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STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

Southwest Region Office

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January 29, 2025

Michael Swartz, Executive Director of Capital Projects Federal Way Public Schools 33330 8th Avenue South Federal Way, WA 98003 mswartz@fwps.org

Re: No Further Action opinion for the following Property associated with the Asarco Tacoma Smelter Site

Site name:Olympic View Elementary Federal WayProperty address:2626 SW 327th Street, Federal Way, King County WA 98023Facility/Site ID:77894Cleanup Site ID:15410VCP Project No.:NW3305

Dear Michael Swartz:

The Washington State Department of Ecology (Ecology) received your request on November 4, 2024, for an opinion regarding the sufficiency of the Property cleanup associated with the Asarco Tacoma Smelter (Asarco Site) under the Voluntary Cleanup Program (VCP).¹ This letter provides our opinion and analysis. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter <u>70A.305</u> RCW.²

 $^{^{1}\} https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Voluntary-Cleanup-Program$

² https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305

Olympic View Elementary VCP NW3305

Opinion

Ecology has determined that no further remedial action is necessary at the Property to clean up contamination associated with the Asarco Site. However, further remedial action remains necessary elsewhere at the Asarco Site to clean up contamination.

Ecology bases this opinion on an analysis of whether the remedial action meets the substantive requirements of MTCA and its implementing regulations, which are specified in Chapter 70A.305 RCW and Chapter <u>173-340</u> WAC³ (collectively called "MTCA").

Property Description

This opinion applies only to the Property described in this section, which was affected by release(s) at the Asarco Site and addressed by your cleanup. The Property includes the following parcel of real property in King County.

• 1321039008 (9.42 acres)

Enclosure A includes a legal description of the Property. Enclosure B includes a detailed description and diagram of the Asarco Site. Figure 1 shows where the Property is located within the Asarco Site.

Asarco Site Description

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

- Arsenic in soil.
- Lead in soil.

Enclosure B includes the Asarco Site description, history, and diagrams.

This opinion does not apply to any other sites that may affect the Property.

Please note that releases from multiple sites can affect a parcel of real property. At this time, Ecology has no information that other sites affect the Property.

³ https://apps.leg.wa.gov/WAC/default.aspx?cite=173-340

Basis for the Opinion

Ecology bases this opinion on information in the documents listed in Enclosure C. You can request these documents by filing a <u>records request</u>.⁴ For help making a request, contact the Public Records Officer at <u>recordsofficer@ecy.wa.gov</u> or call (360) 407-6040. Before making a request, check if the documents are available on the <u>Olympic View Elementary</u> <u>Federal Way webpage.</u>⁵

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

Analysis of the Cleanup

Ecology has concluded that no further remedial action is necessary at the Property to clean up contamination associated with the Asarco Site. However, Ecology has also concluded that further remedial action is still necessary to clean up contamination elsewhere at the Asarco Site. Ecology bases its conclusions on the following analysis:

Characterizing the Asarco Site

Olympic View Elementary School property (Property) is located west of the Interstate 5 in a residential area of Federal Way, Washington (Figure 1). The Property is bordered to the west by Twin Lakes Golf and Country Club, to the south, east, and north by residential developments. Federal Way Public Schools (FWPS) has recently renovated the school to provide additional capacity

Figure 1. Vicinity map



for students and staff. They constructed a new two-story building with a new parking lot, new ADA accessible sidewalks, new playgrounds, and grass playfield. All utilities were removed and

⁴ https://ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests

⁵ https://apps.ecology.wa.gov/cleanupsearch/site/15410

relocated. Two acres of existing forested land to the north, west, and northeast on the Property remain undeveloped.

As part of the planned redevelopment, FWPS contracted PBS to characterize the Tacoma Smelter Plume (TSP) contamination on the Property. On September 1, 2020, PBS collected 55 discrete soil samples from 44 sampling locations on the Property (Figure 2). They collected 44 soil samples from 0 to 6 inches below ground surface (bgs) and 11 soil samples from 6 to 12 inches bgs.

PBS did not sample areas outside of the proposed redevelopment areas, specifically the treed areas in the northern and western part of the Property. PBS conducted additional sampling in those areas on March 12, 2021, as requested by Ecology. An additional 19 discrete soil samples were collected. Fifteen samples were collected from 0 to 6 inches bgs and four samples were collected from 6 to 12 inches bgs (Figure 2).

