

Cap Inspection Report
Former Portac Facility
Port of Tacoma
Tacoma, Washington

Order on Consent No. DE 88-S326
Order on Consent Date: September 22, 1988
Cap Inspection Date: August 21, 2014

Prepared for
Port of Tacoma

December 16, 2014
19000-07

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Prepared by
Hart Crowser, Inc.



Peter R. Smiltins, PE
Senior Project
Environmental Engineer
Peter.Smiltins@hartcrowser.com



Mark A. Dagel, LHG
Senior Associate
Hydrogeologist
Mark.Dagel@hartcrowser.com

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Former Portac Facility

Port of Tacoma

Tacoma, Washington

INTRODUCTION

This report summarizes the field activities and presents the results of the cap inspection event conducted on behalf of the Port of Tacoma (Port) for the Former Portac Facility located at 4215 State Route 509 – North Frontage Road, Tacoma, Washington (site) (Figure 1).

Cap inspection activities were conducted in accordance with the requirements identified in the Order on Consent (DE 88-S326), dated September 22, 1988, between the Port, Portac, Inc., and the Washington State Department of Ecology (Ecology). A memorandum of understanding (MOU) between Ecology and the Port, updating the cap inspection frequency to 30 months (formerly 3 months) starting with an event in February 2012, was issued on September 12, 2011. The MOU is included in Appendix A.

SITE BACKGROUND

The property encompassing the site was occupied by a 30-acre log yard. The property is owned by the Port of Tacoma and was leased to Portac, Inc., and its predecessors from August 15, 1974, to August 31, 2010. The log yard was originally constructed in 1974 and had been continually used by Portac, Inc., as a log yard until August 31, 2010. At the time of construction, manufactured gravel ballast material was used to fill and grade the log yard. The ballast material was produced as a by-product of smelting operations at a nearby Asarco Incorporated facility. The site is currently operated as an automobile warehousing location, and is used for parking and storage of new automobiles prior to transfer to dealerships.

A remedial investigation was conducted as part of the Commencement Bay Nearshore/Tideflats Remedial investigation from November 1983 to June 1984. The results of the investigation indicated elevated concentrations of arsenic, copper, lead, and zinc in surface water runoff from the site into Wapato Creek. Ecology issued an Order on Consent (DE 88-S326) on September 22, 1988, setting forth the standards for remedial action and monitoring.

PREVIOUS CAP REPAIRS

In the summers of 2012 and 2013, the Port made repairs to the cap based on the recommendations of the 2012 Cap Inspection Report (CRA 2012). Repairs included a section of asphalt overlay and crack sealing as necessary. Crack sealing involved removing debris from cracks, filling with crack sealant, and covering with asphalt slurry sealant.

CAP INSPECTION

On August 21, 2014, Hart Crowser personnel conducted an inspection of the existing cap and stormwater system. Inspection of the cap included observing the concrete/asphalt pavement and pavement edge for the presence of cracks greater than 1/8 inch wide, exposed sub-base material, and pavement edge deterioration, as well as noting general appearance. Inspection of the stormwater system included inspection of eight catch basin manholes, three catch basins, two spill containment vessels, one oil-water separator, and two outfalls for structural condition, general appearance, and accumulation of sediment. Stormwater features are identified on Figure 2.

General inspection observations are noted below. Specific observations and repair recommendations are included in Tables 1 and 2. Photographs are included in Appendix B.

Observations include:

- Approximately 4,727 linear feet of cracks greater than 1/8 inch wide are present throughout the capped area. Field observations indicate that cracking is primarily along what appears to be former damaged areas that were previously sealed (Appendix B), with a higher density of cracking observed in the western portion of the cap.
- The grate is broken on the oil-water separator catch basin.
- Catch Basins #9 and #10 are in an area heavily overgrown with vegetation and were not accessible for inspection.
- Catch Basin #11 is covered with vegetation, and its filter sock appears to be deteriorating.

RECOMMENDATIONS

Based on the inspection completed on August 21, 2014, we recommend the following actions:

- Seal or reseal approximately 4,727 linear feet of cracks throughout the capped area.
- Replace the grate on the oil-water separator catch basin.
- Clear vegetation from Catch Basins #9 and #10 to ensure proper function.
- Clear vegetation from Catch Basin #11.
- Replace the filter sock in Catch Basin #11.

