

# **INDEPENDENT REMEDIAL** **ACTION REPORT**

**NATIONAL AUTO PARTS PROPERTY  
SUMNER, WASHINGTON  
ECOLOGY VCP PROJECT #SW1547**



*Prepared for:*

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Prepared by

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September 3, 2020

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**DECLARATIVE STATEMENT**

Consistent with the Model Toxics Control Act, Chapter 70.105D RCW, as implemented by the Model Toxics Control Act Cleanup Regulation, Chapter 173-340 WAC, it is determined that the independent remedial actions implemented are protective of human health and the environment, attain federal and state requirements that are applicable or relevant and appropriate, comply with cleanup standards, provide for compliance monitoring, use permanent solutions to the maximum extent practicable, and provide for a reasonable restoration time-frame.



September 3, 2020

Dylan Galloway, REA  
*President*  
Galloway Environmental, Inc.

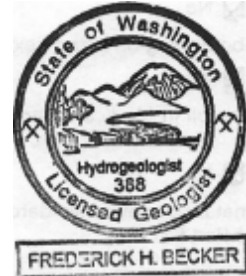
Date



September 3, 2020

Frederick H. Becker, LEG, LHG  
*Senior Geologist*

Date



## **DEFINITIONS AND ACRONYMS**

amsl	above mean sea level
AOC	area of concern
ARAR	applicable or relevant and appropriate requirements
Bgs	below ground surface
°C	degrees Celsius
COC	contaminant of concern
COPC	contaminant of potential concern
cPAH	carcinogenic polycyclic aromatic hydrocarbon
CUL	Cleanup Level
DNS	Determination of Non-Significance
Ecology	Washington State Department of Ecology
ECP	Environmental Cleanup Plan
ENCO	EnCo Environmental Company
°F	degrees Fahrenheit
GEI	Galloway Environmental, Incorporated
HSG	Hydrologic Soil Group
IRAR	Independent Remedial Action Report
LF	landfill
MEK	methyl ethyl ketone
µg/kg	micrograms per kilogram
µg/L	micrograms per liter
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MTCA	Model Toxics Control Act
NFA	no further action
NRCS	National Resource Conservation Service
NWTPH-Dx	Northwest Total Petroleum Hydrocarbons as Diesel Extended
NWTPH-HCID	Northwest Total Petroleum Hydrocarbon Identification
OSHA	Occupational Safety and Health Administration
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
%	percent
PID	photoionization detector
PQL	practical quantitation limit
RI	remedial investigation
SEPA	State Environmental Policy Act
sf	square feet
SR	State Route
SU	standard unit
SVOC	semi-volatile organic compounds
TCLP	Total Characteristic Leachability Procedure
TPCHD	Tacoma Pierce County Health Department
TPH-Diesel	total petroleum hydrocarbons as diesel
TPH-Gas	total petroleum hydrocarbons as gasoline
TPH-Oil	total petroleum hydrocarbons as oil
USCS	Unified Soil Classification System
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
VCP	Voluntary Cleanup Program
VOC	volatile organic compound
WAC	Washington Administrative Code
WDA	Waste Disposal Authorization

## **EXECUTIVE SUMMARY**

This Independent Remedial Action Report (IRAR) has been prepared by Galloway Environmental, Inc. (GEI) to document the environmental cleanup of the National Auto Parts property, located at 16008 60<sup>th</sup> Street East in Sumner, Washington, hereafter referred to as the “Site”. This IRAR documents the results of remedial actions and subsequent groundwater monitoring that occurred at the Site between October 2017 and October 2019.

The Site is situated immediately southeast of the intersection of 60<sup>th</sup> Street East and 160<sup>th</sup> Avenue East. It is approximately 0.4 miles north of State Route (SR) 410 and 1.7 miles east of SR 167 in an area of residential and commercial properties (see Attachment 1, Figure 1). Pierce County lists the Site to be associated with the property listed as parcel numbers 0520198006 and 2006198700. Parcel 0520198006 is listed as “Phil’s Speed Shop, LLC” which consists of approximately 1.58 acres of land and includes a 9,300 square foot (sf) storage/warehouse. Parcel 2006198700 is listed as “Sumner National Auto Parts, Inc” and does not have acreage listed.

Sumner National Auto Parts operated a retail auto parts supply store with an “out of vehicle” engine rebuild and metal machine shop from 1979 until its closure in circa October 2017.

Reportedly, an unknown amount of spent parts, cleaning solutions, and caustic spray were released to a concrete slab and soils along the eastern side of the building near the structure’s exterior door. The Washington State Department of Ecology (Ecology) responded to a citizen complaint regarding the spill and determined that the Site was likely impacted by petroleum hydrocarbons, metals, and several parts-cleaning solvents.

The owner contracted EnCo Environmental Company (EnCo) to conduct several environmental studies and develop an Environmental Cleanup Plan for the Site. Based on laboratory analyses of soil and groundwater samples collected during the environmental studies, EnCo developed an *Independent Remedial Cleanup Action Work Plan*, dated May 23, 2017, hereafter referred to as the “*Work Plan*.”

### ***Environmental Cleanup Objectives***

The primary objective of remediating the Site was to ensure the protection of human health and the environment by addressing environmental impacts that exceeded their respective Model Toxics Control Act (MTCA) Cleanup Levels (CULs). The selected cleanup action was based upon an evaluation of treatment alternatives from historic environmental investigations, as documented in the Work Plan and Ecology’s acceptance letter to the Voluntary Cleanup Program (VCP), dated September 9, 2016.

### ***Remedial Action Summary***

Between October 2017 and January 2018, a remedial excavation was conducted at the Site in general accordance with the Work Plan.

The remedial excavations generally included the removal of 262.92 tons of impacted soils that were present at the Site. The excavated soil was transported for disposal at the LRI Landfill, located at 17925 Meridian Street East in Puyallup, Washington under the Waste Disposal Authorization (WDA) number 2188. During the excavation work, GEI collected soil samples for laboratory analyses to document the effectiveness of the removals (performance samples) and to document the remaining concentrations of contaminants of concern (COCs) from the final limits of excavation (confirmation samples).

Soils were field screened during excavation for indications of impacts, such as petroleum odors, elevated photoionization detector (PID) measurements, and sheen. Soil samples were analyzed for petroleum hydrocarbons using the Northwest Total Petroleum Hydrocarbon Identification (NWTPH-HCID) method with the appropriate follow-up analyses, volatile organic compounds (VOCs) using the United States Environmental Protection Agency (USEPA) Method 8260C, semi-volatile organic compounds (SVOCs) using the USEPA Method 8270D/SIM, total MTCA metals (i.e., arsenic, cadmium, chromium, lead, and mercury) using the USEPA Method 6010C/7471B, and Total Characteristic Leachability Procedure (TCLP) using the USEPA Method 1311/6010C. To minimize VOC losses, soil sampling and field preservation methods followed the USEPA 5035A method and Ecology’s guidance, “*Collecting and Preparing Soil Samples for VOC Analysis*.” The samples exhibiting detections of petroleum with the NWTPH-HCID analytical method were further analyzed for diesel fuel and lube oil range petroleum hydrocarbons using the Northwest Total Petroleum Hydrocarbons as Diesel Extended (NWTPH-Dx) method.

During the initial remedial excavation work in October 2017, GEI collected a total of 16 soil samples from within the limits of excavation and four from the stockpiles. All samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-Gas), total petroleum hydrocarbons as diesel (TPH-Diesel), total petroleum hydrocarbons as oil (TPH-Oil), VOCs, and MTCA 5 Metals. Laboratory analyses resulted in the detections of one analyte (i.e., total lead) at concentrations exceeding its MTCA Method A CUL of 250 milligrams per kilogram (mg/kg) in five of the 16 excavation soil samples and one stockpile soil sample. All other analytes in all other samples were either detected at concentrations below their respective CULs or were not detected at concentrations equal to or exceeding their respective laboratory practical quantitation limits (PQLs). Based on these data, GEI identified the COC driver for the Site soils to be total lead.

The areas of total lead exceedances that were detected during the October 2017 excavation event were further excavated between December 6, 2017 and December 10, 2017 and resampled. A total of 14 excavation soil samples and two stockpile soil samples were collected and analyzed for total lead. Of the 14 excavation soil samples, 10 resulted in detections of total lead at concentrations exceeding its MTCA Method A CUL of 250 mg/kg. Laboratory analyses of the two stockpile soil samples resulted in the detections of lead at concentrations of 220 mg/kg and 240 mg/kg.

The areas of total lead exceedances that were detected during the December 6 and 10, 2017 excavation event were further excavated between December 18, 2017 and resampled. A total of seven excavation soil samples were collected and analyzed for total lead. Of the seven excavation soil samples, three resulted in detections of total lead at concentrations exceeding its MTCA Method A CUL of 250 mg/kg.

The areas of total lead exceedances that were detected during the December 18, 2017 excavation event were further excavated on January 17, 2018 and resampled. A total of three soil samples were collected on January 17, 2018 and analyzed for total lead. Of the three soil samples, one resulted in a detection of total lead at a concentration of 12 mg/kg, below its MTCA Method A CUL of 250 mg/kg. Laboratory analyses of the other two soil samples did not result in concentrations of total lead at levels equal to or exceeding their respective laboratory PQLs.

Between August 13, 2018 and August 14, 2018, GEI observed the installation of groundwater monitoring wells MW-2 through MW-7 as noted in the Work Plan and Ecology's Opinion Letter, dated July 12, 2017. The installation included one cross/downgradient well west of the remedial excavation area (MW-2), two downgradient wells north of the remedial excavation area (MW-3 and MW-4), two cross/upgradient wells east of the remedial excavation area (MW-5 and MW-6), and one upgradient well south of the remedial excavation area (MW-7). One pre-existing well (MW-1), situated in the central region of the Site, was installed on October 30, 2015 by others.

During drilling activities for MW-2 through MW-7, GEI field-screened soil for indications of impacts (e.g., odors, staining, elevated PID readings). GEI also collected soil samples from each borehole for analyses of petroleum hydrocarbons, VOCs, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and total metals. Laboratory analyses of all soil samples resulted in either non-detectable concentrations or detected concentrations at levels below their respective CULs.

GEI conducted quarterly groundwater monitoring of the seven groundwater monitoring wells on August 31, 2018, December 20, 2018, March 26, 2019, July 1, 2019, and October 22, 2019 to confirm that contamination to groundwater remained absent.

Laboratory analyses of the December 20, 2018, March 26, 2019, July 1, 2019, and October 22, 2019 groundwater monitoring events resulted in the findings of COCs at concentrations either below their respective CULs or not detected at concentrations equal to or exceeding their laboratory PQLs.

Because all known contaminated soil has been removed from the site, and groundwater monitoring has confirmed that contamination to groundwater is absent, GEI concludes that a No Further Action determination will be appropriate for the Site.

## 1.0

### **INTRODUCTION**

This Independent Remedial Action Report (IRAR) has been prepared by Galloway Environmental, Inc. (GEI) to document the environmental cleanup of the National Auto Parts property, located at 16008 60<sup>th</sup> Street East in Sumner, Washington, hereafter referred to as the “Site”. This IRAR documents the results of remedial actions and confirmation groundwater monitoring that occurred at the Site between October 2017 and October 2019.

The Site is situated immediately southeast of the intersection of 60<sup>th</sup> Street East and 160<sup>th</sup> Avenue East. It is approximately 0.4 miles north of State Route (SR) 410 and 1.7 miles east of SR 167 in an area of residential and commercial properties (see Attachment 1, Figure 1). Pierce County lists the Site to be associated with the property listed as parcel numbers 0520198006 and 2006198700. Parcel 0520198006 is listed as “Phil’s Speed Shop, LLC” which consists of approximately 1.58 acres of land and includes a 9,300 square foot (sf) storage/warehouse. Parcel 2006198700 is listed as “Sumner National Auto Parts, Inc” and does not have acreage listed.

