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DEPARTMENT OF ECOLOGY

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February 24, 2022

Duane Mesznanos  
Director of Development  
Russell Square Consulting, Inc.  
700 Waterfront Way, Suite 301  
Vancouver, Washington 98660  
([duane@russellsquareconsulting.com](mailto:duane@russellsquareconsulting.com))

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

- **Site Name:** Seitz Property
- **Site Address:** Brian Lane NW, Silverdale, Washington 98383
- **Facility/Site No.:** 6865393
- **Cleanup Site ID:** 1472
- **VCP Project No.:** NW3313

Dear Duane Mesznanos:

The Washington State Department of Ecology (Ecology) received your request for an opinion on remedial investigation (RI) completed at the Seitz Property 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**

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Pursuant to completion of the RI work described in *Remedial Investigation Report*, dated October 19, 2021 (*October 2021 RI*), is additional work necessary to resolve data gaps?

**Yes. Additional groundwater monitoring wells and further groundwater monitoring are needed to sufficiently characterize the Site.**

### **Description of the Site**

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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:

- Total petroleum hydrocarbons as diesel and heavy oil (TPHd and TPHo), carcinogenic polycyclic aromatic hydrocarbons (cPAHs), arsenic, and lead into the Soil.

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

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the parcels associated with this Site are affected by other sites.

### **Basis for the Opinion**

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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 [Site webpage](#)<sup>1</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 [Public Records Request page](#)<sup>2</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 [publicrecordsofficer@ecy.wa.gov](mailto:publicrecordsofficer@ecy.wa.gov) or 360-407-6040.

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

### **Analysis and Opinion**

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Based on a review of the *October 2021 RI*, Ecology has determined:

**1. Soil contamination is sufficiently characterized and remediated.**

Soil cleanup standards (cleanup levels at point of compliance) at the Site are established to protect both groundwater as a drinking water source and the terrestrial ecological receptors. A simplified terrestrial ecological evaluation (TEE) form is included in the *October 2021 RI*.

The established soil cleanup standards are listed in Ecology's *Opinion Letter* dated June 7, 2021, and Table 2 of the *October 2021 RI*. Please note there is an error in Table 2 of the *October 2021 RI*. Benzene soil cleanup level below 15 feet should be 0.03 milligrams per kilogram (mg/kg), instead of 0.3 mg/kg.

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<sup>1</sup> <https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=1472>

<sup>2</sup> <https://ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests>

Contamination at the Site is associated with wastes that were historically disposed of at the Site. The identified waste disposal areas (areas of concern) included the former drum storage area, two former debris piles, and the former house and drum area (see **Enclosure A, Figure 2**). Soil samples were collected from each area of concern from ground surface to up to 25 feet below ground surface (bgs).

The soil sampling results identified the following contamination:

- Arsenic and cPAHs concentrations exceeded the established soil cleanup levels in surface soil at the former drum storage area.
- A lead concentration exceeded the established soil cleanup level in surface soil at former debris pile 1.
- TPHd plus TPHo concentrations exceeded the established soil cleanup level in surface soil at former house and drum area.
- Arsenic concentrations historically exceeded the established soil cleanup level in surface soil at the two former debris piles and the former house and drum area. But soil sampling in 2021 confirmed that arsenic concentrations in these areas were below the established soil cleanup level.

To address the identified soil contamination, remedial excavations were conducted in the following areas:

- In October 2015, remedial excavation was completed in the former drum storage area to a depth of 1.5 feet bgs. Approximately 5.5 cubic yards of contaminated soil were removed. Confirmation soil samples at 1.5 feet bgs contained cPAHs and arsenic concentrations below the established soil cleanup levels.
- In September 2021, two remedial excavations were completed in former debris pile 1 and former house and drum area to a depth of 2 feet bgs. Approximately 31 cubic yards of contaminated soil were removed. Confirmation soil samples at bottom of the excavations contained lead or TPHd/TPHo concentrations below the established cleanup levels.

Therefore, the work completed to date identified the contamination sources, established the soil cleanup standards, sufficiently characterized the soil contamination in each area of concern, and removed the identified contaminated soil. Ecology appreciates your effort of soil characterization and cleanup.

## 2. Additional groundwater monitoring wells are needed.

Five groundwater monitoring wells (MW-1 through MW-5) are currently present at the site, and two rounds of groundwater monitoring have been conducted. Based on the groundwater monitoring data, Site groundwater flows to the east.

Ecology reviewed the Site data, and recommends the following additional monitoring wells:

- TPHd and TPHo contamination was confirmed in surface soil in the former house and drum area. At least one monitoring well should be installed in the former house and drum area. Soil samples should be collected during the monitoring well installation to evaluate soil conditions in this area.
- The *Revised Sampling and Analysis Plan*, dated June 10, 2021 (*June 2021 SAP*) proposed monitoring well MW-4 within the former debris pile 1 area. However, monitoring well MW-4 was installed south of the former debris pile 1. Lead contamination was confirmed in the former debris pile 1 area. Therefore, at least one monitoring well should be installed near and east of former debris pile 1, near the proposed monitoring well MW-4 location in *June 2021 SAP*.
- The additional monitoring wells should be constructed with screen intervals that straddle the water table year-round, to provide representative groundwater quality data.
- Based on the groundwater sampling data, additional monitoring wells may be needed.

## 3. Further groundwater monitoring is needed.

- Silica Gel Cleanup (SGC) treatment should not be used for groundwater samples.

Ecology does not recognize the TPHd and TPHo concentrations analyzed using SGC treatment during the NWTPH-Dx analysis, unless Site-specific evidence is provided to document impacts of naturally occurring organic matter on the analysis. See page 99 of the [Ecology Petroleum Cleanup Guidance](#)<sup>3</sup> for details.

SGC treatment removes polar organic materials, which include naturally-occurring organics and petroleum hydrocarbon's intermediary degradation by-products (degradation polar metabolites). SGC does not distinguish between these two.

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<sup>3</sup> <https://apps.ecology.wa.gov/publications/SummaryPages/1009057.html>

While naturally-occurring organics are not considered contamination, the degradation polar metabolites are still considered part of the petroleum hydrocarbon concentration determination because of their possible related toxicities, carcinogenicities, and mutagenicities.

Table 7 of the *October 2021 RI* depicted the petroleum hydrocarbon concentrations in groundwater samples. The TPHd concentrations in Table 7 for groundwater samples from monitoring well MW-5 in July 21, 2021 event (samples 2021-GW-105 and 2021-GW-106) are the concentrations analyzed using SGC treatment.

