

## **Electronic Copy**

# STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

#### **Northwest Region Office**

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June 15, 2022

Susan Penoyar
Central Puget Sound Regional Transit Authority
401 S Jackson Street
Seattle, WA 98104
(susan.penoyar@soundtransit.org)

Re: Opinion pursuant to WAC 173-340-515(5) on Remedial Action for the following Hazardous Waste Site:

• Site Name: Southgate Oil

• Site Address: 23428 Pacific Highway South, Kent, Washington 98032

Facility/Site No.: 84946863Cleanup Site ID: 6762

• VCP Project No.: NW3327

#### Dear Susan Penoyar:

The Washington State Department of Ecology (Ecology) received your request for an opinion on work completed at the Southgate Oil facility (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70A.305 RCW.

#### **Issue Presented and Opinion**

Pursuant to completion of the work described in the *Soil Characterization and Remediation Report,* dated January 26, 2021 (*January 2021 Remediation Report*), is additional work necessary to resolve data gaps?

YES. Ecology has determined that groundwater characterization is necessary where deep soil contamination was present.

#### **Description of the Site**

#### 1. Description of the Site.

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following releases:

 Gasoline-, diesel-, and heavy oil-range petroleum hydrocarbons (TPHg, TPHd, TPHo), benzene, methylene chloride, tetrachloroethene (PCE), naphthalenes, carcinogenic polycyclic aromatic hydrocarbons (cPAHs), cadmium, lead, and mercury into the Soil.

The majority of the Site footprint is located on one King County parcel 2500600480 in Kent, Washington. Based on the Site data, the contamination is sourced from this parcel, and migrated beyond parcel boundaries to the north and southeast. Therefore, the Site includes the source parcel, the adjacent property to the north (Muscatel Property), and the adjacent property to the southeast (Marine Office and Garage Property). The detailed information of the three properties is listed below:

	Contaminant Source	Muscatel Property	Marine Office and
	Parcel		Garage Property
Parcel Number	2500600480	2500600465	2500600481
Street Address	23428 Pacific Highway	23418 Pacific Highway	23427 30 <sup>th</sup> Avenue
	South	South	South
Size	0.64 acre	2.17 acre	0.14 acre
Former Use	Southgate Oil bulk fuel	Multi-tenant retail	Allison Marine boat
	distribution facility	building	engine repair garage
			and office
Current/Future	Sound Transit light rail	Multi-tenant retail	Sound Transit light rail
Use	facility	building; part of Sound	facility
		Transit light rail facility	
Location with		Immediately north of	Immediately
Respect to		the Source Parcel	southeast of the
Source Parcel			Source Parcel

**Enclosure A** includes a detailed description and diagrams of the Site, as currently known to Ecology.

#### 2. Other Voluntary Cleanup Program (VCP) agreement associated with the Site.

The cleanup of the Muscatel Property was previously managed as a separate unit ("Muscatel Midway" unit) of the Southgate Oil site, under a Voluntary Cleanup Program (VCP) number NW3309. Ecology provided technical opinions on the Muscatel Property cleanup in an *Opinion Letter* dated June 23, 2021 (*June 2021 Opinion Letter*).

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Ecology determined that it is more appropriate to manage the cleanup of the entire Southgate Oil Site under current VCP NW3327, including the cleanup on the Muscatel Property that is associated with the Site. Therefore Ecology terminated VCP agreement NW3309 on June 9, 2022. This current opinion letter for VCP NW3327 applies to the entire Southgate Oil Site.

In Ecology's *June 2021 Opinion Letter*, Ecology recognized that other sources, including a dry cleaner that formerly operated on the Muscatel Property, may have impacted the Muscatel Property. However, the current data did not provide definite evidences that contamination is present on the Muscatel Property associated with other sources. If any future data documents the presence of contamination associated with other sources (not the Southgate Oil Site) on the Muscatel Property, the release must be reported to Ecology.

This opinion letter does not apply to any contamination associated with other potential sources on the Muscatel Property, such as the former dry cleaner.

#### 3. Identification of other sites.

Please note the parcels of real property associated with this Site are also located within the projected boundaries of the Tacoma Smelter Plume facility (Ecology facility No. 66948686). Based on <a href="Ecology's Online Map database">Ecology's Online Map database</a>, the surface soil at the Site and the vicinity may contain up to 100 milligrams per kilogram (mg/kg) of arsenic. However, the shallow soil samples collected at the Site to date contain arsenic concentrations below the MTCA Method A soil cleanup level of 20 mg/kg.

This opinion does not apply to any contamination associated with the Tacoma Smelter Plume facility.

#### **Basis for the Opinion**

This opinion is based on the information contained in the documents listed in **Enclosure B.** A number of these documents are accessible in electronic form from the <u>Site webpage</u><sup>2</sup>. The complete records are stored in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. Visit our <u>Public Records Request page</u><sup>3</sup> to submit a public records request or get more information about the process. If you require assistance with this process, you may contact the Public Records Officer at <u>recordsofficer@ecy.wa.gov</u> or 360-407-6040.

This opinion is void if any of the information contained in those documents is materially false or misleading.

<sup>&</sup>lt;sup>1</sup> Dirt Alert (wa.gov)

<sup>&</sup>lt;sup>2</sup> https://apps.ecology.wa.gov/cleanupsearch/site/6762

<sup>&</sup>lt;sup>3</sup> https://ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests

#### **Analysis and Opinion**

Based on a review of the *January 2021 Remediation Report*, Ecology has determined that **groundwater characterization on the central portion of the Site is needed.** 

This determination is based on the following analysis:

 Ecology generally requires groundwater evaluation before considering a No Further Action (NFA) determination, unless there is clear evidence that groundwater contamination is unlikely.

The evidence may include (1) verifiable records that the releases are limited; (2) soil testing indicating the soil contamination has not significantly migrated; (3) predominance of fine textured soils without interconnected course deposits; (4) considerable depth to groundwater; (5) products less prone to migration<sup>4</sup>.

- Prior to the remedial excavations, petroleum hydrocarbon contamination in soil was widely
  present across the Site, and had migrated to the adjacent properties to the north and
  southeast. The contaminated soil was present at depths up to 30 feet below ground surface
  (bgs) on the central portion of the Site.
- Two soil samples (209-PEX-15-30 and 209-PEX-16-30) collected at 30 feet bgs at the excavation bottom, on the central portion of the Site, contained TPHd concentrations of 1,400 mg/kg and 1,960 mg/kg, respectively. These concentrations were just slightly below the MTCA Method A soil cleanup level of 2,000 mg/kg.
- Based on the observation on two drilled shafts and two geotechnical borings, groundwater appears to be present at the Site at approximately 60 feet bgs.
- Subsurface soil at the Site is glacial till, consisting of varying amounts of sand, silt, clay and gravel. Glacial till formation is typically dense, but less dense weathered till and lenses of sands may be present at different depths throughout the formation, through which contamination can migrate vertically.
- Diesel is the primary contaminant associated with the deep soil contamination at the Site.
   Diesel is less mobile than gasoline. However, the contaminated soil was present at the Site for at least 20 years, sufficient for contaminants to migrate vertically downward and potentially to reach groundwater.

