenzene	1560	---	37.1	ug/kg dry	50	1480	ND	105	76-122%	---	---		
Xylenes, total	4710	---	111	ug/kg dry	50	4450	ND	106	78-124%	---	---		
Naphthalene	1610	---	148	ug/kg dry	50	1480	ND	108	62-129%	---	---		
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 100 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>							
<i>Toluene-d8 (Surr)</i>		<i>100 %</i>		<i>80-120 %</i>		<i>"</i>							
<i>4-Bromofluorobenzene (Surr)</i>		<i>99 %</i>		<i>79-120 %</i>		<i>"</i>							

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ORELAP ID: OR100062

Maul Foster & Alongi, INC.	Project: Les Schwab-Sub Slab Soil	
3140 NE Broadway Street	Project Number: [none]	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2F0432 - 06 29 22 1059

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 22F0575 - EPA 5035A												
Soil												
Blank (22F0575-BLK1)												
Prepared: 06/16/22 08:00 Analyzed: 06/16/22 10:37												
<u>5035A/8260D</u>												
Benzene	ND	---	6.67	ug/kg wet	50	---	---	---	---	---	---	
Toluene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Xylenes, total	ND	---	50.0	ug/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	---	66.7	ug/kg wet	50	---	---	---	---	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr) Recovery: 99 % Limits: 80-120 % Dilution: 1x</i>												
<i>Toluene-d8 (Surr) 101 % 80-120 % "</i>												
<i>4-Bromofluorobenzene (Surr) 99 % 79-120 % "</i>												
LCS (22F0575-BS1)												
Prepared: 06/16/22 08:00 Analyzed: 06/16/22 09:43												
<u>5035A/8260D</u>												
Benzene	990	---	10.0	ug/kg wet	50	1000	---	99	80-120%	---	---	
Toluene	966	---	50.0	ug/kg wet	50	1000	---	97	80-120%	---	---	
Ethylbenzene	990	---	25.0	ug/kg wet	50	1000	---	99	80-120%	---	---	
Xylenes, total	2980	---	75.0	ug/kg wet	50	3000	---	99	80-120%	---	---	
Naphthalene	1020	---	100	ug/kg wet	50	1000	---	102	80-120%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr) Recovery: 100 % Limits: 80-120 % Dilution: 1x</i>												
<i>Toluene-d8 (Surr) 101 % 80-120 % "</i>												
<i>4-Bromofluorobenzene (Surr) 98 % 79-120 % "</i>												
Duplicate (22F0575-DUP1)												
Prepared: 06/13/22 11:30 Analyzed: 06/16/22 19:36												
<u>QC Source Sample: Non-SDG (A2F0475-01)</u>												
Benzene	1330	---	144	ug/kg dry	500	---	1330	---	---	0	30%	
Toluene	ND	---	722	ug/kg dry	500	---	ND	---	---	---	30%	
Ethylbenzene	5890	---	361	ug/kg dry	500	---	5850	---	---	0.6	30%	
Xylenes, total	3530	---	1080	ug/kg dry	500	---	3540	---	---	0.2	30%	
Naphthalene	673000	---	1440	ug/kg dry	500	---	638000	---	---	5	30%	E
<i>Surr: 1,4-Difluorobenzene (Surr) Recovery: 99 % Limits: 80-120 % Dilution: 1x</i>												
<i>Toluene-d8 (Surr) 100 % 80-120 % "</i>												
<i>4-Bromofluorobenzene (Surr) 97 % 79-120 % "</i>												
Matrix Spike (22F0575-MS1)												
Prepared: 06/15/22 11:00 Analyzed: 06/16/22 18:16												

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Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F0432 - 06 29 22 1059
--	--	--

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 22F0575 - EPA 5035A						Soil						
Matrix Spike (22F0575-MS1)						Prepared: 06/15/22 11:00 Analyzed: 06/16/22 18:16						
QC Source Sample: Non-SDG (A2F0488-02)												
5035A/8260D												
Benzene	1180	---	11.1	ug/kg dry	50	1110	ND	106	77-121%	---	---	
Toluene	1140	---	55.6	ug/kg dry	50	1110	ND	103	77-121%	---	---	
Ethylbenzene	1180	---	27.8	ug/kg dry	50	1110	ND	106	76-122%	---	---	
Xylenes, total	3540	---	83.4	ug/kg dry	50	3330	ND	106	78-124%	---	---	
Naphthalene	1230	---	111	ug/kg dry	50	1110	ND	111	62-129%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 100 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>100 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>98 %</i>		<i>79-120 %</i>		<i>"</i>						

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--	--	--

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 22F0742 - EPA 3546						Soil							
Blank (22F0742-BLK1)			Prepared: 06/21/22 10:08 Analyzed: 06/22/22 07:44						C-07				
<u>EPA 8082A</u>													
Aroclor 1016	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---		
Aroclor 1221	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---		
Aroclor 1232	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---		
Aroclor 1242	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---		
Aroclor 1248	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---		
Aroclor 1254	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---		
Aroclor 1260	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---		
<i>Surr: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 88 %</i>		<i>Limits: 60-125 %</i>		<i>Dilution: 1x</i>							
LCS (22F0742-BS1)			Prepared: 06/21/22 10:08 Analyzed: 06/22/22 08:02						C-07				
<u>EPA 8082A</u>													
Aroclor 1016	172	---	10.0	ug/kg wet	1	250	---	69	47-134%	---	---		
Aroclor 1260	206	---	10.0	ug/kg wet	1	250	---	82	53-140%	---	---		
<i>Surr: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 91 %</i>		<i>Limits: 60-125 %</i>		<i>Dilution: 1x</i>							
Duplicate (22F0742-DUP1)			Prepared: 06/21/22 10:08 Analyzed: 06/22/22 08:55						C-07				
<u>QC Source Sample: Non-SDG (A2F0615-01)</u>													
Aroclor 1016	ND	---	10.7	ug/kg dry	1	---	ND	---	---	---	30%		
Aroclor 1221	ND	---	10.7	ug/kg dry	1	---	ND	---	---	---	30%		
Aroclor 1232	ND	---	10.7	ug/kg dry	1	---	ND	---	---	---	30%		
Aroclor 1242	ND	---	10.7	ug/kg dry	1	---	ND	---	---	---	30%		
Aroclor 1248	ND	---	10.7	ug/kg dry	1	---	ND	---	---	---	30%		
Aroclor 1254	ND	---	10.7	ug/kg dry	1	---	10.8	---	---	---	*** 30%		
Aroclor 1260	ND	---	10.7	ug/kg dry	1	---	6.94	---	---	---	*** 30%		
<i>Surr: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 79 %</i>		<i>Limits: 60-125 %</i>		<i>Dilution: 1x</i>							
Matrix Spike (22F0742-MS1)			Prepared: 06/21/22 10:08 Analyzed: 06/22/22 08:53						C-07				
<u>QC Source Sample: Non-SDG (A2F0615-02)</u>													
<u>EPA 8082A</u>													
Aroclor 1016	202	---	9.97	ug/kg dry	1	249	ND	81	47-134%	---	---		
Aroclor 1260	217	---	9.97	ug/kg dry	1	249	ND	87	53-140%	---	---		
<i>Surr: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 98 %</i>		<i>Limits: 60-125 %</i>		<i>Dilution: 1x</i>							

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<u>Maul Foster & Alongi, INC.</u> 3140 NE Broadway Street Portland, OR 97232	Project: <u>Les Schwab-Sub Slab Soil</u> Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F0432 - 06 29 22 1059
---	---	--

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0742 - EPA 3546								Soil				

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QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 22F1005 - EPA 3546						Soil							
Blank (22F1005-BLK1)			Prepared: 06/28/22 11:44 Analyzed: 06/28/22 18:16						C-07				
<u>EPA 8082A</u>													
Aroclor 1016	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---		
Aroclor 1221	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---		
Aroclor 1232	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---		
Aroclor 1242	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---		
Aroclor 1248	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---		
Aroclor 1254	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---		
Aroclor 1260	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---		
<i>Surr: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 99 %</i>		<i>Limits: 60-125 %</i>		<i>Dilution: 1x</i>							
LCS (22F1005-BS1)			Prepared: 06/28/22 11:44 Analyzed: 06/28/22 18:34						C-07				
<u>EPA 8082A</u>													
Aroclor 1016	190	---	10.0	ug/kg wet	1	250	---	76	47-134%	---	---		
Aroclor 1260	209	---	10.0	ug/kg wet	1	250	---	83	53-140%	---	---		
<i>Surr: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 99 %</i>		<i>Limits: 60-125 %</i>		<i>Dilution: 1x</i>							
Duplicate (22F1005-DUP1)			Prepared: 06/28/22 11:44 Analyzed: 06/28/22 19:27						C-07				
<u>QC Source Sample: 061322-NP-01 (A2F0432-01)</u>													
<u>EPA 8082A</u>													
Aroclor 1016	ND	---	15.2	ug/kg dry	1	---	ND	---	---	---	30%		
Aroclor 1221	ND	---	15.2	ug/kg dry	1	---	ND	---	---	---	30%		
Aroclor 1232	ND	---	15.2	ug/kg dry	1	---	ND	---	---	---	30%		
Aroclor 1242	ND	---	15.2	ug/kg dry	1	---	ND	---	---	---	30%		
Aroclor 1248	ND	---	15.2	ug/kg dry	1	---	ND	---	---	---	30%		
Aroclor 1254	ND	---	15.2	ug/kg dry	1	---	ND	---	---	---	30%		
Aroclor 1260	ND	---	15.2	ug/kg dry	1	---	ND	---	---	---	30%		
<i>Surr: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 69 %</i>		<i>Limits: 60-125 %</i>		<i>Dilution: 1x</i>							
Matrix Spike (22F1005-MS1)			Prepared: 06/28/22 11:44 Analyzed: 06/28/22 19:27						C-07				
<u>QC Source Sample: 061322-SP-01 (A2F0432-04)</u>													
<u>EPA 8082A</u>													
Aroclor 1016	257	---	14.3	ug/kg dry	1	357	ND	72	47-134%	---	---		
Aroclor 1260	306	---	14.3	ug/kg dry	1	357	ND	86	53-140%	---	---		

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---	---	--

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F1005 - EPA 3546						Soil						
Matrix Spike (22F1005-MS1)						Prepared: 06/28/22 11:44 Analyzed: 06/28/22 19:27						C-07
QC Source Sample: 061322-SP-01 (A2F0432-04)												
<i>Surr: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 93 %</i>		<i>Limits: 60-125 %</i>		<i>Dilution: 1x</i>						

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QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0457 - EPA 3051A						Soil						
Blank (22F0457-BLK1)			Prepared: 06/13/22 12:44 Analyzed: 06/14/22 02:26									
<u>EPA 6020B</u>												
Lead	ND	---	0.192	mg/kg wet	10	---	---	---	---	---	---	
LCS (22F0457-BS1)			Prepared: 06/13/22 12:44 Analyzed: 06/14/22 02:31									
<u>EPA 6020B</u>												
Lead	57.4	---	0.200	mg/kg wet	10	50.0	---	115	80-120%	---	---	
Duplicate (22F0457-DUP1)			Prepared: 06/13/22 12:44 Analyzed: 06/14/22 02:41									
<u>QC Source Sample: Non-SDG (A2F0054-01)</u>												
Lead	32.9	---	0.257	mg/kg dry	10	---	40.8	---	---	21	20%	Q-04
Matrix Spike (22F0457-MS1)			Prepared: 06/13/22 12:44 Analyzed: 06/14/22 02:45									
<u>QC Source Sample: Non-SDG (A2F0054-01)</u>												
<u>EPA 6020B</u>												
Lead	89.6	---	0.266	mg/kg dry	10	66.5	40.8	73	75-125%	---	---	Q-04

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--	--	--

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0553 - EPA 3051A						Soil						
Blank (22F0553-BLK1)			Prepared: 06/15/22 13:33 Analyzed: 06/16/22 12:17									
<u>EPA 6020B</u>												
Lead	ND	---	0.192	mg/kg wet	10	---	---	---	---	---	---	
LCS (22F0553-BS1)			Prepared: 06/15/22 13:33 Analyzed: 06/16/22 12:27									
<u>EPA 6020B</u>												
Lead	49.7	---	0.200	mg/kg wet	10	50.0	---	99	80-120%	---	---	
Duplicate (22F0553-DUP1)			Prepared: 06/15/22 13:33 Analyzed: 06/16/22 12:37									
<u>QC Source Sample: Non-SDG (A2F0242-10)</u>												
Lead	23.8	---	0.208	mg/kg dry	10	---	22.6	---	---	5	20%	PRO
Matrix Spike (22F0553-MS1)			Prepared: 06/15/22 13:33 Analyzed: 06/16/22 12:42									
<u>QC Source Sample: Non-SDG (A2F0242-10)</u>												
<u>EPA 6020B</u>												
Lead	78.3	---	0.216	mg/kg dry	10	54.0	22.6	103	75-125%	---	---	PRO

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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 22F0469 - Total Solids (Dry Weight)						Soil						
Duplicate (22F0469-DUP1)			Prepared: 06/13/22 18:37 Analyzed: 06/14/22 09:22									
<u>QC Source Sample: Non-SDG (A2F0381-03)</u>												
% Solids	78.4	---	1.00	%	1	---	78.4	---	---	0.04	10%	
Duplicate (22F0469-DUP2)			Prepared: 06/13/22 18:37 Analyzed: 06/14/22 09:22									
<u>QC Source Sample: Non-SDG (A2F0417-01)</u>												
% Solids	90.6	---	1.00	%	1	---	91.4	---	---	0.9	10%	
Duplicate (22F0469-DUP3)			Prepared: 06/13/22 18:37 Analyzed: 06/14/22 09:22									
<u>QC Source Sample: Non-SDG (A2F0422-01)</u>												
% Solids	77.2	---	1.00	%	1	---	77.5	---	---	0.4	10%	

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

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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 22F0567 - Total Solids (Dry Weight)						Soil						
Duplicate (22F0567-DUP1)						Prepared: 06/15/22 18:56 Analyzed: 06/16/22 05:54						
<u>QC Source Sample: 061322-NP-01 (A2F0432-01)</u>												
<u>EPA 8000D</u>												
% Solids	66.5	---	1.00	%	1	---	65.9	---	---	0.9	10%	
Duplicate (22F0567-DUP2)						Prepared: 06/15/22 18:56 Analyzed: 06/16/22 05:54						
<u>QC Source Sample: 061322-EP-01 (A2F0432-02)</u>												
<u>EPA 8000D</u>												
% Solids	67.6	---	1.00	%	1	---	67.9	---	---	0.4	10%	
Duplicate (22F0567-DUP3)						Prepared: 06/15/22 18:56 Analyzed: 06/16/22 05:54						
<u>QC Source Sample: 061322-SE-01 (A2F0432-09)</u>												
<u>EPA 8000D</u>												
% Solids	74.3	---	1.00	%	1	---	74.2	---	---	0.07	10%	

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SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22F0464</u>							
A2F0432-03	Soil	NWTPH-Dx	06/13/22 11:15	06/13/22 18:16	10.58g/5mL	10g/5mL	0.95
A2F0432-04	Soil	NWTPH-Dx	06/13/22 11:25	06/13/22 18:16	10.57g/5mL	10g/5mL	0.95
A2F0432-06	Soil	NWTPH-Dx	06/13/22 11:50	06/13/22 18:16	10.42g/5mL	10g/5mL	0.96
A2F0432-08	Soil	NWTPH-Dx	06/13/22 12:15	06/13/22 18:16	10.66g/5mL	10g/5mL	0.94
<u>Batch: 22F0554</u>							
A2F0432-01	Soil	NWTPH-Dx	06/13/22 10:55	06/15/22 13:54	10.47g/5mL	10g/5mL	0.96
A2F0432-02	Soil	NWTPH-Dx	06/13/22 10:59	06/15/22 13:54	10.38g/5mL	10g/5mL	0.96
A2F0432-09	Soil	NWTPH-Dx	06/13/22 12:30	06/15/22 13:54	10.5g/5mL	10g/5mL	0.95

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

Prep: EPA 5035A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22F0474</u>							
A2F0432-03RE1	Soil	NWTPH-Gx (MS)	06/13/22 11:15	06/13/22 11:15	5.41g/5mL	5g/5mL	0.92
A2F0432-04RE1	Soil	NWTPH-Gx (MS)	06/13/22 11:25	06/13/22 11:25	5.84g/5mL	5g/5mL	0.86
A2F0432-06	Soil	NWTPH-Gx (MS)	06/13/22 11:50	06/13/22 11:50	7g/5mL	5g/5mL	0.71
A2F0432-08	Soil	NWTPH-Gx (MS)	06/13/22 12:15	06/13/22 12:15	6g/5mL	5g/5mL	0.83
<u>Batch: 22F0575</u>							
A2F0432-01	Soil	NWTPH-Gx (MS)	06/13/22 10:55	06/13/22 10:55	5.3g/5mL	5g/5mL	0.94
A2F0432-02	Soil	NWTPH-Gx (MS)	06/13/22 10:59	06/13/22 10:59	4.98g/5mL	5g/5mL	1.00
A2F0432-09	Soil	NWTPH-Gx (MS)	06/13/22 12:30	06/13/22 12:30	6.05g/5mL	5g/5mL	0.83

BTEX+N Compounds by EPA 8260D

Prep: EPA 5035A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22F0474</u>							
A2F0432-03RE1	Soil	5035A/8260D	06/13/22 11:15	06/13/22 11:15	5.41g/5mL	5g/5mL	0.92
A2F0432-04RE1	Soil	5035A/8260D	06/13/22 11:25	06/13/22 11:25	5.84g/5mL	5g/5mL	0.86
A2F0432-06	Soil	5035A/8260D	06/13/22 11:50	06/13/22 11:50	7g/5mL	5g/5mL	0.71
A2F0432-08	Soil	5035A/8260D	06/13/22 12:15	06/13/22 12:15	6g/5mL	5g/5mL	0.83
<u>Batch: 22F0575</u>							
A2F0432-01	Soil	5035A/8260D	06/13/22 10:55	06/13/22 10:55	5.3g/5mL	5g/5mL	0.94
A2F0432-02	Soil	5035A/8260D	06/13/22 10:59	06/13/22 10:59	4.98g/5mL	5g/5mL	1.00

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F0432 - 06 29 22 1059
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SAMPLE PREPARATION INFORMATION

BTEX+N Compounds by EPA 8260D

Prep: EPA 5035A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
A2F0432-09	Soil	5035A/8260D	06/13/22 12:30	06/13/22 12:30	6.05g/5mL	5g/5mL	0.83

Polychlorinated Biphenyls by EPA 8082A

Prep: EPA 3546					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22F0742</u>							
A2F0432-03	Soil	EPA 8082A	06/13/22 11:15	06/21/22 13:12	10.11g/5mL	10g/5mL	0.99
A2F0432-06	Soil	EPA 8082A	06/13/22 11:50	06/21/22 13:12	10.79g/5mL	10g/5mL	0.93
<u>Batch: 22F1005</u>							
A2F0432-01	Soil	EPA 8082A	06/13/22 10:55	06/28/22 11:44	10.17g/5mL	10g/5mL	0.98
A2F0432-02	Soil	EPA 8082A	06/13/22 10:59	06/28/22 11:44	10.78g/5mL	10g/5mL	0.93
A2F0432-04	Soil	EPA 8082A	06/13/22 11:25	06/28/22 11:44	10.66g/5mL	10g/5mL	0.94

Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3051A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22F0457</u>							
A2F0432-03	Soil	EPA 6020B	06/13/22 11:15	06/13/22 18:45	0.515g/50mL	0.5g/50mL	0.97
A2F0432-04	Soil	EPA 6020B	06/13/22 11:25	06/13/22 18:45	0.473g/50mL	0.5g/50mL	1.06
A2F0432-06	Soil	EPA 6020B	06/13/22 11:50	06/13/22 18:45	0.518g/50mL	0.5g/50mL	0.97
A2F0432-08	Soil	EPA 6020B	06/13/22 12:15	06/13/22 18:45	0.461g/50mL	0.5g/50mL	1.08
<u>Batch: 22F0553</u>							
A2F0432-01	Soil	EPA 6020B	06/13/22 10:55	06/15/22 13:33	0.46g/50mL	0.5g/50mL	1.09
A2F0432-02	Soil	EPA 6020B	06/13/22 10:59	06/15/22 13:33	0.476g/50mL	0.5g/50mL	1.05
A2F0432-09	Soil	EPA 6020B	06/13/22 12:30	06/15/22 13:33	0.47g/50mL	0.5g/50mL	1.06

Percent Dry Weight

Prep: Total Solids (Dry Weight)					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22F0469</u>							
A2F0432-03	Soil	EPA 8000D	06/13/22 11:15	06/13/22 18:37			NA
A2F0432-04	Soil	EPA 8000D	06/13/22 11:25	06/13/22 18:37			NA
A2F0432-06	Soil	EPA 8000D	06/13/22 11:50	06/13/22 18:37			NA

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F0432 - 06 29 22 1059
--	--	--

SAMPLE PREPARATION INFORMATION

Percent Dry Weight

<u>Prep: Total Solids (Dry Weight)</u>					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
A2F0432-08	Soil	EPA 8000D	06/13/22 12:15	06/13/22 18:37			NA
<u>Batch: 22F0567</u>							
A2F0432-01	Soil	EPA 8000D	06/13/22 10:55	06/15/22 18:56			NA
A2F0432-02	Soil	EPA 8000D	06/13/22 10:59	06/15/22 18:56			NA
A2F0432-09	Soil	EPA 8000D	06/13/22 12:30	06/15/22 18:56			NA

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Table with 3 columns: Client (Maul Foster & Alongi, INC.), Project (Les Schwab-Sub Slab Soil), and Report ID (A2F0432 - 06 29 22 1059).

QUALIFIER DEFINITIONS

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

Apex Laboratories

- C-07 Extract has undergone Sulfuric Acid Cleanup by EPA 3665A, Sulfur Cleanup by EPA 3660B, and Florisil Cleanup by EPA 3620B in order to minimize matrix interference.
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.
PRO Sample has undergone sample processing prior to extraction and analysis.
Q-04 Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
Q-05 Analyses are not controlled on RPD values from sample and duplicate concentrations that are below 5 times the reporting level.
R-02 The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
S-01 Surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interference.
S-05 Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.
S-08 TPH-Gx Surrogate recovery cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract. See 8260 results for accurate Surrogate recovery.
V-15 Sample aliquot was subsampled from the sample container. The subsampled aliquot was preserved in the laboratory within 48 hours of sampling.

Apex Laboratories

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Philip Nerenberg (signature)

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F0432 - 06 29 22 1059
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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

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

Detection Limits: Limit of Detection (LOD)

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

Reporting Limits: Limit of Quantitation (LOQ)

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

Reporting Conventions:

- Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.
- " dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.
- " wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
- " " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

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).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to 1/2 the Reporting Limit (RL).
-For Blank hits falling between 1/2 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.

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Table with 3 columns: Client (Maul Foster & Alongi, INC.), Project (Les Schwab-Sub Slab Soil), and Report ID (A2F0432 - 06 29 22 1059).

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

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.

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

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Philip Nerenberg (handwritten signature)

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Table with project details: Maul Foster & Alongi, INC., Project: Les Schwab-Sub Slab Soil, Project Number: [none], Project Manager: Merideth D'Andrea, Report ID: A2F0432 - 06 29 22 1059

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

Table header with columns: Matrix, Analysis, TNI_ID, Analyte, TNI_ID, Accreditation

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

Secondary Accreditations

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

Subcontract Laboratory Accreditations

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

Field Testing Parameters

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

Apex Laboratories

Handwritten signature of Philip Nerenberg

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. Project: Les Schwab-Sub Slab Soil
 3140 NE Broadway Street Project Number: [none]
 Portland, OR 97232 Project Manager: Merideth D'Andrea Report ID:
 A2F0432 - 06 29 22 1059

CHAIN OF CUSTODY

APEX LABS 6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323 Lab # A2F0432 of

Company: MFA Project Mgr: Merideth D'Andrea Project Name: Les Schwab Sub Slab Soil Project #:
 Address: 3140 NE Broadway Phone: 503 501 5211 Email: mcaandre@maulalongi.com PO #

Sampled by: Julie Pace

Site Location: OR MA CA

AK ID

DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-CD	NWTPH-DX	NWTPH-GX	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (9)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Cr, Cs, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Ti, V, Zn, TCEP, TCDF, TCDF, TCDF	TCLP Metals (9)	Hold Sample	Frozen Archive
<u>06/22/25</u>	<u>12:55</u>	<u> </u>	<u>3</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>X</u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day 2 Day 3 Day 5 Day Standard Other:

SPECIAL INSTRUCTIONS: Hold all samples for TCLP, please.

RELINQUISHED BY:	RECEIVED BY:
Signature: <u>Julie Pace</u>	Signature: <u> </u>
Date: <u>06/19/22</u>	Date: <u> </u>
Printed Name: <u>Julie Pace</u>	Printed Name: <u> </u>
Time: <u>17:09</u>	Time: <u> </u>
Company: <u>MFA</u>	Company: <u>Apex</u>

SAMPLES ARE HELD FOR 30 DAYS

Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F0432 - 06 29 22 1059
--	--	--

APEX LABS COOLER RECEIPT FORM

Client: MFA Element WO#: A2 F0432

Project/Project #: Les Schwab-Subslabsoil

Delivery Info:
Date/time received: 6/13/22 @ 17:08 By: JAM
Delivered by: Apex ___ Client ESS ___ FedEx ___ UPS ___ Swift ___ Senvoy ___ SDS ___ Other ___

Cooler Inspection Date/time inspected: 6/13/22 @ 17:09 By: JAM
Chain of Custody included? Yes No ___ Custody seals? Yes ___ No
Signed/dated by client? Yes No ___
Signed/dated by Apex? Yes No ___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>3.1</u>	<u>3.6</u>					
Received on ice? (Y/N)	<u>Y</u>	<u>Y</u>					
Temp. blanks? (Y/N)	<u>Y</u>	<u>Y</u>					
Ice type: (Gel/Real/Other)	<u>Real</u>	<u>Real</u>					
Condition:	<u>Good</u>	<u>Good</u>					

Cooler out of temp? (Y/N) Possible reason why: (N)
Green dots applied to out of temperature samples? Yes No ___
Out of temperature samples form initiated? Yes No ___

Sample Inspection: Date/time inspected: 6/13/22 @ 17:54 By: AKC
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
Comments: _____

Additional information:

Labeled by: AKC Witness: JAM Cooler Inspected by: AKC

Philip Nerenberg



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Tuesday, July 12, 2022

Merideth D'Andrea
Maul Foster & Alongi, INC.
3140 NE Broadway Street
Portland, OR 97232

RE: A2F1064 - Les Schwab-Sub Slab Soil - [none]

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

Enclosed are the results of analyses for work order A2F1064, which was received by the laboratory on 6/30/2022 at 5:25:00PM.

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

(See Cooler Receipt Form for details)

Cooler #1	4.5 degC
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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

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

<u>Maul Foster & Alongi, INC.</u> 3140 NE Broadway Street Portland, OR 97232	Project: <u>Les Schwab-Sub Slab Soil</u> Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
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ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
063022-WP-9.8-01	A2F1064-01	Soil	06/30/22 11:58	06/30/22 17:25
063022-SP-7.3-01	A2F1064-02	Soil	06/30/22 11:05	06/30/22 17:25
063022-WW-3-01	A2F1064-03	Soil	06/30/22 11:22	06/30/22 17:25
063022-EW-3-01	A2F1064-04	Soil	06/30/22 12:25	06/30/22 17:25
063022-SW-3-01	A2F1064-05	Soil	06/30/22 12:20	06/30/22 17:25
063022-SP-5.8-01	A2F1064-06	Soil	06/30/22 10:55	06/30/22 17:25

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
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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
063022-WP-9.8-01 (A2F1064-01)				Matrix: Soil		Batch: 22F1123		
Diesel	212	---	33.3	mg/kg dry	1	07/01/22 11:25	NWTPH-Dx	F-19
Oil	ND	---	66.5	mg/kg dry	1	07/01/22 11:25	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 86 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>07/01/22 11:25</i>	<i>NWTPH-Dx</i>	
063022-SP-7.3-01 (A2F1064-02)				Matrix: Soil		Batch: 22F1142		
Diesel	102	---	30.2	mg/kg dry	1	07/01/22 07:46	NWTPH-Dx	
Oil	ND	---	60.5	mg/kg dry	1	07/01/22 07:46	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 81 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>07/01/22 07:46</i>	<i>NWTPH-Dx</i>	
063022-WW-3-01 (A2F1064-03)				Matrix: Soil		Batch: 22F1142		
Diesel	288	---	25.2	mg/kg dry	1	07/01/22 08:31	NWTPH-Dx	
Oil	ND	---	50.4	mg/kg dry	1	07/01/22 08:31	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 87 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>07/01/22 08:31</i>	<i>NWTPH-Dx</i>	
063022-EW-3-01 (A2F1064-04)				Matrix: Soil		Batch: 22F1142		
Diesel	49.1	---	25.2	mg/kg dry	1	07/01/22 08:54	NWTPH-Dx	
Oil	ND	---	50.4	mg/kg dry	1	07/01/22 08:54	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 85 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>07/01/22 08:54</i>	<i>NWTPH-Dx</i>	
063022-SW-3-01 (A2F1064-05)				Matrix: Soil		Batch: 22F1142		
Diesel	ND	---	25.0	mg/kg dry	1	07/01/22 09:16	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	07/01/22 09:16	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 88 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>07/01/22 09:16</i>	<i>NWTPH-Dx</i>	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
--	--	---

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
063022-WP-9.8-01 (A2F1064-01)				Matrix: Soil		Batch: 22G0013		
Gasoline Range Organics	1200	---	170	mg/kg dry	1000	07/01/22 11:08	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 109 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>07/01/22 11:08</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>100 %</i>		<i>50-150 %</i>		<i>1</i>	<i>07/01/22 11:08</i>	<i>NWTPH-Gx (MS)</i>
063022-SP-7.3-01 (A2F1064-02)				Matrix: Soil		Batch: 22G0013		
Gasoline Range Organics	77.2	---	10.4	mg/kg dry	50	07/01/22 11:35	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 120 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>07/01/22 11:35</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>101 %</i>		<i>50-150 %</i>		<i>1</i>	<i>07/01/22 11:35</i>	<i>NWTPH-Gx (MS)</i>
063022-WW-3-01 (A2F1064-03)				Matrix: Soil		Batch: 22G0013		
Gasoline Range Organics	35.0	---	6.74	mg/kg dry	50	07/01/22 12:02	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 117 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>07/01/22 12:02</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>101 %</i>		<i>50-150 %</i>		<i>1</i>	<i>07/01/22 12:02</i>	<i>NWTPH-Gx (MS)</i>
063022-EW-3-01 (A2F1064-04)				Matrix: Soil		Batch: 22G0013		
Gasoline Range Organics	106	---	7.68	mg/kg dry	50	07/01/22 12:29	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 111 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>07/01/22 12:29</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>101 %</i>		<i>50-150 %</i>		<i>1</i>	<i>07/01/22 12:29</i>	<i>NWTPH-Gx (MS)</i>
063022-SW-3-01 (A2F1064-05)				Matrix: Soil		Batch: 22G0013		
Gasoline Range Organics	38.3	---	6.40	mg/kg dry	50	07/01/22 13:23	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 113 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>07/01/22 13:23</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>100 %</i>		<i>50-150 %</i>		<i>1</i>	<i>07/01/22 13:23</i>	<i>NWTPH-Gx (MS)</i>

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
--	--	---

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
063022-WP-9.8-01 (A2F1064-01)				Matrix: Soil		Batch: 22G0013		
Acetone	ND	---	34100	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	ICV-02
Acrylonitrile	ND	---	4260	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	R-02
Benzene	ND	---	341	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Bromobenzene	ND	---	852	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Bromochloromethane	ND	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Bromodichloromethane	ND	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Bromoform	ND	---	3410	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Bromomethane	ND	---	17000	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
2-Butanone (MEK)	ND	---	17000	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	ICV-02
n-Butylbenzene	2610	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	M-02
sec-Butylbenzene	ND	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
tert-Butylbenzene	ND	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Carbon disulfide	ND	---	17000	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Carbon tetrachloride	ND	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Chlorobenzene	ND	---	852	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Chloroethane	ND	---	17000	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Chloroform	ND	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Chloromethane	ND	---	8520	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
2-Chlorotoluene	ND	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
4-Chlorotoluene	ND	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Dibromochloromethane	ND	---	3410	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	---	8520	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Dibromomethane	ND	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
1,2-Dichlorobenzene	ND	---	852	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
1,3-Dichlorobenzene	ND	---	852	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
1,4-Dichlorobenzene	ND	---	852	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Dichlorodifluoromethane	ND	---	3410	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
1,1-Dichloroethane	ND	---	852	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	852	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
1,1-Dichloroethene	ND	---	852	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
cis-1,2-Dichloroethene	ND	---	852	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
trans-1,2-Dichloroethene	ND	---	852	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
--	--	---

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
063022-WP-9.8-01 (A2F1064-01)				Matrix: Soil		Batch: 22G0013		
1,2-Dichloropropane	ND	---	852	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
1,3-Dichloropropane	ND	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
2,2-Dichloropropane	ND	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
1,1-Dichloropropene	ND	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
cis-1,3-Dichloropropene	ND	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
trans-1,3-Dichloropropene	ND	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Ethylbenzene	5920	---	852	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Hexachlorobutadiene	ND	---	3410	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
2-Hexanone	ND	---	17000	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Isopropylbenzene	ND	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
4-Isopropyltoluene	ND	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Methylene chloride	ND	---	17000	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
4-Methyl-2-pentanone (MIBK)	ND	---	17000	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Naphthalene	3700	---	3410	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
n-Propylbenzene	5230	---	852	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Styrene	ND	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	---	852	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Tetrachloroethene (PCE)	ND	---	852	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Toluene	ND	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
1,2,3-Trichlorobenzene	ND	---	8520	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
1,2,4-Trichlorobenzene	ND	---	8520	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
1,1,1-Trichloroethane	ND	---	852	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
1,1,2-Trichloroethane	ND	---	852	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Trichloroethene (TCE)	ND	---	852	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Trichlorofluoromethane	ND	---	3410	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
1,2,3-Trichloropropane	ND	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
1,2,4-Trimethylbenzene	19600	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
1,3,5-Trimethylbenzene	6680	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
Vinyl chloride	ND	---	852	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
m,p-Xylene	5780	---	1700	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	
o-Xylene	ND	---	852	ug/kg dry	1000	07/01/22 11:08	5035A/8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
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ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
063022-WP-9.8-01 (A2F1064-01)				Matrix: Soil		Batch: 22G0013		
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 106 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>07/01/22 11:08</i>	<i>5035A/8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>95 %</i>		<i>80-120 %</i>	<i>1</i>	<i>07/01/22 11:08</i>	<i>5035A/8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>105 %</i>		<i>79-120 %</i>	<i>1</i>	<i>07/01/22 11:08</i>	<i>5035A/8260D</i>	

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ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
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ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
063022-WP-9.8-01 (A2F1064-01RE1)				Matrix: Soil		Batch: 22G0164		
Acenaphthene	ND	---	31.4	ug/kg dry	4	07/07/22 17:27	EPA 8270E	R-02
Acenaphthylene	ND	---	17.9	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Anthracene	ND	---	17.9	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Benz(a)anthracene	ND	---	17.9	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Benzo(a)pyrene	ND	---	26.8	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Benzo(b)fluoranthene	ND	---	26.8	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Benzo(k)fluoranthene	ND	---	26.8	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Benzo(g,h,i)perylene	ND	---	17.9	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Chrysene	ND	---	17.9	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Dibenz(a,h)anthracene	ND	---	17.9	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Fluoranthene	ND	---	17.9	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Fluorene	89.2	---	17.9	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	---	17.9	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
1-Methylnaphthalene	1730	---	35.7	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
2-Methylnaphthalene	3670	---	35.7	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Naphthalene	1120	---	35.7	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Phenanthrene	126	---	17.9	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Pyrene	ND	---	17.9	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Carbazole	ND	---	26.8	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Dibenzofuran	ND	---	21.4	ug/kg dry	4	07/07/22 17:27	EPA 8270E	R-02
2-Chlorophenol	ND	---	89.0	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
4-Chloro-3-methylphenol	ND	---	179	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
2,4-Dichlorophenol	ND	---	89.0	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
2,4-Dimethylphenol	ND	---	89.0	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
2,4-Dinitrophenol	ND	---	446	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	---	446	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
2-Methylphenol	ND	---	44.6	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
3+4-Methylphenol(s)	ND	---	44.6	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
2-Nitrophenol	ND	---	179	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
4-Nitrophenol	ND	---	179	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Pentachlorophenol (PCP)	ND	---	179	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Phenol	ND	---	35.7	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	---	89.0	ug/kg dry	4	07/07/22 17:27	EPA 8270E	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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 503-718-2323
 ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
--	--	---

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
063022-WP-9.8-01 (A2F1064-01RE1)				Matrix: Soil		Batch: 22G0164		
2,3,5,6-Tetrachlorophenol	ND	---	89.0	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
2,4,5-Trichlorophenol	ND	---	89.0	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Nitrobenzene	ND	---	248	ug/kg dry	4	07/07/22 17:27	EPA 8270E	R-02
2,4,6-Trichlorophenol	ND	---	89.0	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	---	268	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Butyl benzyl phthalate	ND	---	179	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Diethylphthalate	ND	---	179	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Dimethylphthalate	ND	---	179	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Di-n-butylphthalate	ND	---	179	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Di-n-octyl phthalate	ND	---	179	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
N-Nitrosodimethylamine	ND	---	44.6	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	---	207	ug/kg dry	4	07/07/22 17:27	EPA 8270E	R-02
N-Nitrosodiphenylamine	ND	---	181	ug/kg dry	4	07/07/22 17:27	EPA 8270E	R-02
Bis(2-Chloroethoxy) methane	ND	---	114	ug/kg dry	4	07/07/22 17:27	EPA 8270E	R-02
Bis(2-Chloroethyl) ether	ND	---	44.6	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	---	44.6	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Hexachlorobenzene	ND	---	17.9	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Hexachlorobutadiene	ND	---	44.6	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Hexachlorocyclopentadiene	ND	---	89.0	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Hexachloroethane	ND	---	44.6	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
2-Chloronaphthalene	ND	---	17.9	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
1,2,4-Trichlorobenzene	ND	---	44.6	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
4-Bromophenyl phenyl ether	ND	---	44.6	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	---	44.6	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Aniline	ND	---	89.0	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
4-Chloroaniline	ND	---	44.6	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
2-Nitroaniline	ND	---	357	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
3-Nitroaniline	ND	---	357	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
4-Nitroaniline	ND	---	357	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
2,4-Dinitrotoluene	ND	---	179	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
2,6-Dinitrotoluene	ND	---	179	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Benzoic acid	ND	---	2800	ug/kg dry	4	07/07/22 17:27	EPA 8270E	R-02
Benzyl alcohol	ND	---	89.0	ug/kg dry	4	07/07/22 17:27	EPA 8270E	

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ANALYTICAL REPORT

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
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ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
			Matrix: Soil			Batch: 22G0164		
063022-WP-9.8-01 (A2F1064-01RE1)								
Isophorone	ND	---	80.3	ug/kg dry	4	07/07/22 17:27	EPA 8270E	R-02
Azobenzene (1,2-DPH)	ND	---	44.6	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	---	446	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
3,3'-Dichlorobenzidine	ND	---	357	ug/kg dry	4	07/07/22 17:27	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	---	446	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
1,3-Dinitrobenzene	ND	---	446	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
1,4-Dinitrobenzene	ND	---	446	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
Pyridine	ND	---	89.0	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
1,2-Dichlorobenzene	ND	---	44.6	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
1,3-Dichlorobenzene	ND	---	44.6	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
1,4-Dichlorobenzene	ND	---	44.6	ug/kg dry	4	07/07/22 17:27	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>			<i>Recovery: 95 %</i>	<i>Limits: 37-122 %</i>	4	07/07/22 17:27	EPA 8270E	
<i>2-Fluorobiphenyl (Surr)</i>			<i>58 %</i>	<i>44-120 %</i>	4	07/07/22 17:27	EPA 8270E	
<i>Phenol-d6 (Surr)</i>			<i>87 %</i>	<i>33-122 %</i>	4	07/07/22 17:27	EPA 8270E	
<i>p-Terphenyl-d14 (Surr)</i>			<i>55 %</i>	<i>54-127 %</i>	4	07/07/22 17:27	EPA 8270E	
<i>2-Fluorophenol (Surr)</i>			<i>76 %</i>	<i>35-120 %</i>	4	07/07/22 17:27	EPA 8270E	
<i>2,4,6-Tribromophenol (Surr)</i>			<i>76 %</i>	<i>39-132 %</i>	4	07/07/22 17:27	EPA 8270E	

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ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
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ANALYTICAL SAMPLE RESULTS

Percent Dry Weight									
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
063022-WP-9.8-01 (A2F1064-01)				Matrix: Soil		Batch: 22F1125			
% Solids	59.6	---	1.00	%	1	07/01/22 05:52	EPA 8000D		
063022-SP-7.3-01 (A2F1064-02)				Matrix: Soil		Batch: 22F1125			
% Solids	62.4	---	1.00	%	1	07/01/22 05:52	EPA 8000D		
063022-WW-3-01 (A2F1064-03)				Matrix: Soil		Batch: 22F1125			
% Solids	79.1	---	1.00	%	1	07/01/22 05:52	EPA 8000D		
063022-EW-3-01 (A2F1064-04)				Matrix: Soil		Batch: 22F1125			
% Solids	73.3	---	1.00	%	1	07/01/22 05:52	EPA 8000D		
063022-SW-3-01 (A2F1064-05)				Matrix: Soil		Batch: 22F1125			
% Solids	81.2	---	1.00	%	1	07/01/22 05:52	EPA 8000D		

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Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
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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 22F1123 - EPA 3546 (Fuels)						Soil						
Blank (22F1123-BLK1)			Prepared: 06/30/22 12:55 Analyzed: 07/01/22 00:25									
<u>NWTPH-Dx</u>												
Diesel	ND	---	18.2	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	36.4	mg/kg wet	1	---	---	---	---	---	---	
Surr: <i>o</i> -Terphenyl (Surr)		Recovery: 93 %		Limits: 50-150 %		Dilution: 1x						
LCS (22F1123-BS1)			Prepared: 06/30/22 12:55 Analyzed: 07/01/22 00:46									
<u>NWTPH-Dx</u>												
Diesel	116	---	20.0	mg/kg wet	1	125	---	93	38-132%	---	---	
Surr: <i>o</i> -Terphenyl (Surr)		Recovery: 91 %		Limits: 50-150 %		Dilution: 1x						
Duplicate (22F1123-DUP2)			Prepared: 06/30/22 17:35 Analyzed: 07/01/22 07:58									
<u>QC Source Sample: Non-SDG (A2F1057-02)</u>												
Diesel	ND	---	24.5	mg/kg dry	1	---	ND	---	---	---	30%	
Oil	ND	---	48.9	mg/kg dry	1	---	ND	---	---	---	30%	
Surr: <i>o</i> -Terphenyl (Surr)		Recovery: 90 %		Limits: 50-150 %		Dilution: 1x						
Duplicate (22F1123-DUP3)			Prepared: 06/30/22 12:55 Analyzed: 07/01/22 11:10									
<u>QC Source Sample: Non-SDG (A2F0715-03RE1)</u>												
Diesel	ND	---	122	mg/kg dry	5	---	ND	---	---	---	30%	
Oil	588	---	244	mg/kg dry	5	---	930	---	---	45	30%	Q-04
Surr: <i>o</i> -Terphenyl (Surr)		Recovery: 73 %		Limits: 50-150 %		Dilution: 5x						S-05
Batch 22F1142 - EPA 3546 (Fuels)						Soil						
Blank (22F1142-BLK1)			Prepared: 06/30/22 18:46 Analyzed: 07/01/22 07:00									
<u>NWTPH-Dx</u>												
Diesel	ND	---	18.2	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	36.4	mg/kg wet	1	---	---	---	---	---	---	
Surr: <i>o</i> -Terphenyl (Surr)		Recovery: 96 %		Limits: 50-150 %		Dilution: 1x						
LCS (22F1142-BS1)			Prepared: 06/30/22 18:46 Analyzed: 07/01/22 07:23									
<u>NWTPH-Dx</u>												
Diesel	111	---	20.0	mg/kg wet	1	125	---	89	38-132%	---	---	