Please update Table 7 to show the concentrations analyzed without SGC treatment. The concentrations obtained in samples from monitoring well MW-5 without SGC treatment are 420 micrograms per liter ( $\mu\text{g}/\text{L}$ ) for sample 2021-GW-105, and 340  $\mu\text{g}/\text{L}$  for sample 2021-GW-106. These concentrations were below the established groundwater cleanup level.

SGC treatment should not be used in the NWTPH-Dx analysis for future groundwater samples, unless the previously discussed evidence is provided.

- At least four quarters of “clean” groundwater data is needed.

Site groundwater cleanup levels are established as MTCA Method A groundwater cleanup levels. All monitoring wells should have at least four consecutive quarters of contaminants concentrations below the established groundwater cleanup levels to demonstrate compliance.

PAHs, polychlorinated biphenyls (PCBs), lead, and arsenic were not detected above the laboratory practical limits (PQL) in the groundwater samples collected from monitoring wells MW-1 through MW-5 during the first two monitoring events. These chemicals can be removed from the analytical list for these monitoring wells in future monitoring events.

#### **4. Additional data submittal is needed.**

- Figure 3 of the *October 2021 RI* depicted the soil sampling locations in 2021. However, the surface soil sampling locations SS-12 through SS-14, collected in the former drum storage area, are not shown on Figure 3. Please update Figure 3 with these soil sampling locations.
- Please provide groundwater elevation contour maps for each groundwater monitoring event, and a Rose Diagram showing the variation of groundwater flow directions.

- Electronic submittal of all sampling data collected in and post-2005 into Ecology's electronic Environmental Information Management (EIM) database is a requirement in order to receive a final Ecology opinion for this Site. Gaylen Sinclair (email [Gaylen.Sinclair@ecy.wa.gov](mailto:Gaylen.Sinclair@ecy.wa.gov), or via telephone at 360-407-6496) is Ecology's contact and resource on entering data into EIM.

Again, Ecology appreciates your effort to move forward with the Site cleanup. Ecology is looking forward to working with you to achieve the final cleanup goal.

### **Limitations of the Opinion**

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#### **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**

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Thank you for choosing to clean up the Site under the Voluntary Cleanup Program (VCP). After you have addressed our concerns, you may request another review of your cleanup. Please do

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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: [www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm](http://www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm). If you have any questions about this opinion, please contact me by phone at (206) 594-0100 or by email at [jing.song@ecy.wa.gov](mailto:jing.song@ecy.wa.gov).

Sincerely,



Jing Song  
Site Manager  
Toxics Cleanup Program, NWRO

Enclosures (2):   A – Description and Diagrams of the Site  
                          B – Basis for the Opinion: List of Documents

cc:     Malarie Isas, Russell Square Consulting, Inc. ([malarie@russellsquareconsulting.com](mailto:malarie@russellsquareconsulting.com))  
       Shawn Williams, Krazan and Associates, Inc. ([shawnwilliams@krazan.com](mailto:shawnwilliams@krazan.com))  
       Krista Webb, Krista Webb Consulting ([kristaleewebb@gmail.com](mailto:kristaleewebb@gmail.com))

# **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.*

**Site:** The Site is defined as TPHd, TPHo, cPAHs, arsenic, and lead released to soil. The Site is located east of Brian Lane NW in central Kitsap County, northwest of Silverdale, Washington (**Figure 1**).

The Site is located on two contiguous north-south adjacent Kitsap County tax parcels (**Figure 2**). The northern parcel, with a parcel number 08250140262000, is designated as "Parcel A" and "Lot 026"; the southern parcel, with a parcel number 08250140252001, is designated as "Parcel B" and "Lot 025". These two parcels cover approximately 9.78 acres of undeveloped land, and are referred to as the Property in this opinion letter and Site Description. No street address or number has been assigned to the Property.

**Area and Property Description:** The Property is located in a rural residential area in Kitsap County. The Property is currently heavily vegetated with overgrown blackberry bushes, weeds, tall grasses, and other dense underbrush. An approximately 1-acre area on the western portion of the Property was cleared around 2005. A primitive road crosses the Property tracking southwest to northeast. Access to the Property is via a 30-foot-wide easement from Brian Lane NW, which is located west of the Property. No utilities are provided to the Property.

The Property is bounded with undeveloped land to the north, south, and west, and single family residences to the east and southwest.

The property is zoned for commercial use with the Kitsap County comprehensive plan. The Property is located within the [Waaga Way Town Center \(WTC\) design district](#)<sup>1</sup>. WTC is designed to include a mix of office/retail, business and residential uses. Developments in WTC is intended to be a coordinated park-like setting using landscaping and open spaces where appropriate. Therefore, future Property use could be residential or commercial.

**Property History and Current Use:** The Property was undeveloped land since as early as 1891. A 1981 aerial photograph shows that the central portion of the Property was cleared at the time, with a building structure and a primitive road entering from the west. Aerial photographs from 1990 to the present show that the southwestern portion of the Property was cleared. A historic report indicated that three abandoned building structures, including a house, a chicken coop, and a shed, were present on the Property in 1997. These building structures were reportedly deteriorated and removed from the Property in June 2005. The

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<sup>1</sup> [https://www.kitsapgov.com/dcd/Pages/Silverdale\\_Design\\_District\\_Waaga\\_Way\\_Town\\_Center.aspx](https://www.kitsapgov.com/dcd/Pages/Silverdale_Design_District_Waaga_Way_Town_Center.aspx)

Property has been vacant since that time, and remains as undeveloped land to the present day. The locations of the former building structures are depicted on **Figure 2**.

**Sources of Contamination:** Contamination appears to be associated with wastes that were historically disposed of at the Site. These wastes included the following (**Figure 2**):

- In 1997, one 55-gallon drum, reportedly containing petroleum product, was discovered near the former house on Parcel B. This drum was subsequently removed from the Property.
- A total of eighteen 55-gallon drums were discovered and removed from Parcel B in 2005. Several of these drums were labeled with “Roybond Primer”; but the exact content of the drums were unknown.
- A few debris piles were discovered on Parcel A, and appeared to be removed from the Property at an unknown time. These debris piles appeared to contain solid waste such as tires, trash, and vehicles.

**Physiographic Setting:** The Site gently slopes to the east from an elevation of approximately 230 feet to 175 feet above mean sea level (amsl). The land surface in the vicinity of the Property is generally sloping to the east-northeast.

**Surface/Storm Water System:** The nearest surface water body is a tributary to Clear Creek that runs northwest to southeast approximately 1,000 feet northeast of the Site. Based on the topography, storm water runoff on the Property flows to the east toward Clear Creek.

**Ecological Setting:** The Property and nearby properties to the north, south, and west are currently undeveloped, with heavy vegetation and bushes that is likely to attract wildlife. The properties to the east and southwest are developed with single family residences.

