STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47775 · Olympia, Washington 98504-7775 · (360) 407-6300
711 for Washington Relay Service · Persons with a speech disability can call 877-833-6341

December 14, 2016

Mr. Ed Honeycutt
Mr. Formal, Inc.
16113 NW 27th Court
Vancouver, Washington 98685-1615

Re: Further Action at the following Site:

- **Site Name:** Adams Street Building
- **Site Address:** 6707 S Adams Street, Tacoma, Washington 98409 Pierce Co.
- **Facility/Site No.:** 7177
- **VCP Project No.:** SW1530

Dear Mr. Honeycutt:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the Adams Street Building 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?

YES. Ecology has determined that 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. This opinion does not apply to any other sites that may affect the Property. Any such sites, if known, are identified separately below.

The Site is defined by the nature and extent of contamination associated with the following release:

- Halogenated solvents (specifically PCE) into the Soil, Groundwater, and Air.

Enclosure A includes pertinent figures and tables related to the Site, as currently known to Ecology.

Please note the parcel(s) of real property associated with this Site are also located within the projected boundaries of the Tacoma Smelter Plume facility (#FSID 62855481). At this time, Ecology has no information that those parcel(s) are actually affected. This opinion does not apply to any contamination associated with the Tacoma Smelter Plume facility.

Basis for the Opinion

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

1. Associated Environmental Group, LLC (AEG), *Subsurface Investigation Report*, dated April 28, 2016

Those 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 those documents is materially false or misleading.

Analysis of the Cleanup

Ecology has concluded that **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 not sufficient to establish cleanup standards and select a cleanup action.

1) General comments:

a. The Site history appears incomplete. AEG reported that their subsurface investigation detailed in the report dated April 28, 2016, was the first environmental investigation at the Site. Historical occupancy and operations for Pierce County tax parcels 0220251163 and 0220251164 should be verified.
b. Where known, dry cleaning years of operation, chemical inventory, handling and disposal processes should be presented, as this history may influence future scoping for Site investigations and/or remedial actions. The process and any potential chemicals used at the former steam cleaning pad location should be discussed. For example, if Stoddard solvents were used at the Site in addition to PCE based dry cleaning materials, petroleum hydrocarbon constituents would need to be evaluated.
c. Building construction details should be incorporated into Site reports to the extent feasible. Building and utility details are critical for determining potential preferential pathways for soil gas (vapor).
d. AEG's Site Map (Figure 2) and Building Perimeter (Figure 3) show an unlabeled dashed outline to the west of the former steam cleaning pad and former dry cleaning machine. Please identify this feature.

2) Soil:

Both the leaching to groundwater and direct contact pathways are complete. AEG drilled soil borings B-5 through B-10 and monitoring wells MW-1 through MW-4 to a maximum depth of 20 feet below ground surface (bgs) (Table 1).

Concentrations of PCE in soil and groundwater reported for the Site appear low to generate the concentrations of PCE observed in soil gas (vapor). **Additional soil borings in the vicinity of the former dry cleaning machine are warranted in order to fully characterize the primary PCE source area.**

PCE contamination at the Site is not vertically and areally delineated in soil. AEG's investigation reported the following exceedances of the MTCA Method A cleanup levels:

- PCE at boring location B7 exceeds the MTCA Method A cleanup level for PCE at 13 feet bgs.
- PCE at boring location B8 exceeds the MTCA Method A cleanup level for PCE at 13.5 feet bgs.
- PCE at boring location MW-3 exceeds the MTCA Method A cleanup level for PCE at 15 feet bgs.
- PCE at boring location MW-4 exceeds the MTCA Method A cleanup level for PCE at 15 feet bgs.

These impacts must be vertically and areally delineated. Areally, the PCE impacts appear undefined to the north, northwest, south, and southwest of MW-3, and in all directions at MW-4. Preferential pathways should also be examined to determine the connection between soil impacts at MW-3 and at MW-4.

3) Groundwater:

This pathway is complete. Four groundwater monitoring wells are present at the Site (MW-1 through MW-4; Table 3). Site monitoring wells are generally screened across the top of the uppermost aquifer identified at the Site. PCE tends to sink through the water column and has a higher probability of accumulating near the base of an aquifer. The current screened interval for Site monitoring wells may be inadequate. **Therefore, Ecology requires the thickness of any potentially PCE-impacted aquifer(s) in the Site subsurface be determined to evaluate the potential vertical distribution of PCE contamination.**

Determining vertical distribution of all PCE released is critical as this Site is within the South Tacoma Groundwater Protection District. **Ecology requires the nearest water supply wells and the distance from the Site to these wells be identified.**

In order to fully characterize the geology at the Site, Ecology requires at least one borehole drilled at the Site extend to the first significant confining layer (but not fully penetrate this confining layer) for any aquifer(s) encountered beneath the Site. Ecology is aware that access within the building may restrict the types of drilling methodology available for well installation within the building footprint. Thus, the deep borehole may be located outside of the building footprint, and should be located near to but not within the contaminated soil zone. Ecology suggests the borehole be drilled with sonic methods, in order to log a continuous core of the drilling, provide sufficient volume for soil sampling, minimize the chances for refusal, and to potentially identify any interbedded fine layers which may have trapped PCE. Depending on field conditions, the deep borehole may be completed as a monitoring well. Ecology recommends that if multiple aquifers are encountered during drilling of any deep borehole, each aquifer be sealed off (e.g., telescoping during drilling) in sequence to prevent potential cross-contamination.