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Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
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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 22F1142 - EPA 3546 (Fuels)						Soil						
LCS (22F1142-BS1)						Prepared: 06/30/22 18:46 Analyzed: 07/01/22 07:23						
<i>Surr: o-Terphenyl (Surr)</i>						<i>Recovery: 94 % Limits: 50-150 % Dilution: 1x</i>						
Duplicate (22F1142-DUP1)						Prepared: 06/30/22 18:46 Analyzed: 07/01/22 08:08						
QC Source Sample: 063022-SP-7.3-01 (A2F1064-02)												
NWTPH-Dx												
Diesel	126	---	30.1	mg/kg dry	1	---	102	---	---	22	30%	
Oil	ND	---	60.2	mg/kg dry	1	---	ND	---	---	---	30%	
<i>Surr: o-Terphenyl (Surr)</i>						<i>Recovery: 73 % Limits: 50-150 % Dilution: 1x</i>						

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Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
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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 22G0013 - EPA 5035A						Soil						
Blank (22G0013-BLK1)			Prepared: 07/01/22 08:00 Analyzed: 07/01/22 10:41									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	---	3.33	mg/kg wet	50	---	---	---	---	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 108 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>101 %</i>		<i>50-150 %</i>		<i>"</i>						
LCS (22G0013-BS2)			Prepared: 07/01/22 08:00 Analyzed: 07/01/22 10:14									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	23.2	---	5.00	mg/kg wet	50	25.0	---	93	80-120%	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 105 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>100 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (22G0013-DUP1)			Prepared: 06/30/22 12:25 Analyzed: 07/01/22 12:56									
<u>QC Source Sample: 063022-EW-3-01 (A2F1064-04)</u>												
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	104	---	7.68	mg/kg dry	50	---	106	---	---	2	30%	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 117 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>101 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (22G0013-DUP2)			Prepared: 06/28/22 10:38 Analyzed: 07/01/22 16:04									
<u>QC Source Sample: Non-SDG (A2F1062-02)</u>												
Gasoline Range Organics	ND	---	5.14	mg/kg dry	50	---	ND	---	---	---	30%	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 106 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>101 %</i>		<i>50-150 %</i>		<i>"</i>						

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ORELAP ID: OR100062

Maul Foster & Alongi, INC.	Project: Les Schwab-Sub Slab Soil	
3140 NE Broadway Street	Project Number: [none]	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2F1064 - 07 12 22 1443

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0013 - EPA 5035A						Soil						
Blank (22G0013-BLK1)			Prepared: 07/01/22 08:00 Analyzed: 07/01/22 10:41									
<u>5035A/8260D</u>												
Acetone	ND	---	667	ug/kg wet	50	---	---	---	---	---	---	ICV-02
Acrylonitrile	ND	---	66.7	ug/kg wet	50	---	---	---	---	---	---	
Benzene	ND	---	6.67	ug/kg wet	50	---	---	---	---	---	---	
Bromobenzene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Bromochloromethane	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Bromodichloromethane	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Bromoform	ND	---	66.7	ug/kg wet	50	---	---	---	---	---	---	
Bromomethane	ND	---	333	ug/kg wet	50	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	333	ug/kg wet	50	---	---	---	---	---	---	ICV-02
n-Butylbenzene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Carbon disulfide	ND	---	333	ug/kg wet	50	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Chlorobenzene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Chloroethane	ND	---	333	ug/kg wet	50	---	---	---	---	---	---	
Chloroform	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Chloromethane	ND	---	167	ug/kg wet	50	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Dibromochloromethane	ND	---	66.7	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	167	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Dibromomethane	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	66.7	ug/kg wet	50	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
--	--	--

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0013 - EPA 5035A						Soil						
Blank (22G0013-BLK1)			Prepared: 07/01/22 08:00 Analyzed: 07/01/22 10:41									
1,2-Dichloropropane	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	66.7	ug/kg wet	50	---	---	---	---	---	---	
2-Hexanone	ND	---	333	ug/kg wet	50	---	---	---	---	---	---	
Isopropylbenzene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Methylene chloride	ND	---	333	ug/kg wet	50	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	---	333	ug/kg wet	50	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	---	66.7	ug/kg wet	50	---	---	---	---	---	---	
n-Propylbenzene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Styrene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Toluene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	167	ug/kg wet	50	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	167	ug/kg wet	50	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	66.7	ug/kg wet	50	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Vinyl chloride	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
m,p-Xylene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
o-Xylene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	

Surr: 1,4-Difluorobenzene (Surr)

Recovery: 108 % Limits: 80-120 %

Dilution: 1x

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
--	--	---

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0013 - EPA 5035A						Soil						
Blank (22G0013-BLK1)						Prepared: 07/01/22 08:00 Analyzed: 07/01/22 10:41						
<i>Surr: Toluene-d8 (Surr)</i>		<i>Recovery: 95 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>102 %</i>		<i>79-120 %</i>		<i>"</i>						
LCS (22G0013-BS1)						Prepared: 07/01/22 08:00 Analyzed: 07/01/22 09:42						
5035A/8260D												
Acetone	1590	---	1000	ug/kg wet	50	2000	---	80	80-120%	---	---	ICV-02
Acrylonitrile	1110	---	100	ug/kg wet	50	1000	---	111	80-120%	---	---	
Benzene	1100	---	10.0	ug/kg wet	50	1000	---	110	80-120%	---	---	
Bromobenzene	1100	---	25.0	ug/kg wet	50	1000	---	110	80-120%	---	---	
Bromochloromethane	1100	---	50.0	ug/kg wet	50	1000	---	110	80-120%	---	---	
Bromodichloromethane	1060	---	50.0	ug/kg wet	50	1000	---	106	80-120%	---	---	
Bromoform	1010	---	100	ug/kg wet	50	1000	---	101	80-120%	---	---	
Bromomethane	1330	---	500	ug/kg wet	50	1000	---	133	80-120%	---	---	Q-56
2-Butanone (MEK)	1790	---	500	ug/kg wet	50	2000	---	90	80-120%	---	---	ICV-02
n-Butylbenzene	1090	---	50.0	ug/kg wet	50	1000	---	109	80-120%	---	---	
sec-Butylbenzene	1150	---	50.0	ug/kg wet	50	1000	---	115	80-120%	---	---	
tert-Butylbenzene	1080	---	50.0	ug/kg wet	50	1000	---	108	80-120%	---	---	
Carbon disulfide	1170	---	500	ug/kg wet	50	1000	---	117	80-120%	---	---	
Carbon tetrachloride	1300	---	50.0	ug/kg wet	50	1000	---	130	80-120%	---	---	Q-56
Chlorobenzene	1020	---	25.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
Chloroethane	886	---	500	ug/kg wet	50	1000	---	89	80-120%	---	---	
Chloroform	1120	---	50.0	ug/kg wet	50	1000	---	112	80-120%	---	---	
Chloromethane	1050	---	250	ug/kg wet	50	1000	---	105	80-120%	---	---	
2-Chlorotoluene	1110	---	50.0	ug/kg wet	50	1000	---	111	80-120%	---	---	
4-Chlorotoluene	1080	---	50.0	ug/kg wet	50	1000	---	108	80-120%	---	---	
Dibromochloromethane	991	---	100	ug/kg wet	50	1000	---	99	80-120%	---	---	
1,2-Dibromo-3-chloropropane	914	---	250	ug/kg wet	50	1000	---	91	80-120%	---	---	
1,2-Dibromoethane (EDB)	1120	---	50.0	ug/kg wet	50	1000	---	112	80-120%	---	---	
Dibromomethane	1150	---	50.0	ug/kg wet	50	1000	---	115	80-120%	---	---	
1,2-Dichlorobenzene	1070	---	25.0	ug/kg wet	50	1000	---	107	80-120%	---	---	
1,3-Dichlorobenzene	1080	---	25.0	ug/kg wet	50	1000	---	108	80-120%	---	---	
1,4-Dichlorobenzene	1010	---	25.0	ug/kg wet	50	1000	---	101	80-120%	---	---	
Dichlorodifluoromethane	1340	---	100	ug/kg wet	50	1000	---	134	80-120%	---	---	ICV-01, Q-56
1,1-Dichloroethane	1090	---	25.0	ug/kg wet	50	1000	---	109	80-120%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
--	--	---

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0013 - EPA 5035A						Soil						
LCS (22G0013-BS1)			Prepared: 07/01/22 08:00 Analyzed: 07/01/22 09:42									
1,2-Dichloroethane (EDC)	1030	---	25.0	ug/kg wet	50	1000	---	103	80-120%	---	---	
1,1-Dichloroethene	1130	---	25.0	ug/kg wet	50	1000	---	113	80-120%	---	---	
cis-1,2-Dichloroethene	1110	---	25.0	ug/kg wet	50	1000	---	111	80-120%	---	---	
trans-1,2-Dichloroethene	1090	---	25.0	ug/kg wet	50	1000	---	109	80-120%	---	---	
1,2-Dichloropropane	1130	---	25.0	ug/kg wet	50	1000	---	113	80-120%	---	---	
1,3-Dichloropropane	1040	---	50.0	ug/kg wet	50	1000	---	104	80-120%	---	---	
2,2-Dichloropropane	1220	---	50.0	ug/kg wet	50	1000	---	122	80-120%	---	---	Q-56
1,1-Dichloropropene	1170	---	50.0	ug/kg wet	50	1000	---	117	80-120%	---	---	
cis-1,3-Dichloropropene	1000	---	50.0	ug/kg wet	50	1000	---	100	80-120%	---	---	
trans-1,3-Dichloropropene	972	---	50.0	ug/kg wet	50	1000	---	97	80-120%	---	---	
Ethylbenzene	1050	---	25.0	ug/kg wet	50	1000	---	105	80-120%	---	---	
Hexachlorobutadiene	1070	---	100	ug/kg wet	50	1000	---	107	80-120%	---	---	
2-Hexanone	1720	---	500	ug/kg wet	50	2000	---	86	80-120%	---	---	
Isopropylbenzene	1150	---	50.0	ug/kg wet	50	1000	---	115	80-120%	---	---	
4-Isopropyltoluene	1170	---	50.0	ug/kg wet	50	1000	---	117	80-120%	---	---	
Methylene chloride	1240	---	500	ug/kg wet	50	1000	---	124	80-120%	---	---	Q-56
4-Methyl-2-pentanone (MiBK)	2060	---	500	ug/kg wet	50	2000	---	103	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	1120	---	50.0	ug/kg wet	50	1000	---	112	80-120%	---	---	
Naphthalene	953	---	100	ug/kg wet	50	1000	---	95	80-120%	---	---	
n-Propylbenzene	1080	---	25.0	ug/kg wet	50	1000	---	108	80-120%	---	---	
Styrene	1260	---	50.0	ug/kg wet	50	1000	---	126	80-120%	---	---	Q-56
1,1,1,2-Tetrachloroethane	1190	---	25.0	ug/kg wet	50	1000	---	119	80-120%	---	---	
1,1,2,2-Tetrachloroethane	1030	---	50.0	ug/kg wet	50	1000	---	103	80-120%	---	---	
Tetrachloroethene (PCE)	1110	---	25.0	ug/kg wet	50	1000	---	111	80-120%	---	---	
Toluene	998	---	50.0	ug/kg wet	50	1000	---	100	80-120%	---	---	
1,2,3-Trichlorobenzene	1070	---	250	ug/kg wet	50	1000	---	107	80-120%	---	---	
1,2,4-Trichlorobenzene	1050	---	250	ug/kg wet	50	1000	---	105	80-120%	---	---	
1,1,1-Trichloroethane	1190	---	25.0	ug/kg wet	50	1000	---	119	80-120%	---	---	
1,1,2-Trichloroethane	1060	---	25.0	ug/kg wet	50	1000	---	106	80-120%	---	---	
Trichloroethene (TCE)	1160	---	25.0	ug/kg wet	50	1000	---	116	80-120%	---	---	
Trichlorofluoromethane	926	---	100	ug/kg wet	50	1000	---	93	80-120%	---	---	
1,2,3-Trichloropropane	1080	---	50.0	ug/kg wet	50	1000	---	108	80-120%	---	---	
1,2,4-Trimethylbenzene	1160	---	50.0	ug/kg wet	50	1000	---	116	80-120%	---	---	
1,3,5-Trimethylbenzene	1140	---	50.0	ug/kg wet	50	1000	---	114	80-120%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab-Sub Slab Soil	
3140 NE Broadway Street	Project Number: [none]	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2F1064 - 07 12 22 1443

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0013 - EPA 5035A						Soil						
LCS (22G0013-BS1)			Prepared: 07/01/22 08:00 Analyzed: 07/01/22 09:42									
Vinyl chloride	1150	---	25.0	ug/kg wet	50	1000	---	115	80-120%	---	---	
m,p-Xylene	2150	---	50.0	ug/kg wet	50	2000	---	108	80-120%	---	---	
o-Xylene	1080	---	25.0	ug/kg wet	50	1000	---	108	80-120%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 106 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>102 %</i>		<i>79-120 %</i>		<i>"</i>						
Duplicate (22G0013-DUP1)						Prepared: 06/30/22 12:25 Analyzed: 07/01/22 12:56						
QC Source Sample: 063022-EW-3-01 (A2F1064-04)												
5035A/8260D												
Acetone	ND	---	1540	ug/kg dry	50	---	ND	---	---	---	30%	ICV-02
Acrylonitrile	ND	---	154	ug/kg dry	50	---	ND	---	---	---	30%	
Benzene	ND	---	15.4	ug/kg dry	50	---	ND	---	---	---	30%	
Bromobenzene	ND	---	38.4	ug/kg dry	50	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	76.8	ug/kg dry	50	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	76.8	ug/kg dry	50	---	ND	---	---	---	30%	
Bromoform	ND	---	154	ug/kg dry	50	---	ND	---	---	---	30%	
Bromomethane	ND	---	768	ug/kg dry	50	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	---	768	ug/kg dry	50	---	ND	---	---	---	30%	ICV-02
n-Butylbenzene	227	---	76.8	ug/kg dry	50	---	246	---	---	8	30%	
sec-Butylbenzene	86.0	---	76.8	ug/kg dry	50	---	92.9	---	---	8	30%	
tert-Butylbenzene	ND	---	76.8	ug/kg dry	50	---	ND	---	---	---	30%	
Carbon disulfide	ND	---	768	ug/kg dry	50	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	76.8	ug/kg dry	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	38.4	ug/kg dry	50	---	ND	---	---	---	30%	
Chloroethane	ND	---	768	ug/kg dry	50	---	ND	---	---	---	30%	
Chloroform	ND	---	76.8	ug/kg dry	50	---	ND	---	---	---	30%	
Chloromethane	ND	---	384	ug/kg dry	50	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	76.8	ug/kg dry	50	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	76.8	ug/kg dry	50	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	154	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	384	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	76.8	ug/kg dry	50	---	ND	---	---	---	30%	
Dibromomethane	ND	---	76.8	ug/kg dry	50	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab-Sub Slab Soil	
3140 NE Broadway Street	Project Number: [none]	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2F1064 - 07 12 22 1443

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0013 - EPA 5035A						Soil						
Duplicate (22G0013-DUP1)			Prepared: 06/30/22 12:25 Analyzed: 07/01/22 12:56									
QC Source Sample: 063022-EW-3-01 (A2F1064-04)												
1,2-Dichlorobenzene	ND	---	38.4	ug/kg dry	50	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	38.4	ug/kg dry	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	38.4	ug/kg dry	50	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	154	ug/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	38.4	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	38.4	ug/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	38.4	ug/kg dry	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	38.4	ug/kg dry	50	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	38.4	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	38.4	ug/kg dry	50	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	76.8	ug/kg dry	50	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	76.8	ug/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	76.8	ug/kg dry	50	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	76.8	ug/kg dry	50	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	76.8	ug/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	38.4	ug/kg dry	50	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	154	ug/kg dry	50	---	ND	---	---	---	30%	
2-Hexanone	ND	---	76.8	ug/kg dry	50	---	ND	---	---	---	30%	
Isopropylbenzene	124	---	76.8	ug/kg dry	50	---	127	---	---	2	30%	
4-Isopropyltoluene	ND	---	76.8	ug/kg dry	50	---	ND	---	---	---	30%	
Methylene chloride	ND	---	76.8	ug/kg dry	50	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MIBK)	ND	---	76.8	ug/kg dry	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	76.8	ug/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	1680	---	154	ug/kg dry	50	---	1800	---	---	7	30%	
n-Propylbenzene	589	---	38.4	ug/kg dry	50	---	639	---	---	8	30%	
Styrene	ND	---	76.8	ug/kg dry	50	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	38.4	ug/kg dry	50	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	115	ug/kg dry	50	---	ND	---	---	---	30%	R-02
Tetrachloroethene (PCE)	ND	---	38.4	ug/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	---	76.8	ug/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	38.4	ug/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	38.4	ug/kg dry	50	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	38.4	ug/kg dry	50	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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ORELAP ID: OR100062

Maul Foster & Alongi, INC.	Project: Les Schwab-Sub Slab Soil	
3140 NE Broadway Street	Project Number: [none]	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2F1064 - 07 12 22 1443

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0013 - EPA 5035A						Soil						
Duplicate (22G0013-DUP1)			Prepared: 06/30/22 12:25 Analyzed: 07/01/22 12:56									
QC Source Sample: 063022-EW-3-01 (A2F1064-04)												
1,1,2-Trichloroethane	ND	---	76.8	ug/kg dry	50	---	ND	---	---	---	30%	R-02
Trichloroethene (TCE)	ND	---	38.4	ug/kg dry	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	154	ug/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	76.8	ug/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	76.8	ug/kg dry	50	---	49.9	---	---	***	30%	
1,3,5-Trimethylbenzene	ND	---	76.8	ug/kg dry	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	38.4	ug/kg dry	50	---	ND	---	---	---	30%	
m,p-Xylene	ND	---	76.8	ug/kg dry	50	---	ND	---	---	---	30%	
o-Xylene	ND	---	38.4	ug/kg dry	50	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 108 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>94 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>102 %</i>		<i>79-120 %</i>		<i>"</i>						

Duplicate (22G0013-DUP2)			Prepared: 06/28/22 10:38 Analyzed: 07/01/22 16:04									
QC Source Sample: Non-SDG (A2F1062-02)												
Acetone	ND	---	1030	ug/kg dry	50	---	ND	---	---	---	30%	ICV-02
Acrylonitrile	ND	---	103	ug/kg dry	50	---	ND	---	---	---	30%	
Benzene	ND	---	10.3	ug/kg dry	50	---	ND	---	---	---	30%	
Bromobenzene	ND	---	25.7	ug/kg dry	50	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
Bromoform	ND	---	103	ug/kg dry	50	---	ND	---	---	---	30%	
Bromomethane	ND	---	514	ug/kg dry	50	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	---	514	ug/kg dry	50	---	ND	---	---	---	30%	ICV-02
n-Butylbenzene	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
Carbon disulfide	ND	---	514	ug/kg dry	50	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	25.7	ug/kg dry	50	---	ND	---	---	---	30%	
Chloroethane	ND	---	514	ug/kg dry	50	---	ND	---	---	---	30%	
Chloroform	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
Chloromethane	ND	---	257	ug/kg dry	50	---	ND	---	---	---	30%	

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
--	--	--

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0013 - EPA 5035A						Soil						
Duplicate (22G0013-DUP2)			Prepared: 06/28/22 10:38 Analyzed: 07/01/22 16:04									
QC Source Sample: Non-SDG (A2F1062-02)												
2-Chlorotoluene	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	103	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	257	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
Dibromomethane	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	25.7	ug/kg dry	50	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	25.7	ug/kg dry	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	25.7	ug/kg dry	50	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	103	ug/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	25.7	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	25.7	ug/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	25.7	ug/kg dry	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	25.7	ug/kg dry	50	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	25.7	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	25.7	ug/kg dry	50	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	25.7	ug/kg dry	50	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	103	ug/kg dry	50	---	ND	---	---	---	30%	
2-Hexanone	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
Methylene chloride	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	ND	---	103	ug/kg dry	50	---	ND	---	---	---	30%	
n-Propylbenzene	ND	---	25.7	ug/kg dry	50	---	ND	---	---	---	30%	
Styrene	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	25.7	ug/kg dry	50	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab-Sub Slab Soil	
3140 NE Broadway Street	Project Number: [none]	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2F1064 - 07 12 22 1443

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0013 - EPA 5035A						Soil						
Duplicate (22G0013-DUP2)			Prepared: 06/28/22 10:38 Analyzed: 07/01/22 16:04									
QC Source Sample: Non-SDG (A2F1062-02)												
1,1,2,2-Tetrachloroethane	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	25.7	ug/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	257	ug/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	257	ug/kg dry	50	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	25.7	ug/kg dry	50	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	25.7	ug/kg dry	50	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	25.7	ug/kg dry	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	103	ug/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	25.7	ug/kg dry	50	---	ND	---	---	---	30%	
m,p-Xylene	ND	---	51.4	ug/kg dry	50	---	ND	---	---	---	30%	
o-Xylene	ND	---	25.7	ug/kg dry	50	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 107 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>95 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>104 %</i>		<i>79-120 %</i>		<i>"</i>						

Matrix Spike (22G0013-MS1)			Prepared: 06/30/22 12:20 Analyzed: 07/01/22 13:50									
QC Source Sample: 063022-SW-3-01 (A2F1064-05)												
5035A/8260D												
Acetone	1370	---	1280	ug/kg dry	50	2560	ND	53	36-164%	---	---	ICV-02
Acrylonitrile	1380	---	128	ug/kg dry	50	1280	ND	108	65-134%	---	---	
Benzene	1530	---	12.8	ug/kg dry	50	1280	13.4	118	77-121%	---	---	
Bromobenzene	1480	---	32.0	ug/kg dry	50	1280	ND	116	78-121%	---	---	
Bromochloromethane	1410	---	64.0	ug/kg dry	50	1280	ND	110	78-125%	---	---	
Bromodichloromethane	1470	---	64.0	ug/kg dry	50	1280	ND	115	75-127%	---	---	
Bromoform	1430	---	128	ug/kg dry	50	1280	ND	112	67-132%	---	---	
Bromomethane	1800	---	640	ug/kg dry	50	1280	ND	141	53-143%	---	---	Q-54a
2-Butanone (MEK)	2060	---	640	ug/kg dry	50	2560	ND	81	51-148%	---	---	ICV-02
n-Butylbenzene	1730	---	64.0	ug/kg dry	50	1280	104	127	70-128%	---	---	
sec-Butylbenzene	1720	---	64.0	ug/kg dry	50	1280	66.5	130	73-126%	---	---	Q-01

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
--	--	---

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0013 - EPA 5035A						Soil						
Matrix Spike (22G0013-MS1)			Prepared: 06/30/22 12:20 Analyzed: 07/01/22 13:50									
QC Source Sample: 063022-SW-3-01 (A2F1064-05)												
tert-Butylbenzene	1540	---	64.0	ug/kg dry	50	1280	ND	120	73-125%	---	---	
Carbon disulfide	1630	---	640	ug/kg dry	50	1280	ND	128	63-132%	---	---	
Carbon tetrachloride	1870	---	64.0	ug/kg dry	50	1280	ND	146	70-135%	---	---	Q-54
Chlorobenzene	1360	---	32.0	ug/kg dry	50	1280	ND	107	79-120%	---	---	
Chloroethane	1240	---	640	ug/kg dry	50	1280	ND	97	59-139%	---	---	
Chloroform	1500	---	64.0	ug/kg dry	50	1280	ND	118	78-123%	---	---	
Chloromethane	1380	---	320	ug/kg dry	50	1280	ND	108	50-136%	---	---	
2-Chlorotoluene	1530	---	64.0	ug/kg dry	50	1280	ND	120	75-122%	---	---	
4-Chlorotoluene	1470	---	64.0	ug/kg dry	50	1280	ND	115	72-124%	---	---	
Dibromochloromethane	1400	---	128	ug/kg dry	50	1280	ND	109	74-126%	---	---	
1,2-Dibromo-3-chloropropane	1210	---	320	ug/kg dry	50	1280	ND	95	61-132%	---	---	
1,2-Dibromoethane (EDB)	1500	---	64.0	ug/kg dry	50	1280	ND	117	78-122%	---	---	
Dibromomethane	1500	---	64.0	ug/kg dry	50	1280	ND	117	78-125%	---	---	
1,2-Dichlorobenzene	1400	---	32.0	ug/kg dry	50	1280	ND	109	78-121%	---	---	
1,3-Dichlorobenzene	1420	---	32.0	ug/kg dry	50	1280	ND	111	77-121%	---	---	
1,4-Dichlorobenzene	1340	---	32.0	ug/kg dry	50	1280	ND	105	75-120%	---	---	
Dichlorodifluoromethane	1820	---	128	ug/kg dry	50	1280	ND	143	29-149%	---	---	ICV-01, Q-54b
1,1-Dichloroethane	1420	---	32.0	ug/kg dry	50	1280	ND	111	76-125%	---	---	
1,2-Dichloroethane (EDC)	1350	---	32.0	ug/kg dry	50	1280	ND	106	73-128%	---	---	
1,1-Dichloroethene	1570	---	32.0	ug/kg dry	50	1280	ND	123	70-131%	---	---	
cis-1,2-Dichloroethene	1510	---	32.0	ug/kg dry	50	1280	ND	118	77-123%	---	---	
trans-1,2-Dichloroethene	1470	---	32.0	ug/kg dry	50	1280	ND	115	74-125%	---	---	
1,2-Dichloropropane	1520	---	32.0	ug/kg dry	50	1280	ND	119	76-123%	---	---	
1,3-Dichloropropane	1380	---	64.0	ug/kg dry	50	1280	ND	108	77-121%	---	---	
2,2-Dichloropropane	1640	---	64.0	ug/kg dry	50	1280	ND	128	67-133%	---	---	Q-54c
1,1-Dichloropropene	1640	---	64.0	ug/kg dry	50	1280	ND	129	76-125%	---	---	Q-01
cis-1,3-Dichloropropene	1320	---	64.0	ug/kg dry	50	1280	ND	103	74-126%	---	---	
trans-1,3-Dichloropropene	1300	---	64.0	ug/kg dry	50	1280	ND	102	71-130%	---	---	
Ethylbenzene	1450	---	32.0	ug/kg dry	50	1280	26.2	111	76-122%	---	---	
Hexachlorobutadiene	1590	---	128	ug/kg dry	50	1280	ND	124	61-135%	---	---	
2-Hexanone	2140	---	640	ug/kg dry	50	2560	ND	84	53-145%	---	---	
Isopropylbenzene	1810	---	64.0	ug/kg dry	50	1280	177	128	68-134%	---	---	
4-Isopropyltoluene	1730	---	64.0	ug/kg dry	50	1280	43.5	132	73-127%	---	---	Q-01

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0013 - EPA 5035A						Soil						
Matrix Spike (22G0013-MS1)						Prepared: 06/30/22 12:20 Analyzed: 07/01/22 13:50						
QC Source Sample: 063022-SW-3-01 (A2F1064-05)												
Methylene chloride	1490	---	640	ug/kg dry	50	1280	ND	117	70-128%	---	---	Q-54d
4-Methyl-2-pentanone (MiBK)	2860	---	640	ug/kg dry	50	2560	ND	112	65-135%	---	---	
Methyl tert-butyl ether (MTBE)	1480	---	64.0	ug/kg dry	50	1280	ND	116	73-125%	---	---	
Naphthalene	2370	---	128	ug/kg dry	50	1280	966	110	62-129%	---	---	
n-Propylbenzene	2090	---	32.0	ug/kg dry	50	1280	506	124	73-125%	---	---	
Styrene	1750	---	64.0	ug/kg dry	50	1280	ND	137	76-124%	---	---	Q-54e
1,1,1,2-Tetrachloroethane	1620	---	32.0	ug/kg dry	50	1280	ND	127	78-125%	---	---	Q-01
1,1,2,2-Tetrachloroethane	1390	---	64.0	ug/kg dry	50	1280	ND	108	70-124%	---	---	
Tetrachloroethene (PCE)	1490	---	32.0	ug/kg dry	50	1280	ND	116	73-128%	---	---	
Toluene	1340	---	64.0	ug/kg dry	50	1280	ND	105	77-121%	---	---	
1,2,3-Trichlorobenzene	1350	---	320	ug/kg dry	50	1280	ND	106	66-130%	---	---	
1,2,4-Trichlorobenzene	1410	---	320	ug/kg dry	50	1280	ND	110	67-129%	---	---	
1,1,1-Trichloroethane	1640	---	32.0	ug/kg dry	50	1280	ND	128	73-130%	---	---	
1,1,2-Trichloroethane	1480	---	32.0	ug/kg dry	50	1280	ND	111	78-121%	---	---	
Trichloroethene (TCE)	1580	---	32.0	ug/kg dry	50	1280	ND	124	77-123%	---	---	Q-01
Trichlorofluoromethane	1430	---	128	ug/kg dry	50	1280	ND	112	62-140%	---	---	
1,2,3-Trichloropropane	1380	---	64.0	ug/kg dry	50	1280	ND	108	73-125%	---	---	
1,2,4-Trimethylbenzene	1690	---	64.0	ug/kg dry	50	1280	88.3	125	75-123%	---	---	Q-01
1,3,5-Trimethylbenzene	1610	---	64.0	ug/kg dry	50	1280	35.8	123	73-124%	---	---	
Vinyl chloride	1220	---	32.0	ug/kg dry	50	1280	ND	95	56-135%	---	---	
m,p-Xylene	2940	---	64.0	ug/kg dry	50	2560	58.2	113	77-124%	---	---	
o-Xylene	1500	---	32.0	ug/kg dry	50	1280	ND	117	77-123%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 107 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>95 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>105 %</i>		<i>79-120 %</i>		<i>"</i>						

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
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QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0164 - EPA 3546						Soil						
Blank (22G0164-BLK1)			Prepared: 07/07/22 12:03 Analyzed: 07/07/22 15:49									
<u>EPA 8270E</u>												
Acenaphthene	ND	---	2.50	ug/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	2.50	ug/kg wet	1	---	---	---	---	---	---	
Anthracene	ND	---	2.50	ug/kg wet	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	2.50	ug/kg wet	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	3.75	ug/kg wet	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	3.75	ug/kg wet	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	3.75	ug/kg wet	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	2.50	ug/kg wet	1	---	---	---	---	---	---	
Chrysene	ND	---	2.50	ug/kg wet	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	2.50	ug/kg wet	1	---	---	---	---	---	---	
Fluoranthene	ND	---	2.50	ug/kg wet	1	---	---	---	---	---	---	
Fluorene	ND	---	2.50	ug/kg wet	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	2.50	ug/kg wet	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	5.00	ug/kg wet	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	---	5.00	ug/kg wet	1	---	---	---	---	---	---	
Naphthalene	ND	---	5.00	ug/kg wet	1	---	---	---	---	---	---	
Phenanthrene	ND	---	2.50	ug/kg wet	1	---	---	---	---	---	---	
Pyrene	ND	---	2.50	ug/kg wet	1	---	---	---	---	---	---	
Carbazole	ND	---	3.75	ug/kg wet	1	---	---	---	---	---	---	
Dibenzofuran	ND	---	2.50	ug/kg wet	1	---	---	---	---	---	---	
2-Chlorophenol	ND	---	12.5	ug/kg wet	1	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	---	25.0	ug/kg wet	1	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	---	12.5	ug/kg wet	1	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	---	12.5	ug/kg wet	1	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	---	62.5	ug/kg wet	1	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	---	62.5	ug/kg wet	1	---	---	---	---	---	---	
2-Methylphenol	ND	---	6.25	ug/kg wet	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	---	6.25	ug/kg wet	1	---	---	---	---	---	---	
2-Nitrophenol	ND	---	25.0	ug/kg wet	1	---	---	---	---	---	---	
4-Nitrophenol	ND	---	25.0	ug/kg wet	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	---	25.0	ug/kg wet	1	---	---	---	---	---	---	
Phenol	ND	---	5.00	ug/kg wet	1	---	---	---	---	---	---	
2,3,4,6-Tetrachlorophenol	ND	---	12.5	ug/kg wet	1	---	---	---	---	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
--	--	--

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0164 - EPA 3546						Soil						
Blank (22G0164-BLK1)			Prepared: 07/07/22 12:03 Analyzed: 07/07/22 15:49									
2,3,5,6-Tetrachlorophenol	ND	---	12.5	ug/kg wet	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	---	12.5	ug/kg wet	1	---	---	---	---	---	---	
Nitrobenzene	ND	---	25.0	ug/kg wet	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	---	12.5	ug/kg wet	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	---	37.5	ug/kg wet	1	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	---	25.0	ug/kg wet	1	---	---	---	---	---	---	
Diethylphthalate	ND	---	25.0	ug/kg wet	1	---	---	---	---	---	---	
Dimethylphthalate	ND	---	25.0	ug/kg wet	1	---	---	---	---	---	---	
Di-n-butylphthalate	ND	---	25.0	ug/kg wet	1	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	---	25.0	ug/kg wet	1	---	---	---	---	---	---	
N-Nitrosodimethylamine	ND	---	6.25	ug/kg wet	1	---	---	---	---	---	---	
N-Nitroso-di-n-propylamine	ND	---	6.25	ug/kg wet	1	---	---	---	---	---	---	
N-Nitrosodiphenylamine	ND	---	6.25	ug/kg wet	1	---	---	---	---	---	---	
Bis(2-Chloroethoxy) methane	ND	---	6.25	ug/kg wet	1	---	---	---	---	---	---	
Bis(2-Chloroethyl) ether	ND	---	6.25	ug/kg wet	1	---	---	---	---	---	---	
2,2'-Oxybis(1-Chloropropane)	ND	---	6.25	ug/kg wet	1	---	---	---	---	---	---	
Hexachlorobenzene	ND	---	2.50	ug/kg wet	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	6.25	ug/kg wet	1	---	---	---	---	---	---	
Hexachlorocyclopentadiene	ND	---	12.5	ug/kg wet	1	---	---	---	---	---	---	
Hexachloroethane	ND	---	6.25	ug/kg wet	1	---	---	---	---	---	---	
2-Chloronaphthalene	ND	---	2.50	ug/kg wet	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	6.25	ug/kg wet	1	---	---	---	---	---	---	
4-Bromophenyl phenyl ether	ND	---	6.25	ug/kg wet	1	---	---	---	---	---	---	
4-Chlorophenyl phenyl ether	ND	---	6.25	ug/kg wet	1	---	---	---	---	---	---	
Aniline	ND	---	12.5	ug/kg wet	1	---	---	---	---	---	---	
4-Chloroaniline	ND	---	6.25	ug/kg wet	1	---	---	---	---	---	---	
2-Nitroaniline	ND	---	50.0	ug/kg wet	1	---	---	---	---	---	---	
3-Nitroaniline	ND	---	50.0	ug/kg wet	1	---	---	---	---	---	---	
4-Nitroaniline	ND	---	50.0	ug/kg wet	1	---	---	---	---	---	---	
2,4-Dinitrotoluene	ND	---	25.0	ug/kg wet	1	---	---	---	---	---	---	
2,6-Dinitrotoluene	ND	---	25.0	ug/kg wet	1	---	---	---	---	---	---	
Benzoic acid	ND	---	312	ug/kg wet	1	---	---	---	---	---	---	
Benzyl alcohol	ND	---	12.5	ug/kg wet	1	---	---	---	---	---	---	
Isophorone	ND	---	6.25	ug/kg wet	1	---	---	---	---	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab-Sub Slab Soil	
3140 NE Broadway Street	Project Number: [none]	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2F1064 - 07 12 22 1443

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0164 - EPA 3546						Soil						
Blank (22G0164-BLK1)			Prepared: 07/07/22 12:03 Analyzed: 07/07/22 15:49									
Azobenzene (1,2-DPH)	ND	---	6.25	ug/kg wet	1	---	---	---	---	---	---	
Bis(2-Ethylhexyl) adipate	ND	---	62.5	ug/kg wet	1	---	---	---	---	---	---	
3,3'-Dichlorobenzidine	ND	---	50.0	ug/kg wet	1	---	---	---	---	---	---	Q-52
1,2-Dinitrobenzene	ND	---	62.5	ug/kg wet	1	---	---	---	---	---	---	
1,3-Dinitrobenzene	ND	---	62.5	ug/kg wet	1	---	---	---	---	---	---	
1,4-Dinitrobenzene	ND	---	62.5	ug/kg wet	1	---	---	---	---	---	---	
Pyridine	ND	---	12.5	ug/kg wet	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	6.25	ug/kg wet	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	6.25	ug/kg wet	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	6.25	ug/kg wet	1	---	---	---	---	---	---	
<i>Surr: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 81 %</i>		<i>Limits: 37-122 %</i>		<i>Dilution: 1x</i>						
<i>2-Fluorobiphenyl (Surr)</i>		<i>81 %</i>		<i>44-120 %</i>		<i>"</i>						
<i>Phenol-d6 (Surr)</i>		<i>71 %</i>		<i>33-122 %</i>		<i>"</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>91 %</i>		<i>54-127 %</i>		<i>"</i>						
<i>2-Fluorophenol (Surr)</i>		<i>72 %</i>		<i>35-120 %</i>		<i>"</i>						
<i>2,4,6-Tribromophenol (Surr)</i>		<i>74 %</i>		<i>39-132 %</i>		<i>"</i>						

LCS (22G0164-BS1)			Prepared: 07/07/22 12:03 Analyzed: 07/07/22 16:19									
EPA 8270E												
Acenaphthene	437	---	10.7	ug/kg wet	4	533	---	82	40-123%	---	---	
Acenaphthylene	483	---	10.7	ug/kg wet	4	533	---	91	32-132%	---	---	
Anthracene	470	---	10.7	ug/kg wet	4	533	---	88	47-123%	---	---	
Benz(a)anthracene	457	---	10.7	ug/kg wet	4	533	---	86	49-126%	---	---	
Benzo(a)pyrene	510	---	16.0	ug/kg wet	4	533	---	96	45-129%	---	---	
Benzo(b)fluoranthene	483	---	16.0	ug/kg wet	4	533	---	91	45-132%	---	---	
Benzo(k)fluoranthene	495	---	16.0	ug/kg wet	4	533	---	93	47-132%	---	---	
Benzo(g,h,i)perylene	456	---	10.7	ug/kg wet	4	533	---	85	43-134%	---	---	
Chrysene	446	---	10.7	ug/kg wet	4	533	---	84	50-124%	---	---	
Dibenz(a,h)anthracene	461	---	10.7	ug/kg wet	4	533	---	86	45-134%	---	---	
Fluoranthene	443	---	10.7	ug/kg wet	4	533	---	83	50-127%	---	---	
Fluorene	432	---	10.7	ug/kg wet	4	533	---	81	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	420	---	10.7	ug/kg wet	4	533	---	79	45-133%	---	---	
1-Methylnaphthalene	441	---	21.3	ug/kg wet	4	533	---	83	40-120%	---	---	
2-Methylnaphthalene	448	---	21.3	ug/kg wet	4	533	---	84	38-122%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab-Sub Slab Soil	
3140 NE Broadway Street	Project Number: [none]	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2F1064 - 07 12 22 1443

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0164 - EPA 3546						Soil						
LCS (22G0164-BS1)			Prepared: 07/07/22 12:03 Analyzed: 07/07/22 16:19									
Naphthalene	435	---	21.3	ug/kg wet	4	533	---	81	35-123%	---	---	
Phenanthrene	434	---	10.7	ug/kg wet	4	533	---	81	50-121%	---	---	
Pyrene	438	---	10.7	ug/kg wet	4	533	---	82	47-127%	---	---	
Carbazole	428	---	16.0	ug/kg wet	4	533	---	80	50-123%	---	---	
Dibenzofuran	455	---	10.7	ug/kg wet	4	533	---	85	44-120%	---	---	
2-Chlorophenol	477	---	53.2	ug/kg wet	4	533	---	89	34-121%	---	---	
4-Chloro-3-methylphenol	447	---	107	ug/kg wet	4	533	---	84	45-122%	---	---	
2,4-Dichlorophenol	528	---	53.2	ug/kg wet	4	533	---	99	40-122%	---	---	Q-41
2,4-Dimethylphenol	443	---	53.2	ug/kg wet	4	533	---	83	30-127%	---	---	
2,4-Dinitrophenol	636	---	267	ug/kg wet	4	533	---	119	10-137%	---	---	Q-41
4,6-Dinitro-2-methylphenol	610	---	267	ug/kg wet	4	533	---	114	29-132%	---	---	Q-41
2-Methylphenol	502	---	26.7	ug/kg wet	4	533	---	94	32-122%	---	---	Q-41
3+4-Methylphenol(s)	495	---	26.7	ug/kg wet	4	533	---	93	34-120%	---	---	
2-Nitrophenol	583	---	107	ug/kg wet	4	533	---	109	36-123%	---	---	Q-41
4-Nitrophenol	284	---	107	ug/kg wet	4	533	---	53	30-132%	---	---	Q-31
Pentachlorophenol (PCP)	393	---	107	ug/kg wet	4	533	---	74	25-133%	---	---	
Phenol	509	---	21.3	ug/kg wet	4	533	---	95	34-121%	---	---	Q-41
2,3,4,6-Tetrachlorophenol	430	---	53.2	ug/kg wet	4	533	---	81	44-125%	---	---	
2,3,5,6-Tetrachlorophenol	455	---	53.2	ug/kg wet	4	533	---	85	40-120%	---	---	
2,4,5-Trichlorophenol	456	---	53.2	ug/kg wet	4	533	---	86	41-124%	---	---	
Nitrobenzene	448	---	107	ug/kg wet	4	533	---	84	34-122%	---	---	
2,4,6-Trichlorophenol	487	---	53.2	ug/kg wet	4	533	---	91	39-126%	---	---	
Bis(2-ethylhexyl)phthalate	470	---	160	ug/kg wet	4	533	---	88	51-133%	---	---	
Butyl benzyl phthalate	491	---	107	ug/kg wet	4	533	---	92	48-132%	---	---	
Diethylphthalate	432	---	107	ug/kg wet	4	533	---	81	50-124%	---	---	
Dimethylphthalate	439	---	107	ug/kg wet	4	533	---	82	48-124%	---	---	
Di-n-butylphthalate	467	---	107	ug/kg wet	4	533	---	88	51-128%	---	---	
Di-n-octyl phthalate	513	---	107	ug/kg wet	4	533	---	96	45-140%	---	---	Q-41
N-Nitrosodimethylamine	386	---	26.7	ug/kg wet	4	533	---	72	23-120%	---	---	
N-Nitroso-di-n-propylamine	407	---	26.7	ug/kg wet	4	533	---	76	36-120%	---	---	
N-Nitrosodiphenylamine	486	---	26.7	ug/kg wet	4	533	---	91	38-127%	---	---	
Bis(2-Chloroethoxy) methane	471	---	26.7	ug/kg wet	4	533	---	88	36-121%	---	---	
Bis(2-Chloroethyl) ether	486	---	26.7	ug/kg wet	4	533	---	91	31-120%	---	---	Q-41
2,2'-Oxybis(1-Chloropropane)	385	---	26.7	ug/kg wet	4	533	---	72	39-120%	---	---	

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ANALYTICAL REPORT

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ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
--	--	---