<sup>&</sup>lt;sup>4</sup> Ecology, Guidance for Remediation of Petroleum Contaminated Sites, Toxics Cleanup Program, Publication No. 10-09-057, Revised June 2016; Guidance for Remediation of Petroleum Contaminated Sites (wa.gov)

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Therefore, <u>Ecology recommends installing one permanent or temporary groundwater</u> <u>monitoring well between sample locations 209-PEX-15-30 and 209-PEX-16-30, on the central portion of the Site.</u>

The permanent or temporary monitoring well should be advanced to a depth of approximately 60 to 70 feet bgs to access groundwater. Soil samples should be collected at 10-foot depth intervals from 40 feet to the bottom of the boring, to assess changes in TPHd concentrations with depth. A groundwater sample collected from the well should be analyzed for NWTPH-Dx.

If any contaminants are detected at concentrations above the MTCA Method A groundwater cleanup levels, additional groundwater characterization will be needed to delineate the contaminated groundwater plume.

#### **Limitations of the Opinion**

#### 1. Opinion does not settle liability with the state.

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70A.305.040(4).

#### 2. Opinion does not constitute a determination of substantial equivalence.

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination. *See* RCW 70A.305.080 and WAC 173-340-545.

#### 3. State is immune from liability.

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. See RCW 70A.305.170(6).

#### **Contact Information**

Thank you for choosing to clean up the Site under the VCP. After you have addressed our concerns, you may request another review of your cleanup. Please do not hesitate to request additional services as your cleanup progresses. We look forward to working with you.

For more information about the VCP and the cleanup process, please visit our web site: <a href="www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm">www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm</a>. If you have any questions about this opinion, please contact me by phone at (425) 229-2565 or by e-mail at jing.song@ecy.wa.gov.

Sincerely,

Jing Song

Site Manager

**NWRO Toxics Cleanup Program** 

Enclosures (2): A – Description and Diagrams of the Site

B – Basis for the Opinion: List of Documents

cc: Marsi Beeson, GeoEngineers , Inc. (<a href="mailto:mbeeson@geoengineers.com">mbeeson@geoengineers.com</a>)
Sonia Fernandez, VCP Coordinator (<a href="mailto:sonia.fernandez@ecy.wa.gov">sonia.fernandez@ecy.wa.gov</a>)

## **Enclosure A**

# **Description and Diagrams of the Site**

### **Site Description**

This enclosure provides Ecology's understanding and interpretation of Site conditions and forms the basis for the opinions expressed in the letter.

<u>Site:</u> The Site is defined by TPHg, TPHd plus TPHo, benzene, methylene chloride, PCE, naphthalene, cPAHs, cadmium, lead, and mercury released to soil.

The majority of the Site footprint is located on one 0.64-acre King County parcel 2500600480 in Kent, Washington, identified by Sound Transit as FL-209 (**Figure 1**). The former street address associated with this contaminant source parcel was 23428 Pacific Highway South. Based on the available data, the Site consists of the source parcel and the adjacent properties to the north and southeast.

The Site is located between Pacific Highway South (State Route 99) and 30<sup>th</sup> Avenue South, approximately 500 feet south of Kent Des Moines Road (State Route 516).

<u>Area and Property Description</u>: The properties that comprise the Site are located within a mixed commercial and light industrial used area in Kent. The Site and the surrounding properties and their former uses are depicted on **Figure 2**.

#### North

The source parcel is bounded to the north by a 2.17-acre commercial property owned by Muscatel Midway Properties, LLC, and is therefore referred to as "Muscatel Property" in this opinion letter. The Muscatel Property is associated with one King County parcel number 2500600465, and street address 23418 Pacific Highway South. The Muscatel Property is occupied by a multi-tenant retail building that was constructed in 1962.

Sound Transit is planning to acquire a small portion of the Muscatel Property (eastern boundary and southwest corner) for light rail facilities construction. The majority of the Muscatel Property is expected to continue operation as a retail building.

Based on the Site investigation data, petroleum hydrocarbon contamination from the source parcel has migrated north to the Muscatel Property. Therefore, the southern portion of the Muscatel Property is part of the Southgate Oil Site. The cleanup of the Muscatel Property was previously managed as a separate unit of the Southgate Oil Site, under VCP number NW3309. Ecology terminated VCP agreement NW3309 on June 9, 2022. Therefore, the contamination on the Muscatel Property that is associated with the Site is managed under the current VCP (NW3327).

A former dry cleaner operated on the Muscatel Property from as early as 1970 until at least 2008. At least three different dry cleaner business names were identified; the last business was Kings Cleaners from 1996 through 2009. The current investigation data did not confirm soil or groundwater contamination associated with the former dry cleaner.

#### • South

The source parcel is bounded to the south and southeast by the following three parcels:

Location	Parcel	Parcel Address	Parcel	Former Uses
	Number		Area	
Southeast	2500600481	23427 30 <sup>th</sup> Avenue	0.14 acre	Allison Marine boat
of Source		South		engine repair garage
Parcel				and office
South of	2500600486	23431 30 <sup>th</sup> Avenue	0.49 acre	Allison Marine boat and
Source		South		equipment parking and
Parcel				storage
South of	2500600485	23434 Pacific	0.27 acre	Mixed-use commercial
Source		Highway South		building and
Parcel				apartments

All of these three parcels are currently vacant. Sound Transit has acquired all three parcels and plans to build light rail facilities on these parcels.

Based on the Site investigation data, petroleum hydrocarbon contamination from the source parcel has migrated southeast to parcel 2500600481, which is therefore part of the Southgate Oil Site Based on its former uses, this parcel is referred to as "Marine Office and Garage Property" in this opinion letter.

#### East

The source parcel is bounded to the East by 30th Avenue South. A motel is located further northeast, and a vacant lot is located further east.

#### West

The source parcel is bounded to the West by Pacific Highway South (State Route 99) and retail shops. Further west are multifamily residential developments.

<u>Property History and Current Use</u>: The earliest identified development on the source parcel was a single-family residence with oil heat and a septic tank, constructed in 1931 and demolished by 2002.

A former bulk fuel distribution facility operated on the source parcel for approximately 75 years, most recently under the business name of Southgate Oil. The facility stopped distributing fuel in or around 1999. The facility included at least 11 underground storage tanks (USTs), multiple fuel dispensers, and an auto repair garage. The USTs were installed between the 1950s and 1990s. The automotive repair shop building was constructed in the late 1940s. The location of the former facilities are depicted on **Figures 3 and 4**.

Nine USTs, ranging from 275 to 10,000 gallons and containing gasoline, diesel, and healing oil, were removed from the source parcel in October and November 2000. Two additional heating oil USTs (20,000 and 25,000 gallons) were removed from the source parcel in February 2002. Petroleum hydrocarbon contaminated soil (PCS) was encountered during both UST removal activities. Approximately 748 tons of PCS were reportedly removed from the source parcel during the 2002 UST removal.

All former facilities were demolished by 2020. Sound Transit has acquired the source parcel and in process of building light rail facilities on the parcel.

<u>Sources of Contamination</u>: During a UST removal in 2000, petroleum hydrocarbons released to soil were initially discovered on the source parcel. The releases are likely associated with USTs, fuel dispenser islands, product piping, and the service garage of the former bulk fuel distribution facility. Based on the available data, petroleum hydrocarbon contamination from the source parcel migrated to the southern portion of the Muscatel Property and the northern portion of the Marine Office and Garage Property.

<u>Physiographic Setting</u>: The land surface on the Site generally slopes to the north, with an elevation of approximately 400 feet amsl on the southern Site boundary to approximately 395 feet amsl on the northern Site boundary. The land surface in the vicinity of the Site slopes gently to the north-northwest towards Massey Creek.

