



## **INTERIM REMEDIAL ACTION & CLEANUP ACTION PLAN**

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**RGI PROJECT No. 2021-465-1**

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**FORMER FIRESTONE COMPLETE AUTO CARE PROPERTY  
351 RAINIER AVENUE SOUTH  
RENTON, WASHINGTON 98057**

**AUGUST 4, 2022**

## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION .....</b>	<b>4</b>
1.1	PROJECT OVERVIEW .....	4
1.2	PROPERTY INFORMATION .....	4
<b>2.0</b>	<b>DESCRIPTION OF PROPERTY AND ADJOINING PROPERTIES .....</b>	<b>5</b>
2.1	PROPERTY IDENTIFICATION AND LOCATION .....	5
2.2	ZONING .....	5
2.3	POTENTIAL FUTURE DEVELOPMENT .....	5
2.4	CURRENT ADJOINING PROPERTY USES .....	5
2.5	UTILITIES AND WATER SUPPLY.....	5
<b>3.0</b>	<b>HISTORICAL INFORMATION .....</b>	<b>6</b>
3.1	HISTORICAL PROPERTY USES .....	6
3.2	HISTORICAL ADJOINING PROPERTY USES .....	6
<b>4.0</b>	<b>POTENTIAL SOURCES OF CONTAMINATION.....</b>	<b>6</b>
4.1	POTENTIAL ON-PROPERTY SOURCES OF CONTAMINATION .....	6
4.2	POTENTIAL OFF-PROPERTY SOURCES OF CONTAMINATION .....	6
<b>5.0</b>	<b>NATURAL CONDITIONS.....</b>	<b>7</b>
5.1	PHYSIOGRAPHIC SETTING AND TOPOGRAPHY.....	7
5.2	SURFACE WATER .....	7
5.3	GEOLOGIC SETTING .....	7
5.4	SOIL .....	7
5.5	GROUNDWATER .....	7
<b>6.0</b>	<b>PREVIOUS ENVIRONMENTAL INVESTIGATION SUMMARY .....</b>	<b>7</b>
6.1	LIMITED SUBSURFACE SAMPLING AND TESTING, VACANT FORMER FIRESTONE COMPLETE AUTO CARE, 351 RAINIER AVENUE SOUTH, RENTON WA BY EAI, FEBRUARY 18, 2021.....	7
6.2	CHARACTERIZATION OF ON-SITE CONTAMINATION, VACANT FORMER FIRESTONE COMPLETE AUTO CARE, 351 RAINIER AVENUE SOUTH, RENTON WA BY EAI, APRIL 12, 2021.....	8
<b>7.0</b>	<b>CLEANUP STANDARDS .....</b>	<b>9</b>
7.1	MTCA CLEANUP REGULATION .....	9
7.2	CLEANUP LEVELS & SCREENING LEVELS .....	9
7.2.1	SOIL CLEANUP LEVELS.....	9
<b>8.0</b>	<b>INTERIM ACTIONS SUMMARY .....</b>	<b>10</b>
8.1	CLEANUP ACTION SELECTION AND METHODOLOGY .....	10
8.2	LIMITED HOIST CASING REMOVALS AND SOIL EXCAVATION WITH SAMPLING AND TESTING.....	10
8.3	CONTAMINATED SOIL DISPOSAL.....	12
8.4	GROUNDWATER TREATMENT .....	12
8.5	PROPERTY RESTORATION.....	12
<b>9.0</b>	<b>CONCEPTUAL SITE MODEL .....</b>	<b>12</b>
9.1	TERRESTRIAL ECOLOGICAL RESOURCES .....	12
9.2	CONTAMINANTS OF CONCERN AND OCCURRENCE .....	13
9.3	POTENTIALLY COMPLETE EXPOSURE PATHWAYS.....	14
<b>10.0</b>	<b>CLEANUP ACTION PLAN .....</b>	<b>14</b>
10.1	CLEANUP ACTION OBJECTIVES .....	14
10.2	PROPOSED REMEDIAL ACTION APPROACH – MONITORING WELL INSTALLATION AND GROUNDWATER MONITORING.....	14
10.3	RESPONSE TO FURTHER ACTION TRIGGERS.....	14
<b>11.0</b>	<b>LIMITATIONS .....</b>	<b>15</b>

## LIST OF APPENDICES

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Figure 1 .....	Property Vicinity Map
Figure 2 .....	Property Representation with EAI Soil Analytical Results
Figure 3 .....	EX1 and EX2 with RGI Soil Analytical Results
Figure 4 .....	Southwest-Northeast Cross-Section with EAI and RGI Soil Analytical Results
Figure 5 .....	Property Representation w/EAI Groundwater Analytical Results & RGI Proposed Monitoring Well Locations
Table 1 .....	Summary of Soil Sample Analytical Laboratory Results
Table 2 .....	Summary of Groundwater Sample Analytical Laboratory Results
Table 3 .....	Summary of Sub-Slab Soil Vapor (WA) Sample Results
Appendix A .....	Laboratory Analytical Reports
Appendix B .....	Previous Reports
Appendix C .....	Subcontractor Soil Disposal Receipts
Appendix D .....	Terrestrial Ecological Evaluation

## 1.0 INTRODUCTION

The Riley Group, Inc. (RGI) is pleased to present this Interim Remedial Action (RA) and Cleanup Action Plan (CAP) Report summarizing previous investigation, interim remedial activities and planned ongoing cleanup actions conducted for the property located at 351 Rainier Avenue South in Renton, King County, Washington (hereafter referred to as the Property). The location and vicinity of the Property is displayed on Figure 1.

This report was prepared to meet the requirements of the Washington State Model Toxics Control Act (MTCA) regulation (173-340 Washington Administrative Code (WAC)) which mandates the necessity of, and establishes requirements for, site cleanups that are protective of human health and the environment.

### 1.1 Project Overview

The Property is an approximately 0.36-acre parcel of land (King County parcel number 000720-0126) located in Renton, Washington. The Property is currently undergoing redevelopment as a parking lot.

In February 2021, Environmental Associates, Inc. (EAI) reported the presence of total petroleum hydrocarbons (TPH) in the boiling range of diesel as well as tetrachloroethene (PCE) in soils at concentrations exceeding their applicable MTCA Method A cleanup levels located around two former in-ground hoists (the casings of which had been filled with concrete prior to EAI's investigation). Additionally, diesel-range TPH impacts were identified in groundwater at the same two in-ground hoist locations. Further evaluation by EAI in April 2021 revealed gasoline-range TPH and arsenic in soils at concentrations exceeding applicable MTCA Method A cleanup levels, co-located with the previous PCE detections. EAI's exploration localities and the areas of impact are presented on the attached Figures 2 and 5.

In November 2021, Toula Properties contracted with RGI to perform interim remedial work based on the prior assessments of EAI. The interim remedial work included limited excavation and lawful removal/disposal of impacted soils, groundwater treatment, and groundwater monitoring. In April 2022, excavation of the previously identified non-compliant impacted soils occurred along with confirmatory sampling and testing. The Property is currently scheduled for redevelopment as a parking lot for the neighboring Chick-Fil-A restaurant.

As part of the interim remedial action, Toula Properties (collectively referred to as the Client hereafter) requested that RGI conduct this RA and CAP report.

### 1.2 Property Information

Site Name:	Former Firestone Complete Auto Care
Site Address:	351 Rainier Avenue South, Renton, Washington 98057
King County Parcel No.:	000720-0126
ERTS ID:	N/A
Ecology Facility/Site No.:	62398766
Project Consultant:	The Riley Group, Inc.
Project Consultant Contact Information:	Eric Zuern 17522 Bothell Way NE, Bothell, WA 98011 P: 425.415.0551 E: ezuern@riley-group.com
Current Owner/Contact	Toula Properties. c/o Dean Kruse



## 2.0 DESCRIPTION OF PROPERTY AND ADJOINING PROPERTIES

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### 2.1 Property Identification and Location

The 0.36 acre tax parcel (King County parcel number 000720-0126) is located approximately 3,100 feet southeast of the Cedar River and is bounded by Rainier Avenue South and commercial/retail businesses to the north (auto parts store), south (Chick-Fil-A), and west (multiple retail operations including Fred Meyers and a dry cleaner). The Property was developed in 1960 with a Firestone Complete Auto Care shop building which was demolished in early 2022. The Property is currently undergoing redevelopment into a commercial parking lot for the south-adjacent Chick-Fil-A restaurant. The Property will have asphalt surface cover as well as decorative landscaping.

**Nomenclature Note:** This report utilizes the term Property (capital P) which refers to the land within the boundaries of the tax parcel referenced above. This report also utilizes the term Site (capital S), which refers to the subject Site (Ecology Facility ID# 62398766) and is defined as any place that contamination with the potential to pose a threat to human health and the environment has come to be as a result of this release. The boundaries of the *Site* do not appear to extend beyond the boundaries of the *Property* and/or into rights-of-way (ROW) at this time. A discussion of the *Site* boundaries are presented in the Conceptual Site Model section of this report.

### 2.2 Zoning

The Property is zoned in the City of Renton's Commercial Arterial (CA) zone.

### 2.3 Potential Future Development

The Property is located in a zone designated for anticipated commercial use with plans to be occupied by a parking lot for approximately 45 years.

### 2.4 Current Adjoining Property Uses

Typical use in the Property vicinity is commercial development, summarized as follows:

<b>North of the Property:</b>	A commercial building occupied by O'Reilly Auto Parts is present to the north.
<b>East of the Property:</b>	Rainier Avenue South defines the eastern Property line. A Shell gasoline station and Taco Bell restaurant occupy the area across the Rainier Avenue South.
<b>South of the Property:</b>	A recently developed Chick-Fil-A restaurant is located to the south.
<b>West of the Property:</b>	A retail strip building lies adjacent to the west. A nearby tenant of that building includes Renton Cleaning Center (a retail dry cleaner).

No off-Property sources of contamination have been identified at the neighboring properties.

### 2.5 Utilities and Water Supply

The utilities (main water, storm, and sewer) for the Property have previously been and will be connected to municipal facilities along Rainier Avenue South (east of the Property). Drinking water for the area is supplied by municipal wells (the nearest of which is over 3,000 feet east of the Property) which draw from the Cedar Valley Aquifer.

### **3.0 HISTORICAL INFORMATION**

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In December 2020, EAI completed a Phase I Environmental Site Assessment (Phase I ESA) for the Property. That history is detailed below.

#### **3.1 Historical Property Uses**

Available historical information revealed the Property was first developed in 1960 with Firestone Complete Auto Care shop building. The Property operated as Firestone Complete Auto Care from 1960 to 2020. Prior to 1960, the Property appeared to be covered in vegetation/pastureland. Prior to Firestone's vacating of the building in 2020, they had reportedly removed the six in-ground hoists which had previously served the business however upon closer inspection, only the internal mechanisms of the hoists appeared to have been removed with the remaining cylinder casings filled with concrete and remaining product/control lines and fluid reservoirs left in place.

Records indicate Firestone utilized an underground storage tank (UST) for waste oil storage and that such tank was removed at some time in the past. No removal date was listed with the Washington Department of Ecology. Additional inquiries to the City of Renton revealed that no permits for tank removals were found in their City records which extended back to 1994. Further inquiries to Firestone indicated they also did not have records of the installation or removal of a UST at the Property. Further evaluation for the presence of that UST is discussed later in this report. Observations in 2020 revealed that Firestone stored waste oil in an above ground storage tank (AST) kept within a secondary containment enclosure.

#### **3.2 Historical Adjoining Property Uses**

The surrounding area has been utilized for commercial operations since approximately the mid-20th century. Of particular note, a commercial dry-cleaning business, Renton Cleaning Center has been located in the western adjacent building while a retail gas station has been located to the east across Rainier Avenue South. No reports of releases from the adjacent dry cleaner were identified in the public record. The eastern adjacent gas station, identified as the "Renton BP" by Ecology and addressed at 300-320 Rainier Avenue South had historically reported a release of petroleum products to soil and groundwater however, based on review of remedial actions performed at that property, Ecology issued a status of "no further action" (NFA) for that release in 2012.

### **4.0 POTENTIAL SOURCES OF CONTAMINATION**

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#### **4.1 Potential On-Property Sources of Contamination**

The Property had been in operation as tire and auto care center from 1960 to 2020. Potential sources of contamination at the Property consisted of the following: in-ground hydraulic hoists, automotive fluids stored on the Property, de-greasers and other auto part cleaning chemicals utilized on the Property, general vehicle servicing operations, and waste oil storage.

#### **4.2 Potential Off-Property Sources of Contamination**

While the Property is situated adjacent to an active dry cleaner (northwest of the Property) and gas station (east of the Property across Rainier Avenue South), sampling and testing by EAI indicate that on-Property contaminants are attributable to the tire and auto care center operations based on the isolated occurrences of the contaminants.

## **5.0 NATURAL CONDITIONS**

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### **5.1 Physiographic Setting and Topography**

The Property is located on the United States Geologic Survey (USGS) Renton, Washington, 7.5-Minute Topographic Map (Figure 1) at an elevation of approximately 30 feet above mean sea level. The Property is located approximately 3,100 feet southwest of the Cedar River in the southeast quarter of Section 18, Township 23 north, Range 5 east of the Willamette Meridian. The King County parcel number for the Property is 000720-0126. The Property is relatively flat.

### **5.2 Surface Water**

There is no surface water on the Site, Property, or adjacent properties.

### **5.3 Geologic Setting**

Review of the geologic Maps for the vicinity of the Property (Hones 1998) reveal that much of the material underlying the Property is alluvium which may include clay, silt, sand, and gravel. Other geologic maps (Mullineaux, 1965) indicate that the Property is within an area consisting of artificial fill material. The Property also appears to have been located along the former Black River which flowed in a southerly direction from Lake Washington prior to 1916. The description of alluvium (primarily sands and silts) are similar to the native soil encountered during our field explorations.

### **5.4 Soil**

Subsurface soil conditions encountered during drilling were described using the Unified Soil Classification System (USCS), and generally consist of brown silts or silty sand to grey sands and transitioning to gravels or sandy gravels below 20 feet below ground surface (bgs).

### **5.5 Groundwater**

A zone of groundwater is present at depths between 9 to 11 feet bgs based on prior measurements. Based upon regional topography, the inferred flow direction of groundwater is to the south. Actual gradient will be measured after the installation of monitoring wells upon completion of Property redevelopment.

## **6.0 PREVIOUS ENVIRONMENTAL INVESTIGATION SUMMARY**

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Prior environmental investigations actions have been conducted at the Site by EAI. The analytical results from previous environmental investigations or interim actions are compared to using MTCA Method A cleanup levels to determine if further action may be warranted. Soil and groundwater sample locations are presented on Figures 2 and 5. Soil and groundwater analytical results are presented in Tables 1 and 2, respectively. Soil vapor analytical data is presented in Table 3. Analytical reports and boring logs conducted by EAI are provided in previous reports contained in Appendix B. The following reports for the Property are summarized in the following section:

### **6.1 Limited Subsurface Sampling and Testing, Vacant Former Firestone Complete Auto Care, 351 Rainier Avenue South, Renton WA by EAI, February 18, 2021.**

Upon Firestone vacating the subject Property in 2020, EAI performed limited sampling and testing of soils, groundwater, and soil vapor across the Property in an effort to determine whether prior releases from the Firestone operation had occurred. EAI had observed the remnants of six in-ground hoist casings. Firestone appeared to have removed the internal mechanisms of the hoists and filled the steel casings with concrete. Hydraulic fluid lines appeared to remain extending from several of casings. Prior

to drilling, EAI attempted to locate the former location of an UST which had reportedly stored waste oil and had been removed at some time in the past. The Firestone operators had no knowledge of the UST and had stored waste oil in an above ground storage tank (AST) within a secondary containment area on the northwest exterior of the Property until 2020. EAI oversaw a geophysical survey of the Property including building interiors and exteriors. No evidence of the former UST was discovered during the survey. EAI advanced 10 soil borings at locations adjacent to the former hoists, shop/work areas, the location of the former above ground waste oil tank, and along the northern and southern Property lines. Testing of soils and groundwater from the temporary borings had revealed the elevated presence of diesel-range TPH above the MTCA Method A cleanup level in soils at sample location B7 at a narrow zone around 9 to 10 feet bgs. Diesel-range TPH was also identified above the MTCA Method A cleanup level in groundwater grab samples collected from sample locations B6 and B7. The chlorinated solvent PCE was reported in soils at concentrations at or above its MTCA Method A cleanup level at multiple depths adjacent to a former hoist at the B6 sample location. Other detections of the contaminants of concern (COCs) were identified at either compliant or non-detectable concentrations. Three soil-vapor samples collected from beneath the floor slab of the shop revealed concentrations of naphthalene and PCE above their applicable MTCA Method B screening levels.

## **6.2 Characterization of On-Site Contamination, Vacant Former Firestone Complete Auto Care, 351 Rainier Avenue South, Renton WA by EAI, April 12, 2021.**

EAI returned to the Property in March and April 2021 to further characterize the extent of the contaminants identified above applicable cleanup levels during the prior assessment. An additional eight soil borings were installed surrounding the previous B6 and B7 sampling locations as well as resampling the B6 locality in an effort to reach deeper depths than previously explored to identify the vertical extent of potential contamination at that location. Two soil borings were placed proximal to the previous B3 sampling location where compliant concentrations of PCE had been detected in an effort determine if PCE concentrations are more widespread in that area. The results of laboratory analysis revealed that non-compliant diesel-range TPH in soils appeared limited vertically and horizontally at the prior B7 location at 9 to 10 feet bgs.

During redrilling of the B6 location (B6A), petroleum odors were observed at approximately 10 feet bgs (which corresponds to the top of the shallow groundwater table) and while diesel TPH had not been detected at that depth previously, the 10 foot sample was run again at a different laboratory for gasoline-, diesel, and oil-range TPH. The results of that test revealed gasoline TPH at concentrations above its MTCA Method A cleanup level as well as a flagged, compliant detection of diesel TPH. No oil was reported above its laboratory reporting limit. EAI inquired with the project laboratory as to the flagged diesel detection as it not been reported at that depth by the other laboratory. Laboratory staff reportedly advised that based on the sample chromatogram, the diesel detection appeared to be “carryover” from the gasoline detection. RGI subsequently interviewed the project laboratory about that finding and they advised that such can occur with a degraded gasoline product. Traces of ethylbenzene and xylenes were also present in that sample, which appears consistent with an old/degraded gasoline product. The lack of true diesel at that sample location also appears to correspond with the non-detection of diesel TPH during the prior assessment at that location and depth.

When attempting to define the vertical extent of PCE at the B6 locality, testing of soils at depths of 15 feet bgs and lower did not detect PCE even though prior testing had detected PCE at 15 feet bgs. A second test of soils at 15 feet bgs also did not reveal the presence of PCE. Based on the lack of detections at 15 feet bgs and not being able to reproduce the same results through multiple tests, the previous PCE detection at 15 feet does not represent conditions at 15 feet bgs at that locality and was most likely a laboratory error.

Based on the characterization sampling and testing, limited zones of soils impacted by gasoline TPH and arsenic were present at the base and within the “smear zone” of the B6 sampling locality. Non-compliant concentrations PCE previously encountered at the B6 locality appeared limited to shallower zones surrounding the B6 hoist (4 to 10 feet bgs) than previously inferred. PCE did not appear to be present in soils from similar depths in surrounding soil borings indicating that the non-compliant PCE was limited to the immediate area around that hoist casing. Additionally, soils contaminated with non-compliant diesel TPH appeared to be isolated to a relatively small zone at the base of the hoist proximal to the B7 sampling location as surrounding borings did not identify similar conditions. Groundwater contamination by diesel TPH also appeared to be isolated at the B6 and B7 sampling localities and did not appear to be a site-wide issue.

In April 2022, the former Firestone building was demolished. The floor slab and northern parking lot were left in place for completion of the following interim remedial actions.

## **7.0 CLEANUP STANDARDS**

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### **7.1 MTCA Cleanup Regulation**

In Washington State, the Model Toxics Control Act (MTCA, RCW 70.105D), mandates that site cleanups protect human health and the environment. The MTCA Cleanup Regulation (173-340 WAC) defines the approach for establishing cleanup requirements for individual sites, including the establishment of cleanup standards and selection of cleanup actions.

The MTCA regulation provides three options for establishing standard and site-specific cleanup levels for soil and groundwater. Method A cleanup levels have been adopted for specific purposes and are intended to provide conservative cleanup levels for sites undergoing routine site characterization or cleanup actions or those sites with relatively few hazardous substances. Method B and C cleanup levels are set using a site risk assessment, which focus on the use of “reasonable maximum exposure” assumptions based on site-specific characteristics and toxicity of COCs.

### **7.2 Cleanup Levels & Screening Levels**

Prior to commencing with the interim remedial action, RGI selected cleanup levels which were appropriate for evaluating compounds detected in soil and groundwater on the Property.

Groundwater and vapor intrusion were not evaluated during the interim remedial action. Therefore, cleanup levels and soil vapor/indoor air screening levels are not discussed herein. The evaluation of post interim remedial action groundwater data and the vapor intrusion assessment will be documented in a future report after the installation of the groundwater monitoring wells and associated groundwater sampling are completed.

Soil cleanup levels used to evaluate soil concentrations of COCs in soil during the interim remedial action are discussed below.

#### **7.2.1 Soil Cleanup Levels**

The selected soil cleanup levels for the Property were the MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses. RGI’s evaluation of soil analytical data obtained during the interim remedial action indicate that these soil cleanup levels were sufficient to evaluate soil for compliance with MTCA regulations throughout the Property.

When no MTCA Method A soil cleanup level had been established for a given compound, the MTCA Method B soil cleanup level obtained from the Ecology Cleanup Level and Risk Calculation (CLARC) database was referenced.

## 8.0 INTERIM ACTIONS SUMMARY

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The May 2021 interim cleanup action at the Property consisted of limited hoist casing removal, soil excavation with sampling and testing, and groundwater treatment, and is discussed below.

### 8.1 Cleanup Action Selection and Methodology

Due to the planned redevelopment of the Property as a parking lot for the neighboring Chick-Fil-A restaurant, mass excavation was the remedial alternative selected because it is a cost effective, practicable, proven effective and permanent remedy.

The interim remedial action included the appropriate performance and cleanup confirmation soil sampling and analysis to demonstrate compliance with MTCA regulations. Performance and cleanup sampling and field screening were used to direct the remedial excavation activities, directly soil to either a clean stockpile or a contaminated soil stockpile. Soil was screened in the field for the presence of VOCs using a portable gas analyzer equipped with a photoionization detector (PID). Soil samples were collected directly from the track hoe bucket and placed in laboratory-provided sample containers. Samples that were analyzed for gasoline-range TPH and VOCs were collected using EPA's Method 5035 sample collection method. Field screening consisted of visual and olfactory observations, PID readings, and/or petroleum hydrocarbon sheen testing. Field screening guided any further remedial excavation (if necessary) until analytical data demonstrated that *in-situ* soil concentrations were in compliance with the MTCA Method A CULs throughout the lateral and vertical limits of the remedial excavations. Soil exhibiting contamination was excavated directly loaded into trucks for off-Property disposal at an approved facility.

Confirmation soil samples were collected from the limits of the remedial excavation to verify that all soil containing concentrations of COCs above applicable soil cleanup levels had been removed from within the Property boundaries. In general, sidewall samples were collected from native soil at depths ranging from 8 to 11 feet bgs. Bottom samples were collected from native soil at depths ranging from 13 to 14 feet bgs. In general, confirmation samples were collected from the lateral limits of the remedial excavations at a distance that did not exceed 20 linear feet apart. At least one confirmation sample was collected at the bottom of the remedial excavations for every 400 square feet of excavation bottom. A mobile laboratory was used to analyze confirmation samples collected from the bottom of excavations in order to minimize the amount of contaminated soil removed from the Property.

### 8.2 Limited Hoist Casing Removals and Soil Excavation with Sampling and Testing

#### Remedial Excavation EX1

Commencing on April 26, 2022, RGI oversaw the excavation and removal of the concrete filled hoist casings at the previous B6 and B7 EAI sample locations. Remedial excavation 1 (EX1) was advanced at the previous B7 sample location and remedial excavation 2 (EX2) advanced at the previous B6 sample location.

At EX1, a cylindrical hydraulic fluid reservoir was collocated with the hoist and was also removed. The Property owner had previously contracted to have the remaining hydraulic fluid from the hoist systems pumped out. Soils within the vadose zone at EX1 did not display evidence of contamination and as no previous contamination had been identified in the vadose zone by EAI at EX1, soils above the water table that did not display evidence of contamination were stockpiled adjacent to the excavation to be reused as backfill. All stockpiled materials were placed on visqueen above the concrete foundation pad. EX1 was initially excavated to dimensions of approximately 10 feet wide by 12 feet long by approximately 13 feet deep. A shallow pipe was found just below the floor slab from the hoist

mechanism, extending to the southwest (where the back wall of the shop, hydraulic controls, and an above ground hydraulic fluid reservoir had historically been located). The piping was cut at the margin of the excavation and a de minimis (less than 1 gallon) of oily sludge material dripped out of the remaining end of the pipe. Soils immediately below the pipe were over-excavated and removed from the Property and the end of the pipe was sealed. Groundwater slowly infiltrated the excavation at approximately 11 feet bgs. Petroleum odors became evident at approximately 8 to 9 feet bgs, corresponding to previous observations by EAI. Soils deeper than approximately 7 feet bgs were directly loaded to trucks and transported to a waste handling facility for further transport to an approved landfill. Soils were screened for contaminants utilizing a portable gas photoionization detector (PID) and water sheen tests.

Upon completion of initial excavation activities, RGI collected soil samples from each of the sidewalls using the on-site track hoe/excavator at depths between 10 to 11 feet bgs, just below the previously mentioned hydraulic fluid pipe, and two samples from the base of the excavation at approximately 13 feet bgs. Samples were placed in preconditioned, sterilized containers provided by an Ecology-accredited analytical laboratory. If soil samples were collected for analysis of VOCs, they were collected using the Environmental Protection Agency's Method 5035 sampling method. Samples were transferred directly to the on-Property mobile laboratory or placed in a chilled cooler for transport to an off-Property laboratory. As previous testing by EAI had confirmed diesel-range TPH at EX1 (B7), soil samples were analyzed for diesel and oil TPH using Method NWTPH-Dx. The results of the testing revealed no detections of diesel or oil TPH except for the eastern sidewall sample (EX1-ESW1) which contained oil TPH at 1,700 mg/kg which is below the MTCA Method A cleanup level of 2,000 mg/kg and the bottom sample (EX1-B1) which reported oil TPH at 2,400 mg/kg. Laboratory staff indicated the oil was indicative of lube oil which appeared to be hydraulic fluid from the former hoist. Acknowledging the variations between laboratories reporting TPH between diesel and oil (i.e. splitting the TPH-Dx value), the oil TPH detection is opined to be similar to the previous diesel TPH detections at that locality.

Acknowledging that the bottom sample remained non-compliant, that area of the excavation was further dug, and another sample was collected at approximately 13.5 to 14 feet bgs. Testing of that sample revealed no detections of diesel or oil TPH at that depth. As oil TPH had not previously been detected in soils at the Property (which may be a result of different laboratories being utilized), the bottom sample at EX1-B1 was also tested for polychlorinated biphenyls (PCBs), naphthalenes, and carcinogenic polyaromatic hydrocarbons (PAHs) corresponding to heavy oil testing requirements of Table 830-1 of the MTCA. No concentrations of PAHs, naphthalenes, or PCBs were detected in that sample.

Based on the results of the testing, the previously identified non-compliant diesel/oil-range TPH soil contamination at EX1 was successfully excavated from that area and no further remedial excavation was warranted in this area.

### **Remedial Excavation EX2**

In an effort to avoid cross-contamination between excavation locations (as different contaminants were present at each), a different bucket was affixed to the excavator and soils at EX2 were dug to an overall excavation size of approximately 9 feet long by 9 feet wide by approximately 13 feet bgs. As previous testing by EAI had identified PCE in soils along the extent of the former hoist, all soils from EX2 were directly loaded to trucks for removal and appropriate approved disposal. Transport and disposal requirements stipulated in a previously approved "contained-in" letter from Ecology were followed during the excavation process. Throughout the excavation process, soils were field screened for visual and olfactory indicators of contamination as well as using a PID and water sheen tests. Subsurface conditions at EX2 were similar to EX1 with gasoline odors becoming evident at approximately 9 feet bgs.

Upon reaching the limits of the excavation, soil samples were collected from the sidewalls using the on-site track hoe/excavator at depths between 10 to 11 feet bgs and two samples from the base of the excavation at approximately 13 feet bgs. Soil samples were collected into laboratory provided glassware and immediately transferred to the on-site mobile project laboratory or kept in a chilled cooler for transport to an off-site project laboratory. Relying upon previous information developed by EAI, soil samples were analyzed for gasoline TPH by Method NWTPH-Gx, specific volatile organic compounds (VOCs) including benzene, toluene, ethylbenzene, xylenes (BTEX), PCE, trichloroethene (TCE), dichloroethenes (DCE), and vinyl chloride by EPA Method 8260D, as well as arsenic by EPA Method 6020B. No detections of gasoline-range TPH or VOCs were reported in the soil samples. Arsenic was reported in each of the soil samples at concentrations well below their applicable MTCA Method A cleanup level (consistent with background concentrations). Acknowledging that diesel TPH was found in groundwater by EAI at the EX2 location, RGI inquired with the project laboratory as to whether they observed any indicators of substantial diesel-range TPH in the soil sample TPH chromatograms to which they responded that they did not.

Based on the results of laboratory testing, it appears that PCE and gasoline-range TPH (which may have been released from historic vehicle servicing operations), as well as, the occurrence of arsenic at the base of the former hoist at the EX2 location had been successfully removed and no further remedial excavation was warranted in this area.

### **8.3 Contaminated Soil Disposal**

Between April 27 and May 5, 2022, approximately 82.21 tons of contaminated soil was excavated and trucked to Waste Management's Seattle transfer station for proper disposal.

See Appendix C for soil disposal documentation.

### **8.4 Groundwater Treatment**

Upon achieving compliant results of soil tests from each of the excavations, in an effort to treat contaminated groundwater, approximately 200 lbs of the remedial product Petrofix, provided by Regenesys, was applied to the base of each of the excavations. The Petrofix was distributed throughout the excavations using the on-site track hoe.

### **8.5 Property Restoration**

Prior to backfilling EX1, three samples of the stockpiled material from the vadose zone were tested for gasoline-, diesel-, and oil-range TPH, BTEX, and chlorinated VOCs. No detections of those analytes were detected in the stockpile samples except for oil TPH in two of the samples at concentrations of 560 and 1,600 mg/kg, which are compliant with the MTCA Method A cleanup level of 2,000 mg/kg. The stockpiled material was then placed in the base of EX1 which were then covered with structural fill/gravels provided by Miles Sand and Gravel transported from the Fennel Quarry pit in Pierce County, Washington. EX2 was backfilled solely with the structural fill/gravels provided by Miles Sand and Gravel.

## **9.0 CONCEPTUAL SITE MODEL**

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### **9.1 Terrestrial Ecological Resources**

A Terrestrial Ecological Evaluation (TEE) is required by WAC 173-340-7490 at any Site where there has been a release of a hazardous substance to soil. The regulation requires that one of the following actions be taken:

- Documenting a TEE exclusion
- Conducting a simplified TEE



➤ Conducting a site-specific TEE

A simplified TEE evaluation was conducted for the Site. Based on the quantified factors of MTCA table 749-1, per WAC 173-340-7492(2)(a) further evaluation is not necessary. The TEE evaluation table is provided as Appendix D.

## 9.2 Contaminants of Concern and Occurrence

### Contaminants of Concern

Based on information provided from previous environmental investigations, gasoline-range TPH, PCE and arsenic had been identified in soils at the B6/EX2 location above applicable MTCA Method A cleanup levels soil while diesel/oil-range TPH have separately been identified in soil at the B7/EX1 location. Diesel-range TPH has been identified in groundwater above its MTCA Method A cleanup level in groundwater at EX1 and EX2. Therefore, such are considered the contaminants of concern at those separate localities. PCE and naphthalene had previously been identified in shallow sub-slab soil-vapor; however, upon excavation activities and removal of the on-Property building (with no plans for future building construction), the soil-vapor detections are not considered contaminants of concern to vapor or air at this time.

### Contaminant Occurrence and Movement

**Soil:** Table 1 and Figures 2, 3, and 4 attached to this report present the analytical results from soil samples collected and analyzed from EAI's prior studies and RGI's interim remedial action for the current contaminants of concern and other potential contaminants. Contaminant occurrences were co-located with historic in-ground hoists and appeared to be either release from the hoist systems (EX1) or alternatively, spills/releases of automotive fluids/solvents from the on-site shop for which the hoist casings likely acted as a preferential pathway into the subsurface. Confirmation sampling and testing of the soil excavation areas indicates that the direct excavation of contaminated soils was successful

**Groundwater:** Table 2 and Figure 5, attached to this report, depict the analytical results from groundwater samples collected and analyzed from EAI's prior sampling events. Contaminated groundwater occurrence appeared isolated to the EX1 and EX2 locations. While contaminated groundwater was not identified at EAI sample location B16, a separate preferential pathway between the two locations may account for the occurrence of lower concentration diesel TPH at EX2 compared to EX1. At this time, groundwater does not appear to be transporting the contaminants of concern beyond the points of compliance identified below.

**Soil Vapor:** Table 3, attached to this report, presents the analytical results from soil-vapor samples collected and analyzed by EAI during their initial sampling and testing event. Potential receptors for soil-vapor including on-site buildings and southern adjacent structures have been removed.

### Points of Compliance

Referring to Figures 2 and 3, based on the sampling and testing documented above, RGI (with data presented by EAI) has established the following points of compliance for characterization of each separated excavation:

#### **EX1:**

- **Soil:** Soil borings B8, B16, B17, B18, B19 as well as soil samples EX1-NSW, EX1-SSW, EX1-PIPE, EX1-ESW, EX1-WSW, EX1-B1A, EX1-B2 are points of compliance.
- **Groundwater:** Sampling of temporary soil borings B8, B16, B17, B18, and B19 are points of compliance for groundwater.

## EX2:

- **Soil:** Soil borings B5, B13, B14, B15, B16 as well as soil samples EX2-NSW, EX2-SSW, EX2-ESW, EX2-WSW, EX2-B1, EX2-B2 are points of compliance.
- **Groundwater:** Sampling of temporary soil borings B5, B13, B14, B15, and B16 are points of compliance for groundwater.

**Surface Water:** There is not a surface water body or significant drainage located on the Site. Therefore, an evaluation of this media is not necessary.

**Air/Soil Vapor:** On-site structures have been removed with no plans for future building construction therefore a vapor intrusion evaluation is not necessary.

**Sediment:** Sediment is not present on the Site. Therefore, an evaluation of this media is not necessary.

### 9.3 Potentially Complete Exposure Pathways

A potentially complete exposure pathway consists of: 1) an identified contaminant source; 2) a transport pathway to locations (exposure points) where potential receptors might come in contact with the COCs; and 3) an exposure route (e.g., soil ingestion, vapor inhalation, drinking water) through which potential receptors might be exposed to the COCs.

The Property is currently vacant and undeveloped, which eliminates present concerns for the vapor intrusion exposure pathway (regarding indoor air/soil vapor). Future plans for the Property include development of the site as a parking lot.

Dermal contact for excavation/utility workers in at the Site is also identified as a potentially complete pathway.

The Property is not served by private wells and any water service would be connected through municipal sources, completing the pathway for drinking water.

## 10.0 CLEANUP ACTION PLAN

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### 10.1 Cleanup Action Objectives

The objective of the cleanup action is to achieve a Site No Further Action (NFA) determination under MTCA. The primary objective when selecting an appropriate cleanup action will be to remediate petroleum contaminated soil and groundwater associated with the Site in accordance with applicable local, state, and federal rules.

### 10.2 Proposed Remedial Action Approach – Monitoring Well Installation and Groundwater Monitoring

To address the remaining groundwater contamination at the Property and assess the effectiveness of the interim cleanup action, RGI has proposed to install a network of six groundwater monitoring wells within and around the EX1 and EX2 locations upon completion of site redevelopment (as a parking lot). The compliance monitoring wells would then be sampled on a quarterly basis for one year to assess the progress of the Petrofix application discussed earlier. Groundwater samples from each well would be analyzed for diesel/oil-range TPH. Proposed locations of groundwater monitoring wells are depicted on Figure 5.

### 10.3 Response to Further Action Triggers

In the event that TPH is detected in groundwater within the surrounding wells or does not appear to be declining at EX1 or EX2, such wells will be re-sampled and groundwater re-analyzed. If the initial findings

are not confirmed by the follow-up testing, then the initial findings will be interpreted as a laboratory “false positive” or due to a sampling irregularity, and the previously established confirmation monitoring schedule will resume.

If the above-referenced follow-up analysis confirms the initial result, then the findings will be disclosed to the Ecology and RGI will assess whether additional applications of Petrofix or other remedial compounds would be beneficial.

If contaminated groundwater or contaminated soils at locations not previously assessed are found to remain within the bounds of the Property upon completion of the proposed remedial action and do not appear to be migrating off-Property, RGI would assess whether a potential restrictive covenant may be necessary to achieve regulatory site closure.

## 11.0 LIMITATIONS

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This report is the property of RGI, Toula Properties, and their authorized representatives or affiliates. This report is intended for specific application to the Former Firestone Complete Auto Care Property located at 351 Rainier Avenue South, Renton, King County, Washington.

Work for this project was performed, and this report prepared, in accordance with generally accepted professional practices for the nature and conditions of work completed in same or similar locations at the present time.

Any findings and recommendations presented in this report are based upon data obtained by RGI and others at the time of preparing this report. RGI’s results and findings do not necessarily reflect subsurface conditions underlying other areas of the Site not investigated. Conditional changes may occur through time by natural or human-made process on this or adjacent properties. Additional changes may occur in legislative standards, which may or may not be applicable to this report. These changes, beyond RGI’s control, may render this report invalid, partially or wholly. If variations appear evident, RGI should be notified and RGI reserves the right to modify its conclusions and/or recommendations as new data and information is made available. No legal or other warranty, expressed or implied, is made.

If we may provide you with any additional information or clarification of this work, please contact the undersigned at (425) 415-0551.

Sincerely,

THE RILEY GROUP, INC.

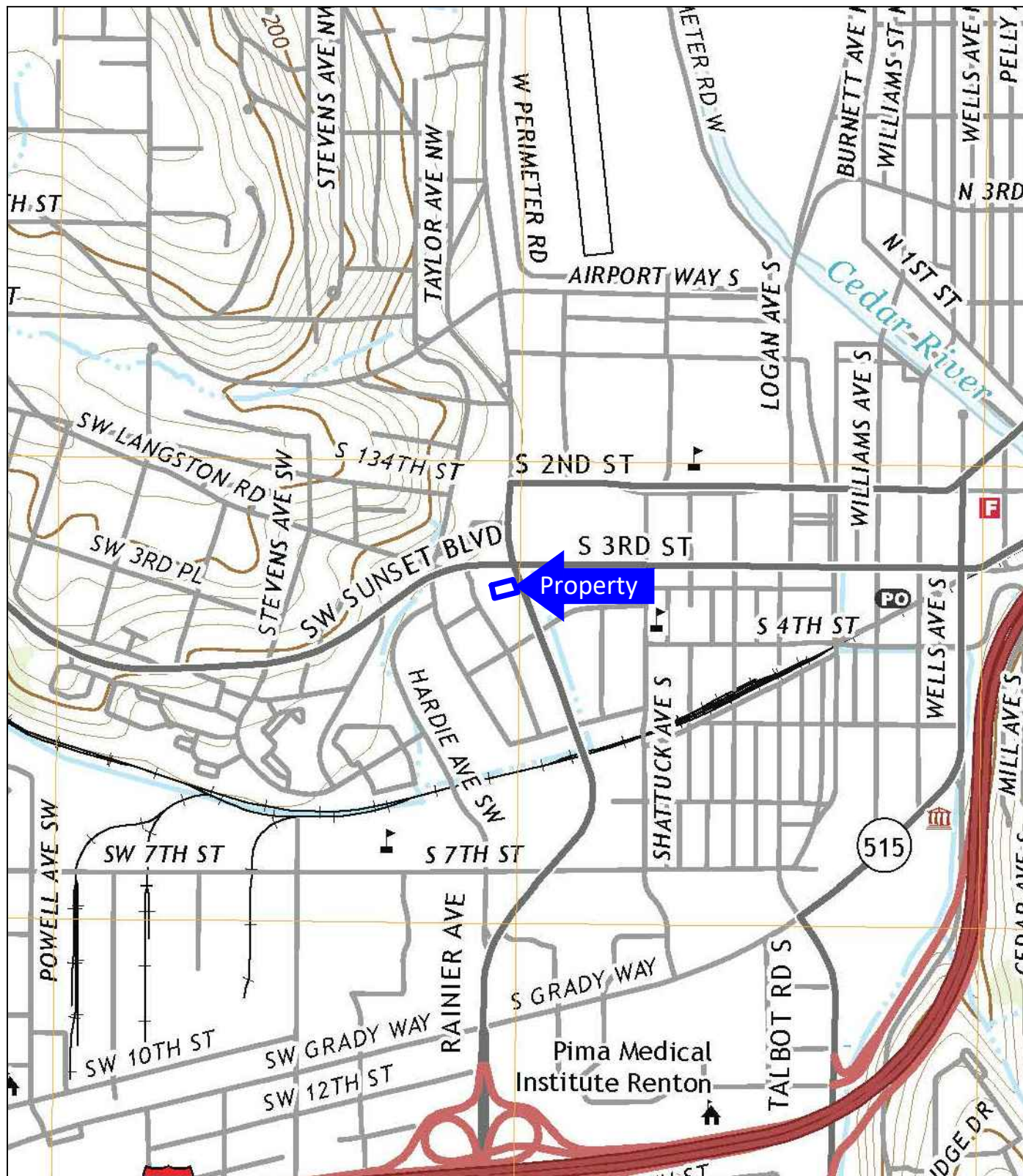


Eric Zuern  
Project Manager



Megan Poysnick, LG  
Senior Environmental Manager

*Report Distribution: Mr. Dean Kruse, Toula Properties (PDF)*



USGS, 2020, Renton, Washington  
7.5-Minute Quadrangle

Approximate Scale: 1"=1000'



Corporate Office  
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Bothell, Washington 98011  
Phone: 425.415.0551  
Fax: 425.415.0311

Former Firestone Complete Auto Care

RGI Project Number:  
2021-465-1

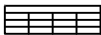
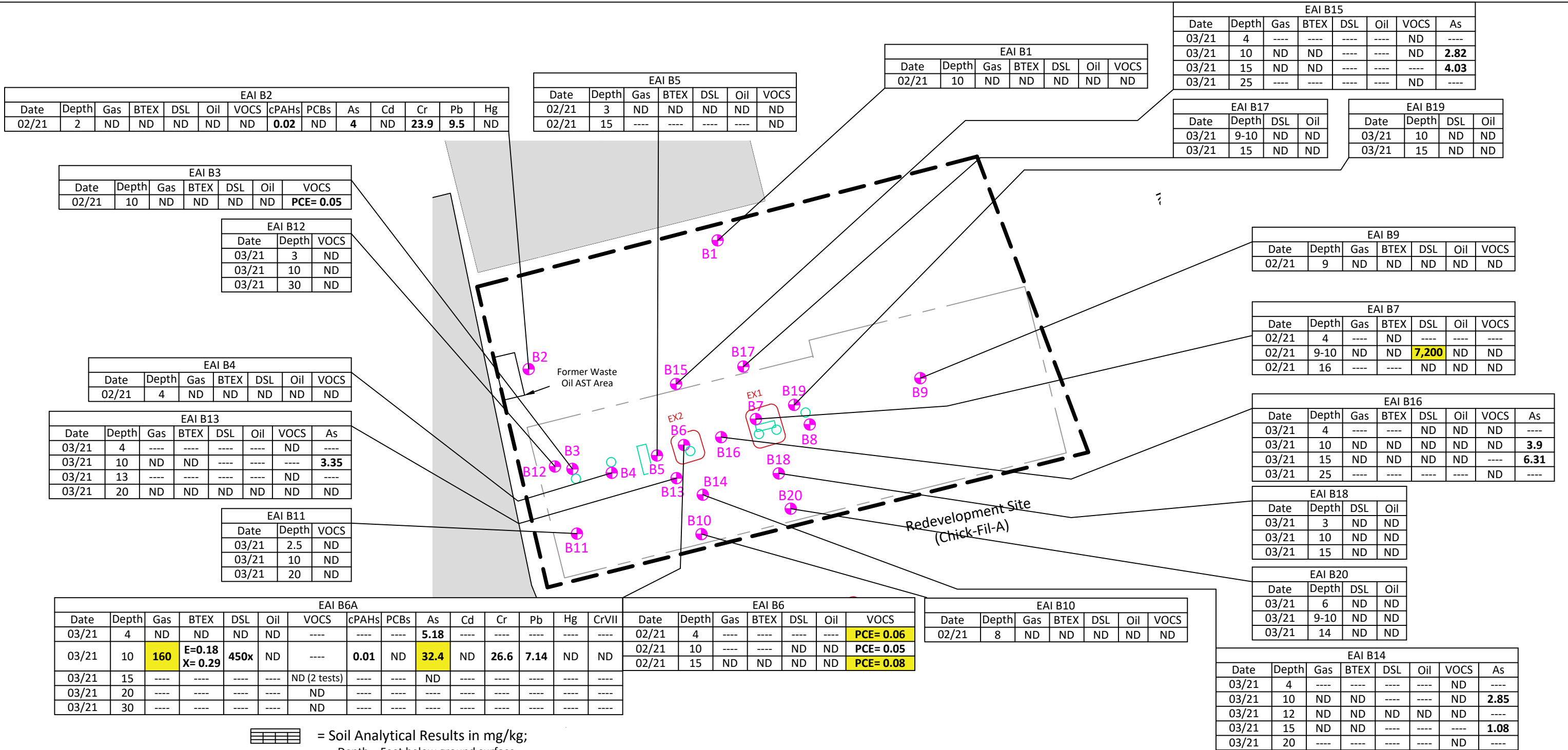
Property Vicinity Map

Figure 1

Date Drawn:  
8/2022

Address: 351 Rainier Avenue South, Renton, Washington 98057





= Soil Analytical Results in mg/kg;

Depth = Feet below ground surface

Gas = Gasoline total petroleum hydrocarbons (TPH)

BTEX = Benzene, toluene, ethylbenzene, xylenes

DSL/Oil = Diesel/oil TPH

VOCs = Volatile organic compounds

Naph. = Naphthalene

cPAHs = Carcinogenic polycyclic aromatic hydrocarbons

PCBs = Polychlorinated biphenyls

x = the sample chromatographic pattern does not resemble the fuel standard used for quantitation.

