Supplemental Focused Subsurface Investigation Report

March 3, 2019

Site Address:

23418 Pacific Highway South
Kent, Washington

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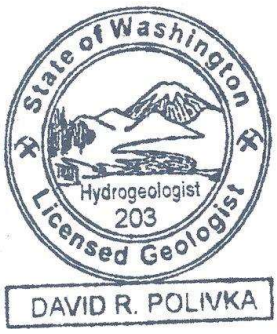

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1.0 INTRODUCTION

EcoCon, Inc. (ECI) has prepared this Supplemental Focused Subsurface Investigation (SFSI) Report for the property located at 23418 Pacific Highway South, in Kent, Washington (Subject Property/Property) (Figures 1 and 2, Appendix A).

The purpose of this SFSI was to explore three areas previously identified by GeoEngineers in a September 2018 Phase II Report as having soil samples with contaminants above the Model Toxics Control Act (MTCA) Method A cleanup levels. Investigation and remediation of contamination observed in a boring next to the adjacent Southgate Oil Property that is described in Section 2.1. is being addressed in a separate report and will not be addressed in this report.

This report documents the activities and findings of the Supplemental Focused Subsurface Investigation performed at the Subject Property on February 26 and 27, 2019.

The activities included:

- Investigation of the targeted areas identified in the September 2018 GeoEngineers report
- Remedial Activities that have taken place to remove the petroleum contaminated soil (PCS) identified during the investigation, and
- To provide the analytical results obtained during this SFSI.

The scope of work for this SFSI was divided into three areas in order to specifically address potential soil contamination within each of the identified areas of concern which were based on three soil borings which GeoEngineers had reported as contaminated in a September 2018 report (Figure 3, Appendix A).

These areas, shown on Figure 4, Appendix A, are:

- Test Pit 1: The location of boring FL207-B16, where oil-range organics (ORO) had been reported at a concentration of 4,200 mg/kg in a sample from a depth between 2.5 and 3.5 feet below ground surface (bgs).
- Test Pit 2: The location of boring FL207-B18, where diesel-range organics (DRO) had been reported at a concentration of 3,000 mg/kg in a sample from a depth between 0.5 and 1.0 feet bgs.
- Test Pit 3: The location of boring FL207-B22, where benzene had been reported at a concentration of 0.087 mg/kg in a sample from a depth between 2.5 and 3.5 feet bgs.

As established in WAC 173-340-200, the "Site" is defined as:

> *"...any area where a hazardous substance, other than a consumer product in consumer use, has been deposited, stored, disposed of, or placed or otherwise come to be located..."*

Based on the distinct and laterally separate locations of the contamination observed by GeoEngineers on the Property, ECI considers there to be three distinct "Sites" located on the Property. Each "Site" is the full lateral and vertical extent of contamination in the soils found around the distinct location of the

GeoEngineers borings reported in September 2018 as having contaminants above the MTCA Method A Cleanup Levels.

1.1 Property Description

The Subject Property is located at 23418 Pacific Avenue South in Kent, Washington, and consists of a 2.27-acre rectangular shaped parcel (King County parcel number 2500600465). The Property is currently developed with a multi-tenant retail building that was constructed in 1962. The building was originally 28,370 square feet; however, the western portions of the building were damaged by a fire in November 2016 and were demolished in late 2017 and has been rebuilt.

According to the City of Kent Zoning Map, the western half of the Subject Property is zoned "Midway Transit Community 1" (MTC-1) and the eastern half of the Subject Property is zoned "Midway Transit Community 2" (MTC-2). Both of the zoning designations are:

> *"…to provide an area that will encourage the location of moderately dense and varied retail, office, or residential activities in support of rapid light rail and mass transit options, to enhance a pedestrian-oriented character…*"

The only difference in the two zoning designations is that the MTC-1 zoning acknowledges *"… the existing highway corridor character.*"

According to the King County Assessor, the Property is currently owned by Muscatel Midway Properties. The following is the abbreviated legal description of the Property as provided by Pierce County Assessor's website:

Table 1: Property Legal Description

Parcel Details	Abbreviated Legal Description
King County: 2500600465	FEDERAL HIGHWAY ADDITION LOTS 5, 6 AND 7 BLK 5 EXC ELY 10 FT IN WIDTH OF SAID LOT 5 CONVEYED TO STATE OF WA FOR STATE HIGHWAY NO 1 BY DEED UNDER RECORDING NO 5025702; AND EXC WLY 12.00 FT OF S 20.00 FT OF N 34.40 FT (AS MEASURED ALONG WLY LINE) OF LOT 5 CONVEYED TO CITY OF KENT BY DEED UNDER RECORDING NO 20031216000206 - Plat Block: 5, Plat Lot: POR 5-6-7

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2.0 BACKGROUND

2.1 Focused Subsurface Investigation – ECI, December 2017

In November 2017, ECI conducted a Focused Subsurface Investigation (FSI) on the Subject Property to determine if the soil and/or groundwater beneath the Subject Property has been impacted by historical activities of concern on or adjacent to the Subject Property. The investigatory activities were divided into three areas to specifically address potential impacts from the activities of concern previously identified (Figure 3, Appendix A).

These areas were:

- Area 1: The area in the southwest portion of the Property believed to be occupied by a former service station.
- Area 2: The area on the north side of the building in front of a former dry cleaners.
- Area 3: The area along the southern property boundary with the adjacent property which had leaking UST in 2000 and was listed in Washington State Department of Ecology's (Ecology) Confirmed or Suspected Contaminated Sites List (CSCSL) as the Southgate Oil Site and having a "cleanup started".

During the FSI, four soil borings were advanced along the southern boundary line of the Subject Property. Soil samples from the borings were analyzed for gasoline-, diesel-, and heavy oil-range petroleum organics, and benzene, toluene, ethylbenzene and xylenes (BTEX). These analytes were not detected in the soil samples from the four borings except for a sample from boring B-13:

- DRO was detected at a concentration of 8,800 milligrams per kilogram (mg/kg) in a soil sample from Boring B13 collected at a depth of 8 feet bgs (Figure 3, Appendix A). The MTCA Method A cleanup level for DRO is 2,000 mg/kg. Boring B-13 was located east of the reported area of suspected residual contamination from the Southgate Oil Site.

At the time of the FSI, ECI noted that they had not been able to review the Ecology Site files. However, a Phase I Environmental Site Assessment (ESA) conducted in March 2018 for the Central Puget Sound Regional Transit Authority (Sound Transit) by GeoEngineers Inc. (GeoEngineers) contained a summary of activities at the Southgate Oil Site.

According to the GeoEngineers March 2018 Phase I ESA, the Southgate Oil site (southern adjacent property) was a fuel distribution facility for approximately 75 years. Nine underground storage tanks (USTs), ranging from 275 to 10,000 gallons, and containing gasoline, diesel fuel and heating oil, were removed from the site in October and November 2000. During the removal of the USTs, concentrations of DRO exceeding the MTCA Method A cleanup levels were observed in the soils adjacent to the USTs.

Two heating oil USTs (20,000 and 25,000 gallons), and associated fuel dispensers, were removed from the eastern portion of the Southgate Oil property in February 2002. Analysis of soil samples from adjacent to the 20,000-gallon UST excavation detected concentrations of DRO exceeding MTCA Method A cleanup levels.

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Approximately 748 tons of DRO contaminated soil was excavated for disposal. Following the remedial excavation of the contaminated soils, confirmation soil sampling of the base and sidewalls of the excavation indicated that soil with DRO remained in the north sidewall of the excavation, at the northern property line. The remedial excavation terminated at the northern property line, immediately adjacent to the 23418 Pacific Highway Subject Property.

According to the Phase I ESA, the zone of contaminated soil left in place was approximately 25 feet long and 10 to 16 feet deep and that a 10-mil plastic liner was placed in the excavation vertically along the northern excavation limits, extending to approximately 14 feet bgs.

On June 9, 2006, Ecology issued a "Further Action Required" letter for the Southgate Oil facility indicating that "Further Action" is required because of potential off-property migration of diesel north of the facility. In addition, Ecology noted that because cleanup stopped at the property boundary, an "Environmental Covenant" may be needed for the residual contamination.

2.2 Phase II Environmental Site Assessment – GeoEngineers, September 2018

In September of 2018, GeoEngineers conducted a Phase II Environmental Site Assessment on behalf of the Puget Sound Regional Transit Authority (Sound Transit). The Phase II was conducted in order to evaluate environmental liabilities associated with the ownership of a portion of the Subject Property. According to the report:

> *"Sound Transit plans to acquire a strip of property adjacent to the eastern property boundary next to 30th Avenue South (eastern partial take) and a small area at the southwest corner of the property (southwest partial take). A guideway easement is proposed west of the eastern partial take…and temporary construction easements (TCE) are proposed west and north of the guideway easement and along the southern and western property boundaries."*

During the Phase II ESA, thirteen soil borings were advanced on the Property. Soil samples were collected and analyzed for a variety of contaminants including DRO, ORO, GRO, VOCs, PAHs, and Metals. Sixty-five soil samples from four areas of concern identified by GeoEngineers were collected and analyzed. Of the samples analyzed, three borings were described by GeoEngineers as have samples containing various contaminants above the MTCA Method A Cleanup Levels and represented three areas on the Property. These boring and area were identified as:

- FL207-B16: Located near the southwest corner of the Property and contaminated with lube oil at a concentration of 4,200 mg/kg in a sample collected from a depth between 2.5 to 3.5 feet bgs.
- FL207-B18: Located toward the center of the southern part of the Property and contaminated with diesel at a concentration of 3,000 mg/kg in a sample collected from a depth between 0.5 to 1.0 feet bgs.
- FL207-B22: Located near the southeast corner of the Property and contaminated with benzene at a concentration of 0.087 mg/kg in a sample collected from a depth between 2.5 to 3.5 feet bgs.

GeoEngineers recommended to Sound Transit that:

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"a contaminated and impacted soil handling plan be prepared prior to construction activities that outlines soil segregation, handling, stockpiling and end use/disposal with potential follow-up chemical analytical testing for waste disposal characterization as needed."

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3.0 PHYSICAL SETTING

3.1 Regional Geology

The Subject Property is located within the Puget Sound Basin, which is classified as unconsolidated Pleistocene continental glacial drift. The glacial deposits predominantly consist of sand and silt, with varying amounts of gravel and cobbles (United States Geological Survey, 2005).

According to the EPA 2015 "Second Five-Year Review Report" for the Midway Landfill Superfund Site located approximately 0.6 miles to the south, the Subject Property is located near the crest of a narrow north-south trending glacier feature known as the Des Moines Drift Plain. This area, referred to as "upland" because of its location above adjacent valleys and sea level, is bordered by Puget Sound on the west and the Green River valley on the east.

Maximum elevations along the crest of the upland generally range from 400 to 450 feet above mean sea level. Puget Sound is at sea level, and the Green River valley floor typically averages about 30 feet above mean sea level. The United States Geological Survey (USGS) Des Moines, WA topographic map (2017), 7.5-minute quadrangle topographic map, shows that the Subject Property is situated at an elevation of approximately 398 feet above Mean Sea Level (MSL).

The upland area is cut with a number of steep-sided stream valleys. Adjacent to the Subject Property, the land surface is relatively flat across Highway 99 with a slight slope to the northwest. It then drops steeply downward approximately 200 feet towards Massey Creek approximately half a mile to the west-northwest.

To the east of the Subject Property, the land surface rises slightly for a distance of approximately 400 feet and then slopes steeply downward to the east across some natural and manmade terraces towards the Green River approximately one mile east of the Subject Property with an elevation change of approximately 300 feet.

3.2 Regional Hydrogeology

The primary aquifers in the Puget Sound region are typically in glacial sands and gravels overlain by relatively impermeable glacial till deposits, that are present at or near the ground surface. Within these till deposits are localized areas or lenses of water-bearing sands and gravels that may result in a shallow, localized, perched water table. Lateral and vertical migration of shallow groundwater may be impeded by the relatively impermeable nature of the till and by the sometimes-discontinuous nature of the perched water-bearing sands and gravel. In some areas, the hydrogeology is controlled by large gravel deposits that are a result of advance and recessional glacial outwash or non-glacial alluvium deposited by rivers in the region.

3.3 Subject Property Geology

The immediate area of the Subject Property is underlain by glacial drift consisting of alluvium, an alluvial terrace, and peat. These units were deposited during the Holocene and are characterized by mostly unconsolidated silt, sand, and gravelly valley fill with some clay, which includes low-level terrace, marsh, peat, artificial fill and glacial deposits. The soils encountered in ECI's soil borings advanced during the

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November 2017 FSI and in the excavations conducted during the ECI February 2019 remedial actions were generally brown to light brown, dry, dense to very dense, coarse sandy silt with gravel.

The Natural Resources Conservation Service (NRCS) Web Soil Survey describes the soils at the Subject Property as "Arents, Alderwood Material". This soil is characterized as gravelly sandy loam, a Hydrologic Soil Group B/D soil that is moderately well drained and has very low water storage capacity.