A retaining wall was formerly present along the northern source parcel boundary, between the source parcel and the north-adjacent Muscatel Property. The Muscatel Property is approximately 3 to 5 feet lower than the source parcel in ground surface elevation. This retaining wall was removed in 2020.

<u>Surface/Storm Water System</u>: The closest surface water body is Massy Creek located approximately 850 feet northwest of the Site. The Green River is located approximately 1 mile east of the Site, and Puget Sound is located approximately 1.4 miles west of the Site. The storm water catch basins on the Site were formerly connected to the municipal storm water collection system along Pacific Highway South, located to the west of the Site. However, Sound Transit will likely build new storm water utilities during light rail facility construction.

<u>Ecological Setting</u>: The area surrounding the Site is zoned for "Midway Transit Community 1" (MTC-1) or "Midway Transit Community 2" (MTC-2). Both of the zoning designations allow moderately dense or dense "retail, office, or residential activities in support of rapid light rail and mass transit options...<sup>1</sup>"

Land surfaces on the Site and vicinity are/will be primarily covered by buildings or light rail structures, with asphalt or concrete pavement and small landscaped areas.

<u>Geology</u>: The Site is located within the Puget Sound Basin, which is largely underlain by unconsolidated Pleistocene continental glacial drift. The glacial deposits predominantly consist of sand and silt, with varying amounts of gravel and cobbles.

Locally, the Site is located near the crest of a narrow north-south trending glacial feature known as the Des Moines Drift Plain<sup>2</sup>. The Des Moines Drift Plan is an upland area bordered by Puget Sound on the west (at sea level) and the Green River valley on the east (valley floor elevation typically averages about 30 feet amsl), with maximum elevations ranging from 400 to 450 feet amsl.

The most prevalent geologic unit at the ground surface on the Des Moines Drift Plain is Vashon glacial till, which was laid down beneath the most recent continental glacier<sup>3</sup>. Soil borings and test pits advanced at the Site indicate soils beneath the Site are generally dense sand with silt, or silty sand with gravel, to the total explored depth of 30 feet bgs. The subsurface soil observed is interpreted as glacial till.

<u>Groundwater</u>: No groundwater monitoring wells were installed on the Site. In 2016, two geotechnical borings (FWLE-D01P and FWLE-D02) were advanced approximately 300 feet northeast and 30 feet east of the Site, respectively (**Figure 2**). The depths to groundwater were measured at approximately 58 feet bgs at boring FWLE-D01P, and at approximately 78 feet bgs in FWLE-D02.

Two drilled shafts were completed to 60 feet bgs directly southeast of Site during the light rail construction. Approximately 1 foot of groundwater was encountered at approximately 60 feet bgs in the base of one of the two drilled shafts. No other continuous groundwater was encountered. Based on these field observations, groundwater at the site appears to be present at approximately 60 feet bgs.

In this area, discontinuous lenses of perched groundwater may be present in shallower depths within the glacial till layer. The elevation of the perched groundwater may vary depending on the local geology. Shallow perched groundwater occurs at 9 to 39 feet bgs at a former Shell gas

<sup>&</sup>lt;sup>1</sup> Kent City Code, Chapter 15.03, District Established – Zoning Map; Kent City Code (codepublishing.com)

<sup>&</sup>lt;sup>2</sup> United Sates Environmental Protection Agency, Region 10, Second Five-Year Review Report for Midway Landfill Superfund Site, Kent, Washington, September 2010.

<sup>&</sup>lt;sup>3</sup> City of Kent, Water System Plan 2019 – 2029; Water Operations | City of Kent (kentwa.gov)

station located approximately 100 feet west of the Site<sup>4</sup>. However, shallow groundwater was not encountered in the excavation that was completed to a maximum depth of 30 feet bgs on the central portion of the Site, or 20 feet bgs on the western portion of the Site.

<u>Water Supply</u>: Drinking water for the area is supplied by the Highline Water District. The District purchases approximately 70% of its water supply from Seattle Public Utilities, and obtains the remaining 30% from four District-owned groundwater supply wells. The Site is located outside of the 10-year time of travel wellhead protection zone of all water supply wells.

**Release and Extent of Soil and Groundwater Contamination:** Subsurface investigations and interim cleanup actions have been conducted at the Site since 2000.

#### 2000 to 2002 UST Removal:

A total of 11 USTs (UST 1 through 11) and three dispenser islands were previously present on the Site (**Figure 4**).

Nine USTs (UST 2, 3, and 5 through 11) were removed in October through November 2000.
 These USTs included one 275-gallon, one 550-gallon, one 650-gallon, two 1,000-gallon, two 3,000-gallon, one 5,000-gallon, and one 10,000-gallon USTs that stored gasoline, diesel, and heating oil. Two dispenser islands (one full island and one 2/3 island), located on the north-central and central portion of the Site, were also removed.

A total of 38 soil samples were collected from the UST and dispenser islands excavations between depths of 2 and 15 feet bgs. Multiple soil samples collected between 3 and 8 feet bgs from the UST excavations and under dispenser islands contained TPHd concentrations above the MTCA Method A soil cleanup level. Approximately 350 cubic yards of PCS were removed from the UST excavations in November 2000. An additional 200 cubic yards of PCS were removed from the disperser islands excavations. The excavations were reportedly backfilled with the excavated soil that had been remediated on Site.

 The two remaining USTs (UST 1 and 4), including one 20,000-gallon and one 25,000-gallon heating oil UST, were removed from the Site in February 2002. The remaining dispenser island (on the northeastern portion of the Site) appeared to be removed before the UST removal. PCS was encountered on the western portion of the UST excavations between approximately 6 and 25 feet bgs.

Remedial excavation was conducted to a maximum depth of 25 feet bgs. Approximately 748 tons of PCS was disposed of offSite. The remedial excavation was stopped at the northern source parcel boundary with the Muscatel Property. The residual PCS located

<sup>&</sup>lt;sup>4</sup> Conestoga-Rovers & Associates, Cleanup Action Reports, Shell-branded Wholesale Facility, 23419 Pacific Highway, Des Moines, Washington, March 21, 2011.

along the northern parcel boundary reportedly contained TPHd concentrations up to 4,800 mg/kg. The approximate limits of the 2000 and 2002 remedial excavations are depicted on **Figure 3**.

#### 2017 to 2020 Subsurface Investigations

• In June to July 2017, twelve soil borings (FL209-B1 through B12) were advanced to depths ranging from 11 to 30.5 feet bgs near the former facilities on the source parcel (**Figure 3**). A total of 47 soil samples were collected from the soil borings between depths of 0.5 and 23 feet bgs.

Concentrations of petroleum hydrocarbon (TPHg, or TPHd plus TPHo) exceeded the MTCA Method A soil cleanup levels in 10 soil samples. These exceedances were detected in the following areas and depths:

- On the western portion of the Site between 10 and 11 feet bgs (boring FL209-B3);
- In the service garage area on north-central portion of the source parcel, between 0.5 and 1.5 feet bgs (boring FL209-B4);
- On the central portion of the Site between 10 and 21 feet bgs (borings FL209-B5 through FL209-B8); and
- o On the eastern portion of the Site between 3 and 4 feet bgs (FL209-B11).

