Phase II Environmental Site Investigation
Buse Timber & Sales
3812 28th Place Northeast
Everett, WA 98201

Prepared for:
SPE and IOS JV Holdings, LLC

December 9, 2021
Alterra-064

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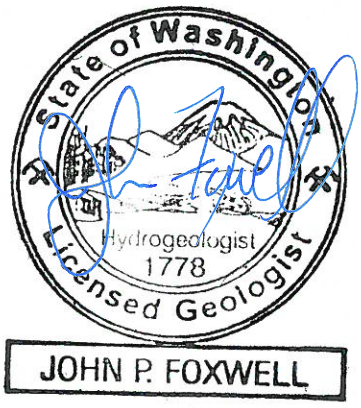

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1.0 Introduction

Apex Companies, LLC (Apex) has prepared this Phase II Environmental Site Assessment (ESA) for SPE and IOS JV Holdings, LLC to provide the results of soil, groundwater, and drainage sediment sampling and analysis for the Buse Timber & Sales Inc. (the Site) located at the 3812 28th Pl NE in Everett, Washington 98201 (Figure 1).

The scope of the Phase II ESA was completed at several areas at the Site where Recognized Environmental Conditions (RECs) were identified based on the findings of the Phase I ESA for the Site (Apex, 2021).

1.1 Site Description

The Site consists of two parcels of land (Parcel No. 29050400300600 and 29050900201500) comprising approximately 60.48 acres (Figure 2). Buse Timber & Sales Inc. has operated as a lumber mill at the since the mid-1940s. Current operations include a sawmill facility, log storage, and 11 buildings including the main office, kilns, and maintenance and storage buildings (Figure 3). Log storage is located on the southern end of the Site, milling activities and lumber storage are located in the center of the Site. Operations and log storage areas are paved. The north end of the Site is unpaved and undeveloped. The Site is situated on generally flat terrain at a surface elevation of approximately 1 foot above mean sea level (amsl). The nearest body of water is the Union Slough located north and west adjacent to the Site. There is a drainage ditch encircling the Site that discharges any collected water to Union Slough through a tide gate at the north end of the Site. Surrounding properties generally consist of commercial or industrial businesses.

1.2 Previous Investigations

A number of previous environmental investigations have been conducted to document conditions at the Site. This section presents a summary of the findings of the previous investigations. This information was used to develop the scope of work for the Phase II ESA.

1990 Investigation. In 1990, the Washington Department of Ecology (Ecology) completed a Preliminary Assessment (PA) for the Buse Mill site. Elevated concentrations of pentachlorophenol (PCP) and tetrachlorophenol (TCP) were detected in drainage sediment samples near the former dip tank. Samples were not analyzed for dioxins. The PA concluded that there were no significant threats to human health and the environment. However, it did recommend sampling of the drainages and ranking under Ecology's Washington Ranking Method guidelines. Follow-up sampling was completed in site drainages, and PCP and TCP were not detected.

1994 Investigation. A Screening Site Inspection Report was prepared for the Site by URS on behalf of EPA (URS, 1994). This report summarized the results of a limited sampling event that included surface and subsurface soil, storm drain sediment, and drainage sediment sampling, and sediment sampling at the Site and nearby slough/river. Samples were tested for polychlorinated biphenyls (PCBs), semi-volatile organic compounds (SVOCs), metals, chlorinated phenols, and/or PCP. Dioxin analyses were not completed as part of this work.

No exceedances of background concentrations were found for the surface or subsurface soils. Samples collected from catch basins and in the North ditch (near the storm drain outfall) exceeded background concentrations of PCBs, lead, and mercury; however, none of these concentrations were significantly above background or Ecology Model Toxics Control Act (MTCA) Method A cleanup levels. PCP was detected at concentrations exceeding background levels in samples collected from the storm drains (one storm drain located approximately 100 ft east of the former dip tank) and storm drain outfall.

1998 Investigation and 2010 Update. Exponent conducted a Phase II ESA in August 1998 (Exponent, 1998) to address RECs identified in Exponent's April 1998 Phase I ESA. Boring locations are shown on Figure 4. The investigation consisted of sampling sediments in the drainage ditches surrounding the Site, sampling the storm drain system, and assessing soil and groundwater impacts at the Site. Samples were tested for Total Petroleum Hydrocarbons (TPH) and VOCs. Select soil and groundwater samples were tested for chlorinated phenols. One soil sample was analyzed for dioxins/furans. Detected concentrations of all analytes MTCA were below cleanup levels.

2018 Limited Site Investigation (LSI). In August 2018, Terracon conducted an LSI (Terracon, 2018b) to assess the potential presence of compounds of concern in subsurface soil and groundwater at the Site that may have originated from the RECs identified in the 2018 Phase I ESA prepared by Terracon (Terracon, 2018a). Boring locations are shown on Figure 4. This LSI included advancing six (6) soil borings (B1 through B6) and collecting soil and/or groundwater samples from each boring. The LSI results/findings are summarized as follows:

- Soil samples collected from B1 and B2 had concentrations of arsenic and/or chromium which exceeded their respective MTCA Method A cleanup levels. However, based on the additional analysis of the highest chromium concentration, the concentrations of chromium do not appear to be hexavalent chromium.
- Soil samples collected from B5 and B6 had concentrations of dioxins and furans. Although these concentrations are below their respective MTCA Method B cleanup level, they exceed the natural background concentrations of 5.2 ng/kg for dioxin and furan mixtures in soil.
- Only one groundwater sample was collected, from boring B2. This sample had concentrations of arsenic which exceeded the MTCA Method A cleanup level. The remaining groundwater sample results were either non-detected or below the MTCA Method A or MTCA Method B cleanup levels.

Terracon concluded that the operations at the Site with a vehicle maintenance area, wash-down area, diesel underground storage tank (UST) area, fire pond, and documented dioxins and furans appear to have previously contributed and may potentially continue to contribute to the release of select chemicals of concern to soils and/or groundwater. With the exception of arsenic in soil and groundwater, Terracon concluded that conditions representative of a large-scale release were not present.

It appears that arsenic concentrations identified in soil and groundwater are consistent with the current Site use. While there are arsenic exceedances to the MTCA cleanup level, Terracon inferred that they are limited to the Site soil and

groundwater within the limits of the Site boundary. Therefore, unless the Site use is proposed to change, Terracon did not recommend any additional investigations at this time.

1.3 Phase II ESA Sampling Plan Development

Apex completed a Phase I ESA for the Site in June 2021 (Apex, 2021). RECs were identified by Apex during the Phase I ESA. Based on the results of the Phase I ESA, the locations and rationale for the scope of the Phase II ESA are summarized below.

Identified REC, HREC, or Data Gap	Assessment Rationale
Soil and/or Groundwater	
Vehicle Maintenance	Assess TPH detected in groundwater at Terracon B2
Former Log Pond Fill	Characterize large fill area not previously characterized
Current Lube Building Current Mechanics Shop	Assess feature not previously assessed Assess for dioxins based on Terracon B5 results
Hog Fuel Mixing area	Assess surface soils in waste handling area.
Current Dip Tank	Assess soil and groundwater at current dip tank
Current Washdown Area	Characterize stained area at outlet to washdown and separator vault
Current AST area	Assess feature not previously assessed
Former Main Plant Drain	Assess feature not previously assessed
Former PCP Dip Tank	Assess soil and groundwater at former dip tank
Former UST Area	Assess soil and groundwater former UST area
AST Area	Assess feature not previously characterized
Surface Soil/Drainage Sediment	
Tide Gate	Characterize drainage sediments at outfall
East Drainage	Characterize drainage sediments after removal
West Drainage	Characterize ditch with limited existing data
East Drainage	Characterize ditch with limited existing data
South Drainage	Characterize ditch with limited existing data

1.4 Geology and Hydrogeology

The Site is located at Everett, Washington, which is in the central part of the Puget Sound Lowland. The geologic unit for this Site is Qyal, a Holocene aged younger alluvial and estuarine deposit (Minard, 1985). These deposits lie in and along the present streams near the water table. The sediment is largely sand, silt, and clay with considerable amounts of organic matter. Thickness of the younger alluvial and estuarine deposits probably exceeds 30 meters. The alluvium overlies deposits from the last Pleistocene glaciation.

The Site is located in the delta region of the Snohomish River, adjacent to and south of Union Slough on Smith Island north of the Snohomish River. According to historical information, the static water level at the Site is probably within a

range of 10 to 15 feet below ground surface (bgs). The depth to the water table varies due to tidal and river flow influences. The Site is relatively flat, with a general slope less than 5 degrees towards the northeast.

2.0 Field Activities

Field sampling activities included surface soil sampling, direct-push soil explorations for soil and groundwater samples, and drainage sediment sampling. Direct-push explorations (SB-1 through SB-14) and surface soil samples (SS-1 through SS-3) were completed between June 30 and July 1, 2021. Sediment samples were collected on July 2, 2021. Direct-push explorations were completed by Holocene Drilling with track mounted direct-push equipment (Geoprobe™ 7822DT). Boring logs for each boring are included in Appendix A.

2.1 Preparatory Activities

Prior to conducting the subsurface investigation, Apex notified Washington 811 to coordinate notification to public utility operators of the proposed subsurface investigation activities. Private utility locates to mark private utilities and subsurface features were completed by CNI Locates of Lake Bonney, Washington. A site-specific Health and Safety Plan (HASP) was prepared and reviewed during the daily tailgate meeting each day before work commenced.

2.2 Soil Sampling

Apex field-screened and collected soil samples continuously during drilling, using a core barrel lined with a clear acetate liner. Apex logged and described soil types in general conformance with the unified soil classification system (USCS) and observed for physical visual/olfactory evidence of contamination. The soil samples were field screened for volatile organic compounds (VOCs) using a calibrated photoionization detector (PID) and sheens were documented when observed.

Soil samples were prepared for laboratory analysis by sampling directly from the liners using a Terra Core™ soil sampler for VOCs and filling laboratory-provided glass jars for all other soil analyses. Each soil sample was uniquely labeled to identify its location, depth, date, and time of collection. The samples were collected with EPA Method 5035 sample preservation or transferred to laboratory-supplied sample containers and filled to eliminate headspace. Soil samples were then placed in a cooler with ice and shipped to Pace National Laboratory under chain of custody (COC) protocol.

2.3 Grab Groundwater Sampling

Groundwater was encountered in all borings except for SB-14. Groundwater samples were collected from temporary wells constructed of polyvinyl chloride (PVC) casing and screen. Grab groundwater samples were collected with a peristaltic pump. The bottles were labeled, chilled on ice, and transported under proper COC protocol to Pace National Laboratory of Mount Juliet, Tennessee.

After sampling was completed, each borehole was backfilled with hydrated bentonite and the boring was patched to match the existing surface (bare ground or asphalt).

2.4 Sediment Sampling

Sediment samples were collected on July 2, 2021 from an inflatable raft. A Russian peat corer was used for sample collection. Composite and discrete sediment samples were collected from select locations within the drainages. Sediment sampling locations are shown on Figure 6.

Three 3-point composite sediment samples were collected to represent the west drainage area (locations DR-2 through DR-4), east drainage area (DR-5 through DR-7), and south drainage area (DR-8 through DR-10). One discrete sample (DR-1) was collected near the tide gate to characterize sediment at the outfall. Sediment composite sub-samples were collected in equal aliquots from a depth of 0 to 12 inches below mud line (bml). The aliquots were placed into a stainless-steel bowl and homogenized. Each of the homogenized samples were then placed into laboratory-supplied sample containers, properly labeled, and submitted to the laboratory for analysis. The discrete sample analyzed (DR-1) was also collected from the 0 to 12-inch blm interval, placed into laboratory-supplied sample containers, properly labeled, and submitted to the laboratory for analysis.

2.5 Investigation-Derived Waste Disposal

Three 55-gallon drums (one containing soil cuttings and two containing decontamination/purged water) were generated and temporarily stored in a designated area on the Site. The drums were labelled with the project name, generator name, contact number, general contents, and date. Waste disposal is pending.

3.0 Laboratory Analytical Program

The laboratory analytical program includes analyses for Site Chemicals of Potential Concern (COPCs) in soil, groundwater, and drainage sediment. COPCs were identified based on prior results, chemical use history, and mill operations. The laboratory analytical plan for each portion of the Property is summarized below. Sampling results are summarized on Figures 5 through 8. Groundwater was collected from all boring locations except for SB-14.

Sampling and Analysis Summary

Sample Area	Sample Location	Exploration Depth (ft)	Analysis of Samples
Vehicle Maintenance	SB-1	20	TPH-Dx; VOCs; Chlorinated phenols; Metals.
Former Log Pond Fill	SB-2, SB-3, SB-9	Ranging from 15 to 25	TPH-Dx; VOCs; Chlorinated phenols; Dioxins/Furans

Sample Area	Sample Location	Exploration Depth (ft)	Analysis of Samples
Current Lube Building/Mechanics Shop	SB-4, SB-5	10	TPH-Dx; VOCs; Dioxins/Furans
Hog Fuel Mixing Area	SB-6; SS-1 through SS-3	15	TPH-Dx; VOCs; Chlorinated phenols; Dioxins/Furans
Current Dip Tank	SB-7	10	TPH-Dx; Chlorinated phenols
Current Washdown Area	SB-8	10	TPH-Dx
Current AST area	SB-9	25	TPH-Dx; VOCs
Former Main Plant Drain	SB-10	20	TPH-Dx; Dioxins/Furans
Former PCP Dip Tank	SB-11, SB-12	Ranging from 10 to 25	TPH-Dx; Chlorinated phenols; Dioxins/Furans
Former UST Area	SB-13	25	TPH-Dx; VOCs
AST Area	SB-14	10	TPH-Dx

Sample Area	Sample Location	Analysis of Samples
Tide Gate	DR-1	TPH-Dx; PAHs; PCBs; Dioxins/Furans
West Drainage	DR-2 through DR-4	TPH-Dx; PAHs; PCBs; Dioxins/Furans
East Drainage	DR-5 through DR-7	TPH-Dx; PAHs; PCBs; Dioxins/Furans
South Drainage	DR-8 through DR-10	TPH-Dx; PAHs; PCBs; Dioxins/Furans

DR-1, collected at the location of the tide gate, was a discrete sample. For the west, east, and south drainages, a composite sample was prepared from each drainage sub-sample (DR-2 to 4, etc.). Splits of individual sub-samples were retained in the event that follow-up analyses were requested.

Laboratory analyses were completed by Pace National Laboratory of Mt. Juliet, Tennessee. Soil, groundwater, and ambient air sampling results were analyzed for using one or more of the methods listed below.

- Diesel and oil range petroleum hydrocarbons (TPH-Dx) using NW TPH Methods;
- Polynuclear aromatic hydrocarbons (PAHs) using EPA 8270 SIM;
- Dioxins and furans using EPA 8290;
- PCBs using EPA 8082;
- Phenolic compounds, including PCP, using EPA 8270;
- Metals (arsenic, barium, cadmium, chromium, copper, lead, nickel, selenium, silver, mercury, zinc) using EPA 6000/7000 series methods; and
- VOCs in soil and groundwater using EPA Method 8260C, with EPA 5035 preservation for soil.

Groundwater samples were analyzed for TPH-Dx with and without silica gel cleanup. Silica gel cleanup removes biogenic polar organics, which interfere and result in a high bias.

4.0 Findings

The findings of the 2021 Phase II ESA are presented below. Tables 1 through 5 summarize the laboratory results and Figures 5 through 8 show the key sample results for each media sampled. Boring logs are included in Appendix A. Laboratory data is included in Appendix B.

4.1 Field Observation During Explorations

Soils encountered in the explorations consisted of varying gradations of silty clay, sand, and gravel to the total depth explored (approximately 25 feet bgs). Localized silty clay layers were observed in several borings between 0 and 7 feet bgs. Sandy clay or silty sand layers were observed in several deeper borings between 10 and 25 feet bgs.

Field screening information is included in the logs. Field screening indications of contamination (PID, sheen, and odor) generally were not observed at the sampling locations. When observed, PID readings ranged from <5 parts per million (ppm) to 6 ppm, with the highest readings observed at SB-5 at 6.0 feet bgs.

The direct-push borings were completed up to 25 feet bgs. Groundwater was encountered across the Site at varying depths between 7 and 24 feet as noted on the boring logs. At SB-8, shallow, perched water was encountered at a depth of 3 feet.

4.2 Soil and Groundwater Investigation

The soil and groundwater investigation results are discussed below according to each area of the Buse Mill where the data was collected. The soil and groundwater results are compared to the applicable MTCA Method A cleanup level for unrestricted land use. Where a MTCA Method A Cleanup level has not been established for a particular compound, the respective MTCA Method B Cleanup Level is applied for comparison. Soil dioxins/furans concentrations were reported in 2,3,7,8-Tetrachloro dibenzo-p-dioxin (TCDD) Total Toxicity Equivalence Quotient (TEQ) and compared to the Washington State background concentrations and MTCA Method B cleanup levels. In Washington, 2,3,7,8 TCDD Total TEQ of 5.2 pg/g or less in soil are considered below regional background concentrations.