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0164 - EPA 3546						Soil						
LCS (22G0164-BS1)			Prepared: 07/07/22 12:03 Analyzed: 07/07/22 16:19									
Hexachlorobenzene	458	---	10.7	ug/kg wet	4	533	---	86	45-122%	---	---	
Hexachlorobutadiene	433	---	26.7	ug/kg wet	4	533	---	81	32-123%	---	---	
Hexachlorocyclopentadiene	481	---	53.2	ug/kg wet	4	533	---	90	10-140%	---	---	Q-41
Hexachloroethane	420	---	26.7	ug/kg wet	4	533	---	79	28-120%	---	---	
2-Chloronaphthalene	514	---	10.7	ug/kg wet	4	533	---	96	41-120%	---	---	Q-41
1,2,4-Trichlorobenzene	461	---	26.7	ug/kg wet	4	533	---	86	34-120%	---	---	
4-Bromophenyl phenyl ether	470	---	26.7	ug/kg wet	4	533	---	88	46-124%	---	---	
4-Chlorophenyl phenyl ether	444	---	26.7	ug/kg wet	4	533	---	83	45-121%	---	---	
Aniline	293	---	53.2	ug/kg wet	4	533	---	55	10-120%	---	---	Q-31
4-Chloroaniline	398	---	26.7	ug/kg wet	4	533	---	75	17-120%	---	---	
2-Nitroaniline	473	---	213	ug/kg wet	4	533	---	89	44-127%	---	---	
3-Nitroaniline	349	---	213	ug/kg wet	4	533	---	65	33-120%	---	---	
4-Nitroaniline	398	---	213	ug/kg wet	4	533	---	75	51-125%	---	---	
2,4-Dinitrotoluene	445	---	107	ug/kg wet	4	533	---	83	48-126%	---	---	
2,6-Dinitrotoluene	503	---	107	ug/kg wet	4	533	---	94	46-124%	---	---	
Benzoic acid	854	---	668	ug/kg wet	4	1070	---	80	10-140%	---	---	
Benzyl alcohol	423	---	53.2	ug/kg wet	4	533	---	79	29-122%	---	---	
Isophorone	397	---	26.7	ug/kg wet	4	533	---	74	30-122%	---	---	
Azobenzene (1,2-DPH)	454	---	26.7	ug/kg wet	4	533	---	85	39-125%	---	---	
Bis(2-Ethylhexyl) adipate	503	---	267	ug/kg wet	4	533	---	94	61-121%	---	---	
3,3'-Dichlorobenzidine	1700	---	213	ug/kg wet	4	1070	---	160	22-121%	---	---	Q-29, Q-41
1,2-Dinitrobenzene	457	---	267	ug/kg wet	4	533	---	86	44-120%	---	---	
1,3-Dinitrobenzene	480	---	267	ug/kg wet	4	533	---	90	43-127%	---	---	
1,4-Dinitrobenzene	512	---	267	ug/kg wet	4	533	---	96	37-132%	---	---	Q-41
Pyridine	308	---	53.2	ug/kg wet	4	533	---	58	10-120%	---	---	
1,2-Dichlorobenzene	426	---	26.7	ug/kg wet	4	533	---	80	33-120%	---	---	
1,3-Dichlorobenzene	427	---	26.7	ug/kg wet	4	533	---	80	30-120%	---	---	
1,4-Dichlorobenzene	421	---	26.7	ug/kg wet	4	533	---	79	31-120%	---	---	
<i>Surr: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 86 %</i>		<i>Limits: 37-122 %</i>		<i>Dilution: 4x</i>						
<i>2-Fluorobiphenyl (Surr)</i>		<i>95 %</i>		<i>44-120 %</i>		<i>"</i>						
<i>Phenol-d6 (Surr)</i>		<i>91 %</i>		<i>33-122 %</i>		<i>"</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>96 %</i>		<i>54-127 %</i>		<i>"</i>						
<i>2-Fluorophenol (Surr)</i>		<i>83 %</i>		<i>35-120 %</i>		<i>"</i>						
<i>2,4,6-Tribromophenol (Surr)</i>		<i>92 %</i>		<i>39-132 %</i>		<i>"</i>						

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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Maul Foster & Alongi, INC.	Project: Les Schwab-Sub Slab Soil	
3140 NE Broadway Street	Project Number: [none]	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2F1064 - 07 12 22 1443

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0164 - EPA 3546						Soil						
Duplicate (22G0164-DUP1)						Prepared: 07/07/22 12:03 Analyzed: 07/07/22 19:44						
QC Source Sample: Non-SDG (A2F0883-01RE2)												
Acenaphthene	ND	---	2.54	ug/kg wet	1	---	ND	---	---	---	30%	
Acenaphthylene	ND	---	2.54	ug/kg wet	1	---	ND	---	---	---	30%	
Anthracene	ND	---	2.54	ug/kg wet	1	---	ND	---	---	---	30%	
Benz(a)anthracene	ND	---	2.54	ug/kg wet	1	---	ND	---	---	---	30%	Q-05
Benzo(a)pyrene	ND	---	3.80	ug/kg wet	1	---	2.21	---	---	***	30%	
Benzo(b)fluoranthene	ND	---	3.80	ug/kg wet	1	---	ND	---	---	---	30%	
Benzo(k)fluoranthene	ND	---	3.80	ug/kg wet	1	---	ND	---	---	---	30%	
Benzo(g,h,i)perylene	ND	---	2.54	ug/kg wet	1	---	ND	---	---	---	30%	Q-05
Chrysene	ND	---	2.54	ug/kg wet	1	---	ND	---	---	---	30%	Q-05
Dibenz(a,h)anthracene	ND	---	2.54	ug/kg wet	1	---	ND	---	---	---	30%	
Fluoranthene	3.06	---	2.54	ug/kg wet	1	---	2.19	---	---	33	30%	Q-05
Fluorene	ND	---	2.54	ug/kg wet	1	---	ND	---	---	---	30%	
Indeno(1,2,3-cd)pyrene	ND	---	2.54	ug/kg wet	1	---	ND	---	---	---	30%	
1-Methylnaphthalene	ND	---	5.07	ug/kg wet	1	---	ND	---	---	---	30%	
2-Methylnaphthalene	ND	---	5.07	ug/kg wet	1	---	ND	---	---	---	30%	
Naphthalene	ND	---	5.07	ug/kg wet	1	---	ND	---	---	---	30%	
Phenanthrene	3.66	---	2.54	ug/kg wet	1	---	1.86	---	---	65	30%	Q-05
Pyrene	3.58	---	2.54	ug/kg wet	1	---	2.22	---	---	47	30%	Q-05
Carbazole	ND	---	3.80	ug/kg wet	1	---	ND	---	---	---	30%	
Dibenzofuran	ND	---	2.54	ug/kg wet	1	---	ND	---	---	---	30%	
2-Chlorophenol	ND	---	12.6	ug/kg wet	1	---	ND	---	---	---	30%	
4-Chloro-3-methylphenol	ND	---	25.4	ug/kg wet	1	---	ND	---	---	---	30%	
2,4-Dichlorophenol	ND	---	12.6	ug/kg wet	1	---	ND	---	---	---	30%	
2,4-Dimethylphenol	ND	---	12.6	ug/kg wet	1	---	ND	---	---	---	30%	
2,4-Dinitrophenol	ND	---	63.4	ug/kg wet	1	---	ND	---	---	---	30%	
4,6-Dinitro-2-methylphenol	ND	---	63.4	ug/kg wet	1	---	ND	---	---	---	30%	
2-Methylphenol	ND	---	6.34	ug/kg wet	1	---	ND	---	---	---	30%	
3+4-Methylphenol(s)	ND	---	6.34	ug/kg wet	1	---	ND	---	---	---	30%	Q-05
2-Nitrophenol	ND	---	25.4	ug/kg wet	1	---	ND	---	---	---	30%	
4-Nitrophenol	ND	---	25.4	ug/kg wet	1	---	ND	---	---	---	30%	
Pentachlorophenol (PCP)	ND	---	25.4	ug/kg wet	1	---	ND	---	---	---	30%	
Phenol	ND	---	5.07	ug/kg wet	1	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab-Sub Slab Soil	
3140 NE Broadway Street	Project Number: [none]	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2F1064 - 07 12 22 1443

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0164 - EPA 3546						Soil						
Duplicate (22G0164-DUP1)			Prepared: 07/07/22 12:03 Analyzed: 07/07/22 19:44									
QC Source Sample: Non-SDG (A2F0883-01RE2)												
2,3,4,6-Tetrachlorophenol	ND	---	12.6	ug/kg wet	1	---	ND	---	---	---	30%	
2,3,5,6-Tetrachlorophenol	ND	---	12.6	ug/kg wet	1	---	ND	---	---	---	30%	
2,4,5-Trichlorophenol	ND	---	12.6	ug/kg wet	1	---	ND	---	---	---	30%	
Nitrobenzene	ND	---	25.4	ug/kg wet	1	---	ND	---	---	---	30%	
2,4,6-Trichlorophenol	ND	---	12.6	ug/kg wet	1	---	ND	---	---	---	30%	
Bis(2-ethylhexyl)phthalate	ND	---	38.0	ug/kg wet	1	---	ND	---	---	---	30%	
Butyl benzyl phthalate	ND	---	25.4	ug/kg wet	1	---	ND	---	---	---	30%	
Diethylphthalate	ND	---	25.4	ug/kg wet	1	---	ND	---	---	---	30%	
Dimethylphthalate	ND	---	25.4	ug/kg wet	1	---	ND	---	---	---	30%	
Di-n-butylphthalate	ND	---	25.4	ug/kg wet	1	---	ND	---	---	---	30%	
Di-n-octyl phthalate	ND	---	25.4	ug/kg wet	1	---	ND	---	---	---	30%	
N-Nitrosodimethylamine	ND	---	6.34	ug/kg wet	1	---	ND	---	---	---	30%	
N-Nitroso-di-n-propylamine	ND	---	6.34	ug/kg wet	1	---	ND	---	---	---	30%	
N-Nitrosodiphenylamine	ND	---	6.34	ug/kg wet	1	---	ND	---	---	---	30%	
Bis(2-Chloroethoxy) methane	ND	---	6.34	ug/kg wet	1	---	ND	---	---	---	30%	
Bis(2-Chloroethyl) ether	ND	---	6.34	ug/kg wet	1	---	ND	---	---	---	30%	
2,2'-Oxybis(1-Chloropropane)	ND	---	6.34	ug/kg wet	1	---	ND	---	---	---	30%	
Hexachlorobenzene	ND	---	2.54	ug/kg wet	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	6.34	ug/kg wet	1	---	ND	---	---	---	30%	
Hexachlorocyclopentadiene	ND	---	12.6	ug/kg wet	1	---	ND	---	---	---	30%	
Hexachloroethane	ND	---	6.34	ug/kg wet	1	---	ND	---	---	---	30%	
2-Chloronaphthalene	ND	---	2.54	ug/kg wet	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	6.34	ug/kg wet	1	---	ND	---	---	---	30%	
4-Bromophenyl phenyl ether	ND	---	6.34	ug/kg wet	1	---	ND	---	---	---	30%	
4-Chlorophenyl phenyl ether	ND	---	6.34	ug/kg wet	1	---	ND	---	---	---	30%	
Aniline	ND	---	12.6	ug/kg wet	1	---	ND	---	---	---	30%	Q-54f
4-Chloroaniline	ND	---	6.34	ug/kg wet	1	---	ND	---	---	---	30%	
2-Nitroaniline	ND	---	50.7	ug/kg wet	1	---	ND	---	---	---	30%	
3-Nitroaniline	ND	---	50.7	ug/kg wet	1	---	ND	---	---	---	30%	
4-Nitroaniline	ND	---	50.7	ug/kg wet	1	---	ND	---	---	---	30%	
2,4-Dinitrotoluene	ND	---	25.4	ug/kg wet	1	---	ND	---	---	---	30%	
2,6-Dinitrotoluene	ND	---	25.4	ug/kg wet	1	---	ND	---	---	---	30%	
Benzoic acid	ND	---	317	ug/kg wet	1	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab-Sub Slab Soil	
3140 NE Broadway Street	Project Number: [none]	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2F1064 - 07 12 22 1443

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0164 - EPA 3546						Soil						
Duplicate (22G0164-DUP1)			Prepared: 07/07/22 12:03 Analyzed: 07/07/22 19:44									
QC Source Sample: Non-SDG (A2F0883-01RE2)												
Benzyl alcohol	ND	---	12.6	ug/kg wet	1	---	ND	---	---	---	30%	
Isophorone	ND	---	6.34	ug/kg wet	1	---	ND	---	---	---	30%	
Azobenzene (1,2-DPH)	ND	---	6.34	ug/kg wet	1	---	ND	---	---	---	30%	
Bis(2-Ethylhexyl) adipate	ND	---	63.4	ug/kg wet	1	---	ND	---	---	---	30%	
3,3'-Dichlorobenzidine	ND	---	50.7	ug/kg wet	1	---	ND	---	---	---	30%	Q-52
1,2-Dinitrobenzene	ND	---	63.4	ug/kg wet	1	---	ND	---	---	---	30%	
1,3-Dinitrobenzene	ND	---	63.4	ug/kg wet	1	---	ND	---	---	---	30%	
1,4-Dinitrobenzene	ND	---	63.4	ug/kg wet	1	---	ND	---	---	---	30%	
Pyridine	ND	---	12.6	ug/kg wet	1	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	6.34	ug/kg wet	1	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	6.34	ug/kg wet	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	6.34	ug/kg wet	1	---	ND	---	---	---	30%	
<i>Surr: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 66 %</i>		<i>Limits: 37-122 %</i>		<i>Dilution: 1x</i>						
<i>2-Fluorobiphenyl (Surr)</i>		<i>67 %</i>		<i>44-120 %</i>		<i>"</i>						
<i>Phenol-d6 (Surr)</i>		<i>64 %</i>		<i>33-122 %</i>		<i>"</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>79 %</i>		<i>54-127 %</i>		<i>"</i>						
<i>2-Fluorophenol (Surr)</i>		<i>61 %</i>		<i>35-120 %</i>		<i>"</i>						
<i>2,4,6-Tribromophenol (Surr)</i>		<i>84 %</i>		<i>39-132 %</i>		<i>"</i>						

Matrix Spike (22G0164-MS1)			Prepared: 07/07/22 12:03 Analyzed: 07/08/22 20:08									
QC Source Sample: Non-SDG (A2F1065-05RE1)												
EPA 8270E												
Acenaphthene	413	---	52.4	ug/kg wet	20	523	ND	79	40-123%	---	---	
Acenaphthylene	428	---	52.4	ug/kg wet	20	523	ND	82	32-132%	---	---	
Anthracene	438	---	52.4	ug/kg wet	20	523	ND	84	47-123%	---	---	
Benz(a)anthracene	420	---	52.4	ug/kg wet	20	523	ND	80	49-126%	---	---	
Benzo(a)pyrene	499	---	78.5	ug/kg wet	20	523	ND	95	45-129%	---	---	
Benzo(b)fluoranthene	445	---	78.5	ug/kg wet	20	523	ND	85	45-132%	---	---	
Benzo(k)fluoranthene	463	---	78.5	ug/kg wet	20	523	ND	89	47-132%	---	---	
Benzo(g,h,i)perylene	443	---	52.4	ug/kg wet	20	523	ND	85	43-134%	---	---	
Chrysene	416	---	52.4	ug/kg wet	20	523	ND	79	50-124%	---	---	
Dibenz(a,h)anthracene	445	---	52.4	ug/kg wet	20	523	ND	85	45-134%	---	---	
Fluoranthene	430	---	52.4	ug/kg wet	20	523	ND	82	50-127%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
--	--	---

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0164 - EPA 3546						Soil						
Matrix Spike (22G0164-MS1)						Prepared: 07/07/22 12:03 Analyzed: 07/08/22 20:08						
QC Source Sample: Non-SDG (A2F1065-05RE1)												
Fluorene	406	---	52.4	ug/kg wet	20	523	ND	78	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	381	---	52.4	ug/kg wet	20	523	ND	73	45-133%	---	---	
1-Methylnaphthalene	389	---	105	ug/kg wet	20	523	ND	74	40-120%	---	---	
2-Methylnaphthalene	397	---	105	ug/kg wet	20	523	ND	76	38-122%	---	---	
Naphthalene	362	---	105	ug/kg wet	20	523	ND	69	35-123%	---	---	
Phenanthrene	412	---	52.4	ug/kg wet	20	523	ND	79	50-121%	---	---	
Pyrene	429	---	52.4	ug/kg wet	20	523	ND	82	47-127%	---	---	
Carbazole	450	---	78.5	ug/kg wet	20	523	ND	86	50-123%	---	---	
Dibenzofuran	404	---	52.4	ug/kg wet	20	523	ND	77	44-120%	---	---	
2-Chlorophenol	414	---	261	ug/kg wet	20	523	ND	79	34-121%	---	---	
4-Chloro-3-methylphenol	ND	---	524	ug/kg wet	20	523	ND	98	45-122%	---	---	
2,4-Dichlorophenol	578	---	261	ug/kg wet	20	523	ND	110	40-122%	---	---	Q-41
2,4-Dimethylphenol	426	---	261	ug/kg wet	20	523	ND	81	30-127%	---	---	
2,4-Dinitrophenol	ND	---	1310	ug/kg wet	20	523	ND		10-137%	---	---	Q-11, Q-41
4,6-Dinitro-2-methylphenol	ND	---	1310	ug/kg wet	20	523	ND		29-132%	---	---	Q-11, Q-41
2-Methylphenol	489	---	131	ug/kg wet	20	523	ND	93	32-122%	---	---	Q-41
3+4-Methylphenol(s)	530	---	131	ug/kg wet	20	523	ND	101	34-120%	---	---	Q-41
2-Nitrophenol	ND	---	524	ug/kg wet	20	523	ND	89	36-123%	---	---	Q-41
4-Nitrophenol	ND	---	524	ug/kg wet	20	523	ND	65	30-132%	---	---	Q-31
Pentachlorophenol (PCP)	ND	---	524	ug/kg wet	20	523	ND	92	25-133%	---	---	
Phenol	478	---	105	ug/kg wet	20	523	ND	91	34-121%	---	---	Q-41
2,3,4,6-Tetrachlorophenol	436	---	261	ug/kg wet	20	523	ND	83	44-125%	---	---	
2,3,5,6-Tetrachlorophenol	462	---	261	ug/kg wet	20	523	ND	88	40-120%	---	---	
2,4,5-Trichlorophenol	460	---	261	ug/kg wet	20	523	ND	88	41-124%	---	---	
Nitrobenzene	ND	---	524	ug/kg wet	20	523	ND	76	34-122%	---	---	Q-41
2,4,6-Trichlorophenol	507	---	261	ug/kg wet	20	523	ND	97	39-126%	---	---	
Bis(2-ethylhexyl)phthalate	ND	---	785	ug/kg wet	20	523	ND	94	51-133%	---	---	
Butyl benzyl phthalate	541	---	524	ug/kg wet	20	523	ND	103	48-132%	---	---	
Diethylphthalate	ND	---	524	ug/kg wet	20	523	ND	80	50-124%	---	---	
Dimethylphthalate	ND	---	524	ug/kg wet	20	523	ND	77	48-124%	---	---	
Di-n-butylphthalate	ND	---	524	ug/kg wet	20	523	ND	92	51-128%	---	---	
Di-n-octyl phthalate	687	---	524	ug/kg wet	20	523	ND	131	45-140%	---	---	Q-41
N-Nitrosodimethylamine	245	---	131	ug/kg wet	20	523	ND	47	23-120%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab-Sub Slab Soil	
3140 NE Broadway Street	Project Number: [none]	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2F1064 - 07 12 22 1443

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0164 - EPA 3546						Soil						
Matrix Spike (22G0164-MS1)						Prepared: 07/07/22 12:03 Analyzed: 07/08/22 20:08						
QC Source Sample: Non-SDG (A2F1065-05RE1)												
N-Nitroso-di-n-propylamine	420	---	131	ug/kg wet	20	523	ND	80	36-120%	---	---	
N-Nitrosodiphenylamine	465	---	131	ug/kg wet	20	523	ND	89	38-127%	---	---	
Bis(2-Chloroethoxy) methane	347	---	131	ug/kg wet	20	523	ND	66	36-121%	---	---	
Bis(2-Chloroethyl) ether	323	---	131	ug/kg wet	20	523	ND	62	31-120%	---	---	Q-41
2,2'-Oxybis(1-Chloropropane)	383	---	131	ug/kg wet	20	523	ND	73	39-120%	---	---	
Hexachlorobenzene	446	---	52.4	ug/kg wet	20	523	ND	85	45-122%	---	---	
Hexachlorobutadiene	343	---	131	ug/kg wet	20	523	ND	66	32-123%	---	---	
Hexachlorocyclopentadiene	ND	---	261	ug/kg wet	20	523	ND		10-140%	---	---	Q-01
Hexachloroethane	309	---	131	ug/kg wet	20	523	ND	59	28-120%	---	---	
2-Chloronaphthalene	435	---	52.4	ug/kg wet	20	523	ND	83	41-120%	---	---	
1,2,4-Trichlorobenzene	349	---	131	ug/kg wet	20	523	ND	67	34-120%	---	---	
4-Bromophenyl phenyl ether	433	---	131	ug/kg wet	20	523	ND	83	46-124%	---	---	
4-Chlorophenyl phenyl ether	405	---	131	ug/kg wet	20	523	ND	77	45-121%	---	---	
Aniline	ND	---	261	ug/kg wet	20	523	ND	29	10-120%	---	---	Q-31
4-Chloroaniline	248	---	131	ug/kg wet	20	523	ND	47	17-120%	---	---	
2-Nitroaniline	ND	---	1050	ug/kg wet	20	523	ND		44-127%	---	---	Q-11
3-Nitroaniline	ND	---	1050	ug/kg wet	20	523	ND		33-120%	---	---	Q-11
4-Nitroaniline	ND	---	1050	ug/kg wet	20	523	ND		51-125%	---	---	Q-11
2,4-Dinitrotoluene	ND	---	524	ug/kg wet	20	523	ND	94	48-126%	---	---	
2,6-Dinitrotoluene	ND	---	524	ug/kg wet	20	523	ND	84	46-124%	---	---	
Benzoic acid	ND	---	6530	ug/kg wet	20	1050	ND		10-140%	---	---	Q-11
Benzyl alcohol	263	---	261	ug/kg wet	20	523	ND	50	29-122%	---	---	
Isophorone	355	---	131	ug/kg wet	20	523	ND	68	30-122%	---	---	
Azobenzene (1,2-DPH)	433	---	131	ug/kg wet	20	523	ND	83	39-125%	---	---	
Bis(2-Ethylhexyl) adipate	ND	---	1310	ug/kg wet	20	523	ND		61-121%	---	---	Q-11
3,3'-Dichlorobenzidine	ND	---	1050	ug/kg wet	20	1050	ND		22-121%	---	---	Q-11, Q-41
1,2-Dinitrobenzene	ND	---	1310	ug/kg wet	20	523	ND		44-120%	---	---	Q-11
1,3-Dinitrobenzene	ND	---	1310	ug/kg wet	20	523	ND		43-127%	---	---	Q-11
1,4-Dinitrobenzene	ND	---	1310	ug/kg wet	20	523	ND		37-132%	---	---	Q-11, Q-41
Pyridine	ND	---	261	ug/kg wet	20	523	ND	33	10-120%	---	---	
1,2-Dichlorobenzene	350	---	131	ug/kg wet	20	523	ND	67	33-120%	---	---	
1,3-Dichlorobenzene	309	---	131	ug/kg wet	20	523	ND	59	30-120%	---	---	
1,4-Dichlorobenzene	322	---	131	ug/kg wet	20	523	ND	61	31-120%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
--	--	--

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0164 - EPA 3546						Soil						
Matrix Spike (22G0164-MS1)						Prepared: 07/07/22 12:03 Analyzed: 07/08/22 20:08						
QC Source Sample: Non-SDG (A2F1065-05RE1)												
<i>Surr: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 87 %</i>		<i>Limits: 37-122 %</i>		<i>Dilution: 20x</i>						
<i>2-Fluorobiphenyl (Surr)</i>		<i>81 %</i>		<i>44-120 %</i>		<i>"</i>						
<i>Phenol-d6 (Surr)</i>		<i>93 %</i>		<i>33-122 %</i>		<i>"</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>93 %</i>		<i>54-127 %</i>		<i>"</i>						
<i>2-Fluorophenol (Surr)</i>		<i>69 %</i>		<i>35-120 %</i>		<i>"</i>						
<i>2,4,6-Tribromophenol (Surr)</i>		<i>108 %</i>		<i>39-132 %</i>		<i>"</i>						

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
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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 22F1125 - Total Solids (Dry Weight)						Soil						
Duplicate (22F1125-DUP1)			Prepared: 06/30/22 13:01 Analyzed: 07/01/22 05:52									
<u>QC Source Sample: Non-SDG (A2F1038-37)</u>												
% Solids	94.4	---	1.00	%	1	---	95.0	---	---	0.6	10%	
Duplicate (22F1125-DUP2)			Prepared: 06/30/22 13:01 Analyzed: 07/01/22 05:52									
<u>QC Source Sample: Non-SDG (A2F0959-02)</u>												
% Solids	71.0	---	1.00	%	1	---	70.0	---	---	1	10%	
Duplicate (22F1125-DUP3)			Prepared: 06/30/22 13:01 Analyzed: 07/01/22 05:52									
<u>QC Source Sample: Non-SDG (A2F0968-01)</u>												
% Solids	76.0	---	1.00	%	1	---	75.6	---	---	0.6	10%	
Duplicate (22F1125-DUP4)			Prepared: 06/30/22 13:01 Analyzed: 07/01/22 05:52									
<u>QC Source Sample: Non-SDG (A2F1003-01)</u>												
% Solids	82.9	---	1.00	%	1	---	80.9	---	---	2	10%	
Duplicate (22F1125-DUP5)			Prepared: 06/30/22 13:01 Analyzed: 07/01/22 05:52									
<u>QC Source Sample: Non-SDG (A2F1003-02)</u>												
% Solids	86.3	---	1.00	%	1	---	86.2	---	---	0.1	10%	
Duplicate (22F1125-DUP6)			Prepared: 06/30/22 13:01 Analyzed: 07/01/22 05:52									
<u>QC Source Sample: Non-SDG (A2F1003-03)</u>												
% Solids	79.4	---	1.00	%	1	---	78.9	---	---	0.7	10%	
Duplicate (22F1125-DUP7)			Prepared: 06/30/22 19:10 Analyzed: 07/01/22 05:52									
<u>QC Source Sample: Non-SDG (A2F1047-01)</u>												
% Solids	77.1	---	1.00	%	1	---	76.4	---	---	0.9	10%	
Duplicate (22F1125-DUP8)			Prepared: 06/30/22 19:10 Analyzed: 07/01/22 05:52									
<u>QC Source Sample: Non-SDG (A2F1047-02)</u>												
% Solids	76.4	---	1.00	%	1	---	77.1	---	---	0.8	10%	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
--	--	--

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 22F1125 - Total Solids (Dry Weight)							Soil					
Duplicate (22F1125-DUP9)					Prepared: 06/30/22 19:10 Analyzed: 07/01/22 05:52							
<u>QC Source Sample: Non-SDG (A2F1047-04)</u>												
% Solids	76.9	---	1.00	%	1	---	77.5	---	---	0.8	10%	
Duplicate (22F1125-DUPA)					Prepared: 06/30/22 19:10 Analyzed: 07/01/22 05:52							
<u>QC Source Sample: Non-SDG (A2F1047-05)</u>												
% Solids	77.4	---	1.00	%	1	---	77.2	---	---	0.2	10%	

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

Apex Laboratories

Philip Nerenberg, Lab Director

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Tigard, OR 97223
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ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
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SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22F1123</u>							
A2F1064-01	Soil	NWTPH-Dx	06/30/22 11:58	06/30/22 18:44	10.09g/5mL	10g/5mL	0.99
<u>Batch: 22F1142</u>							
A2F1064-02	Soil	NWTPH-Dx	06/30/22 11:05	06/30/22 18:46	10.6g/5mL	10g/5mL	0.94
A2F1064-03	Soil	NWTPH-Dx	06/30/22 11:22	06/30/22 18:46	10.03g/5mL	10g/5mL	1.00
A2F1064-04	Soil	NWTPH-Dx	06/30/22 12:25	06/30/22 18:46	10.83g/5mL	10g/5mL	0.92
A2F1064-05	Soil	NWTPH-Dx	06/30/22 12:20	06/30/22 18:46	10.09g/5mL	10g/5mL	0.99

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

Prep: EPA 5035A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22G0013</u>							
A2F1064-01	Soil	NWTPH-Gx (MS)	06/30/22 11:58	06/30/22 11:58	8.17g/5mL	5g/5mL	0.61
A2F1064-02	Soil	NWTPH-Gx (MS)	06/30/22 11:05	06/30/22 11:05	5.39g/5mL	5g/5mL	0.93
A2F1064-03	Soil	NWTPH-Gx (MS)	06/30/22 11:22	06/30/22 11:22	5.83g/5mL	5g/5mL	0.86
A2F1064-04	Soil	NWTPH-Gx (MS)	06/30/22 12:25	06/30/22 12:25	5.83g/5mL	5g/5mL	0.86
A2F1064-05	Soil	NWTPH-Gx (MS)	06/30/22 12:20	06/30/22 12:20	5.88g/5mL	5g/5mL	0.85

Volatile Organic Compounds by EPA 8260D

Prep: EPA 5035A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22G0013</u>							
A2F1064-01	Soil	5035A/8260D	06/30/22 11:58	06/30/22 11:58	8.17g/5mL	5g/5mL	0.61

Semivolatile Organic Compounds by EPA 8270E

Prep: EPA 3546					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22G0164</u>							
A2F1064-01RE1	Soil	EPA 8270E	06/30/22 11:58	07/07/22 12:03	15.05g/2mL	15g/2mL	1.00

Percent Dry Weight

Apex Laboratories

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Philip Nerenberg, Lab Director



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Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
--	--	---

SAMPLE PREPARATION INFORMATION

Percent Dry Weight

<u>Prep: Total Solids (Dry Weight)</u>					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22F1125</u>							
A2F1064-01	Soil	EPA 8000D	06/30/22 11:58	06/30/22 19:10			NA
A2F1064-02	Soil	EPA 8000D	06/30/22 11:05	06/30/22 19:10			NA
A2F1064-03	Soil	EPA 8000D	06/30/22 11:22	06/30/22 19:10			NA
A2F1064-04	Soil	EPA 8000D	06/30/22 12:25	06/30/22 19:10			NA
A2F1064-05	Soil	EPA 8000D	06/30/22 12:20	06/30/22 19:10			NA

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.

3140 NE Broadway Street
Portland, OR 97232

Project: **Les Schwab-Sub Slab Soil**

Project Number: [none]

Project Manager: **Merideth D'Andrea**

Report ID:

A2F1064 - 07 12 22 1443

QUALIFIER DEFINITIONS

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

Apex Laboratories

- F-19** Results are Estimated due to the presence of multiple fuel products.
- ICV-01** Estimated Result. Initial Calibration Verification (ICV) failed high. There is no effect on non-detect results.
- ICV-02** Estimated Result. Initial Calibration Verification (ICV) failed low.
- M-02** Due to matrix interference, this analyte cannot be accurately quantified. The reported result is estimated.
- Q-01** Spike recovery and/or RPD is outside acceptance limits.
- Q-04** Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
- Q-05** Analyses are not controlled on RPD values from sample and duplicate concentrations that are below 5 times the reporting level.
- Q-11** Spike recovery cannot be accurately quantified due to sample dilution required for high analyte concentration and/or matrix interference.
- Q-29** Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
- Q-31** Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
- Q-41** Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
- Q-52** Due to known erratic recoveries, the result and reporting levels for this analyte are reported as Estimated Values. This analyte may not have passed all QC requirements for this method.
- Q-54** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +10%. The results are reported as Estimated Values.
- Q-54a** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +13%. The results are reported as Estimated Values.
- Q-54b** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +14%. The results are reported as Estimated Values.
- Q-54c** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +2%. The results are reported as Estimated Values.
- Q-54d** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +4%. The results are reported as Estimated Values.
- Q-54e** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +6%. The results are reported as Estimated Values.
- Q-54f** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -5%. The results are reported as Estimated Values.
- Q-56** Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260
- R-02** The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

<u>Maul Foster & Alongi, INC.</u> 3140 NE Broadway Street Portland, OR 97232	Project: <u>Les Schwab-Sub Slab Soil</u> Project Number: [none] Project Manager: Merideth D'Andrea	<u>Report ID:</u> A2F1064 - 07 12 22 1443
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S-05 Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.

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Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

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

Detection Limits: Limit of Detection (LOD)

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

Reporting Limits: Limit of Quantitation (LOQ)

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

Reporting Conventions:

- Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.
- " dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.
- " wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
- " " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

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).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to 1/2 the Reporting Limit (RL).
-For Blank hits falling between 1/2 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.

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Table with 3 columns: Client (Maul Foster & Alongi, INC.), Project (Les Schwab-Sub Slab Soil), and Report ID (A2F1064 - 07 12 22 1443)

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

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.

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.

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.

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.

Philip Nerenberg (signature)



ANALYTICAL REPORT

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

Table with 3 columns: Client (Maul Foster & Alongi, INC.), Project (Les Schwab-Sub Slab Soil), and Report ID (A2F1064 - 07 12 22 1443).

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

Table header with columns: Matrix, Analysis, TNI_ID, Analyte, TNI_ID, Accreditation

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

Secondary Accreditations

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

Subcontract Laboratory Accreditations

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

Field Testing Parameters

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

Apex Laboratories

Handwritten signature of Philip Nerenberg

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab-Sub Slab Soil Project Number: [none] Project Manager: Merideth D'Andrea	Report ID: A2F1064 - 07 12 22 1443
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APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A2F1064 of _____

Project Mgr: Merideth D'Andrea Project Name: Les Schwab Springfield Soil Project #: 0553.10.001

Address: 3140 NE Broadway St. Phone: 503-501-5216 Email: MDandrea@maulalongi.com PO # 507M

Sampled by: Julie Pace

Site Location: OR WA CA
AK ID _____

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	ANALYSIS REQUEST			Priority Metals (13)	RCRA Metals (8)	8081 Pesticides	8082 PCBs	8270 Sem-Vols Full List	8270 SIM PAHs	8260 VOCs Full List	8260 Halo VOCs	8260 RBDM VOCs	8260 BTEX	NWTPH-Gx	NWTPH-Dx	NWTPH-HCID	TCLP Metals (8)	TOTAL DISS. TCLP	Se, Ag, Na, TL, V, Zn	Hg, Mg, Mn, Mo, Ni, K, Ca, Cr, Co, Cu, Fe, Pb, Al, Sb, As, Ba, Be, Cd, Cd, Cr, Cu, Fe, Pb, Ni, K	Hold Sample	Frozen Archive
					8081 Pesticides	8082 PCBs	8270 Sem-Vols Full List																			
063072-WP-9.8-01	9/20/22	11:58	Soil	3														X							X	
063072-SP-7.3-01	9/20/22	11:05	Soil	3														X							X	
063072-WW-3-01	9/20/22	11:22	Soil	3														X							X	
063072-EW-3-01	9/20/22	12:25	Soil	3														X							X	
063072-SW-3-01	9/20/22	12:20	Soil	3														X							X	
063072-SP-5.8-01	9/20/22	10:55	Soil	3																						

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day 2 Day 3 Day 5 Day Standard Other: _____

SPECIAL INSTRUCTIONS: Hold call for VOCs, SVOCs, & PCBs.

RECEIVED BY: <u>Julie Pace</u> Signature: _____ Date: <u>09/30/22</u>	RECEIVED BY: _____ Signature: _____ Date: _____	RECEIVED BY: _____ Signature: _____ Date: _____
Printed Name: <u>Julie Pace</u> Time: <u>17:25</u>	Printed Name: _____ Time: _____	Printed Name: _____ Time: _____
Company: <u>Maul Foster</u>	Company: <u>Apex</u>	Company: _____

Apex Laboratories

Philip Nerenberg

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.
3140 NE Broadway Street
Portland, OR 97232
Project: Les Schwab-Sub Slab Soil
Project Number: [none]
Project Manager: Merideth D'Andrea
Report ID: A2F1064 - 07 12 22 1443

APEX LABS COOLER RECEIPT FORM

Client: MFA Element WO#: A2F1064

Project/Project #: Les Schwab Springfield So 1 / 0553.10.001

Delivery Info:

Date/time received: 6-30-22 @ 1725 By: DJS

Delivered by: Apex Client X ESS FedEx UPS Swift Senvoy SDS Other

Cooler Inspection Date/time inspected: 6-30-22 @ 1730 By: DJS

Chain of Custody included? Yes No Custody seals? Yes No

Signed/dated by client? Yes No

Signed/dated by Apex? Yes No

Table with 7 columns: Cooler #1 to Cooler #7. Rows include Temperature (°C), Received on ice? (Y/N), Temp. blanks? (Y/N), Ice type: (Gel/Real/Other), and Condition.

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: 6-30-22 @ 1748 By: DJS

All samples intact? Yes X No Comments:

Bottle labels/COCs agree? Yes X No Comments:

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 NA X

Comments:

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

Comments:

Additional information:

Labeled by: DJS Witness: [Signature] Cooler Inspected by: DJS

Philip Nerenberg (Signature)



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

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

Thursday, July 14, 2022
Merideth D'Andrea
Maul Foster & Alongi, INC.
3140 NE Broadway Street
Portland, OR 97232

RE: A2G0005 - Les Schwab Springfield - 0553.10.001

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 A2G0005, which was received by the laboratory on 6/30/2022 at 5:17:00PM.

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

(See Cooler Receipt Form for details)

Cooler #1 5.3 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

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

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

<u>Maul Foster & Alongi, INC.</u> 3140 NE Broadway Street Portland, OR 97232	Project: <u>Les Schwab Springfield</u> Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0005 - 07 14 22 1515
---	--	---

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
063022-GWN-8.4-01	A2G0005-01	Water	06/30/22 12:50	06/30/22 17:17
063022-GWNE-7.0-01	A2G0005-02	Water	06/30/22 13:15	06/30/22 17:17
063022-GWS-10.6-01	A2G0005-03	Water	06/30/22 14:40	06/30/22 17:17

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0005 - 07 14 22 1515
--	---	---

ANALYTICAL CASE NARRATIVE

Work Order: A2G0005

Amended Report Revision 1:

This report supersedes all previous reports.

Analysis of PAHs on sample 063022-GWN-8.4-01 was added after the previous report version had been completed.

Philip Nerenberg
Lab Director
7/14/22



ANALYTICAL REPORT

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--	---	---

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
063022-GWN-8.4-01 (A2G0005-01)			Matrix: Water		Batch: 22G0159			
Diesel	ND	---	0.200	mg/L	1	07/08/22 09:27	NWTPH-Dx	
Oil	2.38	---	0.400	mg/L	1	07/08/22 09:27	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 86 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>07/08/22 09:27</i>	<i>NWTPH-Dx</i>
063022-GWNE-7.0-01 (A2G0005-02)			Matrix: Water		Batch: 22G0036			
Diesel	2.62	---	0.233	mg/L	1	07/01/22 22:47	NWTPH-Dx	F-20
Oil	ND	---	0.465	mg/L	1	07/01/22 22:47	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 95 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>07/01/22 22:47</i>	<i>NWTPH-Dx</i>
063022-GWS-10.6-01 (A2G0005-03)			Matrix: Water		Batch: 22G0036			
Diesel	3.44	---	0.211	mg/L	1	07/01/22 23:09	NWTPH-Dx	F-20
Oil	ND	---	0.421	mg/L	1	07/01/22 23:09	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 94 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>07/01/22 23:09</i>	<i>NWTPH-Dx</i>

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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
063022-GWN-8.4-01 (A2G0005-01RE1)				Matrix: Water		Batch: 22G0071		V-01
Gasoline Range Organics	0.296	---	0.100	mg/L	1	07/05/22 15:41	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 112 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>07/05/22 15:41</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>108 %</i>		<i>50-150 %</i>		<i>1</i>	<i>07/05/22 15:41</i>	<i>NWTPH-Gx (MS)</i>
063022-GWNE-7.0-01 (A2G0005-02RE1)				Matrix: Water		Batch: 22G0071		V-01
Gasoline Range Organics	5.46	---	0.100	mg/L	1	07/05/22 16:03	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 115 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>07/05/22 16:03</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>108 %</i>		<i>50-150 %</i>		<i>1</i>	<i>07/05/22 16:03</i>	<i>NWTPH-Gx (MS)</i>
063022-GWS-10.6-01 (A2G0005-03RE1)				Matrix: Water		Batch: 22G0071		V-01
Gasoline Range Organics	7.33	---	0.100	mg/L	1	07/05/22 16:26	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 112 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>07/05/22 16:26</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>106 %</i>		<i>50-150 %</i>		<i>1</i>	<i>07/05/22 16:26</i>	<i>NWTPH-Gx (MS)</i>

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ANALYTICAL REPORT

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ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **Les Schwab Springfield**

Project Number: **0553.10.001**

Project Manager: **Merideth D'Andrea**

Report ID:

A2G0005 - 07 14 22 1515

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
063022-GWN-8.4-01 (A2G0005-01RE1)				Matrix: Water		Batch: 22G0071		V-01
Acetone	ND	---	20.0	ug/L	1	07/05/22 15:41	EPA 8260D	
Acrylonitrile	ND	---	2.00	ug/L	1	07/05/22 15:41	EPA 8260D	
Benzene	ND	---	0.200	ug/L	1	07/05/22 15:41	EPA 8260D	
Bromobenzene	ND	---	0.500	ug/L	1	07/05/22 15:41	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	07/05/22 15:41	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	07/05/22 15:41	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	07/05/22 15:41	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	07/05/22 15:41	EPA 8260D	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	07/05/22 15:41	EPA 8260D	
n-Butylbenzene	ND	---	1.00	ug/L	1	07/05/22 15:41	EPA 8260D	
sec-Butylbenzene	ND	---	1.00	ug/L	1	07/05/22 15:41	EPA 8260D	
tert-Butylbenzene	ND	---	1.00	ug/L	1	07/05/22 15:41	EPA 8260D	
Carbon disulfide	ND	---	10.0	ug/L	1	07/05/22 15:41	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	07/05/22 15:41	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	07/05/22 15:41	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	07/05/22 15:41	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	07/05/22 15:41	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	07/05/22 15:41	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	07/05/22 15:41	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	07/05/22 15:41	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	07/05/22 15:41	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	07/05/22 15:41	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	07/05/22 15:41	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	07/05/22 15:41	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	07/05/22 15:41	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	07/05/22 15:41	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	07/05/22 15:41	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	07/05/22 15:41	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	07/05/22 15:41	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	07/05/22 15:41	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	07/05/22 15:41	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	07/05/22 15:41	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	07/05/22 15:41	EPA 8260D	

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Philip Nerenberg, Lab Director



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ORELAP ID: OR100062

Table with project information: Maul Foster & Alongi, INC., Project: Les Schwab Springfield, Project Number: 0553.10.001, Project Manager: Merideth D'Andrea, Report ID: A2G0005 - 07 14 22 1515

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Main data table with columns: Analyte, Sample Result, Detection Limit, Reporting Limit, Units, Dilution, Date Analyzed, Method Ref., Notes. Includes analytes like 1,2-Dichloropropane, 1,3-Dichloropropane, etc.

