

Remedial Investigation Report

Former Northwest Plating 825 South Dakota Street and 812 and 820 South Adams Street Seattle, Washington (Facility No. 2231, VCP No. NW2769)

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ABBREVIATIONS AND ACRONYMS

Abbreviation/ Acronym	Definition
1,1-DCE	1,1-Dichloroethene
1,1,1-TCA	1,1,1-Trichloroethane
1,1,2-TCA	1,1,2-Trichloroethane
AGI	Applied Geochemical Imaging, LLC
bgs	Below ground surface
cis-1,2-DCE	cis-1,2-Dichloroethene
CN	Cyanide
COC	Compound of concern
COPC	Compound of potential concern
CrVI	Hexavalent chromium
CSM	Conceptual site model
CUL	Cleanup level
DPT	Direct-push technology
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
EPI	Environmental Partners, Inc.
HCI	Hart Crowser, Inc.
µg/L	Micrograms per liter
µg/m ³	Micrograms/cubic meter
mg/kg	Milligrams per kilogram
MTCA	Model Toxics Control Act (70.105D) and its implementing regulations (Washington Administrative Code [WAC] 173-340
PCE	Tetrachloroethene
PID	Photoionization detector
REL	Remediation level
RI	Remedial Investigation
SES	SoundEarth Strategies
SLsg	Soil gas screening levels
SSI	Spectrum Services, Inc.
TCE	Trichloroethylene
trans-1,2-DCE	trans-1,2-Dichloroethene
VC	Vinyl chloride
VCP	Voluntary Cleanup Program
VI	Vapor intrusion
VOCs	Volatile organic compounds
WAC	Washington Administrative Code
WII	Washington Industries, Inc.

1.0 INTRODUCTION

Environmental Partners, Inc. (EPI) is pleased to submit this Remedial Investigation (RI) Report for the Former Northwest Plating Site located at 812 and 820 South Adams Street and 825 South Dakota Street in Seattle, Washington (“the Site”). The location of the Site is depicted on Figure 1.

This RI report was requested in support of Washington Industries, Inc.’s (WII’s) ongoing efforts to address the soil and groundwater impacts at the Site and to comply with the assessment and cleanup requirements of the Model Toxics Control Act (70.105D) and its implementing regulations (Washington Administrative Code [WAC] 173-340; collectively MTCA).

1.1 Site Description

The Site is located approximately 3 miles south of downtown Seattle along the eastern margin of the lower Duwamish River industrial area. It is outside the Lower Duwamish Superfund Site boundary, which is approximately 1.1 miles to the west. The Site consists of the WII Property at 825 South Dakota Street (the location of the former Northwest Plating operation) and all locations where hazardous substances from releases on that property have come to be located. The lateral and vertical extent of the Site have been fully characterized by this RI. The lateral extent of the Site, as defined in this RI, is identified on Figure 2.

The WII Property consists of one parcel identified in the property records of King County as Tax Parcel Number 788610-1290. The southern adjacent property (“Perine Property”) located at 812 and 820 South Adams Street is also part of the Site and is identified in the King County property records as Tax Parcel Number 788610-1280. The western adjacent property is located at 4114 Airport Way South and is identified in the King County property records as Tax Parcel Number 788610-1315. The Site also extends into the South Dakota Street right-of-way and may marginally impact properties to the north of South Dakota Street.

The Site has a Facility ID Number of 2231 in the Washington State Department of Ecology (Ecology) Facilities and Site Identification database, with alternate names including North Star Casteel, Northwest Plating, and Washington Industries. The Site is enrolled in Ecology’s Voluntary Cleanup Program (VCP) with the VCP Number NW2769.

The WII Property is 0.31 acre. It has been improved with an 18,000-square-foot, slab-on-grade brick and masonry building with concrete floors. The exterior of the property consists of paved sidewalks and driveways, and border planter areas. The on-property building improvements consist of what appears to be three separate structures with shared walls. These structures are of varying quality. The structure in the southeastern corner of the WII Property is not weather tight and has limited structural integrity and utility.

The Perine Property is 0.85 acre and has been improved with two buildings, “Building 1” and “Building 2.” Building 1 was constructed in 1957 and is a two-story brick and masonry building with a wood roof. Building 2 was constructed in 1996 and is a two-story prefabricated steel and reinforced concrete-framed structure with a metal roof. Prior to 1996, two historic buildings existed in the area where Building 2 is now located. The historic buildings date back to the early 1920s and early 1940s.

1.1.1 Zoning and Land Use

The Site is currently zoned as Industrial General 2 (IG2), which is defined by the City of Seattle as a zone to

“allow a broad range of uses where the industrial function of an area is less established than in IG1 zones, and where additional commercial activity could improve employment opportunities and the physical condition of the area, without conflicting with industrial activity.”

The City of Seattle’s July 2015 Draft *Comprehensive Plan for Managing Growth* also identifies the area of the Site as a planned “Industrial Area.” IG2 zoning allows for general and heavy manufacturing, commercial uses (subject to some limits), high impact uses (as a conditional use), entertainment uses (other than adult), transportation and utility services, and salvage and recycling uses.

According to the definition provided in MTCA under WAC 173-340-200, “industrial properties” means:

“properties that are or have been characterized by, or are to be committed to, traditional industrial uses such as processing or manufacturing of materials, marine terminal and transportation areas and facilities, fabrication, assembly, treatment, or distribution of manufactured products, or storage of bulk materials, that are either:

- Zoned for industrial use by a city or county conducting land use planning under chapter 36.70A RCW (Growth Management Act); or*
- For counties not planning under chapter 36.70A RCW (Growth Management Act) and the cities within them, zoned for industrial use and adjacent to properties currently used or designated for industrial purposes.”*

Based on the criteria set forth in MTCA, the Site and surrounding area meet the definition of “industrial properties.”

The Site and surrounding properties are supplied with water by the City of Seattle municipal water system. The City of Seattle has an ordinance restricting the use of groundwater as a drinking water source in this industrial area of Seattle, and drinking water wells are not lawfully authorized in the Site vicinity.

1.2 Site History

1.2.1 Washington Industries, Inc. Property

The Northwest Plating Company was a metal electroplating business that began operations in 1957 at the WII Property. Metal plating operations and procedures conducted at the facility included cadmium, chromium, copper, nickel, and zinc plating; anodizing; application of special metal coatings; metal inspection services; metal polishing and refinishing; and spray painting (GeoEngineers 1989, Spectrum Services, Inc. 1999). Metals degreasing was routinely performed as a step in the plating process. The WII Property building is currently unoccupied.

Historical reports prepared for the Site indicate that releases of chemicals to soil and groundwater at the WII Property were initially discovered and investigated in 1989. The prior investigations identified the presence of volatile organic compounds (VOCs), hexavalent chromium (CrVI), and cyanide (CN) in soil and groundwater beneath the WII Property at concentrations greater than cleanup levels in effect at that time. The predominant VOC in soil and groundwater was trichloroethene (TCE).

Subsequent to the investigative actions documented in GeoEngineers 1989 and GeoEngineers 1990, at least two rounds of interim actions were undertaken, which included removal of historic plating process equipment and tanks, and removal of grossly impacted soils adjacent to and beneath the removed equipment. These actions are generally documented in AET 1993, HCI 2004a, HCI 2004b, and HCI 2012.

A partial cleanup of the structure was completed in 1993 that focused on removing selected hazardous materials (AET 1993). Hazardous waste and plating solutions were removed at that time, in addition to most of the tanks and equipment. However, the concrete flooring and underlying contaminated soil and groundwater remained.

In 2005, Hart Crowser, Inc. (HCI) undertook additional interim cleanup actions consisting of:

- building decontamination and limited demolition;
- removal and off-site disposal of hazardous and non-hazardous materials and equipment;
- excavation of soil hot spots near former dip tanks, processing areas, and floor trenches; and
- soil sampling and analysis.

Approximately 150 cubic yards of impacted soil were removed during the cleanup action. Those interim actions were later documented in HCI's 2012 *Historical Site Cleanup Summary* memorandum (HCI 2012).

The prior investigation did not succeed in fully characterizing the Site and the remedial actions did not succeed in fully remediating soil and groundwater contamination.

1.2.2 Perine Property

The Perine Property went through various stages of development and redevelopment through the 1900s. As set forth in Section 1.1, the Perine Property currently consists of two buildings constructed in 1957 and 1996 respectively. The majority of the Perine Property is currently occupied by the Perine Danforth Company, which uses the space for the storage and retail sales of screws, bolts, and other plated fasteners. Additional smaller lease spaces within the Perine building are used for workspaces and offices. The known historic operations at the Perine Property include a winery, a beverage distribution company, a warehouse and machine shop, and an emergency response equipment refurbishing operation.