Total naphthalene concentrations exceeded the MTCA Method A soil cleanup level in six soil samples. These exceedances were detected in the following areas and depths:

- In the service garage area between 0.5 and 1.5 feet bgs from (boring FL209-B4);
- On the central portion of the Site between 10.5 and 21 feet bgs (borings FL209-B5, FL209-B7, and FL209-B8); and
- On the eastern portion of the Site between 3 and 4 feet bgs (FL209-B11).

CPAHs, cadmium, and lead concentrations exceeded the MTCA Method A soil cleanup level in one soil sample collected at 0.5 to 1.5 feet bgs from the service garage area (boring FL209-B4).

Mercury concentrations exceeded the MTCA Method A soil cleanup level in two soil samples collected between 5.5 to 6.5 feet bgs on the central portion of the Site (borings FL209-B7 and FL209-B8).

All volatile organic compounds (VOCs) were detected at concentrations below the MTCA Method A soil cleanup levels in these soil samples.

• In November 2017, twelve soil borings (ECI-B1 through ECI-B10, ECI-B12, and ECI-B13) were advanced to depths ranging from 7 to 12 feet bgs on the Muscatel Property (**Figure 5**). A total of 24 soil samples were collected from each soil boring between 3 and 12 feet bgs.

The soil sample collected at 8 feet bgs from soil boring ECI-B13 contained concentrations of TPHg and TPHd above the MTCA Method A soil cleanup levels.

• In July 2018, thirteen soil borings (FL207-B14 through FL207-B26) were advanced to depths ranging from 8 to 31 feet bgs on the Muscatel Property (**Figure 5**). A total of 65 soil samples were collected from each soil boring between depths of 0.5 and 30.5 feet bgs.

Concentrations of TPHd plus TPHo and/or benzene exceeded the MTCA Method A soil cleanup levels at 2.5 to 3.5 feet bgs from boring FL207-B16, at 0.5 to 1 feet bgs from boring FL207-B18, and at 2.5 to 3.5 feet bgs from boring FL207-B22. These soil borings were located along the southern boundary with the source parcel.

- In May 2018, one soil boring (FL210-B6) was advanced to a total depth of 20 feet bgs on the Marine Office and Garage Property (**Figure 6**). Three soil samples were collected from this boring at 2, 6, and 9 feet bgs. All soil samples contained concentrations of TPHg, TPHd plus TPHo, VOCs, metals, and cPAHs below the MTCA Method A soil cleanup levels.
- In February to April 2020, a total of 17 test pits (PH209-1 through PH209-17) were completed to a maximum depth of 15 feet bgs on the source parcel (**Figure 7**). A total of 29 soil samples were collected from the test pits at depths ranging from 1.5 to 15 feet bgs.

Among them, TPHd plus TPHo concentrations exceeded the MTCA Method A soil cleanup level in the following 8 soil samples:

- In the service garage area at 1.5 feet bgs (PH209-2 through PH209-4);
- On the central portion of the Site between 3 and 10 feet bgs (PH209-8 and PH209-13);
   and
- On the western portion of the Site between 10 and 15 feet bgs (PH209-14 and PH209-17).

In addition, methylene chloride concentrations exceeded the MTCA Method A soil cleanup level in two soil samples collected at 1.5 and 3 feet bgs from PH209-1. The cPAH concentration exceeded the MTCA Method A soil cleanup level in one soil sample collected at 1.5 feet bgs from PH209-2. All these samples were collected from the service garage area.

• In summary, the Site investigations between 2017 and 2020 confirmed the presence of following contaminants in the following areas and depths:

Areas of Concern	Contaminants with	Maximum depths with detected
	Concentrations > Cleanup Levels	exceedances/Sample Location
Western Portion	TPHd plus TPHo	15 feet bgs / PH209-17
of the Site		
Central Portion of	TPHd plus TPHo, naphthalenes,	21 feet bgs / FL209-B8
the Site	mercury	
Eastern Portion	TPHd plus TPHo, naphthalenes	4 feet bgs / FL209-B11
of the Site		
Service Garage	TPHg, TPHd plus TPHo,	3 feet bgs / PH209-1
area	naphthalenes, cPAHs, methylene	
	chloride, cadmium, lead	
Muscatel	TPHg, TPHd plus TPHo, benzene	8 feet bgs / ECI-B13
Property		

#### 2019 to 2020 Remedial Excavations

Remedial Excavations were conducted throughout the Site in 2019 through 2020. A total of 6403.08 tons of contaminated soil was removed from the excavations on the source parcel and Marine Office and Garage Property. Another 166 tons of contaminated soil was removed from the Muscatel Property. Remedial excavations were conducted in the following areas:

#### Western Portion of the Site:

In May to June 2020, an approximately 54-feet-long by 41-feet-wide excavation was completed to total depths ranging from 16 to 20 feet bgs, in the vicinity of former soil boring PH209-B3, and former test pits PH209-14 and PH209-17 (**Figure 7**).

A total of 14 confirmation soil samples were collected from the bottom and sidewalls of the final excavation limits at depths ranging from approximately 10 to 20 feet bgs. All these soil samples were analyzed for petroleum hydrocarbons. One bottom soil sample was additionally analyzed for naphthalenes and cPAHs. All analytes concentrations were below the MTCA Method A soil cleanup levels.

Central Portion of the Site (including Marine Office and Garage Property):

In May to June 2020, an approximately 63-feet-long by 55-feet-wide excavation was completed to total depths ranging from approximately 20 to 30 feet bgs, in the vicinity of former soil borings FL209-B5 through FL209-B8, and former test pits PH209-8 and PH209-13. The southeast corner of the excavation extended into the Marine Office and Garage Property (**Figure 7**).

A total of 34 confirmation soil samples were collected from the bottom and sidewalls of the final excavation limits at depths ranging from approximately 10 to 30 feet bgs. Among

them, 26 soil samples were analyzed for petroleum hydrocarbons and 10 soil samples were analyzed for naphthalenes and cPAHs. All analyte concentrations were below the MTCA Method A soil cleanup levels. The two deepest confirmation soil samples (PEX-15-30 and PEX-16-30), collected at 30 feet bgs from the excavation bottom, contained TPHd concentrations of 1,400 and 1,960 mg/kg, respectively.

#### Eastern Portion of the Site:

In May to June 2020, an approximately 20-feet-wide by 25-feet-long excavation was conducted to an average depth of 6 feet bgs, in the vicinity of former soil boring FL209-B11 (**Figure 7**).

Six confirmation soil samples were collected from the bottom and sidewalls of the final excavation limits at depths ranging from 1 to 6 feet bgs. Among them, three were analyzed for petroleum hydrocarbons; the other three were analyzed for naphthalenes and cPAHs. All analytes concentrations were below the MTCA Method A soil cleanup levels.

#### Service Garage Area:

In May to June 2020, an approximately 28-feet-long by 16-feet-wide excavation was completed to an average total depth of 5 feet bgs, in the vicinity of former soil boring PH209-B4 and former test pits PH209-1 through PH209-4 (**Figure 7**).

During the excavation, one soil sample collected from the north excavation sidewall contained a PCE concentration above the MTCA Method A soil cleanup level. This area was subsequently over-excavated and an additional sidewall sample was collected.

Six confirmation soil samples were collected from the bottom and sidewalls of the final excavation limits at depths ranging from 3 to 5 feet bgs. Among them, four soil samples were analyzed for petroleum hydrocarbons, VOCs, and/or cadmium and lead; two soil samples were analyzed for naphthalenes and cPAHs. All analyte concentrations were below the MTCA Method A soil cleanup levels.

