



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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Kyler Kelly
Earth Solutions NW, LLC
15365 NE 90th Street, Suite 100
Redmond, WA 98052

3/26/2024

Re: Laborers Local 242 Training Bldg – Arsenic and Lead Soil Sampling and Testing

Thank you for the opportunity to provide comments on this proposed project. The property located at 22205 Pacific Highway South, in Des Moines, Washington includes one King County Tax Parcel (Parcel Number 2156400223), totaling approximately 1.08 acres. This project is located in an area predicted to have arsenic and lead in the soil because of the air emissions from the old Asarco Smelter in Ruston, Washington (Figure 1).

This property is planned for redevelopment into a future training building. Ecology recommended soil sampling on the property to evaluate the levels of arsenic and lead in the soil prior to project commencement. Ecology also recommended enrollment in the Voluntary Cleanup Program (VCP) if lead or arsenic are found at concentrations above the Model Toxics Control Act (MTCA) Method A cleanup levels.

On behalf of the property owner, Earth Solutions NW, LLC (ESNW) conducted soil sampling on the property on December 20, 2023. ESNW followed the recommended guidance in the Department of Ecology's Tacoma Smelter Plume Model Remedies Guidance.

THE MTCA SOIL CLEANUP LEVELS:

Average arsenic ≤ 20 mg/kg
Average lead ≤ 250 mg/kg
AND
Maximum arsenic ≤ 40 mg/kg
Maximum lead ≤ 500 mg/kg

In December 2023, a total of 20 discrete soil samples from 16 locations, were collected. Sixteen samples were collected from 0 to 6 inches below ground surface (bgs), and four samples were collected from 6 to 12 inches bgs. In addition, four forest duff samples were collected from forested locations on the property.

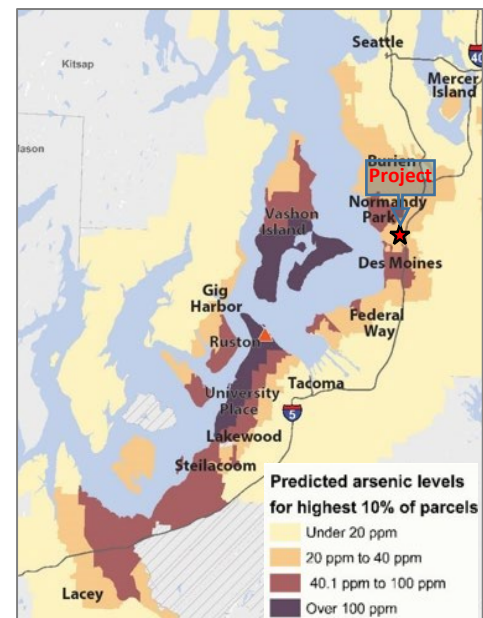


Figure 1. Vicinity Map

ESNW submitted the soil samples to OnSite Environmental Inc. (OnSite) in Seattle, Washington for an analysis of arsenic and lead concentrations with an Environmental Protection Agency (EPA) Method 6010D. ESNW noted that the lab analysis results indicated 19 of the 20 samples collected were below MTCA cleanup levels. However, at sampling location SS-16, results indicated an arsenic concentration of 660 mg/kg, and a lead concentration of 750 mg/kg¹. After consultation with Ecology regarding the elevated results at SS-16, Ecology recommended additional soil sampling to better identify the extent of contamination. ESNW collected additional soil samples near SS-16, on January 16, 2024². On March 14, 2024, an additional soil sample was collected from location SS-16 at 0 to 6 inches bgs, to confirm the results of earlier sampling. This sample is identified at SS-19³. Soil sampling confirmed elevated arsenic and lead is present at SS-16 at 0-6", but contamination does not extend below 0-6" or to other sampling locations on the property.

ESNW submitted the soil analysis reports and site maps to Ecology. Ecology reviewed the soil sampling results and determined the one location (SS-16) with elevated arsenic and lead is not a result of Tacoma Smelter Plume (TSP) contamination, rather from another source. TSP contamination from air emissions does not present itself in such high concentrations at this distance from the smelter, rather lower concentrations more evenly distributed across the landscape. By removing the one hotspot (SS-16 at 0 to 6 inches bgs) from the calculated averages for the property, no samples exceeded the maximum allowable concentration for a single soil sample of 40 mg/kg for arsenic or 500 mg/kg for lead. Additionally, the average soil concentrations were below the cleanup level of 20 milligrams per kilogram (mg/kg) for arsenic and 250 mg/kg for lead (Table 1).

