

State of Oregon
Department of Environmental Quality

Memorandum

Date: January 26, 2026

To: FILE

Through: Amanda Wozab, Section Manager

From: Wesley Thomas, P.E.
Northwest Region

Subject: Staff Memorandum in Support of a Conditional No Further Action Determination
Former ESCO Plants #1 and #2
ECSI #6285

This document presents the basis for the Oregon Department of Environmental Quality's (DEQ's) recommended Conditional No Further Action (CNFA) determination for the Former ESCO Plants #1 and #2, in Portland, Oregon (the site). As discussed in this report, contaminant concentrations in affected media are controlled to below acceptable risk levels.

The proposed CNFA determination meets the requirements of Oregon Administrative Rules Chapter 340 Division 122, Sections 010 to 0140; and ORS 465.200 through 465.455.

The proposal is based on information documented in the administrative record for this site. The full administrative record for the site is available on the Your DEQ Online database. Links to the documents cited herein are provided.

1. BACKGROUND

Site Description

The 18.43-acre Site is in northwest Portland, Oregon (97210) and is currently developed as follows:

- 2141 NW 25th Avenue comprises Tax lots 1N1E28C00100 (15.57 acre), 1N1E28C00300 (0.35 acre), 1N1E29DD00100 (0.25 acres) and 1N1E29DD01600 (0.25 acre).
 - Tax lot 1N1E28C00100 is improved with a single industrial building (former ESCO Building 4 – currently occupied by PCI and Servpro) located on the tax lot north of NW Wilson Street.
 - Tax lot 1N1E28C00300 is structurally unimproved land.
 - Tax lots 1N1E29DD00100 and 1N1E29DD01600 are improved with the ESCO Administrative Headquarters Building located south of NW Wilson Street. These tax lots were not part of the ESCO Main Plant #1 and #2 campus but are contiguous with the historical campus.
- 2300 NW 26th Avenue comprises tax lot 1N1E29DA01700 (2.36 acres) and is improved with a paved parking lot currently in use by Rivian.

- 2414 NW Nicolai Avenue comprises tax lot 1N1E28CB00800 (0.15 acre) and is structurally unimproved land.

The Site is generally bounded by NW Nicolai Street to the north, NW Vaughn Street to the south, NW 24th Avenue to the east, and NW 26th Avenue to the west. This Site is zoned EG1-General Employment and IH-Heavy Industrial by the City of Portland. The surrounding properties are zoned for commercial and light industrial use. The Site is identified in Figure 1 (Site Location Map), Figure 2 (Topographic Map), Figure 3 (Site Plan), and Figure 4 (Tax Lot Map).

Historically, the primary use of the Site was by The Electric Steel Corporation (ESCO), which began operating a foundry on the Site in 1913. The foundry was expanded through the 1960s until it ended production in 2016. The foundry specialized in the casting of products for the mining, construction, and oil & gas industries. Prior to ESCO's use, the Site included residences, a school and the Lewis & Clark Centennial Exhibition grounds. After ceasing operations in 2016, ESCO began the closure and decommissioning of the facility.

Site Setting

The City of Portland falls within the dry-summer mild temperate zone, also referred to as a warm-summer Mediterranean climate. This climate is characterized by warm, dry summers and cool, rainy winters. Portland experiences a much more temperate climate than one would expect of its latitude, with snowfall and freezing temperatures happening infrequently. Temperatures can vary from cool to warm, with warm, dry summers and cool, wet winters. Spring and fall are also moist seasons, with light rain falling for long periods.

The Site is depicted on the United States Geological Survey (USGS), Portland Quadrangle 7.5-minute series topographic map. This map was published by the USGS in 1990. According to the contour lines on the topographic map, the Site ranges from 82 feet above mean sea level (MSL) in the southwest corner of the Site to 58 feet above MSL in the northeast corner of the Site. The topography slopes down to the northeast toward the Willamette River in the Site vicinity.

According to the *Geologic Map of the Portland Quadrangle* (M.N. Beeson, T.L. Tolan, and I.P. Madin, 1991), the Site is underlain by Pleistocene-aged complexly interlayered and variable silt, sand, and gravel deposited in a major flood channel that was cut in earlier and/or contemporaneous fine- and coarse-grained glacial outburst flood sediments. At the Site, 0.5-2.5 feet of urban fill material overlies native deposits. The near surface native sediments are underlain by unsaturated fine-grained facies of the Pleistocene flood deposits (17-35 feet thick at Site). Below the fine-grained deposits lie coarse-grained flood deposits and the Upper Troutdale Formation which consists of moderately to well-lithified conglomerates with minor interbeds of sandstone, siltstone, claystone, volcanic ash and debris flows (up to 73 feet thick in boring terminated at 90 feet below ground surface [bgs] at Site). At depth, the rocks of the Troutdale Formation are underlain by the Miocene to Pliocene aged Sandy River Mudstone and Miocene aged flood-basalt flows of the Columbia River Basalt Group.

Based on a review of the Portland Quadrangle 7.5-minute series topographic map, the inferred groundwater flow at the site is to the northeast towards the Willamette River (approximately 0.46 miles to the northeast). Surface waters are not present on or adjacent to the Site. Resource protection wells installed on the Site in 2018 consistently demonstrated measured static water levels from 40 to 65 feet bgs with the groundwater elevation being measured at approximately 20 feet above MSL with a seasonal

variation of up to 1.5 feet. Coarse-grained deposits were noted as the water-bearing unit at the Site. Measured groundwater flow has been consistently to the northeast toward the Willamette River.

2. BENEFICIAL LAND AND WATER USE DETERMINATIONS

The Site is currently zoned EG1-General Employment and IH-Heavy Industrial by the City of Portland. The specific allowable uses of EG1 zoning include manufacturing, warehousing, wholesale sales, industrial services, parks and open spaces, educational institutions, hospitals, quick vehicle servicing, vehicle repair and self-service storage. The specific allowable uses of IH include manufacturing, warehouse and freight movement, wholesale sales, industrial service, and railroad yards. There are no residential structures present in the immediate vicinity of impacted Site soil. Future development for these properties is expected to be for commercial purposes based on current zoning, however future rezoning to allow residential development is possible.

Adjoining properties are zoned as IH to the north. Adjoining properties to the east are zoned IG1, which allows for quick vehicle servicing, vehicle repair, self-service storage, manufacturing and production, warehouse and freight movement, industrial service, and railroad yards. Adjoining properties to the south and west are zoned EG1.

The Site and surrounding properties are all provided water by the City of Portland. Point Source Solutions performed a search using the Oregon Water Resources Department (OWRD) Well Report Mapping tool. Two water wells are listed within 1,000 feet of the Site. Review of well logs MULT 1011 and 1013 filed with the OWRD indicated that both wells were utilized for industrial purposes. No drinking water wells within 1,000 feet of the Site were identified.

There are no surface water bodies within the locality of facility.

3. INVESTIGATION AND CLEANUP WORK

The *Site Characterization, Remedial Action and Residual Risk Assessment Report*¹ (Closure Report) summarizes historical environmental investigations at the site.

Prior to Site Decommissioning

Prior to commencement of the Main Plant #1 and #2 shutdown and subsequent demolition, three (3) additional LUST Files had been opened on the Site.

- LUST File #26-90-0054 was issued a No Further Action (NFA) determination on November 23, 1990.
- LUST File #26-93-0026 was issued a NFA determination on October 21, 1996.
- LUST File #26-97-0487 was issued a NFA determination on September 19, 2000.