See Tables 1 and 2 for inspection details and recommended corrective actions. The next cap inspection is scheduled for February 2017 based on the 30-month cap inspection frequency set forth in the MOU.

REFERENCES

CRA 2012. Cap Inspection Report, February 2012, Former Portac Facility, Port of Tacoma, Tacoma, Washington. Conestoga-Rovers & Associates (CRA). May 2012.

Ecology 1988. Order on Consent DE 88-S326. Washington State Department of Ecology. September 1988.

Ecology 2011. Memorandum of Understanding, Former Log Yard Groundwater Monitoring and Cap Inspection. Washington State Department of Ecology. September 2011.

Hart Crowser 1988. Remediation Plan, Portac Log Sort Yard. Hart Crowser, Inc. June 1988.

Norton, D., and A. Johnson 1985. Completion Report on WQIS Project 1 for the Commencement Bay Nearshore/Tideflats Remedial Investigation: Assessment of Log Sort Yards as Metal Sources to Commencement Bay Waterways, November 1983 to June 1984. Washington State Department of Ecology Memorandum. February 27, 1985.

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Table 1 - Cap Inspection Log - Former Portac Facility

Date and Time of Inspection: 8/21/14, 08:00

Weather: Sunny, 75°F

Types of Problems	Checked		Detailed Actions Recommended	Corrective Actions and Date Completed
	No Problems	Corrective Action Required		
Presence of cracks greater than 1/8 inch wide		X	Approx. 4,727 linear feet of cracking recommended for sealing.	
Sub-base material exposed	X			
Pavement edge deterioration	X			
Degradation, subsidence, general appearance	X			
<p>Comments: Cracks approx. 1/8 to 1/4 inch wide are present throughout the capped area. Based on field observations cracking appears to be along former damaged areas that were previously sealed.</p>				

Table 2 - Stormwater System Inspection Log - Former Portac Facility

Date and Time of Inspection: 8/21/14, 08:00

Weather: Sunny, 75°F

Catch Basin/ Manhole	Structural Condition/General Appearance	Sediment Accumulation in Inches	Checked		Detailed Actions Recommended	Corrective Actions and Date Completed
			No Problems	Action Required		
Catch Basin #9	Could not access -- in heavily overgrown area.	Not measured		X	Clear vegetation from catch basin area and ensure catch basin not blocked.	
Catch Basin #10	Could not access -- in heavily overgrown area.	Not measured		X	Clear vegetation from catch basin area and ensure catch basin not blocked.	
Catch Basin #11	- Structural conditon good. - Filter sock deteriorated. - Covered by vegetation.	3		X	- Replace filter sock. - Remove vegetation from catch basin surface.	
Catch Basin Manhole #1	Good	0	X			
Catch Basin Manhole #2	Good	0	X			
Catch Basin Manhole #3	Good	0	X			

Table 2 - Stormwater System Inspection Log - Former Portac Facility

Date and Time of Inspection: 8/21/14, 08:00

Weather: Sunny, 75°F

Catch Basin/ Manhole	Structural Condition/General Appearance	Sediment Accumulation in Inches	Checked		Detailed Actions Recommended	Corrective Actions and Date Completed
			No Problems	Action Required		
Catch Basin Manhole #4	Good	0	X			
Catch Basin Manhole #5	Good	0.5	X			
Catch Basin Manhole #6	Good	Not measured -- area fenced off.	X			
Catch Basin Manhole #7	Good	0	X			
Catch Basin Manhole #8	Good	0	X			

Table 2 - Stormwater System Inspection Log - Former Portac Facility

Date and Time of Inspection: 8/21/14, 08:00

Weather: Sunny, 75°F

Spill Containment Vessel	Structural Condition/General Appearance	Sediment Accumulation in Inches	Checked		Detailed Actions Recommended	Corrective Actions and Date Completed
			No Problems	Action Required		
Spill Containment Vessel #1	Good	0	X			
Spill Containment Vessel #2	Good	0	X			
Oil-Water Separator	Structural Condition/Presence of Oil (describe)	Sediment Accumulation in Inches	Checked		Detailed Actions Recommended	Corrective Actions and Date Completed
			No Problems	Action Required		
Oil-Water Separator	- Structural condition good. - Grate for oil-water separator catch basin broken. - Vegetation/debris covering catch basin grate. - No oil visible.	0		X	Recommend replacing catch basin grate and removing vegetation/debris from catch basin surface.	