**Geology:** The Site is in the region of the Puget Lowlands, an elongated topographic and structural depression filled with complex sequences of glacial and non-glacial sediments that overlie bedrock. Continental ice sheets up to 3,000 feet thick covered portions of the Puget Lowland several times during the Quaternary period. Retreating ice carved new landscapes, rechanneled rivers, drained or formed lakes, and deposited glacial drift including till and outwash. According to the Geologic Map of Kitsap County, the Property and vicinity area are underlain by Pleistocene-aged continental glacial till<sup>2</sup>.

Based on field observations during test pit and monitoring well installation at the Site, subsurface soil consists of dense to very dense glacial till to a depth ranging from 11.5 to 21.5 feet bgs. The upper few feet typically consist of a looser ablation till. The till layer was underlain by a dense to very dense, medium to coarse sand with gravel, to the total explored depth of 26.5 feet bgs.

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<sup>2</sup> Kitsap County Department of Community Development, *Geologic Map Units, Kitsap County, Washington*, April 11, 2017; [https://www.kitsapgov.com/dcd/DCD\\_GIS\\_Maps/Geologic\\_Map\\_Units.pdf](https://www.kitsapgov.com/dcd/DCD_GIS_Maps/Geologic_Map_Units.pdf).

**Groundwater:** A total of five groundwater monitoring wells (MW-1 through MW-5) were installed at the Site in July 2021. These monitoring wells were installed to a total depth of 26.5 feet bgs, and screened from 16.5 to 26.5 feet bgs (14.5 to 24.5 feet bgs for well MW-2). The monitoring well locations are depicted on **Figure 3**.

Site groundwater is present in the sand layer beneath the glacial till, and flows to the east. Depths to groundwater were measured in Site monitoring wells at approximately 12 to 22 feet bgs. The well screen in monitoring well MW-4 appears to be submerged under groundwater table, and therefore the groundwater samples collected from the well may not provide representative water quality data.

More than 20 water supply wells are located within a 1/2-mile radius of the Site. Two water wells that are closest to the Site include (**Figure 4**):

- A Landsworth Creek water system well: This well is located approximately 500 feet east of the Site at an approximate elevation of 150 feet amsl. This well was completed to a total depth of 168 feet bgs<sup>3</sup>.
- A Brianwood water system well: This well is located approximately 700 feet southwest of the Site at an approximate elevation of 250 feet amsl. This well was completed to a total depth of 125 feet bgs and screened from 91 to 101 feet bgs, with a static water level at 55 feet bgs<sup>4</sup>.

**Water Supply:** No water is currently provided to the Property. Drinking water for the nearby residential and commercial properties is supplied by multiple water supply systems, including:

- Group A water supply systems: the Silverdale Water District #16, the Allevana water system, the Brianwood water system, the Crystal Creek water system, the Clear Creek Baptist Church water system, and the Silverdale Pee Wees water system.
- Group B water supply systems: the Landsworth Creek water system, the Collins Water system, the Frontier water system.

The southwestern portion of the Property is located within the 10-year time-of-travel wellhead protection zone of the Crystal Creek water system and Brianwood water system wells. The eastern portion of the Property is located within the wellhead protection zone of the Landsworth Creek water system well<sup>5</sup>.

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<sup>3</sup> Washington State Department of Health, *Office of Drinking Water database, Sentry Internet*; <https://fortress.wa.gov/doh/eh/portal/odw/si/Intro.aspx>

<sup>4</sup> Ecology, *Water Well Report, Well Tag #ACD356*, June 9, 1980.

<sup>5</sup> Washington State Department of Health, *Source Water Assessment Program (SWAP) database map*; [SWAP Map](#)

**Release and Extent of Contamination:** Environmental assessments and interim actions were conducted at the Site since 1997. The following lists Site investigation and regulatory history in chronological order. Please note the analytical concentrations were compared to the cleanup levels established for the Site: Method A cleanup levels for groundwater; Method A cleanup levels and TEE protective values for soil.

- In 1985 and 1986, when the Property was owned by a previous owner, complaints were made by a neighboring property owner to the Kitsap County Health District (KCHD) alleging that illegal dumping was being conducted on the Property. KCHD was unable to substantiate the claims of illegal burial of drums and cylinders at the time.
- In August 1997, the Property owner at the time was notified by the US Environmental Protection Agency (EPA) that there were allegations of illegal dumping on the Site. As a result, a Site investigation was conducted on behalf of EPA.
  - The investigation included clearing brush and debris, conducting a geophysical survey, and digging three trenches to a maximum length of 100 feet and a maximum depth of 11 feet bgs on the Site. The geophysical survey and trenching did not find buried drums and cylinders. The locations of the trenches are depicted as “E&E 1997 Trench #1, 2, and 3” on **Figure 2**.
  - One 55-gallon drum discovered west of the former house was reportedly approximately ¼ full (**Figure 2**). One sample was collected from the drum. The analytical results were consistent with a diesel or heating oil type of petroleum product. The drum was recycled at the time.
- In March and April 2005, Ecology and KCHD conducted an initial Site investigation.
  - On March 14, 2005, KCHD received complaints from a neighbor that solid waste was uncovered at the Site due to land-clearing activities. KCHD visited the Site on March 18 and confirmed the presence of several piles of trash and rubbish. KCHD contacted the Property owner at the time to inquire about the status of the waste; the owner related that he was planning on developing the Property and cleaning up the solid waste.
  - On March 25, 2005, the owner informed KCHD that additional brush-clearing activities revealed a 10- by 10-foot area where eighteen 55-gallon drums were discovered. The area is depicted as “Former Drum Storage Area” on **Figure 2**. KCHD inspected the drums on March 28; all drums were full or close to full. Four of the drums reportedly showed signs of leakage or spillage. Several drums were labeled with “Roybond Primer”. The area around the drums reportedly smelled of solvents. KCHD provided the information to Ecology.