Sumner National Auto Parts operated a retail auto parts supply store with an “out of vehicle” engine rebuild and metal machine shop from 1979 until its closure in circa October 2017.

Reportedly, an unknown amount of spent parts, cleaning solutions, and caustic spray were released to a concrete slab and soils along the eastern side of the building near the structure’s exterior door. The Washington State Department of Ecology (Ecology) responded to a citizen complaint regarding the spill and determined that the Site was likely impacted by petroleum hydrocarbons, metals, and several parts-cleaning solvents.

The owner contracted EnCo Environmental Company (EnCo) to conduct several environmental studies and develop an Environmental Cleanup Plan (ECP) for the Site. In October 2002 EnCo completed a Limited Phase II Site Assessment by utilizing hand tools and a backhoe to access and collect subsurface soil samples for laboratory analyses. Between October 2015 and December 2015, EnCo completed a limited remedial investigation (RI) north, east, and south of the 2002 Limited Phase II Site Assessment. During the 2015 Limited Phase II Site Assessment, EnCo collected 25 soil samples from depths ranging from 0.5-feet below ground surface (bgs) and 10-feet bgs for laboratory analyses. EnCo also procured Holocene drilling to install groundwater monitoring well, MW-1, in the central region of the site.

Based on laboratory analyses of soil and groundwater samples that were collected during the environmental studies, EnCo developed an *Independent Remedial Cleanup Action Work Plan*, dated May 23, 2017, hereafter referred to as the “*Work Plan*.” The Work Plan and associated supporting reports are included as Appendix A (Background Documents) to this report.

In an Opinion Letter prepared by Ecology, dated July 12, 2017, Ecology concurred with the remedial action approach to achieve cleanup levels at the Site via excavation. The Opinion Letter and associated supporting reports are included as Appendix A (Background Documents) to this report.

The primary objective of remediating the Site was to ensure the protection of human health and the environment by addressing environmental impacts and attaining unrestricted cleanup levels (CULs) at the Site.

### 1.0.1

#### **Involved Parties**

##### Facility Name & Address

National Auto Parts  
16008 60<sup>th</sup> Street East  
Sumner, Washington  
Ecology Cleanup Site ID No.: 3653  
Ecology Site ID: 1304  
Voluntary Cleanup Program (VCP) Project ID: SW1547

##### Property Owners and Addresses

Sunset Chevrolet, Inc.  
Mitchell Development



910 Traffic Avenue  
Sumner, WA 98390

Environmental Consultant

Galloway Environmental, Inc.  
15600 NE 8<sup>th</sup> Street, Suite B1, 617  
Bellevue, Washington 98008

Ecology Project Manager

Unknown

**1.0.2 Regulatory Framework**

Remediation of petroleum and petroleum constituent-impacted soil in Washington State is regulated by MTCA (WAC 173-340). Generally, remediation of such sites is performed following the voluntary independent remedial action provisions of MTCA.

The approach to these cleanup services was performed in general conformance with appropriate regulatory guidance documents such as Ecology's Guidance for Remediation of Petroleum Contaminated Sites and the Work Plan by EnCo, dated May 23, 2017. The work complied with current safety, health and other relevant regulations, including:

- Occupational Safety and Health Administration (OSHA) CFR 1910.120, Hazardous Waste Operations and Emergency Responses
- WAC 296-24, General Safety & Health Standards
- WAC 296-62, WAC Occupational Health Standards
- WAC 296-800/OSHA 29 CFR 1910, WAC Core Safety & Health Standards
- WAC 296-155/OSHA 29 CFR 1926, Construction Industry Standards
- WAC 173-340, MTCA Cleanup Regulation
- WAC 173-303, Dangerous Waste Regulations
- Ecology's Guidance on Preparing Independent Remedial Action Reports under the MTCA (Chapter 70.105D RCW, DRAFT dated March 1, 1994, Pub. 94-18)
- EPA CFR 40, Protection of Environment
- United States Environmental Protection Agency (USEPA) SW-846 (sampling and laboratory analysis)

**1.0.3 Previous Environmental Investigations**

Brief summaries of previous investigations and communications are provided below. The reports associated with each summary are included in Appendix A of this report and should be reviewed in their entirety for specific details and accuracy.

February 7, 1991: Site Inspection by Ecology

On February 7, 1991, Ecology conducted a Complaint Investigation, that resulted in observations of "poor management of waste oil, solvents, caustic bath rinsate, and metal sludge" that led to contamination of nearby soils. Ecology reportedly noted the presence of oil, metal grindings and pieces, sorbent grit, and gaskets in the soil adjacent to a former concrete slab. Environmental contamination was confirmed along the perimeters of the concrete slab and throughout a runoff trench that diverted rainwater away from the structure. Ponding water, described as a "sludgy pool" measuring approximately 20-feet wide by 40-feet long, was noted to be present approximately 15-feet southeast of the southeast corner of the former concrete slab. The concrete slab was noted to be removed in the mid-1990s.

During the Complaint Investigation, Ecology collected one surface soil sample (Sample #1) from the west edge of the ponded water for analyses of pH, volatile organic compounds (VOCs), and total petroleum hydrocarbons. Total petroleum hydrocarbons were detected at a concentration of 65,360 milligrams per kilogram (mg/kg). Eighteen VOCs were detected with 5,5-dimethyl-(z)-2-hexene resulting in the highest concentration of 120 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ). The sample was reportedly not analyzed for pH due to interference.

Ecology collected a second surface soil sample (Sample #2) from the trench along the north side

of the concrete slab for analyses of total petroleum hydrocarbons and metals (aluminum, iron, magnesium, and manganese).

Ecology collected a third surface soil sample (Sample #3) from the north side of the concrete slab for analyses of total petroleum hydrocarbons and metals (aluminum, iron, magnesium, and manganese). Total petroleum hydrocarbons were detected at a concentration of 5,420 mg/kg.

Ecology collected a fourth surface soil sample (Sample #4) from an area of standing water for analyses of total petroleum hydrocarbons. Total petroleum hydrocarbons were detected at a concentration of 19,290 mg/kg.

Ecology collected one water sample (Sample #4a) from an area of standing water, at Sample #4, for analyses of VOCs and pH.

Ecology determined that the total area impacted with petroleum hydrocarbons was approximately 500 square feet in the vicinity of the concrete slab and approximately 150 square feet in and near the ponding water areas. The estimated quantity of contaminated soil was calculated to be 1,950 cubic feet (72 cubic yards).

#### January 17, 2003: Limited Phase II Site Assessment

Between October and November of 2002, EnCo completed a Limited Phase II Site Assessment with the purpose to "determine the soil quality" in the vicinity of the former concrete slab and ponding water and with the objective to obtain updated data for the preparation of a remedial work plan.

EnCo collected 31 discrete samples over an approximate area of 950 square feet utilizing hand tools and a backhoe. All samples were analyzed for total petroleum hydrocarbons as diesel (TPH-Diesel) and total petroleum hydrocarbons as oil (TPH-Oil). Twenty three of the samples were analyzed for select heavy metals. Of the twenty three metals analyses, 22 were analyzed for total lead. Eight of the samples were analyzed for VOCs. Three of the samples were analyzed for pH. One of the samples was analyzed for polynuclear aromatic hydrocarbons (PAHs). And one of the samples was analyzed for semi-volatile organic compounds (SVOCs).

Nine of the 22 soil samples that were tested for total lead resulted in concentrations exceeding the MTCA Method A CUL of 250 mg/kg. Total lead concentrations that exceeded the MTCA Method A CUL ranged from 320 mg/kg at location "14A" to 910 mg/kg at location "7A". The highest concentrations of total lead were situated within six feet east of the building and greater than 15 feet east of the building. Seven of the nine soil samples that exceeded the MTCA method A CUL for total lead were identified within four inches of the ground surface (7 A, SA, 1 0A, 12A, 13A, 14A, and 19A). The remaining two soil samples (168 and 198) were collected at 3/4-feet below bgs and 1-foot bgs, respectively. Sample numbers 168 and 198 were collected from within the vicinity of the former shallow ditch, around the perimeter of the concrete slab. Laboratory analyses of the remaining analytes resulted in concentrations below their respective MTCA CULs. Laboratory analyses for pH in soil did not exceed applicable dangerous waste regulations for corrosivity.

Based on these results EnCo concluded that the total lead concentration was significantly higher (4,040 mg/kg) during the 1991 Site Inspection. The highest total lead concentration in 2002 was detected in the sample collected closest to the building (7A at 910 mg/kg).

#### 2015: Remedial Investigation 2015

According to the Work Plan, EnCo conducted a limited RI in 2015 to further define the lateral and vertical extents and magnitude of Site contamination. The limited RI report was not obtainable by GEI for inclusion to this report. However, a summary was included in the Work Plan. According to the Work Plan, 25 shallow subsurface soil samples and one groundwater sample were collected for laboratory analyses of total TPH-Diesel, TPH-Oil, total petroleum hydrocarbons as gasoline (TPH-Gas), heavy metals, PAHs, and polychlorinated biphenyls (PCBs). Four soil samples were collected during the advancement of the borehole to install groundwater monitoring well number MW-1 at depths of 0.75-feet bgs, 2-feet bgs, 5-feet bgs, and 10-feet bgs. Upon termination of the boring for MW-1, Holocene Drilling installed a 1-inch diameter, schedule 40 PVC well that was constructed with 1-inch diameter well casing from approximately 0.5-feet bgs to 3.5-feet bgs and a 20-slot (0.02-inch slots) screen from a depth of 3.5-feet bgs to 8.5-feet bgs.

Immediately after installation, EnCo monitored the development of the well using a combination of surging and pumping with a peristaltic pump to remove at least four well volumes. EnCo's boring log for the MW-1 is included in Appendix B of this report.

The remaining soil samples were collected throughout the investigation at depths ranging from 1/2-foot bgs and 1-foot bgs.

Laboratory analyses resulted in the detections of arsenic and lead at concentrations exceeding their respective MTCA Method A CULs in two soil samples (sample number 4A) and (sample number 9A). Both samples were reportedly collected from a depth of 1/2-foot bgs.

Laboratory analyses also resulted in the detection of lead at a concentration exceeding its MTCA Method A CULs in a soil sample that was collected (sample number 13A) which was reportedly collected from a depth of 0.8-feet bgs.

Five soil samples were composited for Total Characteristic Leachability Procedure (TCLP) analyses of lead and cadmium to assess for exceedance of their respective hazardous waste threshold. Total leachable cadmium was measured less than 1 milligrams per liter (mg/L). Total leachable lead was measured at 1.20 mg/L. Both detections were below their respective dangerous waste thresholds.

Laboratory analyses of the groundwater sample collected from MW-1 resulted in the detections of total chromium and dissolved arsenic at concentrations of 1.33 µg/L and 1.08 µg/L, respectively. Both detections were below their respective MTCA Method A CULs.

#### September 9, 2016: Acceptance of VCP Application

On September 9, 2016, Ecology notified the former Site owner, Mr. Robert Suss, that Ecology accepted the Site into the VCP.

#### May 23, 2017: Independent Remedial Cleanup Action Work Plan

On May 23, 2017, EnCo finalized the Work Plan to document methods and procedures to remediate reasonably accessible contaminated site soils.

