



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

April 21, 2014

Mr. Karl Anderson
P.O. Box 2259
Tacoma, WA 98401

Re: No Further Action at the following Site:

- **Site Name:** Trident Metals
- **Site Address:** 1851 Taylor Way, Tacoma, WA 98421
- **Facility/Site No.:** 5979
- **Cleanup Site ID No.:** 194
- **VCP Project No.:** SW1342

Dear Mr. Anderson:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the Trident Metals facility (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

Is further remedial action necessary to clean up contamination at the Site?

No. Ecology has determined that no further remedial action is necessary to clean up contamination at the Site.

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA"). The analysis is provided below.

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:

- Petroleum hydrocarbons in the Soil.



Please note that parcel(s) of real property associated with this Site are also located within the projected boundaries of the Asarco Tacoma Smelter Site (Facility/Site # 89267963). At this time, we have no information that those parcel(s) are actually affected. This opinion does not apply to any contamination associated with the Asarco Tacoma Smelter Site.

Basis for the Opinion

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

1. Environmental Assessment and Remedial Action Letter Report, Taylor Way Industrial Redevelopment, dated July 17, 2012 by Environmental Partners, Inc. (EPI).
2. Site Hazard Assessment Worksheet, Trident Metals, dated November 29, 2010 by Tacoma Pierce County Health Department.
3. Site Hazard Assessment Notification– Trident Metals, dated November 9, 2010 by Ecology.
4. Phase 1 Environmental Site Assessment, Buffelen Woodworking Parcel, dated April 24, 2009 by Kennedy/Jenks Consultants.

These documents are kept in the Central Files of the Southwest Regional Office of Ecology (SWRO) for review by appointment only. You can make an appointment by calling the SWRO resource contact at (360) 407-6365.

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

Analysis of the Cleanup

Ecology has concluded that no **further remedial action** is necessary to clean up contamination at the Site. That conclusion is based on the following analysis:

1. Characterization of the Site.

Ecology has determined your characterization of the Site is sufficient to establish cleanup standards and select a cleanup action. The Site is described below.

The Site is the Trident Metals facility located at 1851 Taylor Way, Tacoma, Washington. Historically the Site was occupied by the Buffelen Woodworking Door Factory (Buffelen) from 1913 to 2003. A warehouse structure was located on the Site that was demolished in 2003. Currently, the Site is vacant with a concrete slab (remnant of the Buffelen operations). Site location maps (Figures 1 and 2) are included in the Enclosures.

Ecology conducted a Site Hazard Assessment (SHA) on the property in 2010 following anonymous complaints against a tenant on the property, Trident Metals, a metals recycling operation. The SHA process is a qualitative assessment of a site's potential risk to human health and the environment. The results of the SHA ranked the Site a 1 (highest potential risk) based on historic use of the Site, poor hazardous materials management, evidence of impacted groundwater and soils, and impacts to the immediately adjacent Hylebös waterway. As a result, the Site was listed on Ecology's Hazardous Sites List (HSL) in February 2011.

As part of the Taylor Way industrial redevelopment project, the grade of the northern part of the Site was to be raised in elevation to match that of the adjacent parcels. Before placement of the fill to bring the area to grade, holes were drilled to allow drainage through the concrete slab in this location. During the drilling of holes through the concrete slab on the property, soil staining was noted with an odor of petroleum hydrocarbons.

In February 2012, EPI collected 12 shallow soil samples (1-Dx through 12-Dx) from beneath the concrete slab to assess the presence or absence of petroleum-contaminated soils (PCS). Based on visual observations, six of these samples were submitted to the laboratory for analysis of diesel-range total petroleum hydrocarbons (TPH-Dx) and oil-range TPH (TPH-O). The sample locations are shown on Figure 3 included in the Enclosures. Test pits were advanced in the areas where the previous six shallow soil samples were collected (as well as in other areas) to determine the extent of PCS. A total of 11 test pits were advanced and samples Dx-13 through Dx-23 were collected and submitted to the laboratory for analysis of TPH-Dx and TPH-O. These test pit locations are also shown on Figure 3. The results of the analyses identified three areas (labeled Remedial Areas 1, 2, and 3) where TPH-O was detected at levels ranging between 2,300 milligrams/kilogram (mg/kg) and 4,300 mg/kg, greater than the MTCA Method A Cleanup Level of 2,000 mg/kg. TPH-Dx was not detected in any of the samples at levels greater than the MTCA Method A Cleanup Level.

In March 2012, an additional 12 borings (B-1 through B-12) were advanced at the Site. Five of these borings were completed as temporary groundwater monitoring wells (B-4, B-7, and B-10 through B-12). Soil samples were collected from each boring and groundwater samples were collected from each of the temporary groundwater wells.

A total of 17 soil samples from the shallow soils and test pits and 26 samples from the borings were submitted for laboratory analysis of TPH-Dx and TPH-O. In addition, four samples were selected for additional analyses per MTCA Table 830-1 for volatile organic compounds (VOCs), carcinogenic polycyclic aromatic hydrocarbons (cPAHs), total naphthalenes, polychlorinated biphenyls (PCBs), and total lead. Of these analytes, only TPH-O was detected in six samples at levels greater than the MTCA Method A Cleanup Level. The soil analytical results are shown in Table 2 included in the Enclosures.

A total of five groundwater samples were collected from the temporary borings advanced on the Site. These samples were analyzed for TPH-Dx, TPH-O, VOCs, cPAHs, naphthalenes, PCBs, and total lead. None of these analytes were detected above their respective MTCA Method A Cleanup Levels. The groundwater analytical results are summarized in Table 3 included in the Enclosures.

Soils encountered on the Site are described as fill consisting of poorly graded sands from the surface to approximately 9 feet below ground surface (bgs). This fill was underlain by silt from 9 to 14 feet bgs. The silt was underlain by a sand to the total depth explored of 16 feet bgs. Perched groundwater was occasionally observed in some test pits between 5 and 6 feet bgs. The perched groundwater was not continuous across the Site. Groundwater was found in each of the five groundwater monitoring wells between 10.5 to 11.5 feet bgs. Groundwater flow directions were expected to flow to the northeast towards the adjacent Hylebos waterway under some tidal influence approaching the waterway.