PBS submitted all the samples to Friedman & Bruya Inc. laboratory in Seattle, WA for arsenic and lead analysis with Environmental Protection Agency (EPA) Method 6020B.

In 2003, Ecology sampled the children play areas at the school as part of the Soil Safety Program (SSP) with Ecology. Ecology collected eight samples from 0 to 2 inches bgs and eight samples from 2 to 6 inches bgs. Arsenic and lead concentrations were below their respective cleanup levels of 20 milligrams per kilogram (mg/kg) for arsenic and 250 mg/kg for lead. Ecology determined that no remedial actions were necessary in the play areas sampled. For more information on the SSP soil sampling, refer to Enclosure D.

Because the 2003 SSP did not adhere to the TSP Model Remedies Guidance, the results of the 2003 soil sampling were not used in calculating the average concentrations for arsenic and lead on the Property. PBS collected a sufficient number of soil samples to adequately characterize the TSP soil contamination on the Property.

Results of 2020 and 2021 Characterization Soil Sampling

Table 1 provides a summary of the characterization soil sampling on the Property (Figure 2). Enclosure E contains the comprehensive results of the soil sampling.

Samples collected at 0 to 6 inches bgs: Arsenic exceeded the MTCA Method A cleanup level of 20 (mg/kg) in three samples, with one exceeding the maximum allowable concentration for a single soil sample (40 mg/kg). Arsenic concentrations ranged from 1.81 mg/kg to 53.1 mg/kg. The average arsenic concentration was 7.56 mg/kg. None of the lead concentrations exceeded

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the MTCA Method A cleanup level of 250 mg/kg for lead. Lead concentrations ranged from 3.88 mg/kg to 231 mg/kg. The average lead concentration was 20.97 mg/kg.

Samples collected at 6 to 12 inches bgs: One sample exceeded the cleanup level of 20 mg/kg for arsenic, but did not exceed the maximum allowable concentration of 40 mg/kg for a single soil sample for arsenic. The arsenic concentrations ranged from 2.34 mg/kg to 22.80 mg/kg. The average arsenic concentration was 5.3 mg/kg. None of the lead concentrations in this depth interval exceeded the cleanup level of 250 mg/kg for lead. Lead concentrations ranged from 2.52 mg/kg to 50.7 mg/kg. The average lead concentration was 11.89 mg/kg.

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Figure 2. Approximate Locations of Soil Samples

Depth (inches)	Minimum Arsenic (mg/kg)	Maximum Arsenic (mg/kg)	Average Arsenic (mg/kg)	Minimum Lead (mg/kg)	Maximum Lead (mg/kg)	Average Lead (mg/kg)
0-6	1.81	53.1	7.56	3.88	231	20.97
6-12	2.34	22.80	5.3	2.52	50.7	11.89
MTCA Cleanup Level		40	20		500	250

Table 1. Summary of the 2020 and 2021 Characterization Sampling on the Property

Bold values represent concentrations twice the MTCA Method A cleanup level; **Bold red** values represent concentrations more than twice the MTCA Method A cleanup level.

In December 2020, PBS conducted supplemental soil sampling to delineate the extent of arsenic and lead concentrations in the area that exceeded twice the cleanup level of 20 mg/kg for arsenic (Sample 2-02). PBS collected additional samples from 6 to 12 inches bgs, 12 to 18 inches bgs, and 18-24 inches bgs below Sample 2-02. PBS also collected discrete samples 10 feet, 25 feet and 50 feet north, south, and west of Sample 2-02 (Figure 3). They collected samples at 0 to 6 inches bgs, 6 to 12 inches bgs, and 12 to 18 inches bgs.

Samples collected 25 feet and 50 feet from Sample 2-02 and samples collected from 12 to 18 inches bgs were submitted to the laboratory on hold, pending results of shallower and closer soil samples. PBS submitted the samples to Friedman & Bruya Inc. laboratory in Seattle, Washington for arsenic and lead analysis with EPA Method 6020B. If shallower or closer (to Sample 2-02) sample results exceeded cleanup levels, the samples collected at 25 feet and 50 feet away from Sample 2-02 would have been analyzed.