- On March 29, 2005, a nearby property owner contacted Ecology reporting the drums found by the owner and alleged additional drums (dumped in 1985 to 1986) were still buried on the Site. The complaint suggested that the 1997 trenching area was not in the alleged dumping area.
- As a result of the initial investigation, Ecology listed the Site on the Confirmed and Suspected Contaminated Sites List in April 2005, and requested KCHD to conduct a Site Hazard Assessment (SHA).
- KCHD conducted the SHA from August 2005 to February 2006.
  - During the time of SHA, the owner removed the 18 drums on August 17, 2005, and also demolished the building structures in June 2005.
  - A ground penetrating radar and magnetic survey was conducted in August 2005 in areas that were not covered by the 1997 geophysical survey and trenching. No buried metallic objects and no signs of excavation were found. The 2005 survey area is depicted on **Figure 2**.
  - Five soil samples (SP1 through SP5) were collected from the cleared areas of the Site from ground surface to 1 foot bgs: two samples were collected from the former drum storage area; two were from the two former debris piles; and one was from the former house and drum area. One soil sample SP2, collected from the former drum storage area, contained cPAHs concentration above the established soil cleanup level of 0.1 mg/kg. The sampling locations are depicted as “KCHD SP-1 through SP-5” on **Figure 2**.
  - Two groundwater samples were collected from the two closest drinking water wells (**Figure 4**). The water sample collected from the Landsworth Creek water system well (east of the Site) contained arsenic and cPAHs concentrations above the MTCA Method A groundwater cleanup levels. Please note the cPAH concentration in a blank water sample also exceeded the MTCA Method A groundwater cleanup level.
  - As a result of the SHA, Ecology listed the Site on the Hazardous Sites List in February 2006, with a hazard ranking of 2 (moderate to high risk).
- Soil sampling was conducted in June and July 2015.
  - Seven soil samples were collected at five locations (SL-1, S1-SL-1.5, SL-2, SL-3, and SL-4) within or near the former drum storage area from the ground surface to 1.5 feet bgs (**Figure 2**). The soil samples collected at the ground surface from locations SL-1 and SL-2 contained arsenic concentrations above the established soil cleanup level of 20 mg/kg.

- Two soil samples (DP1-S5-SL-09 and DP2-S6-SL-11) were collected from the areas of two former debris piles, respectively. One soil boring (SP5-S7-SL-13) was collected from the former house and drum area. All three soil samples were collected at the ground surface, and all contained arsenic concentrations above the established soil cleanup level. These soil sampling locations are depicted as “DP-1, DP-2, and SP-5” on **Figure 5**.
- In October 2015, remedial excavation was conducted in the former drum storage area.
  - The excavation was completed to a size of 10-feet by 10-feet, and to a depth of 1.5 feet bgs. The excavation was not backfilled. Approximately 5.5 cubic yards of contaminated soil were removed from the former drum storage area. The excavation limit and confirmation soil sampling locations are depicted on **Figure 2**.
  - Two confirmation soil samples (DSA-S5 and DSA-S6) were collected at the bottom of the excavation at 1.5 feet bgs. The soil samples did not contain detectable cPAHs. No arsenic analysis was conducted on these confirmation samples.
- The Site entered Ecology’s Voluntary Cleanup Program (VCP) in March 2016, and was assigned a VCP project number of #NW3037. Ecology issued a *Further Action opinion letter* on June 22, 2016. This VCP agreement was terminated on December 3, 2018 due to lack of active cleanup activities.
- In March 2018, a direct-push soil boring was advanced to 20 feet bgs at the east side of the former drum storage area. Groundwater was reportedly encountered at 12 feet bgs in the boring<sup>6</sup>. One groundwater sample was collected from the soil boring. The groundwater sample contained concentrations of TPHg and BTEX below the MTCA Method A groundwater cleanup levels.
- In June to September 2020, a Phase I Environmental Site Assessment was conducted for the Site, and a letter report was prepared to summarize existing Site data. The Site re-entered Ecology’s VCP on October 1, 2020 and was assigned a VCP project number of #NW3293.
- In October 2020, exploratory test pits were excavated on Site as part of a geotechnical engineering investigation (**Figure 5**). No visible evidence of contamination was observed in the test pits and no visible evidence of drums were reportedly noted. Soil samples were not collected from the test pits.
- In November 2020, nine soil samples (CS-1 through CS-9) were collected in the former drum storage area at ground surface to 1.5 feet bgs, and analyzed for arsenic (**Figure 2**). None of the soil samples contained detectable arsenic.

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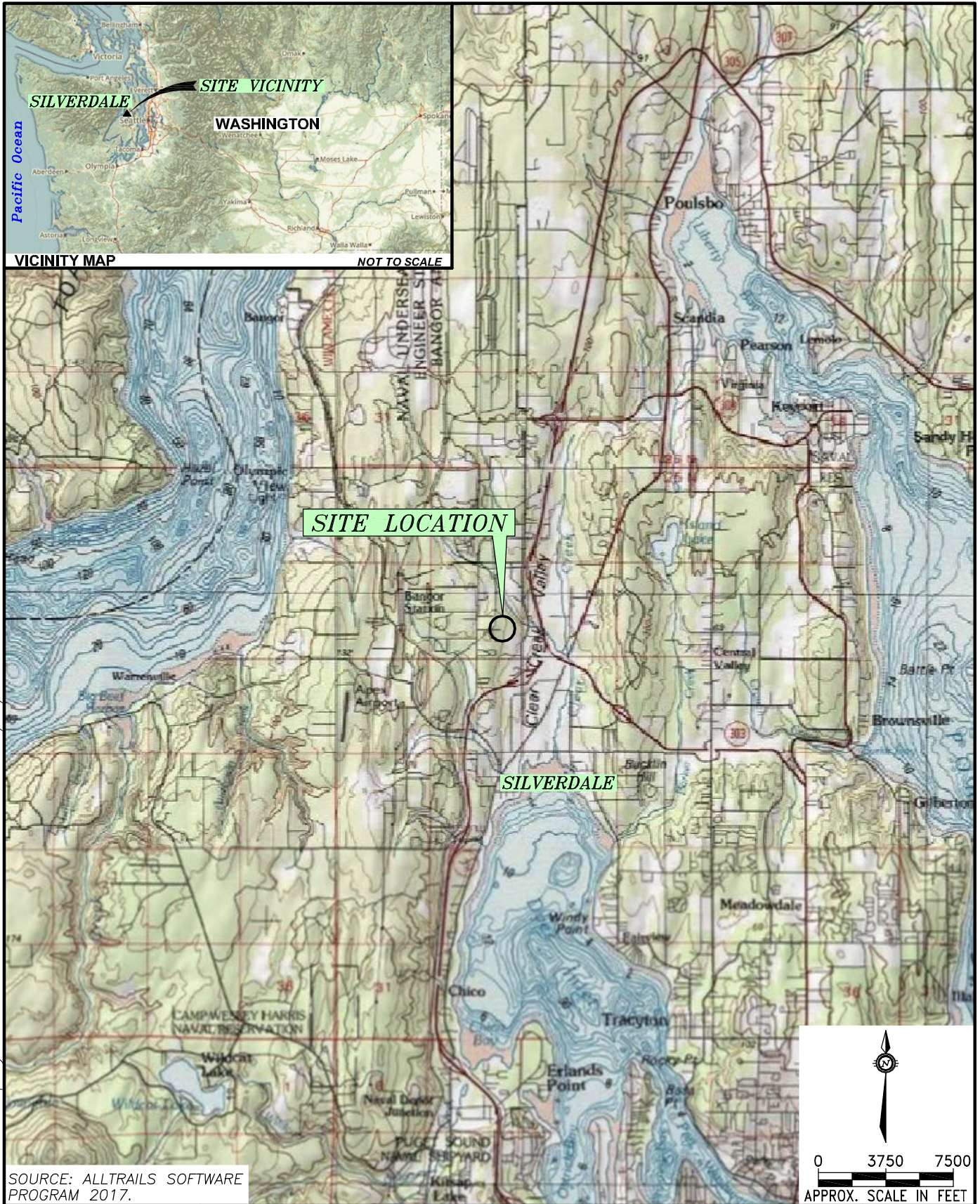
<sup>6</sup> Ecology, *Resource Protection Well Report, Notice of Intent Number: EE07072, Seitz Property, Silverdale, WA 98383*, March 8, 2018.