3.4 Subject Property Hydrogeology

According to the EPA 2015 "Second Five-Year Review Report" for the adjacent Midway Landfill Superfund Site, there is a shallow "Perched Aquifer" which was believed to represent shallow, discontinuous lenses of groundwater perched on low permeability deposits. EPA states that while this groundwater is shallow and discontinuous, it is not always perched. The majority of these shallow zones are found north of the Midway Landfill which includes the Subject Property.

Based on a review of well logs in the Ecology online well log database, depth to a shallow aquifer is reported to be from 30 feet bgs to over 100 feet bgs. A Phase I ESA conducted for Sound Transit in March 2018 indicates that in two geotechnical borings that were advanced approximately 60 feet east and 100 feet southeast of the Subject Property groundwater was observed at a depth of 58 and 78 feet bgs.

The shallow groundwater flow in the area is most likely controlled by the topography. Because of the depth to groundwater and topographic ridge upon which the Subject Property is located, the anticipated groundwater flow direction at the Subject Property may be divided between the east and the northwest. Groundwater migration pathways may also follow underground conduits.

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4.0 REGULATORY COMPLIANCE AND CONTAMINANTS OF CONCERN

Regulatory compliance for this project is based on the Washington Administrative Code (WAC) 173-340 – Model Toxic Control Act (MTCA) - RCW Chapter 70.105D, implemented by the Washington State Department of Ecology. Pursuant to Chapter 70.105D RCW, Ecology has established procedures for developing cleanup levels and requirements for cleanup actions. The rules establishing these levels and requirements were developed by Ecology in consultation with a Science Advisory Board (established under the Act) and with representatives from local government, citizen, environmental, and business groups. The rules were first published in February 1991, with amendments in January 1996, February 2001, and October 2007.

4.1 Contaminants of Concern & MTCA Method A Cleanup Levels

4.1.1 Contaminants of Concern

Based on ECI's review of the GeoEngineers data, the primary contaminants of concern (COCs) at the Sites were divided by area and include:

The area near GeoEngineers boring FL207-B16:

- Heavy Oil-Range Organics (ORO)

The area near GeoEngineers boring FL207-B18:

- Diesel-Range Organics (DRO),

The area near GeoEngineers boring FL207-B22:

- Benzene

Because visual and olfactory observations revealed additional contamination in the area of boring FL207-FL207-B22 during this SFSI, the contaminants of concern were expanded to include:

- Gasoline-Range Organics (GRO)
- Benzene, Toluene, Ethylbenzene, and total Xylenes (BTEX)

Ecology's WAC 173-340-900 Table 830-1 lists Secondary COCs to be analyzed for if the primary COCs are detected above the laboratory reporting limits.

Those Secondary COCs include:

- Carcinogenic Poly-cyclic aromatic hydrocarbons (cPAHs), if DRO or ORO are detected,
- Halogenated Volatile organic compounds (HVOCs), if ORO is detected from waste oil,
- PCB Mixtures, if ORO is detected,
- The gasoline additives Methyl tert-butyl ether (MTBE) Ethylene dibromide (EDB) and 1/ethylene dichloride (EDC), if GRO is detected, and
- Lead, if GRO is detected.

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4.1.2 Cleanup Levels

Pursuant to Chapter 70.105D RCW, Ecology has established procedures for developing cleanup levels and requirements for cleanup actions. The MTCA regulations provide three approaches for establishing cleanup levels:

- **Method A: ARARs and Tables.** This method is to be used where the cleanup action is routine and involves relatively few hazardous substances. The soil and groundwater cleanup levels are set at concentrations at least as stringent as concentrations specified in applicable state and federal laws (ARARs) and are presented in Tables 720-1, 740-1, and 745-1 of the regulations (WAC 173-340).
- **Method B: Universal Method**. Method B is the "universal method" for determining cleanup levels for all media at all sites. Under Method B, cleanup levels for individual hazardous substances are established using applicable state and federal laws and the risk equations and other requirements specified in WAC 173-340.

  Method B has two tiers, a "Standard" tier and a "Modified" tier. The "Standard" Method B tier uses generic default assumptions to calculate cleanup levels. The "Modified" Method B tier provides for the use of chemical-specific or site-specific information to change selected default assumptions. These can be established using a quantitative risk assessment process.
- **Method C: Conditional Method**. When compliance with cleanup levels developed under Method A or B are impossible to achieve or may cause greater environmental harm, Method C cleanup levels for individual hazardous substances may be established for surface water, groundwater, and air. Method C industrial soil and air cleanup levels may also be established at industrial properties that meet specific criteria.

  Like Method B, Method C is divided into two tiers, a "Standard" and a "Modified" tier. The "Standard" Method C tier uses generic default assumptions to calculate cleanup levels. The "Modified" Method C tier provides for the use of chemical-specific or site-specific information to change selected default assumptions. These can be established using a quantitative risk assessment process.

For the Sites on the Subject Property, ECI has determined that Method A cleanup levels are appropriate. There are a limited number of COCs in each area and any cleanup is routine should they be present. The MTCA Method A Soil Cleanup levels for the COCs at the Sites are presented in Table 2 below.

Table 2: Cleanup Levels for the Constituents of Concern

Table 830-1 Constituent Method-A Soil Cleanup Levels for Unrestricted Land Use (MTCA Cleanup Regulation 173-340-900: Table 740-1)	
Contaminant of Concern (COCs)	**Soil Cleanup Levels (mg/kg)**
Primary Contaminants of Concern	
Gasoline Range Organics (GRO)	100/30[1]
Diesel Range Organics (DRO)	2,000
Oil Range Organics (ORO)	2,000
Benzene	0.03
Ethylbenzene	6
Toluene	7
Total Xylenes	9
Tetrachloroethylene (PCE)	0.05
Secondary Contaminants of Concern	
cPAHs[2]	0.1
PCB Mixtures	1
EDB	0.005
EDC	11[3]
MTBE	0.1
Lead	250

[1] Gasoline Range Organics in Soil: Gasoline mixtures without benzene and the total of ethylbenzene, toluene and xylene are less than 1% of the gasoline mixture has a soil CUL = 100 mg/kg. All other gasoline mixtures have a soil CUL = 30 mg/kg.

[2] Total concentration as benzo(a)pyrene using the toxicity equivalency methodology in WAC 173-340-708 (8)

[3] A method A cleanup level is not published for this constituent. The level listed is a Method B cleanup level.

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5.0 SUPPLEMENTAL FOCUSED SUBSURFACE INVESTIGATION

On February 26 and 27, 2019, ECI conducted a Supplemental Focused Subsurface Investigation (SFSI) at the Subject Property in which ECI excavated test pits at three locations on the Subject Property for the purposes of investigating and remediating the soil in the areas of concern on the Subject Property identified by GeoEngineers as containing soils with contaminants above the MTCA Method A cleanup levels (Figure 3, Appendix A). Construction Group International (CGI) assisted in the investigation by excavating the test pits on the Subject Property under the direction of an ECI environmental professional.

During excavation, each test pit was logged by an ECI professional for lithology and the soils screened for evidence of contamination. The test pits were advanced to a depth that was anticipated to encompass any contamination above the MTCA Method A Clean up Level as previously described by GeoEngineers. The soils encountered in each test pit were generally brown to light brown, dry to moist, dense to very dense, coarse sandy silt with gravel to the total depths excavated.

While some moist soils were present in the test pits, groundwater was not encountered during this investigation. As previously mentioned, groundwater is estimated to be at depths of 30 to over 100 feet bgs. Test pit logs for this investigation are presented in Appendix B.

Each individual test pit is described in more detail in the sections below.

5.1 Test Pit 1 (TP1)

Test Pit 1 (TP1) was located in the southwest portion of the Property near GeoEngineers boring FS207-FL207-B16 where ORO contamination was reported at 4,200 mg/kg at 2.5 to 3.5 feet bgs (Figure 4, Appendix A). Delineation of the ORO contamination was begun by excavating a test pit (TP1) immediately on top of the former GeoEngineers FL207-B16 boring location. This boring was located near the southwest corner of the building along the southern property boundary. According to the map provided by GeoEngineers, the boring was located approximately 50 feet east of the sidewalk, and 13 feet north of a retaining wall along the southern property boundary.

GeoEngineers had reported soil from this boring to be contaminated with ORO at a concentration of 4,200 ppm. In addition to using the measurements from figures provided by GeoEngineers, the location of boring FL207-B16 was confirmed during excavation with the observation of bentonite used to seal the boring.

The excavation measured a total of 6 feet by 3 feet and extended to a depth of 4 feet bgs. The soil encountered consisted of a medium brown sandy fill containing cobbles up to 4 inches in diameter and small chunks of red brick. According to verbal reports, some of the subsurface material had recently been replaced with new fill material during the installation of a high-pressure gas line and sewer line. During the excavation, field screening did not indicate petroleum contamination in the soil. A map and cross-section of the Test Pit showing the sample locations are presented on Figure 6 in Appendix A.

Five soil samples were collected from this excavation and were analyzed for DRO and ORO. The samples were collected, from each of the four side walls at a depth of 3 feet bgs, and from the bottom of the excavation at a depth of 4 feet bgs. Each sample was delivered to a mobile laboratory on site provided by

Libby Environmental of Olympia, Washington. The analytical results of the samples analyzed reported results that were below the respective laboratory reporting limits for the constituents of concern. After results were received from Libby Environmental, TP1 was backfilled with clean soil from the excavation. Analytical results of the samples collected from Test Pit 1 are presented in Table 3 below. Table 8 in Appendix C provides a complete summary of the analytical results from each of the test pits.

Table 3: Test Pit 1 Analytical Results

Sample ID	Depth (ft)	Sample Date	Total Petroleum Hydrocarbons (mg/kg)	
			Diesel Range Organics[1]	Oil Range Organics[1]
TP1-ESW-3	3	2/26/2019	<50	<250
TP1-NSW-3	3	2/26/2019	<50	<250
TP1-WSW-3	3	2/26/2019	<50	<250
TP1-SSW-3	3	2/26/2019	<50	<250
TP1-B-4	4	2/26/2019	<50	<250
Laboratory Reporting Limit			50	250
MTCA Method A Cleanup Level			2000	2000

Notes:
[1]Analyzed by Northwest Method NWTPH-D/Dx Extended
mg/kg = Milligrams per kilogram
MTCA = Model Toxics Control Act
< = not detected above laboratory detection limits

5.2 Test Pit 2 (TP2)

Test Pit 2 (TP2) was located along the property boundary in the center of the southern portion of the Subject Property. This is the location of GeoEngineers boring FL207-B18 which was reported to contain DRO at a concentration of 3,000 mg/kg in a sample from a depth between 0.5 and 1.0 feet (Figure 4, Appendix A).

According to the figure provided by GeoEngineers, the location of boring FL207-B18 was 145 feet from the western sidewalk and 13 feet from the southern retaining wall. During excavation of TP2, it became apparent that the location was not correctly depicted on the figure and the boring was actually further to the east. As result, the test pit was expanded in that direction. Because GeoEngineers indicated that the soil at a depth of 0.5 to 1-foot bgs was contaminated, TP2 was excavated to a depth of 1.5 feet bgs.

During the excavation, field screening methods did not indicate the apparent presence of contamination. Six soil samples were collected from TP2 and were analyzed for DRO and ORO. Samples were collected from each of the four side walls at a depth of 1-foot bgs, and two samples were taken from the bottom of the excavation at a depth of 1.5-feet bgs. The analytical results of the samples analyzed reported results that were below the respective laboratory reporting limit for the constituents of concern (DRO and ORO). After the analytical results were received, TP2 was backfilled with clean soil from the excavation. Analytical results of the samples collected from Test Pit 2 are presented in Table 4 below. A map and cross-section of the Test Pit showing the sample locations are presented on Figure 7 in Appendix A. Table 8 in Appendix C provides a complete summary of the analytical results from each of the test pits.

Based on observations made by ECI Professionals on site, claims by GeoEngineers that contamination in this area was a result of off-site migration could not be confirmed. It was also communicated to ECI professionals by CGI professionals, that utility trenching had been performed in this area, and that the soil removed had been replaced with new fill material. Based on this and the analytical results of the samples analyzed, it appears that any contamination which may have been present was de minimus and was not widespread.