#### Muscatel Property (including boundary with the source parcel):

 In February 2019, four test pits (TP1, TP2, TP3, and TP3-2) were excavated along the southern boundary of the Muscatel Property in areas of former soil borings FL207-B16, FL207-B18, and FL207-B22 (Figure 8). These test pits were excavated to total depths ranging from 1.5 to 4 feet bgs.

A total of 30 confirmation soil samples were collected from the bottoms and sidewalls of the four test pits, at depths ranging from ground surface to 4 feet bgs. Soil samples collected from test pits TP1 and TP2 were analyzed for TPHd and TPHo. Soil samples

collected from test pits TP3 and TP3-2 were analyzed for TPHg, VOCs, and total lead. All analyte concentrations were below the MTCA Method A soil cleanup levels.

 In January 2019, an approximately 30-feet-long by 18-feet-wide excavation was completed to total depths ranging from 13 to 15 feet bgs on the southern portion of the Muscatel Property, in area of former soil boring ECI-B13.

A total of 14 confirmation soil samples were collected from the bottom and sidewalls of the excavation at depths ranging from 5 to 15 feet bgs. All soil samples contained TPHd plus TPHo concentrations below the MTCA Method A soil cleanup level. Excavation stopped at the boundary between the source parcel and the Muscatel Property, due to the presence of a retaining wall at the time. The excavation limits are depicted on **Figure 7** as "FL207 2019 ECI Remedial Area."

O In August 2020, the retaining wall was removed and the residual PCS was subsequently removed. The excavation was completed to approximately 16 feet below the ground surface of the source parcel, or approximately 12 feet below the ground surface of the Muscatel Property, due to the elevation difference between the two properties at the time (Figure 7).

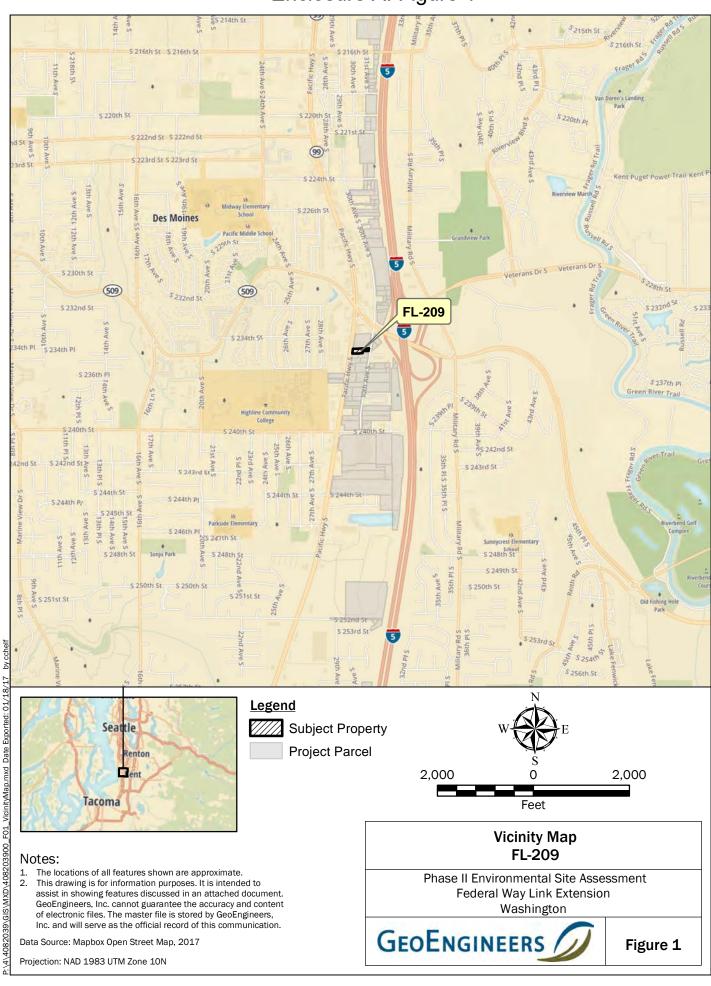
Five confirmation soil samples were collected from the bottom and sidewalls of the final excavation limits at depths ranging from 10 to 16 feet bgs. These soil samples were analyzed for petroleum hydrocarbons and BTEX. All analytes concentrations were below the MTCA Method A soil cleanup levels.

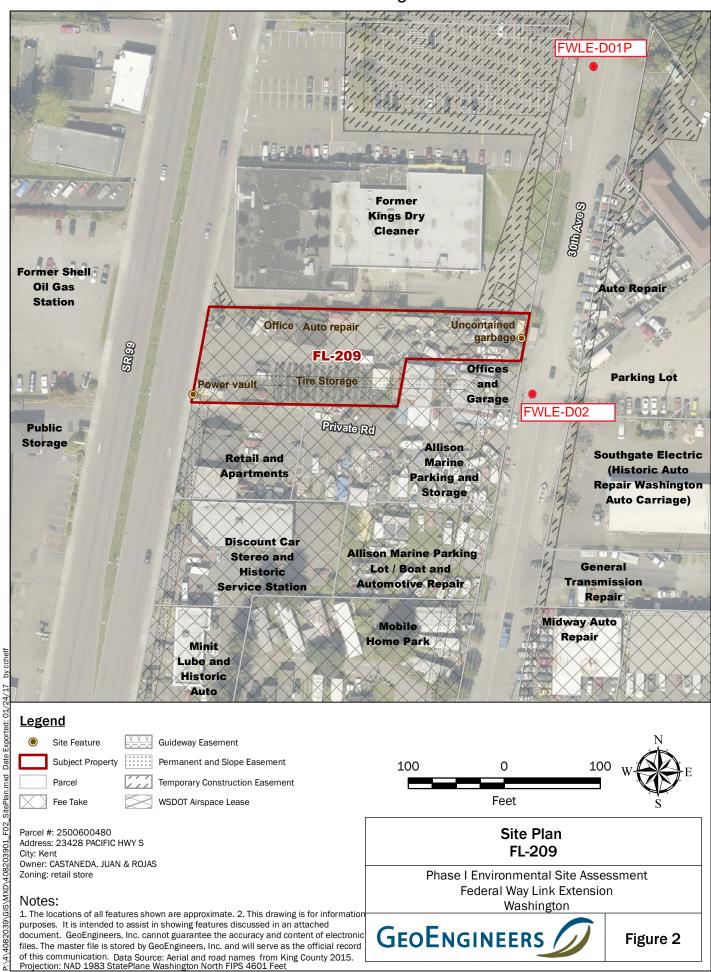
Utility Trench Area on the Eastern Edge of the Site:

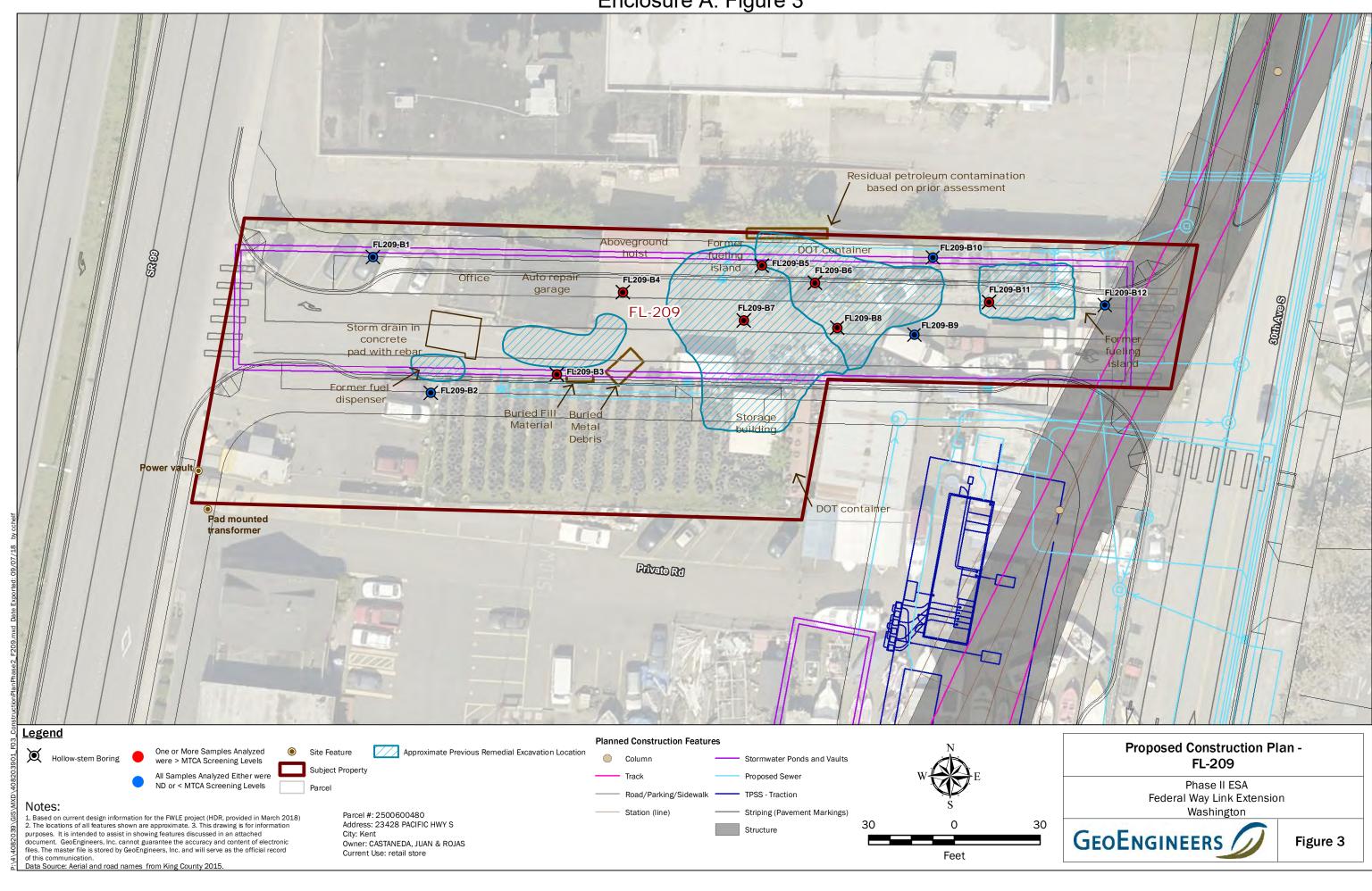
In June 2020, PCS was discovered on the eastern edge of the source parcel during utility trenching work. The PCS was encountered at approximately 3 feet bgs. Over-excavation was completed to a total depth of 12 feet bgs (**Figure 7**).

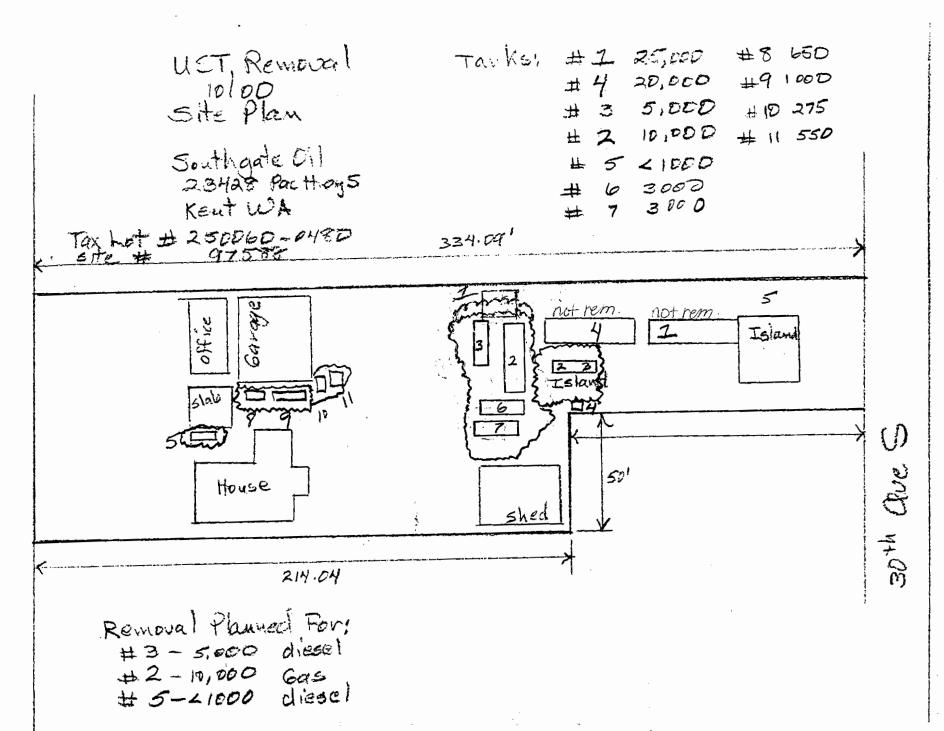
A total of 11 confirmation soil samples were collected from the bottom and sidewalls of the final excavation limits at depths ranging from 4 to 12 feet bgs. These soil samples were analyzed for petroleum hydrocarbons and BTEX. All analytes concentrations were below the MTCA Method A soil cleanup levels.