Per section 4.0 of the Work Plan, the approach to remediating the environmental contamination at the Site generally included:

- Excavate approximately 500 cubic yards of impacted soils east of the existing building.
- Load, transport, and dispose approximately 171 to 314 tons of contaminated soils to an approved disposal facility.
- Collect performance and confirmation soil samples for field screening and laboratory analyses to evaluate the effectiveness of the removal of contaminants.
- Continue remedial excavations until confirmation of contaminants of concern (COCs) at levels below their respective CULs.
- Install six additional groundwater monitoring wells to provide access to shallow groundwater for long-term groundwater monitoring.
- Collect groundwater samples from the seven groundwater monitoring wells for laboratory analyses and confirmation of attaining remedial action goals for four consecutive quarters with all COCs confirmed to be less than their respective CULs.

#### July 12, 2017: Opinion Letter from Ecology

On July 12, 2017, Ecology issued an Opinion Letter confirming that further remedial action was necessary and concurring with the 2017 Work Plan scope to remediate the Site. In the Opinion Letter, Ecology noted that the proposed approach of excavation and off-site disposal of contaminated soils has the highest probability of contamination removal and meeting the proposed CULs.

## **2.0 SITE DESCRIPTION**

### **2.0.1 Location and Legal Description**

The Site is located at 16008 60<sup>th</sup> Street East in Sumner, Washington. It is situated immediately southeast of the intersection of 60<sup>th</sup> Street East and 160<sup>th</sup> Avenue East and is approximately 0.4 miles north of State Route (SR) 410 and 1.7 miles east of SR 167 in an area of residential and commercial properties (see Attachment 1, Figure 1). Pierce County lists the Site to be associated with parcel number 0520198006 and 2006198700.

### **2.0.2 General Site Information and History**

The Site is rectangular in shape, totaling approximately 1.58 acres in size, and contains a 9,300 sf structure that was most recently used as an automobile parts supply store with a machine shop. It has been referred to as “Phil’s Speed Shop” and “Sumner National Auto Parts.”

The portions of the Site west and north of the structure are paved with asphalt. The portion of the Site east of the structure consists of soil. The portion of the Site south of the structure consists of gravel over soil.

The Site has largely remained unoccupied with exception to a drive through espresso stand in the northeastern portion of the property.

### **2.0.3 Current Uses of Adjoining Properties**

The northern adjoining property is 60<sup>th</sup> Street East, beyond which are commercial and residential properties occupied by Windmill Gardens (commercial) and single-family residences. The eastern adjoining property is a commercial property occupied by Sumner Veterinary Hospital. The southern adjoining property is a commercial property occupied by Kersey Mobility. The western adjoining property is 160<sup>th</sup> Avenue East, beyond which are commercial and residential properties occupied by Northwest Construction Control & Allied Enterprises, and single-family residences.

### **2.0.4 Proposed Land Use**

GEI is currently unaware of any proposed changes to the land use of the Site, beyond commercial uses.

### 3.0 ENVIRONMENTAL SETTING

#### 3.0.1 Regional Physiographic Conditions

The Site is situated at an elevation of approximately 77 feet above mean sea level (amsl) and gently slopes to the northwest. The highest portion of the Site is in the southeast corner and the lowest is in the northwest corner. The Site is mapped in a Flood Boundary and Floodway Map as being in “Zone C” which denotes the Site to be in an area of minimal flooding and not within a 100 year floodplain.

#### 3.0.2 Climate

The local climate typically experiences cool, wet winters and warm, dry summers. Temperatures typically range from the high-30s (Fahrenheit) during the winter months to the low-80s during the summer months. The mean annual precipitation ranges from 30- to 55-inches.

#### 3.0.3 Soil/Geologic Conditions

The Site soils, as observed during previous site investigations and excavations, are described as follows:

- 0- to 1-foot bgs: inorganic silt loam fill with a mixture of irregular cobbles (USCS Classification: ML)
- 1- to 4-feet bgs: poorly graded sandy gravel fill (USCS Classification: GP)
- 4- to 10-feet bgs: grey, well sorted, medium sand (USCS Classification: SW)

#### 3.0.4 Hydrogeologic Conditions

Based on quarterly groundwater monitoring events at the Site, the depth to shallow groundwater generally ranges from approximately 3.4-feet bgs in the winter months to 5-feet bgs in the summer months.

GEI utilized the USEPA On-Line Tools for Site Assessment Calculation to calculate the hydraulic gradient and direction for all groundwater monitoring events. Based on groundwater elevations that were collected during each groundwater monitoring event, the average groundwater flow direction is generally to the northwest at a bearing of 305 degrees from north. The table below presents the historic groundwater elevations and calculated bearing.

Sample Date	Groundwater Well – Water Elevation							Bearing (degrees from north)
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	
Aug 2018	70.79	70.57	70.69	70.72	70.83	70.82	70.95	325
Dec 2018	72.99	72.82	72.92	73.02	73.16	73.1	73.09	286
Mar 2019	72.52	72.39	72.45	72.56	72.55	72.85	72.65	314
July 2019	71.64	71.48	71.53	71.6	71.7	71.7	71.79	326
Oct 2019	71.92	71.71	71.85	72.1	72.35	72.39	72.1	275

#### 3.0.5 Current Groundwater Use

According to the Washington State water resources map, the following groundwater resource applications/permits are associated within 0.5-miles of the Site:

1. An irrigation well was installed by JG Magee in 1946 approximately 0.33 miles south of the Site. The total depth was noted to be 150-feet. According to the map, the well is still active. This well is presumably upgradient to the Site.
2. An irrigation well was installed by W Bregman in 1951 approximately 0.42 miles southwest of the Site. The total depth was noted to be 133-feet. According to the map, the well is still active. This well is presumably upgradient to the Site.
3. An irrigation well was installed by RJ Hill in 1946 approximately 0.50 miles northwest of the Site. The total depth was noted to be 230-feet. According to the map, the well is still active. This well is presumably cross/downgradient to the Site.

No other documentation of nearby wells were identified during the completion of this report.

**3.0.6**      ***Surface Water***

As noted above, the Site is situated on a Flood Boundary and Floodway Map as being Zone C which is characterized as an area of minimal flooding and not within a 100-year floodplain.

There have been no visual evidence of natural streams, wetlands, seepage, or springs throughout the Site. Surface water infiltrates the ground surface throughout the eastern and southern portions of the Site and meanders to the north as sheet flow in the western and northern portions of the Site. A shallow drainage ditch exists along the western perimeter of the Site and is oriented in a northerly direction.

The nearest surface water body, Salmon Creek, is located approximately 2,200 feet to the north of the Site.

#### 4.0 **SITE CONDITIONS AND SELECTION OF REMEDIAL ACTION**

MTCA cleanup regulations require that a cleanup action must comply with CULs for selected hazardous substances, points of compliance, and applicable or relevant and appropriate requirements (ARARs) per WAC 173-340-710. The final indicator hazardous substance identified for the Site, the associated CULs, and ARARs are briefly summarized in the following sections.

The initial contaminants of potential concern (COPCs), as documented in the Work Plan, included the following:

- TPH-Gas, TPH-Diesel, and TPH-Oil in soil and groundwater
- VOCs in soil and groundwater
- Carcinogenic polycyclic aromatic hydrocarbons (cPAHs) in soil and groundwater
- PCBs in soil and groundwater
- pH in soil and groundwater
- Metals in soil and groundwater
- Total suspended solids in groundwater

##### 4.0.1 ***Nature and Extent Prior to Remedial Actions***

Prior to initiating the remedial action, the COCs for the Site were identified by comparing concentrations of COPCs that were detected in soils during previous site investigations to their associated MTCA CULs. Based on historic site data, the following COCs were identified from the list of COPCs:

- Petroleum hydrocarbons as oil (oil range organics, heavy oil, and lube oil) in soil
- Metals in soil (arsenic, barium, cadmium, chromium, lead, and silver)

The area of concern (AOC) that was identified for remedial excavation included the areas located to the east and southeast of the on-site structure and extended to a depth of approximately 1-foot bgs. The total square footage of the AOC was estimated to be 12,000 sf.

##### 4.0.2 ***Exposure Pathways Prior to Remedial Actions***

The following potential complete exposure pathways were evaluated during the preparation of the Work Plan and this report.

- Soil to groundwater
- Sediment
- Groundwater
- Surface water
- Indoor air by vapor intrusion
- Soil particulate to air
- Subsurface utility corridors
- Soil direct contact
- Terrestrial ecological evaluation

##### 4.0.2.1 ***Soil to Groundwater Pathway Prior to Remedial Actions***

The depth to groundwater ranges from approximately 3.4-feet bgs in the winter months and 5-feet bgs in the summer months.

Prior to the remedial actions, there was a potentially complete pathway from soil to groundwater due to the possibility of vertical migration. The future potential for a complete pathway of soil to groundwater is considered incomplete because the areas impacted with the COCs have been satisfactorily remediated.

##### 4.0.2.2 ***Sediment Pathway Prior to Remedial Actions***

Sediment was not considered a potential complete pathway due to the absence of sediment throughout the Site.

#### **4.0.2.3 Groundwater Pathway Prior to Remedial Actions**

As noted above, the depth to groundwater ranges from approximately 3.4-feet bgs in the winter months and 5-feet bgs in the summer months.

Prior to the remedial actions, there was a potentially complete pathway to groundwater through vertical migration. The future potential for a complete pathway of soil to groundwater is considered incomplete because the areas impacted with the COCs have been satisfactorily remediated.

#### **4.0.2.4 Surface Water Pathway Prior to Remedial Actions**

Surface water was not considered a potential complete pathway due to the absence of surface water features throughout the Site.

#### **4.0.2.5 Indoor Air by Vapor Intrusion Pathway Prior to Remedial Actions**

As demonstrated in the Work Plan, VOCs (including TPH-Gas and TPH-Diesel) were not historically detected at concentrations exceeding their respective CULs. Therefore, based on their absence and the complete removal of COCs, vapor intrusion is considered an incomplete exposure pathway.

#### **4.0.2.6 Soil Particulate to Air Pathway Prior to Remedial Actions**

The eastern and southern portions of the Site are unpaved and pervious. Therefore, there was a potentially complete pathway of the COCs in soil particulate to air prior to implementation of the remedial action through generation of fugitive dust. The future potential for a complete pathway of soil particulate to air pathway is considered incomplete because the areas impacted with the COCs have been satisfactorily remediated.

#### **4.0.2.7 Subsurface Utility Corridor Pathway Prior to Remedial Actions**

According to the Work Plan, a private sanitary sewer extends from the eastern portion of the on-site structure and extends to the southern extent of the structure at which it connects to the City of Sumner's sanitary sewer to the west of the on-site structure, along 160<sup>th</sup> Avenue East. GEI is unaware of any other subsurface utility corridors that may be present at or near the AOCs. Due to the complete remedial action of COCs at the Site, and because contamination was not found to extend to the utility corridor, the potential for a complete pathway through subsurface utility corridors is considered incomplete.

#### **4.0.2.8 Soil Direct Contact Pathway Prior to Remedial Actions**

With respect to protection of human exposure through direct contact/incidental ingestion, the point of compliance is in the soils throughout the Site to a reasonable estimate of the depth of soil that could be excavated during redevelopment activities. There was a potentially complete pathway of direct-contact to the COCs in soil prior to remediation. The future potential for soil to direct-contact pathway is considered incomplete because the AOCs impacted with the COCs have been satisfactorily remediated.

#### **4.0.2.9 Terrestrial Ecological Evaluation Prior to Remedial Actions**

Prior to the remedial actions, there was a likely potential for a complete exposure pathway between contaminated media and terrestrial ecological receptors.