Table 4: Test Pit 2 Analytical Results

Sample ID	Depth (ft)	Sample Date	Total Petroleum Hydrocarbons (mg/kg)	
			Diesel Range Organics[1]	Oil Range Organics[1]
TP2-SSW-1	1-1.5	2/26/2019	<50	<250
TP2-ESW-1	1-1.5	2/26/2019	<50	<250
TP2-WSW-1	1-1.5	2/26/2019	<50	<250
TP2-NSW-1	1-1.5	2/26/2019	<50	<250
TP2-BE-1	1-1.5	2/26/2019	<50	<250
TP2-BW-1	1-1.5	2/26/2019	<50	<250
Laboratory Reporting Limit			50	250
MTCA Method A Cleanup Level			2000	2000

Notes:
[1]Analyzed by Northwest Method NWTPH-D/Dx Extended
mg/kg = Milligrams per kilogram
MTCA = Model Toxics Control Act
< = not detected above laboratory detection limits

5.3 Test Pit 3 (TP3)

Test Pit 3 (TP3) was located in the southeast portion of the Subject Property at the location of GeoEngineers boring FL207-B22 (Figure 4, Appendix A). This location was reported to have benzene at a concentration of 0.087 mg/kg in a sample collected from a depth between 2.5 to 3.5 feet bgs. According to the map provided by GeoEngineers, sample FL207-B22 was located 25 feet north of the southern property boundary's retaining wall parallel to 30th Street.

After reviewing a photograph taken during the drilling of boring FL207-B22 provided in the GeoEngineers September 2018 Phase II ESA report, ECI determined that the location depicted on the GeoEngineers map may not be correct and that it would be best to excavate two test pits in an attempt to make sure that the area was adequately explored. These test pits were named TP3 and TP3.2. TP3 is considered by ECI to be the true location of boring FL207-B22 based on photographic evidence. TP3.2 was located where the GeoEngineers map identified boring FL207-B22.

5.3.1 Initial Exploration of Test Pit 3

The asphalt covering the area of TP3 was cut and upon removal, a strong gasoline like odor was detected by ECI and CGI professionals. A surface sample of the soil (TP3-S-0) was collected and sent to the mobile lab on site to be analyzed for GRO and BTEX. The top layer of contaminated soil was removed and placed on a sheet of plastic. This top layer of soil consisted of gray colored moist sandy gravel on top of brown medium sand. At a depth of 1-foot bgs, the odor was no longer observed.

In order to further delineate the extent of the apparent gasoline contamination, the test pit was extended to the west. Similar gasoline like odors were observed as the test pit was extended to the west. Based on the nature of the soil (gravel) and the topography of the Site, it was anticipated that the contamination had migrated to the northwest from an unknown source. Visual and olfactory observations of the sidewalls of the excavation also suggested that the migration was to the northwest.

To further delineate the extent of the contamination observed, the test pit was extended to a depth of 4 feet bgs. Four sidewall samples were collected at depths of 3.66 feet on the east, south, and west sidewalls, and at a depth of 2 feet bgs on the north sidewall. A bottom sample was collected from the middle of the test pit at a depth of 4 feet bgs. A map of the Test Pit showing the sample locations is presented on Figure 8 in Appendix A. A cross-section of the test pit is presented on Figure 9 in Appendix A.

Except for the surface sample (TP3-S-0), the analytical results of the samples collected from Test Pit 3, did not reveal concentrations of GRO and BTEX above the laboratory reporting limits. The analytical results of the surface sample collected revealed a concentration of 1,100 mg/kg GRO, significantly above the MTCA Method A cleanup level of 30 mg/kg for sites where benzene is present. Benzene was reported below the laboratory reporting limit of 1.0 mg/kg which is above the MTCA Method A cleanup level of 0.03 mg/kg. Therefore, benzene is considered to be present in the sample. In addition, toluene, ethylbenzene, and xylenes were reported at concentrations below their respective MTCA Method A cleanup levels (Table 8, Appendix C).

Based on the presence of GRO in sample TP3-S-0, the contaminants of concern for TP3 were expanded to include MTBE, EDB, EDC, and total lead as required by Table 830-1. The analytical results for MTBE, EDC, and EDB in the surface sample (TP3-S-0) were reported as being below the respective laboratory reporting limits. Total lead was reported at a concentration of 9.7 mg/kg, well below the MTCA Method A cleanup level of 250 mg/kg. Analytical results of the samples collected from Test Pit 3 are presented in Tables 5 and 6 below.

Based on these results, ECI determined it would not be necessary to analyze the other TP3 samples for MTBE, EDC, EDB, or total lead unless GRO was detected above the laboratory reporting limit. The soil removed from this excavation was stockpiled and covered until the delineation of the GRO contamination was completed and the appropriate disposal of the contaminated soil could be arranged.

In an attempt to further delineate the GRO contamination observed in the surface sample from Test Pit 3 (Sample TP3-S-0), six sections of the asphalt paving adjacent to test pit TP3 were removed. The sections of removed asphalt and the soil beneath were named according to cardinal direction and distance from the original TP3, (i.e. the first section of asphalt removed in the western direction was named TP3-W1).

Upon removal of the asphalt, the soil was screened for evidence of contamination. The soil was then excavated to a depth of approximately 1-foot bgs and samples collected. Samples were collected at the surface directly beneath the asphalt and at a depth of 1-foot bgs to be tested for GRO and BTEX. Visual, olfactory, and PID field screening of the soil beneath the asphalt and at a depth of 1-foot bgs did not reveal evidence of contamination. Analytical results of the soil samples collected from beneath the sections of

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removed asphalt were reported as being below the laboratory reporting limits for GRO and BTEX. Table 5 below shows results for all samples collected from TP3 and TP3.2.

The soil removed from the top foot of the areas beneath the sections of removed asphalt was stockpiled separately from the original TP3 soils and were used as backfill for the excavations. ECI obtained disposal authorization from Republic Services in Seattle, Washington for disposal of the stockpiled PCS from Test Pit TP3 at the "3rd and Lander Reload Facility" in Seattle, Washington. CGI was directed to send the contaminated soil to the Republic Services, "3rd and Lander Reload Facility", and to backfill the TP3 excavation with clean fill material and repave the excavated areas.

5.3.2 Gasoline Contamination Delineation

In an attempt to determine the extent of the GRO observed in Test Pit 3, and to investigate the area identified as the location of boring FL207-B22 on the GeoEngineers map, a second test pit (Test Pit TP3.2) was excavated northeast of TP3 (Figure 4, Appendix A). This test pit measured 41 by 28 inches, and was excavated to a depth of 3.5 ft bgs. Field observations and screening did not reveal evidence of contamination at this location. Therefore, one sample was collected from the bottom of the test pit at a depth of 3.5 ft bgs and analyzed for GRO and BTEX. The analytical results were reported as being below the respective laboratory reporting limits for GRO and BTEX. A map of the Test Pit showing the sample locations is presented on Figure 8 in Appendix A.

Based on the analytical results of the samples collected in the area of Test Pit 3 and TP3.2, ECI concluded that the GRO contamination observed was localized to the area encompassed by Test Pit TP3 and that the contaminated soil was removed for disposal.

Table 5: Test Pit 3 Analytical Results

Sample ID	Depth (ft)	Sample Date	Gasoline Range Organics[1]	Select Volatile Organic Compounds[2] (mg/kg)			
				Benzene	Toluene	Ethylbenzene	Total Xylenes
Test Pit TP3							
TP3-S-0	0	2/26/2019	**1100**	**<1***	**5.7**	**5.0**	**110**
TP3-NSW-2	2	2/26/2019	<10	<0.02	<0.10	<0.05	<0.15
TP3-ESW-3'8"	3.5-4.0	2/26/2019	<10	<0.02	<0.10	<0.05	<0.15
TP3-WSW-3'8"	3.5-4.0	2/26/2019	<10	<0.02	<0.10	<0.05	<0.15
TP3-SSW-3'8"	3.5-4.0	2/26/2019	<10	<0.02	<0.10	<0.05	<0.15
TP3-B-4	4	2/26/2019	<10	<0.02	<0.10	<0.05	<0.15
TP3-W1-S	0	2/27/2019	<10	<0.02	<0.10	<0.05	<0.15
TP3-NW1-S	0	2/27/2019	<10	<0.02	<0.10	<0.05	<0.15
TP3-NW1-B	1	2/27/2019	<10	<0.02	<0.10	<0.05	<0.15
TP3-N1-S	0	2/27/2019	<10	<0.02	<0.10	<0.05	<0.15
TP3-N1-B	1.33	2/27/2019	<10	<0.02	<0.10	<0.05	<0.15
TP3-S1-S	0	2/27/2019	<10	<0.02	<0.10	<0.05	<0.15
TP3-S1-B	1	2/27/2019	<10	<0.02	<0.10	<0.05	<0.15
TP3-NE-S	0	2/27/2019	<10	<0.02	<0.10	<0.05	<0.15

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Sample ID	Depth (ft)	Sample Date	Gasoline Range Organics[1]	Select Volatile Organic Compounds[2] (mg/kg)			
				Benzene	Toluene	Ethylbenzene	Total Xylenes
TP3-NE-B	1	2/27/2019	<10	<0.02	<0.10	<0.05	<0.15
TP3-W1-B	1	2/27/2019	<10	<0.02	<0.10	<0.05	<0.15
TP3-SW1-B	1	2/27/2019	<10	<0.02	<0.10	<0.05	<0.15
TP3-SW1-S	0	2/27/2019	<10	<0.02	<0.10	<0.05	<0.15
Test Pit TP3.2							
TP3.2-B-3.5	3.5	2/26/2019	<10	<0.02	<0.10	<0.05	<0.15
Laboratory Reporting Limit			10	0.02	0.1	0.05	0.15
MTCA Method A Cleanup Level			100/30[3]	0.03	7	6	9

Notes:
[1]Gasoline range total petroleum hydrocarbons (TPH). Analyzed by Northwest Method NWTPH-Gx.
[2]Select Volatile Organic Compounds. Analyzed by EPA Method 8021B.
[3] Cleanup level with presence of benzene 30 mg/kg; Without benzene present on the Site 100 mg/kg
mg/kg = Milligrams per kilogram
MTCA = Model Toxics Control Act
< = not detected above laboratory detection limits
Bold indicates a detected concentration that is below Ecology MTCA Method A Cleanup Levels
Bold and Red indicates the detected concentration exceeds Ecology MTCA Method A or B Cleanup Levels
*Indicates that the laboratory detection limit was above the Cleanup Level. Soil in the vicinity of this sample had been removed from the Site.

Table 6: Test Pit 3 Additional Analytical Results

Sample ID	Depth (ft)	Sample Date	Additional COCs required by Table 830-1 (mg/kg)			
			MTBE	EDC	EDB	Total Lead
TP3-S-0	0	2/26/2019	<0.05	<0.03	<0.005	9.7
Laboratory Reporting Limit			0.05	0.03	0.005	5.0
MTCA Method A Cleanup Level			0.1	--	0.005	250

< = not detected above laboratory detection limits
-- = Method A Cleanup Level not defined
MTCA = Model Toxics Control Act
mg/kg = Milligrams per kilogram
Bold indicates a detected concentration that is below Ecology MTCA Method A Cleanup Levels

5.4 Sample Collection

Soil samples were collected from each test pit. Groundwater was not encountered during the excavation and is estimated to be at a depth of 58 and 78 feet bgs in the vicinity of the Subject Property. Based on field screening, TP1 and TP2 did not show evidence of contamination, and five to six samples were collected from each location. In TP3 and associated excavation areas, a total of nineteen samples were collected while delineating and removing GRO contamination that was discovered during the excavation of TP3.

5.4.1 Sample Collection and Handling Procedures

The samples were obtained from the backhoe bucket using a clean bottle as a scoop and placing the soil into laboratory provided sample containers. Samples were transferred into new laboratory-provided

analyte specific sample containers and assigned a unique sample ID; those collected for volatile organic compounds (VOCs) were collected using the EPA Method 5035 sampling procedures. The samples were placed in a climate-controlled container and maintained at or below 4° Celsius until they were delivered to the laboratory for analysis.

Bottom and sidewall soil samples were assigned a unique sample identifier that included the components listed below:

- The excavation from where the sample was collected
- The sample type (e.g., sidewall "SW' or base "B") and
- The sidewall that was sampled (north, south, east, or west), and
- The depth from where the sample was collected

The samples were delivered either to a mobile laboratory operated by Libby Environmental Inc. of Olympia, Washington, an Ecology accredited laboratory that was onsite on February 26, 2019 or to the Libby Environmental laboratory in Olympia, Washington, under industry standard chain of custody protocols for analysis.

Final limits of the excavation and soil sample locations are shown on Figures 6 through 9 in Appendix A. Table 8 in Appendix C presents the analytical results of the soil samples collected during this remedial activity. Appendix D presents the laboratory datasheets for the samples collected.

5.4.2 Sample Analyses

The laboratory analyzed each sample from the borings for the COCs specific to each area. Each sample from the TP1 and TP2 excavations was analyzed for DRO and ORO, and each sample from TP3 was analyzed for GRO and BTEX. The analytical methods used are listed below:

Table 7: Analyte and Analytical Method

Analyte	Analytical Method
Gasoline Range Organics (GRO)	EPA Method 5035 / NWTPH-Gx
Diesel & Oil Range Organics (DRO & ORO)	NWTPH-Dx Extended
Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX)	EPA Method 5035 / EPA Method 8260C
EDC, EDB, and MTBE	EPA Method 5035 / EPA Method 8260C
Lead	EPA Method 7010

5.5 Analytical Results

Upon receipt of the analytical results, they were compared to the appropriate cleanup level. The analytical results of the samples analyzed revealed that:

- Test Pit One: The identified COCs (DRO and ORO) were below their respective laboratory reporting limits which are below their respective MTCA Method A cleanup levels.