Thus far, groundwater elevations have been recorded for only March and April 2016 (Table 4). Groundwater sampling was only completed in March 2016. AEG's March 2016 Groundwater Contour Map (Figure 9) shows groundwater flowing to the northeast and southeast. AEG's April 2016 Groundwater Contour Map (Figure 10) shows groundwater flow ranging from the south to the west. Based on these variable

data, Site groundwater flow direction remains undetermined. Depending on the vertical distribution of PCE, the final groundwater flow direction calculated from future groundwater monitoring at the Site, and whether or not monitoring wells MW-1 through MW-4 are appropriately screened, groundwater impacts may not yet be delineated in any direction at the Site. **Based on current soil and groundwater data, additional groundwater monitoring wells are necessary to define groundwater impacts at the Site.**

Concentrations of PCE exceeded the MTCA Method A cleanup level at MW-3 and were less than the MTCA Method A cleanup level yet greater than the laboratory reporting limit in groundwater sampled from MW-4. **In order to evaluate PCE impacts to groundwater, Ecology requires implementation of a routine groundwater monitoring program.**

4) Soil Gas (Vapor):

This pathway is likely complete. Concentrations of PCE in sub-slab soil gas sampled exceed the MTCA Method B Sub-Slab soil gas screening level of 321 $\mu g/m^3$ at sampling locations B-1, B-2, and B-3 (Table 2). These data indicate that the current tenant space may be exposed to a PCE Vapor Intrusion (VI) risk which may threaten the health of current and future building occupants. Thus, Ecology requires additional soil gas (vapor) sampling.

In order to determine risk to current or future building occupants, concurrent sub-slab gas sampling and indoor air sampling should be completed. Ecology recommends use of summa canisters. Ecology encourages ambient (outdoor) air sampling and barometric pressure monitoring at the same time of the concurrent sub-slab and indoor air sampling, in order to determine pressure gradients or attenuation rates of PCE concentrations in air. For information regarding investigation and evaluating the vapor intrusion risk please refer to Ecology publication no. 09-09-047: https://fortress.wa.gov/ecy/publications/documents/0909047.pdf

Though the United States Environmental Protection Agency (EPA) Method 8260 is viable for analyzing VOCs in soil gas (vapor), the practical quantitation limit (PQL) for vinyl chloride exceeded the MTCA Method B Sub-Slab cleanup level for all samples collected by AEG in December 2015. Though the vinyl chloride values were reported as non-detect, **Ecology requires using analysis which will report PQLs at values less than the applicable cleanup level.** Ecology recommends the use of EPA Method TO-15 to evaluate volatile organic compounds in soil gas (vapor).

5) Surface Water:

Whether or not surface water is a complete pathway must be determined as part of this cleanup.

6) Sediment:

Whether or not sediment is a complete pathway must be determined as part of this cleanup.

7) Ecological:

A terrestrial ecology evaluation (TEE) must be performed as part of this cleanup. Please fill out the form on Ecology's website and submit it to us (along with any supporting documentation, as appropriate) for review. The form can be found at: https://fortress.wa.gov/ecy/publications/summarypages/ecy090300.html

8) Ecology recommends that you draft a work plan addressing the comments provided and submit for Ecology's review prior to undertaking any additional remedial investigation (RI) work at the Site. When planning future Site work, please review Ecology's RI and feasibility study (FS) checklists in order to guide future Site investigations. These checklists are attached are located at the web links below and hard copies are attached as Enclosure B.
   a. RI checklist:
      https://fortress.wa.gov/ecy/publications/SummaryPages/1609006.html

   b. FS checklist:
      https://fortress.wa.gov/ecy/publications/SummaryPages/1609007.html

9) In accordance with WAC 173-340-840(5) and Ecology Toxics Cleanup Program Policy 840 (Data Submittal Requirements), data generated for Remedial Actions shall be submitted simultaneously in both a written and electronic format. For additional information regarding electronic format requirements, see the website http://www.ecy.wa.gov/eim. Be advised that according to the policy, any reports containing sampling data that are submitted for Ecology review are considered incomplete until the electronic data has been entered. Please ensure that data generated during on-site activities is submitted pursuant to this policy. **Data must be**

submitted to Ecology in this format for Ecology to issue a No Further Action determination; however, Ecology strongly recommends that data be submitted concurrently with submittal of each environmental report. Please be sure to submit all soil and groundwater data collected to date, as well as any future data, in this format. Be advised that Ecology requires up to two weeks to process the data once they are received.

2. Establishment of cleanup standards.

Ecology has determined the cleanup levels and points of compliance you established for the Site do not meet the substantive requirements of MTCA. Cleanup standards cannot be established at this time because the Site has yet to be fully characterized.