However, the future potential for a complete pathway to terrestrial organism pathway is considered incomplete because the areas impacted with the COCs have been satisfactorily remediated. Therefore, the Site qualifies for an exclusion from further evaluation due to the absence of hazardous substances at concentrations exceeding their natural background levels as described in WAC 173-340-200 and 173-340-709.

#### **4.0.3 Cleanup Levels and Points of Compliance**

The CULs for the Site COPCs were identified using the criteria outlined in WAC 173-340-900 Table 740-1 Method A for Unrestricted Land Uses and Method B where Method A levels have not been established. The points of compliance for the remedial action implemented at the Site were wherever contaminants had been confirmed within the Site.



Where applicable, MTCA Method A CUL for the Site were selected based on protection of residential/unrestricted land use within a reasonable maximum exposure. The point of compliance for human exposure via direct contact and incidental ingestion as well as for protection of ecological receptors was defined as the contaminated areas throughout the AOC to a reasonable estimate of the depth of soil that could be excavated.

#### **4.0.3.1 Groundwater CULs**

The selected CULs for the COPCs in groundwater are listed below:

- TPH-Gas – 0.8 mg/L with benzene present and 1.0 mg/L with benzene absent per MTCA Method A;
- TPH-Diesel – 0.5 mg/L per MTCA Method A
- TPH-Oil – 0.5 mg/L per MTCA Method A
- Benzene – 5.0 micrograms per liter ( $\mu\text{g/L}$ ) per MTCA Method A
- Toluene – 1,000  $\mu\text{g/L}$  per MTCA Method A
- Ethylbenzene – 700  $\mu\text{g/L}$  per MTCA Method A
- Total Xylenes – 1,000  $\mu\text{g/L}$  per MTCA Method A
- Pyrene – 480  $\mu\text{g/L}$  per MTCA Method B
- PCBs – 0.1  $\mu\text{g/L}$  per MTCA Method A
- Dissolved Arsenic – 5.0  $\mu\text{g/L}$  per MTCA Method A
- Dissolved Barium – 3,200  $\mu\text{g/L}$  per MTCA Method B
- Dissolved Cadmium – 5.0  $\mu\text{g/L}$  per MTCA Method A
- Dissolved Chromium – 50  $\mu\text{g/L}$  per MTCA Method A
- Dissolved Lead – 15  $\mu\text{g/L}$  per MTCA Method A
- Dissolved Mercury – 2.0  $\mu\text{g/L}$  per MTCA Method A
- Hexavalent Chromium – 48  $\mu\text{g/L}$  per MTCA Method A

#### **4.0.3.2 Soil CULs**

The selected CULs for the COPCs in soil are listed below:

- TPH-Gas – 30 milligrams per kilogram (mg/kg) with benzene present and 100 mg/kg with benzene absent per MTCA Method A
- TPH-Diesel – 2,000 mg/kg per MTCA Method A
- TPH-Oil – 2,000 mg/kg per MTCA Method A
- Acetone – 72,000 mg/kg per MTCA Method B
- 2-Butanone (methyl ethyl ketone [MEK]) – 48,000 mg/kg per MTCA Method B
- Benzene – 0.03 mg/kg per MTCA Method A
- Toluene – 7.0 mg/kg per MTCA Method A
- Ethylbenzene – 6.0 mg/kg per MTCA Method A
- Total Xylenes – 9.0 mg/kg per MTCA Method A
- Anthracene – 24,000 mg/kg per MTCA Method B
- Benzo[a]pyrene – 0.1 mg/kg per MTCA Method A
- Benzo[g,h,i]perylene – 1,000 mg/kg per MTCA Method A
- Pyrene – 2,400 mg/kg per MTCA Method B
- Fluoranthene – 3,200 mg/kg per MTCA Method B
- 2-Methylnaphthalene – 320 mg/kg per MTCA Method B
- Arsenic – 20 mg/kg per MTCA Method A
- Barium – 16,000 mg/kg per MTCA Method B
- Cadmium – 2.0 mg/kg per MTCA Method A
- Chromium – 2,000 mg/kg per MTCA Method A as Chromium III
- Lead – 250 mg/kg per MTCA Method A
- Mercury – 2.0 mg/kg per MTCA Method A
- Hexavalent Chromium – 19 mg/kg per MTCA Method A

#### **4.0.3.3 Vapor Intrusion (Soil Gas) Screening Levels**

All known contamination has been successfully removed from the Property. The potential for vapor intrusion due to on-site contaminants is not considered feasible. Therefore, an evaluation for CULs with respect to vapor intrusion are not warranted for the purpose of this report.

#### **4.1 *JUSTIFICATION FOR THE SELECTED REMEDIAL ACTION***

The remedial action selected consisted of removing the contaminated soils at the Site where concentrations of COCs exceed their respective CULs. This action resulted in a permanent attainment of MTCA Method CULs throughout the AOCs. As noted in the July 12, 2017 Opinion Letter from Ecology, the selected remedial action provides the highest probability of contamination removal and meeting the proposed MTCA Method A and Method B CULs.

## **5.0 REMEDIAL ACTION SUMMARY**

During the previous investigations and remedial action planning for the Site, site-specific cleanup action alternatives were considered to ensure the protection of human health and the environment. Each potential cleanup action alternative was compared with the following criteria (WAC 173-340-360[2] and [3]) and consideration of the MTCA remedy selection requirements:

- Overall Protection of Human Health and the Environment
- Compliance with Cleanup Standards
- Use of Permanent Solutions to the Maximum Extent Practicable
- Compliance with ARARs
- Provision of Compliance Monitoring
- Provision for Reasonable Restoration Time Frame

Based on the above criteria, the Owner's overall objectives, and Ecology's Opinion Letter, the cleanup action alternative selected for the Site included excavation and off-site disposal.

### **5.0.1 Impacted Soil Removals**

Prior to removal of the impacted soils, several planning documents were prepared, including:

- VCP Acceptance by Ecology, dated September 9, 2016
- State Environmental Policy Act (SEPA) Determination of Non-Significance (DNS) by the City of Sumner, dated March 10, 2017
- Drainage & Erosion Control Report by Beyler Consulting, dated March 30, 2017
- Construction Stormwater Pollution Prevention Plan by Beyler Consulting, dated March 30, 2017
- The Work Plan by EnCo, dated May 23, 2017
- Waste Disposal Authorization by the Tacoma Pierce County Health Department (TPCHD), dated January 22, 2018

Between October 2017 and January 2018, GEI monitored the excavation and export of 262.92 tons of impacted soils from the Site. The soils were transported to LRI Landfill, located at 17925 Meridian Street East in Puyallup, Washington under the WDA number 2188 (see Appendix C of this report). The excavation activities occurred over four events (i.e., October 6, 2017, December 6, 2017, December 18, 2017, and January 17, 2018).

Throughout the excavation process, soils exhibiting the most likely presence of contamination were stockpiled and sampled for collection and analyses of performance and confirmation soil samples. Based on analytical results of initial performance soil samples from the October 6, 2017 excavation, additional soils were excavated on December 6, 2017. Based on analytical results of performance soil samples from the December 6, 2017 excavation, additional soils were excavated on December 18, 2017. Based on analytical results of performance soil samples from the December 18, 2017 excavation, additional soils were excavated on January 17, 2018. This process is further discussed in subsequent sections of this report. The limits of excavation and associated soil sample data are included in the following figures:

- Figure 2 October 6, 2017 excavation
- Figure 3 December 6, 2017 excavation
- Figure 4 December 18, 2017 excavation
- Figure 5 January 17, 2018 excavation

## **5.1 CONFIRMATION SAMPLES**

### **5.1.1 Confirmation Soil Samples**

Throughout the remedial excavation activities, GEI field screened soils for indications of impacts, such as petroleum odors, elevated photoionization detector (PID) measurements, and sheen. The field screening and soil sample collection activities followed the procedures presented in Appendix D of this report.

GEI collected a total of 46 representative soil samples for laboratory analysis to document the effectiveness of the impacted soil removals and to document the concentrations of the COPCs remaining at the Site. All soil samples were submitted to a Washington State Certified laboratory (OnSite Environmental, located at 14648 NE 95<sup>th</sup> Street in Redmond, Washington) for laboratory analyses.

#### October 6, 2017 Excavation with October 10, 2017 Performance Soil Sample Analytical Results

During the October 2017 remedial excavation activities, GEI collected 6 soil samples from the the limits of excavation and four from stockpiles that were generated during the excavation activities. Each of the 16 excavation samples and four stockpile soil samples were analyzed for TPH-Gas, TPH-Diesel, TPH-Oil, VOCs, and MTCA 5 Metals. Laboratory analyses resulted in the detections of one analyte (i.e., total lead) at concentrations exceeding its MTCA Method A CUL of 250 mg/kg in 5 of the 16 excavation soil samples and one stockpile soil sample. The exceedances included:

- Sample Number NAP-4@2' with total lead at a concentration of 4,400 mg/kg
- Sample Number NAP-10@0.5' with total lead at a concentration of 340 mg/kg
- Sample Number NAP-12@0.5' with total lead at a concentration of 500 mg/kg
- Sample Number NAP-14@0.5' with total lead at a concentration of 270 mg/kg
- Sample Number NAP-15@0.5' with total lead at a concentration of 1,100 mg/kg
- Sample Number SP-2 with total lead at a concentration of 280 mg/kg

These samples were collected from the northwestern, western, southwestern, and southeastern perimeters of the remedial excavation as indicated in Figure 2 of this report.

All other analytes in all other samples were either detected at concentrations below their respective CULs or were not detected at concentrations equal to or exceeding their respective laboratory practical quantitation limits (PQLs). Based on these data, GEI concluded that the residual COC for the Site soils included total lead.

#### December 6, 2017 Excavation with Same Day Performance Soil Sample Analytical Results

The areas of total lead exceedances that were detected during the October 6, 2017 excavation event were further excavated on December 6, 2017 and resampled. A total of 14 excavation soil samples and two stockpile soil samples were collected at the conclusion of the extended excavation and analyzed for total lead. Of the 14 excavation soil samples, 10 resulted in detections of total lead at concentrations exceeding its MTCA Method A CUL of 250 mg/kg. Laboratory analyses of the two stockpile soil samples resulted in the detections of lead at concentrations of 220 and 240 mg/kg.

The exceedances included:

- Sample Number 20@1' with total lead at a concentration of 310 mg/kg
- Sample Number 21@1' with total lead at a concentration of 420 mg/kg
- Sample Number 22@1' with total lead at a concentration of 680 mg/kg
- Sample Number 23@1' with total lead at a concentration of 1,200 mg/kg
- Sample Number 27@3' with total lead at a concentration of 410 mg/kg
- Sample Number 29@1' with total lead at a concentration of 740 mg/kg
- Sample Number 30@1' with total lead at a concentration of 1,600 mg/kg

These samples were collected from the west-central, southwest, and southeast portions of the remedial excavation as indicated in Figure 3 of this report.

#### December 18, 2017

The areas of total lead exceedances that were detected during the December 6, 2017 excavation event were further excavated on December 18, 2017 and resampled. A total of seven excavation soil samples were collected at the conclusion of the extended excavation and analyzed for total lead. Of the seven excavation soil samples, three resulted in detections of total lead at concentrations exceeding its MTCA Method A CUL of 250 mg/kg.

The exceedances included:

- Sample Number 33@2' with total lead at a concentration of 530 mg/kg

- Sample Number 34@2' with total lead at a concentration of 540 mg/kg
- Sample Number 36@2' with total lead at a concentration of 410 mg/kg

These samples were collected from the southwestern portion of the remedial excavation as indicated in Figure 4 of this report.