2. Establishment of cleanup standards.

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

a. Cleanup levels.

MTCA Method A Cleanup Levels for unrestricted land use for soil and groundwater were used to characterize the Site.

b. Points of compliance.

Standard points of compliance were used for the Site. The point of compliance for protection of groundwater was established in the soils throughout the Site. For soil cleanup levels based on human exposure via direct contact or other exposure pathways where contact with the soil is required to complete the pathway, the point of compliance was established in the soils throughout the Site from the ground surface to 15 feet bgs. In addition, the point of compliance for the groundwater was established throughout the Site from the uppermost level of the saturated zone extending vertically to the lowest most depth that could potentially be affected by the Site.

3. Selection of cleanup action.

Ecology has determined the cleanup action you selected for the Site meets the substantive requirements of MTCA. Impacted soil excavation and disposal was used at the Site.

4. Cleanup.

Ecology has determined the cleanup you performed meets the cleanup standards established for the Site.

In March 2012, three excavation areas were defined (Remedial Areas 1, 2, and 3). These are shown on Figure 4 included in the Enclosures. The final extent of the excavations were 20 feet wide, 60 feet long, and 3 feet deep for Area 1; 20 feet wide and long and 5 feet deep for Area 2; and 20 feet wide, 50 feet long, and 3 feet deep for Area 3. The total volume of PCS removed from the Site was 318 cubic yards. PCS was disposed off Site at Waste Management's Olympic View transfer station in Port Orchard.

Groundwater was not encountered during the excavation; however, small quantities of perched water were found in some areas. A total of 26 confirmation soil samples (and two duplicate samples) were collected from each of the three remedial excavation areas and submitted for analysis of TPH-O. The locations of these samples are also shown on Figure 4. None of the confirmation samples exceeded the MTCA Method A Cleanup Level for TPH-O of 2,000 mg/kg. The confirmation sample results are summarized in Table 4 included in the Enclosures. Groundwater testing confirmed that the impacted soils have not impacted the groundwater beneath the Site.

Listing of the Site

Based on this opinion, Ecology will remove the Site from our Confirmed and Suspected Contaminated Sites List.

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.

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).

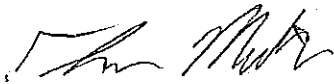
Mr. Karl Anderson
April 21, 2014
Page 6

Termination of Agreement

Thank you for cleaning up the Site under the Voluntary Cleanup Program (VCP). This opinion terminates the VCP Agreement governing this project (#SW1342)

For more information about the VCP and the cleanup process, please visit our web site: www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm. If you have any questions about this opinion or the termination of the Agreement, please contact me by phone at 360-407-7263 or e-mail at tmid461@ecy.wa.gov.

Sincerely,



Thomas Middleton L.H.G.
SWRO Toxics Cleanup Program

TMM/ES Trident Metals Tacoma NFA

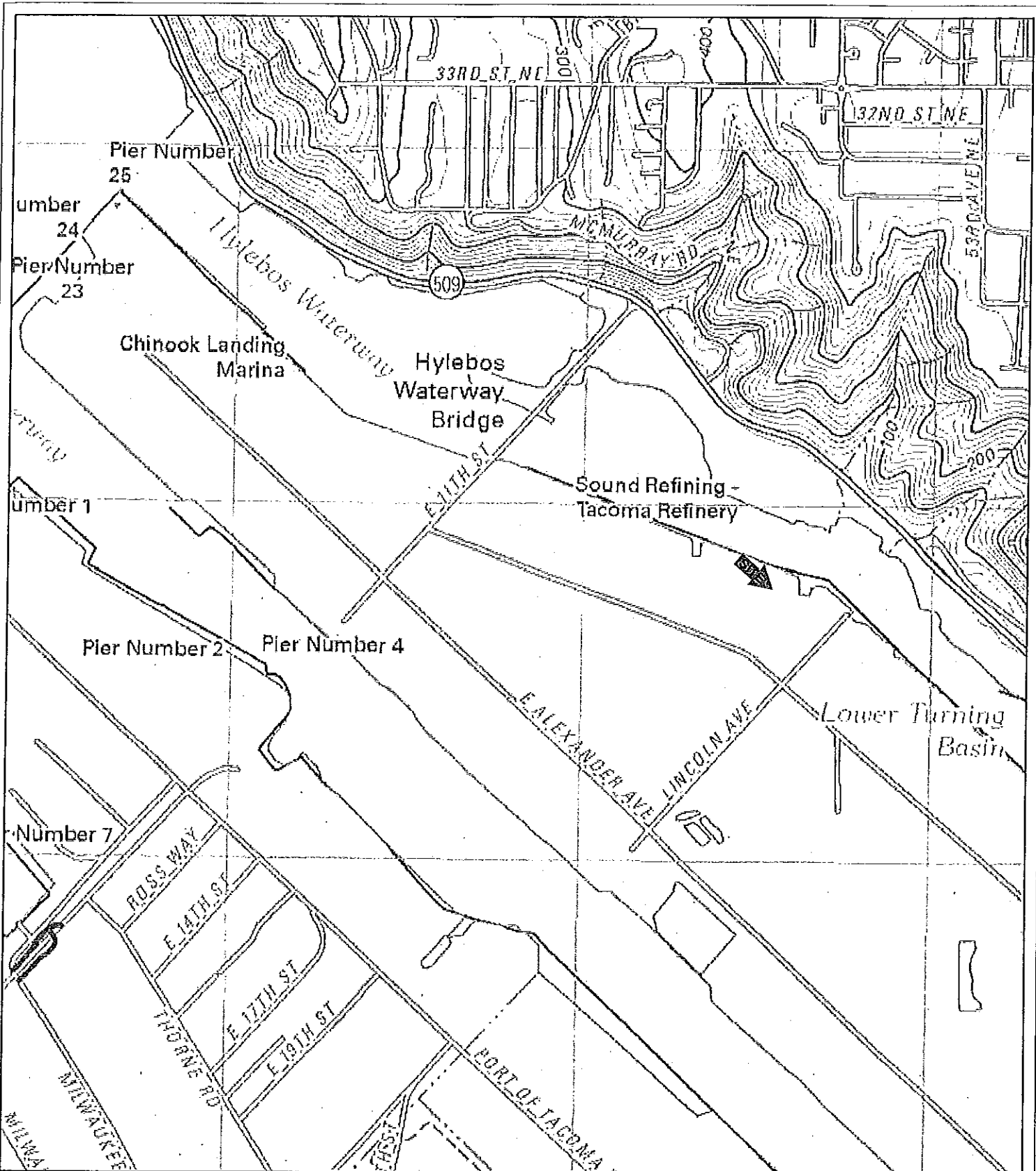
By certified mail: (7012 2210 0002 6581 1819)