PCE = Tetrachloroethene

As, Cd, Cr, Pb, Hg, CrVI = Total arsenic, cadmium, chromium, lead, mercury, hexavalent chromium

ND = Not detected above laboratory detection limits

Bold results indicate concentrations above laboratory detection limits

Bold and highlighted results (if any) indicate concentrations above MTCA Soil Cleanup Levels



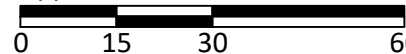
= Hoist mechanism features



= Boring by EAI, 03/2021

--- = Subject property boundary

Approximate Scale: 1"=30'



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Former Firestone Complete Auto Care

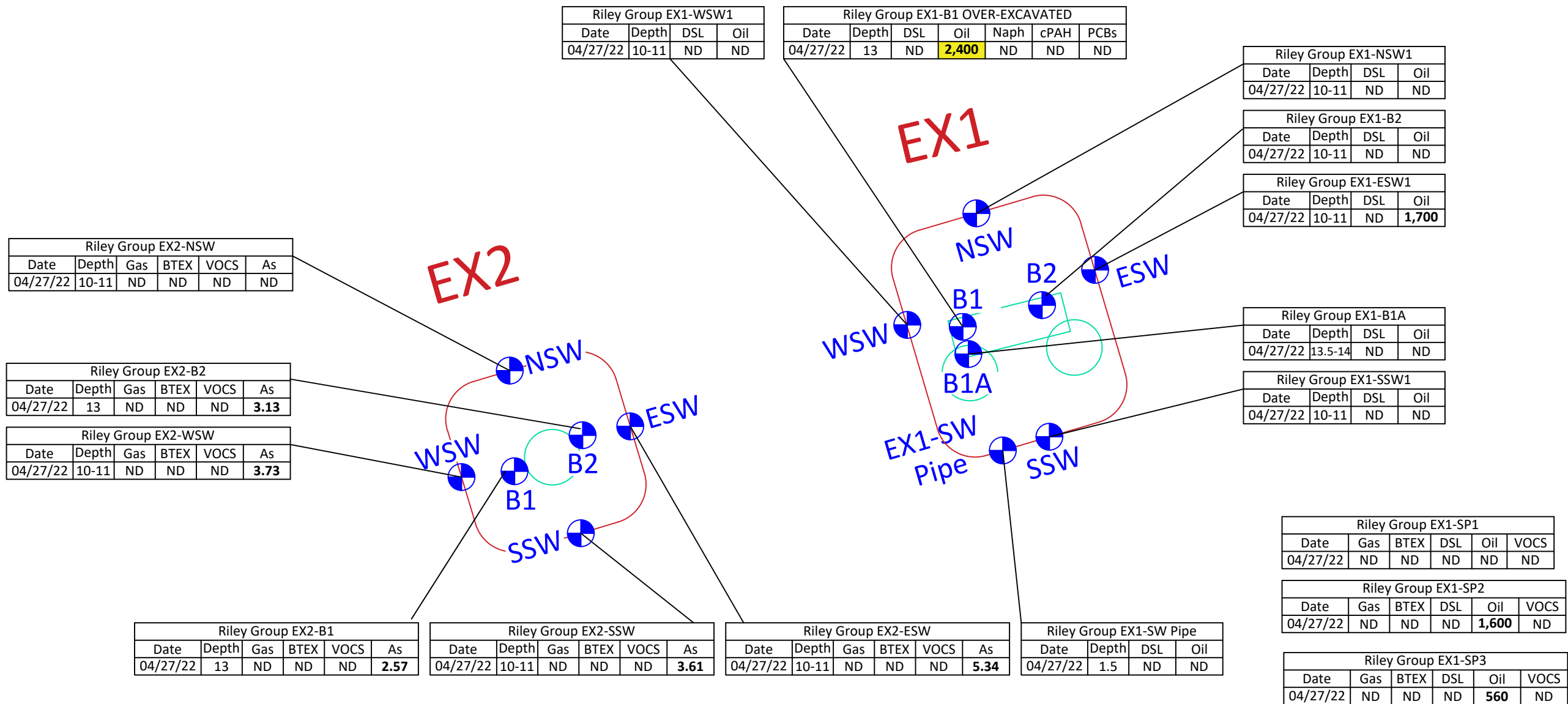
RGI Project Number:  
2021-465-1

Property Representation with EAI Soil  
Analytical Results

Figure 2

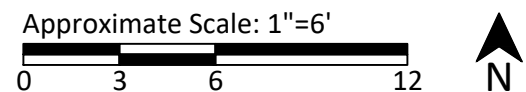
Date Drawn:  
8/2022

Address: 351 Rainier Avenue South, Renton, Washington 98057



**Soil Analytical Results in mg/kg;**  
Depth = Feet below ground surface  
Gas = Gasoline total petroleum hydrocarbons (TPH)  
BTEX = Benzene, toluene, ethylbenzene, xylenes  
DSL/Oil = Diesel/oil TPH  
VOCS = Volatile organic compounds  
Naph. = Naphthalene  
cPAHs = Carcinogenic polycyclic aromatic hydrocarbons  
PCBs = Polychlorinated biphenyls  
x = the sample chromatographic pattern does not resemble the fuel standard used for quantitation.  
PCE = Tetrachloroethene  
As, Cd, Cr, Pb, Hg, CrVI = Total arsenic, cadmium, chromium, lead, mercury, hexavalent chromium  
ND = Not detected above laboratory detection limits  
Bold results indicate concentrations above laboratory detection limits  
Bold and highlighted results (if any) indicate concentrations above MTCA Soil Cleanup Levels

= Approximate Excavation Boundary  
 = Hoist mechanism features  
 = Boring by RGI, 04/27/22  
 = Subject property boundary



<b>RILEYGROUP</b>	Corporate Office 17522 Bothell Way Northeast Bothell, Washington 98011 Phone: 425.415.0551 Fax: 425.415.0311		Former Firestone Complete Auto Care		Figure 3
	RGI Project Number: 2021-465-1		EX1 and EX2 with RGI Soil Analytical Results		Date Drawn: 07/2022
	Address: 351 Rainier Avenue South, Renton, Washington 98057				

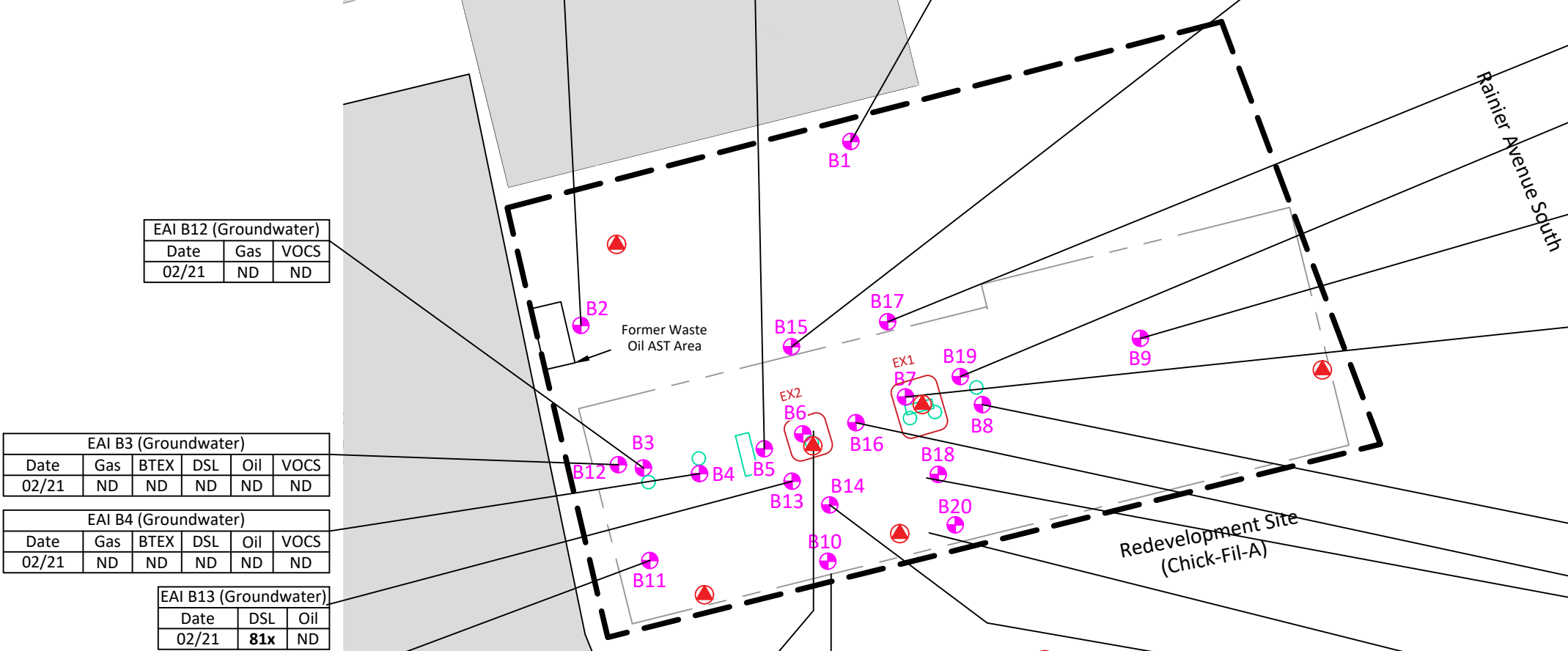


EAI B2 (Groundwater)												
Date	Gas	BTEX	DSL	Oil	VOCS	cPAHs	PCBs	As	Cd	Cr	Pb	Hg
02/21	ND	ND	ND	ND	ND	<b>0.08</b>	ND	ND	ND	ND	ND	ND

EAI B5 (Groundwater)						
Date	Gas	BTEX	DSL	Oil	VOCS	
02/21	ND	ND	ND	ND	ND	

EAI B1 (Groundwater)					
Date	Gas	BTEX	DSL	Oil	VOCS
02/21	ND	ND	ND	ND	ND

EAI B15 (Groundwater)		
Date	DSL	Oil
02/21	<b>130x</b>	ND



EAI B12 (Groundwater)			
Date	Gas	VOCS	
02/21	ND	ND	

EAI B3 (Groundwater)						
Date	Gas	BTEX	DSL	Oil	VOCS	
02/21	ND	ND	ND	ND	ND	

EAI B4 (Groundwater)						
Date	Gas	BTEX	DSL	Oil	VOCS	
02/21	ND	ND	ND	ND	ND	

EAI B13 (Groundwater)		
Date	DSL	Oil
02/21	<b>81x</b>	ND

EAI B11 (Groundwater)		
Date	Gas	VOCS
02/21	ND	ND

EAI B6 (Groundwater)						
Date	Gas	BTEX	DSL	Oil	VOCS	
02/21	<b>240</b>	ND	<b>2,400</b>	ND	ND	

EAI B10 (Groundwater)										
Date	Gas	B	T	E	X	DSL	Oil	VOCS		
02/21	ND	ND	ND	ND	ND	ND	ND	ND		

EAI B14 (Groundwater)		
Date	DSL	Oil
02/21	ND	ND

EAI B20 (Groundwater)		
Date	DSL	Oil
02/21	ND	ND

EAI B17 (Groundwater)		
Date	DSL	Oil
02/21	<b>86x</b>	ND

EAI B19 (Groundwater)		
Date	DSL	Oil
02/21	ND	ND

EAI B9 (Groundwater)								
Date	Gas	B	T	E	X	DSL	Oil	VOCS
02/21	ND	ND	<b>1.3</b>	ND	ND	ND	ND	ND

EAI B7 (Groundwater)								
Date	Gas	B	T	E	X	DSL	Oil	VOCS
02/21	ND	ND	ND	<b>2.3</b>	ND	<b>16,000</b>	ND	ND

EAI B7A f (Groundwater)						
Date	As	Cd	Cr	Pb	Hg	
02/21	ND	ND	ND	ND	ND	

EAI B7A (Groundwater)		
Date	cPAH	Other cPAHs
02/21	<b>0.07</b>	'Phenanthrene = 2.9 Fluorene = 1.40 Pyrene = 1.90

EAI B8 (Groundwater)								
Date	Gas	B	T	E	X	DSL	Oil	VOCS
02/21	ND	ND	<b>2.1</b>	<b>1</b>	ND	ND	ND	ND

EAI B18 (Groundwater)		
Date	DSL	Oil
02/21	<b>62x</b>	ND

EAI B16 (Groundwater)		
Date	DSL	Oil
02/21	<b>79x</b>	ND

--	--	--	--

 = Groundwater Analytical Results in ug/L;

Gas = Gasoline total petroleum hydrocarbons (TPH)  
BTEX = Benzene, toluene, ethylbenzene, xylenes  
DSL/Oil = Diesel/oil TPH  
VOCS = Volatile organic compounds  
Naph. = Naphthalene  
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As, Cd, Cr, Pb, Hg, CrVI = Total arsenic, cadmium, chromium, lead, mercury, hexavalent chromium  
ND = Not detected above laboratory detection limits  
Bold results indicate concentrations above laboratory detection limits  
Bold and highlighted results (if any) indicate concentrations above MTCA Groundwater Cleanup Levels

= Proposed monitoring well  
 = Hoist mechanism features  
 = Boring by EAI, 03/2021  
 = Subject property boundary

Corporate Office  
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Bothell, Washington 98011  
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Fax: 425.415.0311

Former Firestone Complete Auto Care		Figure 5
RGI Project Number: <b>2021-465-1</b>	Property Representation with EAI Groundwater Analytical Results and RGI Proposed Monitoring Well Locations	Date Drawn: <b>8/2022</b>
Address: 351 Rainier Avenue South, Renton, Washington 98057		

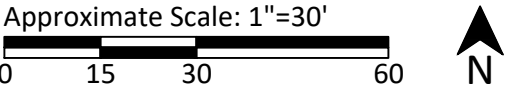




Table 1. Summary of Soil Sample Analytical Laboratory Results

Former Firestone Complete Auto Care  
351 Rainier Avenue South, Renton, Washington 98057  
The Riley Group, Inc. Project No. 2021-465-1

Sample Number	Sample Depth	Sample Date	Gasoline TPH	BTEX				Diesel TPH	Oil TPH	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	VC	1,1-DCE	Other VOCs	Naph.	cPAHs	PCBs	Total Metals					CrVI
				B	T	E	X													As	Cd	Cr	Pb	Hg	
Confirmation Samples Collected By Riley Group																									
EX1-SP1	----	04/27/22	ND<10	ND<0.02	ND<0.10	ND<0.05	ND<0.15	ND<50	ND<250	ND<0.03	ND<0.02	ND<0.03	ND<0.03	ND<0.02	ND<0.05	----	----	----	----	----	----	----	----	----	----
EX1-SP1 (Duplicate)	----	04/27/22	----	----	----	----	----	ND<50	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
EX1-SP2	----	04/27/22	ND<10	ND<0.02	ND<0.10	ND<0.05	ND<0.15	ND<50	1,600	ND<0.03	ND<0.02	ND<0.03	ND<0.03	ND<0.02	ND<0.05	----	----	----	----	----	----	----	----	----	----
EX1-SP3	----	04/27/22	ND<10	ND<0.02	ND<0.10	ND<0.05	ND<0.15	ND<50	560	ND<0.03	ND<0.02	ND<0.03	ND<0.03	ND<0.02	ND<0.05	----	----	----	----	----	----	----	----	----	----
EX2-B1:13	13	04/27/22	ND<10	ND<0.02	ND<0.10	ND<0.05	ND<0.15	----	----	ND<0.03	ND<0.02	ND<0.03	ND<0.03	ND<0.02	ND<0.05	----	----	----	----	2.57	----	----	----	----	----
EX2-B2:13	13	04/27/22	ND<10	ND<0.02	ND<0.10	ND<0.05	ND<0.15	----	----	ND<0.03	ND<0.02	ND<0.03	ND<0.03	ND<0.02	ND<0.05	----	----	----	----	3.13	----	----	----	----	----
EX2-B2:13 (Duplicate)	13	04/27/22	ND<10	ND<0.02	ND<0.10	ND<0.05	ND<0.15	----	----	----	----	----	----	----	----	----	----	----	----	3.13	----	----	----	----	----
EX2-ESW1:11	10-11	04/27/22	ND<10	ND<0.02	ND<0.10	ND<0.05	ND<0.15	----	----	ND<0.03	ND<0.02	ND<0.03	ND<0.03	ND<0.02	ND<0.05	----	----	----	----	5.34	----	----	----	----	----
EX2-SSW1:11	10-11	04/27/22	ND<10	ND<0.02	ND<0.10	ND<0.05	ND<0.15	----	----	ND<0.03	ND<0.02	ND<0.03	ND<0.03	ND<0.02	ND<0.05	----	----	----	----	3.61	----	----	----	----	----
EX2-WSW1:11	10-11	04/27/22	ND<10	ND<0.02	ND<0.10	ND<0.05	ND<0.15	----	----	ND<0.03	ND<0.02	ND<0.03	ND<0.03	ND<0.02	ND<0.05	----	----	----	----	3.73	----	----	----	----	----
EX2-NSW1:11	10-11	04/27/22	ND<10	ND<0.02	ND<0.10	ND<0.05	ND<0.15	----	----	ND<0.03	ND<0.02	ND<0.03	ND<0.03	ND<0.02	ND<0.05	----	----	----	----	ND<1	----	----	----	----	----
EX1-8	8	04/27/22	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
EX1-B1:13	13	04/27/22	----	----	----	----	----	ND<50	2,400	----	----	----	----	----	----	----	ND<0.05	ND	ND	----	----	----	----	----	----
EX1-B1A:13.5	13.5	04/27/22	----	----	----	----	----	ND<50	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
EX1-B2:13	13	04/27/22	----	----	----	----	----	ND<50	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
EX1-NSW1:10	10-11	04/27/22	----	----	----	----	----	ND<50	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
EX1-ESW1:10	10-11	04/27/22	----	----	----	----	----	ND<50	1,700	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
EX1-SSW1:10	10-11	04/27/22	----	----	----	----	----	ND<50	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
EX1-WSW1:10	10-11	04/27/22	----	----	----	----	----	ND<50	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
EX1-SW Pipe:0.5	0.5	04/27/22	----	----	----	----	----	ND<50	ND<250	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Historical Test Probes by EAI																									
B1-10	10	02/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	----	ND	----	----	----	----	----	----	----	----	----
B2-2.5	2.5	02/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	----	ND	----	0.02	ND	4	ND	23.9	9.5	ND	----
B3-10	10	02/21	ND	ND	ND	ND	ND	ND	ND	0.05	ND	ND	ND	ND	----	ND	----	----	----	----	----	----	----	----	----
B4-4	4	02/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	----	ND	----	----	----	----	----	----	----	----	----
B5-3	3	02/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	----
B5-15	15	02/21	----	----	----	----	----	----	----	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	----
B6-4	4	03/21	----	----	----	----	----	----	----	0.06	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	----
B6A-4	4	03/21	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	----	----	5.18	----	----	----	----	----
B6-10	10	02/21	----	----	----	----	----	ND	ND	0.05	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	----
B6A-10	10	03/21	160	ND	ND	0.18	0.29	450 x	ND	----	----	----	----	----	----	ND	----	0.01	ND	32.4	ND	26.6	7.14	ND	ND
B6-15	15	02/21	ND	ND	ND	ND	ND	ND	ND	0.08	ND	ND	ND	ND	----	ND	----	----	----	----	----	----	----	----	----
B6A-15	15	02/21	----	----	----	----	----	----	----	ND	ND	ND	ND	ND	----	----	----	----	----	ND	----	----	----	----	----
B6A-15 (Duplicate)	15	02/21	----	----	----	----	----	----	----	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	----
B6A-20	20	02/21	----	----	----	----	----	----	----	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	----
B6A-30	30	02/21	----	----	----	----	----	----	----	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	----
B7-4	4	02/21	----	ND	ND	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
B7-9-10	10	02/21	ND	ND	ND	ND	ND	7,200	ND	ND	ND	ND	ND	ND	----	ND	----	----	----	----	----	----	----	----	----
B7-16	16	02/21	----	----	----	----	----	ND	ND	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	----
B8-8	8	02/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	----	ND	----	----	----	----	----	----	----	----	----
B8-8 (Duplicate)	8	02/21	ND	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
B9-2	2	02/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	----	ND	----	----	----	----	----	----	----	----	----
B10-8	8	02/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	----	ND	----	----	----	----	----	----	----	----	----
B11-2.5	2.5	03/21	----	----	----	----	----	----	----	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	----
B11-10	10	03/21	----	----	----	----	----	----	----	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	----
B11-20	20	03/21	----	----	----	----	----	----	----	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	----
B12-3	3	03/21	----	----	----	----	----	----	----	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	----
B12-10	10	03/21	----	----	----	----	----	----	----	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	----
B12-30	30	03/21	----	----	----	----	----	----	----	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	----
B13-4	4	03/21	----	----	----	----	----	----	----	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	----
MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses			100/30 <sup>1</sup>	0.03	7	6	9	2,000		0.05	0.03	----	----	----	----	Analyte Specific	5	TEF = 0.1	Analyte Specific	20	2	19/2,000 <sup>2</sup>	250	2	19
MTCA Method B Soil Cleanup Levels for Unrestricted Land Uses <sup>3</sup>			----	----	----	----	----	----	----	----	----	160	1,600	0.67 <sup>3</sup>	4,000	----	----	----	----	----	----	----	----	----	----

**Table 1. Summary of Soil Sample Analytical Laboratory Results**

**Former Firestone Complete Auto Care**  
**351 Rainier Avenue South, Renton, Washington 98057**  
**The Riley Group, Inc. Project No. 2021-465-1**

Sample Number	Sample Depth	Sample Date	Gasoline TPH	BTX				Diesel TPH	Oil TPH	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	VC	1,1-DCE	Other VOCs	Naph.	cPAHs	PCBs	Total Metals					CrVI
				B	T	E	X													As	Cd	Cr	Pb	Hg	
Test Probes by EAI Continued																									
B13-10	10	03/21	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	----	----	3.35	----	----	----	----	----
B13-13	13	03/21	----	----	----	----	----	----	----	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	
B13-20	20	03/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	----	----	----	----	----	ND	----	----	----	----	
B14-4	4	03/21	----	----	----	----	----	----	----	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	
B14-10	10	03/21	ND	ND	ND	ND	ND	----	----	ND	ND	ND	ND	ND	----	----	----	----	----	2.85	----	----	----	----	
B14-12	12	03/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	
B14-15	15	03/21	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	----	----	1.08	----	----	----	----	
B14-20	20	03/21	----	----	----	----	----	----	----	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	
B15-4	4	03/21	----	----	----	----	----	----	----	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	
B15-10	10	03/21	ND	ND	ND	ND	ND	----	----	ND	ND	ND	ND	ND	----	----	----	----	----	2.82	----	----	----	----	
B15-15	15	03/21	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	----	----	4.03	----	----	----	----	
B15-25	25	03/21	----	----	----	----	----	----	----	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	
B 16-4	4	03/21	----	----	----	----	----	ND	ND	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	
B16-10	10	03/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	----	----	----	----	----	3.9	----	----	----	----	
B16-15	15	03/21	ND	ND	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	6.31	----	----	----	----	
B16-25	25	03/21	----	----	----	----	----	----	----	ND	ND	ND	ND	ND	----	----	----	----	----	----	----	----	----	----	
B 17-3	3	03/21	----	----	----	----	----	ND	ND	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
B17-9-10	10	03/21	----	----	----	----	----	ND	ND	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
B17-15	15	03/21	----	----	----	----	----	ND	ND	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
B18-3	3	03/21	----	----	----	----	----	ND	ND	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
B18-10	10	03/21	----	----	----	----	----	ND	ND	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
B18-15	15	03/21	----	----	----	----	----	ND	ND	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
B19-10	10	03/21	----	----	----	----	----	ND	ND	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
B19-15	15	03/21	----	----	----	----	----	ND	ND	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
B20-6	6	03/21	----	----	----	----	----	ND	ND	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
B20-9-10	10	03/21	----	----	----	----	----	ND	ND	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
B20-14	14	03/21	----	----	----	----	----	ND	ND	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses			100/30 <sup>1</sup>	0.03	7	6	9	2,000		0.05	0.03	----	----	----	----	Analyte Specific	5	TEF = 0.1	Analyte Specific	20	2	19/2,000 <sup>2</sup>	250	2	19
MTCA Method B Soil Cleanup Levels for Unrestricted Land Uses <sup>3</sup>			---	---	---	---	---	---	---	---	---	160	1,600	0.67 <sup>4</sup>	4,000	---	---	---	---	---	---	---	---	---	

**Notes:**

All results and detection limits are given in milligrams per kilogram (mg/kg); equivalent to parts per million (ppm).

Sample Depth = Soil sample depth interval in feet below ground surface (bgs).

PID = Photoionization detector.

Gasoline TPH (total petroleum hydrocarbons) determined using Northwest Test Method NWTPH-Gx.

BTX (benzene, toluene, ethylbenzene, and xylenes) determined using EPA Test Method 8021B or 8260D.

Diesel and Oil TPH (total petroleum hydrocarbons) determined using Northwest Test Method NWTPH-Dx

PCE (tetrachloroethene), TCE (trichloroethene), cis-1,2-DCE (cis-1,2-dichloroethene), trans-1,2-DCE (trans-1,2-dichloroethene), VC (vinyl chloride), 1,1-DCE (1,1-dichloroethene), and other VOCs (volatile organic compounds) determined using EPA Test Method 8260D.

VOCs (volatile organic compounds) determined using EPA Test Method 8270E.

Naph. (naphthalene) determined using EPA Test Method 8270E.

cPAHs (carcinogenic polycyclic aromatic hydrocarbons) determined using EPA Test Method 8270D SIM.

PCBs (polychlorinated biphenyls) determined using EPA Test Method 8082A.

CrVI (chromium, Hexavalent) determined using EPA Test Method 7196

Total Metals (As = arsenic, Cd = cadmium, Cr = chromium, Pb = lead, Hg = mercury) determined using EPA Method 6020B.

<p><b>Table 1. Summary of Soil Sample Analytical Laboratory Results</b></p> <p><b>Former Firestone Complete Auto Care</b></p> <p><b>351 Rainier Avenue South, Renton, Washington 98057</b></p> <p><b>The Riley Group, Inc. Project No. 2021-465-1</b></p>
<p>Notes continued:</p> <p>x = The sample chromatographic pattern does not resemble the fuel standard used for quantitation.</p> <p>j = The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.</p> <p>ND = Not detected at a concentration above the analytical detection limit.</p> <p>---- = Not analyzed or not applicable.</p> <p>TEF = Toxicity Equivalency Factor per WAC 173-340-708(8).</p> <p>Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses (WAC 173-340-900, Table 740-1). MTCA Method B Soil Screening Levels from Ecology's Cleanup Level and Risk Calculation (CLARC) database.</p> <p><sup>1</sup> The higher cleanup level is allowed if no benzene is present in the gasoline mixture and the total concentration of toluene, ethylbenzene and xylenes is less than 1% of the gasoline mixture.</p> <p><sup>2</sup> The higher cleanup level is allowed if no hexavalent chromium (CrVI) is present in the sample.</p> <p><sup>3</sup> No MTCA Method A Cleanup Level has been established. Therefore, the MTCA Method B Non-Carcinogenic Standard Formula Value is listed for reference.</p> <p><sup>4</sup> No MTCA Method A Cleanup Level has been established. Therefore, the MTCA Method B Carcinogenic Standard Formula Value is listed for reference.</p> <p><b>Bold</b> results indicate concentrations (if any) above laboratory detection limits.</p> <p><b>Bold and yellow highlighted</b> results indicate concentrations (if any) that exceed MTCA Method A or B Soil Cleanup Levels.</p>

Table 2. Summary of Previous Groundwater Sample Analytical Laboratory Results Former Firestone Complete Auto Care 351 Rainier Avenue South, Renton, Washington 98057 The Riley Group, Inc. Project No. 2022-465-1																						
Sample Number	Sample Date	Gasoline TPH	BTEX				Diesel TPH	Oil TPH	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	VC	Other VOCs	cPAHs	Other cPAHs	PCBs	Dissolved Metals				
			B	T	E	X												As	Cd	Cr	Pb	Hg
Groundwater Sampling by EAI																						
B1	02/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				----	----	----	----	----	
B2	02/21	ND	ND	ND	ND	ND	ND	ND	1.2	ND	ND	ND	ND		0.08	ND	ND	ND	ND	ND	ND	
B3	02/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				----	----	----	----	----	
B4	02/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				----	----	----	----	----	
B5	02/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				----	----	----	----	----	
B6	02/21	240	ND	ND	ND	ND	2,400	ND	ND	ND	ND	ND	ND				----	----	----	----	----	
B7	02/21	ND	ND	2.3	ND	ND	16,000	ND	ND	ND	ND	ND	ND				----	----	----	----	----	
B7A f	02/21	----	----	----	----	----	----	----	----	----	----	----	----				ND	1.89	ND	ND J	ND	
B7A	02/21	----	----	----	----	----	----	----	----	----	----	----	----		0.07	Phenanthrene = 2.9 Fluorene=1.40 Pyrene = 1.90	ND	1.89	ND	ND J	ND	
B8	02/21	ND	ND	2.1	1.0	ND	ND	ND	ND	ND	ND	ND	ND				----	----	----	----	----	
B9	02/21	ND	ND	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND				----	----	----	----	----	
B10	02/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				----	----	----	----	----	
B11	03/21	----	----	----	----	----	----	----	ND	ND	ND	ND	ND				----	----	----	----	----	
B12	03/21	----	----	----	----	----	----	----	ND	ND	ND	ND	ND				----	----	----	----	----	
B13	03/21	----	----	----	----	----	81 x	ND	----	----	----	----	----				----	----	----	----	----	
B14	03/21	----	----	----	----	----	ND	ND	----	----	----	----	----				----	----	----	----	----	
B15	03/21	----	----	----	----	----	130 x	ND	----	----	----	----	----				----	----	----	----	----	
B16	03/21	----	----	----	----	----	79 x	ND	----	----	----	----	----				----	----	----	----	----	
B17	03/21	----	----	----	----	----	86 x	ND	----	----	----	----	----				----	----	----	----	----	
B18	03/21	----	----	----	----	----	62 x	ND	----	----	----	----	----				----	----	----	----	----	
B19	03/21	----	----	----	----	----	ND	ND	----	----	----	----	----				----	----	----	----	----	
B20	03/21	----	----	----	----	----	ND	ND	----	----	----	----	----				----	----	----	----	----	
MTCA Method A Cleanup Levels for Ground Water		800/1,000 <sup>1</sup>	5	1,000	700	1,000	500	500	5	5	----	----	0.2	Analyte Specific	TEF = 0.1	----	----	5	5	50	15	2
MTCA Method B Cleanup Levels for Ground Water <sup>2</sup>		----	----	----	----	----	----	----	----	----	16	160	----	----	----	Phenanthrene = NA Fluorene=640 Pyrene = 480	400	----	----	----	----	
Notes: Samples collected by RGI field staff using a peristaltic pump under low-flow conditions. Unless otherwise noted, all analytical results are given in micrograms per liter (ug/L), equivalent to parts per billion (ppb). Gasoline TPH (total petroleum hydrocarbons) determined using Northwest Test Method NWTPH-Gx. BTEX (benzene, toluene, ethylbenzene, and xylenes) determined using EPA Test Method 8021B or 8260D. Diesel and Oil TPH (total petroleum hydrocarbons) determined using Northwest Test Method NWTPH-Dx. PCE (tetrachloroethene), TCE (trichloroethene), cis-1,2-DCE (cis-1,2-dichloroethene), trans-1,2-DCE (trans-1,2-dichloroethene), VC (vinyl chloride), 1,1-DCE (1,1-dichloroethene), and other VOCs (volatile organic compounds) determined using EPA Method 8260D. VOCs (volatile organic compounds) determined using EPA Test Method 8260D. Dissolved Metals (As = arsenic, Cd = cadmium, Cr = chromium, Pb = lead, Hg = mercury) determined using EPA Method 6020B. ND = Not detected at a concentration above the analytical detection limit. ---- = Not analyzed or not applicable. x = The sample chromatographic pattern does not resemble the fuel standard used for quantitation. f = The sample was laboratory filtered prior to analysis j = The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.																						

<p><b>Table 2. Summary of Groundwater Sample Analytical Laboratory Results</b></p> <p><b>Former Firestone Complete Auto Care</b></p> <p><b>351 Rainier Avenue South, Renton, Washington 98057</b></p> <p><b>The Riley Group, Inc. Project No. 2022-465-1</b></p> <p>Notes continued:</p> <p>cPAHs (carcinogenic polycyclic aromatic hydrocarbons) determined using EPA Test Method 8270D SIM.</p> <p>---- = Not analyzed or not applicable.</p> <p>Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Method A Cleanup Levels for Ground Water (WAC 173-340-900, Table 720-1). MTCA Method B Standard Formula Values for Ground Water from Ecology's Cleanup Level and Risk Calculation (CLARC) database.</p> <p><sup>1</sup> The higher cleanup level is applicable if no benzene is detected in groundwater.</p> <p><sup>2</sup> No MTCA Method A Cleanup Level has been established. Therefore, the MTCA Method B Non-Carcinogenic Standard Formula Value is listed for reference.</p> <p><b>Bold</b> results indicate concentrations (if any) above laboratory detection limits.</p> <p><b>Bold and yellow highlighted results indicate concentrations (if any) that exceed MTCA Method A or B Cleanup Levels for Ground Water.</b></p>
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**Table 3. Summary of Previous Sub-Slab Soil Vapor (WA) Sample Results**

**Former Firestone Complete Auto Care**

**351 Rainier Avenue South, Renton, Washington 98057**

**The Riley Group, Inc. Project No. 2021-465-1**

Sample Number	Sample Date	Sample Depth (feet below concrete slab)	TPHv Fractions			BTEX				Naph.	TPHv	PCE	TCE	1,1-DCE	cis 1,1-DCE	trans 1,2-DCE	VC	Other VOCs
			C <sub>5</sub> - C <sub>8</sub>	C <sub>9</sub> - C <sub>12</sub>	C <sub>9</sub> - C <sub>10</sub>	B	T	E	X									
			aliphatics	aliphatics	aromatics													
B5	02/01/21	----	1,900	510	180	4.7	ND<98	16	117	3.1	2,730.80	440	ND<0.56	ND<2.1	ND<2.1	ND<2.1	ND<1.3	1,1,1 Trichloroethane = 49
B9	02/01/21	----	910 fb	460	170	5.4	ND<62	15	109	3.4	1,672.80	ND<22	ND<0.35	ND<1.3	ND<1.3	ND<1.3	ND<0.84	1,1,1 Trichloroethane = 3.6
B10	02/01/21	----	710 fb	410	190	5.6	63	18	126	3.6	1,526.20	ND<21	ND<0.33	ND<1.3	ND<1.2	ND<1.2	ND<0.79	ND
MTCA Method B Sub-Slab Soil Gas Screening Level			90,000	4,700	6,000	10.7	76,200	15,200	1,520	2.5	4,700	320	12	52	----	----	94	1,1,1 Trichloroethane = NA

**Notes:**

Unless otherwise noted, all analytical results are given in micrograms per cubic meter (ug/m<sub>3</sub>).

TPHv = (total petroleum hydrocarbons) C<sub>9</sub> to C<sub>11</sub> using EPA Method TO-15.

TPHv Fractions = Equivalent Carbon Ranges for aliphatics C<sub>9</sub> - C<sub>8</sub> and C<sub>9</sub> - C<sub>15</sub> and aromatics C<sub>9</sub> - C<sub>10</sub> determined using EPA Test Method TO-15.

BTEX = Benzene, toluene, ethylbenzene, and total xylenes determined using EPA Test Method TO-15.

PCE (tetrachloroethene), TCE (trichloroethene), cis-1,2-DCE (cis-1,2-dichloroethene), trans-1,2-DCE (trans-1,2-dichloroethene), VC (vinyl chloride), 1,1-DCE (1,1-dichloroethene), and other VOCs (volatile organic compounds) determined using EPA Test Method TO-15.

fb = The analyte was detected in the method blank.

Naph. (naphthalene) determined using EPA Test Method TO-15.

Other VOCs (volatile organic compounds) determined using EPA Test Method TO-15.

ND = Not detected above the laboratory detection limit.

---- = Not applicable.

Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Method B Sub-Slab Soil Gas Screening Levels. Most conservative value referenced.

**Bold** results indicate concentrations above laboratory detection limits.

**Bold and highlighted** results indicate any detected soil vapor concentrations that would result in an exceedance to the MTCA screening levels.



# Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

May 9, 2022

Eric Zuern  
The Riley Group  
17522 Bothell Way NE, Suite A  
Bothell, WA 98011

Dear Mr. Zuern:

Please find enclosed the analytical data report for the Former Firestone Complete Auto Care Project located in Renton, 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 within 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,

A handwritten signature in black ink, appearing to read "Sherry L. Chilcutt".

Sherry L. Chilcutt  
*Senior Chemist*  
*Libby Environmental, Inc.*



# Libby Environmental, Inc.

## Chain of Custody Record

www.LibbyEnvironmental.com

3322 South Bay Road NE

Ph: 360-352-2110

Olympia, WA 98506

Fax: 360-352-4154

Client: Riley Group Inc.

Date: 4/27/2022

Page: 1 of 1

Project Manager: Eric Zvern

Address:

Project Name: Former Firestone Complete Auto Care

City:

State:

Zip:

Location:

City, State:

Phone:

Fax:

Collector:

Date of Collection: 4/27/2022

Client Project # 2021-405-1

Email:



Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	PAH 8270	Semi Vol 8270	Field Notes
1 EX1-SP1	—	9:03	S	2 Jar, 2 Vol	X	X	X	X	X							Ex1 stockpile for
2 EX1-SP2	—	9:05			X	X	X	X	X							↓ backfill
3 EX1-SP3	—	9:05			X	X	X	X	X							↓
4 EX2-B1:13		9:35			X	X	X									Ex2 sidewall
5 EX2-B2:13		9:50			X	X	X									samples
6 EX2-ESW1:11		9:45			X	X	X									
7 EX2-SSW1:11		9:53			X	X	X									
8 EX2-WSW1:11		9:58			X	X	X									
9 EX2-NSW1:11		10:11			X	X	X									
10 EX1-B1:13		13:35							X							
11 EX1-B2:13		13:40							X							
12 EX1-NSW1:10		13:47							X							
13 EX1-ESW1:10		13:54							X							
14 EX1-SSW1:10		13:58							X							
15 EX1-WSW1:10		14:01							X							
16 EX1-SW Pipe:0.5		14:21							X							
17																

Relinquished by: <u>[Signature]</u>	Date / Time: <u>2:56 4-27-22</u>	Received by: <u>[Signature]</u>	Date / Time: <u>1456 2/27/22</u>	<b>Sample Receipt</b> Good Condition? <u>Y</u> <u>N</u> Cooler Temp. <u>°C</u> Sample Temp. <u>°C</u> Total Number of Containers <u>        </u>	Remarks:    <div style="text-align: right; color: green; font-weight: bold;">ML</div> TAT: 24HR 48HR 5-DAY
Relinquished by:	Date / Time:	Received by:	Date / Time:		
Relinquished by:	Date / Time:	Received by:	Date / Time:		
Relinquished by:	Date / Time:	Received by:	Date / Time:		

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 court of law.

Distribution: White - Lab, Yellow - Originator



# Libby Environmental, Inc.

## FORMER FIRESTONE COMPLETE AUTO CARE PROJECT

The Riley Group  
Renton, Washington  
Libby Project # L22D090  
Client Project # 2021-465-1

3322 South Bay Road NE

Olympia, WA 98506

Phone: (360) 352-2110

FAX: (360) 352-4154

Email: libbyenv@gmail.com

### Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		Method Blank	EX1-SP1	EX1-SP2	EX1-SP3	EX2-B1:13	EX2-B2:13
Date Sampled		N/A	4/27/2022	4/27/2022	4/27/2022	4/27/2022	4/27/2022
Date Analyzed	PQL	4/27/2022	4/27/2022	4/27/2022	4/27/2022	4/27/2022	4/27/2022
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.03	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.03	nd	nd	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.03	nd	nd	nd	nd	nd	nd
Surrogate Recovery							
Dibromofluoromethane		104	109	111	118	109	113
1,2-Dichloroethane-d4		100	103	117	126	119	117
Toluene-d8		100	101	97	98	98	99
4-Bromofluorobenzene		96	98	96	95	94	99

"nd" Indicates not detected at listed detection limit.

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

# Libby Environmental, Inc.

## FORMER FIRESTONE COMPLETE AUTO CARE PROJECT

The Riley Group  
Renton, Washington  
Libby Project # L22D090  
Client Project # 2021-465-1

3322 South Bay Road NE

Olympia, WA 98506

Phone: (360) 352-2110

FAX: (360) 352-4154

Email: libbyenv@gmail.com

### Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		EX2-B2:13 Dup	EX2- ESW1:11	EX2- SSW1:11	EX2- WSW1:11	EX2- NSW1:11
Date Sampled		4/27/2022	4/27/2022	4/27/2022	4/27/2022	4/27/2022
Date Analyzed	PQL	4/27/2022	4/27/2022	4/27/2022	4/27/2022	4/27/2022
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.03	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.03	nd	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.03	nd	nd	nd	nd	nd
Surrogate Recovery						
Dibromofluoromethane		111	110	113	118	113
1,2-Dichloroethane-d4		101	117	122	123	121
Toluene-d8		102	97	101	97	98
4-Bromofluorobenzene		93	94	95	96	95

"nd" Indicates not detected at listed detection limit.

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

# Libby Environmental, Inc.

FORMER FIRESTONE COMPLETE AUTO CARE PROJECT

The Riley Group

Renton, Washington

Libby Project # L22D090

Client Project # 2021-465-1

3322 South Bay Road NE

Olympia, WA 98506

Phone: (360) 352-2110

FAX: (360) 352-4154

Email: libbyenv@gmail.com

## QA/QC for Volatile Organic Compounds by EPA Method 8260D in Soil

Matrix Spike Sample Identification: EX2-B2:13								
Date Analyzed: 4/27/2022								
	Spiked Conc. (mg/kg)	MS Response (mg/kg)	MSD Response (mg/kg)	MS Recovery (%)	MSD Recovery (%)	RPD (%)	Limits Recovery (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.21	0.23	84	92	9.1	65-135	
1,1-Dichloroethene	0.25	0.28	0.20	112	80	33.3	65-135	
trans-1,2-Dichloroethene	0.25	0.21	0.20	84	80	4.9	65-135	
cis-1,2-Dichloroethene	0.25	0.25	0.25	100	100	0.0	65-135	
Trichloroethene (TCE)	0.25	0.24	0.26	96	104	8.0	65-135	
Tetrachloroethene (PCE)	0.25	0.17	0.22	68	88	25.6	65-135	
Surrogate Recovery (%)				MS	MSD			
Dibromofluoromethane				120	116		65-135	
1,2-Dichloroethane-d4				129	139 S		65-135	
Toluene-d8				99	97		65-135	
4-Bromofluorobenzene				100	101		65-135	

"S" Spike compound recovery is outside acceptance limits (High Bias).

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Paul Burke

## Laboratory Control Sample

Date Analyzed: 4/27/2022					
	Spiked Conc. (mg/kg)	LCS Response (mg/kg)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.22	88	80-120	
1,1-Dichloroethene	0.25	0.22	88	80-120	
trans-1,2-Dichloroethene	0.25	0.20	80	80-120	
cis-1,2-Dichloroethene	0.25	0.21	84	80-120	
Trichloroethene (TCE)	0.25	0.23	92	80-120	
Tetrachloroethene (PCE)	0.25	0.21	84	80-120	
Surrogate Recovery					
Dibromofluoromethane			104	65-135	
1,2-Dichloroethane-d4			105	65-135	
Toluene-d8			99	65-135	
4-Bromofluorobenzene			101	65-135	

ANALYSES PERFORMED BY: Paul Burke

# Libby Environmental, Inc.

FORMER FIRESTONE COMPLETE AUTO CARE PROJECT

The Riley Group

Renton, Washington

Libby Project # L22D090

Client Project # 2021-465-1

3322 South Bay Road NE

Olympia, WA 98506

Phone: (360) 352-2110

FAX: (360) 352-4154

Email: libbyenv@gmail.com

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

Sample Description		Method	EX1-SP1	EX1-SP2	EX1-SP3	EX2-B1:13	EX2-B2:13
		Blank					
Date Sampled		N/A	4/27/2022	4/27/2022	4/27/2022	4/27/2022	4/27/2022
Date Analyzed	PQL	4/27/2022	4/27/2022	4/27/2022	4/27/2022	4/27/2022	4/27/2022
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Benzene	0.02	nd	nd	nd	nd	nd	nd
Toluene	0.10	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd	nd	nd	nd
Total Xylenes	0.15	nd	nd	nd	nd	nd	nd
Gasoline	10	nd	nd	nd	nd	nd	nd
Surrogate Recovery							
Dibromofluoromethane		104	109	111	118	109	113
1,2-Dichloroethane-d4		100	103	117	126	119	117
Toluene-d8		100	101	97	98	98	99
4-Bromofluorobenzene		96	98	96	95	94	99

"nd" Indicates not detected at listed detection limit.

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

# Libby Environmental, Inc.

## FORMER FIRESTONE COMPLETE AUTO CARE PROJECT

The Riley Group  
Renton, Washington  
Libby Project # L22D090  
Client Project # 2021-465-1

3322 South Bay Road NE

Olympia, WA 98506

Phone: (360) 352-2110

FAX: (360) 352-4154

Email: libbyenv@gmail.com

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

Sample Description		EX2-B2:13 Dup	EX2- ESW1:11	EX2- SSW1:11	EX2- WSW1:11	EX2- NSW1:11
Date Sampled		4/27/2022	4/27/2022	4/27/2022	4/27/2022	4/27/2022
Date Analyzed	PQL	4/27/2022	4/27/2022	4/27/2022	4/27/2022	4/27/2022
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Benzene	0.02	nd	nd	nd	nd	nd
Toluene	0.10	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd	nd	nd
Total Xylenes	0.15	nd	nd	nd	nd	nd
Gasoline	10	nd	nd	nd	nd	nd
Surrogate Recovery						
Dibromofluoromethane		111	110	113	118	113
1,2-Dichloroethane-d4		101	117	122	123	121
Toluene-d8		102	97	101	97	98
4-Bromofluorobenzene		93	94	95	96	95

"nd" Indicates not detected at listed detection limit.

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

# Libby Environmental, Inc.

FORMER FIRESTONE COMPLETE AUTO CARE PROJECT

The Riley Group

Renton, Washington

Libby Project # L22D090

Client Project # 2021-465-1

3322 South Bay Road NE

Olympia, WA 98506

Phone: (360) 352-2110

FAX: (360) 352-4154

Email: libbyenv@gmail.com

## QA/QC for Gasoline (NWTPH-Gx) & BTEX (EPA Method 8260D) in Soil

Matrix Spike Sample Identification: EX2-B2:13								
Date Analyzed: 4/27/2022								
	Spiked Conc. (mg/kg)	MS Response (mg/kg)	MSD Response (mg/kg)	MS Recovery (%)	MSD Recovery (%)	RPD (%)	Limits Recovery (%)	Data Flag
Benzene	0.25	0.22	0.24	88	96	8.7	65-135	
Toluene	0.25	0.23	0.27	92	108	16.0	65-135	
Ethylbenzene	0.25	0.21	0.22	84	88	4.7	65-135	
Total Xylenes	0.75	0.60	0.65	80	87	8.0	65-135	
Surrogate Recovery (%)								
				MS	MSD			
Dibromofluoromethane				120	116		65-135	
1,2-Dichloroethane-d4				129	139 S		65-135	
Toluene-d8				99	97		65-135	
4-Bromofluorobenzene				100	101		65-135	

"S" Spike compound recovery is outside acceptance limits (High Bias).

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Paul Burke

## Laboratory Control Sample

Date Analyzed: 4/27/2022					
	Spiked Conc. (mg/kg)	LCS Response (mg/kg)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Benzene	0.25	0.21	84	80-120	
Toluene	0.25	0.23	92	80-120	
Ethylbenzene	0.25	0.22	88	80-120	
Total Xylenes	0.75	0.65	87	80-120	
Surrogate Recovery					
Dibromofluoromethane			104	65-135	
1,2-Dichloroethane-d4			105	65-135	
Toluene-d8			99	65-135	
4-Bromofluorobenzene			101	65-135	

ANALYSES PERFORMED BY: Paul Burke

# Libby Environmental, Inc.

FORMER FIRESTONE COMPLETE AUTO CARE PROJECT

The Riley Group

Renton, Washington

Libby Project # L22D090

Client Project # 2021-465-1

3322 South Bay Road NE

Olympia, WA 98506

Phone: (360) 352-2110

FAX: (360) 352-4154

Email: libbyenv@gmail.com

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

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (mg/kg)	Oil (mg/kg)
Method Blank	4/27/2022	119	nd	nd
EX1-SP1	4/27/2022	110	nd	nd
EX1-SP1 Dup	4/27/2022	110	nd	nd
EX1-SP2	4/27/2022	89	nd	1600
EX1-SP3	4/27/2022	100	nd	560
EX1-B1:13	4/27/2022	117	nd	2400
EX1-B2:13	4/27/2022	96	nd	nd
EX1-NSW1:10	4/27/2022	87	nd	nd
EX1-ESW1:10	4/27/2022	117	nd	1700
EX1-SSW1:10	4/27/2022	88	nd	nd
EX1-WSW1:10	4/27/2022	120	nd	nd
EX1-SW Pipe:0.5	4/27/2022	90	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: Alex Randolph



# Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

May 9, 2022

Eric Zuern  
The Riley Group  
17522 Bothell Way NE, Suite A  
Bothell, WA 98011

Dear Mr. Zuern:

Please find enclosed the analytical data report for the Former Renton Firestone Property Project located in Renton, 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 within 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.*



# Libby Environmental, Inc.

3322 South Bay Road NE

Ph: 360-352-2110

Olympia, WA 98506

Fax: 360-352-4154

Client:

The Riley Group

Address:

City:

State:

Zip:

Phone:

Fax:

Client Project #

## Chain of Custody Record

www.LibbyEnvironmental.com

Date:

4-28-22

Page:

of

Project Manager:

Eric Zuern

Project Name:

Former Renton Firestone Property

Location:

City, State:

Renton, WA

Collector:

Date of Collection:

4-28-22

Email:



Sample Number

Depth

Time

Sample Type

Container Type

VOC 8260

PCE & Daughter Prod.

NWTPH-Gx

BTEX (8260) / (8021)

NWTPH-HCID

NWTPH-Dx / Dx

PCB 8082

MTCA 5 Metals

RCRA 8 Metals

c PAH 8270

PAH 8270

Semi Vol 8270

Field Notes

1 EX1-BIA:13.5

0754

S

1 Jar

X

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

Relinquished by:

Date / Time

4-28-22 2:30

Received by:

Date / Time

4/28/22 4:50

Sample Receipt

Remarks:

Relinquished by:

Date / Time

Received by:

Date / Time

Good Condition? Y N

Cooler Temp. °C

Sample Temp. °C

Relinquished by:

Date / Time

Received by:

Date / Time

Total Number of Containers

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 court of law.