January 17, 2018

The areas of total lead exceedances that were detected during the December 18, 2017 excavation event were further excavated on January 17, 2018 and resampled. A total of three soil samples were collected on January 17, 2018 and analyzed for total lead as indicated in Figure 5 of this report. Of the three soil samples, one resulted in a detection of total lead at a concentration of 12 mg/kg, below its MTCA Method A CUL of 250 mg/kg. Laboratory analyses of the other two soil samples did not result in concentrations of total lead at levels equal to or exceeding their respective laboratory PQLs.

August 13 & 14, 2018

Between August 13, 2018 and August 14, 2018, GEI observed the installation of groundwater monitoring wells MW-2 through MW-7 as outlined in the Work Plan and Ecology's Opinion Letter, dated July 12, 2017. The installation was completed by Cascade Drilling, LP (Cascade) and included one cross/downgradient well west of the remedial excavation area (MW-2), two downgradient wells north of the remedial excavation area (MW-3 and MW-4), two cross/upgradient wells east of the remedial excavation area (MW-5 and MW-6), and one upgradient well south of the remedial excavation area (MW-7). One pre-existing well (MW-1), situated in the central region of the Site, was installed on October 30, 2015 by others. All well locations are depicted in Figure 6 of this report. Each of the six wells (MW-2 through MW-7) were constructed as 2-inch diameter, schedule 40 PVC wells with 2-inch diameter well casing and 10-slot (0.01-inch slots) screen. Immediately after the construction of the wells, each was developed by Cascade by using a combination of surging and evacuation with a submersible pump and dedicated disposable tubing. The details of the construction and development of each well are included below.

Well Number	Total Depth (feet bgs) <sup>1</sup>	Screen Interval (feet)	Sandpack Interval (feet)	Depth to water (feet) <sup>2</sup>	Approximate Development Volume (gallons)
MW-2	13.81	3.81 – 13.81	1.75 – 14.0	5.53	15
MW-3	13.64	3.64 – 13.64	1.65 – 14.0	5.91	15
MW-4	13.80	3.80 – 13.80	1.75 – 14.0	5.68	15
MW-5	14.30	4.30 – 14.30	2.25 – 14.5	5.67	15
MW-6	14.12	4.12 – 14.12	2.0 – 14.5	5.58	15
MW-7	13.87	3.87 – 13.87	1.75 – 14.0	5.25	15

Notes:

- 1 – The depths are based on the ground surface at the time of drilling  
 2 – Depths to water as measured at the time of drilling

During the drilling activities, GEI field screened the soils for indications of environmental impacts as described above and collected one soil sample from each boring at a depth immediately above the groundwater interface for laboratory analyses of TPH-Gas, TPH-Diesel, TPH-Oil, VOCs, PAHs, PCBs, MTCA 5 Metals, and Hexavalent Chromium.

At each sample point, the driller advanced an 18-inch long split spoon sampling device which was advanced by repeatedly dropping a 140-pound drop hammer onto the sampling device. Upon reaching the terminal depths of each sample point, the sample device was extracted from the borehole and the accompanying soil sample was retained and field screened. Soil samples collected for laboratory analysis were placed directly into new laboratory-supplied containers.

Laboratory analyses of all soil samples resulted in either detections of COPCs at concentrations below their respective MTCA CULs or no detections at concentrations equal to or exceeding their respective laboratory PQLs.

The Laboratory analytical results are tabulated in Table 1 of this report. Laboratory analytical reports are included in Appendix E.

### **5.1.2 Confirmation Water Samples**

Approximately two weeks after installation of the wells, GEI initiated groundwater monitoring of the seven groundwater monitoring wells. The groundwater monitoring program continued over five quarters (August 31, 2018, December 20, 2018, March 26, 2019, July 1, 2019, and October 22, 2019).

GEI purged water from each well prior to sample collection until confirmation of attaining stabilized water quality parameters, including pH within 0.1 standard unit (SU), conductivity within 5-percent (%), and temperature within 0.1 degrees Celsius (°C) for at least three consecutive readings.

The October 22, 2019 monitoring event was the fourth consecutive quarterly groundwater monitoring event that confirmed residual concentrations of COCs were below their respective MTCA CULs. Therefore, GEI terminated the monitoring program and initiated preparation of this report. Laboratory analytical results are included in the individual reports for each monitoring event (Appendix F).

### **5.1.3 Confirmation Air Samples (Vapor Intrusion Samples)**

The known source of contamination has been successfully removed from the Site. Therefore, the potential for vapor intrusion due to on-site environmental impacts is not considered feasible due to the absence of a potential source.

## **6.0 CONCLUSIONS**

Between October 2017 and January 2018, remedial excavation was conducted at the Site in general accordance with the Work Plan prepared by EnCo, dated May 23, 2017 and the Opinion Letter prepared by Ecology, dated July 12, 2017. The excavated soil was transported for disposal at the LRI Landfill, located at 17925 Meridian Street East in Puyallup, Washington under the WDA number 2188. During the excavation work, GEI collected soil samples for laboratory analyses to document the effectiveness of the removals (performance samples) and to document the remaining concentrations of COCs from the final limits of excavation (confirmation samples). Based on laboratory analytical results of the confirmation soil samples collected from the final limits of excavation, all known soils COCs have been removed from the Site.

The results of confirmation soil and quarterly groundwater samples confirmed that there are no residual concentrations of COCs at the Site at concentrations exceeding their respective CULs.

Therefore, GEI concludes that a No Further Action determination will be appropriate for the Site.

## **7.0 LIMITATIONS**

This report is based upon the application of scientific principles and professional judgment to certain facts with resultant subjective interpretations. Professional judgments expressed herein are based upon the facts currently available within the limits of the existing data, scope of work, budget and schedule and may undergo revision as additional data are obtained. To the extent that more definitive conclusions are desired by the client than are warranted by the currently available facts, it is specifically GEI's intent that the conclusions and recommendations stated in our report is intended as guidance and not necessarily a firm course of action except where explicitly stated as such. WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED INCLUDING WITHOUT LIMITATION, WARRANTIES AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

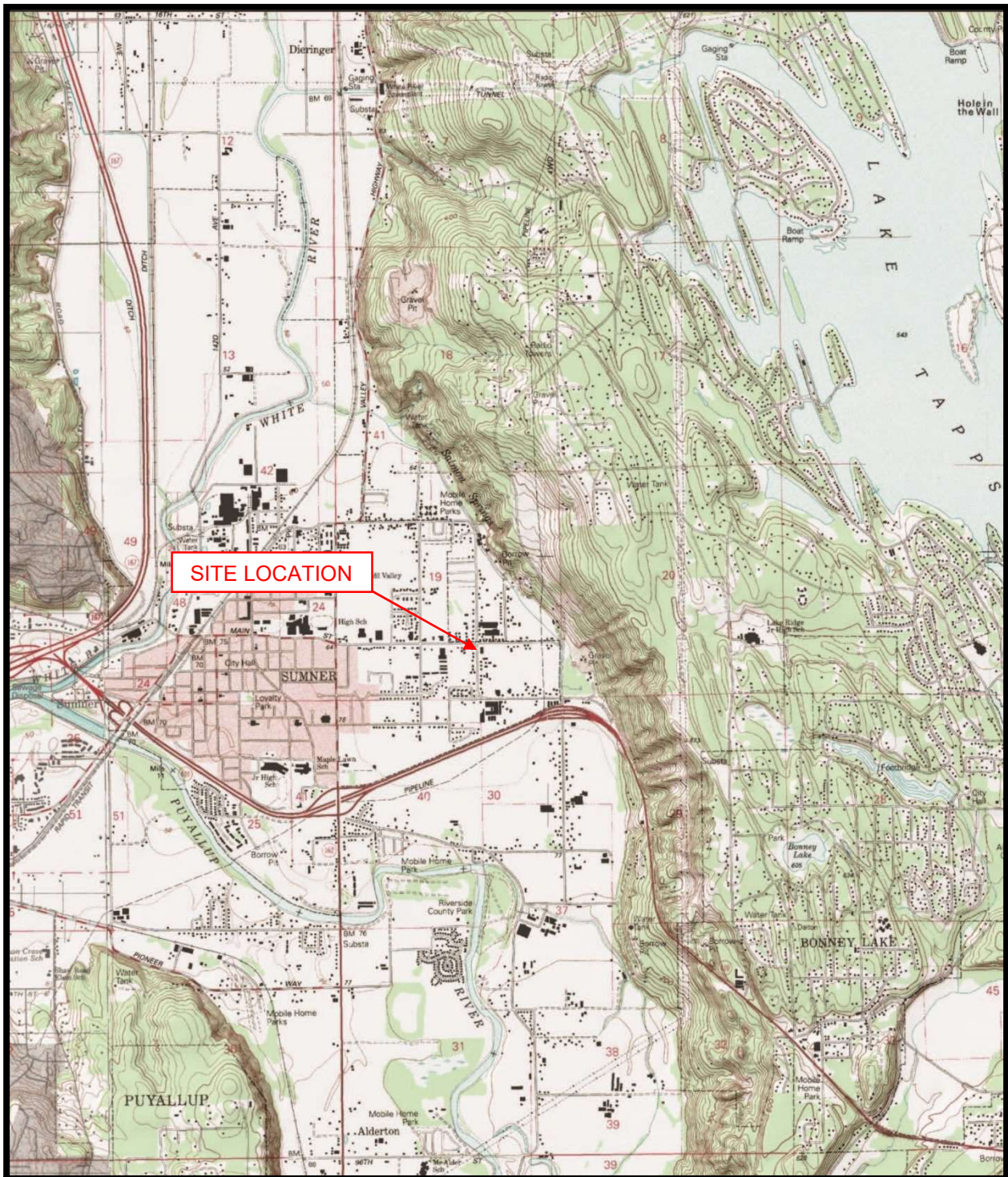
This report was prepared for the use of the Client and the findings presented in this IRAR are based upon the agreed scope of work outlined in the report and the Contract for Professional Services between Client and Galloway Environmental, Inc. ("Consultant"). Use or misuse of this report, or the reliance upon the findings hereof by any parties other than the Client, is at their own risk. Neither Client nor Consultant make any representations or warranty to such other parties as to the accuracy or completeness of this report or to the suitability of its use by such other parties for any purpose whatever, known or unknown to Client or Consultant. Neither Client nor Consultant shall have any liability to or indemnifies or holds harmless third parties for any losses incurred by the actual or purported use or misuse of this report.