For the subsurface investigation results, AEG compared soil sample analytical results to MTCA Method A cleanup levels. AEG presumed standard points of compliance will be used for the Site. Under this scenario, the point of compliance for protection of groundwater established for soils is 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, a standard point of compliance would be established in the soils throughout the Site from the ground surface to 15 feet bgs.

For the subsurface investigation, AEG compared groundwater sample analytical results to the MTCA Method A cleanup levels. AEG presumed standard points of compliance will be used for the Site. Under this scenario, the point of compliance would be 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.

For the subsurface investigation, AEG compared sub-slab soil gas (air) sample analytical results to the MTCA Method B Sub-Slab cleanup levels. AEG presumed standard points of compliance will be used for the Site. Under this scenario, the point of compliance would be established for indoor and ambient air throughout the Site.

3. Selection of cleanup action.

Ecology has determined the cleanup action you selected for the Site does not meet the substantive requirements of MTCA.

No cleanup action has been proposed at this time. Further characterization of the Site is required before selecting a cleanup action.

4. Cleanup.

Ecology has determined the cleanup you performed does not meet any cleanup standards at the Site. Further characterization of the Site is required.

To date, cleanup activities have included the following:

- Collection and laboratory analysis of both soil, groundwater, and soil gas (vapor) samples since December 2015.
- Installation of four groundwater monitoring wells (MW-1 through MW-4).

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).

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/programs/tcp/vcp/vcpmain.htm. If you have any questions about this opinion, please contact me by phone at 360-407-6265 or e-mail at Tim.Mullin@ecy.wa.gov .

Sincerely,

Tim Mullin, LG
SWRO Toxics Cleanup Program

TCM: hd

Enclosures ([1]): A – Diagrams of the Site

By certified mail [91 7199 9991 7037 0221 7973]

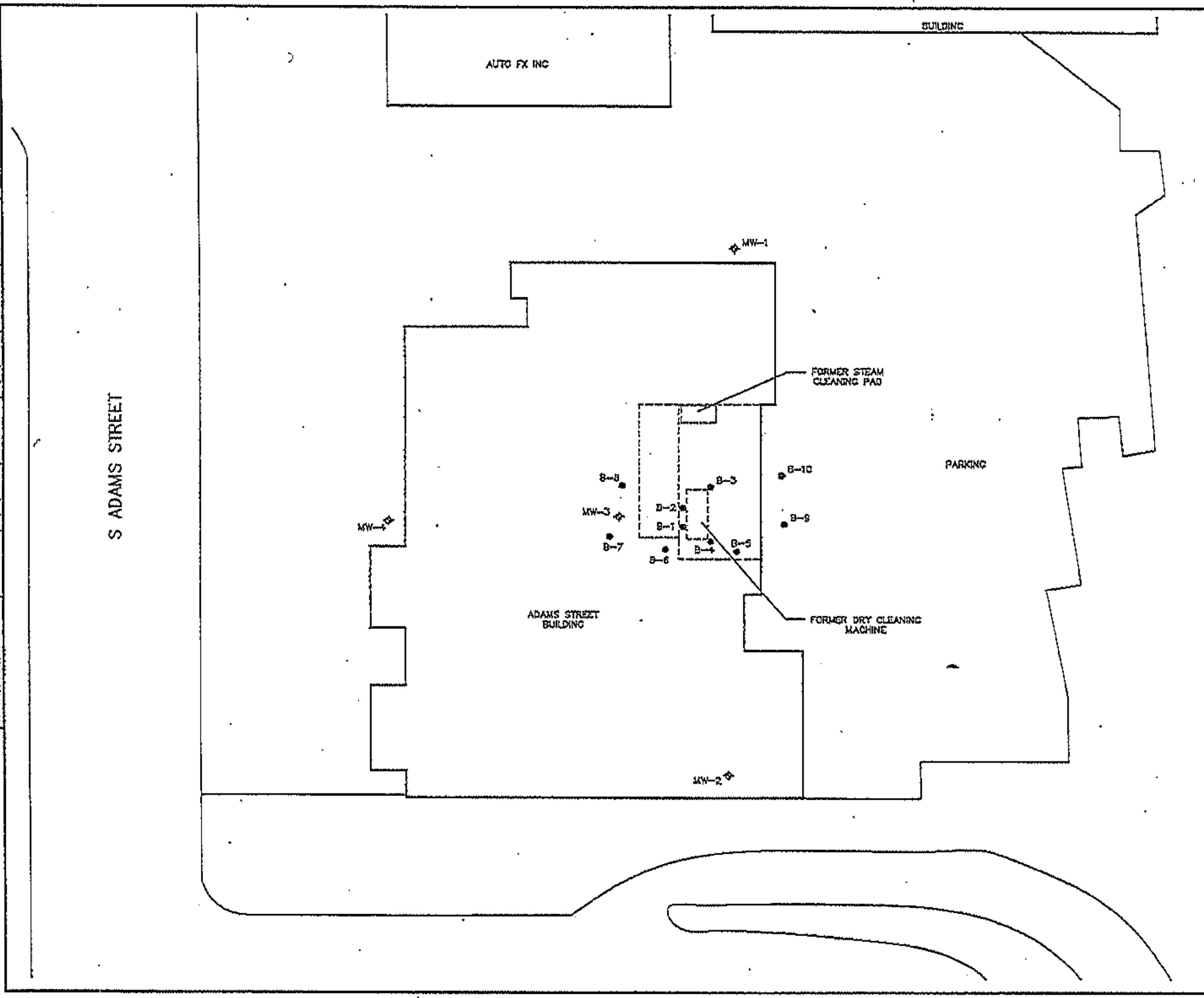
cc: Jeff Jagosh, Site-NW
Scott Rose, AEG
Nick Acklam, Ecology
Matt Alexander, Ecology