Distribution: White - Lab, Yellow - Originator

ML

# Libby Environmental, Inc.

FORMER RENTON FIRESTONE PROPERTY PROJECT  
The Riley Group  
Renton, Washington  
Libby Project # L22E024

3322 South Bay Road NE  
Olympia, WA 98506  
Phone: (360) 352-2110  
FAX: (360) 352-4154  
Email: libbyenv@gmail.com

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

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (mg/kg)	Oil (mg/kg)
Method Blank	4/28/2022	88	nd	nd
EX1-B1A:13.5	4/28/2022	91	nd	nd
EX1-B1A:13.5 Dup	4/28/2022	89	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: Alex Randolph

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Vineta Mills, M.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

April 29, 2022

Eric Zuern, Project Manager  
The Riley Group, Inc.  
17522 Bothell Way NE  
Bothell, WA 98011

Dear Mr Zuern:

Included are the results from the testing of material submitted on April 27, 2022 from the Renton Firestone 2021-465, F&BI 204449 project. There are 10 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
TRG0429R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on April 27, 2020 by Friedman & Bruya, Inc. from the The Riley Group Renton Firestone 2021-465, F&BI 204449 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>The Riley Group</u>
204449 -01	EX1-8
204449 -02	EX2-B1:13
204449 -03	EX2-B2:13
204449 -04	EX2-ESW1:11
204449 -05	EX2-WSW1:11
204449 -06	EX2-SSW1:11
204449 -07	EX2-NSW1:11

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	EX2-B1:13	Client:	The Riley Group
Date Received:	04/27/22	Project:	2021-465, F&BI 204449
Date Extracted:	04/27/22	Lab ID:	204449-02
Date Analyzed:	04/27/22	Data File:	204449-02.097
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	2.57
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FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	EX2-B2:13	Client:	The Riley Group
Date Received:	04/27/22	Project:	2021-465, F&BI 204449
Date Extracted:	04/27/22	Lab ID:	204449-03
Date Analyzed:	04/27/22	Data File:	204449-03.098
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	3.13
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FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	EX2-ESW1:11	Client:	The Riley Group
Date Received:	04/27/22	Project:	2021-465, F&BI 204449
Date Extracted:	04/27/22	Lab ID:	204449-04
Date Analyzed:	04/27/22	Data File:	204449-04.099
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	5.34
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FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	EX2-WSW1:11	Client:	The Riley Group
Date Received:	04/27/22	Project:	2021-465, F&BI 204449
Date Extracted:	04/27/22	Lab ID:	204449-05
Date Analyzed:	04/27/22	Data File:	204449-05.100
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	3.73
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FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	EX2-SSW1:11	Client:	The Riley Group
Date Received:	04/27/22	Project:	2021-465, F&BI 204449
Date Extracted:	04/27/22	Lab ID:	204449-06
Date Analyzed:	04/27/22	Data File:	204449-06.101
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	3.61
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FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	EX2-NSW1:11	Client:	The Riley Group
Date Received:	04/27/22	Project:	2021-465, F&BI 204449
Date Extracted:	04/27/22	Lab ID:	204449-07
Date Analyzed:	04/27/22	Data File:	204449-07.102
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	2.90
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FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	The Riley Group
Date Received:	Not Applicable	Project:	2021-465, F&BI 204449
Date Extracted:	04/27/22	Lab ID:	I2-314 mb
Date Analyzed:	04/27/22	Data File:	I2-314 mb.079
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	<1
---------	----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/29/22

Date Received: 04/27/22

Project: Renton Firestone 2021-465, F&BI 204449

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: 204432-01 x5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	<5	92	102	75-125	10

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	94	80-120

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

204449

## SAMPLE CHAIN OF CUSTODY

04-24-22

Page # 1 of 1

BT3

Report To Eric Ziem

Company Riley Group Inc.

Address

City, State, ZIP

Pittell NJ

Phone 925-45-0571 Email ezucm@riley-group

C# 334

PROJECT NAME

Penton Firestone

PO #

2021-465

REMARKS

INVOICE TO

RGI

Project specific RIs? - Yes / (No)

TURNAROUND TIME

☐ Standard turnaround

☒ RUSH ~~ASAP~~

Rush charges authorized by:

SAMPLE DISPOSAL

☐ Archive samples

☐ Other

Default: Dispose after 30 days

## ANALYSES REQUESTED

NWTPH-Dx

NWTPH-Gx

BTEX EPA 8021

NWTPH-HCID

VOCs EPA 8260

PAHs EPA 8270

Carcinogenic  
PCBs EPA 8082

absent

Notes

cancelled

2/4/22

Sample ID

Lab ID

Date Sampled

Time Sampled

Sample Type

# of Jars

EX1-8

01A-B

4-27-22

10:30

Soil

2

EX2-B1:D

02

9:35

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

EX2-B2:D

03

9:50

1

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1

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1

1

1

1

1

1

1

1

1

EX2-ESW1:11

04

9:45

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

EX2-WSW1:11

05

9:58

1

1

1

1

1

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1

1

1

1

1

1

1

1

EX2-SSW1:11

06

9:53

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

EX2-NSW1:11

07

9:10:11

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

## SIGNATURE

Relinquished by:

PRINT NAME

COMPANY

DATE

TIME

Friedman & Bruya, Inc.

Ph. (206) 285-8282

Received by:

Eric Ziem

RGI

4-27-22

11:21

Relinquished by:

Theresa Bruya

F&amp;B

4/27/22

11:21

Received by:

Samples received at

5 °C

FRIEDMAN & BRUYA, INC.

---

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Vineta Mills, M.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

May 3, 2022

Eric Zuern, Project Manager  
The Riley Group, Inc.  
17522 Bothell Way NE  
Bothell, WA 98011

Dear Mr Zuern:

Included are the results from the testing of material submitted on April 27, 2022 from the Renton Firestone 2021-465, F&BI 204458 project. There are 8 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
TRG0503R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on April 27, 2022 by Friedman & Bruya, Inc. from the The Riley Group Renton Firestone 2021-465, F&BI 204458 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID  
204458 -01

The Riley Group  
EX1-B1:13

All quality control requirements were acceptable.



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	EX1-B1:13	Client:	The Riley Group
Date Received:	04/27/22	Project:	Renton Firestone 2021-465
Date Extracted:	04/28/22	Lab ID:	204458-01 1/25
Date Analyzed:	04/28/22	Data File:	042808.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	66 d	39	103
Phenol-d6	71 d	48	109
Nitrobenzene-d5	68 d	23	138
2-Fluorobiphenyl	74 d	50	150
2,4,6-Tribromophenol	77 d	40	127
Terphenyl-d14	81 d	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.05
2-Methylnaphthalene	<0.05
1-Methylnaphthalene	<0.05
Benz(a)anthracene	<0.05
Chrysene	<0.05
Benzo(a)pyrene	<0.05
Benzo(b)fluoranthene	<0.05
Benzo(k)fluoranthene	<0.05
Indeno(1,2,3-cd)pyrene	<0.05
Dibenz(a,h)anthracene	<0.05

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Blank	Client:	The Riley Group
Date Received:	Not Applicable	Project:	Renton Firestone 2021-465
Date Extracted:	04/28/22	Lab ID:	02-1038 mb3 1/5
Date Analyzed:	04/28/22	Data File:	042806.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	76	39	103
Phenol-d6	85	48	109
Nitrobenzene-d5	78	23	138
2-Fluorobiphenyl	83	50	150
2,4,6-Tribromophenol	72	40	127
Terphenyl-d14	91	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
2-Methylnaphthalene	<0.01
1-Methylnaphthalene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	EX1-B1:13	Client:	The Riley Group
Date Received:	04/27/22	Project:	Renton Firestone 2021-465
Date Extracted:	04/28/22	Lab ID:	204458-01 1/6
Date Analyzed:	04/28/22	Data File:	042808.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	71	23	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	The Riley Group
Date Received:	Not Applicable	Project:	Renton Firestone 2021-465
Date Extracted:	04/28/22	Lab ID:	02-1039 mb3 1/6
Date Analyzed:	04/28/22	Data File:	042805.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	73	23	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

Date of Report: 05/03/22

Date Received: 04/27/22

Project: Renton Firestone 2021-465, F&BI 204458

### QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E

Laboratory Code: 204315-01 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	mg/kg (ppm)	0.83	<0.01	78	79	34-118	1
2-Methylnaphthalene	mg/kg (ppm)	0.83	<0.01	82	84	29-130	2
1-Methylnaphthalene	mg/kg (ppm)	0.83	<0.01	82	83	37-119	1
Benz(a)anthracene	mg/kg (ppm)	0.83	0.076	88	83	50-150	6
Chrysene	mg/kg (ppm)	0.83	0.082	83	80	50-150	4
Benzo(a)pyrene	mg/kg (ppm)	0.83	0.079	90	86	50-150	5
Benzo(b)fluoranthene	mg/kg (ppm)	0.83	0.10	90	85	50-150	6
Benzo(k)fluoranthene	mg/kg (ppm)	0.83	0.028	88	89	50-150	1
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.83	0.044	81	83	41-134	2
Dibenz(a,h)anthracene	mg/kg (ppm)	0.83	0.0097	83	81	44-130	2

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Naphthalene	mg/kg (ppm)	0.83	82	58-108
2-Methylnaphthalene	mg/kg (ppm)	0.83	84	67-108
1-Methylnaphthalene	mg/kg (ppm)	0.83	84	66-107
Benz(a)anthracene	mg/kg (ppm)	0.83	89	70-130
Chrysene	mg/kg (ppm)	0.83	89	70-130
Benzo(a)pyrene	mg/kg (ppm)	0.83	89	68-120
Benzo(b)fluoranthene	mg/kg (ppm)	0.83	92	69-125
Benzo(k)fluoranthene	mg/kg (ppm)	0.83	91	70-130
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.83	93	67-129
Dibenz(a,h)anthracene	mg/kg (ppm)	0.83	93	67-128

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/03/22

Date Received: 04/27/22

Project: Renton Firestone 2021-465, F&BI 204458

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES FOR  
POLYCHLORINATED BIPHENYLS AS  
AROCLOR 1016/1260 BY EPA METHOD 8082A**

Laboratory Code: 204449-01 1/6 (Matrix Spike) 1/6

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Control Limits	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	0.25	<0.02	65	64	44-107	2
Aroclor 1260	mg/kg (ppm)	0.25	<0.02	60	60	38-124	0

Laboratory Code: Laboratory Control Sample 1/6

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Aroclor 1016	mg/kg (ppm)	0.25	97	47-158
Aroclor 1260	mg/kg (ppm)	0.25	108	69-147

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



Page # 1 of 1

**TURNAROUND TIME**

☐ Standard turnaround

☒ **RUSH** ASAP

Rush charges authorized by: \_\_\_\_\_



**SAMPLE DISPOSAL**

☐ Archive samples

☐ Other \_\_\_\_\_

Default: Dispose after 30 days

[illegible]

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
	Jessica Barb	RCI	4/27/2022	10:28
	Mac Goldman	FBI	4/27/22	1628
Relinquished by:				
Received by:				
Received by:				
Samples received at 7:00				



**CHARACTERIZATION OF ON-SITE  
CONTAMINATION**

Vacant Former Firestone Complete Auto Care  
351 Rainier Avenue South  
Renton, Washington 98057

**TOULA PROPERTIES LLC**

# ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112<sup>th</sup> Avenue Northeast, Suite 300  
Bellevue, Washington 98004  
(425) 455-9025 Office  
(888) 453-5394 Toll Free  
(425) 455-2316 Fax

April 12, 2019

JN-40139-2

Mr. Curt Kruse  
Toula Properties LLC  
3801 92<sup>nd</sup> Avenue Northeast  
Bellevue, Washington 98004

Subject:       **CHARACTERIZATION OF ON-SITE CONTAMINATION**  
                  **Vacant Former Firestone Complete Auto Care**  
                  **351 Rainier Avenue South**  
                  **Renton, Washington 98057**

Dear Mr. Kruse:

Environmental Associates, Inc. (EAI) has performed additional sampling and testing of subsurface soils and groundwater at selected localities on the subject property. The purpose of this work was to attempt to define the extent of chlorinated solvent and petroleum impacted soils and/or groundwater previously detected by EAI at the site in February 2021. This report, prepared in accordance with the terms of our proposal dated March 1, 2021, summarizes our approach to the project along with results and conclusions.

The contents of this report are confidential and are intended solely for your use and the use of your representatives. No other distribution or discussion of this report will take place without your prior approval in writing.




***Toula Properties LLC***  
***April 12, 2021***

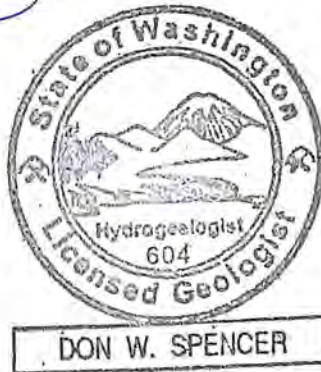
***JN-40139-2***  
***Page - 2***

We appreciate the opportunity to be of service on this assignment. If you have any questions or if we may be of additional service, please do not hesitate to contact us.

Respectfully submitted,  
**ENVIRONMENTAL ASSOCIATES, INC.**

  
Don W. Spencer, M.Sc., P.G.  
Principal

License: 604	(Washington)
License: 11464	(Oregon)
License: 876	(California)
License: 5195	(Illinois)
License: 0327	(Mississippi)
REPA: 418290	



***ENVIRONMENTAL ASSOCIATES, INC.***

---

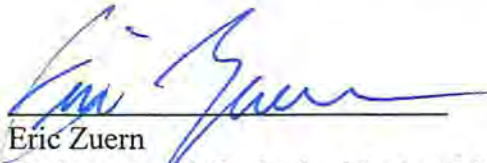
# CHARACTERIZATION OF ON-SITE CONTAMINATION

Vacant Former Firestone Complete Auto Care  
351 Rainier Avenue South  
Renton, Washington 98057

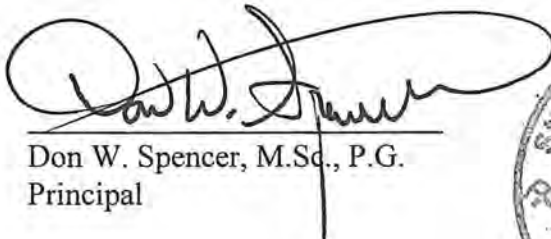
Prepared for:

Toula Properties LLC  
3801 92<sup>nd</sup> Avenue Northeast  
Bellevue, Washington 98004

Questions regarding this investigation, the conclusions reached and the recommendations given should be addressed to one of the following undersigned.



Eric Zuern  
Environmental Geologist / Project Manager



Don W. Spencer, M.Sc., P.G.  
Principal



License: 604	(Washington)
License: 11464	(Oregon)
License: 876	(California)
License: 5195	(Illinois)
License: 0327	(Mississippi)
REPA: 418290	

Reference Job Number: JN 40139-2

April 12, 2021

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# TABLE OF CONTENTS

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<b>INTRODUCTION/SCOPE OF WORK</b> .....	<b>5</b>
Site/Project Description .....	<b>5</b>
Background .....	<b>5</b>
<b>FINDINGS</b> .....	<b>7</b>
Subsurface Investigation .....	<b>7</b>
Soil Boring Sampling .....	<b>7</b>
Soil and Groundwater Sampling Procedure .....	<b>7</b>
Subsurface Conditions .....	<b>8</b>
Laboratory Analysis .....	<b>8</b>
<b>CONCLUSIONS/RECOMMENDATIONS</b> .....	<b>11</b>
<b>LIMITATIONS</b> .....	<b>14</b>
<b>REFERENCES</b> .....	<b>14</b>

## **PLATES**

- Plate 1 - Vicinity/Topographic Map
- Plate 2 - Site Plan
- Plate 3 - Southwest to Northeast Cross Section
- Plates 4-14 - Boring Logs

## **TABLES**

- Table 1 - Petroleum Hydrocarbons and BTEX Soil Sampling Results
- Table 2 - Petroleum Hydrocarbons and BTEX Groundwater Sampling Results
- Table 3 - Select VOC Soil Sampling Results
- Table 4 - Select VOC Groundwater Sampling Results
- Table 5 - MTCA-5 Metals Soil Sampling Results
- Table 6 - Dissolved MTCA-5 Metals Groundwater Sampling Results
- Table 7 - PCBs Soil Sampling Results
- Table 8 - PCBs Groundwater Sampling Results
- Table 9 - Carcinogenic PAHs Soil Sampling Results
- Table 10- Other PAHs Soil Sampling Results
- Table 11- Carcinogenic PAHs Groundwater Sampling Results
- Table 12- Other PAHs Groundwater Sampling Results

## **APPENDICES**

- Laboratory Reports

---

## **INTRODUCTION/SCOPE OF WORK**

### **SITE/PROJECT DESCRIPTION**

The subject property is a roughly rectangular - shaped parcel (tax parcel number 000720-0126) covering approximately 15,578 square feet of land or approximately 0.36 acres. Existing improvements consist principally of a single-story building of masonry design enclosing approximately 8,750 square feet of space which was reportedly constructed in 1960. Additional improvements include an asphalt paved parking lot and untended landscaping. The property was occupied by Firestone from construction in 1960 until roughly 2020. Firestone was the only occupant of the building, which is currently unoccupied. Firestone used the property for approximately 60 years for automotive service and repair. Firestone's operations included the use of multiple in-ground hydraulic hoists, an underground storage tank (reportedly in the 100 to 1000-gallon capacity range) that contained used/waste oil that was removed at an unknown time, and an above-ground waste oil storage tank (AST) that was removed from the western margin of the site. The approximate location of the site is shown on the Vicinity/Topographic Map, Plate 1, appended herewith.

### **Background**

In December 2020, Environmental Associates, Inc. (EAI) completed a Phase I Environmental Site Assessment for the subject. That report identified the following environmental conditions associated with the site:

- Long-term on-site automotive service and repair by Firestone which utilized in-ground hoists.
- An underground waste oil storage tank (UST) had previously been utilized by Firestone on the property and reportedly removed at some time in the past. No documentation regarding subsurface environmental conditions at the time of UST removal was discovered in the readily available public record.

EAI recommended that if the client and/or other involved parties desired knowledge of current environmental conditions beneath the site, subsurface sampling and testing could be employed to assess whether impacts were present.

On February 25, 2021, EAI presented a report titled Limited Subsurface Sampling and Testing to Kidder Mathews relating to the subject site. That report documented the results of soil and groundwater sampling and testing at ten (10) locations (B1 through B10 on the attached Site Plan, Plate 2) as well as soil-vapor sampling and testing at three (3) locations (B5, B9, and B10) across the site. Soil and groundwater samples were analyzed for gasoline, diesel, heavy oil total petroleum hydrocarbons (TPH) as well as volatile organic compounds (VOCs). Select soil and groundwater samples proximal to a former waste oil storage area (B2) were also analyzed for polychlorinated

biphenyls (PCBs), polyaromatic hydrocarbons (PAHs), and MTCA-5 metals including arsenic, cadmium, chromium, lead, and mercury. Soil-vapor samples were tested for aliphatic/aromatic petroleum hydrocarbons (APHs), BTEX, naphthalene, and chlorinated solvents. Laboratory analysis revealed diesel TPH was identified in soils (B7) and groundwater (B6 and B7) above its applicable MTCA Method-A compliance limit around the central portion of the shop while tetrachloroethene (PCE) in soils above applicable compliance limits were also identified in the central portion of the shop (B6). Naphthalene and PCE were detected in soil-vapor above their applicable MTCA Method-B screening limits at select locations.

Acknowledging that the full extent of impacted media was not defined during that preliminary investigation, additional subsurface sampling and testing was recommended in the event that the client and/or other involved parties wished to quantify the extent of the contamination so that suitable management alternatives could be evaluated along with a reliable projection of costs which might be associated with implementation of such alternatives.

The reader is referred to the above reports for further details.

### **Current Study**

Your expressed interests to conduct additional evaluation of subsurface conditions to attempt to assess the vertical and areal extent of petroleum and chlorinated solvent impacted soils and/or groundwater as memorialized in EAI's proposal dated March 1, 2021, formed the basis for the following scope of work:

- Drilled and sampled eleven (11) borings in accessible locations throughout the subject site and surrounding the previously discovered contamination. Soil and groundwater samples were obtained from each boring and a log of subsurface conditions encountered was prepared for each boring by the EAI project geologist. In addition, EAI drilled directly to the water table and re-sampled groundwater at boring B7 for further characterization.
- Laboratory analysis of selected soil and groundwater samples for diesel and oil TPH and chlorinated volatile organic compounds (cVOCs). Two (2) "worst case" samples were submitted for analysis of polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and MTCA-5 metals including arsenic, cadmium, chromium, lead, and mercury. The client authorized additional testing of soil samples for arsenic as well as gasoline TPH and associated fuel constituents based upon olfactory observations during drilling. Further testing was also performed on a single soil sample for hexavalent chromium.
- Preparation of this summary report documenting the methodology and results of the investigation.

---

## **FINDINGS**

### **SUBSURFACE INVESTIGATION**

#### **Soil Boring Sampling**

Between March 17<sup>th</sup>, 2021 and March 19<sup>th</sup>, 2021, eleven (11) borings were made at the approximate locations identified as B6A and B11 through B20 on the attached Site Plan (Plate 2). Borings B11 and B12 were placed along the western margin of the shop where compliant detections of PCE had been reported during prior explorations in that area. Borings B13 through B19 were installed surrounding prior explorations B6 and B7 where non-compliant detections of diesel TPH and PCE had previously been found. Boring B6A was installed proximal to the prior B6 exploration in an effort to reach greater depths than the original iteration of that boring. Finally, B20 was placed to the south of B7 in an area where heavily stained concrete was observed. In an effort to resample groundwater from the prior B7 locality, a stainless-steel screen was extended directly into the water table at that locality for sample retrieval.

The borings were installed to depths of approximately 20 to 30 feet below ground surface (bgs) except for B20 which could only reach a depth of eighteen (18) feet bgs before subsurface soil density precluded further exploration with the drilling equipment employed for this study.

#### **Soil and Groundwater Sampling Procedure**

Under the observation of the EAI field geologist, a truck-mounted push probe drill rig or limited access push probe drill rig were brought into position over each boring location. Following set-up preparations, the push-probe boring/sampling technique consisted of advancing a 2 to 5-foot plastic lined sampler into the ground. The sampler was then withdrawn and the liner was removed and cut open for examination and transfer of the soil sample to laboratory prepared glassware by EPA Method 5035 as well as 4 ounce glass jars. New liners were inserted into the sampler at each interval, extending to the lowest extent of the boring.

After soil sampling within the borings had been completed, a temporary well screen was installed within the borings in an attempt to collect groundwater from moist or wet soil zones. Small diameter plastic tubing was extended from a peristaltic pump into that temporary screen to recover groundwater samples.

Soil and groundwater samples were transferred from sampling apparatus directly to sterilized laboratory prepared glassware which were then stored in an iced chest maintained at approximately 4 degrees centigrade at the site and taken to the laboratory in this condition in an effort to preserve sample integrity.



Each sample container was clearly labeled as to boring and sample number/depth, date, time, project, etc. EPA-recommended sample-management protocol was observed at each stage of the project.

During drilling, a field log was made by EAI for each boring. Information recorded versus corresponding depth included soil classification (Unified Soil Classification System), color, texture, relative moisture, odors (if present), etc. Final form logs appear as plates 4 through 14. Boring logs relating to B1 through B10 are found in EAI's February 25, 2021-dated report.

### **Subsurface Conditions**

Referring to boring logs (Plates 4 to 14), soils encountered within the borings generally consisted of silts, sands, and gravels, with grey sands or silty sands becoming prominent below a depth of 10 feet below ground surface (bgs). Groundwater was generally encountered at depths between 9 to 10 feet bgs. Petroleum odors were noticed in soils collected from boring B6 within a narrow zone at a depth of approximately 10 feet bgs which also corresponded to an elevated reading on EAI's photo-ionization detector (PID) utilized for field screening. Materials below 20 feet transitioned to gravels or sandy gravels. Throughout the sampling process, EAI's PID began showing detections of vapors between 0 to 12 ppm when field screening, even when no other evidence of potential contaminants was present. After checking various field parameters, EAI deduced that the plastic bags used to hold soils for field screening were emitting vapors which were being detected by the PID. As such, PID concentrations between 0 to 12 ppm annotated on the attached boring logs are not likely representative of true vapor concentrations.

### **LABORATORY ANALYSIS**

Laboratory analysis of soil and groundwater samples during this current phase of work was conducted by Friedman & Bruya, Inc., Seattle, Washington and Fremont Analytical, Seattle, Washington, both being WDOE-accredited analytical laboratories. Selected soil and groundwater samples were submitted for analysis of diesel and oil TPH and chlorinated volatile organic compounds (cVOCs). Two (2) "worst case" samples were submitted for analysis of polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and MTCA-5 metals including arsenic, cadmium, chromium, lead, and mercury. The client authorized additional testing of soil samples for arsenic as well as gasoline TPH and associated fuel constituents based upon olfactory observations during drilling. Further testing was also performed on a single soil sample for hexavalent chromium

As documented in Table 1 of this report, laboratory analysis of soils sampled during March 2021 revealed no detections of petroleum or associated BTEX constituents except for gasoline and diesel TPH along with ethylbenzene and xylenes at B6A at a depth of 10 feet bgs. The detection of gasoline TPH (at 160 parts per million (ppm)) is above the MTCA Method-A compliance limit for that analyte (100 ppm). As shown in the attached laboratory data, further analysis of that sample did not reveal the presence of additional fuel constituents hexane, methyl t-butyl ether (MTBE), 1,2-dibromoethane (EDB), or 1,2-dichloroethane (EDC) above the minimum laboratory reporting limits. The results of testing from surrounding soils indicate that the non-compliant gasoline TPH contamination is limited to depths shallower than 15 feet bgs and was not present at similar depths in the surrounding borings.

While the detection of “diesel” TPH in the B6A-10 soil sample was below the applicable action level for that compound, that detection was flagged by the project laboratory as not matching the standard “diesel” chemistry chromatogram. EAI inquired with the project lab as to whether any other compounds were suspected in that sample or what the detection was suspected to be. After further review of the chemistry chromatogram, laboratory staff advised that the “diesel” detection appeared to be some “carry-over” from the gasoline detection as well as a trace of oil. Similar to the gasoline contamination noted above, diesel and oil testing from borings surrounding the prior non-compliant concentration of diesel at B7 (at a depth of 9 to 10 feet bgs) indicate that the non-compliant diesel TPH contamination is limited to the immediate B7 vicinity at depths shallower than 16 feet bgs and was not present in the surrounding borings. Both non-compliant petroleum detections are co-located with in-ground hoist mechanisms left by Firestone.

The ethylbenzene and xylenes detections were both well under their published MTCA Method-A compliance limits for unrestricted land use.

As depicted in Table 2, attached to this report, laboratory testing of groundwater sampled in March 2021 from borings B13, B15, B16, B17, and B18 reported diesel TPH at levels below (i.e. compliant with) the applicable MTCA Method-A compliance limit for that analyte. Each of those detections were “flagged” by the project laboratory as not matching a standard diesel pattern on the chemistry chromatogram. Again EAI inquired with the project lab as to whether any other compounds were suspected in that sample or what the detection was presumed to be. After further review of the chemistry chromatogram, laboratory staff advised that the “diesel” detections appeared to be possible “fuel metabolite” (i.e. fuel breakdown) or simply organic material interfering in the sample as opposed to some other type of fuel product. The non-compliant diesel TPH in groundwater appears to be limited to the vicinity of B6 and B7 at the time of this writing.

As shown in Table 3 and supporting laboratory data attached to this report, the soil samples analyzed in March 2021 reportedly did not contain detectable concentrations of chlorinated volatile organic compounds (cVOCs) including PCE. That includes soils sampled from B6A (installed proximal to previous boring B6) at a depth of 15 feet bgs. Prior testing in February 2016 detected PCE at that locality /depth slightly above published cleanup limits. In an effort to identify any discrepancy between the lab results, the sample from B6A at 15 feet bgs was re-run (i.e. re-extracted). No detections of PCE continued to be reported in the re-analyzed sample indicating that PCE was not currently present at that depth/location. The March 2021 testing indicates that PCE does not extend below depths of 10 to 15 feet bgs at B6/B6A and is not present in surrounding soils at similar depths.

As summarized in Table 4 as well as the appended laboratory data, groundwater samples collected in March 2021 did not contain concentrations of cVOCs above the project lab's minimum reporting limits.

As depicted in Table 5, attached to this report, arsenic, chromium, and lead were reported in soils sampled at B6A at a depth of 10 feet bgs with arsenic being detected above its MTCA Method-A action level. Based on that arsenic detection soils at shallower and deeper depths from that boring as well as from similar depths in surrounding borings (B13 through B16). Based on these results, the non-compliant arsenic detection appears limited to soils in the vicinity of B6/B6A at a depth of 10 feet bgs.

Chromium was detected in soils at B6A at a depth of 10 feet bgs at 26.6 ppm. There are two (2) species of chromium (Chromium III and Chromium VI) with each having different cleanup levels (2,000 ppm and 19 ppm respectively). Given that the detected concentrations in the soil samples analyzed in February and March 2021 are between the two cleanup levels, follow-up testing would need to be conducted to discern what type of chromium is present. With that said, according to the referenced Natural Background Soil Metals Concentrations in Washington State document by WDOE, the "background" levels for chromium in the Puget Sound region in the 90<sup>th</sup> percentile for soil samples is 48.15 ppm, a value well above the detected concentrations in question. Based upon the WDOE data, it would appear that the results of the completed testing would fall into the realm of normal background levels for this area.

In an effort to determine which species of chromium is present on the property, the sample with the highest level of chromium (B6A-10) was analyzed for hexavalent chromium. As depicted in the attached laboratory data results, that test revealed no hexavalent chromium above the minimum laboratory reporting limits. Based on that result, the chromium species present at the site appears to be chromium III and would therefore be considered compliant.

As shown in Table 6, appended to this report, dissolved arsenic was detected in groundwater at boring B7A at 1.89 parts per billion (ppb) which is well below (i.e. compliant with) its applicable MTCA Method-A compliance limit of 5 ppb. No other metals were reported in the groundwater sampled from that location.

As summarized in Tables 7 and 8, attached to this report, no PCBs were detected in the soil or groundwater samples analyzed during either the February or March 2021 sampling events.

As depicted in Tables 9 and 10 appended to this report, no carcinogenic or non-carcinogenic PAHs were detected in soils sampled from B6A at a depth of 10 feet bgs (where petroleum hydrocarbons had previously been identified) except for the non-carcinogenic compound phenanthrene (detected at 0.015 ppm) which does not currently have a published MTCA compliance limit in the State of Washington.

Table 11, attached to this report, depicts test results for groundwater sampled from B7A (vicinity where previous detections of diesel TPH had been encountered). The carcinogenic PAH chrysene was detected at a concentration of 0.61 ppb however when calculating the total carcinogenic PAHs in the sample which includes multiplying compounds by their toxicity equivalent fractions, the total carcinogenic PAH value in the groundwater sample was 0.07 ppb which is below (i.e. compliant with) the MTCA Method-A compliance limit of 0.1 ppb.

Finally, Table 12 appended to this report depicts the results of testing groundwater sampled from B7A during the March 2021 sampling event for non-carcinogenic PAHs. Fluorene, and pyrene were detected at various concentrations below their published applicable MTCA compliance limits while phenanthrene was also reported at a trace detection however that analyte does not currently have a published cleanup level with the State of Washington.

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## CONCLUSIONS / RECOMMENDATIONS

Relying upon the results of limited sampling and laboratory testing documented in this report, soils impacted by PCE, gasoline TPH, arsenic, and diesel TPH appear limited to isolated vertical and horizontal “zones” in the vicinity of in-ground hoists at B6 or B7. Similarly, diesel impacted groundwater appears limited to the B6 and B7 localities. Consistent with earlier investigations, these findings are believed to be the result of historic automotive service operations by Firestone at the property.

In analyzing the test results documented above, two (2) “zones” of impacted soils have been identified and are noted as Zone B6 and Zone B7. The zones of impacted soils are depicted on the attached **Plate 3 “Southwest to Northeast Cross Section”**. The following observations are made:

- Acknowledging that non-compliant concentrations of arsenic and gasoline TPH in “Zone B6” were not detected at a depth of 15 feet bgs, soils impacted by those compounds appear to be limited to depths between 10 to 15 feet bgs. Based on retesting of soils from the 15 foot depth at the B6 location for PCE, it appears that non-compliant PCE in soils may be limited to similar depths. Additionally, as those contaminants of concern were not detected in surrounding borings at similar depths, it appears reasonable to presume that impacted soils are horizontally limited to a potential 10 foot by 10 foot area around boring B6. That contaminated zone is further identified as Zone B6.

- Similar to the conditions described above, soils previously identified as adversely impacted by diesel TPH at depths of 9 to 10 feet below grade appear limited both in vertical and horizontal extent as soils sampled from shallower and deeper intervals from the B7 boring as well as from similar depths in surrounding borings did not detect diesel TPH above compliance limits. This contaminated soil zone is identified as Zone B7.
- Groundwater previously identified as impacted by diesel TPH in borings B6 and B7 appear to be limited to those areas as groundwater sampled and tested from surrounding borings did not reveal elevated (i.e. non-compliant) concentrations of TPH.

At the request of the client and their representatives, EAI has included a tentative scope of work to address/remediate the contaminants identified above along with approximate costs for completing such work. The following “cleanup action plan” (CAP) includes the following tasks:

- 1) **Limited excavation of impacted soils along with remaining hoist features at the B6 and B7 zones.** Each excavation may have dimensions of 10 feet long by 10 feet wide by approximately 10 feet deep (corresponding to the top of the perched groundwater table). Prior to excavation, applicable permits would be obtained by the excavation contractor and acknowledging the detection of PCE and arsenic in soils, EAI would request a “contained-in/out” letter from the WDOE so that soils may be classified as “non-dangerous waste” for handling and disposal purposes. Acknowledging the depth that contaminants were present (approximately 10 feet below grade), depending upon the depths reachable through excavation, some impacted soils may not be able to be removed through this method. Upon completion of excavation activities, soil samples would be collected from the base, sidewalls, and stockpiled material and submitted for laboratory analysis to confirm conditions at the limits of hole. A mobile laboratory may be brought to the site to analyze samples as they are collected from the dig areas for the sake of expedience and efficiency in defining the limits of the excavation.
- 2) **Application of remedial compound to the base of the excavation(s) and backfilling.** Upon reaching the accessible depths of the soil excavations, the contractor would apply remedial compounds supplied by Regenesi Environmental Remediation Research (Regenesi) to the base of the excavation and mix it into the upper water table in an attempt to treat remaining soils as well as groundwater at the impacted locations. After application of the remedial compound(s), the excavation would be backfilled with engineering grade backfill materials/gravels. During backfilling, effort may be made to install perforated PVC injection piping so that additional remedial compounds may be re-applied if needed at a later date.

As work items 1 and 2 above would be performed together, an estimated cost for completing both items as provided by local vendors may be on the order of approximately \$84,500 (see Limitations section).

- 3) **Monitoring well installation and groundwater sampling/testing.** Upon completion of backfilling activities, contractors would install a series of monitoring wells at and around the B6 and B7 zones of impact. The wells would allow for periodic sampling and testing of groundwater to verify the effectiveness of the remedial products. In an effort to achieve regulatory closure for the subject site, four (4) consecutive quarters of compliant groundwater results would need to be achieved. This work would also tentatively occur after demolition of the current structure and redevelopment as a parking lot.

Estimated costs for the initial well installation are based upon only performing evaluation of groundwater samples for diesel/oil range petroleum hydrocarbons (as previously shown to be the only contaminant in groundwater above compliance limits). Approximate costs for the initial well installation, sampling and testing, and report finalization of the above work items may be on the order of \$24,000. Additionally, costs for four quarters of monitoring (i.e. sampling and testing) from the wells may be estimated at \$13,500 (approximately 3,375 per each sampling event).

- 4) **Regulatory data submittal.** In an effort to work with the Washington Department of Ecology towards gaining a status of “no further action” (NFA) for the identified subject site release, EAI would provide confirmation sampling reports, remedial action reports, and groundwater monitoring data (including electronic testing spreadsheets) to the WDOE, documenting remedial progress. The site would also be required to enroll in Ecology’s Voluntary Cleanup Program (VCP) and submit a “Remedial Investigation/Feasibility Study” (RIFS) report. Ecology may request additional data (i.e. testing activities) upon review of the submitted data. In an effort to provide Ecology an opportunity to provide commentary on proposed cleanup actions, the client may elect to apply to the VCP prior to commencement of excavation and sampling/testing activities. The estimated costs for completing entry into the VCP as well as drafting RIFS documents and electronic data uploads may be approximately \$8,600.

**In summary**, after totaling the above costs and adding an approximate 20% contingency, the total estimated costs for the above work items may be on the order of approximately \$160,200 or more. It should be noted that the approximate costs provided above are preliminary estimates and should not be used as a sole informational resource for final budgeting. Exact quantities of impacted subsurface materials can only be known at the time of excavation. EAI would be pleased to meet with the client to discuss potential remedial options in further detail prior to finalization of a remedial action strategy.

As a footnote, to achieve lawful compliance with Chapter 173-340-300, WAC, copies of this report along with any future reports regarding the environmental conditions encountered be forwarded to the Northwest Regional Office of the Department of Ecology (Bellevue, Washington) by the property owner.

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## **LIMITATIONS**

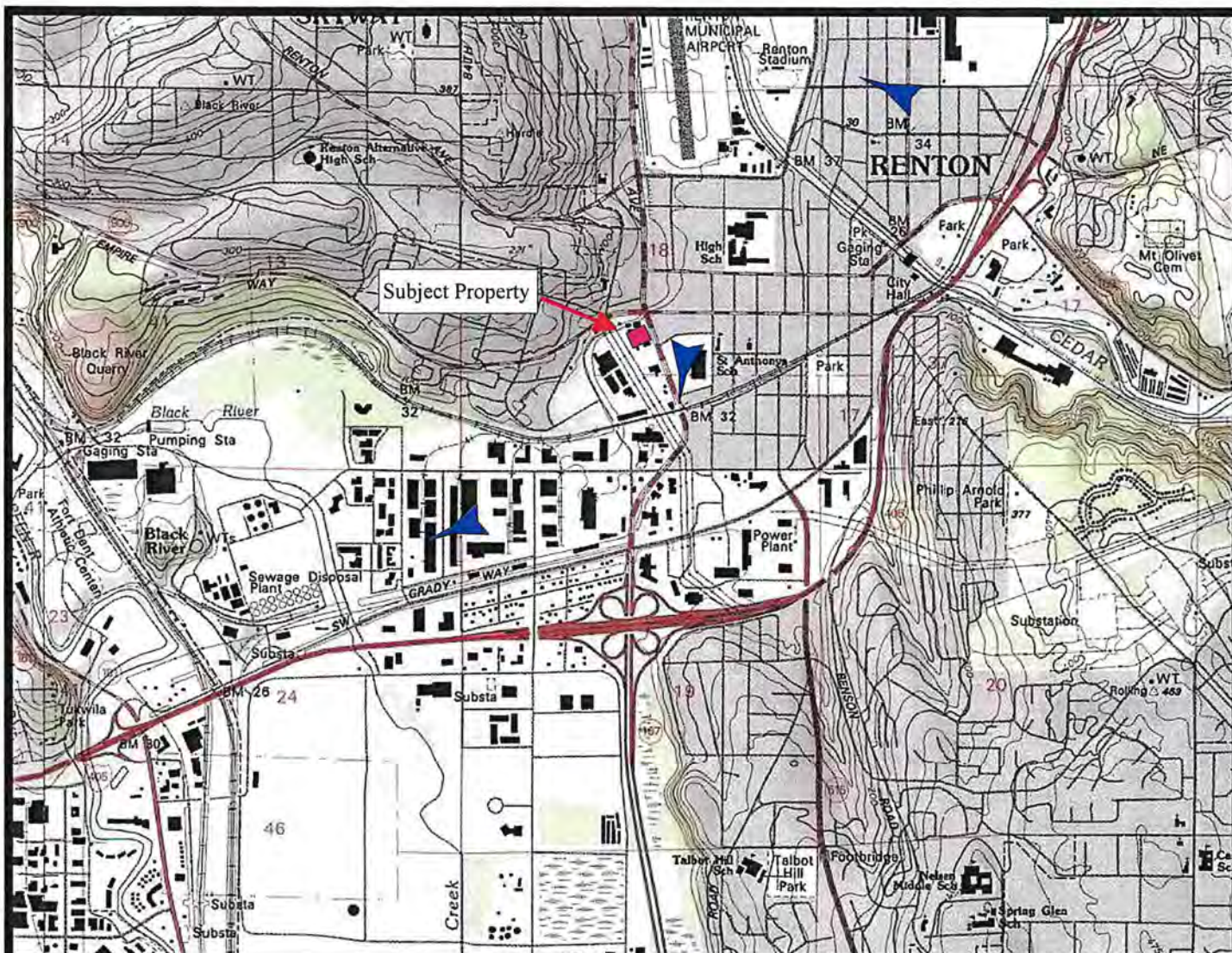
This report has been prepared for the exclusive use of Toula Properties LLC and their several representatives for specific application to this site. Our work for this project was conducted in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area, and in accordance with the terms and conditions set forth in our proposal dated March 1, 2021. The findings and conclusions of this study are based upon the results of laboratory testing of selected samples obtained from separated boring localities and conditions may vary between those locations or at other locations, media, depths, or date. To reiterate, costs for various stages of work discussed herein are approximate and preliminary being based upon experience on similar past projects and approximations provided by potential vendors. As such, actual costs may only be known upon completion of remedial work. No other warranty, expressed or implied is made. If new information is developed in future site work which may include excavations, borings, studies, etc., Environmental Associates, Inc., must be retained to reevaluate the conclusions of this report and to provide amendments as required.

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## **REFERENCES**

- Environmental Associates, Inc., December 18, 2020, Phase I Environmental Site Assessment. Vacant Former Firestone Complete Auto Care, 351 Rainier Avenue South, Renton, Washington 98057.
- Environmental Associates, Inc., September 1, 2017, Phase 2 - Limited Subsurface Sampling and Testing, Firestone Master Care Service Facility - 1145 Northwest Market Street, Seattle, Washington.
- Washington State Department of Ecology. Model Toxics Control Act Cleanup Regulation (MTCA), Chapter 173-340 WAC. Publication #94-06, et seq.
- Washington State Department of Ecology, October 1994, Natural Background Soil Metals Concentrations in Washington State. Publication #94-115.





0 5 1 MILE  
0 1000 FEET 0 500 1000 METERS  
Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)

■ Approximate Site Location

➤ Inferred Approximate Direction of Groundwater Flow



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Bellevue, Washington 98004

## VICINITY/TOPOGRAPHIC MAP

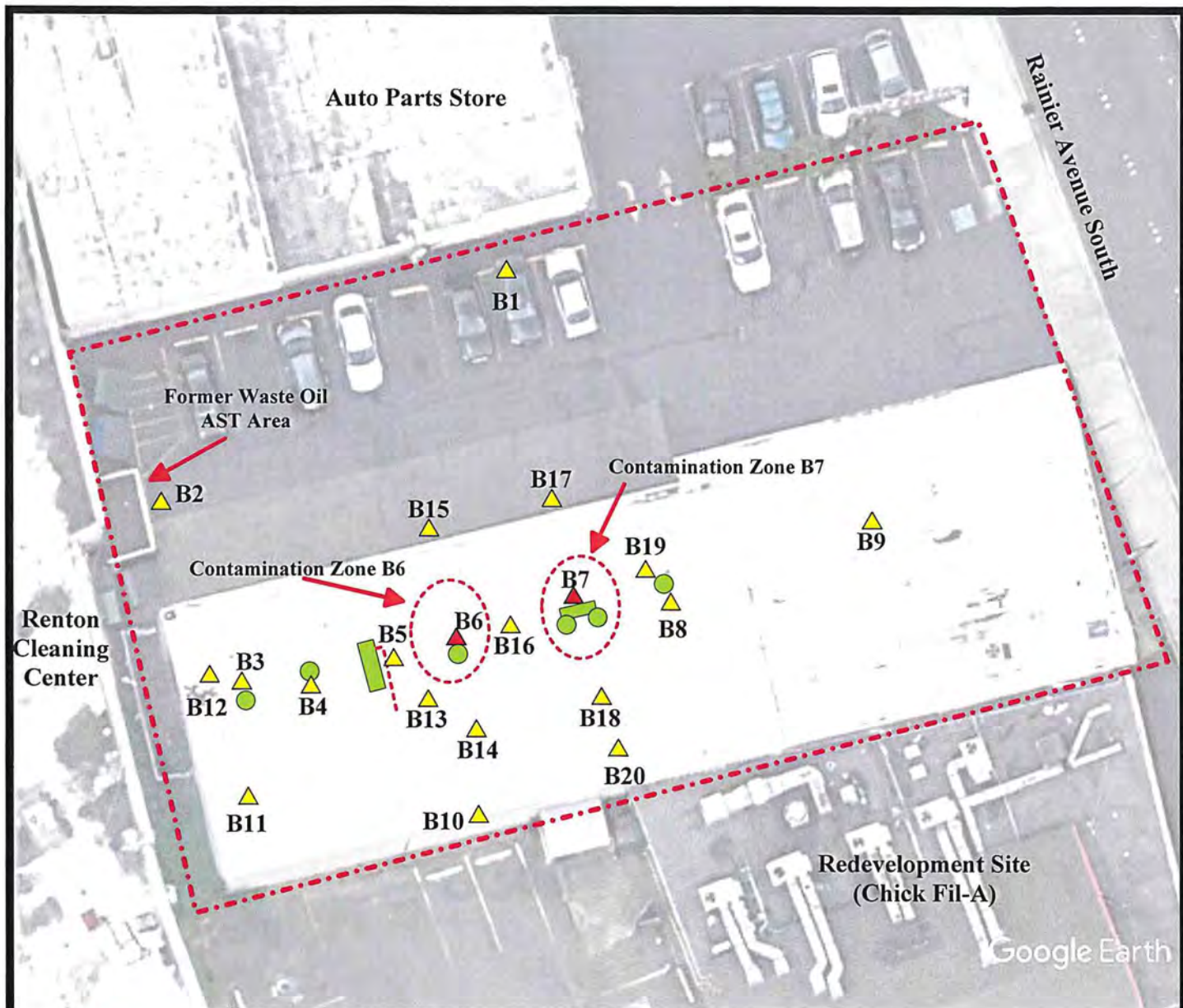
**Vacant Former Firestone Auto Care Property  
351 Rainier Avenue South  
Renton, Washington**

Job Number:  
JN 40139-1

Date:  
February 2021

Plate:  
1





Approximate Site Boundary



Approximate Boring Location (yellow=compliant, red=non-compliant)



Approximate Hoist Mechanism Features



Inferred Approximate Direction of Groundwater Flow



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## SITE PLAN

Vacant Former Firestone Auto Care Property  
351 Rainier Avenue South  
Renton, Washington

Job Number:  
JN 40139-2

Date:  
March 2021

Plate:  
2





# BORING B6A

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					
5		Dry		ML	Brown silt, dry, no odors or discoloration, PID=3.4
10		Moist		ML	Grey/brown silt, moist, petroleum odor, PID=39
15		Wet		SP	Grey sands, wet, no odors or discolorations, PID=3.2
20		Wet		SP	Grey sand, organic material, wet, no odors or discolorations, PID=3.3
25		Wet		SP/ GW	Brown gravels and sands, wet, no odors or discolorations, PID=4.1
30		Wet		SP/ GW	Brown gravels and sands, wet, no odors or discolorations, PID=2.2
35					Boring terminated at 30 feet below grade on March 17, 2021.
40					



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## Boring: B6A

Vacant Former Firestone Auto Care Property  
351 Rainier Avenue South  
Renton, Washington

Job Number:

JN 40139-2

Date:

April 2021

Logged by:

EAZ

Plate:

4

# BORING B11

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					
1					
2					
3					
4					
5					
6					
7					
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11					
12					
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31					
32					
33					
34					
35					
36					
37					
38					
39					
40					

Temporary screen 8- to 18'

Moist

GM

Brown silt and gravels, dry,  
no odors or discoloration, PID=0

SM

brown silts and sand

SM

Grey silt and sand, moist,  
no odors or discolorations, PID=0

SP

Grey/brown sands, wet,  
no odors or discolorations, PID=0

SP/  
GW

Brown sands and gravels, wet,  
no odors or discolorations, PID=0

Boring terminated at 20 feet below grade on March 17, 2021.