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Philip Nerenberg (signature)

Philip Nerenberg, Lab Director



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Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0005 - 07 14 22 1515
--	---	---

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
063022-GWN-8.4-01 (A2G0005-01RE1)				Matrix: Water		Batch: 22G0071		V-01
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 92 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>07/05/22 15:41</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>	<i>1</i>	<i>07/05/22 15:41</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>96 %</i>		<i>80-120 %</i>	<i>1</i>	<i>07/05/22 15:41</i>	<i>EPA 8260D</i>	
063022-GWNE-7.0-01 (A2G0005-02RE1)				Matrix: Water		Batch: 22G0071		V-01
Acetone	ND	---	36.0	ug/L	1	07/05/22 16:03	EPA 8260D	R-02
Acrylonitrile	ND	---	2.00	ug/L	1	07/05/22 16:03	EPA 8260D	
Benzene	0.240	---	0.200	ug/L	1	07/05/22 16:03	EPA 8260D	
Bromobenzene	ND	---	0.500	ug/L	1	07/05/22 16:03	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	07/05/22 16:03	EPA 8260D	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	07/05/22 16:03	EPA 8260D	
n-Butylbenzene	16.6	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	
sec-Butylbenzene	7.00	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	
tert-Butylbenzene	ND	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	
Carbon disulfide	ND	---	10.0	ug/L	1	07/05/22 16:03	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	07/05/22 16:03	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	07/05/22 16:03	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	07/05/22 16:03	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	07/05/22 16:03	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	07/05/22 16:03	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	07/05/22 16:03	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	07/05/22 16:03	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	07/05/22 16:03	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	07/05/22 16:03	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0005 - 07 14 22 1515
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ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
063022-GWNE-7.0-01 (A2G0005-02RE1)				Matrix: Water		Batch: 22G0071		V-01
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	07/05/22 16:03	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	07/05/22 16:03	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	07/05/22 16:03	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	07/05/22 16:03	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	07/05/22 16:03	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	07/05/22 16:03	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	07/05/22 16:03	EPA 8260D	
2-Hexanone	ND	---	10.0	ug/L	1	07/05/22 16:03	EPA 8260D	
Isopropylbenzene	5.08	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	
4-Isopropyltoluene	ND	---	2.00	ug/L	1	07/05/22 16:03	EPA 8260D	R-02
Methylene chloride	ND	---	10.0	ug/L	1	07/05/22 16:03	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	---	10.0	ug/L	1	07/05/22 16:03	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	07/05/22 16:03	EPA 8260D	
n-Propylbenzene	18.5	---	0.500	ug/L	1	07/05/22 16:03	EPA 8260D	
Styrene	ND	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	07/05/22 16:03	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	07/05/22 16:03	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	07/05/22 16:03	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	07/05/22 16:03	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	07/05/22 16:03	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	07/05/22 16:03	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.750	ug/L	1	07/05/22 16:03	EPA 8260D	R-02
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	07/05/22 16:03	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	07/05/22 16:03	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0005 - 07 14 22 1515
--	---	---

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
063022-GWNE-7.0-01 (A2G0005-02RE1)			Matrix: Water		Batch: 22G0071		V-01	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	
Vinyl chloride	ND	---	0.400	ug/L	1	07/05/22 16:03	EPA 8260D	
m,p-Xylene	ND	---	1.00	ug/L	1	07/05/22 16:03	EPA 8260D	
o-Xylene	ND	---	0.500	ug/L	1	07/05/22 16:03	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 95 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>07/05/22 16:03</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>		<i>1</i>	<i>07/05/22 16:03</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>		<i>95 %</i>		<i>80-120 %</i>		<i>1</i>	<i>07/05/22 16:03</i>	<i>EPA 8260D</i>
063022-GWS-10.6-01 (A2G0005-03RE1)			Matrix: Water		Batch: 22G0071		V-01	
Acetone	ND	---	26.2	ug/L	1	07/05/22 16:26	EPA 8260D	R-02
Acrylonitrile	ND	---	2.00	ug/L	1	07/05/22 16:26	EPA 8260D	
Benzene	5.50	---	0.200	ug/L	1	07/05/22 16:26	EPA 8260D	
Bromobenzene	ND	---	0.500	ug/L	1	07/05/22 16:26	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	07/05/22 16:26	EPA 8260D	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	07/05/22 16:26	EPA 8260D	
n-Butylbenzene	18.8	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	
sec-Butylbenzene	9.42	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	
tert-Butylbenzene	1.08	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	
Carbon disulfide	ND	---	10.0	ug/L	1	07/05/22 16:26	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	07/05/22 16:26	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	07/05/22 16:26	EPA 8260D	
Chloroform	ND	---	7.00	ug/L	1	07/05/22 16:26	EPA 8260D	R-02
Chloromethane	ND	---	5.00	ug/L	1	07/05/22 16:26	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	07/05/22 16:26	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	07/05/22 16:26	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	07/05/22 16:26	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0005 - 07 14 22 1515
--	---	---

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
063022-GWS-10.6-01 (A2G0005-03RE1)				Matrix: Water		Batch: 22G0071		V-01
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	07/05/22 16:26	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	07/05/22 16:26	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	07/05/22 16:26	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	07/05/22 16:26	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	07/05/22 16:26	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	07/05/22 16:26	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	07/05/22 16:26	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	07/05/22 16:26	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	
Ethylbenzene	34.1	---	0.500	ug/L	1	07/05/22 16:26	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	07/05/22 16:26	EPA 8260D	
2-Hexanone	ND	---	10.0	ug/L	1	07/05/22 16:26	EPA 8260D	
Isopropylbenzene	35.7	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	
4-Isopropyltoluene	1.95	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	M-02
Methylene chloride	ND	---	10.0	ug/L	1	07/05/22 16:26	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	07/05/22 16:26	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	
Naphthalene	41.2	---	2.00	ug/L	1	07/05/22 16:26	EPA 8260D	
n-Propylbenzene	99.4	---	0.500	ug/L	1	07/05/22 16:26	EPA 8260D	
Styrene	ND	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	07/05/22 16:26	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	07/05/22 16:26	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	07/05/22 16:26	EPA 8260D	
Toluene	4.13	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	07/05/22 16:26	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	07/05/22 16:26	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	07/05/22 16:26	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	07/05/22 16:26	EPA 8260D	

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Philip Nerenberg, Lab Director



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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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 ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0005 - 07 14 22 1515
--	---	---

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
063022-GWS-10.6-01 (A2G0005-03RE1)				Matrix: Water		Batch: 22G0071		V-01
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	07/05/22 16:26	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	07/05/22 16:26	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	
1,2,4-Trimethylbenzene	86.8	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	
1,3,5-Trimethylbenzene	27.1	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	
Vinyl chloride	ND	---	0.400	ug/L	1	07/05/22 16:26	EPA 8260D	
m,p-Xylene	27.3	---	1.00	ug/L	1	07/05/22 16:26	EPA 8260D	
o-Xylene	3.22	---	0.500	ug/L	1	07/05/22 16:26	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>			<i>Recovery: 102 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>07/05/22 16:26</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>			<i>96 %</i>	<i>80-120 %</i>	<i>1</i>	<i>07/05/22 16:26</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>			<i>100 %</i>	<i>80-120 %</i>	<i>1</i>	<i>07/05/22 16:26</i>	<i>EPA 8260D</i>	

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ANALYTICAL SAMPLE RESULTS

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

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
063022-GWN-8.4-01 (A2G0005-01)				Matrix: Water		Batch: 22G0159		Q-22
Acenaphthene	ND	---	0.100	ug/L	1	07/12/22 20:18	EPA 8270E SIM	
Acenaphthylene	ND	---	0.100	ug/L	1	07/12/22 20:18	EPA 8270E SIM	
Anthracene	ND	---	0.100	ug/L	1	07/12/22 20:18	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.100	ug/L	1	07/12/22 20:18	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.100	ug/L	1	07/12/22 20:18	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.100	ug/L	1	07/12/22 20:18	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.100	ug/L	1	07/12/22 20:18	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.100	ug/L	1	07/12/22 20:18	EPA 8270E SIM	
Chrysene	ND	---	0.100	ug/L	1	07/12/22 20:18	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.100	ug/L	1	07/12/22 20:18	EPA 8270E SIM	
Fluoranthene	ND	---	0.100	ug/L	1	07/12/22 20:18	EPA 8270E SIM	
Fluorene	0.113	---	0.100	ug/L	1	07/12/22 20:18	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.100	ug/L	1	07/12/22 20:18	EPA 8270E SIM	
1-Methylnaphthalene	ND	---	0.200	ug/L	1	07/12/22 20:18	EPA 8270E SIM	
2-Methylnaphthalene	ND	---	0.200	ug/L	1	07/12/22 20:18	EPA 8270E SIM	
Naphthalene	ND	---	0.200	ug/L	1	07/12/22 20:18	EPA 8270E SIM	
Phenanthrene	0.166	---	0.100	ug/L	1	07/12/22 20:18	EPA 8270E SIM	
Pyrene	ND	---	0.100	ug/L	1	07/12/22 20:18	EPA 8270E SIM	
Dibenzofuran	ND	---	0.100	ug/L	1	07/12/22 20:18	EPA 8270E SIM	

063022-GWNE-7.0-01 (A2G0005-02)				Matrix: Water		Batch: 22G0036		Q-22
Acenaphthene	ND	---	0.727	ug/L	1	07/06/22 21:20	EPA 8270E SIM	R-02
Acenaphthylene	ND	---	0.349	ug/L	1	07/06/22 21:20	EPA 8270E SIM	R-02
Anthracene	ND	---	0.116	ug/L	1	07/06/22 21:20	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.116	ug/L	1	07/06/22 21:20	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.116	ug/L	1	07/06/22 21:20	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.116	ug/L	1	07/06/22 21:20	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.116	ug/L	1	07/06/22 21:20	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.116	ug/L	1	07/06/22 21:20	EPA 8270E SIM	
Chrysene	ND	---	0.116	ug/L	1	07/06/22 21:20	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.116	ug/L	1	07/06/22 21:20	EPA 8270E SIM	
Fluoranthene	ND	---	0.116	ug/L	1	07/06/22 21:20	EPA 8270E SIM	
Fluorene	2.26	---	0.116	ug/L	1	07/06/22 21:20	EPA 8270E SIM	

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0005 - 07 14 22 1515
--	---	---

ANALYTICAL SAMPLE RESULTS

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

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
063022-GWNE-7.0-01 (A2G0005-02)				Matrix: Water		Batch: 22G0036		Q-22
Indeno(1,2,3-cd)pyrene	ND	---	0.116	ug/L	1	07/06/22 21:20	EPA 8270E SIM	
1-Methylnaphthalene	25.5	---	0.233	ug/L	1	07/06/22 21:20	EPA 8270E SIM	
2-Methylnaphthalene	16.4	---	0.233	ug/L	1	07/06/22 21:20	EPA 8270E SIM	
Naphthalene	ND	---	2.03	ug/L	1	07/06/22 21:20	EPA 8270E SIM	R-02
Phenanthrene	1.87	---	0.116	ug/L	1	07/06/22 21:20	EPA 8270E SIM	
Pyrene	ND	---	0.116	ug/L	1	07/06/22 21:20	EPA 8270E SIM	
Dibenzofuran	0.498	---	0.116	ug/L	1	07/06/22 21:20	EPA 8270E SIM	
063022-GWS-10.6-01 (A2G0005-03)				Matrix: Water		Batch: 22G0036		Q-22
Acenaphthene	ND	---	2.13	ug/L	1	07/06/22 21:45	EPA 8270E SIM	R-02
Acenaphthylene	ND	---	0.579	ug/L	1	07/06/22 21:45	EPA 8270E SIM	R-02
Anthracene	ND	---	0.263	ug/L	1	07/06/22 21:45	EPA 8270E SIM	R-02
Benz(a)anthracene	ND	---	0.105	ug/L	1	07/06/22 21:45	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.105	ug/L	1	07/06/22 21:45	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.105	ug/L	1	07/06/22 21:45	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.105	ug/L	1	07/06/22 21:45	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.105	ug/L	1	07/06/22 21:45	EPA 8270E SIM	
Chrysene	ND	---	0.105	ug/L	1	07/06/22 21:45	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.105	ug/L	1	07/06/22 21:45	EPA 8270E SIM	
Fluoranthene	ND	---	0.105	ug/L	1	07/06/22 21:45	EPA 8270E SIM	
Fluorene	7.50	---	0.105	ug/L	1	07/06/22 21:45	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.105	ug/L	1	07/06/22 21:45	EPA 8270E SIM	
Naphthalene	33.0	---	0.211	ug/L	1	07/06/22 21:45	EPA 8270E SIM	
Phenanthrene	5.99	---	0.105	ug/L	1	07/06/22 21:45	EPA 8270E SIM	
Pyrene	ND	---	0.105	ug/L	1	07/06/22 21:45	EPA 8270E SIM	
Dibenzofuran	1.99	---	0.105	ug/L	1	07/06/22 21:45	EPA 8270E SIM	
063022-GWS-10.6-01 (A2G0005-03RE1)				Matrix: Water		Batch: 22G0036		Q-22
1-Methylnaphthalene	126	---	4.21	ug/L	20	07/07/22 11:33	EPA 8270E SIM	
2-Methylnaphthalene	122	---	4.21	ug/L	20	07/07/22 11:33	EPA 8270E SIM	

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Philip Nerenberg, Lab Director



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Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0005 - 07 14 22 1515
--	---	---

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 22G0036 - EPA 3510C (Fuels/Acid Ext.)						Water						
Blank (22G0036-BLK1)			Prepared: 07/01/22 13:29 Analyzed: 07/01/22 20:53									
<u>NWTPH-Dx</u>												
Diesel	ND	---	0.182	mg/L	1	---	---	---	---	---	---	
Oil	ND	---	0.364	mg/L	1	---	---	---	---	---	---	
Mineral Oil	ND	---	0.364	mg/L	1	---	---	---	---	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 89 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
LCS (22G0036-BS1)						Prepared: 07/01/22 13:29 Analyzed: 07/01/22 21:16						
<u>NWTPH-Dx</u>												
Diesel	0.884	---	0.200	mg/L	1	1.25	---	71	36-132%	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 93 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
LCS Dup (22G0036-BSD1)						Prepared: 07/01/22 13:29 Analyzed: 07/01/22 21:39						
<u>NWTPH-Dx</u>												
Diesel	0.839	---	0.200	mg/L	1	1.25	---	67	36-132%	5	30%	Q-19
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 87 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
Batch 22G0159 - EPA 3510C (Fuels/Acid Ext.)						Water						
Blank (22G0159-BLK1)			Prepared: 07/07/22 11:57 Analyzed: 07/08/22 06:25									
<u>NWTPH-Dx</u>												
Diesel	ND	---	0.182	mg/L	1	---	---	---	---	---	---	
Oil	ND	---	0.364	mg/L	1	---	---	---	---	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 83 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
LCS (22G0159-BS1)						Prepared: 07/07/22 11:57 Analyzed: 07/08/22 06:48						
<u>NWTPH-Dx</u>												
Diesel	0.993	---	0.200	mg/L	1	1.25	---	79	36-132%	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 82 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
LCS Dup (22G0159-BSD1)						Prepared: 07/07/22 11:57 Analyzed: 07/08/22 07:10						
<u>NWTPH-Dx</u>												
Diesel	0.996	---	0.200	mg/L	1	1.25	---	80	36-132%	0.4	30%	Q-19
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 87 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						

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---	--	---

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 22G0159 - EPA 3510C (Fuels/Acid Ext.)							Water					

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--	---	---

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 22G0033 - EPA 5030B						Water						
Blank (22G0033-BLK1)			Prepared: 07/01/22 08:01 Analyzed: 07/01/22 23:19									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	---	0.100	mg/L	1	---	---	---	---	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 103 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>108 %</i>		<i>50-150 %</i>		<i>"</i>						
LCS (22G0033-BS2)			Prepared: 07/01/22 08:01 Analyzed: 07/01/22 22:57									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	0.431	---	0.100	mg/L	1	0.500	---	86	80-120%	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 101 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>104 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (22G0033-DUP1)			Prepared: 07/01/22 13:01 Analyzed: 07/02/22 00:48									
<u>QC Source Sample: Non-SDG (A2F1041-07)</u>												
Gasoline Range Organics	ND	---	0.100	mg/L	1	---	ND	---	---	---	30%	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 106 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>110 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (22G0033-DUP2)			Prepared: 07/01/22 13:01 Analyzed: 07/02/22 01:33									
<u>QC Source Sample: Non-SDG (A2F1052-01)</u>												
Gasoline Range Organics	ND	---	0.100	mg/L	1	---	ND	---	---	---	30%	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 107 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>112 %</i>		<i>50-150 %</i>		<i>"</i>						

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0005 - 07 14 22 1515
--	---	---

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 22G0071 - EPA 5030B						Water						
Blank (22G0071-BLK1)			Prepared: 07/05/22 08:13 Analyzed: 07/05/22 13:51									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	---	0.100	mg/L	1	---	---	---	---	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 106 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>114 %</i>		<i>50-150 %</i>		<i>"</i>						
LCS (22G0071-BS2)			Prepared: 07/05/22 08:13 Analyzed: 07/05/22 12:44									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	0.493	---	0.100	mg/L	1	0.500	---	99	80-120%	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 104 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>105 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (22G0071-DUP1)			Prepared: 07/05/22 12:13 Analyzed: 07/05/22 17:32									
<u>QC Source Sample: Non-SDG (A2F0943-02)</u>												
Gasoline Range Organics	ND	---	0.100	mg/L	1	---	ND	---	---	---	30%	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 105 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>110 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (22G0071-DUP2)			Prepared: 07/05/22 12:13 Analyzed: 07/05/22 19:23									
<u>QC Source Sample: Non-SDG (A2G0015-02)</u>												
Gasoline Range Organics	ND	---	0.100	mg/L	1	---	ND	---	---	---	30%	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 106 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>111 %</i>		<i>50-150 %</i>		<i>"</i>						

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0005 - 07 14 22 1515

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0033 - EPA 5030B						Water						
Blank (22G0033-BLK1)			Prepared: 07/01/22 08:01 Analyzed: 07/01/22 23:19									
<u>EPA 8260D</u>												
Acetone	ND	---	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0005 - 07 14 22 1515

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0033 - EPA 5030B						Water						
Blank (22G0033-BLK1)			Prepared: 07/01/22 08:01 Analyzed: 07/01/22 23:19									
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	

Surr: 1,4-Difluorobenzene (Surr) Recovery: 108 % Limits: 80-120 % Dilution: 1x

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0005 - 07 14 22 1515
--	---	---

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0033 - EPA 5030B						Water						
Blank (22G0033-BLK1)						Prepared: 07/01/22 08:01 Analyzed: 07/01/22 23:19						
<i>Surr: Toluene-d8 (Surr)</i>		<i>Recovery: 99 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>96 %</i>		<i>80-120 %</i>		<i>"</i>						
LCS (22G0033-BS1)						Prepared: 07/01/22 08:01 Analyzed: 07/01/22 22:34						
EPA 8260D												
Acetone	45.4	---	20.0	ug/L	1	40.0	---	113	80-120%	---	---	
Acrylonitrile	23.0	---	2.00	ug/L	1	20.0	---	115	80-120%	---	---	
Benzene	20.9	---	0.200	ug/L	1	20.0	---	104	80-120%	---	---	
Bromobenzene	18.3	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Bromochloromethane	22.6	---	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
Bromodichloromethane	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Bromoform	19.6	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Bromomethane	25.8	---	5.00	ug/L	1	20.0	---	129	80-120%	---	---	Q-56
2-Butanone (MEK)	42.2	---	10.0	ug/L	1	40.0	---	106	80-120%	---	---	
n-Butylbenzene	18.7	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
sec-Butylbenzene	19.3	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
tert-Butylbenzene	17.9	---	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
Carbon disulfide	20.9	---	10.0	ug/L	1	20.0	---	104	80-120%	---	---	
Carbon tetrachloride	20.9	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Chlorobenzene	18.8	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Chloroethane	21.9	---	5.00	ug/L	1	20.0	---	110	80-120%	---	---	
Chloroform	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Chloromethane	23.8	---	5.00	ug/L	1	20.0	---	119	80-120%	---	---	
2-Chlorotoluene	18.9	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
4-Chlorotoluene	18.4	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
Dibromochloromethane	19.7	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,2-Dibromo-3-chloropropane	18.4	---	5.00	ug/L	1	20.0	---	92	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.0	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Dibromomethane	20.8	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
1,2-Dichlorobenzene	18.8	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
1,3-Dichlorobenzene	18.8	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
1,4-Dichlorobenzene	18.3	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Dichlorodifluoromethane	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
1,1-Dichloroethane	20.8	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: Les Schwab Springfield

Project Number: 0553.10.001

Project Manager: Merideth D'Andrea

Report ID:

A2G0005 - 07 14 22 1515

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Table with columns: Analyte, Result, Detection Limit, Reporting Limit, Units, Dilution, Spike Amount, Source Result, % REC, % REC Limits, RPD, RPD Limit, Notes. Includes data for Batch 22G0033 - EPA 5030B Water, LCS (22G0033-BS1) with various compounds and their results.

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Philip Nerenberg (signature)

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0005 - 07 14 22 1515

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0033 - EPA 5030B						Water						
LCS (22G0033-BS1)			Prepared: 07/01/22 08:01			Analyzed: 07/01/22 22:34						
Vinyl chloride	21.4	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
m,p-Xylene	37.3	---	1.00	ug/L	1	40.0	---	93	80-120%	---	---	
o-Xylene	18.3	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 106 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>96 %</i>		<i>80-120 %</i>		<i>"</i>						

Duplicate (22G0033-DUP1)			Prepared: 07/01/22 13:01			Analyzed: 07/02/22 00:48						
QC Source Sample: Non-SDG (A2F1041-07)												
Acetone	ND	---	20.0	ug/L	1	---	ND	---	---	---	30%	
Acrylonitrile	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
Benzene	ND	---	0.200	ug/L	1	---	ND	---	---	---	30%	
Bromobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromoform	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromomethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
n-Butylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Carbon disulfide	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Chloroethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
Chloroform	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Chloromethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Dibromomethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: Les Schwab Springfield

Project Number: 0553.10.001

Project Manager: Merideth D'Andrea

Report ID:

A2G0005 - 07 14 22 1515

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Table with columns: Analyte, Result, Detection Limit, Reporting Limit, Units, Dilution, Spike Amount, Source Result, % REC, % REC Limits, RPD, RPD Limit, Notes. Includes a list of 30 compounds and their results.

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Philip Nerenberg (signature)

Philip Nerenberg, Lab Director



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3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0005 - 07 14 22 1515

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0033 - EPA 5030B												
Water												
Duplicate (22G0033-DUP1)			Prepared: 07/01/22 13:01 Analyzed: 07/02/22 00:48									
QC Source Sample: Non-SDG (A2F1041-07)												
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
m,p-Xylene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
o-Xylene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 107 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>96 %</i>		<i>80-120 %</i>		<i>"</i>						

Duplicate (22G0033-DUP2)			Prepared: 07/01/22 13:01 Analyzed: 07/02/22 01:33									
QC Source Sample: Non-SDG (A2F1052-01)												
Acetone	ND	---	20.0	ug/L	1	---	ND	---	---	---	30%	
Acrylonitrile	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
Benzene	ND	---	0.200	ug/L	1	---	ND	---	---	---	30%	
Bromobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromoforn	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromomethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
n-Butylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Carbon disulfide	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Chloroethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
Chloroform	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Chloromethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0005 - 07 14 22 1515

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0033 - EPA 5030B						Water						
Duplicate (22G0033-DUP2)			Prepared: 07/01/22 13:01 Analyzed: 07/02/22 01:33									
QC Source Sample: Non-SDG (A2F1052-01)												
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Dibromomethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Hexanone	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Methylene chloride	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
n-Propylbenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Styrene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

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

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0005 - 07 14 22 1515

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0033 - EPA 5030B												
Water												
Duplicate (22G0033-DUP2)			Prepared: 07/01/22 13:01 Analyzed: 07/02/22 01:33									
QC Source Sample: Non-SDG (A2F1052-01)												
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
m,p-Xylene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
o-Xylene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 104 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>95 %</i>		<i>80-120 %</i>		<i>"</i>						

Matrix Spike (22G0033-MS1)											V-01	
Prepared: 07/01/22 13:01 Analyzed: 07/02/22 07:06												
QC Source Sample: 063022-GWS-10.6-01 (A2G0005-03)												
EPA 8260D												
Acetone	4380	---	2000	ug/L	100	4000	ND	110	39-160%	---	---	
Acrylonitrile	2140	---	200	ug/L	100	2000	ND	107	63-135%	---	---	
Benzene	2060	---	20.0	ug/L	100	2000	ND	103	79-120%	---	---	
Bromobenzene	1890	---	50.0	ug/L	100	2000	ND	94	80-120%	---	---	
Bromochloromethane	2330	---	100	ug/L	100	2000	ND	116	78-123%	---	---	
Bromodichloromethane	2310	---	100	ug/L	100	2000	ND	116	79-125%	---	---	
Bromoform	2230	---	100	ug/L	100	2000	ND	112	66-130%	---	---	
Bromomethane	3060	---	500	ug/L	100	2000	ND	153	53-141%	---	---	Q-54c
2-Butanone (MEK)	3960	---	1000	ug/L	100	4000	ND	99	56-143%	---	---	
n-Butylbenzene	2240	---	100	ug/L	100	2000	ND	112	75-128%	---	---	
sec-Butylbenzene	2240	---	100	ug/L	100	2000	ND	112	77-126%	---	---	
tert-Butylbenzene	2140	---	100	ug/L	100	2000	ND	107	78-124%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

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ORELAP ID: OR100062

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0005 - 07 14 22 1515

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0033 - EPA 5030B						Water						
Matrix Spike (22G0033-MS1)						Prepared: 07/01/22 13:01 Analyzed: 07/02/22 07:06						V-01
QC Source Sample: 063022-GWS-10.6-01 (A2G0005-03)												
Carbon disulfide	2290	---	1000	ug/L	100	2000	ND	114	64-133%	---	---	
Carbon tetrachloride	2570	---	100	ug/L	100	2000	ND	128	72-136%	---	---	
Chlorobenzene	2070	---	50.0	ug/L	100	2000	ND	104	80-120%	---	---	
Chloroethane	2860	---	500	ug/L	100	2000	ND	143	60-138%	---	---	Q-01
Chloroform	2170	---	100	ug/L	100	2000	ND	108	79-124%	---	---	
Chloromethane	2560	---	500	ug/L	100	2000	ND	128	50-139%	---	---	
2-Chlorotoluene	1960	---	100	ug/L	100	2000	ND	98	79-122%	---	---	
4-Chlorotoluene	2070	---	100	ug/L	100	2000	ND	104	78-122%	---	---	
Dibromochloromethane	2220	---	100	ug/L	100	2000	ND	111	74-126%	---	---	
1,2-Dibromo-3-chloropropane	1880	---	500	ug/L	100	2000	ND	94	62-128%	---	---	
1,2-Dibromoethane (EDB)	2100	---	50.0	ug/L	100	2000	ND	105	77-121%	---	---	
Dibromomethane	2130	---	100	ug/L	100	2000	ND	106	79-123%	---	---	
1,2-Dichlorobenzene	1990	---	50.0	ug/L	100	2000	ND	99	80-120%	---	---	
1,3-Dichlorobenzene	2030	---	50.0	ug/L	100	2000	ND	101	80-120%	---	---	
1,4-Dichlorobenzene	2020	---	50.0	ug/L	100	2000	ND	101	79-120%	---	---	
Dichlorodifluoromethane	2860	---	100	ug/L	100	2000	ND	143	32-152%	---	---	
1,1-Dichloroethane	2280	---	40.0	ug/L	100	2000	ND	114	77-125%	---	---	
1,2-Dichloroethane (EDC)	2410	---	40.0	ug/L	100	2000	ND	120	73-128%	---	---	
1,1-Dichloroethene	2420	---	40.0	ug/L	100	2000	ND	121	71-131%	---	---	
cis-1,2-Dichloroethene	2170	---	40.0	ug/L	100	2000	ND	108	78-123%	---	---	
trans-1,2-Dichloroethene	2150	---	40.0	ug/L	100	2000	ND	108	75-124%	---	---	
1,2-Dichloropropane	2060	---	50.0	ug/L	100	2000	ND	103	78-122%	---	---	
1,3-Dichloropropane	2100	---	100	ug/L	100	2000	ND	105	80-120%	---	---	
2,2-Dichloropropane	1800	---	100	ug/L	100	2000	ND	90	60-139%	---	---	
1,1-Dichloropropene	2210	---	100	ug/L	100	2000	ND	110	79-125%	---	---	
cis-1,3-Dichloropropene	1930	---	100	ug/L	100	2000	ND	97	75-124%	---	---	
trans-1,3-Dichloropropene	2420	---	100	ug/L	100	2000	ND	121	73-127%	---	---	
Ethylbenzene	2140	---	50.0	ug/L	100	2000	26.0	106	79-121%	---	---	
Hexachlorobutadiene	2100	---	500	ug/L	100	2000	ND	105	66-134%	---	---	
2-Hexanone	4220	---	1000	ug/L	100	4000	ND	106	57-139%	---	---	
Isopropylbenzene	2190	---	100	ug/L	100	2000	ND	109	72-131%	---	---	
4-Isopropyltoluene	2120	---	100	ug/L	100	2000	ND	106	77-127%	---	---	
Methylene chloride	2200	---	1000	ug/L	100	2000	ND	110	74-124%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0005 - 07 14 22 1515
--	---	---

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0033 - EPA 5030B						Water						
Matrix Spike (22G0033-MS1)						Prepared: 07/01/22 13:01 Analyzed: 07/02/22 07:06						V-01
QC Source Sample: 063022-GWS-10.6-01 (A2G0005-03)												
4-Methyl-2-pentanone (MiBK)	4210	---	1000	ug/L	100	4000	ND	105	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	2050	---	100	ug/L	100	2000	ND	102	71-124%	---	---	
Naphthalene	1820	---	200	ug/L	100	2000	ND	91	61-128%	---	---	
n-Propylbenzene	2200	---	50.0	ug/L	100	2000	58.0	107	76-126%	---	---	
Styrene	2300	---	100	ug/L	100	2000	ND	115	78-123%	---	---	
1,1,1,2-Tetrachloroethane	2200	---	40.0	ug/L	100	2000	ND	110	78-124%	---	---	
1,1,2,2-Tetrachloroethane	2250	---	50.0	ug/L	100	2000	ND	112	71-121%	---	---	
Tetrachloroethene (PCE)	2070	---	40.0	ug/L	100	2000	ND	104	74-129%	---	---	
Toluene	2010	---	100	ug/L	100	2000	ND	100	80-121%	---	---	
1,2,3-Trichlorobenzene	1870	---	200	ug/L	100	2000	ND	94	69-129%	---	---	
1,2,4-Trichlorobenzene	1770	---	200	ug/L	100	2000	ND	88	69-130%	---	---	
1,1,1-Trichloroethane	2450	---	40.0	ug/L	100	2000	ND	122	74-131%	---	---	
1,1,2-Trichloroethane	2100	---	50.0	ug/L	100	2000	ND	105	80-120%	---	---	
Trichloroethene (TCE)	1940	---	40.0	ug/L	100	2000	ND	97	79-123%	---	---	
Trichlorofluoromethane	2550	---	200	ug/L	100	2000	ND	127	65-141%	---	---	
1,2,3-Trichloropropane	2070	---	100	ug/L	100	2000	ND	104	73-122%	---	---	
1,2,4-Trimethylbenzene	2180	---	100	ug/L	100	2000	ND	109	76-124%	---	---	
1,3,5-Trimethylbenzene	2140	---	100	ug/L	100	2000	ND	107	75-124%	---	---	
Vinyl chloride	2430	---	40.0	ug/L	100	2000	ND	122	58-137%	---	---	
m,p-Xylene	4410	---	100	ug/L	100	4000	ND	110	80-121%	---	---	
o-Xylene	2070	---	50.0	ug/L	100	2000	ND	104	78-122%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 92 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>96 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>89 %</i>		<i>80-120 %</i>		<i>"</i>						

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0005 - 07 14 22 1515

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0071 - EPA 5030B						Water						
Blank (22G0071-BLK1)			Prepared: 07/05/22 08:13 Analyzed: 07/05/22 13:51									
EPA 8260D												
Acetone	ND	---	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0005 - 07 14 22 1515

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0071 - EPA 5030B						Water						
Blank (22G0071-BLK1)			Prepared: 07/05/22 08:13 Analyzed: 07/05/22 13:51									
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	

Surr: 1,4-Difluorobenzene (Surr) Recovery: 98 % Limits: 80-120 % Dilution: 1x

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0005 - 07 14 22 1515

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0071 - EPA 5030B						Water						
Blank (22G0071-BLK1)						Prepared: 07/05/22 08:13 Analyzed: 07/05/22 13:51						
Surr: Toluene-d8 (Surr)		Recovery: 99 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		94 %		80-120 %		"						
LCS (22G0071-BS1)						Prepared: 07/05/22 08:13 Analyzed: 07/05/22 12:22						
EPA 8260D												
Acetone	55.0	---	20.0	ug/L	1	40.0	---	137	80-120%	---	---	Q-56
Acrylonitrile	19.7	---	2.00	ug/L	1	20.0	---	99	80-120%	---	---	
Benzene	18.2	---	0.200	ug/L	1	20.0	---	91	80-120%	---	---	
Bromobenzene	17.4	---	0.500	ug/L	1	20.0	---	87	80-120%	---	---	
Bromochloromethane	21.6	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
Bromodichloromethane	21.6	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
Bromoform	21.8	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
Bromomethane	25.0	---	5.00	ug/L	1	20.0	---	125	80-120%	---	---	Q-56
2-Butanone (MEK)	45.0	---	10.0	ug/L	1	40.0	---	112	80-120%	---	---	
n-Butylbenzene	19.2	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
sec-Butylbenzene	19.1	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
tert-Butylbenzene	18.5	---	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
Carbon disulfide	18.9	---	10.0	ug/L	1	20.0	---	94	80-120%	---	---	
Carbon tetrachloride	21.7	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
Chlorobenzene	19.0	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Chloroethane	25.0	---	5.00	ug/L	1	20.0	---	125	80-120%	---	---	Q-56
Chloroform	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Chloromethane	21.5	---	5.00	ug/L	1	20.0	---	108	80-120%	---	---	
2-Chlorotoluene	17.9	---	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
4-Chlorotoluene	19.4	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Dibromochloromethane	21.9	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
1,2-Dibromo-3-chloropropane	17.9	---	5.00	ug/L	1	20.0	---	90	80-120%	---	---	
1,2-Dibromoethane (EDB)	19.9	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Dibromomethane	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,2-Dichlorobenzene	18.5	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
1,3-Dichlorobenzene	18.9	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
1,4-Dichlorobenzene	18.6	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Dichlorodifluoromethane	22.6	---	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
1,1-Dichloroethane	20.1	---	0.400	ug/L	1	20.0	---	101	80-120%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC.

3140 NE Broadway Street

Portland, OR 97232

Project: **Les Schwab Springfield**

Project Number: **0553.10.001**

Project Manager: **Merideth D'Andrea**

Report ID:

A2G0005 - 07 14 22 1515

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0071 - EPA 5030B						Water						
LCS (22G0071-BS1)			Prepared: 07/05/22 08:13 Analyzed: 07/05/22 12:22									
1,2-Dichloroethane (EDC)	22.7	---	0.400	ug/L	1	20.0	---	113	80-120%	---	---	
1,1-Dichloroethene	20.0	---	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
cis-1,2-Dichloroethene	19.2	---	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
trans-1,2-Dichloroethene	18.7	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,2-Dichloropropane	18.4	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
1,3-Dichloropropane	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
2,2-Dichloropropane	21.5	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,1-Dichloropropene	18.4	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
cis-1,3-Dichloropropene	21.5	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
trans-1,3-Dichloropropene	24.2	---	1.00	ug/L	1	20.0	---	121	80-120%	---	---	Q-56
Ethylbenzene	18.6	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Hexachlorobutadiene	18.7	---	5.00	ug/L	1	20.0	---	93	80-120%	---	---	
2-Hexanone	43.0	---	10.0	ug/L	1	40.0	---	107	80-120%	---	---	
Isopropylbenzene	18.6	---	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
4-Isopropyltoluene	18.6	---	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
Methylene chloride	19.9	---	10.0	ug/L	1	20.0	---	100	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	40.5	---	10.0	ug/L	1	40.0	---	101	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	19.6	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Naphthalene	16.5	---	2.00	ug/L	1	20.0	---	82	80-120%	---	---	
n-Propylbenzene	18.8	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Styrene	21.1	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,1,1,2-Tetrachloroethane	20.6	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
1,1,2,2-Tetrachloroethane	21.2	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
Tetrachloroethene (PCE)	18.0	---	0.400	ug/L	1	20.0	---	90	80-120%	---	---	
Toluene	17.6	---	1.00	ug/L	1	20.0	---	88	80-120%	---	---	
1,2,3-Trichlorobenzene	17.8	---	2.00	ug/L	1	20.0	---	89	80-120%	---	---	
1,2,4-Trichlorobenzene	15.7	---	2.00	ug/L	1	20.0	---	79	80-120%	---	---	Q-55
1,1,1-Trichloroethane	21.1	---	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
1,1,2-Trichloroethane	19.9	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Trichloroethene (TCE)	17.4	---	0.400	ug/L	1	20.0	---	87	80-120%	---	---	
Trichlorofluoromethane	20.8	---	2.00	ug/L	1	20.0	---	104	80-120%	---	---	
1,2,3-Trichloropropane	19.9	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,2,4-Trimethylbenzene	19.0	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
1,3,5-Trimethylbenzene	19.4	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	

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Philip Nerenberg, Lab Director



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3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0005 - 07 14 22 1515

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0071 - EPA 5030B						Water						
LCS (22G0071-BS1)			Prepared: 07/05/22 08:13 Analyzed: 07/05/22 12:22									
Vinyl chloride	19.3	---	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
m,p-Xylene	39.0	---	1.00	ug/L	1	40.0	---	98	80-120%	---	---	
o-Xylene	18.6	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 94 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>91 %</i>		<i>80-120 %</i>		<i>"</i>						
Duplicate (22G0071-DUP1)						Prepared: 07/05/22 12:13 Analyzed: 07/05/22 17:32						
QC Source Sample: Non-SDG (A2F0943-02)												
Acetone	3880	---	20.0	ug/L	1	---	3740	---	---	4	30%	E, Q-54a
Acrylonitrile	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
Benzene	ND	---	0.200	ug/L	1	---	ND	---	---	---	30%	
Bromobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromoform	ND	---	1.00	ug/L	1	---	0.570	---	---	***	30%	Q-05
Bromomethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
n-Butylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Carbon disulfide	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Chloroethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
Chloroform	4.03	---	1.00	ug/L	1	---	3.90	---	---	3	30%	
Chloromethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Dibromomethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.

3140 NE Broadway Street
Portland, OR 97232

Project: Les Schwab Springfield

Project Number: 0553.10.001

Project Manager: Merideth D'Andrea

Report ID:

A2G0005 - 07 14 22 1515

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Table with columns: Analyte, Result, Detection Limit, Reporting Limit, Units, Dilution, Spike Amount, Source Result, % REC, % REC Limits, RPD, RPD Limit, Notes. Includes a list of 30 compounds and their results.