- In April 2021 during a Property ownership transfer, the VCP agreement for #NW3293 was terminated. The Site re-entered the VCP on April 27, 2021, and was assigned a VCP project number of #NW3313.
- In June 2021, a total of 14 surface soil samples (2021-SS-1 through 2021-SS-14) were collected from the two former debris piles, the former house and drum area, and the former drum storage area. The surface soil sampling locations are depicted on **Figure 6**.
  - The lead concentration in soil sample 2021-SS-02, collected from former debris pile 1, exceeded the established soil cleanup level of 220 mg/kg.
  - The TPHd plus TPHo concentrations in soil samples 2021-SS-10 and 2021-SS-11, collected from the former house and drum area, exceeded the established soil cleanup level of 460 mg/kg.
- In July 2021, five monitoring wells (MW-1 through MW-5) were installed at the Site (**Figure 3**). Soil samples were collected from each monitoring wells between 2.5 and 25 feet bgs. Groundwater samples were collected from all monitoring wells in July and October 2021. Contaminant concentrations in these soil and groundwater samples were below established cleanup levels.
- In September 2021, remedial excavations were conducted in former debris pile 1, and former house and drum area.
  - Each excavation was completed to a size of 10-feet by 10-feet, and to a depth of at least 2 feet bgs. A total of approximately 31 cubic yards (46.53 tons) of soil was excavated from the two areas. The excavations were not backfilled. The excavation limits and confirmation soil sampling locations are depicted on **Figure 6**.
  - Three confirmation soil samples (2021-SS-47 through 2021-SS-49) were collected from the bottom of the former debris pile 1 excavation. All soil samples contained lead concentrations below the established soil cleanup level.
  - Three confirmation soil samples (2021-SS-50 through 2021-SS-52) were collected from the bottom of the former house and drum area excavation. All soil samples contained TPHd plus TPHo concentrations below the established soil cleanup level.

# Site Diagrams



Enclosure A: Figure 1



21 D:\wgs\21 ESC\21 Silverdale Property FILE: SILVERDALE FIG 1.DWG PLOTTED: 10/20/21.

SOURCE: ALLTRAILS SOFTWARE PROGRAM 2017.

DATE: OCTOBER 2021  
 REV.: -  
 CHKD: K.L.W  
 DRAWN: C.E.H.  
 PROJ. No.: 104-21020



**SITE LOCATION MAP**

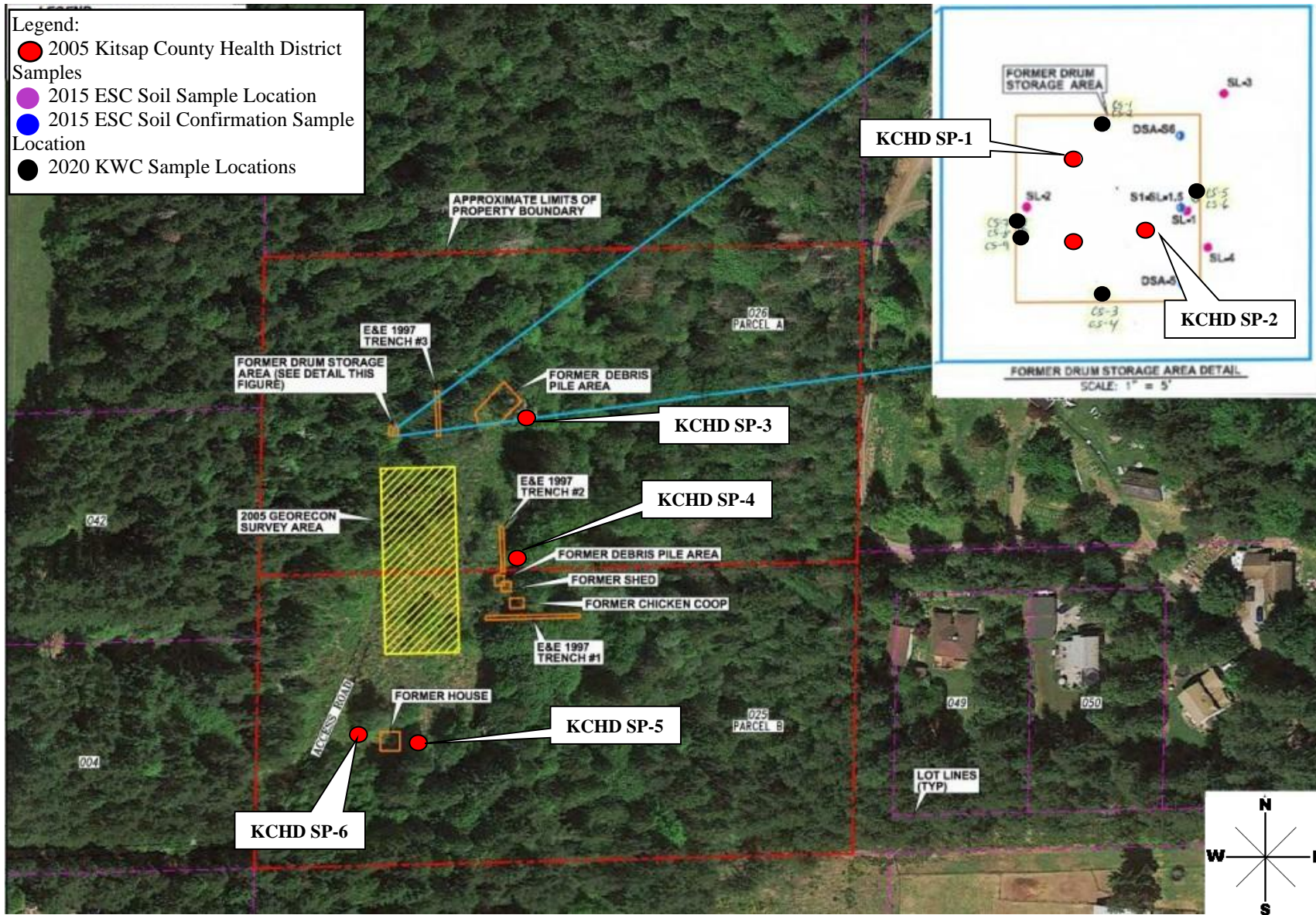
JSP SILVERDALE LOTS 24 AND 25  
 Silverdale, Washington