Site Decommissioning and Demolition

After ceasing operations in 2016, ESCO began the closure and decommissioning of the facility. A *Baseline Environmental Site Assessment*² (BESA) Report for the Main Plant was prepared in May 2018

¹ Point Source Solutions. 2025. Site Characterization, Remedial Action and Residual Risk Assessment Report, Former ESCO Main Plant #1,#2, 2141 NW 25th Avenue, Portland, Oregon 97210, ECSI #6285. April 30. Available Online: <https://ormswd2.synergydcs.com/HPRMWebDrawer/Record/6900931>

² Bridgewater Group in Association with Tuppen Consultants. 2018. Baseline Environmental Site Assessment Report, Former Main Plant Properties, ESCO Corporation, 2141 NW 25th Avenue, Portland, Oregon. May. Available Online: <https://ormswd2.synergydcs.com/HPRMWebDrawer/Record/6319247>

by Bridgewater Group in association with Tuppan Consultants to evaluate soil and groundwater quality at the Site and evaluate for the presence of USTs. The BESA included the following:

- Sixty-six (66) soil borings were advanced across the Site from 5 to 25 feet bgs. Over 210 soil samples were collected at various depth intervals from these borings and analyzed via EPA Method NWTPH-Dx for diesel-range petroleum hydrocarbons (TPH-Dx), EPA Method NWTPH-Gx for gasoline-range petroleum hydrocarbons (TPH-Dx), EPA Method 8260 for Volatile Organic Compounds (VOCs), EPA Method 8270 for Polycyclic Aromatic Hydrocarbons (PAHs), EPA Method 8082 for Polychlorinated Biphenyls (PCBs), and EPA Method 6020 for Total Metals.
- Nine test pits were excavated with an excavator in several unpaved areas of the facility. The test pits were dug to assess the depth and quality of fill material and the type and quality of underlying native sediments. Soil samples were collected from each horizon (fill and native materials) and analyzed via TPH-Dx, TPH-Gx, VOCs, PAHs, PCBs, and Total Metals.
- The site was subdivided into eleven (11) area designations, also generally referred to as soil management decision units (DUs). Incremental sampling methodology (ISM) samples were collected for seven of the 11 DUs from two soil horizons, one from the upper horizon from 0.5 to 2.5 ft bgs, and one from the lower horizon from 2.5 to 5.0 ft bgs. Each soil horizon was sampled in triplicate and analyzed for PCB Aroclors, PAHs, and Total Metals.
- Four soil borings were advanced to the water table and converted into temporary wells (EB5, EB6, EB11, and EB17) and eight monitoring wells, designated MW-1 through MW-8, were installed. Four groundwater sampling events were conducted: one in March of 2017 of only the temporary wells installed, followed by two in April and June of 2017, and one in January 2018 of the monitoring wells. The depth to water was measured in each of the wells during each sampling event, and the groundwater was tested for TPH-Dx, TPH-Gx, PCBs, PAHs, VOCs, and Total Metals.

The initial demolition of Site structures began in 2017-2018 and included 23 buildings and the building foundation slabs. Further removal of foundation slabs and buildings occurred in 2019-2020. During facility demolition, approximately 7,017 tons of impacted soil was excavated and transported to the Waste Management Hillsboro Landfill. Remedial work at the site included the following:

- **Building 43:** This area was used as a distribution center for ESCO. Demolition included removal of the concrete building slab, urban debris and deleterious material, including brick, charcoal, and organics. The excavation was backfilled with crushed concrete.
- **Area A:** Excavation in this area targeted PAH-impacted soil. Excavations were backfilled with crushed concrete.
- **Area B/Building 8:** Excavation in this area targeted PAH-impacted soil. Excavations were backfilled with crushed concrete.
- **Area H:** This area was used as a finishing and assembly building for foundry operations. Excavation occurred after the building structure was removed to target petroleum-contaminated and PAH-impacted soils. Foundry sands were discovered within the steel lid of a large concrete vault. The sands were tested for VOCs, PAHs, PCBs, and total metals, which were all found to be non-detect.

- **Roosevelt 3:** Demolition in this area uncovered an area of petroleum-contaminated soil surrounded by a buried hydraulic ram. The ram and excavated soils were removed and backfilled with crushed concrete.
- **Roosevelt 4:** Demolition uncovered an area of petroleum-contaminated soils while regrading an excavation from a previous UST removal. The impacted soils were removed and backfilled with crushed concrete.
- **Roosevelt 5:** Demolition in this area uncovered an area of petroleum-contaminated soil. The impacted soils were excavated to the extent possible up to the property boundary/right-of-way and backfilled with crushed concrete.

In addition, the following LUST Files were opened and closed:

- LUST File #26-18-0569 was issued a NFA determination on August 14, 2019³.
- HOT LUST File #26-20-0458 was issued a NFA determination on January 4, 2021⁴.
- LUST File #26-20-0284 was issued a NFA determination on May 15, 2021⁵.

Figure 5 presents former underground storage tank locations.

Point Source Solutions conducted post-demolition sampling in areas where the BESA indicated the potential presence of contamination. Sampling included a combination of discrete soil samples collected from soil borings at various depths, ISM samples for surface and subsurface soil horizons, and groundwater monitoring. The Closure Report describes the number and locations of samples collected to characterize the site during and after demolition activities were completed. The Closure Report also presents the analytical results for these samples. Figures 6A through Figure 8 present residual post-demolition sampling results.

Additional Investigations

In addition to the investigations listed above, Point Source Solutions conducted the following investigations:

- A 2020 subsurface investigation of the ESCO Administrative Headquarters, located on tax lots 1N1E29DD00100 and 1N1E29DD01600. The investigation included a geophysical survey, soil, and soil vapor sampling. Soil sample results did not indicate the presence of petroleum hydrocarbons. Various VOCs, including 1,1,1 trichloroethane, chloroform, benzene, tetrachloroethene, ethylbenzene, xylene and naphthalene were detected in soil vapor samples, but all were below DEQ's Occupational RBC for Vapor Intrusion into Buildings. The results of this investigation are reported in the Closure Report.
- A 2023 Stormwater Infiltration Facility Soil Investigation to investigate the presence of contaminants of interest (COIs) in the vicinity of existing stormwater infiltration facilities within the Site pursuant to a request from DEQ and City of Portland Bureau of Environmental Services (BES). Soil samples were analyzed for TPH-Dx, TPH-Gx, VOCs, total metals, PCBs,

³ DEQ. 2019. Letter to Jennifer Pittsley (1535-A1, LLC); Re: No Further Action Determination for the Former ESCO Plant #1, LUST #26-18-0569. August 14. Available Online: <https://ormswd2.synergycds.com/HPRMWebDrawer/Record/6286159>

⁴ DEQ. 2021. Letter to 1535-A1, LLC; Re: Esco Corporation – Nw 25th Ave, File No.: 26-20-0458. October 19. Available Online: <https://www.deq.state.or.us/Webdocs/Forms/Output/FPController.ashx?SourceId=26-20-0458&SourceIdType=12>

⁵ DEQ. 2021. Letter to Jennifer Pittsley (1535-A1, LLC); Re: No Further Action Determination for the Former ESCO Plant #1 Property (tanks near NW 25th and NW York Intersection), LUST #26-20-0284. May 5. Available Online: <https://ormswd2.synergycds.com/HPRMWebDrawer/Record/6286223>

carcinogenic polycyclic aromatic hydrocarbons (cPAHs), and total organic carbon. All detections of COIs in soil were below the most stringent soil leaching to groundwater RBC in all three depth intervals requested by BES and DEQ. The results of this investigation are reported in the *Stormwater Infiltration Facility Soil Investigation*⁶.

- Two 2025 vapor intrusion investigations for Building #4. These investigations were completed following the submittal of the Closure Report and are reported in the *Building #4 Vapor Intrusion Investigation Report*⁷ and the *Building #4 Additional Vapor Intrusion Investigation Report*⁸. Figures 9a through 10b present the results of these sampling events.

4. RISK EVALUATION

This section presents a summary of risks associated with the current post-decommissioning site conditions.

Conceptual Site Model

A conceptual site model identifies sources of contamination, pathways by which this contamination could reach human and ecological receptors, and the human and ecological receptors currently and reasonably likely affected, and the degree of their exposure.

Evaluation of human exposure risks associated with contamination requires an assessment of the type and extent of that exposure. Applicable exposure scenarios must consider current and reasonably likely future site use. DEQ publishes risk-based concentrations (RBCs) for contaminants commonly encountered, for different types of exposure scenarios. These RBCs are conservative estimates of protective levels of contaminants in soil, groundwater and air. Table 1 shows potential exposure pathways and receptors for this site. Based on this, applicable RBCs are identified and used for risk screening.