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***ATTACHMENT 1***

***FIGURES***

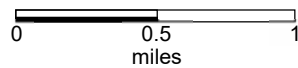


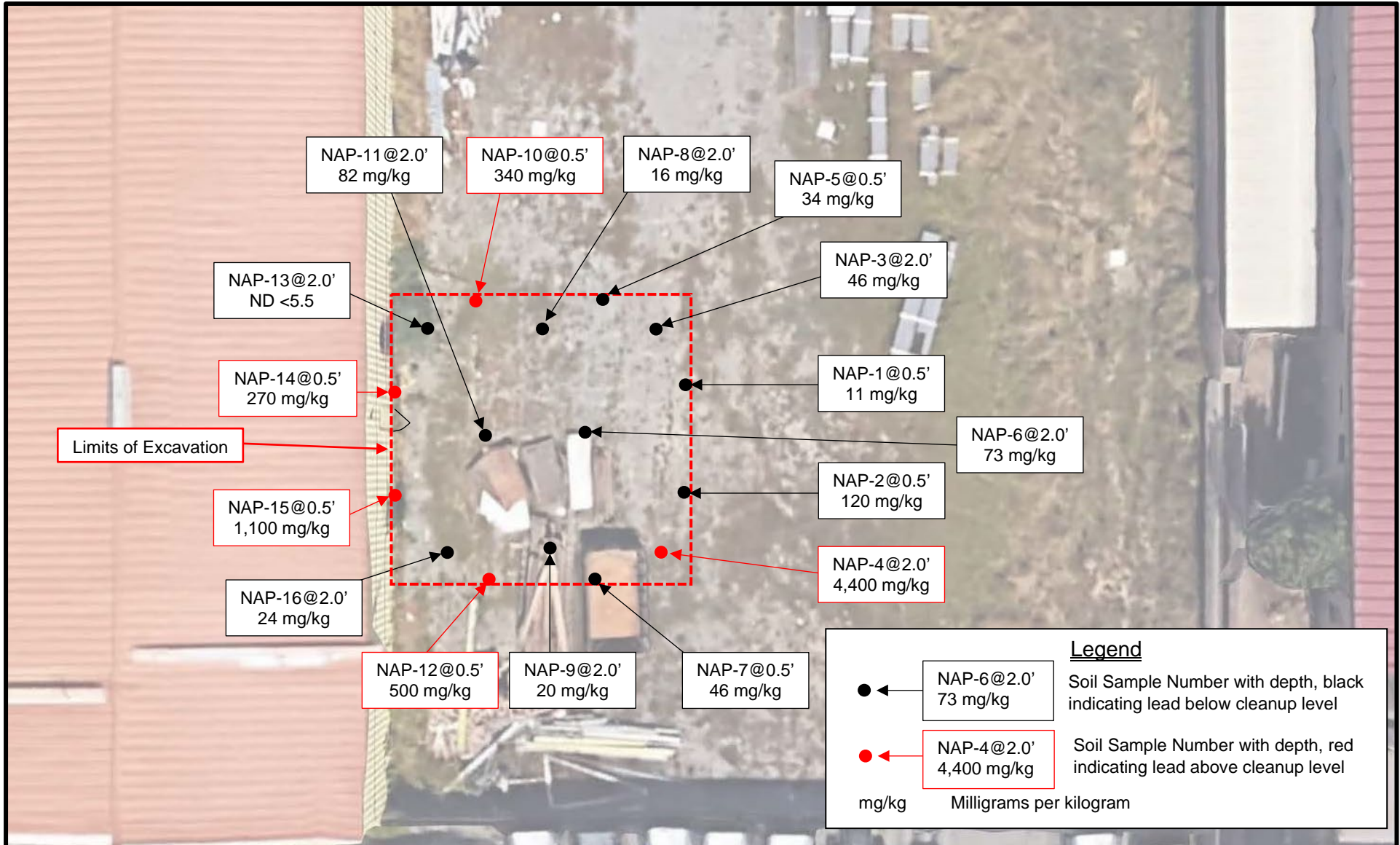
**FIGURE 1 — SITE LOCATION MAP**

National Auto Parts Property

16008 60<sup>th</sup> Street East, Sumner, WA

Source: topozone.com; March 2020; GEI Project #37018





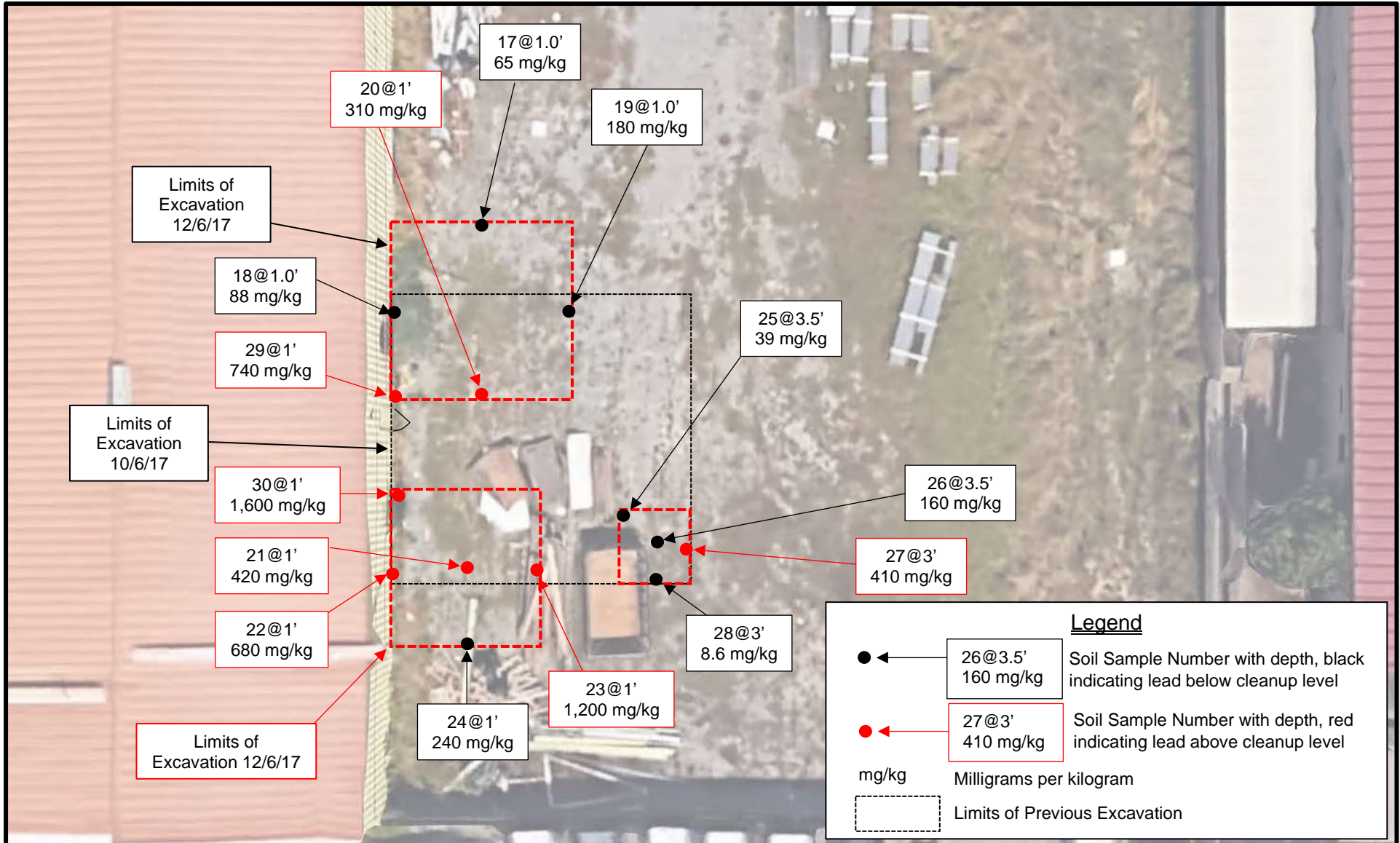
**FIGURE 2 — OCTOBER 6, 2017 REMEDIAL EXCAVATION**

National Auto Parts Property

16008 60<sup>th</sup> Street East, Sumner, WA

Source: GoogleEarth, 2020; GEI Project #37018





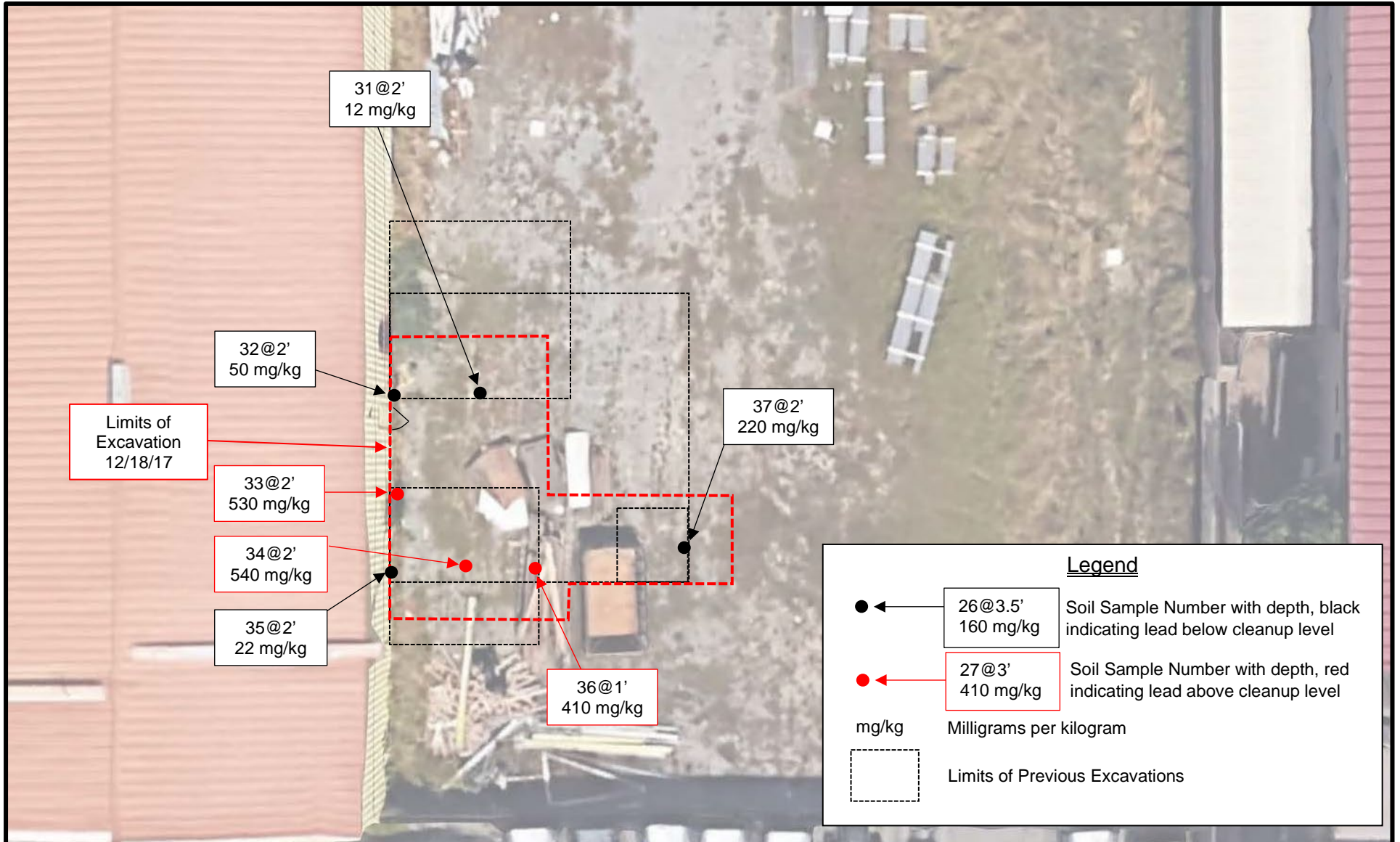
**FIGURE 3 — DECEMBER 6, 2017 REMEDIAL EXCAVATION**