Enclosure A

Site Diagrams and Tables

Figure 1

FILENAME	DRAWN BY		CHECKED BY		APPROVED BY		PROJECT NUMBER
15-171_1504_4.DWG	KD	3/01/2015	DB	3/01/2016	DB	3/01/2016	15-171



LEGEND

B-1 ● SOIL BORING LOCATION

MW-1 ◇ GROUNDWATER MONITORING WELL LOCATION

NOTES

1. THE LOCATIONS OF ALL FEATURES SHOWN ARE APPROXIMATE
2. THIS DRAWING IS FOR INFORMATION PURPOSES. IT IS INTENDED TO ASSIST IN SHOWING FEATURES DISCUSSED IN AN ATTACHED DOCUMENT.

REFERENCE

DRAWING CREATED FROM AERIAL PHOTOGRAPH AND NOTES PROVIDED BY AEG, LLC.

0 15 30
SCALE IN FEET

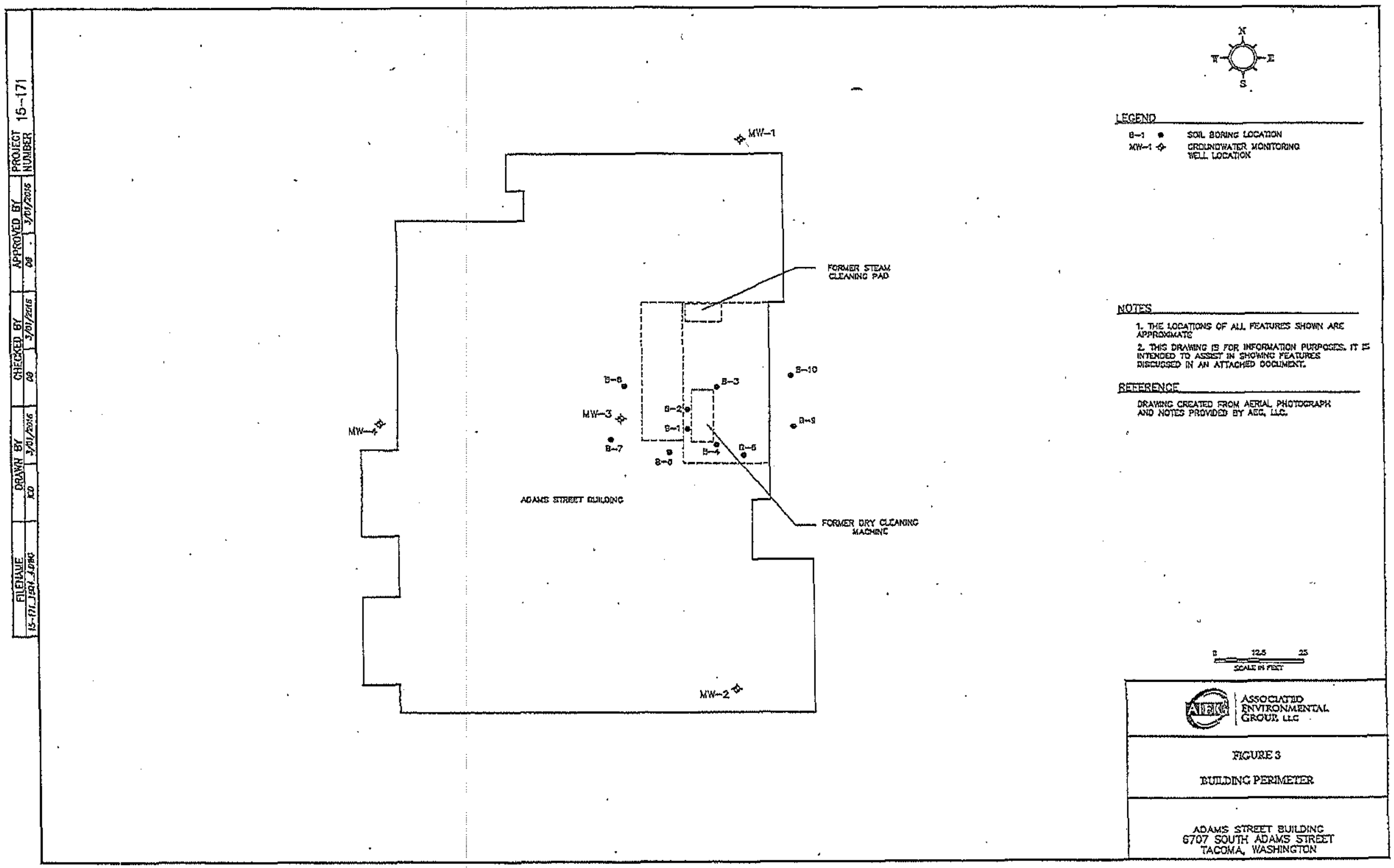
AEG ASSOCIATED ENVIRONMENTAL GROUP, LLC

FIGURE 2

SITE MAP

ADAMS STREET BUILDING
6707 SOUTH ADAMS STREET