**FIGURE**


**1**



# Enclosure A: Figure 2

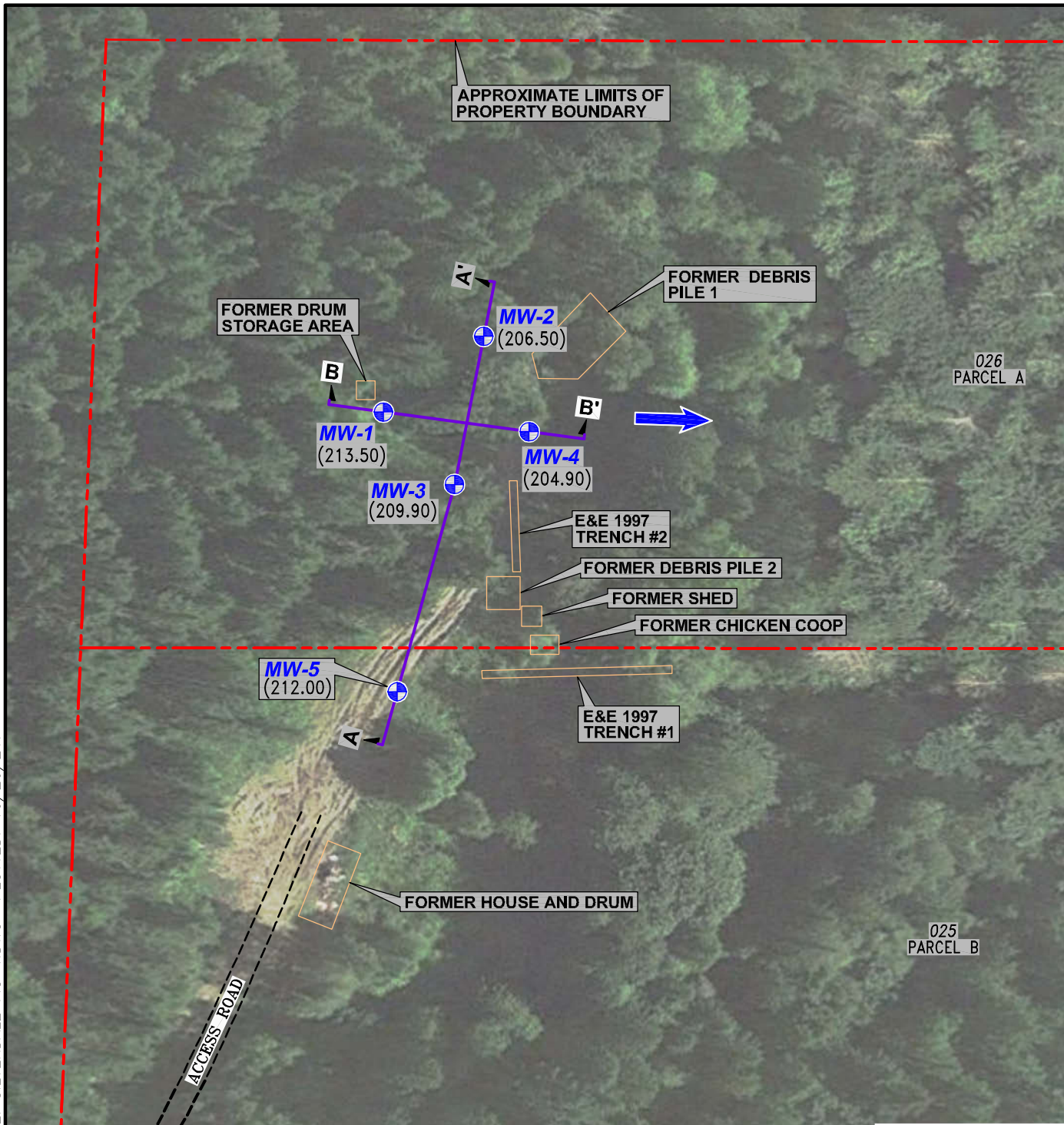


Source: Google Maps

<b>SITE MAP-Previous Sampling Locations</b>  Seitz Property – Lots 25 & 26 Sampling and Analysis Plan Brian Lane Silverdale, Washington	Scale: NTS	Date: April 2021	 <b>SITE DEVELOPMENT ENGINEERS</b> <i>Conducting Assessments Nationwide</i>
	Drawn by: CB	Approved by: SEW	
	Project No. 104-21018	Figure No. 3	



21 Dwg\21 ESC\21 Silverdale Property FILE: SILVERDALE FIG 4.DWG PLOTTED: 10/20/21.



**LEGEND**

MW-1 ⊕ (213.50) MONITORING WELL LOCATION  
 (213.50) GROUNDWATER ELEVATION 7/21/21 (FEET)  
 → INFERRED DIRECTION OF GROUNDWATER FLOW  
 A A' CROSS SECTIONS (SEE FIGURE 5 AND 6)

0 40 80  
 APPROX. SCALE IN FEET

SOURCE: IMAGE DOWNLOADED FROM  
 GOOGLE EARTH PRO. DATED 8/2020.