The soil and groundwater sampling results for each area of the site are summarized below. Samples were analyzed for a range of parameters as summarized in Section 3. Most soil samples were analyzed for TPH-Dx. All analytical results are tabulated on Tables 1 through 5. Selected soil results are summarized on Figures 4 through 8. Laboratory reports are included in Appendix B.

4.2.1 Vehicle Maintenance Area

SB-1 was completed at the northwestern, downgradient corner of the vehicle maintenance area. SB-1 was completed to approximately 20 feet bgs. A grab groundwater sample was collected at approximately 15 feet bgs.

Soil Samples. Samples collected from 2 to 3 feet bgs and 6 to 7 feet bgs were analyzed for TPH-Dx (with silica gel cleanup). The SB-1 sample from 2 to 3 feet bgs was also analyzed for VOCs, chlorinated phenols, and metals. Concentrations of TPH-Dx, metals, and VOCs were detected. None of the detected concentrations exceeded cleanup levels.

Groundwater Sample. One grab groundwater sample was collected from a depth of approximately 15 feet bgs at SB-1 and analyzed for TPH-Dx, VOCs, and chlorinated phenols. TPH-Dx was analyzed with and without silica gel cleanup. Concentrations of TPH-Dx were detected when analyzed without silica gel cleanup. When silica gel cleanup was utilized, concentrations of DRO and RRO were not detected. VOCs and chlorinated phenols were not detected.

4.2.2 Former Log Pond Fill Area/ Current AST Area

SB-2, SB-3 and SB-9 were collected from the former log pond fill area. SB-9 is also in proximity to the current aboveground storage tank (AST) area.

Soil Samples. Each sample from this area was analyzed for TPH-Dx with silica gel cleanup. Soil samples from SB-2 and SB-9 were also analyzed for VOCs from multiple locations and intervals from this sample group. Select soil samples were also analyzed for chlorinated phenols and dioxins/furans. Chlorinated phenols compounds were not detected. Concentrations of TPH-Dx, VOCs, and dioxins/furans were detected. None of the detected concentrations exceeded cleanup levels.

Groundwater Samples. Groundwater samples were collected from SB-2, SB-3, and SB-9 and analyzed for TPH-Dx and chlorinated phenols. In SB-2 and SB-3, TPH-Dx was detected above cleanup levels when analyzed without silica gel cleanup. TPH-Dx was not detected above cleanup levels when silica gel cleanup was used. TPH-Dx was largely not detected in the groundwater samples from SB-9. Chlorinated phenols were not detected in groundwater samples from SB-2, SB-3, and SB-9.

4.2.3 Current Lube Building/Mechanics Shop Area

SB-4 and SB-5 were completed near the current lube building and mechanic shop area. The current lube building and mechanic shop were constructed after a former fire pond in this area was backfilled.

Soil Samples. Each sample from this area was analyzed for TPH-Dx. Soil samples were also analyzed for VOCs from multiple locations and intervals from this sample group. Select soil samples were also analyzed for dioxins/furans.

Only trace concentrations of TPH-Dx and VOCs were detected. None of the detected concentrations exceed cleanup levels. In the shallow interval (~2 to 4 feet deep) at SB-4 and SB-5, dioxins/furans were detected, but at concentrations below background concentrations and cleanup levels.

Groundwater Samples. Groundwater samples were collected from SB-4 and SB-5 and analyzed for TPH-Dx only. Significant concentrations of TPH-Dx were detected in each of these samples. TPH-Dx was detected above cleanup levels when analyzed without silica gel cleanup. TPH-Dx was not detected above cleanup levels when silica gel cleanup was used.

4.2.4 Hog Fuel Mixing Area

The hog fuel mixing area is used to mix oil-water separator sludges with wood waste and sold for hog fuel. This area is located at the southern portion of the Site. Direct push boring SB-6 and surface soil sampling (SS-1 through SS-3) were completed at a downgradient area of this mixing area.

Soil Samples. Each sample from this area was analyzed for TPH-Dx and VOCs. Only trace concentrations of TPH-Dx and VOCs were detected. None of the detected concentrations exceed cleanup levels. Surface soil samples (SS-1 through SS-3) were analyzed for dioxins/furans. Concentrations of dioxins in SS-1 through SS-3 expressed as Total 2,3,7,8 TEQ exceeded background concentrations, the 2,3,7,8 Dioxin Total TEQ in SS-1 exceeds the MTCA Method B cleanup level, and the Total HxCDD concentrations exceeds the same cleanup level.

Groundwater Sample. A groundwater sample was collected from SB-6 and analyzed for TPH-Dx only. Significant concentrations of TPH-Dx were detected in the sample. The detected concentration exceeded the MTCA Method A groundwater cleanup level by a factor of between 1.5 and 2. However, the TPH-Dx concentrations were significantly reduced to either below detection limits or below cleanup levels after being analyzed with silica gel cleanup.

4.2.5 Current and Former Dip Tank Areas

The current dip tank area is located approximately 70 feet south of the former dip tank area. A relatively minor amount of Buse's wood products is treated with a water-based anti-stain/brightener, which is completed at the current dip tank. The boring (SB-7) was completed to assess if any potential contamination originated from former/current dip tank operation.

Historically, wood treatment using PCP occurred at the former dip tank until at least 1986. Wood treatment with PCP was also reported to be limited (most Buse products are sold untreated). This dip tank reportedly did not have a cover or secondary containment. Borings SB-11 and SB-12/12A were completed to assess the former dip tank area. Groundwater was not encountered at SB-12; SB-12A was re-drilled at approximately one foot away from SB-12 to a total depth of 25 feet for groundwater sampling.

Soil Samples. Each sample from this area was analyzed for TPH-Dx and chlorinated phenols. Select soil samples were also analyzed for dioxins/furans. TPH-Dx was mostly not detected. None of the detected concentrations exceed cleanup levels. Chlorinated phenols compounds were not detected. Dioxins were detected in the shallow interval (~3 to 4 feet deep) at SB-11 and SB-12. Detected concentrations were below background concentrations and cleanup levels.

Groundwater Samples. Groundwater samples were collected from SB-7, SB-11 and SB-12A and analyzed for TPH-Dx. Samples collected from SB-11 and SB-12A were also analyzed for chlorinated phenols.

In sample SB-11W, collected at 6.8 feet bgs, PCP, 2,4,5- trichlorophenol and 2,4,6-pentachlorophenol were detected in groundwater. The detected concentrations of pentachlorophenol (58.4 µg/L) exceed the MTCA Method B cleanup level for cancer risks (0.22 µg/L). Chlorinated phenols were not detected in the sample SB-11 collected at 22 feet bgs. Chlorinated phenols were not detected in the sample from SB-7. Because the data were not collected from a monitoring well, turbidity from this shallow discrete sample may be the result of the detected PCP. In samples collected from SB-12, in the same area at deeper depths (22 feet bgs), PCP, 2,4,5- trichlorophenol and 2,4,6-pentachlorophenol were not detected.

In SB-7 and SB-11, TPH-Dx was detected above cleanup levels when analyzed without silica gel cleanup. TPH-Dx was not detected above cleanup levels when silica gel cleanup was used. TPH-Dx was also detected in the sample collected from SB-12A when analyzed without silica gel cleanup, but below the MTCA Method A groundwater cleanup level. The TPH-Dx concentrations were significantly reduced to either below detection limits or below cleanup levels after silica gel cleanup.

4.2.6 Former Main Plant Drain Area

According to historical investigations, there used to be a main plant storm drain located near the current dry shed building at the central portion of the Site. SB-10 was completed in the area for assessment as the feature was not previously characterized.

Soil Samples. Each sample from this area was analyzed for TPH-Dx. Select soil samples were also analyzed for dioxins/furans. Only trace concentrations of TPH-Dx were detected. None of the detected concentrations exceed cleanup levels. Dioxins were detected in the shallow interval (~3 to 4 feet deep) at SB-10. Detected concentrations were below background concentrations and cleanup levels.

Groundwater Sample. A groundwater sample was collected from SB-10 and analyzed for TPH-Dx. Concentrations of TPH-Dx were detected in the sample as estimated values, but they were below the MTCA Method A groundwater cleanup level. The TPH-Dx concentrations were significantly reduced to below detection limits after being analyzed with silica gel cleanup.

4.2.7 Current Washdown Area

The Site currently has a vehicle washdown area located at the southwestern portion of the Site. Heavy duty vehicles are frequently washed in this area. The wastewater from the washdown flows to a separator vault nearby. SB-8 was completed at a low point near the outlet to the washdown area to characterize any potential containment/releases originated from the washdown operation.

Soil Samples. Each sample from this area was analyzed for TPH-Dx. TPH-Dx was detected. None of the detected concentrations exceed cleanup levels.

Groundwater Sample. A groundwater sample was collected from SB-8 and analyzed for TPH-Dx. The detected TPH-Dx concentrations exceeded the MTCA Method A groundwater cleanup level by a factor of between 2 and 3. However, the TPH-Dx concentrations were significantly reduced to either below detection limits or below cleanup levels after silica gel cleanup.

4.2.8 Former UST Area

The Site formerly operated a UST system at the northeastern portion of the Site. The USTs were believed to be installed circa 1964 and removed in 1996, without complete documentation to Ecology. No releases or spills associated with these USTs were reported. However, no tank removal documentation was available for review. The boring (SB-13) was completed to characterize the vicinity of the former UST system.

Soil Samples. Each sample from this area was analyzed for TPH-Dx and VOCs. Concentrations of TPH-Dx and VOCs were detected below cleanup levels.

Groundwater Sample. A groundwater sample was collected from SB-13 and analyzed for TPH-Dx and VOCs. VOCs were detected at concentrations below cleanup levels. Concentrations of TPH-Dx were detected in the sample as estimated values, but they were below the MTCA Method A groundwater cleanup level. The TPH-Dx concentrations were significantly reduced after silica gel cleanup.

4.2.9 AST Area

The Site formerly operated ASTs near the northwestern entrance of the Site. This area is redeveloped with secondary containment for current AST storage. The boring (SB-14) was completed to characterize the feature and assess if any potential contamination originated from former AST operation.

Soil Samples. Each sample from this area was analyzed for TPH-Dx. Only trace concentrations of TPH-Dx were detected. None of the detected concentrations exceed cleanup levels.

Groundwater Sample. Groundwater was not encountered at this location; therefore, no groundwater sample was collected (SB-14).

4.3 Drainage Sediment Investigation

Two discrete drainage sediment samples (DR-1 near the tide gate and DR-10 near the waste mixing area) and three composite samples (West Drainage, East Drainage, South Drainage) were collected and analyzed for TPH-Dx, PAHs, PCBs, chlorinated phenols, and metals (sample DR-10 was analyzed for dioxins only). Soil dioxins/furans concentrations were reported in 2,3,7,8 TCDD TEQ. The drainage sediment results are compared to Natural Background Concentrations and Freshwater Sediment Management Standards from WAC 173-204. In Washington, Total 2,3,7,8 dioxin TEQ of 4 pg/g or less in sediment is considered below regional background concentrations.

Concentrations of TPH-Dx, PAHs, PCBs, and metals were not detected, or they were detected below cleanup levels, with one exception. Mercury was detected at a concentration of 6.65 mg/kg, which is minimally above the Washington Sediment Cleanup Objective.

In the east drainage sample, the detected dioxin Total 2,3,7,8 TEQ was 113 pg/g, which is more than 25 times greater than the 4.0 pg/g Washington sediment background concentration. All but one of the remaining samples had TEQs greater than 4 pg/g, ranging from 3.22 to 7.65 pg/g, significantly lower than the east drainage sample. Discrete sample DR-10 was the only sample with a TEQ less than the 4.0 pg/g Washington sediment background concentration.

5.0 Conclusions

TPH-Dx is widely detected at the site. However, based on the analyses completed with and without silica gel cleanup of TPH in groundwater, TPH-Dx concentrations are largely biased high as a result of biogenic compounds present from degrading wood product residuals (chips, sawdust, etc.). The available information indicates that TPH-Dx (diesel and oil range petroleum hydrocarbons) do not represent a risk at the site.

Chlorinated phenols, PCBs, VOCs, and metals, when present in any media, were largely below cleanup levels. Exceptions include:

- PCP was detected in a single shallow groundwater sample at SB-12A (near the former dip tank), but not in adjacent sample SB-11, collected from deeper intervals.
- Mercury within the East Drainage sample.
- Concentrations of arsenic in Terracon borings B-1 and B-2.

The available information indicates that sources of chlorinated phenols, PCBs, VOCs, and metals are not present at the site.

Dioxin concentrations in soil and drainage sediment appear to be the most significant environmental condition at the site. Dioxin results from the 2018 Terracon Phase I ESA and the 2021 Phase II ESA are summarized on Figures 7 and 8.

Soil. In soil, concentrations of dioxins across the facility are largely below background concentrations and cleanup levels. Dioxin concentrations at Terracon sample B5-2.5, near the former fire pond, exceeded the background concentration and detected concentrations from the 2021 Phase II ESA at SS-1 and SS-2 exceed MTCA Method B cleanup levels. SS-3, in this same area, exceeds the background concentration.

Sediment. The east drainage formerly received the majority of the facility stormwater runoff, so it is not unexpected that dioxin concentrations were highest in this location. Sediment remediation was completed in 2003 in the east drainage, indicating the worst material may have already been removed. Dioxins are the primary issue, and mercury concentrations in the East Drainage should also be considered. The other drainage sediment data collected (TPH, PAHs, PCBs, other metals) do not indicate adverse conditions under Washington Sediment Management standards.

5.1 Recommendations

Soil, groundwater, and drainage sediment contain wood waste and residuals that interfere with TPH analysis. Future chemical analysis should continue to use silica gel cleanup for an accurate representation of the TPH that is present.

While concentrations of TPH and VOCs were below cleanup levels at the former UST area, the detected concentrations of petroleum in groundwater are a release from a UST system that is reportable under Washington Administrative Code (WAC) 173-340. Requirements for UST decommissioning in Washington include confirmation sampling and groundwater characterization (when groundwater is impacted). These requirements have not been met and are should be completed in order for the site to be in compliance with UST regulations.

Based on the 2018 Terracon investigation, an arsenic release was reported based on detected concentration of arsenic above MTCA Method A cleanup levels. Sampling completed in this area during this Phase II ESA did not detect arsenic at concentrations above cleanup levels. Soil and groundwater sampling should be completed in order to verify if this was an actual release, or the result of variability in arsenic concentrations.

The single location where PCP was detected in groundwater at the former dip tank (SB-11) does not appear to represent a source of contamination. In a deeper groundwater sample (SB-12) collected within the area of the former dip tank and adjacent to SB-11, PCP was not detected. The data indicate that variability due to turbidity likely bias the sample and PCP was not detected in the deeper groundwater sample at SB-12. Groundwater samples collected in 1998 at the dip tank did not detect PCP. Together, these data suggest a source of PCP is not present at the former dip tank area. Additional sampling at the former dip tank is not recommended at this time.

Concentrations of dioxins near the waste mixing donut are present above background concentrations and samples SS-1 and SS-2 exceed MTCA Method B cleanup levels. Dioxin concentrations in sediment sample DR-10 indicate

that the south drainage may not have been impacted by the detected concentrations of dioxins. The detected concentrations of dioxins near SS-1 and SS-3 require further evaluation, including determining the extent of dioxins in this area and risk assessment.

Concentrations of dioxins in all but one drainage sample exceeded the sediment background concentration. The discrete sample collected from the east drainage (DR-10) is the only drainage sediment sample with detected concentrations below background concentrations. These concentrations require further evaluation. Sediment cleanup levels are not promulgated for dioxins. Remedial decision making is based on ecological risk assessment using site-specific bioassay. Detailed characterization of the drainages to determine the extent of dioxins in the drainages and ecological risk assessment should be completed.

6.0 References

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Minard, J.P., 1985. U.S. Geological Survey Miscellaneous Field Studies Map MF-1743, scale 1:24,000. Geologic map of the Marysville quadrangle, Snohomish County, Washington. 1985.

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Terracon, 2018b. *Limited Site Investigation, Buse Timber & Sales, 3812 28th Place Northeast, Everett, Washington 98201.* September 17, 2018.

URS Consultants, Inc. (URS), 1994. *Screening Site Inspection Report, Buse Timber & Sales, Everett, Washington.* August 19, 1994.