Table 1. Identification of applicable RBCs, based on pertinent pathways and receptors

Pathway	Receptor	Applicable RBC?	Basis for selection/exclusion
SOIL			
Ingestion, dermal contact, and inhalation	Residential	Yes	Potential future receptor
	Occupational	Yes	Current and potential future receptor
	Construction worker	Yes	Current and potential future receptor
	Excavation worker	Yes	Current and potential future receptor
Leaching to groundwater	Residential	No	Groundwater is not used for drinking.
	Occupational	No	
GROUNDWATER			
	Residential	No	

⁶ Point Source Solutions. 2025. Stormwater Infiltration Facility Soil Investigation, ECSI No: 6285. September 6. Available Online: <https://ormswd2.synergycds.com/HPRMWebDrawer/Record/6414772>

⁷ Point Source Solutions. 2025. Building #4 Vapor Intrusion Investigation Report, ECSI No: 6285. September 26. Available Online: <https://ormswd2.synergycds.com/HPRMWebDrawer/Record/7006408>

⁸ Point Source Solutions. 2025. Building #4 Additional Vapor Intrusion Investigation Report, ECSI No: 6285. November 21. Available Online: <https://ormswd2.synergycds.com/HPRMWebDrawer/Record/6992269>

Pathway	Receptor	Applicable RBC?	Basis for selection/exclusion
Ingestion and inhalation from tap water	Occupational	No	Groundwater is not used for drinking
Volatilization to outdoor air	Residential	Yes	Potential future receptor
	Occupational	Yes	Current and potential future receptor
Vapor intrusion into buildings	Residential	Yes	Potential future receptor
	Occupational	Yes	Current and potential future receptor
Groundwater in excavation	Construction and excavation worker	No	The depth to groundwater exceeds likely excavation or construction work depths.
Soil Vapor/Air			
Volatilization to outdoor air	Residential	Yes	Potential future receptor
	Occupational (Commercial)	Yes	Current and potential future receptor
Vapor intrusion into buildings	Residential	Yes	Potential future receptor
	Occupational (Commercial)	Yes	Current and potential future receptor

Human Health Residual Risk

Soil

Soil contamination above applicable RBCs that remain at the site include the following:

- Building 43:** Post-excavation soil sampling included three replicate ISM samples collected from 0.5 to 2 feet bgs and 2 to 4 feet bgs. One out of the three ISM replicate samples exceeded residential and occupational RBCs benzo(a)pyrene equivalents (BaPeq) from 0.5 to 2 feet bgs. The other two samples from this interval were below the occupational RBC for BaPeq, but exceeded the residential RBC for BaPeq. The average of the three ISM replicate samples does not exceed the occupational RBC for BaPeq from 0.5 to 2 feet bgs. Similarly, one out of the three ISM replicate samples exceeded residential and occupational RBCs BaPeq from 2 to 4 feet bgs. The other two samples from this interval exceeded residential RBCs for BaPeq. Arsenic exceeds occupational and residential RBCs but was below regional background levels from 0.5 to 2 feet bgs. Arsenic slightly exceeded regional background levels from 2 to 4 feet bgs. None of the soil samples exceed the construction worker or excavation worker RBCs. In this area, crushed concrete/gravel has been placed as a cover that mitigates direct contact with soils. Occupational use is limited. More substantial occupational use of this area would require additional sampling and/or construction of a cap.
- Area A:** In this area, individual PAHs and BaPeq exceed residential RBCs to depths up to 3 feet bgs in post-excavation samples. In baseline pre-excavation samples, PAHs exceeded residential RBCs at depths up to 6 feet bgs, arsenic exceeded occupational and residential RBCs and established regional background levels from 0.5 to 2.5 feet bgs and 2.5 to 5 feet bgs, and lead

exceeded residential RBCs from 2.5 to 5 feet bgs. None of the soil samples exceed the construction worker or excavation worker RBCs. Post-excavation samples were not collected for arsenic or lead. This area is capped with asphalt, preventing direct contact with underlying soils.

- **Area B:** In this area, individual PAHs and BaPeq are below occupational RBCs, but exceed residential RBCs from 0.5 to 2.5 feet bgs in post-excavation samples. In baseline pre-excavation samples, arsenic exceeded occupational and residential RBCs and established regional background levels from 0.5 to 2.5 feet bgs and 2.5 to 5 feet bgs. None of the soil samples exceed the construction worker or excavation worker RBCs. Post-excavation samples were not collected for arsenic. In this area, crushed concrete/gravel has been placed as a cover that mitigates direct contact with soils. Occupational use is limited. More substantial occupational use of this area would require additional sampling and/or construction of a cap.
- **Area H:** In this area, BaPeq concentrations were below occupational RBCs, but exceeded residential RBCs in two discrete samples collected from 2 feet bgs. Naphthalene was below occupational RBCs, but exceeded residential RBCs in one discrete sample collected from 8 feet bgs. None of the soil samples exceed the construction worker or excavation worker RBCs.
- **Rail Spur Sampling Area:** This area represents a rail spur that runs along several areas, including Wilson 2, Roosevelt 2, and Building 43. In this area, BaPeq concentrations were below occupational RBCs, but exceeded the residential RBC in one sample location collected from 2 feet bgs. This isolated exceedance is not considered significant. None of the soil samples exceed the construction worker or excavation worker RBCs.
- **Roosevelt 3:** In this area, BaPeq concentrations were below the occupational RBC, but exceed the residential RBC from 0.5 to 2 feet bgs and 2 to 4 feet bgs. Arsenic exceeds occupational and residential RBCs and established regional background levels from 0.5 to 2 feet bgs and 2 to 4 feet bgs. None of the soil samples exceed the construction worker or excavation worker RBCs. This area is not currently capped, but crushed concrete/gravel has been placed as a cover that mitigates direct contact with soils. This area is not currently used. More substantial occupational use of this area would require additional sampling and/or construction of a cap.
- **Roosevelt 4:** In this area, individual PAHs and BaPeq concentrations are below occupational RBCs, but exceed residential RBCs from 0.5 to 2 feet bgs. BaPeq concentrations are below the occupational RBC, but exceed the residential RBCs and from 2 to 4 feet bgs. Arsenic exceeds occupational and residential RBCs and established regional background levels from 0.5 to 2 feet bgs and 2 to 4 feet bgs. None of the soil samples exceed the construction worker or excavation worker RBCs. This area is not currently capped, but crushed concrete/gravel has been placed as a cover that mitigates direct contact with soils. This area is not currently used. More substantial occupational use of this area would require additional sampling and/or construction of a cap.
- **Roosevelt 5:** In this area, a small pocket of petroleum-contaminated soil is located on the eastern property line of tax lot 1N1E28C100. Concentrations of diesel are below the occupational RBC, but exceed the residential RBCs. Arsenic exceeds occupational and residential RBCs and established regional background levels from 0.5 to 2 feet bgs and 2 to 4 feet bgs. None of the soil samples exceed the construction worker or excavation worker RBCs. This area is not currently capped, but crushed concrete/gravel has been placed as a cover that mitigates direct contact with

soils. This area is not currently used. More substantial occupational use of this area would require additional sampling and/or construction of a cap.

Groundwater

Low-level concentrations of TPH, VOCs, and PAHs were detected in groundwater samples. However, there is no current or likely future beneficial use for groundwater within the LOF and groundwater depths exceed those applicable to the groundwater in an excavation exposure scenario. Therefore, these pathways are not considered complete. Impacts related to volatilization to air are discussed below.

Soil Vapor/Air

Two rounds of soil gas samples were collected from the vicinity of Building 4. The first round of soil gas sampling included shallow samples, collected approximately 5 feet bgs, and deep samples, collected from 55 to 57 feet bgs (i.e., immediately above groundwater). The following exceedances of commercial and residential RBCs were observed:

- One deep soil gas sample exceeded the commercial and residential RBC for chloroform. An additional deep soil gas samples exceeded the residential RBC for chloroform. Chloroform did not exceed commercial or residential RBCs in shallow soil gas samples, indicating vertical attenuation at shallower depths.
- A duplicate shallow soil gas sample exceeded the commercial RBC naphthalene by a factor of 1.17, but the parent sample was below the commercial RBC. DEQ does not consider the commercial RBC exceedance to be significant. Three shallow soil gas sample locations exceeded the residential RBC for naphthalene. Future redevelopment into residential use should mitigate potential vapor intrusion risks associated with naphthalene.
- Three shallow soil gas sample locations exceeded the residential RBC for benzene. Future redevelopment into residential use should mitigate potential vapor intrusion risks associated with benzene.
- Multiple locations exceeded the commercial and residential RBCs for acrolein. Acrolein detections are commonly associated with background conditions and/or interference from sampling equipment.

A second round of shallow soil gas samples were collected to further assess acrolein detections and confirm initial sample results. One outdoor air (background) and two indoor air samples were also collected to support data interpretations. The following exceedances of commercial and residential RBCs were observed:

- All the shallow soil gas samples, the outdoor air (background), and indoor air samples exceeded commercial and residential RBCs for acrolein. Exceedances of the commercial soil gas RBC are low (exceedance ratios between 1.03 and 1.28). Other contributing factors lead to uncertainty about these acrolein detections, including the potential presence of ambient or background sources and/or interference of from sampling equipment (notably the breakdown of 1,3 butadiene and plastics used in sample ports). Acrolein in indoor air may also be related to storage of fire-damaged materials within Building 4 by the current tenant. The sample results do not definitively rule out the possibility that acrolein is associated, in part, to a subsurface release at the site; however, the most recent soil gas detections do not suggest that subsurface acrolein poses

unacceptable risk to occupational building users. Acrolein was detected in soil gas at concentrations above the residential RBC, and future redevelopment into residential use should further assess and mitigate potential vapor intrusion risks associated with acrolein.