Initial assessment of the Perine Property conducted by SoundEarth Strategies (SES) included collection and analysis of soil and groundwater samples on the northern portion of the Perine Property immediately adjacent to the WII Property. This assessment identified tetrachloroethene (PCE) and TCE in soil and groundwater at concentrations exceeding potentially applicable MTCA cleanup levels (CULs), and at concentrations exceeding the vapor intrusion screening level for TCE in groundwater as presented in the

Guidance for Evaluating Soil Vapor Intrusion in Washington State, Investigation and Remedial Action, October 2009 (Draft VI Guidance). The screening levels used for the SES assessment assumed a residential exposure model that was not applicable to the Perine Property based on either zoning or current or future land use. Additionally, the screening levels presented in Table B-1, Appendix 8 of the Draft VI Guidance have since been updated.

Based upon those findings, two additional rounds of vapor intrusion (VI) assessment were performed by SES at the Perine Property. Those VI assessments included the collection of five indoor air samples and an exterior background air sample, and performance of a passive soil gas survey. The VI assessments were summarized in the following documents:

- *Air Quality Evaluation*, Perine Property, dated July 28, 2011 by SES; and
- *Results from Indoor Ambient Air and Soil Gas Sampling*, Perine Property (Technical Memorandum), dated January 13, 2012 by SES.

The VI assessments detected TCE in indoor air at concentrations ranging from 0.42 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) to 1.7 $\mu\text{g}/\text{m}^3$. Several of the detected concentrations of TCE were greater than the current MTCA Method B Indoor Air CUL of 0.37 $\mu\text{g}/\text{m}^3$, which is again based on a residential exposure scenario and the presence of infants and small children. The observed concentrations of TCE in indoor air did not exceed the MTCA Method C Indoor Air CUL of 2.0 $\mu\text{g}/\text{m}^3$.

Groundwater quality beneath the Perine Property was also assessed by SES and those data were presented in *Groundwater Quality Evaluation, Perine Property*, dated July 28, 2011 (SES 2011d). That evaluation indicated the presence of TCE in groundwater at a single location in the north central portion of the Perine Property at a concentration exceeding the VI Groundwater Screening Level for protection of indoor air to a residential standard.

Subsequent to the VI assessment and groundwater quality evaluation, Perine also conducted pilot testing to assess the viability of addressing potential VI into the Perine Property through vacuum capture beneath the floor slab. That work is summarized in a document titled *Memorandum, Pilot Testing for Sub-Slab Depressurization System Design*, dated October 15, 2012 by SES.

A previous assessment of indoor air quality was conducted on the WII Property in the interior of the former AV-Pro lease space on the WII Property¹. Three indoor air samples were collected in January 2004 and a fourth sample was collected in October 2007. Those results are presented in a memorandum titled *Historical Site Cleanup Summary, Northwest Plating Site*, dated October 3, 2012 by HCI. The indoor air samples contained elevated concentrations of TCE, 1,1-dichloroethene (1,1-DCE), and vinyl chloride (VC).

¹ AV-Pro remains a tenant at the Site. The former and current AV-Pro lease spaces are indicated on Figure 2.

2.0 SITE INVESTIGATION ACTIVITIES

2.1 Objectives

The objectives of the RI described herein were to:

- Complete the characterization of the lateral and vertical distribution of impacts originating from historic WII Property uses;
- Develop a list of compounds of potential concern (COPCs) for the Site;
- Develop a conceptual site model (CSM) for the source, fate, and transport of the COPCs;
- Identify and develop CULs and remediation levels (RELs) for the COPCs;
- Identify the compounds of concern (COCs) for the Site based on the CULs and RELs; and
- Characterize the COCs sufficiently to allow for the evaluation, development, and selection of an interim action and/or cleanup action for the Site.

2.2 Methodology

In order to achieve the RI objectives, EPI collected samples of all of the potentially affected media at the Site. The media sampled included soil vapor, soil, groundwater, and indoor air. The RI activities for the Site were conducted in multiple iterative phases of investigation, where the results of initial investigation guided the scope of later phases of investigation. In this manner, each phase of investigation built on the findings of prior phases and presented a focused and cost-effective method for characterizing the Site. Specific investigation methods are described in the sections below.

2.2.1 Passive Soil Vapor Sampling

As an initial step in Site characterization for screening current conditions after the previous interim actions conducted by others, EPI conducted a passive vapor sampling evaluation at the Site. The passive survey provided a semi-quantitative measure of the relative abundance of VOCs in soil gas and served as an indication of where soil and groundwater concentrations are highest and where source areas may remain. This methodology provided a broad-based property-wide screening that is not generally possible using other methods.

Passive soil vapor sampling was performed using Gore-sorber methods and involved placing a total of 41 sampling points throughout the WII Property. The locations of the sampling points are indicated on Figure 3.

Each sampling point consisted of a 3/8-inch diameter hole drilled through the floor of the existing building and about 6 inches into the underlying material. Gore-sorber sorbent material was placed in each location and the surface was tightly sealed with a rubber stopper hammered into place to prevent atmospheric intrusion or venting. Several sorbers were placed outside on the east, north and west sides of the

building. When it was not possible to place those within a sidewalk or asphalt they were placed into the surrounding soil at a depth of about 2 feet and the surface was sealed with hydrated bentonite clay.

The sorbers were left in place for a period of 4 weeks and were then removed and sent to Applied Geochemical Imaging, LLC (AGI) for analysis under normal chain-of-custody protocols. The resulting data were contoured to identify soil gas hot spots that could be indicative of underlying impacts to soil and groundwater (Figure 4). The data were used to guide additional sampling and analysis.

The data indicated likely release areas throughout the former Northwest Plating operations area in the southeastern portion of the WII Property and a generally northwesterly axis of migration consistent with the expected direction of groundwater migration. AGI's summary report is included as Attachment A.

2.2.2 Sub-Slab Soil Gas Sampling

Sub-slab soil gas samples were collected in locations indicated by the passive soil gas survey to have the potential for elevated VOC concentrations and to contribute to vapor intrusion. Sub-slab soil vapor samples provided fully quantitative data that could be compared to potentially applicable screening levels and CULs.

On March 18, 2013, EPI installed four sub-slab vapor-sampling ports at the WII Property (ports WISS-1 through WISS-4). The ports were installed by drilling a 1-inch diameter hole approximately 1.5 inches into the floor slab using a rotohammer. Subsequently, a 3/8-inch-diameter hole was drilled through the remainder of the slab in the center of the 1-inch hole. After the holes were carefully cleared of concrete dust, 1/4-inch outside diameter Teflon tubing was installed through the slab with an open end slightly beneath the slab. The annular space between the tubing and the side of the 1-inch hole was sealed with approximately 1/2 inch of moist clay, and finished with quick-setting concrete to the upper surface of the floor.

On March 19, 2013, EPI conducted sub-slab vapor sampling at the four ports at the WI Property and at three existing sampling ports previously installed at the Perine Property by SES. Two of the sampling ports at the Perine Property were in the Perine Danforth Company building (VS-1 and VS-2) and one was in the workspace located to the north of the current AV-Pro lease space (VS-3)². The locations of the vapor sampling ports are shown on Figure 2.

The tubing at each sampling port was purged with a hand vacuum pump prior to sampling. A pre-evacuated 6-liter summa canister equipped with a flow-restricting orifice valve and vacuum gauge, all supplied by ALS Global, was attached to the tubing using stainless steel Swagelok fittings. The orifice valves of the summa canisters were set to collect a 6-liter sample in approximately 8 hours. After setup, the valve on each canister was opened and the sampling start time and initial canister vacuum were recorded. After sampling was started, a containment cell was placed over the canister and sampling port. A paper towel saturated with isopropyl alcohol was also placed beneath the containment cell to identify leaks in the sampling train. After approximately 6 hours, the containment cells and isopropyl alcohol source were removed. The remaining vacuum in the summa canisters was monitored periodically until there was approximately 5.0 inches of mercury vacuum remaining, and the valve was closed and

² AV-Pro remains at tenant at the Site. The current and former AV-Pro lease spaces are indicated on Figure 2.

sampling stopped. Once sampling was completed, each canister was disconnected from the sampling port, the orifice valve was removed, and a plug was placed in the canister connection fitting. Each sampling port was also sealed. The canisters were shipped via overnight freight to Columbia Analytical Services in Simi Valley, California, under standard chain-of-custody protocols, for analysis for VOCs using U.S. Environmental Protection Agency (EPA) Method TO-15 on a standard turnaround time.

The following VOCs were detected in all sub-slab vapor samples: PCE, TCE, cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), 1,1-DCE, 1,1,1-trichloroethane (1,1,1-TCA), and 1,1,2-trichloroethane (1,1,2-TCA). PCE, TCE, and cis-1,2-DCE were the most commonly detected compounds. The highest observed VOC concentrations were in the Northwest Plating operations area and in the northernmost portion of the Perine Danforth Company lease space.

Comparison of the maximum TCE concentration in sub-slab vapor on the WII Property ($1,200,000 \mu\text{g}/\text{m}^3$) with maximum TCE concentrations in indoor air ($360 \mu\text{g}/\text{m}^3$, January 2004) suggests a site-specific vapor attenuation factor of about 0.0003. Comparison of maximum sub-slab vapor TCE concentrations on the Perine Property ($150,000 \mu\text{g}/\text{m}^3$) with maximum TCE concentration in indoor air ($1.7 \mu\text{g}/\text{m}^3$) suggests a site-specific vapor attenuation factor of about 0.00001. Both of these attenuation factors are significantly less than the default value of 0.03 provided by Ecology in the most recent Draft VI Guidance.