Enclosures:

- Figure 1 – General Vicinity Map
- Figure 2 – Site Location Map
- Figure 3 – Sample Location and Results Map
- Figure 4 – Remedial Excavation and Conf. Sample Location Map
- Table 2 – Soil Analytical Results
- Table 3 – Groundwater Analytical Results
- Table 4 – Confirmation Soil Sample Results

cc:


Thom Morin, Environmental Partners, Inc.
Sharon Bell, Tacoma Pierce County Health Department
Scott Rose, Ecology
Dolores Mitchell, Ecology (w/o enclosures)




KEY:

SOURCE: USGS 7.5 MINUTE QUADRANGLE
(TOPOGRAPHIC)

TACOMA NORTH, WA
2011



SCALE = 1:24,000

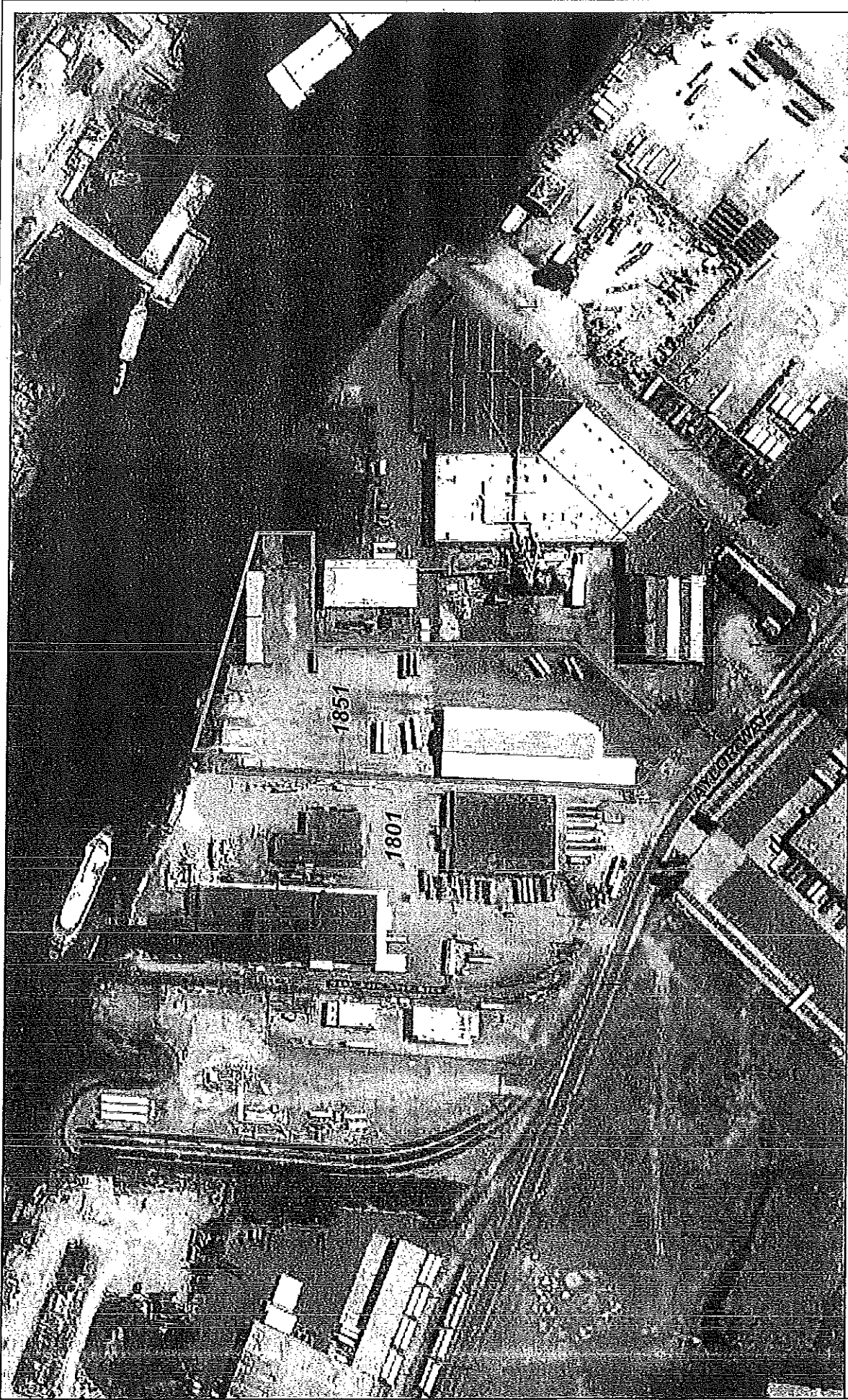





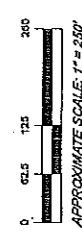
ENVIRONMENTAL PARTNERS INC
295 NE Gilman Boulevard, Suite 201
Issaquah, Washington 98027