Table 1 - Soil Results: TPH
Buse Timber & Sales
Everett, Washington

Area	Sample Location ID	Depth (feet)	Date	*Total Petroleum Hydrocarbons (TPH) by NWTPH-Dx with Silica Gel Cleanup*	
				Diesel Range Organics	Residual Range Organics
				Concentrations in mg/kg	
MTCA Method A Cleanup Level				2,000	2,000
Vehicle Maintenance	SB-1(0-5)	2-3	07/01/2021	**4.51** J	**38.1**
	SB-1(5-10)	6-7	07/01/2021	**8.79** J	**67.3**
Former Log Pond Fill	SB-2(0-5)	4-5	07/01/2021	<4.80	<12.0
	SB-2(5-10)	8-9	07/01/2021	<5.88	<14.7
	SB-3(0-5)	3-4	07/01/2021	<4.97	<12.4
	SB-3(5-10)	8.5-9.5	07/01/2021	<6.68	**5.61** J
Current Lube Building/Mechanics Shop Area	SB-4(0-5)	3-4	07/01/2021	<4.94	<12.3
	SB-4(5-10)	6-7	07/01/2021	<5.01	<12.5
	SB-5(0-5)	2.5-3.5	07/01/2021	**23.5**	**56.5**
	SB-5(5-10)	6-7	07/01/2021	**10.7**	**58.6**
Hog Fuel Mixing Area	SB-6(0-5)	3-4	07/01/2021	<5.77	**8.72** J
	SB-6(5-10)	8-9	07/01/2021	<7.29	<18.2
Current Dip Tank	SB-7(0-5)	3-4	06/30/2021	<7.05	**6.19** J
	SB-7(5-10)	6-7	06/30/2021	<8.52	<21.3
Current Washdown Area	SB-8(0-5)	2-3	06/30/2021	**38.5**	**92.4**
	SB-8(5-10)	8-9	06/30/2021	<6.28	<15.7
Former Log Pond Fill/Current AST Area	SB-9(0-5)	3-4	07/01/2021	**6.74** J	**28.2**
	SB-9(5-10)	8-9	07/01/2021	**3.83** J	**31.3**
Former Main Plant Drain	SB-10(0-5)	3-4	06/30/2021	<6.09	**5.51** J
	SB-10(5-10)	6.5-7.5	06/30/2021	**5.93** J	**49.9** J
Former PCP Dip Tank	SB-11(0-5)	3-4	06/30/2021	<6.99	<17.5
	SB-11(5-10)	7-8	06/30/2021	<7.75	<19.4
	SB-12(0-5)	3.5-4.5	06/30/2021	**64.6**	**119**
	SB-12(5-10)	8-9	06/30/2021	**6.53** J	**39.7**
Former UST Area	SB-13(0-5)	3-4	06/30/2021	<6.33	**6.10** J
	SB-13(5-10)	6.5-7.5	06/30/2021	**6.06** J	**37.3**
	SB-13(10-15)	13.5-14.5	06/30/2021	<6.27	<15.7
Former AST Area	SB-14(0-5)	3-4	06/30/2021	<5.62	**11.4** J
	SB-14(5-10)	7-8	06/30/2021	**3.29** J	**13.9** J
Waste Mixing Doughnut	SS-1	--	07/01/2021	**13.2**	**175**
	SS-2	--	07/01/2021	**10.0**	**101**
	SS-3	--	07/01/2021	**16.7**	**151**

Notes:

1. mg/kg = Milligrams per kilogram.
2. Bold values indicate the compound was detected above method detection limits.
3. < = Analyte was not detected above the reporting limit shown.
4. Shaded results exceed the Model Toxics Control Act (MTCA) Method A for unrestricted land use.
5. Soil cleanup levels from the MTCA Method A for unrestricted land use chapter 173-340 WAC (February 2021 update).
6. -- = Value not available.
7. J = Result is estimated.

Table 2 - Soil Results: VOCs
Buse Timber & Sales
Everett, Washington

	Vehicle Maintenance	Former Log Pond Fill	Current Lube Building/Mechanics Shop Area			Hog Fuel Mixing Area		Former Log Pond Fill/Current AST Area		Former UST Area	
Sample Location ID:	SB-1(0-5)	SB-2(0-5)	SB-4(0-5)	SB-4(5-10)	SB-5(5-10)	SB-6(0-5)	SB-6(5-10)	SB-9(0-5)	SB-9(5-10)	SB-13(5-10)	MTCA Method A Cleanup Level
Depth (feet):	2-3	4-5	3-4	6-7	6-7	3-4	8-9	3-4	8-9	6.5-7.5	
Date:	07/01/2021	07/01/2021	07/01/2021	07/01/2021	07/01/2021	07/01/2021	07/01/2021	07/01/2021	07/01/2021	06/30/2021	
Volatile Organic Compounds (VOCs) by 8260D in mg/kg											
Acetone	**0.312**	<0.0710	<0.0738	<0.0770	**0.0953**	**0.186**	**0.345**	**0.143**	**0.227**	<0.263	--
Acrylonitrile	<0.0284	<0.0178	<0.0185	<0.0193	<0.0165	<0.0249	<0.0345	<0.0183	<0.0216	<0.0658	--
Benzene	**0.00566**	<0.00142	**0.00107** J	**0.00157**	<0.00132	**0.00128** J	<0.00276	**0.00333**	**0.00216**	<0.00527	0.03
Bromobenzene	<0.0284	<0.0178	<0.0185	<0.0193	<0.0165	<0.0249	<0.0345	<0.0183	<0.0216	<0.0658	--
Bromodichloromethane	<0.00568	<0.00355	<0.00369	<0.00385	<0.00330	<0.00499	<0.00689	<0.00365	<0.00433	<0.0132	--
Bromoform	<0.0568	<0.0355	<0.0369	<0.0385	<0.0330	<0.0499	<0.0689	<0.0365	<0.0433	<0.132	--
Bromomethane	<0.0284	<0.0178	<0.0185	<0.0193	<0.0165	<0.0249	<0.0345	<0.0183	<0.0216	<0.0658	--
n-Butylbenzene	<0.0284	<0.0178	<0.0185	<0.0193	<0.0165	<0.0249	<0.0345	<0.0183	<0.0216	<0.0658 UJ	--
sec-Butylbenzene	<0.0284	<0.0178	<0.0185	<0.0193	<0.0165	<0.0249	<0.0345	<0.0183	<0.0216	<0.0658	--
tert-Butylbenzene	<0.0114	<0.00710	<0.00738	<0.00770	<0.00659	<0.00997	<0.0138	<0.00730	<0.00866	<0.0263	--
Carbon Tetrachloride	<0.0114	<0.00710	<0.00738	<0.00770	<0.00659	<0.00997	<0.0138	<0.00730	<0.00866	<0.0263	--
Chlorobenzene	<0.00568	<0.00355	<0.00369	<0.00385	<0.00330	<0.00499	<0.00689	<0.00365	<0.00433	<0.0132	--
Chlorodibromomethane	<0.00568	<0.00355	<0.00369	<0.00385	<0.00330	<0.00499	<0.00689	<0.00365	<0.00433	<0.0132	--
Chloroethane	<0.0114	<0.00710	<0.00738	<0.00770	<0.00659	<0.00997	<0.0138	<0.00730	<0.00866	<0.0263	--
Chloroform	<0.00568	<0.00355	<0.00369	<0.00385	<0.00330	<0.00499	<0.00689	<0.00365	<0.00433	<0.0132	--
Chloromethane	<0.0284	<0.0178	<0.0185	<0.0193	<0.0165	<0.0249	<0.0345	<0.0183	<0.0216	<0.0658	--
2-Chlorotoluene	<0.00568	<0.00355	<0.00369	<0.00385	<0.00330	<0.00499	<0.00689	<0.00365	<0.00433	<0.0132	--
4-Chlorotoluene	<0.0114	<0.00710	<0.00738	<0.00770	<0.00659	<0.00997	<0.0138	<0.00730	<0.00866	<0.0263	--
1,2-Dibromo-3-Chloropropane	<0.0568	<0.0355	<0.0369	<0.0385	<0.0330	<0.0499	<0.0689	<0.0365	<0.0433	<0.132	--
1,2-Dibromoethane	<0.00568	<0.00355	<0.00369	<0.00385	<0.00330	<0.00499	<0.00689	<0.00365	<0.00433	<0.0132	0.01
Dibromomethane	<0.0114	<0.00710	<0.00738	<0.00770	<0.00659	<0.00997	<0.0138	<0.00730	<0.00866	<0.0263	--
1,2-Dichlorobenzene	<0.0114	<0.00710	<0.00738	<0.00770	<0.00659	<0.00997	<0.0138	<0.00730	<0.00866	<0.0263	--
1,3-Dichlorobenzene	<0.0114	<0.00710	<0.00738	<0.00770	<0.00659	<0.00997	<0.0138	<0.00730	<0.00866	<0.0263	--
1,4-Dichlorobenzene	<0.0114	<0.00710	<0.00738	<0.00770	<0.00659	<0.00997	<0.0138	<0.00730	<0.00866	<0.0263	--
Dichlorodifluoromethane	<0.00568	<0.00355	<0.00369	<0.00385	<0.00330	<0.00499	<0.00689	<0.00365	<0.00433	<0.0132	--
1,1-Dichloroethane	<0.00568	<0.00355	<0.00369	<0.00385	<0.00330	<0.00499	<0.00689	<0.00365	<0.00433	<0.0132	--
1,2-Dichloroethane	<0.00568	<0.00355	<0.00369	<0.00385	<0.00330	<0.00499	<0.00689	<0.00365	<0.00433	<0.0132	--
1,1-Dichloroethene	<0.00568	<0.00355	<0.00369	<0.00385	<0.00330	<0.00499	<0.00689	<0.00365	<0.00433	<0.0132	--
cis-1,2-Dichloroethene	<0.00568	<0.00355	<0.00369	<0.00385	<0.00330	<0.00499	<0.00689	<0.00365	<0.00433	<0.0132	--
trans-1,2-Dichloroethene	<0.0114	<0.00710	<0.00738	<0.00770	<0.00659	<0.00997	<0.0138	<0.00730	<0.00866	<0.0263	--
1,2-Dichloropropane	<0.0114	<0.00710	<0.00738	<0.00770	<0.00659	<0.00997	<0.0138	<0.00730	<0.00866	<0.0263	--
1,1-Dichloropropene	<0.00568	<0.00355	<0.00369	<0.00385	<0.00330	<0.00499	<0.00689	<0.00365	<0.00433	<0.0132	--
1,3-Dichloropropane	<0.0114	<0.00710	<0.00738	<0.00770	<0.00659	<0.00997	<0.0138	<0.00730	<0.00866	<0.0263	--
cis-1,3-Dichloropropene	<0.00568	<0.00355	<0.00369	<0.00385	<0.00330	<0.00499	<0.00689	<0.00365	<0.00433	<0.0132	--
trans-1,3-Dichloropropene	<0.0114	<0.00710	<0.00738	<0.00770	<0.00659	<0.00997	<0.0138	<0.00730	<0.00866	<0.0263	--
2,2-Dichloropropane	<0.00568	<0.00355	<0.00369	<0.00385	<0.00330	<0.00499	<0.00689	<0.00365	<0.00433	<0.0132	--
di-Isopropyl Ether	<0.00227	<0.00142	<0.00148	<0.00154	<0.00132	<0.00199	<0.00276	<0.00146	<0.00173	<0.00527	--
Ethylbenzene	<0.00568	<0.00355	<0.00369	<0.00385	<0.00330	<0.00499	<0.00689	**0.0291**	<0.00433	<0.0132	6
Hexachloro-1,3-Butadiene	<0.0568	<0.0355	<0.0369	<0.0385	<0.0330	<0.0499	<0.0689	<0.0365	<0.0433	<0.132 UJ	--
Isopropylbenzene	<0.00568	<0.00355	<0.00369	<0.00385	<0.00330	<0.00499	<0.00689	**0.0024** J	<0.00433	<0.0132	--
p-Isopropyltoluene	<0.0114	**0.00721**	<0.00738	**0.00644** J	**0.0393**	<0.00997	<0.0138	**0.0849**	**0.00717** J	<0.0263	--
2-Butanone (MEK)	**0.387** J+	**0.158** J+	<0.148	**0.202** J+	**0.179** J+	**0.249** J+	**0.447** J+	**0.209** J+	**0.270** J+	**0.374** J+	--
Methylene Chloride	<0.0568	<0.0355	<0.0369	<0.0385	<0.0330	<0.0499	<0.0689	<0.0365	<0.0433	<0.132	0.02
4-Methyl-2-Pentanone (MIBK)	<0.0568	<0.0355	<0.0369	<0.0385	<0.0330	<0.0499	<0.0689	<0.0365	<0.0433	<0.132	--
Methyl tert-Butyl Ether	<0.00227	<0.00142	<0.00148	<0.00154	<0.00132	<0.00199	<0.00276	<0.00146	<0.00173	<0.00527	0.1
Naphthalene	<0.0284	<0.0178	<0.0185	<0.0193	<0.0165	<0.0249	<0.0345	<0.0183	<0.0216	<0.0658	5
n-Propylbenzene	<0.0114	<0.00710	**0.00226** J	**0.00305** J	<0.00659	<0.00997	<0.0138	<0.00730	<0.00866	<0.0263	--
Styrene	<0.0284	<0.0178	<0.0185	<0.0193	<0.0165	<0.0249	<0.0345	<0.0183	<0.0216	<0.0658	--
1,1,1,2-Tetrachloroethane	<0.00568	<0.00355	<0.00369	<0.00385	<0.00330	<0.00499	<0.00689	<0.00365	<0.00433	<0.0132	--
1,1,2,2-Tetrachloroethane	<0.00568	<0.00355	<0.00369	<0.00385	<0.00330	<0.00499	<0.00689	<0.00365	<0.00433	<0.0132	--
1,1,2-Trichlorotrifluoroethane	<0.00568	<0.00355	<0.00369	<0.00385	<0.00330	<0.00499	<0.00689	<0.00365	<0.00433	<0.0132	--
Tetrachloroethene	<0.00568	<0.00355	<0.00369	<0.00385	<0.00330	<0.00499	<0.00689	<0.00365	<0.00433	<0.0132	0.1
Toluene	**0.0157**	**0.00757**	**0.00673** J	**0.0411**	**0.0202**	**0.0477**	**0.00783** J	**0.0447**	**0.0249**	<0.0263	7
1,2,3-Trichlorobenzene	<0.0284	<0.0178	<0.0185	<0.0193	<0.0165	<0.0249	<0.0345	<0.0183	<0.0216	<0.0658 UJ	--
1,2,4-Trichlorobenzene	<0.0284	<0.0178	<0.0185	<0.0193	<0.0165	<0.0249	<0.0345	<0.0183	<0.0216	<0.0658 UJ	--
1,1,1-Trichloroethane	<0.00568	<0.00355	<0.00369	<0.00385	<0.00330	<0.00499	<0.00689	<0.00365	<0.00433	<0.0132	2
1,1,2-Trichloroethane	<0.00568	<0.00355	<0.00369	<0.00385	<0.00330	<0.00499	<0.00689	<0.00365	<0.00433	<0.0132	--
Trichloroethene	<0.00227	<0.00142	<0.00148	<0.00154	<0.00132	<0.00199	<0.00276	<0.00146	<0.00173	<0.00527	0.03
Trichlorofluoromethane	<0.00568	<0.00355	<0.00369	<0.00385	<0.00330	<0.00499	<0.00689	<0.00365	<0.00433	<0.0132	--
1,2,3-Trichloropropane	<0.0284	<0.0178	<0.0185	<0.0193	<0.0165	<0.0249	<0.0345	<0.0183	<0.0216	<0.0658	--
1,2,4-Trimethylbenzene	<0.0114	<0.00710	<0.00738	**0.0166**	**0.00405** J	<0.00997	<0.0138	**0.00387** J	<0.00866	<0.0263	--
1,2,3-Trimethylbenzene	**0.0038** J	<0.00710	<0.00738	**0.00314** J	<0.00659	<0.00997	**0.00516** J	<0.00730	**0.00327** J	<0.0263	--
1,3,5-Trimethylbenzene	<0.0114	<0.00710	<0.00738	**0.00339** J	<0.00659	<0.00997	<0.0138	<0.00730	<0.00866	<0.0263	--
Vinyl Chloride	<0.00568	<0.00355	<0.00369	<0.00385	<0.00330	<0.00499	<0.00689	<0.00365	<0.00433	<0.0132	--
Xylenes, Total	<0.0148	<0.00923	**0.00638** J	**0.0345**	**0.00510** J	**0.00299** J	<0.0179	<0.00949	**0.00279** J	<0.0342	9

Notes:

1. mg/kg = Milligrams per kilogram.
2. Bold values indicate the compound was detected above method detection limits.
3. < = Analyte was not detected above the reporting limit shown.
4. Shaded results exceed the Model Toxics Control Act (MTCA) Method A for unrestricted land use.
5. Soil cleanup levels from the MTCA Method A for unrestricted land use chapter 173-340 WAC (February 2021 update).
6. -- = Value not available.
7. J = Result is estimated.
8. UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
9. J+ = Result is estimated and may be biased high.