Apex Laboratories

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Philip Nerenberg (signature)

Philip Nerenberg, Lab Director



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AMENDED REPORT

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Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0005 - 07 14 22 1515

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0071 - EPA 5030B						Water						
Duplicate (22G0071-DUP1)			Prepared: 07/05/22 12:13 Analyzed: 07/05/22 17:32									
QC Source Sample: Non-SDG (A2F0943-02)												
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
m,p-Xylene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
o-Xylene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 112 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>		<i>"</i>						

Duplicate (22G0071-DUP2)			Prepared: 07/05/22 12:13 Analyzed: 07/05/22 19:23									
QC Source Sample: Non-SDG (A2G0015-02)												
Acetone	ND	---	20.0	ug/L	1	---	ND	---	---	---	30%	
Acrylonitrile	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
Benzene	ND	---	0.200	ug/L	1	---	0.110	---	---	---	***	30%
Bromobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromoforn	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromomethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
n-Butylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Carbon disulfide	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Chloroethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
Chloroform	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Chloromethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0005 - 07 14 22 1515

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0071 - EPA 5030B						Water						
Duplicate (22G0071-DUP2)			Prepared: 07/05/22 12:13 Analyzed: 07/05/22 19:23									
QC Source Sample: Non-SDG (A2G0015-02)												
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Dibromomethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Hexanone	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Methylene chloride	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
n-Propylbenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Styrene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0005 - 07 14 22 1515

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0071 - EPA 5030B												
Water												
Duplicate (22G0071-DUP2)			Prepared: 07/05/22 12:13 Analyzed: 07/05/22 19:23									
QC Source Sample: Non-SDG (A2G0015-02)												
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
m,p-Xylene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
o-Xylene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 107 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>96 %</i>		<i>80-120 %</i>		<i>"</i>						

Matrix Spike (22G0071-MS1)			Prepared: 07/05/22 12:13 Analyzed: 07/05/22 22:20									
QC Source Sample: Non-SDG (A2G0027-03)												
EPA 8260D												
Acetone	44.8	---	20.0	ug/L	1	40.0	ND	112	39-160%	---	---	Q-54a
Acrylonitrile	21.6	---	2.00	ug/L	1	20.0	ND	108	63-135%	---	---	
Benzene	20.8	---	0.200	ug/L	1	20.0	ND	104	79-120%	---	---	
Bromobenzene	17.8	---	0.500	ug/L	1	20.0	ND	89	80-120%	---	---	
Bromochloromethane	23.4	---	1.00	ug/L	1	20.0	ND	117	78-123%	---	---	
Bromodichloromethane	23.1	---	1.00	ug/L	1	20.0	ND	116	79-125%	---	---	
Bromoform	20.9	---	1.00	ug/L	1	20.0	ND	104	66-130%	---	---	
Bromomethane	27.1	---	5.00	ug/L	1	20.0	ND	136	53-141%	---	---	Q-54b
2-Butanone (MEK)	39.9	---	10.0	ug/L	1	40.0	ND	100	56-143%	---	---	
n-Butylbenzene	20.0	---	1.00	ug/L	1	20.0	ND	100	75-128%	---	---	
sec-Butylbenzene	20.3	---	1.00	ug/L	1	20.0	ND	101	77-126%	---	---	
tert-Butylbenzene	19.4	---	1.00	ug/L	1	20.0	ND	97	78-124%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0005 - 07 14 22 1515
--	---	---

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0071 - EPA 5030B						Water						
Matrix Spike (22G0071-MS1)						Prepared: 07/05/22 12:13 Analyzed: 07/05/22 22:20						
QC Source Sample: Non-SDG (A2G0027-03)												
Carbon disulfide	22.3	---	10.0	ug/L	1	20.0	ND	111	64-133%	---	---	
Carbon tetrachloride	24.7	---	1.00	ug/L	1	20.0	ND	123	72-136%	---	---	
Chlorobenzene	20.0	---	0.500	ug/L	1	20.0	ND	100	80-120%	---	---	
Chloroethane	27.4	---	5.00	ug/L	1	20.0	ND	137	60-138%	---	---	Q-54b
Chloroform	21.8	---	1.00	ug/L	1	20.0	ND	109	79-124%	---	---	
Chloromethane	26.4	---	5.00	ug/L	1	20.0	ND	132	50-139%	---	---	
2-Chlorotoluene	18.3	---	1.00	ug/L	1	20.0	ND	92	79-122%	---	---	
4-Chlorotoluene	19.3	---	1.00	ug/L	1	20.0	ND	96	78-122%	---	---	
Dibromochloromethane	21.4	---	1.00	ug/L	1	20.0	ND	107	74-126%	---	---	
1,2-Dibromo-3-chloropropane	17.5	---	5.00	ug/L	1	20.0	ND	87	62-128%	---	---	
1,2-Dibromoethane (EDB)	20.2	---	0.500	ug/L	1	20.0	ND	101	77-121%	---	---	
Dibromomethane	21.2	---	1.00	ug/L	1	20.0	ND	106	79-123%	---	---	
1,2-Dichlorobenzene	18.7	---	0.500	ug/L	1	20.0	ND	94	80-120%	---	---	
1,3-Dichlorobenzene	19.2	---	0.500	ug/L	1	20.0	ND	96	80-120%	---	---	
1,4-Dichlorobenzene	18.7	---	0.500	ug/L	1	20.0	ND	93	79-120%	---	---	
Dichlorodifluoromethane	26.3	---	1.00	ug/L	1	20.0	ND	132	32-152%	---	---	
1,1-Dichloroethane	22.5	---	0.400	ug/L	1	20.0	ND	112	77-125%	---	---	
1,2-Dichloroethane (EDC)	23.5	---	0.400	ug/L	1	20.0	ND	118	73-128%	---	---	
1,1-Dichloroethene	23.0	---	0.400	ug/L	1	20.0	ND	115	71-131%	---	---	
cis-1,2-Dichloroethene	22.6	---	0.400	ug/L	1	20.0	0.270	112	78-123%	---	---	
trans-1,2-Dichloroethene	21.3	---	0.400	ug/L	1	20.0	ND	106	75-124%	---	---	
1,2-Dichloropropane	20.8	---	0.500	ug/L	1	20.0	ND	104	78-122%	---	---	
1,3-Dichloropropane	20.3	---	1.00	ug/L	1	20.0	ND	101	80-120%	---	---	
2,2-Dichloropropane	20.6	---	1.00	ug/L	1	20.0	ND	103	60-139%	---	---	
1,1-Dichloropropene	21.4	---	1.00	ug/L	1	20.0	ND	107	79-125%	---	---	
cis-1,3-Dichloropropene	19.4	---	1.00	ug/L	1	20.0	ND	97	75-124%	---	---	
trans-1,3-Dichloropropene	23.5	---	1.00	ug/L	1	20.0	ND	117	73-127%	---	---	Q-54
Ethylbenzene	19.8	---	0.500	ug/L	1	20.0	ND	99	79-121%	---	---	
Hexachlorobutadiene	19.5	---	5.00	ug/L	1	20.0	ND	97	66-134%	---	---	
2-Hexanone	40.4	---	10.0	ug/L	1	40.0	ND	101	57-139%	---	---	
Isopropylbenzene	19.9	---	1.00	ug/L	1	20.0	ND	99	72-131%	---	---	
4-Isopropyltoluene	18.5	---	1.00	ug/L	1	20.0	ND	92	77-127%	---	---	
Methylene chloride	20.8	---	10.0	ug/L	1	20.0	ND	104	74-124%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0071 - EPA 5030B						Water						
Matrix Spike (22G0071-MS1)			Prepared: 07/05/22 12:13 Analyzed: 07/05/22 22:20									
QC Source Sample: Non-SDG (A2G0027-03)												
4-Methyl-2-pentanone (MiBK)	40.3	---	10.0	ug/L	1	40.0	ND	101	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	21.0	---	1.00	ug/L	1	20.0	ND	105	71-124%	---	---	
Naphthalene	15.2	---	2.00	ug/L	1	20.0	ND	76	61-128%	---	---	
n-Propylbenzene	19.2	---	0.500	ug/L	1	20.0	ND	96	76-126%	---	---	
Styrene	8.79	---	1.00	ug/L	1	20.0	ND	44	78-123%	---	---	Q-01
1,1,1,2-Tetrachloroethane	20.9	---	0.400	ug/L	1	20.0	ND	104	78-124%	---	---	
1,1,1,2,2-Tetrachloroethane	20.9	---	0.500	ug/L	1	20.0	ND	105	71-121%	---	---	
Tetrachloroethene (PCE)	20.9	---	0.400	ug/L	1	20.0	1.18	99	74-129%	---	---	
Toluene	18.8	---	1.00	ug/L	1	20.0	ND	94	80-121%	---	---	
1,2,3-Trichlorobenzene	17.5	---	2.00	ug/L	1	20.0	ND	88	69-129%	---	---	
1,2,4-Trichlorobenzene	15.9	---	2.00	ug/L	1	20.0	ND	80	69-130%	---	---	Q-54d
1,1,1-Trichloroethane	23.7	---	0.400	ug/L	1	20.0	ND	118	74-131%	---	---	
1,1,2-Trichloroethane	20.5	---	0.500	ug/L	1	20.0	ND	102	80-120%	---	---	
Trichloroethene (TCE)	20.9	---	0.400	ug/L	1	20.0	1.56	97	79-123%	---	---	
Trichlorofluoromethane	23.9	---	2.00	ug/L	1	20.0	ND	120	65-141%	---	---	
1,2,3-Trichloropropane	19.3	---	1.00	ug/L	1	20.0	ND	96	73-122%	---	---	
1,2,4-Trimethylbenzene	12.3	---	1.00	ug/L	1	20.0	ND	62	76-124%	---	---	Q-01
1,3,5-Trimethylbenzene	17.1	---	1.00	ug/L	1	20.0	ND	86	75-124%	---	---	
Vinyl chloride	23.8	---	0.400	ug/L	1	20.0	ND	119	58-137%	---	---	
m,p-Xylene	39.2	---	1.00	ug/L	1	40.0	ND	98	80-121%	---	---	
o-Xylene	19.0	---	0.500	ug/L	1	20.0	ND	95	78-122%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 98 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>95 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>89 %</i>		<i>80-120 %</i>		<i>"</i>						

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0005 - 07 14 22 1515
--	---	---

QUALITY CONTROL (QC) SAMPLE RESULTS

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

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0036 - EPA 3510C (Fuels/Acid Ext.)						Water						
Blank (22G0036-BLK2)						Prepared: 07/01/22 13:29 Analyzed: 07/06/22 20:55						Q-22
<u>EPA 8270E SIM</u>												
Acenaphthene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Benzo(a)anthracene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	0.182	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	---	0.182	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	---	0.182	ug/L	1	---	---	---	---	---	---	
Phenanthrene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0005 - 07 14 22 1515

QUALITY CONTROL (QC) SAMPLE RESULTS

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

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0159 - EPA 3510C (Fuels/Acid Ext.)						Water						
Blank (22G0159-BLK2)						Prepared: 07/07/22 11:57 Analyzed: 07/12/22 19:52						Q-22
<u>EPA 8270E SIM</u>												
Acenaphthene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Benzo(a)anthracene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	0.182	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	---	0.182	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	---	0.182	ug/L	1	---	---	---	---	---	---	
Phenanthrene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0005 - 07 14 22 1515
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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
<u>Batch: 22G0036</u>							
A2G0005-02	Water	NWTPH-Dx	06/30/22 13:15	07/01/22 13:29	860mL/5mL	1000mL/5mL	1.16
A2G0005-03	Water	NWTPH-Dx	06/30/22 14:40	07/01/22 13:29	950mL/5mL	1000mL/5mL	1.05
<u>Batch: 22G0159</u>							
A2G0005-01	Water	NWTPH-Dx	06/30/22 12:50	07/07/22 11:57	1000mL/5mL	1000mL/5mL	1.00

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

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 22G0071</u>							
A2G0005-01RE1	Water	NWTPH-Gx (MS)	06/30/22 12:50	07/05/22 12:13	5mL/5mL	5mL/5mL	1.00
A2G0005-02RE1	Water	NWTPH-Gx (MS)	06/30/22 13:15	07/05/22 12:13	5mL/5mL	5mL/5mL	1.00
A2G0005-03RE1	Water	NWTPH-Gx (MS)	06/30/22 14:40	07/05/22 12:13	5mL/5mL	5mL/5mL	1.00

Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 22G0071</u>							
A2G0005-01RE1	Water	EPA 8260D	06/30/22 12:50	07/05/22 12:13	5mL/5mL	5mL/5mL	1.00
A2G0005-02RE1	Water	EPA 8260D	06/30/22 13:15	07/05/22 12:13	5mL/5mL	5mL/5mL	1.00
A2G0005-03RE1	Water	EPA 8260D	06/30/22 14:40	07/05/22 12:13	5mL/5mL	5mL/5mL	1.00

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

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

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 22G0036</u>							
A2G0005-02	Water	EPA 8270E SIM	06/30/22 13:15	07/01/22 13:29	860mL/5mL	1000mL/2mL	2.91
A2G0005-03	Water	EPA 8270E SIM	06/30/22 14:40	07/01/22 13:29	950mL/5mL	1000mL/2mL	2.63
A2G0005-03RE1	Water	EPA 8270E SIM	06/30/22 14:40	07/01/22 13:29	950mL/5mL	1000mL/2mL	2.63
<u>Batch: 22G0159</u>							
A2G0005-01	Water	EPA 8270E SIM	06/30/22 12:50	07/07/22 11:57	1000mL/5mL	1000mL/2mL	2.50

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0005 - 07 14 22 1515
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QUALIFIER DEFINITIONS

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

Apex Laboratories

- E** Estimated Value. The result is above the calibration range of the instrument.
- F-20** Result for Diesel is Estimated due to overlap from Gasoline Range Organics or other VOCs.
- M-02** Due to matrix interference, this analyte cannot be accurately quantified. The reported result is estimated.
- Q-01** Spike recovery and/or RPD is outside acceptance limits.
- Q-05** Analyses are not controlled on RPD values from sample and duplicate concentrations that are below 5 times the reporting level.
- Q-19** Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
- Q-22** Due to limited sample volume or hold time restraints, the NWTPH-Dx extract was used for the 8270 SIM PAH analysis. Therefore no PAH Surrogates and/or Batch QC results are available. Results are Estimated Values.
- Q-54** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +1%. The results are reported as Estimated Values.
- Q-54a** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +17%. The results are reported as Estimated Values.
- Q-54b** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +5%. The results are reported as Estimated Values.
- Q-54c** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +9%. The results are reported as Estimated Values.
- Q-54d** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -1%. The results are reported as Estimated Values.
- Q-55** Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
- Q-56** Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260
- R-02** The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
- V-01** Sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0005 - 07 14 22 1515
--	---	---

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

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

Detection Limits: Limit of Detection (LOD)

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

Reporting Limits: Limit of Quantitation (LOQ)

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

Reporting Conventions:

- Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.
- " dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.
- " wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
- " " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

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).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to 1/2 the Reporting Limit (RL).
-For Blank hits falling between 1/2 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.

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

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

Table with 3 columns: Client (Maul Foster & Alongi, INC.), Project (Les Schwab Springfield), and Report ID (A2G0005 - 07 14 22 1515)

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

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.

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.

Philip Nerenberg (signature)



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

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

Table with client information (Maul Foster & Alongi, INC.), project details (Project: Les Schwab Springfield), and report ID (A2G0005 - 07 14 22 1515).

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

Table header with columns: Matrix, Analysis, TNI_ID, Analyte, TNI_ID, Accreditation

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

Secondary Accreditations

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

Subcontract Laboratory Accreditations

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

Field Testing Parameters

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

Apex Laboratories

Handwritten signature of Philip Nerenberg

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. Project: **Les Schwab Springfield**
3140 NE Broadway Street Project Number: **0553.10.001**
Portland, OR 97232 Project Manager: **Merideth D'Andrea** Report ID: **A2G0005 - 07 14 22 1515**

CHAIN OF CUSTODY

APEX LABS 6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323
Lab # A2G0005 of COC

Company: MFA Project Mgr: Merideth D'Andrea Project Name: Les Schwab Springfield Soil Project #: 0553.10.001
Address: 340 NE Broadway St Phone: 503-501-5216 Email: MD.ANDREAE@maul-foster.com PO #

Sampled by: Julie Pace

Site Location: WA CA AK ID

DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCD	NWTPH-DX	NWTPH-GX	8260 RTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	AL, SP, AS, BA, BE, BI, CA, CR, CO, CU, FE, PB, HG, MG, MN, MO, NI, K, S, AG, NA, TI, V, ZN, TOTAL DISS, TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
06/30/22	12:50	GW	3		X	X													X	
06/30/22	13:15	GW	3		X	X													X	
06/30/22	14:40	GW	3		X	X													X	

Standard Turn Around Time (TAT) = 10 Business Days
TAT Requested (circle): 5 Day 1 Day 2 Day 3 Day Other: _____

SPECIAL INSTRUCTIONS: Hold for SVOCs, VOCs, and PCBs.

RELINQUISHED BY: Signature: <u>[Signature]</u> Printed Name: <u>Julie Pace</u> Company: <u>Maul Foster</u>	RECEIVED BY: Signature: <u>[Signature]</u> Printed Name: <u>Doug Eilers</u> Company: <u>Apex</u>
Date: <u>06/30/22</u> Time: <u>17:17</u>	Date: <u>6/30/22</u> Time: <u>17:17</u>

Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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Apex Laboratories, LLC

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ORELAP ID: OR100062

Maul Foster & Alongi, INC.
3140 NE Broadway Street
Portland, OR 97232
Project: Les Schwab Springfield
Project Number: 0553.10.001
Project Manager: Merideth D'Andrea
Report ID: A2G0005 - 07 14 22 1515

APEX LABS COOLER RECEIPT FORM

Client: MFA Element WO#: A2G0005

Project/Project #: Les Schwab Springfield Soil / 0553.10.001

Delivery Info:

Date/time received: 6-30-22 @ 1717 By: DJS

Delivered by: Apex Client [checked] ESS FedEx UPS Swift Senvoy SDS Other

Cooler Inspection Date/time inspected: 6-30-22 @ 1734 By: DJS

Chain of Custody included? Yes [checked] No Custody seals? Yes No [checked]

Signed/dated by client? Yes [checked] No

Signed/dated by Apex? Yes [checked] No

Table with 7 columns: Cooler #1 to Cooler #7. Rows include Temperature (5.3), Received on ice? (Y), Temp. blanks? (N), Ice type: (Real), Condition: (Melted)

Cooler out of temp? (Y) 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: 6-30-22 @ 11:05 By: KAM

All samples intact? Yes [checked] No Comments:

Bottle labels/COCs agree? Yes [checked] No Comments:

COC/container discrepancies form initiated? Yes No [checked]

Containers/volumes received appropriate for analysis? Yes [checked] No Comments:

Do VOA vials have visible headspace? Yes [checked] No NA

Comments: All VOA's have HS. 063022-GWNG-7.0.01; 063022-GWS-10.6-cj name

Water samples: pH checked: Yes [checked] No NA pH appropriate? Yes No [checked]

Comments: All 14 Amber arrived with pH of 7.

Additional information:

Labeled by: KAM

Witness: DJS

Cooler Inspected by: [signature]

Philip Nerenberg (signature)



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Tuesday, July 12, 2022

Merideth D'Andrea
Maul Foster & Alongi, INC.
3140 NE Broadway Street
Portland, OR 97232

RE: A2G0222 - Les Schwab Springfield - 0553.10.001

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 A2G0222, which was received by the laboratory on 7/8/2022 at 5:25:00PM.

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

(See Cooler Receipt Form for details)

Cooler #1	4.5 degC
-----------	----------

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

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



Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

<u>Maul Foster & Alongi, INC.</u> 3140 NE Broadway Street Portland, OR 97232	Project: <u>Les Schwab Springfield</u> Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0222 - 07 12 22 1430
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ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
070822-S-7.6	A2G0222-01	Soil	07/08/22 10:55	07/08/22 17:25
070822-NE-7.0	A2G0222-02	Soil	07/08/22 11:05	07/08/22 17:25
070822-N-6.8	A2G0222-03	Soil	07/08/22 11:19	07/08/22 17:25

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0222 - 07 12 22 1430
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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
070822-S-7.6 (A2G0222-01)			Matrix: Soil		Batch: 22G0241			
Diesel	238	---	28.1	mg/kg dry	1	07/12/22 01:23	NWTPH-Dx	
Oil	ND	---	56.2	mg/kg dry	1	07/12/22 01:23	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 82 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>07/12/22 01:23</i>	<i>NWTPH-Dx</i>
070822-NE-7.0 (A2G0222-02)			Matrix: Soil		Batch: 22G0241			
Diesel	837	---	27.8	mg/kg dry	1	07/12/22 01:44	NWTPH-Dx	F-20
Oil	ND	---	55.6	mg/kg dry	1	07/12/22 01:44	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 93 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>07/12/22 01:44</i>	<i>NWTPH-Dx</i>
070822-N-6.8 (A2G0222-03)			Matrix: Soil		Batch: 22G0241			
Diesel	270	---	27.2	mg/kg dry	1	07/12/22 02:05	NWTPH-Dx	
Oil	ND	---	54.4	mg/kg dry	1	07/12/22 02:05	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 91 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>07/12/22 02:05</i>	<i>NWTPH-Dx</i>

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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
070822-S-7.6 (A2G0222-01RE1)			Matrix: Soil		Batch: 22G0250			
Gasoline Range Organics	306	---	8.71	mg/kg dry	50	07/11/22 22:27	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>			<i>Recovery: 117 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>07/11/22 22:27</i>	<i>NWTPH-Gx (MS)</i>	
<i>1,4-Difluorobenzene (Sur)</i>			<i>108 %</i>	<i>50-150 %</i>	<i>1</i>	<i>07/11/22 22:27</i>	<i>NWTPH-Gx (MS)</i>	
070822-NE-7.0 (A2G0222-02)			Matrix: Soil		Batch: 22G0250			
Gasoline Range Organics	2310	---	83.4	mg/kg dry	500	07/11/22 13:54	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>			<i>Recovery: 109 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>07/11/22 13:54</i>	<i>NWTPH-Gx (MS)</i>	
<i>1,4-Difluorobenzene (Sur)</i>			<i>103 %</i>	<i>50-150 %</i>	<i>1</i>	<i>07/11/22 13:54</i>	<i>NWTPH-Gx (MS)</i>	
070822-N-6.8 (A2G0222-03)			Matrix: Soil		Batch: 22G0250			
Gasoline Range Organics	ND	---	7.77	mg/kg dry	50	07/11/22 14:21	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>			<i>Recovery: 117 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>07/11/22 14:21</i>	<i>NWTPH-Gx (MS)</i>	
<i>1,4-Difluorobenzene (Sur)</i>			<i>102 %</i>	<i>50-150 %</i>	<i>1</i>	<i>07/11/22 14:21</i>	<i>NWTPH-Gx (MS)</i>	

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Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0222 - 07 12 22 1430
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ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
070822-S-7.6 (A2G0222-01RE1)				Matrix: Soil		Batch: 22G0250		
Acetone	ND	---	1740	ug/kg dry	50	07/11/22 22:27	5035A/8260D	ICV-02
Acrylonitrile	ND	---	174	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Benzene	ND	---	17.4	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Bromobenzene	ND	---	43.6	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Bromochloromethane	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Bromodichloromethane	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Bromoform	ND	---	174	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Bromomethane	ND	---	871	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
2-Butanone (MEK)	ND	---	871	ug/kg dry	50	07/11/22 22:27	5035A/8260D	ICV-02
n-Butylbenzene	169	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
sec-Butylbenzene	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
tert-Butylbenzene	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Carbon disulfide	ND	---	871	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Carbon tetrachloride	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Chlorobenzene	ND	---	43.6	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Chloroethane	ND	---	871	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Chloroform	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Chloromethane	ND	---	436	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
2-Chlorotoluene	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
4-Chlorotoluene	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Dibromochloromethane	ND	---	174	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	---	436	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Dibromomethane	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
1,2-Dichlorobenzene	ND	---	43.6	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
1,3-Dichlorobenzene	ND	---	43.6	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
1,4-Dichlorobenzene	ND	---	43.6	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Dichlorodifluoromethane	ND	---	174	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
1,1-Dichloroethane	ND	---	43.6	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	43.6	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
1,1-Dichloroethene	ND	---	43.6	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
cis-1,2-Dichloroethene	ND	---	43.6	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
trans-1,2-Dichloroethene	ND	---	43.6	ug/kg dry	50	07/11/22 22:27	5035A/8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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 503-718-2323
 ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0222 - 07 12 22 1430
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ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
070822-S-7.6 (A2G0222-01RE1)				Matrix: Soil		Batch: 22G0250		
1,2-Dichloropropane	ND	---	43.6	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
1,3-Dichloropropane	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
2,2-Dichloropropane	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
1,1-Dichloropropene	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
cis-1,3-Dichloropropene	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
trans-1,3-Dichloropropene	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Ethylbenzene	ND	---	43.6	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Hexachlorobutadiene	ND	---	174	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
2-Hexanone	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Isopropylbenzene	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
4-Isopropyltoluene	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Methylene chloride	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
4-Methyl-2-pentanone (MIBK)	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Naphthalene	ND	---	174	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
n-Propylbenzene	79.3	---	43.6	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Styrene	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	---	43.6	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Tetrachloroethene (PCE)	ND	---	43.6	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Toluene	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
1,2,3-Trichlorobenzene	ND	---	436	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
1,2,4-Trichlorobenzene	ND	---	436	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
1,1,1-Trichloroethane	ND	---	43.6	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
1,1,2-Trichloroethane	ND	---	43.6	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Trichloroethene (TCE)	ND	---	43.6	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Trichlorofluoromethane	ND	---	174	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
1,2,3-Trichloropropane	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
Vinyl chloride	ND	---	43.6	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
m,p-Xylene	ND	---	87.1	ug/kg dry	50	07/11/22 22:27	5035A/8260D	
o-Xylene	ND	---	43.6	ug/kg dry	50	07/11/22 22:27	5035A/8260D	

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Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0222 - 07 12 22 1430
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ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
070822-S-7.6 (A2G0222-01RE1)				Matrix: Soil		Batch: 22G0250		
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 105 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>07/11/22 22:27</i>	<i>5035A/8260D</i>	
<i>Toluene-d8 (Surr)</i>				<i>96 %</i>	<i>80-120 %</i>	<i>1</i>	<i>07/11/22 22:27</i>	<i>5035A/8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>				<i>101 %</i>	<i>79-120 %</i>	<i>1</i>	<i>07/11/22 22:27</i>	<i>5035A/8260D</i>
070822-NE-7.0 (A2G0222-02)				Matrix: Soil		Batch: 22G0250		
Acetone	ND	---	16700	ug/kg dry	500	07/11/22 13:54	5035A/8260D	ICV-02
Acrylonitrile	ND	---	1670	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Benzene	ND	---	167	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Bromobenzene	ND	---	417	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Bromochloromethane	ND	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Bromodichloromethane	ND	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Bromoform	ND	---	1670	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Bromomethane	ND	---	8340	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
2-Butanone (MEK)	ND	---	8340	ug/kg dry	500	07/11/22 13:54	5035A/8260D	ICV-02
n-Butylbenzene	4380	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
sec-Butylbenzene	1460	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	Q-54
tert-Butylbenzene	ND	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Carbon disulfide	ND	---	8340	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Carbon tetrachloride	ND	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Chlorobenzene	ND	---	417	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Chloroethane	ND	---	8340	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Chloroform	ND	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Chloromethane	ND	---	4170	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
2-Chlorotoluene	ND	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
4-Chlorotoluene	ND	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Dibromochloromethane	ND	---	1670	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	---	4170	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Dibromomethane	ND	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
1,2-Dichlorobenzene	ND	---	417	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
1,3-Dichlorobenzene	ND	---	417	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
1,4-Dichlorobenzene	ND	---	417	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Dichlorodifluoromethane	ND	---	1670	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
1,1-Dichloroethane	ND	---	417	ug/kg dry	500	07/11/22 13:54	5035A/8260D	

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ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
070822-NE-7.0 (A2G0222-02)				Matrix: Soil		Batch: 22G0250		
1,2-Dichloroethane (EDC)	ND	---	417	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
1,1-Dichloroethene	ND	---	417	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
cis-1,2-Dichloroethene	ND	---	417	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
trans-1,2-Dichloroethene	ND	---	417	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
1,2-Dichloropropane	ND	---	417	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
1,3-Dichloropropane	ND	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
2,2-Dichloropropane	ND	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
1,1-Dichloropropene	ND	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
cis-1,3-Dichloropropene	ND	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
trans-1,3-Dichloropropene	ND	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Ethylbenzene	ND	---	417	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Hexachlorobutadiene	ND	---	1670	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
2-Hexanone	ND	---	8340	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Isopropylbenzene	ND	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
4-Isopropyltoluene	ND	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Methylene chloride	ND	---	8340	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
4-Methyl-2-pentanone (MIBK)	ND	---	13300	ug/kg dry	500	07/11/22 13:54	5035A/8260D	R-02
Methyl tert-butyl ether (MTBE)	ND	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Naphthalene	ND	---	1670	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
n-Propylbenzene	3040	---	417	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Styrene	ND	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	---	417	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Tetrachloroethene (PCE)	ND	---	417	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Toluene	ND	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
1,2,3-Trichlorobenzene	ND	---	4170	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
1,2,4-Trichlorobenzene	ND	---	4170	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
1,1,1-Trichloroethane	ND	---	417	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
1,1,2-Trichloroethane	ND	---	417	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Trichloroethene (TCE)	ND	---	417	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Trichlorofluoromethane	ND	---	1670	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
1,2,3-Trichloropropane	ND	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0222 - 07 12 22 1430

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
070822-NE-7.0 (A2G0222-02)				Matrix: Soil		Batch: 22G0250		
1,3,5-Trimethylbenzene	ND	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
Vinyl chloride	ND	---	417	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
m,p-Xylene	ND	---	834	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
o-Xylene	ND	---	417	ug/kg dry	500	07/11/22 13:54	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 105 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>07/11/22 13:54</i>	<i>5035A/8260D</i>
<i>Toluene-d8 (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>		<i>1</i>	<i>07/11/22 13:54</i>	<i>5035A/8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>		<i>104 %</i>		<i>79-120 %</i>		<i>1</i>	<i>07/11/22 13:54</i>	<i>5035A/8260D</i>
070822-N-6.8 (A2G0222-03)				Matrix: Soil		Batch: 22G0250		
Acetone	ND	---	1550	ug/kg dry	50	07/11/22 14:21	5035A/8260D	ICV-02
Acrylonitrile	ND	---	155	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Benzene	ND	---	15.5	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Bromobenzene	ND	---	38.9	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Bromochloromethane	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Bromodichloromethane	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Bromoform	ND	---	155	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Bromomethane	ND	---	777	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
2-Butanone (MEK)	ND	---	777	ug/kg dry	50	07/11/22 14:21	5035A/8260D	ICV-02
n-Butylbenzene	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
sec-Butylbenzene	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
tert-Butylbenzene	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Carbon disulfide	ND	---	777	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Carbon tetrachloride	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Chlorobenzene	ND	---	38.9	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Chloroethane	ND	---	777	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Chloroform	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Chloromethane	ND	---	389	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
2-Chlorotoluene	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
4-Chlorotoluene	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Dibromochloromethane	ND	---	155	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	---	389	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Dibromomethane	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
1,2-Dichlorobenzene	ND	---	38.9	ug/kg dry	50	07/11/22 14:21	5035A/8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0222 - 07 12 22 1430
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ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
070822-N-6.8 (A2G0222-03)				Matrix: Soil		Batch: 22G0250		
1,3-Dichlorobenzene	ND	---	38.9	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
1,4-Dichlorobenzene	ND	---	38.9	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Dichlorodifluoromethane	ND	---	155	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
1,1-Dichloroethane	ND	---	38.9	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	38.9	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
1,1-Dichloroethene	ND	---	38.9	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
cis-1,2-Dichloroethene	ND	---	38.9	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
trans-1,2-Dichloroethene	ND	---	38.9	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
1,2-Dichloropropane	ND	---	38.9	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
1,3-Dichloropropane	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
2,2-Dichloropropane	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
1,1-Dichloropropene	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
cis-1,3-Dichloropropene	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
trans-1,3-Dichloropropene	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Ethylbenzene	ND	---	38.9	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Hexachlorobutadiene	ND	---	155	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
2-Hexanone	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Isopropylbenzene	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
4-Isopropyltoluene	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Methylene chloride	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Naphthalene	ND	---	155	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
n-Propylbenzene	ND	---	38.9	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Styrene	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	---	38.9	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Tetrachloroethene (PCE)	ND	---	38.9	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Toluene	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
1,2,3-Trichlorobenzene	ND	---	389	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
1,2,4-Trichlorobenzene	ND	---	389	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
1,1,1-Trichloroethane	ND	---	38.9	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
1,1,2-Trichloroethane	ND	---	38.9	ug/kg dry	50	07/11/22 14:21	5035A/8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0222 - 07 12 22 1430
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ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
070822-N-6.8 (A2G0222-03)				Matrix: Soil		Batch: 22G0250		
Trichloroethene (TCE)	ND	---	38.9	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Trichlorofluoromethane	ND	---	155	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
1,2,3-Trichloropropane	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
Vinyl chloride	ND	---	38.9	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
m,p-Xylene	ND	---	77.7	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
o-Xylene	ND	---	38.9	ug/kg dry	50	07/11/22 14:21	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>			<i>Recovery: 106 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>07/11/22 14:21</i>	<i>5035A/8260D</i>	
<i>Toluene-d8 (Surr)</i>			<i>94 %</i>	<i>80-120 %</i>	<i>1</i>	<i>07/11/22 14:21</i>	<i>5035A/8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>			<i>101 %</i>	<i>79-120 %</i>	<i>1</i>	<i>07/11/22 14:21</i>	<i>5035A/8260D</i>	

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503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0222 - 07 12 22 1430
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ANALYTICAL SAMPLE RESULTS

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

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
070822-S-7.6 (A2G0222-01)				Matrix: Soil		Batch: 22G0247		
Acenaphthene	ND	---	14.0	ug/kg dry	1	07/11/22 17:05	EPA 8270E SIM	
Acenaphthylene	ND	---	14.0	ug/kg dry	1	07/11/22 17:05	EPA 8270E SIM	
Anthracene	ND	---	25.2	ug/kg dry	1	07/11/22 17:05	EPA 8270E SIM	R-02
Benz(a)anthracene	ND	---	14.0	ug/kg dry	1	07/11/22 17:05	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	14.0	ug/kg dry	1	07/11/22 17:05	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	14.0	ug/kg dry	1	07/11/22 17:05	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	14.0	ug/kg dry	1	07/11/22 17:05	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	14.0	ug/kg dry	1	07/11/22 17:05	EPA 8270E SIM	
Chrysene	ND	---	14.0	ug/kg dry	1	07/11/22 17:05	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	14.0	ug/kg dry	1	07/11/22 17:05	EPA 8270E SIM	
Fluoranthene	ND	---	14.0	ug/kg dry	1	07/11/22 17:05	EPA 8270E SIM	
Fluorene	20.6	---	14.0	ug/kg dry	1	07/11/22 17:05	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	14.0	ug/kg dry	1	07/11/22 17:05	EPA 8270E SIM	
1-Methylnaphthalene	40.9	---	14.0	ug/kg dry	1	07/11/22 17:05	EPA 8270E SIM	
2-Methylnaphthalene	51.1	---	14.0	ug/kg dry	1	07/11/22 17:05	EPA 8270E SIM	
Naphthalene	ND	---	28.0	ug/kg dry	1	07/11/22 17:05	EPA 8270E SIM	R-02
Phenanthrene	36.7	---	14.0	ug/kg dry	1	07/11/22 17:05	EPA 8270E SIM	
Pyrene	ND	---	14.0	ug/kg dry	1	07/11/22 17:05	EPA 8270E SIM	
Dibenzofuran	ND	---	14.0	ug/kg dry	1	07/11/22 17:05	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 70 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>	<i>07/11/22 17:05</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>72 %</i>		<i>54-127 %</i>		<i>1</i>	<i>07/11/22 17:05</i>	<i>EPA 8270E SIM</i>

070822-NE-7.0 (A2G0222-02)				Matrix: Soil		Batch: 22G0247		
Acenaphthene	ND	---	62.4	ug/kg dry	1	07/11/22 17:31	EPA 8270E SIM	R-02
Acenaphthylene	ND	---	27.1	ug/kg dry	1	07/11/22 17:31	EPA 8270E SIM	R-02
Anthracene	ND	---	25.8	ug/kg dry	1	07/11/22 17:31	EPA 8270E SIM	R-02
Benz(a)anthracene	ND	---	13.6	ug/kg dry	1	07/11/22 17:31	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	13.6	ug/kg dry	1	07/11/22 17:31	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	13.6	ug/kg dry	1	07/11/22 17:31	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	13.6	ug/kg dry	1	07/11/22 17:31	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	13.6	ug/kg dry	1	07/11/22 17:31	EPA 8270E SIM	
Chrysene	ND	---	13.6	ug/kg dry	1	07/11/22 17:31	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	13.6	ug/kg dry	1	07/11/22 17:31	EPA 8270E SIM	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0222 - 07 12 22 1430
--	---	---

ANALYTICAL SAMPLE RESULTS

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

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
070822-NE-7.0 (A2G0222-02)			Matrix: Soil		Batch: 22G0247			
Fluoranthene	ND	---	13.6	ug/kg dry	1	07/11/22 17:31	EPA 8270E SIM	
Fluorene	184	---	13.6	ug/kg dry	1	07/11/22 17:31	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	13.6	ug/kg dry	1	07/11/22 17:31	EPA 8270E SIM	
1-Methylnaphthalene	1510	---	13.6	ug/kg dry	1	07/11/22 17:31	EPA 8270E SIM	
2-Methylnaphthalene	1650	---	13.6	ug/kg dry	1	07/11/22 17:31	EPA 8270E SIM	
Naphthalene	ND	---	160	ug/kg dry	1	07/11/22 17:31	EPA 8270E SIM	R-02
Phenanthrene	208	---	13.6	ug/kg dry	1	07/11/22 17:31	EPA 8270E SIM	
Pyrene	ND	---	13.6	ug/kg dry	1	07/11/22 17:31	EPA 8270E SIM	
Dibenzofuran	ND	---	54.3	ug/kg dry	1	07/11/22 17:31	EPA 8270E SIM	R-02
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 68 %</i>		<i>Limits: 44-120 %</i>	<i>1</i>	<i>07/11/22 17:31</i>	<i>EPA 8270E SIM</i>	
<i>p-Terphenyl-d14 (Surr)</i>		<i>75 %</i>		<i>54-127 %</i>	<i>1</i>	<i>07/11/22 17:31</i>	<i>EPA 8270E SIM</i>	
070822-N-6.8 (A2G0222-03)			Matrix: Soil		Batch: 22G0247			
Acenaphthene	ND	---	13.6	ug/kg dry	1	07/11/22 16:14	EPA 8270E SIM	
Acenaphthylene	ND	---	13.6	ug/kg dry	1	07/11/22 16:14	EPA 8270E SIM	
Anthracene	ND	---	13.6	ug/kg dry	1	07/11/22 16:14	EPA 8270E SIM	
Benz(a)anthracene	ND	---	13.6	ug/kg dry	1	07/11/22 16:14	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	13.6	ug/kg dry	1	07/11/22 16:14	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	13.6	ug/kg dry	1	07/11/22 16:14	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	13.6	ug/kg dry	1	07/11/22 16:14	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	13.6	ug/kg dry	1	07/11/22 16:14	EPA 8270E SIM	
Chrysene	ND	---	13.6	ug/kg dry	1	07/11/22 16:14	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	13.6	ug/kg dry	1	07/11/22 16:14	EPA 8270E SIM	
Fluoranthene	ND	---	13.6	ug/kg dry	1	07/11/22 16:14	EPA 8270E SIM	
Fluorene	ND	---	13.6	ug/kg dry	1	07/11/22 16:14	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	13.6	ug/kg dry	1	07/11/22 16:14	EPA 8270E SIM	
1-Methylnaphthalene	ND	---	13.6	ug/kg dry	1	07/11/22 16:14	EPA 8270E SIM	
2-Methylnaphthalene	ND	---	13.6	ug/kg dry	1	07/11/22 16:14	EPA 8270E SIM	
Naphthalene	ND	---	13.6	ug/kg dry	1	07/11/22 16:14	EPA 8270E SIM	
Phenanthrene	ND	---	13.6	ug/kg dry	1	07/11/22 16:14	EPA 8270E SIM	
Pyrene	ND	---	13.6	ug/kg dry	1	07/11/22 16:14	EPA 8270E SIM	
Dibenzofuran	ND	---	13.6	ug/kg dry	1	07/11/22 16:14	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 66 %</i>		<i>Limits: 44-120 %</i>	<i>1</i>	<i>07/11/22 16:14</i>	<i>EPA 8270E SIM</i>	

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

<u>Maul Foster & Alongi, INC.</u> 3140 NE Broadway Street Portland, OR 97232	Project: <u>Les Schwab Springfield</u> Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0222 - 07 12 22 1430
---	--	---

ANALYTICAL SAMPLE RESULTS

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

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
070822-N-6.8 (A2G0222-03)				Matrix: Soil		Batch: 22G0247		
<i>Surrogate: p-Terphenyl-d14 (Surr)</i>		<i>Recovery: 73 %</i>		<i>Limits: 54-127 %</i>		<i>1</i>	<i>07/11/22 16:14</i>	<i>EPA 8270E SIM</i>

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--	---	---

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight									
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
070822-S-7.6 (A2G0222-01)				Matrix: Soil		Batch: 22G0278			
% Solids	70.2	---	1.00	%	1	07/12/22 08:01	EPA 8000D		
070822-NE-7.0 (A2G0222-02)				Matrix: Soil		Batch: 22G0278			
% Solids	70.3	---	1.00	%	1	07/12/22 08:01	EPA 8000D		
070822-N-6.8 (A2G0222-03)				Matrix: Soil		Batch: 22G0278			
% Solids	72.1	---	1.00	%	1	07/12/22 08:01	EPA 8000D		

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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 22G0241 - EPA 3546 (Fuels)						Soil						
Blank (22G0241-BLK1)			Prepared: 07/11/22 04:56 Analyzed: 07/11/22 07:22									
<u>NWTPH-Dx</u>												
Diesel	ND	---	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	50.0	mg/kg wet	1	---	---	---	---	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 80 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
LCS (22G0241-BS1)			Prepared: 07/11/22 04:56 Analyzed: 07/11/22 07:43									
<u>NWTPH-Dx</u>												
Diesel	84.2	---	25.0	mg/kg wet	1	125	---	67	38-132%	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 72 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
Duplicate (22G0241-DUP1)			Prepared: 07/11/22 04:56 Analyzed: 07/11/22 08:24									
<u>QC Source Sample: Non-SDG (A2G0216-01)</u>												
Diesel	ND	---	25.0	mg/kg dry	1	---	ND	---	---	---	30%	
Oil	ND	---	50.0	mg/kg dry	1	---	33.1	---	---	***	30%	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 73 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
Duplicate (22G0241-DUP2)			Prepared: 07/11/22 04:56 Analyzed: 07/11/22 10:29									
<u>QC Source Sample: Non-SDG (A2G0220-02)</u>												
Diesel	ND	---	21.4	mg/kg dry	1	---	ND	---	---	---	30%	
Oil	ND	---	42.8	mg/kg dry	1	---	ND	---	---	---	30%	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 94 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						

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Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0222 - 07 12 22 1430
--	---	---

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 22G0250 - EPA 5035A						Soil						
Blank (22G0250-BLK1)			Prepared: 07/11/22 08:00 Analyzed: 07/11/22 12:06									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	---	3.33	mg/kg wet	50	---	---	---	---	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 102 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>107 %</i>		<i>50-150 %</i>		<i>"</i>						
LCS (22G0250-BS2)			Prepared: 07/11/22 08:00 Analyzed: 07/11/22 10:41									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	26.9	---	5.00	mg/kg wet	50	25.0	---	108	80-120%	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 110 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>105 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (22G0250-DUP1)			Prepared: 07/05/22 13:30 Analyzed: 07/11/22 15:42									
<u>QC Source Sample: Non-SDG (A2G0174-01)</u>												
Gasoline Range Organics	ND	---	7.03	mg/kg dry	50	---	ND	---	---	---	30%	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 112 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>103 %</i>		<i>50-150 %</i>		<i>"</i>						

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3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0222 - 07 12 22 1430

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0250 - EPA 5035A						Soil						
Blank (22G0250-BLK1)			Prepared: 07/11/22 08:00 Analyzed: 07/11/22 12:06									
<u>5035A/8260D</u>												
Acetone	ND	---	667	ug/kg wet	50	---	---	---	---	---	---	ICV-02
Acrylonitrile	ND	---	66.7	ug/kg wet	50	---	---	---	---	---	---	
Benzene	ND	---	6.67	ug/kg wet	50	---	---	---	---	---	---	
Bromobenzene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Bromochloromethane	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Bromodichloromethane	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Bromoform	ND	---	66.7	ug/kg wet	50	---	---	---	---	---	---	
Bromomethane	ND	---	333	ug/kg wet	50	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	333	ug/kg wet	50	---	---	---	---	---	---	ICV-02
n-Butylbenzene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Carbon disulfide	ND	---	333	ug/kg wet	50	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Chlorobenzene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Chloroethane	ND	---	333	ug/kg wet	50	---	---	---	---	---	---	
Chloroform	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Chloromethane	ND	---	167	ug/kg wet	50	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Dibromochloromethane	ND	---	66.7	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	167	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Dibromomethane	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	66.7	ug/kg wet	50	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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ORELAP ID: OR100062

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3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0222 - 07 12 22 1430

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0250 - EPA 5035A						Soil						
Blank (22G0250-BLK1)			Prepared: 07/11/22 08:00 Analyzed: 07/11/22 12:06									
1,2-Dichloropropane	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	66.7	ug/kg wet	50	---	---	---	---	---	---	
2-Hexanone	ND	---	333	ug/kg wet	50	---	---	---	---	---	---	
Isopropylbenzene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Methylene chloride	ND	---	333	ug/kg wet	50	---	---	---	---	---	---	B-02
4-Methyl-2-pentanone (MiBK)	ND	---	333	ug/kg wet	50	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	---	66.7	ug/kg wet	50	---	---	---	---	---	---	
n-Propylbenzene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Styrene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Toluene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	167	ug/kg wet	50	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	167	ug/kg wet	50	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	66.7	ug/kg wet	50	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Vinyl chloride	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
m,p-Xylene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
o-Xylene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	