- Test Pit Two: The identified COCs (DRO and ORO) were below their respective laboratory reporting limits which are below their respective MTCA Method A cleanup levels.
- Test Pit Three: With the exception of sample TP3-S-0, the identified COCs (GRO and BTEX) were below their respective laboratory reporting limits which are below their respective MTCA Method A cleanup levels
- Sample TP3-S-0 contained GRO above the MTCA Method A cleanup level. The soil that was associated with this sample and in the vicinity of the sample was removed from the excavation and replaced with clean soil as described in Section 5.3 above.

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6.0 SUMMARY AND RECOMMENDATIONS

6.1 Summary

This SFSI Report was prepared at the request of Muscatel Midway Properties, LLC for a property located at 23418 Pacific Highway South, in Kent, Washington. The purpose of this SFSI was to explore three areas previously identified by GeoEngineers in a September 2018 Phase II Report as having soil samples that were above the MTCA Method A cleanup levels. The investigative activities were divided into three areas to specifically address potential impacts identified by GeoEngineers. These areas were:

- Test Pit 1: The area in the southeastern portion of the Property near GeoEngineers boring FL207-B16 where lube oil had been reported at a concentration of 4,200 mg/kg at a depth between 2.5 and 3.5 feet bgs.
- Test Pit 2: The area along the property boundary in the center of the southern portion of the Property near GeoEngineers boring FL207-B18 where diesel had been reported at a concentration of 3,000 mg/kg at a depth between 0.5 and 1.0 feet bgs.
- Test Pit 3: The area southeast portion of the Property near GeoEngineers boring FL207-B22 where benzene had been reported at a concentration of 0.087 mg/kg at a depth between 2.5 and 3.5 feet bgs.

ECI excavated test pits in the areas identified above in order to evaluate the potential contamination observed by GeoEngineers in three of the borings discussed in their September 2018 Phase II Environmental Site Assessment. The samples from the areas of Test Pit 1 and Test Pit 2 were confirmed as being below the laboratory reporting limits and MTCA Method A cleanup levels for the COCs analyzed. GRO contaminated soil not previously identified and discussed in the GeoEngineers report was discovered at the location of Test Pit 3. The extent of this contamination was delineated and remediated as part of this SFSI.

6.2 Recommendations

Based on the results of investigation and remedial actions performed as a part of this SFSI, ECI recommends that the Sites investigated and remediated for this SFSI be granted regulatory closure through PLIA, and that they receive a “No Further Action” determination from PLIA.

7.0 REFERENCES

ECI Environmental Services, 2019, *Cleanup Action Report (CAR) - Muscatel Midway Properties LLC,* February 20, 2019, Prepared for Ms. Laurie Goldman.

King County Department of Assessments: https://blue.kingcounty.com/Assessor/eRealProperty/Dashboard.aspx?ParcelNbr=2500600465Washingt

Sound Transit, 2018, *AE 0044-12 WP 3.S Phase I Environmental Site Assessment FL207 Draft 3 - Tax Parcel 2500600465*, Dated March 2018, Central Puget Sound Regional Transit Authority.

GeoEngineers, 2018, AE044-12 3.7.N Phase II Environmental Site Assessment FL-201 Draft 2 – Tax Parcel *2500600465*, Dated September 2018, GeoEngineers, Inc.

Washington State Department of Natural Resources (DNR) Geologic Portal: https://geologyportal.dnr.wa.gov/

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8.0 LIMITATIONS

Some clients, design professionals and contractors may not recognize that the geoscience practices (geotechnical engineering, geology, and environmental science) are far less exact than other engineering and natural science disciplines. This lack of understanding can create unrealistic expectations that could lead to disappointments, claims and disputes. EcoCon Inc. includes these explanatory "limitations" provisions in our reports to help reduce such risks. Please confer with EcoCon if you are unclear how these "Report Limitations and Guidelines for Use" apply to your project or Site.

12.1 Use of this Report by Others

Our report was prepared for the exclusive use of Muscatel Midway Properties, LLC (Client) and / or their designated parties. This report may be provided to regulatory agencies for review if requested or required. No other party may rely on the product of our services unless we agree in advance to such reliance in writing. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with the Client and generally accepted environmental practices in this area at the time this report was prepared.

This report has been prepared for subsurface investigation activities at the Subject Property. ECI considered a number of unique, project-specific factors when establishing the scope of services for this project and report. No one except our Client should rely on this environmental report without first conferring with ECI. This report should not be applied for any purpose or project except the one originally contemplated.

Unless ECI specifically indicates otherwise, do not rely on this report if it was:

- Not prepared for you,
- Not prepared for your project,
- Not prepared for the specific site explored, or
- Completed before important site changes were made.

If important changes are made after the date of this report, ECI should be given the opportunity to review our interpretations and recommendations and provide written modifications or confirmation, as appropriate.

12.2 Uncertainty May Remain after Completion of Site Investigation and Remedial Activities

The investigation and remediation activities completed in a portion of a site cannot wholly eliminate uncertainty regarding the potential for contamination in connection with the entire property. Our interpretation of subsurface conditions in this study is based on field observations and chemical analytical data from the locations sampled. It is always possible that contamination exists in areas that were not explored, sampled, or analyzed.

12.3 Subsurface Conditions Can Change

This environmental report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the Site, by new releases of hazardous substances, or by natural events

such as floods, earthquakes, slope instability or groundwater fluctuations. Always contact EcoCon before applying this report to determine if it is still applicable.

12.4 Soil and Groundwater End Use

The cleanup levels referenced in this report are Site- and situation-specific and could change with time due to regulatory or Site changes. The cleanup levels may not be applicable for other sites or for other on-site uses of the affected media (soil and/or groundwater).

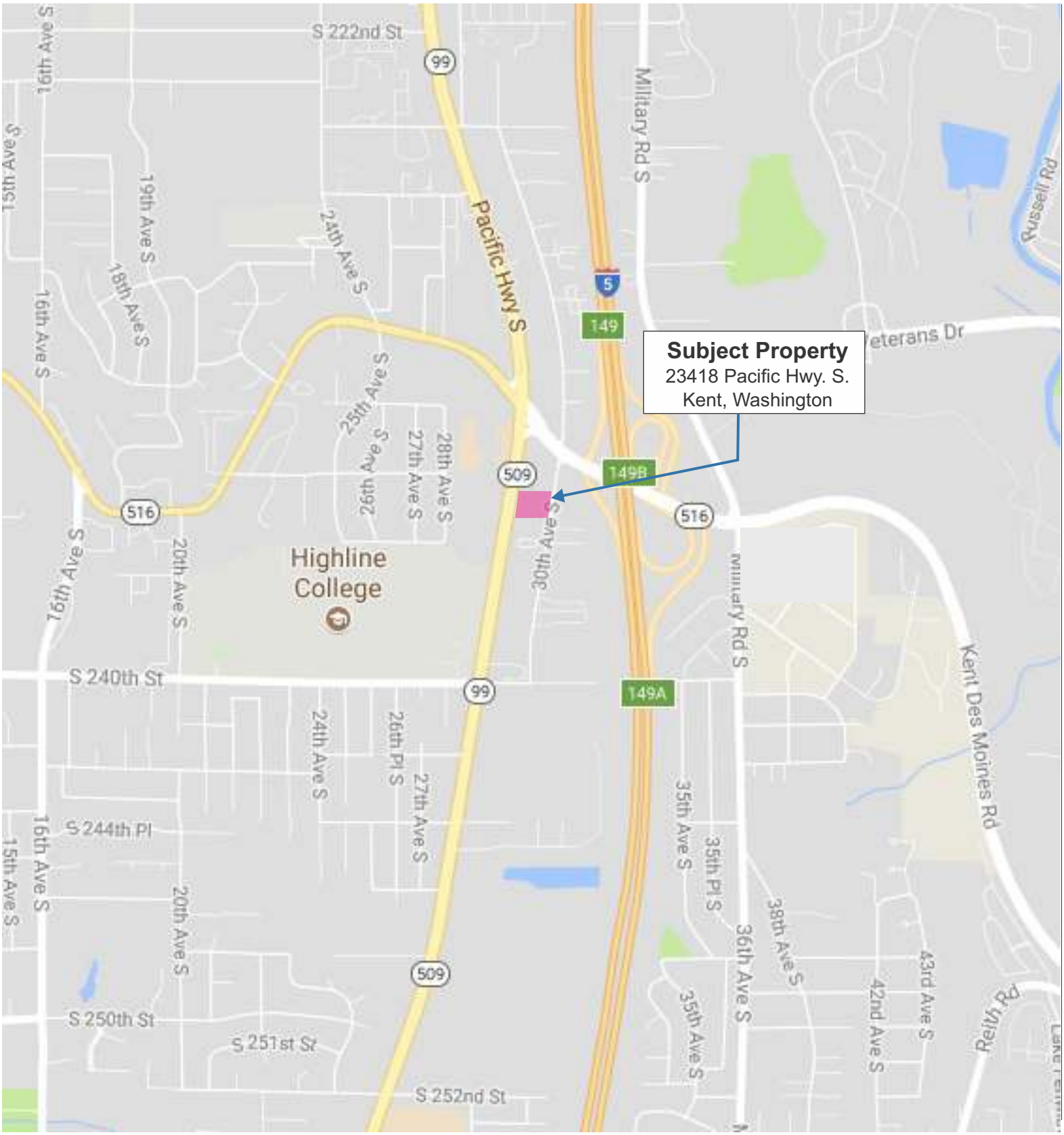
Note that hazardous substances may be present in some of the Site soil and/or groundwater at detectable concentrations that are less than the referenced cleanup levels. Because these cleanup levels can change, ECI should be contacted to evaluate the potential for associated environmental liabilities prior to the export of soil or groundwater from the Subject Site or reuse of the affected media on the Site. We cannot be responsible for potential environmental liability arising out of the transfer of soil and/or groundwater from the Subject Site to another location or its reuse on the Site in instances that we were not aware of or could not control.

12.5 Most Environmental Findings Are Professional Opinions

Our interpretations of subsurface conditions are based on field observations and chemical analytical data from the locations sampled at the Site. Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. EcoCon Inc. reviewed field and laboratory data and then applied our professional judgment to render an opinion about subsurface conditions throughout the Site. Actual subsurface conditions may differ – sometimes significantly – from those indicated in this report. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

List of Appendices

Appendix A: Project Figures



Site Location Map
Supplemental Focused Subsurface Investigation
23418 Pacific Hwy S
Kent, WA 98032

N
Not To Scale

Date:	March 5, 2019
Completed By:	K. Spencer
Reviewed By.:	S. Spencer
Version:	ECI-001
Project No.:	0673-01-01

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N
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Site Topographic Map
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Project No.:	0673-01-01

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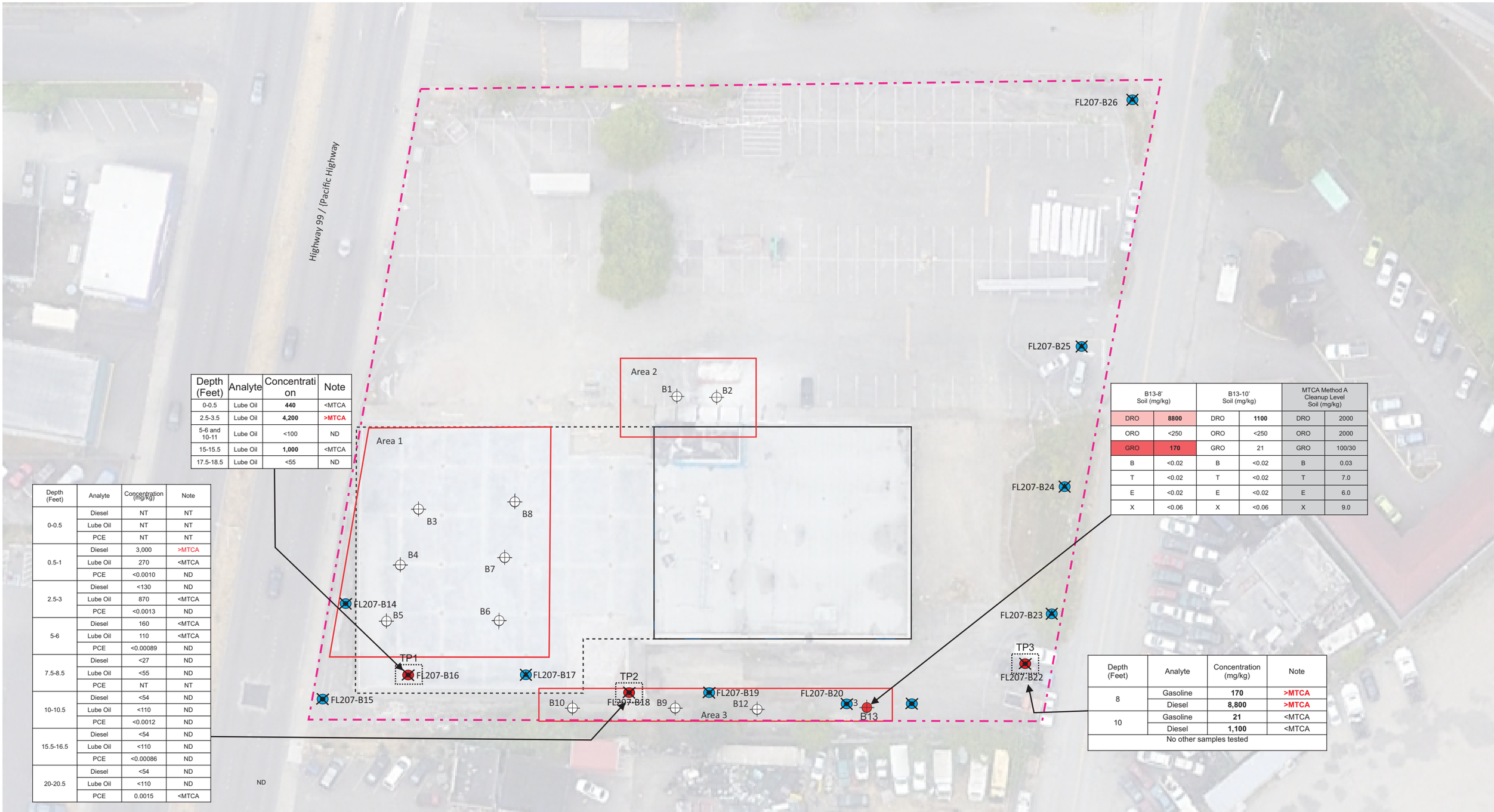

