



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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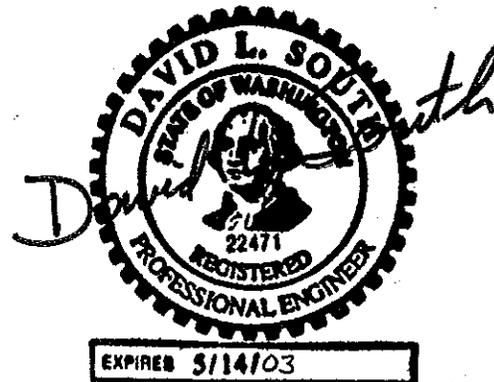
Professional Engineer's Statement
Everett Smelter Cleanup
March 17, 2003

Sampling and soil remediation were carried out at the following homes within the Everett Smelter Site during the period September 2002 to January 2003:

<u>Address</u>	<u>Owner</u>
Jeffrey G. Martz	108 Skyline Drive
William Udman and Alice Shaefer	203 Skyline Drive
Sam Bagley	206 Skyline Drive
Marion O. Lamb	209 Skyline Drive
Beverly Innes	212 Bridgeway
Gertrude L. Vaughn	216 Bridgeway
Scott Schroeder	222 Bridgeway
Mark M. Leonard	226 Bridgeway
Jean M. Burt	232 Bridgeway

Based on the results of testing and inspections, it is my opinion that the soil remediation carried out at these homes was performed in substantial compliance with the plans, specifications, and related documents governing the work.

Remediation work remaining to be done at these homes includes addressing crawl spaces as necessary and carpet and duct cleaning.



Washington Department of Ecology Everett Smelter Site 2002 Cleanup

Details of Cleanup Activities

The Department of Ecology (Ecology) selected 9 homes within the Everett Smelter Site for cleanup in 2002. Cleanup activities were conducted between September 4, 2002 and January 29, 2003. The cleanup was conducted according to the *Everett Smelter Site: Integrated Final Cleanup Action Plan and Final Environmental Impact Statement for the Upland Area*.

This report describes the cleanup actions that were conducted, what arsenic-contaminated soil was removed and where it remains for the following location:

Property Owners: William Udman and Alice Shaefer

Address: 203 Skyline Drive
Everett, WA 98201

Snohomish County
State of Washington
Tax Parcel No. # 005203-000-030-00

For the purposes of sampling to determine the depth to which excavation would be required, this property was divided into two Decision Units, A and B, as shown on the attached map. The following is a summary of the work done to remediate the property within each of the decision units.

Decision Unit: A

Results of pre-cleanup sampling indicated 24 inches of soil would have to be excavated in this decision unit. Attachment B shows that below 24 inches, results of composite and discrete sample analyses are below the remediation levels of 150 parts per million (ppm) and 500 ppm, respectively. However, because the soil below 24 inches contains arsenic above the cleanup level of 20 ppm, a geofabric marker was placed.

Field measurements by the Ecology on-site coordinator confirmed that soil was removed to a depth of 24 inches, except as noted below. The paved driveway and the sidewalk from the driveway to the front door were not removed during excavation. At the request

of the owners, the snowball bush, burning bush and camellia near the front door, the red cut-leaf maple near sampling location A-6 and the rose in the northwest corner of the planting bed near sampling location L-1 were left in place. Within the drip line of all trees and shrubs, soil was removed from the top of the roots; beyond the drip line, soil was excavated to a depth of 24 inches except for the planting bed along the northwest side of the house (sampling locations L-1 and L-2) which was excavated to a depth of 18 inches.

After placing a geofabric marker, a French drain was placed on the west side of the walkway between the driveway and the front door. This was connected to the French drains in the back yard (Decision Unit B) with a solid plastic pipe placed in a trench cut across the driveway. The trench was lined with geofabric and partially filled with washed gravel prior to setting the pipe. The cut through the driveway was refinished with concrete. A small yard drain was placed adjacent to the eastern edge of the driveway and connected to the French drains. A block wall was constructed along a portion of the driveway to allow restoration of the unpaved parking area.

The Decision Unit was backfilled with clean material as described in the *Specifications for Everett Residential Soil Remediation*. The unpaved parking area was restored with crushed rock. The planting bed along the northwest side of the house (sampling locations L-1 and L-2) was backfilled with topsoil. After placing the topsoil, sod and shrubs were planted. A portion of the slope along the south property line was restored as a planting bed, covered with burlap netting and finished with bark.

Decision Unit: B

Results of pre-cleanup sampling indicated 24 inches of soil would have to be excavated in this decision unit. Attachment B shows that below 24 inches, results of composite sample analyses are below the remediation level of 150 parts per million (ppm). However, because the soil below 24 inches contains arsenic above the cleanup level of 20 ppm, a geofabric marker was placed. The chain link fences around the back yard were removed to the extent necessary to allow access to the yard from 212 Bridgeway.

Field measurements by the Ecology on-site coordinator confirmed that soil was removed to a depth of 24 inches, except as noted below. The paved walkway along the east side of the house and the walkway extending east from the laundry room door were not removed during excavation. At the request of the owners, the plum tree near sampling location B-1 was left in place. Within the drip line of the tree, soil was removed from the top of the roots; beyond the drip line, soil was excavated to a depth of 24 inches. Soil was not removed within 24 inches of the supports for the wood deck in order to preserve the integrity of the structure.