- One shallow soil gas sample exceeded the commercial and residential RBCs for 1,4-Dioxane. 1,4-Dioxane was not detected in indoor air. There are no known potential on-site sources of 1,4-Dioxane.
- One soil gas sample exceeded the residential RBC for naphthalene. Future redevelopment into residential use should mitigate potential vapor intrusion risks associated with naphthalene.
- The outdoor (background) and indoor air samples exceeded the residential RBC for carbon tetrachloride. Carbon tetrachloride was not detected in soil gas and appear to be associated with an ambient background condition.
- The outdoor (background) and indoor air samples exceeded the residential RBC for benzene. The indoor air benzene results are consistent with outdoor air, indicating that indoor air detections of benzene may be associated with a regional background condition. However, benzene was previously detected in soil gas at concentrations above the residential RBC, and future redevelopment into residential use should further assess and mitigate potential vapor intrusion risks associated with benzene.
- Two indoor air samples exceeded the residential RBC for naphthalene. Naphthalene was not measured above an RBC in outdoor air. However, naphthalene was previously detected in soil gas at concentrations above the residential RBC, and future redevelopment into residential use should further assess and mitigate potential vapor intrusion risks associated with naphthalene.
- One indoor air sample exceeded the residential RBC for chloroform. Chloroform was previously detected in deep soil gas at concentrations above the residential RBC. Previous sampling suggested vertical attenuation of chloroform, but future redevelopment into residential use should further assess and mitigate potential vapor intrusion risks associated with chloroform.

Building 4 is currently the only building on the site. Soil gas in other areas of the site have not been sampled to assess potential vapor intrusion risks associated with future development. Any future development should include evaluation of soil gas and the potential for vapor intrusion in these areas.

Ecological Residual Risk

There are no ecological exposure areas at the site.

5. RECOMMENDATION

On January 23, 2026, Point Source Solutions submitted a *Contaminated Materials Management Plan*⁹ (CMMP) to describe requirements for managing contaminated materials during future work activities. The CMMP identifies and characterizes residual contamination above applicable RBCs across the site, assigns requirements for maintaining current caps, and provides requirements for soil handling and disposal during future excavation and/or redevelopment.

⁹ Point Source Solutions. 2026. Contaminated Materials Management Plan, Former ESCO Main Plant #1,#2, 2141 NW 25th Avenue, Portland, Oregon 97210. January 23. Available Online: <https://ormswd2.synergydcs.com/HPRMWebDrawer/Record/7013488>

An easement and equitable servitudes (EES) will be recorded with Multnomah County for each tax lot associated with the site. The final EES¹⁰ was subject to public comment, which took place concurrent with the public comment period for the recommended cNFA determination. The draft EES requires the following:

- Land use restrictions that require additional soil and soil gas remediation, as approved by DEQ< before residential use.
- Land use restrictions that require evaluation and mitigation of potential vapor intrusion for any building constructed on the site in the future.
- Site use restrictions that prohibit use of the property that results in unacceptable exposure to contaminated soils, require maintenance of existing caps, and require implementation of the CMMP.

Following recording of the EES with Multnomah County, residual contamination at the site is sufficiently controlled, and a Conditional No Further Action determination is recommended for this site. The Conditional No Further Action determination should require the property owner to abide by the servitudes listed in the final EES. Future redevelopment of the site will require DEQ oversight.

6. ATTACHMENTS

1. Figure 1: Site Location Map
2. Figure 2: Topographic Map
3. Figure 3: Site Plan
4. Figure 4: Tax Lot Map
5. Figure 5: Former UST Locations
6. Figure 6A: Estimated Residual Soil Contamination – PAHs (0.5 to 2.5 feet bgs)
7. Figure 6B: Estimated Residual Soil Contamination – PAHs (2.5 to 5 feet bgs)
8. Figure 7A: Estimated Residual Soil Contamination – Metals (0.5 to 2.5 feet bgs)
9. Figure 7B: Estimated Residual Soil Contamination – Metals (2.5 to 5 feet bgs)
10. Figure 8: Estimated Residual Soil Contamination – TPH
11. Figure 9a: Building 4 Sample Location Diagram (Commercial Receptors; September 2025)
12. Figure 9b: Building 4 Sample Location Diagram (Commercial Receptors; November 2025)
13. Figure 10a: Building 4 Sample Location Diagram (Residential Receptors; September 2025)
14. Figure 10b: Building 4 Sample Location Diagram (Residential Receptors; November 2025)

¹⁰ DEQ. 2026. Draft Easement and Equitable Servitudes. March 23. Available Online: <https://ormswd2.synergydes.com/HPRMWebDrawer/Record/7037735>