Surr: 1,4-Difluorobenzene (Surr) Recovery: 105 % Limits: 80-120 % Dilution: 1x

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0250 - EPA 5035A						Soil						
Blank (22G0250-BLK1)						Prepared: 07/11/22 08:00 Analyzed: 07/11/22 12:06						
<i>Surr: Toluene-d8 (Surr)</i>		<i>Recovery: 100 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>98 %</i>		<i>79-120 %</i>		<i>"</i>						
LCS (22G0250-BS1)						Prepared: 07/11/22 08:00 Analyzed: 07/11/22 11:08						
5035A/8260D												
Acetone	1650	---	1000	ug/kg wet	50	2000	---	82	80-120%	---	---	ICV-02
Acrylonitrile	1120	---	100	ug/kg wet	50	1000	---	112	80-120%	---	---	
Benzene	1060	---	10.0	ug/kg wet	50	1000	---	106	80-120%	---	---	
Bromobenzene	1060	---	25.0	ug/kg wet	50	1000	---	106	80-120%	---	---	
Bromochloromethane	1130	---	50.0	ug/kg wet	50	1000	---	113	80-120%	---	---	
Bromodichloromethane	1080	---	50.0	ug/kg wet	50	1000	---	108	80-120%	---	---	
Bromoform	986	---	100	ug/kg wet	50	1000	---	99	80-120%	---	---	
Bromomethane	1130	---	500	ug/kg wet	50	1000	---	113	80-120%	---	---	
2-Butanone (MEK)	1860	---	500	ug/kg wet	50	2000	---	93	80-120%	---	---	ICV-02
n-Butylbenzene	1160	---	50.0	ug/kg wet	50	1000	---	116	80-120%	---	---	
sec-Butylbenzene	1210	---	50.0	ug/kg wet	50	1000	---	121	80-120%	---	---	Q-56
tert-Butylbenzene	1120	---	50.0	ug/kg wet	50	1000	---	112	80-120%	---	---	
Carbon disulfide	1170	---	500	ug/kg wet	50	1000	---	117	80-120%	---	---	
Carbon tetrachloride	1290	---	50.0	ug/kg wet	50	1000	---	129	80-120%	---	---	Q-56
Chlorobenzene	988	---	25.0	ug/kg wet	50	1000	---	99	80-120%	---	---	
Chloroethane	1080	---	500	ug/kg wet	50	1000	---	108	80-120%	---	---	
Chloroform	1120	---	50.0	ug/kg wet	50	1000	---	112	80-120%	---	---	
Chloromethane	1060	---	250	ug/kg wet	50	1000	---	106	80-120%	---	---	
2-Chlorotoluene	1070	---	50.0	ug/kg wet	50	1000	---	107	80-120%	---	---	
4-Chlorotoluene	1090	---	50.0	ug/kg wet	50	1000	---	109	80-120%	---	---	
Dibromochloromethane	979	---	100	ug/kg wet	50	1000	---	98	80-120%	---	---	
1,2-Dibromo-3-chloropropane	925	---	250	ug/kg wet	50	1000	---	92	80-120%	---	---	
1,2-Dibromoethane (EDB)	1090	---	50.0	ug/kg wet	50	1000	---	109	80-120%	---	---	
Dibromomethane	1130	---	50.0	ug/kg wet	50	1000	---	113	80-120%	---	---	
1,2-Dichlorobenzene	1030	---	25.0	ug/kg wet	50	1000	---	103	80-120%	---	---	
1,3-Dichlorobenzene	1050	---	25.0	ug/kg wet	50	1000	---	105	80-120%	---	---	
1,4-Dichlorobenzene	1010	---	25.0	ug/kg wet	50	1000	---	101	80-120%	---	---	
Dichlorodifluoromethane	1190	---	100	ug/kg wet	50	1000	---	119	80-120%	---	---	ICV-01
1,1-Dichloroethane	1030	---	25.0	ug/kg wet	50	1000	---	103	80-120%	---	---	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0250 - EPA 5035A						Soil						
LCS (22G0250-BS1)			Prepared: 07/11/22 08:00 Analyzed: 07/11/22 11:08									
1,2-Dichloroethane (EDC)	1100	---	25.0	ug/kg wet	50	1000	---	110	80-120%	---	---	
1,1-Dichloroethene	1150	---	25.0	ug/kg wet	50	1000	---	115	80-120%	---	---	
cis-1,2-Dichloroethene	1090	---	25.0	ug/kg wet	50	1000	---	109	80-120%	---	---	
trans-1,2-Dichloroethene	1090	---	25.0	ug/kg wet	50	1000	---	109	80-120%	---	---	
1,2-Dichloropropane	1110	---	25.0	ug/kg wet	50	1000	---	111	80-120%	---	---	
1,3-Dichloropropane	1040	---	50.0	ug/kg wet	50	1000	---	104	80-120%	---	---	
2,2-Dichloropropane	1230	---	50.0	ug/kg wet	50	1000	---	123	80-120%	---	---	Q-56
1,1-Dichloropropene	1150	---	50.0	ug/kg wet	50	1000	---	115	80-120%	---	---	
cis-1,3-Dichloropropene	993	---	50.0	ug/kg wet	50	1000	---	99	80-120%	---	---	
trans-1,3-Dichloropropene	995	---	50.0	ug/kg wet	50	1000	---	100	80-120%	---	---	
Ethylbenzene	1040	---	25.0	ug/kg wet	50	1000	---	104	80-120%	---	---	
Hexachlorobutadiene	1050	---	100	ug/kg wet	50	1000	---	105	80-120%	---	---	
2-Hexanone	1720	---	500	ug/kg wet	50	2000	---	86	80-120%	---	---	
Isopropylbenzene	1110	---	50.0	ug/kg wet	50	1000	---	111	80-120%	---	---	
4-Isopropyltoluene	1190	---	50.0	ug/kg wet	50	1000	---	119	80-120%	---	---	
Methylene chloride	1220	---	500	ug/kg wet	50	1000	---	122	80-120%	---	---	B-02, Q-56
4-Methyl-2-pentanone (MiBK)	2170	---	500	ug/kg wet	50	2000	---	108	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	1070	---	50.0	ug/kg wet	50	1000	---	107	80-120%	---	---	
Naphthalene	874	---	100	ug/kg wet	50	1000	---	87	80-120%	---	---	
n-Propylbenzene	1130	---	25.0	ug/kg wet	50	1000	---	113	80-120%	---	---	
Styrene	1190	---	50.0	ug/kg wet	50	1000	---	119	80-120%	---	---	
1,1,1,2-Tetrachloroethane	1170	---	25.0	ug/kg wet	50	1000	---	117	80-120%	---	---	
1,1,2,2-Tetrachloroethane	1090	---	50.0	ug/kg wet	50	1000	---	109	80-120%	---	---	
Tetrachloroethene (PCE)	1040	---	25.0	ug/kg wet	50	1000	---	104	80-120%	---	---	
Toluene	984	---	50.0	ug/kg wet	50	1000	---	98	80-120%	---	---	
1,2,3-Trichlorobenzene	1010	---	250	ug/kg wet	50	1000	---	101	80-120%	---	---	
1,2,4-Trichlorobenzene	966	---	250	ug/kg wet	50	1000	---	97	80-120%	---	---	
1,1,1-Trichloroethane	1180	---	25.0	ug/kg wet	50	1000	---	118	80-120%	---	---	
1,1,2-Trichloroethane	1060	---	25.0	ug/kg wet	50	1000	---	106	80-120%	---	---	
Trichloroethene (TCE)	1050	---	25.0	ug/kg wet	50	1000	---	105	80-120%	---	---	
Trichlorofluoromethane	1220	---	100	ug/kg wet	50	1000	---	122	80-120%	---	---	Q-56
1,2,3-Trichloropropane	1100	---	50.0	ug/kg wet	50	1000	---	110	80-120%	---	---	
1,2,4-Trimethylbenzene	1190	---	50.0	ug/kg wet	50	1000	---	119	80-120%	---	---	
1,3,5-Trimethylbenzene	1180	---	50.0	ug/kg wet	50	1000	---	118	80-120%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0222 - 07 12 22 1430

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0250 - EPA 5035A						Soil						
LCS (22G0250-BS1)			Prepared: 07/11/22 08:00 Analyzed: 07/11/22 11:08									
Vinyl chloride	1140	---	25.0	ug/kg wet	50	1000	---	114	80-120%	---	---	
m,p-Xylene	2120	---	50.0	ug/kg wet	50	2000	---	106	80-120%	---	---	
o-Xylene	1030	---	25.0	ug/kg wet	50	1000	---	103	80-120%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 103 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>100 %</i>		<i>79-120 %</i>		<i>"</i>						
Duplicate (22G0250-DUP1)						Prepared: 07/05/22 13:30 Analyzed: 07/11/22 15:42						
QC Source Sample: Non-SDG (A2G0174-01)												
Acetone	ND	---	1410	ug/kg dry	50	---	ND	---	---	---	30%	ICV-02
Acrylonitrile	ND	---	141	ug/kg dry	50	---	ND	---	---	---	30%	
Benzene	ND	---	14.1	ug/kg dry	50	---	ND	---	---	---	30%	
Bromobenzene	ND	---	35.1	ug/kg dry	50	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
Bromoform	ND	---	141	ug/kg dry	50	---	ND	---	---	---	30%	
Bromomethane	ND	---	703	ug/kg dry	50	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	---	703	ug/kg dry	50	---	ND	---	---	---	30%	ICV-02
n-Butylbenzene	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
Carbon disulfide	ND	---	703	ug/kg dry	50	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	35.1	ug/kg dry	50	---	ND	---	---	---	30%	
Chloroethane	ND	---	703	ug/kg dry	50	---	ND	---	---	---	30%	
Chloroform	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
Chloromethane	ND	---	351	ug/kg dry	50	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	141	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	351	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
Dibromomethane	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	35.1	ug/kg dry	50	---	ND	---	---	---	30%	

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0222 - 07 12 22 1430
--	---	---

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0250 - EPA 5035A						Soil						
Duplicate (22G0250-DUP1)			Prepared: 07/05/22 13:30 Analyzed: 07/11/22 15:42									
QC Source Sample: Non-SDG (A2G0174-01)												
1,3-Dichlorobenzene	ND	---	35.1	ug/kg dry	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	35.1	ug/kg dry	50	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	141	ug/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	35.1	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	35.1	ug/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	35.1	ug/kg dry	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	35.1	ug/kg dry	50	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	35.1	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	35.1	ug/kg dry	50	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	35.1	ug/kg dry	50	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	141	ug/kg dry	50	---	ND	---	---	---	30%	
2-Hexanone	ND	---	703	ug/kg dry	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
Methylene chloride	ND	---	703	ug/kg dry	50	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	---	703	ug/kg dry	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	ND	---	141	ug/kg dry	50	---	ND	---	---	---	30%	
n-Propylbenzene	ND	---	35.1	ug/kg dry	50	---	ND	---	---	---	30%	
Styrene	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	35.1	ug/kg dry	50	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	35.1	ug/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	351	ug/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	351	ug/kg dry	50	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	35.1	ug/kg dry	50	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	35.1	ug/kg dry	50	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0222 - 07 12 22 1430

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0250 - EPA 5035A						Soil						
Duplicate (22G0250-DUP1)			Prepared: 07/05/22 13:30 Analyzed: 07/11/22 15:42									
QC Source Sample: Non-SDG (A2G0174-01)												
Trichloroethene (TCE)	ND	---	35.1	ug/kg dry	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	141	ug/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	35.1	ug/kg dry	50	---	ND	---	---	---	30%	
m,p-Xylene	ND	---	70.3	ug/kg dry	50	---	ND	---	---	---	30%	
o-Xylene	ND	---	35.1	ug/kg dry	50	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 107 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>95 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>102 %</i>		<i>79-120 %</i>		<i>"</i>						

Matrix Spike (22G0250-MS1)						Prepared: 07/08/22 16:35 Analyzed: 07/11/22 21:33						V-15
QC Source Sample: Non-SDG (A2G0209-45)												
5035A/8260D												
Acetone	1600	---	1140	ug/kg dry	50	2270	ND	70	36-164%	---	---	ICV-02
Acrylonitrile	1420	---	114	ug/kg dry	50	1140	ND	125	65-134%	---	---	
Benzene	1370	---	11.4	ug/kg dry	50	1140	ND	121	77-121%	---	---	
Bromobenzene	1300	---	28.4	ug/kg dry	50	1140	ND	115	78-121%	---	---	
Bromochloromethane	1430	---	56.8	ug/kg dry	50	1140	ND	126	78-125%	---	---	Q-01
Bromodichloromethane	1350	---	56.8	ug/kg dry	50	1140	ND	119	75-127%	---	---	
Bromoform	1170	---	114	ug/kg dry	50	1140	ND	103	67-132%	---	---	
Bromomethane	1560	---	568	ug/kg dry	50	1140	ND	138	53-143%	---	---	
2-Butanone (MEK)	2020	---	568	ug/kg dry	50	2270	ND	89	51-148%	---	---	ICV-02
n-Butylbenzene	1380	---	56.8	ug/kg dry	50	1140	ND	122	70-128%	---	---	
sec-Butylbenzene	1460	---	56.8	ug/kg dry	50	1140	ND	128	73-126%	---	---	Q-54
tert-Butylbenzene	1380	---	56.8	ug/kg dry	50	1140	ND	122	73-125%	---	---	
Carbon disulfide	1510	---	568	ug/kg dry	50	1140	ND	133	63-132%	---	---	Q-01
Carbon tetrachloride	1730	---	56.8	ug/kg dry	50	1140	ND	153	70-135%	---	---	Q-54c
Chlorobenzene	1240	---	28.4	ug/kg dry	50	1140	ND	110	79-120%	---	---	
Chloroethane	1330	---	568	ug/kg dry	50	1140	ND	117	59-139%	---	---	
Chloroform	1430	---	56.8	ug/kg dry	50	1140	ND	126	78-123%	---	---	Q-01
Chloromethane	1350	---	284	ug/kg dry	50	1140	ND	119	50-136%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0222 - 07 12 22 1430
--	---	---

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0250 - EPA 5035A						Soil						
Matrix Spike (22G0250-MS1)						Prepared: 07/08/22 16:35 Analyzed: 07/11/22 21:33						V-15
QC Source Sample: Non-SDG (A2G0209-45)												
2-Chlorotoluene	1360	---	56.8	ug/kg dry	50	1140	ND	120	75-122%	---	---	
4-Chlorotoluene	1330	---	56.8	ug/kg dry	50	1140	ND	117	72-124%	---	---	
Dibromochloromethane	1210	---	114	ug/kg dry	50	1140	ND	106	74-126%	---	---	
1,2-Dibromo-3-chloropropane	1120	---	284	ug/kg dry	50	1140	ND	99	61-132%	---	---	
1,2-Dibromoethane (EDB)	1340	---	56.8	ug/kg dry	50	1140	ND	118	78-122%	---	---	
Dibromomethane	1410	---	56.8	ug/kg dry	50	1140	ND	124	78-125%	---	---	
1,2-Dichlorobenzene	1260	---	28.4	ug/kg dry	50	1140	ND	111	78-121%	---	---	
1,3-Dichlorobenzene	1260	---	28.4	ug/kg dry	50	1140	ND	111	77-121%	---	---	
1,4-Dichlorobenzene	1210	---	28.4	ug/kg dry	50	1140	ND	106	75-120%	---	---	
Dichlorodifluoromethane	1560	---	114	ug/kg dry	50	1140	ND	138	29-149%	---	---	ICV-01
1,1-Dichloroethane	1360	---	28.4	ug/kg dry	50	1140	ND	119	76-125%	---	---	
1,2-Dichloroethane (EDC)	1390	---	28.4	ug/kg dry	50	1140	ND	122	73-128%	---	---	
1,1-Dichloroethene	1520	---	28.4	ug/kg dry	50	1140	ND	134	70-131%	---	---	Q-01
cis-1,2-Dichloroethene	1420	---	28.4	ug/kg dry	50	1140	ND	125	77-123%	---	---	Q-01
trans-1,2-Dichloroethene	1410	---	28.4	ug/kg dry	50	1140	ND	125	74-125%	---	---	
1,2-Dichloropropane	1410	---	28.4	ug/kg dry	50	1140	ND	124	76-123%	---	---	Q-01
1,3-Dichloropropane	1280	---	56.8	ug/kg dry	50	1140	ND	113	77-121%	---	---	
2,2-Dichloropropane	1350	---	56.8	ug/kg dry	50	1140	ND	119	67-133%	---	---	Q-54b
1,1-Dichloropropene	1500	---	56.8	ug/kg dry	50	1140	ND	132	76-125%	---	---	Q-01
cis-1,3-Dichloropropene	1190	---	56.8	ug/kg dry	50	1140	ND	105	74-126%	---	---	
trans-1,3-Dichloropropene	1210	---	56.8	ug/kg dry	50	1140	ND	106	71-130%	---	---	
Ethylbenzene	1310	---	28.4	ug/kg dry	50	1140	ND	115	76-122%	---	---	
Hexachlorobutadiene	1370	---	114	ug/kg dry	50	1140	ND	121	61-135%	---	---	
2-Hexanone	2080	---	56.8	ug/kg dry	50	2270	ND	92	53-145%	---	---	
Isopropylbenzene	1390	---	56.8	ug/kg dry	50	1140	ND	122	68-134%	---	---	
4-Isopropyltoluene	1450	---	56.8	ug/kg dry	50	1140	ND	128	73-127%	---	---	Q-01
Methylene chloride	1370	---	56.8	ug/kg dry	50	1140	ND	121	70-128%	---	---	B-02, Q-54a
4-Methyl-2-pentanone (MiBK)	2720	---	56.8	ug/kg dry	50	2270	ND	120	65-135%	---	---	
Methyl tert-butyl ether (MTBE)	1340	---	56.8	ug/kg dry	50	1140	ND	118	73-125%	---	---	
Naphthalene	1100	---	114	ug/kg dry	50	1140	ND	97	62-129%	---	---	
n-Propylbenzene	1380	---	28.4	ug/kg dry	50	1140	ND	121	73-125%	---	---	
Styrene	1480	---	56.8	ug/kg dry	50	1140	ND	131	76-124%	---	---	Q-01
1,1,1,2-Tetrachloroethane	1460	---	28.4	ug/kg dry	50	1140	ND	128	78-125%	---	---	Q-01

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0222 - 07 12 22 1430
--	---	---

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0250 - EPA 5035A						Soil						
Matrix Spike (22G0250-MS1)						Prepared: 07/08/22 16:35 Analyzed: 07/11/22 21:33						V-15
QC Source Sample: Non-SDG (A2G0209-45)												
1,1,2,2-Tetrachloroethane	1330	---	56.8	ug/kg dry	50	1140	ND	117	70-124%	---	---	
Tetrachloroethene (PCE)	1320	---	28.4	ug/kg dry	50	1140	ND	116	73-128%	---	---	
Toluene	1250	---	56.8	ug/kg dry	50	1140	ND	110	77-121%	---	---	
1,2,3-Trichlorobenzene	1210	---	284	ug/kg dry	50	1140	ND	107	66-130%	---	---	
1,2,4-Trichlorobenzene	1170	---	284	ug/kg dry	50	1140	ND	103	67-129%	---	---	
1,1,1-Trichloroethane	1540	---	28.4	ug/kg dry	50	1140	ND	136	73-130%	---	---	Q-01
1,1,2-Trichloroethane	1300	---	28.4	ug/kg dry	50	1140	ND	114	78-121%	---	---	
Trichloroethene (TCE)	1370	---	28.4	ug/kg dry	50	1140	ND	120	77-123%	---	---	
Trichlorofluoromethane	1560	---	114	ug/kg dry	50	1140	ND	138	62-140%	---	---	Q-54a
1,2,3-Trichloropropane	1320	---	56.8	ug/kg dry	50	1140	ND	116	73-125%	---	---	
1,2,4-Trimethylbenzene	1440	---	56.8	ug/kg dry	50	1140	ND	127	75-123%	---	---	Q-01
1,3,5-Trimethylbenzene	1440	---	56.8	ug/kg dry	50	1140	ND	127	73-124%	---	---	Q-01
Vinyl chloride	1530	---	28.4	ug/kg dry	50	1140	ND	135	56-135%	---	---	
m,p-Xylene	2650	---	56.8	ug/kg dry	50	2270	ND	117	77-124%	---	---	
o-Xylene	1280	---	28.4	ug/kg dry	50	1140	ND	113	77-123%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 103 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>98 %</i>		<i>79-120 %</i>		<i>"</i>						

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0222 - 07 12 22 1430
--	---	---

QUALITY CONTROL (QC) SAMPLE RESULTS

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

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0247 - EPA 3546						Soil						
Blank (22G0247-BLK1)			Prepared: 07/11/22 07:56 Analyzed: 07/11/22 14:31									
<u>EPA 8270E SIM</u>												
Acenaphthene	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---	
Anthracene	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---	
Chrysene	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---	
Fluoranthene	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---	
Fluorene	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---	
Naphthalene	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---	
Phenanthrene	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---	
Pyrene	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---	
Dibenzofuran	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---	
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 71 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>76 %</i>		<i>54-127 %</i>		"						

LCS (22G0247-BS1)			Prepared: 07/11/22 07:56 Analyzed: 07/11/22 14:57									
<u>EPA 8270E SIM</u>												
Acenaphthene	585	---	10.0	ug/kg wet	1	800	---	73	40-123%	---	---	
Acenaphthylene	620	---	10.0	ug/kg wet	1	800	---	78	32-132%	---	---	
Anthracene	576	---	10.0	ug/kg wet	1	800	---	72	47-123%	---	---	
Benz(a)anthracene	554	---	10.0	ug/kg wet	1	800	---	69	49-126%	---	---	
Benzo(a)pyrene	635	---	10.0	ug/kg wet	1	800	---	79	45-129%	---	---	
Benzo(b)fluoranthene	584	---	10.0	ug/kg wet	1	800	---	73	45-132%	---	---	
Benzo(k)fluoranthene	616	---	10.0	ug/kg wet	1	800	---	77	47-132%	---	---	
Benzo(g,h,i)perylene	553	---	10.0	ug/kg wet	1	800	---	69	43-134%	---	---	
Chrysene	589	---	10.0	ug/kg wet	1	800	---	74	50-124%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0222 - 07 12 22 1430

QUALITY CONTROL (QC) SAMPLE RESULTS

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

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0247 - EPA 3546												
Soil												
LCS (22G0247-BS1)												
Prepared: 07/11/22 07:56						Analyzed: 07/11/22 14:57						
Dibenz(a,h)anthracene	574	---	10.0	ug/kg wet	1	800	---	72	45-134%	---	---	
Fluoranthene	617	---	10.0	ug/kg wet	1	800	---	77	50-127%	---	---	
Fluorene	603	---	10.0	ug/kg wet	1	800	---	75	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	547	---	10.0	ug/kg wet	1	800	---	68	45-133%	---	---	
1-Methylnaphthalene	613	---	10.0	ug/kg wet	1	800	---	77	40-120%	---	---	
2-Methylnaphthalene	588	---	10.0	ug/kg wet	1	800	---	74	38-122%	---	---	
Naphthalene	572	---	10.0	ug/kg wet	1	800	---	72	35-123%	---	---	
Phenanthrene	546	---	10.0	ug/kg wet	1	800	---	68	50-121%	---	---	
Pyrene	625	---	10.0	ug/kg wet	1	800	---	78	47-127%	---	---	
Dibenzofuran	592	---	10.0	ug/kg wet	1	800	---	74	44-120%	---	---	
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 72 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>74 %</i>		<i>54-127 %</i>		<i>"</i>						

Duplicate (22G0247-DUPI)												
Prepared: 07/11/22 07:56						Analyzed: 07/11/22 15:48						
QC Source Sample: Non-SDG (A2F1047-04)												
Acenaphthene	ND	---	404	ug/kg dry	3	---	ND	---	---	---	30%	R-02
Acenaphthylene	ND	---	141	ug/kg dry	3	---	ND	---	---	---	30%	R-02
Anthracene	ND	---	152	ug/kg dry	3	---	ND	---	---	---	30%	R-02
Benz(a)anthracene	ND	---	38.1	ug/kg dry	3	---	ND	---	---	---	30%	
Benzo(a)pyrene	ND	---	38.1	ug/kg dry	3	---	ND	---	---	---	30%	
Benzo(b)fluoranthene	ND	---	38.1	ug/kg dry	3	---	ND	---	---	---	30%	
Benzo(k)fluoranthene	ND	---	38.1	ug/kg dry	3	---	ND	---	---	---	30%	
Benzo(g,h,i)perylene	ND	---	38.1	ug/kg dry	3	---	ND	---	---	---	30%	
Chrysene	ND	---	38.1	ug/kg dry	3	---	ND	---	---	---	30%	
Dibenz(a,h)anthracene	ND	---	38.1	ug/kg dry	3	---	ND	---	---	---	30%	
Fluoranthene	51.7	---	38.1	ug/kg dry	3	---	57.1	---	---	10	30%	
Fluorene	966	---	38.1	ug/kg dry	3	---	1070	---	---	11	30%	
Indeno(1,2,3-cd)pyrene	ND	---	38.1	ug/kg dry	3	---	ND	---	---	---	30%	
1-Methylnaphthalene	3500	---	38.1	ug/kg dry	3	---	3980	---	---	13	30%	
2-Methylnaphthalene	2590	---	38.1	ug/kg dry	3	---	3010	---	---	15	30%	
Naphthalene	ND	---	60.9	ug/kg dry	3	---	ND	---	---	---	30%	R-02
Phenanthrene	1790	---	38.1	ug/kg dry	3	---	1990	---	---	10	30%	
Pyrene	160	---	38.1	ug/kg dry	3	---	180	---	---	11	30%	
Dibenzofuran	502	---	38.1	ug/kg dry	3	---	555	---	---	10	30%	

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0222 - 07 12 22 1430
--	---	---

QUALITY CONTROL (QC) SAMPLE RESULTS

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

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0247 - EPA 3546												
Soil												
Duplicate (22G0247-DUP1)												
						Prepared: 07/11/22 07:56 Analyzed: 07/11/22 15:48						
QC Source Sample: Non-SDG (A2F1047-04)												
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 70 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 3x</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>73 %</i>		<i>54-127 %</i>		<i>"</i>						

Matrix Spike (22G0247-MS1)												
						Prepared: 07/11/22 07:56 Analyzed: 07/11/22 16:39						
QC Source Sample: 070822-N-6.8 (A2G0222-03)												
EPA 8270E SIM												
Acenaphthene	768	---	13.3	ug/kg dry	1	1060	ND	72	40-123%	---	---	
Acenaphthylene	807	---	13.3	ug/kg dry	1	1060	ND	76	32-132%	---	---	
Anthracene	762	---	13.3	ug/kg dry	1	1060	ND	72	47-123%	---	---	
Benz(a)anthracene	728	---	13.3	ug/kg dry	1	1060	ND	69	49-126%	---	---	
Benzo(a)pyrene	853	---	13.3	ug/kg dry	1	1060	ND	80	45-129%	---	---	
Benzo(b)fluoranthene	772	---	13.3	ug/kg dry	1	1060	ND	73	45-132%	---	---	
Benzo(k)fluoranthene	781	---	13.3	ug/kg dry	1	1060	ND	74	47-132%	---	---	
Benzo(g,h,i)perylene	734	---	13.3	ug/kg dry	1	1060	ND	69	43-134%	---	---	
Chrysene	784	---	13.3	ug/kg dry	1	1060	ND	74	50-124%	---	---	
Dibenz(a,h)anthracene	771	---	13.3	ug/kg dry	1	1060	ND	73	45-134%	---	---	
Fluoranthene	815	---	13.3	ug/kg dry	1	1060	ND	77	50-127%	---	---	
Fluorene	778	---	13.3	ug/kg dry	1	1060	ND	73	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	742	---	13.3	ug/kg dry	1	1060	ND	70	45-133%	---	---	
1-Methylnaphthalene	795	---	13.3	ug/kg dry	1	1060	ND	75	40-120%	---	---	
2-Methylnaphthalene	778	---	13.3	ug/kg dry	1	1060	ND	73	38-122%	---	---	
Naphthalene	742	---	13.3	ug/kg dry	1	1060	ND	70	35-123%	---	---	
Phenanthrene	720	---	13.3	ug/kg dry	1	1060	ND	68	50-121%	---	---	
Pyrene	814	---	13.3	ug/kg dry	1	1060	ND	77	47-127%	---	---	
Dibenzofuran	755	---	13.3	ug/kg dry	1	1060	ND	71	44-120%	---	---	
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 73 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>75 %</i>		<i>54-127 %</i>		<i>"</i>						

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0222 - 07 12 22 1430
--	---	---

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 22G0278 - Total Solids (Dry Weight)						Soil						
Duplicate (22G0278-DUP1)			Prepared: 07/11/22 14:07 Analyzed: 07/12/22 08:01									
<u>QC Source Sample: Non-SDG (A2G0209-01)</u>												
% Solids	88.2	---	1.00	%	1	---	87.8	---	---	0.4	10%	
Duplicate (22G0278-DUP2)			Prepared: 07/11/22 14:07 Analyzed: 07/12/22 08:01									
<u>QC Source Sample: Non-SDG (A2G0209-02)</u>												
% Solids	96.1	---	1.00	%	1	---	94.0	---	---	2	10%	
Duplicate (22G0278-DUP3)			Prepared: 07/11/22 14:07 Analyzed: 07/12/22 08:01									
<u>QC Source Sample: Non-SDG (A2G0209-03)</u>												
% Solids	90.4	---	1.00	%	1	---	92.2	---	---	2	10%	
Duplicate (22G0278-DUP4)			Prepared: 07/11/22 14:07 Analyzed: 07/12/22 08:01									
<u>QC Source Sample: Non-SDG (A2G0209-04)</u>												
% Solids	84.1	---	1.00	%	1	---	85.9	---	---	2	10%	
Duplicate (22G0278-DUP5)			Prepared: 07/11/22 14:07 Analyzed: 07/12/22 08:01									
<u>QC Source Sample: Non-SDG (A2G0209-05)</u>												
% Solids	89.0	---	1.00	%	1	---	90.4	---	---	1	10%	
Duplicate (22G0278-DUP6)			Prepared: 07/11/22 14:07 Analyzed: 07/12/22 08:01									
<u>QC Source Sample: Non-SDG (A2G0209-06)</u>												
% Solids	89.6	---	1.00	%	1	---	83.9	---	---	7	10%	
Duplicate (22G0278-DUP7)			Prepared: 07/11/22 14:07 Analyzed: 07/12/22 08:01									
<u>QC Source Sample: Non-SDG (A2G0255-01)</u>												
% Solids	74.3	---	1.00	%	1	---	74.7	---	---	0.5	10%	
Duplicate (22G0278-DUP8)			Prepared: 07/11/22 14:07 Analyzed: 07/12/22 08:01									
<u>QC Source Sample: Non-SDG (A2G0255-02)</u>												
% Solids	75.1	---	1.00	%	1	---	75.3	---	---	0.2	10%	

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Philip Nerenberg, Lab Director



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---	--	---

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

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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
<u>Batch: 22G0241</u>							
A2G0222-01	Soil	NWTPH-Dx	07/08/22 10:55	07/11/22 07:53	10.14g/5mL	10g/5mL	0.99
A2G0222-02	Soil	NWTPH-Dx	07/08/22 11:05	07/11/22 07:53	10.22g/5mL	10g/5mL	0.98
A2G0222-03	Soil	NWTPH-Dx	07/08/22 11:19	07/11/22 07:53	10.2g/5mL	10g/5mL	0.98

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
<u>Batch: 22G0250</u>							
A2G0222-01RE1	Soil	NWTPH-Gx (MS)	07/08/22 10:55	07/08/22 10:55	5.41g/5mL	5g/5mL	0.92
A2G0222-02	Soil	NWTPH-Gx (MS)	07/08/22 11:05	07/08/22 11:05	5.7g/5mL	5g/5mL	0.88
A2G0222-03	Soil	NWTPH-Gx (MS)	07/08/22 11:19	07/08/22 11:19	5.94g/5mL	5g/5mL	0.84

Volatile Organic Compounds by EPA 8260D

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 22G0250</u>							
A2G0222-01RE1	Soil	5035A/8260D	07/08/22 10:55	07/08/22 10:55	5.41g/5mL	5g/5mL	0.92
A2G0222-02	Soil	5035A/8260D	07/08/22 11:05	07/08/22 11:05	5.7g/5mL	5g/5mL	0.88
A2G0222-03	Soil	5035A/8260D	07/08/22 11:19	07/08/22 11:19	5.94g/5mL	5g/5mL	0.84

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

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 22G0247</u>							
A2G0222-01	Soil	EPA 8270E SIM	07/08/22 10:55	07/11/22 07:56	10.17g/5mL	10g/5mL	0.98
A2G0222-02	Soil	EPA 8270E SIM	07/08/22 11:05	07/11/22 07:56	10.48g/5mL	10g/5mL	0.95
A2G0222-03	Soil	EPA 8270E SIM	07/08/22 11:19	07/11/22 07:56	10.17g/5mL	10g/5mL	0.98

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 22G0278</u>							

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ANALYTICAL REPORT

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---	--	---

SAMPLE PREPARATION INFORMATION

Percent Dry Weight

<u>Prep: Total Solids (Dry Weight)</u>					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
A2G0222-01	Soil	EPA 8000D	07/08/22 10:55	07/11/22 14:07			NA
A2G0222-02	Soil	EPA 8000D	07/08/22 11:05	07/11/22 14:07			NA
A2G0222-03	Soil	EPA 8000D	07/08/22 11:19	07/11/22 14:07			NA

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0222 - 07 12 22 1430
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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-20** Result for Diesel is Estimated due to overlap from Gasoline Range Organics or other VOCs.
- ICV-01** Estimated Result. Initial Calibration Verification (ICV) failed high. There is no effect on non-detect results.
- ICV-02** Estimated Result. Initial Calibration Verification (ICV) failed low.
- Q-01** Spike recovery and/or RPD is outside acceptance limits.
- Q-54** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +1%. The results are reported as Estimated Values.
- Q-54a** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +2%. The results are reported as Estimated Values.
- Q-54b** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +3%. The results are reported as Estimated Values.
- Q-54c** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +9%. The results are reported as Estimated Values.
- Q-56** Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260
- R-02** The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
- V-15** Sample aliquot was subsampled from the sample container. The subsampled aliquot was preserved in the laboratory within 48 hours of sampling.

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Philip Nerenberg, Lab Director



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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

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

Detection Limits: Limit of Detection (LOD)

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

Reporting Limits: Limit of Quantitation (LOQ)

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

Reporting Conventions:

- Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.
- " dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.
- " wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
- " " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

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).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

Table with 3 columns: Client (Maul Foster & Alongi, INC.), Project (Les Schwab Springfield), and Report ID (A2G0222 - 07 12 22 1430).

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

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.

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.

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.

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.

Handwritten signature of Philip Nerenberg



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Table with 3 columns: Client (Maul Foster & Alongi, INC.), Project (Les Schwab Springfield), and Report ID (A2G0222 - 07 12 22 1430).

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

Table with 6 columns: Matrix, Analysis, TNI_ID, Analyte, TNI_ID, Accreditation

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

Secondary Accreditations

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

Subcontract Laboratory Accreditations

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

Field Testing Parameters

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

Apex Laboratories

Philip Nerenberg (signature)

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.
3140 NE Broadway Street
Portland, OR 97232
Project: Les Schwab Springfield
Project Number: 0553.10.001
Project Manager: Merideth D'Andrea
Report ID: A2G0222 - 07 12 22 1430

APEX LABS COOLER RECEIPT FORM

Client: MFA Element WO#: A260222

Project/Project #: Les Schwab Springfield 10553-10-001

Delivery Info:

Date/time received: 7/18/22 @ 17:25 By: RAM
Delivered by: Apex Client X ESS FedEx UPS Swift Senvoy SDS Other

Cooler Inspection Date/time inspected: 7/18/22 @ 17:30 By: RAM

Chain of Custody included? Yes X No Custody seals? Yes No X
Signed/dated by client? Yes X No
Signed/dated by Apex? Yes X No

Table with 7 columns: Cooler #1 to Cooler #7. Rows include Temperature (°C), Received on ice? (Y/N), Temp. blanks? (Y/N), Ice type: (Gel/Real/Other), Condition.

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: 7/18/22 @ 19:08 By: RAM
All samples intact? Yes X No Comments:

Bottle labels/COCs agree? Yes X No Comments:

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 NA X

Comments:

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

Comments:

Additional information:

Labeled by: RAM Witness: DJS Cooler Inspected by: RAM

Philip Nerenberg



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Thursday, July 14, 2022
Merideth D'Andrea
Maul Foster & Alongi, INC.
3140 NE Broadway Street
Portland, OR 97232

RE: A2G0223 - Les Schwab Springfield - 0553.10.001

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 A2G0223, which was received by the laboratory on 7/8/2022 at 5:25:00PM.

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

(See Cooler Receipt Form for details)

Cooler #1 4.5 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director



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<u>Maul Foster & Alongi, INC.</u> 3140 NE Broadway Street Portland, OR 97232	Project: <u>Les Schwab Springfield</u> Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0223 - 07 14 22 1507
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ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
070822-GWmainpit-7.1	A2G0223-01	Water	07/08/22 10:40	07/08/22 17:25
Trip Blank	A2G0223-02	Water	07/08/22 00:00	07/08/22 17:25

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---	--	---

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
070822-GWmainpit-7.1 (A2G0223-01)				Matrix: Water		Batch: 22G0267		
Diesel	1.01	---	0.194	mg/L	1	07/12/22 09:42	NWTPH-Dx	
Oil	ND	---	0.388	mg/L	1	07/12/22 09:42	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 79 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>07/12/22 09:42</i>	<i>NWTPH-Dx</i>

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Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0223 - 07 14 22 1507
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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
070822-GWmainpit-7.1 (A2G0223-01RE1)				Matrix: Water		Batch: 22G0318		V-01
Gasoline Range Organics	0.199	---	0.100	mg/L	1	07/12/22 15:14	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 104 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>07/12/22 15:14</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>106 %</i>		<i>50-150 %</i>		<i>1</i>	<i>07/12/22 15:14</i>	<i>NWTPH-Gx (MS)</i>

Apex Laboratories

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--	---	---

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
070822-GWmainpit-7.1 (A2G0223-01RE1)				Matrix: Water		Batch: 22G0318		V-01
Acetone	ND	---	20.0	ug/L	1	07/12/22 15:14	EPA 8260D	
Acrylonitrile	ND	---	2.00	ug/L	1	07/12/22 15:14	EPA 8260D	
Benzene	0.230	---	0.200	ug/L	1	07/12/22 15:14	EPA 8260D	
Bromobenzene	ND	---	0.500	ug/L	1	07/12/22 15:14	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	07/12/22 15:14	EPA 8260D	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	07/12/22 15:14	EPA 8260D	
n-Butylbenzene	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
sec-Butylbenzene	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
tert-Butylbenzene	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
Carbon disulfide	ND	---	10.0	ug/L	1	07/12/22 15:14	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	07/12/22 15:14	EPA 8260D	
Chloroethane	ND	---	10.0	ug/L	1	07/12/22 15:14	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	07/12/22 15:14	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	07/12/22 15:14	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	07/12/22 15:14	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	07/12/22 15:14	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	07/12/22 15:14	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	07/12/22 15:14	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	07/12/22 15:14	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	07/12/22 15:14	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	07/12/22 15:14	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	07/12/22 15:14	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	07/12/22 15:14	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0223 - 07 14 22 1507
--	---	---

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
070822-GWmainpit-7.1 (A2G0223-01RE1)				Matrix: Water		Batch: 22G0318		V-01
1,2-Dichloropropane	ND	---	0.500	ug/L	1	07/12/22 15:14	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	07/12/22 15:14	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	07/12/22 15:14	EPA 8260D	
2-Hexanone	ND	---	10.0	ug/L	1	07/12/22 15:14	EPA 8260D	
Isopropylbenzene	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	07/12/22 15:14	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	---	10.0	ug/L	1	07/12/22 15:14	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	07/12/22 15:14	EPA 8260D	
n-Propylbenzene	ND	---	0.500	ug/L	1	07/12/22 15:14	EPA 8260D	
Styrene	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	07/12/22 15:14	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	07/12/22 15:14	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	07/12/22 15:14	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	07/12/22 15:14	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	07/12/22 15:14	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	07/12/22 15:14	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	07/12/22 15:14	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	07/12/22 15:14	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	07/12/22 15:14	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
Vinyl chloride	ND	---	0.400	ug/L	1	07/12/22 15:14	EPA 8260D	
m,p-Xylene	ND	---	1.00	ug/L	1	07/12/22 15:14	EPA 8260D	
o-Xylene	ND	---	0.500	ug/L	1	07/12/22 15:14	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0223 - 07 14 22 1507

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
070822-GWmainpit-7.1 (A2G0223-01RE1)				Matrix: Water		Batch: 22G0318		V-01
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>			<i>Recovery: 107 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>07/12/22 15:14</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>			<i>98 %</i>	<i>80-120 %</i>	<i>1</i>	<i>07/12/22 15:14</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>			<i>95 %</i>	<i>80-120 %</i>	<i>1</i>	<i>07/12/22 15:14</i>	<i>EPA 8260D</i>	
Trip Blank (A2G0223-02)				Matrix: Water		Batch: 22G0256		
Acetone	ND	---	20.0	ug/L	1	07/11/22 18:49	EPA 8260D	
Acrylonitrile	ND	---	2.00	ug/L	1	07/11/22 18:49	EPA 8260D	
Benzene	ND	---	0.200	ug/L	1	07/11/22 18:49	EPA 8260D	
Bromobenzene	ND	---	0.500	ug/L	1	07/11/22 18:49	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	07/11/22 18:49	EPA 8260D	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	07/11/22 18:49	EPA 8260D	
n-Butylbenzene	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
sec-Butylbenzene	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
tert-Butylbenzene	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
Carbon disulfide	ND	---	10.0	ug/L	1	07/11/22 18:49	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	07/11/22 18:49	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	07/11/22 18:49	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	07/11/22 18:49	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	07/11/22 18:49	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	07/11/22 18:49	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	07/11/22 18:49	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	07/11/22 18:49	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	07/11/22 18:49	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	07/11/22 18:49	EPA 8260D	

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0223 - 07 14 22 1507
--	---	---

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip Blank (A2G0223-02)			Matrix: Water			Batch: 22G0256		
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	07/11/22 18:49	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	07/11/22 18:49	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	07/11/22 18:49	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	07/11/22 18:49	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	07/11/22 18:49	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	07/11/22 18:49	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	07/11/22 18:49	EPA 8260D	
2-Hexanone	ND	---	10.0	ug/L	1	07/11/22 18:49	EPA 8260D	
Isopropylbenzene	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	07/11/22 18:49	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	---	10.0	ug/L	1	07/11/22 18:49	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	07/11/22 18:49	EPA 8260D	
n-Propylbenzene	ND	---	0.500	ug/L	1	07/11/22 18:49	EPA 8260D	
Styrene	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	07/11/22 18:49	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	07/11/22 18:49	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	07/11/22 18:49	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	07/11/22 18:49	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	07/11/22 18:49	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	07/11/22 18:49	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	07/11/22 18:49	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	07/11/22 18:49	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	07/11/22 18:49	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	

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Philip Nerenberg, Lab Director



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Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0223 - 07 14 22 1507
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ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip Blank (A2G0223-02)			Matrix: Water			Batch: 22G0256		
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
Vinyl chloride	ND	---	0.400	ug/L	1	07/11/22 18:49	EPA 8260D	
m,p-Xylene	ND	---	1.00	ug/L	1	07/11/22 18:49	EPA 8260D	
o-Xylene	ND	---	0.500	ug/L	1	07/11/22 18:49	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>			<i>Recovery: 108 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>07/11/22 18:49</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>			<i>101 %</i>	<i>80-120 %</i>	<i>1</i>	<i>07/11/22 18:49</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>			<i>96 %</i>	<i>80-120 %</i>	<i>1</i>	<i>07/11/22 18:49</i>	<i>EPA 8260D</i>	

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ANALYTICAL SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
070822-GWmainpit-7.1 (A2G0223-01RE2)				Matrix: Water		Batch: 22G0302		R-04
Acenaphthene	ND	---	0.0784	ug/L	4	07/12/22 20:22	EPA 8270E	
Acenaphthylene	ND	---	0.0784	ug/L	4	07/12/22 20:22	EPA 8270E	
Anthracene	ND	---	0.0784	ug/L	4	07/12/22 20:22	EPA 8270E	
Benz(a)anthracene	ND	---	0.0784	ug/L	4	07/12/22 20:22	EPA 8270E	
Benzo(a)pyrene	ND	---	0.118	ug/L	4	07/12/22 20:22	EPA 8270E	
Benzo(b)fluoranthene	ND	---	0.118	ug/L	4	07/12/22 20:22	EPA 8270E	
Benzo(k)fluoranthene	ND	---	0.118	ug/L	4	07/12/22 20:22	EPA 8270E	
Benzo(g,h,i)perylene	ND	---	0.0784	ug/L	4	07/12/22 20:22	EPA 8270E	
Chrysene	ND	---	0.0784	ug/L	4	07/12/22 20:22	EPA 8270E	
Dibenz(a,h)anthracene	ND	---	0.0784	ug/L	4	07/12/22 20:22	EPA 8270E	
Fluoranthene	ND	---	0.0784	ug/L	4	07/12/22 20:22	EPA 8270E	
Fluorene	ND	---	0.0784	ug/L	4	07/12/22 20:22	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	---	0.0784	ug/L	4	07/12/22 20:22	EPA 8270E	
1-Methylnaphthalene	ND	---	0.157	ug/L	4	07/12/22 20:22	EPA 8270E	Q-30
2-Methylnaphthalene	ND	---	0.157	ug/L	4	07/12/22 20:22	EPA 8270E	Q-30
Naphthalene	ND	---	0.157	ug/L	4	07/12/22 20:22	EPA 8270E	Q-30
Phenanthrene	ND	---	0.0784	ug/L	4	07/12/22 20:22	EPA 8270E	
Pyrene	ND	---	0.0784	ug/L	4	07/12/22 20:22	EPA 8270E	
Carbazole	ND	---	0.118	ug/L	4	07/12/22 20:22	EPA 8270E	
Dibenzofuran	ND	---	0.0784	ug/L	4	07/12/22 20:22	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>			<i>Recovery: 86 %</i>	<i>Limits: 44-120 %</i>	4	07/12/22 20:22	EPA 8270E	
<i>2-Fluorobiphenyl (Surr)</i>			<i>50 %</i>	<i>44-120 %</i>	4	07/12/22 20:22	EPA 8270E	
<i>Phenol-d6 (Surr)</i>			<i>5 %</i>	<i>10-133 %</i>	4	07/12/22 20:22	EPA 8270E	S-03
<i>p-Terphenyl-d14 (Surr)</i>			<i>69 %</i>	<i>50-134 %</i>	4	07/12/22 20:22	EPA 8270E	
<i>2-Fluorophenol (Surr)</i>			<i>33 %</i>	<i>19-120 %</i>	4	07/12/22 20:22	EPA 8270E	
<i>2,4,6-Tribromophenol (Surr)</i>			<i>79 %</i>	<i>43-140 %</i>	4	07/12/22 20:22	EPA 8270E	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0223 - 07 14 22 1507
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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 22G0267 - EPA 3510C (Fuels/Acid Ext.)						Water						
Blank (22G0267-BLK1)						Prepared: 07/11/22 11:44 Analyzed: 07/12/22 08:27						
<u>NWTPH-Dx</u>												
Diesel	ND	---	0.182	mg/L	1	---	---	---	---	---	---	
Oil	ND	---	0.364	mg/L	1	---	---	---	---	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 83 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
LCS (22G0267-BS1)						Prepared: 07/11/22 11:44 Analyzed: 07/12/22 08:52						
<u>NWTPH-Dx</u>												
Diesel	0.775	---	0.200	mg/L	1	1.25	---	62	36-132%	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 84 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
LCS Dup (22G0267-BSD1)						Prepared: 07/11/22 11:44 Analyzed: 07/12/22 09:17						
<u>NWTPH-Dx</u>												
Diesel	0.863	---	0.200	mg/L	1	1.25	---	69	36-132%	11	30%	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 84 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						