Depth (Feet)	Analyte	Concentration	Note
0-0.5	Lube Oil	**440**	<MTCA
2.5-3.5	Lube Oil	**4,200**	**>MTCA**
5-6 and 10-11	Lube Oil	<100	ND
15-15.5	Lube Oil	**1,000**	<MTCA
17.5-18.5	Lube Oil	<55	ND

Depth (Feet)	Analyte	Concentration (mg/kg)	Note
0-0.5	Diesel	NT	NT
	Lube Oil	NT	NT
	PCE	NT	NT
0.5-1	Diesel	3,000	>MTCA
	Lube Oil	270	<MTCA
	PCE	<0.0010	ND
2.5-3	Diesel	<130	ND
	Lube Oil	870	<MTCA
	PCE	<0.0013	ND
5-6	Diesel	160	<MTCA
	Lube Oil	110	<MTCA
	PCE	<0.00089	ND
7.5-8.5	Diesel	<27	ND
	Lube Oil	<55	ND
	PCE	NT	NT
10-10.5	Diesel	<54	ND
	Lube Oil	<110	ND
	PCE	<0.0012	ND
15.5-16.5	Diesel	<54	ND
	Lube Oil	<110	ND
	PCE	<0.00086	ND
20-20.5	Diesel	<54	ND
	Lube Oil	<110	ND
	PCE	0.0015	<MTCA

B13-8' Soil (mg/kg)		B13-10' Soil (mg/kg)		MTCA Method A Cleanup Level Soil (mg/kg)	
DRO	**8800**	DRO	**1100**	DRO	2000
ORO	<250	ORO	<250	ORO	2000
GRO	**170**	GRO	21	GRO	100/30
B	<0.02	B	<0.02	B	0.03
T	<0.02	T	<0.02	T	7.0
E	<0.02	E	<0.02	E	6.0
X	<0.06	X	<0.06	X	9.0

Depth (Feet)	Analyte	Concentration (mg/kg)	Note
8	Gasoline	**170**	**>MTCA**
	Diesel	**8,800**	**>MTCA**
10	Gasoline	**21**	<MTCA
	Diesel	**1,100**	<MTCA
No other samples tested			

N

10 20 40 50 60 80

Approximate Scale In feet

Explanation

- ECI Previous Boring Location Below Cleanup Levels
- ECI Previous Boring Location Above Cleanup Levels
- Soil Sample Location
- GeoEngineers Sample Locations
- ECI Test Pit Locations

Previous Sample Locations Map
Supplemental Focused Subsurface Investigation
23418 Pacific Hwy S
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Date:	March 5, 2019
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N

10 20 40 50 60 80

Approximate Scale In feet

Explanation

- Soil Sample Location
- GeoEngineers Sample Locations
- ECI Test Pit Locations

Previous Sample Locations Map
Supplemental Focused Subsurface Investigation
23418 Pacific Hwy S
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Photograph One: Breaking into Test Pit 1

Photograph Two: Slight discoloring in Test Pit 2

Photograph Three: Breaking into Test Pit 3

Photograph Four: Roots being dug up from Test Pit 3

Photograph Five: Gasoline Contaminated Soil Test Pit 3

Photograph Six: Discolored Lenses of Soil in Test Pit 3

Site Topographic Map
Supplemental Focused Subsurface Investigation
23418 Pacific Hwy S
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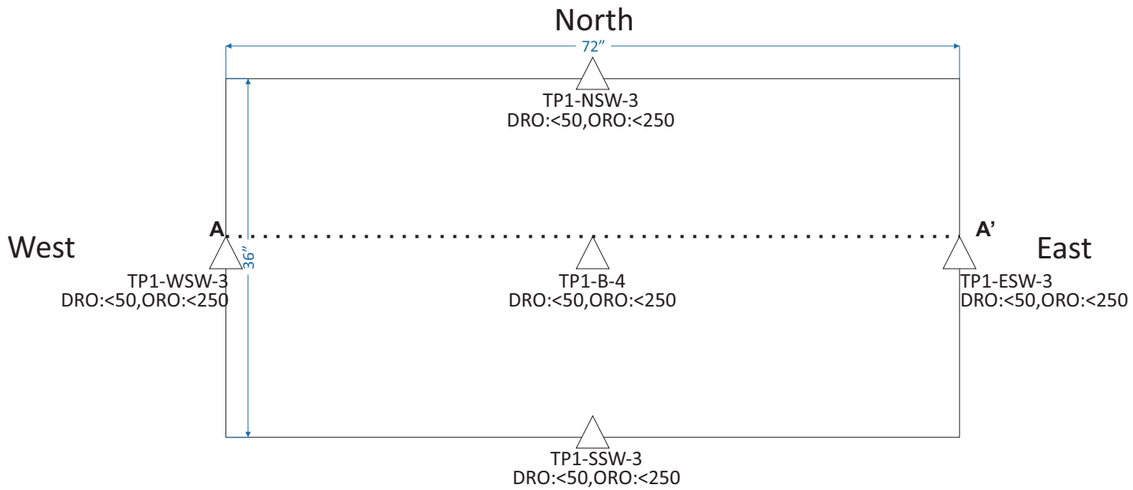
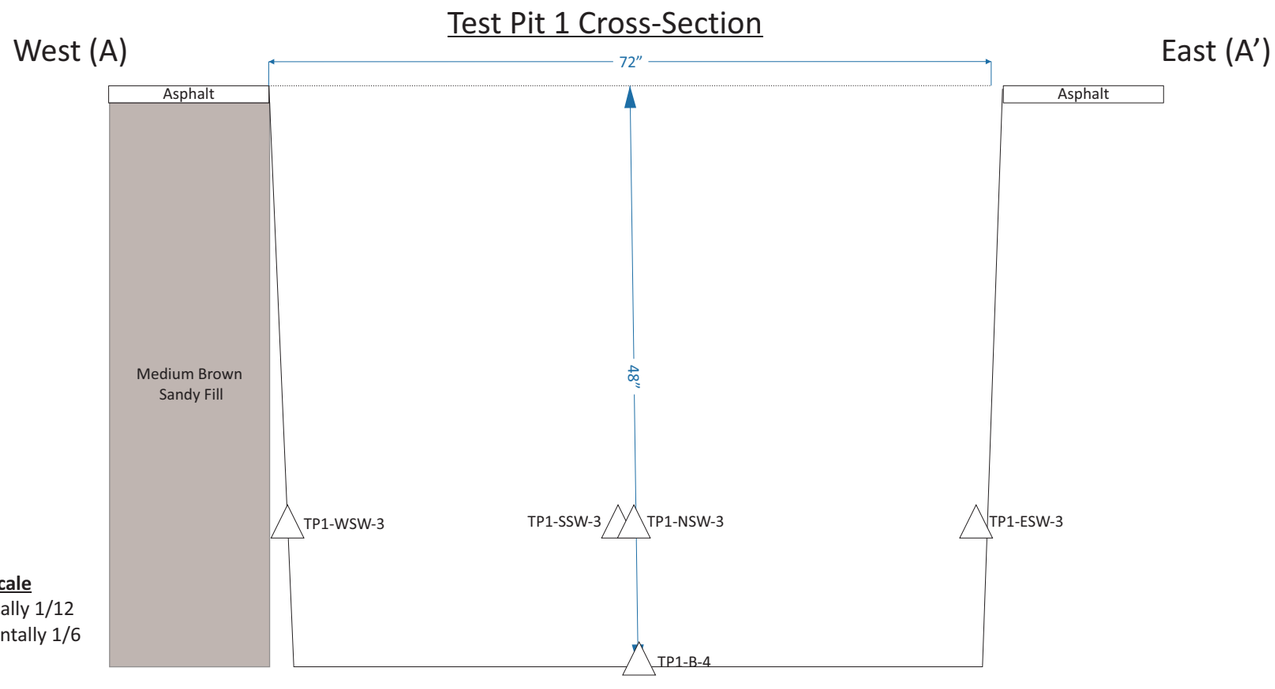
Test Pit 1



Test Pit 1 Cross-Section



Inch Scale
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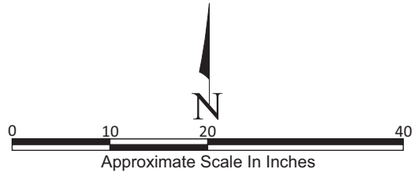

Explanation

△ Soil Sample Location

Test Pit 1
Supplemental Focused Subsurface Investigation
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Figure No.: 06

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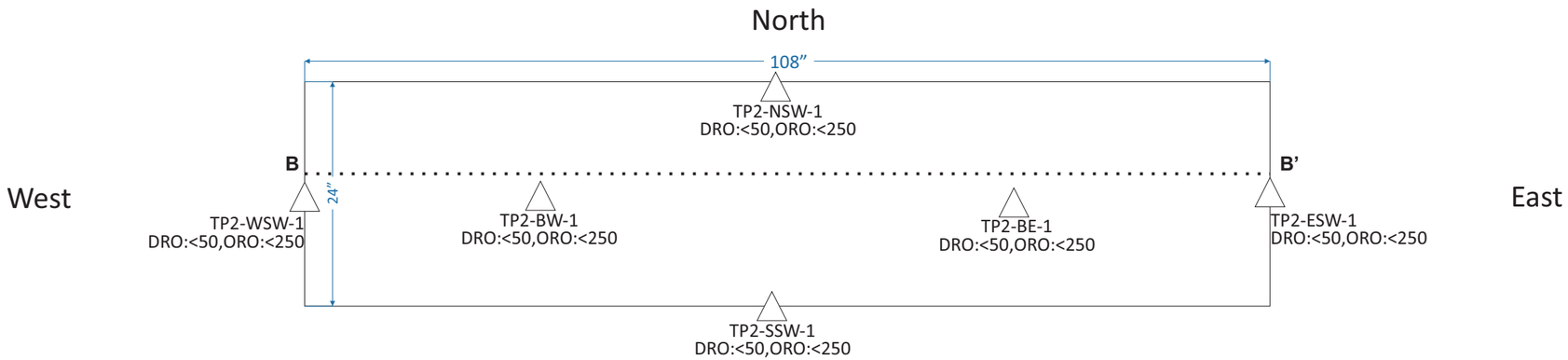
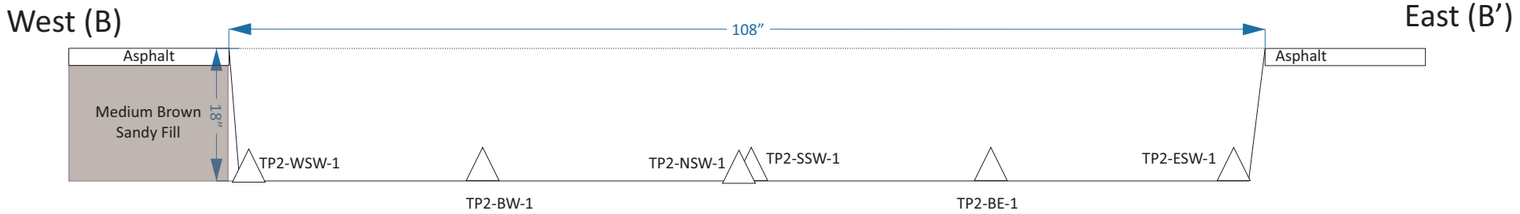
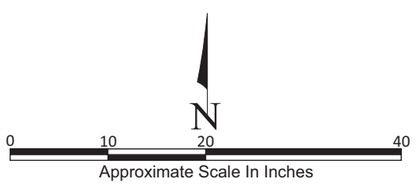
Test Pit 2



