EXPLANATION OF SIGNIFICANT DIFFERENCE

FOR THE

COMMENCEMENT BAY
NEARSHORE/TIDEFLATS SUPERFUND SITE

OPERABLE UNIT 02
ASARCO TACOMA SMELTER FACILITY
AND
SLAG PENINSULA

RUSTON AND TACOMA, WASHINGTON

EPA IDENTIFICATION NUMBER: WAD980726368

SEPTEMBER 2018

Issued by:

Chris Hladick
Regional Administrator
U.S. Environmental Protection Agency

Date:

Sept 27, 2018

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1.0 INTRODUCTION

1.1 Site Name and Location

The former Asarco Tacoma Smelter Facility (Asarco Smelter) is denoted as Operable Unit (OU) 02 of the Commencement Bay Nearshore/Tideflats Superfund Site. The Asarco Smelter is located along the Commencement Bay shoreline within the municipal boundaries of Ruston and Tacoma, Washington (Figure 1-1). The upland portion of the Asarco Smelter is approximately 100 acres in size, and encompasses a 67-acre former smelter and a 23-acre slag breakwater peninsula. The U.S. Environmental Protection Agency (EPA) identification (ID) number for this site is WAD980726368. The EPA is the lead agency for conducting response actions, and the State of Washington Department of Ecology (Ecology) is the support agency for the site.

1.2 Statement of Purpose

EPA issued a Record of Decision (ROD) for OU 02 on March 24, 1995. This Explanation of Significant Differences (ESD) sets forth additional measures; specifically, institutional controls, to protect the integrity of the on-site containment facility (OCF). These additional measures represent a significant, but not fundamental, change to the remedy described in the ROD. This ESD impacts OU 02 only and is issued in accordance Section 117(c) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Contingency Plan (NCP), 40 CFR § 300.435(c)(2)(i).

1.3 Administrative Record

This ESD and supporting documents will become part of the Administrative Record file for this site, in accordance with the Section 300.825(a)(2) of the NCP. The Administrative Record is available for review at the following locations:

- Tacoma Public Library Wheelock Branch
  3722 N 26th St
  (253) 292-2001
- U.S. EPA Region 10 Superfund Records Center, 1200 Sixth Avenue Seattle, WA, 98101 (please call 206-553-4494 for an appointment)
- U.S. EPA Region 10 website:

  https://www.epa.gov/superfund/commencement-bay

2.0 BACKGROUND

2.1 Site History

The Tacoma Smelter Company began operation as a lead smelter in 1890. Copper production began in 1902. In 1905, ASARCO Incorporated purchased the smelter. In February 2005, ASARCO Incorporated merged into a newly formed Delaware limited liability company, ASARCO LLC ("Asarco LLC"). During the active industrial life of the Asarco Tacoma Smelter, the primary product was refined copper. By-products of the copper smelting process included sulfuric acid, liquid sulfur dioxide, arsenic trioxide, arsenic metal, and copper reverbatory slag. Copper smelting operations were discontinued in 1985, and in 1986 the facility was taken completely out of production. Much of the smelter facility was built over fill material, including slag, which was placed by Asarco as part of the smelter operations. Cleanup activities began in January 1987. On August 9, 2005, Asarco LLC filed for bankruptcy protection under Chapter 11 of the bankruptcy code in the United States District Court for the Southern District of Texas ("Bankruptcy Court"). On December 8, 2005, Asarco LLC entered into an agreement with MC Construction Consultants, Inc. ("MC Construction"), to sell approximately 97 acres of its real property (the "Purchased Property") located in Tacoma and Ruston, Washington. The Purchased

Property includes parts of the former Asarco Smelter Site, Operable Unit 02. MC Construction subsequently assigned to Point Ruston, LLC ("Point Ruston") its rights under the Tacoma Purchase Agreement. Pursuant to a Consent Decree with the United States, Point Ruston, LLC is performing the remediation of the site as it undertakes plans to develop the Purchased Property as a residential mixed-use neighborhood with the lower portion of the Purchased Property being developed with condominiums, apartments and other residential units along with commercial, retail, recreation, entertainment and public use facilities.

2.2 Contamination

The following contaminants were identified in the 1995 ROD as contaminants of concern based on risks to human health and the environment from exposure to contaminated soils:

- Metals: Antimony, Arsenic, Cadmium, Copper, Lead, Mercury, Silver, Thallium, Zinc
- Organic Chemicals: Polyaromatic Hydrocarbons (PAHs) and Polychlorinated Biphenyls (PCBs)

Slag contains high concentrations of metals, including arsenic and lead, in a rock-like form. Concentrations of arsenic found in slag ranged from 100 to 24,950 ppm.