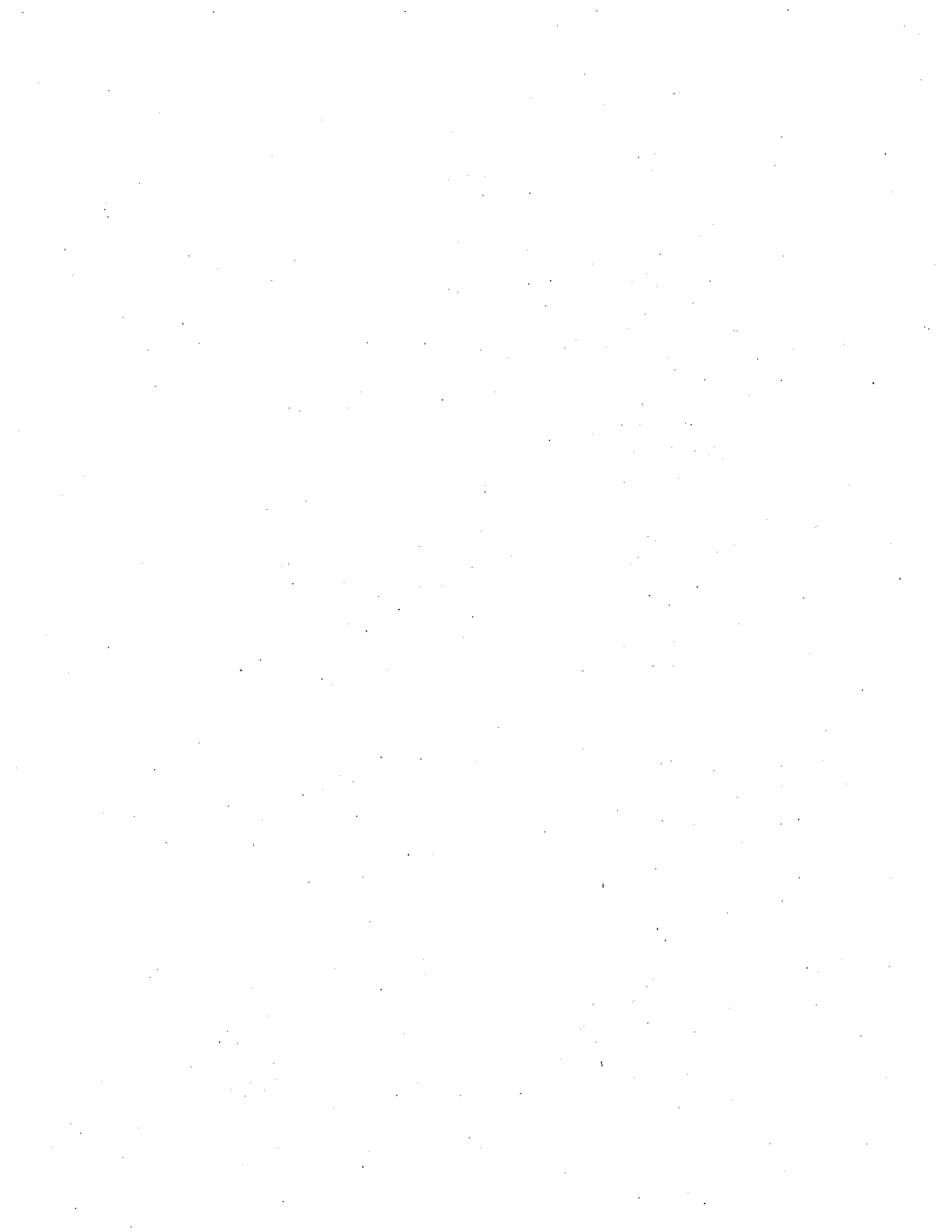
FIGURE 1

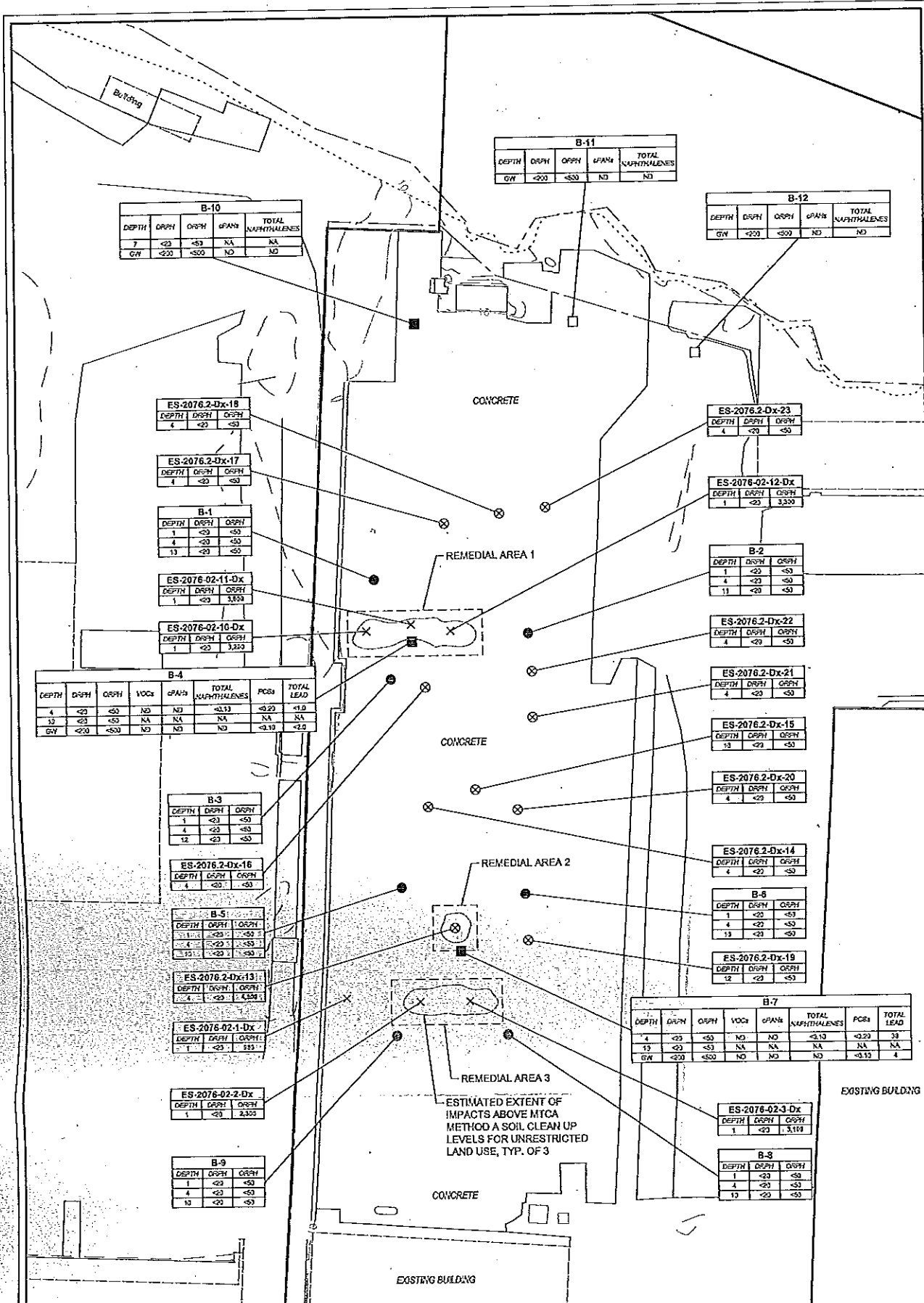
GENERAL VICINITY MAP

PROJECT	62701.0		
PREPARED FOR	TACOMA INDUSTRIAL PROPERTIES		
LOCATION	1851 TAYLOR WAY TACOMA, WASHINGTON		
SHEET	DRAWN BY	REVIEWED BY	DATE
1 of 1	JHR	ELC	04/27/12



 ENVIRONMENTAL PARTNERS INC 295 NE Gilman Boulevard, Suite 201 Longview, Washington 98027	PROJECT	62701.0	
	PREPARED FOR	TACOMA INDUSTRIAL PROPERTIES	
	LOCATION	1851 TAYLOR WAY TACOMA, WASHINGTON	
	SHEET	DRAWN BY 1 of 1 JHR	REVIEWED BY ELC
SITE REPRESENTATION			
FIGURE 2			
APPROXIMATE SUBJECT PROPERTY BOUNDARY 			
KEY:			
			
			
APPROXIMATE SCALE: 1" = 250'			





B-10				
DEPTH	DRPH	OSPH	OPAH	TOTAL NAPHTHALENES
7	<20	<50	NA	NA
GW	<200	<500	NO	NO

B-11				
DEPTH	DRPH	OSPH	OPAH	TOTAL NAPHTHALENES
GW	<200	<500	NO	NO

B-12				
DEPTH	DRPH	OSPH	OPAH	TOTAL NAPHTHALENES
GW	<200	<500	NO	NO

ES-2076.2-Dx-18		
DEPTH	DRPH	OSPH
4	<20	<50

ES-2076.2-Dx-17		
DEPTH	DRPH	OSPH
4	<20	<50

B-1		
DEPTH	DRPH	OSPH
1	<20	<50
4	<20	<50
13	<20	<50

ES-2076-02-11-Dx		
DEPTH	DRPH	OSPH
1	<20	3,320

ES-2076-02-10-Dx		
DEPTH	DRPH	OSPH
1	<20	3,320

B-4							