2.2.3 Drilling Methods

Prior to initiating all drilling-related work, EPI contracted with a utility locating service to identify the presence of locatable buried utilities at the Site. Specific drilling methods are described in the following sections. Soil boring logs for the explorations are included as Attachment B.

2.2.3.1 Direct-Push Technology

In order to continue the assessment of soil, groundwater, and soil vapor at the Site, EPI advanced a total of 84 soil borings at the Site between March 2014 and May 2015 and collected reconnaissance soil and groundwater samples. These borings were initially guided by the results of the passive soil gas survey with later phases of sampling based on the results of each successive phase of drilling and sampling.

EPI advanced 32 soil borings on the WII Property (soil borings B-1 through B-32) in March 2014. In July 2014 EPI subsequently completed 16 soil borings on the Perine Property (B-33 through B-47) and collected reconnaissance soil and groundwater samples.

In March 2015, EPI advanced an additional 14 soil borings on the Perine Property (B-48 through B-61) and an additional 8 soil borings on the WII Property (B-62 through B-69). Due to permitting and access limitations EPI completed soil boring B-70 along Airport Way in May 2015.

The soil borings were advanced using direct-push technology (DPT) techniques. The DPT borings were logged continuously for each 4-foot interval of the DPT drill stem. The DPT sampler was filled with an acetate liner. After retrieval, the soil-filled acetate liner was removed and sliced open along its length. The soils were then logged and a photoionization detector (PID) was used to screen for the potential presence of VOCs. Samples were collected from selected intervals using EPA Method 5035 for VOCs

and using a disposable plastic trowel when collecting samples for metals or chromium analysis. Soil samples were collected at multiple depths below grade.

Reconnaissance groundwater samples were collected from the upper 5 to 10 feet of target aquifer using a temporary PVC well screen. Samples were retrieved using a peristaltic pump after purging of the well. All samples were collected using low-flow methods to limit potential VOC volatilization.

On May 16, 2016, SES conducted additional investigation and soil sampling on the Perine Property in the area near soil boring B-56. This additional work included advancing four soil borings (P-08, P-09, P-10, and P-11). EPI observed SES's activities and collected 16 additional soil samples from the borings. The soil samples were submitted to ALS Environmental in Everett, Washington for independent laboratory analysis.

The soil borings were advanced using DPT techniques described above. The DPT borings were logged continuously for each 5-foot interval of the DPT drill stem. The soil were field screened for the potential presence of volatile compounds using a PID and those results were recorded on the field logs. Samples were collected from selected intervals using EPA Method 5035 for VOCs.

2.2.3.1.1 Monitoring Well Installation

Between July 2014 and November 2015, EPI completed 20 DPT borings as permanent monitoring wells. Soil samples were collected at multiple depths below grade from nine of the boring locations. The locations of the monitoring wells are shown on Figure 2.

In general, DPT monitoring wells in the shallow aquifer were completed to depths ranging from approximately 15 to 20 feet below ground surface (bgs), and monitoring wells completed in the intermediate aquifer were completed to depths ranging from approximately 25 to 45 feet bgs. The monitoring wells were completed using either ¾-inch or 2-inch diameter, Schedule 40 PVC casing and 5 or 10 feet of 0.010-inch factory slotted pre-packed PVC well screen. The monitoring wells were finished at the ground surface in a 12-inch nominal diameter flush-mount steel well box set in concrete. The top of the PVC casing was sealed with a lockable expanding plug.

Well construction details are provided on the soil boring logs included as Attachment B.

2.2.3.2 Rotosonic Well Installation

EPI completed five additional soil borings at the Site using rotosonic drilling methods. The objectives of these borings were to further investigate the occurrence and extent of the deeper aquifer, assess the potential presence of a deeper aquifer, and to characterize the vertical extent of contamination within soil and the hydrostratigraphic units identified.

Two of the borings (MW-7ir and SB-15d) were advanced to a total depth of 90 feet bgs. Soil samples were collected during drilling for analysis. Monitoring well MW-7ir was backfilled with bentonite to a depth of 35 feet bgs and completed as an intermediate depth aquifer monitoring well. Boring SB-15D was backfilled with bentonite to its full terminal depth.

The three additional roto sonic borings (MW-4i, MW-15i, and MW-24ir) were also completed as intermediate depth monitoring wells with terminal depths of 40 feet bgs, 30 feet bgs, and 45 feet bgs, respectively. The locations of the monitoring wells are shown on Figure 2.

Soil samples collected during drilling utilized a standard 18-inch long, 2.5-inch stainless split spoon sampler and a 140-pound drop hammer. At each sample interval, drilling was stopped and the split spoon sampler was advanced ahead of the drill stem. The bottommost interval of the split spoon was sampled using EPA Method 5035 and retained for laboratory analysis.

The monitoring wells were completed using 2-inch diameter, Schedule 40 PVC casing and 15 or 20 feet of 0.010-inch factory slotted PVC well screen. The monitoring well screens were placed to fully penetrate the intermediate depth aquifer and care was taken to not intersect both the shallow and intermediate depth aquifers with either the well screen or filter pack. The monitoring wells were finished at the ground surface in a 12-inch diameter flush-mount, traffic-rated steel well monument set in concrete. The top of the PVC casing was sealed with a lockable expanding plug.

Well construction details are provided on the soil boring logs included as Attachment B.

2.2.3.3 Air Knife/Vactor Well Installation

EPI supervised the completion of four monitoring wells (SBW-1 through SBW-4) along South Dakota Street. The objective of these wells was evaluate the potential for preferential migration of impacted groundwater within the backfill of utility lines within South Dakota Street.

Prior to drilling the monitoring well locations were cleared for utilities other than the known sewer lines. Following utility clearance, each boring was advanced using an air knife and truck-mounted vacuum to the total depth investigation. The locations of the monitoring wells are shown in Figure 2.

The monitoring wells were completed to depths ranging from approximately 10 to 12 feet bgs using 2-inch diameter Schedule 40 PVC casing and 5 feet of pre-packed 0.010-inch factory slotted PVC well screen. The monitoring wells were finished at the ground surface in a 12-inch diameter flush-mount, traffic-rated steel well box set in concrete. The top of the PVC casing was sealed with a lockable expanding plug.

Well construction details are provided on the soil boring logs included as Attachment B.

2.2.4 Soil Sampling

During the course of multiple phases of investigation at the Site, on both the WII Property and the Perine Property, a total of 278 soil samples were collected. This total included 249 samples using DPT methods and 29 samples using roto sonic methods. Soil sampling equipment was decontaminated before each sampling attempt with a Liqui-Nox® solution wash and a distilled water rinse. Soil samples were generally obtained at 2-foot depth intervals for field screening. Soil samples obtained from the borings were collected from the sampler with a stainless steel knife or new gloves. A portion of each sample was placed in a laboratory-prepared sample jar for potential chemical analysis. The remaining portion of each sample was used for field screening. The sampling equipment was decontaminated prior to each use with a Liqui-Nox® soap solution, a tap water initial rinse, and a distilled water final rinse.

Field screening was performed on soil samples obtained from the borings using visual examination and headspace vapor screening with a PID. Soil samples from each boring were selected for chemical analysis based on field screening results and/or the sample location relative to potential sources of contamination. Samples were placed into laboratory-supplied containers appropriate for the intended analysis. Immediately after collection each sample was labelled and placed in a chilled cooler. The samples were then transported to the analytical laboratory under standard chain-of-custody procedures.

Selected soil samples were submitted for chemical analysis of one or more of the following:

- VOCs by EPA Method 8260C;
- Total chromium using EPA Method 200.8; and
- CrVI using EPA Method 7196.

Soil samples collected for analysis of VOCs were collected using EPA Method 5035 to prevent a potential loss of volatiles. The approximate soil sample locations are shown on Figure 5.

2.2.5 Groundwater Sampling

During the course of multiple phases of investigation at the Site, a total of 361 groundwater samples were collected. This total included 75 reconnaissance groundwater samples and 286 samples from permanent monitoring wells. The groundwater sample locations are shown on Figure 2. Groundwater samples were collected using low-flow sampling methods. New downhole polyethylene tubing and a peristaltic pump were used to obtain all groundwater samples. Prior to sample collection, each monitoring well and temporary DPT well was purged until consistent values (i.e., less than 10 percent variance between consecutive readings) were obtained for pH, temperature, dissolved oxygen, and conductivity. All water samples were collected at a pumping rate of 100 milliliters/minute or less to limit potential VOC volatilization from the samples.

In order to limit turbidity, reconnaissance groundwater monitoring samples were collected from a temporary well casing installed in each DPT location. Temporary wells consisted of 1-inch PVC with 5 to 10 feet of 0.010-inch well screen. Samples were placed into laboratory-supplied containers appropriate for the intended analysis and, where applicable, appropriate sample preservative. Immediately after collection, each sample was labelled and placed in a chilled cooler. The samples were then transported to the analytical laboratory under standard chain-of-custody procedures.