TACOMA, WASHINGTON

Figure 2


FILENAME
15-171_1501_3.DWG
DRAWN BY
KD
3/01/2016
CHECKED BY
DB
3/01/2016
APPROVED BY
DB
3/01/2016
PROJECT NUMBER
15-171
MW-1
MW-2
MW-3
MW-4
B-1
B-2
B-3
B-4
B-5
B-6
B-7
B-8
B-9
B-10
FORMER STEAM CLEANING PAD
FORMER DRY CLEANING MACHINE
ADAMS STREET BUILDING
N
E
S
W
LEGEND
B-1 ● SOIL BORING LOCATION
MW-1 ⌖ GROUNDWATER MONITORING WELL LOCATION
NOTES
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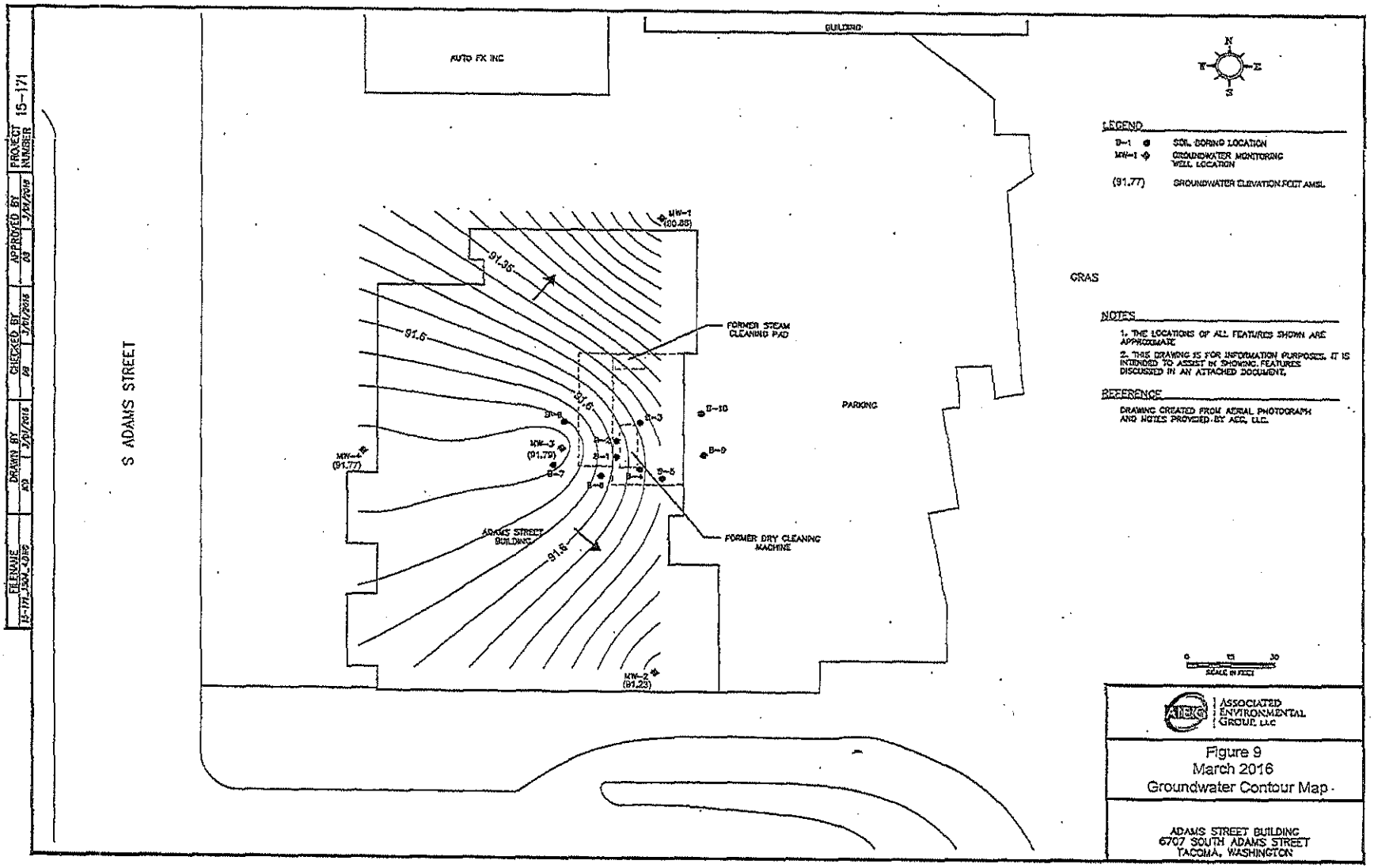
REFERENCE
DRAWING CREATED FROM AERIAL PHOTOGRAPH AND NOTES PROVIDED BY AEG, LLC.
0
12.5
25
SCALE IN FEET
AEG
ASSOCIATED ENVIRONMENTAL GROUP, LLC
FIGURE 3
BUILDING PERIMETER
ADAMS STREET BUILDING
6707 SOUTH ADAMS STREET
TACOMA, WASHINGTON