DATE: <u>OCTOBER 2021</u>
REV.: <u>-</u>
CHKD: <u>K.L.W.</u>
DRAWN: <u>C.E.H.</u>
PROJ. No.: <u>104-21020</u>



**WATER TABLE MAP**

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JSP SILVERDALE LOTS 24 AND 25  
 Silverdale, Washington

**FIGURE**


**4**



# Enclosure A: Figure 4

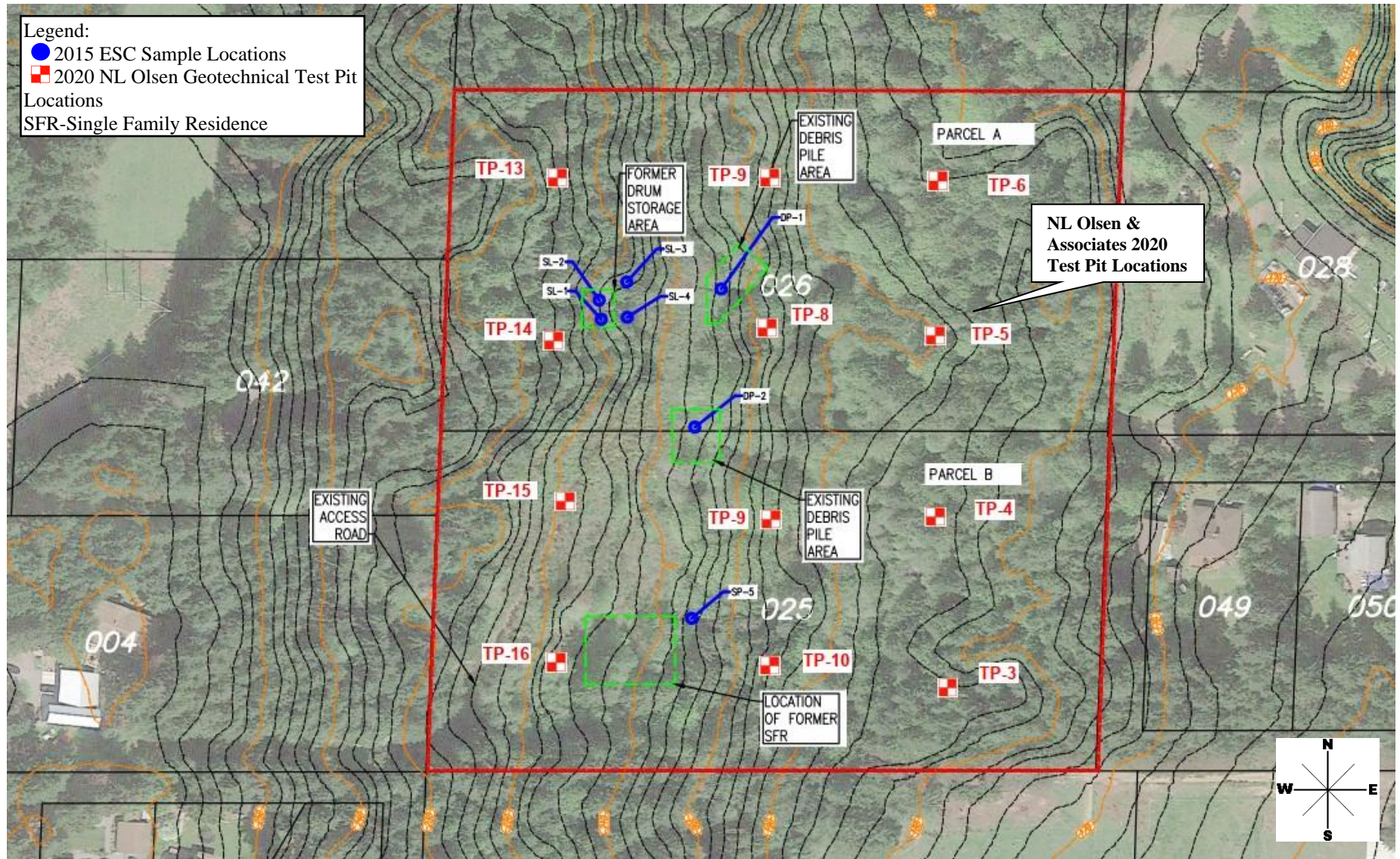


Source: Google Maps


<b>VICINITY MAP</b>	<b>Scale:</b> NTS	<b>Date:</b> April 2021	 <b>SITE DEVELOPMENT ENGINEERS</b> <i>Conducting Assessments Nationwide</i>
<b>Seitz Property – Lots 25 &amp; 26 Sampling and Analysis Plan Brian Lane Silverdale, Washington</b>	<b>Modified by:</b> CB	<b>Approved by:</b> SEW	
	<b>Project No.</b> 104-21020	<b>Figure No.</b> 1	