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## Boring: B11

Vacant Former Firestone Auto Care Property  
351 Rainier Avenue South  
Renton, Washington

Job Number:

JN 40139-2

Date:

April 2021

Logged by:

EAZ

Plate:

5

# BORING B12

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					
1					
2					
3					
4					
5					
6					
7					
8					
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Bellevue, Washington 98004**

## Boring: B12

**Vacant Former Firestone Auto Care Property**  
**351 Rainier Avenue South**  
**Renton, Washington**

**Job Number:**

**JN 40139-2**

Date:

**April 2021**

**Logged by:**

**EAZ**

**Plate:**

6

# BORING B13

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					
5		Dry		ML	Brown silt, dry, no odors or discoloration, PID=0
10		Moist		SM	Brown silt and sand, moist, no odors or discolorations, PID=0
15		Wet		SP	Grey sands, wet, no odors or discolorations, PID=0
20		Wet		SP	Grey sand, wet, no odors or discolorations, PID=0
25		Wet		SP/ GW	Brown gravels and sands, wet, no odors or discolorations, PID=0
30		Wet		SP/ GW	Brown gravels and sands, wet, no odors or discolorations, PID=0
35					Boring terminated at 30 feet below grade on March 17, 2021.
40					



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Bellevue, Washington 98004

## Boring: B13

Vacant Former Firestone Auto Care Property  
351 Rainier Avenue South  
Renton, Washington

Job Number:

JN 40139-2

Date:

April 2021

Logged by:

EAZ

Plate:

7

# BORING B14

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					
5		Dry		ML	Brown silt, dry, no odors or discoloration, PID=0
10		Moist		SP	Brown sand, moist, no odors or discolorations, PID=0
15		Wet		SM SP	Transition from brown silts/sands to grey sand organic odor, PID=0.6
20		Wet		SP	Grey sands, wet, no odors or discolorations, PID=0
25		Wet		SP/ GW	Brown gravels and sands, wet, no odors or discolorations, PID=0.4
30		Wet		SP/ GW	Brown gravels and sands, wet, no odors or discolorations, PID=1.5
35					Boring terminated at 30 feet below grade on March 17, 2021.
40					



## ENVIRONMENTAL ASSOCIATES, INC.

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## Boring: B14

Vacant Former Firestone Auto Care Property  
351 Rainier Avenue South  
Renton, Washington

Job Number:

JN 40139-2

Date:

April 2021

Logged by:

EAZ

Plate:

8

# BORING B15

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					
5		Dry		SM	Brown silt and sand, dry, no odors or discoloration, PID=0
10		Moist		SP	Brown sand, moist, petroleum odor, PID=0
15		Wet		SP	Transition from brown silts/sands to grey sand no odors
20		Wet		SP	Grey sands, wet, no odors or discolorations, PID=0
25		Wet		GW	Grey sand, wet, no odors or discolorations, PID=1.2
30		Wet		GW	Brown gravels, wet, no odors or discolorations, PID=3.6
35					Boring terminated at 30 feet below grade on March 18, 2021.
40					



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Bellevue, Washington 98004

## Boring: B15

Vacant Former Firestone Auto Care Property  
351 Rainier Avenue South  
Renton, Washington

Job Number:

JN 40139-2

Date:

April 2021

Logged by:

EAZ

Plate:

9



# BORING B16

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					
5		Dry		ML	Brown silt, dry, no odors or discoloration, PID=5.5
10		Moist		SP	Grey sand, moist, no odors or discoloration, PID=5
15		Wet		SP/ GW	Grey sand and gravels, wet, no odors or discolorations, PID=4.4
20		Wet		SP	Grey sand, wet, no odors or discolorations, PID=3.3
25		Wet		GW	Gravels, wet, no odors or discolorations, PID=5.5
30		Wet		GW	Gravels, wet, no odors or discolorations, PID=5.4
35					Boring terminated at 30 feet below grade on March 18, 2021.
40					



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Bellevue, Washington 98004

## Boring: B16

Vacant Former Firestone Auto Care Property  
351 Rainier Avenue South  
Renton, Washington

Job Number:

JN 40139-2

Date:

April 2021

Logged by:

EAZ

Plate:

10

# BORING B17

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0	Temporary screen 11- to 15'	Dry		ML	Brown silt, dry, no odors or discoloration, PID=5.1
5					
10		Moist		ML	Brown/grey silt, moist, no odors or discoloration, PID=4.9
15		Wet		SP	Grey sand, wet, no odors or discolorations, PID=4.8
20		Wet		SP/ GW	Sand and gravels, wet, no odors or discolorations, PID=4.2
25		Wet		SP/ GW	Sand and gravels, wet, no odors or discolorations, PID=4.8
30					Boring terminated at 25 feet below grade on March 18, 2021.
35					
40					



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Bellevue, Washington 98004

## Boring: B17

Vacant Former Firestone Auto Care Property  
351 Rainier Avenue South  
Renton, Washington

Job Number:

JN 40139-2

Date:

April 2021

Logged by:

EAZ

Plate:

11

# BORING B18

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					
5		Dry		ML	Brown silt, dry, no odors or discoloration, PID=3.8
10		Moist		SM	Brown silt and sand, moist, no odors or discoloration, PID=3.4
15		Wet		SP	Grey sand, wet, no odors or discolorations, PID=7.3
20		Wet		SP/ GW	Brown sand and gravels, wet, no odors or discolorations, PID=11
25		Wet		SP/ GW	Brown sand and gravels, wet, no odors or discolorations, PID=11.3
30					Boring terminated at 25 feet below grade on March 18, 2021.
35					
40					



## ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue N.E., Ste. 300  
Bellevue, Washington 98004

## Boring: B18

Vacant Former Firestone Auto Care Property  
351 Rainier Avenue South  
Renton, Washington

Job Number:

JN 40139-2

Date:

April 2021

Logged by:

EAZ

Plate:

12

# BORING B19

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					
5		Dry		ML	Brown silt, dry, no odors or discoloration, PID=5.7
10		Moist		SM	Brown silt and sand, moist, no odors or discoloration, PID=8.3
15		Wet		SP	Transition from brown silts/sands to grey sand no odors Grey sand, wet, no odors or discolorations, PID=10
20		Wet		SP/ GW	Sand and gravels, wet, no odors or discolorations, PID=9.3
25		Wet		SP/ GW	Brown sand and gravels, wet, no odors or discolorations, PID=8.5
30					Boring terminated at 25 feet below grade on March 18, 2021.
35					
40					



**ENVIRONMENTAL  
ASSOCIATES, INC.**

1380 - 112th Avenue N.E., Ste. 300  
Bellevue, Washington 98004

## Boring: B19

Vacant Former Firestone Auto Care Property  
351 Rainier Avenue South  
Renton, Washington

Job Number:

JN 40139-2

Date:

April 2021

Logged by:

EAZ

Plate:

13

# BORING B20

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0	Temporary screen 11- to 15'	Dry		ML	Brown silt and gravels, dry, no odors or discoloration, PID=12
5		Moist		SM	Brown silt and sand, moist, no odors or discoloration, PID=7
10		Moist		ML	Brown to grey silts, moist, no odors or discolorations, PID=9.5
15		Wet		SM	Grey sand, wet, no odors or discolorations, PID=9.9
18		Wet		GW	Brown gravels, wet, no odors or discolorations, PID=11
20					Boring refusal at 18 feet below grade on March 19, 2021.
25					
30					
35					
40					



**ENVIRONMENTAL  
ASSOCIATES, INC.**

1380 - 112th Avenue N.E., Ste. 300  
Bellevue, Washington 98004

## Boring: B20

Vacant Former Firestone Auto Care Property  
351 Rainier Avenue South  
Renton, Washington

Job Number:

JN 40139-2

Date:

April 2021

Logged by:

EAZ

Plate:

14

**TABLE 1 - Petroleum Hydrocarbons and BTEX - Soil Sampling Results**  
**All results and limits in parts per million (ppm)**

Sample Date	Sample & Depth	Gasoline (TPH)	Diesel	Heavy Oil	Benzene	Toluene	Ethylbenzene	Total Xylenes
Feb-21	B1-10 @ 10' BGS	ND	ND	ND	ND	ND	ND	ND
Feb-21	B2-2.5 BGS	ND	ND	ND	ND	ND	ND	ND
Feb-21	B3-10 @ 10' BGS	ND	ND	ND	ND	ND	ND	ND
Feb-21	B4-4 @ 4' BGS	ND	ND	ND	ND	ND	ND	ND
Feb-21	B5-3 @ 3' BGS	ND	ND	ND	ND	ND	ND	ND
Mar-21	B6A-4 @ 4' BGS	ND	NA	NA	ND	ND	ND	ND
Feb-21	B6-10 @ 10' BGS	NA	ND	ND	NA	NA	NA	NA
Mar-21	B6A-10 @ 10' BGS	<b>160</b>	450x	ND	ND	ND	0.18	0.29
Feb-21	B6-15 @ 15' BGS	ND	ND	ND	ND	ND	ND	ND
Feb-21	B7-4 @ 4' BGS	NA	ND	ND	NA	NA	NA	NA
Feb-21	B7-9-10 @ 9' TO 10' BGS	ND	<b>7,200</b>	ND	ND	ND	ND	ND
Feb-21	B7-16 @ 16' BGS	NA	ND	ND	NA	NA	NA	NA
Feb-21	B8-8 @ 8' BGS	ND	ND	ND	ND	ND	ND	ND
Feb-21	B8-8 @ 8' BGS DUPLICATE	ND	NA	NA	NA	NA	NA	NA
Feb-21	B9-2 @ 2' BGS	ND	ND	ND	ND	ND	ND	ND
Feb-21	B10-8 @ 8' BGS	ND	ND	ND	ND	ND	ND	ND
Mar-21	B13-10 @ 10' BGS	ND	NA	NA	ND	ND	ND	ND
Mar-21	B13-20 @ 20' BGS	ND	ND	ND	ND	ND	ND	ND
Mar-21	B14-10 @ 10' BGS	ND	NA	NA	ND	ND	ND	ND
Mar-21	B14-12 @ 12' BGS	ND	ND	ND	ND	ND	ND	ND
Mar-21	B14-15 @ 15' BGS	ND	NA	NA	ND	ND	ND	ND
Mar-21	B15-10 @ 10' BGS	ND	NA	NA	ND	ND	ND	ND
Mar-21	B15-15 @ 15' BGS	ND	NA	NA	ND	ND	ND	ND
Mar-21	B16-4 @ 4' BGS	NA	ND	ND	NA	NA	NA	NA
Mar-21	B16-10 @ 10' BGS	ND	ND	ND	ND	ND	ND	ND
Mar-21	B16-15 @ 15' BGS	ND	ND	ND	ND	ND	ND	ND
Mar-21	B17-3 @ 3' BGS	NA	ND	ND	NA	NA	NA	NA
Mar-21	B17-9-10 @ 9'-10' BGS	NA	ND	ND	NA	NA	NA	NA
Mar-21	B17-15 @ 15' BGS	NA	ND	ND	NA	NA	NA	NA
Mar-21	B18-3 @ 3' BGS	NA	ND	ND	NA	NA	NA	NA
Mar-21	B18-10 @ 10' BGS	NA	ND	ND	NA	NA	NA	NA
Mar-21	B18-15 @ 15' BGS	NA	ND	ND	NA	NA	NA	NA
Mar-21	B19-3 @ 3' BGS	NA	ND	ND	NA	NA	NA	NA
Mar-21	B19-10 @ 10' BGS	NA	ND	ND	NA	NA	NA	NA
Mar-21	B19-15 @ 15' BGS	NA	ND	ND	NA	NA	NA	NA
Mar-21	B20-6 @ 6' BGS	NA	ND	ND	NA	NA	NA	NA
Mar-21	B20-9-10 @ 9' TO 10' BGS	NA	ND	ND	NA	NA	NA	NA
Mar-21	B20-14 @ 14' BGS	NA	ND	ND	NA	NA	NA	NA
Reporting Limit <sup>3</sup>		5 to 10	50	100 to 250	0.02	0.05/.02	0.05/.02	0.15/.06
WDOE Target Compliance Level <sup>4</sup>		30 or 100 <sup>5</sup>	2000	2000	0.03	7	6	9

## Notes:

- 1- "ND" denotes analyte not detected at or above listed Reporting Limit.
- 2- "NA" denotes sample not analyzed for specific analyte.
- 3- "Reporting Limit" represents the laboratory lower quantitation limit.
- 4- Soil samples were field screened using a GasTech combustible gas meter to measure the concentration of combustible gas, such as petroleum VOCs. Headspace VOC concentrations were measured after placing the soil sample in a sealed plastic bag and allowing soil and air inside the bag to equilibrate.
- 5- The MTCA gasoline TPH cleanup level is 30 ppm for soils with benzene or toluene, ethylbenzene, and xylenes = more than 1% of gas detections otherwise it is 100 ppm.
- x- The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

Bold and Italics denotes concentrations above MTCA Method A soil cleanup levels.

BGS - Below ground surface.

**TABLE 2- Petroleum Hydrocarbons and BTEX- Groundwater Sampling Results**  
**All results and limits in parts per billion (ppb)**

Sample Date	Sample	Gasoline (TPH)	Diesel (TPH)	Heavy Oil (TPH)	Benzene	Toluene	thylbenzer	Total Xylenes
Feb-21	B1	ND	ND	ND	ND	ND	ND	ND
Feb-21	B2	ND	ND	ND	ND	ND	ND	ND
Feb-21	B3	ND	ND	ND	ND	ND	ND	ND
Feb-21	B4	ND	ND	ND	ND	ND	ND	ND
Feb-21	B5	ND	ND	ND	ND	ND	ND	ND
Feb-21	B6	240	<b><i>2,400</i></b>	ND	ND	ND	ND	ND
Feb-21	B7	ND	<b><i>16,000</i></b>	ND	ND	2.3	ND	ND
Feb-21	B8	ND	ND	ND	ND	2.1	1.0	ND
Feb-21	B9	ND	ND	ND	ND	1.3	ND	ND
Feb-21	B10	ND	ND	ND	ND	ND	ND	ND
Mar-21	B13	NA	81 x	ND	NA	NA	NA	NA
Mar-21	B14	NA	ND	ND	NA	NA	NA	NA
Mar-21	B15	NA	130 x	ND	NA	NA	NA	NA
Mar-21	B16	NA	79x	ND	NA	NA	NA	NA
Mar-21	B17	NA	86 x	ND	NA	NA	NA	NA
Mar-21	B18	NA	62 x	ND	NA	NA	NA	NA
Mar-21	B19	NA	ND	ND	NA	NA	NA	NA
Mar-21	B20	NA	ND	ND	NA	NA	NA	NA
Reporting Limit <sup>3</sup>		100	50 to 53	100	1	1	1	3
MTCA-Method-A Cleanup Levels <sup>4</sup>		800 or 1000 <sup>5</sup>	500	500	5	1000	700	1000

## Notes:

1 - "ND" denotes analyte not detected at or above listed Reporting Limit.

2- "NA" denotes sample not analyzed for specific analyte.

3- "Reporting Limit" represents the laboratory lower quantitation limit.

4- Method A groundwater cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC.

5- The MTCA gasoline TPH cleanup level is 800 ppb for groundwater with benzene. Otherwise, the cleanup level is 1000 ppb.

x- The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

Bold and Italics denotes concentrations above existing or proposed MTCA Method A groundwater cleanup levels.

**TABLE 3- Select VOCs - Soil Sampling Results**  
**All results and limits in parts per million (ppm)**

Sample Date	Sample	Tetrachloroethene (PCE)	Trichloroethene (TCE)	(cis) 1,2 Dichloroethene	(trans) 1,2 Dichloroethene	Vinyl Chloride
Feb-21	B1-10	ND	ND	ND	ND	ND
Feb-21	B2-2.5	ND	ND	ND	ND	ND
Feb-21	B3-10	0.05	ND	ND	ND	ND
Feb-21	B4-4	ND	ND	ND	ND	ND
Feb-21	B5-3	ND	ND	ND	ND	ND
Feb-21	B5-15	ND	ND	ND	ND	ND
Feb-21	B6-4	<i>0.06</i>	ND	ND	ND	ND
Feb-21	B6-10	0.05	ND	ND	ND	ND
Feb-21	B6-15	<i>0.08</i>	ND	ND	ND	ND
Mar-21	B6A-15	ND	ND	ND	ND	ND
Mar-21	B6A-15 (RE-EXTRACT)	ND	ND	ND	ND	ND
Mar-21	B6A-20	ND	ND	ND	ND	ND
Mar-21	B6A-30	ND	ND	ND	ND	ND
Feb-21	B7-9-10	ND	ND	ND	ND	ND
Feb-21	B7-16	ND	ND	ND	ND	ND
Feb-21	B8-8	ND	ND	ND	ND	ND
Feb-21	B9-2	ND	ND	ND	ND	ND
Feb-21	B10-8	ND	ND	ND	ND	ND
Mar-21	B11-2.5	ND	ND	ND	ND	ND
Mar-21	B11-10	ND	ND	ND	ND	ND
Mar-21	B11-20	ND	ND	ND	ND	ND
Mar-21	B12-3	ND	ND	ND	ND	ND
Mar-21	B12-10	ND	ND	ND	ND	ND
Mar-21	B12-30	ND	ND	ND	ND	ND
Mar-21	B13-4	ND	ND	ND	ND	ND
Mar-21	B13-13	ND	ND	ND	ND	ND
Mar-21	B13-20	ND	ND	ND	ND	ND
Mar-21	B14-4	ND	ND	ND	ND	ND
Mar-21	B14-10	ND	ND	ND	ND	ND
Mar-21	B14-12	ND	ND	ND	ND	ND
Mar-21	B14-20	ND	ND	ND	ND	ND
Mar-21	B15-4	ND	ND	ND	ND	ND
Mar-21	B15-10	ND	ND	ND	ND	ND
Mar-21	B15-25	ND	ND	ND	ND	ND
Mar-21	B16-4	ND	ND	ND	ND	ND
Mar-21	B16-10	ND	ND	ND	ND	ND
Mar-21	B16-25	ND	ND	ND	ND	ND
Reporting Limit <sup>3</sup>		0.02/.025	0.02	0.05	0.05	0.05
Cleanup Level for Unrestricted Land Use (Method-A) <sup>4</sup>		0.05	0.03	---	---	---
Cleanup Level - (Method-B) <sup>5</sup>		480	12	160	1600.0	0.667

## Notes:

- 1 - "ND" denotes analyte not detected at or above listed Reporting Limit.
- 2 - "NA" denotes sample not analyzed for specific analyte.
- 3 - "Reporting Limit" represents the laboratory lower quantitation limit.
- 4 - Method A soil cleanup levels for unrestricted land use as published in the Model Toxics Control Act (MTCA) 173-340-WAC, Table 740-1.
- 5 - Method-B soil cleanup levels for the "direct contact pathway", as published in Ecology's CLARC database.

Bold and Italics denotes concentrations above existing MTCA Method A or B soil cleanup levels.



**TABLE 4- Select VOCs - Groundwater Sampling Results**  
**All results and limits in parts per billion (ppb)**

Sample Date	Boring	Tetrachloroethene (PCE)	Trichloroethene (TCE)	(cis) 1,2 Dichloroethene	(trans) 1,2 Dichloroethene	Vinyl Chloride
Feb-21	B1	ND	ND	ND	ND	ND
Feb-21	B2	1.2	ND	ND	ND	ND
Feb-21	B3	ND	ND	ND	ND	ND
Feb-21	B4	ND	ND	ND	ND	ND
Feb-21	B5	ND	ND	ND	ND	ND
Feb-21	B6	ND	ND	ND	ND	ND
Feb-21	B7	ND	ND	ND	ND	ND
Feb-21	B8	ND	ND	ND	ND	ND
Feb-21	B9	ND	ND	ND	ND	ND
Feb-21	B10	ND	ND	ND	ND	ND
Mar-21	B11	ND	ND	ND	ND	ND
Mar-21	B12	ND	ND	ND	ND	ND
Reporting Limit <sup>3</sup>		1	1	1	1	0.2
Existing Cleanup Level <sup>4</sup>		5 (A)	5 (A)	16 (B)	160 (B)	0.2 (A)

## Notes:

- 1 - "ND" denotes analyte not detected at or above listed Reporting Limit.
- 2- "NA" denotes sample not analyzed for specific analyte.
- 3- "Reporting Limit" represents the laboratory lower quantitation limit.
- 4- Method A or B groundwater cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC.

Bold and Italics denotes concentrations above existing MTCA Method A groundwater cleanup levels.

**TABLE 5 - MTCA-5 Metals - Soil Sampling Results**  
**All results and limits in parts per million (ppm)**

Sample Name & Sample Date	Arsenic	Cadmium	Chromium	Lead	Mercury
B2-2.5 (February 2021)	4	ND	23.9	9.5	ND
B6A-4 (March 2021)	5.18	NA	NA	NA	NA
B6A-10 (March 2021)	<b>32.4</b>	ND	26.6	7.14	ND
B6A-15 (March 2021)	ND	NA	NA	NA	NA
B13-10 (March 2021)	3.35	NA	NA	NA	NA
B13-20 (March 2021)	ND	NA	NA	NA	NA
B14-10 (March 2021)	2.85	NA	NA	NA	NA
B14-15 (March 2021)	1.08	NA	NA	NA	NA
B15-10 (March 2021)	2.82	NA	NA	NA	NA
B15-15 (March 2021)	4.03	NA	NA	NA	NA
B16-10 (March 2021)	3.9	NA	NA	NA	NA
B16-15 (March 2021)	6.31	NA	NA	NA	NA
Reporting Limit <sup>3</sup>	1	1	1	1	1
WDOE-Method-A Cleanup Level (unrestricted land use)	20	2	19 / 2000 <sup>(5)</sup>	250	2

## Notes:

- 1 - "ND" denotes analyte not detected at or above listed Reporting Limit.
- 2 - "NA" denotes sample not analyzed for specific analyte.
- 3 - "Reporting Limit" represents the laboratory lower quantitation limit.
- 4 - Method A or B cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC.
- 5 - Results reported as total chromium. The Method A target compliance level for chromium III is 2,000 ppm, while the Method-A compliance level for chromium VI is 19 ppm. Additional testing of sample B6A-10 revealed no detections of chromium VI (hexavalent chromium).

Bold and Italics denotes concentrations above existing MTCA Method A soil cleanup levels.

**TABLE 6 - Dissolved MTCA-5 Metals -  
Groundwater Sampling Results  
All results and limits in parts per billion (ppb)**

<b>Sample Location (and sample date)</b>	<b>Arsenic</b>	<b>Cadmium</b>	<b>Chromium</b>	<b>Lead</b>	<b>Mercury</b>
B2 (February 2021)	ND	ND	ND	ND	ND
B7A f (March 2021)	1.89	ND	ND J	ND	ND
Reporting Limit <sup>3</sup>	1	0.5-1	0.5-10	0.25-1	0.25-1
Existing Cleanup Level <sup>4</sup>	5 (A)	5 (A)	50 (A)	15 (A)	2 (A)

**Notes:**

- 1 - "ND" denotes analyte not detected at or above listed Reporting Limit.  
2- "NA" denotes sample not analyzed for specific analyte.  
3- "Reporting Limit" represents the laboratory lower quantitation limit.  
4- Method A or B cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC.  
f - The sample was laboratory filtered prior to analysis.  
J- The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

Bold and Italics denotes concentrations above existing MTCA Method A soil cleanup levels.

**TABLE 7 - PCBs - Soil Sampling Results**  
**All results and limits in parts per million (ppm)**

<b>Sample (and date)</b>	<b>Aroclor 1016</b>	<b>Aroclor 1221</b>	<b>Aroclor 1232</b>	<b>Aroclor 1242</b>	<b>Aroclor 1248</b>	<b>Aroclor 1254</b>	<b>Aroclor 1260</b>	<b>Aroclor 1262</b>	<b>Aroclor 1268</b>	<b>Total PCBs</b>
B2-2.5 (February 2021)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B6A-10 (March 2021)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Reporting Limit <sup>3</sup>	0.2-0.005	0.02-0.005	0.02-0.005	0.02-0.005	0.02-0.005	0.02-0.005	0.02-0.005	0.02-0.005	0.02-0.005	0.02-0.005
Existing Cleanup Level <sup>4</sup>	---	---	---	---	---	---	---	---	---	1 (A)

## Notes:

1 - "ND" denotes analyte not detected at or above listed Reporting Limit.

2 - "NA" denotes sample not analyzed for specific analyte.

3 - "Reporting Limit" represents the laboratory lower quantitation limit.

4 - Method A soil cleanup level for total PCB mixtures as published in the Model Toxics Control Act (MTCA) 173-340-WAC.

Bold and Italics denotes concentrations above existing MTCA Method A soil cleanup levels.

**TABLE 8 - PCBs - Groundwater Sampling Results**  
**All results and limits in parts per billion (ppb)**

<b>Sample Name (and Date)</b>	<b>Aroclor 1016</b>	<b>Aroclor 1221</b>	<b>Aroclor 1232</b>	<b>Aroclor 1242</b>	<b>Aroclor 1248</b>	<b>Aroclor 1254</b>	<b>Aroclor 1260</b>	<b>Aroclor 1262</b>	<b>Aroclor 1268</b>	<b>Total PCBs</b>
B2 (February 2021)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B7A (March 2021)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Reporting Limit <sup>3</sup>	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	---
Existing Cleanup Level <sup>4</sup>	---	---	---	---	---	---	---	---	---	0.1 (A)

**Notes:**

1 - "ND" denotes analyte not detected at or above listed Reporting Limit.

2- "NA" denotes sample not analyzed for specific analyte.

3- "Reporting Limit" represents the laboratory lower quantitation limit.

4- Method A soil cleanup level for total PCB mixtures as published in the Model Toxics Control Act (MTCA) 173-340-WAC.

Bold and Italics denotes concentrations above existing MTCA Method A soil cleanup levels.

**TABLE 9 - Carcinogenic PAHs - Soil Sampling Results**  
**All results and limits in parts per million (ppm)**

Sample Name (and date)	Benzo(a)pyrene	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Benzo(k)fluoranthene	Benzo(a)anthracene	Benzo(b)fluoranthene	Total Carcinogenic PAHs <sup>(5)</sup>
B2.-2.5* (February 2021)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
B6A-10* (March 2021)	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01
cPAH Toxicity Equivilant Fraction <sup>(4)</sup>	1.0	0.01	0.1	0.1	0.1	0.1	0.1	
Reporting Limit <sup>2</sup>	0.01-0.02	0.01-0.02	0.01-0.02	0.01-0.02	0.01-0.02	0.01-0.02	0.01-0.02	
MTCA-Method-A Residential <sup>(3)</sup>	---	---	---	---	---	---	---	0.1
MTCA-Method-A Industrial <sup>(3)</sup>	---	---	---	---	---	---	---	2

## Notes:

- 1- "NA" denotes sample not analyzed for specific analyte.
- 2- "Reporting Limit" represents the laboratory lower quantitation limit.
- 3- Method A soil cleanup level for total carcinogenic PAHs as published in the Model Toxics Control Act (MTCA) 173-340-WAC.
- 4- Total carcinogenic PAHs are calculated by summing the product of each cPAH multiplied by its toxicity equivalency fraction per WAC 173-340-708(8).
- \*- Sample results were "non detected" with a reporting limit of 0.1 ppb however values above were reported at half the reporting limit so value could be entered.

Bold and Italics denotes concentrations above existing MTCA Method A soil cleanup levels.

**TABLE 10 - Other PAHs - Soil Sampling Results**  
**All results and limits in parts per million (ppm)**

Sample Name	Naphthalene	Acenaphthene	Phenanthrene	Anthracene	Fluoranthene	Pyrene
B2-2.5	ND	ND	ND	ND	ND	ND
B6A-10	ND	ND	0.015	ND	ND	ND
Reporting Limit <sup>3</sup>	0.01-0.02	0.01-0.02	0.01-0.02	0.01-0.02	0.01-0.02	0.01-0.02
Cleanup Level for Unrestricted Land Use (Method-A) <sup>4</sup>	5	---	---	---	---	---
Cleanup Level - Direct Contact (Method-B) <sup>5</sup>	1600	4800	---	24000	3200	2400

## Notes:

1 - "ND" denotes analyte not detected at or above listed Reporting Limit.

2- "NA" denotes sample not analyzed for specific analyte.

3- "Reporting Limit" represents the laboratory lower quantitation limit.

4- Method A soil cleanup levels for unrestricted land use as published in the Model Toxics Control Act (MTCA) 173-340-WAC.

5- Method-B soil cleanup levels for the "direct contact pathway", as published in Ecology's CLARC database.

6- Method-B soil cleanup level for the protection of groundwater based upon the Method-B groundwater cleanup levels. Values as published in Ecology's CLARC database.

Bold and Italics denotes concentrations above existing MTCA Method A soil cleanup levels.

**TABLE 11 - Carcinogenic PAHs - Groundwater Sampling Results**  
**All results and limits in parts per billion (ppb)**

Sample Name (and date)	Benzo(a)pyrene	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2,3,-cd)pyrene	Benzo(k)fluoranthene	Benzo(a)anthracene	Benzo(b)fluoranthene	Total Carcinogenic PAHs <sup>(3)</sup>
B2* (February 2021)	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.08
B7A (March 2021)	0.04	0.61	0.04	0.04	0.04	0.04	0.04	0.07
cPAH Toxicity Equivilant Fraction <sup>(4)</sup>	1.0	0.01	0.1	0.1	0.1	0.1	0.1	
Reporting Limit <sup>2</sup>	0.02-0.1	0.02-0.1	0.02-0.1	0.02-0.1	0.02-0.1	0.02-0.1	0.02-0.1	---
Existing Cleanup Level <sup>3</sup>	---	---	---	---	---	---	---	0.1

## Notes:

- 1- "NA" denotes sample not analyzed for specific analyte.  
 2- "Reporting Limit" represents the laboratory lower quantitation limit.  
 3- Method-A Groundwater cleanup level for total carcinogenic PAHs as published in the Model Toxics Control Act (MTCA) 173-340-WAC.  
 4- Total carcinogenic PAHs are calculated by summing the product of each cPAH multiplied by its toxicity equivalency fraction per WAC 173-340-708(8).  
 \*- Sample results were "non detected" with a reporting limit of 0.1 ppb however values above were reported at half the reporting limit so value could be entered.

Bold and Italics denotes concentrations above existing MTCA Method A soil cleanup levels.



<b>TABLE 12 - Other PAHs - Groundwater Sampling Results</b> <b>All results and limits in parts per billion (ppb)</b>				
<b>Sample Name (and Date)</b>	<b>Naphthalene</b>	<b>Phenanthrene</b>	<b>Fluorene</b>	<b>Pyrene</b>
B2 (February 2021)	ND	ND	ND	ND
B7A (March 2021)	ND	2.9	1.40	1.90
Reporting Limit <sup>3</sup>	0.1-0.4	0.1-0.2	0.1-0.04	0.1-0.02
Existing Cleanup Level <sup>4</sup>	160	---	640	480
Notes: 1 - "ND" denotes analyte not detected at or above listed Reporting Limit. 2- "NA" denotes sample not analyzed for specific analyte. 3- "Reporting Limit" represents the laboratory lower quantitation limit. 4- Method B groundwater cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC.  Bold and Italics denotes concentrations above existing MTCA Method A soil cleanup levels.				

## **APPENDIX A**

### Laboratory Reports

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

April 1, 2021

Eric Zuern, Project Manager  
Environmental Associates, Inc.  
1380 112th Ave. NE, 300  
Bellevue, WA 98004

Dear Mr Zuern:

Included are the results from the additional testing of material submitted on March 18, 2021 from the Renton Firestone 40139-2, F&BI 103364 project. There are 10 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
EAI0401R.DOC

## FRIEDMAN & BRUYA, INC.

### ENVIRONMENTAL CHEMISTS

#### CASE NARRATIVE

This case narrative encompasses samples received on March 18, 2020 by Friedman & Bruya, Inc. from the Environmental Associates Renton Firestone 40139-2, F&BI 103364 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Environmental Associates</u>
103364 -01	B15-4
103364 -02	B15-10
103364 -03	B15-15
103364 -04	B15-20
103364 -05	B15-25
103364 -06	B15-30
103364 -07	B15
103364 -08	B16-4
103364 -09	B16-10
103364 -10	B16-15
103364 -11	B16-20
103364 -12	B16-25
103364 -13	B16-30
103364 -14	B16
103364 -15	B17-3
103364 -16	B17-9-10
103364 -17	B17-15
103364 -18	B17-20
103364 -19	B17-25
103364 -20	B17
103364 -21	B18-3
103364 -22	B18-10
103364 -23	B18-15
103364 -24	B18-20
103364 -25	B18-25
103364 -26	B18
103364 -27	B19-3
103364 -28	B19-10
103364 -29	B19-15
103364 -30	B19-20
103364 -31	B19-25
103364 -32	B19

All quality control requirements were acceptable.

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 04/01/21

Date Received: 03/18/21

Project: Renton Firestone 40139-2, F&BI 103364

Date Extracted: 03/29/21

Date Analyzed: 03/30/21

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES AND TPH AS GASOLINE  
USING METHODS 8021B AND NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-150)
B15-10 103364-02	<0.02	<0.02	<0.02	<0.06	<5	77
B15-15 103364-03	<0.02	<0.02	<0.02	<0.06	<5	87
B16-10 103364-09	<0.02	<0.02	<0.02	<0.06	<5	89
B16-15 103364-10	<0.02	<0.02	<0.02	<0.06	<5	82
Method Blank 01-591 MB	<0.02	<0.02	<0.02	<0.06	<5	90

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

Client ID:	B15-10	Client:	Environmental Associates
Date Received:	03/18/21	Project:	Renton Firestone 40139-2, F&BI 103364
Date Extracted:	03/26/21	Lab ID:	103364-02
Date Analyzed:	03/26/21	Data File:	103364-02.121
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	2.82
---------	------

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

**Analysis For Total Metals By EPA Method 6020B**

Client ID:	B15-15	Client:	Environmental Associates
Date Received:	03/18/21	Project:	Renton Firestone 40139-2, F&BI 103364
Date Extracted:	03/26/21	Lab ID:	103364-03
Date Analyzed:	03/26/21	Data File:	103364-03.122
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	4.03
---------	------

# **FRIEDMAN & BRUYA, INC.**

## **ENVIRONMENTAL CHEMISTS**

### **Analysis For Total Metals By EPA Method 6020B**

Client ID:	B16-10	Client:	Environmental Associates
Date Received:	03/18/21	Project:	Renton Firestone 40139-2, F&BI 103364
Date Extracted:	03/26/21	Lab ID:	103364-09
Date Analyzed:	03/26/21	Data File:	103364-09.123
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	3.90
---------	------



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

Client ID:	B16-15	Client:	Environmental Associates
Date Received:	03/18/21	Project:	Renton Firestone 40139-2, F&BI 103364
Date Extracted:	03/26/21	Lab ID:	103364-10
Date Analyzed:	03/26/21	Data File:	103364-10.124
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	6.31
---------	------

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

**Analysis For Total Metals By EPA Method 6020B**

Client ID:	Method Blank	Client:	Environmental Associates
Date Received:	NA	Project:	Renton Firestone 40139-2, F&BI 103364
Date Extracted:	03/26/21	Lab ID:	I1-195 mb
Date Analyzed:	03/26/21	Data File:	I1-195 mb.039
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	<1
---------	----

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 04/01/21

Date Received: 03/18/21

Project: Renton Firestone 40139-2, F&BI 103364

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES, AND TPH AS GASOLINE  
USING EPA METHOD 8021B AND NWTPH-Gx**

Laboratory Code: 103509-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<5	<5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent	Acceptance Criteria
			Recovery LCS	
Benzene	mg/kg (ppm)	0.5	94	69-120
Toluene	mg/kg (ppm)	0.5	96	70-117
Ethylbenzene	mg/kg (ppm)	0.5	96	65-123
Xylenes	mg/kg (ppm)	1.5	100	66-120
Gasoline	mg/kg (ppm)	20	105	71-131

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 04/01/21

Date Received: 03/18/21

Project: Renton Firestone 40139-2, F&BI 103364

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: 103463-21 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	5.68	66 b	66 b	75-125	0 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	95	80-120

# **FRIEDMAN & BRUYA, INC.**

## **ENVIRONMENTAL CHEMISTS**

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

103364

## SAMPLE CHAIN OF CUSTODY

0318-21

V33/E04/B03/A23/VW1

Report To Eric ZiemCompany Environmental Associates Inc.Address 1380 112<sup>th</sup> ave NE #300City, State, ZIP Bellevue, WA 98004Phone 425-455-9025 Email info@environmentalassociatesinc.comSAMPLERS (signature) Eric Ziem

PROJECT NAME

Penton Firestone

PO #

40139-2

REMARKS

Project specific RLs? - Yes / No

INVOICE TO

Toula Pappas  
- same as prev. sub.  
under PO#

TURNAROUND TIME

☒ Standard turnaround☐ RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

☐ Archive samples☐ Other

Default: Dispose after 30 days

						ANALYSES REQUESTED										Notes
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Cx	BTEX EPA 8021	NWTPH-HCID	CHLORIDE EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Arsenic			
B15-4	01A-C	3-18-21	8:52	Soil	3					X						● -pe EZ
B15-10	02		8:56		3		●	●		X			●			3/24/21 ME
B15-15	03		9:00		3		●	●					●			
B15-20	04		9:18		3											
B15-25	05		9:30		3					X						
B15-30	06		9:45	↓	3											
B15	07A-D		9:08	Water	4	X										
B16-4	08A-C		10:04	Soil	3	X				X						
B16-10	09		10:08	↓	3	X	●	●		X			●			
B16-15	10		10:15	↓	3	X	●	●					●			

Friedman &amp; Bruya, Inc.

3012 16<sup>th</sup> Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <u>Eric Ziem</u>	<u>Eric Ziem</u>	<u>EAC</u>	<u>3-18-21</u>	<u>13:45</u>
Received by: <u>HONG NGUYEN</u>	<u>HONG NGUYEN</u>	<u>FBI</u>		
Relinquished by:				
Received by:				
Samples received at <u>4</u> °C				

103364  
 Report to ERIC ZUERCH  
 Company EAI  
 Address \_\_\_\_\_  
 City, State, ZIP \_\_\_\_\_  
 Phone \_\_\_\_\_ Email \_\_\_\_\_

# SAMPLE CHAIN OF CUSTODY

03-18-21

VS3 / E04 / B03 / A13 / VW1  
 Page # 2 of 4

SAMPLERS (signature) <u>[Signature]</u>	
PROJECT NAME <u>Renton Firestone</u>	PO # <u>4039-2</u>
REMARKS  Project specific RLs? - Yes / No	INVOICE TO

TURNAROUND TIME <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH Rush charges authorized by: _____
SAMPLE DISPOSAL <input type="checkbox"/> Archive samples <input type="checkbox"/> Other _____ Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	Chlorinated VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Arsenic			
B16-20	11 A-C	3-18-21	10:40	Soil	3											
B16-25	12		10:53		3					X						
B16-30	13		11:07		3											
B16	14 A-F		10:25	Water	6	X										
B17-3	15 A-C		11:31	Soil	3	X										
B17-9-10	16		11:35		3	X										
B17-15	17		11:40		3	X										
B17-20	18		12:04		3											
B17-25	19		12:18		3											
B17	20 A-E		11:50	Water	5	X										

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <u>[Signature]</u>	<u>ERIC ZUERCH</u>	<u>EAI</u>	<u>3-18-21</u>	<u>3:45</u>
Received by: <u>[Signature]</u>	<u>HONG NGUYEN</u>	<u>FR</u>		
Relinquished by:				
Received by:		Samples received at <u>4</u> °C		

103364  
 Report To Eric Ziem  
 Company EAT  
 Address \_\_\_\_\_  
 City, State, ZIP \_\_\_\_\_  
 Phone \_\_\_\_\_ Email \_\_\_\_\_

# SAMPLE CHAIN OF CUSTODY

03-18-21

VS3 / E04 / 803 / AI3 / VNI  
 Page # 5 of 1

SAMPLERS (signature) <u>Eric Ziem</u>	
PROJECT NAME <u>Renton Firestone</u>	PO # <u>40139-2</u>
REMARKS  Project specific RLs? - Yes / No	INVOICE TO

TURNAROUND TIME	
<input checked="" type="checkbox"/> Standard turnaround	
<input type="checkbox"/> RUSH	
Rush charges authorized by: _____	
SAMPLE DISPOSAL	
<input type="checkbox"/> Archive samples	
<input type="checkbox"/> Other _____	
Default: Dispose after 30 days	

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Arsenic			
B18-3	21 AC	3-18-21	12:33	Soil	3	X										
B18-10	22		12:37		3	X										
B18-15	23		12:42		3	X										
B18-20	24		1:08		3											
B18-25	25 ✓		1:24	↓	3											
B18	26 A-F		12:50	Water	6	X										
B19-3	27 AC		1:35	Soil	3	X										
B19-10	28		1:40	↑	3	X										
B19-15	29		1:44		3	X										
B19-20	30	✓	2:10	↓	3											

Friedman & Bruya, Inc.  
 3012 16<sup>th</sup> Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <u>Eric Ziem</u>	<u>Eric Ziem</u>	<u>EAT</u>	<u>3-18-21</u>	<u>3:45</u>
Received by: <u>HONG NGUYEN</u>	<u>HONG NGUYEN</u>	<u>FMT</u>	✓	✓
Relinquished by: _____				
Received by: _____				
Samples received at <u>4</u> °C				



103364  
 Report To Eric Zuen  
 Company EAI  
 Address \_\_\_\_\_  
 City, State, ZIP \_\_\_\_\_  
 Phone \_\_\_\_\_ Email \_\_\_\_\_

SAMPLE CHAIN OF CUSTODY

03-18-21

VS3/E04/4 B03/1453/1453  
 Page # 4 of 1

SAMPLERS (signature) <u>Eric Zuen</u>	
PROJECT NAME <u>Penton Firestone</u>	PO # <u>4039-2</u>
REMARKS	INVOICE TO
Project specific RLs? - Yes / No	

TURNAROUND TIME	
<input checked="" type="checkbox"/> Standard turnaround	
<input type="checkbox"/> RUSH	
Rush charges authorized by: _____	
SAMPLE DISPOSAL	
<input type="checkbox"/> Archive samples	
<input type="checkbox"/> Other _____	
Default: Dispose after 30 days	

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED											Notes
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Arsenic				
B19-25	31A-C	3-18-21	2:24	Soil	3												
B19	32A-E	↓	1:50	Water	5	X											

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <u>Eric Zuen</u>	<u>Eric Zuen</u>	<u>EAI</u>	<u>3-18-21</u>	<u>5:45</u>
Received by: <u>HONG</u>	<u>HONG NGUYEN</u>	<u>FBI</u>	<u>✓</u>	<u>✓</u>
Relinquished by:				
Received by:		Samples received at <u>4</u> °C		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

April 1, 2021

Eric Zuern, Project Manager  
Environmental Associates, Inc.  
1380 112th Ave. NE, 300  
Bellevue, WA 98004

Dear Mr Zuern:

Included are the results from the testing of material submitted on March 17, 2021 from the Renton Firestone 40139-2, F&BI 103339 project. There are 53 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
EAI0401R.DOC

## FRIEDMAN & BRUYA, INC.

### ENVIRONMENTAL CHEMISTS

#### CASE NARRATIVE

This case narrative encompasses samples received on March 17, 2020 by Friedman & Bruya, Inc. from the Environmental Associates Renton Firestone 40139-2, F&BI 103339 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Environmental Associates</u>
103339 -01	B11-2.5
103339 -02	B11-10
103339 -03	B11-15
103339 -04	B11-20
103339 -05	B11
103339 -06	B12-3
103339 -07	B12-10
103339 -08	B12-15
103339 -09	B12-20
103339 -10	B12-25
103339 -11	B12-30
103339 -12	B12
103339 -13	B13-4
103339 -14	B13-10
103339 -15	B13-13
103339 -16	B13-20
103339 -17	B13-25
103339 -18	B13-30
103339 -19	B13
103339 -20	B14-4
103339 -21	B14-10
103339 -22	B14-12
103339 -23	B14-15
103339 -24	B14-20
103339 -25	B14-25
103339 -26	B14-30
103339 -27	B14
103339 -28	B6A-4
103339 -29	B6A-10
103339 -30	B6A-15
103339 -31	B6A-20
103339 -32	B6A-25
103339 -33	B6A-30
103339 -34	B6A

All quality control requirements were acceptable.