Test Pit 2





Explanation

△ Soil Sample Location

Test Pit Two
Supplemental Focused Subsurface Investigation
23418 Pacific Hwy S
Kent, WA 98032

Date:	March 5, 2019
Completed By:	K. Spencer
Reviewed By.:	S. Spencer
Version:	ECI-001
Project No.:	0673-01-02

Figure No.: 07

Sheet 07 of 09

eci Environmental Services — Providing Practical Environmental Compliance Solutions. Offices in: Anchorage | Tacoma | Portland

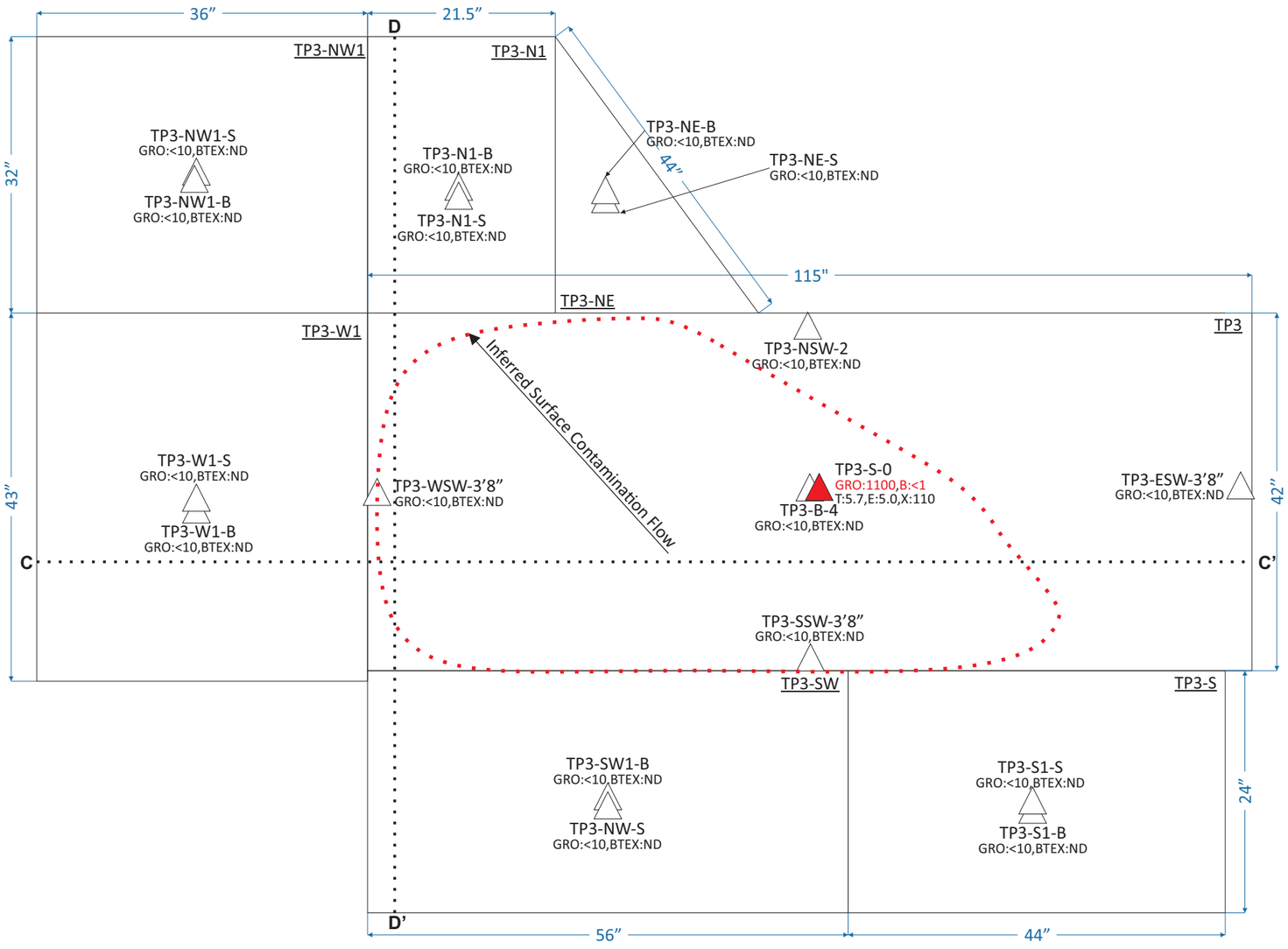
Test Pit 3

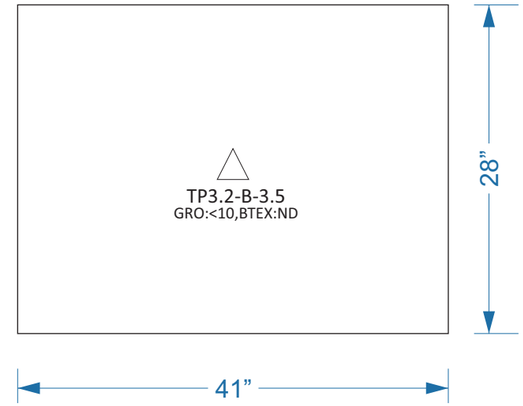
North

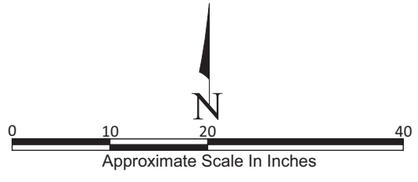
West

East

South







Explanation

- Soil Sample Location
- Contaminated Soil Sample Location
- Estimated Surface Contamination Outline

Test Pit 3 Map
Supplemental Focused Subsurface Investigation
23418 Pacific Hwy S
Kent, WA 98032

Date:	March 5, 2019
Completed By:	K. Spencer
Reviewed By.:	S. Spencer
Version:	ECI-001
Project No.:	0673-01-02

Figure No.: 08

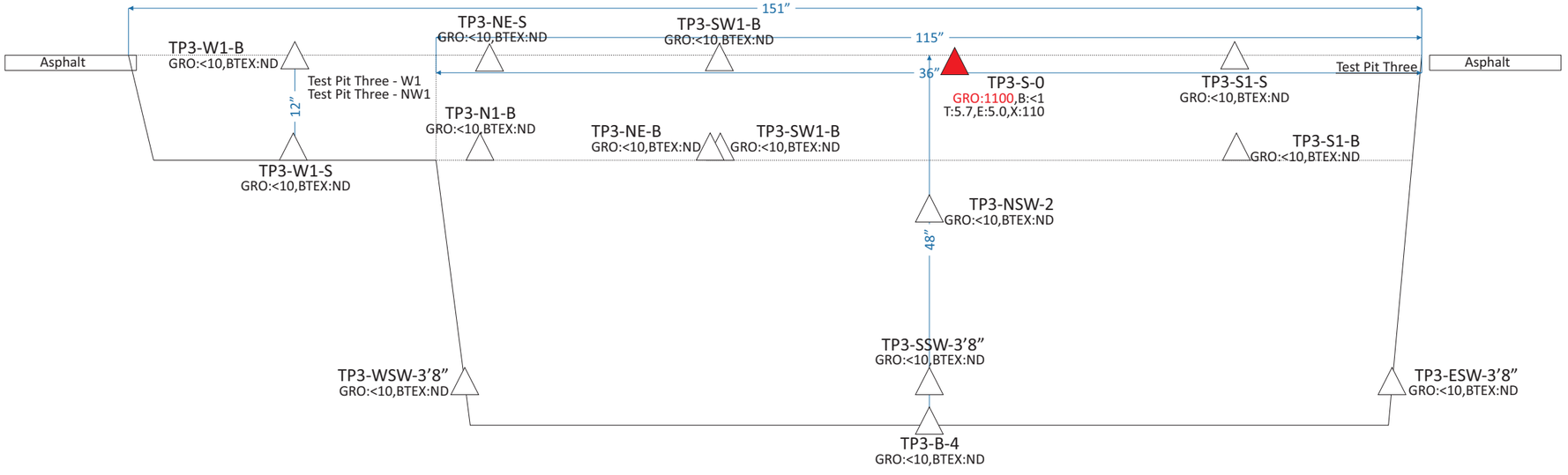
Sheet 08 of 09

eci Environmental Services — Providing Practical Environmental Compliance Solutions. Offices in: Anchorage | Tacoma | Portland

Test Pit 3 Cross-Section

West (C)

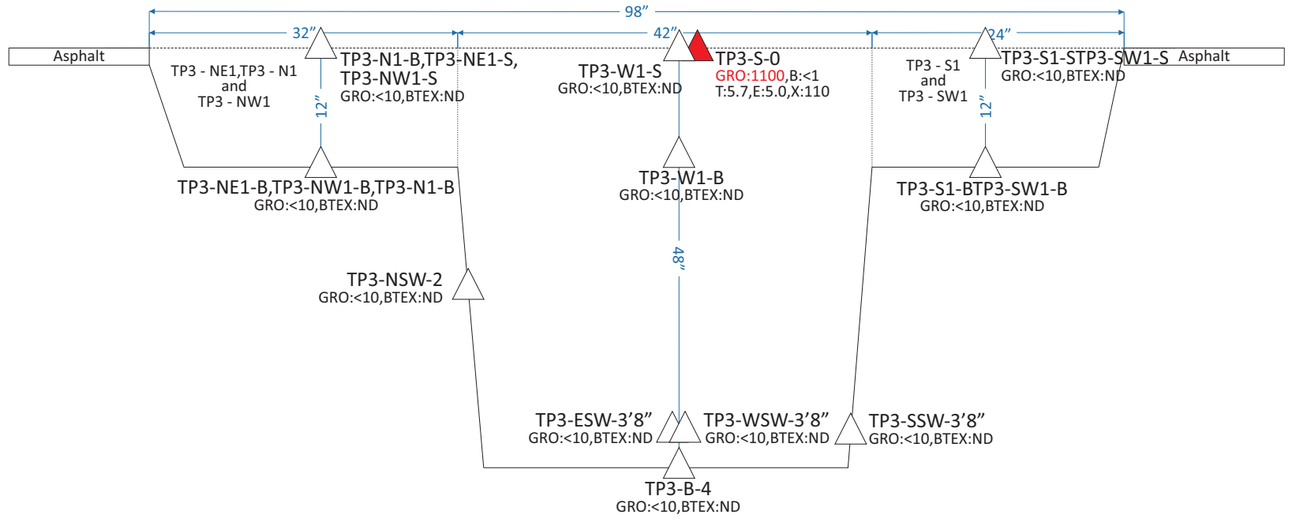
East(C ’)



Test Pit 3 Cross-Section

North (D)

South (D’)



Inch Scale
Scale Vertically 1/12
Scale Horizontally 1/6

Explanation

△ Soil Sample Location

Test Pit 3 Cross-Section
Supplementary Focused Subsurface Investigation
23418 Pacific Hwy S
Kent, WA 98032

Date:	March 5, 2019
Completed By:	K. Spencer
Reviewed By.:	S. Spencer
Version:	ECI-001
Project No.:	0673-01-02

Figure No.: 09

Sheet 09 of 09

eci Environmental Services — Providing Practical Environmental Compliance Solutions
Offices In: Anchorage | Tacoma | Portland

Appendix B: Test Pits

Test Pit Logs

eci Environmental Services

Practical Environmental Compliance Solutions

Offices In: Anchorage | Tacoma | Portland

Project:	**Muscatel SFSI**	**Test Pit ID:**	**TP1**
Project Location:	23418 Pacific Highway South, Kent, WA		
Date:	2/26/2019	**Project Number:**	0673-01-03
Logged by:	Stephanie Holt	**Client:**	Muscatel Midway Properties
Checked By:	D. Polivka	**Test Pit Location:**	See Figure 4, Appendix A; Supplemental Focused Subsurface Investigation Report 3/9/2019
Contractor:	CGI	**Excavation Method:**	Excavator
Weather:	Sunny	**Test Pit Size:**	**Length:** 6 ft; **Width:** 3 ft
		Water Level:	No water encountered

Depth (feet)	Time	Sample Type	Sample Number	Material Description
				Surface Conditions: Dry Asphalt
0				Top 2" Asphalt
				2" to 4' medium brown sandy FILL containing ~20% rounded cobbles of varying sizes up to 4" in diameter
1				
2				
3	8:25	Soil	TP1-NSW-3 & TP1-SSW-3	
	8:26	Soil	TP1-ESW-3 & TP1-WSW-3	
4	8:23	Soil	TP1-B-4	Termination of Test Pit
5				
6				
7				
8				
9				
10				