None of the supplemental samples exceeded the cleanup level of 20 mg/kg for arsenic or the cleanup level of 250 mg/kg for lead (Table 2).



Figure 3. Supplemental Soil Sampling

Sample No.	Sample Date	Sample Location	Sample Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
2-02-10Na	12/20/2021	10 feet north of 2-02	0-6	3.60	6.78
2-02-25Na	12/20/2021	25 feet north of 2-02	0-6	5.76	235
2-02-10Wa	12/20/2021	10 feet west of 2-02	0-6	4.27	7.59
2-02-25Wa	12/20/2021	25 feet west of 2-02	0-6	4.59	7.56
2-02-10Sa	12/20/2021	10 feet south of 2-02	0-6	4.20	9.58
2-02-25Sa	12/20/2021	25 feet south of 2-02	0-6	3.76	8.58
2-02-08Ea	12/20/2021	8 feet east of 2-02	0-6	4.15	23.1
Average					42.6
2-02b	12/20/2021	6" below 2-02	6-12	4.43	6.54
2-02c	12/20/2021	12" below 2-02	12-18	5.38	7.36

Setting cleanup standards for the Site

Ecology has determined the cleanup levels and points of compliance established for the Asarco Site meet the substantive requirements of MTCA.

As part of the Interim Action Plan for the Asarco Site (June 2012) (IAP), Ecology completed a terrestrial ecological evaluation for properties with only Tacoma Smelter Plume contamination. Ecology determined the MTCA Method A cleanup levels for both arsenic and lead were protective of both human health and the environment.

The MTCA Method A cleanup levels for soil are as follows:

- Arsenic is 20 mg/kg.
- Lead is 250 mg/kg.

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The IAP determined the following cleanup levels were protective of human health and the environment for properties within the Asarco Site:

- Average arsenic concentration detected in the soil less than 20 mg/kg.
- Average lead concentration detected in the soil less than 250 mg/kg.
- Duff composite sample is less than 20 mg/kg for arsenic.
- Duff composite sample is less than 250 mg/kg for lead.
- No single soil sample has arsenic concentration above 40 mg/kg.
- No single soil sample has lead concentration above 500 mg/kg.

Selecting the cleanup action for the Property

Ecology has determined the cleanup action you selected for the Property meets the substantive requirements of MTCA and the IAP. The cleanup meets the minimum cleanup requirements and does not exacerbate conditions or preclude reasonable cleanup alternatives elsewhere at the Asarco Site.

Ecology proposed four model remedies in the IAP:

- Excavation and removal.
- Mixing.
- Capping in place.
- Consolidation and capping.

PBS decided to use mixing on the Property.

Implementing the cleanup action

Ecology has determined your cleanup of the Property meets the standards set for the Asarco Site.

On March 3, 2021, on behalf of FWPS, PBS developed a Remedial Action Work Plan for Tacoma Smelter Plume Impacts (RAWP). The RAWP described the use of soil mixing to remediate TSP contamination on the Property. PBS proposed remediating the contamination around sample location 2-02 by mixing soil in place to a depth of at least 12 inches. Following mixing, confirmational samples would be collected from the remedial area at six-inch depth intervals

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throughout the mixing depth to confirm arsenic concentrations are successfully reduced to below the MTCA cleanup level. On June 10, 2021, Ecology issued a Likely No Further Action opinion letter based on the information provided in the RAWP.

On January 19, 2022, SCI Infrastructure LLC, a subcontractor to Forma Construction, performed soil remediation by mixing in place to a depth of 12 inches below ground surface (bgs) in the remediation area (Figure 4). Upon completion of soil remediation, PBS collected confirmation soil samples within the remediation area and collected confirmation soil samples as specified in the RAWP.

Confirmational soil samples were collected from the remediation area at six-inch depth intervals throughout the mixing depth. The sample results indicated that arsenic concentrations had been reduced to below the cleanup level (Table 3).