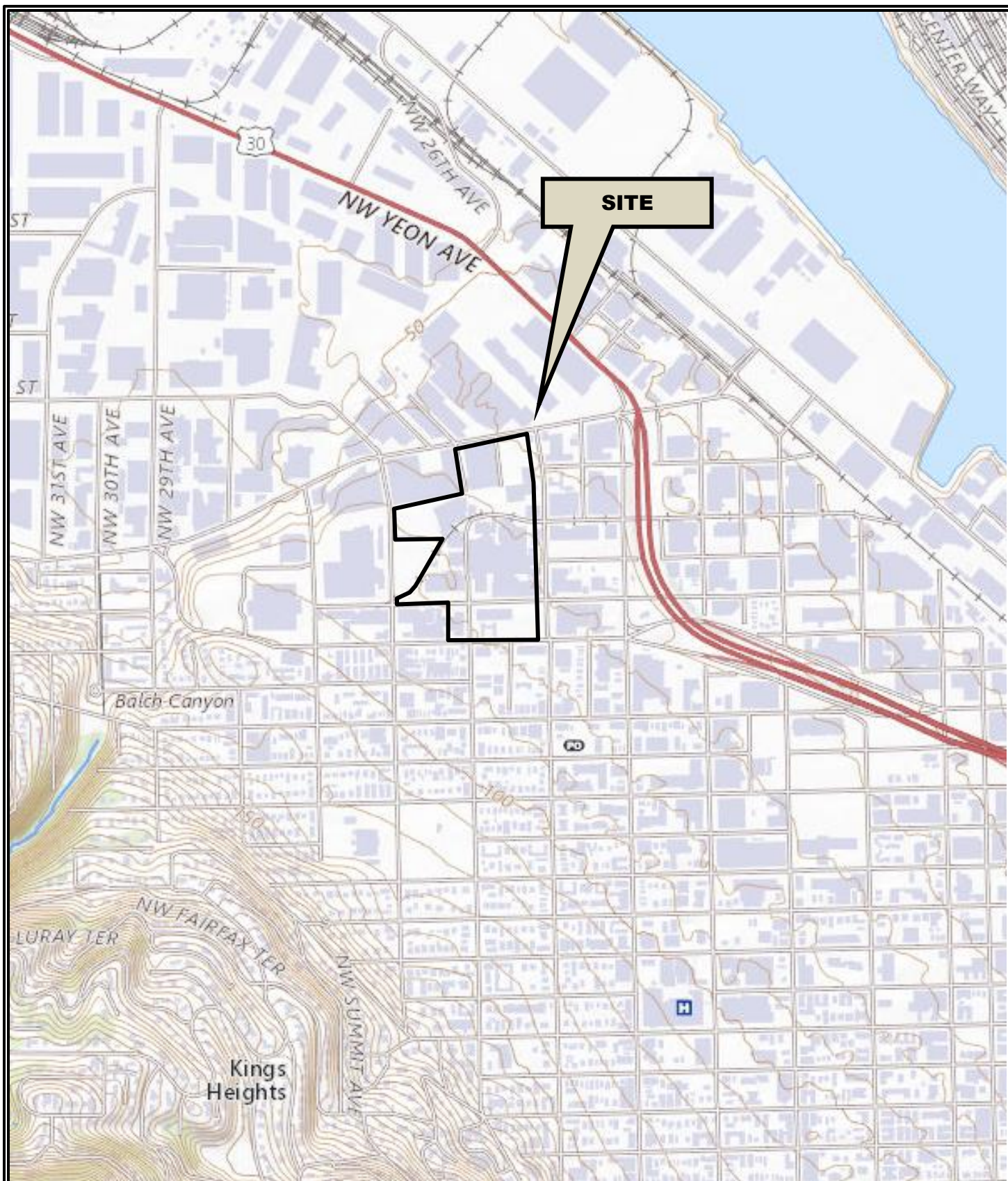


FIGURE 1: SITE LOCATION MAP

Source: USGS National Map



Site Name: Former ESCO Plant #1/#2
2141 NW 25th Avenue
Portland, Oregon 97210

Project Number: ECSI #6285

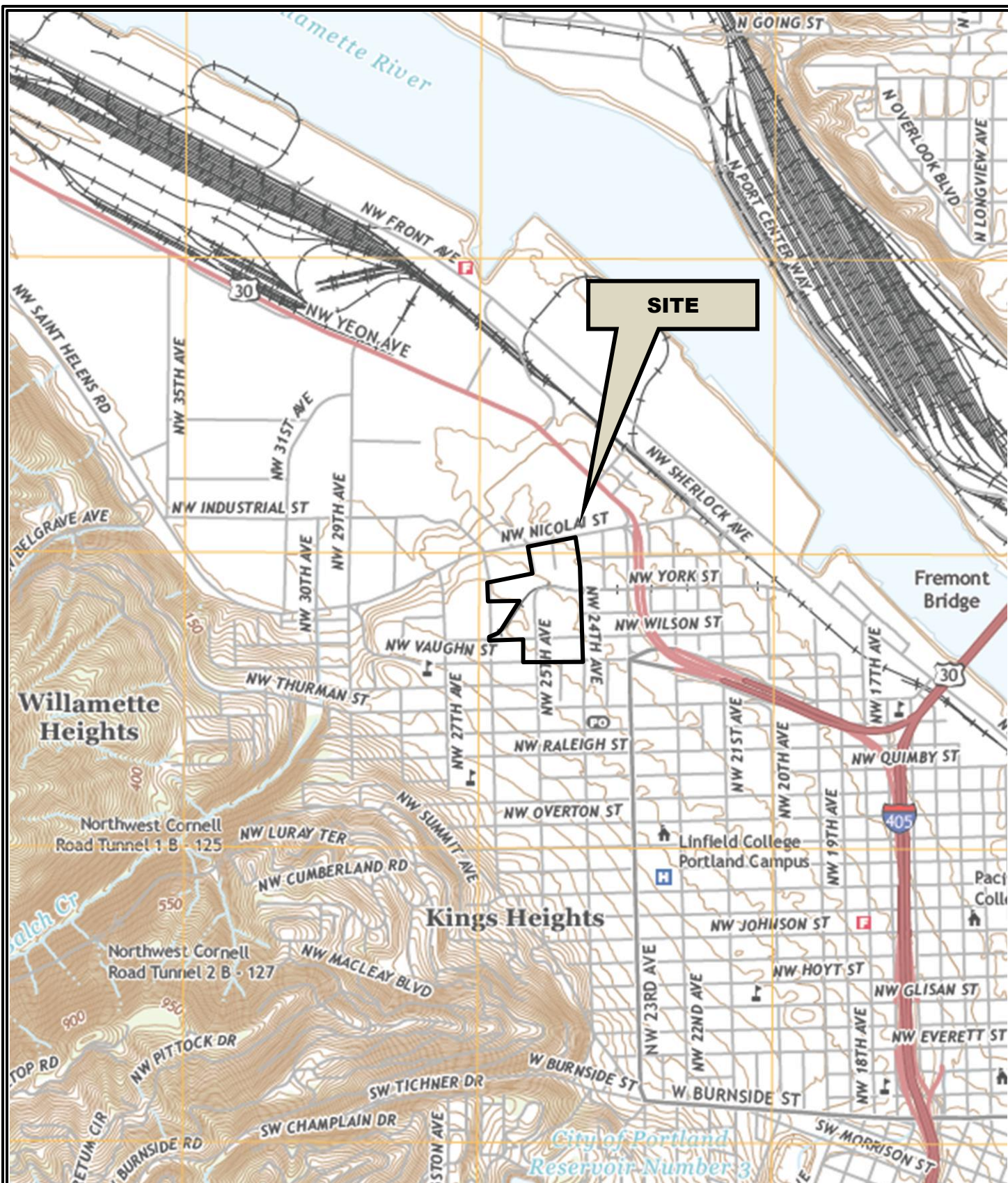


FIGURE 2: TOPOGRAPHIC MAP

Source: USGS 7.5 Minute Topo Map
Portland, Oregon 2020



Site Name: Former ESCO Plant #1/#2
2141 NW 25th Avenue
Portland, Oregon 97210

Project Number: ECSI #6285



FIGURE 3: SITE PLAN

Background Imagery from Google Earth 2022



▬ ESCO Main Plant #1/#2 Site Boundary

▬ Non - ESCO Main Plant #1/#2 Sites

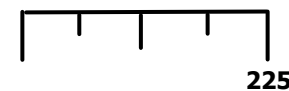
▬ ESCO Main Plant #1/#2 BESA Area Designations



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Scale in Feet (Approximate)



225



FIGURE 4: TAX LOTS

Background Imagery from Google Earth 2022
(Tax Lots Sourced from Portland Maps)