Selected groundwater samples were submitted for chemical analysis of one or more of the following:

- VOCs by EPA Method 8260C;
- Total chromium using EPA Method 200.8;
- CrVI using EPA Method 7196; and
- Total cyanide using EPA Method 9012B.

The approximate groundwater sample locations are shown on Figure 2.

As discussed in Section 3.2 below, two principal groundwater-bearing units have been identified beneath the Site to the maximum depth of exploration (i.e., 90 feet bgs). These units have been termed the “shallow aquifer” and the “intermediate aquifer.” The initial Site investigations in 1989 and 1990 tentatively identified the presence of a “deep aquifer.” During this RI no “deep aquifer” consistent with prior descriptions could be identified at the Site. This topic is discussed further in Section 3.2.

2.2.6 Soil Gas Sampling

It is understood that VI is a concern in areas where the plume underlies the WII Property, the Perine Property and the property immediately to the west on South Dakota Street. To evaluate the potential for VI in other off-property locations, further assessment was required. For this additional assessment EPI collected soil gas samples in portions of the off-property, downgradient dissolved-phase VOC plume. This investigation consisted of collecting and analyzing soil gas samples contemporaneous with collocated shallow groundwater samples. Collection of these samples allowed for evaluation of Site-specific groundwater-to-soil vapor attenuation factors that could potentially be used to assess which downgradient properties may be affected by VI. Such empirical Site-specific data are considered more pertinent and applicable than generic table values contained in the Draft VI Guidance and the CLARC database (see Section 4.3).

Three additional soil vapor samples were collected in off-property locations indicated on Figure 2 (DGV-1, DGV-2, and DGV-3). These samples were collected from beneath the sidewalk slab through a vapor sampling port. The vapor sampling ports were installed by drilling a small hole through the slab and installing a dedicated, sealed port that extends through the slab. Each port is reusable and was sealed and secured with a flush mount cover after use. As noted above, other soil gas samples had previously been collected on the WII Property and on the Perine Property.

All soil gas samples were collected using 6-liter summa canisters, each fitted with an 8-hour inlet flow controller. The sampling canisters were connected to the installed sampling ports using Teflon or polyethylene tubing. At each location, the port and the sampling train were leak tested by purging under a helium filled shroud prior to the initiation of sampling. After canister setup and the initiation of sampling, the canisters were checked periodically to ensure that sampling proceeded appropriately. Sampling was discontinued at 8 hours or once the canister vacuum reached approximately -5 inches of mercury, whichever occurred first. Following sampling, each sample port was sealed with a threaded plug. All soil vapor samples were submitted to Fremont Analytical of Seattle, Washington, for analysis of VOCs using EPA Method TO-15.

The soil gas sample locations are shown on Figure 2.

3.0 NATURAL CONDITIONS

The Site is located approximately 3 miles south of downtown Seattle along the eastern margin of the lower Duwamish River industrial area. As discussed below, this area of the Site is a former tidally-influenced river estuary that was filled with dredge spoils during the early development of Seattle. The Site is not within the Lower Duwamish Superfund Site, which is located approximately 1.1 miles to the west.

3.1 Subsurface Soil

The Site lies in a depositional basin of the Duwamish estuary referred to as the Duwamish Trough. The basin consists of approximately 200 feet of deltaic, estuarine, and alluvial sediments deposited by the Duwamish River. According to the published geologic map of the Site vicinity, *Geologic Map of Seattle, Washington* by Derek B. Booth, Kathy A. Troost, Scott A. Shimel, and Aaron P. Wisher (2005), soils underlying the Site are quaternary age alluvium (Qal) consisting of sand, silt, gravel, and cobbles deposited by streams and running water.

In the vicinity of the Site, the recent alluvium filling the trough includes sands and silts deposited by the Duwamish River and its tributaries. During development of Seattle, the tidal flats and flood plain were reclaimed through deepening and channelization of the Duwamish River and placement of fill in the surrounding areas. In many cases, the contact between fill and native soils is difficult to discern as the fill used is similar to the native estuarine and riverine sediments. During the investigation on the Perine Property, a layer of fill, brick and building rubble was discovered on the western portion of the property. As discussed above in Sections 1.1 and 1.2.2, two historic buildings dating to the early 1920s and 1940s existed in this area of the Perine Property until 1996. An historic machine shop operated in this area between the 1950s and 1970s. When Perine demolished the historic buildings in 1996, it constructed the current building on top of a layer of fill, brick and building rubble several feet deep which remained after demolition.

Subsurface investigation has extended to a maximum depth of 90 feet bgs. The stratigraphic sequence encountered during soil boring explorations consists of predominantly of fine- to medium-grained sand with trace silt and gravel from the surface to depths of approximately 10 to 15 feet bgs. Underlying the sand is an approximate 10-foot thick layer of silt that is continuous through most of the Site. The silt appears to have a higher sand content in the northern and southeastern portions of the Site. This silt appears to act as an aquitard or local perching layer for the shallow water table aquifer in the shallower soils.

A second 5-foot to 10-foot thick sand stratum was encountered beneath the silt aquitard, which serves as the intermediate depth aquifer.

The two borings to 90 feet indicate that a second silt interval is present from approximately 35 to 52 feet bgs, which is in turn underlain by a dense, plastic clay from 52 feet bgs to the terminal depth of the borings at 90 feet bgs (see Section 3.2.3). No additional potentially saturated zones were encountered between about 35 and 90 feet bgs at the Site.

Figures 6 and 7 depict interpretive geologic cross-sections of the subsurface. The orientation of these cross sections is indicated on Figure 2. Soil boring logs are presented in Attachment B.

3.2 Groundwater

Two principal groundwater-bearing units have been identified beneath at the Site to the maximum depth of exploration. These units have been termed the “shallow aquifer,” and the “intermediate aquifer.” These groundwater-bearing units are separated by an approximate 10-foot-thick silt aquitard that is continuous throughout most of the Site with some variation in sand content. The aquifer units are discussed in further detail below.

EPI conducted a well log search for water production wells located within one-quarter mile of the Site using Ecology’s well log search application. The results of the search indicated that no water production wells were present within the search radius. Given the lack of water production wells and that municipal water is locally supplied by the City of Seattle, groundwater in the vicinity of the Site is not a current source of drinking water. In addition, the City of Seattle has an ordinance restricting the use of groundwater as a drinking water source in this industrial area of Seattle. Drinking water wells are not lawfully authorized. Given the current zoning and master plan zoning of the area of the Site for industrial uses and the statutory restrictions on the extraction of groundwater for potable uses in the area of the Site, groundwater cannot reasonably be considered a potential future source of drinking water.

3.2.1 Shallow Groundwater

Groundwater occurs within the shallow aquifer under unconfined water table conditions. Depth to groundwater in the shallow aquifer ranges from approximately 7 to 12 feet below grade (see Table 1). Based on the groundwater monitoring data collected to date, the hydraulic gradient within the shallow aquifer has consistently been northwesterly with a magnitude of approximately 0.03 feet/foot. Site representations with shallow groundwater elevations and piezometric contours measured on November 30, 2015 and March 14, 2016 are included as Figure 8 and Figure 9, respectively.

3.2.2 Intermediate Groundwater

Groundwater occurs within the intermediate aquifer under confined conditions. Depth to water in wells completed in the intermediate aquifer ranges from approximately 4 to 11 feet below grade (see Table 1). Groundwater monitoring data indicate that the hydraulic gradient within the intermediate aquifer similarly trends to the northwest with a similar magnitude of approximately 0.027 feet/foot. Site representations with intermediate groundwater elevations and piezometric contours measured on November 30, 2015 and March 14, 2016 are included as Figure 10 and Figure 11, respectively.

3.2.3 Deep Groundwater

Historical studies conducted by others at the Site identified the presence of what, at the time, was called the “deep aquifer.” The RI attempted to identify the deep aquifer within the study area. In November 2015, EPI advanced soil borings SB-15d and MW-7ir each to a depth of 90 feet bgs to investigate this deep aquifer. No water-bearing strata were encountered below approximately 35 feet bgs in either boring. A compact fine sandy silt was encountered from approximately 35 to 52 feet bgs and a hard

plastic clay was present from 52 feet bgs to the terminal depth of the borings at 90 feet bgs. No saturated conditions were encountered below the intermediate aquifer to the maximum depth of exploration.

EPI used roto sonic drilling methods for this deeper investigation; a drilling method not available during earlier studies. Roto sonic methods provide a continuous core of the full depth of investigation and seal the borehole from potential leakage from overlying units or water leakage into the drill stem. Earlier investigations utilized hollow stem drilling methods and sampling and logging at 5 foot vertical intervals. That methodology can be prone to misinterpretation of soil conditions. Leakage from the overlying saturated zones can be interpreted at saturated conditions where none exist. For these reasons, the information presented in this RI is considered of higher quality than earlier data and invalidates the earlier finding of a deeper aquifer. It is EPI's opinion that a deeper aquifer is not present between 32 and 90 feet below grade at the Site.