Figure 4. Confirmational Sample Locations



Table 3. Summary of Confirmational Sampling

Depth (inches)	Sample Date	Minimum Arsenic (mg/kg)	Maximum Arsenic (mg/kg)	Average Arsenic (mg/kg)	Minimum Lead (mg/kg)	Maximum Lead (mg/kg)	Average Lead (mg/kg)
0-6	10/10/2024	4.0	10.0	7.1	12	27	17.8
6-12	1/19/2022	3.37	5.30	4.05	4.8	10.9	7.52
MTCA Cleanup Level			40	20		500	250

Listing of the Asarco Site

Based on this opinion, Ecology will update the status of remedial action at the Asarco Site on its contaminated site database. However, because further remedial action is still necessary elsewhere at the Asarco Site, Ecology will not remove the Asarco Site from its lists of contaminated sites. Furthermore, the Property will remain listed as part of the Asarco Site because the Property cleanup does not change Asarco Site boundaries.

Limitations of the Opinion

Opinion does not settle liability with the state

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

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

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW <u>70A.305.040</u>(4).⁶

Opinion does not constitute a determination of substantial equivalence

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine if the action you performed is substantially equivalent. Courts make that determination. See RCW <u>70A.305.080</u>⁷ and WAC <u>173-340-545</u>.⁸

⁶ https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.040

⁷ https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.080

⁸ https://apps.leg.wa.gov/WAC/default.aspx?cite=173-340-545

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State is immune from liability

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. See RCW 70A.305.170(6).⁹

Termination of Agreement

Thank you for cleaning up the Property under the Standard VCP process. This opinion terminates the VCP Agreement governing VCP Project No. NW3305.

Questions

If you have any questions about this opinion, please contact me at 360-999-9593 or <u>diana.ison@ecy.wa.gov.</u>

Sincerely,

Diana Jeon

Diana Ison Technical Assistance Coordinator Southwest Region Office, Toxics Cleanup Program

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Enclosures (5):

- A Property Legal Description and General Description
- B Asarco Site Description, History, and Diagrams
- C Basis for the Opinion: List of Documents
- D Results of Soil Safety Program Soil Sampling in Play Areas
- E Results of Soil Characterization and Confirmational Sampling

⁹ https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.170

cc:

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Enclosure A

Property Legal Description and General Description

Legal Description of the Property

Parcel 1321039008: E520 FT OF N1/2 OF SE ¼ OF NW ¼ LESS N 150 FT & E520 OF N ½ OF SE ¼ OF NW ¼ LESS CO RD

General Description of the Property

Olympic View Elementary School is located off the Interstate 5 in a residential area of Federal Way, Washington. The Property is situated on one, 9.42-acre, King County parcel. The Property is bordered to the west by Twin Lakes Golf and Country Club, to the south, east, and north by residential developments.

The Property lies within the Puget Lowland, an area characterized by Pleistocene-aged glacial stratigraphic sequences resulting from repeated advances of the Cordilleran ice sheet. These sequences consist of unconsolidated glacial, fluvial, and lacustrine sediments. Geophysical investigations have indicated that unconsolidated sediments in the Federal Way area range from 1,200 to 1,600 feet in thickness. The nearest bedrock exposures are to the south in the Puyallup Valley (ECI, 1991).

According to the Geologic Map of Poverty Bay 7.5' Quadrangle, King and Pierce counties, Washington, 1: 24,000 scale, the Property is underlain by Quaternary-aged Till – compact diamict containing sub-rounded to well-rounded clasts in massive silt- or sand-rich matrix. Glacially transported and deposited. Generally, a few meters to a few tens of meters thick, forming undulatory surface (USGS, 2004).

The Property is generally flat, while the greater area slopes to the northwest towards Poverty Bay of the greater Puget Sound. Based on a review of publicly available well logs, depth to groundwater beneath the Property is expected to be between 5 and 20 feet bgs. Shallow groundwater flow is predicted to follow surface topography, and flow generally to the northwest toward Poverty Bay. Enclosure B

Asarco Site Description, History, and Diagrams

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Asarco Tacoma Smelter Site



An interactive color map can be found at: <u>https://apps.ecology.wa.gov/dirtalert</u>

For almost 100 years, the Asarco Company operated a copper smelter in Tacoma. Air pollution from the smelter settled on the surface soil over a vast region—more than 1,000 square miles of the Puget Sound basin. Elevated levels of contamination are found as far south as the Nisqually Ridge and as far north as Seattle (West Seattle). Additionally, elevated levels of contamination are found as far west as the Kitsap Peninsula and as far east as Kent and Bellevue. Arsenic, lead, cadmium, and other heavy metals are still in the soil as a result of this pollution. The area has elevated levels of arsenic, lead, and cadmium in the soil due to air emissions from the Asarco smelter.