Figure 3


AUTO FX INC
BUILDING
S ADAMS STREET
GRAS
PARKING
FORMER STEAM CLEANING PAD
FORMER DRY CLEANING MACHINE
ADAMS STREET BUILDING
MW-1 (100.88)
MW-2 (91.23)
MW-3 (91.79)
MW-4 (91.77)
91.35
91.6
91.6
91.6
B-1
B-2
B-3
B-4
B-5
B-6
B-7
B-8
B-9
B-10
N
W
E
S
LEGEND
B-1 SOIL BORING LOCATION
MW-1 GROUNDWATER MONITORING WELL LOCATION
(91.77) GROUNDWATER ELEVATION FEET AMSL
NOTES
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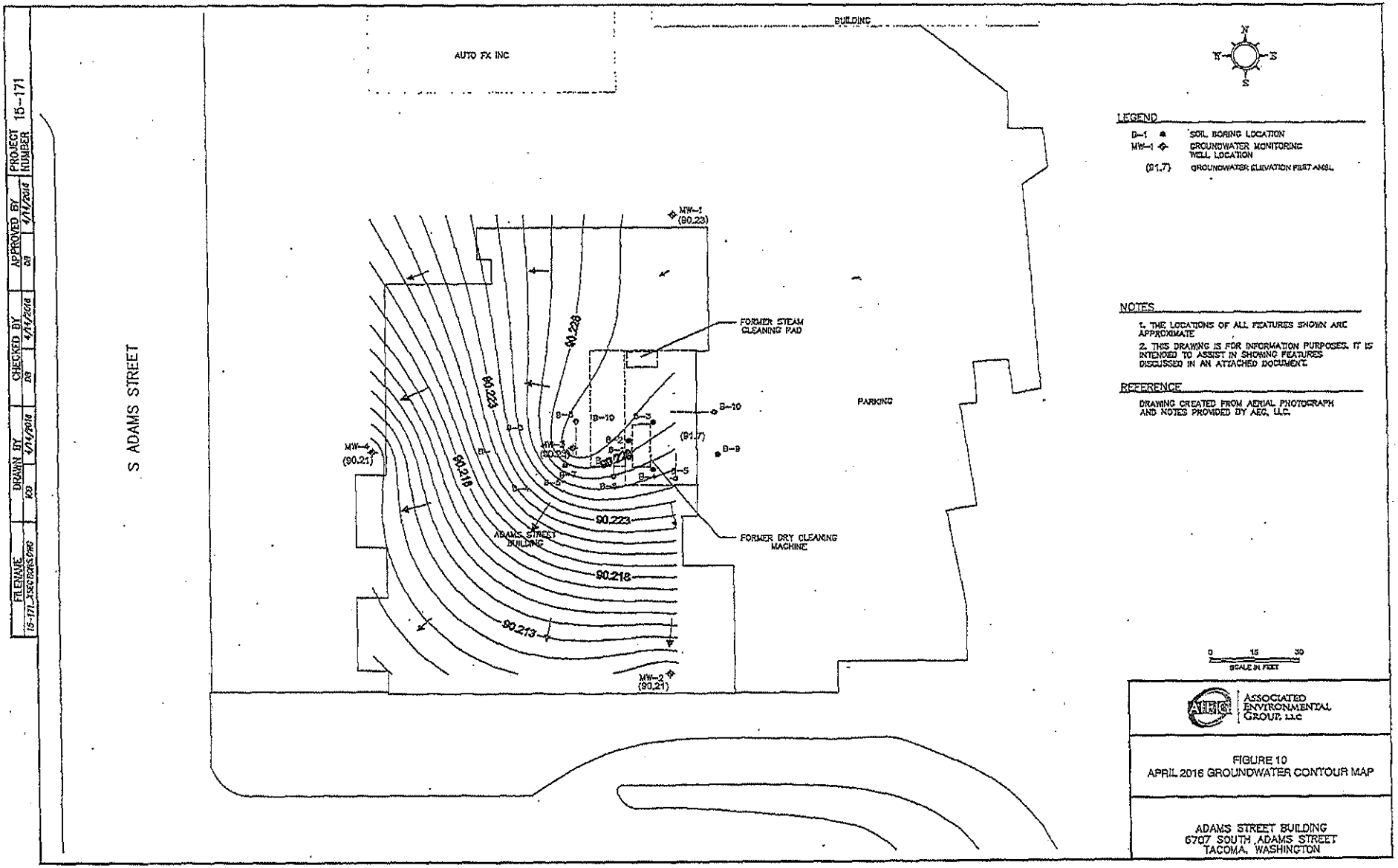
REFERENCE
DRAWING CREATED FROM AERIAL PHOTOGRAPH AND NOTES PROVIDED BY AEG, LLC.
0 15 30
SCALE IN FEET
ASSOCIATED ENVIRONMENTAL GROUP, LLC
Figure 9
March 2016
Groundwater Contour Map
ADAMS STREET BUILDING
6707 SOUTH ADAMS STREET
TACOMA, WASHINGTON
FILENAME 15-171_1304_4.DWG
DRAWN BY KS 3/01/2016
CHECKED BY BB 3/01/2016
APPROVED BY BB 3/01/2016
PROJECT NUMBER 15-171