ESCO Main Plant #1/#2 Tax Lots

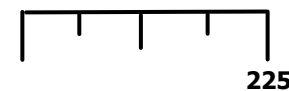
Non - ESCO Main Plant #1/#2 Tax Lots

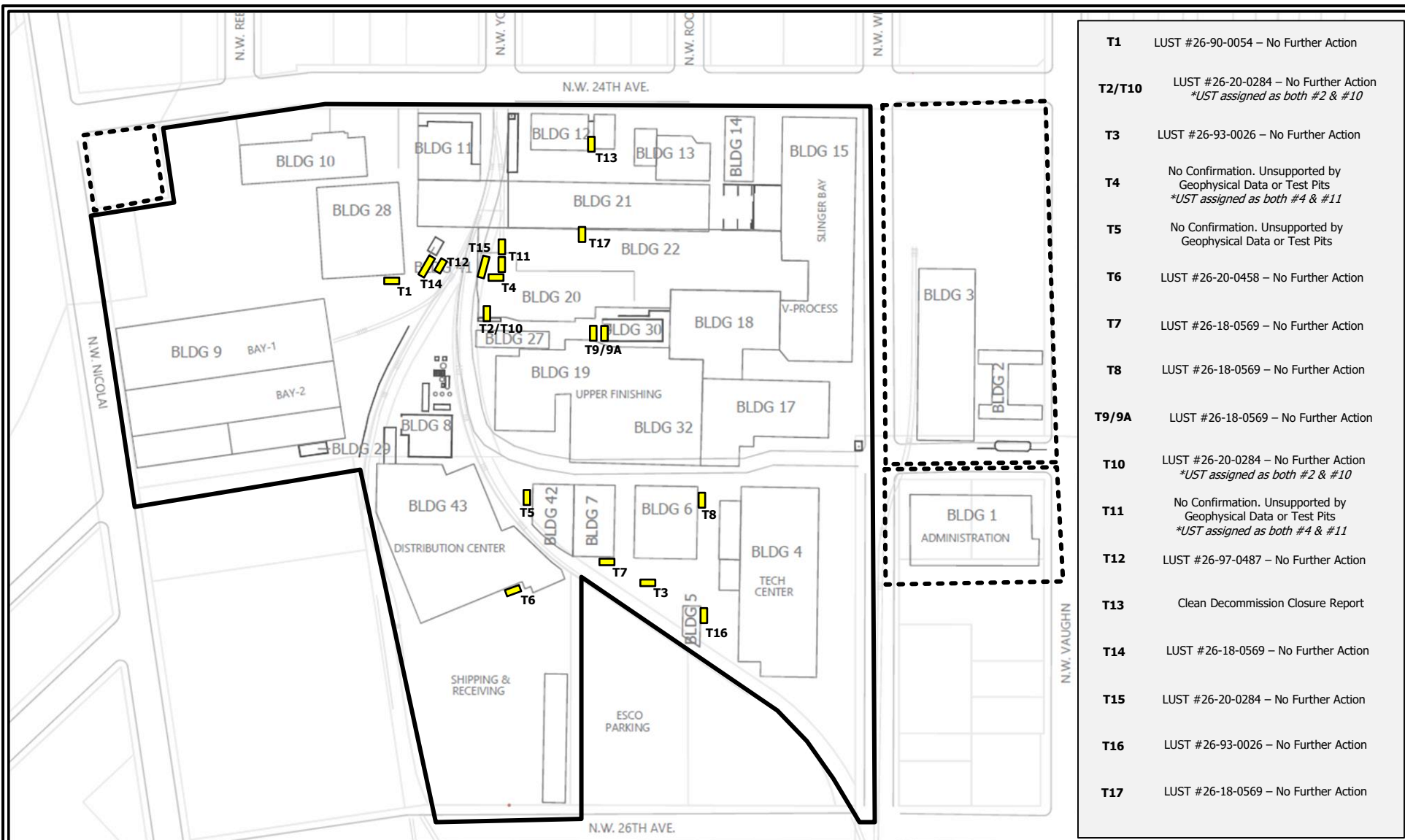


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- | | |
|---------------|---|
| T1 | LUST #26-90-0054 – No Further Action |
| T2/T10 | LUST #26-20-0284 – No Further Action
*UST assigned as both #2 & #10 |
| T3 | LUST #26-93-0026 – No Further Action |
| T4 | No Confirmation. Unsupported by Geophysical Data or Test Pits
*UST assigned as both #4 & #11 |
| T5 | No Confirmation. Unsupported by Geophysical Data or Test Pits |
| T6 | LUST #26-20-0458 – No Further Action |
| T7 | LUST #26-18-0569 – No Further Action |
| T8 | LUST #26-18-0569 – No Further Action |
| T9/9A | LUST #26-18-0569 – No Further Action |
| T10 | LUST #26-20-0284 – No Further Action
*UST assigned as both #2 & #10 |
| T11 | No Confirmation. Unsupported by Geophysical Data or Test Pits
*UST assigned as both #4 & #11 |
| T12 | LUST #26-97-0487 – No Further Action |
| T13 | Clean Decommission Closure Report |
| T14 | LUST #26-18-0569 – No Further Action |
| T15 | LUST #26-20-0284 – No Further Action |
| T16 | LUST #26-93-0026 – No Further Action |
| T17 | LUST #26-18-0569 – No Further Action |

FIGURE 5: FORMER UST LOCATIONS

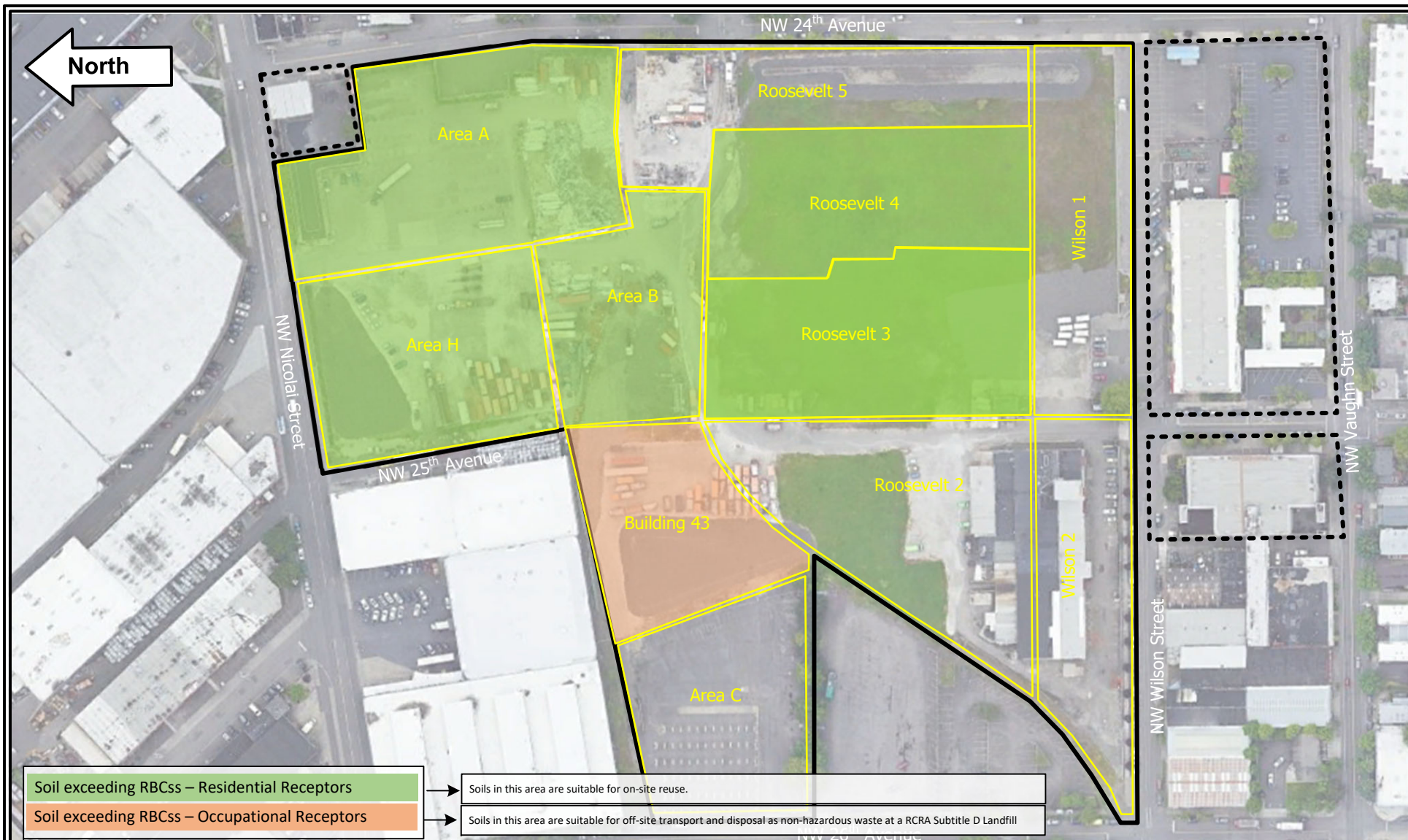


FIGURE 6A: ESTIMATED RESIDUAL SOIL CONTAMINATION - PAHs

Residual Soil Contamination Presented is from the 0.5'-2.5' bgs Subsurface Interval

Background Imagery from
Google Earth 2022



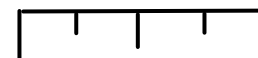
Note: Contaminants represented in the figure did not exceed the construction or excavation worker RBCs in any of the subareas; shading based on a combination of ISM data and discrete sampling data collected from each subarea



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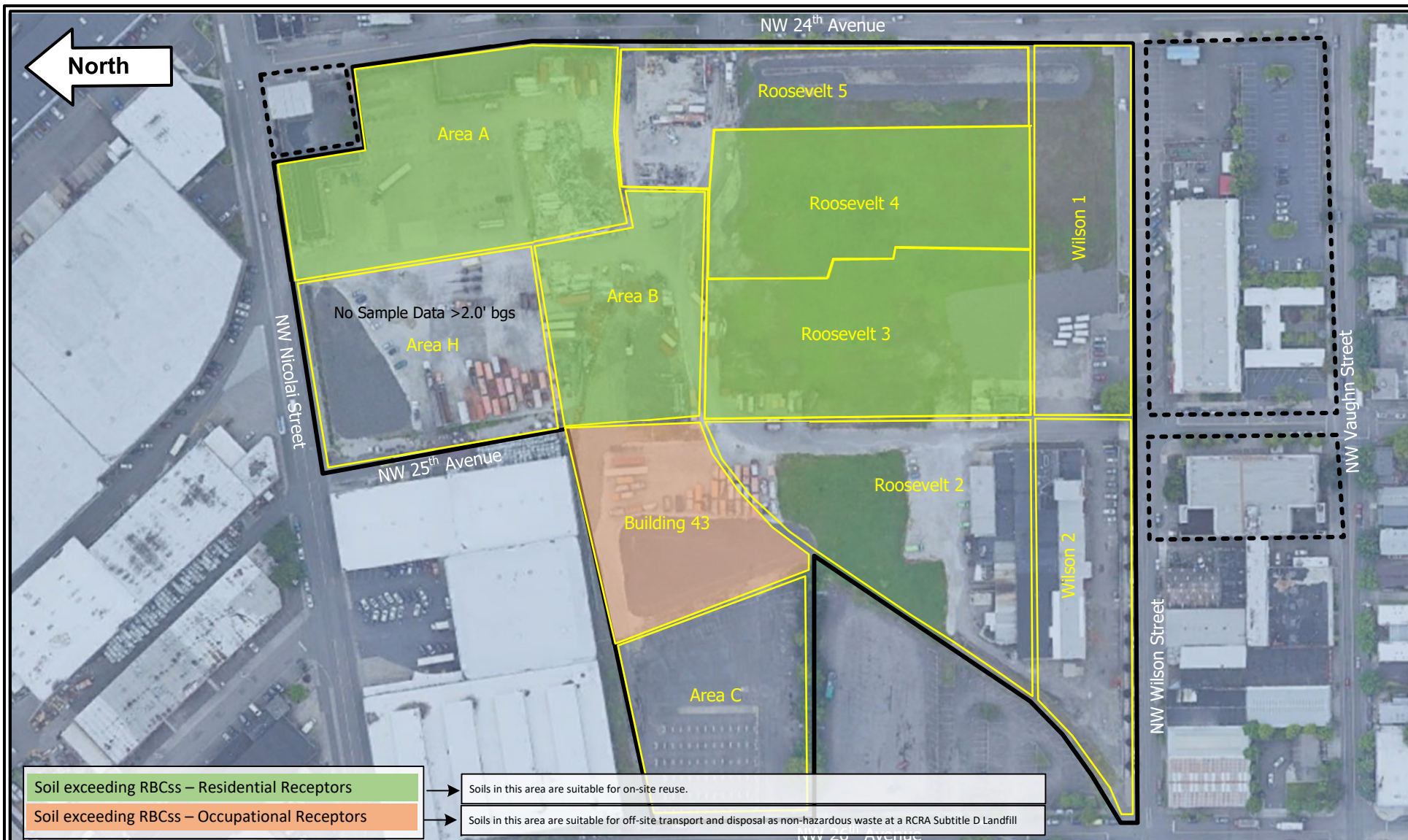