2.3 Selected Remedy

The remedy involves the cleanup of metal (e.g., arsenic, copper, lead) and organic contaminated soil, slag, surface water, and groundwater found at the former Smelter Facility and adjacent Slag Peninsula. The remedy includes the following elements:

- Excavate source area soils and slag (approximately 160,000 cubic yards).
- Dispose of source area soils and demolition debris designated as hazardous waste (approximately 240,000 cubic yards total) in an on-site containment facility (OCF) that meets or exceeds regulatory standards for hazardous waste landfills.
- Cap the entire site (plant site soils and slag, and the Slag Peninsula). The

low permeability cap will be composed of layers of clean soils, gravel, and clay. The contaminated residential soils excavated from the Ruston/North Tacoma Study Area will be used as a sub-base for the cap.

- Demolish the remaining buildings and structures.
- Replace the entire surface water drainage system.
- Armor portions of the plant site and slag peninsula shoreline.
- Continue to monitor the surface water and groundwater.
- Sample marine sediments.
- Develop and implement an enforceable program of restrictions and guidelines to supplement the actual cleanup activities to ensure that the remedial action remains protective and that development activities do not impact the long-term effectiveness of cleanup.

The ROD also states that if it is determined that source control activities do not result in ground water that meets federal and state standards, additional cleanup activities, if practicable, will be identified in a separate ROD.

3.0 DESCRIPTION OF CHANGES TO THE ROD

The OCF construction commenced in 1995, and the final cap was placed on top of it in 2005. This ESD will add a specific institutional control to the selected remedy that prohibits the construction of any building on top of the OCF, as it lacks the structural stability to support any such building. This additional institutional control is consistent with the original selected remedy, and is only necessary to more explicitly explain the parameters of the OCF requirements set forth in the OU 2 ROD. While Section 9.1.2 of the OU 2 ROD discusses the requirements for the OCF, it did not specifically contemplate future land use at the OCF and was silent on the structural requirements for the OCF, but it did note that “If there is a breach of the OCF structure, the soil and debris could pose a threat to human health and the environment.” (ROD, Section 8.0(3))

The current land use for the OCF calls for a residential park (Merritt+Pardini 1997), and the

structural design and construction of the OCF was sufficient for a park development to be placed on the OCF cap. The OCF, as constructed, does not have sufficient structural integrity to support a building. To support a building on the OCF, construction would have included a number of structural beams keyed into the subgrade prior to installation of the groundwater liner system. This would ensure that the groundwater liner would be adequately sealed to the structural beams prior to filling of the OCF. Additionally, the material (waste soils and demolition debris) would have been disposed in lifts and compacted such that it would provide structural support for a building. Since these features were not included in the OCF design and construction, the weight of any building constructed on the OCF would cause any demolition debris near the bottom of the OCF to puncture the groundwater liner, which could pose a threat to human health and the environment.

In Section IX. of the Third Amended Consent Decree between the United States and Point Ruston LLC, Point Ruston agreed that it is appropriate and necessary to impose certain institutional controls, such as land and groundwater restrictions, on the property that it owns (which includes the OCF) for the purpose of protecting human health and the environment by protecting in perpetuity the remedial actions that have been, and will be taken at the Site. To that end, the Consent Decree prohibits Point Ruston from permitting any use or activity on any portion of the Site which may disturb or adversely affect any of the remedial measures at the Site, including those in place at the OCF. Consistent with the ROD and this ESD, this prohibition set forth in the Consent Decree now explicitly includes the prohibition against building on top of the OCF, and that prohibition is binding on Point Ruston and any future owners of the OCF property. To ensure that this prohibition remains in perpetuity, this ESD also requires Point Ruston to record an environmental covenant on the OCF property pursuant to Chapter 64.70 of the Revised Code of Washington (Uniform Environmental Covenants Act).

4.0 CHANGE IN COST

The change in cost for the remedy would be the cost to record the environmental covenant with the local zoning authority, or the authority with jurisdiction over local land use. EPA estimates the recording cost to be less than $500.

5.0 SOURCES OF INFORMATION

The following information in the Administrative Record supports the need for the significant differences described herein:

Hydrometrics 1999. Plans and Specifications Primary Activity 1.0 - Group lb On-Site Containment Facility - FINAL -. Prepared by Hydrometrics, Inc. October 1999. 10-1234023.

Hydrometrics 2000. Standard Specifications and Special Provisions for the Construction of On-Site Containment Facility. Prepared by Hydrometrics, Inc. February 2000. 10-1115692.

Merritt+Pardini 1997. Asarco Master Development Plan (Stakeholder Approved Draft). Prepared by Meritt_Pardini / Sasaki Associates. August 26, 1997. 10-1072861.

USEPA 2002. Reusing Superfund Sites: Commercial Use Where Waste is Left on Site. Office of Emergency and Remedial Response. EPA 540-K-01-008. OSWER 9230.0-100. February 2002.

USEPA 2004. (Draft) Technical Guidance For RCRA/CERCLA Final Covers. Office of Emergency and Remedial Response. EPA 540-R-04-007. OSWER 9283.1-26. April 2004.

USEPA 2014. Letter from Shawn Blocker, USEPA, to Mike Cohen, Point Ruston LLC regarding development on the OCF. September 30, 2014.