3.2.4 Vertical Hydraulic Gradient

During the RI, sets of shallow aquifer and intermediate aquifer wells were paired to allow for an evaluation of the type and the degree of hydraulic communication between the shallow and intermediate aquifers across the aquitard. Throughout most of the Site, water levels in the intermediate aquifer are between about 2 and 3 feet higher than in the shallow aquifer. This condition indicates a net upward hydraulic gradient.

The distribution of hydraulic differential between the shallow and intermediate aquifer measured during the December 2015 and March 2016 monitoring events is presented on Figure 12 and Figure 13. Negative head differences indicate an upward gradient. These differences in hydraulic head are apparent when comparing the piezometric contour maps for the shallow and intermediate aquifers.

The presence of an upward vertical gradient is protective of the water quality within the intermediate depth aquifer and serves to lessen the transport of dissolved-phase contaminants from the shallow to the intermediate aquifer. Contaminant migration between the two aquifers cannot occur through convection and dispersion across the aquitard, but is limited to transport along chemical gradients. Such chemical transport is extremely slow and must work in the opposite direction as actual groundwater transport across the aquitard. This condition is wholly consistent with the observations in this RI that the intermediate depth aquifer is only marginally impacted by the observed releases.

4.0 ANALYTICAL RESULTS

For the purposes of this RI an analyte detected in an environmental sample is considered a COPC for the media in which it was detected. COPCs were generally screened to eliminate from further consideration those compounds with a frequency of detection of less than 10 percent. The rationale being that the selected indicator hazardous substances, which are representative of the more abundant COPCs present at the Site, are adequately representative of those compounds that are present less than 10 percent of the time.

Compounds with a frequency of detection of less than 10 percent in one medium (e.g., soil) were retained for continued evaluation as COPCs if that compound was present more than 10 percent of the time in

another medium (e.g., groundwater). The following sections summarize the analytical results and COPCs identified for the Site. Laboratory analytical reports are included in Attachment C.

4.1 Subsurface Soil

A total of 278 soil samples were submitted for the range of analyses described in Section 2.2.4. A tabulated summary of analytical results for soil samples is included in Table 2. Copies of the original laboratory reports are included in Attachment C. A summary of the detected COPCs in soil is presented below in Table 3. The soil analytical results are indicated on Figures 14 through 21. Figures 14 through 16 present analytical results for PCE, TCE, and chromium (total and CrVI), respectively.


Table 3
Summary of COPCs in Soil

COPC	Number of Samples	Number of Detections	Frequency of Detection	Low Concentration (mg/kg)	High Concentration (mg/kg)
PCE	278	65	23.4%	0.013	49.0
TCE	278	141	50.1%	0.010	710.0
trans-1,2-DCE	278	9	3.2%	0.054	2.1
cis-1,2-DCE	278	48	17.3%	0.011	66.0
1,1-DCE	278	5	1.8%	0.016	0.520
Vinyl chloride	278	5	1.8%	0.14	1.5
Chloroform	278	2	0.72%	0.056	0.062
4-Methyl-2-Pentanone	248	2	0.81%	0.56	0.89
Toluene	248	5	2.0%	0.073	4.8
1,1,1-TCA	278	6	2.2%	0.051	0.37
1,1,2-TCA	278	2	0.72%	0.098	0.25
Ethylbenzene	248	5	2.0%	0.091	11.0
Total Xylenes	248	8	3.2%	0.19	12.1
Styrene	248	2	0.81%	0.14	0.18
Isopropylbenzene	248	3	1.2%	0.12	0.20
n-Butylbenzene	248	2	0.81%	0.065	0.18
1,3,5-Trimethylbenzene	248	8	3.2%	0.066	0.12
tert-Butylbenzene	248	2	0.81%	0.085	0.093
1,2,4-Trimethylbenzene	248	12	4.8%	0.06	0.17
s-Butylbenzene	248	2	0.81%	0.075	0.16
p-Isopropyltoluene	248	3	1.2%	0.069	0.13
Naphthalene	248	4	1.6%	0.071	2.6
Chromium (VI)	259	8	3.1%	0.54	910
Total Chromium	259	259	100%	4.8	37,000

Notes:

mg/kg Milligrams per kilogram.

Bold COPC with low frequency of detection is retained based on presence in another environmental medium.

 COPC screened out from further evaluation due to low frequency of detection.

4.2 Groundwater

4.2.1 Shallow Groundwater

A total of 186 shallow groundwater samples were submitted for the range of analyses described in Section 2.2.5. A summary of analytical data for reconnaissance groundwater samples is included in Table 4. Tables 5 and 6 present summaries of groundwater sampling results for VOCs and metals, respectively. Copies of the original laboratory reports are included in Attachment C. A summary of the detected COPCs in shallow groundwater is included in the following Table 7. The groundwater sampling locations are indicated on Figure 2. Figure 23 and Figure 24 present analytical results for TCE in shallow groundwater for the December 2015 and March 2016 sampling events, respectively.

Table 7
Summary of COPCs in Shallow Aquifer Groundwater

COPC	Number of Samples	Number of Detections	Frequency of Detection	Low Concentration (µg/L)	High Concentration (µg/L)
PCE	179	46	25.7%	0.2	130
TCE	186	123	66.1%	0.45	56,000
trans-1,2-DCE	176	34	19.3%	0.5	11
cis-1,2-DCE	179	89	49.7%	1.2	2,700
1,1-DCE	167	3	1.8%	2.4	9.2
Vinyl chloride	175	46	26.3%	0.22	44
1,1,1-TCA	180	8	4.4%	0.5	20
1,1,2-TCA	167	3	1.8%	2.8	3.2
Chloroform	173	7	4.0%	0.4	4.3
Arsenic	6	1	16.7%	1.7	1.7
Cadmium	29	21	72.4%	1.2	11,000
Chromium (VI)	184	53	28.8%	12	430,000
Total Chromium	183	136	74.3%	2.0	440,000
Copper	6	3	50%	20	100
Lead	6	0	0%	--	--
Nickel	20	14	70%	10	7,400
Zinc	27	17	62.9%	7	9,200
Cyanide	58	22	37.9%	0.26	13,000

Notes:

µg/L Micrograms per liter.

Bold

COPC with low frequency of detection is retained based on presence in another environmental medium.



COPC screened out from further evaluation due to low frequency of detection.

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COPC was not detected, so there is no concentration available.

4.2.2 Intermediate Groundwater

A total of 84 intermediate groundwater samples were submitted for the range of analyses described in Section 2.2.5. A summary of analytical data for reconnaissance groundwater samples is included in Table 4. Tables 5 and 6 present summaries of groundwater sampling results for VOCs and metals, respectively. Copies of the original laboratory reports are included in Attachment C. A summary of the detected COPCs in intermediate groundwater is included in the following Table 8. The groundwater sampling locations are indicated on Figure 2.

Table 8
Summary of COPCs in Intermediate Aquifer Groundwater

COPC	Number of Samples	Number of Detections	Frequency of Detection	Low Concentration (µg/L)	High Concentration (µg/L)
PCE	84	3	3.6%	3.1	4.8
TCE	84	21	25.0%	0.62	210
trans-1,2-DCE	82	0	0%	--	--
cis-1,2-DCE	84	12	14.3%	3.0	150
1,1-DCE	82	0	0%	--	--
Vinyl chloride	82	13	15.9%	0.28	28
1,1,1-TCA	82	0	0%	--	--
1,1,2-TCA	82	0	0%	--	--
Chloroform	82	0	0%	--	--
Arsenic	1	1	100%	1.9	1.9
Cadmium	4	0	0%	--	--
Chromium (VI)	82	1	1.2%	270	270
Total Chromium	82	30	36.6%	2.2	26
Copper	1	0	0%	--	--
Lead	1	0	0%	--	--
Nickel	1	1	100%	30	30
Zinc	1	1	100%	50	50
Cyanide	8	1	12.5%	30	30

Notes:

Bold

COPC with low frequency of detection is retained based on presence in another environmental medium.



COPC screened out from further evaluation due to low frequency of detection.

--

COPC was not detected, so there is no concentration available.

4.3 Soil Gas Sampling

EPI collected 18 soil gas samples as part of the RI activities. Soil gas samples were analyzed for either VOCs or targeted halogenated volatile organic compounds (HVOCs) using EPA Method TO-15. A summary of analytical data for soil gas is included in Table 9. Copies of the original laboratory reports are included in Attachment C. A summary of the detected COPCs in soil gas is included in the following Table 10. The compounds detected in the soil gas samples are retained for screening as COPCs in indoor air at the Site. The soil gas sampling locations are indicated on Figure 2.

Table 10
Summary of COPCs in Soil Gas

COPC	Number of Samples	Number of Detections	Frequency of Detection	Low Concentration (µg/m ³)	High Concentration (µg/m ³)
PCE	18	15	83%	4.83	6,200
TCE	18	17	94%	2.4	1,200,000
trans-1,2-DCE	18	6	33%	14.2	460
cis-1,2-DCE	18	12	67%	2.17	13,000
1,1-DCE	12	1	8%	1,900	1,900
Vinyl Chloride	18	1	6%	0.302	0.302
1,1,1-TCA	12	5	42%	1.37	180
1,1,2-TCA	12	1	8%	320	320

Notes:

Bold

COPC with low frequency of detection is retained based on presence in another environmental medium.