Table 3 - Soil Results: Chlorinated Phenols and Metals
Buse Timber & Sales
Everett, Washington

	Vehicle Maintenance	Former Log Pond Fill		Current Dip Tank		Former Log Pond Fill/Current AST Area	Former PCP Dip Tank						Waste Mixing Doughnut				
Sample Location ID:	SB-1(0-5)	SB-2(0-5)	SB-3(5-10)	SB-7(0-5)	SB-7(5-10)	SB-9(5-10)	SB-11(0-5)	SB-11(5-10)	SB-12(0-5)	SB-12(5-10)	SB-12A(0-5)	SB-12A(5-10)	SS-1	SS-2	SS-3	Puget Sound Background Metals Concentration	MTCA Method A Cleanup Level
Depth (feet):	2-3	4-5	8.5-9.5	3-4	6-7	8-9	3-4	7-8	3.5-4.5	8-9	3.5-4.5	8-9	--	--	--		
Date:	07/01/2021	07/01/2021	07/01/2021	06/30/2021	06/30/2021	07/01/2021	06/30/2021	06/30/2021	06/30/2021	06/30/2021	07/01/2021	07/01/2021	07/01/2021	07/01/2021	07/01/2021		
Chlorinated Phenols by EPA Method 8270E in mg/kg																	
4-Chloro-3-Methylphenol	<1.08	<0.399	<1.11	<0.587	<0.709	<0.445	<0.582	<0.645	<0.588	<0.675	<1.41	<0.670	<1.31	<0.690	<1.17	--	--
2-Chlorophenol	<1.08	<0.399	<1.11	<0.587	<0.709	<0.445	<0.582	<0.645	<0.588	<0.675	<1.41	<0.670	<1.31	<0.690	<1.17	--	--
2,4-Dichlorophenol	<1.08	<0.399	<1.11	<0.587	<0.709	<0.445	<0.582	<0.645	<0.588	<0.675	<1.41	<0.670	<1.31	<0.690	<1.17	--	--
Pentachlorophenol	<1.08	<0.399	<1.11	<0.587	<0.709	<0.445	<0.582	<0.645	<0.588	<0.675	<1.41	<0.670	<1.31	<0.690	<1.17	--	--
2,4,6-Trichlorophenol	<1.08	<0.399	<1.11	<0.587	<0.709	<0.445	<0.582	<0.645	<0.588	<0.675	<1.41	<0.670	<1.31	<0.690	<1.17	--	--
2,4,5-Trichlorophenol	<1.08	<0.399	<1.11	<0.587	<0.709	<0.445	<0.582	<0.645	<0.588	<0.675	<1.41	<0.670	<1.31	<0.690	<1.17	--	--
Metals by EPA Method 6020B and 7471B in mg/kg																	
Arsenic	**18.4**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7	20
Barium	**51.4**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	<1.62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	2
Chromium	**66.7**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	48	2000
Lead	**10.4**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	24	250
Selenium	**0.809** J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	<0.808	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	**0.0765**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.07	2

Notes:

1. mg/kg = Milligrams per kilogram.
2. pg/g = Picograms per gram.
3. Bold values indicate the compound was detected above method detection limits.
4. < = Analyte was not detected above the reporting limit shown.
5. Shaded results exceed the Model Toxics Control Act (MTCA) Method A for unrestricted land use.
6. Soil cleanup levels from the MTCA Method A for unrestricted land use chapter 173-340 WAC (February 2021 update).
7. -- = Value not available.
8. J = Result is estimated.

Table 4 - Soil Results: Dioxins/Furans
Buse Timber & Sales
Everett, Washington

	Former Log Pond Fill		Current Lube Building/Mechanics Shop Area		Former Main Plant Drain	Former PCP Dip Tank		Waste Mixing Doughnut				
Sample Location ID:	SB-2(0-5)	SB-3(5-10)	SB-4(0-5)	SB-5(0-5)	SB-10(0-5)	SB-11(0-5)	SB-12(0-5)	SS-1	SS-2	SS-3	Natural Background Dioxins/Furans	MTCA Method B Cleanup Level
Depth (feet):	4-5	8.5-9.5	3-4	2.5-3.5	3-4	3-4	3.5-4.5	--	--	--		
Date:	07/01/2021	07/01/2021	07/01/2021	07/01/2021	06/30/2021	06/30/2021	06/30/2021	07/01/2021	07/01/2021	07/01/2021		
Dioxins/Furans by EPA Method 8290A in pg/g												
2,3,7,8-TCDD	<0.12	<0.11	<0.12	<0.10	<0.13	**0.13** J	<0.12	**0.151** J	<0.12	**0.093** J	--	--
1,2,3,7,8-PeCDD	<0.12	<0.12	<0.10	**0.33** J	<0.13	**0.38** J	**0.3** J	**2.25** J	**2.26** J	**1.28** J	--	--
1,2,3,4,7,8-HxCDD	<0.11	<0.14	<0.13	**0.28** J	**0.14** J	**0.28** J	**0.29** J	**2.70** J	**3.45** J	**1.25** J	--	--
1,2,3,6,7,8-HxCDD	**0.618** J	**0.14** J	**0.12** J	**1.28** J	<0.17	**4.53** J	**0.46** J	**30.2**	**34.7**	**14.5**	--	--
1,2,3,7,8,9-HxCDD	**0.352** J	**0.23** J	<0.11	**0.59** J	**0.29** J	**0.72** J	**0.42** J	**9.09**	**6.21**	**4.12** J	--	--
1,2,3,4,6,7,8-HpCDD	**3.82** J	**2.79** J	**1.56** J	**8.58**	**5.48**	**35.7**	**5.49**	**217**	**335**	**106**	--	--
OCDD	**16.7**	**34.7**	**14.3**	**62.1**	**176**	**121**	**48.1**	**1140**	**1370**	**441**	--	--
2,3,7,8-TCDF	**0.27** J	<0.11	**0.17** J	**0.61** J	<0.29	**1.96** J	**1.91** J	**1.34** J	**2.72**	**1.25** J	--	--
1,2,3,7,8-PeCDF	<0.13	<0.12	<0.12	**0.25** J	<0.13	**0.52** J	**0.43** J	**0.929** J	**4.78** J	**1.57** J	--	--
2,3,4,7,8-PeCDF	<0.12	<0.11	<0.11	**0.46** J	**0.13** J	**0.72** J	**0.74** J	**1.09** J	**4.3** J	**1.39** J	--	--
1,2,3,4,7,8-HxCDF	**0.12** J	<0.11	<0.12	**0.31** J	<0.11	**0.75** J	**0.37** J	**3.89** J	**19.1**	<5.7 UK	--	--
1,2,3,6,7,8-HxCDF	<0.092	<0.094	<0.11	**0.33** J	<0.10	**0.67** J	**0.3** J	**4.89** J	**9.95**	**3.86** J	--	--
2,3,4,6,7,8-HxCDF	<0.096	<0.099	<0.11	**0.45** J	<0.10	**0.747** J	**0.32** J	<3.8 UK	**5.98**	<2.3 UK	--	--
1,2,3,7,8,9-HxCDF	<0.11	<0.11	<0.13	**0.19** J	<0.12	<0.11	<0.14	**0.141** J	**1.33** J	**0.44** J	--	--
1,2,3,4,6,7,8-HpCDF	**2.33** J	**0.124** J	**0.32** J	**3.07** J	**0.997** J	**35.4**	**1.14** J	**106**	**248**	**64.5**	--	--
1,2,3,4,7,8,9-HpCDF	<0.12	<0.12	<0.13	**0.27** J	**0.16** J	**0.81** J	**0.12** J	**3.92** J	**10.3**	**2.63** J	--	--
OCDF	**1.89** J	**0.14** J	**0.98** J	**3.81** J	**72.2**	**32.3**	**2.63** J	**123**	**197**	**49.8**	--	--
Total HxCDD	**3.63** J	**1.93** J	**0.61** J	**5.79**	**2.61** J	**20.5**	**4.17** J	**188**	**131**	**85.2**	--	160
Total TEQ (ND = 1/2 DL)	**0.364**	**0.244**	**0.217**	**1.07**	**0.399**	**2.48**	**1.09**	**11.8**	**18.5**	**6.66**	5.2	13

Notes:

1. pg/g = Picograms per gram.
2. Bold values indicate the compound was detected above method detection limits.
3. < = Analyte was not detected above the detection limit shown.
4. Shaded results exceed the Model Toxics Control Act (MTCA) Method B Cancer soil cleanup level and the natural background concentration for dioxins/furans.
5. Soil cleanup levels from the MTCA Method B Cancer 173-340 WAC (February 2021 update).
6. Natural background concentration for dioxins/furans from Washington Ecology's technical memorandum *Natural Background for Dioxins/Furans in WA Soil* (August 2010).
7. -- = Value not available.
8. J = Result is estimated.
9. UK = Estimated maximum possible concentration (EMPC). Diphenylether interference present caused dibenzofuran detected to become a "non-detect" with an elevated detection limit.

Table 5 - Groundwater Results
Buse Timber & Sales
Everett, Washington

	Vehicle Maintenance	Former Log Pond Fill		Current Lube Building/Mechanics Shop Area		Hog Fuel Mixing Area	Current Dip Tank	Current Washdown Area	Former Log Pond Fill/Current AST Area	Former Main Plant Drain	Former PCP Dip Tank		Former UST Area	
Sample Location ID:	SB-1W	SB-2W	SB-3W	SB-4W	SB-5W	SB-6W	SB-7W	SB-8W	SB-9W	SB-10W	SB-11W	SB-12A-W	SB-13W	MTCA Method A Cleanup Level
Depth (feet):	15.2	12.7	12.3	6.8	6.4	11.7	9.7	2.9	21.3	16.5	6.8	22	23.5	
Date:	07/01/2021	07/01/2021	07/01/2021	07/01/2021	07/01/2021	07/01/2021	06/30/2021	07/01/2021	07/01/2021	07/01/2021	06/30/2021	07/01/2021	06/30/2021	
Total Petroleum Hydrocarbons (TPH) by NWTPH-Dx in µg/L														
Diesel Range Organics	**208**	**1110**	**541**	**983**	**1450**	**860** J-	**2840** J+	**1060**	**76.6** J	**125** J	**1460**	**152** J	**122** J	500
Residual Range Organics	**246** J	**1450**	**884**	**1250**	**1620**	**673** J-	**2350**	**1440**	<250	**248** J	**1740**	**222** J	<250	500
Total Petroleum Hydrocarbons (TPH) by NWTPH-Dx with Silica Gel Cleanup in µg/L														
Diesel Range Organics	<200	**163** J	**288**	**195** J	**127** J	**92.5** J-	**140** J	**91.8** J	<200	<200	**196** J	<200	<200	500
Residual Range Organics	<250	<250	**148** J	**109** J	<250	<250 UJ	<250	<250	<250	<250	**165** J	<250	<250	500
Chlorinated Phenols by EPA Method 8270E in µg/L														
4-Chloro-3-Methylphenol	<10.0	<10.0	<10.0	--	--	--	<10.0 UJ	--	<10.0	--	<10.0 UJ	<10.0	--	--
2-Chlorophenol	<10.0	<10.0	<10.0	--	--	--	<10.0 UJ	--	<10.0	--	<10.0 UJ	<10.0	--	--
2,4-Dichlorophenol	<10.0	<10.0	<10.0	--	--	--	<10.0 UJ	--	<10.0	--	<10.0 UJ	<10.0	--	--
Pentachlorophenol	<10.0	<10.0	<10.0	--	--	--	<10.0 UJ	--	<10.0	--	**58.4** J	<10.0	--	--
2,4,6-Trichlorophenol	<10.0	<10.0	<10.0	--	--	--	<10.0 UJ	--	<10.0	--	**0.869** J	<10.0	--	--
2,4,5-Trichlorophenol	<10.0	<10.0	<10.0	--	--	--	<10.0 UJ	--	<10.0	--	**2.87** J	<10.0	--	--
Volatile Organic Compounds (VOCs) by 8260D in µg/L														
Acetone	<1.00 UJ	--	--	--	--	--	--	--	--	--	--	--	**3.53** J-	--
Acrylonitrile	<0.500	--	--	--	--	--	--	--	--	--	--	--	<0.500	--
Benzene	<0.0400	--	--	--	--	--	--	--	--	--	--	--	**0.05**	5
Bromobenzene	<0.500	--	--	--	--	--	--	--	--	--	--	--	<0.500	--
Bromodichloromethane	<0.100	--	--	--	--	--	--	--	--	--	--	--	<0.100	--
Bromoform	<1.00	--	--	--	--	--	--	--	--	--	--	--	<1.00	--
Bromomethane	<0.500	--	--	--	--	--	--	--	--	--	--	--	<0.500	--
n-Butylbenzene	<0.500	--	--	--	--	--	--	--	--	--	--	--	<0.500	--
sec-Butylbenzene	<0.500	--	--	--	--	--	--	--	--	--	--	--	**0.231** J	--
tert-Butylbenzene	<0.200	--	--	--	--	--	--	--	--	--	--	--	<0.200	--
Carbon Tetrachloride	<0.200	--	--	--	--	--	--	--	--	--	--	--	<0.200	--
Chlorobenzene	<0.100	--	--	--	--	--	--	--	--	--	--	--	<0.100	--
Chlorodibromomethane	<0.100	--	--	--	--	--	--	--	--	--	--	--	<0.100	--
Chloroethane	<0.200	--	--	--	--	--	--	--	--	--	--	--	<0.200	--
Chloroform	<0.100	--	--	--	--	--	--	--	--	--	--	--	<0.100	--
Chloromethane	<0.500	--	--	--	--	--	--	--	--	--	--	--	<0.500	--
2-Chlorotoluene	<0.100	--	--	--	--	--	--	--	--	--	--	--	<0.100	--
4-Chlorotoluene	<0.200	--	--	--	--	--	--	--	--	--	--	--	<0.200	--
1,2-Dibromo-3-Chloropropane	<1.00	--	--	--	--	--	--	--	--	--	--	--	<1.00	--
1,2-Dibromoethane	<0.100	--	--	--	--	--	--	--	--	--	--	--	<0.100	0.01
Dibromomethane	<0.200	--	--	--	--	--	--	--	--	--	--	--	<0.200	--
1,2-Dichlorobenzene	<0.200	--	--	--	--	--	--	--	--	--	--	--	<0.200	--
1,3-Dichlorobenzene	<0.200	--	--	--	--	--	--	--	--	--	--	--	<0.200	--
1,4-Dichlorobenzene	<0.200	--	--	--	--	--	--	--	--	--	--	--	<0.200	--
Dichlorodifluoromethane	<0.100	--	--	--	--	--	--	--	--	--	--	--	<0.100	--
1,1-Dichloroethane	<0.100	--	--	--	--	--	--	--	--	--	--	--	<0.100	--
1,2-Dichloroethane	<0.100	--	--	--	--	--	--	--	--	--	--	--	<0.100	5
1,1-Dichloroethene	<0.100	--	--	--	--	--	--	--	--	--	--	--	<0.100	--
cis-1,2-Dichloroethene	<0.100	--	--	--	--	--	--	--	--	--	--	--	<0.100	--
trans-1,2-Dichloroethene	<0.200	--	--	--	--	--	--	--	--	--	--	--	<0.200	--
1,2-Dichloropropane	<0.200	--	--	--	--	--	--	--	--	--	--	--	<0.200	--
1,1-Dichloropropene	<0.100	--	--	--	--	--	--	--	--	--	--	--	<0.100	--
1,3-Dichloropropane	<0.200	--	--	--	--	--	--	--	--	--	--	--	<0.200	--
cis-1,3-Dichloropropene	<0.100	--	--	--	--	--	--	--	--	--	--	--	<0.100	--
trans-1,3-Dichloropropene	<0.200	--	--	--	--	--	--	--	--	--	--	--	<0.200	--
2,2-Dichloropropane	<0.100	--	--	--	--	--	--	--	--	--	--	--	<0.100	--
di-Isopropyl Ether	<0.0400	--	--	--	--	--	--	--	--	--	--	--	<0.0400	--
Ethylbenzene	<0.100	--	--	--	--	--	--	--	--	--	--	--	<0.100	700
Hexachloro-1,3-Butadiene	<1.00	--	--	--	--	--	--	--	--	--	--	--	<1.00	--
Isopropylbenzene	<0.100	--	--	--	--	--	--	--	--	--	--	--	**0.544**	--
p-Isopropyltoluene	<0.200	--	--	--	--	--	--	--	--	--	--	--	**0.193** J	--
2-Butanone (MEK)	<1.00	--	--	--	--	--	--	--	--	--	--	--	<1.00	--
Methylene Chloride	<1.00	--	--	--	--	--	--	--	--	--	--	--	<1.00	5
4-Methyl-2-Pentanone (MIBK)	<1.00	--	--	--	--	--	--	--	--	--	--	--	<1.00	--
Methyl tert-Butyl Ether	<0.0400	--	--	--	--	--	--	--	--	--	--	--	<0.0400	20
Naphthalene	<0.500	--	--	--	--	--	--	--	--	--	--	--	**1.94**	160
n-Propylbenzene	<0.200	--	--	--	--	--	--	--	--	--	--	--	**0.766**	--
Styrene	<0.500	--	--	--	--	--	--	--	--	--	--	--	<0.500	--
1,1,1,2-Tetrachloroethane	<0.100	--	--	--	--	--	--	--	--	--	--	--	<0.100	--
1,1,2,2-Tetrachloroethane	<0.100	--	--	--	--	--	--	--	--	--	--	--	<0.100	--
1,1,2-Trichlorotrifluoroethane	<0.100	--	--	--	--	--	--	--	--	--	--	--	<0.100	--
Tetrachloroethene	<0.100	--	--	--	--	--	--	--	--	--	--	--	<0.100	5
Toluene	<0.200	--	--	--	--	--	--	--	--	--	--	--	**0.204**	1,000
1,2,3-Trichlorobenzene	<0.500	--	--	--	--	--	--	--	--	--	--	--	<0.500	--
1,2,4-Trichlorobenzene	<0.500	--	--	--	--	--	--	--	--	--	--	--	<0.500	--
1,1,1-Trichloroethane	<0.100	--	--	--	--	--	--	--	--	--	--	--	<0.100	200
1,1,2-Trichloroethane	<0.100	--	--	--	--	--	--	--	--	--	--	--	<0.100	--
Trichloroethene	<0.0400	--	--	--	--	--	--	--	--	--	--	--	<0.0400	5
Trichlorofluoromethane	<0.100	--	--	--	--	--	--	--	--	--	--	--	<0.100	--
1,2,3-Trichloropropane	<0.500	--	--	--	--	--	--	--	--	--	--	--	<0.500	--
1,2,4-Trimethylbenzene	<0.200	--	--	--	--	--	--	--	--	--	--	--	<0.200	--
1,2,3-Trimethylbenzene	<0.200	--	--	--	--	--	--	--	--	--	--	--	**0.942**	--
1,3,5-Trimethylbenzene	<0.200	--	--	--	--	--	--	--	--	--	--	--	**0.844**	--
Vinyl Chloride	<0.100	--	--	--	--	--	--	--	--	--	--	--	<0.100	0.2
Xylenes, Total	<0.260	--	--	--	--	--	--	--	--	--	--	--	**0.204** J	1,000
Bromochloromethane	<0.200	--	--	--	--	--	--	--	--	--	--	--	<0.200	--
Carbon Disulfide	<0.500	--	--	--	--	--	--	--	--	--	--	--	**0.587**	--
trans-1,4-Dichloro-2-Butene	<0.200	--	--	--	--	--	--	--	--	--	--	--	<0.200	--
2-Hexanone	<1.00	--	--	--	--	--	--	--	--	--	--	--	<1.00	--
n-Hexane	<0.200	--	--	--	--	--	--	--	--	--	--	--	**0.148** J	--
Iodomethane	<0.500	--	--	--	--	--	--	--	--	--	--	--	<0.500	--
Vinyl Acetate	<0.500	--	--	--	--	--	--	--	--	--	--	--	<0.500	--