FIGURE 6B: ESTIMATED RESIDUAL SOIL CONTAMINATION - PAHs
Residual Soil Contamination Presented is from the 2.5'-5' bgs Subsurface Interval

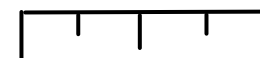
Background Imagery from
Google Earth 2022



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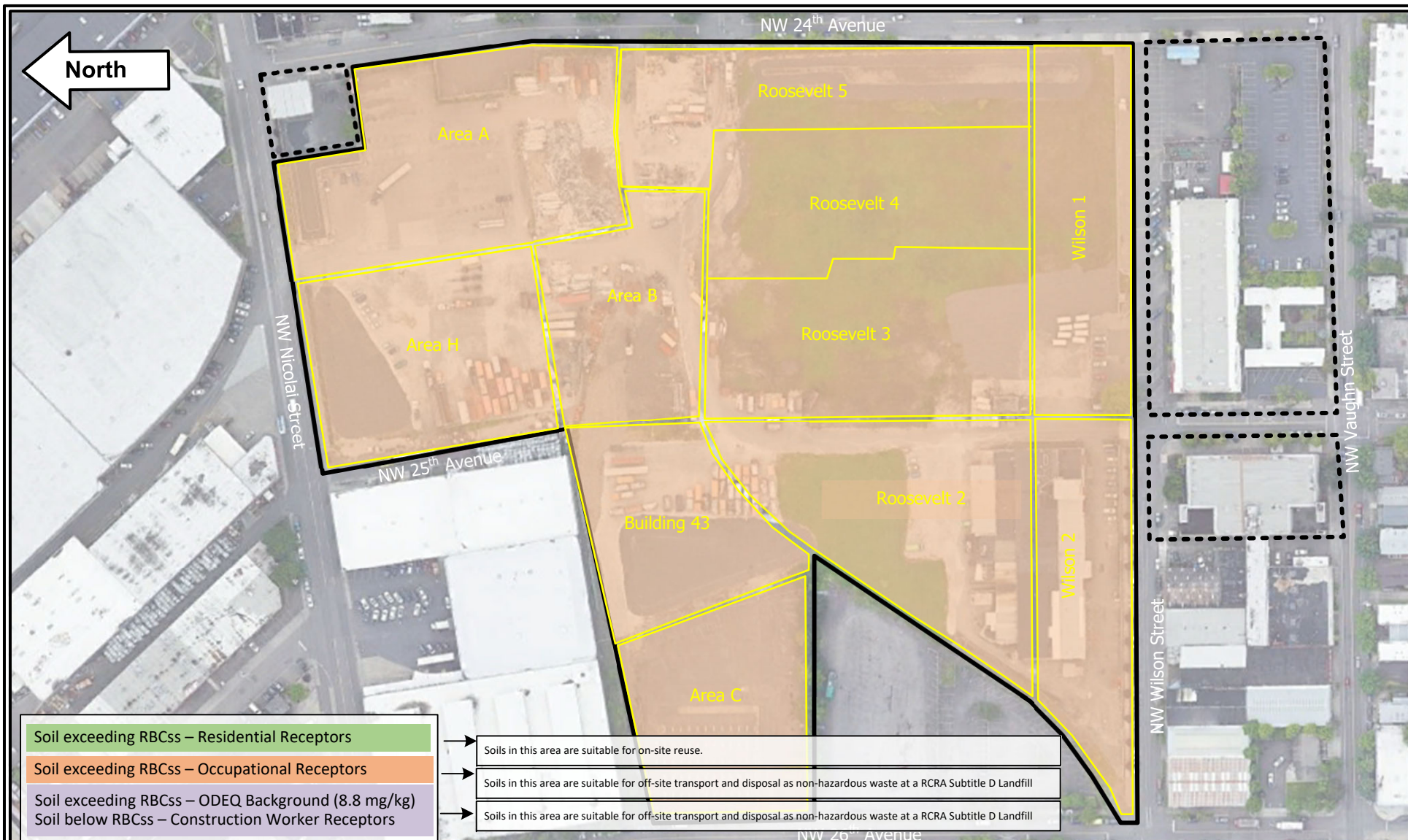


FIGURE 7A: ESTIMATED RESIDUAL SOIL CONTAMINATION - Metals

Residual Soil Contamination Presented is from the 0.5'-2.5' bgs Subsurface Interval

Background Imagery from
Google Earth 2022



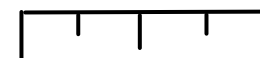
Note: Contaminants represented in the figure did not exceed the construction or excavation worker RBCs in any of the subareas; shading based on a combination of ISM data and discrete sampling data collected from each subarea



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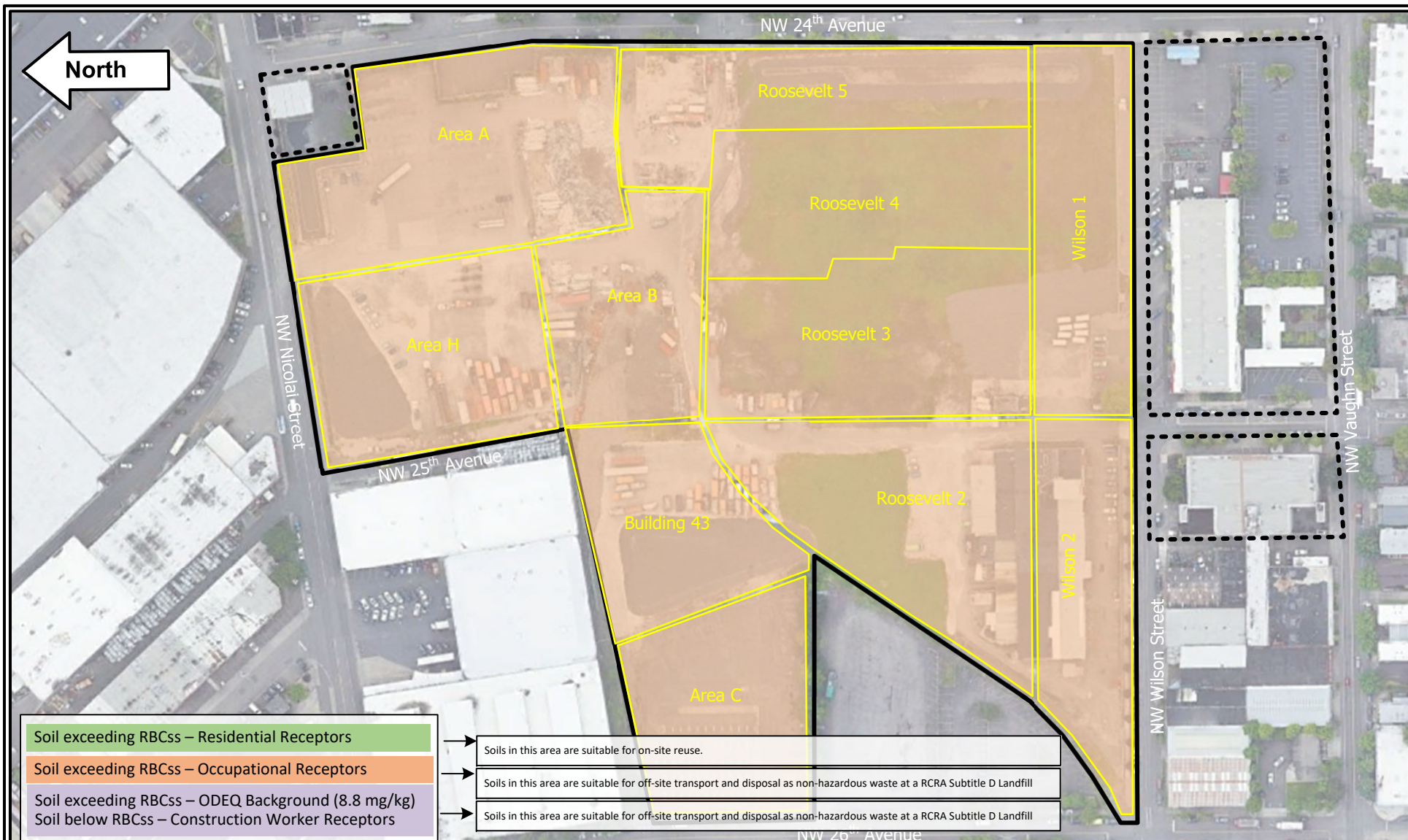