Table 2 - Stormwater System Inspection Log - Former Portac Facility

Date and Time of Inspection: 8/21/14, 08:00

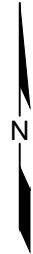
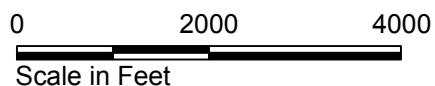
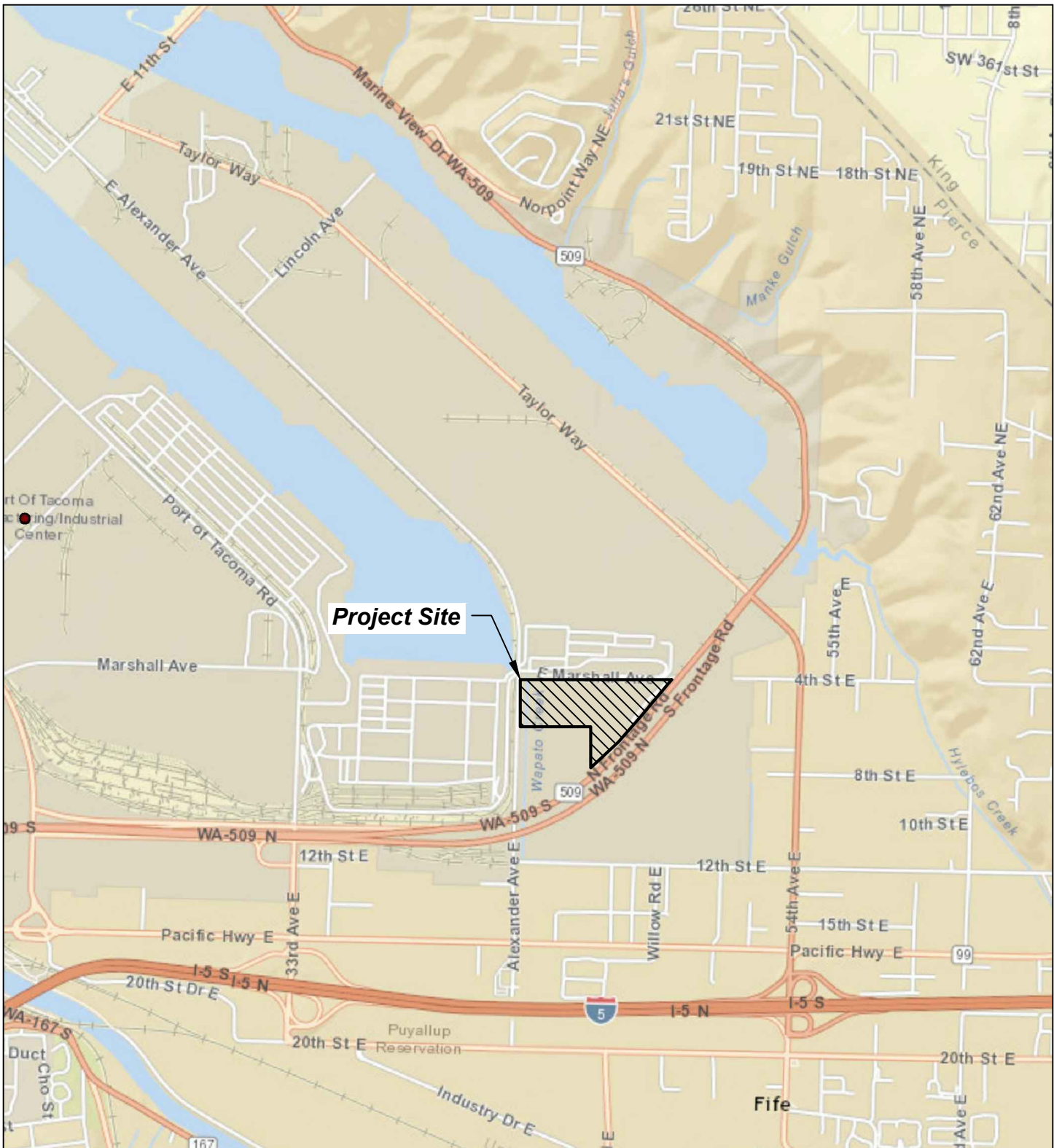
Weather: Sunny, 75°F