COPC screened out from further evaluation due to low frequency of detection.

5.0 CONCEPTUAL SITE MODEL

The following CSM is based on data collected during the RI and identifies current and potential human and ecologic exposure pathways at the Site. This CSM is based upon the current understanding of the Site using the best available information and incorporating current and potential future Site uses, statutory and zoning restrictions for the Site, and MTCA regulations. The RI has served to fully characterize the lateral and vertical limits of contamination, the likely pathways for contaminant migration, and the potential exposure pathways posed by those impacts. This CSM is graphically presented in Attachment D and is discussed below.

- The Site and surrounding land is currently zoned as Industrial General 2 (IG2), which is defined by the City of Seattle as a zone to “allow a broad range of uses where the industrial function of an area is less established than in IG1 zones, and where additional commercial activity could improve employment opportunities and the physical condition of the area, without conflicting with industrial activity.” The City of Seattle’s July 2015 Draft Comprehensive Plan for Managing Growth also identifies the area of the Site as a planned

“Industrial Area.” IG2 zoning allows for general and heavy manufacturing, commercial uses (subject to some limits), high impact uses (as a conditional use), entertainment uses (other than adult), transportation and utility services, and salvage and recycling uses. The majority of the Site and surrounding area is covered with buildings, roads, and other surface cover. The area of the Site has historically been used for industrial purposes and will continue to be used for industrial purposes for the foreseeable future. For these reasons, the Site qualifies as an Industrial Property under MTCA.

- Subsurface conditions at the Site consist predominantly of fine- to medium-grained sand with trace silt and gravel from the surface to depths of approximately 10 to 15 feet bgs. Underlying the sand is an approximate 10-foot-thick aquitard. A second 5-foot to 10-foot-thick silty sand stratum was encountered beneath the silt layer. Deeper borings suggest that a second silt interval is present from approximately 35 to 52 feet bgs followed by a dense, plastic clay from 52 feet bgs to the terminal depth of the borings at 90 feet bgs.
- During the investigation on the Perine Property, a layer of fill, brick and building rubble was discovered on the western portion of the property. As discussed above, two historic buildings dating to the early 1920s and 1940s existed in this area of the Perine Property until 1996. An historic machine shop operated in this area between the 1950s and 1970s. When Perine demolished the historic buildings in 1996, it constructed the current building on top of a layer of fill, brick and building rubble at an elevation several feet higher than the pre-demolition building surface.
- The COPCs are those commonly associated with (1) metals (predominantly chromium) from plating operations, which have historically been performed at the WII Property, (2) HVOCs from degreasing operations performed in conjunction with plating and their environmental degradation products; and (3) HVOCs from operations of an historic machine shop that operated on the Perine property from the 1950s to the 1970s.
- The releases from the plating and degreasing operations appears to have affected near surface soils (0 to 2 feet bgs) and deeper soils (greater than 2 feet bgs), and migrated vertically through the relatively permeable vadose zone soils down to the shallow water table that is present at a depth of approximately 7 to 12 feet below grade. The shallow and intermediate aquifers have been impacted; however, impacts to the intermediate aquifer are more limited in magnitude and extent. The intermediate aquifer is protected by the significant upward vertical gradient between the intermediate and shallow aquifers.
- The releases on the Perine property from the historic machine shop operations appear to have affected the shallow soil beneath the floor of the historic building. These impacts reside at the historic ground surface, approximately 4 to 5 feet below the floor of the existing building.

- The Site and surrounding properties are supplied with water by the City of Seattle municipal water system. The City of Seattle has an ordinance restricting the use of groundwater as a drinking water source in this industrial area of Seattle, and drinking water wells are not lawfully authorized in the Site vicinity. Therefore, there is no current threat of ingestion of groundwater at the Site.
- Section 12.24.010(C) of the King County Health Code (KCHC) establishes minimum setback distances for installation of drinking water wells. The KCHC requires a minimum setback distance of 100 feet from, among other Site features, building sewers, railroad tracks, public power utilities or gas lines, building foundations, and public and private road easements. There are no areas within a mile of the Site that meet these restrictions on well installation. Based on the City of Seattle restrictions on well installation in an industrial zone area, and the KCHC restriction on minimum setbacks, it would not be possible to install a drinking water well on any properties that are part of or adjacent to the Site or within the industrial zoning overlays of the comprehensive plan. The combination of the future use of the Site and surrounding area as industrial and the statutory restriction on the installation of drinking water wells within this industrial zoning overlay of the comprehensive plan serves as an institutional control that eliminates the potential for current and future use of groundwater at the Site for drinking water.
- Due to the industrial zoning and groundwater withdrawal restrictions in the Site vicinity, there is no potential for current or future residential exposures at the Site. As noted above, the Site qualifies as an industrial property under MTCA.
- The nearest downgradient surface water body is located over 1 mile from the Site, and there is no realistic potential for Site groundwater to adversely impact surface water. Therefore, exposure pathways related to surface water and sediment are not considered complete at this Site.
- Potential human health exposures at the WII Property are limited to direct contact with soil and groundwater, incidental ingestion of soil, and inhalation of potential vapors in indoor air.
- Based on Washington Administrative Code (WAC) 173-340-7490, the WII Property qualifies for an exclusion from the terrestrial ecological evaluation (TEE) based on full surface cover by asphalt, concrete, and/or buildings.
- The standard point of compliance for soil is 15 feet below grade, which corresponds to direct contact for human health and potential terrestrial exposures. Soils shallower than 15 feet at the Site are impacted with COPCs; therefore, direct contact with soil is a pathway of concern.
- For protection of the soil-to-groundwater leaching pathway, the standard point of compliance for soil includes the entire soil column throughout the Site. Soils appear to be a residual source of HVOC and metals dissolution to groundwater; therefore, the soil-to-groundwater leaching pathway is a pathway of concern.

- The standard point of compliance for groundwater is the interval from the uppermost saturated zone extending vertically to the lowest depth of the impacted groundwater throughout the Site. Shallow and intermediate groundwater aquifers at the Site are impacted with COPCs and this is a pathway of concern.
- The standard point of compliance for indoor air is throughout the interior of structures at the Site. Volatile compounds exist in portions of the Site and may pose a threat of exposure. Therefore, the potential for VI is a pathway of concern.

Addressing COPCs in soil and/or groundwater during a future Interim Action or Cleanup Action may consist of a combination of active remedial alternatives and may also include the use of engineering controls or institutional controls and/or environmental covenants to address current or potential future exposure pathways as allowed under MTCA.

6.0 CLEANUP LEVELS AND CHEMICALS OF CONCERN

Potentially applicable CULs were evaluated for each of the COPCs. Those CULs are developed to ensure protectiveness of current and potential exposure pathways as identified in the CSM. The CULs must be protective of human health and the environment based upon the exposure pathways that remain after completion of any remedial action and implementation of institutional or engineering controls (if any). In some cases, protectiveness of certain exposure pathways may be addressed exclusively by implementation of engineering controls. Those COPCs that are present at a concentration exceeding a CUL are then considered compounds of concern (COCs), which will require some form of remedial action.

MTCA also allows for the development of Remediation Levels (RELs) based on Site-specific exposures as indicated by the CSM. RELs are based on a Reasonable Maximum Exposure (RME) for the highest level of exposure and risk that can reasonably be anticipated at a Site. RELs are, by definition, greater than CULs.

CULs and RELs must address all exposure pathways. For instance, if VI is deemed to be an exposure pathway, concentrations in groundwater must be protective of the VI exposure pathway and concentrations in soil must be protective of groundwater for a VI exposure pathway.

As noted in Section 1.1.1, the Site is zoned as an Industrial Land Use based on current and master planned land uses by the City of Seattle. The Site also meets the definition of industrial properties under WAC 173-340-200.

6.1 Indoor Air

To evaluate indoor air CULs, the MTCA Method C Indoor Air CULs for the retained volatile COPCs are provided in Table 11 below.

Table 11
Summary of MTCA Method C Indoor Air CULs

COPC	MTCA Method C CUL ($\mu\text{g}/\text{m}^3$) ^a	
	Non-carcinogenic	Carcinogenic
PCE	40	96.2
TCE	2.0	6.3
trans-1,2-DCE	NVE	NVE
cis-1,2-DCE	NVE	NVE
VC	100	5.5 ^a
1,1,1-TCA	5,000	NVE

Notes:

a Using CPF of 1.6E-02 per mg/kg-day based on absence of children and pregnant women at the Site.

NVE No Method C CUL has been established for this chemical and no toxicity data are available to calculate CULs.