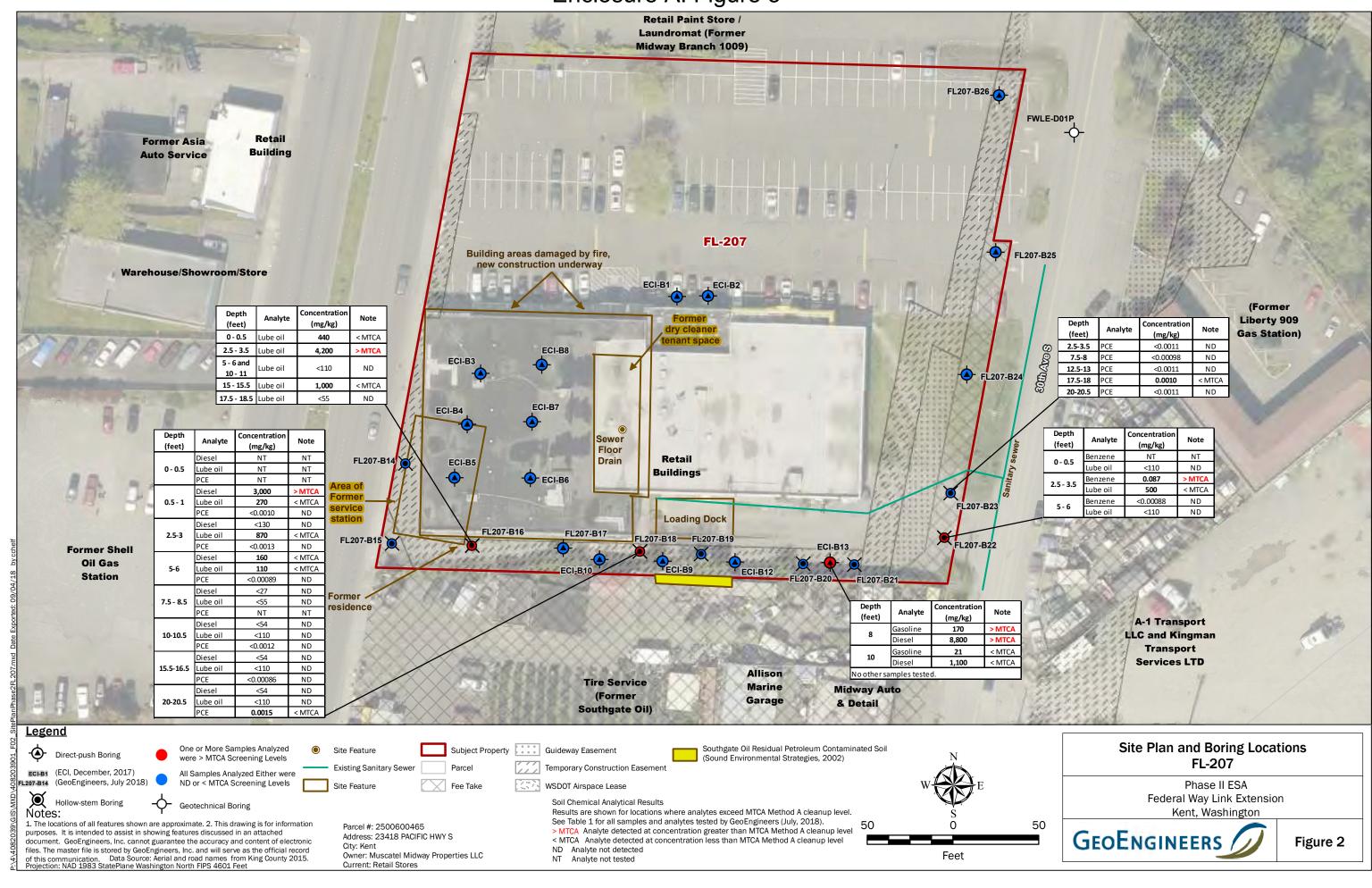
# **Site Diagrams**



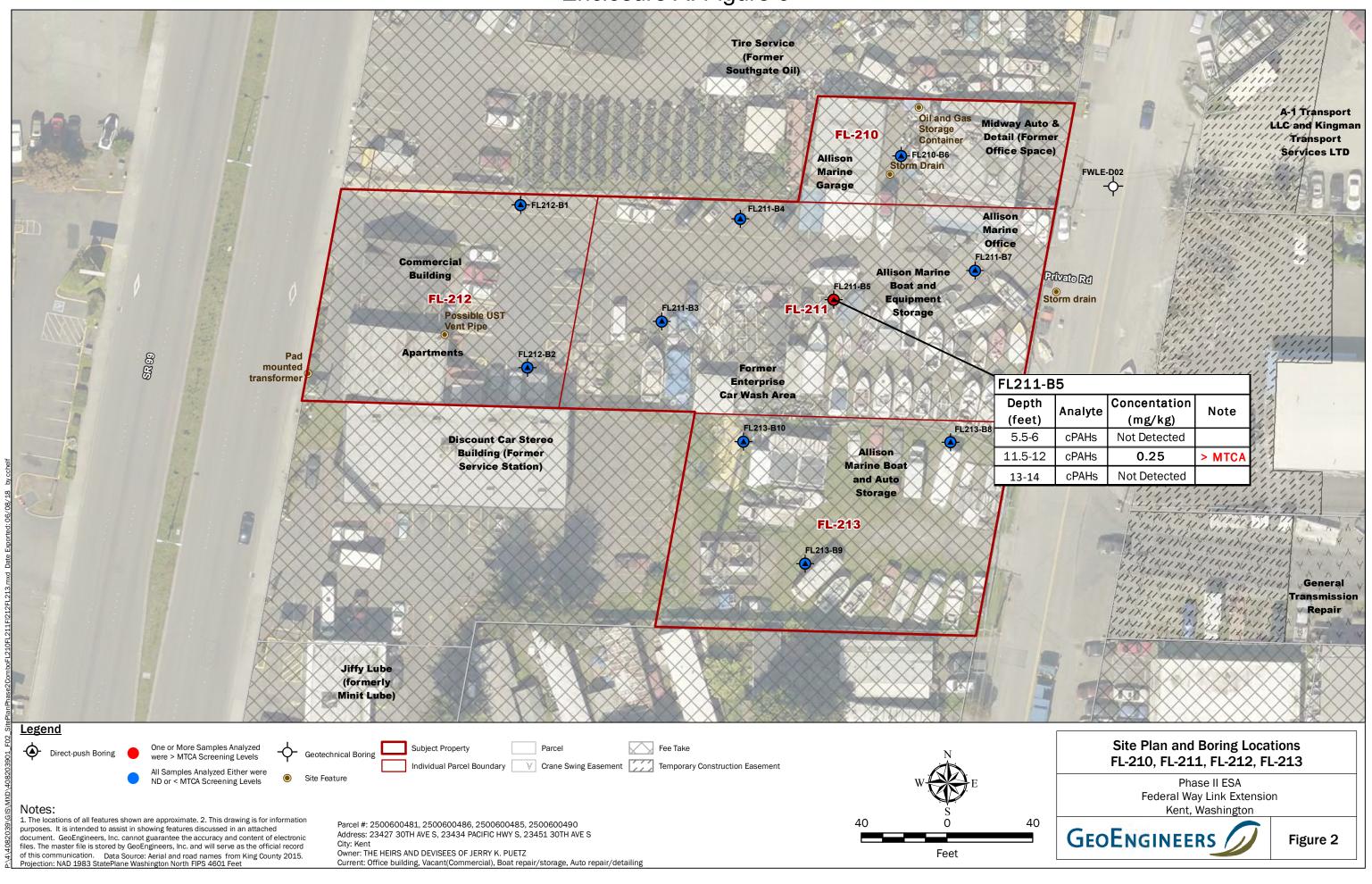


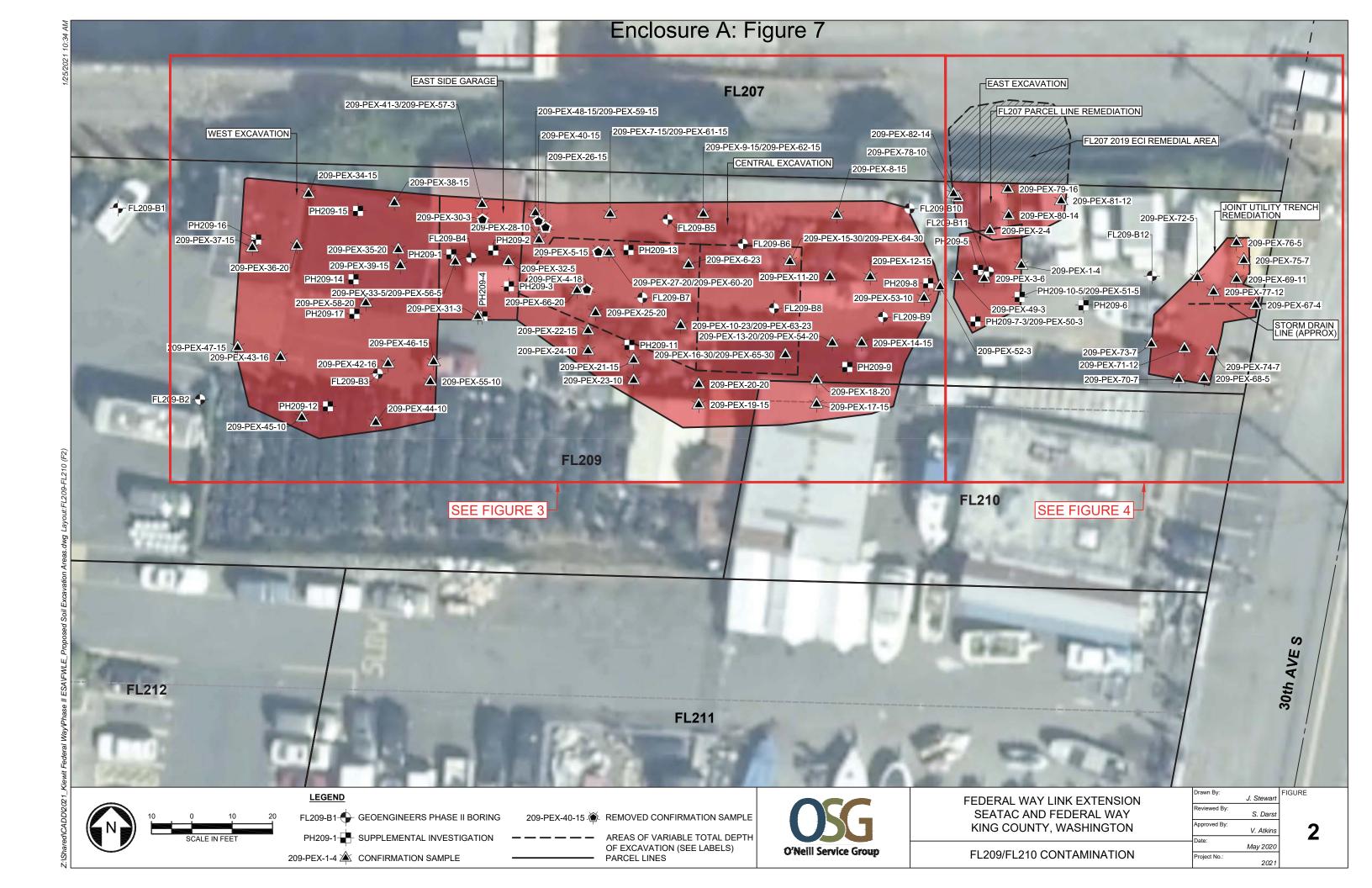






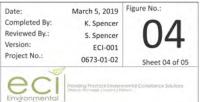
Enclosure A: Figure 6







Previous Sample Locations Map Supplemental Focused Subsurface Investigation 23418 Pacific Hwy S Kent, WA 98032





#### FIGURE 4

PREVIOUS SAMPLE LOCATIONS MAP MUSCATEL PROPERTY 23418 PACIFIC HIGHWAY SOUTH KENT, WASHINGTON

FARALLON PN: 2532-001

## **Enclosure B**

# **Basis for the Opinion: List of Documents**

- 1. Nowicki & Associates, Inc., *Progress Site Assessment Southgate Oil Site, 23428 Pac Hwy S, Kent, WA*, May 3, 2001.
- 2. Sound Environmental Strategies, Corp., *Underground Storage Tank Decommissioning* and Soil Remediation Project, 23428 Pacific Highway South, Kent, Washington, February 25, 2002.
- 3. Department of Ecology (Ecology), *No Further Action determination letter, Southgate Oil, VCP No. NW0982*, February 10, 2003 (Rescinded).
- 4. Ecology, Re: Notification of Pending Inactive Determination Status for the following Hazardous Waste Site, Southgate Oil, 23428 Pacific Hwy S, Kent, WA, Facility Site No: 84946863, VCP No.: NW0982, April 10, 2006.
- 5. Ecology, Re: Further Action Determination under WAC 173-340-515(5) for the following Hazardous Waste Site, Southgate Oil, 23428 Pacific Hwy S, Kent, WA, Facility Site No: 84946863, VCP No.: NW0982, June 9, 2006.
- 6. Ecology, Re: Determination Status for the following Hazardous Waste Site enrolled in the Voluntary Cleanup Program, Southgate Oil, 23428 Pacific Hwy S, Kent, WA, Facility Site No: 84946863, VCP No.: NW0982, June 9, 2006.
- 7. Marsilio Di Giovanni, *Ref: Letter dated April 10, 2006 and June 9, 2006 in regard to Southgate Oil property*, June 16, 2006.
- 8. Sound Transit, Federal Way Link Extension, AE 0044-12 WP 3.S Phase I Environmental Site Assessment, FL-209, Tax Parcel 2500600543, March 2017.
- 9. EcoCon, Inc. (ECI), Focused Subsurface Investigation Report, 23418 Pacific Highway South, Kent, Washington, December 18, 2017.