National Auto Parts Property

16008 60<sup>th</sup> Street East, Sumner, WA

Source: GoogleEarth, 2020; GEI Project #37018





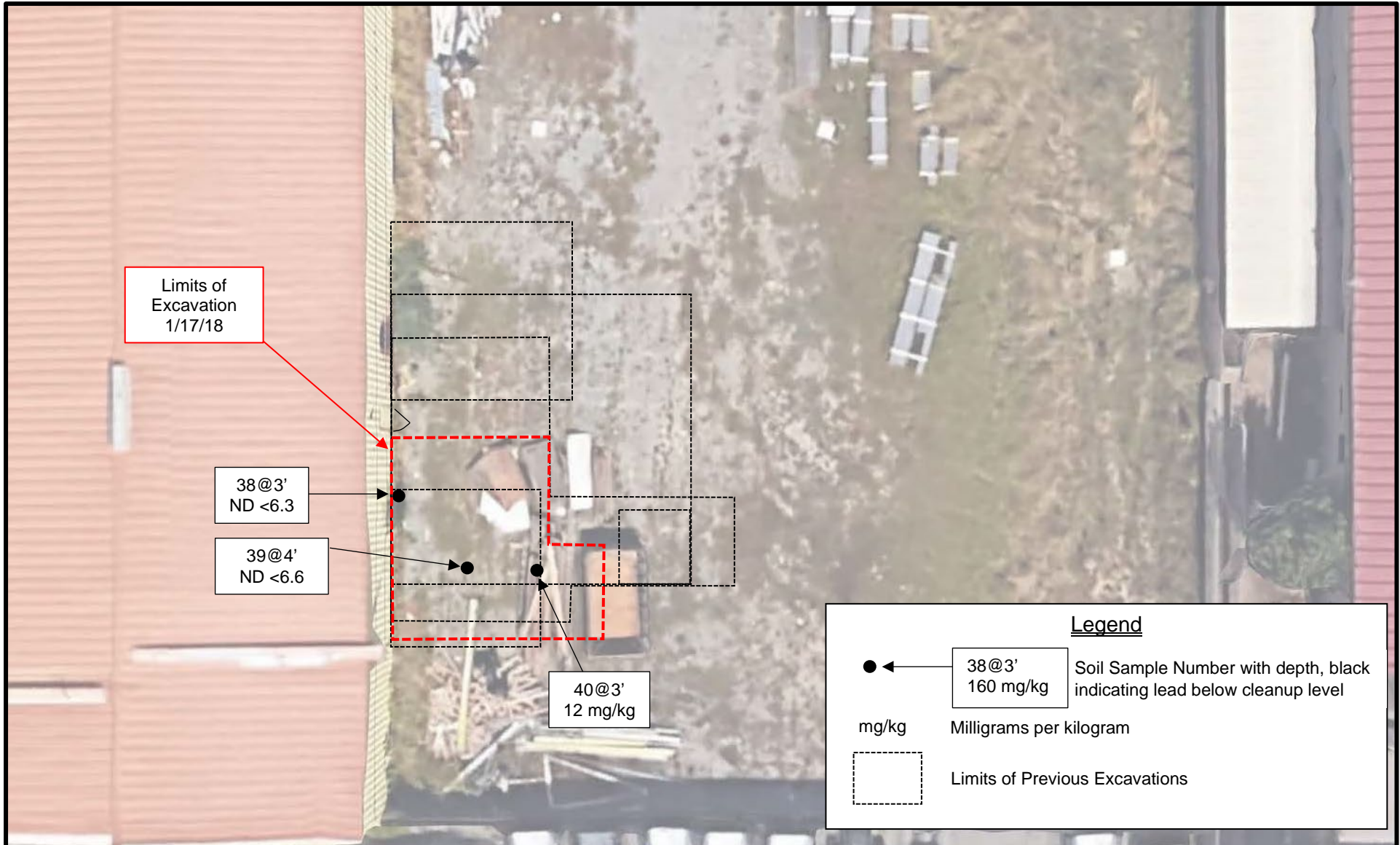
**FIGURE 4 — DECEMBER 18, 2017 REMEDIAL EXCAVATION**

National Auto Parts Property

16008 60<sup>th</sup> Street East, Sumner, WA

Source: GoogleEarth, 2020; GEI Project #37018





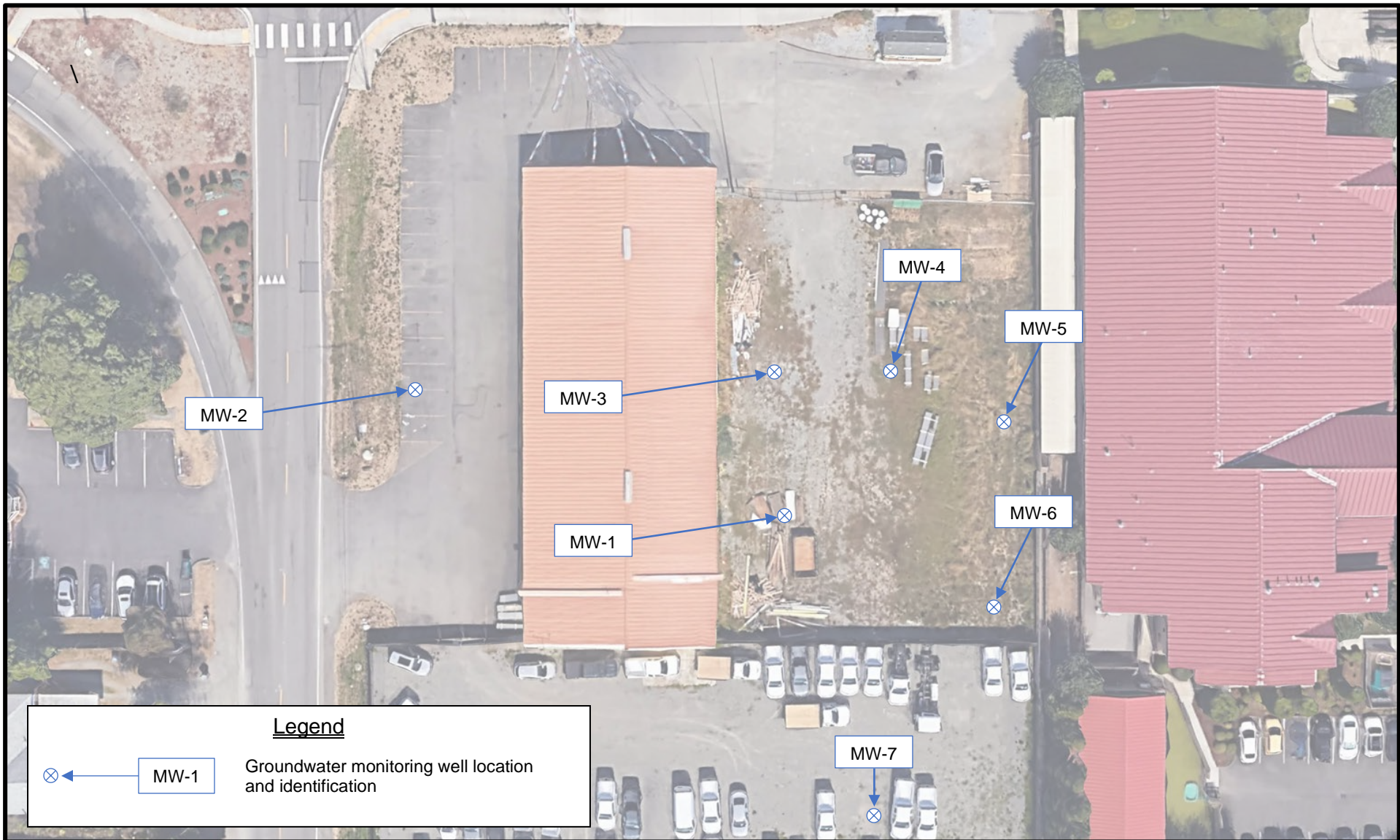
**FIGURE 5 — JANUARY 17, 2018 REMEDIAL EXCAVATION**

National Auto Parts Property

16008 60<sup>th</sup> Street East, Sumner, WA

Source: GoogleEarth, 2020; GEI Project #37018



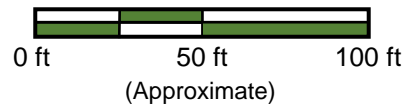


**FIGURE 6 — GROUNDWATER MONITORING WELLS**

National Auto Parts Property

16008 60<sup>th</sup> Street East, Sumner, WA

Source: GoogleEarth, 2020; GEI Project #37018



**ATTACHMENT 2**

**TABLES**







***ATTACHMENT 3***

***PHOTOS***



<b>Project No. 37018</b>	<b>Description</b>	Photo of initiation of remedial excavation, facing N	<b>Photo 1</b>
	<b>Site Name</b>	Former National Auto Parts, 16008 60 <sup>th</sup> St E, Sumner, WA	<b>Photo Date</b>
	<b>Client</b>	Sunset Chevrolet/Mitchell Development	October 5, 2017



<b>Project No. 37018</b>	<b>Description</b>	Photo of initiation of remedial excavation, facing NE	<b>Photo 2</b>
	<b>Site Name</b>	Former National Auto Parts, 16008 60 <sup>th</sup> St E, Sumner, WA	<b>Photo Date</b>
	<b>Client</b>	Sunset Chevrolet/Mitchell Development	October 5, 2017



<b>Project No.</b> <b>37018</b>	<b>Description</b>	Photo of initiation of remedial excavation, facing SW	<b>Photo 3</b>
	<b>Site Name</b>	Former National Auto Parts, 16008 60 <sup>th</sup> St E, Sumner, WA	<b>Photo Date</b>
	<b>Client</b>	Sunset Chevrolet/Mitchell Development	October 5, 2017



<b>Project No.</b> <b>37018</b>	<b>Description</b>	Photo of initiation of remedial excavation, facing SE	<b>Photo 4</b>
	<b>Site Name</b>	Former National Auto Parts, 16008 60 <sup>th</sup> St E, Sumner, WA	<b>Photo Date</b>
	<b>Client</b>	Sunset Chevrolet/Mitchell Development	October 5, 2017



<b>Project No.</b> <b>37018</b>	<b>Description</b>	Photo of sample preparation of remedial excavation, facing S	<b>Photo 5</b>
	<b>Site Name</b>	Former National Auto Parts, 16008 60 <sup>th</sup> St E, Sumner, WA	<b>Photo Date</b>
	<b>Client</b>	Sunset Chevrolet/Mitchell Development	October 5, 2017



<b>Project No.</b> <b>37018</b>	<b>Description</b>	Photo of continued remedial excavation, facing S	<b>Photo 6</b>
	<b>Site Name</b>	Former National Auto Parts, 16008 60 <sup>th</sup> St E, Sumner, WA	<b>Photo Date</b>
	<b>Client</b>	Sunset Chevrolet/Mitchell Development	December 6, 2017



<b>Project No. 37018</b>	<b>Description</b>	Photo of continued remedial excavation, facing W	<b>Photo 7</b>
	<b>Site Name</b>	Former National Auto Parts, 16008 60 <sup>th</sup> St E, Sumner, WA	<b>Photo Date</b> December 6, 2017
	<b>Client</b>	Sunset Chevrolet/Mitchell Development	



<b>Project No. 37018</b>	<b>Description</b>	Photo of continued remedial excavation, facing S	<b>Photo 8</b>
	<b>Site Name</b>	Former National Auto Parts, 16008 60 <sup>th</sup> St E, Sumner, WA	<b>Photo Date</b> December 18, 2017
	<b>Client</b>	Sunset Chevrolet/Mitchell Development	



<b>Project No. 37018</b>	<b>Description</b>	Photo of continued remedial excavation, facing W	<b>Photo 9</b>
	<b>Site Name</b>	Former National Auto Parts, 16008 60 <sup>th</sup> St E, Sumner, WA	
	<b>Client</b>	Sunset Chevrolet/Mitchell Development	<b>Photo Date</b> January 17, 2018



<b>Project No. 37018</b>	<b>Description</b>	Photo of continued remedial excavation, facing S	<b>Photo 10</b>
	<b>Site Name</b>	Former National Auto Parts, 16008 60 <sup>th</sup> St E, Sumner, WA	
	<b>Client</b>	Sunset Chevrolet/Mitchell Development	<b>Photo Date</b> January 17, 2018