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 04/01/21

Date Received: 03/17/21

Project: Renton Firestone 40139-2, F&BI 103339

Date Extracted: 03/22/21 and 03/29/21

Date Analyzed: 03/23/21 and 03/30/21

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES AND TPH AS GASOLINE  
USING METHODS 8021B AND NWTPH-Gx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-150)
B13-10 103339-14	<0.02	<0.02	<0.02	<0.06	<5	93
B13-20 103339-16	<0.02	<0.02	<0.02	<0.06	<5	94
B14-10 103339-21	<0.02	<0.02	<0.02	<0.06	<5	92
B14-12 103339-22	<0.02	<0.02	<0.02	<0.06	<5	80
B14-15 103339-23	<0.02	<0.02	<0.02	<0.06	<5	90
B6A-4 103339-28	<0.02	<0.02	<0.02	<0.06	<5	89
B6A-10 103339-29	<0.02	<0.02	0.18	0.29	160	95
Method Blank 01-583 MB	<0.02	<0.02	<0.02	<0.06	<5	78
Method Blank 01-591 MB	<0.02	<0.02	<0.02	<0.06	<5	90

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 04/01/21

Date Received: 03/17/21

Project: Renton Firestone 40139-2, F&BI 103339

Date Extracted: 03/18/21 and 03/25/21

Date Analyzed: 03/18/21 and 03/25/21

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 53-144)
B13-20 103339-16	<50	<250	86
B14-12 103339-22	<50	<250	84
B6A-10 103339-29	450 x	<250	96
Method Blank 01-695 MB	<50	<250	101
Method Blank 01-725 MB	<50	<250	88

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 04/01/21

Date Received: 03/17/21

Project: Renton Firestone 40139-2, F&BI 103339

Date Extracted: 03/18/21

Date Analyzed: 03/18/21

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-Dx  
Results Reported as ug/L (ppb)**

<u>Sample ID</u>	<u>Diesel Range</u>	<u>Motor Oil Range</u>	<u>Surrogate</u>
Laboratory ID	(C <sub>10</sub> -C <sub>25</sub> )	(C <sub>25</sub> -C <sub>36</sub> )	(% Recovery) (Limit 41-152)
B13 103339-19	81 x	<250	106
B14 103339-27	<50	<250	73
Method Blank 01-693 MB	<50	<250	96

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

Client ID:	B13-10	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/25/21	Lab ID:	103339-14
Date Analyzed:	03/25/21	Data File:	103339-14.131
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	3.35
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B13-20	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/25/21	Lab ID:	103339-16
Date Analyzed:	03/25/21	Data File:	103339-16.132
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	<1
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**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

**Analysis For Total Metals By EPA Method 6020B**

Client ID:	B14-10	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/25/21	Lab ID:	103339-21
Date Analyzed:	03/25/21	Data File:	103339-21.133
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	2.85
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# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

Client ID:	B14-15	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/25/21	Lab ID:	103339-23
Date Analyzed:	03/25/21	Data File:	103339-23.147
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	1.08
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**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

**Analysis For Total Metals By EPA Method 6020B**

Client ID:	B6A-4	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/25/21	Lab ID:	103339-28
Date Analyzed:	03/25/21	Data File:	103339-28.154
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	5.18
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**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

**Analysis For Total Metals By EPA Method 6020B**

Client ID:	B6A-10	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/22/21	Lab ID:	103339-29
Date Analyzed:	03/22/21	Data File:	103339-29.106
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	32.4
Cadmium	<1
Lead	7.14
Mercury	<1

# **FRIEDMAN & BRUYA, INC.**

## **ENVIRONMENTAL CHEMISTS**

### **Analysis For Total Metals By EPA Method 6020B**

Client ID:	B6A-10	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/22/21	Lab ID:	103339-29 x5
Date Analyzed:	03/23/21	Data File:	103339-29 x5.095
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Chromium	26.6
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# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

Client ID:	B6A-15	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/25/21	Lab ID:	103339-30
Date Analyzed:	03/25/21	Data File:	103339-30.155
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	<1
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# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Environmental Associates
Date Received:	NA	Project:	Renton Firestone 40139-2
Date Extracted:	03/22/21	Lab ID:	I1-182 mb
Date Analyzed:	03/22/21	Data File:	I1-182 mb.090
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	<1
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1

# **FRIEDMAN & BRUYA, INC.**

## **ENVIRONMENTAL CHEMISTS**

### **Analysis For Total Metals By EPA Method 6020B**

Client ID:	Method Blank	Client:	Environmental Associates
Date Received:	NA	Project:	Renton Firestone 40139-2
Date Extracted:	03/25/21	Lab ID:	I1-189 mb2
Date Analyzed:	03/25/21	Data File:	I1-189 mb2.038
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	<1
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# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B11-2.5	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/18/21	Lab ID:	103339-01
Date Analyzed:	03/18/21	Data File:	031810.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	90	109
Toluene-d8	99	89	112
4-Bromofluorobenzene	96	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B11-10	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/18/21	Lab ID:	103339-02
Date Analyzed:	03/18/21	Data File:	031811.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	90	109
Toluene-d8	100	89	112
4-Bromofluorobenzene	98	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B11-20	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/18/21	Lab ID:	103339-04
Date Analyzed:	03/18/21	Data File:	031812.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	90	109
Toluene-d8	99	89	112
4-Bromofluorobenzene	98	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B12-3	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/18/21	Lab ID:	103339-06
Date Analyzed:	03/18/21	Data File:	031813.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	90	109
Toluene-d8	99	89	112
4-Bromofluorobenzene	99	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B12-10	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/18/21	Lab ID:	103339-07
Date Analyzed:	03/18/21	Data File:	031814.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	90	109
Toluene-d8	98	89	112
4-Bromofluorobenzene	102	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B12-30	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/18/21	Lab ID:	103339-11
Date Analyzed:	03/18/21	Data File:	031815.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	90	109
Toluene-d8	100	89	112
4-Bromofluorobenzene	98	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B13-4	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/18/21	Lab ID:	103339-13
Date Analyzed:	03/18/21	Data File:	031816.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	105	90	109
Toluene-d8	98	89	112
4-Bromofluorobenzene	97	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B13-13	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/18/21	Lab ID:	103339-15
Date Analyzed:	03/18/21	Data File:	031817.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	90	109
Toluene-d8	98	89	112
4-Bromofluorobenzene	101	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B13-20	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/18/21	Lab ID:	103339-16
Date Analyzed:	03/18/21	Data File:	031818.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	90	109
Toluene-d8	97	89	112
4-Bromofluorobenzene	97	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B14-4	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/18/21	Lab ID:	103339-20
Date Analyzed:	03/18/21	Data File:	031819.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	90	109
Toluene-d8	99	89	112
4-Bromofluorobenzene	102	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B14-10	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/18/21	Lab ID:	103339-21
Date Analyzed:	03/18/21	Data File:	031820.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	90	109
Toluene-d8	99	89	112
4-Bromofluorobenzene	100	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B14-12	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/18/21	Lab ID:	103339-22
Date Analyzed:	03/18/21	Data File:	031821.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	90	109
Toluene-d8	97	89	112
4-Bromofluorobenzene	102	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B14-20	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/18/21	Lab ID:	103339-24
Date Analyzed:	03/18/21	Data File:	031822.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	90	109
Toluene-d8	98	89	112
4-Bromofluorobenzene	104	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B6A-15	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/18/21	Lab ID:	103339-30
Date Analyzed:	03/18/21	Data File:	031823.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	90	109
Toluene-d8	99	89	112
4-Bromofluorobenzene	98	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B6A-15 REEXTRACT	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/26/21	Lab ID:	103339-30
Date Analyzed:	03/26/21	Data File:	032613.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	107	90	109
Toluene-d8	101	89	112
4-Bromofluorobenzene	96	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B6A-20	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/18/21	Lab ID:	103339-31
Date Analyzed:	03/18/21	Data File:	031824.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	90	109
Toluene-d8	99	89	112
4-Bromofluorobenzene	101	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B6A-30	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/18/21	Lab ID:	103339-33
Date Analyzed:	03/18/21	Data File:	031825.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	90	109
Toluene-d8	99	89	112
4-Bromofluorobenzene	99	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Environmental Associates
Date Received:	Not Applicable	Project:	Renton Firestone 40139-2
Date Extracted:	03/18/21	Lab ID:	01-639 mb
Date Analyzed:	03/18/21	Data File:	031809.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	90	109
Toluene-d8	98	89	112
4-Bromofluorobenzene	98	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Environmental Associates
Date Received:	Not Applicable	Project:	Renton Firestone 40139-2
Date Extracted:	03/26/21	Lab ID:	01-665 mb
Date Analyzed:	03/26/21	Data File:	032609.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	107	90	109
Toluene-d8	101	89	112
4-Bromofluorobenzene	101	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B11	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/30/21	Lab ID:	103339-05
Date Analyzed:	03/30/21	Data File:	033010.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	91	85	117
Toluene-d8	93	88	112
4-Bromofluorobenzene	114 vo	90	111

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B12	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/30/21	Lab ID:	103339-12
Date Analyzed:	03/30/21	Data File:	033011.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	85	117
Toluene-d8	91	88	112
4-Bromofluorobenzene	109	90	111

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Environmental Associates
Date Received:	Not Applicable	Project:	Renton Firestone 40139-2
Date Extracted:	03/30/21	Lab ID:	01-673 mb
Date Analyzed:	03/30/21	Data File:	033008.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	86	113
Toluene-d8	96	88	114
4-Bromofluorobenzene	102	88	112

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	B6A-10	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/23/21	Lab ID:	103339-29 1/5
Date Analyzed:	03/23/21	Data File:	032314.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	73	32	100
Phenol-d6	82	46	107
Nitrobenzene-d5	93	24	127
2-Fluorobiphenyl	87	46	108
2,4,6-Tribromophenol	87	25	127
Terphenyl-d14	85	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
2-Methylnaphthalene	<0.01
1-Methylnaphthalene	<0.01
Acenaphthylene	<0.01
Acenaphthene	<0.01
Fluorene	<0.01
Phenanthrene	0.015
Anthracene	<0.01
Fluoranthene	<0.01
Pyrene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01
Benzo(g,h,i)perylene	<0.01

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Blank	Client:	Environmental Associates
Date Received:	Not Applicable	Project:	Renton Firestone 40139-2
Date Extracted:	03/23/21	Lab ID:	01-715 mb 1/5
Date Analyzed:	03/23/21	Data File:	032310.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	88	32	100
Phenol-d6	97	46	107
Nitrobenzene-d5	104	24	127
2-Fluorobiphenyl	106	46	108
2,4,6-Tribromophenol	89	25	127
Terphenyl-d14	106	50	150

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
2-Methylnaphthalene	<0.01
1-Methylnaphthalene	<0.01
Acenaphthylene	<0.01
Acenaphthene	<0.01
Fluorene	<0.01
Phenanthrene	<0.01
Anthracene	<0.01
Fluoranthene	<0.01
Pyrene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01
Benzo(g,h,i)perylene	<0.01



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	B6A-10	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/24/21	Lab ID:	103339-29 1/6
Date Analyzed:	03/24/21	Data File:	032419.D
Matrix:	Soil	Instrument:	GC9
Units:	mg/kg (ppm) Dry Weight	Operator:	IJL

Surrogates:	% Recovery:	Lower	Upper
TCMX	66	Limit:	Limit:
		23	120

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Environmental Associates
Date Received:	Not Applicable	Project:	Renton Firestone 40139-2
Date Extracted:	03/24/21	Lab ID:	01-720 mb 1/6
Date Analyzed:	03/24/21	Data File:	032414.D
Matrix:	Soil	Instrument:	GC9
Units:	mg/kg (ppm) Dry Weight	Operator:	IJL

Surrogates:	% Recovery:	Lower	Upper
TCMX	76	Limit:	Limit:
		23	120

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 04/01/21

Date Received: 03/17/21

Project: Renton Firestone 40139-2, F&BI 103339

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES, AND TPH AS GASOLINE  
USING METHOD 8021B AND NWTPH-Gx**

Laboratory Code: 103348-07 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	0.042	<0.02	nm
Ethylbenzene	mg/kg (ppm)	0.61	0.47	26 hr
Xylenes	mg/kg (ppm)	0.52	0.40	26 hr
Gasoline	mg/kg (ppm)	85	66	25 hr

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	88	69-120
Toluene	mg/kg (ppm)	0.5	91	70-117
Ethylbenzene	mg/kg (ppm)	0.5	89	65-123
Xylenes	mg/kg (ppm)	1.5	92	66-120
Gasoline	mg/kg (ppm)	20	100	71-131

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 04/01/21

Date Received: 03/17/21

Project: Renton Firestone 40139-2, F&BI 103339

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES, AND TPH AS GASOLINE  
USING EPA METHOD 8021B AND NWTPH-Gx**

Laboratory Code: 103509-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<5	<5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	94	69-120
Toluene	mg/kg (ppm)	0.5	96	70-117
Ethylbenzene	mg/kg (ppm)	0.5	96	65-123
Xylenes	mg/kg (ppm)	1.5	100	66-120
Gasoline	mg/kg (ppm)	20	105	71-131

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 04/01/21

Date Received: 03/17/21

Project: Renton Firestone 40139-2, F&BI 103339

**QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-Dx**

Laboratory Code: 103339-16 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	80	82	64-133	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	82	58-147

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 04/01/21

Date Received: 03/17/21

Project: Renton Firestone 40139-2, F&BI 103339

**QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-Dx**

Laboratory Code: 103427-04 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	210	91	94	64-133	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	86	58-147

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 04/01/21

Date Received: 03/17/21

Project: Renton Firestone 40139-2, F&BI 103339

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-Dx**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	88	100	63-142	13

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 04/01/21

Date Received: 03/17/21

Project: Renton Firestone 40139-2, F&BI 103339

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: 103386-01 x5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	11.3	111	116	75-125	4
Cadmium	mg/kg (ppm)	10	<5	101	102	75-125	1
Chromium	mg/kg (ppm)	50	14.7	100	101	75-125	1
Lead	mg/kg (ppm)	50	8.72	103	104	75-125	1
Mercury	mg/kg (ppm)	5	<5	106	110	75-125	4

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	109	80-120
Cadmium	mg/kg (ppm)	10	99	80-120
Chromium	mg/kg (ppm)	50	104	80-120
Lead	mg/kg (ppm)	50	103	80-120
Mercury	mg/kg (ppm)	5	104	80-120



**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 04/01/21

Date Received: 03/17/21

Project: Renton Firestone 40139-2, F&BI 103339

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: 103407-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	2.07	102	109	75-125	7

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	98	80-120

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

Date of Report: 04/01/21

Date Received: 03/17/21

Project: Renton Firestone 40139-2, F&BI 103339

### QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 103339-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	1	<0.05	33	31	10-138	6
Chloroethane	mg/kg (ppm)	1	<0.5	44	42	10-176	5
1,1-Dichloroethene	mg/kg (ppm)	1	<0.05	57	54	10-160	5
Methylene chloride	mg/kg (ppm)	1	<0.5	74	71	10-156	4
trans-1,2-Dichloroethene	mg/kg (ppm)	1	<0.05	62	62	14-137	0
1,1-Dichloroethane	mg/kg (ppm)	1	<0.05	67	64	19-140	5
cis-1,2-Dichloroethene	mg/kg (ppm)	1	<0.05	71	70	25-135	1
1,2-Dichloroethane (EDC)	mg/kg (ppm)	1	<0.05	76	73	12-160	4
1,1,1-Trichloroethane	mg/kg (ppm)	1	<0.05	67	64	10-156	5
Trichloroethene	mg/kg (ppm)	1	<0.02	78	75	21-139	4
Tetrachloroethene	mg/kg (ppm)	1	<0.025	76	74	20-133	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	1	69	22-139
Chloroethane	mg/kg (ppm)	1	58	9-163
1,1-Dichloroethene	mg/kg (ppm)	1	95	47-128
Methylene chloride	mg/kg (ppm)	1	100	10-184
trans-1,2-Dichloroethene	mg/kg (ppm)	1	94	67-129
1,1-Dichloroethane	mg/kg (ppm)	1	92	68-115
cis-1,2-Dichloroethene	mg/kg (ppm)	1	93	72-127
1,2-Dichloroethane (EDC)	mg/kg (ppm)	1	97	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	1	89	62-131
Trichloroethene	mg/kg (ppm)	1	97	63-121
Tetrachloroethene	mg/kg (ppm)	1	105	72-114

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

Date of Report: 04/01/21

Date Received: 03/17/21

Project: Renton Firestone 40139-2, F&BI 103339

### QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 103339-30 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	1	<0.05	28	31	10-138	10
Chloroethane	mg/kg (ppm)	1	<0.5	41	44	10-176	7
1,1-Dichloroethene	mg/kg (ppm)	1	<0.05	48	54	10-160	12
Methylene chloride	mg/kg (ppm)	1	<0.5	59	70	10-156	17
trans-1,2-Dichloroethene	mg/kg (ppm)	1	<0.05	53	61	14-137	14
1,1-Dichloroethane	mg/kg (ppm)	1	<0.05	55	63	19-140	14
cis-1,2-Dichloroethene	mg/kg (ppm)	1	<0.05	58	67	25-135	14
1,2-Dichloroethane (EDC)	mg/kg (ppm)	1	<0.05	62	71	12-160	14
1,1,1-Trichloroethane	mg/kg (ppm)	1	<0.05	55	62	10-156	12
Trichloroethene	mg/kg (ppm)	1	<0.02	60	67	21-139	11
Tetrachloroethene	mg/kg (ppm)	1	<0.025	59	70	20-133	17

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	1	64	22-139
Chloroethane	mg/kg (ppm)	1	71	9-163
1,1-Dichloroethene	mg/kg (ppm)	1	85	47-128
Methylene chloride	mg/kg (ppm)	1	97	10-184
trans-1,2-Dichloroethene	mg/kg (ppm)	1	83	67-129
1,1-Dichloroethane	mg/kg (ppm)	1	84	68-115
cis-1,2-Dichloroethene	mg/kg (ppm)	1	87	72-127
1,2-Dichloroethane (EDC)	mg/kg (ppm)	1	89	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	1	86	62-131
Trichloroethene	mg/kg (ppm)	1	88	63-121
Tetrachloroethene	mg/kg (ppm)	1	87	72-114

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

Date of Report: 04/01/21

Date Received: 03/17/21

Project: Renton Firestone 40139-2, F&BI 103339

### QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 103462-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	10	<0.2	65	67	36-166	3
Chloroethane	ug/L (ppb)	10	<1	65	69	46-160	6
1,1-Dichloroethene	ug/L (ppb)	10	<1	79	81	58-142	2
Methylene chloride	ug/L (ppb)	10	<5	94	104	50-145	10
trans-1,2-Dichloroethene	ug/L (ppb)	10	<1	77	79	61-136	3
1,1-Dichloroethane	ug/L (ppb)	10	<1	80	80	63-135	0
cis-1,2-Dichloroethene	ug/L (ppb)	10	<1	83	86	63-134	4
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	<1	91	92	48-149	1
1,1,1-Trichloroethane	ug/L (ppb)	10	<1	85	87	60-146	2
Trichloroethene	ug/L (ppb)	10	<1	88	91	66-135	3
Tetrachloroethene	ug/L (ppb)	10	<1	105	105	10-226	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	10	88	87	50-154	1
Chloroethane	ug/L (ppb)	10	88	85	58-146	3
1,1-Dichloroethene	ug/L (ppb)	10	99	96	67-136	3
Methylene chloride	ug/L (ppb)	10	97	96	19-178	1
trans-1,2-Dichloroethene	ug/L (ppb)	10	94	92	68-128	2
1,1-Dichloroethane	ug/L (ppb)	10	90	89	74-135	1
cis-1,2-Dichloroethene	ug/L (ppb)	10	93	92	74-136	1
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	94	94	66-129	0
1,1,1-Trichloroethane	ug/L (ppb)	10	95	94	74-142	1
Trichloroethene	ug/L (ppb)	10	92	93	67-133	1
Tetrachloroethene	ug/L (ppb)	10	108	104	76-121	4

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

Date of Report: 04/01/21

Date Received: 03/17/21

Project: Renton Firestone 40139-2, F&BI 103339

### QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E

Laboratory Code: 103407-03 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	mg/kg (ppm)	0.83	<0.01	84	86	50-150	2
2-Methylnaphthalene	mg/kg (ppm)	0.83	<0.01	85	85	50-150	0
1-Methylnaphthalene	mg/kg (ppm)	0.83	<0.01	84	85	50-150	1
Acenaphthylene	mg/kg (ppm)	0.83	<0.01	100	99	50-150	1
Acenaphthene	mg/kg (ppm)	0.83	<0.01	92	92	50-150	0
Fluorene	mg/kg (ppm)	0.83	<0.01	96	96	50-150	0
Phenanthrene	mg/kg (ppm)	0.83	0.029	87	88	50-150	1
Anthracene	mg/kg (ppm)	0.83	<0.01	90	94	50-150	4
Fluoranthene	mg/kg (ppm)	0.83	0.046	94	95	50-150	1
Pyrene	mg/kg (ppm)	0.83	0.054	95	94	50-150	1
Benz(a)anthracene	mg/kg (ppm)	0.83	0.025	97	98	50-150	1
Chrysene	mg/kg (ppm)	0.83	0.026	90	92	50-150	2
Benzo(a)pyrene	mg/kg (ppm)	0.83	0.031	99	102	50-150	3
Benzo(b)fluoranthene	mg/kg (ppm)	0.83	0.028	94	95	50-150	1
Benzo(k)fluoranthene	mg/kg (ppm)	0.83	0.011	94	98	50-150	4
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.83	0.021	127	114	50-150	11
Dibenz(a,h)anthracene	mg/kg (ppm)	0.83	<0.01	101	111	50-150	9
Benzo(g,h,i)perylene	mg/kg (ppm)	0.83	0.019	97	106	50-150	9

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Naphthalene	mg/kg (ppm)	0.83	87	58-108
2-Methylnaphthalene	mg/kg (ppm)	0.83	87	70-130
1-Methylnaphthalene	mg/kg (ppm)	0.83	87	70-130
Acenaphthylene	mg/kg (ppm)	0.83	101	70-130
Acenaphthene	mg/kg (ppm)	0.83	93	70-130
Fluorene	mg/kg (ppm)	0.83	99	70-130
Phenanthrene	mg/kg (ppm)	0.83	94	70-130
Anthracene	mg/kg (ppm)	0.83	96	70-130
Fluoranthene	mg/kg (ppm)	0.83	100	70-130
Pyrene	mg/kg (ppm)	0.83	99	70-130
Benz(a)anthracene	mg/kg (ppm)	0.83	101	70-130
Chrysene	mg/kg (ppm)	0.83	97	70-130
Benzo(a)pyrene	mg/kg (ppm)	0.83	103	70-130
Benzo(b)fluoranthene	mg/kg (ppm)	0.83	103	70-130
Benzo(k)fluoranthene	mg/kg (ppm)	0.83	96	70-130
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.83	104	70-130
Dibenz(a,h)anthracene	mg/kg (ppm)	0.83	99	70-130
Benzo(g,h,i)perylene	mg/kg (ppm)	0.83	98	70-130

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 04/01/21

Date Received: 03/17/21

Project: Renton Firestone 40139-2, F&BI 103339

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES FOR  
POLYCHLORINATED BIPHENYLS AS  
AROCOR 1016/1260 BY EPA METHOD 8082A**

Laboratory Code: 103407-06 1/6 (Matrix Spike) 1/6

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Control Limits	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	0.25	<0.02	90	92	44-107	2
Aroclor 1260	mg/kg (ppm)	0.25	<0.02	93	92	38-124	1

Laboratory Code: Laboratory Control Sample 1/6

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Aroclor 1016	mg/kg (ppm)	0.25	96	47-158
Aroclor 1260	mg/kg (ppm)	0.25	100	69-147

## FRIEDMAN & BRUYA, INC.

### ENVIRONMENTAL CHEMISTS

#### Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

103337

Report To

Eric Ziem

Company

Environmental Associates Inc.

Address

1380 112<sup>th</sup> ave NE #300

City, State, ZIP

Bellevue, WA 98004

Phone

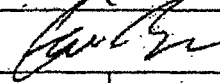
425-453-9025

Email [info@environmentalassociatesinc.com](mailto:info@environmentalassociatesinc.com)

## SAMPLE CHAIN OF CUSTODY

ME 03-17-21

SAMPLERS (signature)



Page #

of

4 VJ3  
805

TURNAROUND TIME

☒ Standard turnaround☐ RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

☐ Archive samples☐ Other

Default: Dispose after 30 days

PROJECT NAME

Renton Firestar

PO #

40139-2

REMARKS

3261 92<sup>nd</sup> ave NE  
Bellevue 98004

INVOICE TO

Curt Kruse  
Toula Properties LLC

Project specific RIs? - Yes / No

## ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTFH-Dx	NWTFH-Gx	BTEX EPA 8021	NWTFH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Notes
B11-2.5	01A-C	3-17-21	9:19	Soil	3					X			● - per EZ 3/24/21 ME
B11-10	02		9:24		3					X			
B11-15	03		9:28		3								
B11-20	04		9:38		3					X			
B11	05A-D		10:14	Water	4								● - per EZ 11/15/21 ME
B12-3	06A-C		10:36	Soil	3					X			
B12-10	07		10:34		3					X			
B12-15	08		10:38		3								
B12-20	09		10:57		3								
B12-25	10		11:23		3								

SIGNATURE

Relinquished by:



PRINT NAME

Eric Ziem

COMPANY

EHI

DATE

3-17-21

TIME

4:50

Received by:



Khoi Hoang

FBI

3-17-21

16:50

Relinquished by:

Samples received at

4 °C

Received by:

Friedman &amp; Bruya, Inc.

3012 16<sup>th</sup> Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282



103339

Report To

Eric Ziem

Company

EAI

Address

City, State, ZIP

Phone

Email

## SAMPLE CHAIN OF CUSTODY

ME 03-17-21

Page # 2 of 4 V53

SAMPLERS (signature)

*Eric Ziem*

PROJECT NAME

Pentou Firestone

PO #

40139-2

REMARKS

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME

☒ Standard turnaround☐ RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

☐ Archive samples☐ Other

Default: Dispose after 30 days

805

ED 4

W 3

						ANALYSES REQUESTED										Notes
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTFH-Dx	NWTFH-Gx	BTEX EPA 8021	NWTFH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Arsenic			
B12-30	11 A-C	3-17-21	11:23	Soil	3					X						
B12	12 A-B		10:45	Water	4											<del>Water</del>
B13-4	13 A-C		11:41	Soil						X						
B13-10	14		11:45													
B13-13	15		11:50							X						
B13-20	16		12:16			X			X							
B13-25	17		12:29													
B13-30	18		12:43													
B13	19 A-D		12:00	Water		X			(X)							Hold per EZ 8/3 3/18/21 MC VOCs
B14-4	20 A-C		1:00	Soil						X						

Friedman &amp; Bruya, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <i>Eric Ziem</i>	Eric Ziem	EAI	3-17-21	4:50
Received by: <i>Khao Hoang</i>	Khao Hoang	FBI	3-17-21	16:50
Relinquished by:				
Received by:				

103339

Report To

Eric Zucchi

Company

EAT

Address

City, State, ZIP

Phone

Email

## SAMPLE CHAIN OF CUSTODY

ME 03-17-21

Page #

3

of

4 VS3

105

SAMPLERS (signature)

Eric Zucchi

PROJECT NAME

Benton Firestone

PO #

40139-2

REMARKS

INVOICE TO

Project specific RLs? - Yes / No

TURNAROUND TIME

☒ Standard turnaround☐ RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

☐ Archive samples☐ Other

Default: Dispose after 30 days

E 04

VW 3

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED												Notes
						NWTPH-Dx	NWTPH-Cx	BTEX EPA 8021	NWTPH-HClD	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	MTCA 5	CVol Petroleum	Arsenic	Hydrene	EDS EPA 8210	
B14-10	21	3-17-21	1:04	Soil	3		●	●		X					●			✓ - per E2 3/19
B14-12	22		1:13		3	●	●	●		X								ef
B14-15	23		1:10		3		●	●							●			
B14-20	24		1:32		3					X								■ - per E2 4/1/21 M.C.
B14-25	25		1:44		3													
B14-30	26		2:00		3													
B14	27		1:20	Water	4	X			⊗									Hold volume on B14 per E2 3/18/21 M.C.
B6A-4	28		2:22	Soil	3		●	●							●			
B6A-10	29		2:26		3	X	X	X			✓	✓	✓			■	■	
B6A-15	30		2:34		3					X				●	●			

Friedman &amp; Bruya, Inc.

3012 16<sup>th</sup> Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

SIGNATURE

Relinquished by:

Eric Zucchi

Received by:

M.C.

PRINT NAME

Eric Zucchi

Khoi Hoang

COMPANY

EAT

FBI

DATE

3-17-21

3-17-21

TIME

4:58

16:30

Relinquished by:

Received by:

103339

Report To

ERIC ZUCM

Company

EAI

Address

City, State, ZIP

Phone

Email

## SAMPLE CHAIN OF CUSTODY

ME 03-17-21

Page #

4 of 4 US3

SAMPLERS (signature)

Eric Zucm

PROJECT NAME

Penton Firestone

PO #

40139-2

REMARKS

INVOICE TO

Project specific RLs? - Yes / No

TURNAROUND TIME

☒ Standard turnaround☐ RUSH

Rush charges authorized by:

Bst  
E04  
JW3

SAMPLE DISPOSAL

☐ Archive samples☐ Other

Default: Dispose after 30 days

						ANALYSES REQUESTED										Notes
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082				
B6A-20	31A-C	3-17-21	3:08	Soil	3					X						
B6A-25	32	↓	3:13	↓	3											
B6A-30	33	↓	3:28	↓	3					X						
B6A	34	↓	2:40	Water	4											

Friedman &amp; Bruya, Inc.

3012 16<sup>th</sup> Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

SIGNATURE

Relinquished by:

Eric Zucm

Received by:

VH

PRINT NAME

Eric Zucm

Khoi Hoang

COMPANY

EAI

FBI

DATE

3-17-21

3-17-21

TIME

4:58

16:50

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

March 24, 2021

Eric Zuern, Project Manager  
Environmental Associates, Inc.  
1380 112th Ave. NE, 300  
Bellevue, WA 98004

Dear Mr Zuern:

Included are the results from the testing of material submitted on March 18, 2021 from the Renton Firestone 40139-2, F&BI 103364 project. There are 15 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
EAI0324R.DOC

## FRIEDMAN & BRUYA, INC.

### ENVIRONMENTAL CHEMISTS

#### CASE NARRATIVE

This case narrative encompasses samples received on March 18, 2020 by Friedman & Bruya, Inc. from the Environmental Associates Renton Firestone 40139-2, F&BI 103364 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Environmental Associates</u>
103364 -01	B15-4
103364 -02	B15-10
103364 -03	B15-15
103364 -04	B15-20
103364 -05	B15-25
103364 -06	B15-30
103364 -07	B15
103364 -08	B16-4
103364 -09	B16-10
103364 -10	B16-15
103364 -11	B16-20
103364 -12	B16-25
103364 -13	B16-30
103364 -14	B16
103364 -15	B17-3
103364 -16	B17-9-10
103364 -17	B17-15
103364 -18	B17-20
103364 -19	B17-25
103364 -20	B17
103364 -21	B18-3
103364 -22	B18-10
103364 -23	B18-15
103364 -24	B18-20
103364 -25	B18-25
103364 -26	B18
103364 -27	B19-3
103364 -28	B19-10
103364 -29	B19-15
103364 -30	B19-20
103364 -31	B19-25
103364 -32	B19

The 8260D matrix spike and matrix spike duplicate exceeded the relative percent difference for methylene chloride. The analyte was not detected in the samples therefore the data were acceptable.

All other quality control requirements were acceptable.

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 03/24/21

Date Received: 03/18/21

Project: Renton Firestone 40139-2, F&BI 103364

Date Extracted: 03/22/21

Date Analyzed: 03/22/21

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 48-168)
B16-4 103364-08	<50	<250	86
B16-10 103364-09	<50	<250	92
B16-15 103364-10	<50	<250	92
B17-3 103364-15	<50	<250	84
B17-9-10 103364-16	<50	<250	82
B17-15 103364-17	<50	<250	92
B18-3 103364-21	<50	<250	83
B18-10 103364-22	<50	<250	81
B18-15 103364-23	<50	<250	92
B19-3 103364-27	<50	<250	91

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 03/24/21

Date Received: 03/18/21

Project: Renton Firestone 40139-2, F&BI 103364

Date Extracted: 03/22/21

Date Analyzed: 03/22/21

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 48-168)
B19-10 103364-28	<50	<250	83
B19-15 103364-29	<50	<250	90
Method Blank 01-703 MB	<50	<250	95

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 03/24/21

Date Received: 03/18/21

Project: Renton Firestone 40139-2, F&BI 103364

Date Extracted: 03/19/21

Date Analyzed: 03/19/21

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-Dx  
Results Reported as ug/L (ppb)**

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 41-152)
B15 103364-07	130 x	<250	81
B16 103364-14	79 x	<250	39
B17 103364-20	86 x	<250	90
B18 103364-26	62 x	<250	106
B19 103364-32	<53	<260	46
Method Blank 01-702 MB	<50	<250	105



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B15-4	Client:	Environmental Associates
Date Received:	03/18/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/19/21	Lab ID:	103364-01
Date Analyzed:	03/19/21	Data File:	031914.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	90	109
Toluene-d8	99	89	112
4-Bromofluorobenzene	97	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B15-10	Client:	Environmental Associates
Date Received:	03/18/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/19/21	Lab ID:	103364-02
Date Analyzed:	03/19/21	Data File:	031915.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	107	90	109
Toluene-d8	98	89	112
4-Bromofluorobenzene	101	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B15-25	Client:	Environmental Associates
Date Received:	03/18/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/19/21	Lab ID:	103364-05
Date Analyzed:	03/19/21	Data File:	031916.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	90	109
Toluene-d8	98	89	112
4-Bromofluorobenzene	103	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B16-4	Client:	Environmental Associates
Date Received:	03/18/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/19/21	Lab ID:	103364-08
Date Analyzed:	03/19/21	Data File:	031917.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	90	109
Toluene-d8	99	89	112
4-Bromofluorobenzene	99	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B16-10	Client:	Environmental Associates
Date Received:	03/18/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/19/21	Lab ID:	103364-09
Date Analyzed:	03/19/21	Data File:	031918.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	90	109
Toluene-d8	99	89	112
4-Bromofluorobenzene	101	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B16-25	Client:	Environmental Associates
Date Received:	03/18/21	Project:	Renton Firestone 40139-2
Date Extracted:	03/19/21	Lab ID:	103364-12
Date Analyzed:	03/19/21	Data File:	031919.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	105	90	109
Toluene-d8	100	89	112
4-Bromofluorobenzene	99	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Environmental Associates
Date Received:	Not Applicable	Project:	Renton Firestone 40139-2
Date Extracted:	03/19/21	Lab ID:	01-643 mb
Date Analyzed:	03/19/21	Data File:	031909.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	109 vo	90	109
Toluene-d8	100	89	112
4-Bromofluorobenzene	98	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 03/24/21

Date Received: 03/18/21

Project: Renton Firestone 40139-2, F&BI 103364

**QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-Dx**

Laboratory Code: 103364-08 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	82	94	73-135	14

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	92	74-139



**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 03/24/21

Date Received: 03/18/21

Project: Renton Firestone 40139-2, F&BI 103364

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-D<sub>x</sub>**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	112	124	63-142	10

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

Date of Report: 03/24/21

Date Received: 03/18/21

Project: Renton Firestone 40139-2, F&BI 103364

### QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 103364-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	1	<0.05	24	27	10-138	12
Chloroethane	mg/kg (ppm)	1	<0.5	34	40	10-176	16
1,1-Dichloroethene	mg/kg (ppm)	1	<0.05	41	46	10-160	11
Methylene chloride	mg/kg (ppm)	1	<0.5	53	70	10-156	28 vo
trans-1,2-Dichloroethene	mg/kg (ppm)	1	<0.05	45	51	14-137	12
1,1-Dichloroethane	mg/kg (ppm)	1	<0.05	48	57	19-140	17
cis-1,2-Dichloroethene	mg/kg (ppm)	1	<0.05	51	61	25-135	18
1,2-Dichloroethane (EDC)	mg/kg (ppm)	1	<0.05	55	66	12-160	18
1,1,1-Trichloroethane	mg/kg (ppm)	1	<0.05	47	56	10-156	17
Trichloroethene	mg/kg (ppm)	1	<0.02	83	88	21-139	6
Tetrachloroethene	mg/kg (ppm)	1	<0.025	52	61	20-133	16

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	1	63	22-139
Chloroethane	mg/kg (ppm)	1	70	9-163
1,1-Dichloroethene	mg/kg (ppm)	1	89	47-128
Methylene chloride	mg/kg (ppm)	1	102	10-184
trans-1,2-Dichloroethene	mg/kg (ppm)	1	89	67-129
1,1-Dichloroethane	mg/kg (ppm)	1	90	68-115
cis-1,2-Dichloroethene	mg/kg (ppm)	1	91	72-127
1,2-Dichloroethane (EDC)	mg/kg (ppm)	1	98	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	1	91	62-131
Trichloroethene	mg/kg (ppm)	1	93	63-121
Tetrachloroethene	mg/kg (ppm)	1	101	72-114

## **FRIEDMAN & BRUYA, INC.**

### **ENVIRONMENTAL CHEMISTS**

#### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

103364

## SAMPLE CHAIN OF CUSTODY

03-18-21

VS3/E04/B03/AL3/VW1  
Page # 1 of 1Report To Eric ZiemCompany Environmental Associates Inc.Address 1380 112<sup>th</sup> ave NE #300City, State, ZIP Bellevue, WA 98004Phone 425-455-9025 Email info@environmentalassociatesinc.comSAMPLERS (signature) Eric Ziem

PROJECT NAME

Penton Firestone

PO #

40139-2

REMARKS

INVOICE TO

Talk p 300  
- same as prev. sub.  
under PO#

Project specific RLs? - Yes / No

## TURNAROUND TIME

☒ Standard turnaround☐ RUSH

Rush charges authorized by:

## SAMPLE DISPOSAL

☐ Archive samples☐ Other

Default: Dispose after 30 days

						ANALYSES REQUESTED										Notes
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	CHLORIDES EPA 8260	PAHs EPA 8270	PCBs EPA 8082				
B15-4	01A-C	3-18-21	8:52	Soil	3					X						
B15-10	02		8:56		3					X						
B15-15	03		9:00		3											
B15-20	04		9:18		3											
B15-25	05		9:30		3					X						
B15-30	06		9:45		3											
B15	07A-D		9:08	Water	4	X										
B16-4	08A-C		10:04	Soil	3	X				X						
B16-10	09		10:08		3	X				X						
B16-15	10		10:15		3	X										

Friedman &amp; Bruya, Inc.

3012 16<sup>th</sup> Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <u>Eric Ziem</u>	<u>Eric Ziem</u>	<u>EAC</u>	<u>3-18-21</u>	<u>13:45</u>
Received by: <u>HONG NGUYEN</u>	<u>HONG NGUYEN</u>	<u>FBI</u>		
Relinquished by:				
Received by:				
Samples received at <u>4</u> °C				

Report to 103364 Eric Zuern  
 Company EAI  
 Address \_\_\_\_\_  
 City, State, ZIP \_\_\_\_\_  
 Phone \_\_\_\_\_ Email \_\_\_\_\_

# SAMPLE CHAIN OF CUSTODY

03-18-21

VS3 / E04 / B03 / A3 / Vw1  
 Page # 2 of 4

SAMPLERS (signature) <u>[Signature]</u>	
PROJECT NAME <u>Renton Firestone</u>	PO # <u>4039-2</u>
REMARKS	INVOICE TO
Project specific RLs? - Yes / No	

TURNAROUND TIME	
<input checked="" type="checkbox"/> Standard turnaround	
<input type="checkbox"/> RUSH	
Rush charges authorized by:	
SAMPLE DISPOSAL	
<input type="checkbox"/> Archive samples	
<input type="checkbox"/> Other	
Default: Dispose after 30 days	

						ANALYSES REQUESTED												Notes
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	Chlorinated VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082						
B16-20	11 A-C	3-18-21	10:46	Soil	3													
B16-25	12		10:53		3					X								
B16-30	13		11:07		3													
B16	14 A-F		10:25	Water	6	X												
B17-3	15 A-C		11:31	Soil	3	X												
B17-9-10	16		11:35		3	X												
B17-15	17		11:40		3	X												
B17-20	18		12:04		3													
B17-25	19		12:18		3													
B17	20 A-E		11:50	Water	5	X												

Friedman & Bruya, Inc.  
 3012 16<sup>th</sup> Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <u>[Signature]</u>	<u>Eric Zuern</u>	<u>EAI</u>	<u>3-18-21</u>	<u>3:45</u>
Received by: <u>[Signature]</u>	<u>HONG NGUYEN</u>	<u>FR</u>		
Relinquished by:				
Received by:		Samples received at <u>4</u> °C		

103364  
 Report To ERIC ZUCON  
 Company EAT  
 Address \_\_\_\_\_  
 City, State, ZIP \_\_\_\_\_  
 Phone \_\_\_\_\_ Email \_\_\_\_\_

# SAMPLE CHAIN OF CUSTODY

03-18-21

V53 / E04 / B03 / A13 / VV1  
 Page # 1 of 1

SAMPLERS (signature) <u>Eric Zucun</u>	
PROJECT NAME <u>Renton Firestone</u>	PO # <u>40139-2</u>
REMARKS	INVOICE TO
Project specific RLs? - Yes / No	

TURNAROUND TIME	
<input checked="" type="checkbox"/> Standard turnaround	
<input type="checkbox"/> RUSH	
Rush charges authorized by: _____	
SAMPLE DISPOSAL	
<input type="checkbox"/> Archive samples	
<input type="checkbox"/> Other _____	
Default: Dispose after 30 days	

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082				
B18-3	21 A-C	3-18-21	12:33	Soil	3	X										
B18-10	22		12:37		3	X										
B18-15	23		12:42		3	X										
B18-20	24		1:08		3											
B18-25	25		1:24		3											
B18	26 A-F		12:50	Water	6	X										
B19-3	27 A-C		1:35	Soil	3	X										
B19-10	28		1:40		3	X										
B19-15	29		1:44		3	X										
B19-20	30		2:10		3											

Friedman & Bruya, Inc.  
 3012 16<sup>th</sup> Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <u>Eric Zucun</u>	<u>Eric Zucun</u>	<u>EAT</u>	<u>3-18-21</u>	<u>3:45</u>
Received by: <u>HONG NGUYEN</u>	<u>HONG NGUYEN</u>	<u>FMT</u>	<u>✓</u>	<u>✓</u>
Relinquished by: _____	_____	_____	_____	_____
Received by: _____	_____	_____	_____	_____
Samples received at <u>4</u> °C				

103364

## SAMPLE CHAIN OF CUSTODY

03-18-21

VS3/EO4/4 BOS/AL53/1/1W2  
Page # of

Report To

Eric Zuern

Company

EAI

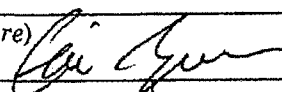
Address

City, State, ZIP

Phone

Email

SAMPLERS (signature)



PROJECT NAME

Penton Firestone

PO #

4039-2

REMARKS

INVOICE TO

Project specific RLs? - Yes / No

## TURNAROUND TIME

☒ Standard turnaround☐ RUSH

Rush charges authorized by:

## SAMPLE DISPOSAL

☐ Archive samples☐ Other

Default: Dispose after 30 days



Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED											Notes
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082					
B19-25	31AC	3-18-21	2:24	Soil	3												
B19	32AE	↓	1:50	Water	5	X											

Friedman &amp; Bruya, Inc.

3012 16<sup>th</sup> Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: 	ERIC ZUERN	EAI	3-18-21	3:45
Received by: 	HONG NGUYEN	FBI	✓	✓
Relinquished by:				
Received by:		Samples received at	4 °C	

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

March 29, 2021

Eric Zuern, Project Manager  
Environmental Associates, Inc.  
1380 112th Ave. NE, 300  
Bellevue, WA 98004

Dear Mr Zuern:

Included are the results from the testing of material submitted on March 19, 2021 from the Renton Firestone 40139-2, F&BI 103389 project. There are 16 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
EAI0329R.DOC



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on March 19, 2021 by Friedman & Bruya, Inc. from the Environmental Associates Renton Firestone 40139-2, F&BI 103389 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Environmental Associates</u>
103389 -01	B7A
103389 -02	B20-2
103389 -03	B20-6
103389 -04	B20-9-10
103389 -05	B20-14
103389 -06	B20-18
103389 -07	B20

A 6020B internal standard failed the acceptance criteria for sample B7A. The sample was diluted and reanalyzed with acceptable results. Both data sets were reported.

All other quality control requirements were acceptable.

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 03/29/21

Date Received: 03/19/21

Project: Renton Firestone 40139-2, F&BI 103389

Date Extracted: 03/22/21

Date Analyzed: 03/22/21

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-Dx**

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 53-144)
B20-6 103389-03	<50	<250	94
B20-9-10 103389-04	<50	<250	96
B20-14 103389-05	<50	<250	93
Method Blank 01-710 MB	<50	<250	95

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 03/29/21

Date Received: 03/19/21

Project: Renton Firestone 40139-2, F&BI 103389

Date Extracted: 03/22/21

Date Analyzed: 03/22/21

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL AND MOTOR OIL  
USING METHOD NWTPH-Dx  
Results Reported as ug/L (ppb)**

<u>Sample ID</u>	<u>Diesel Range</u>	<u>Motor Oil Range</u>	<u>Surrogate</u>
Laboratory ID	(C <sub>10</sub> -C <sub>25</sub> )	(C <sub>25</sub> -C <sub>36</sub> )	(% Recovery)
			(Limit 41-152)
B20	<50	<250	81
103389-07			
Method Blank	<50	<250	115
01-706 MB			

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	B7A f	Client:	Environmental Associates
Date Received:	03/19/21	Project:	Renton Firestone 40139-2, F&BI 103389
Date Extracted:	03/25/21	Lab ID:	103389-01
Date Analyzed:	03/25/21	Data File:	103389-01.108
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	1.89
Cadmium	<1
Chromium	<1 J
Lead	<1
Mercury	<1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	B7A f	Client:	Environmental Associates
Date Received:	03/19/21	Project:	Renton Firestone 40139-2, F&BI 103389
Date Extracted:	03/25/21	Lab ID:	103389-01 x10
Date Analyzed:	03/26/21	Data File:	103389-01 x10.053
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Chromium	<10
----------	-----

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank f	Client:	Environmental Associates
Date Received:	NA	Project:	Renton Firestone 40139-2, F&BI 103389
Date Extracted:	03/25/21	Lab ID:	I1-191 mb
Date Analyzed:	03/25/21	Data File:	I1-191 mb.106
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID: B7A	Client: Environmental Associates
Date Received: 03/19/21	Project: Renton Firestone 40139-2, F&BI 103389
Date Extracted: 03/22/21	Lab ID: 103389-01 1/2
Date Analyzed: 03/22/21	Data File: 032214.D
Matrix: Water	Instrument: GCMS8
Units: ug/L (ppb)	Operator: YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	36	15	99
Phenol-d6	30	11	65
Nitrobenzene-d5	95	10	145
2-Fluorobiphenyl	96	16	138
2,4,6-Tribromophenol	90	12	132
Terphenyl-d14	94	35	138

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.4
2-Methylnaphthalene	<0.4
1-Methylnaphthalene	<0.4
Acenaphthylene	<0.04
Acenaphthene	<0.04
Fluorene	1.4 <i>646</i>
Phenanthrene	2.9 <i>NA</i>
Anthracene	<0.04
Fluoranthene	<0.04
Pyrene	1.9 <i>180</i>
Benz(a)anthracene	<0.04
Chrysene	0.61
Benzo(a)pyrene	<0.04
Benzo(b)fluoranthene	<0.04
Benzo(k)fluoranthene	<0.04
Indeno(1,2,3-cd)pyrene	<0.04
Dibenz(a,h)anthracene	<0.04
Benzo(g,h,i)perylene	<0.08

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Blank	Client:	Environmental Associates
Date Received:	Not Applicable	Project:	Renton Firestone 40139-2, F&BI 103389
Date Extracted:	03/22/21	Lab ID:	01-709 mb
Date Analyzed:	03/22/21	Data File:	032207.D
Matrix:	Water	Instrument:	GCMS8
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
2-Fluorophenol	23	15	99
Phenol-d6	16	11	65
Nitrobenzene-d5	101	10	145
2-Fluorobiphenyl	93	16	138
2,4,6-Tribromophenol	62	12	132
Terphenyl-d14	97	35	138

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.2
2-Methylnaphthalene	<0.2
1-Methylnaphthalene	<0.2
Acenaphthylene	<0.02
Acenaphthene	<0.02
Fluorene	<0.02
Phenanthrene	<0.02
Anthracene	<0.02
Fluoranthene	<0.02
Pyrene	<0.02
Benz(a)anthracene	<0.02
Chrysene	<0.02
Benzo(a)pyrene	<0.02
Benzo(b)fluoranthene	<0.02
Benzo(k)fluoranthene	<0.02
Indeno(1,2,3-cd)pyrene	<0.02
Dibenz(a,h)anthracene	<0.02
Benzo(g,h,i)perylene	<0.04



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	B7A	Client:	Environmental Associates
Date Received:	03/19/21	Project:	Renton Firestone 40139-2, F&BI 103389
Date Extracted:	03/23/21	Lab ID:	103389-01
Date Analyzed:	03/24/21	Data File:	032411.D
Matrix:	Water	Instrument:	GC9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower	Upper
TCMX	40	Limit:	Limit:
		25	160

Compounds:	Concentration ug/L (ppb)
Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Environmental Associates
Date Received:	Not Applicable	Project:	Renton Firestone 40139-2, F&BI 103389
Date Extracted:	03/23/21	Lab ID:	01-714 mb
Date Analyzed:	03/24/21	Data File:	032408.D
Matrix:	Water	Instrument:	GC9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	43	25	160

Compounds:	Concentration ug/L (ppb)
Aroclor 1221	<0.1
Aroclor 1232	<0.1
Aroclor 1016	<0.1
Aroclor 1242	<0.1
Aroclor 1248	<0.1
Aroclor 1254	<0.1
Aroclor 1260	<0.1
Aroclor 1262	<0.1
Aroclor 1268	<0.1

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 03/29/21

Date Received: 03/19/21

Project: Renton Firestone 40139-2, F&BI 103389

**QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-D<sub>x</sub>**

Laboratory Code: 103390-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	86	88	64-133	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	82	58-147

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 03/29/21

Date Received: 03/19/21

Project: Renton Firestone 40139-2, F&BI 103389

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-Dx**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	116	112	63-142	4

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 03/29/21

Date Received: 03/19/21

Project: Renton Firestone 40139-2, F&BI 103389

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR DISSOLVED METALS USING EPA METHOD 6020B**

Laboratory Code: 103389-01 x10 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	<10	91	92	75-125	1
Cadmium	ug/L (ppb)	5	<10	99	97	75-125	2
Chromium	ug/L (ppb)	20	<10	89	90	75-125	1
Lead	ug/L (ppb)	10	<10	93	92	75-125	1
Mercury	ug/L (ppb)	5	<10	91	92	75-125	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	91	80-120
Cadmium	ug/L (ppb)	5	99	80-120
Chromium	ug/L (ppb)	20	97	80-120
Lead	ug/L (ppb)	10	97	80-120
Mercury	ug/L (ppb)	5	99	80-120

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

Date of Report: 03/29/21

Date Received: 03/19/21

Project: Renton Firestone 40139-2, F&BI 103389

### QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	ug/L (ppb)	5	79	78	56-100	1
2-Methylnaphthalene	ug/L (ppb)	5	81	81	60-104	0
1-Methylnaphthalene	ug/L (ppb)	5	80	81	60-104	1
Acenaphthylene	ug/L (ppb)	5	100	99	70-130	1
Acenaphthene	ug/L (ppb)	5	91	90	65-122	1
Fluorene	ug/L (ppb)	5	86	87	70-130	1
Phenanthrene	ug/L (ppb)	5	89	89	70-130	0
Anthracene	ug/L (ppb)	5	93	93	70-130	0
Fluoranthene	ug/L (ppb)	5	103	104	70-130	1
Pyrene	ug/L (ppb)	5	102	99	70-130	3
Benz(a)anthracene	ug/L (ppb)	5	98	97	70-130	1
Chrysene	ug/L (ppb)	5	93	93	70-130	0
Benzo(a)pyrene	ug/L (ppb)	5	91	92	70-130	1
Benzo(b)fluoranthene	ug/L (ppb)	5	97	99	70-130	2
Benzo(k)fluoranthene	ug/L (ppb)	5	96	96	70-130	0
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	5	101	99	57-141	2
Dibenz(a,h)anthracene	ug/L (ppb)	5	98	95	57-137	3
Benzo(g,h,i)perylene	ug/L (ppb)	5	96	92	50-143	4

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 03/29/21

Date Received: 03/19/21

Project: Renton Firestone 40139-2, F&BI 103389

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES FOR  
POLYCHLORINATED BIPHENYLS AS  
AROCOR 1016/1260 BY EPA METHOD 8082A**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	ug/L (ppb)	0.25	65	62	25-165	5
Aroclor 1260	ug/L (ppb)	0.25	82	76	25-163	8

## **FRIEDMAN & BRUYA, INC.**

### **ENVIRONMENTAL CHEMISTS**

#### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



Phone 475-455-9025 Email info@environmental  
associatesinc.com

ME 03-19-21

VW2  
VSI

Project specific RLs? - Yes / No



Toula Prop  
same as prev submittal  
under PO #

☒ Standard turnaround E01  
☐ RUSH A11  
 Rush charges authorized by: BDZ

Default: Dispose after 30 days

Samples received at 4 °C

Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: 	Eric Zorn	EAE	3-19-21	3:33
Received by: 	Eric Zorn	F-B	3/19/21	1533
Relinquished by:				
Received by:				

DRAFT

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	B6A-10 ht	Client:	Environmental Associates
Date Received:	03/17/21	Project:	Renton Firestone 40139-2, F&BI 103339
Date Extracted:	04/01/21	Lab ID:	103339-29
Date Analyzed:	04/01/21 12:37	Data File:	040113.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	90	109
Toluene-d8	98	89	112
4-Bromofluorobenzene	101	84	115

Compounds:	Concentration mg/kg (ppm)
Hexane	<0.25
Methyl t-butyl ether (MTBE)	<0.05
1,2-Dibromoethane (EDB)	<0.05
1,2-Dichloroethane (EDC)	<0.05

# Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Environmental Associates
Date Received:	Not Applicable	Project:	Renton Firestone 40139-2, F&BI 103339
Date Extracted:	04/01/21	Lab ID:	01-679 mb
Date Analyzed:	04/01/21	Data File:	040110.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	90	109
Toluene-d8	97	89	112
4-Bromofluorobenzene	98	84	115

Compounds:	Concentration mg/kg (ppm)
Hexane	<0.25
Methyl t-butyl ether (MTBE)	<0.05
1,2-Dibromoethane (EDB)	<0.05
1,2-Dichloroethane (EDC)	<0.05

103337

Report To

Eric Ziem

Company

Environmental Associates Inc.

Address

1386 112<sup>th</sup> ave NE #300

City, State, ZIP

Bellevue, WA 98004

Phone

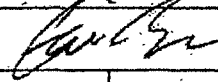
425-453-9025

Email [ez@environmentalassociatesinc.com](mailto:ez@environmentalassociatesinc.com)

## SAMPLE CHAIN OF CUSTODY

ME 03-17-21

SAMPLERS (signature)



Page # 1 of 4

J53  
BDS

PROJECT NAME

Repton Firestone

PO #

40139-2

REMARKS

3861 92<sup>nd</sup> ave NE  
Bellevue 98004

INVOICE TO

Cort Kruse  
Toula Properties LLC

Project specific RLs? - Yes / No

## TURNAROUND TIME

☒ Standard turnaround☐ RUSH

Rush charges authorized by:

## SAMPLE DISPOSAL

☐ Archive samples☐ Other

Default: Dispose after 30 days

						ANALYSES REQUESTED										Notes
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTFH-Dx	NWTFH-Gx	BTEX EPA 8021	NWTFH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082				
B11-2.5	01 A-C	3-17-21	9:19	Soil	3					X						• - per EZ 3/24/21 ME
B11-10	02		9:24		3					X						
B11-15	03		9:28		3											
B11-20	04		9:38		3					X						
B11	05 A-D		10:14	Water	4											<del>11/11/21</del> 3/24/21 ME
B12-3	06 A-C		10:36	Soil	3					X						
B12-10	07		10:34		3					X						
B12-15	08		10:38		3											
B12-20	09		10:57		3											
B12-25	10		11:23		3											

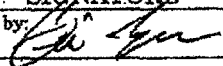

K<sup>P</sup>

Friedman &amp; Bruya, Inc.