# Enclosure A: Figure 5

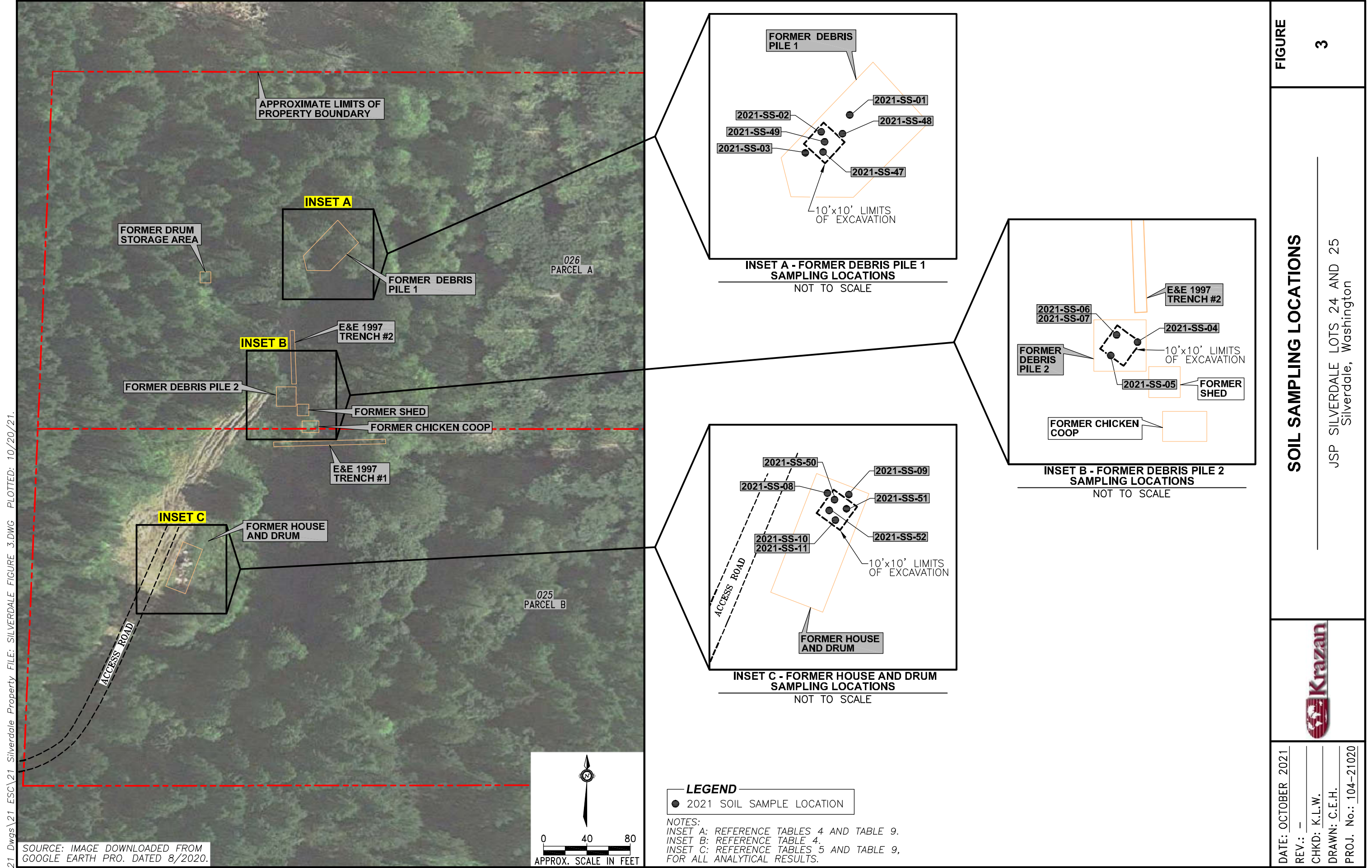


Source: Google Maps

<b>SITE MAP-Previous Sampling Locations</b>  Seitz Property – Lots 25 & 26 Sampling and Analysis Plan Brian Lane Silverdale, Washington	Scale: 1"=100'	Date: April 2021	 <b>Krazan</b> SITE DEVELOPMENT ENGINEERS <i>Conducting Assessments Nationwide</i>
	Drawn by: CB	Approved by: SEW	
	Project No. 104-21018	Figure No. 4	

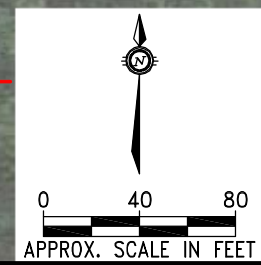


# Enclosure A: Figure 6



21 Dws\21 ESC\21 Silverdale Property FILE: SILVERDALE FIGURE 3.DWG PLOTTED: 10/20/21.

SOURCE: IMAGE DOWNLOADED FROM GOOGLE EARTH PRO. DATED 8/2020.



**LEGEND**  
 ● 2021 SOIL SAMPLE LOCATION

**NOTES:**  
 INSET A: REFERENCE TABLES 4 AND TABLE 9.  
 INSET B: REFERENCE TABLE 4.  
 INSET C: REFERENCE TABLES 5 AND TABLE 9,  
 FOR ALL ANALYTICAL RESULTS.

**FIGURE**  
 3

**SOIL SAMPLING LOCATIONS**

JSP SILVERDALE LOTS 24 AND 25  
 Silverdale, Washington



DATE: OCTOBER 2021  
 REV.: -  
 CHKD: K.L.W.  
 DRAWN: C.E.H.  
 PROJ. No.: 104-21020

## **Enclosure B**

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

1. Ecology and Environment, Inc., *Silverdale Dump Site Removal Site Assessment Trip Report*, October 30, 1997.
2. Washington State Department of Ecology (Ecology), *Environmental Report Tracking System (ERTS) #547121, Seitz Property, Brian Kane NW, Silverdale, Washington*, March 29, 2005.
3. Kitsap County Health District (KCHD), *Sampling and Analysis Plan, Seitz Property SHA, No Address, Kitsap County Tax Parcel ID# 082501-4-025-2001, Silverdale, Washington*, November 3, 2005.
4. KCHD, *Site Hazard Assessment, Seitz Property, off Brian Lane, Silverdale, WA*, February 7, 2006.
5. EnviroSound Consulting Inc., *Site Soil Investigation, Seitz Property, Silverdale, Washington*, November 30, 2015.
6. Ecology, *Re: Further Action at the following Site: Seitz Property, Brian Lane NW, Silverdale, WA 98383*, June 22, 2016.
7. Ecology, *Re: Request for Information on Status of VCP Project for the following Site: Seitz Property, Brian Lane NW, Silverdale, WA 98383*, January 16, 2018.
8. Ecology, *Resource Protection Well Report, Seitz Property, Silverdale, WA 98383*, March 8, 2018.
9. ESN Northwest Chemistry Laboratory, *Groundwater Sample Laboratory Analytical Results, Project Silverdale, Washington*, March 12, 2018.
10. ESN Northwest Chemistry Laboratory, *Groundwater Sample Laboratory Analytical Results, Project Silverdale, Washington*, March 13, 2018.
11. Ecology, *Re: VCP Customer Response to Ecology Request for Information on Status of VCP Project for the following Site: Seitz Property, Brian Lane NW, Silverdale, WA 98383*, June 25, 2018.
12. Ecology, *Re: Termination of VCP Agreement for the following Site: Seitz Property, Brian Lane NW, Silverdale, WA 98383*, December 3, 2018.
13. Letter from Andrew Seitz, *Seitz Property – Silverdale*, April 11, 2019.
14. Ecology, *Re: Seitz Property, Brian Lane NW, Silverdale, WA 98383*, April 25, 2019.



15. Associated Environmental Group, LLC, *Phase I Environmental Site Assessment, Seitz Property, Tax Parcels 08250140252001 and 08250140262000, Silverdale, Washington 98383*, July 19, 2020.
16. Krista Webb Consulting (KWC), *Letter Report, Seitz Property, Brian Lane NW, Silverdale, Washington, Kitsap County Parcel IDs: 082501-4-026-2000 and 082501-4-25-2001*, September 22, 2020.
17. KWC, *Letter Report, Seitz Property, Brian Lane NW, Silverdale, Washington, Kitsap County Parcel IDs: 082501-4-026-2000 and 082501-4-25-2001*, November 19, 2020.
18. Ecology, *Re: Further Action at the following Site, Seitz Property, Brian Lane NW, Silverdale, WA 98383, VCP #NW3293*, March 9, 2021.
19. Krazan & Associates, Inc., *Sampling and Analysis Plan, Soil and Groundwater Sampling, Lots 25 and 26, Seitz Property, Brian Lane NW, Silverdale, Washington*, April 26, 2021.
20. Ecology, *Opinion pursuant to WAC 173-340-515(5) on Remedial Action for the following Hazardous Waste Site, Seitz Property, Brian Lane NW, Silverdale, Washington 98383, VCP #NW3313*, June 7, 2021.
21. Krazan & Associates, Inc., *Sampling and Analysis Plan - Revised, Soil and Groundwater Sampling, Lots 25 and 26, Seitz Property, Brian Lane NW, Silverdale, Washington*, June 10, 2021.
22. Krazan & Associates, Inc., *Remedial Investigation Report, JSP Silverdale Lots 25 and 26, Brian Lane NW, Silverdale, Washington*, October 19, 2021.