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--	---	---

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 22G0256 - EPA 5030B						Water						
Blank (22G0256-BLK1)			Prepared: 07/11/22 11:32 Analyzed: 07/11/22 13:38									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	---	0.100	mg/L	1	---	---	---	---	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 98 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>103 %</i>		<i>50-150 %</i>		<i>"</i>						
LCS (22G0256-BS2)			Prepared: 07/11/22 11:32 Analyzed: 07/11/22 13:11									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	0.421	---	0.100	mg/L	1	0.500	---	84	80-120%	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 98 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>101 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (22G0256-DUP1)			Prepared: 07/11/22 14:44 Analyzed: 07/11/22 22:14									
<u>QC Source Sample: Non-SDG (A2G0156-01)</u>												
Gasoline Range Organics	ND	---	0.100	mg/L	1	---	ND	---	---	---	30%	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 104 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>108 %</i>		<i>50-150 %</i>		<i>"</i>						

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--	---	---

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 22G0318 - EPA 5030B						Water						
Blank (22G0318-BLK1)			Prepared: 07/12/22 10:56 Analyzed: 07/12/22 13:26									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	---	0.100	mg/L	1	---	---	---	---	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 100 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>107 %</i>		<i>50-150 %</i>		<i>"</i>						
LCS (22G0318-BS2)			Prepared: 07/12/22 10:56 Analyzed: 07/12/22 12:59									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	0.456	---	0.100	mg/L	1	0.500	---	91	80-120%	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 98 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>103 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (22G0318-DUP1)			Prepared: 07/12/22 10:56 Analyzed: 07/12/22 18:51									
<u>QC Source Sample: Non-SDG (A2G0229-04)</u>												
Gasoline Range Organics	0.126	---	0.100	mg/L	1	---	0.138	---	---	9	30%	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 99 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>105 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (22G0318-DUP2)			Prepared: 07/12/22 10:56 Analyzed: 07/12/22 22:00									
<u>QC Source Sample: Non-SDG (A2G0227-01)</u>												
Gasoline Range Organics	52.3	---	5.00	mg/L	50	---	53.5	---	---	2	30%	F-03
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 92 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>99 %</i>		<i>50-150 %</i>		<i>"</i>						

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Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0223 - 07 14 22 1507

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0256 - EPA 5030B						Water						
Blank (22G0256-BLK1)			Prepared: 07/11/22 11:32 Analyzed: 07/11/22 13:38									
<u>EPA 8260D</u>												
Acetone	ND	---	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0223 - 07 14 22 1507

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0256 - EPA 5030B						Water						
Blank (22G0256-BLK1)			Prepared: 07/11/22 11:32 Analyzed: 07/11/22 13:38									
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	

Surr: 1,4-Difluorobenzene (Surr) Recovery: 105 % Limits: 80-120 % Dilution: 1x

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0223 - 07 14 22 1507

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0256 - EPA 5030B						Water						
Blank (22G0256-BLK1)			Prepared: 07/11/22 11:32 Analyzed: 07/11/22 13:38									
<i>Surr: Toluene-d8 (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>99 %</i>		<i>80-120 %</i>		<i>"</i>						
LCS (22G0256-BS1)			Prepared: 07/11/22 11:32 Analyzed: 07/11/22 12:44									
EPA 8260D												
Acetone	45.1	---	20.0	ug/L	1	40.0	---	113	80-120%	---	---	
Acrylonitrile	19.4	---	2.00	ug/L	1	20.0	---	97	80-120%	---	---	
Benzene	19.3	---	0.200	ug/L	1	20.0	---	97	80-120%	---	---	
Bromobenzene	18.1	---	0.500	ug/L	1	20.0	---	91	80-120%	---	---	
Bromochloromethane	19.7	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Bromodichloromethane	18.7	---	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
Bromoform	17.6	---	1.00	ug/L	1	20.0	---	88	80-120%	---	---	
Bromomethane	8.88	---	5.00	ug/L	1	20.0	---	44	80-120%	---	---	Q-55
2-Butanone (MEK)	44.7	---	10.0	ug/L	1	40.0	---	112	80-120%	---	---	
n-Butylbenzene	20.3	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
sec-Butylbenzene	19.1	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
tert-Butylbenzene	18.1	---	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
Carbon disulfide	16.4	---	10.0	ug/L	1	20.0	---	82	80-120%	---	---	
Carbon tetrachloride	18.4	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
Chlorobenzene	19.2	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Chloroethane	17.4	---	5.00	ug/L	1	20.0	---	87	80-120%	---	---	
Chloroform	19.5	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Chloromethane	29.3	---	5.00	ug/L	1	20.0	---	147	80-120%	---	---	Q-56
2-Chlorotoluene	17.9	---	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
4-Chlorotoluene	18.5	---	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
Dibromochloromethane	17.7	---	1.00	ug/L	1	20.0	---	88	80-120%	---	---	
1,2-Dibromo-3-chloropropane	18.4	---	5.00	ug/L	1	20.0	---	92	80-120%	---	---	
1,2-Dibromoethane (EDB)	18.8	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Dibromomethane	19.5	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,2-Dichlorobenzene	19.9	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
1,3-Dichlorobenzene	19.6	---	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
1,4-Dichlorobenzene	19.1	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Dichlorodifluoromethane	17.0	---	1.00	ug/L	1	20.0	---	85	80-120%	---	---	
1,1-Dichloroethane	19.4	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0223 - 07 14 22 1507
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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0256 - EPA 5030B						Water						
LCS (22G0256-BS1)			Prepared: 07/11/22 11:32 Analyzed: 07/11/22 12:44									
1,2-Dichloroethane (EDC)	20.1	---	0.400	ug/L	1	20.0	---	101	80-120%	---	---	
1,1-Dichloroethene	18.7	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
cis-1,2-Dichloroethene	19.0	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
trans-1,2-Dichloroethene	18.6	---	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
1,2-Dichloropropane	19.5	---	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
1,3-Dichloropropane	19.7	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
2,2-Dichloropropane	18.2	---	1.00	ug/L	1	20.0	---	91	80-120%	---	---	
1,1-Dichloropropene	18.7	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
cis-1,3-Dichloropropene	18.7	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
trans-1,3-Dichloropropene	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Ethylbenzene	19.2	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Hexachlorobutadiene	21.1	---	5.00	ug/L	1	20.0	---	106	80-120%	---	---	
2-Hexanone	42.8	---	10.0	ug/L	1	40.0	---	107	80-120%	---	---	
Isopropylbenzene	18.9	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
4-Isopropyltoluene	19.7	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Methylene chloride	19.9	---	10.0	ug/L	1	20.0	---	99	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	39.7	---	10.0	ug/L	1	40.0	---	99	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	16.8	---	1.00	ug/L	1	20.0	---	84	80-120%	---	---	
Naphthalene	19.7	---	2.00	ug/L	1	20.0	---	98	80-120%	---	---	
n-Propylbenzene	18.7	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Styrene	19.6	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,1,1,2-Tetrachloroethane	19.5	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
1,1,2,2-Tetrachloroethane	20.1	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Tetrachloroethene (PCE)	19.4	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
Toluene	18.2	---	1.00	ug/L	1	20.0	---	91	80-120%	---	---	
1,2,3-Trichlorobenzene	21.3	---	2.00	ug/L	1	20.0	---	107	80-120%	---	---	
1,2,4-Trichlorobenzene	21.2	---	2.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,1,1-Trichloroethane	18.0	---	0.400	ug/L	1	20.0	---	90	80-120%	---	---	
1,1,2-Trichloroethane	18.9	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Trichloroethene (TCE)	18.5	---	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
Trichlorofluoromethane	21.8	---	2.00	ug/L	1	20.0	---	109	80-120%	---	---	
1,2,3-Trichloropropane	18.4	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
1,2,4-Trimethylbenzene	19.4	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,3,5-Trimethylbenzene	18.9	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0223 - 07 14 22 1507

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0256 - EPA 5030B						Water						
LCS (22G0256-BS1)			Prepared: 07/11/22 11:32 Analyzed: 07/11/22 12:44									
Vinyl chloride	18.8	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
m,p-Xylene	39.1	---	1.00	ug/L	1	40.0	---	98	80-120%	---	---	
o-Xylene	18.4	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 103 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>99 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>94 %</i>		<i>80-120 %</i>		<i>"</i>						

Duplicate (22G0256-DUP1)			Prepared: 07/11/22 14:44 Analyzed: 07/11/22 22:14									
QC Source Sample: Non-SDG (A2G0156-01)												
Acetone	ND	---	20.0	ug/L	1	---	ND	---	---	---	30%	
Acrylonitrile	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
Benzene	ND	---	0.200	ug/L	1	---	ND	---	---	---	30%	
Bromobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromoform	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromomethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
n-Butylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Carbon disulfide	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Chloroethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
Chloroform	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Chloromethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Dibromomethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0256 - EPA 5030B						Water						
Duplicate (22G0256-DUP1)			Prepared: 07/11/22 14:44 Analyzed: 07/11/22 22:14									
QC Source Sample: Non-SDG (A2G0156-01)												
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Hexanone	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Methylene chloride	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
n-Propylbenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Styrene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0223 - 07 14 22 1507

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0256 - EPA 5030B												
Water												
Duplicate (22G0256-DUP1)			Prepared: 07/11/22 14:44 Analyzed: 07/11/22 22:14									
QC Source Sample: Non-SDG (A2G0156-01)												
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
m,p-Xylene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
o-Xylene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 108 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>101 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>96 %</i>		<i>80-120 %</i>		<i>"</i>						

Matrix Spike (22G0256-MS1)												
Prepared: 07/11/22 14:44 Analyzed: 07/12/22 00:59										T-02		
QC Source Sample: Non-SDG (A2G0053-01)												
EPA 8260D												
Acetone	8160	---	4000	ug/L	200	8000	ND	102	39-160%	---	---	
Acrylonitrile	4000	---	400	ug/L	200	4000	ND	100	63-135%	---	---	
Benzene	4160	---	40.0	ug/L	200	4000	ND	104	79-120%	---	---	
Bromobenzene	3620	---	100	ug/L	200	4000	ND	90	80-120%	---	---	
Bromochloromethane	3990	---	200	ug/L	200	4000	ND	100	78-123%	---	---	
Bromodichloromethane	3600	---	200	ug/L	200	4000	ND	90	79-125%	---	---	
Bromoform	3000	---	200	ug/L	200	4000	ND	75	66-130%	---	---	
Bromomethane	1340	---	1000	ug/L	200	4000	ND	33	53-141%	---	---	Q-54
2-Butanone (MEK)	8500	---	2000	ug/L	200	8000	ND	106	56-143%	---	---	
n-Butylbenzene	4250	---	200	ug/L	200	4000	ND	106	75-128%	---	---	
sec-Butylbenzene	4170	---	200	ug/L	200	4000	ND	104	77-126%	---	---	
tert-Butylbenzene	3810	---	200	ug/L	200	4000	ND	95	78-124%	---	---	
Carbon disulfide	3010	---	2000	ug/L	200	4000	ND	75	64-133%	---	---	
Carbon tetrachloride	3950	---	200	ug/L	200	4000	ND	99	72-136%	---	---	
Chlorobenzene	3970	---	100	ug/L	200	4000	ND	99	80-120%	---	---	
Chloroethane	4730	---	1000	ug/L	200	4000	ND	118	60-138%	---	---	
Chloroform	4170	---	200	ug/L	200	4000	ND	104	79-124%	---	---	
Chloromethane	6810	---	1000	ug/L	200	4000	ND	170	50-139%	---	---	Q-54

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0223 - 07 14 22 1507

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0256 - EPA 5030B						Water						
Matrix Spike (22G0256-MS1)						Prepared: 07/11/22 14:44 Analyzed: 07/12/22 00:59						T-02
QC Source Sample: Non-SDG (A2G0053-01)												
2-Chlorotoluene	3690	---	200	ug/L	200	4000	ND	92	79-122%	---	---	
4-Chlorotoluene	3740	---	200	ug/L	200	4000	ND	93	78-122%	---	---	
Dibromochloromethane	3190	---	200	ug/L	200	4000	ND	80	74-126%	---	---	
1,2-Dibromo-3-chloropropane	3190	---	1000	ug/L	200	4000	ND	80	62-128%	---	---	
1,2-Dibromoethane (EDB)	3660	---	100	ug/L	200	4000	ND	91	77-121%	---	---	
Dibromomethane	3990	---	200	ug/L	200	4000	ND	100	79-123%	---	---	
1,2-Dichlorobenzene	4030	---	100	ug/L	200	4000	ND	101	80-120%	---	---	
1,3-Dichlorobenzene	3990	---	100	ug/L	200	4000	ND	100	80-120%	---	---	
1,4-Dichlorobenzene	3890	---	100	ug/L	200	4000	ND	97	79-120%	---	---	
Dichlorodifluoromethane	3940	---	200	ug/L	200	4000	ND	99	32-152%	---	---	
1,1-Dichloroethane	4150	---	80.0	ug/L	200	4000	ND	104	77-125%	---	---	
1,2-Dichloroethane (EDC)	4160	---	80.0	ug/L	200	4000	ND	104	73-128%	---	---	
1,1-Dichloroethene	4330	---	80.0	ug/L	200	4000	ND	108	71-131%	---	---	
cis-1,2-Dichloroethene	3970	---	80.0	ug/L	200	4000	ND	99	78-123%	---	---	
trans-1,2-Dichloroethene	3990	---	80.0	ug/L	200	4000	ND	100	75-124%	---	---	
1,2-Dichloropropane	4080	---	100	ug/L	200	4000	ND	102	78-122%	---	---	
1,3-Dichloropropane	3910	---	200	ug/L	200	4000	ND	98	80-120%	---	---	
2,2-Dichloropropane	2410	---	200	ug/L	200	4000	ND	60	60-139%	---	---	
1,1-Dichloropropene	4230	---	200	ug/L	200	4000	ND	106	79-125%	---	---	
cis-1,3-Dichloropropene	2940	---	200	ug/L	200	4000	ND	74	75-124%	---	---	Q-01
trans-1,3-Dichloropropene	3310	---	200	ug/L	200	4000	ND	83	73-127%	---	---	
Ethylbenzene	4110	---	100	ug/L	200	4000	ND	103	79-121%	---	---	
Hexachlorobutadiene	4520	---	1000	ug/L	200	4000	ND	113	66-134%	---	---	
2-Hexanone	8210	---	2000	ug/L	200	8000	ND	103	57-139%	---	---	
Isopropylbenzene	4030	---	200	ug/L	200	4000	ND	101	72-131%	---	---	
4-Isopropyltoluene	4150	---	200	ug/L	200	4000	ND	104	77-127%	---	---	
Methylene chloride	4520	---	2000	ug/L	200	4000	ND	113	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	7730	---	2000	ug/L	200	8000	ND	97	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	3120	---	200	ug/L	200	4000	ND	78	71-124%	---	---	
Naphthalene	3810	---	400	ug/L	200	4000	ND	95	61-128%	---	---	
n-Propylbenzene	3990	---	100	ug/L	200	4000	ND	100	76-126%	---	---	
Styrene	4070	---	200	ug/L	200	4000	ND	102	78-123%	---	---	
1,1,1,2-Tetrachloroethane	3740	---	80.0	ug/L	200	4000	ND	93	78-124%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0223 - 07 14 22 1507
--	---	---

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0256 - EPA 5030B						Water						
Matrix Spike (22G0256-MS1)						Prepared: 07/11/22 14:44 Analyzed: 07/12/22 00:59						T-02
QC Source Sample: Non-SDG (A2G0053-01)												
1,1,2,2-Tetrachloroethane	4040	---	100	ug/L	200	4000	ND	101	71-121%	---	---	
Tetrachloroethene (PCE)	4180	---	80.0	ug/L	200	4000	ND	105	74-129%	---	---	
Toluene	3850	---	200	ug/L	200	4000	ND	96	80-121%	---	---	
1,2,3-Trichlorobenzene	4290	---	400	ug/L	200	4000	ND	107	69-129%	---	---	
1,2,4-Trichlorobenzene	4130	---	400	ug/L	200	4000	ND	103	69-130%	---	---	
1,1,1-Trichloroethane	3950	---	80.0	ug/L	200	4000	ND	99	74-131%	---	---	
1,1,2-Trichloroethane	3850	---	100	ug/L	200	4000	ND	96	80-120%	---	---	
Trichloroethene (TCE)	3950	---	80.0	ug/L	200	4000	ND	99	79-123%	---	---	
Trichlorofluoromethane	5360	---	400	ug/L	200	4000	ND	134	65-141%	---	---	
1,2,3-Trichloropropane	3740	---	200	ug/L	200	4000	ND	93	73-122%	---	---	
1,2,4-Trimethylbenzene	4050	---	200	ug/L	200	4000	ND	101	76-124%	---	---	
1,3,5-Trimethylbenzene	3990	---	200	ug/L	200	4000	ND	100	75-124%	---	---	
Vinyl chloride	4320	---	80.0	ug/L	200	4000	ND	108	58-137%	---	---	
m,p-Xylene	8270	---	200	ug/L	200	8000	ND	103	80-121%	---	---	
o-Xylene	3760	---	100	ug/L	200	4000	ND	94	78-122%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 105 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>90 %</i>		<i>80-120 %</i>		<i>"</i>						

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0223 - 07 14 22 1507
--	---	---

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0318 - EPA 5030B						Water						
Blank (22G0318-BLK1)			Prepared: 07/12/22 10:56 Analyzed: 07/12/22 13:26									
<u>EPA 8260D</u>												
Acetone	ND	---	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0223 - 07 14 22 1507
--	---	---

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0318 - EPA 5030B						Water						
Blank (22G0318-BLK1)			Prepared: 07/12/22 10:56 Analyzed: 07/12/22 13:26									
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	

Surr: 1,4-Difluorobenzene (Surr) Recovery: 106 % Limits: 80-120 % Dilution: 1x

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0223 - 07 14 22 1507
--	---	---

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0318 - EPA 5030B						Water						
Blank (22G0318-BLK1)						Prepared: 07/12/22 10:56 Analyzed: 07/12/22 13:26						
<i>Surr: Toluene-d8 (Surr)</i>		<i>Recovery: 102 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>		<i>"</i>						
LCS (22G0318-BS1)						Prepared: 07/12/22 10:56 Analyzed: 07/12/22 12:32						
EPA 8260D												
Acetone	45.5	---	20.0	ug/L	1	40.0	---	114	80-120%	---	---	
Acrylonitrile	20.2	---	2.00	ug/L	1	20.0	---	101	80-120%	---	---	
Benzene	19.6	---	0.200	ug/L	1	20.0	---	98	80-120%	---	---	
Bromobenzene	17.8	---	0.500	ug/L	1	20.0	---	89	80-120%	---	---	
Bromochloromethane	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Bromodichloromethane	18.0	---	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
Bromoform	15.5	---	1.00	ug/L	1	20.0	---	78	80-120%	---	---	Q-55
Bromomethane	8.53	---	5.00	ug/L	1	20.0	---	43	80-120%	---	---	Q-55
2-Butanone (MEK)	45.3	---	10.0	ug/L	1	40.0	---	113	80-120%	---	---	
n-Butylbenzene	20.3	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
sec-Butylbenzene	19.2	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
tert-Butylbenzene	17.8	---	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
Carbon disulfide	14.2	---	10.0	ug/L	1	20.0	---	71	80-120%	---	---	Q-55
Carbon tetrachloride	18.1	---	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
Chlorobenzene	19.1	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Chloroethane	22.3	---	10.0	ug/L	1	20.0	---	112	80-120%	---	---	ICV-01
Chloroform	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Chloromethane	31.0	---	5.00	ug/L	1	20.0	---	155	80-120%	---	---	Q-56
2-Chlorotoluene	17.6	---	1.00	ug/L	1	20.0	---	88	80-120%	---	---	
4-Chlorotoluene	18.4	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
Dibromochloromethane	16.3	---	1.00	ug/L	1	20.0	---	81	80-120%	---	---	
1,2-Dibromo-3-chloropropane	16.4	---	5.00	ug/L	1	20.0	---	82	80-120%	---	---	
1,2-Dibromoethane (EDB)	18.6	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Dibromomethane	19.9	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,2-Dichlorobenzene	20.0	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,3-Dichlorobenzene	19.6	---	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
1,4-Dichlorobenzene	19.4	---	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Dichlorodifluoromethane	17.2	---	1.00	ug/L	1	20.0	---	86	80-120%	---	---	
1,1-Dichloroethane	19.6	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0223 - 07 14 22 1507

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0318 - EPA 5030B						Water						
LCS (22G0318-BS1)			Prepared: 07/12/22 10:56 Analyzed: 07/12/22 12:32									
1,2-Dichloroethane (EDC)	20.2	---	0.400	ug/L	1	20.0	---	101	80-120%	---	---	
1,1-Dichloroethene	19.1	---	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
cis-1,2-Dichloroethene	19.1	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
trans-1,2-Dichloroethene	18.6	---	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
1,2-Dichloropropane	19.6	---	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
1,3-Dichloropropane	19.5	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
2,2-Dichloropropane	16.3	---	1.00	ug/L	1	20.0	---	81	80-120%	---	---	
1,1-Dichloropropene	19.4	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
cis-1,3-Dichloropropene	17.1	---	1.00	ug/L	1	20.0	---	86	80-120%	---	---	
trans-1,3-Dichloropropene	18.3	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
Ethylbenzene	19.2	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Hexachlorobutadiene	21.4	---	5.00	ug/L	1	20.0	---	107	80-120%	---	---	
2-Hexanone	41.5	---	10.0	ug/L	1	40.0	---	104	80-120%	---	---	
Isopropylbenzene	18.7	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
4-Isopropyltoluene	19.4	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Methylene chloride	21.0	---	10.0	ug/L	1	20.0	---	105	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	39.4	---	10.0	ug/L	1	40.0	---	99	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	15.7	---	1.00	ug/L	1	20.0	---	79	80-120%	---	---	Q-55
Naphthalene	18.7	---	2.00	ug/L	1	20.0	---	93	80-120%	---	---	
n-Propylbenzene	18.7	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Styrene	20.1	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,1,1,2-Tetrachloroethane	18.8	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,1,2,2-Tetrachloroethane	20.3	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Tetrachloroethene (PCE)	19.6	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
Toluene	18.3	---	1.00	ug/L	1	20.0	---	91	80-120%	---	---	
1,2,3-Trichlorobenzene	20.9	---	2.00	ug/L	1	20.0	---	105	80-120%	---	---	
1,2,4-Trichlorobenzene	20.2	---	2.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,1,1-Trichloroethane	18.2	---	0.400	ug/L	1	20.0	---	91	80-120%	---	---	
1,1,2-Trichloroethane	19.1	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Trichloroethene (TCE)	18.5	---	0.400	ug/L	1	20.0	---	92	80-120%	---	---	
Trichlorofluoromethane	23.9	---	2.00	ug/L	1	20.0	---	120	80-120%	---	---	
1,2,3-Trichloropropane	18.7	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,2,4-Trimethylbenzene	19.3	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,3,5-Trimethylbenzene	18.9	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0223 - 07 14 22 1507

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0318 - EPA 5030B						Water						
LCS (22G0318-BS1)			Prepared: 07/12/22 10:56 Analyzed: 07/12/22 12:32									
Vinyl chloride	19.3	---	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
m,p-Xylene	39.5	---	1.00	ug/L	1	40.0	---	99	80-120%	---	---	
o-Xylene	17.8	---	0.500	ug/L	1	20.0	---	89	80-120%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 105 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>99 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>90 %</i>		<i>80-120 %</i>		<i>"</i>						

Duplicate (22G0318-DUP1)			Prepared: 07/12/22 10:56 Analyzed: 07/12/22 18:51									
QC Source Sample: Non-SDG (A2G0229-04)												
Acetone	ND	---	20.0	ug/L	1	---	ND	---	---	---	30%	
Acrylonitrile	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
Benzene	ND	---	0.200	ug/L	1	---	0.180	---	---	***	30%	
Bromobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromoform	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromomethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
n-Butylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Carbon disulfide	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Chloroethane	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
Chloroform	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Chloromethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Dibromomethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0223 - 07 14 22 1507

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0318 - EPA 5030B						Water						
Duplicate (22G0318-DUP1)			Prepared: 07/12/22 10:56 Analyzed: 07/12/22 18:51									
QC Source Sample: Non-SDG (A2G0229-04)												
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Hexanone	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Methylene chloride	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
n-Propylbenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Styrene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0223 - 07 14 22 1507

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0318 - EPA 5030B												
Water												
Duplicate (22G0318-DUP1)			Prepared: 07/12/22 10:56 Analyzed: 07/12/22 18:51									
QC Source Sample: Non-SDG (A2G0229-04)												
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
m,p-Xylene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
o-Xylene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 106 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>101 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>96 %</i>		<i>80-120 %</i>		<i>"</i>						

Duplicate (22G0318-DUP2)			Prepared: 07/12/22 10:56 Analyzed: 07/12/22 22:00									
QC Source Sample: Non-SDG (A2G0227-01)												
Acetone	ND	---	1000	ug/L	50	---	ND	---	---	---	30%	
Acrylonitrile	ND	---	100	ug/L	50	---	ND	---	---	---	30%	
Benzene	17600	---	10.0	ug/L	50	---	18000	---	---	2	30%	E
Bromobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromoforn	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromomethane	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	---	500	ug/L	50	---	ND	---	---	---	30%	
n-Butylbenzene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Carbon disulfide	ND	---	500	ug/L	50	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Chloroethane	ND	---	500	ug/L	50	---	ND	---	---	---	30%	
Chloroform	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Chloromethane	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0223 - 07 14 22 1507
--	---	---

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0318 - EPA 5030B						Water						
Duplicate (22G0318-DUP2)			Prepared: 07/12/22 10:56 Analyzed: 07/12/22 22:00									
QC Source Sample: Non-SDG (A2G0227-01)												
4-Chlorotoluene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Dibromomethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Ethylbenzene	206	---	25.0	ug/L	50	---	210	---	---	2	30%	
Hexachlorobutadiene	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
2-Hexanone	ND	---	500	ug/L	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Methylene chloride	ND	---	500	ug/L	50	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	---	500	ug/L	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	347	---	50.0	ug/L	50	---	346	---	---	0.1	30%	Q-54b
Naphthalene	ND	---	100	ug/L	50	---	ND	---	---	---	30%	
n-Propylbenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Styrene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0223 - 07 14 22 1507

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0318 - EPA 5030B						Water						
Duplicate (22G0318-DUP2)			Prepared: 07/12/22 10:56 Analyzed: 07/12/22 22:00									
QC Source Sample: Non-SDG (A2G0227-01)												
Tetrachloroethene (PCE)	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
Toluene	104	---	50.0	ug/L	50	---	108	---	---	4	30%	
1,2,3-Trichlorobenzene	ND	---	100	ug/L	50	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	100	ug/L	50	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	100	ug/L	50	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
m,p-Xylene	72.0	---	50.0	ug/L	50	---	74.5	---	---	3	30%	
o-Xylene	ND	---	25.0	ug/L	50	---	17.0	---	---	***	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>100 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>		<i>"</i>						

Matrix Spike (22G0318-MS1)			Prepared: 07/12/22 10:56 Analyzed: 07/13/22 00:42								T-02	
QC Source Sample: Non-SDG (A2G0227-05)												
EPA 8260D												
Acetone	45.5	---	20.0	ug/L	1	40.0	ND	114	39-160%	---	---	
Acrylonitrile	20.5	---	2.00	ug/L	1	20.0	ND	103	63-135%	---	---	
Benzene	20.9	---	0.200	ug/L	1	20.0	ND	104	79-120%	---	---	
Bromobenzene	18.2	---	0.500	ug/L	1	20.0	ND	91	80-120%	---	---	
Bromochloromethane	21.0	---	1.00	ug/L	1	20.0	ND	105	78-123%	---	---	
Bromodichloromethane	18.1	---	1.00	ug/L	1	20.0	ND	90	79-125%	---	---	
Bromoform	14.9	---	1.00	ug/L	1	20.0	ND	74	66-130%	---	---	Q-54c
Bromomethane	7.56	---	5.00	ug/L	1	20.0	ND	38	53-141%	---	---	
2-Butanone (MEK)	48.5	---	10.0	ug/L	1	40.0	ND	121	56-143%	---	---	
n-Butylbenzene	22.0	---	1.00	ug/L	1	20.0	ND	110	75-128%	---	---	
sec-Butylbenzene	21.2	---	1.00	ug/L	1	20.0	ND	106	77-126%	---	---	
tert-Butylbenzene	19.3	---	1.00	ug/L	1	20.0	ND	97	78-124%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0223 - 07 14 22 1507
--	---	--

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0318 - EPA 5030B						Water						
Matrix Spike (22G0318-MS1)						Prepared: 07/12/22 10:56 Analyzed: 07/13/22 00:42						T-02
QC Source Sample: Non-SDG (A2G0227-05)												
Carbon disulfide	15.1	---	10.0	ug/L	1	20.0	ND	76	64-133%	---	---	Q-54e
Carbon tetrachloride	19.6	---	1.00	ug/L	1	20.0	ND	98	72-136%	---	---	
Chlorobenzene	19.9	---	0.500	ug/L	1	20.0	ND	99	80-120%	---	---	
Chloroethane	25.1	---	10.0	ug/L	1	20.0	ND	126	60-138%	---	---	ICV-01
Chloroform	20.6	---	1.00	ug/L	1	20.0	ND	103	79-124%	---	---	
Chloromethane	33.8	---	5.00	ug/L	1	20.0	ND	169	50-139%	---	---	Q-54a
2-Chlorotoluene	18.4	---	1.00	ug/L	1	20.0	ND	92	79-122%	---	---	
4-Chlorotoluene	19.1	---	1.00	ug/L	1	20.0	ND	95	78-122%	---	---	
Dibromochloromethane	16.0	---	1.00	ug/L	1	20.0	ND	80	74-126%	---	---	
1,2-Dibromo-3-chloropropane	16.1	---	5.00	ug/L	1	20.0	ND	81	62-128%	---	---	
1,2-Dibromoethane (EDB)	18.6	---	0.500	ug/L	1	20.0	ND	93	77-121%	---	---	
Dibromomethane	19.8	---	1.00	ug/L	1	20.0	ND	99	79-123%	---	---	
1,2-Dichlorobenzene	20.0	---	0.500	ug/L	1	20.0	ND	100	80-120%	---	---	
1,3-Dichlorobenzene	20.2	---	0.500	ug/L	1	20.0	ND	101	80-120%	---	---	
1,4-Dichlorobenzene	19.9	---	0.500	ug/L	1	20.0	ND	100	79-120%	---	---	
Dichlorodifluoromethane	19.7	---	1.00	ug/L	1	20.0	ND	98	32-152%	---	---	
1,1-Dichloroethane	20.8	---	0.400	ug/L	1	20.0	ND	104	77-125%	---	---	
1,2-Dichloroethane (EDC)	20.9	---	0.400	ug/L	1	20.0	ND	105	73-128%	---	---	
1,1-Dichloroethene	21.1	---	0.400	ug/L	1	20.0	ND	105	71-131%	---	---	
cis-1,2-Dichloroethene	19.9	---	0.400	ug/L	1	20.0	ND	100	78-123%	---	---	
trans-1,2-Dichloroethene	20.2	---	0.400	ug/L	1	20.0	ND	101	75-124%	---	---	
1,2-Dichloropropane	20.5	---	0.500	ug/L	1	20.0	ND	102	78-122%	---	---	
1,3-Dichloropropane	19.7	---	1.00	ug/L	1	20.0	ND	98	80-120%	---	---	
2,2-Dichloropropane	12.5	---	1.00	ug/L	1	20.0	ND	62	60-139%	---	---	
1,1-Dichloropropene	21.6	---	1.00	ug/L	1	20.0	ND	108	79-125%	---	---	
cis-1,3-Dichloropropene	14.6	---	1.00	ug/L	1	20.0	ND	73	75-124%	---	---	Q-01
trans-1,3-Dichloropropene	17.0	---	1.00	ug/L	1	20.0	ND	85	73-127%	---	---	
Ethylbenzene	20.7	---	0.500	ug/L	1	20.0	ND	103	79-121%	---	---	
Hexachlorobutadiene	22.5	---	5.00	ug/L	1	20.0	ND	112	66-134%	---	---	
2-Hexanone	41.7	---	10.0	ug/L	1	40.0	ND	104	57-139%	---	---	
Isopropylbenzene	20.3	---	1.00	ug/L	1	20.0	ND	101	72-131%	---	---	
4-Isopropyltoluene	21.0	---	1.00	ug/L	1	20.0	ND	105	77-127%	---	---	
Methylene chloride	20.9	---	10.0	ug/L	1	20.0	ND	105	74-124%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0223 - 07 14 22 1507
--	---	---

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0318 - EPA 5030B						Water						
Matrix Spike (22G0318-MS1)						Prepared: 07/12/22 10:56 Analyzed: 07/13/22 00:42						T-02
QC Source Sample: Non-SDG (A2G0227-05)												
4-Methyl-2-pentanone (MiBK)	39.8	---	10.0	ug/L	1	40.0	ND	99	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	15.6	---	1.00	ug/L	1	20.0	ND	78	71-124%	---	---	Q-54b
Naphthalene	18.8	---	2.00	ug/L	1	20.0	ND	94	61-128%	---	---	
n-Propylbenzene	20.0	---	0.500	ug/L	1	20.0	ND	100	76-126%	---	---	
Styrene	19.5	---	1.00	ug/L	1	20.0	ND	98	78-123%	---	---	
1,1,1,2-Tetrachloroethane	18.6	---	0.400	ug/L	1	20.0	ND	93	78-124%	---	---	
1,1,1,2,2-Tetrachloroethane	20.6	---	0.500	ug/L	1	20.0	ND	103	71-121%	---	---	
Tetrachloroethene (PCE)	20.9	---	0.400	ug/L	1	20.0	ND	104	74-129%	---	---	
Toluene	19.3	---	1.00	ug/L	1	20.0	ND	97	80-121%	---	---	
1,2,3-Trichlorobenzene	21.4	---	2.00	ug/L	1	20.0	ND	107	69-129%	---	---	
1,2,4-Trichlorobenzene	20.4	---	2.00	ug/L	1	20.0	ND	102	69-130%	---	---	
1,1,1-Trichloroethane	19.6	---	0.400	ug/L	1	20.0	ND	98	74-131%	---	---	
1,1,2-Trichloroethane	19.4	---	0.500	ug/L	1	20.0	ND	97	80-120%	---	---	
Trichloroethene (TCE)	19.8	---	0.400	ug/L	1	20.0	ND	99	79-123%	---	---	
Trichlorofluoromethane	27.1	---	2.00	ug/L	1	20.0	ND	136	65-141%	---	---	
1,2,3-Trichloropropane	18.8	---	1.00	ug/L	1	20.0	ND	94	73-122%	---	---	
1,2,4-Trimethylbenzene	20.1	---	1.00	ug/L	1	20.0	ND	100	76-124%	---	---	
1,3,5-Trimethylbenzene	20.3	---	1.00	ug/L	1	20.0	ND	102	75-124%	---	---	
Vinyl chloride	21.8	---	0.400	ug/L	1	20.0	ND	109	58-137%	---	---	
m,p-Xylene	42.0	---	1.00	ug/L	1	40.0	ND	105	80-121%	---	---	
o-Xylene	18.9	---	0.500	ug/L	1	20.0	ND	94	78-122%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 104 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>90 %</i>		<i>80-120 %</i>		<i>"</i>						

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

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ORELAP ID: OR100062

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0223 - 07 14 22 1507

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0244 - EPA 3510C (Acid Extraction)						Water						
Blank (22G0244-BLK2)			Prepared: 07/11/22 07:19 Analyzed: 07/11/22 13:45									
<u>EPA 8270E</u>												
Acenaphthene	ND	---	0.0182	ug/L	1	---	---	---	---	---	---	Q-30
Acenaphthylene	ND	---	0.0182	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	---	0.0182	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	0.0182	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	0.0182	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	---	0.0182	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	0.0182	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	---	0.0182	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	---	0.0182	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	0.0182	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	0.0364	ug/L	1	---	---	---	---	---	---	Q-30
2-Methylnaphthalene	ND	---	0.0364	ug/L	1	---	---	---	---	---	---	Q-30
Naphthalene	ND	---	0.0364	ug/L	1	---	---	---	---	---	---	Q-30
Phenanthrene	ND	---	0.0182	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	---	0.0182	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	---	0.0273	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	---	0.0182	ug/L	1	---	---	---	---	---	---	Q-30
<i>Surr: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 74 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>		Q-41				
<i>2-Fluorobiphenyl (Surr)</i>		<i>57 %</i>		<i>44-120 %</i>		<i>"</i>						
<i>Phenol-d6 (Surr)</i>		<i>20 %</i>		<i>10-133 %</i>		<i>"</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>74 %</i>		<i>50-134 %</i>		<i>"</i>						
<i>2-Fluorophenol (Surr)</i>		<i>35 %</i>		<i>19-120 %</i>		<i>"</i>						
<i>2,4,6-Tribromophenol (Surr)</i>		<i>58 %</i>		<i>43-140 %</i>		<i>"</i>						

LCS (22G0244-BS2)			Prepared: 07/11/22 07:19 Analyzed: 07/11/22 14:21									
<u>EPA 8270E</u>												
Acenaphthene	1.83	---	0.0200	ug/L	1	4.00	---	46	47-122%	---	---	Q-30
Acenaphthylene	2.18	---	0.0200	ug/L	1	4.00	---	54	41-130%	---	---	
Anthracene	2.53	---	0.0200	ug/L	1	4.00	---	63	57-123%	---	---	
Benz(a)anthracene	2.72	---	0.0200	ug/L	1	4.00	---	68	58-125%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0223 - 07 14 22 1507

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 22G0244 - EPA 3510C (Acid Extraction)						Water							
LCS (22G0244-BS2)			Prepared: 07/11/22 07:19 Analyzed: 07/11/22 14:21										
Benzo(a)pyrene	3.08	---	0.0300	ug/L	1	4.00	---	77	54-128%	---	---		
Benzo(b)fluoranthene	2.86	---	0.0300	ug/L	1	4.00	---	71	53-131%	---	---		
Benzo(k)fluoranthene	2.85	---	0.0300	ug/L	1	4.00	---	71	57-129%	---	---		
Benzo(g,h,i)perylene	2.81	---	0.0200	ug/L	1	4.00	---	70	50-134%	---	---		
Chrysene	2.59	---	0.0200	ug/L	1	4.00	---	65	59-123%	---	---		
Dibenz(a,h)anthracene	2.77	---	0.0200	ug/L	1	4.00	---	69	51-134%	---	---		
Fluoranthene	2.65	---	0.0200	ug/L	1	4.00	---	66	57-128%	---	---		
Fluorene	2.08	---	0.0200	ug/L	1	4.00	---	52	52-124%	---	---		
Indeno(1,2,3-cd)pyrene	2.59	---	0.0200	ug/L	1	4.00	---	65	52-134%	---	---		
1-Methylnaphthalene	1.42	---	0.0400	ug/L	1	4.00	---	35	41-120%	---	---	Q-30	
2-Methylnaphthalene	1.33	---	0.0400	ug/L	1	4.00	---	33	40-121%	---	---	Q-30	
Naphthalene	1.45	---	0.0400	ug/L	1	4.00	---	36	40-121%	---	---	Q-30	
Phenanthrene	2.42	---	0.0200	ug/L	1	4.00	---	60	59-120%	---	---		
Pyrene	2.58	---	0.0200	ug/L	1	4.00	---	65	57-126%	---	---		
Carbazole	2.91	---	0.0300	ug/L	1	4.00	---	73	60-122%	---	---		
Dibenzofuran	1.90	---	0.0200	ug/L	1	4.00	---	47	53-120%	---	---	Q-30	
<i>Surr: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 66 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>							Q-41
<i>2-Fluorobiphenyl (Surr)</i>		<i>47 %</i>		<i>44-120 %</i>		<i>"</i>							
<i>Phenol-d6 (Surr)</i>		<i>20 %</i>		<i>10-133 %</i>		<i>"</i>							
<i>p-Terphenyl-d14 (Surr)</i>		<i>72 %</i>		<i>50-134 %</i>		<i>"</i>							
<i>2-Fluorophenol (Surr)</i>		<i>31 %</i>		<i>19-120 %</i>		<i>"</i>							
<i>2,4,6-Tribromophenol (Surr)</i>		<i>60 %</i>		<i>43-140 %</i>		<i>"</i>							

LCS Dup (22G0244-BSD2)			Prepared: 07/11/22 07:19 Analyzed: 07/11/22 14:57								Q-19	
EPA 8270E												
Acenaphthene	1.98	---	0.0200	ug/L	1	4.00	---	49	47-122%	8	30%	
Acenaphthylene	2.27	---	0.0200	ug/L	1	4.00	---	57	41-130%	4	30%	
Anthracene	2.72	---	0.0200	ug/L	1	4.00	---	68	57-123%	7	30%	
Benz(a)anthracene	3.04	---	0.0200	ug/L	1	4.00	---	76	58-125%	11	30%	
Benzo(a)pyrene	3.34	---	0.0300	ug/L	1	4.00	---	84	54-128%	8	30%	
Benzo(b)fluoranthene	3.04	---	0.0300	ug/L	1	4.00	---	76	53-131%	6	30%	
Benzo(k)fluoranthene	3.06	---	0.0300	ug/L	1	4.00	---	77	57-129%	7	30%	
Benzo(g,h,i)perylene	3.03	---	0.0200	ug/L	1	4.00	---	76	50-134%	8	30%	
Chrysene	2.93	---	0.0200	ug/L	1	4.00	---	73	59-123%	12	30%	

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0223 - 07 14 22 1507
--	---	---

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 22G0244 - EPA 3510C (Acid Extraction)						Water							
LCS Dup (22G0244-BSD2)						Prepared: 07/11/22 07:19 Analyzed: 07/11/22 14:57						Q-19	
Dibenz(a,h)anthracene	2.94	---	0.0200	ug/L	1	4.00	---	74	51-134%	6	30%		
Fluoranthene	2.92	---	0.0200	ug/L	1	4.00	---	73	57-128%	10	30%		
Fluorene	2.24	---	0.0200	ug/L	1	4.00	---	56	52-124%	8	30%		
Indeno(1,2,3-cd)pyrene	2.88	---	0.0200	ug/L	1	4.00	---	72	52-134%	11	30%		
1-Methylnaphthalene	1.41	---	0.0400	ug/L	1	4.00	---	35	41-120%	0.5	30%	Q-30	
2-Methylnaphthalene	1.35	---	0.0400	ug/L	1	4.00	---	34	40-121%	1	30%	Q-30	
Naphthalene	1.47	---	0.0400	ug/L	1	4.00	---	37	40-121%	1	30%	Q-30	
Phenanthrene	2.50	---	0.0200	ug/L	1	4.00	---	63	59-120%	3	30%		
Pyrene	2.90	---	0.0200	ug/L	1	4.00	---	72	57-126%	11	30%		
Carbazole	3.09	---	0.0300	ug/L	1	4.00	---	77	60-122%	6	30%		
Dibenzofuran	2.04	---	0.0200	ug/L	1	4.00	---	51	53-120%	7	30%	Q-30	
<i>Surr: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 68 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>							Q-41
<i>2-Fluorobiphenyl (Surr)</i>		<i>51 %</i>		<i>44-120 %</i>		<i>"</i>							
<i>Phenol-d6 (Surr)</i>		<i>19 %</i>		<i>10-133 %</i>		<i>"</i>							
<i>p-Terphenyl-d14 (Surr)</i>		<i>70 %</i>		<i>50-134 %</i>		<i>"</i>							
<i>2-Fluorophenol (Surr)</i>		<i>31 %</i>		<i>19-120 %</i>		<i>"</i>							
<i>2,4,6-Tribromophenol (Surr)</i>		<i>62 %</i>		<i>43-140 %</i>		<i>"</i>							

