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DEPARTMENT OF ECOLOGY

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November 30, 2020

Joel Haack
Haack Brothers Homes
3922 87th Avenue NE
Marysville, WA 98270
(joel@haackbrothers.com)

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

- **Site Name:** Legion Lots Haack Parcels
- **Site Address:** 413-419 Rockefeller Avenue, Everett, Washington, 98201
- **Facility/Site ID No.:** 9311679
- **Cleanup Site ID No.:** 1653
- **VCP Project No.:** NW3268

Dear Joel Haack:

The Washington State Department of Ecology (Ecology) received your request for an opinion on the *Additional Subsurface Investigation Work Plan Legion Lots 1 through 4 (Work Plan)* for the **Legion Lots Haack Parcels** (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

Issue Presented and Opinion

Pursuant to implementation of the activities specified in the *Additional Subsurface Investigation Work Plan*, will the collected information assist in resolving Site characterization data gaps?

YES. Ecology has determined that implementing the Work Plan will assist in determining the effectiveness of the interim cleanup action and resolving identified data gaps. However, additional subsequent soil, soil gas, and possibly groundwater sampling and evaluation may be necessary to complete the evaluation of remedial action process.

Description of the Site

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following release:

- Arsenic into the Soil.

Enclosures A and B include a detailed diagram of the Everett Smelter Plume sampling zones, and Table 7-1 (residential sampling).

Please note a parcel of real property can be affected by multiple sites. At this time, we have information that the parcels associated with this Site are affected by:

- Legion Memorial Golf Course NW2017 (Upland) 2008 Environmental Covenant institutional controls and restrictions
- Everett Smelter Plume upland areas soil sampling requirements (Zone C)

Basis for the Opinion

This opinion is based on the information contained in the following documents:

1. TRC Companies, *Additional Subsurface Investigation Work Plan, Legion Lots 1 through 4, 144 West Marine View Drive/419 Rockefeller Avenue, Everett, Washington*, dated February 28, 2020.
2. *Legion Memorial Golf Course – Property Sale Notification, Legion Lots 1 through 4, 144 West Marine View Drive/419 Rockefeller Avenue, Everett, Washington*, dated September 18, 2019.
3. Washington Department of Ecology, *Scope of Work, Task Work Assignment, Everett Smelter Uplands Project, Residential Sampling, Fiscal Year 2018-2019*.
4. *Legion Memorial Golf Course (Upland) Environmental Covenant; Recording Number 200812050469; Recording date 12/5/2008*.

Those documents are kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. You can make an appointment by completing a Request for Public Record form (<https://www.ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests>) and emailing it to PublicRecordsOfficer@ecy.wa.gov, or contacting the Public Records Officer at 360-407-6040. A number of these documents are accessible in electronic form from the Site web page (<https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=1653>).

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

Analysis and Opinion

Based on a review of supporting documentation listed above, **Ecology has the following comments:**

Site Characterization

- Your characterization of the Site documented impacts to soil related to historical particulate emissions releases from the former ASARCO smelter facility. The soil was found to be impacted with varying concentrations of arsenic which exceeded MTCA Method A cleanup levels. The Site is within the boundary of the upland portion of the Everett Smelter Plume Cleanup Site. The Everett Smelter Plume Cleanup Site is divided into three zones for soil sampling protocols: Zone A, Zone B and Zone C. The Site, which consists of Lots 1 through 6, is located within Zone C.
- Fill material from a City of Everett retention pond construction project was stored on the Legion Memorial Golf Course Lots. The original land surface on the Property was leveled and up to approximately 5 feet of fill material was placed on the Property. Prior to disposal, the excess fill material was tested and determined to contain arsenic that was either non-detectable or below MTCA Method A cleanup levels. Three soil samples were later taken around the stockpile. No information was provided whether samples were taken in or on the stockpile. One sample, near the boundary of Lots 5 and 6, contained concentrations of arsenic and lead above MTCA Method A cleanup levels.

A targeted collection and analysis of eight samples of native soil (0 to 18 inches and 18 to 24 inches) beneath the fill in four test pits (TP-1 through TP-4) on Lots 5 and 6 was conducted in late 2019. These analytical data indicated that concentrations of arsenic, cadmium and lead either non-detectable or below MTCA Method A cleanup levels were present in the native soil.