Notes:

1. µg/L = Micrograms per liter.
2. Bold values indicate the compound was detected above method detection limits.
3. < = Analyte was not detected above the reporting limit shown.
4. Shaded results exceed the Model Toxics Control Act (MTCA) Method A cleanup level for groundwater.
5. Groundwater cleanup levels from the MTCA Method A chapter 173-340 WAC (February 2021 update).
6. -- = Value not available.
7. J = Result is estimated.
8. J+ = Result is estimated and may be biased high.
9. J- = Result is estimated and may be biased low.
10. UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Table 6 - Sediment Results: TPH, PAHs, PCBs, Chlorinated Phenols, and Metals
Buse Timber & Sales
Everett, Washington

	Tide Gate						
Sample Location ID:	DR-1	WEST DRAINAGE	EAST DRAINAGE	SOUTH DRAINAGE	Puget Sound Natural Background Concentrations	Freshwater Sediment Management Standards (Benthic)	
Date:	07/02/2021	07/02/2021	07/02/2021	07/02/2021		Sediment Cleanup Objective	Cleanup Screening Level
Total Petroleum Hydrocarbons (TPH) by NWTPH-Dx in mg/kg							
Diesel Range Organics	**269**	<507	**454**	**12.9** J	--	340	510
Residual Range Organics	**1460**	<1270	**2410**	**26.3** J	--	3,600	4,400
Total Petroleum Hydrocarbons (TPH) by NWTPH-Dx with Silica Gel Cleanup in mg/kg							
Diesel Range Organics	**106** J	<507	**305**	<14.5	--	340	510
Residual Range Organics	**659**	<1270	**1730**	**13.3** J	--	3,600	4,400
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270E-SIM in mg/kg							
Anthracene	<0.344	<0.793	<0.557	<0.349	--	--	--
Acenaphthene	<0.344	<0.793	<0.557	<0.349	--	--	--
Acenaphthylene	<0.344	<0.793	<0.557	<0.349	--	--	--
Benzo(a)anthracene	<0.344	<0.793	<0.557	<0.349	--	--	--
Benzo(a)pyrene	<0.344	<0.793	<0.557	<0.349	--	--	--
Benzo(b)fluoranthene	<0.344	<0.793	**0.164** J	<0.349	--	--	--
Benzo(g,h,i)perylene	<0.344	<0.793	**0.308** J	<0.349	--	--	--
Benzo(k)fluoranthene	<0.344	<0.793	<0.557	<0.349	--	--	--
Chrysene	<0.344	<0.793	<0.557	<0.349	--	--	--
Dibenz(a,h)anthracene	<0.344	<0.793	<0.557	<0.349	--	--	--
Fluoranthene	<0.344	<0.793	**0.259** J	<0.349	--	--	--
Fluorene	<0.344	<0.793	<0.557	<0.349	--	--	--
Indeno(1,2,3-cd)pyrene	<0.344	<0.793	<0.557	<0.349	--	--	--
Naphthalene	<1.15	<2.64	<1.86	<1.16	--	--	--
Phenanthrene	<0.344	<0.793	**0.31** J	<0.349	--	--	--
Pyrene	<0.344	<0.793	**0.637**	<0.349	--	--	--
1-Methylnaphthalene	<1.15	<2.64	<1.86	<1.16	--	--	--
2-Methylnaphthalene	<1.15	<2.64	<1.86	<1.16	--	--	--
2-Chloronaphthalene	<1.15	<2.64	<1.86	<1.16	--	--	--
Total PAHs	<1.15	<2.64	**1.68**	<1.16	--	17	30
Polychlorinated Biphenyls (PCBs) by EPA Method 8082A in mg/kg							
PCB 1016	<0.128	<0.301	<3.22	<1.90	--	--	--
PCB 1221	<0.128	<0.301	<3.22	<1.90	--	--	--
PCB 1232	<0.128	<0.301	<3.22	<1.90	--	--	--
PCB 1242	<0.128	<0.301	<3.22	<1.90	--	--	--
PCB 1248	<0.0644	<0.151	<1.61	<0.954	--	--	--
PCB 1254	<0.0644	<0.151	<1.61	<0.954	--	--	--
PCB 1260	<0.0644	<0.151	<1.61	<0.954	--	--	--
Total PCBs	<0.128	<0.301	<3.22	<1.90	--	0.11	2.5
Chlorinated Phenols by EPA Method 8270E in mg/kg							
4-Chloro-3-Methylphenol	<34.4	<44.3	<60.3	<37.9	--	--	--
2-Chlorophenol	<34.4	<44.3	<60.3	<37.9	--	--	--
2,4-Dichlorophenol	<34.4	<44.3	<60.3	<37.9	--	--	--
Pentachlorophenol	<34.4	<44.3	<60.3	<37.9	--	1.2	>1.2
2,4,6-Trichlorophenol	<34.4	<44.3	<60.3	<37.9	--	--	--
2,4,5-Trichlorophenol	<34.4	<44.3	<60.3	<37.9	--	--	--
Metals by EPA Method 6020B and 7471B in mg/kg							
Arsenic	**16.0**	**24.2** J+	**19.3**	**15.7**	11	14	120
Barium	**114**	**277**	**81.2**	**148**	--	--	--
Cadmium	<3.75	<8.87	**1.43** J	**0.345** J	0.8	2.1	5.4
Chromium	**60.5**	**37.4** J	**54.7**	**66.2**	62	72	88
Copper	**50.3**	**89.1**	**90.3**	**54.0**	45	400	1200
Lead	**12.0**	**13.8** J+	**30.9**	**20.9**	21	360	>1300
Nickel	**48.7**	**41.7**	**63.1**	**52.3**	50	26	110
Selenium	<9.36	<22.2	<16.6	**0.88** J	--	11	>20
Silver	<1.87	<4.43	<3.32	<1.81	0.24	0.57	1.7
Zinc	**124**	**156** J	**702**	**134**	93	3200	>4200
Mercury	**0.110** J	**0.170** J	**0.665**	**0.130** J	0.2	0.66	0.8

Notes:

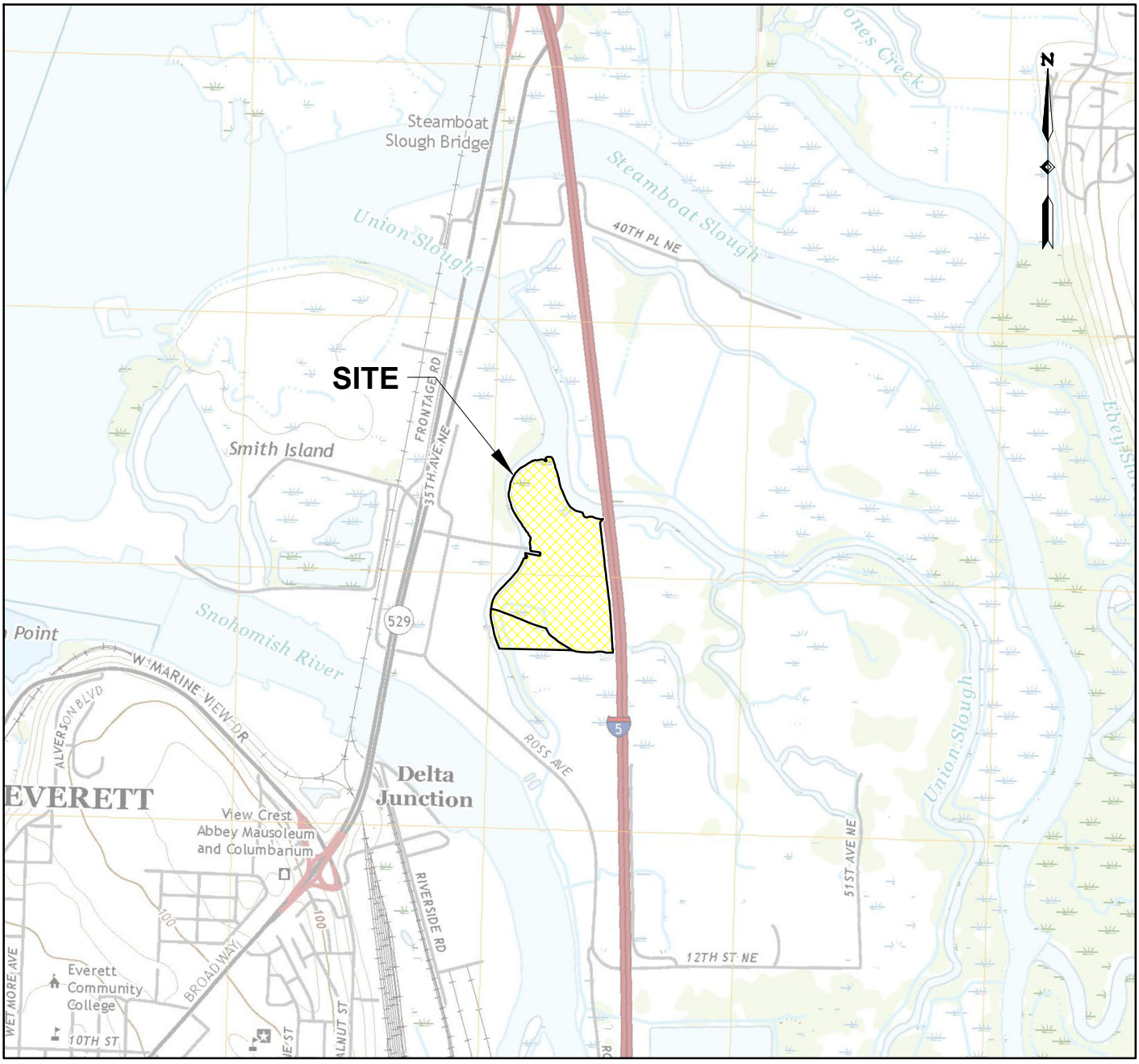
1. mg/kg = Milligrams per kilogram.
2. Bold values indicate the compound was detected above method detection limits.
3. < = Analyte was not detected above the reporting limit shown.
4. Shaded results exceed the Sediment Management Standards.
5. Natural Background Concentrations and Sediment Management Standards from WAC 173-204 and Washington Ecology's *Sediment Cleanup User's Manual* (December 2019 update).
6. -- = Value not available.
7. J = Result is estimated.
8. J+ = Result is estimated and may be biased high.

Table 7 - Sediment Results: Dioxins/Furans
Buse Timber & Sales
Everett, Washington

	Tide Gate	South Drainage					
Sample Location ID:	DR-1	DR-10	WEST DRAINAGE	EAST DRAINAGE	SOUTH DRAINAGE	Puget Sound Natural Background Dioxins/Furans	MTCA Method B Cleanup Level
Date:	07/02/2021	07/02/2021	07/02/2021	07/02/2021	07/02/2021		
Dioxins/Furans by EPA Method 8290A in pg/g							
2,3,7,8-TCDD	**0.13** J	**0.21** J	<0.29	**1.27** J	**0.173** J	--	--
1,2,3,7,8-PeCDD	**1.33** J	**0.95** J	**0.97** J	**16.3**	**0.98** J	--	--
1,2,3,4,7,8-HxCDD	**1.37** J	**1.05** J	**1.12** J	**18.3**	**1.20** J	--	--
1,2,3,6,7,8-HxCDD	**17.6**	**3.48** J	**9.78** J	**237**	**6.98**	--	--
1,2,3,7,8,9-HxCDD	**4.40** J	**2.54** J	**3.28** J	**64.9**	**3.14** J	--	--
1,2,3,4,6,7,8-HpCDD	**136**	**43.6**	**88.2**	**2130**	**74.1**	--	--
OCDD	**740**	**284**	**382**	**11800**	**378**	--	--
2,3,7,8-TCDF	**1.67** J	**3.79**	**1.63** J	**16.3**	**2.66**	--	--
1,2,3,7,8-PeCDF	**0.60** J	**0.89** J	**0.71** J	**6.84**	**0.74** J	--	--
2,3,4,7,8-PeCDF	**1.00** J	<1.1 UK	**0.88** J	**10.1**	**1.02** J	--	--
1,2,3,4,7,8-HxCDF	**2.28** J	**1.32** J	**2.12** J	**36.0**	**1.84** J	--	--
1,2,3,6,7,8-HxCDF	**2.90** J	**0.838** J	**2.18** J	**47.3**	**1.58** J	--	--
2,3,4,6,7,8-HxCDF	**2.81** J	**0.837** J	**2.12** J	**34.3**	**1.60** J	--	--
1,2,3,7,8,9-HxCDF	**0.13** J	<0.098	**0.35** J	**2.28** J	**0.14** J	--	--
1,2,3,4,6,7,8-HpCDF	**91.5**	**11.9**	**69.5**	**2030**	**37.2**	--	--
1,2,3,4,7,8,9-HpCDF	**3.25** J	**0.617** J	**2.56** J	**53.9**	**1.34** J	--	--
OCDF	**95.2**	**17.4**	**59.6**	**2120**	**35.8**	--	--
Total TEQ (ND = 1/2 DL)	**7.65**	**3.39**	**5.39**	**113**	**4.65**	4	13
Total HxCDD	**95.6**	**34.9**	**57.4**	**1550**	**54.1**	--	160

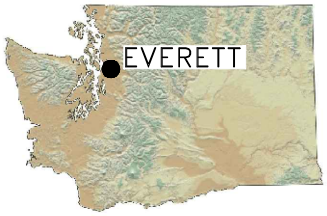
Notes:

1. pg/g = Picograms per gram.
2. Bold values indicate the compound was detected above method detection limits.
3. < = Analyte was not detected above the detection limit shown.
4. Shaded results exceed the Model Toxics Control Act (MTCA) Method B Cancer soil cleanup level and the natural background concentration for dioxins/furans.
5. Natural Background Concentrations from Washington Ecology's *Sediment Cleanup User's Manual* (December 2019 update).
6. Soil cleanup levels from the MTCA Method B Cancer 173-340 WAC (February 2021 update).
7. -- = Value not available.
8. J = Result is estimated.
9. UK = Estimated maximum possible concentration (EMPC). Diphenylether interference present caused dibenzofuran detected to become a "non-detect" with an elevated detection limit.