Notes:

eci Environmental Services — Practical Environmental Compliance Solutions. Offices in: Anchorage | Tacoma | Portland				**Project:**	**Muscatel SFSI**	**Test Pit ID:** **TP2**
				Project Location:	23418 Pacific Highway South, Kent, WA	
Date:	2/26/2019			**Project Number:**	0673-01-03	
Logged by:	Stephanie Holt			**Client:**	Muscatel Midway Properties	
Checked By:	D. Polivka			**Test Pit Location:**	See Figure 4, Appendix A; Supplemental Focused Subsurface Investigation Report 3/9/2019	
Contractor:	CGI			**Excavation Method:**	Excavator	
Weather:	Sunny			**Test Pit Size:**	**Length**	**Width**
					9 ft	2 ft
				Water Level:	No water encountered	
Depth (feet)	**Time**	**Sample Type**	**Sample Number**	**Material Description**		
				Surface Conditions:	Dry Asphalt	
0				Top 2" Asphalt		
				2" to 1' medium brown sandy FILL containing occasional chunks of red brick approximately 1-2" in size		
1			See Notes			
				Termination of Test Pit		
2						
3						
4						
5						
6						
7						
8						
9						
10						

Notes: Samples in chronological order: TP2-BW-1 (8:44am), TP2-BE-1 (9:00am), TP2-ESW-1, TP2-NSW-1 & TP2-SSW-1 (9:05am), and TP2-WSW-1 (9:07am).

eci Environmental Services — Practical Environmental Compliance Solutions — Offices In: Anchorage | Tacoma | Portland

Project:	**Muscatel SFSI**	**Test Pit ID:**	**TP3**
Project Location:	23418 Pacific Highway South, Kent, WA		
Project Number:	0673-01-03		
Client:	Muscatel Midway Properties		
Test Pit Location:	See Figure 4, Appendix A; Supplemental Focused Subsurface Investigation Report 3/9/2019		
Excavation Method:	Excavator		
Test Pit Size:	**Length**	**Width**	
	115 in	42 in	
Water Level:	No water encountered		

Date:	2/26/2019
Logged by:	Stephanie Holt
Checked By:	D. Polivka
Contractor:	CGI
Weather:	Sunny

Depth (feet)	Time	Sample Type	Sample Number	Material Description
				Surface Conditions: Dry Asphalt
0	11:05	Soil	TP3-S-0	Top 2" Asphalt
1				2" to 1' medium gray wet to moist sandy GRAVEL containing >50% 1" size rounded gravel - **strong gasoline odor**
2	12:02	Soil	TP3-NSW-2	1' to 4' medium brown SAND containing few cobbles. 6" Lense of medium gray soil at 2' on north side wall only
3	12:05	Soil	TP3-ESW-3'8"	
	12:07	Soil	TP3-WSW-3'8"	
4	12:10	Soil	TP3-B-4	Termination of Test Pit
5				
6				
7				
8				
9				
10				

Notes: Additional samples were taken to delineate the extent of surface gasoline contamination. These samples are discussed at length within the associated SFSI report.

Practical Environmental Compliance Solutions

Offices In: Anchorage | Tacoma | Portland

Project:	**Muscatel SFSI**	**Test Pit ID:**	**TP3.2**
Project Location:	23418 Pacific Highway South, Kent, WA		
Date:	2/26/2019		
Project Number:	0673-01-03		
Logged by:	Stephanie Holt		
Client:	Muscatel Midway Properties		
Checked By:	D. Polivka		
Test Pit Location:	See Figure 4, Appendix A; Supplemental Focused Subsurface Investigation Report 3/9/2019		
Contractor:	CGI		
Excavation Method:	Excavator		
Weather:	Sunny		
Test Pit Size:	**Length**	**Width**	
	41 in	28 in	
Water Level:	No water encountered		

Depth (feet)	Time	Sample Type	Sample Number	Material Description
				Surface Conditions: Dry Asphalt
0				Top 2" Asphalt
1				2" to 3.5' medium brown SAND containing few cobbles.
2				
3				
	12:25	Soil	TP3.2-B-3.5	
4				Termination of Test Pit
5				
6				
7				
8				
9				
10				

Notes: Test Pit 3.2 was excavated in the location of FI207-B22 denoted on the GeoEngineers Phase II ESA map. Photo evidence suggested this was not the actual location of GeoEngineers Boring FI207-B22. For the test pit excavated over the actual location of FI207-B22, see Test Pit 3.

Appendix C: Project Tables

Table 8: Summary of Test Pit Analytical Results

eci Environmental Services — Practical Environmental Compliance Solutions
Offices In: Anchorage | Tacoma | Portland

Table 8: Summary of Test Pit Analytical Results
Muscatel Midway Properties
Kent, WA

Sample ID	Depth (ft)	Sample Date	Total Petroleum Hydrocarbons (mg/kg)			Select Volatile Organic Compounds[3] (mg/kg)				Additional COCs required by Table 830-1 (mg/kg)			
			Diesel Range Organics[2]	Oil Range Organics[2]	Gasoline Range Organics[1]	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDC	EDB	Total Lead
Test Pit 1													
TP1-ESW-3	3	2/26/2019	<50	<250	--	--	--	--	--	--	--	--	--
TP1-NSW-3	3	2/26/2019	<50	<250	--	--	--	--	--	--	--	--	--
TP1-WSW-3	3	2/26/2019	<50	<250	--	--	--	--	--	--	--	--	--
TP1-SSW-3	3	2/26/2019	<50	<250	--	--	--	--	--	--	--	--	--
TP1-B-4	4	2/26/2019	<50	<250	--	--	--	--	--	--	--	--	--
Test Pit 2													
TP2-SSW-1	1	2/26/2019	<50	<250	--	--	--	--	--	--	--	--	--
TP2-ESW-1	1	2/26/2019	<50	<250	--	--	--	--	--	--	--	--	--
TP2-WSW-1	1	2/26/2019	<50	<250	--	--	--	--	--	--	--	--	--
TP2-NSW-1	1	2/26/2019	<50	<250	--	--	--	--	--	--	--	--	--
TP2-BE-1	1	2/26/2019	<50	<250	--	--	--	--	--	--	--	--	--
TP2-BW-1	1	2/26/2019	<50	<250	--	--	--	--	--	--	--	--	--
Test Pit 3													
TP3-S-0	0	2/26/2019	--	--	**1100**	**<1**	**5.7**	**5.0**	**110**	<0.05	<0.03	<0.005	**9.7**
TP3-NSW-2	2	2/26/2019	--	--	<10	<0.02	<0.10	<0.05	<0.15	--	--	--	--
TP3-ESW-3'8"	3.66	2/26/2019	--	--	<10	<0.02	<0.10	<0.05	<0.15	--	--	--	--
TP3-WSW-3'8"	3.66	2/26/2019	--	--	<10	<0.02	<0.10	<0.05	<0.15	--	--	--	--
TP3-SSW-3'8"	3.66	2/26/2019	--	--	<10	<0.02	<0.10	<0.05	<0.15	--	--	--	--
TP3-B-4	4	2/26/2019	--	--	<10	<0.02	<0.10	<0.05	<0.15	--	--	--	--
TP3-W1-S	0	2/27/2019	--	--	<10	<0.02	<0.10	<0.05	<0.15	--	--	--	--
TP3-NW1-S	0	2/27/2019	--	--	<10	<0.02	<0.10	<0.05	<0.15	--	--	--	--
TP3-NW1-B	1	2/27/2019	--	--	<10	<0.02	<0.10	<0.05	<0.15	--	--	--	--
TP3-N1-S	0	2/27/2019	--	--	<10	<0.02	<0.10	<0.05	<0.15	--	--	--	--
TP3-N1-B	1.33	2/27/2019	--	--	<10	<0.02	<0.10	<0.05	<0.15	--	--	--	--
TP3-S1-S	0	2/27/2019	--	--	<10	<0.02	<0.10	<0.05	<0.15	--	--	--	--
TP3-S1-B	1	2/27/2019	--	--	<10	<0.02	<0.10	<0.05	<0.15	--	--	--	--
TP3-NE-S	0	2/27/2019	--	--	<10	<0.02	<0.10	<0.05	<0.15	--	--	--	--
TP3-NE-B	1	2/27/2019	--	--	<10	<0.02	<0.10	<0.05	<0.15	--	--	--	--
TP3-W1-B	1	2/27/2019	--	--	<10	<0.02	<0.10	<0.05	<0.15	--	--	--	--
TP3-SW1-B	1	2/27/2019	--	--	<10	<0.02	<0.10	<0.05	<0.15	--	--	--	--
TP3-SW1-S	0	2/27/2019	--	--	<10	<0.02	<0.10	<0.05	<0.15	--	--	--	--
Test Pit 3.2													
TP3.2-B-3.5	3.5	2/26/2019	--	--	<10	<0.02	<0.10	<0.05	<0.15	--	--	--	--
Laboratory Reporting Limit			50	250	10	0.02	0.02	0.02	0.06	0.05	0.03	0.005	5
MTCA Method A Cleanup Level			2000	2000	100/30[4]	0.03	7	6	9	0.1	--	0.005	250

Notes:

[1]Gasoline range total petroleum hydrocarbons (TPH). Analyzed by Northwest Method NWTPH-Gx.

[2]Analyzed by Northwest Method NWTPH-D/Dx Extended

[3]Select Volatile Organic Compounds. Analyzed by EPA Method 8021B.

[4] Cleanup level with presence of benzene 30 mg/kg; Without benzenepresent on the Site 100 mg/kg

mg/kg = Milligrams per kilogram

MTCA = Model Toxics Control Act

-- = Not analyzed

< = not detected above laboratory detection limits

Bold indicates a detected concentration that is below Ecology MTCA Method A Cleanup Levels

Orange indicates that result was below the detection limit, but the detection limit was above the MTCA Method A Cleanup Level

Bold and Red indicates the detected concentration exceeds Ecology MTCA Method A or B Cleanup Levels

Appendix D: Laboratory Data Sheets

Appendix: D
Laboratory Data Sheets

Libby Environmental, Inc.
4139 Libby Road NE • Olympia, WA 98506-2518

March 7, 2019

Stephanie Holt
ECI
P.O. Box 153
Fox Island, WA 98333

Dear Ms. Holt:

Please find enclosed the analytical data report for the Muscatel Project located in Kent, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of in 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@gmail.com

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

4139 Libby Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Client: ECI
Address: PO Box 153
City: Fox Island State: WA Zip: 98333
Phone: 479-426-1489 Fax:
Client Project # 0673-0102

Date: 2/26/19 Page: 1 of 2
Project Manager: Stephanie Holt
Project Name: ~~0673-0102~~ Muscatel
Location: ~~Fif~~ Kent City, State: ~~Fif~~ WA
Collector: Stephanie Holt Date of Collection: 2/26/19
Email: sholt@ecocon.us

	Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	NWTPH-Gx	BTEX 8021	NWTPH-HCID	NWTPH-Dx	NWTPH-Dx/Dx	c PAH 8270	PAH 8270	Semi Vol 8270	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	TOTAL LEAD	EDB, EDC, MT BE	Field Notes
1	TP2-SSW-1	1	9:05	Soil	1 4oz Jar					✓										First
2	TP2-BW-1'	1	8:44	Soil	" "					✓										
3	TP2-ESW-1	1	9:05	Soil																
D 4	TP2-WSW-1	1	9:07																	
D 5	TP2-BE-1'	1	9:00																	
6	TP2-NSW-1	1	9:05																	First
7	TP1-ESW-3	3	8:26																	
8	TP1-NSW-3	3	8:25																	
9	TP1-WSW-3	3	8:26																	
10	TP1-SSW-3	3	8:25																	
11	TP1-B-4	4	8:23																	
12	TP3-S-0	0	11:05	Soil	4oz jar/2vo		X	X									X	X		3-6-19 added per Stephanie via email. 24HR
D 13	TP3-NSW-2	2	12:02	Soil	1-4oz 2 Vocs		X	X												
14	TP3-ESW-3'8"	3.66	12:05				X	X												
15	~~TP3-ESW-3'8"~~	~~3.66~~	~~12:05~~																	
16	TP3-WSW-3'8"	3.66	12:07																	
MS 17	TP3-B-4	4	12:10																	

Relinquished by: Date / Time
Received by: Paul Bunk 2/26/19 1508 Date / Time

Relinquished by: Date / Time
Received by: Date / Time

Relinquished by: Date / Time
Received by: Date / Time

Sample Receipt

Good Condition?	Y	N	
Temp.			°C
Seals Intact?	Y	N	N/A
Total Number of Containers			

Remarks: ML

TAT: 24HR 48HR 5-DAY

LEGAL ACTION CLAUSE: *In the event of default of payment and/or failure to pay, Client agrees to pay the costs of collection including court costs and reasonable attorney fees to be determined by a cout of law.*

Distribution: White - Lab, Yellow - File, Pink - Originator

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

4139 Libby Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 2.26.19 Page: ~~1~~ 2 of 2

Client: ECI
Project Manager: Stephanie Holt
Address: P.O. Box 153
Project Name: Muscatel
City: Fox Island State: WA Zip: 98333
Location: Kent City, State: WA
Phone: 479-426-1459 Fax:
Collector: Stephanie Holt Date of Collection: 2.26.19
Client Project # 0673-01-02
Email: sholt@ecocon.us

	Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	NWTPH-Gx	BTEX 8021	NWTPH-HCID	NWTPH-Dx	NWTPH-Dx/Dx	c PAH 8270	PAH 8270	Semi Vol 8270	PCB 8082	MTCA 5 Metals	RCRA 8 Metals			Field Notes
1	TP3.2-B-3.5	3.5	12:25	Soil	4 oz jar + 2 voa		X	X												
2	TP3-SSW-3'8"	3.66	12:05				X	X												
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17																				

Relinquished by:	Date / Time	Received by:	Date / Time
		Paul Bunk	2/26/19 1508
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt

Good Condition?	Y	N	
Temp.		°C	
Seals Intact?	Y	N	N/A
Total Number of Containers			

Remarks:

ML

TAT: 24HR 48HR 5-DAY

Distribution: White - Lab, Yellow - File, Pink - Originator

Libby Environmental, Inc.