The standard MTCA Method C CULs for indoor air are based on an adult exposure scenario that includes an exposure frequency (EF) of 1 (i.e., exposure for 24 hours per day, 365 days each year). Because the current and future use of the Site is limited to industrial with some allowable commercial uses by zoning and master planning, an EF of 1 is not appropriate for the Site. It cannot reasonably be expected that an on-Site worker would be present for 24 hours/day, 365 days/year for their entire working life. Therefore, RELs based on an RME for an adult commercial worker of 40 hours/week for 50 weeks/year will be used for assessing protectiveness of indoor air. This results in an exposure frequency of 0.228. The remaining parameter values used to derive the MTCA Method C RELs for indoor air are provided below in Table 12.

Table 12
Summary of Parameter Values for Calculation of MTCA Method C
Commercial Worker RELs for Inhalation


Parameter	Abbreviation	Units	Industrial/Commercial Exposure Scenario			
			Non-carcinogenic		Carcinogenic	
			Value	Source	Value	Source
Breathing Rate	BR	m ³ /day	20	Eq. 750-2	20	Eq. 750-2
Exposure Frequency	EF	unitless	0.23	Site-specific	0.23	Site-specific
Exposure Duration	ED	years	20	MTCA Default	30	750-2
Average Body Weight	ABW	kilograms	70	Eq. 750-2	70	Eq. 750-2
Averaging Time	AT	years	20	Eq. 750-2	75	Eq. 750-2
Unit Conversion Factor	UCF	$\mu\text{g}/\text{mg}$	1000	--	1000	--
Target Risk	TR	unitless	--	--	10 ⁻⁵	Eq. 750-2
Target Hazard Quotient	HQ	unitless	1	Eq. 750-1	--	--

The resulting preliminary MTCA Method C RELs are provided in Table 13.

Table 13
Summary of MTCA Method C RELs for Indoor Air

COPCs	Toxicity Data ^a		Indoor Air RELs (µg/m ³)	
	RfDi	CPFi	Non-carcinogenic ^b	Carcinogenic ^c
PCE	1.14E-02	9.10E-04	175	422
TCE	5.71E-04	1.44E-02	8.8	27.6
trans-1,2-DCE	NVE	NVE	--	--
cis-1,2-DCE	NVE	NVE	--	--
VC	2.86E-02	1.60E-02 ^d	439	24
1,1,1-TCA	1.43E+00	NVE	21,930	--

Notes:

-  Shaded values represent the lowest REL for each COPC for Indoor Air at the Site.
- a Toxicity data from Ecology's Cleanup Levels and Risk Calculation (CLARC) database.
- b Calculated from MTCA Equation 750-1.
- c Calculated from MTCA Equation 750-2.
- d Using CPF of 1.6E-02 per mg/kg-day based on absence of children and pregnant women at the Site.
- NVE No toxicity data have been established for this chemical.
- RfDi Inhalation reference dose for non-carcinogenic health effects.
- CPFi Inhalation cancer slope factor for carcinogenic effects.

The RELs above present indoor air concentrations that are protective of the expected RME at an industrial Site. The differences between the CULs and the RELs are addressed through the current zoning and land use restrictions for the Site, which serve as institutional controls compliant with the requirements of MTCA. CULs and RELs for other affected media at the Site must also be protective of these RELs for indoor air.

Site-specific soil gas screening levels (SLsg) were developed from the indoor air RELs. These screening levels serve to provide those concentrations in soil gas above which there is the potential for VI at concentrations exceeding the RELs. There are no CULs for soil gas. These values may be used in the future to confirm the likely adequacy of any remedial actions and to confirm the absence of unacceptable impacts to buildings above the dissolved-phase plume.

The Site-specific SLsg values were calculated using Equation 2 of Ecology's October 2009 Draft *Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action* (as amended by the April 20, 2015 guidance from Ecology) and the current vapor attenuation factor (VAF) of 0.03. The resulting SLsg values are provided in Table 14.

Table 14
Summary of Site-specific SLsg Values Protective of the
REL for Inhalation

COPC	Indoor Air REL ($\mu\text{g}/\text{m}^3$)	SLsg ($\mu\text{g}/\text{m}^3$)
PCE	175	5,833
TCE	8.8	293
VC	24	800
1,1,1-TCA	21,930	731,000

These SLsg values provide soil gas concentrations that are protective of indoor air to the Site-specific RME using the current Ecology-default attenuation factor for migration across a floor slab. Any values less than these screening levels would therefore not result in an indoor air exposure that poses either an unacceptable excess cancer risk or non-carcinogenic health risk to current and/or future on-Site workers.

Soil and groundwater cleanup levels or RELs must be protective of these SLsg values.

6.2 Groundwater

The following exposures defined in the CSM were considered for groundwater COPCs:

- Groundwater volatilization-to-indoor air; and
- Dermal exposure via direct contact with groundwater for a construction worker.

As noted above and explained in the CSM groundwater at the Site is not currently a source of drinking water. Groundwater meets the requirements of MTCA [WAC 173-340-720(2)(a)] for exclusion of consideration as potable groundwater because groundwater is not currently used for drinking water. The requirements of WAC 173-340-720 (2)(b)(iii) are also met because of the statutory restrictions on well installation by the City of Seattle and the zoning of the Site and surrounding area, which make it technically impossible to install a well for potable uses in an area zoned as industrial. The requirements of WAC 173-340-720(2)(c)(i-vii) are met by the observed and documented extent of impacts and the hydrogeologic conditions at the Site. The impacted groundwater at the Site is vertically separated from any deeper groundwater by at least 60 feet of non-impacted soil and dense clay of very low permeability. In addition, the intermediate aquifer has a strong upward vertical gradient throughout the dissolved-phase plume, which limits the potential for downward migration of dissolved-phase contaminants. Therefore, the ingestion pathway for groundwater is eliminated from further consideration.

As a measure of conservatism, retained groundwater COPCs were initially screened against MTCA Method A or Method B groundwater CULs. Those COPCs with maximum reported concentrations less than the corresponding Method A or Method B CULs were eliminated from further evaluation. On this basis cis-1,2-DCE and trans-1,2-DCE were not considered as COCs for groundwater for protection of vapor intrusion.

Groundwater CULs and RELs protective of the indoor air CULs have been derived using the MTCA Method B Indoor Air CULs in Table 6.1a and 6.1c and Equation 1 of Ecology's October 2009 Draft *Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action*. The resulting groundwater RELs are provided in Table 15.

Table 15
Evaluation of Site-Specific Groundwater CULs and RELs Protective of Indoor Air

COPC	Henry's Law Constant at 13°C ^a	Indoor Air CUL (µg/m ³)	Groundwater CUL (µg/L)	Indoor Air REL (µg/m ³)	Groundwater REL (µg/L)
PCE	0.398	40	101	175	440
TCE	0.239	2.0	8.4	8.8	36.8
VC	0.807	5.5	6.8	24	29.7
1,1,1-TCA	0.419	5,000	11,930	21,930	52,340

Note:

a Values from CLARC updated August 2015 and adjusted for a groundwater temperature of 13°C.

The remaining groundwater COPCs are either inorganic or compounds for which the primary route of exposure is the dermal contact pathway (i.e., no inhalation toxicity data are available). The only other potentially completed pathway for groundwater exposure identified in the CSM is via dermal contact by a construction worker. However, MTCA does not provide a method for evaluating cleanup levels for this pathway. Absent a method within MTCA, EPI deferred to the risk-based concentrations (RBCs) for exposure via the construction worker pathway published by the Oregon Department of Environmental Quality (ODEQ). While not proscribed in MTCA, the ODEQ provides a conservative and generally accepted method for evaluating this exposure pathway, which have undergone scientific scrutiny. As such, this approach meets the requirements of WAC 173-340-702(15) and (16). Ecology has allowed the use of this approach for evaluating construction worker risk at other sites, particularly under multi-site agreements with major oil companies where groundwater is non-potable.

The ODEQ provides RBCs for direct contact with groundwater in an excavation scenario for a construction worker. Those RBCs for the direct exposure pathway have been adopted as CULs for the Site for those compounds that do not have a value for evaluating VI risks or are non-volatile. A summary of the RELs and adopted CULs for groundwater is provided below in Table 16.

Table 16
Summary of Site-Specific Groundwater RELs and CULs

COPC	Groundwater CULs (µg/L)	Groundwater RELs (µg/L)
PCE	101	440
TCE	8.4	37
trans-1,2-DCE	1,800	NVE
cis-1,2-DCE	180,000	NVE
VC	6.8	30
1,1,1-TCA	11,930	52,340
Arsenic	6,300 ^a	NVE
Cadmium	130,000 ^a	NVE
CrVI	9,400 ^a	NVE
Total Chromium	NVE	NVE
Copper	5,400,000 ^a	NVE
Nickel	13,446,802 ^a	NVE
Zinc	NVE	NVE
Cyanide	81,000 ^a	NVE

Notes:

a ODEQ RBC value.

NVE No value established or available for this chemical.

6.3 Soil

To evaluate soil cleanup levels, the following exposures defined in the CSM were considered:

- Soil leaching-to-groundwater-volatilizing-to-indoor air; and
- Dermal exposure via direct contact with soil for commercial/industrial workers.