Marysville, Washington
United States Geological Survey
7.5 Minute Series Topographic Map
Contour Interval: 20 feet
Scale: 1 inch = 24,000 feet
Date: 2020

0 2,000 4,000
Scale in Feet

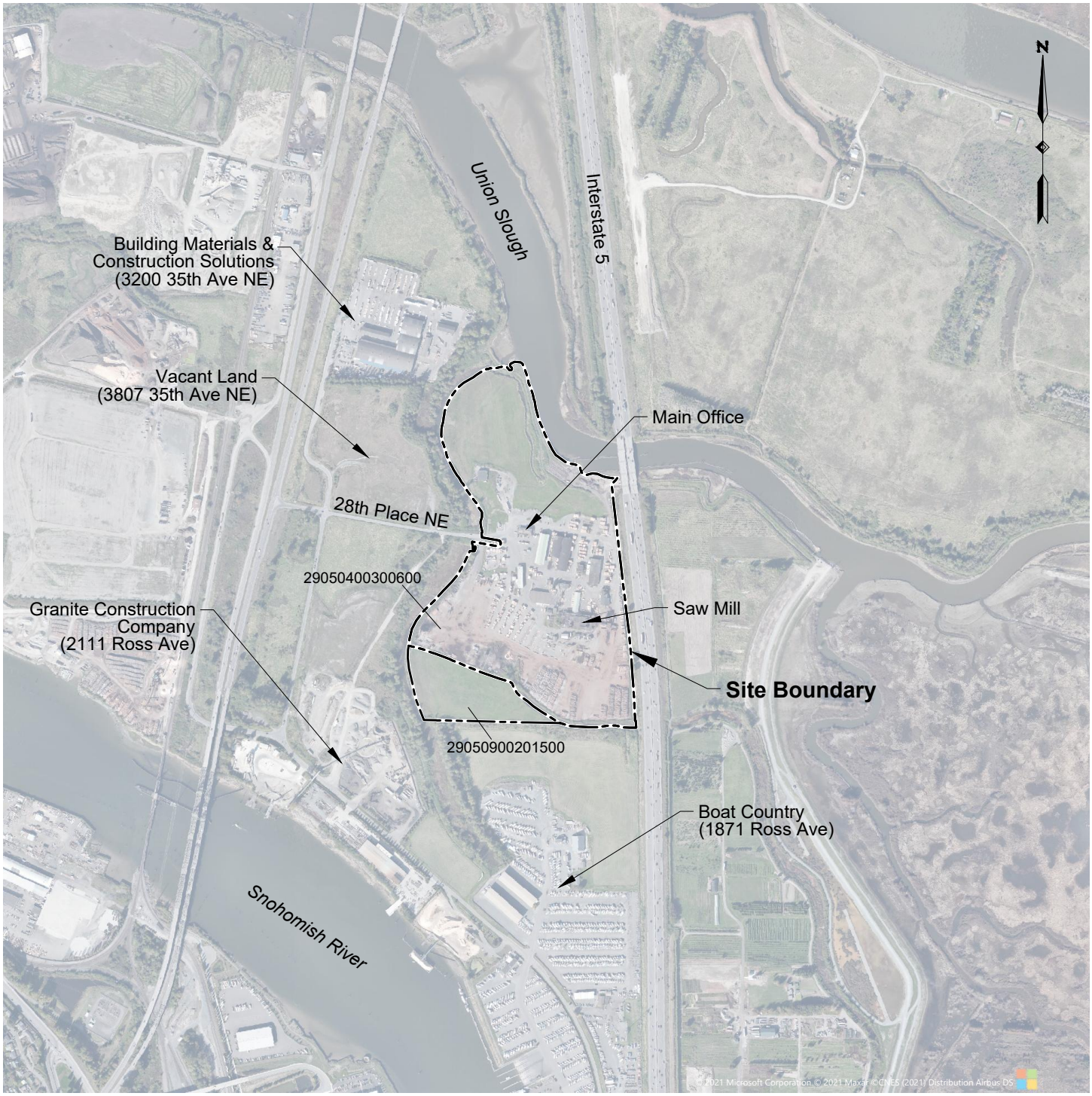


WASHINGTON

Site Location Map

Phase II Environmental Site Assessment
Buse Timber & Sales - 3812 28th Place NE
Everett, Washington

Apex Companies, LLC 801 NW 42nd Street, #204 Seattle, Washington 98107	Project Number: ALTERRA-064	Drawn: JP	Approved: JF/JX	Figure 1
	December 2021			



NOTE: Base map prepared from Microsoft Bing imagery (2021).
Parcel information from Snohomish County
(ftp://ftp.snoco.org/assessor/shapefiles/)

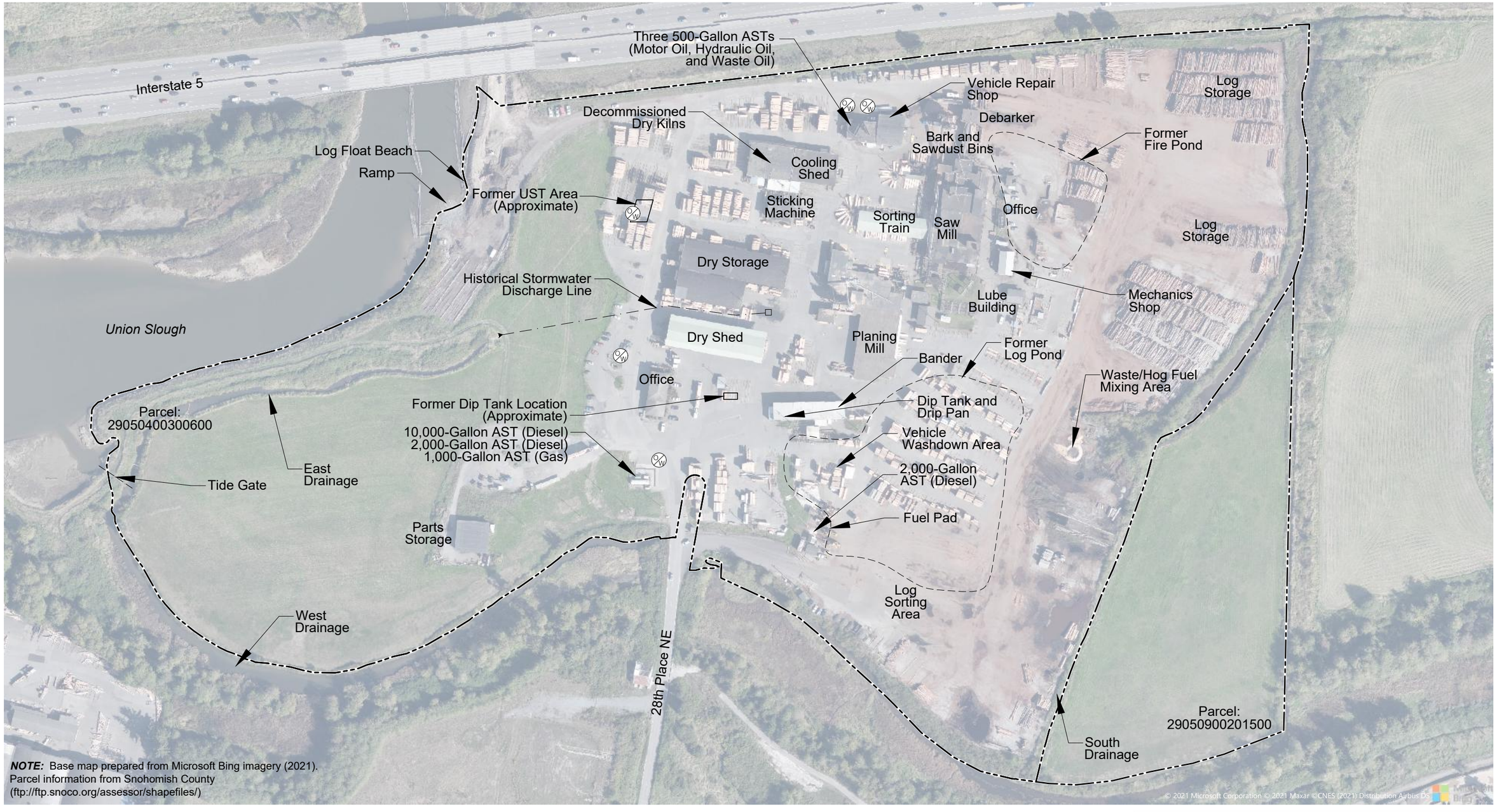
0 1,000 2,000

Scale in Feet

Site Vicinity Map

Phase II Environmental Site Assessment
Buse Timber & Sales - 3812 28th Place NE
Everett, Washington

Apex Companies, LLC 801 NW 42nd Street, #204 Seattle, Washington 98107	Project Number: ALTERRA-064	Drawn: JP	Approved: JF/JX	Figure **2**
	December 2021			



NOTE: Base map prepared from Microsoft Bing imagery (2021).
Parcel information from Snohomish County
(ftp://ftp.snoco.org/assessor/shapefiles/)

Legend:

O/W Oil/Water Separator

N

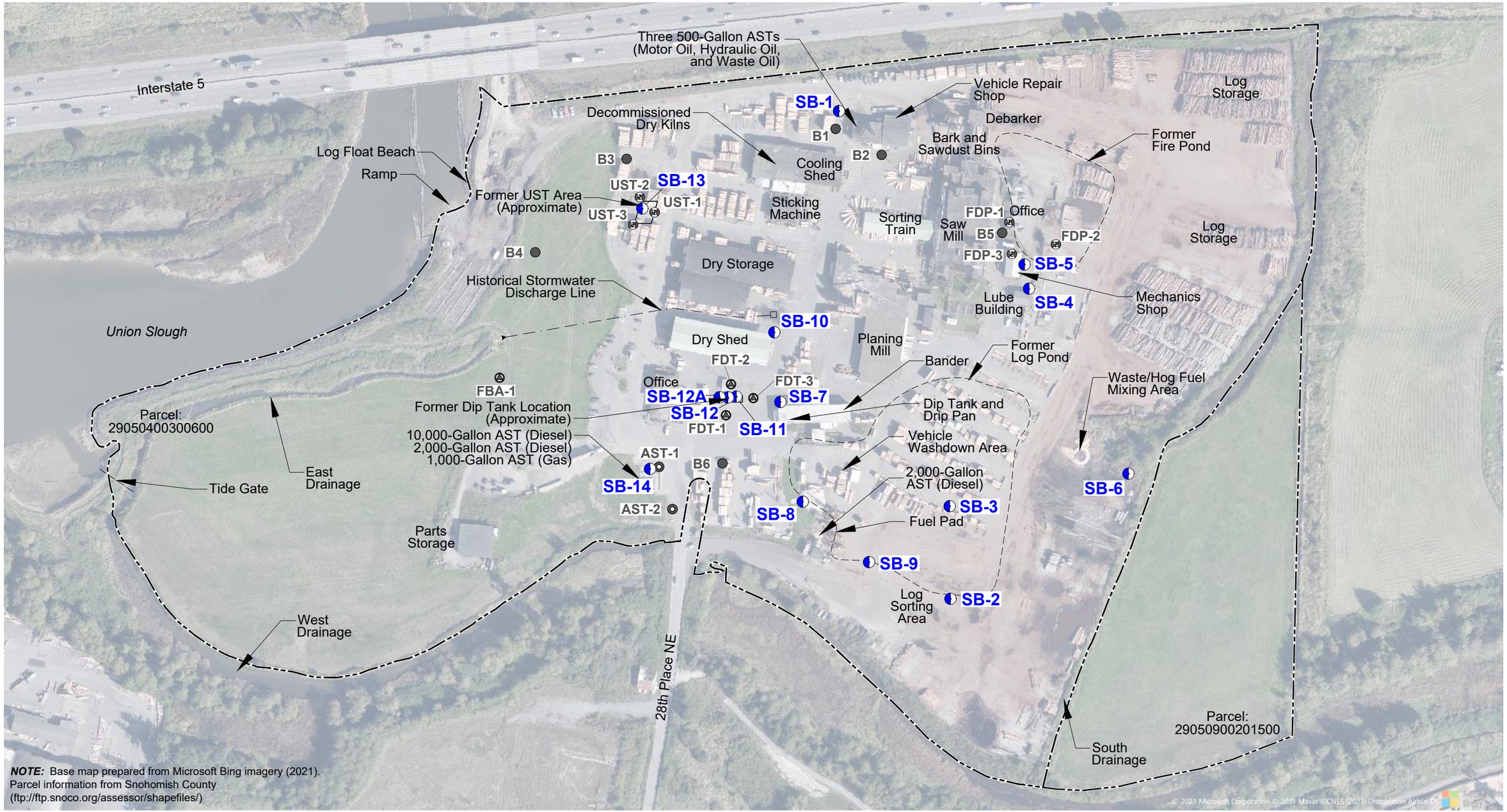
0 200 400

Scale in Feet

Site Plan

Phase II Environmental Site Assessment
Buse Timber & Sales - 3812 28th Place NE
Everett, Washington

Apex Companies, LLC 801 NW 42nd Street, #204 Seattle, Washington 98107	Project Number: ALTERRA-064	Drawn: JP	Approved: JF/JX	Figure 3
	December 2021			



Legend:

- **SB-1** — Soil and Temporary Groundwater Monitoring Well Location
- **B1** — Approximate Historical Soil Boring (Terracon 2018)
- **AST-1** — Approximate Historical Soil Sample (Exponent 1998)
- **FDT-1** — Approximate Historical Subsurface Soil Sample (Exponent 1998)
- **FDP-1** — Approximate Historical Soil and Groundwater Sample (Exponent 1998)

N

0 200 400

Scale in Feet

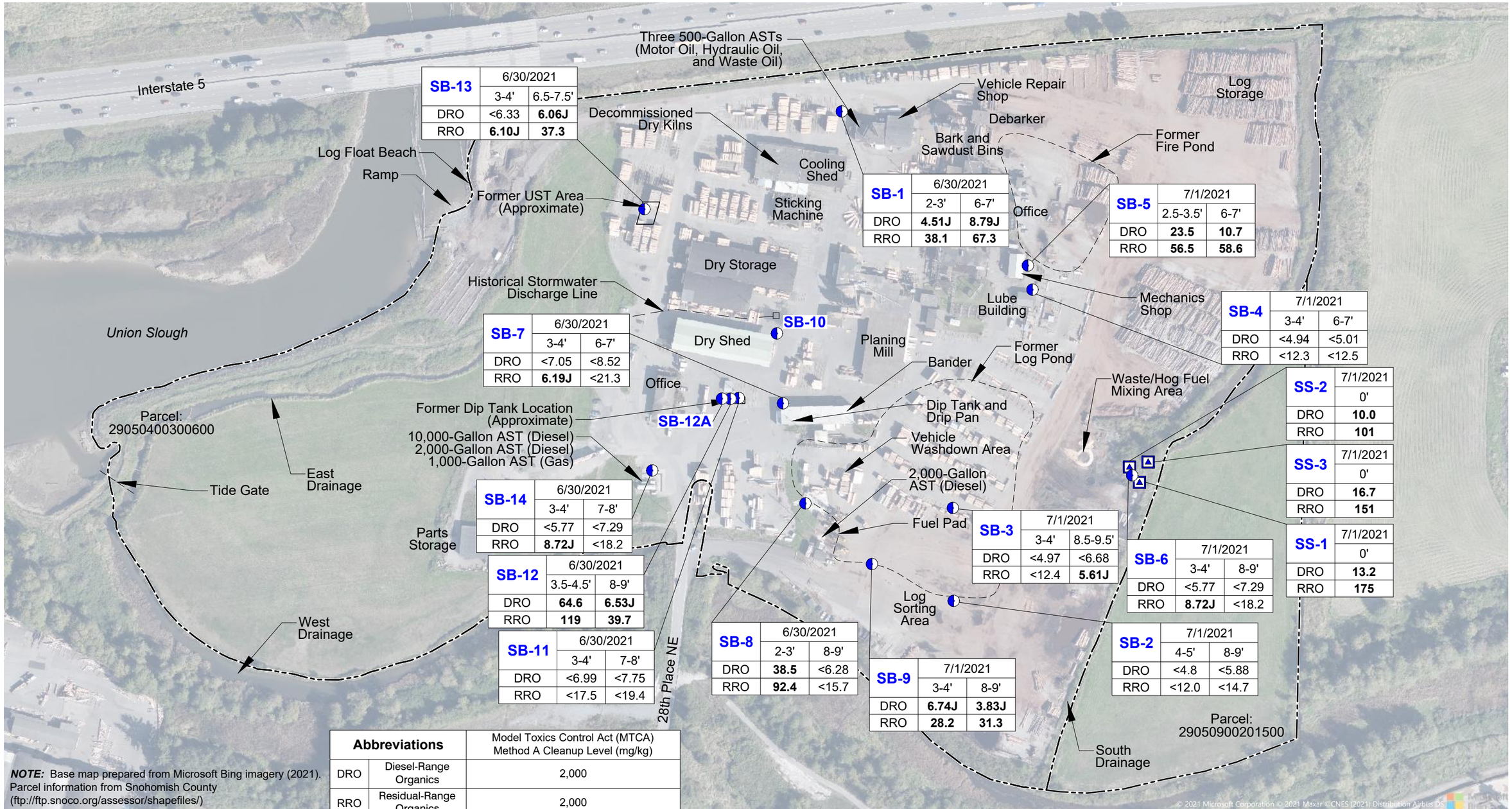
Boring Location Map

Phase II Environmental Site Assessment
Buse Timber & Sales - 3812 28th Place NE
Everett, Washington

Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Project Number:	Drawn:	Approved:	Figure
ALTERRA-064	JP	JF/JX	4

December 2021



SB-13	6/30/2021	
	3-4'	6.5-7.5'
DRO	<6.33	**6.06J**
RRO	**6.10J**	**37.3**

SB-1	6/30/2021	
	2-3'	6-7'
DRO	**4.51J**	**8.79J**
RRO	**38.1**	**67.3**

SB-5	7/1/2021	
	2.5-3.5'	6-7'
DRO	**23.5**	**10.7**
RRO	**56.5**	**58.6**

SB-4	7/1/2021	
	3-4'	6-7'
DRO	<4.94	<5.01
RRO	<12.3	<12.5

SB-7	6/30/2021	
	3-4'	6-7'
DRO	<7.05	<8.52
RRO	**6.19J**	<21.3

SS-2	7/1/2021
	0'
DRO	**10.0**
RRO	**101**

SS-3	7/1/2021
	0'
DRO	**16.7**
RRO	**151**

SS-1	7/1/2021
	0'
DRO	**13.2**
RRO	**175**

SB-14	6/30/2021	
	3-4'	7-8'
DRO	<5.77	<7.29
RRO	**8.72J**	<18.2

SB-3	7/1/2021	
	3-4'	8.5-9.5'
DRO	<4.97	<6.68
RRO	<12.4	**5.61J**

SB-6	7/1/2021	
	3-4'	8-9'
DRO	<5.77	<7.29
RRO	**8.72J**	<18.2

SB-12	6/30/2021	
	3.5-4.5'	8-9'
DRO	**64.6**	**6.53J**
RRO	**119**	**39.7**

SB-11	6/30/2021	
	3-4'	7-8'
DRO	<6.99	<7.75
RRO	<17.5	<19.4

SB-8	6/30/2021	
	2-3'	8-9'
DRO	**38.5**	<6.28
RRO	**92.4**	<15.7

SB-9	7/1/2021	
	3-4'	8-9'
DRO	**6.74J**	**3.83J**
RRO	**28.2**	**31.3**

SB-2	7/1/2021	
	4-5'	8-9'
DRO	<4.8	<5.88
RRO	<12.0	<14.7

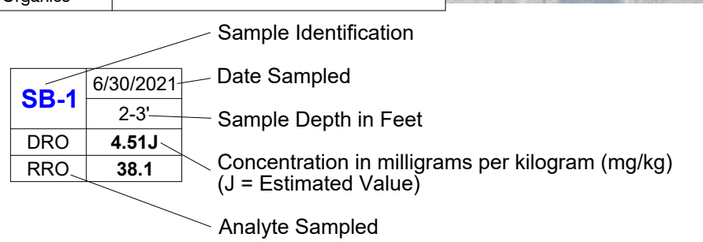
Abbreviations		Model Toxics Control Act (MTCA) Method A Cleanup Level (mg/kg)
DRO	Diesel-Range Organics	2,000
RRO	Residual-Range Organics	2,000

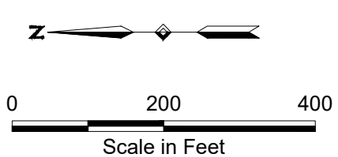
Legend:

SB-1 Soil and Temporary Groundwater Monitoring Well Location

SS-1 Surface Soil Location

Discrete Sediment Location



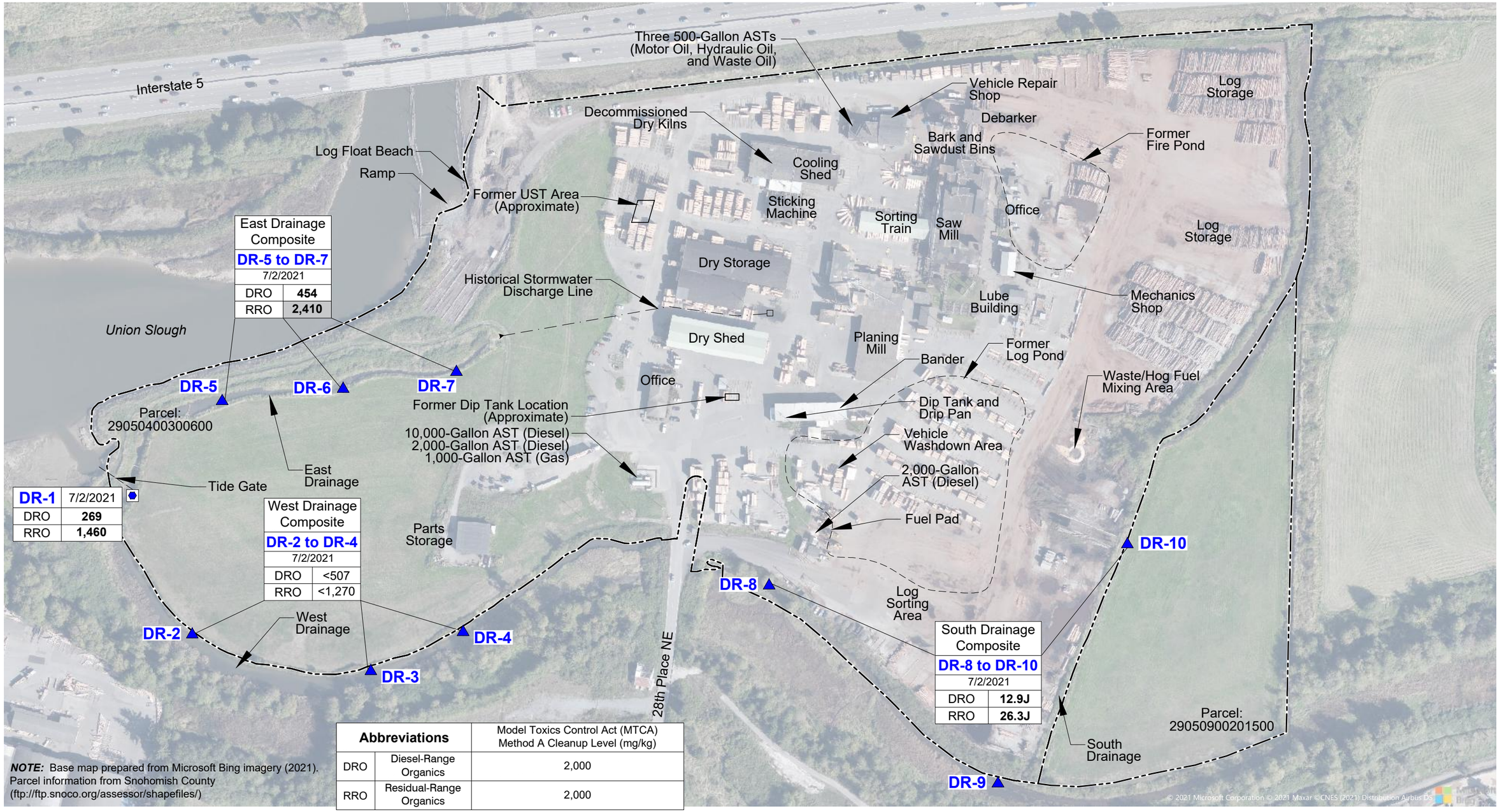


Total Petroleum Hydrocarbon Concentrations in Soil

Phase II Environmental Site Assessment
Buse Timber & Sales - 3812 28th Place NE
Everett, Washington

Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Project Number:	Drawn:	Approved:	Figure
ALTERRA-064	JP	JF/JX	5
December 2021			



Abbreviations		Model Toxics Control Act (MTCA) Method A Cleanup Level (mg/kg)
DRO	Diesel-Range Organics	2,000
RRO	Residual-Range Organics	2,000

NOTE: Base map prepared from Microsoft Bing imagery (2021). Parcel information from Snohomish County (ftp://ftp.snoco.org/assessor/shapefiles/)

Legend:

DR-1 Discrete Sediment Location

DR-2 Drainage Sediment Sub-Sample Location

DR-1	7/2/2021
DRO	**269**
RRO	**1,460**

Sample Identification

Date Sampled

Concentration in milligrams per kilogram (mg/kg) (J = Estimated Value)

Analyte Sampled

Shaded Values Exceed MTCA Method A Soil Cleanup Level

N

0 200 400

Scale in Feet

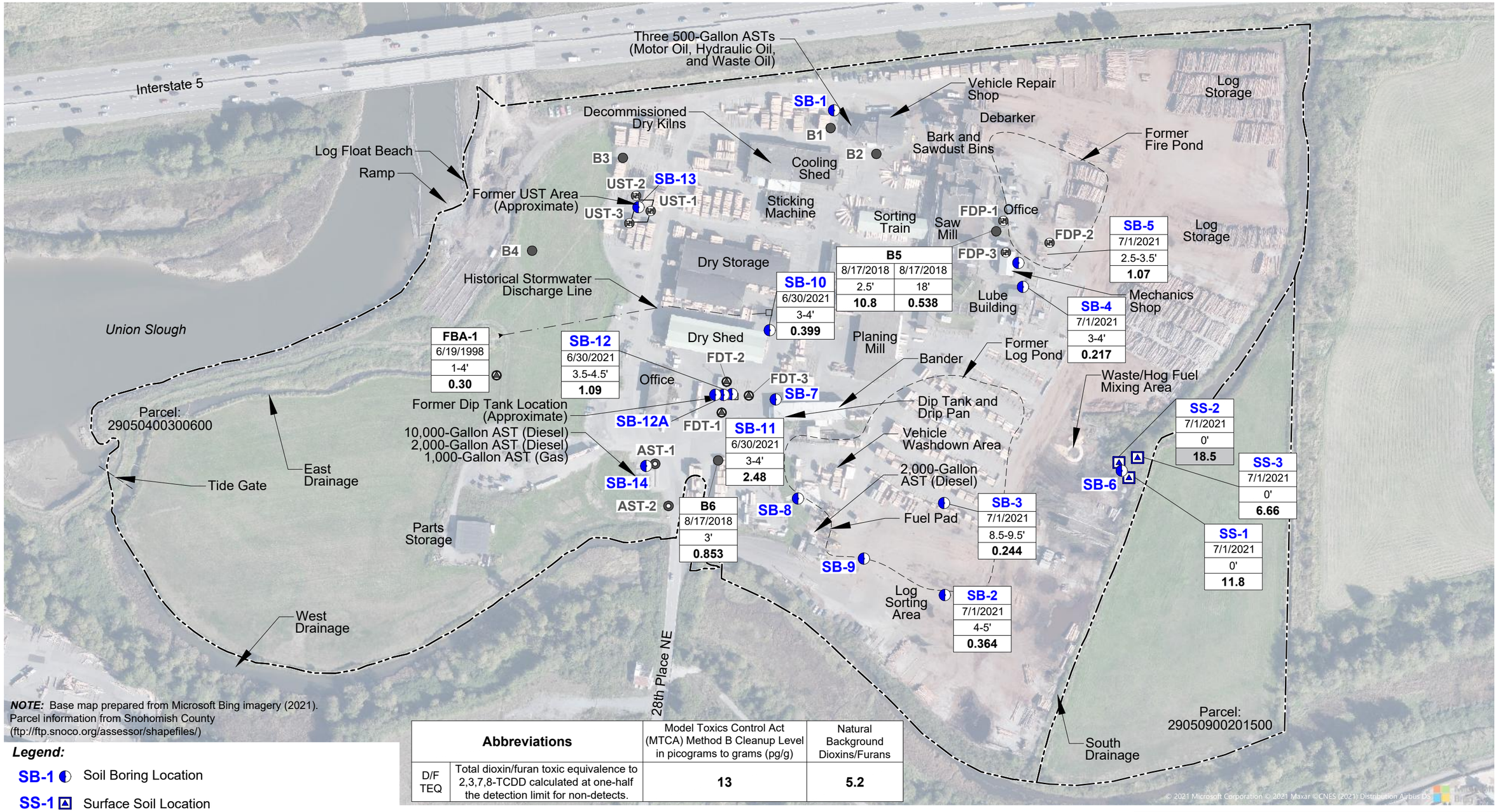
Total Petroleum Hydrocarbon Concentrations in Drainage Sediment

Phase II Environmental Site Assessment
Buse Timber & Sales - 3812 28th Place NE
Everett, Washington

Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Project Number:	Drawn:	Approved:	Figure
ALTERRA-064	JP	JF/JX	6

December 2021



NOTE: Base map prepared from Microsoft Bing imagery (2021).
Parcel information from Snohomish County (ftp://ftp.snoco.org/assessor/shapefiles/)

Abbreviations		Model Toxics Control Act (MTCA) Method B Cleanup Level in picograms to grams (pg/g)	Natural Background Dioxins/Furans
D/F TEQ	Total dioxin/furan toxic equivalence to 2,3,7,8-TCDD calculated at one-half the detection limit for non-detects.	**13**	**5.2**

Legend:

- **SB-1** Soil Boring Location
- **SS-1** Surface Soil Location
- **B1** Approximate Historical Soil Boring (Terracon 2018)
- **AST-1** Approximate Historical Soil Sample (Exponent 1998)
- **FDT-1** Approximate Historical Subsurface Soil Sample (Exponent 1998)
- **FDP-1** Approximate Historical Soil and Groundwater Sample (Exponent 1998)

FBA-1	Sample Identification
6/19/1998	Date Sampled
1-4'	Sample Depth in Feet
0.30	D/F TEQ Result in picograms per gram (pg/g; parts per trillion)

Shaded Values Exceed the MTCA Method B Cleanup Level

N

0 200 400

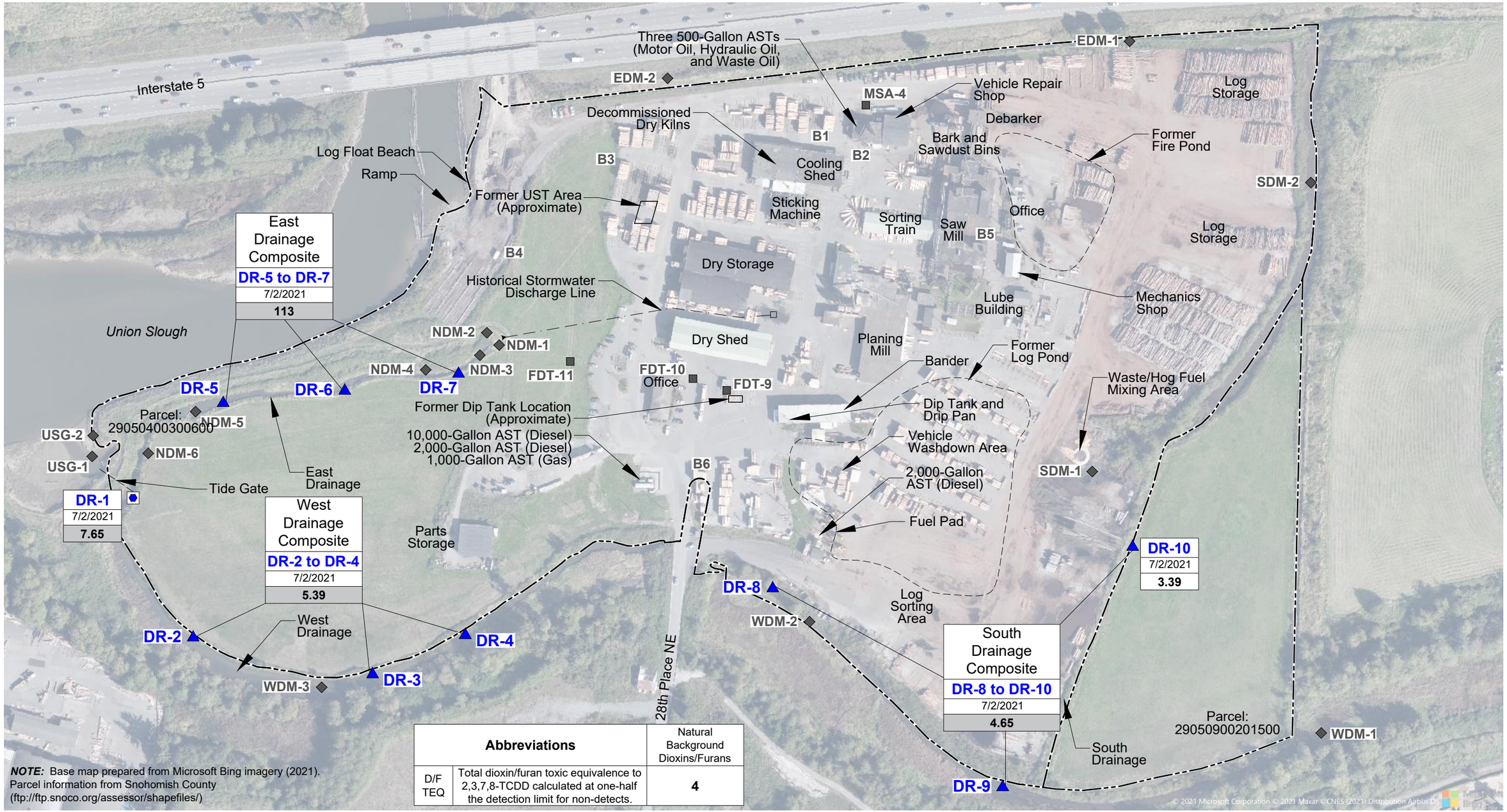
Scale in Feet

Dioxins/Furans in Soil

Phase II Environmental Site Assessment
Buse Timber & Sales - 3812 28th Place NE
Everett, Washington

Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Project Number:	Drawn:	Approved:	Figure
ALTERRA-064	JP	JF/JX	7
December 2021			



Abbreviations		Natural Background Dioxins/Furans
D/F TEQ	Total dioxin/furan toxic equivalence to 2,3,7,8-TCDD calculated at one-half the detection limit for non-detects.	4

NOTE: Base map prepared from Microsoft Bing imagery (2021). Parcel information from Snohomish County (ftp://ftp.snoco.org/assessor/shapefiles/)

Legend:

- **DR-1** Discrete Sediment Location
- **DR-2** Drainage Sediment Sub-Sample Location
- **WDM-3** Approximate Historical Sediment Sample (Exponent 1998)
- **FDT-9** Approximate Historical Storm Drain Sample (Exponent 1998)

DR-1 / 7/2/2021 / 7.65
- Sample Identification
- Date Sampled
- D/F TEQ Result in picograms per gram (pg/g; parts per trillion)

Shaded Values Exceed the Natural Background for Dioxins/Furans

N

0 200 400

Scale in Feet

Dioxins/Furans in Sediment

Phase II Environmental Site Assessment
Buse Timber & Sales - 3812 28th Place NE
Everett, Washington

Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Project Number:	Drawn:	Approved:	Figure
ALTERRA-064	JP	JF/JX	8

December 2021

Appendix A

Boring Logs

Sample Descriptions

Classification of soils in this report is based on visual field and laboratory observations which include density/consistency, moisture condition, and grain size, and should not be construed to imply field nor laboratory testing unless presented herein. Visual-manual classification methods of ASTM D 2488 were used as an identification guide.