- Additional assessment borings in the remaining Lots 1 through 4 are proposed in the Work Plan to further delineate native soil for arsenic, lead or cadmium contamination at the Site. Everett Smelter Plume Cleanup Site Zone C protocols should be followed.

Soil samples collected in test pits of Lots 5 and 6 in 2019 were collected in native material at depths of 0 to 12 inches and 18 to 24 inches below the fill. The soil samples

proposed in the Work Plan will be collected from 0 to 6 inches and 12 to 18 inches below the fill. The Work Plan should indicate the reason for this difference in sampling interval depths.

Additional assessment borings should be added to the Work Plan for collection and analysis of the fill material (non-native soil) on the six lots to provide a complete Site characterization. If test pit samples show exceedances, deeper borings should be drilled into the native soil.

The Work Plan (page 3) states that representative material from a target sampling interval will be placed in a bowl and 'homogenized' with a spoon before being placed in a sample container. This procedure is the same as compositing the sample which Ecology does not accept. The soil samples need to be discrete. The samples should be collected directly from the test pit wall and placed in the sample containers.

Also, the Work Plan states that soil samples below depths of 4 feet in the test pits will be collected with a backhoe bucket. The Work Plan needs to describe how the backhoe bucket will be decontaminated between samples and test pits to prevent cross-contamination.

Regulatory Assessment

The Site is located in a mixed commercial and industrial area; Soil cleanup levels suitable for unrestricted land use are therefore applicable to this Site. For unrestricted land use, direct contact, either MTCA Method A or Method B cleanup levels can be used.

The MTCA Method A soil cleanup levels for unrestricted uses are appropriate (Table 740-1) to consider, and have been selected, with the standard point of compliance for direct contact throughout the Site to a depth of 15 feet below the ground surface (reference WAC 173-340-740(6)(d)). Method A cleanup levels for soil were established based on direct contact and the protection of ground water.

The MTCA Method A groundwater cleanup levels for unrestricted uses are appropriate to consider. Groundwater cleanup levels protective of ground water as a drinking water source are appropriate for this Site. The standard point of compliance for groundwater applies to this Site, which is throughout the Site, from the uppermost level of the saturated zone extending vertically to the lowest depth which could potentially be affected by the Site.

Cleanup levels for air are based on protection of human health. MTCA Method B indoor air cleanup levels and MTCA Method B sub-slab screening levels are the appropriate

choice (MTCA Method A values do not exist). The standard point of compliance for air is in ambient and indoor air throughout the Site.

Everett Smelter Plume: The Legion Memorial Golf Course VCP #NW3268 is located within an area affected by Everett Smelter Plume emissions, and within the area designated as the Everett Smelter Uplands Project.

The Everett Smelter Site was established as a contaminated Site by Ecology in 1990, following the discovery of high concentrations of metals from the former ASARCO smelting facility. To date, this Site encompasses much urban development that was built both in and around the footprint of the former smelter facility. Ecology has divided the Everett Smelter Site into two investigation areas, the Upland Area and the Lowland Area, and has mapped the area into three zones: Zone A, Zone B and Zone C. The Legion Memorial Golf Course Site is located within Zone C.

The Everett Smelter Plume Upland Area Soil Sampling Zones (Enclosure A), and the Everett Smelter Table 7-1, Sampling of Residential Properties (Enclosure B) have been provided for your information.

Legion Memorial Golf Course (Upland) Environmental Covenant 200812050469 dated 12/5/2008: This Environmental Covenant (EC) is on the title report associated with the Legion Lots Haack Parcels Property. The EC stipulates various soil restrictions including: restrict land use, prohibit soil disturbance, ongoing maintenance of remedy, and prohibit removal or alteration of existing buildings. Ecology's legal council will evaluate whether to terminate or amend the EC for the six Legion Lots Haack parcels once an effective, final remedial action has been selected and implemented. If the existing EC is terminated, a new EC will need to be prepared to replace it and include any new identified restrictions.