DEPTH	DRPH	OSPH	VOCS	OPAH	TOTAL NAPHTHALENES	PCBS	TOTAL LEAD
4	<20	<50	NO	NO	<0.13	<0.20	<1.0
13	<20	<50	NA	NA	NA	NA	NA
GW	<200	<500	NO	NO	NO	<0.10	<0.5

B-3		
DEPTH	DRPH	OSPH
1	<20	<50
4	<20	<50
12	<20	<50

ES-2076.2-Dx-16		
DEPTH	DRPH	OSPH
4	<20	<50

B-5		
DEPTH	DRPH	OSPH
1	<20	<50
4	<20	<50
13	<20	<50

ES-2076.2-Dx-13		
DEPTH	DRPH	OSPH
4	<20	4,580

ES-2076-02-1-Dx		
DEPTH	DRPH	OSPH
1	<20	885

ES-2076-02-2-Dx		
DEPTH	DRPH	OSPH
1	<20	3,320

B-9		
DEPTH	DRPH	OSPH
1	<20	<50
4	<20	<50
13	<20	<50

ES-2076.2-Dx-23		
DEPTH	DRPH	OSPH
4	<20	<50

ES-2076-02-12-Dx		
DEPTH	DRPH	OSPH
1	<20	3,320

B-2		
DEPTH	DRPH	OSPH
1	<20	<50
4	<20	<50
11	<20	<50

ES-2076.2-Dx-22		
DEPTH	DRPH	OSPH
4	<20	<50

ES-2076.2-Dx-21		
DEPTH	DRPH	OSPH
4	<20	<50

ES-2076.2-Dx-15		
DEPTH	DRPH	OSPH
13	<20	<50

ES-2076.2-Dx-20		
DEPTH	DRPH	OSPH
4	<20	<50

ES-2076.2-Dx-14		
DEPTH	DRPH	OSPH
4	<20	<50

B-6		
DEPTH	DRPH	OSPH
1	<20	<50
4	<20	<50
13	<20	<50

ES-2076.2-Dx-19		
DEPTH	DRPH	OSPH
12	<20	<50

B-7							
DEPTH	DRPH	OSPH	VOCS	OPAH	TOTAL NAPHTHALENES	PCBS	TOTAL LEAD
4	<20	<50	NO	NO	<0.13	<0.20	38
13	<20	<50	NA	NA	NA	NA	NA
GW	<200	<500	NO	NO	NO	<0.10	4