Soil descriptions consist of the following:
MAJOR CONSTITUENT with additional remarks; color, moisture, minor constituents, density/consistency.

Density/Consistency

Soil density/consistency in borings is related primarily to the Standard Penetration Resistance. Soil density/consistency in test pits and push probe explorations is estimated based on visual observation and is presented parenthetically on test pit and push probe exploration logs.

SAND and GRAVEL Density	Standard Penetration Resistance in Blows/Foot
Very loose	0 - 4
Loose	4 - 10
Medium dense	10 - 30
Dense	30 - 50
Very dense	>50

SILT or CLAY Density	Standard Penetration Resistance in Blows/Foot	Approximate Shear Strength in TSF
Very soft	0 - 2	<0.125
Soft	2 - 4	0.125 - 0.25
Medium stiff	4 - 8	0.25 - 0.5
Stiff	8 - 15	0.5 - 1.0
Very Stiff	15 - 30	1.0 - 2.0
Hard	>30	>2.0

Moisture

Dry	Little perceptible moisture.
Sl. Moist	Some perceptible moisture, probably below optimum.
Moist	Probably near optimum moisture content.
Wet	Much perceptible moisture, probably above optimum.

Minor Constituents

	Estimated Percentage
Not identified in description	0 - 5
Slightly (clayey, silty, etc.)	5 - 12
Clayey, silty, sandy, gravelly	12 - 30
Very (clayey, silty, etc.)	30 - 50

Sampling Symbols

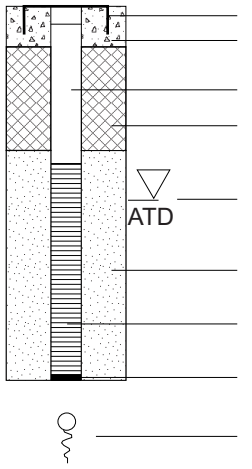
BORING AND PUSH-PROBE SYMBOLS

- Recovery
- No Recovery
- Temporarily Screened Interval
- PID — Photoionization Detector Reading
- W — Water Sample
- Sample Submitted for Chemical Analysis
- NS — No Sheen
- SS — Slight Sheen
- MS — Moderate Sheen
- HS — Heavy Sheen
- BF — Biogenic Film

TEST PIT SOIL SAMPLES

- Grab (Jar)
- Bag
- Shelby Tube

Groundwater Observations and Monitoring Well Construction



- Flush Mounted Monument
- Concrete Surface Seal
- Well Casing
- Bentonite Seal
- Groundwater Level on Date or (ATD) At Time of Drilling
- Sand Pack
- Well Screen
- End Cap
- Groundwater Seepage (Test Pits)

Key to Exploration Logs

Buse Timber & Sales
3812 28th Place NE
Everett, Washington

Apex Companies, LLC
600 Stewart Street, #400
Seattle, Washington 98101

Project Number:	Drawn:	Approved:	Figure
ALTERRA-064	JP	JX/HH	Key

July 2021

Apex Companies, LLC
600 Stewart Street, #400
Seattle, Washington 98101

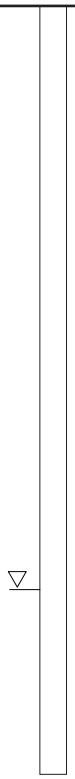
Buse Timber & Sales
3812 28th Place NE
Everett, Washington

Boring Number: **SB-1**

Project Number: **ALTERRA-064**
Logged By: H. Hiscox
Date: June 30, 2021
Site Conditions: Sunny
Drilling Contractor: Holocene Drilling
Drilling Equipment: Geoprobe
Sampler Type: 2-inch macrocore
Depth to Water (ATD): 15.2'
Surface Elevation: Not Measured

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
0					Asphalt (10") over sandy/silty CLAY; dark gray, slightly moist, high plasticity, fine-grained, with odor.
		SB-1 (0-5)	<5	NS	
					Strong odor, slightly moist.
5		SB-1 (5-10)	<5	NS	
10			<5	NS	
15					Sandy/silty CLAY; dark blueish gray, wet, fine-grained.
			<5	NS	
20					Bottom of Boring at 20.0' BGS. Backfill with Bentonite and Patch Asphalt.
25					
30					
35					

Boring Details and Notes:



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Buse Timber & Sales
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Boring Number: **SB-2**

Project Number: **ALTERRA-064**
Logged By: H. Hiscox
Date: July 1, 2021
Site Conditions: Overcast
Drilling Contractor: Holocene Drilling
Drilling Equipment: Geoprobe
Sampler Type: 2-inch macrocore
Depth to Water (ATD): 12.7'
Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
0					Asphalt (7") over cobbles and gravel over silty SAND; dark brown and tan, dry, fine-grained.
		SB-2 (0-5)	<5	NS	
5					Silty CLAY; dark gray, slightly moist, high plasticity, fine-grained.
		SB-2 (5-10)	<5	NS	
10					Silty SAND; dark grayish blue, wet.
			<5	NS	
15					Bottom of Boring at 15.0' BGS. Backfill with Bentonite and Patch Asphalt.
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Boring Number: **SB-3**

Project Number: **ALTERRA-064**
Logged By: H. Hiscox
Date: July 1, 2021
Site Conditions: Sunny
Drilling Contractor: Holocene Drilling
Drilling Equipment: Geoprobe
Sampler Type: 2-inch macrocore
Depth to Water (ATD): 12.3'
Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
0					Asphalt (6") over cobbles and gravel over SAND; dark brown and tan, dry, fine-grained.
5		SB-3 (0-5)	<5	NS	
					Clay lens (1").
10		SB-3 (5-10)	<5	NS	Silty CLAY; dark gray, slightly moist, fine-grained, well sorted.
			<5		Sandy CLAY; dark gray, wet, high plasticity,
15					Bottom of Boring at 15.0' BGS. Backfill with Bentonite and Patch Asphalt.
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Boring Number: **SB-4**

Project Number: **ALTERRA-064**
Logged By: H. Hiscox
Date: July 1, 2021
Site Conditions: Overcast
Drilling Contractor: Holocene Drilling
Drilling Equipment: Geoprobe
Sampler Type: 2-inch macrocore
Depth to Water (ATD): 6.8'
Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
0					Asphalt (10") over cobbly GRAVEL; white.
					Clay lens (4"); dark brown, fine-grained, with organic material.
		SB-4 (0-5)	<5	NS	
5					Silty SAND; fine-grained, white/tan/dark gray, dry.
		SB-4 (5-10)	<5	NS	
10					Bottom of Boring at 10.0' BGS. Backfill with Bentonite and Patch Asphalt.
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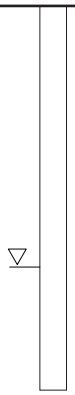

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Boring Number: **SB-5**

Project Number: **ALTERRA-064**
Logged By: H. Hiscox
Date: July 1, 2021
Site Conditions: Sunny
Drilling Contractor: Holocene Drilling
Drilling Equipment: Geoprobe
Sampler Type: 2-inch macrocore
Depth to Water (ATD): 6.4'
Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
0		SB-5 (0-5)	<5	NS	Asphalt (7") over silty SAND; dark brown with light gray, slightly moist, fine-granied, moderate plasticity, well rounded.
5		SB-5 (5-10)	6	NS	SAND; dark brown and light gray, wet, fine-grained, low plasticity, well rounded.
10					Bottom of Boring at 10.0' BGS. Backfill with Bentonite and Patch Asphalt.
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Boring Number: **SB-6**

Project Number: **ALTERRA-064**
Logged By: H. Hiscox
Date: July 1, 2021
Site Conditions: Sunny
Drilling Contractor: Holocene Drilling
Drilling Equipment: Geoprobe
Sampler Type: 2-inch macrocore
Depth to Water (ATD): 11.7'
Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
0		SB-6 (0-5)	<5	NS	Bark/wood dust (6") over cobbly GRAVEL; light gray, dry.
5					Silty CLAY; light gray, slightly moist, fine-grained, high plasticity.
					Gravelly CLAY; medium to dark brown, wet.
10		SB-6 (5-10)	5	NS	
			<5	NS	
15					Bottom of Boring at 15.0' BGS. (Backfill with Bentonite and Patch Asphalt.
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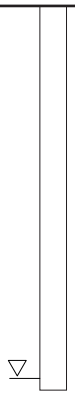
Boring Number: **SB-7**

Project Number: **ALTERRA-064**
Logged By: H. Hiscox
Date: June 30, 2021
Site Conditions: Overcast
Drilling Contractor: Holocene Drilling
Drilling Equipment: Geoprobe
Sampler Type: 2-inch macrocore
Depth to Water (ATD): 9.7'
Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
0					Asphalt (9") over GRAVEL/PEBBLES; gray, Dry.
		SB-7 (0-5)	<5	NS	
5					Silty CLAY; gray, dry, fine-grained, with organic matter.
		SB-7 (5-10)	<5	NS	Gravelly SAND; light gray, slightly moist, with organic material.
10					Bottom of Boring at 10.0' BGS. Backfill with Bentonite and Patch Asphalt.
15					
20					
25					
30					
35					



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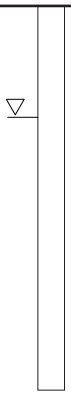
Boring Number: **SB-8**

Project Number: **ALTERRA-064**
Logged By: H. Hiscox
Date: June 30, 2021
Site Conditions: Sunny
Drilling Contractor: Holocene Drilling
Drilling Equipment: Geoprobe
Sampler Type: 2-inch macrocore
Depth to Water (ATD): 2.9'
Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
0		SB-8 (0-5)	<5	NS	Topsoil with fine-grained sandy soil; dark brown, moist, well rounded.
5					CLAY; fine-grained,dark gray, slightly moist.
		SB-8 (5-10)	<5	NS	Gravelly CLAY; dark gray, wet.
10					Bottom of Boring at 10.0' BGS. Backfill with Bentonite.



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Boring Number: SB-9

Project Number: **ALTERRA-064**
Logged By: H. Hiscox
Date: July 1, 2021
Site Conditions: Overcast
Drilling Contractor: Holocene Drilling
Drilling Equipment: Geoprobe
Sampler Type: 2-inch macrocore
Depth to Water (ATD): 21.3'
Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
					Asphalt (9") over gravelly SAND; light tan, coarse-grained, poorly sorted.
5		SB-9 (0-5)	<5	NS	SAND; dark brown to tan, slightly moist, fine-grained, with organic material.
10		SB-9 (5-10)	<5	NS	Silty CLAY; dark brown, slightly moist, fine-grained, with occasional organic material.
			<5	NS	
15			<5	NS	
20			<5	NS	Sandy CLAY; fine-grained, dark grayish blue, wet.
25					Bottom of Boring at 25.0' BGS. Backfill with Bentonite and Patch Asphalt.
30					
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Boring Number: **SB-10**
Project Number: **ALTERRA-064**
Logged By: H. Hiscox
Date: June 30, 2021
Site Conditions: Overcast
Drilling Contractor: Holocene Drilling
Drilling Equipment: Geoprobe
Sampler Type: 2-inch macrocore
Depth to Water (ATD): 16.54'
Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
0		SB-10 (0-5)	<5	NS	Asphalt (9") over sandy CLAY; gray with black flecks, dry, fine-grained.
5		SB-10 (5-10)	<5	NS	Silty CLAY; light gray, slightly moist, fine-grained.
10					Bottom of Boring at 10.0' BGS. Redrilled to 20.0' for groundwater sample.
20					Bottom of Boring at 20.0' BGS. Backfill with Bentonite and Patch Asphalt.

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Boring Number: SB-11

Project Number: **ALTERRA-064**
Logged By: H. Hiscox
Date: June 30, 2021
Site Conditions: Overcast
Drilling Contractor: Holocene Drilling
Drilling Equipment: Geoprobe
Sampler Type: 2-inch macrocore
Depth to Water (ATD): 6.8'
Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
0					Asphalt (10") over sandy silty CLAY; dark gray/brown, dry, fine-grained.
5		SB-11 (0-5)	<5	NS	
					Gravelly CLAY; dark gray, slightly moist, poorly sorted.
		SB-11 (5-10)	<5	NS	CLAY; dark gray, dry, fine-grained, poorly sorted.
10					Bottom of Boring at 10.0' BGS. Backfill with Bentonite and Patch Asphalt.
15					
20					
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30					
35					

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Boring Number: **SB-12/12A**

Project Number: **ALTERRA-064**
Logged By: H. Hiscox
Date: June 30, 2021-July 1, 2021
Site Conditions: Overcast
Drilling Contractor: Holocene Drilling
Drilling Equipment: Geoprobe
Sampler Type: 2-inch macrocore
Depth to Water (ATD): 22.0'
Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
					Asphalt (12") over gravelly SAND; light gray, dry, coarse-grained.
5		SB-12 (0-5)	<5	NS	Silty CLAY; dark brown, slightly moist, fine-grained, with organic material (wood).
			<5	NS	
10		SB-12 (5-10)			Gravelly CLAY; dark brown, slightly moist.
					Bottom of Boring SB-12 at 10.0' BGS.
			<5	NS	Moved equipment 1 foot and redrilled to 25.0' (7/1/21) for groundwater sample (SB-12A).
15					
			<5	NS	
20					Silty SAND; dark gray, wet, soft.
			<5	NS	
25					Bottom of Boring at 25.0' BGS.
					Backfill with Bentonite and Patch Asphalt.
30					
35					

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Boring Number: SB-13

Project Number: **ALTERRA-064**
Logged By: H. Hiscox
Date: June 30, 2021
Site Conditions: Sunny
Drilling Contractor: Holocene Drilling
Drilling Equipment: Geoprobe
Sampler Type: 2-inch macrocore
Depth to Water (ATD): 23.5'
Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
0		SB-13 (0-5)	<5	NS	Asphalt (8") over sandy CLAY; dark brown, slightly moist, fine-grained, with small wood chips and rounded clasts.
					Strong odor.
5			<5	NS	
		SB-13 (5-10)			
10					Silty CLAY; dark brown/gray, slightly moist.
					Strong odor.
			<5	NS	
15		SB-13 (10-15)			Silty CLAY; dark brown.
			<5	NS	Slight odor.
20					Sandy CLAY; dark gray, slightly moist, well sorted.
			<5	NS	
25					Bottom of Boring at 25.0' BGS. (Backfill with Bentonite and Patch Asphalt.
30					
35					

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Boring Number: SB-14

Project Number: **ALTERRA-064**
Logged By: H. Hiscox
Date: June 30, 2021
Site Conditions: Overcast
Drilling Contractor: Holocene Drilling
Drilling Equipment: Geoprobe
Sampler Type: 2-inch macrocore
Depth to Water (ATD): Not Encountered
Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
0					Asphalt (8") over silty CLAY; light gray, slightly moist, fine-grained.
5		SB-14 (0-5)	<5	NS	
					Small amount of organic material (wood chips) present in clay.
10		SB-14 (5-10)	<5	NS	
					Bottom of Boring at 10.0' BGS. Backfill with Bentonite and Patch Asphalt.
15					
20					
25					
30					
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Appendix B

Laboratory Report