3012 16<sup>th</sup> Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: 	Eric Ziem	EA	3-17-21	4:50
Received by: 	Khoi Hoang	FBI	3-17-21	16:50
Relinquished by:		Samples received at	4	00
Received by:				

103339

Report To

Eric Ziem

Company

EAI

Address

City, State, ZIP

Phone

Email

## SAMPLE CHAIN OF CUSTODY

ME 03-17-21

Page # 2 of 4 VS3

SAMPLERS (signature)

Eric Ziem

PROJECT NAME

Pentou Firestone

PO #

40139-2

REMARKS

INVOICE TO

Project specific RLs? - Yes / No

TURNAROUND TIME

☒ Standard turnaround☐ RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

☐ Archive samples☐ Other

Default: Dispose after 30 days

						ANALYSES REQUESTED										Notes
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTFH-Dx	NWTFH-Gx	BTEX EPA 8021	NWTFH-HCID	Chlorinated VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Arsenic			
B12-30	11 A-X	3-17-21	11:23	Soil	3					X						
B12	12 A-B		10:45	Water	4											<del>Hold per E2 B3 3/18/21 ac VOCs</del>
B13-4	13 A-X		11:41	Soil						X						
B13-16	14		11:45													
B13-13	15		11:50							X						
B13-20	16		12:16			X				X						
B13-25	17		12:29													
B13-30	18		12:43													
B13	19 A-D		12:00	Water		X				(X)						Hold per E2 B3 3/18/21 ac VOCs
B14-4	20 A-L		1:00	Soil						X						

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Eric Ziem	Eric Ziem	EAI	3-17-21	4:50
Received by: Khai Hoang	Khai Hoang	FBI	3-17-21	16:50
Relinquished by:				
Received by:				

103339

Report To

Company

Address

City, State, ZIP

Phone

Email

## SAMPLE CHAIN OF CUSTODY

ME 03-17-21

Page #

3

of

4

VS3

105

E 04

VW3

SAMPLERS (signature)

PROJECT NAME

PO #

REMARKS

INVOICE TO

Project specific RLs? - Yes / No

TURNAROUND TIME

☒ Standard turnaround☐ RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

☐ Archive samples☐ Other

Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED												Notes
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	MTGA	SVOCs	Asbestos	Hydrazine	EDS	
B14-10	21	3-17-21	1:04	Soil	3		●	●		X					●			✓ per E2 3/19
B14-12	22		1:13		3	●	●	●		X								ef
B14-15	23		1:10		3		●	●							●			
B14-20	24		1:32		3					X								■ - per E2 4/1/21 ME
B14-25	25		1:44		3													
B14-30	26		2:00		3													
B14	27		1:20	Water	4	X				X								Hold vol on B14 per E2 3/18/21 ME
BGA-4	28		2:22	Soil	3		●	●							●			
BGA-10	29		2:26		3	X	X	X			✓	✓	✓		●			
BGA-15	30		2:34		3					X				●	●			

Friedman &amp; Bruya, Inc.

3012 16<sup>th</sup> Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <i>Eric Zuer</i>	Eric Zuer	EAI	3-17-21	4:58
Received by: <i>ME</i>	Khoi Hoang	FBI	3-17-21	16:30
Relinquished by:				
Received by:				

103339

Report To

Company

Address

City, State, ZIP

Phone

Email

## SAMPLE CHAIN OF CUSTODY

ME 03-17-21

Page #

4 of 4 US3

SAMPLERS (signature)

PROJECT NAME

PO #

REMARKS

INVOICE TO

Project specific RLs? - Yes / No

TURNAROUND TIME

☒ Standard turnaround☐ RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

☐ Archive samples☐ Other

Default: Dispose after 30 days

						ANALYSES REQUESTED										Notes
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082				
B6A-20	31A-C	3-17-21	3:08	Soil	3					X						
B6A-25	32	↓	3:13	↓	3											
B6A-30	33	↓	3:28	↓	3					X						
B6A	34	↓	2:40	Water	4											

Friedman &amp; Bruya, Inc.

3012 16<sup>th</sup> Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Relinquished by:

Received by:

Relinquished by:

Received by:

Khoi Hoang

FBI

3-17-21

4:58

3-17-21

16:50



**Fremont**  
*Analytical*

3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
info@fremontanalytical.com

**Friedman & Bruya**  
Michael Erdahl  
3012 16th Ave. W.  
Seattle, WA 98119

**RE: 103339**  
**Work Order Number: 2104013**

April 08, 2021

**Attention Michael Erdahl:**

Fremont Analytical, Inc. received 1 sample(s) on 4/1/2021 for the analyses presented in the following report.

***Hexavalent Chromium by EPA Method 7196***  
***Sample Moisture (Percent Moisture)***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes  
Project Manager

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing  
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing  
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Original

[www.fremontanalytical.com](http://www.fremontanalytical.com)





**Fremont**  
*Analytical*

Date: 04/08/2021

CLIENT: Friedman & Bruya  
Project: 103339  
Work Order: 2104013

## Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2104013-001	B6A-10	03/17/2021 2:26 PM	04/01/2021 11:59 AM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Original



---

**CLIENT:** Friedman & Bruya  
**Project:** 103339

---

**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

**Qualifiers:**

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

**Acronyms:**

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**Fremont**  
Analytical

## Analytical Report

Work Order: 2104013  
Date Reported: 4/8/2021

Client: Friedman & Bruya  
Project: 103339  
Lab ID: 2104013-001  
Client Sample ID: B6A-10

Collection Date: 3/17/2021 2:26:00 PM

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Sample Moisture (Percent Moisture)</u></b>				Batch ID: R66294	Analyst: CH	
Percent Moisture	25.7	0.500		wt%	1	4/1/2021 4:53:47 PM
<b><u>Hexavalent Chromium by EPA Method 7196</u></b>				Batch ID: 31887	Analyst: LB	
Chromium, Hexavalent	ND	0.663		mg/Kg-dry	1	4/6/2021 3:57:00 PM





Work Order: 2104013  
 CLIENT: Friedman & Bruya  
 Project: 103339

## QC SUMMARY REPORT

### Hexavalent Chromium by EPA Method 7196

Sample ID: MB-31887	SampType: MBLK	Units: mg/Kg			Prep Date: 4/6/2021			RunNo: 66436			
Client ID: MBLKS	Batch ID: 31887				Analysis Date: 4/6/2021			SeqNo: 1336765			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	ND	0.500									

Sample ID: LCS-31887	SampType: LCS	Units: mg/Kg				Prep Date: 4/6/2021			RunNo: 66436		
Client ID: LCSS	Batch ID: 31887					Analysis Date: 4/6/2021			SeqNo: 1336766		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	ND	0.500	0.5000	0	97.6	86.5	114				

Sample ID: 2104013-001ADUP	SampType: DUP	Units: mg/Kg-dry				Prep Date: 4/6/2021			RunNo: 66436		
Client ID: B6A-10	Batch ID: 31887	Analysis Date: 4/6/2021						SeqNo: 1336768			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	ND	0.670						0		30	

Sample ID: 2104013-001AMS	SampType: MS	Units: mg/Kg-dry				Prep Date: 4/6/2021			RunNo: 66436		
Client ID: B6A-10	Batch ID: 31887	Analysis Date: 4/6/2021						SeqNo: 1336769			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	ND	0.673	0.6726	0.1327	-19.7	6.79	138				S

#### NOTES:

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.

Sample ID: 2104013-001AMSD	SampType: MSD	Units: mg/Kg-dry				Prep Date: 4/6/2021		RunNo: 66436			
Client ID: B6A-10	Batch ID: 31887					Analysis Date: 4/6/2021		SeqNo: 1336770			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	0.389	0.673	0.6726	0.1327	38.1	6.79	138	0		30	



## Sample Log-In Check List

Client Name: **FB**  
 Logged by: **Gabrielle Coeuille**

Work Order Number: **2104013**  
 Date Received: **4/1/2021 11:59:00 AM**

### Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐  
 2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes ☐ No ☒ NA ☐  
No cooler present  
 4. Shipping container/cooler in good condition? Yes ☒ No ☐  
 5. Custody Seals present on shipping container/cooler? Yes ☐ No ☐ Not Present ☒  
 (Refer to comments for Custody Seals not intact)  
 6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐  
 7. Were all items received at a temperature of >2°C to 6°C \* Yes ☒ No ☐ NA ☐  
 8. Sample(s) in proper container(s)? Yes ☒ No ☐  
 9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐  
 10. Are samples properly preserved? Yes ☒ No ☐  
 11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐  
 12. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒  
 13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐  
 14. Does paperwork match bottle labels? Yes ☒ No ☐  
 15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
 16. Is it clear what analyses were requested? Yes ☒ No ☐  
 17. Were all holding times able to be met? Yes ☒ No ☐

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

### Item Information

Item #	Temp °C
Sample 1	5.9

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

## SUBCONTRACT SAMPLE CHAIN OF CUSTODY

2104013

Page # 1 of 1

Send Report To Michael ErdahlCompany Friedman and Bruya, Inc.Address 3012 16th Ave WCity, State, ZIP Seattle, WA 98119Phone # (206) 285-8282 merdahl@friedmanandbruya.com

SUBCONTRACTER <u>Fremont</u>	
PROJECT NAME/NO. <u>103339</u>	PO # <u>B-203</u>
REMARKS <u>Please Email Results</u>	

TURNAROUND TIME	
<input checked="" type="checkbox"/> Standard TAT	
<input type="checkbox"/> RUSH	
Rush charges authorized by: _____	
SAMPLE DISPOSAL	
<input type="checkbox"/> Dispose after 30 days	
<input type="checkbox"/> Return samples	
<input type="checkbox"/> Will call with instructions	

Page 8 of 8


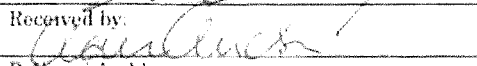
Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED										Notes
						Dioxins/Furans	EPH	VPH	C <sub>2</sub> VI							
S6A-10		3/17/21	1426	Soil	1				⊗							

Friedman & Bruya, Inc.  
3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: 	Michael Erdahl	Friedman & Bruya	4/1/21	1100AM
Received by: 	Michael Erdahl	FBI	4/1/21	1150P
Relinquished by:				
Received by:				

**LIMITED SUBSURFACE  
SAMPLING AND TESTING**

Vacant Former Firestone Complete Auto Care  
351 Rainier Avenue South  
Renton, Washington 98057

**KIDDER MATHEWS**



# ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112<sup>th</sup> Avenue Northeast, Suite 300  
Bellevue, Washington 98004  
(425) 455-9025 Office  
(888) 453-5394 Toll Free  
(425) 455-2316 Fax

February 18, 2021

JN-40139-1

Mr. Mike Catt, Associate Vice President  
Kidder Mathews  
12886 Interurban Avenue South  
Seattle, Washington 98168

Subject:       **LIMITED SUBSURFACE SAMPLING AND TESTING**  
                  **Vacant Former Firestone Auto Care Property**  
                  **351 Rainier Avenue South**  
                  **Renton, Washington 98057**

Dear Mr. Catt:

Environmental Associates, Inc. (EAI) has performed sampling and environmental testing of subsurface soils, groundwater, and soil-vapor at selected localities on the subject property. The purpose of this work was to make an assessment of the conditions beneath the property in recognition of prior on-site auto service and waste oil storage. This report, prepared in accordance with the terms of our proposal dated January 18, 2021, summarizes our approach to the project along with results and conclusions.

The contents of this report are confidential and are intended solely for your use and the use of your representatives. No other distribution or discussion of this report will take place without your prior approval in writing.

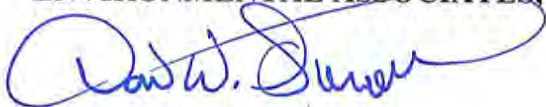


*Kidder Mathews*  
*February 18, 2021*

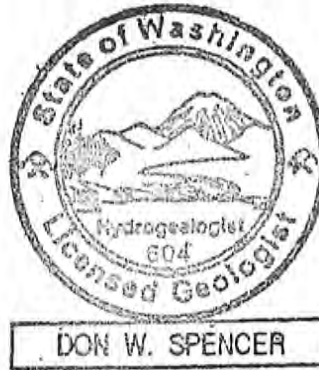
*JN-40139-1*  
*Page - 2*

We appreciate the opportunity to be of service on this assignment. If you have any questions or if we may be of additional service, please do not hesitate to contact us.

Respectfully submitted,  
**ENVIRONMENTAL ASSOCIATES, INC.**



Don W. Spencer, M.Sc., P.G.  
Principal



License: 604	(Washington)
License: 11464	(Oregon)
License: 876	(California)
License: 5195	(Illinois)
License: 0327	(Mississippi)
REPA: 418290	

---

**ENVIRONMENTAL ASSOCIATES, INC.**

---

# LIMITED SUBSURFACE SAMPLING AND TESTING

Vacant Former Firestone Auto Care Property  
351 Rainier Avenue South  
Renton, Washington 98057

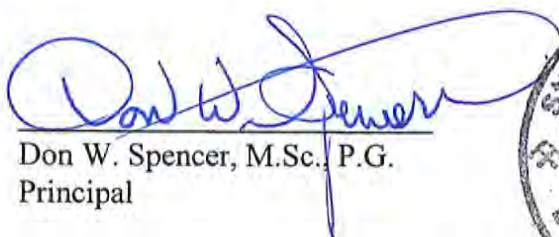
Prepared for:

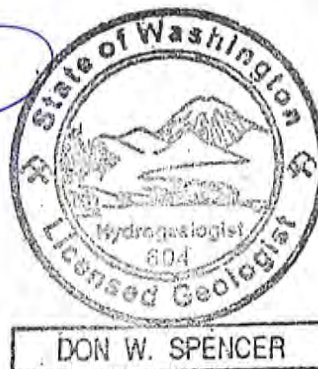
Kidder Mathews  
12886 Interurban Avenue South  
Seattle, Washington 98168

Questions regarding this investigation, the conclusions reached should be addressed to one of the following undersigned.

  
Eric Zuern

Environmental Geologist / Project Manager

  
Don W. Spencer, M.Sc., P.G.  
Principal



License: 604 (Washington)  
License: 11464 (Oregon)  
License: 876 (California)  
License: 5195 (Illinois)  
License: 0327 (Mississippi)  
REPA: 418290

Reference Job Number: JN 40139-1

February 18, 2021

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# TABLE OF CONTENTS

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<b>INTRODUCTION/SCOPE OF WORK</b> .....	5
Site/Project Description .....	5
Background .....	5
<b>FINDINGS</b> .....	6
Geophysical Survey .....	6
Subsurface Investigation .....	6
Soil Boring Sampling .....	6
Soil and Groundwater Sampling Procedure .....	7
Soil-Vapor Sampling Procedure .....	7
Subsurface Conditions .....	8
Laboratory Analysis .....	8
<b>CONCLUSIONS/RECOMMENDATIONS</b> .....	10
<b>LIMITATIONS</b> .....	11
<b>REFERENCES</b> .....	11

## **PLATES**

- Plate 1 - Vicinity/Topographic Map
- Plate 2 - Site Plan
- Plates 3-12 - Boring Logs

## **TABLES**

- Table 1 - Petroleum Hydrocarbons & BTEX Soil Sampling Results
- Table 2 - Petroleum Hydrocarbons & BTEX Groundwater Sampling Results
- Table 3 - Select VOCs Soil Sampling Results
- Table 4 - Select VOCs Groundwater Sampling Results
- Table 5 - PAH Soil Sampling Results
- Table 6 - PAHs Groundwater Sampling Report
- Table 7 - PCBs Soil Sampling Results
- Table 8 - PCBs Groundwater Sampling Results
- Table 9 - MTCA-5 Metals Soil Sampling Results
- Table 10-MTCA-5 Metals Groundwater Sampling Results
- Table 11- APH & Select VOCs Soil Vapor Sampling Results

## **APPENDICES**

- A: Laboratory Reports

---

## **INTRODUCTION/SCOPE OF WORK**

### **SITE/PROJECT DESCRIPTION**

The subject property is a roughly rectangular - shaped parcel (tax parcel number 000720-0126) covering approximately 15,578 square feet of land or approximately 0.36 acres. Existing improvements consist principally of a single-story building of masonry design enclosing approximately 8,750 square feet of space which was reportedly constructed in 1960. Additional improvements include an asphalt paved parking lot and untended landscaping. The property was recently occupied by a Firestone Automotive Service Center however the building is currently unoccupied. The approximate location of the site is shown on the Vicinity/Topographic Map, Plate 1, appended herewith.

### **Background**

In December 2020, Environmental Associates, Inc.(EAI) completed a Phase I Environmental Site Assessment for the subject. That report identified the following environmental conditions associated with the site:

- Long-term on-site automotive service and repair which utilized in-ground hoists.
- An underground waste oil storage tank (UST) had previously been utilized on the property and reportedly removed at some time in the past. No documentation regarding subsurface conditions at the time of UST removal was discovered in the readily available public record.

EAI recommended that if the client and/or other involved parties desired knowledge of current environmental conditions beneath the site, subsurface sampling and testing could be employed to assess whether impacts were present.

The reader is referred to the above reports for further details.

### **Current Study**

Your expressed interests to evaluate current subsurface conditions beneath the site as memorialized in EAI's proposal dated January 18, 2021, formed the basis for the following scope of work:

- Conduct a geophysical survey of the accessible portions of the site in an attempt to determine the former location of the historic waste oil UST.
- Drill and sample ten (10) borings surrounding the on-site building. Soil and groundwater samples were obtained from the borings and a log of subsurface conditions encountered was prepared for each boring by the EAI project geologist. Soil-vapor samples were collected from three (3) of the borings.

- Laboratory analysis of selected soil and groundwater samples for gasoline, diesel, and heavy oil total petroleum hydrocarbons as well as benzene, toluene, ethylbenzene, xylenes (BTEX) and volatile organic compounds (VOCs). Two (2) samples generally proximal to the former waste oil storage area were submitted for analysis of polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and MTCA-5 metals including arsenic, cadmium, chromium, lead, and mercury. Soil-vapor samples were analyzed for aliphatic/aromatic petroleum hydrocarbons (APHs) and select VOCs including BTEX compounds, naphthalene, and chlorinated solvents.
- Preparation of this summary report documenting the methodology and results of the investigation.

---

## **FINDINGS**

### **Geophysical Survey**

On January 28, 2021, EAI's technical team performed a geophysical survey of the interior shop areas, storage areas, and exterior parking lot of the subject in an effort to discover the former waste oil UST tank excavation as well as to "clear" each of the proposed boring locations of utilities which may be present in the exploration areas. Ground penetrating radar (GPR) equipment was used to scan for subsurface "anomalies". No anomalies (i.e. vent piping, soil disturbances, etc.) were identified which would otherwise indicate the locality of the former UST. Interior below grade electric, sewer, water, and air lines were noted within the shop building as were features which appeared to be remnants of fence posts along the western building exterior. Additionally, below grade piping was detected running from one of the former hoist areas to an above-ground stand pipe. The stand pipe was found to still contain hydraulic oil. The piping appeared to transport hydraulic oil to the hoist from a former above ground reservoir tank which likely sat next the stand pipe.

### **SUBSURFACE INVESTIGATION**

#### **Soil Boring Sampling**

Referring to the attached Site Plan, Plate 2, ten (10) borings were made on February 1 and 2, 2021 at the approximate locations noted as B1 through B10. Boring locations were selected to assess for impacts from the former hoists, as well as from where an above-ground waste oil storage tank (AST) had previously been located. "Guard" holes were also placed along the northern and southern property lines to assess for contaminant migration (if any) along the parcel boundaries. The borings were extended to depths between approximately 12 to 16 feet below ground surface (bgs) depending upon the occurrence of groundwater and reaching depths below the in-ground hoist mechanisms. Recoverable groundwater was generally encountered at various depth zones between approximately 8 feet and 12 feet bgs depending upon location across the site.

### **Soil and Groundwater Sampling Procedure**

Under the observation of the EAI field geologist, a push probe drill rig was brought into position over the borings locations. Following set-up preparations, the push-probe sampling technique consisted of advancing a plastic lined sampler into the ground. The sampler was then withdrawn and the liner was removed and cut open for examination and transfer of the soil sample to laboratory prepared glassware by EPA Method 5035 as well as sterilized 4 ounce jars.

As groundwater was observed in each boring, after soil sampling within the borings had been completed, a temporary well screen was installed in an attempt to sample the groundwater. Small diameter plastic tubing was extended from a peristaltic pump into each temporary well screen to recover groundwater samples.

Soil and groundwater samples were transferred from the sampler directly to sterilized laboratory prepared glassware which were then stored in an iced chest maintained at approximately 4 degrees centigrade at the site and taken to the laboratory in this condition in an effort to preserve sample integrity.

Each sample container was clearly labeled as to boring and sample number/depth, date, time, project, etc. EPA-recommended sample-management protocol was observed at each stage of the project. During drilling, a field log was made by EAI for each boring. Information recorded versus corresponding depth included soil classification (Unified Soil Classification System), color, texture, relative moisture, odors (if present), etc.

### **Soil-Vapor Sampling Procedure**

In an effort to evaluate soil-vapor beneath the floor slab, sampling “pins” (essentially a hollow small-diameter steel spike) were extended through the concrete slab floor at locations adjacent to B5, B9, and B10 and a soil -vapor sample from immediately beneath the floor slab was collected through the temporary sampling pin and tubing at each location.

Laboratory-prepared “summa canisters” (vacuum cylinders drawing at a predetermined rate) were utilized to collect samples of the subsurface (sub-slab) soil-vapor at the specified locations. Utilizing flow controllers and gauge-vacuum provided by Friedman & Bruya, Inc. of Seattle, Washington, soil-vapor was collected over a span of several minutes.

Each sample container was recorded as to sample number/location, date, time, project, etc. EPA-recommended sample-management protocol was observed at each stage of the project.

## **Subsurface Conditions**

Referring to boring logs (Plates 3 to 12), soils encountered within the borings generally consisted of silts, sands, and gravels, with sands or silty sands becoming prominent below a depth of 10 feet below ground surface (bgs). Groundwater was generally encountered at depths between 7 to 10 feet bgs. Petroleum odors were noticed in soils collected from boring B7 at depths between 9 to 10 feet bgs.

## **LABORATORY ANALYSIS**

Laboratory analysis of soil and groundwater samples was conducted by ESN Northwest of Olympia and Renton, Washington, Friedman & Bruya, Inc. of Seattle, Washington, and Dragon Analytical Laboratories of Tumwater, Washington, all being WDOE-accredited analytical laboratories. Select soil and groundwater samples were submitted for analysis of gasoline, diesel, and heavy oil total petroleum hydrocarbons (TPH) along with fuel constituents benzene, toluene, ethylbenzene, and xylenes (BTEX) as well as volatile organic compounds (VOCs). Two (2) samples proximal to the former waste oil storage area were also analyzed for polycyclic aromatic hydrocarbons (PAHs), MTCA-5 metals (including arsenic, cadmium, chromium, lead, and mercury), and polychlorinated biphenyls (PCBs). Soil-vapor samples were tested for aliphatic/aromatic petroleum hydrocarbons (APHs), BTEX, naphthalene, and chlorinated solvents.

As summarized in Table 1 attached to this report, total petroleum hydrocarbons (TPH) in the boiling range of diesel was reported in soils collected from boring B7 between 9 to 10 feet bgs. That detection of **7,200** parts per million (ppm) is above the applicable MTCA Method-A compliance limit for diesel TPH, currently published at **2,000** ppm. No other detections of petroleum or BTEX constituents were found in the soil samples analyzed.

As discussed in Table 2 appended to this report, diesel TPH was reported in groundwater samples from borings B6 and B7 at concentrations above the applicable MTCA Method-A cleanup level. Gasoline TPH was also reported in groundwater sampled from B6 however that concentration was below (i.e. compliant with) the published compliance limit for that analyte. Trace detections of toluene were also encountered in groundwater from borings B7, B8, and B9 at compliant concentrations while ethylbenzene was reported in groundwater sampled from B8 at a compliant level.

As documented in Table 3 attached to this report as well as the appended laboratory data, tetrachloroethene (PCE) was reported in soil sampled from B3 at a depth of 10 feet bgs and B6 at depths between 4 to 15 feet bgs. The detections at B6 at 4 and 10 feet bgs (at concentrations of 0.06 and 0.08 ppm respectively) are above the MTCA Method-A compliance limit for PCE, currently established at 0.05 ppm. Other detections of PCE just met the cleanup level. No other VOCs were reported in the soil samples analyzed.



As depicted in Table 4 attached to this report and as reflected in the appended laboratory data, PCE was reported in groundwater sampled from boring B2 at a concentration of 1.2 parts per billion (ppb) which is below (i.e. compliant with) the MTCA Method-A compliance limit of 5 ppb for PCE in groundwater.

As reported in Tables 5 and 6 attached to this report as well as the appended laboratory data, no PAHs (carcinogenic or otherwise) were detected in the soil or groundwater samples analyzed from boring B2 (former waste oil UST area).

As summarized in Tables 7 and 8 attached to this report, no detections of PCBs were found in the soil or groundwater samples analyzed from boring B2.

As documented in Table 9, attached to this report, various detections of arsenic, chromium, and lead were reported in the soil sample analyzed from boring B2 (former waste oil UST area). While the lead and arsenic detections were well below their applicable MTCA Method A compliance limits for unrestricted land use, chromium was found at 23.9 parts per million (ppm). There are two (2) species of chromium (Chromium III and Chromium VI) with each having different cleanup levels (2,000 ppm and 19 ppm respectively). Given that the detected concentration in the soil sample is between the two cleanup levels, follow-up testing would need to be conducted to discern what type of chromium is present. With that said, according to the referenced Natural Background Soil Metal Concentrations in Washington State document by WDOE, the “background” levels for chromium in soils in western Washington is 22 ppm, a value similar to the detected concentration in question. Based upon the WDOE data, and site history it would appear that the results of the completed testing would fall into the realm of normal background levels for this area.

As depicted in Table 10 appended to this report, no detections of dissolved arsenic, cadmium, chromium, lead, or mercury were reported in groundwater sampled from B2.

As shown in Table 11 along with the attached laboratory data, various APHs as well as VOCs were detected in the three (3) soil-vapor samples collected at the site. Individual analytes as well as the calculated TPH value were generally compliant with applicable MTCA Method-B screening levels except for naphthalene in each of the soil-vapor samples as well as PCE in soil-vapor sampled from B5 which were above their applicable MTCA Method-B screening limits.

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## **CONCLUSIONS / RECOMMENDATIONS**

Relying upon the results of limited soil, groundwater, and soil-vapor sampling and laboratory testing documented in this report, soil, groundwater, and soil-vapor have been impacted by the contaminants of concern (COCs). Based on the findings discussed earlier, EAI concludes that long-term use of the site for automotive service has impacted subsurface materials beneath the site.

In analyzing the data developed thus far, the diesel TPH in soils appears limited to a relatively vertically limited zone positioned between 4 to 16 feet bgs. Based upon field observations, the occurrence may consist of a band just several feet thick. The release appears to have likely originated from the former adjacent hoist mechanism. No diesel TPH was detected in soils collected from multiple depths in adjacent borings. Additionally, diesel impacted groundwater appears limited to the central shop area around borings B6 and B7.

While the single PCE detection in soil at B3 would be considered compliant, non-compliant concentrations of PCE at multiple depths in B6 including at the lowest depth sampled (15 feet bgs) indicates that the PCE release at that locality may have originated from a shallow or surficial (i.e. on-site) source and that the impact may extend to greater depths beneath the site. As PCE was not detected in borings surrounding B6, the areal extent of PCE at B6 may conceivably be limited to that area. The PCE detection at B3 may be from a separate release point. The PCE occurrences in soil appear to be the source of PCE found in soil-vapor collecting from beneath the floor slab.

Acknowledging that the full extent of impacted media was not defined during this preliminary investigation, additional subsurface sampling and testing would be necessary in the event that the client and/or other involved parties wish to quantify the extent of the contamination so that suitable management alternatives can be developed along with a reliable projection of costs which might be associated with implementation of such alternatives.

EAI has been informed that plans for the current structure include demolition. That said, if the structure is to become occupied again, EAI would then recommend that the client consider sampling and testing air from various locations including within and outside the building in an effort to determine whether subsurface vapors are migrating above the floor slab into potential occupied spaces. Alternatively, any new structures should be designed and constructed so as to incorporate an appropriate soil-vapor barrier/vapor mitigation system into the floor slab and foundation system. Indoor and outdoor air testing should then be conducted to verify the performance of that “system”.

Finally, to achieve lawful compliance with Chapter 173-340-300, WAC, copies of this report along with any future reports regarding the environmental conditions encountered be forwarded to the Northwest Regional Office of the Department of Ecology (Bellevue, Washington) by the property owner.

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## **LIMITATIONS**

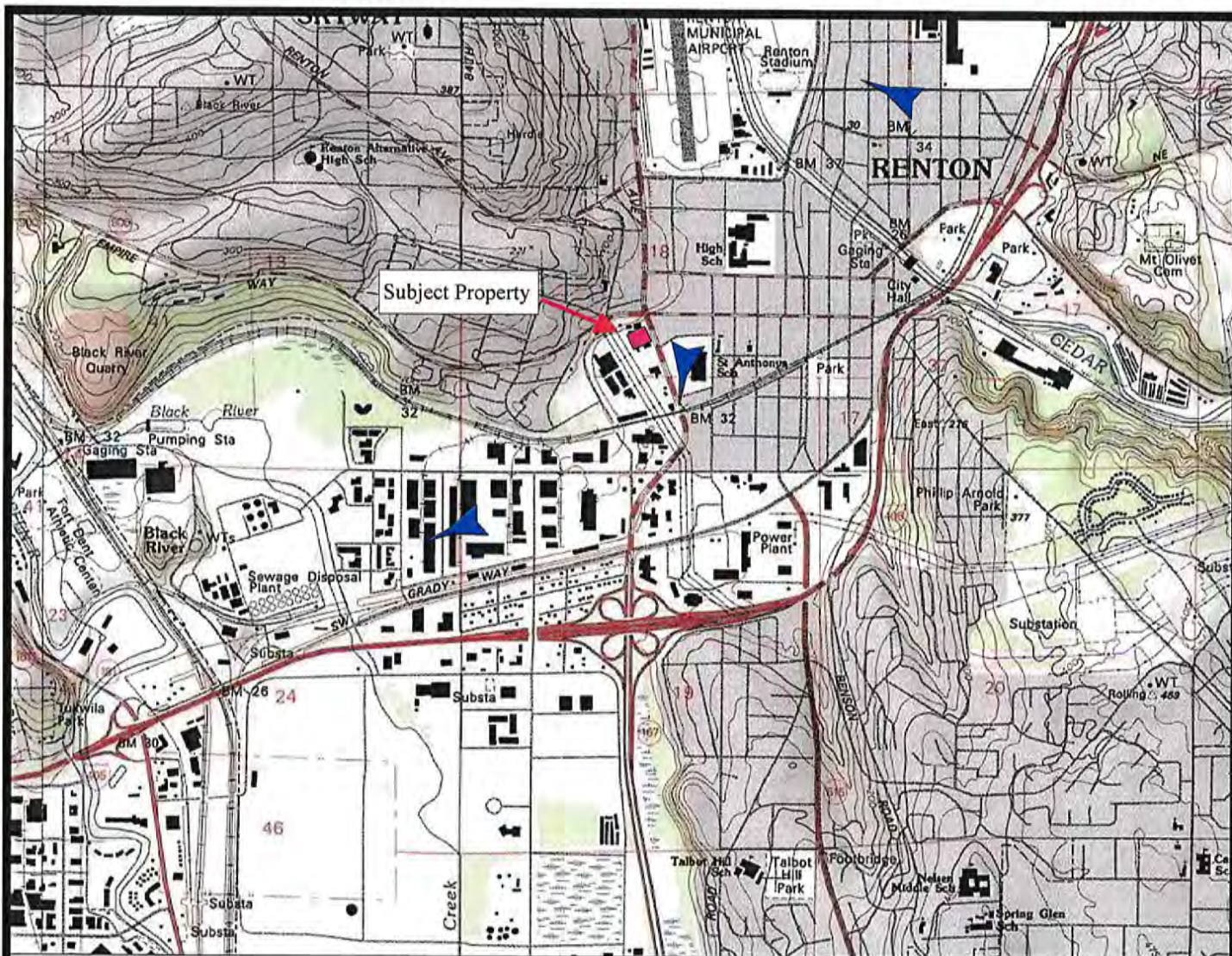
This report has been prepared for the exclusive use of Kidder Mathews and their several representatives for specific application to this site. Our work for this project was conducted in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area, and in accordance with the terms and conditions set forth in our proposal dated January 18, 2021. The findings and conclusions of this study are based upon the results of laboratory testing of selected samples obtained from separated boring localities and conditions may vary between those localities or at other locations, media, depths, or date. No other warranty, expressed or implied, is made. If new information is developed in future site work which may include excavations, borings, studies, etc., Environmental Associates, Inc., must be retained to reevaluate the conclusions of this report and to provide amendments as required.

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## **REFERENCES**

Environmental Associates, Inc., December 18, 2020, Phase I Environmental Site Assessment.  
Vacant Former Firestone Complete Auto Care, 351 Rainier Avenue South, Renton,  
Washington 98057.





0 1000 FEET 0 500 1000 METERS  
Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)



**Approximate Site Location**



**Inferred Approximate Direction of Groundwater Flow**



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Bellevue, Washington 98004

## VICINITY/TOPOGRAPHIC MAP

**Vacant Former Firestone Auto Care Property  
351 Rainier Avenue South  
Renton, Washington**

Job Number:

JN 40139-1

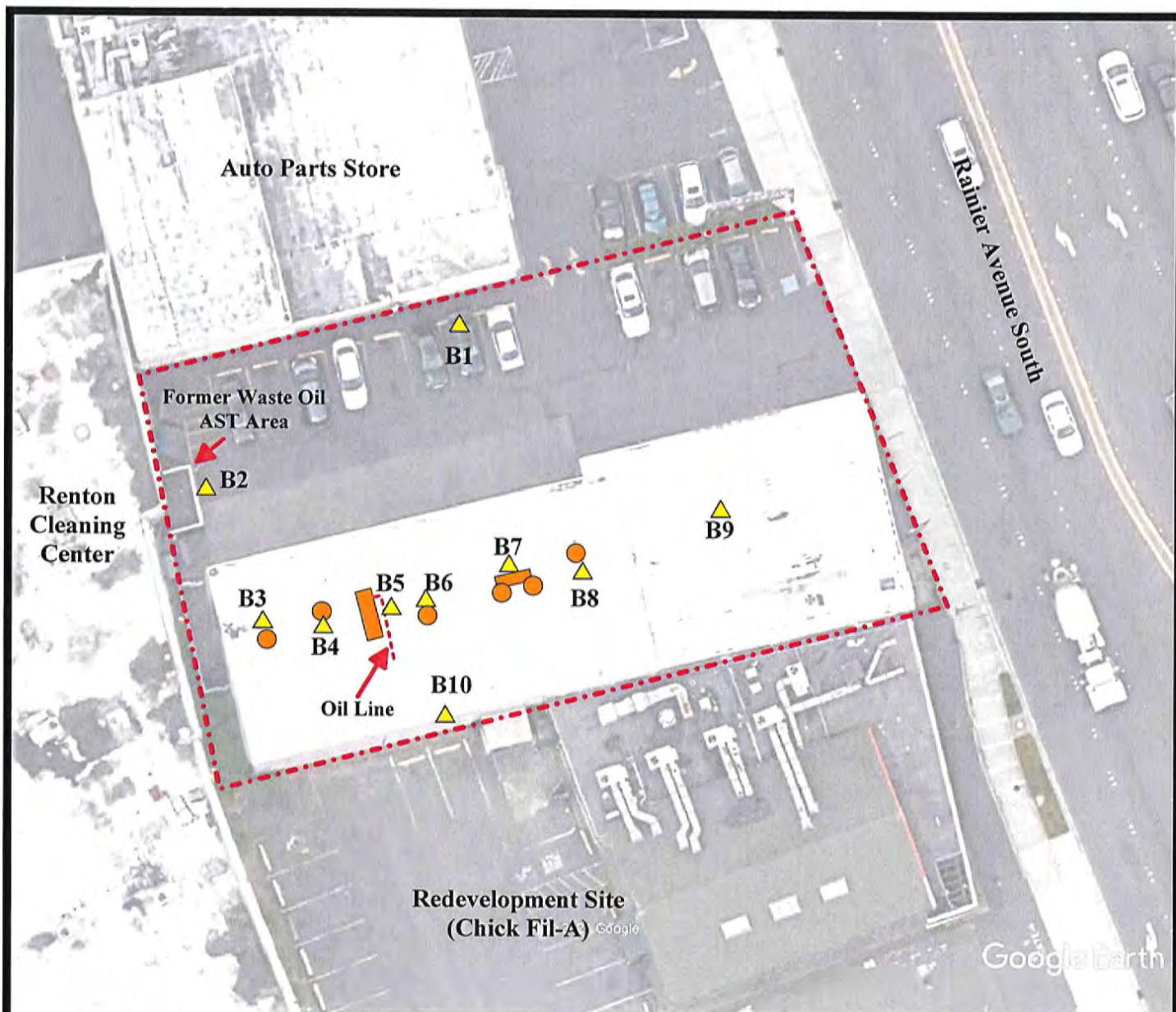
Date:

February 2021

Plate:

1





**Approximate Site Boundary**



**Approximate Boring Location**



**Approximate Hoist Mechanism Features**



**Inferred Approximate Direction of Groundwater Flow**



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## SITE PLAN

**Vacant Former Firestone Auto Care Property  
351 Rainier Avenue South  
Renton, Washington**

Job Number:  
**JN 40139-1**

Date:  
**February 2021**

Plate:  
**2**

# BORING B1

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					
5		Moist		ML	No Recovery Brown silt, moist, no odors or discoloration, PID=0
10		Moist		SP	brown sand
15	Temporary screen 11' - to 15'	Wet		ML	Brown silts, moist, no odors or discolorations, PID=0
20				SP	Grey sand, wet, no odors or discolorations, PID=0
25					Boring terminated at 15 feet below grade on February 1, 2021.
30					
35					
40					



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## Boring: B1

Vacant Former Firestone Auto Care Property  
351 Rainier Avenue South  
Renton, Washington

Job Number:  
JN 40139-1

Date:  
February 2021

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Plate:  
3

# BORING B2

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					
1					
2					
3					
4					No Recovery Brown silty sand, gravels, dry, no odors or discoloration, PID=0
5				SM/ GP	
6					
7					
8				SP	brown sand
9					
10				ML	Brown silts, moist, no odors or discolorations, PID=0
11					
12					
13					
14					
15				SM	Brown silty sand, wet, no odors or discolorations, PID=0
16					Boring terminated at 15 feet below grade on February 1, 2021.
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					



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Bellevue, Washington 98004

## Boring: B2

Vacant Former Firestone Auto Care Property  
351 Rainier Avenue South  
Renton, Washington

Job Number:  
JN 40139-1

Date:  
February 2021

Logged by:  
EAZ

Plate:  
4

# BORING B3

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					
1					No Recovery
2					
3					
4					
5		Dry		GM	Brown silt and gravels, dry, no odors or discoloration, PID=0
6					
7					
8					
9					
10		Moist		SM	brown silts and sand
11					
12					
13					
14					
15	Temporary screen 11- to 15'	Wet		ML	Brown soft silts, moist, no odors or discolorations, PID=0
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
					Grey sands, wet, no odors or discolorations, PID=0
					Boring terminated at 15 feet below grade on February 1, 2021.



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## Boring: B3

Vacant Former Firestone Auto Care Property  
351 Rainier Avenue South  
Renton, Washington

Job Number:

JN 40139-1

Date:

February 2021

Logged by:

EAZ

Plate:

5



# BORING B4

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					
1					
2					
3					
4					No Recovery
5		Dry		SM	Brown silt and sand, dry, no odors or discoloration, PID=0.4
6					
7					
8					
9				SM	brown silts and sand
10					
11					
12					
13				SM	Grey silt and sand, moist, no odors or discolorations, PID=0.1
14					
15					
16		Wet		SP	Grey sand, wet, no odors or discolorations, PID=0.1
17					Boring terminated at 15 feet below grade on February 1, 2021.
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
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35					
36					
37					
38					
39					
40					



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## Boring: B4

Vacant Former Firestone Auto Care Property  
351 Rainier Avenue South  
Renton, Washington

Job Number:

JN 40139-1

Date:

February 2021

Logged by:

EAZ

Plate:

6

# BORING B5

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					
1					
2					
3					
4					No Recovery
5		Dry		GM	Brown silt and gravels, dry, no odors or discoloration, PID=0.1
6					
7					
8				SP	brown sand
9					
10		Moist		ML	Grey silt, moist, no odors or discolorations, PID=0
11					
12					
13					
14					
15	Temporary screen 11' to 15'	Wet		SP	Grey sand, wet, no odors or discolorations, PID=0
16					Boring terminated at 15 feet below grade on February 1, 2021.
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
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36					
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39					
40					



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## Boring: B5

Vacant Former Firestone Auto Care Property  
351 Rainier Avenue South  
Renton, Washington

Job Number:

JN 40139-1

Date:

February 2021

Logged by:

EAZ

Plate:

7

# BORING B6

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					
1					
2					
3					
4					No Recovery
5		Dry		GM	Brown silt and gravels, dry, no odors or discoloration, PID=0
6					
7					No Recovery - loose material
8					
9					
10		Dry		SM	Brown silt and sand, dry, no odors or discolorations, PID=0
11					
12					
13					
14					
15		Wet		SP	Grey sand, wet, no odors or discolorations, PID=0.1
16	Boring terminated at 15 feet below grade on February 1, 2021.				
17					
18					
19					
20					
21					
22					
23					
24					
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40					



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## Boring: B6

Vacant Former Firestone Auto Care Property  
351 Rainier Avenue South  
Renton, Washington

Job Number:

JN 40139-1

Date:

February 2021

Logged by:

EAZ

Plate:

8

# BORING B7

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					No Recovery
5		Dry		ML	Brown silt, dry, no odors or discoloration, PID=0.1
10		Moist		SP	brown sands
				ML	Brown silt, moist, no odors or discolorations, PID=0.2
				ML	Grey silt, moist, petroleum odor, PID=0.7
15		Wet		SP	Grey sand, wet, no odors or discolorations, PID=0.3
				SP	Grey sand, wet, no odors or discolorations, PID=0.3
Boring terminated at 16 feet below grade on February 2, 2021.					
20					
25					
30					
35					
40					



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## Boring: B7

**Vacant Former Firestone Auto Care Property  
351 Rainier Avenue South  
Renton, Washington**

**Job Number:**

JN 40139-1

**Date:**

February 2021

**Logged by:**

EAZ

**Plate:**

9

# BORING B8

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					
1					No Recovery
2					
3					
4					Brown silt, dry, no odors or discoloration, PID=0.3
5					
6					brown sands
7					
8					Brown silt, moist, no odors or discolorations, PID=0.5
9					Brown sand, wet,
10					
11					Brown silt, moist, no odors or discolorations, PID=0.4
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
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Boring terminated at 12 feet below grade on February 2, 2021.



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## Boring: B8

Vacant Former Firestone Auto Care Property  
351 Rainier Avenue South  
Renton, Washington

Job Number:  
JN 40139-1

Date:  
February 2021

Logged by:  
EAZ

Plate:  
10

# BORING B9

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
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40					

Boring terminated at 12 feet below grade on February 2, 2021.



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## Boring: B9

Vacant Former Firestone Auto Care Property  
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Renton, Washington

Job Number:  
JN 40139-1

Date:  
February 2021

Logged by:  
EAZ

Plate:  
11

# BORING B10

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					
1					
2					
3					
4					No Recovery
5				SM/ GP	Brown silty sand and gravels, dry, no odors or discoloration, PID=0
6					
7					
8					
9				SM	Brown silty sand, moist, no odors or discolorations, PID=0.3
10					
11					
12				SM	Brown silty sand, wet, no odors or discolorations, PID=0.3
13					
14					
15					Boring terminated at 12 feet below grade on February 2, 2021.
16					
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## Boring: B10

Vacant Former Firestone Auto Care Property  
351 Rainier Avenue South  
Renton, Washington

Job Number:

JN 40139-1

Date:

February 2021

Logged by:

EAZ

Plate:

12

**TABLE 1 - Petroleum Hydrocarbons and BTEX - Soil Sampling Results**  
**All results and limits in parts per million (ppm)**

Sample & Depth	Gasoline (TPH)	Diesel	Heavy Oil	Benzene	Toluene	Ethylbenzene	Total Xylenes
B1-10 @ 10' BGS	ND	ND	ND	ND	ND	ND	ND
B2-2.5 BGS	ND	ND	ND	ND	ND	ND	ND
B3-10 @ 10' BGS	ND	ND	ND	ND	ND	ND	ND
B4-4 @ 4' BGS	ND	ND	ND	ND	ND	ND	ND
B5-3 @ 3' BGS	ND	ND	ND	ND	ND	ND	ND
B6-10 @ 10' BGS	NA	ND	ND	NA	NA	NA	NA
B6-15 @ 15' BGS	ND	ND	ND	ND	ND	ND	ND
B7-4 @ 4' BGS	NA	ND	ND	NA	NA	NA	NA
B7-9-10 @ 9' TO 10' BGS	ND	7,200	ND	ND	ND	ND	ND
B7-16 @ 16' BGS	NA	ND	ND	NA	NA	NA	NA
B8-8 @ 8' BGS	ND	ND	ND	ND	ND	ND	ND
B8-8 @ 8' BGS DUPLICATE	ND	NA	NA	NA	NA	NA	NA
B9-2 @ 2' BGS	ND	ND	ND	ND	ND	ND	ND
B10-8 @ 8' BGS	ND	ND	ND	ND	ND	ND	ND
Reporting Limit <sup>3</sup>	10	50	100	0.02	0.05	0.05	0.15
WDOE Target Compliance Level <sup>4</sup>	30 or 100 <sup>5</sup>	2000	2000	0.03	7	6	9

## Notes:

1 - "ND" denotes analyte not detected at or above listed Reporting Limit.

2 - "NA" denotes sample not analyzed for specific analyte.

3 - "Reporting Limit" represents the laboratory lower quantitation limit.

4 - Soil samples were field screened using a GasTech combustible gas meter to measure the concentration of combustible gas, such as petroleum VOCs.

Head-space VOC concentrations were measured after placing the soil sample in a sealed plastic bag and allowing soil and air inside the bag to equilibrate.

5 - The MTCA gasoline TPH cleanup level is 30 ppm for soils without benzene or toluene, ethylbenzene, and xylenes = more than 1% of gas detections otherwise it is ppm.

\* - Laboratory flag advises that "carbon range detection is indicative of kerosene rather than gasoline". Kerosene is measured against a cleanup level of 2,000 ppm.

Bold and Italics denotes concentrations above MTCA Method A soil cleanup levels.



**TABLE 2- Petroleum Hydrocarbons and BTEX- Groundwater Sampling Results**  
**All results and limits in parts per billion (ppb)**

Sample	Gasoline (TPH)	Diesel (TPH)	Heavy Oil (TPH)	Benzene	Toluene	Ethylbenzene	Total Xylenes
B1	ND	ND	ND	ND	ND	ND	ND
B2	ND	ND	ND	ND	ND	ND	ND
B3	ND	ND	ND	ND	ND	ND	ND
B4	ND	ND	ND	ND	ND	ND	ND
B5	ND	ND	ND	ND	ND	ND	ND
B6	240	<b>2,400</b>	ND	ND	ND	ND	ND
B7	ND	<b>16,000</b>	ND	ND	2.3	ND	ND
B8	ND	ND	ND	ND	2.1	1.0	ND
B9	ND	ND	ND	ND	1.3	ND	ND
B10	ND	ND	ND	ND	ND	ND	ND
Reporting Limit <sup>3</sup>	100	50	100	1	1	1	3
<b>MTCA-Method-A Cleanup Levels<sup>4</sup></b>	<b>800 or 1000<sup>5</sup></b>	<b>500</b>	<b>500</b>	<b>5</b>	<b>1000</b>	<b>700</b>	<b>1000</b>

Notes:

1 - "ND" denotes analyte not detected at or above listed Reporting Limit.

2- "NA" denotes sample not analyzed for specific analyte.

3- "Reporting Limit" represents the laboratory lower quantitation limit.

4- Method A groundwater cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC.

5- The MTCA gasoline TPH cleanup level is 800 ppb for groundwater with benzene. Otherwise, the cleanup level is 1000 ppb.

Bold and Italics denotes concentrations above existing or proposed MTCA Method A groundwater cleanup levels.