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC.	Project: Les Schwab Springfield	
3140 NE Broadway Street	Project Number: 0553.10.001	Report ID:
Portland, OR 97232	Project Manager: Merideth D'Andrea	A2G0223 - 07 14 22 1507

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0302 - EPA 3510C (Acid Extraction)						Water						
Blank (22G0302-BLK2)			Prepared: 07/12/22 09:04 Analyzed: 07/12/22 17:58									
<u>EPA 8270E</u>												
Acenaphthene	ND	---	0.0125	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	0.0125	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	---	0.0125	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	0.0125	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	0.0188	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	0.0188	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	0.0188	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	0.0125	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	---	0.0125	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	0.0125	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	---	0.0125	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	---	0.0125	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	0.0125	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	0.0250	ug/L	1	---	---	---	---	---	---	Q-30
2-Methylnaphthalene	ND	---	0.0250	ug/L	1	---	---	---	---	---	---	Q-30
Naphthalene	ND	---	0.0250	ug/L	1	---	---	---	---	---	---	Q-30
Phenanthrene	ND	---	0.0125	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	---	0.0125	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	---	0.0188	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	---	0.0125	ug/L	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	---	0.250	ug/L	1	---	---	---	---	---	---	
<i>Surr: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 84 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>						
<i>2-Fluorobiphenyl (Surr)</i>		<i>64 %</i>		<i>44-120 %</i>		<i>"</i>						
<i>Phenol-d6 (Surr)</i>		<i>24 %</i>		<i>10-133 %</i>		<i>"</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>85 %</i>		<i>50-134 %</i>		<i>"</i>						
<i>2-Fluorophenol (Surr)</i>		<i>38 %</i>		<i>19-120 %</i>		<i>"</i>						
<i>2,4,6-Tribromophenol (Surr)</i>		<i>70 %</i>		<i>43-140 %</i>		<i>"</i>						

LCS (22G0302-BS2)			Prepared: 07/12/22 09:04 Analyzed: 07/12/22 18:34									
<u>EPA 8270E</u>												
Acenaphthene	2.07	---	0.0200	ug/L	1	4.00	---	52	47-122%	---	---	
Acenaphthylene	2.40	---	0.0200	ug/L	1	4.00	---	60	41-130%	---	---	
Anthracene	3.10	---	0.0200	ug/L	1	4.00	---	78	57-123%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0223 - 07 14 22 1507
--	---	---

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0302 - EPA 3510C (Acid Extraction)						Water						
LCS (22G0302-BS2)			Prepared: 07/12/22 09:04 Analyzed: 07/12/22 18:34									
Benz(a)anthracene	3.41	---	0.0200	ug/L	1	4.00	---	85	58-125%	---	---	
Benzo(a)pyrene	3.86	---	0.0300	ug/L	1	4.00	---	97	54-128%	---	---	
Benzo(b)fluoranthene	3.53	---	0.0300	ug/L	1	4.00	---	88	53-131%	---	---	
Benzo(k)fluoranthene	3.63	---	0.0300	ug/L	1	4.00	---	91	57-129%	---	---	
Benzo(g,h,i)perylene	3.29	---	0.0200	ug/L	1	4.00	---	82	50-134%	---	---	
Chrysene	3.23	---	0.0200	ug/L	1	4.00	---	81	59-123%	---	---	
Dibenz(a,h)anthracene	3.43	---	0.0200	ug/L	1	4.00	---	86	51-134%	---	---	
Fluoranthene	3.26	---	0.0200	ug/L	1	4.00	---	81	57-128%	---	---	
Fluorene	2.41	---	0.0200	ug/L	1	4.00	---	60	52-124%	---	---	
Indeno(1,2,3-cd)pyrene	3.23	---	0.0200	ug/L	1	4.00	---	81	52-134%	---	---	
1-Methylnaphthalene	1.42	---	0.0400	ug/L	1	4.00	---	35	41-120%	---	---	Q-30
2-Methylnaphthalene	1.35	---	0.0400	ug/L	1	4.00	---	34	40-121%	---	---	Q-30
Naphthalene	1.45	---	0.0400	ug/L	1	4.00	---	36	40-121%	---	---	Q-30
Phenanthrene	2.96	---	0.0200	ug/L	1	4.00	---	74	59-120%	---	---	
Pyrene	3.18	---	0.0200	ug/L	1	4.00	---	79	57-126%	---	---	
Carbazole	3.54	---	0.0300	ug/L	1	4.00	---	88	60-122%	---	---	
Dibenzofuran	2.15	---	0.0200	ug/L	1	4.00	---	54	53-120%	---	---	
Bis(2-ethylhexyl)phthalate	3.64	---	0.400	ug/L	1	4.00	---	91	55-135%	---	---	
<i>Surr: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 71 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>						
<i>2-Fluorobiphenyl (Surr)</i>		<i>57 %</i>		<i>44-120 %</i>		<i>"</i>						
<i>Phenol-d6 (Surr)</i>		<i>21 %</i>		<i>10-133 %</i>		<i>"</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>87 %</i>		<i>50-134 %</i>		<i>"</i>						
<i>2-Fluorophenol (Surr)</i>		<i>34 %</i>		<i>19-120 %</i>		<i>"</i>						
<i>2,4,6-Tribromophenol (Surr)</i>		<i>75 %</i>		<i>43-140 %</i>		<i>"</i>						

LCS Dup (22G0302-BSD2)			Prepared: 07/12/22 09:04 Analyzed: 07/12/22 19:10								Q-19	
EPA 8270E												
Acenaphthene	2.52	---	0.0200	ug/L	1	4.00	---	63	47-122%	20	30%	
Acenaphthylene	2.90	---	0.0200	ug/L	1	4.00	---	73	41-130%	19	30%	
Anthracene	3.23	---	0.0200	ug/L	1	4.00	---	81	57-123%	4	30%	
Benz(a)anthracene	3.44	---	0.0200	ug/L	1	4.00	---	86	58-125%	1	30%	
Benzo(a)pyrene	4.00	---	0.0300	ug/L	1	4.00	---	100	54-128%	3	30%	
Benzo(b)fluoranthene	3.61	---	0.0300	ug/L	1	4.00	---	90	53-131%	2	30%	
Benzo(k)fluoranthene	3.54	---	0.0300	ug/L	1	4.00	---	89	57-129%	3	30%	

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Philip Nerenberg

Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0223 - 07 14 22 1507
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QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22G0302 - EPA 3510C (Acid Extraction)						Water						
LCS Dup (22G0302-BSD2)						Prepared: 07/12/22 09:04 Analyzed: 07/12/22 19:10						Q-19
Benzo(g,h,i)perylene	3.52	---	0.0200	ug/L	1	4.00	---	88	50-134%	7	30%	
Chrysene	3.27	---	0.0200	ug/L	1	4.00	---	82	59-123%	1	30%	
Dibenz(a,h)anthracene	3.47	---	0.0200	ug/L	1	4.00	---	87	51-134%	1	30%	
Fluoranthene	3.36	---	0.0200	ug/L	1	4.00	---	84	57-128%	3	30%	
Fluorene	2.83	---	0.0200	ug/L	1	4.00	---	71	52-124%	16	30%	
Indeno(1,2,3-cd)pyrene	3.43	---	0.0200	ug/L	1	4.00	---	86	52-134%	6	30%	
1-Methylnaphthalene	1.96	---	0.0400	ug/L	1	4.00	---	49	41-120%	32	30%	Q-01
2-Methylnaphthalene	1.92	---	0.0400	ug/L	1	4.00	---	48	40-121%	35	30%	Q-01
Naphthalene	1.99	---	0.0400	ug/L	1	4.00	---	50	40-121%	31	30%	Q-01
Phenanthrene	3.03	---	0.0200	ug/L	1	4.00	---	76	59-120%	2	30%	
Pyrene	3.34	---	0.0200	ug/L	1	4.00	---	83	57-126%	5	30%	
Carbazole	3.63	---	0.0300	ug/L	1	4.00	---	91	60-122%	2	30%	
Dibenzofuran	2.64	---	0.0200	ug/L	1	4.00	---	66	53-120%	20	30%	
Bis(2-ethylhexyl)phthalate	3.62	---	0.400	ug/L	1	4.00	---	90	55-135%	0.8	30%	
<i>Surr: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 92 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>						
<i>2-Fluorobiphenyl (Surr)</i>		<i>70 %</i>		<i>44-120 %</i>		<i>"</i>						
<i>Phenol-d6 (Surr)</i>		<i>28 %</i>		<i>10-133 %</i>		<i>"</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>83 %</i>		<i>50-134 %</i>		<i>"</i>						
<i>2-Fluorophenol (Surr)</i>		<i>44 %</i>		<i>19-120 %</i>		<i>"</i>						
<i>2,4,6-Tribromophenol (Surr)</i>		<i>79 %</i>		<i>43-140 %</i>		<i>"</i>						

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ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0223 - 07 14 22 1507
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SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3510C (Fuels/Acid Ext.)					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22G0267</u>							
A2G0223-01	Water	NWTPH-Dx	07/08/22 10:40	07/11/22 11:44	1030mL/5mL	1000mL/5mL	0.97

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

Prep: EPA 5030B					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22G0318</u>							
A2G0223-01RE1	Water	NWTPH-Gx (MS)	07/08/22 10:40	07/12/22 10:56	5mL/5mL	5mL/5mL	1.00

Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030B					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22G0256</u>							
A2G0223-02	Water	EPA 8260D	07/08/22 00:00	07/11/22 14:44	5mL/5mL	5mL/5mL	1.00
<u>Batch: 22G0318</u>							
A2G0223-01RE1	Water	EPA 8260D	07/08/22 10:40	07/12/22 10:56	5mL/5mL	5mL/5mL	1.00

Selected Semivolatile Organic Compounds by EPA 8270E

Prep: EPA 3510C (Acid Extraction)					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 22G0302</u>							
A2G0223-01RE2	Water	EPA 8270E	07/08/22 10:40	07/12/22 09:39	1020mL/1mL	1000mL/1mL	0.98

Apex Laboratories

Philip Nerenberg, Lab Director

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



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Maul Foster & Alongi, INC.

3140 NE Broadway Street
Portland, OR 97232

Project: **Les Schwab Springfield**

Project Number: **0553.10.001**

Project Manager: **Merideth D'Andrea**

Report ID:

A2G0223 - 07 14 22 1507

QUALIFIER DEFINITIONS

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

Apex Laboratories

- E** Estimated Value. The result is above the calibration range of the instrument.
- 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.
- ICV-01** Estimated Result. Initial Calibration Verification (ICV) failed high. There is no effect on non-detect results.
- 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.
- Q-30** Recovery for Lab Control Spike (LCS) is below the lower control limit. Data may be biased low.
- Q-41** Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
- Q-54** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +27%. The results are reported as Estimated Values.
- Q-54a** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +35%. The results are reported as Estimated Values.
- Q-54b** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -1%. The results are reported as Estimated Values.
- Q-54c** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -2%. The results are reported as Estimated Values.
- Q-54d** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -36%. The results are reported as Estimated Values.
- Q-54e** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -9%. The results are reported as Estimated Values.
- Q-55** Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
- Q-56** Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260
- R-04** Reporting levels elevated due to preparation and/or analytical dilution necessary for analysis.
- S-03** Sample re-extract, or the analysis of an associated Batch QC sample, confirms surrogate failure due to sample matrix effect.
- T-02** This Batch QC sample was analyzed outside of the method specified 12 hour analysis window. Results are estimated.
- V-01** Sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0223 - 07 14 22 1507
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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

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

Detection Limits: Limit of Detection (LOD)

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

Reporting Limits: Limit of Quantitation (LOQ)

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

Reporting Conventions:

- Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.
- " dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.
- " wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
- " " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

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).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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Table with 3 columns: Client (Maul Foster & Alongi, INC.), Project (Les Schwab Springfield), and Report ID (A2G0223 - 07 14 22 1507)

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

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.

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.

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.

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.

Handwritten signature of Philip Nerenberg



ANALYTICAL REPORT

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Table with 3 columns: Client (Maul Foster & Alongi, INC.), Project (Les Schwab Springfield), and Report ID (A2G0223 - 07 14 22 1507).

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

Table header with columns: Matrix, Analysis, TNI_ID, Analyte, TNI_ID, Accreditation

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

Secondary Accreditations

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

Subcontract Laboratory Accreditations

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

Field Testing Parameters

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

Apex Laboratories

Handwritten signature of Philip Nerenberg

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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ORELAP ID: OR100062

Maul Foster & Alongi, INC. 3140 NE Broadway Street Portland, OR 97232	Project: Les Schwab Springfield Project Number: 0553.10.001 Project Manager: Merideth D'Andrea	Report ID: A2G0223 - 07 14 22 1507
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APEX LABS COOLER RECEIPT FORM

Client: MFA Element WO#: A2G0223

Project/Project #: Les Schwab Springfield 10553-10-001

Delivery Info:
 Date/time received: 7/8/22 @ 17:25 By: ZAM
 Delivered by: Apex Client ESS FedEx UPS Swift Senvoy SDS Other

Cooler Inspection Date/time inspected: 7/8/22 @ 17:30 By: ZAM
 Chain of Custody included? Yes No Custody seals? Yes No
 Signed/dated by client? Yes No
 Signed/dated by Apex? Yes No

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

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: 7/8/22 @ 19:30 By: ZAM
 All samples intact? Yes No Comments: _____

Bottle labels/COCs agree? Yes No Comments: Received Trip Blank but not listed on COC.

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: 3/3 have HS. 3/3 have sediment.

Water samples: pH checked: Yes No NA pH appropriate? Yes No NA
 Comments: _____

Additional information: Trip Blank # 3129

Labeled by: ZAM Witness: DSS Cooler Inspected by: ZAM

Philip Nerenberg

ATTACHMENT C

DATA VALIDATION MEMORANDA



DATA QUALITY ASSURANCE/QUALITY CONTROL REVIEW

PROJECT NO. M0553.10.001 | JUNE 23, 2022 | LES SCHWAB

Maul Foster & Alongi, Inc. (MFA), conducted an independent stage 2A review of the quality of analytical results for soil samples collected at the Les Schwab site at 3294 Main Street, Springfield, Oregon, on June 13, 2022.

Apex Laboratories, LLC (Apex), performed the analyses. Apex report number A2F0432 was reviewed. The analyses performed and samples analyzed are listed below. Not all analyses were performed on all samples, and some samples were submitted on hold.

Analysis	Reference
Diesel- and oil-range hydrocarbons	NWTPH-Dx
Gasoline-range hydrocarbons	NWTPH-Gx
Percent dry weight	EPA 8000D
Polychlorinated biphenyls as Aroclors	EPA 8082A
Total leads	EPA 6020B
Volatile organic compounds	EPA 8260D
Notes EPA = U.S. Environmental Protection Agency. NWTPH = Northwest Total Petroleum Hydrocarbons.	

Samples Analyzed	
Report A2F0432	
061322-NP-01	061322-CE-01 (hold)
061322-EP-01	061322-CW-01
061322-WP-01	061322-SE-01
061322-SP-01	061322-SW-01 (hold)
061322-NE-01 (hold)	061322-SKP-01 (hold)
061322-NW-01	--

DATA QUALIFICATION

Analytical results were evaluated according to applicable sections of U.S. Environmental Protection Agency (EPA) guidelines for data review (EPA 2020a,b) and appropriate laboratory- and method-specific guidelines (Apex 2021, EPA 1986).

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

Based on the results of the data quality review procedures described below, the data are considered acceptable for their intended use, with the appropriate final data qualifiers assigned. Final data qualifiers represent qualifiers originating from the laboratory and accepted by the reviewer, as well as data qualifiers assigned by the reviewer during validation.

- Final data qualifier:
 - U = result is non-detect at the method reporting limit (MRL).

According to report A2F0432, the laboratory flagged the NWTPH-Dx diesel-range hydrocarbons result for sample 061322-EP-01 as having a hydrocarbon pattern indicating possible weathered diesel, mineral oil, or a contribution from a related component. The result was reported as diesel-range hydrocarbons instead of specific fuel products; thus, qualification was not required.

In report A2F0432, Apex noted that, to minimize matrix interference, EPA Method 8082A samples and associated batch quality control samples were processed with sulfuric acid cleanup by EPA Method 3665A, sulfur cleanup by EPA Method 3660B, and Florisil cleanup by EPA Method 3620B. No action by the reviewer was required.

HOLDING TIMES, PRESERVATION, AND SAMPLE STORAGE

Holding Times

Extractions and analyses were performed within the recommended holding time criteria.

Preservation and Sample Storage

The samples were preserved and stored appropriately.

BLANKS

Method Blanks

Laboratory method blanks are used to assess whether laboratory contamination was introduced during sample preparation and analysis. Laboratory method blank analyses were performed at the required frequencies. For purposes of data qualification, the laboratory method blanks were associated with all samples prepared in the analytical batch.

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

Equipment Rinse Blanks

Equipment rinse blanks are used to evaluate field equipment decontamination. These blanks were not required for this sampling event, as all samples were collected using dedicated, single-use equipment.

Trip Blanks

Trip blanks are used to evaluate whether volatile organic compound contamination was introduced during sample storage and shipment between the sampling location and the laboratory.

A trip blank sample was not submitted for analysis. The reviewer could not evaluate sample storage and shipment conditions for potential volatile organic compound contamination. The reviewer made no qualifications.

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE RESULTS

A laboratory control sample (LCS) and a laboratory control sample duplicate (LCSD) are spiked with target analytes to provide information about laboratory precision and accuracy.

Apex did not report LCSD for any methods; laboratory precision was evaluated using laboratory duplicate results. The LCS samples were extracted and analyzed at the required frequency.

All LCS results were within acceptance limits for percent recovery.

LABORATORY DUPLICATE RESULTS

Laboratory duplicate results are used to evaluate laboratory precision. Laboratory duplicate results within five times the MRL were not evaluated for precision. All laboratory duplicate samples were extracted and analyzed at the required frequency.

Laboratory duplicate relative percent difference (RPD) control limit exceedances did not require qualification in cases where the laboratory duplicate had been prepared by the laboratory with non-homogenous soil samples from unrelated projects because these sample matrices were not representative of project sample matrices.

All remaining laboratory duplicate results met RPD acceptance criteria.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

Matrix spike (MS) and matrix spike duplicate (MSD) results are used to evaluate laboratory precision and accuracy as well as the effect of the sample matrix on sample preparation and analysis.

Apex did not report MSD for any methods; laboratory precision was evaluated using laboratory duplicate results. Apex did not report MS for NWTPH-Dx or NWTPH-Gx, in accordance with the methods. Laboratory accuracy and precision were evaluated using LCS and laboratory duplicate results. All remaining MS samples were prepared and analyzed at the required frequency.

MS and MSD percent recovery and/or RPD control limit exceedances did not require qualification in cases where the MS and MSD had been prepared by the laboratory with samples from unrelated projects because these sample matrices were not representative of project sample matrices.

All remaining MS results were within acceptance limits for percent recovery.

SURROGATE RECOVERY RESULTS

The samples were spiked with surrogate compounds to evaluate laboratory performance for individual samples. The laboratory appropriately documented and qualified surrogate outliers. The reviewer took no action based on surrogate percent recoveries that were outside acceptance limits because of dilutions necessary to quantify high concentrations of target analytes present in the samples. The reviewer confirmed that batch quality assurance/quality control results for samples with surrogate outliers were within acceptance limits.

All remaining surrogate results were within percent recovery acceptance limits.

FIELD DUPLICATE RESULTS

Field duplicate samples measure both field and laboratory precision.

No field duplicate samples were submitted for analysis.

REPORTING LIMITS

Apex reported results using routine MRLs, except for samples requiring dilutions because of high analyte concentrations and/or matrix interferences, which were reported with raised MRLs.

Apex noted that the EPA Method 8260D naphthalene result for 061322-SP-01 had a raised reporting limit due to interference from coeluting organic compounds present in the sample.

The reviewer confirmed that NWTPH-Gx, EPA Method 8260D, and EPA Method 6020B soil results were reported with base dilution factors of 50, 50, and 10, respectively, due to the default dilutions required for analysis.

DATA PACKAGE

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

Samples 061322-NP-01, 061322-EP-01, and 061322-SE-01 were submitted to Apex on hold. The reviewer confirmed that MFA requested analysis of these samples after sample receipt.

Samples 061322-NP-01, 061322-EP-01, 061322-WP-01, 061322-SP-01, and 061322-NW-01 were analyzed by EPA Method 8082A, although this analysis was not requested on the chain-of-custody form. The reviewer confirmed that MFA requested this analysis after sample

receipt. Apex released a revision for report A2F0432 on June 29, 2022, that included some of these additional results.

No other issues were found.

REFERENCES

- Apex. 2021. *Quality Systems Manual*. Rev. 9. Apex Laboratories, LLC: Tigard, OR. January 1.
- 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.

DATA QUALITY ASSURANCE/QUALITY CONTROL REVIEW

PROJECT NO. M0553.10.001 | JULY 20, 2022 | LES SCHWAB

Maul Foster & Alongi, Inc., conducted an independent stage 2A review of the quality of analytical results for excavation soil and test pit groundwater samples collected at the Les Schwab site at 3294 Main Street, Springfield, Oregon, in June and July, 2022

Apex Laboratories, LLC (Apex), performed the analyses. Apex report numbers A2F1064, A2G0005, A2G0222, and A2G0223 were reviewed. The analyses performed and samples analyzed are listed below. Samples submitted on hold are also indicated below.

Analysis	Reference
Diesel- and oil-range hydrocarbons	NWTPH-Dx
Gasoline-range hydrocarbons	NWTPH-Gx
Percent dry weight	EPA 8000D
Semivolatile organic compounds	EPA 8270E, EPA 8270E-SIM
Volatile organic compounds	EPA 8260D
Notes EPA = U.S. Environmental Protection Agency. NWTPH = Northwest Total Petroleum Hydrocarbons. SIM = selected ion monitoring.	

Samples Analyzed		
Report A2F1064	Report A2G0005	Report A2G0222
063022-WP-9.8-01	063022-GWN-8.4-01	070822-S-7.6
063022-SP-7.3-01	063022-GWNE-7.0-01	070822-NE-7.0
063022-WW-3-01	063022-GWS-10.6-01	070822-N-6.8
063022-EW-3-01	--	Report A2G0223
063022-SW-3-01	--	070822-GWmainpit-7.1
063022-SP-5.8-01 (hold)	--	Trip Blank

DATA QUALIFICATION

Analytical results were evaluated according to applicable sections of U.S. Environmental Protection Agency (EPA) guidelines for data review (EPA 2020) and appropriate laboratory- and method-specific guidelines (Apex 2021, EPA 1986).

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

Based on the results of the data quality review procedures described below, the data are considered acceptable for their intended use, with the appropriate final data qualifiers assigned. Final data qualifiers represent qualifiers originating from the laboratory and accepted by the reviewer, as well as data qualifiers assigned by the reviewer during validation.

- Final data qualifiers:
 - J = result is estimated.
 - R = result is rejected. The analyte may or may not be present in the sample.
 - U = result is non-detect at the method reporting limit (MRL).
 - UJ = result is non-detect with an estimated MRL.

According to report A2F1064, the laboratory flagged the NWTPH-Dx diesel-range hydrocarbons result for sample 063022-WP-9.8-01 as estimated due the presence of multiple fuel products. The result has been qualified by the reviewer with “J,” as estimated.

Report	Sample	Component	Original Result (mg/kg)	Qualified Result (mg/kg)
A2F1064	063022-WP-9.8-01	Diesel-range hydrocarbons	212	212 J
Notes J = result is estimated. mg/kg = milligrams per kilogram.				

According to report A2F1064, the EPA Method 8260D n-butylbenzene result for sample 063022-WP-9.8-01 was flagged by the laboratory as estimated due to matrix interference. The result has been qualified by the reviewer with “J,” as estimated.

Report	Sample	Component	Original Result (ug/kg)	Qualified Result (ug/kg)
A2F1064	063022-WP-9.8-01	n-Butylbenzene	2,610	2,610 J
Notes J = result is estimated. ug/kg = micrograms per kilogram.				

According to report A2G0005, the laboratory flagged the NWTPH-Dx diesel-range hydrocarbons results for samples 063022-GWNE-7.0-01 and 063022-GWS-10.6-01 as estimated due to overlap from gasoline-range hydrocarbons or other volatile organic compounds. The results have been qualified by the reviewer with “J,” as estimated.

Report	Sample	Component	Original Result (mg/L)	Qualified Result (mg/L)
A2G0005	063022-GWNE-7.0-01	Diesel-range hydrocarbons	2.62	2.62 J
	063022-GWS-10.6-01		3.44	3.44 J
Notes J = result is estimated. mg/L = milligrams per liter.				

According to report A2G0005, the EPA Method 8260D 4-isopropyltoluene result for sample 063022-GWS-10.6-01 was flagged by the laboratory as estimated due to matrix interference. All EPA Method 8260D results for this sample were qualified as estimated based on sample container headspace; the reviewer determined that no additional qualification was required.

According to report A2G0005, EPA Method 8270E-SIM analysis of samples 063022-GWN-8.4-01, 063022-GWNE-7.0-01, and 063022-GWS-10.6-01 was performed using the NWTPH-Dx extracts because insufficient sample volume was submitted for analysis. EPA Method 8270E-SIM laboratory method blank results were provided, but the laboratory control sample (LCS) and surrogate results were not available because they were not part of the original NWTPH-Dx analytical batch. Based on the lack of LCS and surrogate data, the reviewer qualified all associated EPA Method 8270E-SIM detected results with “J,” as estimated, and all non-detect results with “UJ,” as non-detect with an estimated reporting limit.

Report	Sample	Analysis	Original Results	Qualification
A2G0005	063022-GWN-8.4-01	EPA Method 8270E-SIM	Detected	J
	063022-GWNE-7.0-01 063022-GWS-10.6-01		Non-detect	UJ
Notes J = result is estimated. UJ = result is non-detect with an estimated reporting limit.				

According to report A2G0222, the laboratory flagged the NWTPH-Dx diesel-range hydrocarbons result for sample 070822-NE-7.0 as estimated due to overlap from gasoline-range hydrocarbons or other volatile organic compounds. The result has been qualified by the reviewer with “J,” as estimated.

Report	Sample	Component	Original Result (mg/kg)	Qualified Result (mg/kg)
A2G0222	070822-NE-7.0	Diesel-range hydrocarbons	837	837 J
Notes J = result is estimated. mg/kg = milligrams per kilogram.				

HOLDING TIMES, PRESERVATION, AND SAMPLE STORAGE

Holding Times

Extractions and analyses were performed within the recommended holding time criteria.

Preservation and Sample Storage

According to reports A2G0005 and A2G0223, all NWTPH-Gx and EPA Method 8260D results were flagged because analysis was performed using sample containers with headspace greater than 6 millimeters in diameter. Additionally, Apex noted that the volatile organics analysis containers received for samples 063022-GWNE-7.0-01, 063022-GWS-10.6-01, and 070822-GWmainpit-7.1 contained sediment. Based on headspace size, the reviewer qualified the NWTPH-Gx and EPA Method 8260D detected results with “J,” as estimated, and all non-detect results with “UJ,” as non-detect with an estimated reporting limit. There were no non-detect NWTPH-Gx results.

Report	Sample	Analysis	Original Results	Qualification
A2G0005	063022-GWN-8.4-01	NWTPH-Gx	Detected	J
A2G0223	063022-GWNE-7.0-01		Detected	J
	063022-GWS-10.6-01	EPA Method 8260D	Non-detect	UJ
	070822-GWmainpit-7.1			

Notes
J = result is estimated.
UJ = result is non-detect with an estimated reporting limit.

According to the cooler receipt form provided with report A2G0005, all 1-liter amber containers received by Apex had pH of 7. The reviewer confirmed that sample containers used by Apex for NWTPH-Dx extraction were preserved to pH of 2 and that both preservation and extraction holding time requirements were met.

The remaining samples were preserved and stored appropriately.

BLANKS

Method Blanks

Laboratory method blanks are used to assess whether laboratory contamination was introduced during sample preparation and analysis. Laboratory method blank analyses were performed at the required frequencies. For purposes of data qualification, the laboratory method blanks were associated with all samples prepared in the analytical batch.

According to report A2G0222, the EPA Method 8260D batch 22G0250 laboratory method blank methylene chloride result was flagged by Apex due to a detection between one-half the MRL and the MRL. The associated samples were non-detect to MRLs for methylene chloride; thus, qualification was not required.

All laboratory method blank results were non-detect to MRLs for all target analytes.

Equipment Rinse Blanks

Equipment rinse blanks are used to evaluate field equipment decontamination. These blanks were not required for this sampling event, as all samples were collected using dedicated, single-use equipment.

Trip Blanks

Trip blanks are used to evaluate whether volatile organic compound contamination was introduced during sample storage and shipment between the sampling location and the laboratory.

According to the cooler receipt form provided with report A2G0223, a trip blank sample was included with the sample delivery group received by Apex but was not recorded on the chain of custody form. The trip blank was analyzed for volatile organic compounds by EPA Method 8260D and was non-detect to MRLs for all target analytes. A trip blank was not submitted with the test pit groundwater samples provided with sample delivery group A2G0005; volatile organic compound contamination during storage and transport could not be evaluated for sample delivery group A2G0005.

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE RESULTS

An LCS and a laboratory control sample duplicate (LCSD) are spiked with target analytes to provide information about laboratory precision and accuracy. The LCS and LCSD samples were extracted and analyzed at the required frequency. Where LCSD results were not reported, batch precision was evaluated with laboratory duplicate sample results.

According to report A2F1064, the EPA Method 8260D batch 22G0013 LCS results for bromomethane; carbon tetrachloride; dichlorodifluoromethane; 2,2-dichloropropane; methylene chloride; and styrene were above the upper percent recovery acceptance limit of 120 percent, ranging from 122 percent to 134 percent. The associated sample results were non-detect; thus, qualification was not required.

According to report A2F1064, the EPA Method 8270E batch 22G0164 LCS result for 3,3'-dichlorobenzidine exceeded the upper percent recovery acceptance limit of 121 percent, at 160 percent. The associated sample result was non-detect and flagged by Apex as estimated due to erratic quality control recoveries. Apex also noted that the analyte may not have passed all quality control requirements. The associated sample result was qualified by the reviewer with "UJ," as non-detect with an estimated reporting limit.

Report	Sample	Component	Original Result (ug/kg)	Qualified Result (ug/kg)
A2F1064	063022-WP-9.8-01	3,3'-Dichlorobenzidine	357 U	357 UJ
Notes J = result is estimated. ug/kg = micrograms per kilogram.				

According to report A2G0005, the EPA Method 8260D batch 22G0033 LCS results for bromomethane was above the upper percent recovery acceptance limit of 120 percent, at 129 percent. Batch 22G0033 quality control results were included in report A2G0005 but were not associated with any final project sample results; qualification was not required.

According to report A2G0005, the EPA Method 8260D batch 22G0071 LCS exceeded upper percent recovery acceptance limits of 120 percent for acetone; bromomethane; chloroethane; and trans-1,2-dichloropropene; ranging from 121 percent to 137 percent. The associated sample results were non-detect; thus, qualification was not required. Additionally, the LCS also had a result for 1,2,4-trichlorobenzene that was below the lower percent recovery acceptance limit of 80 percent, at 79 percent. The associated sample results were non-detect and previously qualified by the reviewer with "UJ," as non-detect with an estimated MRL, based on sample container headspace. Additional qualification was not required.

According to report A2G0222, the EPA Method 8260D batch 22G0250 LCS exceeded upper percent recovery acceptance limits of 120 percent for sec-butylbenzene; carbon tetrachloride; 2,2-dichloropropane; methylene chloride; and trichlorofluoromethane; ranging from 121 percent to 129 percent. Associated non-detect sample results did not require qualification. The sec-butylbenzene result for sample 070822-NE-7.0 was qualified by the reviewer with "J," as estimated.

Report	Sample	Component	Original Result (ug/kg)	Qualified Result (ug/kg)
A2G0222	070822-NE-7.0	sec-Butylbenzene	1,460	1,460 J
Notes J = result is estimated. ug/kg = micrograms per kilogram.				

According to report A2G0223, the EPA Method 8260D batch 22G0256 LCS exceeded the upper percent recovery acceptance limit of 120 percent for chloromethane, at 147 percent. The associated sample result was non-detect; thus, qualification was not required. The LCS result for bromomethane was also below the lower percent recovery acceptance limit of 80 percent, at 44 percent. The associated matrix spike (MS), prepared with a non-project sample, also had a low percent recovery, at 33 percent. The associated sample result was non-detect and has been qualified by the reviewer with "R," as rejected.

Report	Sample	Component	Original Result (ug/L)	Qualified Result (ug/L)
A2G0223	Trip Blank	Bromomethane	5.00 U	5.00 R
Notes R = result is rejected. The analyte may or may not be present in the sample. U = result is non-detect at the method reporting limit. ug/L = micrograms per liter.				

According to report A2G0223, the EPA Method 8260D batch 22G0318 LCS exceeded the upper percent recovery acceptance limit of 120 percent for chloromethane, at 155 percent. The associated sample result was non-detect; thus, qualification was not required. The LCS results for bromoform, bromomethane, carbon disulfide, and methyl tert-butyl ether were also below the lower percent recovery acceptance limit of 80 percent, ranging from 43 percent to 79 percent. The associated batch MS, prepared with a non-project sample, also had a low percent recovery for bromomethane, at 38 percent. The associated sample results were non-detect; results associated with low recoveries in both the LCS and MS were qualified by the reviewer with “R,” as rejected, which replaces the previous qualification based on sample container headspace. The remaining results, which were non-detect and associated with LCS percent recoveries of 71 percent to 79 percent, were previously qualified by the reviewer with “UJ,” as non-detect with an estimated MRL based on sample container headspace. Additional qualification was not required.

Report	Sample	Component	Original Result (ug/L)	Qualified Result (ug/L)
A2G0223	070822-GWmainpit-7.1	Bromomethane	5.00 U	5.00 R
Notes R = result is rejected. The analyte may or may not be present in the sample. U = result is non-detect at the method reporting limit. ug/L = micrograms per liter.				

According to report A2G0223, the EPA Method 8270E-SIM batch 22G0244 LCS and/or LCSD results for acenaphthene, 1-methylnaphthalene, 2-methylnaphthalene, naphthalene, and dibenzofuran were below lower percent recovery acceptance limits, ranging from 31 percent to 51 percent. Batch 22G0244 quality control results were not associated with final reported project sample results; thus, qualification was not required. The project samples were re-extracted with EPA Method 8270E-SIM batch 22G0302.

According to report A2G0223, the EPA Method 8270E batch 22G0302 LCS results for 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene were below lower percent recovery acceptance limits, ranging from 34 percent to 36 percent. The LCSD had acceptable percent recoveries; however, the LCS and LCSD relative percent difference (RPD) for 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene exceeded the 30 percent control limit, ranging from 31 percent to 35 percent. The reviewer confirmed that the LCS recoveries were likely related to sample extraction handling. The associated sample results were non-detect and have been qualified by the reviewer with “UJ,” as non-detect with an estimated MRL.

Report	Sample	Component	Original Result (ug/L)	Qualified Result (ug/L)
A2G0223	070822-GWmainpit-7.1	1-Methylnaphthalene	0.157 U	0.157 UJ
		2-Methylnaphthalene	0.157 U	0.157 UJ
		Naphthalene	0.157 U	0.157 UJ
Notes U = result is non-detect at the method reporting limit. ug/L = micrograms per liter. UJ = result is non-detect with an estimated reporting limit.				

All remaining LCS and LCSD results were within acceptance limits for percent recovery and RPD.

LABORATORY DUPLICATE RESULTS

Laboratory duplicate results are used to evaluate laboratory precision. All laboratory duplicate samples were extracted and analyzed at the required frequency. Laboratory duplicate results within five times the MRL were not evaluated for precision.

According to report A2G0223, the NWTPH-Gx batch 22G0318 laboratory duplicate (22G0318-DUP2) was flagged by Apex due to the presence of individual analyte peaks within the gasoline hydrocarbon range that were not representative of gasoline fuel. The laboratory duplicate was prepared with a sample from an unrelated project and met RPD control limit criteria; thus, no qualification was required.

All laboratory duplicate results met RPD acceptance criteria.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

MS and matrix spike duplicate (MSD) results are used to evaluate laboratory precision and accuracy as well as the effect of the sample matrix on sample preparation and analysis. All MS and MSD samples were prepared and analyzed at the required frequency. When MS and MSD percent recoveries and RPDs were outside acceptance limits because of high concentrations of analyte in the sample, no qualifications were made by the reviewer. Where MS and MSD results were not reported, batch precision and accuracy were evaluated with LCS, LCSD, and/or laboratory duplicate sample results.

MS and MSD percent recovery and RPD control limit exceedances did not require qualification in cases where the MS and MSD had been prepared by the laboratory with samples from unrelated projects because the MS and MSD with these sample matrices were not representative of project sample matrices.

According to report A2F1064, the EPA Method 8260D batch 22G0013 MS prepared with sample 063022-SW-3-01 had results for sec-butylbenzene; carbon tetrachloride; 1,1-dichloropropene; 4-isopropyltoluene; styrene; 1,1,1,2-tetrachloroethane; 1,1,2,2-tetrachloroethane; trichloroethene; and 1,2,4-trimethylbenzene above the upper percent

recovery acceptance limits, ranging from 124 to 146 percent. EPA Method 8260D results for sample 063022-SW-3-01 were not reported; thus, qualification was not required.

According to report A2G0005, the EPA Method 8260D batch 22G0033 MS prepared with sample 063022-GWS-10.6-01 had results for bromomethane and chloroethane that were above their respective upper percent recovery acceptance limits, at 153 percent and 143 percent, respectively. The associated sample results were non-detect and the project sample was reanalyzed with batch 22G0071; thus, qualification was not required.

All remaining MS and MSD results were within acceptance limits for percent recovery and RPD.

SURROGATE RECOVERY RESULTS

The samples were spiked with surrogate compounds to evaluate laboratory performance for individual samples. The laboratory appropriately documented and qualified surrogate outliers. The reviewer took no action based on surrogate percent recoveries that were outside acceptance limits because of dilutions necessary to quantify high concentrations of target analytes present in the samples. The reviewer confirmed that batch quality assurance and quality control results for samples with surrogate outliers were within acceptance limits.

According to report A2G0223, the EPA Method 8270E-SIM surrogate phenol-d5 result for sample 070822-GWmainpit-7.1 was below the lower percent recovery acceptance limit of 10 percent, at 5 percent. Phenol-d5 surrogates represent acid-fraction semivolatile organic compounds, and the semivolatile organic compounds reported for sample 070822-GWmainpit-7.1 were base/neutral fraction compounds, and these were associated with surrogates that had acceptable percent recoveries. Qualification was not required.

All remaining surrogate results were within percent recovery acceptance limits.

INITIAL AND CONTINUING CALIBRATION VERIFICATION RESULTS

Continuing calibration verification (CCV) results are used to demonstrate instrument precision and accuracy through the end of the sample batch. Initial calibration verification (ICV) results are used to verify the concentration of the calibration standards. ICV and CCV results were not reported by Apex and were not required for validation but were reviewed when provided. Surrogate or batch quality control results flagged by the laboratory based on CCV exceedances, but meeting percent recovery and/or RPD acceptance criteria, required no action from the reviewer.

According to reports A2F1064 and A2G0222, the EPA Method 8260D batch 22G0013 and 22G0250 acetone and 2-butanone results for samples 063022-WP-9.8-01, 070822-S-7.6, 070822-NE-7.0, and 070822-N-6.8 and the associated batch quality control samples were flagged by Apex due to ICV results that were below lower acceptance limits. The reviewer confirmed with Apex that the percent recovery acceptance limits were 70 to 130 percent and that acetone and 2-butanone percent recoveries were 53 percent and 68 percent, respectively. The sample results were non-detect and the associated batch LCSs had acceptable percent

recoveries for acetone and 2-butanone; thus, the sample results were qualified by the reviewer with “UJ,” as non-detect with an estimated reporting limit.

Report	Sample	Component	Original Result (ug/kg)	Qualified Result (ug/kg)
A2F1064	063022-WP-9.8-01	Acetone	34,100 U	34,100 UJ
		2-Butanone	17,000 U	17,000 UJ
A2G0222	070822-S-7.6	Acetone	1,740 U	1,740 UJ
		2-Butanone	871 U	871 UJ
	070822-NE-7.0	Acetone	16,700 U	16,700 UJ
		2-Butanone	8,340 U	8,340 UJ
	070822-N-6.8	Acetone	1,550 U	1,550 UJ
		2-Butanone	777 U	777 UJ
Notes U = result is non-detect at the method reporting limit. ug/kg = micrograms per kilogram. UJ = result is non-detect with an estimated reporting limit.				

According to report A2G0222, EPA Method 8260D sec-butylbenzene results for sample 070822-NE-7.0 and the batch 22G0250 MS were flagged by Apex due to association with a CCV that exceeded the upper percent recovery acceptance limits by 1 percent. The sample result was qualified by the reviewer based on LCS percent recovery exceedance in the LCS section above. Additional qualification was not required.

No additional results were flagged by Apex due to CCV or ICV exceedances.

FIELD DUPLICATE RESULTS

Field duplicate samples measure both field and laboratory precision.

No field duplicate samples were submitted for analysis.

REPORTING LIMITS

Apex reported results using routine MRLs, except for samples requiring dilutions because of high analyte concentrations and/or matrix interferences, which were reported with raised MRLs.

The reviewer confirmed that all NWTPH-Gx and EPA Method 8260D soil results were reported with base dilution factors of 50, due to a dilution required for analysis.

According to reports A2F1064, A2G0005, and A2G0222 some EPA Method 8260D and EPA Method 8270E-SIM reporting limits were raised by Apex due to interference from coeluting compounds. No action was required by the reviewer.

DATA PACKAGE

The data packages were reviewed for transcription errors, omissions, and anomalies.

According to report A2F1064, EPA Method 8260D and 8270E analysis of sample 063022-WP-9.8-01 was added after samples were received by Apex.

According to report A2G0005, EPA Method 8260D and 8270E analysis of samples 063022-GWNE-7.0-01 and 063022-GWS-10.6-01 were added after samples were received by Apex.

Report A2G0005 was amended and reissued by Apex on July 14, 2022, to include EPA Method 8270E-SIM results for sample 063022-GWN-8.4-01. The reviewer confirmed that the analysis was requested by Maul Foster & Alongi, Inc., after samples were received by the laboratory.

According to report A2G0222, EPA Method 8260D and 8270E analysis of samples 070822-S-7.6, 070822-NE-7.0, and 070822-N-6.8 were added after samples were received by Apex.

According to reports A2G0222 and A2G0223, the chain of custody form indicated that EPA Method 8270E analysis was requested either for initial or follow-up analysis; however, EPA Method 8270E-SIM was performed. The reviewer confirmed that EPA Method 8270E-SIM was performed to accommodate the short turnaround time request for the analysis. No additional action was required.

No additional issues were found.

REFERENCES

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