Table 1. Summary of Soil Sampling

Sample Depth (inches)	Arsenic mg/kg (EPA 6010D)		Lead mg/kg (EPA 6010D)	
	Minimum	Maximum	Minimum	Maximum
0 (duff)	<13	<17	12	37
0-6 (soil) Excluding SS-16	<11	<18	<5.7	46
0-6 (soil) Samples at SS-16	250	660	400	750
6-12 (soil)	<11	<12	12	37
MTCA Levels		40		500

Bold red values represent concentrations twice the MTCA Method A cleanup level.

¹ OnSite Environmental Inc., *Analytical Data for Project ES-8574.05, Laboratory Reference No. 2312-253*, January 3, 2024.

² OnSite Environmental Inc., *Analytical Data for Project ES-8574.05, Laboratory Reference No. 2401-162*, January 23, 2024.

³ OnSite Environmental Inc., *Analytical Data for Project ES-8574.05, Laboratory Reference No. 2403-188*, March 15, 2024.

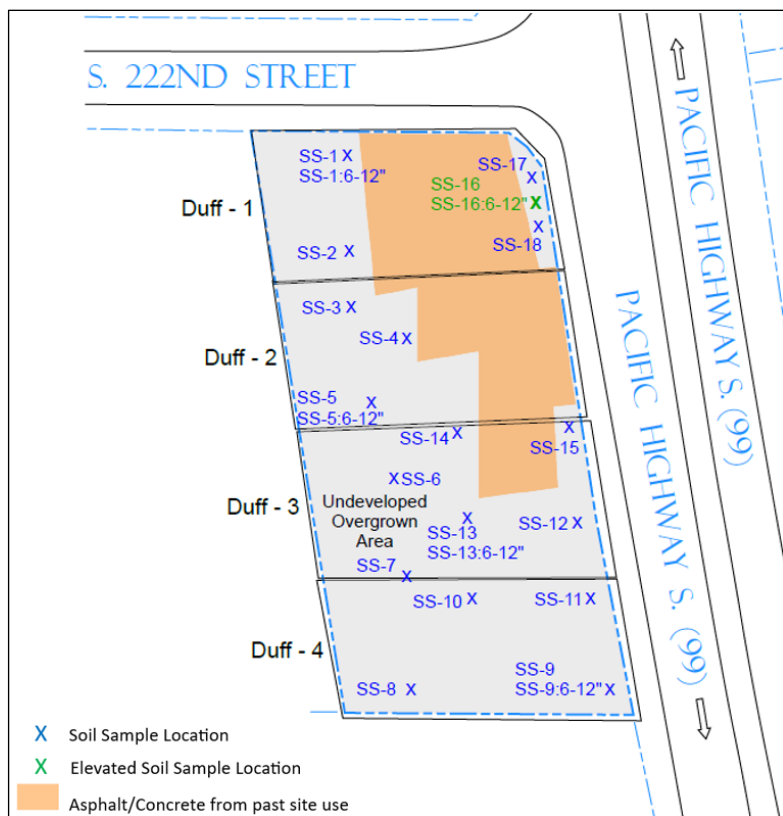


Figure 2. Soil Sampling Locations

Ecology does not recommend this property enter the Voluntary Cleanup Program to remediate soils contaminated with heavy metals due to air emissions originating from the old Asarco smelter in North Tacoma. No soil remediation for the contamination associated with the Tacoma Smelter Plume is needed for this property.

However, location SS-16 soil sample results (and confirmed with SS-19) indicate elevated arsenic and lead. Ecology recommends filing an Environmental Report Tracking System (ERTS) report by contacting the ERTS Coordinator at the Northwest Regional Office at (206) 594-0000.

Please note, this is not a “No Further Action” determination for the property since the property was not enrolled into the VCP with Ecology.

Sincerely,

Diana Ison

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