**TABLE 3- Select VOCs - Soil Sampling Results**  
**All results and limits in parts per million (ppm)**

Sample	Tetrachloroethene (PCE)	Trichloroethene (TCE)	(cis) 1,2 Dichloroethene	(trans) 1,2 Dichloroethene	Vinyl Chloride
B1-10	ND	ND	ND	ND	ND
B2-2.5	ND	ND	ND	ND	ND
B3-10	0.05	ND	ND	ND	ND
B4-4	ND	ND	ND	ND	ND
B5-3	ND	ND	ND	ND	ND
B5-15	ND	ND	ND	ND	ND
B6-4	<b>0.06</b>	ND	ND	ND	ND
B6-10	0.05	ND	ND	ND	ND
B6-15	<b>0.08</b>	ND	ND	ND	ND
B7-9-10	ND	ND	ND	ND	ND
B7-16	ND	ND	ND	ND	ND
B8-8	ND	ND	ND	ND	ND
B9-2	ND	ND	ND	ND	ND
B10-8	ND	ND	ND	ND	ND
Reporting Limit <sup>3</sup>	0.02	0.02	0.05	0.05	0.05
Cleanup Level for Unrestricted Land Use (Method-A) <sup>4</sup>	0.05	0.03	---	---	---
Cleanup Level - (Method-B) <sup>5</sup>	480	12	160	1600.0	0.667

## Notes:

1 - "ND" denotes analyte not detected at or above listed Reporting Limit.

2- "NA" denotes sample not analyzed for specific analyte.

3- "Reporting Limit" represents the laboratory lower quantitation limit.

4- Method A soil cleanup levels for unrestricted land use as published in the Model Toxics Control Act (MTCA) 173-340-WAC, Table 740-1.

5- Method-B soil cleanup levels for the "direct contact pathway", as published in Ecology's CLARC May 2014 database.

\* - Methylene Chloride contamination is suspected laboratory contamination

Bold and Italics denotes concentrations above existing MTCA Method A or B soil cleanup levels.

**TABLE 4- Select VOCs - Groundwater Sampling Results**  
**All results and limits in parts per billion (ppb)**

<b>Boring</b>	<b>Tetrachloroethene (PCE)</b>	<b>Trichloroethene (TCE)</b>	<b>(cis) 1,2 Dichloroethene</b>	<b>(trans) 1,2 Dichloroethene</b>	<b>Vinyl Chloride</b>
B1	ND	ND	ND	ND	ND
B2	1.2	ND	ND	ND	ND
B3	ND	ND	ND	ND	ND
B4	ND	ND	ND	ND	ND
B5	ND	ND	ND	ND	ND
B6	ND	ND	ND	ND	ND
B7	ND	ND	ND	ND	ND
B8	ND	ND	ND	ND	ND
B9	ND	ND	ND	ND	ND
B10	ND	ND	ND	ND	ND
Reporting Limit <sup>3</sup>	1	1	1	1	0.2
Existing Cleanup Level <sup>4</sup>	5 (A)	5 (A)	16 (B)	160 (B)	0.2 (A)

## Notes:

1 - "ND" denotes analyte not detected at or above listed Reporting Limit.

2- "NA" denotes sample not analyzed for specific analyte.

3- "Reporting Limit" represents the laboratory lower quantitation limit.

4- Method A or B groundwater cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC, amended May 2014.

Bold and Italics denotes concentrations above existing MTCA Method A groundwater cleanup levels.

**TABLE 5- Carcinogenic PAHs - Soil Sampling Results**  
**All results and limits in parts per million (ppm)**

Sample Name	Benzo(a)pyrene	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2,3,-cd)pyrene	Benzo(k)fluoranthene	Benzo(a)anthracene	Benzo(b)fluoranthene	Total Carcinogenic PAHs <sup>(5)</sup>
B2-2.5	ND	ND	ND	ND	ND	ND	ND	<b><i>ND</i></b>
cPAH Toxicity Equilant Fraction <sup>(5)</sup>	1.0	0.01	0.1	0.1	0.1	0.1	0.1	
Reporting Limit <sup>3</sup>	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
MTCA-Method-A Residential <sup>(4)</sup>	0.1	---	---	---	---	---	---	0.1
MTCA-Method-A Industrial <sup>(4)</sup>	---	---	---	---	---	---	---	2

## Notes:

1 - "ND" denotes analyte not detected at or above listed Reporting Limit.

2- "NA" denotes sample not analyzed for specific analyte.

3- "Reporting Limit" represents the laboratory lower quantitation limit.

4- Method A soil cleanup level for total carcinogenic PAHs as published in the Model Toxics Control Act (MTCA) 173-340-WAC.

5- Total carcinogenic PAHs are calculated by summing the product of each cPAH multiplied by its toxicity equivalency fraction per WAC 173-340-708(8).

Bold and Italics denotes concentrations above existing MTCA Method A soil cleanup levels.

**TABLE 6 - Carcinogenic PAHs - Groundwater Sampling Results**  
**All results and limits in parts per billion (ppb)**

<b>Strataprobe Boring</b>	<b>Benzo(a)pyrene</b>	<b>Chrysene</b>	<b>Dibenzo(a,h)anthracene</b>	<b>Indeno(1,2,3-cd)pyrene</b>	<b>Benzo(k)fluoranthene</b>	<b>Benzo(a)anthracene</b>	<b>Benzo(b)fluoranthene</b>	<b>Total Carcinogenic PAHs<sup>(5)</sup></b>
B2	ND	ND	ND	ND	ND	ND	ND	<b><i>ND</i></b>
cPAH Toxicity Equivalent Fraction <sup>(5)</sup>	1.0	0.01	0.1	0.1	0.1	0.1	0.1	
Reporting Limit <sup>3</sup>	0.1	0.1	0.1	0.1	0.1	0.1	0.1	---
Existing Cleanup Level <sup>4</sup>	---	---	---	---	---	---	---	0.1

## Notes:

1 - "ND" denotes analyte not detected at or above listed Reporting Limit.

2- "NA" denotes sample not analyzed for specific analyte.

3- "Reporting Limit" represents the laboratory lower quantitation limit.

4- Method-A Groundwater cleanup level for total carcinogenic PAHs as published in the Model Toxics Control Act (MTCA) 173-340-WAC.

5- Total carcinogenic PAHs are calculated by summing the product of each cPAH multiplied by its toxicity equivalency fraction per WAC 173-340-708(8).

Bold and Italics denotes concentrations above existing MTCA Method A soil cleanup levels.

**TABLE 7 - PCBs - Soil Sampling Results**  
**All results and limits in parts per million (ppm)**

Sample	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Total PCBs
B2-2.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Reporting Limit <sup>3</sup>	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Existing Cleanup Level <sup>4</sup>	---	---	---	---	---	---	---	---	---	1 (A)

## Notes:

1 - "ND" denotes analyte not detected at or above listed Reporting Limit.

2- "NA" denotes sample not analyzed for specific analyte.

3- "Reporting Limit" represents the laboratory lower quantitation limit.

4- Method A soil cleanup level for total PCB mixtures as published in the Model Toxics Control Act (MTCA) 173-340-WAC.

Bold and Italics denotes concentrations above existing MTCA Method A soil cleanup levels.

**TABLE 8 - PCBs - Groundwater Sampling Results**  
**All results and limits in parts per billion (ppb)**

Sample	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Total PCBs
B2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Reporting Limit <sup>3</sup>	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	---
Existing Cleanup Level <sup>4</sup>	---	---	---	---	---	---	---	---	---	0.1 (A)

**Notes:**

- 1- "ND" denotes analyte not detected at or above listed Reporting Limit.
- 2- "NA" denotes sample not analyzed for specific analyte.
- 3- "Reporting Limit" represents the laboratory lower quantitation limit.
- 4- Method A soil cleanup level for total PCB mixtures as published in the Model Toxics Control Act (MTCA) 173-340-WAC.

Bold and Italics denotes concentrations above existing MTCA Method A soil cleanup levels.

**TABLE 9 - MTCA-5 Metals - Soil Sampling Results**  
**All results and limits in parts per million (ppm)**

Sample Name	Arsenic	Cadmium	Chromium	Lead	Mercury
B2-2.5	4	ND	23.9	9.5	ND
Reporting Limit <sup>3</sup>	1	0.5	0.5	0.25	0.25
WDOE-Method-A Cleanup Level (unrestricted land use)	20	2	19 / 2000 <sup>(5)</sup>	250	2

## Notes:

- 1 - "ND" denotes analyte not detected at or above listed Reporting Limit.  
 2- "NA" denotes sample not analyzed for specific analyte.  
 3- "Reporting Limit" represents the laboratory lower quantitation limit.  
 4- Method A or B cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC.  
 5- Results reported as total chromium. The Method A target compliance level for chromium III is 2,000 ppm, while the Method-A compliance level for chromium VI is 19 ppm. Additional testing of sample B2-2.5 revealed no detections of chromium VI (hexavalent chromium).

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.



**TABLE 10 - MTCA-5 Metals - Groundwater Sampling Results**  
**All results and limits in parts per billion (ppb)**

Sample Location	Arsenic	Cadmium	Chromium	Lead	Mercury
B2 (dissolved)	ND	ND	ND	ND	ND
Reporting Limit <sup>3</sup>	1	0.5	0.5	0.25	0.25
Existing Cleanup Level <sup>4</sup>	5 (A)	5 (A)	50 (A)	15 (A)	2 (A)
<b>Notes:</b> 1 - "ND" denotes analyte not detected at or above listed Reporting Limit. 2- "NA" denotes sample not analyzed for specific analyte. 3- "Reporting Limit" represents the laboratory lower quantitation limit. 4- Method A or B cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC. f - The sample was laboratory filtered prior to analysis. Bold and Italics denotes concentrations above existing MTCA Method A soil cleanup levels.					

**TABLE 11 - APH and Select VOCs - Soil Vapor Sampling Results**  
**All results and limits in micro-grams per cubic meter (ug/M<sup>3</sup>)**

Sample Name	Location	APH EC5-8 aliphatics	APH EC9-12 aliphatics	APH EC9-10 aromatics	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	TOTAL PETROLEUM HYDROCARBONS (TPH)	Tetrachloroethene (PCE)	Trichloroethene (TCE)	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane (EDC)	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1 Trichloroethane	Vinyl Chloride
B5	Adjacent to former in-ground hoist and oil line	1900	510	180,000	4.7	<98	16.0	117.0	3.7	2,730.8	440.0	<0.56	<14	<2.1	<0.21	<2.1	<2.1	49.0	<1.3
B9	Within former service bay in eastern half of the margin of the property in former material storage	910 fb	460	170	5.4	<62	15.0	109.0	3.4	1,672.8	<22	<0.35	<8.7	<1.3	<0.13	<1.3	<1.3	3.6	<0.84
B10		710 fb	410	190,000	5.6	63.0	18.0	126.0	3.6	1,526.2	<21	<0.33	<8.2	<1.3	<0.13	<1.2	<1.2	<1.7	<0.79
WDOE - Soil Vapor Screening Levels <sup>1</sup>		90000*	4700*	6000*	11	76,000	15,000	1,500	2.50	4,700	320	12	152,000	52	3.2	---	---		9.4

**Bold and Italics** indicate concentrations of compounds that exceed the WDOE Standard Method-B Air Target Compliance Levels.

- 1 - Soil gas screening level that concentrations in the soil gas just beneath a building expected to not result in exceedance of the air cleanup level in the overlying structure, per the WDOE's Guidance For Evaluating Soil Vapor Intrusion - (April, 2015).  
 fb - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.  
 fb - The analyte was detected in the method blank.

\* - Individual petroleum fraction hydrocarbon compliance levels no longer in use and replaced with Total Petroleum Hydrocarbon (TPH) Compliance Limit per WDOE Memorandum 18 document published January 10, 2018.

## **APPENDIX A**

### Laboratory Reports



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February 16, 2021

Mr. Eric Zuern  
Environmental Associates, Inc.  
1380 112<sup>th</sup> Ave NE #300  
Bellevue, WA 98004

Dear Eric,

Please find enclosed analytical data report for **PROJECT: FIRESTONE, Project Number: 40139-1** located in Renton, WA. Fifteen soil samples and ten water samples were analyzed for Gasoline by NWTPH-Gx, VOC by EPA Method 8260, Diesel by NWTPH-Dx/Dx Ext, PAH by EPA Method 8270, PCB by EPA Method 8082, VOC-Chlorinated by EPA Method 8260 and MTCA 5 Metals by EPA Method on February 1, 2021- February 12, 2021.

The results of the analyses are summarized and included on this report. Applicable detection limits and QA/QC data are included.

ESN Analytical appreciates the opportunity to have provided services for this project. If you have any further questions about the data report, please give us a call at 425-207-8345.

Thank you so much and it was a pleasure working with your company on this project. We are looking forward to the next opportunity to work together.

Sincerely,

A handwritten signature in black ink, appearing to read 'Dely Grace Agoy', is written over a horizontal line.

Dely Grace Agoy  
Senior Chemist  
425-207-8345  
[delygrace.agoy@esnanalytical.com](mailto:delygrace.agoy@esnanalytical.com)



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# ANALYTICAL DATA REPORT

## Project: FIRESTONE

Project Number: 40139-1

Location: Renton, WA

Submitted to: ENVIROMENTAL ASSOCIATES, INC.

Project Manager: Eric Zuern

Sample Collector: Eric Zuern

**Sample Matrix: Water, Soil**



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## CONTENTS

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1. SAMPLE INFORMATION .....	1
2. TEST RESULTS .....	2
3. CHAIN OF CUSTODY .....	3





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## SAMPLE INFORMATION

SAMPLE ID	ESN Analytical Project Number	SAMPLING DATE	Sampling Time	Depth	Matrix	Analysis
B1-10	S210202.1	02/01/21	0922	10'	S	NWTPH-Gx NWTPH-Dx, 8260
B1	S210202.1	02/01/21	0940	11'-15'	W	NWTPH-Gx, NWTPH-Dx, 8260
B2-2.5	S210202.1	02/01/21	1015	2.5'	S	NWTPH-Gx NWTPH-Dx, 8260, PAH, PCB, MTCA 5 Metals
B2	S210202.1	02/01/21	1040	11'-15"	W	NWTPH-Gx NWTPH-Dx, 8260, PAH, PCB, MTCA 5 Metals
B3-10	S210202.1	02/01/21	1104	10'	S	NWTPH-Gx NWTPH-Dx, 8260
B3	S210202.1	02/01/21	1112	11'-15'	W	NWTPH-Gx NWTPH-Dx, 8260
B4-4	S210202.1	02/01/21	1146	10'	S	NWTPH-Gx NWTPH-Dx, 8260
B4	S210202.1	02/01/21	1215	2'-12'	W	NWTPH-Gx NWTPH-Dx, 8260
B5-3	S210202.1	02/01/21	1235	3'	S	NWTPH-Gx NWTPH-Dx, 8260
B5	S210202.1	02/01/21	1300	11'-15'	W	NWTPH-Gx NWTPH-Dx, 8260
B5-15	S210202.1	02/01/21	1247	15'	S	VOC-Chlorinated*
B6-4	S210201.1	02/01/21	123	4'	S	VOC-Chlorinated*
B6-10	S210201.1	02/01/21	126	10'	S	NWTPH-Dx*, VOC- Chlorinated*
B6-15	S210202.1	02/01/21	1330	15'	S	NWTPH-Gx NWTPH-Dx, 8260
B6	S210202.1	02/01/21	1345	11'-15'	W	NWTPH-Gx NWTPH-Dx, 8260
B7-4	S210203.1	02/02/21	0909	4"	S	NWTPH-Dx*
B7-9-16	S210203.1	02/02/21	0917	9'-10'	S	NWTPH-Gx, NWTPH-Dx, 8260

\*Add-on



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SAMPLE ID	ESN Analytical Project Number	SAMPLING DATE	SAMPLING TIME	DEPTH	MATRIX	ANALYSIS
B7-16	S210203.1	02/02/21	0924	16'	S	NWTPH-Dx*, VOC- Chlorinated*
B7	S210203.1	02/02/21	0935	10'-15'	W	NWTPH-Gx, NWTPH-Dx, 8260
B8-8	S210203.1	02/02/21	0949	8'	S	NWTPH-Gx, NWTPH-Dx, 8260
B8	S210203.1	02/02/21	1000	10'-15'	W	NWTPH-Gx, NWTPH-Dx, 8260
B9-2	S210203.1	02/02/21	1011	2'	S	NWTPH-Gx, NWTPH-Dx, 8260
B-9	S210203.1	02/02/21	1025	10'-15'	W	NWTPH-Gx, NWTPH-Dx, 8260
B10-8	S210203.1	02/02/21	1112	12"	S	NWTPH-Gx, NWTPH- Dx, 8260
B10	S210203.1	02/02/21	1140	10'-15'	W	NWTPH-Gx, NWTPH- Dx, 8260

\*Add-on





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## TEST RESULTS

Sampling date: February 1, 2021

### Analysis of Diesel Range Organics & Lube Oil Range Organics in Soil by Method NWTPH-Dx/Dx Extended

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (mg/kg)	Lube Oil Range Organics (mg/kg)
Method Blank	2/3/2021	2/3/2021	99	nd	nd
LCS	2/3/2021	2/3/2021	141	118%	---
B1-10	2/3/2021	2/3/2021	62	nd	nd
B2-2.5	2/3/2021	2/3/2021	73	nd	nd
B3-10	2/3/2021	2/3/2021	74	nd	nd
B4-4	2/3/2021	2/3/2021	50	nd	nd
B5-3	2/3/2021	2/3/2021	54	nd	nd
B6-15	2/3/2021	2/3/2021	64	nd	nd
B6-15 Duplicate	2/3/2021	2/3/2021	62	nd	nd
Reporting Limits				50	100

"---" Indicates not tested for component.

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

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

### Analysis of Diesel Range Organics & Lube Oil Range Organics in Water by Method NWTPH-Dx/Dx Extended

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (ug/L)	Lube Oil Range Organics (ug/L)
Method Blank	2/2/2021	2/2/2021	132	nd	nd
LCS	2/2/2021	2/2/2021	139	110%	---
B1	2/2/2021	2/2/2021	91	nd	nd
B2	2/2/2021	2/2/2021	111	nd	nd
B3	2/2/2021	2/2/2021	107	nd	nd
B4	2/2/2021	2/2/2021	91	nd	nd
B5	2/2/2021	2/2/2021	97	nd	nd
B6	2/2/2021	2/2/2021	98	2400	nd
Reporting Limits				50	100

"---" Indicates not tested for component.

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

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%



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**Analysis of Gasoline Range Organics in Soil  
by Method NWTPH-Gx**

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Gasoline Range Organics (mg/kg)
Method Blank	2/4/2021	2/4/2021	102	nd
LCS	2/4/2021	2/4/2021	106	68%
B1-10	2/1/2021	2/4/2021	100	nd
B2-2.5	2/1/2021	2/4/2021	101	nd
B3-10	2/1/2021	2/4/2021	101	nd
B4-4	2/1/2021	2/4/2021	99	nd
B5-3	2/1/2021	2/4/2021	97	nd
B6-15	2/1/2021	2/4/2021	98	nd
Reporting Limits				10

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

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

**Analysis of Gasoline Range Organics in Water  
by Method NWTPH-Gx**

Sample Number	Date Analyzed	Surrogate Recovery (%)	Gasoline Range Organics (ug/L)
Method Blank	2/3/2021	101	nd
LCS	2/3/2021	95	64%
B1	2/3/2021	99	nd
B2	2/3/2021	93	nd
B3	2/3/2021	87	nd
B4	2/3/2021	106	nd
B5	2/3/2021	95	nd
B6	2/3/2021	109	240

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

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%



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Analysis of Volatile Organic Compounds in Soil by Method 8260C/5035

	RL	MB	LCS	LCSD	B1-10	B2-2.5	B3-10	B4-4
Date extracted		02/04/21	02/04/21	02/04/21	02/01/21	02/01/21	02/01/21	02/01/21
Date analyzed	(mg/Kg)	02/04/21	02/04/21	02/04/21	02/04/21	02/04/21	02/04/21	02/04/21
% Moisture					29%	7%	31%	29%
Dichlorodifluoromethane	0.05	nd			nd	nd	nd	nd
Chloromethane	0.05	nd			nd	nd	nd	nd
Vinyl chloride	0.02	nd	90%	107%	nd	nd	nd	nd
Bromomethane	0.05	nd			nd	nd	nd	nd
Chloroethane	0.05	nd			nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd			nd	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd			nd	nd	nd	nd
1,1-Dichloroethane	0.05	nd			nd	nd	nd	nd
2-Butanone (MEK)	0.25	nd			nd	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd			nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd			nd	nd	nd	nd
Chloroform	0.05	nd	107%	128%	nd	nd	nd	nd
Bromochloromethane	0.05	nd			nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd			nd	nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd			nd	nd	nd	nd
1,1-Dichloropropene	0.05	nd			nd	nd	nd	nd
Carbon tetrachloride	0.05	nd			nd	nd	nd	nd
Benzene	0.02	nd	84%	106%	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	88%	106%	nd	nd	nd	nd
1,2-Dichloropropane	0.05	nd	83%	102%	nd	nd	nd	nd
Dibromomethane	0.05	nd			nd	nd	nd	nd
Bromodichloromethane	0.05	nd			nd	nd	nd	nd
4-Methyl-2-pentanone (MIBK)	0.25	nd			nd	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd			nd	nd	nd	nd
Toluene	0.05	nd	76%	122%	nd	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd			nd	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd			nd	nd	nd	nd
2-Hexanone	0.25	nd			nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd			nd	nd	nd	nd
Dibromochloromethane	0.05	nd			nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	79%	97%	nd	nd	0.05	nd
1,2-Dibromoethane (EDB)	0.05	nd			nd	nd	nd	nd
Chlorobenzene	0.05	nd	85%	105%	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd			nd	nd	nd	nd
Ethylbenzene	0.05	nd	76%	99%	nd	nd	nd	nd
Xylenes	0.15	nd	76%	105%	nd	nd	nd	nd
Styrene	0.05	nd			nd	nd	nd	nd
Bromoform	0.05	nd			nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd			nd	nd	nd	nd
Isopropylbenzene	0.05	nd			nd	nd	nd	nd
1,2,3-Trichloropropane	0.05	nd			nd	nd	nd	nd
Bromobenzene	0.05	nd			nd	nd	nd	nd
n-Propylbenzene	0.05	nd			nd	nd	nd	nd





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Analysis of Volatile Organic Compounds in Soil by Method 8260C/5035

	RL	MB	LCS	LCSD	B1-10	B2-2.5	B3-10	B4-4
Date extracted		02/04/21	02/04/21	02/04/21	02/01/21	02/01/21	02/01/21	02/01/21
Date analyzed	(mg/Kg)	02/04/21	02/04/21	02/04/21	02/04/21	02/04/21	02/04/21	02/04/21
% Moisture					29%	7%	31%	29%
n-Propylbenzene	0.05	nd			nd	nd	nd	nd
2-Chlorotoluene	0.05	nd			nd	nd	nd	nd
4-Chlorotoluene	0.05	nd			nd	nd	nd	nd
1,3,5-Trimethylbenzene	0.05	nd			nd	nd	nd	nd
tert-Butylbenzene	0.05	nd			nd	nd	nd	nd
1,2,4-Trimethylbenzene	0.05	nd			nd	nd	nd	nd
sec-Butylbenzene	0.05	nd			nd	nd	nd	nd
1,3-Dichlorobenzene	0.05	nd			nd	nd	nd	nd
1,4-Dichlorobenzene	0.05	nd			nd	nd	nd	nd
Isopropyltoluene	0.05	nd			nd	nd	nd	nd
1,2-Dichlorobenzene	0.05	nd			nd	nd	nd	nd
n-Butylbenzene	0.05	nd			nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd			nd	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd			nd	nd	nd	nd
Naphthalene	0.05	nd			nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.05	nd			nd	nd	nd	nd
1,2,3-Trichlorobenzene	0.05	nd			nd	nd	nd	nd
Surrogate recoveries								
Dibromofluoromethane		124%	120%	117%	117%	126%	117%	125%
Toluene-d8		97%	98%	99%	95%	93%	95%	97%
4-Bromofluorobenzene		102%	104%	105%	100%	101%	101%	99%

Data Qualifiers and Analytical Comments  
nd - not detected at listed reporting limits  
Acceptable Recovery limits: 65% TO 135%  
Acceptable RPD limit: 35%



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# Analysis of Volatile Organic Compounds in Soil by Method 8260C/5035

	RL	B5-3	B6-15
Date extracted		02/01/21	02/01/21
Date analyzed	(mg/Kg)	02/04/21	02/04/21
% Moisture		21%	22%
Dichlorodifluoromethane	0.05	nd	nd
Chloromethane	0.05	nd	nd
Vinyl chloride	0.02	nd	nd
Bromomethane	0.05	nd	nd
Chloroethane	0.05	nd	nd
Trichlorofluoromethane	0.05	nd	nd
trans-1,2-Dichloroethene	0.05	nd	nd
1,1-Dichloroethane	0.05	nd	nd
2-Butanone (MEK)	0.25	nd	nd
cis-1,2-Dichloroethene	0.05	nd	nd
2,2-Dichloropropane	0.05	nd	nd
Chloroform	0.05	nd	nd
Bromochloromethane	0.05	nd	nd
1,1,1-Trichloroethane	0.05	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd	nd
1,1-Dichloropropene	0.05	nd	nd
Carbon tetrachloride	0.05	nd	nd
Benzene	0.02	nd	nd
Trichloroethene (TCE)	0.02	nd	nd
1,2-Dichloropropane	0.05	nd	nd
Dibromomethane	0.05	nd	nd
Bromodichloromethane	0.05	nd	nd
4-Methyl-2-pentanone (MIBK)	0.25	nd	nd
cis-1,3-Dichloropropene	0.05	nd	nd
Toluene	0.05	nd	nd
trans-1,3-Dichloropropene	0.05	nd	nd
1,1,2-Trichloroethane	0.05	nd	nd
2-Hexanone	0.25	nd	nd
1,3-Dichloropropane	0.05	nd	nd
Dibromochloromethane	0.05	nd	nd
Tetrachloroethene (PCE)	0.02	nd	0.08
1,2-Dibromoethane (EDB)	0.05	nd	nd
Chlorobenzene	0.05	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd	nd
Ethylbenzene	0.05	nd	nd
Xylenes	0.15	nd	nd
Styrene	0.05	nd	nd
Bromoform	0.05	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd	nd
Isopropylbenzene	0.05	nd	nd
1,2,3-Trichloropropane	0.05	nd	nd
Bromobenzene	0.05	nd	nd



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# Analysis of Volatile Organic Compounds in Soil by Method 8260C/5035

	RL	B5-3	B6-15
Date extracted		02/01/21	02/01/21
Date analyzed	(mg/Kg)	02/04/21	02/04/21
% Moisture		21%	22%
n-Propylbenzene	0.05	nd	nd
2-Chlorotoluene	0.05	nd	nd
4-Chlorotoluene	0.05	nd	nd
1,3,5-Trimethylbenzene	0.05	nd	nd
tert-Butylbenzene	0.05	nd	nd
1,2,4-Trimethylbenzene	0.05	nd	nd
sec-Butylbenzene	0.05	nd	nd
1,3-Dichlorobenzene	0.05	nd	nd
1,4-Dichlorobenzene	0.05	nd	nd
Isopropyltoluene	0.05	nd	nd
1,2-Dichlorobenzene	0.05	nd	nd
n-Butylbenzene	0.05	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd	nd
1,2,4-Trichlorobenzene	0.05	nd	nd
Naphthalene	0.05	nd	nd
Hexachloro-1,3-butadiene	0.05	nd	nd
1,2,3-Trichlorobenzene	0.05	nd	nd
Surrogate recoveries			
Dibromofluoromethane		124%	126%
Toluene-d8		97%	97%
4-Bromofluorobenzene		97%	98%

## Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

Acceptable Recovery limits: 65% TO 135%

Acceptable RPD limit: 35%





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# Analysis of Volatile Organic Compounds in Water by Method 8260C/5030C

## Analytical Results

	RL	MB	LCS	LCS D	B1	B2	B3	B4
Date analyzed	(ug/L)	02/03/21	02/03/21	02/03/21	02/03/21	02/03/21	02/12/21	02/03/21
Dichlorodifluoromethane	1.0	nd			nd	nd	nd	nd
Chloromethane	1.0	nd			nd	nd	nd	nd
Vinyl chloride	0.2	nd	99%	98%	nd	nd	nd	nd
Bromomethane	1.0	nd			nd	nd	nd	nd
Chloroethane	1.0	nd			nd	nd	nd	nd
Trichlorofluoromethane	1.0	nd			nd	nd	nd	nd
Acetone	10.0	nd			nd	nd	nd	nd
1,1-Dichloroethene	1.0	nd			nd	nd	nd	nd
2-Butanone (MEK)	10.0	nd			nd	nd	nd	nd
n-hexane	1.0	nd			nd	nd	nd	nd
cis-1,2-Dichloroethene	1.0	nd			nd	nd	nd	nd
2,2-Dichloropropane	1.0	nd			nd	nd	nd	nd
Chloroform	1.0	nd	115%	126%	nd	nd	nd	nd
Bromochloromethane	1.0	nd			nd	nd	nd	nd
1,1,1-Trichloroethane	1.0	nd			nd	nd	nd	nd
1,2-Dichloroethane (EDC)	1.0	nd			nd	nd	nd	nd
1,1-Dichloropropene	1.0	nd			nd	nd	nd	nd
Carbon tetrachloride	1.0	nd			nd	nd	nd	nd
Benzene	1.0	nd	98%	103%	nd	nd	nd	nd
Trichloroethene (TCE)	1.0	nd	102%	99%	nd	nd	nd	nd
1,2-Dichloropropane	1.0	nd	101%	105%	nd	nd	nd	nd
Dibromomethane	1.0	nd			nd	nd	nd	nd
Bromedichloromethane	1.0	nd			nd	nd	nd	nd
4-Methyl-2-pentanone (MIBK)	1.0	nd			nd	nd	nd	nd
cis-1,3-Dichloropropene	1.0	nd			nd	nd	nd	nd
Toluene	1.0	nd	97%	89%	nd	nd	nd	nd
trans-1,3-Dichloropropene	1.0	nd			nd	nd	nd	nd
1,1,2-Trichloroethane	1.0	nd			nd	nd	nd	nd
2-Hexanone	1.0	nd			nd	nd	nd	nd
1,3-Dichloropropane	1.0	nd			nd	nd	nd	nd
Dibromochloromethane	1.0	nd			nd	nd	nd	nd
Tetrachloroethene (PCE)	1.0	nd	94%	87%	nd	1.2	nd	nd
1,2-Dibromoethane (EDB)	1.0	nd			nd	nd	nd	nd
Chlorobenzene	1.0	nd	101%	98%	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	1.0	nd			nd	nd	nd	nd
Ethylbenzene	1.0	nd	92%	84%	nd	nd	nd	nd
Xylenes	3.0	nd	111%	83%	nd	nd	nd	nd
Styrene	1.0	nd			nd	nd	nd	nd
Bromoform	1.0	nd			nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	1.0	nd			nd	nd	nd	nd
Isopropylbenzene	1.0	nd			nd	nd	nd	nd
1,2,3-Trichloropropane	1.0	nd			nd	nd	nd	nd
Bromobenzene	1.0	nd			nd	nd	nd	nd
n-Propylbenzene	1.0	nd			nd	nd	nd	nd



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Analysis of Volatile Organic Compounds in Water by Method 8260C/5030C

Analytical Results

	RL	MB	LCS	LCSD	B1	B2	B3	B4
Date analyzed	(ug/L)	02/03/21	02/03/21	02/03/21	02/03/21	02/03/21	02/12/21	02/03/21
2-Chlorotoluene	1.0	nd			nd	nd	nd	nd
4-Chlorotoluene	1.0	nd			nd	nd	nd	nd
1,3,5-Trimethylbenzene	1.0	nd			nd	nd	nd	nd
tert-Butylbenzene	1.0	nd			nd	nd	nd	nd
1,2,4-Trimethylbenzene	1.0	nd			nd	nd	nd	nd
sec-Butylbenzene	1.0	nd			nd	nd	nd	nd
1,3-Dichlorobenzene	1.0	nd			nd	nd	nd	nd
1,4-Dichlorobenzene	1.0	nd			nd	nd	nd	nd
Isopropyltoluene	1.0	nd			nd	nd	nd	nd
1,2-Dichlorobenzene	1.0	nd			nd	nd	nd	nd
n-Butylbenzene	1.0	nd			nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	1.0	nd			nd	nd	nd	nd
1,2,4-Trichlorobenzene	1.0	nd			nd	nd	nd	nd
Naphthalene	1.0	nd			nd	nd	nd	nd
Hexachloro-1,3-butadiene	1.0	nd			nd	nd	nd	nd
1,2,3-Trichlorobenzene	1.0	nd			nd	nd	nd	nd

Surrogate recoveries

Dibromofluoromethane	118%	117%	124%	121%	122%	127%	127%
Toluene-d8	94%	98%	102%	93%	97%	96%	100%
4-Bromofluorobenzene	101%	103%	101%	99%	93%	101%	106%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits  
 Acceptable Recovery limits: 65% TO 135%  
 Acceptable RPD limit: 35%





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Analysis of Volatile Organic Compounds in Water by Method 8260C/5030C

Analytical Results

	RL	B5	B6
Date analyzed	(ug/L)	02/03/21	02/03/21
Dichlorodifluoromethane	1.0	nd	nd
Chloromethane	1.0	nd	nd
Vinyl chloride	0.2	nd	nd
Bromomethane	1.0	nd	nd
Chloroethane	1.0	nd	nd
Trichlorofluoromethane	1.0	nd	nd
Acetone	10.0	nd	nd
1,1-Dichloroethene	1.0	nd	nd
2-Butanone (MEK)	10.0	nd	nd
n-hexane	1.0	nd	nd
cis-1,2-Dichloroethene	1.0	nd	nd
2,2-Dichloropropane	1.0	nd	nd
Chloroform	1.0	nd	nd
Bromochloromethane	1.0	nd	nd
1,1,1-Trichloroethane	1.0	nd	nd
1,2-Dichloroethane (EDC)	1.0	nd	nd
1,1-Dichloropropene	1.0	nd	nd
Carbon tetrachloride	1.0	nd	nd
Benzene	1.0	nd	nd
Trichloroethene (TCE)	1.0	nd	nd
1,2-Dichloropropane	1.0	nd	nd
Dibromomethane	1.0	nd	nd
Bromodichloromethane	1.0	nd	nd
4-Methyl-2-pentanone (MIBK)	1.0	nd	nd
cis-1,3-Dichloropropene	1.0	nd	nd
Toluene	1.0	nd	nd
trans-1,3-Dichloropropene	1.0	nd	nd
1,1,2-Trichloroethane	1.0	nd	nd
2-Hexanone	1.0	nd	nd
1,3-Dichloropropane	1.0	nd	nd
Dibromochloromethane	1.0	nd	nd
Tetrachloroethene (PCE)	1.0	nd	nd
1,2-Dibromoethane (EDB)	1.0	nd	nd
Chlorobenzene	1.0	nd	nd
1,1,1,2-Tetrachloroethane	1.0	nd	nd
Ethylbenzene	1.0	nd	nd
Xylenes	3.0	nd	nd
Styrene	1.0	nd	nd
Bromoform	1.0	nd	nd
1,1,2,2-Tetrachloroethane	1.0	nd	nd
Isopropylbenzene	1.0	nd	nd
1,2,3-Trichloropropane	1.0	nd	nd
Bromobenzene	1.0	nd	nd
n-Propylbenzene	1.0	nd	nd



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**Analysis of Volatile Organic Compounds in Water by Method 8260C/5030C**

**Analytical Results**

	RL	B5	B6
Date analyzed	(ug/L)	02/03/21	02/03/21
n-Propylbenzene	1.0	nd	nd
2-Chlorotoluene	1.0	nd	nd
4-Chlorotoluene	1.0	nd	nd
1,3,5-Trimethylbenzene	1.0	nd	nd
tert-Butylbenzene	1.0	nd	nd
1,2,4-Trimethylbenzene	1.0	nd	nd
sec-Butylbenzene	1.0	nd	nd
1,3-Dichlorobenzene	1.0	nd	nd
1,4-Dichlorobenzene	1.0	nd	nd
Isopropyltoluene	1.0	nd	nd
1,2-Dichlorobenzene	1.0	nd	nd
n-Butylbenzene	1.0	nd	nd
1,2-Dibromo-3-Chloropropane	1.0	nd	nd
1,2,4-Trichlorobenzene	1.0	nd	nd
Naphthalene	1.0	nd	nd
Hexachloro-1,3-butadiene	1.0	nd	nd
1,2,3-Trichlorobenzene	1.0	nd	nd

**Surrogate recoveries**

Dibromofluoromethane	125%	112%
Toluene-d8	99%	91%
4-Bromofluorobenzene	95%	109%

**Data Qualifiers and Analytical Comments**

nd - not detected at listed reporting limits  
Acceptable Recovery limits: 65% TO 135%  
Acceptable RPD limit: 35%



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# Analysis of Polynuclear Aromatic Hydrocarbons in Water by Method 8270E

## Analytical Results

	Reporting	MTH BLK	LCS	B2
Date extracted	Limits	02/02/21	02/02/21	02/02/21
Date analyzed	(ug/L)	02/02/21	02/02/21	02/02/21
Naphthalene	0.1	nd	107%	nd
2-Methylnaphthalene	0.1	nd	105%	nd
1-Methylnaphthalene	0.1	nd	100%	nd
Acenaphthylene	0.1	nd	133%	nd
Acenaphthene	0.1	nd	100%	nd
Fluorene	0.1	nd	114%	nd
Phenanthrene	0.1	nd	98%	nd
Anthracene	0.1	nd	99%	nd
Fluoranthene	0.1	nd	108%	nd
Pyrene	0.1	nd	106%	nd
Benzo(a)anthracene*	0.1	nd	78%	nd
Chrysene*	0.1	nd	121%	nd
Benzo(b)fluoranthene*	0.1	nd	94%	nd
Benzo(k)fluoranthene*	0.1	nd	93%	nd
Benzo(a)pyrene*	0.1	nd	95%	nd
Indeno(1,2,3-cd)pyrene*	0.1	nd	121%	nd
Dibenzo(a,h)anthracene*	0.1	nd	85%	nd
Benzo(ghi)perylene	0.1	nd	86%	nd

Total Carcinogens nd

## Surrogate recoveries:

2-Fluorobiphenyl	77%	95%	104%
p-Terphenyl-d14	116%	92%	106%

## Data Qualifiers and Analytical Comments

\* - Carcinogenic Analyte

nd - not detected at listed reporting limits

ns - not spiked

Acceptable Recovery limits: 50% TO 150%

Acceptable RPD limit: 35%



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# Analysis of Polynuclear Aromatic Hydrocarbons in Soil by Method 8270E

## Analytical Results

		MTH BLK	LCS	B2-2.5
Date extracted	Reporting	02/03/21	02/03/21	02/03/21
Date analyzed	Limits	02/03/21	02/03/21	02/03/21
Moisture, %	(mg/kg)			7%
Naphthalene	0.02	nd	102%	nd
2-Methylnaphthalene	0.02	nd	105%	nd
1-Methylnaphthalene	0.02	nd	99%	nd
Acenaphthylene	0.02	nd	135%	nd
Acenaphthene	0.02	nd	99%	nd
Fluorene	0.02	nd	112%	nd
Phenanthrene	0.02	nd	99%	nd
Anthracene	0.02	nd	96%	nd
Fluoranthene	0.02	nd	111%	nd
Pyrene	0.02	nd	109%	nd
Benzo(a)anthracene*	0.02	nd	81%	nd
Chrysene*	0.02	nd	122%	nd
Benzo(b)fluoranthene*	0.02	nd	96%	nd
Benzo(k)fluoranthene*	0.02	nd	112%	nd
Benzo(a)pyrene*	0.02	nd	96%	nd
Indeno(1,2,3-cd)pyrene*	0.02	nd	107%	nd
Dibenzo(a,h)anthracene*	0.02	nd	93%	nd
Benzo(ghi)perylene	0.02	nd	88%	nd

Total Carcinogens nd

## Surrogate recoveries:

2-Fluorobiphenyl	98%	95%	72%
p-Terphenyl-d14	97%	97%	71%

## Data Qualifiers and Analytical Comments

\* - Carcinogenic Analyte

nd - not detected at listed reporting limits

ns - not spiked

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

Acceptable RPD limit: 35%





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### Third Party Laboratory Test Results



## DRAGON ANALYTICAL LABORATORY

627 Duell Road SE, STE 8105, Tumwater, WA 98501 (360)866-0543  
CustomerService@DragonLaboratory.com

Hazardous Waste, Microbiology, NPDES, Potable and Non-potable Water  
Mobile Environmental Laboratory



ESN Analytical  
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Sampled By: Unknown

DAL Project No.: 210202-02

Project Name: Firestone

Project No.: Firestone

PO No.: n/a

Date Collected: 2/1/2021; 10:15 - 10:40

Date Received: 2/2/2021; 11:30

Temperature Received (°C): 4

Report Date: 2/8/2021

Preparation Method: US EPA 200.8 Dissolved

Analytical Method: US EPA 200.8

Date Prepared: 2/2/2021

Date Analyzed: 2/4/2021

Analyst: TM

Units: ug/L

Matrix: Non-Potable Water

Reporting Limits: Standard

Instrument ID: Agilent 7500

Lab Data File: 21B04k00

#### DISSOLVED HEAVY METALS ANALYTICAL RESULTS

Analyte	CAS No.	MRL	Method Blank	B2
Arsenic (As)	7440-38-2	1.0	nd	nd
Cadmium (Cd)	7440-43-9	0.50	nd	nd
Chromium (Cr)	7440-47-3	0.50	nd	nd
Lead (Pb)	7439-92-1	0.25	nd	nd
Mercury (Hg)	7439-97-6	0.25	nd	nd
Dilution Factor			1.0	1.0

#### DISSOLVED HEAVY METALS QUALITY CONTROL RESULTS

##### LABORATORY CONTROL SAMPLE AND MATRIX SPIKE

QC Batch ID: 210204-Metals		MS/MSD Sample ID: 210204-Metals MS/MSD								LCS Sample ID: 210204-Metals LCS			
Analyte	MS/MSD Level (ug/L)	Sample Conc. (ug/L)	MS Recovery (ug/L)	MS Percent Recovery	MSD Recovery (ug/L)	MSD Percent Recovery	MS/MSD Limits (%)	RPD	MS/MSD RPD Limits	LCS Level (ug/L)	LCS Recovery (ug/L)	LCS Percent Recovery	LCS Limits (%)
Arsenic (As)	50	0.51	50.0	98.9%	50.7	100%	70-130	1.4	≤ 25%	50	49.0	97.9%	85-115
Cadmium (Cd)	50	0.00	49.4	98.9%	49.7	99.4%	70-130	0.56	≤ 25%	50	48.2	96.4%	85-115
Chromium (Cr)	50	7.4	57.3	99.8%	56.6	98.5%	70-130	1.3	≤ 25%	50	54.1	108%	65-115
Lead (Pb)	50	0.40	50.8	101%	50.8	101%	70-130	0.040	≤ 25%	50	50.1	100%	85-115
Mercury (Hg)	4.0	0.020	4.0	99.8%	4.3	106%	70-130	6.1	≤ 25%	4.0	4.0	99.8%	85-115

WA-DOE-Laboratory Certification No.: C890

Comments and Explanations: None.

\*nd\* indicates the analyte was not detected at or above the listed Method Reporting Limit.

n/a indicates not applicable



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Preparation Method: US EPA 3050B  
Analytical Method: US EPA 6020B  
Date Prepared: 2/2/2021  
Date Analyzed: 2/4/2021  
Analyst: TM

Units: mg/kg  
Matrix: Soil  
Reporting Limits: Standard  
Instrument ID: Agilent 7500  
Lab Data File: 21B04K00

#### TOTAL METALS ANALYTICAL RESULTS

Sample Identification	CAS No.	MRL	Method Blank	B2-2.5
Arsenic (As)	7440-38-2	1.0	nd	4.0
Cadmium (Cd)	7440-43-9	0.50	nd	nd
Chromium (Cr)	7440-47-3	0.50	nd	23.9
Lead (Pb)	7439-92-1	0.25	nd	9.5
Mercury (Hg)	7439-97-6	0.25	nd	nd
Percent Solids (%)				92.1
Dilution Factor				1000

#### TOTAL METALS QUALITY CONTROL RESULTS

##### LABORATORY CONTROL SAMPLE AND MATRIX SPIKE

QC Batch ID: 210204-Metals

MS-PD Sample ID: 210204-Metals MS-PD

LCS Sample ID: 210204-Metals LCS

Analyte	MS-PD Level (mg/kg)	Sample Conc. (mg/kg)	MS-PD Recovery (mg/kg)	MS-PD Percent Recovery	MS-PD Limits (%)	LCS Level (mg/kg)	LCS Recovery (mg/kg)	LCS Percent Recovery	LCS Limits (%)
Arsenic (As)	0.050	0.0037	0.051	95.1%	75-125	0.050	0.050	101%	80-120
Cadmium (Cd)	0.050	0.00016	0.049	98.3%	75-125	0.050	0.049	98.9%	80-120
Chromium (Cr)	0.050	0.022	0.065	86.6%	75-125	0.050	0.049	98.2%	80-120
Lead (Pb)	0.050	0.0088	0.057	97.0%	75-125	0.050	0.050	101%	80-120
Mercury (Hg)	0.0040	0.00	0.0039	95.4%	75-125	0.0040	0.0039	97.3%	80-120

WA-DOE-Laboratory Certification No.: C890  
Sample results based on dry weight.

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n/a indicates not applicable

Comments and Explanations: None.



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ESN Analytical  
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Renton, WA 98056

Sampled By: Unknown

DAL Project No.: 210202-02

Project Name: Firestone

Project No.: Firestone

P.O. No.: n/a

Date Collected: 2/1/2021; 10:15 - 10:40

Date Received: 2/2/2021; 11:30

Temperature Received (°C): 4

Report Date: 2/8/2021

Preparation Method: US EPA 3510C

Analytical Method: US EPA 8062A

Date Prepared: 2/2/2021

Date Analyzed: 2/2/2021

Analyst: TM

Units: µg/L

Matrix: Non-Potable Water

Reporting Limits: Standard

Injection Volume: 2 µL

Instrument ID: Agilent 9074

Lab Data File: 21020201

#### PCB's ANALYTICAL RESULTS

Sample Identification	CAS No.	MRL	Method Blank	B2
PCB Aroclor 1016	12674-11-2	0.050	nd	nd
PCB Aroclor 1221	1104-28-2	0.050	nd	nd
PCB Aroclor 1232	11141-16-5	0.050	nd	nd
PCB Aroclor 1242	53469-21-9	0.050	nd	nd
PCB Aroclor 1248	12672-29-6	0.050	nd	nd
PCB Aroclor 1254	11097-69-1	0.050	nd	nd
PCB Aroclor 1260	11096-82-5	0.050	nd	nd
PCB Aroclor 1262	37324-23-5	0.050	nd	nd
PCB Aroclor 1268	11100-14-4	0.050	nd	nd
Concentration Factor				200

#### Data Flags

Comments and Explanations: None.

#### PCB's QUALITY CONTROL RESULTS SURROGATE RECOVERY

Surrogate	Limits (%)	Method Blank	B2
TCMX	30-150	104	99.3
DCBP	30-150	124	117

#### LABORATORY CONTROL SAMPLE AND MATRIX SPIKE

QC Batch ID: 210202-PCB

MS/MSD Sample ID: 210202-PCB MS/MSD

LCS Sample ID: 210202-PCB LCS

Analyte	MS/MSD Limits (%)	MS/MSD Level (µg/L)	Sample Conc. (µg/L)	MS Recovery (µg/L)	MS Percent Recovery	MSD Recovery (µg/L)	MSD Percent Recovery	RPD	LCS Limits (%)	LCS Level (µg/L)	LCS Recovery (µg/L)	LCS Percent Recovery
PCB Aroclor 1016	29-135	400	nd	418	104%	395	98.7%	5.6	50-120	400	411	103%
PCB Aroclor 1260	29-135	400	nd	245	61.2%	378	93.9%	42.2	50-120	400	395	98.6%

WA-DOE Laboratory Certification No.: C890

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"n/a" indicates not applicable

Comments and Explanations: None.



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ESN Analytical  
3155 NE Sunset Blvd, Suite A  
Renton, WA 98056

Sampled By: Unknown

DAL Project No.: 210202-02

Project Name: Firestone

Project No.: Firestone

P.O. No.: n/a

Date Collected: 2/1/2021; 10:15 - 10:40

Date Received: 2/2/2021; 11:30

Temperature Received (°C): 4

Report Date: 2/8/2021

Preparation Method: US EPA 3550C

Analytical Method: US EPA 8082A

Date Prepared: 2/2/2021

Date Analyzed: 2/2/2021

Analyst: TM

Units: mg/kg

Matrix: Solids

Reporting Limits: Standard

Injection Volume: 2 µL

Instrument ID: Agilent 9074

Lab Data File: 21020201

#### PCB's ANALYTICAL RESULTS

Sample Identification	CAS No.	MRL	Method Blank	B2-2.5
PCB Aroclor 1016	12874-11-2	0.0050	nd	nd
PCB Aroclor 1221	1104-28-2	0.0050	nd	nd
PCB Aroclor 1232	11141-16-5	0.0050	nd	nd
PCB Aroclor 1242	53469-21-9	0.0050	nd	nd
PCB Aroclor 1248	12672-29-6	0.0050	nd	nd
PCB Aroclor 1254	11097-69-1	0.0050	nd	nd
PCB Aroclor 1260	11096-82-5	0.0050	nd	nd
PCB Aroclor 1262	37324-23-5	0.0050	nd	nd
PCB Aroclor 1268	11100-14-4	0.0050	nd	nd
Dilution Factor				100
Percent Solids				92.1
Data Flags				

Comments and Explanations: None.