Figure 4


AUTO FX INC
BUILDING
S ADAMS STREET
PARKING
MW-1 (90.23)
MW-2 (90.21)
MW-4 (90.21)
MW-3 (90.22)
B-10
B-9
(91.7)
90.228
90.223
90.218
90.213
FORMER STEAM CLEANING PAD
FORMER DRY CLEANING MACHINE
ADAMS STREET BUILDING
N
W
E
S
LEGEND
B-1 SOIL BORING LOCATION
MW-1 GROUNDWATER MONITORING WELL LOCATION
(91.7) GROUNDWATER ELEVATION FEET AMSL
NOTES
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REFERENCE
DRAWING CREATED FROM AERIAL PHOTOGRAPH AND NOTES PROVIDED BY AEG, LLC.
0 15 30
SCALE IN FEET
AEG
ASSOCIATED ENVIRONMENTAL GROUP, LLC
FIGURE 10
APRIL 2016 GROUNDWATER CONTOUR MAP
ADAMS STREET BUILDING
6707 SOUTH ADAMS STREET
TACOMA, WASHINGTON
FILENAME 15-171_XSECTIONS.DWG
DRAWN BY KCO 4/14/2016
CHECKED BY DS 4/14/2016
APPROVED BY DS 4/14/2016
PROJECT NUMBER 15-171

Table 1 - Summary of Soil Analytical Results

Adams Street Building
Tacoma, Washington

Sample Number	Depth Collected (feet)	Date Collected	Volatile Organic Compounds (VOC) - Chlorinated				
			Tetrachloroethylene (PCE)	Trichloroethylene (TCE)	cis-1,2-Dichloroethylene	trans-1,2-Dichloroethylene	Vinyl Chloride
B5-5	5.0	1/15/2016	<0.02	<0.02	<0.05	<0.05	<0.02
B5-13	13.0	1/15/2016	0.034	<0.02	<0.05	<0.05	<0.02
B5-15	15.0	1/15/2016	<0.02	<0.02	<0.05	<0.05	<0.02
B6-4	4.0	1/15/2016	0.037	<0.02	<0.05	<0.05	<0.02
B6-9.5	9.5	1/15/2016	0.052	<0.02	<0.05	<0.05	<0.02
B6-13.5	13.5	1/15/2016	<0.02	<0.02	<0.05	<0.05	<0.02
B7-4	4.0	1/15/2016	<0.02	<0.02	<0.05	<0.05	<0.02
B7-9	9.0	1/15/2016	0.026	<0.02	<0.05	<0.05	<0.02
B7-13	13.0	1/15/2016	0.054	<0.02	<0.05	<0.05	<0.02
B8-4	4.0	1/15/2016	0.037	<0.02	<0.05	<0.05	<0.02
B8-9.5	9.5	1/15/2016	0.034	<0.02	<0.05	<0.05	<0.02
B8-13.5	13.5	1/15/2016	0.14	<0.02	<0.05	<0.05	<0.02
B9-4	4.0	1/15/2016	<0.02	<0.02	<0.05	<0.05	<0.02
B9-9	9.0	1/15/2016	<0.02	<0.02	<0.05	<0.05	<0.02
B9-13	13.0	1/15/2016	<0.02	<0.02	<0.05	<0.05	<0.02
B10-4.5	4.5	1/15/2016	<0.02	<0.02	<0.05	<0.05	<0.02
B10-10	10.0	1/15/2016	<0.02	<0.02	<0.05	<0.05	<0.02
MW1-10	10.0	2/23/2016	<0.02	<0.02	<0.05	<0.05	<0.02
MW1-13	13.0	2/23/2016	<0.02	<0.02	<0.05	<0.05	<0.02
MW2-9.5	9.5	2/23/2016	<0.02	<0.02	<0.05	<0.05	<0.02
MW2-15	15.0	2/23/2016	<0.02	<0.02	<0.05	<0.05	<0.02
MW3-5[1]	5.0	2/23/2016	0.06	<0.02	<0.05	<0.05	<0.02
MW3-9.5	9.5	2/23/2016	0.06	<0.02	<0.05	<0.05	<0.02
MW3-13	13.0	2/23/2016	0.12	<0.02	<0.05	<0.05	<0.02
MW3-15[1]	15.0	2/23/2016	0.74	<0.03	<0.06	<0.06	<0.02
MW4-9.5	9.5	2/23/2016	<0.02	<0.02	<0.05	<0.05	<0.02
MW4-15	15.0	2/23/2016	0.28	<0.02	<0.05	<0.05	<0.02
PQL (mg/kg)			0.02	0.02	0.05	0.05	0.02
MTCA Method A Cleanup Levels (mg/kg)			0.05	0.03	*	*	*

Notes:
mg/kg = milligrams per kilogram
-- = Not analyzed for constituent
< = Not detected at the listed laboratory detection limits
PQL = Practical Quantification Limit (laboratory detection limit)
Red Bold indicates the detected concentration exceeds Ecology MTCA Method A cleanup level
Bold indicates the detected concentration is below Ecology MTCA Method A cleanup levels
* Method A Cleanup Level not established
[1]Sample was anaylzyed after hold time had already expired.