Other Requirements

- Under Washington State Law (Chapters 18.43 and 18.220 RCW), hydrogeologic and engineering work must be conducted by or under the supervision of a licensed geologist, hydrogeologist, or professional engineer (PE) qualified to conduct the work. Any document containing geologic or engineering work must be submitted under the seal of such an appropriately licensed professional. Thank you for providing the seal of your licensed hydrogeologists as evidence of this certification in the reports submitted to Ecology for this Site.
- A Terrestrial Ecological Evaluation (TEE) has not yet been performed at this Site. The

TEE is necessary to meet substantive requirements of MTCA, to set cleanup levels that are protective of terrestrial species, and to determine an appropriate cleanup action.

- Electronic submittal of all sampling data into Ecology's electronic *Environmental Information Management* (EIM) database is a requirement in order to receive a final Ecology opinion for this Site. Note that all data must be uploaded into the Ecology EIM system upon submission of each report to Ecology. This allows the Ecology Site Manger to access data to check results or perform additional analyses with those data. Suzan Pool (email suzan.pool@ecy.wa.gov, or via telephone at 360-407-6692) is Ecology's contact and resource on entering data into EIM. The most recent EIM date submission for this Site was dated February 22, 2019.
- The final cleanup action selected for the Site must meet the minimum requirements specified in WAC 173-340-360(2).

Limitations of the Opinion

1. Opinion does not settle liability with the state.

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

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

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70.105D.040(4).

2. Opinion does not constitute a determination of substantial equivalence.

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

3. State is immune from liability.

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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 70.105D.030(1)(i).

Contact Information

Thank you for choosing to clean up the Site under the Voluntary Cleanup Program (VCP). After you have addressed our concerns, you may request another review of your cleanup. Please do not hesitate to request additional services as your cleanup progresses. We look forward to working with you.

For more information about the VCP and the cleanup process, please visit our web site: www.ecy.wa.gov/vcp. If you have any questions about this opinion, please contact me by phone at (425) 495-5436, or by email at glynis.carrosino@ecy.wa.gov.

Sincerely,



Glynis A. Carrosino
Project Manager
Toxics Cleanup Program, NWRO

Enclosures: A – Everett Smelter Plume Upland Area Soil Sampling Zones
B – Everett Smelter Table 7-1, Sampling of Residential Properties

cc: Thomas Morin, TRC Companies, (TMorin@trccompanies.com)
Derek Threet, Ecology Assistant Attorney General, (derek.threet@atg.wa.gov)
Sonia Fernandez, VCP Coordinator Ecology (sonia.fernandez@ecy.wa.gov)

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Enclosure A
Everett Smelter Plume
Upland Area Soil Sampling Zones