#### PCB's QUALITY CONTROL RESULTS SURROGATE RECOVERY

Surrogate	Limits (%)	Method Blank	B2-2.5
TCMX	30-150	118	112
DCBP	30-150	96.5	89.7

#### LABORATORY CONTROL SAMPLE AND MATRIX SPIKE

QC Batch ID: 210202-PCB

MS/MSD Sample ID: 210202-PCB MS/MSD

LCS Sample ID: 210202-PCB LCS

Analyte	MS/MSD Limits (%)	MS/MSD Level (mg/kg)	Sample Conc. (mg/kg)	MS Recovery (mg/kg)	MS Percent Recovery	MSD Recovery (mg/kg)	MSD Percent Recovery	RPD	LCS Limits (%)	LCS Level (mg/kg)	LCS Recovery (mg/kg)	LCS Percent Recovery
PCB Aroclor 1016	29-135	0.40	nd	0.42	104%	0.39	98.7%	5.6	50-120	0.40	0.42	105%
PCB Aroclor 1260	29-135	0.40	nd	0.24	61.2%	0.38	93.9%	42.2	50-120	0.40	0.24	61.2%

WA-DOE-Laboratory Certification No.: C690

"nd" indicates the analyte was not detected at or above the listed Method Reporting Limit.

"n/a" indicates not applicable

Comments and Explanations: None.





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Sampling Date: February 2, 2021

Analysis of Diesel Range Organics & Lube Oil Range Organics in Soil by Method NWTPH-Dx/Dx Extended

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (mg/kg)	Lube Oil Range Organics (mg/kg)
Method Blank	2/3/2021	2/3/2021	99	nd	nd
LCS	2/3/2021	2/3/2021	141	118%	---
B7-9-10	2/3/2021	2/3/2021	52	7200	nd
B8-8	2/3/2021	2/3/2021	62	nd	nd
B9-2	2/3/2021	2/3/2021	56	nd	nd
B10-8	2/3/2021	2/3/2021	67	nd	nd
Reporting Limits				50	100

"---" Indicates not tested for component.

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

Analysis of Diesel Range Organics & Lube Oil Range Organics in Water by Method NWTPH-Dx/Dx Extended

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (ug/L)	Lube Oil Range Organics (ug/L)
Method Blank	2/4/2021	2/4/2021	91	nd	nd
LCS	2/4/2021	2/4/2021	133	102%	---
B7	2/4/2021	2/4/2021	85	16000	nd
B8	2/4/2021	2/4/2021	77	nd	nd
B9	2/4/2021	2/4/2021	67	nd	nd
B10	2/4/2021	2/4/2021	73	nd	nd
Reporting Limits				50	100

"---" Indicates not tested for component.

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

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%



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**Analysis of Gasoline Range Organics in Soil  
by Method NWTPH-Gx**

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Gasoline Range Organics (mg/kg)
Method Blank	2/4/2021	2/4/2021	102	nd
LCS	2/4/2021	2/4/2021	106	68%
B7-9-10	2/2/2021	2/4/2021	96	nd
B8-8	2/2/2021	2/4/2021	103	nd
B8-8 Duplicate	2/2/2021	2/4/2021	101	nd
B9-2	2/2/2021	2/4/2021	98	nd
B10-8	2/2/2021	2/4/2021	101	nd
Reporting Limits				10

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

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

**Analysis of Gasoline Range Organics in Water  
by Method NWTPH-Gx**

Sample Number	Date Analyzed	Surrogate Recovery (%)	Gasoline Range Organics (ug/L)
Method Blank	2/3/2021	101	nd
LCS	2/3/2021	95	64%
B7	2/3/2021	99	nd
B8	2/3/2021	94	nd
B9	2/3/2021	99	nd
B10	2/3/2021	98	nd
Reporting Limits			100

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

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%



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Analysis of Volatile Organic Compounds in Water by Method 8260C/5030C

Analytical Results

	RL	MB	LCS	LCSD	B7	B8	B9	B10
Date analyzed	(ug/L)	02/03/21	02/03/21	02/03/21	02/03/21	02/03/21	02/03/21	02/03/21
Dichlorodifluoromethane	1.0	nd			nd	nd	nd	nd
Chloromethane	1.0	nd			nd	nd	nd	nd
Vinyl chloride	0.2	nd	99%	98%	nd	nd	nd	nd
Bromomethane	1.0	nd			nd	nd	nd	nd
Chloroethane	1.0	nd			nd	nd	nd	nd
Trichlorofluoromethane	1.0	nd			nd	nd	nd	nd
Acetone	10.0	nd			nd	nd	nd	nd
1,1-Dichloroethene	1.0	nd	103%	119%	nd	nd	nd	nd
Methylene chloride	1.0	nd			nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	1.0	nd			nd	nd	nd	nd
trans-1,2-Dichloroethene	1.0	nd			nd	nd	nd	nd
1,1-Dichloroethane	1.0	nd			nd	nd	nd	nd
2-Butanone (MEK)	10.0	nd			nd	nd	nd	nd
n-hexane	1.0	nd			nd	nd	nd	nd
cis-1,2-Dichloroethene	1.0	nd			nd	nd	nd	nd
2,2-Dichloropropane	1.0	nd			nd	nd	nd	nd
Chloroform	1.0	nd	115%	126%	nd	nd	nd	nd
Bromochloromethane	1.0	nd			nd	nd	nd	nd
1,1,1-Trichloroethane	1.0	nd			nd	nd	nd	nd
1,2-Dichloroethane (EDC)	1.0	nd			nd	nd	nd	nd
1,1-Dichloropropene	1.0	nd			nd	nd	nd	nd
Carbon tetrachloride	1.0	nd			nd	nd	nd	nd
Benzene	1.0	nd	98%	103%	nd	nd	nd	nd
Trichloroethene (TCE)	1.0	nd	102%	99%	nd	nd	nd	nd
1,2-Dichloropropane	1.0	nd	101%	105%	nd	nd	nd	nd
Dibromomethane	1.0	nd			nd	nd	nd	nd
Bromodichloromethane	1.0	nd			nd	nd	nd	nd
4-Methyl-2-pentanone (MIBK)	1.0	nd			nd	nd	nd	nd
cis-1,3-Dichloropropene	1.0	nd			nd	nd	nd	nd
Toluene	1.0	nd	97%	89%	2.3	2.1	1.3	nd
trans-1,3-Dichloropropene	1.0	nd			nd	nd	nd	nd
1,1,2-Trichloroethane	1.0	nd			nd	nd	nd	nd
2-Hexanone	1.0	nd			nd	nd	nd	nd
1,3-Dichloropropane	1.0	nd			nd	nd	nd	nd
Dibromochloromethane	1.0	nd			nd	nd	nd	nd
Tetrachloroethene (PCE)	1.0	nd	94%	87%	nd	nd	nd	nd
1,2-Dibromoethane (EDB)	1.0	nd			nd	nd	nd	nd
Chlorobenzene	1.0	nd	101%	98%	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	1.0	nd			nd	nd	nd	nd
Ethylbenzene	1.0	nd	92%	84%	nd	1.0	nd	nd
Xylenes	3.0	nd	111%	83%	nd	nd	nd	nd
Styrene	1.0	nd			nd	nd	nd	nd
Bromoform	1.0	nd			nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	1.0	nd			nd	nd	nd	nd
Isopropylbenzene	1.0	nd			nd	nd	nd	nd
1,2,3-Trichloropropane	1.0	nd			nd	nd	nd	nd
Bromobenzene	1.0	nd			nd	nd	nd	nd





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Analysis of Volatile Organic Compounds in Water by Method 8260C/5030C

Analytical Results

	RL	MB	LCS	LCSD	B7	B8	B9	B10
Date analyzed	(ug/L)	02/03/21	02/03/21	02/03/21	02/03/21	02/03/21	02/03/21	02/03/21
n-Propylbenzene	1.0	nd			nd	nd	nd	nd
2-Chlorotoluene	1.0	nd			nd	nd	nd	nd
4-Chlorotoluene	1.0	nd			nd	nd	nd	nd
1,3,5-Trimethylbenzene	1.0	nd			nd	nd	nd	nd
tert-Butylbenzene	1.0	nd			nd	nd	nd	nd
1,2,4-Trimethylbenzene	1.0	nd			nd	nd	nd	nd
sec-Butylbenzene	1.0	nd			nd	nd	nd	nd
1,3-Dichlorobenzene	1.0	nd			nd	nd	nd	nd
1,4-Dichlorobenzene	1.0	nd			nd	nd	nd	nd
Isopropyltoluene	1.0	nd			nd	nd	nd	nd
1,2-Dichlorobenzene	1.0	nd			nd	nd	nd	nd
n-Butylbenzene	1.0	nd			nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	1.0	nd			nd	nd	nd	nd
1,2,4-Trichlorobenzene	1.0	nd			nd	nd	nd	nd
Naphthalene	1.0	nd			nd	nd	nd	nd
Hexachloro-1,3-butadiene	1.0	nd			nd	nd	nd	nd
1,2,3-Trichlorobenzene	1.0	nd			nd	nd	nd	nd
Surrogate recoveries								
Dibromofluoromethane		118%	117%	124%	137%*	142%*	125%	128%
Toluene-d8		94%	98%	102%	100%	98%	97%	96%
4-Bromofluorobenzene		101%	103%	101%	99%	94%	99%	98%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

Acceptable Recovery limits: 65% TO 135%

Acceptable RPD limit: 35%

\*Dibromofluoromethane exceeded acceptable recovery limits. Analytes compared to this surrogate were non-detect, therefore no further action was taken



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Analysis of Volatile Organic Compounds in Soil by Method 8260C/5035

	RL	MB	LCS	LCSD	B7-9-10	B8-8	B9-2	B10-8
Date extracted		02/04/21	02/04/21	02/04/21	02/02/21	02/02/21	02/02/21	02/02/21
Date analyzed	(mg/Kg)	02/04/21	02/04/21	02/04/21	02/04/21	02/04/21	02/04/21	02/04/21
% Moisture					37%	32%	7%	27%
Dichlorodifluoromethane	0.05	nd			nd	nd	nd	nd
Chloromethane	0.05	nd			nd	nd	nd	nd
Vinyl chloride	0.02	nd	90%	107%	nd	nd	nd	nd
Bromomethane	0.05	nd			nd	nd	nd	nd
Chloroethane	0.05	nd			nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd			nd	nd	nd	nd
Acetone	0.25	nd			nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	104%	125%	nd	nd	nd	nd
Methylene chloride	0.05	nd			nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	0.05	nd			nd	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd			nd	nd	nd	nd
1,1-Dichloroethane	0.05	nd			nd	nd	nd	nd
2-Butanone (MEK)	0.25	nd			nd	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd			nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd			nd	nd	nd	nd
Chloroform	0.05	nd	107%	128%	nd	nd	nd	nd
Bromochloromethane	0.05	nd			nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd			nd	nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd			nd	nd	nd	nd
1,1-Dichloropropene	0.05	nd			nd	nd	nd	nd
Carbon tetrachloride	0.05	nd			nd	nd	nd	nd
Benzene	0.02	nd	84%	106%	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	88%	106%	nd	nd	nd	nd
1,2-Dichloropropane	0.05	nd	83%	102%	nd	nd	nd	nd
Dibromomethane	0.05	nd			nd	nd	nd	nd
Bromodichloromethane	0.05	nd			nd	nd	nd	nd
4-Methyl-2-pentanone (MIBK)	0.25	nd			nd	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd			nd	nd	nd	nd
Toluene	0.05	nd	76%	122%	nd	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd			nd	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd			nd	nd	nd	nd
2-Hexanone	0.25	nd			nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd			nd	nd	nd	nd
Dibromochloromethane	0.05	nd			nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	79%	97%	nd	nd	nd	nd
1,2-Dibromoethane (EDB)	0.05	nd			nd	nd	nd	nd
Chlorobenzene	0.05	nd	85%	105%	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd			nd	nd	nd	nd
Ethylbenzene	0.05	nd	76%	99%	nd	nd	nd	nd
Xylenes	0.15	nd	76%	105%	nd	nd	nd	nd
Styrene	0.05	nd			nd	nd	nd	nd
Bromoform	0.05	nd			nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd			nd	nd	nd	nd
Isopropylbenzene	0.05	nd			nd	nd	nd	nd
1,2,3-Trichloropropane	0.05	nd			nd	nd	nd	nd
Bromobenzene	0.05	nd			nd	nd	nd	nd



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 Email: [lab@esnanalytical.com](mailto:lab@esnanalytical.com)  
 Web: [www.esnanalytical.com](http://www.esnanalytical.com)

Analysis of Volatile Organic Compounds in Soil by Method 8260C/5035

	RL	MB	LCS	LCSD	B7-9-10	B8-8	B9-2	B10-8
Date extracted		02/04/21	02/04/21	02/04/21	02/02/21	02/02/21	02/02/21	02/02/21
Date analyzed	(mg/Kg)	02/04/21	02/04/21	02/04/21	02/04/21	02/04/21	02/04/21	02/04/21
% Moisture					37%	32%	7%	27%
n-Propylbenzene	0.05	nd			nd	nd	nd	nd
2-Chlorotoluene	0.05	nd			nd	nd	nd	nd
4-Chlorotoluene	0.05	nd			nd	nd	nd	nd
1,3,5-Trimethylbenzene	0.05	nd			nd	nd	nd	nd
tert-Butylbenzene	0.05	nd			nd	nd	nd	nd
1,2,4-Trimethylbenzene	0.05	nd			nd	nd	nd	nd
sec-Butylbenzene	0.05	nd			nd	nd	nd	nd
1,3-Dichlorobenzene	0.05	nd			nd	nd	nd	nd
1,4-Dichlorobenzene	0.05	nd			nd	nd	nd	nd
Isopropyltoluene	0.05	nd			nd	nd	nd	nd
1,2-Dichlorobenzene	0.05	nd			nd	nd	nd	nd
n-Butylbenzene	0.05	nd			nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd			nd	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd			nd	nd	nd	nd
Naphthalene	0.05	nd			nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.05	nd			nd	nd	nd	nd
1,2,3-Trichlorobenzene	0.05	nd			nd	nd	nd	nd
Surrogate recoveries								
Dibromofluoromethane		124%	120%	117%	131%	120%	122%	122%
Toluene-d8		97%	98%	99%	102%	95%	96%	98%
4-Bromofluorobenzene		102%	104%	105%	96%	103%	98%	101%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits  
 Acceptable Recovery limits: 65% TO 135%  
 Acceptable RPD limit: 35%



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## ADDITIONAL ANALYSIS TEST RESULTS

### Analysis of Diesel Range Organics & Lube Oil Range Organics in Soil by Method NWTPH-Dx/Dx Extended

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (mg/kg)	Lube Oil Range Organics (mg/kg)
Method Blank	2/10/2021	2/10/2021	64	nd	nd
LCS	2/10/2021	2/10/2021	65	72%	---
B6-10	2/10/2021	2/10/2021	52	nd	nd
B7-4	2/10/2021	2/10/2021	73	nd	nd
B7-16	2/10/2021	2/10/2021	68	nd	nd
Reporting Limits				50	100

"---" Indicates not tested for component.

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

Analyst: LH

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%





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 Web: [www.esnanalytical.com](http://www.esnanalytical.com)

Analysis of Chlorinated Volatile Organic Compounds in Soil by Method 8260C/5035

	RL	MB	LCS	LCSD	B5-15	B6-4	B6-10	B7-16
Date extracted		02/12/21	02/12/21	02/12/21	02/01/21	02/01/21	02/01/21	02/02/21
Date analyzed	(mg/Kg)	02/12/21	02/12/21	02/12/21	02/12/21	02/12/21	02/12/21	02/12/21
% Moisture					19%	16%	21%	19%
Dichlorodifluoromethane	0.05	nd			nd	nd	nd	nd
Chloromethane	0.05	nd			nd	nd	nd	nd
Vinyl chloride	0.02	nd	103%	94%	nd	nd	nd	nd
Chloroethane	0.05	nd			nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd			nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	75%	68%	nd	nd	nd	nd
Methylene chloride	0.05	nd			nd	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd			nd	nd	nd	nd
1,1-Dichloroethane	0.05	nd			nd	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd			nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd			nd	nd	nd	nd
Chloroform	0.05	nd	76%	66%	nd	nd	nd	nd
Bromochloromethane	0.05	nd			nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd			nd	nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd	82%	70%	nd	nd	nd	nd
1,1-Dichloropropene	0.05	nd			nd	nd	nd	nd
Carbon tetrachloride	0.05	nd			nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	127%	112%	nd	nd	nd	nd
1,2-Dichloropropane	0.05	nd	125%	106%	nd	nd	nd	nd
Bromodichloromethane	0.05	nd			nd	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd			nd	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd			nd	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd			nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd			nd	nd	nd	nd
Dibromochloromethane	0.05	nd			nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	117%	102%	nd	0.06	0.05	nd
Chlorobenzene	0.05	nd	130%	115%	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd			nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd			nd	nd	nd	nd
1,2,3-Trichloropropane	0.05	nd			nd	nd	nd	nd
2-Chlorotoluene	0.05	nd			nd	nd	nd	nd
4-Chlorotoluene	0.05	nd			nd	nd	nd	nd
1,3-Dichlorobenzene	0.05	nd			nd	nd	nd	nd
1,4-Dichlorobenzene	0.05	nd			nd	nd	nd	nd
1,2-Dichlorobenzene	0.05	nd			nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd			nd	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd			nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.05	nd			nd	nd	nd	nd
1,2,3-Trichlorobenzene	0.05	nd			nd	nd	nd	nd
Surrogate recoveries								
Dibromofluoromethane		129%	124%	116%	121%	119%	125%	126%
Toluene-d8		97%	99%	97%	95%	96%	96%	98%
4-Bromofluorobenzene		101%	105%	107%	99%	106%	98%	104%

Data Qualifiers and Analytical Comments  
 nd - not detected at listed reporting limits  
 Acceptable Recovery limits: 65% TO 135%  
 Acceptable RPD limit: 35%

Analyst: Jennifer A





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Web: [www.esnanalytical.com](http://www.esnanalytical.com)

ESN

5210202.1

# CHAIN-OF-CUSTODY RECORD

CLIENT: <u>Guillevant Associates Inc.</u>		DATE: <u>2-1-21</u>	PAGE <u>1</u> OF <u>2</u>																										
ADDRESS: <u>1380 112th ave NE #300 Bellevue WA 98004</u>		PROJECT NAME: <u>Freestar</u>																											
PHONE: <u>425-488-9025</u> EMAIL: <u>info@guillevantassociatesinc.com</u>		LOCATION: <u>Reuter</u>																											
CLIENT PROJECT #: <u>401391</u> PROJECT MANAGER: <u>Eric Ziem</u>		COLLECTOR: <u>Eric Ziem</u>	DATE OF COLLECTION: <u>2-1-21</u>																										
Sample Number	Depth	Time	Sample Type	Container Type	TPH-HC10	TPH-DIESEL AND OIL	TPH-GASOLINE	BTEX-R260	VOC-R260CL	VOC-R260	SEMI-VOC-R270	PAH'S-R270	PCB'S-R082	CL PESTICIDES-B081	RCRA 8 Metals	MICA 5 Metals	Pb	ASBESTOS-PLM	GRO Suite-R30-1	DRO Suite-R30-1	1-DEB Suite-QM	1-DEB Suite-QM							
1. B-1	4'	9:15	Soil																										
2. B-1-10	10'	9:22	↓																										
3. B-1-15	15'	9:29	↓																										
4. B-1	11-15	9:40	Water																										
5. B-2-2.5	2.5'	10:15	Soil																										
6. B-2-10	10'	10:19	↓																										
7. B-2-15	15'	10:25	↓																										
8. B-2	11-15	10:40	Water																										
9. B-3-4	4'	10:59	Soil																										
10. B-3-10	10'	11:04	↓																										
11. B-3-15	15'	11:07	↓																										
12. B-3	11-15	11:12	Water																										
13. B-4-4	4'	11:46	Soil																										
14. B-4-10	10'	12:04	↓																										
15. B-4-15	15'	12:08	↓																										
16. B-4	11-15	12:15	Water																										
17. B-5-3	3'	12:35	Soil																										
18. B-5-10	10'	12:42	↓																										
RELINQUISHED BY (Signature) <u>[Signature]</u>		DATE/TIME <u>2-1-21 2:00</u>	RECEIVED BY (Signature) <u>[Signature]</u>	DATE/TIME <u>2-1-21 2:00</u>	SAMPLE RECEIPT																								
RELINQUISHED BY (Signature) <u>[Signature]</u>					DATE/TIME <u>2-1-21 2:00</u>					RECEIVED BY (Signature) <u>[Signature]</u>					DATE/TIME <u>2-1-21 2:00</u>					TOTAL NUMBER OF CONTAINERS <u>76</u>					CHAIN OF CUSTODY SEALS Y/N/NA <u>Call Eric for bill</u>				
RECEIVED GOOD COND./COLO					NOTES					RECEIVED GOOD COND./COLO					NOTES					Turn Around Time: 24 HR / 48 HR / 5 DAY									

1210 Eastside Street SE, Suite 200  
Olympia, Washington 98501

Phone: 360-459-4670  
Fax: 360-459-3432

Website: [www.esnanalytical.com](http://www.esnanalytical.com)  
E-Mail: [lab@esnan.com](mailto:lab@esnan.com)



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ESN

5210210.2R (Add-on)

# CHAIN-OF-CUSTODY RECORD

CLIENT: <u>ATE</u>	DATE: <u>2-1-21</u>	PAGE <u>2</u> OF <u>2</u>
ADDRESS: _____	PROJECT NAME: <u>Fireside</u>	
PHONE: _____	LOCATION: <u>Renton</u>	
EMAIL: _____	COLLECTOR: <u>Eric Ziem</u>	DATE OF COLLECTION: <u>2-1-21</u>
CLIENT PROJECT #: <u>40139-1</u>	PROJECT MANAGER: <u>Eric Ziem</u>	

Sample Number	Depth	Time	Sample Type	Container Type	TPH-HC/D	TPH-DIESEL AND OIL	TPH-GASOLINE	BTEX 8260	VOC 8260CL	VOC 8260	SEMI-VOC 8270	PAH'S 8270	PCB'S 8082	CL PESTICIDES 8081	RCRA'S Metals	MTCA'S Metals	Pb	ASBESTOS FLM	GRO Suite 830-1	T-CE Suite 830-1	T-CE Suite 830-1	WQ Suite 830-1	
B5-15	15'	12:40	Soil																				
B5	11-15'	1:00	Water																				
B6-4	4'	1:23	Soil																				
B6-10	10'	1:26	↓																				
B6-15	15'	1:30	↓																				
B6	11-15'	1:45	Water																				

REINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME	SAMPLE RECEIPT	LABORATORY NOTES:
<u>[Signature]</u>	<u>2-1-21</u> <u>2:00</u>	<u>[Signature]</u>	<u>2-1-21</u> <u>2:00</u>	TOTAL NUMBER OF CONTAINERS CHAIN OF CUSTODY SEALS V/N/NA SEALS INTACT? V/N/NA RECEIVED GOOD COND./COLD	Call Eric for p. 11-1-21

1210 Eastside Street SE, Suite 200 Renton, Washington 98051	Phone: 360-459-4670 Fax: 360-459-3432	Turn Around Time: 24 HR / 48 HR / 5 DAY Website: <a href="http://www.esnanalytical.com">www.esnanalytical.com</a> E-Mail: <a href="mailto:lab@esnanw.com">lab@esnanw.com</a>
--	--	--





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Phone: 425.207.8345  
Email: [lab@esnanalytical.com](mailto:lab@esnanalytical.com)  
Web: [www.esnanalytical.com](http://www.esnanalytical.com)

SN

5210600.1

# CHAIN-OF-CUSTODY RECORD

CLIENT: Environmental Associates Inc.

ADDRESS: 1380 112th Ave NE #300 Bellevue WA 98004

PHONE: 425-455-9025 EMAIL: info@environmentalassociatesinc.com

CLIENT PROJECT #: 401361 PROJECT MANAGER: Eric Zorn

DATE: 2-2-21 PAGE 1 OF 1

PROJECT NAME: Firestone

LOCATION: Retention

COLLECTOR: Eric Zorn DATE OF COLLECTION: 2-2-21

Sample Number	Depth	Time	Sample Type	Container Type	PH-NE-10	TPH-DIESEL AND OIL	TPH-GASOLINE	HEXANE	VOC BODICE	VOC BODICE	SEMI-VOL BODICE	PAH'S BODICE	PCB'S BODICE	CL PESTICIDES BODICE	NCRA BODICE	MTCA BODICE	PH	ASBESTOS FIBER	GRO Suite B30.1	DRC Suite B30.1	WQ Suite B30.1
B7-4	4"	9:09	Soil																		
B7-8	8"	9:13																			
B7-9-16	9-16"	9:17																			
B7-12	12"	9:20																			
B7-16	16"	9:24																			
B7	16-15"	9:35	Water																		
B8-4	4"	9:45	Soil																		
B8-8	8"	9:49																			
B8-12	12"	9:54																			
B8	16-15"	10:00	Water																		
B9-2	2"	10:11	Soil																		
B9-8	8"	10:15																			
B9-12	12"	10:20																			
B9	16-15"	10:25	Water																		
B10-3	3"	11:05	Soil																		
B10-8	8"	11:12																			
B10-12	12"	11:22																			
B10	16-15"	11:40	Water																		

UNDULSHED BY (Signature) [Signature] DATE/TIME 2-2-21 RECEIVED BY (Signature) [Signature] DATE/TIME 2-2-21

UNDULSHED BY (Signature) [Signature] DATE/TIME 12:00 RECEIVED BY (Signature) [Signature] DATE/TIME 12:00

UNDULSHED BY (Signature) [Signature] DATE/TIME 12:00 RECEIVED BY (Signature) [Signature] DATE/TIME 12:00

NOTES: Turn Around Time: 24 HR 48 HR 60 HR

LABORATORY NOTES: Call Eric for billing

1 Eastside Street SE, Suite 200  
Renton, Washington 98051

Phone: 360-459-4670  
Fax: 360-459-3432

Website: [www.esnanaw.com](http://www.esnanaw.com)  
E-Mail: [lab@esnanaw.com](mailto:lab@esnanaw.com)



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Web: [www.esnanalytical.com](http://www.esnanalytical.com)

## ESN Analytical

---

**From:** donsperencer@environmentalassociatesinc.com  
**Sent:** Tuesday, February 9, 2021 1:30 PM  
**To:** Jennifer Arnold  
**Cc:** ESN Analytical  
**Subject:** RE: Corrected Reports Firestone 02/1/21

Hi Jennifer,

Based on our initial results, I'd like to run a few more samples from the Renton Firestone site.

I'd like to run the following soil samples for Diesel-extended:

B6-10

B7-4

B7-16

I'd like to run the following samples for chlorinated VOCs:

B5-15

B6-4

B6-10

B7-16

Thanks!

Eric Zuern  
Environmental Associates, Inc.  
Phone: 425-455-9025



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## INVOICE

ESN ANALYTICAL  
3155 NE Sunset Blvd, Suite A  
Renton, WA 98056

Invoice#: 1017

February 16, 2021

**BILL TO:**

Toula Properties LLC  
3801 92<sup>nd</sup> Ave NE  
Bellevue WA 98004

**REMIT TO:**

ESN ANALYTICAL  
C/O JONAS EVANGELISTA  
10701 Main St., Unit 710  
Bellevue, WA 98004

Tax ID: 85-3345717

**ATTENTION: Mr. Curt Kruse**

**PROJECT:**

**Firestone**  
351 Rainier Ave., S,  
Renton, WA

**PROJECT NUMBER: 40139-1**

**PROJECT MANAGER: ERIC ZUERN (EAI)**

**TERMS: NET 30 DAYS**

Date Samples Received	Quantity	Description	Sample Matrix	Unit Cost (5 dayTAT) per Sample	AMOUNT
02/01/21, 02/02/21	10	NWTPH-Gx	W	\$60.00	\$600.00
02/01/21, 02/02/21	13	NWTPH-Dx	W	\$60.00	\$780.00
02/01/21, 02/02/21	10	NWTPH-Gx	S	\$60.00	\$600.00
02/01/21, 02/02/21	10	NWTPH-Dx	S	\$60.00	\$600.00
02/01/21, 02/02/21	10	VOC	W	\$120.00	\$1200.00
02/01/21, 02/02/21	10	VOC	S	\$120.00	\$1200.00
02/01/21, 02/02/21	4	Chlorinated VOC	S	\$100.00	\$400.00
02/01/2021	1	PAH	W	\$160.00	\$160.00
02/01/2021	1	PAH	S	\$160.00	\$160.00
02/01/2021	1	PCB	W	\$75.00	\$75.00
02/01/2021	1	PCB	S	\$75.00	\$75.00
02/01/2021	1	MTCA 5 Metals	S	\$90.00	\$90.00
02/01/2021	1	MTCA 5 Metals	W	\$90.00	\$90.00
02/01/2021	32	5035 Sampling Kit	S	\$4.00	\$128.00
				<b>TOTAL AMOUNT DUE</b>	<b>\$6158.00</b>



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Yelena Aravkina, M.S.  
Michael Erdahl, B.S.  
Arina Podnozova, B.S.  
Eric Young, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
(206) 285-8282  
fbi@isomedia.com  
www.friedmanandbruya.com

February 10, 2021

Eric Zuern, Project Manager  
Environmental Associates, Inc.  
1380 112th Ave. NE, 300  
Bellevue, WA 98004

Dear Mr Zuern:

Included are the results from the testing of material submitted on February 1, 2021 from the Renton Firestone PO 40139-1, F&BI 102015 project. There are 12 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
EAI0210R.DOC

## FRIEDMAN & BRUYA, INC.

### ENVIRONMENTAL CHEMISTS

#### CASE NARRATIVE

This case narrative encompasses samples received on February 1, 2020 by Friedman & Bruya, Inc. from the Environmental Associates Renton Firestone PO 40139-1, F&BI 102015 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Environmental Associates</u>
102015 -01	B5
102015 -02	B9
102015 -03	B10

Non-petroleum compounds identified in the air phase hydrocarbon (APH) ranges were subtracted per the MA-APH method.

APH EC5-8 aliphatics were detected in the MA-APH method blank at a level greater than one tenth the concentration detected in the samples. The data were flagged accordingly.

All other quality control requirements were acceptable.

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	B5	Client:	Environmental Associates
Date Received:	02/01/21	Project:	Renton Firestone PO 40139-1, F&BI 102015
Date Collected:	02/01/21	Lab ID:	102015-01 1/5.2
Date Analyzed:	02/05/21	Data File:	020427.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	101	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	1,900
APH EC9-12 aliphatics	510
APH EC9-10 aromatics	180



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	B9	Client:	Environmental Associates
Date Received:	02/01/21	Project:	Renton Firestone PO 40139-1, F&BI 102015
Date Collected:	02/01/21	Lab ID:	102015-02 1/3.3
Date Analyzed:	02/05/21	Data File:	020426.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	100	70	130

	Concentration
Compounds:	ug/m3

APH EC5-8 aliphatics	910 fb
APH EC9-12 aliphatics	460
APH EC9-10 aromatics	170

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	B10	Client:	Environmental Associates
Date Received:	02/01/21	Project:	Renton Firestone PO 40139-1, F&BI 102015
Date Collected:	02/01/21	Lab ID:	102015-03 1/3.1
Date Analyzed:	02/05/21	Data File:	020424.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	99	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	710 fb
APH EC9-12 aliphatics	410
APH EC9-10 aromatics	190

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	Method Blank	Client:	Environmental Associates
Date Received:	Not Applicable	Project:	Renton Firestone PO 40139-1, F&BI 102015
Date Collected:	Not Applicable	Lab ID:	01-221 MB
Date Analyzed:	02/04/21	Data File:	020413.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	103	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	150 lc
APH EC9-12 aliphatics	<50
APH EC9-10 aromatics	<25

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	B5	Client:	Environmental Associates
Date Received:	02/01/21	Project:	Renton Firestone PO 40139-1, F&BI 102015
Date Collected:	02/01/21	Lab ID:	102015-01 1/5.2
Date Analyzed:	02/05/21	Data File:	020427.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	101	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Vinyl chloride	<1.3	<0.52
Chloroethane	<14	<5.2
1,1-Dichloroethene	<2.1	<0.52
trans-1,2-Dichloroethene	<2.1	<0.52
1,1-Dichloroethane	<2.1	<0.52
cis-1,2-Dichloroethene	<2.1	<0.52
1,2-Dichloroethane (EDC)	<0.21	<0.052
1,1,1-Trichloroethane	49	9.0
Benzene	4.7	1.5
Trichloroethene	<0.56	<0.1
Toluene	<98	<26
1,1,2-Trichloroethane	<0.28	<0.052
Tetrachloroethene	440	66
Ethylbenzene	16	3.6
m,p-Xylene	92	21
o-Xylene	25	5.7
Naphthalene	3.1	0.58

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By Method TO-15

Client Sample ID: B9	Client: Environmental Associates
Date Received: 02/01/21	Project: Renton Firestone PO 40139-1, F&BI 102015
Date Collected: 02/01/21	Lab ID: 102015-02 1/3.3
Date Analyzed: 02/05/21	Data File: 020426.D
Matrix: Air	Instrument: GCMS12
Units: ug/m3	Operator: bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	100	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.84	<0.33
Chloroethane	<8.7	<3.3
1,1-Dichloroethene	<1.3	<0.33
trans-1,2-Dichloroethene	<1.3	<0.33
1,1-Dichloroethane	<1.3	<0.33
cis-1,2-Dichloroethene	<1.3	<0.33
1,2-Dichloroethane (EDC)	<0.13	<0.033
1,1,1-Trichloroethane	3.6	0.67
Benzene	5.4	1.7
Trichloroethene	<0.35	<0.066
Toluene	<62	<16
1,1,2-Trichloroethane	<0.18	<0.033
Tetrachloroethene	<22	<3.3
Ethylbenzene	15	3.6
m,p-Xylene	86	20
o-Xylene	23	5.2
Naphthalene	3.4	0.64

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	B10	Client:	Environmental Associates
Date Received:	02/01/21	Project:	Renton Firestone PO 40139-1, F&BI 102015
Date Collected:	02/01/21	Lab ID:	102015-03 1/3.1
Date Analyzed:	02/05/21	Data File:	020424.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	98	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Vinyl chloride	<0.79	<0.31
Chloroethane	<8.2	<3.1
1,1-Dichloroethene	<1.2	<0.31
trans-1,2-Dichloroethene	<1.2	<0.31
1,1-Dichloroethane	<1.3	<0.31
cis-1,2-Dichloroethene	<1.2	<0.31
1,2-Dichloroethane (EDC)	<0.13	<0.031
1,1,1-Trichloroethane	<1.7	<0.31
Benzene	5.6	1.8
Trichloroethene	<0.33	<0.062
Toluene	63	17
1,1,2-Trichloroethane	<0.17	<0.031
Tetrachloroethene	<21	<3.1
Ethylbenzene	18	4.0
m,p-Xylene	100	23
o-Xylene	26	6.1
Naphthalene	3.6	0.69

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Environmental Associates
Date Received:	Not Applicable	Project:	Renton Firestone PO 40139-1, F&BI 102015
Date Collected:	Not Applicable	Lab ID:	01-221 MB
Date Analyzed:	02/04/21	Data File:	020413.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	103	70	130

	Concentration	
Compounds:	ug/m3      ppbv	
Vinyl chloride	<0.26	<0.1
Chloroethane	<2.6	<1
1,1-Dichloroethene	<0.4	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
1,1-Dichloroethane	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
1,2-Dichloroethane (EDC)	<0.04	<0.01
1,1,1-Trichloroethane	<0.55	<0.1
Benzene	<0.32	<0.1
Trichloroethene	<0.11	<0.02
Toluene	<19	<5
1,1,2-Trichloroethane	<0.055	<0.01
Tetrachloroethene	<6.8	<1
Ethylbenzene	<0.43	<0.1
m,p-Xylene	<0.87	<0.2
o-Xylene	<0.43	<0.1
Naphthalene	<0.26	<0.05

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 02/10/21

Date Received: 02/01/21

Project: Renton Firestone PO 40139-1, F&BI 102015

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES  
FOR VOLATILES BY METHOD MA-APH**

Laboratory Code: 102015-03 1/3.1 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
APH EC5-8 aliphatics	ug/m3	710 fb	690 fb	3
APH EC9-12 aliphatics	ug/m3	410	400	2
APH EC9-10 aromatics	ug/m3	190	170	11

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
APH EC5-8 aliphatics	ug/m3	67	85	70-130
APH EC9-12 aliphatics	ug/m3	67	103	70-130
APH EC9-10 aromatics	ug/m3	67	113	70-130



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

Date of Report: 02/10/21

Date Received: 02/01/21

Project: Renton Firestone PO 40139-1, F&BI 102015

### QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 102015-03 1/3.1 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Vinyl chloride	ug/m3	<0.79	<0.79	nm
Chloroethane	ug/m3	<8.2	<8.2	nm
1,1-Dichloroethene	ug/m3	<1.2	<1.2	nm
trans-1,2-Dichloroethene	ug/m3	<1.2	<1.2	nm
1,1-Dichloroethane	ug/m3	<1.3	<1.3	nm
cis-1,2-Dichloroethene	ug/m3	<1.2	<1.2	nm
1,2-Dichloroethane (EDC)	ug/m3	<0.13	<0.13	nm
1,1,1-Trichloroethane	ug/m3	<1.7	<1.7	nm
Benzene	ug/m3	5.6	5.3	6
Trichloroethene	ug/m3	<0.33	<0.33	nm
Toluene	ug/m3	63	<58	nm
1,1,2-Trichloroethane	ug/m3	<0.17	<0.17	nm
Tetrachloroethene	ug/m3	<21	<21	nm
Ethylbenzene	ug/m3	18	16	12
m,p-Xylene	ug/m3	100	93	7
o-Xylene	ug/m3	26	24	8
Naphthalene	ug/m3	3.6	3.4	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	ug/m3	35	99	70-130
Chloroethane	ug/m3	36	108	70-130
1,1-Dichloroethene	ug/m3	54	102	70-130
trans-1,2-Dichloroethene	ug/m3	54	99	70-130
1,1-Dichloroethane	ug/m3	55	102	70-130
cis-1,2-Dichloroethene	ug/m3	54	101	70-130
1,2-Dichloroethane (EDC)	ug/m3	55	103	70-130
1,1,1-Trichloroethane	ug/m3	74	102	70-130
Benzene	ug/m3	43	101	70-130
Trichloroethene	ug/m3	73	99	70-130
Toluene	ug/m3	51	97	70-130
1,1,2-Trichloroethane	ug/m3	74	102	70-130
Tetrachloroethene	ug/m3	92	97	70-130
Ethylbenzene	ug/m3	59	103	70-130
m,p-Xylene	ug/m3	120	104	70-130
o-Xylene	ug/m3	59	106	70-130
Naphthalene	ug/m3	71	105	70-130

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

# SAMPLE CHAIN OF CUSTODY

ME 02-01-21

Page # 1 of 1

TURNAROUND TIME

Standard  
RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

Default: Clean after 3 days

Archive (Fee may apply)

SAMPLERS (signature)

PROJECT NAME & ADDRESS

2040 N First Ave

PO #

40139-1

NOTES:

12885 Intervenor Ave S,  
Seattle, WA  
206-948-7602  
Mike Kiddler, com

INVOICE TO

Mike Kiddler

Kiddler, com

Report To: Eric Zern  
Company: Environmental Associates Inc.  
Address: 1380 12th Ave NE #300  
City, State, ZIP: Bellevue WA 98004  
Phone: 425-455-9025 Email: info@environmental-associates.com

## SAMPLE INFORMATION

## ANALYSIS REQUESTED

Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. (Hg)	Field Initial Time	Field Final Time	Field Final Time	TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium	Notes
B5	01	4117	302	IA / SG	2-1-21	29	9:43	4	9:48	X	X	X	X		Can't 4177
B9	02	4180	307	IA / SG		30	9:52	4	9:57	X	X	X	X		
B10	03	8533	308	IA / SG		30	9:59	4	10:04	X	X	X	X		
				IA / SG											
				IA / SG											
				IA / SG											
				IA / SG											
				IA / SG											
				IA / SG											
				IA / SG											
				IA / SG											

Samples received at 16 °C

Friedman & Bruyo, Inc.  
3012 16th Avenue West  
Seattle, WA 98119-3029  
Ph. (206) 285-8282  
Fax (206) 283-5044

FORMSVCOC\CCOCTO-15.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <i>Eric Zern</i>	Eric Zern	EAT	2-1-21	3:02
Received by: <i>Mike Kiddler</i>	Mike Kiddler	FEET	2-7-2	V
Relinquished by:				
Received by:				

**WM**  
Greater Wenatchee Regional Landfill  
191 Webb Road  
Wenatchee, WA 98802

Reprint  
Ticket# 924155  
Ph: (509) 884-2802

Customer Name ANDERSON ENVIRONMENTAL A Carrier r transport  
Ticket Date 04/27/2022 Vehicle# 88  
Payment Type Credit Account Container  
Manual Ticket# Driver  
Route Check#  
Hauling Ticket# Billing# 0508083  
Destination Grid  
Manifest 116848wa  
Profile 116848WA (CID SOIL)  
Generator 168-FORMER FIRESTONE AUTO CARE FORMER FIRESTONE AUTO CARE PROPERTY 351 RAIN  
PO# 21-0050

	Time	Scale	Operator	Inbound	Gross	
In	04/27/2022 12:06:41	Inbound	Janelle		Tare	95860 lb
Out	04/27/2022 12:19:38	Outbound	Janelle		Net	39520 lb
					Tons	56340 lb
						28.17

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	28.17	Tons				KING
2 EVF-P-Standard Environm	100		%				KING
3 CDHD FEE-Chelan Douglas	100	28.17	Tons				KING
4 TF-TRANSPORTATION FEE T	100	28.17	Tons				KING

Total Tax/Fees  
Total Ticket

Driver's Signature

*HL for Transport*

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

**WM**  
Greater Wenatchee Regional Landfill  
191 Webb Road  
Wenatchee, WA 98802

Reprint  
Ticket# 924240  
Ph: (509) 884-2802

Customer Name ANDERSON ENVIRONMENTAL A Carrier r transport  
Ticket Date 04/28/2022 Vehicle# 87  
Payment Type Credit Account Container  
Manual Ticket# Driver  
Route Check#  
Hauling Ticket# Billing# 0508083  
Destination Grid  
Manifest 116848wa  
Profile 116848WA (CID SOIL)  
Generator 168-FORMER FIRESTONE AUTO CARE FORMER FIRESTONE AUTO CARE PROPERTY 351 RAIN  
PO# 21-0050

	Time	Scale	Operator	Inbound	Gross	
In	04/28/2022 09:21:38	Inbound	Janelle		Tare	109060 lb 41640 lb
Out	04/28/2022 09:40:26	Outbound	Janelle		Net	67420 lb
					Tons	33.71

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	33.71	Tons				KING
2 EVF-P-Standard Environm	100		%				KING
3 CDHD FEE-Chelan Douglas	100	33.71	Tons				KING
4 TF-TRANSPORTATION FEE T	100	33.71	Tons				KING

Total Tax/Fees  
Total Ticket

Driver's Signature

*JL for R Transport 87*

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

**WM**  
Greater Wenatchee Regional Landfill  
191 Webb Road  
Wenatchee, WA 98802

Reprint  
Ticket# 924294  
Ph: (509) 884-2802

Customer Name ANDERSON ENVIRONMENTAL A Carrier r transport  
Ticket Date 04/28/2022 Vehicle# 84  
Payment Type Credit Account Container  
Manual Ticket# Driver  
Route Check#  
Hauling Ticket# Billing# 0508083  
Destination Grid  
Manifest 116848wa  
Profile 116848WA (CID SOIL)  
Generator 168-FORMER FIRESTONE AUTO CARE FORMER FIRESTONE AUTO CARE PROPERTY 351 RAIN  
PO# 21-0050

	Time	Scale	Operator	Inbound	Gross	
In	04/28/2022 13:45:46	Inbound	Janelle		Tare	62800 lb
Out	04/28/2022 14:00:51	Outbound	Janelle		Net	42420 lb
					Tons	20380 lb
						10.19

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	10.19	Tons				KING
2 EVF-P-Standard Environm	100		%				
3 CDHD FEE-Chelan Douglas	100	10.19	Tons				
4 TF-TRANSPORTATION FEE T	100	10.19	Tons				
5 SBY125-STAND BY 125\$/HR	100	3.00	Each				

Total Tax/Fees  
Total Ticket

Driver's Signature

*HL for Transport*

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

**WM**  
Greater Wenatchee Regional Landfill  
191 Webb Road  
Wenatchee, WA 98802  
Phone: (509) 884-2802

Reprint  
Ticket# 924816

Customer Name ANDERSON ENVIRONMENTAL A Carrier r transport  
Ticket Date 05/05/2022 Vehicle# r80  
Payment Type Credit Account Container  
Manual Ticket# Driver  
Route Check#  
Hauling Ticket# Billing# 0508083  
Destination Grid  
Manifest 116848wa  
Profile 116848WA (CID SOIL)  
Generator 168-FORMER FIRESTONE AUTO CARE FORMER FIRESTONE AUTO CARE PROPERTY 351 RAIN  
PO# 21-0050

	Time	Scale	Operator	Inbound	Gross	
In	05/05/2022 06:03:16	Inbound	Janelle		Tare	60140 lb 39860 lb
Out	05/05/2022 06:19:16	Outbound	Janelle		Net	20280 lb
					Tons	10.14

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Spwaste Solid Oth-Tons-	100	10.14	Tons				KING
2 EVF-P-Standard Environm	100		%				KING
3 CDHD FEE-Chelan Douglas	100	10.14	Tons				KING
4 TF-TRANSPORTATION FEE T	100	10.14	Tons				KING

Total Tax/Fees  
Total Ticket

Driver's Signature

*HL for Jason R. Transport*

The total amount includes fees and taxes that may not all be listed on this ticket due to technical limitation.

Table 749-1

Simplified Terrestrial Ecological Evaluation – Exposure Analysis Procedure under WAC 173-340-7492(2)(a)(ii).<sup>a</sup>

Estimate the area of contiguous (connected) undeveloped land on the site or within 500 feet of any area of the site to the nearest 1/2 acre (1/4 acre if the area is less than 0.5 acre). "Undeveloped land" means land that is not covered by existing buildings, roads, paved areas or other barriers that will prevent wildlife from feeding on plants, earthworms, insects or other food in or on the soil.																					
1) From the table below, find the number of points corresponding to the area and enter this number in the box to the right.																					
<table border="1"> <thead> <tr> <th>Area (acres)</th> <th>Points</th> </tr> </thead> <tbody> <tr> <td>0.25 or less</td> <td>4</td> </tr> <tr> <td>0.5</td> <td>5</td> </tr> <tr> <td>1.0</td> <td>6</td> </tr> <tr> <td>1.5</td> <td>7</td> </tr> <tr> <td>2.0</td> <td>8</td> </tr> <tr> <td>2.5</td> <td>9</td> </tr> <tr> <td>3.0</td> <td>10</td> </tr> <tr> <td>3.5</td> <td>11</td> </tr> <tr> <td>4.0 or more</td> <td>12</td> </tr> </tbody> </table>	Area (acres)	Points	0.25 or less	4	0.5	5	1.0	6	1.5	7	2.0	8	2.5	9	3.0	10	3.5	11	4.0 or more	12	4
Area (acres)	Points																				
0.25 or less	4																				
0.5	5																				
1.0	6																				
1.5	7																				
2.0	8																				
2.5	9																				
3.0	10																				
3.5	11																				
4.0 or more	12																				
2) Is this an industrial or commercial property? See WAC 173-340-7490(3)(c). If yes, enter a score of 3 in the box to the right. If no, enter a score of 1.	3																				
3) Enter a score in the box to the right for the habitat quality of the site, using the rating system shown below <sup>b</sup> . (High = 1, Intermediate = 2, Low = 3)	3																				
4) Is the undeveloped land likely to attract wildlife? If yes, enter a score of 1 in the box to the right. If no, enter a score of 2. See footnote c.	2																				
5) Are there any of the following soil contaminants present: Chlorinated dioxins/furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, pentachlorobenzene? If yes, enter a score of 1 in the box to the right. If no, enter a score of 4.	4																				
6) Add the numbers in the boxes on lines 2 through 5 and enter this number in the box to the right. If this number is larger than the number in the box on line 1, the simplified terrestrial ecological evaluation may be ended under WAC 173-340-7492 (2)(a)(ii).	12																				

## Footnotes:

- a It is expected that this habitat evaluation will be undertaken by an experienced field biologist. If this is not the case, enter a conservative score (1) for questions 3 and 4.
- b **Habitat rating system.** Rate the quality of the habitat as high, intermediate or low based on your professional judgment as a field biologist. The following are suggested factors to consider in making this evaluation:  
**Low:** Early successional vegetative stands; vegetation predominantly noxious, nonnative, exotic plant species or weeds. Areas severely disturbed by human activity, including intensively cultivated croplands. Areas isolated from other habitat used by wildlife.  
**High:** Area is ecologically significant for one or more of the following reasons: Late-successional native plant communities present; relatively high species diversity; used by an uncommon or rare species; priority habitat (as defined by the Washington Department of Fish and Wildlife); part of a larger area of habitat where size or fragmentation may be important for the retention of some species.  
**Intermediate:** Area does not rate as either high or low.
- c Indicate "yes" if the area attracts wildlife or is likely to do so. Examples: Birds frequently visit the area to feed; evidence of high use by mammals (tracks, scat, etc.); habitat "island" in an industrial area; unusual features of an area that make it important for feeding animals; heavy use during seasonal migrations.