Outfall	Structural Condition/General Appearance	Detailed Actions Recommended	Corrective Actions and Date Completed
Outfall #1	Could not access -- in heavily overgrown area.		
Outfall #2	Good		


Comments:

The Port will be inspecting the stormwater drainage system and all stormwater facilities in the fourth quarter of 2014, as part of their MS4 permit.

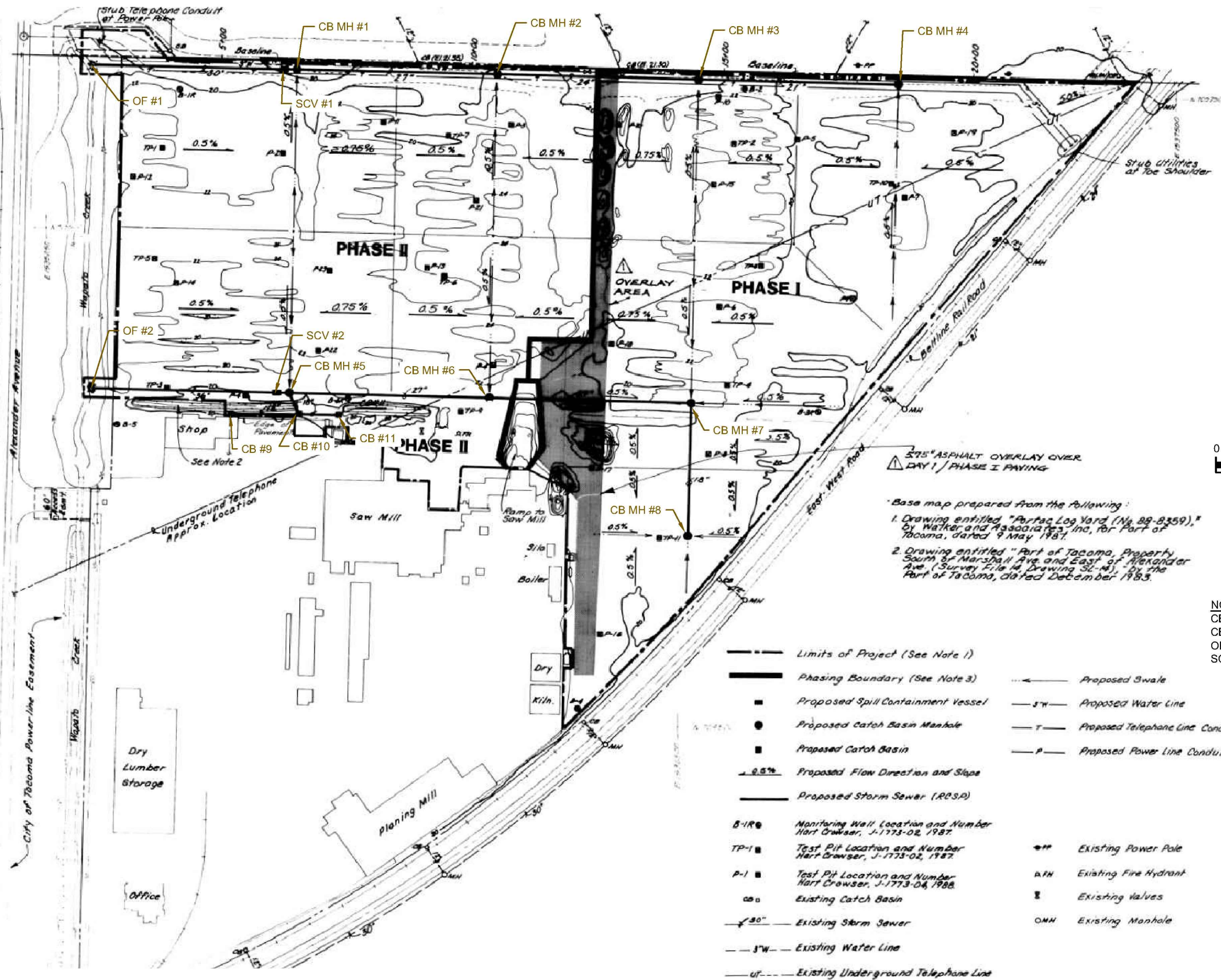
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Source: Base map prepared from ArcGIS Online, 2014.