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Enclosure C

Basis for the Opinion: List of Documents

- 1. PBS, Revised Lead and Arsenic Contaminated Soil Closure Report, October 30, 2024.
- 2. PBS, Lead and Arsenic Contaminated Soil Closure Report, May 12, 2023.
- 3. Ecology, Opinion on the Proposed Cleanup of a Property Associated with the Asarco Tacoma Smelter Site, June 10, 2021.
- PBS Engineering and Environmental (PBS), Olympic View Elementary School Supplemental Sampling for VCP and Work Plan Review 2626 SW 327th Street, Federal Way, Washington, March 26, 2021
- 5. PBS, Remedial Action Work Plan for Tacoma Smelter Plume Impact Olympic View Elementary School, 2626 SW 327th Street, Federal Way, Washington, March 3, 2021.
- 6. PBS, Supplemental Arsenic and Lead Soil Sampling Report 2626 SW 327th Street, Federal Way, Washington, January 7, 2021.
- 7. PBS, Olympic View Elementary School Arsenic and Lead Soil Sampling Report, September 16, 2020.

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Enclosure D

Results of 2003 Soil Safety Program Sampling in Play Areas

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Soil Safety Program Soil Sampling in Play Areas

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Arsenic Results

	DU	J1	D	U 2	D	U3 -
Boring	0-2 ·	2-6	0-2	2-6	0-2	2-6
1	4.73	2.49				· · ·
2	4.56	3.99				
3	5.44	3.98				
4	3.78	7.07			1	
5	4.90	2.45				
6	4.94	2.54				
7	3.95	3.29				
8	3.62	3.64				
Average	4.49	3.68				
Max	5.44	7.07				

Lead Results

	DU	J1 🕓	DI	J 2	D	13
Boring .	0-2	2-6	0-2	2-6	0-2	2-6
- 1	16.80	4.55				
2	11.60	6.52				
3	26.80	13.00	· · · · ·			
4	6.48	14.40				
5	10.20	3.59				
6	13.40	16.20				
7	12.80	6.41				-
. 8	6.64	7.23				
			-			
Average	13.09	8.99				
Max	26.80	16.20				

Results of Soil Characterization and Confirmational Sampling

Sample No.	Sample Date	Sample Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
1-01	9/1/2020	0-6	4.34	9.22
1-02	9/1/2020	0-6	3.95	9.98
1-03	9/1/2020	0-6	3.81	13.4
1-04a	9/1/2020	0-6	3.33	7.03
1-05a	9/1/2020	0-6	<5	8.63
1-06	9/1/2020	0-6	<5	9.16
1-07	9/1/2020	0-6	2.9	7.76
1-08	9/1/2020	0-6	3.14	7.18
1-09	9/1/2020	0-6	3.93	8.35
1-10	9/1/2020	0-6	1.81	3.88
1-11a	9/1/2020	0-6	3.80	8.28
1-12	9/1/2020	0-6	3.51	9.88
1-13	9/1/2020	0-6	5.11	12.5
1-14	9/1/2020	0-6	5.84	10.8
1-15	9/1/2020	0-6	5.67	16.4
1-16a	9/1/2020	0-6	3.75	6.47
1-17	9/1/2020	0-6	4.14	7.03
1-18a	9/1/2020	0-6	16.0	27.9
1-19	9/1/2020	0-6	3.08	5.83

Results of the Soil Characterization on the Property

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Sample No.	Sample Date	Sample Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
1-20	9/1/2020	0-6	3.38	6.31
1-21	9/1/2020	0-6	<5	231
1-22a	9/1/2020	0-6	3.62	7.16
1-23	9/1/2020	0-6	6.18	62.1
1-24	9/1/2020	0-6	7.22	43.6
1-04b	9/1/2020	6-12	3.07	8.54
1-05b	9/1/2020	6-12	3.41	8.24
1-11b	9/1/2020	6-12	2.34	5.83
1-16b	9/1/2020	6-12	2.36	2.52
1-18b	9/1/2020	6-12	4.35	5.01
1-22b	9/1/2020	6-12	4.03	6.34
2-01	9/1/2020	0-6	4.1	7.02
2-02	9/1/2020	0-6	53.1	84.1
2-03	9/1/2020	0-6	6.33	9.37
2-04a	9/1/2020	0-6	5.35	9.59
2-05	9/1/2020	0-6	6.21	14.6
2-06	9/1/2020	0-6	4.18	9.65
2-07a	9/1/2020	0-6	3.51	10.2
2-08	9/1/2020	0-6	3.77	14.5