ES-2076-02-3-Dx		
DEPTH	DRPH	OSPH
1	<20	3,110

B-8		
DEPTH	DRPH	OSPH
1	<20	<50
4	<20	<50
13	<20	<50

KEY:

- X SHALLOW GRAB SOIL SAMPLE
- ⊗ SOL PIT SAMPLE
- ⊙ SOL BORING/SOL SAMPLE ONLY
- ⊕ SOL AND WATER SAMPLE
- WATER SAMPLE ONLY
- ND NOT DETECTED ABOVE LABORATORY DETECTION LIMITS
- NA NOT ANALYZED

SOIL - MS/Kg
GROUND WATER - µg/L

BOLD - CONCENTRATION DETECTED, BUT LESS THAN MITCA METHOD A SOIL CLEANUP LEVEL

BOLD AND SHADED - CONCENTRATION GREATER THAN MITCA METHOD A SOIL CLEANUP LEVEL

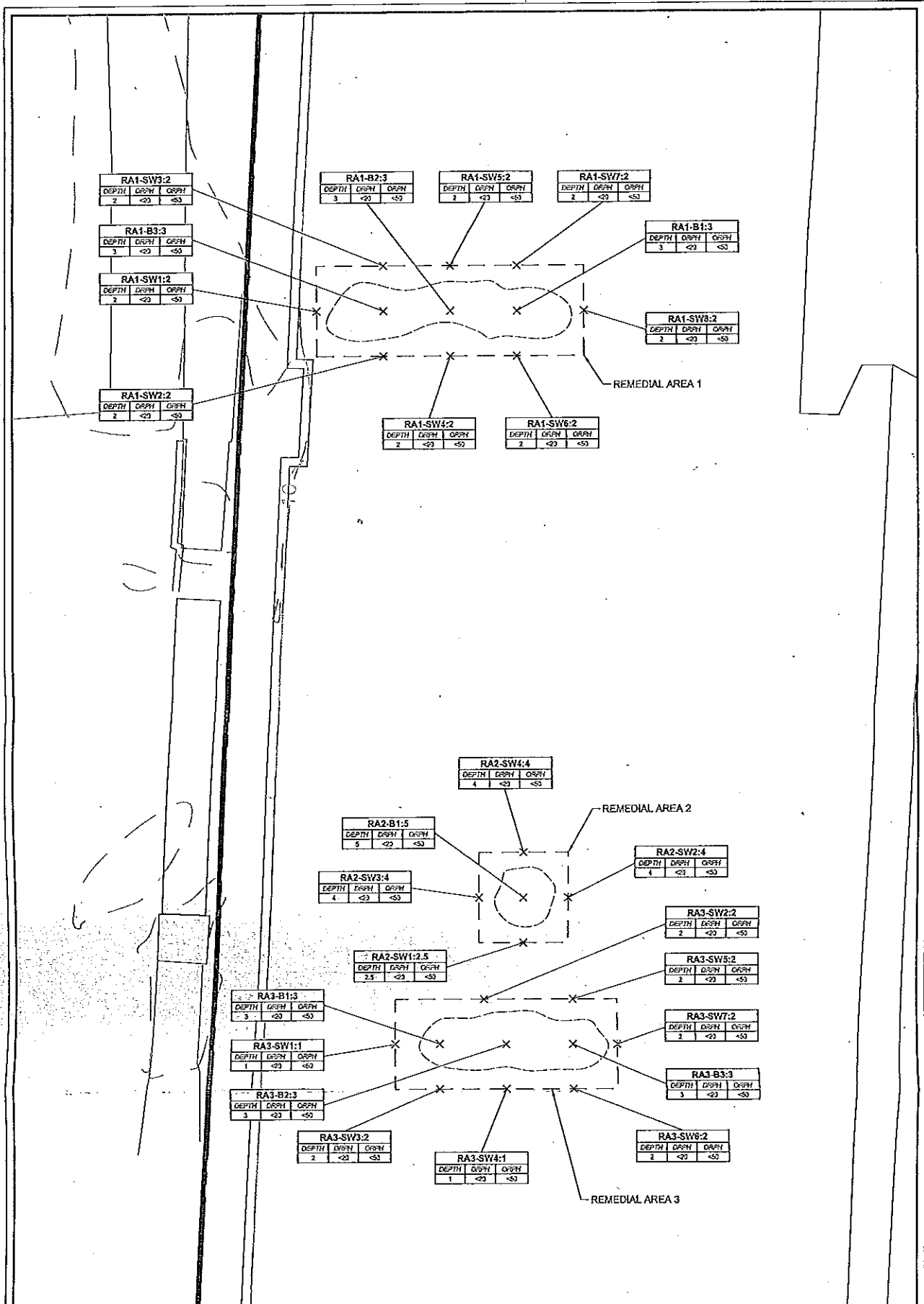
--- APPROXIMATE LOCATION OF REMEDIAL AREA

SCALE 1" = 47'

ENVIRONMENTAL PARTNERS INC
257 NE Gilbert Street, Suite 201
TACOMA, WA 98402

FIGURE 3
SITE REPRESENTATION WITH ASSESSMENT SAMPLE AND BORING LOCATIONS

PROJECT	82701.0
PREPARED FOR	TACOMA INDUSTRIAL PROPERTIES
LOCATION	1851 TAYLOR WAY TACOMA, WASHINGTON
SHEET	1 of 1
DRAWN BY	JFR
REVIEWED BY	ELC
DATE	04/27/02