Former Portac Facility Port of Tacoma	
Vicinity Map	
19000-07	9/14
	Figure 1

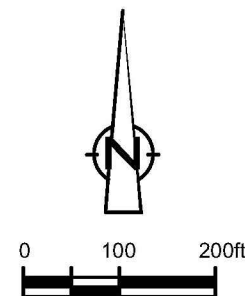
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Base map prepared from the following:
 1. Drawing entitled "Portac Log Yard (No. 88-8359)," by Walker and Associates, Inc, for Port of Tacoma, dated 9 May 1987.
 2. Drawing entitled "Part of Tacoma, Property South of Marshall Ave and East of Alexander Ave. (Survey File 14, Drawing SL-14)," by the Port of Tacoma, dated December 1983.

NOTES:
 CB = CATCH BASIN
 CB MH = CATCH BASIN MANHOLE
 OF = OUTFALL
 SCV = SPILL CONTAINMENT VESSEL

- Limits of Project (See Note 1)
- Phasing Boundary (See Note 3)
- Proposed Spill Containment Vessel
- Proposed Catch Basin Manhole
- Proposed Catch Basin
- 0.5% Proposed Flow Direction and Slope
- Proposed Storm Sewer (RCSA)
- B-1R ● Monitoring Well Location and Number Hart Crowser, J-1773-02, 1987.
- TP-1 ● Test Pit Location and Number Hart Crowser, J-1773-02, 1987.
- P-1 ● Test Pit Location and Number Hart Crowser, J-1773-04, 1988.
- CB ● Existing Catch Basin
- Existing Storm Sewer
- Existing Water Line
- Existing Underground Telephone Line
- Proposed Swale
- Proposed Water Line
- Proposed Telephone Line Conduit
- Proposed Power Line Conduit
- Existing Power Pole
- Existing Fire Hydrant
- Existing Valves
- Existing Manhole



Former Portac Facility Port of Tacoma	
Site Plan	
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	Figure 2

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APPENDIX A
Memorandum of Understanding

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6.4 Memorandum of Understanding

MEMORANDUM OF UNDERSTANDING

Former Log Yard Groundwater Monitoring and Cap Inspection

This Memorandum of Understanding (MOU) is entered into this 18 day of September 2011 between the Washington State Department of Ecology ("Ecology") and the Port of Tacoma ("Port") (collectively the "Parties") to memorialize the Parties' agreement to modify the requirements for future groundwater monitoring and cap inspection frequencies for five Port sites, as set forth below.

These sites affected by this agreement are Cascade Timber No. 3, Murray Pacific No. 2, Wasser Winters, Portac, and Louisiana-Pacific (aka Pony Lumber) ("Monitored Sites").

Each Monitored Site was cleaned up under an administrative agreement between Ecology and the Port, either as an original party or successor interest, as follows: Cascade Timber No. 3, Murray Pacific No. 2, and Wasser Winters were cleaned up under Consent Decrees, Louisiana-Pacific under an Enforcement Order, and Portac under a pre-Model Toxics Control Act (MTCA) Order On Consent (cumulatively referred to as: "Ecology Orders"). Portac, Inc. was also a respondent to the Portac Order on Consent along with the Port.

Each Monitored Site addressed similar contaminants of concern (COCs), which included arsenic, copper, lead, and zinc. However, each Ecology Order had site-specific requirements with respect to cleanup levels, and cap and groundwater monitoring frequencies.

In Spring 2010, the Port initiated a request to Ecology to standardize the monitoring requirements for the Monitored Sites in an effort to align the timing of the periodic monitoring/inspections at the sites so that the Port may better align a contractor to do the work all at once, as required.

In August 2010, to supplement the information already provided to Ecology, the Port provided Ecology with a tour of the Monitored Sites. As part of the tour, Ecology inspected the type and condition of the caps; the current site uses, specifically on the capped areas, and the locations and conditions of existing monitoring wells and stormwater basins.