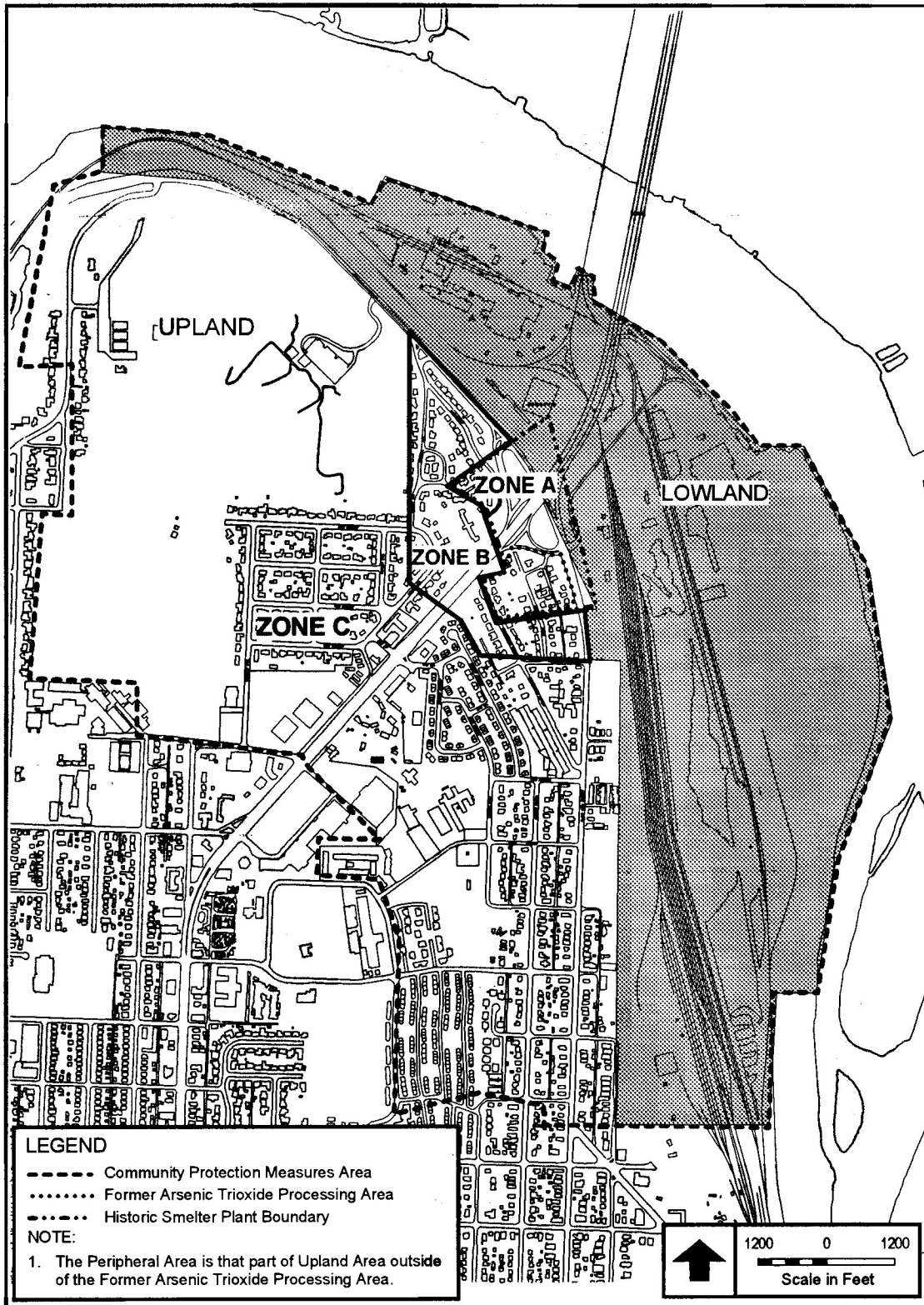


Figure 7-1: Upland Area Soil Sampling Zones.

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Enclosure B
Everett Smelter Table 7-1
Sampling of Residential Properties

Legion Lots Haack Parcels in Zone C

Table 7-1: Residential Properties – Sampling Approach and Decision Rules

Zone A		Zone B		Zone C	
Decision Unit Size (ft ²)	Number of Sampling Locations Per Decision Unit	Decision Unit Size (ft ²)	Number of Sampling Locations Per Decision Unit	Decision Unit Size (ft ²)	Number of Sampling Locations Per Decision Unit
Less than 1,125	5	Less than 1,125	5	Less than 4,000	5
1,125 to 2,250	Add 1 per 225 ft ²	1,125 to 1,800	Add 1 per 225 ft ²	Greater than 4,000	Add 1 per 500 ft ²
2,250 to 4,000	10	1,800 to 4,000	8		
Greater than 4,000	Add 1 per 400 ft ²	Greater than 4,000	Add 1 per 500 ft ²		
Composite sampling, 6-inch depth intervals to 48 inches		Composite sampling, 6-inch depth intervals to 36 inches		Composite sampling, 6-inch depth intervals to 24 inches	
1. If arsenic concentration in any composite sample is greater than the cleanup level, property is identified as part of the site.					
2. If arsenic concentration is above the cleanup level in the 0-6 or 6-12 inch depth intervals or above the applicable remediation level in depth intervals below 12 inches, property is identified as requiring soil removal to identified depth.					
3. If composite results indicate potential for hot spots, conduct discrete sampling.					
4. If arsenic concentration in any discrete sample is above the maximum allowable concentration at a given depth, remove soil to depth of exceedance.					