RA1-SW3:2		
DEPTH	ORPH	ORPH
2	<20	<50

RA1-B2:3		
DEPTH	ORPH	ORPH
3	<20	<50

RA1-SW5:2		
DEPTH	ORPH	ORPH
2	<20	<50

RA1-SW7:2		
DEPTH	ORPH	ORPH
2	<20	<50

RA1-B1:3		
DEPTH	ORPH	ORPH
3	<20	<50

RA1-B3:3		
DEPTH	ORPH	ORPH
3	<20	<50

RA1-SW1:2		
DEPTH	ORPH	ORPH
2	<20	<50

RA1-SW8:2		
DEPTH	ORPH	ORPH
2	<20	<50

RA1-SW2:2		
DEPTH	ORPH	ORPH
2	<20	<50

RA1-SW4:2		
DEPTH	ORPH	ORPH
2	<20	<50

RA1-SW6:2		
DEPTH	ORPH	ORPH
2	<20	<50

RA2-SW4:4		
DEPTH	ORPH	ORPH
4	<20	<50

RA2-B1:5		
DEPTH	ORPH	ORPH
5	<20	<50

RA2-SW3:4		
DEPTH	ORPH	ORPH
4	<20	<50

RA2-SW2:4		
DEPTH	ORPH	ORPH
4	<20	<50

RA2-SW1:2.5		
DEPTH	ORPH	ORPH
2.5	<20	<50

RA3-SW2:2		
DEPTH	ORPH	ORPH
2	<20	<50

RA3-SW5:2		
DEPTH	ORPH	ORPH
2	<20	<50

RA3-B1:3		
DEPTH	ORPH	ORPH
3	<20	<50

RA3-SW1:1		
DEPTH	ORPH	ORPH
1	<20	<50

RA3-SW7:2		
DEPTH	ORPH	ORPH
2	<20	<50

RA3-B3:3		
DEPTH	ORPH	ORPH
3	<20	<50

RA3-B2:3		
DEPTH	ORPH	ORPH
3	<20	<50

RA3-SW3:2		
DEPTH	ORPH	ORPH
2	<20	<50

RA3-SW4:1		
DEPTH	ORPH	ORPH
1	<20	<50

RA3-SW6:2		
DEPTH	ORPH	ORPH
2	<20	<50

KEY:



X CONFIRMATION SOIL SAMPLE
 --- APPROXIMATE LOCATION OF REMEDIAL AREA
 SOL - Mg/Kg

ENVIRONMENTAL PARTNERS INC
 255 N33 Gibson Boulevard, Suite 201
 Issaquah, WA 98027

PROJECT: 627010
 PREPARED FOR: TACOMA INDUSTRIAL PROPERTIES

FIGURE 1
 SITE REPRESENTATION WITH REMEDIAL AREAS AND CONFIRMATION SOIL SAMPLES

LOCATION: 1851 TAYLOR WAY TACOMA, WASHINGTON
 SHEET: 1 of 1
 DRAWN BY: JER
 REVIEWED BY: ELC
 DATE: 04/27/12

Table 2
Summary of ESA Soil Sample Analytical Results (mg/kg)
Soil Assessment Sampling
Tacoma Industrial Properties
1851 Taylor Way
Tacoma, Washington

Sample I.D.	Approximate Sample Depth (Ft)	DRPH ^(a)	ORPH ^(a)	VOCs ^(b)	cPAHs ^(c)	Total Naphthalenes ^(e)	PCBs ^(d)	Total Lead ^(d)
Initial Soil Samples Collected Below Concrete Slab								
ES-2076-02-1-Dx	1	<20	980	NA	NA	NA	NA	NA
ES-2076-02-2-Dx	1	<20	2,300	NA	NA	NA	NA	NA
ES-2076-02-3-Dx	1	<20	3,100	NA	NA	NA	NA	NA
ES-2076-02-10-Dx	1	<20	3,200	NA	NA	NA	NA	NA
ES-2076-02-11-Dx	1	<20	3,000	NA	NA	NA	NA	NA
ES-2076-02-12-Dx	1	<20	3,300	NA	NA	NA	NA	NA
Soil Samples Collected from Exploratory Excavations								
ES-2076.2-Dx-13	4	<20	4,300	NA	NA	NA	NA	NA
ES-2076.2-Dx-14	4	<20	<50	NA	NA	NA	NA	NA
ES-2076.2-Dx-15	10	<20	<50	NA	NA	NA	NA	NA
ES-2076.2-Dx-16	4	<20	<50	NA	NA	NA	NA	NA
ES-2076.2-Dx-17	4	<20	<50	NA	NA	NA	NA	NA
ES-2076.2-Dx-18	4	<20	<50	NA	NA	NA	NA	NA
ES-2076.2-Dx-19	12	<20	<50	NA	NA	NA	NA	NA
ES-2076.2-Dx-20	4	<20	<50	NA	NA	NA	NA	NA
ES-2076.2-Dx-21	4	<20	<50	NA	NA	NA	NA	NA
ES-2076.2-Dx-22	4	<20	<50	NA	NA	NA	NA	NA
ES-2076.2-Dx-23	4	<20	<50	NA	NA	NA	NA	NA
Soil Samples Collected from Assessment Soil Borings								
B-1:1	1	<20	<50	NA	NA	NA	NA	NA
B-1:4	4	<20	<50	NA	NA	NA	NA	NA
B-1:10	10	<20	<50	NA	NA	NA	NA	NA
B-2:1	1	<20	<50	NA	NA	NA	NA	NA
B-2:4	4	<20	<50	NA	NA	NA	NA	NA
B-2:11	11	<20	<50	NA	NA	NA	NA	NA
B-3:1	1	<20	<50	NA	NA	NA	NA	NA
B-3:4	4	<20	<50	NA	NA	NA	NA	NA
B-3:12	12	<20	<50	NA	NA	NA	NA	NA
B-4:4	4	<20	<50	ND for all analytes	ND for all analytes	<0.10 for all analytes	<0.20 for all analytes	<1.0
B-4:10	10	<20	<50	NA	NA	NA	NA	NA
B-5:1	1	<20	<50	NA	NA	NA	NA	NA
B-5:4	4	<20	<50	NA	NA	NA	NA	NA
B-5:10	10	<20	<50	NA	NA	NA	NA	NA
B-6:1	1	<20	<50	NA	NA	NA	NA	NA
B-6:4	4	<20	<50	NA	NA	NA	NA	NA
B-6:10	10	<20	<50	NA	NA	NA	NA	NA
B-7:4	4	<20	<50	ND for all analytes	ND for all analytes	<0.10 for all analytes	<0.20 for all analytes	30
B-7:10	10	<20	<50	NA	NA	NA	NA	NA
B-8:1	1	<20	<50	NA	NA	NA	NA	NA
B-8:4	4	<20	<50	NA	NA	NA	NA	NA
B-8:10	10	<20	<50	NA	NA	NA	NA	NA
B-9:1	1	<20	<50	NA	NA	NA	NA	NA
B-9:4	4	<20	<50	NA	NA	NA	NA	NA
B-9:10	10	<20	<50	NA	NA	NA	NA	NA
B-10:7	7	<20	<50	NA	NA	NA	NA	NA
MTCA Method A Soil Cleanup Level for Unrestricted Land Use		2,000	2,000	Analyte Dependent	Analyte Dependent	5	1	250