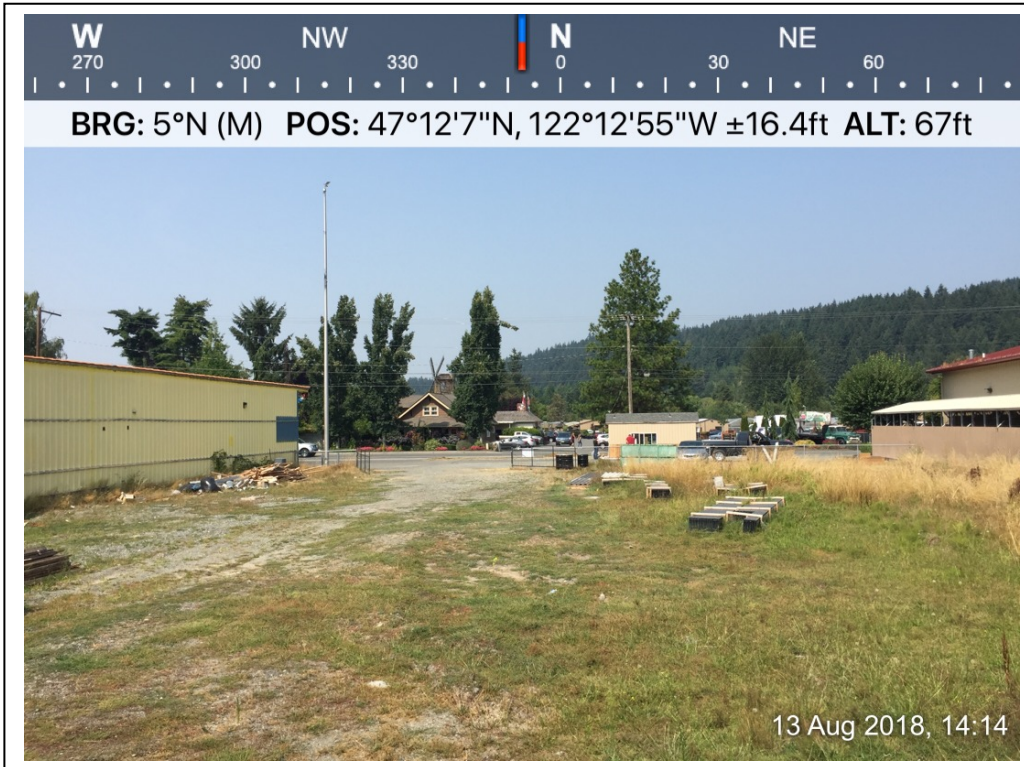
<b>Project No. 37018</b>	<b>Description</b>	Photo of post-remedial excavation backfilling, facing SE	<b>Photo 11</b>
	<b>Site Name</b>	Former National Auto Parts, 16008 60 <sup>th</sup> St E, Sumner, WA	
	<b>Client</b>	Sunset Chevrolet/Mitchell Development	<b>Photo Date</b> January 31, 2018



<b>Project No. 37018</b>	<b>Description</b>	Photo of post-remedial excavation backfilling, facing W	<b>Photo 12</b>
	<b>Site Name</b>	Former National Auto Parts, 16008 60 <sup>th</sup> St E, Sumner, WA	
	<b>Client</b>	Sunset Chevrolet/Mitchell Development	<b>Photo Date</b> January 31, 2018



<b>Project No. 37018</b>	<b>Description</b>	Photo of the site, facing E/SE	<b>Photo 13</b>
	<b>Site Name</b>	Former National Auto Parts, 16008 60 <sup>th</sup> St E, Sumner, WA	<b>Photo Date</b>
	<b>Client</b>	Sunset Chevrolet/Mitchell Development	August 14, 2018



<b>Project No. 37018</b>	<b>Description</b>	Photo of the eastern portion site, facing N	<b>Photo 14</b>
	<b>Site Name</b>	Former National Auto Parts, 16008 60 <sup>th</sup> St E, Sumner, WA	<b>Photo Date</b>
	<b>Client</b>	Sunset Chevrolet/Mitchell Development	August 13, 2018



<b>Project No. 37018</b>	<b>Description</b>	Photo of the existing groundwater well MW-1	<b>Photo 15</b>
	<b>Site Name</b>	Former National Auto Parts, 16008 60 <sup>th</sup> St E, Sumner, WA	<b>Photo Date</b>
	<b>Client</b>	Sunset Chevrolet/Mitchell Development	August 14, 2018



<b>Project No. 37018</b>	<b>Description</b>	Photo of the drilling to install groundwater well MW-2	<b>Photo 16</b>
	<b>Site Name</b>	Former National Auto Parts, 16008 60 <sup>th</sup> St E, Sumner, WA	<b>Photo Date</b>
	<b>Client</b>	Sunset Chevrolet/Mitchell Development	August 13, 2018



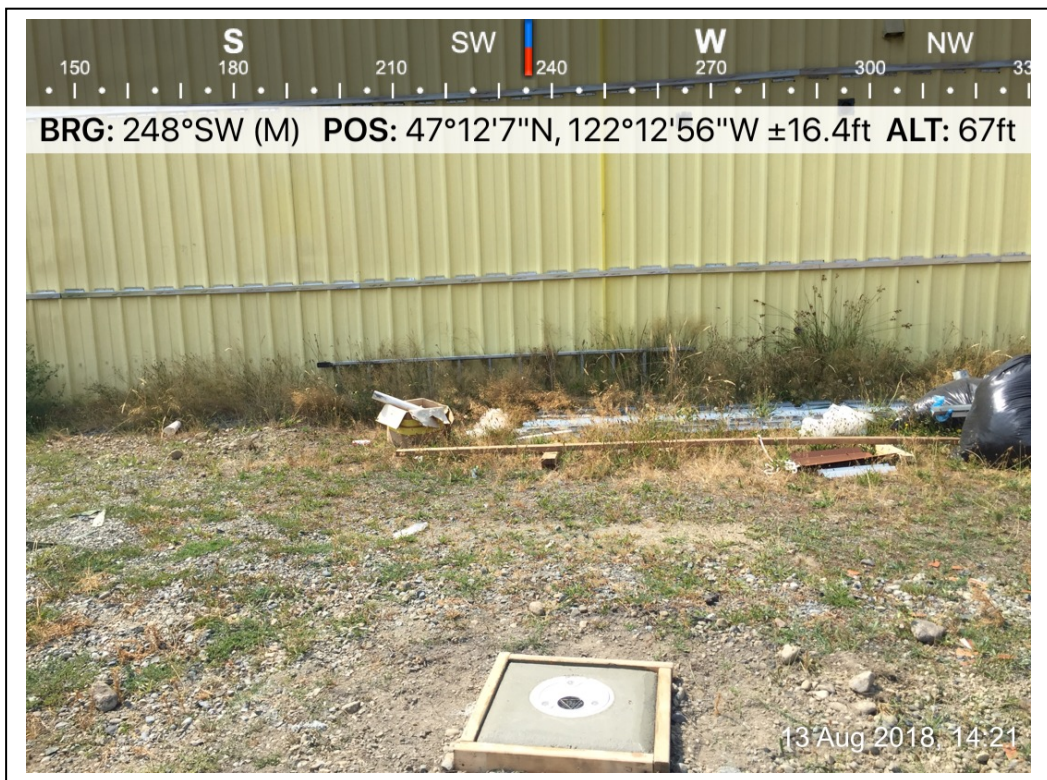
13 Aug 2018, 11:22

<b>Project No. 37018</b>	<b>Description</b>	Photo of finished completion of groundwater well MW-2	<b>Photo 17</b>
	<b>Site Name</b>	Former National Auto Parts, 16008 60 <sup>th</sup> St E, Sumner, WA	<b>Photo Date</b>
	<b>Client</b>	Sunset Chevrolet/Mitchell Development	August 13, 2018

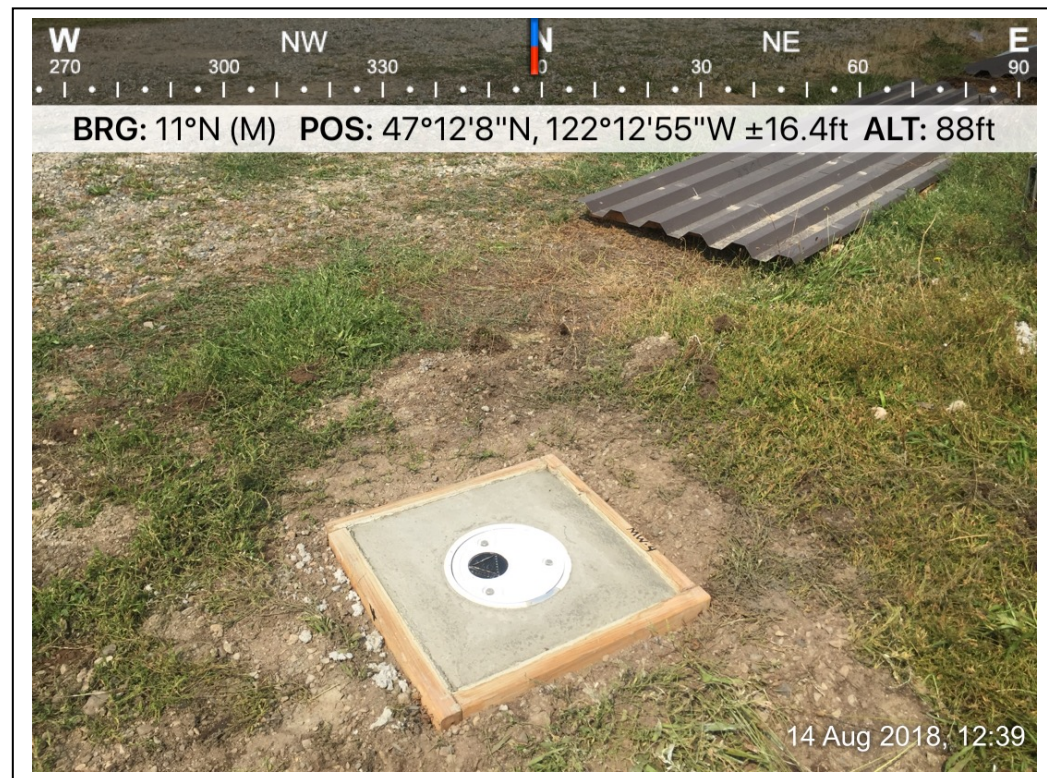


13 Aug 2018, 09:46

<b>Project No. 37018</b>	<b>Description</b>	Photo of the drilling to install groundwater well MW-3	<b>Photo 18</b>
	<b>Site Name</b>	Former National Auto Parts, 16008 60 <sup>th</sup> St E, Sumner, WA	<b>Photo Date</b>
	<b>Client</b>	Sunset Chevrolet/Mitchell Development	August 13, 2018



<b>Project No. 37018</b>	<b>Description</b>	Photo of finished completion of groundwater well MW-3	<b>Photo 19</b>
	<b>Site Name</b>	Former National Auto Parts, 16008 60 <sup>th</sup> St E, Sumner, WA	<b>Photo Date</b>
	<b>Client</b>	Sunset Chevrolet/Mitchell Development	August 13, 2018



<b>Project No. 37018</b>	<b>Description</b>	Photo of finished completion of groundwater well MW-4	<b>Photo 20</b>
	<b>Site Name</b>	Former National Auto Parts, 16008 60 <sup>th</sup> St E, Sumner, WA	<b>Photo Date</b>
	<b>Client</b>	Sunset Chevrolet/Mitchell Development	August 14, 2018