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Sample No.	Sample Date	Sample Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
2-09	9/1/2020	0-6	11.6	23.1
2-10	9/1/2020	0-6	13.4	23.5
2-11	9/1/2020	0-6	9.16	14.4
2-12a	9/1/2020	0-6	12.8	25.3
2-13	9/1/2020	0-6	16.3	29.6
2-14	9/1/2020	0-6	9.38	26.6
2-15a	9/1/2020	0-6	4.81	11.5
2-16	9/1/2020	0-6	5.20	17.3
2-17	9/1/2020	0-6	6.46	17.1
2-18	9/1/2020	0-6	4.27	16.3
2-19a	9/1/2020	0-6	4.53	46.8
2-20	9/1/2020	0-6	4.37	18.9
2-04b	9/1/2020	6-12	5.25	10.2
2-07b	9/1/2020	6-12	3.34	9.05
2-12b	9/1/2020	6-12	7.2	14.7
2-15b	9/1/2020	6-12	4.54	12.7
2-19b	9/1/2020	6-12	4.06	27.2
2-02-10Na	12/22/2020	0-6	3.60	6.78
2-02-25Na	12/22/2020	0-6	5.76	235

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Sample No.	Sample Date	Sample Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
2-02-10Wa	12/22/2020	0-6	4.27	7.59
2-02-25Na	12/22/2020	0-6	4.59	7.56
2-02-10Sa	12/22/2020	0-6	4.20	9.58
2-02-25Sa	12/22/2020	0-6	3.76	8.58
2-02-08Ea	12/22/2020	0-6	4.15	23.1
2-02b	12/22/2020	6-12	4.43	6.54
2-02c	12/22/2020	12-18	5.38	7.36
3-01-06	3/12/2021	0-6	6.51	19.20
3-02-06	3/12/2021	0-6	30.20	67
3-03-06	3/12/2021	0-6	12.50	18.70
3-04-06	3/12/2021	0-6	3.75	5.46
3-05-06	3/12/2021	0-6	5.39	6.78
3-06-06	3/12/2021	0-6	5.56	7.45
3-07-06	3/12/2021	0-6	17.70	10.70
3-08-06	3/12/2021	0-6	4.22	6.86
3-09-06	3/12/2021	0-6	7.33	16.00
3-10-06	3/12/2021	0-6	7.22	20.80
3-11-06	3/12/2021	0-6	4.04	6.01
3-12-06	3/12/2021	0-6	8.76	9.50

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Sample No.	Sample Date	Sample Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
3-13-06	3/12/2021	0-6	4.98	5.18
3-14-06	3/12/2021	0-6	4.37	6.01
3-15-06	3/12/2021	0-6	21.30	62.5
3-04-12	3/12/2021	6-12	3.53	4.82
3-08-12	3/12/2021	6-12	3.14	4.67
3-12-12	3/12/2021	6-12	6.10	7.90
3-15-12	3/12/2021	6-12	22.8	50.70

Values in **bold** represent concentrations that are above the MTCA Method A cleanup level for unrestricted land use. Values in **bold red** represent concentrations that are twice the MTCA Method A cleanup level for unrestricted land use.

Sample No.	Sample Date	Sample Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
OLV-NE-a	1/19/2022	6-12	5.3	10.9
OLV-NW-a	1/19/2022	6-12	3.83	7.11
OLV-SE-a	1/19/2022	6-12	3.72	7.26
OLV-SW-a	1/19/2022	6-12	3.37	4.80
OLV-NE-a	10/10/2024	0-6	7.5	19
OLV-NW-a	10/10/2024	0-6	10.0	27
OLV-SE-a	10/10/2024	0-6	4.0	12
OLV-SW-a	10/10/2024	0-6	6.9	13

Results of the Confirmational Soil Sampling on the Property