- 10. GeoEngineers, Federal Way Link Extension, AE 0044-12 WP 3.S, Phase I Environmental Site Assessment, FL207, Tax Parcel 2500600465, March 2018.
- 11. GeoEngineers, Phase II Environmental Site Assessment Report, Sound Transit Federal Way Link Extension, Parcel FL-210, FL-211, FL-212, FL-213, Allison Marine Boat Storage and Repair, Mixed-use Property, Kent, Washington, June 14, 2018.
- 12. GeoEngineers, Phase II Environmental Site Assessment Report, Sound Transit Federal Way Link Extension, Parcel FL-207, Former Dry Cleaner and Service Station, 23418 Pacific Highway South, Kent, Washington, September 21, 2018.
- 13. ECI, Supplemental Focused Subsurface Investigation Report, 23418 Pacific Highway South, Kent, Washington, March 3, 2019.

- 14. ECI, Cleanup Action Report, Affected Property: 23418 Pacific highway South, Kent, WA, Source Property: 23428 Pacific Highway South, Kent, WA, Site: Southgate Oil Site, December 31, 2019.
- 15. ECI, Re: Correction to the Cleanup Action Report, 23418 Pacific Highway South, Kent, Washington 98032, July 10, 2020.
- 16. O'Neill Service Group, Soil Characterization and Remediation Report, Parcel FL209, Federal Way Link Extension Project, 23428 Pacific Highway South, Kent, Washington, January 26, 2021.
- 17. Farallon Consulting LLC (Farallon), *Re: Summary Report Subsurface Investigation and Cleanup Action, Muscatel Midway Property, 23418 Pacific Highway South, Kent, Washington*, March 5, 2021.
- 18. Ecology, Re: Opinion pursuant to WAC 173-340-515(5) on Remedial Action for a Property associated with a Site, Southgate Oil Muscatel Midway, 23418 Pacific Highway South, Kent, Washington 98032, VCP NW3309, June 23, 2021.
- 19. GeoEngineers, Revised VCP Application Cover Letter and Request for Opinion on Completed Cleanup Southgate Oil Site, Source Parcel: 23428 Pacific Highway South, Kent, Washington, King County Parcel 2500600480, Sound Transit Federal Way Link Extension Parcel FL209, May 17, 2022.