4139 Libby Road NE
Olympia, WA 98506
Phone: (360) 352-2110
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Email: libbyenv@gmail.com

MUSCATEL PROJECT
ECI
Fife, Washington
Libby Project # L190226-40
Client Project # 0673-0102

Analyses of Gasoline (NWTPH-Gx) & BTEX (EPA Method 8260C) in Soil

Sample Number	Date Analyzed	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Gasoline (mg/kg)	Surrogate Recovery (%)
Method Blank	2/26/19	nd	nd	nd	nd	nd	66
LCS	2/26/19	96%	67%				76
TP3-S-0	2/26/19	<1	5.7	5.0	110	1100	87
TP3-NSW-2	2/26/19	nd	nd	nd	nd	nd	87
TP3-NSW-2 Dup	2/26/19	nd	nd	nd	nd	nd	87
TP3-ESW-3'8"	2/26/19	nd	nd	nd	nd	nd	87
TP3-WSW-3'8"	2/26/19	nd	nd	nd	nd	nd	65
TP3-B-4	2/26/19	nd	nd	nd	nd	nd	85
TP3.2-B-3.5	2/26/19	nd	nd	nd	nd	nd	65
TP3-SSW-3'8"	2/26/19	nd	nd	nd	nd	nd	88
TP3-B-4 MS	2/26/19	112%	86%				87
TP3-B-4 MSD	2/26/19	105%	79%				77
Practical Quantitation Limit		0.02	0.10	0.05	0.15	10	

"<" Indicates analyte was diluted to the reported PQL level.
"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Toluene-d8): 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

4139 Libby Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

MUSCATEL PROJECT
ECI
Fife, Washington
Libby Project # L190226-40
Client Project # 0673-0102

Analyses of Diesel & Oil (NWTPH-Dx/Dx Extended) in Soil

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (mg/kg)	Oil (mg/kg)
Method Blank	2/26/19	112	nd	nd
TP2-SSW-1	2/26/19	106	nd	nd
TP2-BW-1	2/26/19	117	nd	nd
TP2-ESW-1	2/26/19	116	nd	nd
TP2-WSW-1	2/26/19	127	nd	nd
TP2-BE-1	2/26/19	115	nd	nd
TP2-BE-1 Dup	2/26/19	130	nd	nd
TP2-NSW-1	2/26/19	116	nd	nd
TP1-ESW-3	2/26/19	121	nd	nd
TP1-NSW-3	2/26/19	123	nd	nd
TP1-WSW-3	2/26/19	127	nd	nd
TP1-WSW-3 Dup	2/26/19	118	nd	nd
TP1-SSW-3	2/26/19	117	nd	nd
TP1-B-4	2/26/19	120	nd	nd
Practical Quantitation Limit			50	250

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (2-F Biphenyl): 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

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Olympia, WA 98506
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MUSCATEL PROJECT
ECI
Fife, Washington
Libby Project # L190226-40
Client Project # 0673-0102

Analyses of Total Lead in Soil by EPA Method 7010 Series

Sample Number	Date Analyzed	Lead (mg/kg)
Method Blank	3/6/19	nd
TP3-S-0	3/6/19	9.7
Practical Quantitation Limit		5.0

"nd" Indicates not detected at the listed detection limits.

ANALYSES PERFORMED BY: Dirk Peterson

Libby Environmental, Inc.

4139 Libby Road NE
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MUSCATEL PROJECT
ECI
Fife, Washington
Libby Project # L190226-40
Client Project # 0673-0102

QA/QC for Total Lead in Soil by EPA Method 7010 Series

Sample Number	Date Analyzed	Lead (% Recovery)
LCS	3/6/19	105%
L190304-1 MS	3/6/19	101%
L190304-1 MSD	3/6/19	102%
RPD	3/6/19	1%

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 75%-125%
ACCEPTABLE RPD IS 20%

ANALYSES PERFORMED BY: Dirk Peterson

Libby Environmental, Inc.

4139 Libby Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

MUSCATEL PROJECT
ECI
Fife, Washington
Libby Project # L190226-40
Client Project # 0673-0102

Specific Halogenated and Aromatic Hydrocarbons by EPA 8260C in Soil

Sample Description		Method Blank	TP3-S-0
Date Sampled		N/A	2/26/19
Date Analyzed	PQL	2/26/19	2/26/19
	(mg/kg)	(mg/kg)	(mg/kg)
1,2-Dichloroethane (EDC)	0.03	nd	nd
1,2-Dibromoethane (EDB) *	0.005	nd	nd
Methyl *tert*- Butyl Ether (MTBE)	0.05	nd	nd
Surrogate Recovery			
Dibromofluoromethane		104	93
1,2-Dichloroethane-d4		119	95
Toluene-d8		99	90
4-Bromofluorobenzene		92	101

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

* ANALYZED BY SIM
ACCEPTABLE RECOVERY LIMITS FOR SURROGATE 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

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QA/QC Data - EPA 8260C Analyses

Sample Identification: L190306-40

	Matrix Spike			Matrix Spike Duplicate			RPD
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	
Benzene	0.5	0.51	102	0.5	0.46	92	10.3
Toluene	0.5	0.67	134	0.5	0.64	128	4.6
Surrogate Recovery							
Dibromofluoromethane			85			94	
1,2-Dichloroethane-d4			98			110	
Toluene-d8			99			111	
4-Bromofluorobenzene			88			89	

	Laboratory Control Sample		
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)
Benzene	0.5	0.50	100
Toluene	0.5	0.55	110
Surrogate Recovery			
Dibromofluoromethane			91
1,2-Dichloroethane-d4			94
Toluene-d8			89
4-Bromofluorobenzene			86

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%
ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.
4139 Libby Road NE • Olympia, WA 98506-2518

February 28, 2019

Stephanie Holt
ECI
P.O. Box 153
Fox Island, WA 98333

Dear Ms. Holt:

Please find enclosed the analytical data report for the Muscatel Project located in Kent, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of in 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@gmail.com

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

4139 Libby Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 2.27.19 Page: 1 of 1

Client: ECI
Project Manager: Stephanie Holt
Address: P.O. Box 153
Project Name: Muscatel
City: Fox Island State: WA Zip: 98333
Location: 23418 Pacific HWY S City, State: Kent WA
Phone: 479-426-1489 Fax:
Collector: Stephanie Holt Date of Collection: 2.27.19
Client Project # 0673-01-02
Email: sholt@ecocon.us

	Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	NWTPH-Gx	BTEX 8021	NWTPH-HCID	NWTPH-Dx	NWTPH-Dx/Dx	c PAH 8270	PAH 8270	Semi Vol 8270	PCB 8082	MTCA 5 Metals	RCRA 8 Metals			Field Notes
1	TP3-W1-S	0	9:20	Soil	4oz+2xVoa		x	x												
2	TP3-NW1-S	0	9:45																	
3	TP3-NW1-B	1	9:50																	
4	TP3-N1-S	0	10:15																	
5	TP3-N1-B	1.33	10:20																	
6	TP3-S1-S	0	11:15																	
7	TP3-S1-B	1	12:20																	
8	TP3-NE-S	0	12:35																	
9	TP3-NE-B	1	12:40																	
10	TP3-W1-B	1	12:15																	
11	TP3-SW1-B	1	12:20																	
12	TP3-SW1-S	0	12:25																	
13																				
14																				
15																				
16																				
17																				

Relinquished by:	Date / Time	Received by:	Date / Time
Stephanie Holt	2.27.19 / 16:43	Paul Bent	2/27/19 1643
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt

Good Condition?	Y	N	
Temp.			°C
Seals Intact?	Y	N	N/A
Total Number of Containers			

Remarks:

TAT: (24HR) 48HR 5-DAY

LEGAL ACTION CLAUSE: *In the event of default of payment and/or failure to pay, Client agrees to pay the costs of collection including court costs and reasonable attorney fees to be determined by a cout of law.*

Distribution: White - Lab, Yellow - File, Pink - Originator

Libby Environmental, Inc.

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MUSCATEL PROJECT
ECI
Kent, Washington
Libby Project # L190227-3
Client Project # 0673-01-02

Analyses of Gasoline (NWTPH-Gx) & BTEX (EPA Method 8260C) in Soil

Sample Number	Date Analyzed	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Gasoline (mg/kg)	Surrogate Recovery (%)
Method Blank	2/27/19	nd	nd	nd	nd	nd	95
LCS	2/27/19	96%	93%				97
TP3-W1-S	2/27/19	nd	nd	nd	nd	nd	97
TP3-NW1-S	2/27/19	nd	nd	nd	nd	nd	97
TP3-NW1-B	2/27/19	nd	nd	nd	nd	nd	96
TP3-N1-S	2/27/19	nd	nd	nd	nd	nd	79
TP3-N1-B	2/27/19	nd	nd	nd	nd	nd	96
TP3-N1-B Dup	2/27/19	nd	nd	nd	nd	nd	96
TP3-S1-S	2/27/19	nd	nd	nd	nd	nd	80
TP3-S1-B	2/27/19	nd	nd	nd	nd	nd	85
TP3-NE-S	2/27/19	nd	nd	nd	nd	nd	78
TP3-NE-B	2/27/19	nd	nd	nd	nd	nd	82
TP3-W1-B	2/27/19	nd	nd	nd	nd	nd	81
TP3-W1-B Dup	2/27/19	nd	nd	nd	nd	nd	97
TP3-SW1-B	2/27/19	nd	nd	nd	nd	nd	94
TP3-SW1-S	2/27/19	nd	nd	nd	nd	nd	96
TP3-SW1-S MS	2/27/19	97%	93%				97
TP3-SW1-S MSD	2/27/19	109%	107%				96
Practical Quantitation Limit		0.02	0.10	0.05	0.15	10	

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Toluene-d8): 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

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Olympia, WA 98506
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FAX: (360) 352-4154
Email: libbyenv@gmail.com

MUSCATEL PROJECT
ECI
Libby Project # L190227-3
Date Received 2/27/2019
Time Received 4:43 PM

Received By PB

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody is complete?	☑	Yes	☐	No		
2. How was the sample delivered?	☐	Hand Delivered	☑	Picked Up	☐	Shipped

Log In

3. Cooler or Shipping Container is present.	☑	Yes	☐	No	☐	N/A
4. Cooler or Shipping Container is in good condition.	☑	Yes	☐	No	☐	N/A
5. Cooler or Shipping Container has Custody Seals present.	☐	Yes	☑	No	☐	N/A
6. Was an attempt made to cool the samples?	☑	Yes	☐	No	☐	N/A
7. Temperature of cooler (0°C to 8°C recommended)	6.5 °C					
8. Temperature of sample(s) (0°C to 8°C recommended)	5.0 °C					
9. Did all containers arrive in good condition (unbroken)?	☑	Yes	☐	No		
10. Is it clear what analyses were requested?	☑	Yes	☐	No		
11. Did container labels match Chain of Custody?	☑	Yes	☐	No		
12. Are matrices correctly identified on Chain of Custody?	☑	Yes	☐	No		
13. Are correct containers used for the analysis indicated?	☑	Yes	☐	No		
14. Is there sufficient sample volume for indicated analysis?	☑	Yes	☐	No		
15. Were all containers properly preserved per each analysis?	☑	Yes	☐	No		
16. Were VOA vials collected correctly (no headspace)?	☑	Yes	☐	No	☐	N/A
17. Were all holding times able to be met?	☑	Yes	☐	No		

Discrepancies/ Notes

18. Was client notified of all discrepancies?	☐	Yes	☐	No	☑	N/A

Person Notified: _____ Date: _____

By Whom: _____ Via: _____

Regarding: _____

19. Comments. _____