Table 2 - Summary of Soil Gas Analytical Results

Adams Street Building
Tacoma, Washington

Sample Number	Depth Collected (feet)	Date Collected	Volatile Organic Compounds (VOC) - Chlorinated				
			Tetrachloroethylene (PCE)	Trichloroethylene (TCE)	cis-1,2-Dichloroethylene	trans-1,2-Dichloroethylene	Vinyl Chloride
B-1	SUB-SLAB	12/9/2015	340	<10	<10	<10	<10
B-2	SUB-SLAB	12/9/2015	1,200	<10	<10	<10	<10
B-3	SUB-SLAB	12/9/2015	570	<10	<10	<10	<10
B-4	SUB-SLAB	12/9/2015	<10	<10	<10	<10	<10
PQL ($\mu g/m^3$)			10	10	10	10	10
MTCA Method B Sub-Slab Screening Levels ($\mu g/m^3$)			321	12.3	*	*	9.33

Notes:
$\mu g/m^3$ = micrograms per cubic meter
– = Not analyzed for constituent
< = Not detected at the listed laboratory detection limits
PQL = Practical Quantification Limit (laboratory detection limit)
Red Bold indicates the detected concentration exceeds Ecology MTCA Method B sub-slab screening level
Bold indicates the detected concentration is below Ecology MTCA Method B sub-slab screening levels
* Method B Sub-Slab Screening Level not established

Table 3 - Summary of Groundwater Analytical Results

Adams Street Building
Tacoma, Washington

Sample Number	Date Collected	Volatile Organic Compounds (VOC) - Chlorinated				
		Tetrachloroethylene (PCE)	Trichloroethylene (TCE)	cis-1,2-Dichloroethylene	trans-1,2-Dichloroethylene	Vinyl Chloride
B5-W	1/15/2016	1.0	<1.0	<1.0	<1.0	<0.2
B6-W	1/15/2016	2.3	<1.0	<1.0	<1.0	<0.2
B7-W	1/15/2016	5.6	<1.0	<1.0	<1.0	<0.2
B8-W	1/15/2016	9.6	<1.0	<1.0	<1.0	<0.2
B9-W	1/15/2016	<1.0	<1.0	<1.0	<1.0	<0.2
B10-W	1/15/2016	<1.0	<1.0	<1.0	<1.0	<0.2
MW-1	3/17/2016	<1.0	<1.0	<1.0	<1.0	<0.2
MW-2	3/17/2016	<1.0	<1.0	<1.0	<1.0	<0.2
MW-3	3/17/2016	10	<1.0	<1.0	<1.0	<0.2
MW-4	3/17/2016	2.0	<1.0	<1.0	<1.0	<0.2
PQL (µg/L)		1.0	1.0	1.0	1.0	0.2
MTCA Method A Cleanup Levels (µg/L)		5.0	5.0	*	*	0.2

Notes:
µg/L = micrograms per liter
— = Not analyzed for constituent
< = Not detected at the listed laboratory detection limits
PQL = Practical Quantification Limit (laboratory detection limit)
Red Bold indicates the detected concentration exceeds Ecology MTCA Method A cleanup level
Bold indicates the detected concentration is below Ecology MTCA Method A cleanup levels
* Method A Cleanup Level not established

Table 4 - Summary of Groundwater Elevations

Adams Street Building
Tacoma, Washington

Well No./ TOC Elevation (feet)	Date	Depth to Water (feet)	Depth to Free Product (feet)	Free Product Thickness (feet)	Apparent Groundwater Elevation (feet)	Actual Groundwater Elevation (feet)	Change in Elevation (feet)
	3/17/2016	8.59	--	--	--	90.86	
MW-1	4/6/2016*	9.22	--	--	--	90.23	-0.63
99.45							
	3/17/2016	8.72	--	--	--	91.23	
MW-2	4/6/2016*	9.74	--	--	--	90.21	-1.02
99.95							
	3/17/2016	8.21	--	--	--	91.79	
MW-3	4/6/2016*	9.77	--	--	--	90.23	-1.56
100.00							
	3/17/2016	7.89	--	--	--	91.77	
MW-4	4/6/2016*	9.45	--	--	--	90.21	-1.56
99.66							

Notes:
TOC = Top of casing elevation relative to assigned benchmark.
-- = Not measured, not available, or not applicable
* = Measurements collected during well survey event; no samples collected.