Notes:

All samples analyzed by Advanced Analytical Laboratory in Redmond, Washington

(a) Analyzed for diesel-range petroleum hydrocarbons (DRPH) and oil-range petroleum hydrocarbons (ORPH) using Ecology Method NWTPH-Dx extended

(b) Analyzed for volatile organic compounds (VOCs) using EPA Method 8260C

(c) Analyzed for carcinogenic polycyclic aromatic hydrocarbons (cPAHs) using EPA Method 8270 SIM

(d) Analyzed for polychlorinated biphenyls (PCBs) using EPA Method 8082

(e) Analyzed for lead using EPA Method 7010

ND = Non-detect - No concentration detected above laboratory detection limits for the method used

NA = Not analyzed

Bold = Concentration detected, but less than MTCA Method A Soil Cleanup Level for Unrestricted Land Use

Bold and shaded = Concentration greater than MTCA Method A Soil Cleanup Level for Unrestricted Land Use

mg/kg = milligrams per kilogram

Table 3
Summary of ESA Ground Water Sample Analytical Results (µg/L)
Ground Water Assessment Sampling
Tacoma Industrial Properties
1851 Taylor Way
Tacoma, Washington

Sample I.D.	DRPH ^(a)	ORPH ^(a)	VOCs ^(b)	cPAHs ^(c)	Total Naphthalenes ^(d)	PCBs ^(d)	Total Lead ^(e)
B-4	<200	<500	ND for all analytes	ND for all analytes	ND for all analytes	<0.1	<2.0
B-7	<200	<500	ND for all analytes	ND for all analytes	ND for all analytes	<0.1	4
B-10	<200	<500	NA	ND for all analytes	ND for all analytes	NA	NA
B-11	<200	<500	NA	ND for all analytes	ND for all analytes	NA	NA
B-12	<200	<500	NA	ND for all analytes	ND for all analytes	NA	NA
MTCA Method A Cleanup Levels for Ground Water	500	500	Analyte Dependent	Analyte Dependent	160	0.1	15

Notes:

All samples analyzed by Advanced Analytical Laboratory in Redmond, Washington

(a) Analyzed for diesel-range petroleum hydrocarbons (DRPH) and oil-range petroleum hydrocarbons (ORPH) using Method NWTTPH-Dx extended

(b) Analyzed for volatile organic compounds (VOCs) using EPA Method 8260C

(c) Analyzed for carcinogenic polycyclic aromatic hydrocarbons (cPAHs) and total naphthalenes using EPA Method 8270 SIM

(d) Analyzed for polychlorinated biphenyls (PCBs) using EPA Method 8082

(e) Analyzed for lead using EPA Method 7010

ND = Non-detect - No concentration detected above laboratory detection limits for the method used

NA = Not analyzed

Bold = Concentration detected, but less than MTCA Method A Soil Cleanup Level for Unrestricted Land Use

Bold and shaded = Concentration greater than MTCA Method A Soil Cleanup Level for Unrestricted Land Use

µg/L = micrograms per Liter

Table 4
 Summary of RA Soil Sample Analytical Results (mg/kg)
 Confirmation Soil Sampling
 Tacoma Industrial Properties
 1851 Taylor Way
 Tacoma, Washington

Sample I.D.	Approximate Sample Depth (Ft)	DRPH*	ORPH*
Remedial Area 1			
RA1-SW1:2	2	<20	<50
RA1-SW2:2	2	<20	<50
RA1-SW3:2	2	<20	<50
RA1-SW4:2	2	<20	<50
RA1-SW5:2	2	<20	<50
RA1-SW6:2 and RA1-Dup1	2	<20	<50
RA1-SW7:2	2	<20	<50
RA1-SW8:2	2	<20	<50
RA1-B1:3	3	<20	<50
RA1-B2:3	3	<20	<50
RA1-B3:3	3	<20	<50
Remedial Area 2			
RA2-SW1:2.5 and RA2-Dup1	2.5	<20	<50
RA2-SW2:3	3	<20	<50
RA2-SW3:4	4	<20	<50
RA2-SW4:4	4	<20	<50
RA2-B1:5	5	<20	<50
Remedial Area 3			
RA3-SW1:1	1	<20	<50
RA3-SW2:2	2	<20	<50
RA3-SW3:2	2	<20	<50
RA3-SW4:1	1	<20	<50
RA3-SW5:2 and RA3-Dup1	2	<20	<50
RA3-SW6:2	2	<20	<50
RA3-SW7:2	2	<20	<50
RA3-B1:3	3	<20	<50
RA3-B2:3	3	<20	<50
RA3-B3:3	3	<20	<50
MTCA Method A Soil Cleanup Level for Unrestricted Land Use		2,000	2,000

Notes:

All samples analyzed by Advanced Analytical Laboratory in Redmond, Washington

* Analyzed for diesel-range petroleum hydrocarbons (DRPH) and oil-range petroleum hydrocarbons (ORPH) using Method NWTPH-Dx extended

SW = Sidewall soil sample; B = Bottom soil sample; Dup. = duplicate sample

mg/kg = milligrams per kilogram