FIGURE 7B: ESTIMATED RESIDUAL SOIL CONTAMINATION - Metals
Residual Soil Contamination Presented is from the 2.5'-5' bgs Subsurface Interval

Background Imagery from
Google Earth 2022



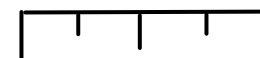
Note: Contaminants represented in the figure did not exceed the construction or excavation worker RBCs in any of the subareas; shading based on a combination of ISM data and discrete sampling data collected from each subarea



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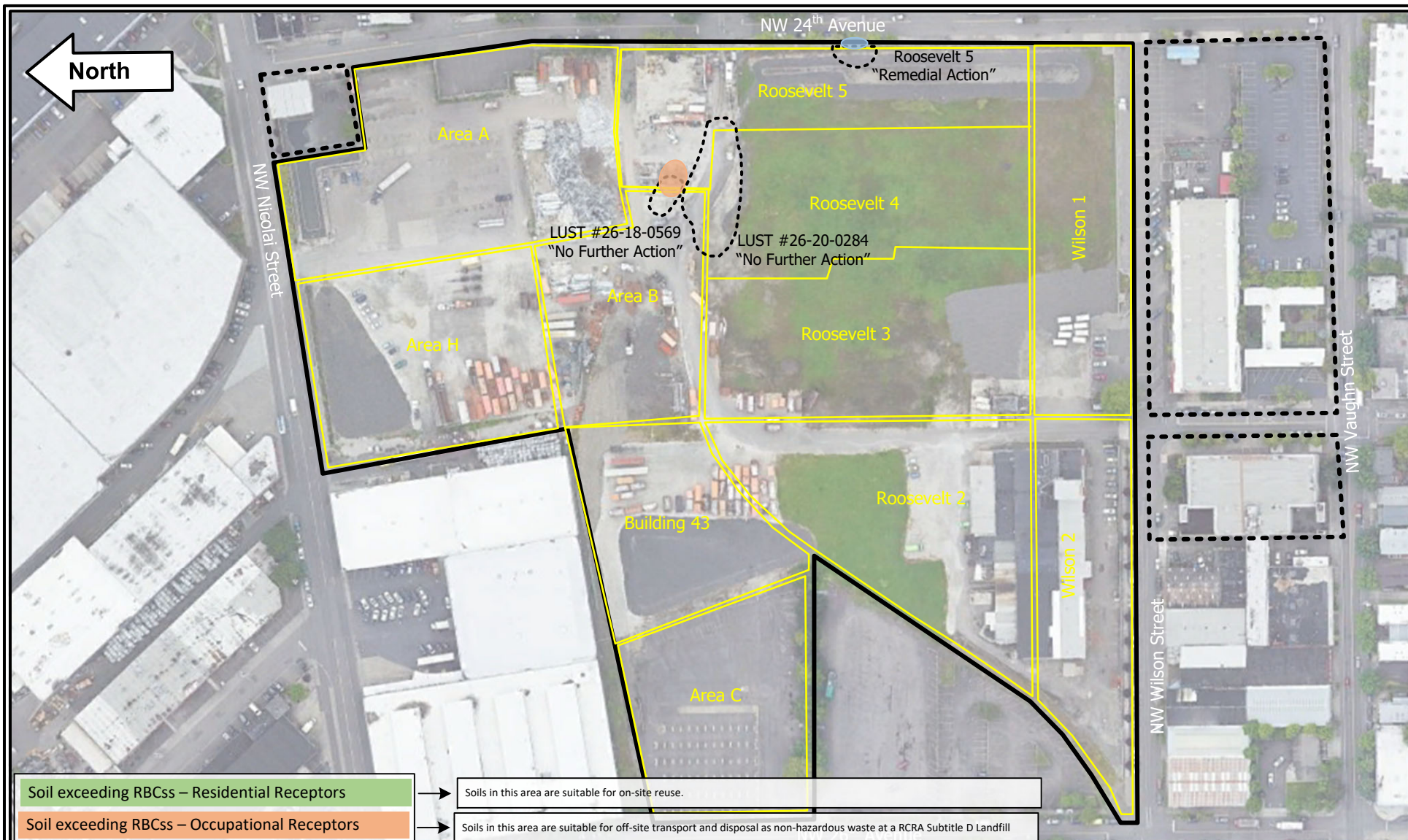


FIGURE 8: ESTIMATED RESIDUAL SOIL CONTAMINATION - TPH

Background Imagery from
Google Earth 2022



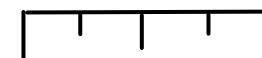
Note: Contaminants represented in the figure did not exceed the construction or excavation worker RBCs in any of the subareas; shading based on a combination of ISM data and discrete sampling data collected from each subarea



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FIGURE 9a: BUILDING 4 SAMPLE LOCATION DIAGRAM (>RBCsv for commercial receptors; September 2025)

Aerial Imagery from
Google Earth 2024

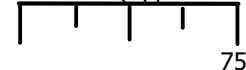


Notes:

- Vapor Sample results in ug/m³
- **RED** = Detected above RBCsv for commercial receptors
- Only constituents that exceeded applicable screening levels are presented.

- Shallow Soil Vapor Sample Location
- Deep Soil Vapor Sample Location

Scale in Feet (Approximate)



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FIGURE 9b: BUILDING 4 SAMPLE LOCATION DIAGRAM (>RBCsv/RBCair for commercial receptors; November 2025)

Aerial Imagery from
Google Earth 2024



<i>Notes:</i> - Vapor Sample results in ug/m³ RED = Detected above RBCsv/RBCair for commercial receptors - Only constituents that exceeded applicable screening levels are presented.	Scale in Feet (Approximate) 75 ● Soil Gas Sample Location ● Indoor/Outdoor (Ambient) Sample Location
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FIGURE 10a: BUILDING 4 SAMPLE LOCATION DIAGRAM (>RBCsv for residential receptors; September 2025)

Aerial Imagery from Google Earth 2024



Notes:

- Vapor Sample results in ug/m³
- **RED** = Detected above RBCsv for residential receptors
- Only constituents that exceeded applicable screening levels are presented.

- Shallow Soil Vapor Sample Location
- Deep Soil Vapor Sample Location

Scale in Feet (Approximate)



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FIGURE 10b: BUILDING 4 SAMPLE LOCATION DIAGRAM (>RBCsv/RBCair for residential receptors; November 2025)

Aerial Imagery from Google Earth 2024



Notes:

- Vapor Sample results in ug/m³
- **RED** = Detected above RBCsv/RBCair for commercial receptors
- Only constituents that exceeded applicable screening levels are presented.

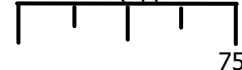


Soil Vapor Sample Location



Indoor/Outdoor (Ambient) Sample Location

Scale in Feet (Approximate)



75



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