Womack & Associates 2005. Asarco LLC – Tacoma OCF As-Built Report. Womack & Associates, Inc. December 2005. 10-1231937.

6.0 SUPPORT AGENCY ACCEPTANCE

In a letter dated September 13, 2018, Ecology expressed its support of this action.

7.0 STATUTORY DETERMINATIONS

The amended remedy for the site, as modified by this ESD, continues to satisfy the relevant requirements of Section121 of CERCLA to:

- Protect human health and the environment, through a combination of treatment, engineering controls, and institutional controls;
- Comply with applicable or relevant and appropriate requirements;
- Be cost-effective.

8.0 PUBLIC PARTICIPATION COMPLIANCE

The public participation requirements for an ESD set out in the NCP §300.435(c)(2)(i) will be met as follows:

- The ESD and supporting information will be added to the OU 2 administrative record established under Section 300.815 of the NCP and made available at the information repositories listed in Section 1.0 of this ESD.
- A public notice of the availability of the ESD and supporting information will be published in the *Tacoma News Tribune*.

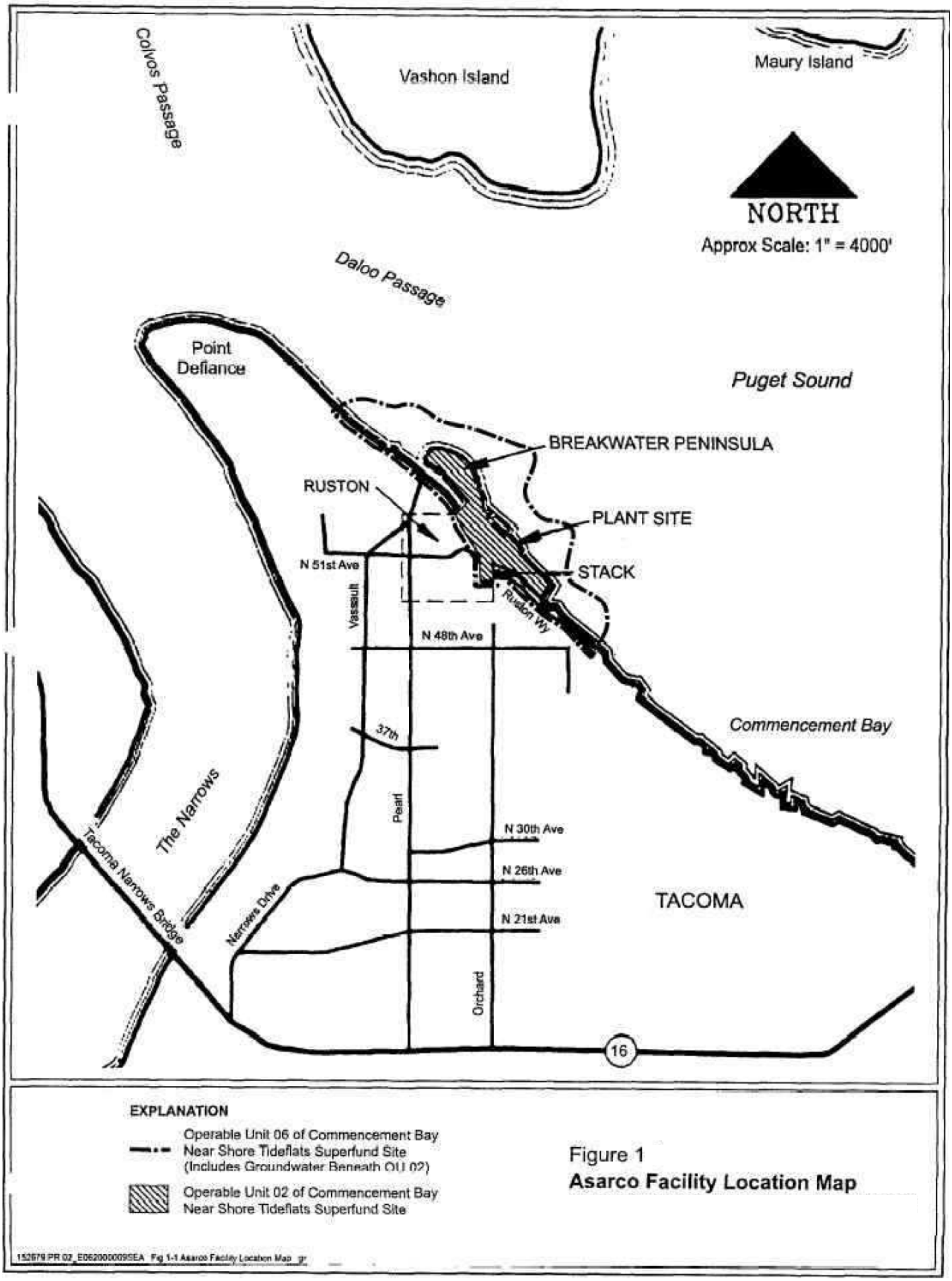

Figure 1
Asarco Facility Location Map

Figure 2: Location of the On-site Containment Facility