Ecology has reviewed the information provided by the Port, as well as observations made during the site tour, and has chosen to provide a response in the form of this MOU.

This MOU was created for the Parties to understand and agree upon the requirements associated with Ecology's response, and to memorialize the decisions made with respect to each of the Port's requests.

In preparing this MOU, Ecology took into account, for each site, the type and condition of the cap and stormwater collection system, the adequacy of the groundwater monitoring system, and the recent groundwater compliance history.

Based on the above, Ecology and the Port agree as follows:

A. CAP MONITORING FREQUENCY

1. The Port may standardize the cap monitoring (inspection and reporting) frequency for the Monitored Sites to 30 months as requested. However, the following shall also occur:
 - During the site tours, Ecology noted that some of the stormwater basins were in better condition than others. Stormwater basins at each of the Monitored Sites should be inspected quarterly and cleaned out as needed, such that they are continuously operational.
 - Any unanticipated breaches of the cap for any of the Monitored Sites shall be reported to Ecology and repaired as soon as practicable. As per the respective Ecology Orders, the Port shall provide Ecology with a plan for each of the sites that summarizes intended action and reporting by the Port for unanticipated cap breaches.
 - Advance notice shall be provided and prior approval shall be obtained from Ecology for any planned cap breaches and repairs that are not otherwise permitted under the respective Ecology Order for each Monitored Site.
 - Minor cracking and normal wear and tear shall be repaired and reported as anticipated by and according to each Monitored Site's Ecology Order.
 - The appropriate Ecology Site Manager shall be informed, in writing, of any changes in site use on capped areas.
2. The next cap monitoring for the Monitored Sites based on this new 30-month frequency shall be February 2012, which corresponds to the next 30-month groundwater monitoring event for Wasser Winters described below. Unless changed by Ecology, all future cap monitoring for the Monitored Sites shall occur every 30 months beginning February 2012 to coincide with the groundwater monitoring that is intended to target alternating wet and dry seasons.

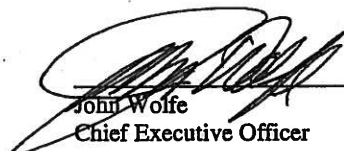
B. GROUNDWATER MONITORING FREQUENCY

1. The Port may standardize the groundwater monitoring frequency for each of the Monitored Sites as requested, which included the following:
 - Cascade Timber No. 3 – 18 months (formerly 12 months).
 - Murray Pacific No. 2 – 18 months (formerly 6 months).
 - Wasser Winters – No change (currently 30 months).
 - Portac – No change (currently discontinued).
 - Louisiana-Pacific – 30 months (formerly 24 months wet/dry).

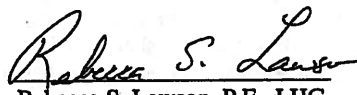
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2. The next groundwater monitoring for the Monitored Sites shall be conducted in February 2012. Unless changed by Ecology, all future groundwater monitoring for the Monitored Sites shall occur according to the frequency identified above beginning February 2012.

C. EFFECT OF MODIFICATION

1. Except as modified herein, all provisions of the Original Ecology Orders for each Monitored Site as existing and as may have been amended, including addressing any potential data compliance issues, remain in full force and effect.
2. A copy of this MOU shall be filed with the Ecology Project Manager for each of the Monitored Sites.


John Wolfe
Chief Executive Officer
Port of Tacoma

9.1.11
Date


Rebecca S. Lawson, P.E., LHG
Section Manager, Toxics Cleanup Program
Southwest Regional Office
Washington State Department of Ecology

9/12/2011
Date

cc:
Jason Jordan – Port of Tacoma
Mark Rettmann – Port of Tacoma
William Evans – Port of Tacoma
Leslee Connor – Port of Tacoma
Scott Hooton – Port of Tacoma
Dom Reale – Ecology
Marv Coleman – Ecology
Guy Barrett – Ecology
James DeMay – Ecology
Scott Rose – Ecology
Rebecca Lawson – Ecology

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APPENDIX B Photographs

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Photograph 1 – Observed cracks in cap.



Photograph 2 – Observed cracks in cap.



Photograph 3 – Observed cracks in cap.



Photograph 4 – Observed cracks in cap.