After placing a geofabric marker, the Decision Unit was backfilled with clean material, as described in the *Specifications for Everett Residential Soil Remediation*. French drains were placed along the perimeter of the back yard. The downspouts on the south side of the house were also connected to the drains, which discharge through a perforated pipe to

203 Skyline Drive
Everett, WA 98201

a catch basin on Bridgeway. After placing the topsoil, sod and shrubs were planted. Upon completion of work, the chain link fences were restored to their original locations.



April 3, 2003

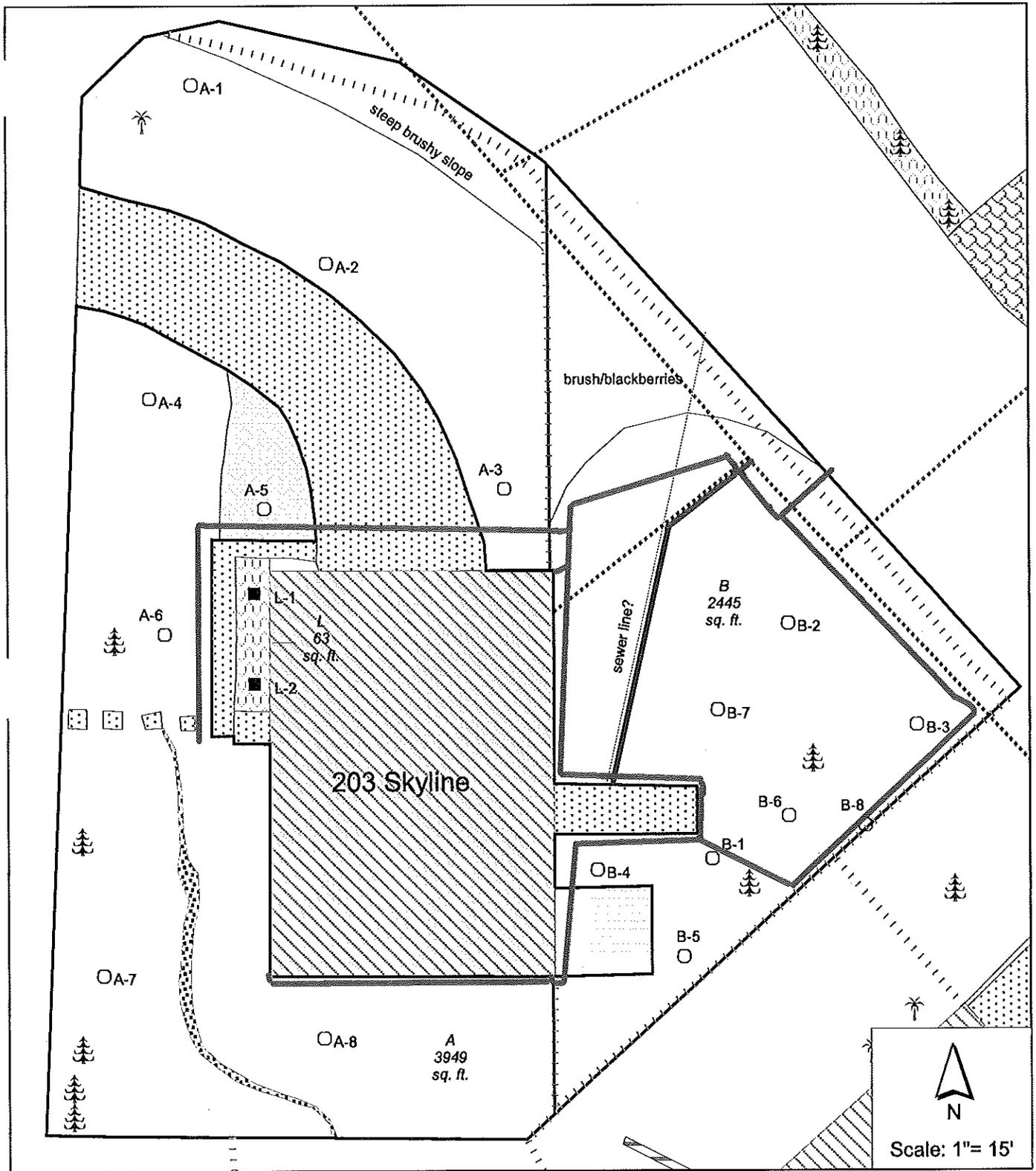
Daniel R. Cargill
Washington Department of Ecology

DRC:dc

Attachments: A. Site Map
B. Graphs of Arsenic Concentration vs. Depth
C. Explanation of graphs

Note: If the attachments listed above do not accompany this document, copies may be obtained from Ecology. Please contact Central Records at Ecology's Northwest Regional Office (NWRO), at (425) 649-7190 for information on obtaining copies.

cc: Ecology Central Files, NWRO
Everett Public Library
Asarco Information Center, Everett
Northeast Everett Community Organization
Northwest Everett Neighborhood Association
City of Everett Public Works
Snohomish PUD
Office of the Attorney General
Ecology Contract Officer
Ecology On-site Coordinator



LEGEND

- Decision Unit Samples
- Landscape Samples
- Sub surface drains
- - - True water line location

203 Skyline (Home 41)

Everett Smelter Homesite Cleanup
 Source: Snohomish Health District