Soil CULs and RELs that are protective of the soil-groundwater-indoor air pathway were derived using the MTCA Method C Indoor Air CULs and RELs presented above, and MTCA Equation 747-1. For non-volatile compounds in soil, the presented cleanup levels are protective of the direct-contact pathway. The RELs were derived using MTCA default values and chemical-specific properties provided in the CLARC database.

Table 17
Summary of MTCA Method C Soil CULs and RELs for the Soil-Groundwater-Indoor Air Pathway

COPC	Method C Soil CUL (mg/kg)	Method C Soil REL (mg/kg)
PCE	1.0	4.4
TCE	0.05	0.2
trans-1,2-DCE	9.3	NVE
cis-1,2-DCE	880	NVE
VC	0.04	0.2
1,1,1-TCA	89	390

Note:

NVE No value established or available for this chemical.

In addition, a soil-to-groundwater CUL protective of the groundwater direct contact value in Table 17 above was developed for CrVI using equation 747-1 and the ODEQ RBC value for direct contact with groundwater in an excavation scenario for a construction worker. This is appropriate since CrVI is non-volatile and does not present a vapor intrusion risk.

For soil CULs protective of the dermal exposure pathway for commercial/industrial workers, EPI evaluated the MTCA Method C soil CULs. The CUL values for this pathway are provided in Table 18.

Table 18
Summary of MTCA Method C Soil CULs for Direct Contact

COPC	Method C Soil CUL (mg/kg)
PCE	21,000
TCE	1,750
trans-1,2-DCE	70,000
cis-1,2-DCE	7,000
VC	10,500
1,1,1-TCA	7,000,000
Arsenic	87.5
Cadmium	3,500
CrVI	10,500
Total Chromium	5,520,000
Copper	140,000
Nickel	38,500
Zinc	1,050,000
Cyanide	2,100

Note:

NVE No value established or available for this chemical.

6.4 Summary of Evaluated and Selected CULs and RELs

The appropriate CULs and RELs for the Site for each impacted medium are those that are the most protective of each potential exposure pathway. Table 19 below summarizes the results of the evaluation presented above in Sections 6.1 through 6.3. The lowest values, representing the most conservative CUL or REL for a particular compound and medium were selected. Those selected CULs and RELs are contained within the summary tables of this RI Report.

Table 19
Summary of Selected CULs and RELs

COPC	Indoor Air CUL (µg/m ³)	Indoor Air REL (µg/m ³)	Groundwater CUL (µg/L)	Groundwater REL (µg/L)	Soil CUL (mg/kg)	Soil REL (mg/kg)
PCE	40	175	101	440	1.0	4.4
TCE	2.0	8.8	8.4	37	0.05	0.2
trans-1,2-DCE	NA	NA	1,800	NA	9.3	NA
cis-1,2-DCE	NA	NA	180,000	NA	880	NA
VC	5.5	24	6.8	30	0.04	0.2
1,1,1-TCA	5,000	21,930	11,930	52,340	89	390
Arsenic	NV	NA	6,300	NA	87.5	NA
Cadmium	NV	NA	130,000	NA	3,500	NA
CrVI	NV	NA	9,400	NA	10,500	NA
Total Chromium	NV	NA	NVE	NA	5,520,000	NA
Copper	NV	NA	5,400,000	NA	140,000	NA
Nickel	NV	NA	13,446,802	NA	38,500	NA
Zinc	NV	NA	NVE	NA	1,050,000	NA
Cyanide	NV	NA	81,000	NA	2,100	NA

Notes:

- NA Not applicable; no value established and data not available to develop cleanup level.
- NV Non-volatile compound.
- NVE No value established.

7.0 DISTRIBUTION OF CONTAMINATION

Compounds of concern (COCs) for the WII Property are defined as those compounds that are present at concentrations exceeding the selected CULs (or RELs), which are documented in Section 6.0. The following sections describe COCs identified and their lateral and vertical distribution at the Site.

7.1 Soil

The COCs for soil at the Site are PCE, TCE, and VC. No other COPCs are present at a concentration exceeding a selected CUL or REL. The extent of these compounds at concentrations exceeding the CULs and RELs are presented in Figures 14 through 21.

PCE has been detected in soil at a concentration exceeding the CUL protective of the soil-to-groundwater-indoor air pathway. That value is 1.0 mg/kg. PCE concentration in 15 soil samples exceeded 1.0 mg/kg. Reported PCE concentrations in these samples ranged from 1.1 mg/kg to 49 mg/kg. Samples with PCE concentrations exceeding the CUL are generally present beneath the WII Property at depths from the surface to 8 feet bgs. No PCE has been detected in soil on the Perine Property at a concentration exceeding the CUL.

PCE impacts to soil at concentrations exceeding the soil REL of 4.4 mg/kg were identified in three samples. Exceedances were reported in soil boring B-2 (5.4 mg/kg), B-23 (37 mg/kg), and B-31 (49 mg/kg). All three exceedances were limited to soil samples collected within two feet of the surface. Figure 17 presents PCE isoconcentration contours showing the estimated extent of PCE impacts to soil at a concentration exceeding the REL. No PCE has been detected in soil on the Perine Property at a concentration exceeding the REL.

TCE has been detected in soil at a concentration exceeding the CUL protective of the soil-to-groundwater-indoor air pathway. That value is 0.05 mg/kg. TCE concentrations in 105 soil samples exceeded 0.05 mg/kg. Reported TCE concentrations in these samples ranged from 0.061 mg/kg to 710 mg/kg. TCE impacts in soil exceeding this CUL are distributed widely beneath the WII Property and extend to soils at and beneath the upper portion of the shallow aquifer.

TCE has been detected in soil at a concentration exceeding the CUL on the Perine Property. Those impacts are limited to an isolated area, are limited to depths between 2.5 and 5 feet below grade and are not contiguous with impacts on the WII Property. The isolated impacts to soil on the Perine Property do not extend to the water table.

The TCE impacts in soil at concentrations exceeding the soil REL of 0.2 mg/kg were identified in 94 samples. Those exceedances are widely distributed beneath the WII Property with the highest concentrations observed at borings B-21, B-23, B-26, and B-27 in soil from 0 to 2 feet below grade. This area appears to represent a historic source area of near surface releases. TCE concentrations in soil decrease rapidly with depth but remain above the REL throughout most of the WII Property down to a depth of 8 feet or greater. Figures 18, 19, and 20 present TCE isoconcentration contours showing the estimated extent of TCE impacts to soil at a concentration exceeding the REL.

TCE has been detected in soil at a concentration exceeding the REL on the Perine Property. As with the exceedances of the CUL, those impacts are limited to an isolated area that is not contiguous with impacts on the WII Property. Exceedances of the REL on the Perine property are also limited to soil in the 2.5 to 5 foot depth range and are not present in shallower or deeper soil samples or underlying groundwater.

VC has been detected in soil at a concentration exceeding the CUL protective of the soil-to-groundwater-to-indoor air pathway. That value is 0.04 mg/kg. VC concentrations in five soil samples exceeded 0.04 mg/kg. Reported VC concentrations ranged from 0.14 mg/kg to 1.5 mg/kg. The exceedances were generally limited to soil samples collected within three feet of the surface, with one exception and are limited to the WII Property.

VC impacts in soil at concentrations exceeding the soil REL of 0.2 mg/kg were identified in three samples. Exceedances were reported in soil boring B-6 (0.33 mg/kg) and B-31 (1.5 mg/kg and 0.22 mg/kg). All three exceedances were limited to soil samples collected within three feet of the surface. Figure 21 presents vinyl chloride isoconcentration contours showing the estimated extent of vinyl chloride impacts to soil at a concentration exceeding the REL.

No COCs were identified in soil at a concentration exceeding a CUL at a depth greater than 12 feet below grade. This is consistent with a historic pattern of surface releases of VOCs and vertical migration through the vadose zone down to the shallow aquifer.

No VOCs were detected at a concentration exceeding the detection limits of the method used in deeper soils below the intermediate depth aquifer down to the maximum depth of exploration of 90 feet below grade. The two deeper borings were located within an apparent source area for release (MW-15d) and the first accessible downgradient location outside the building (MW-7ir). This finding indicates that the vertical extent of contamination is well understood and that vertical migration of the observed impacts are limited to shallow soils. Figure 22 presents the estimated extent of soil impacts.

7.2 Groundwater

7.2.1 Shallow Groundwater

Shallow groundwater at the Site has been impacted by historic releases at the WII Property. The COCs identified in groundwater at the Site are TCE and VC. No other COPCs are present at concentrations greater than the applicable CULs or RELs. Figure 23 and Figure 24 present the lateral extent of TCE impacts to shallow groundwater observed for the December 2015 and March 2016 sampling events. VC is co-located with TCE and at significantly lower concentrations, therefore TCE is most representative of the extent of impacts in the shallow aquifer.

TCE was identified in groundwater at a concentration exceeding the groundwater CUL (8.4 µg/L) and REL (37 µg/L) that are protective of the groundwater-to-indoor air pathway. TCE was identified in groundwater at concentrations exceeding the CUL in groundwater samples collected from the central and western portion of the WII Property and the northwestern portion of the Perine Property as well as locations farther hydraulically downgradient of the Site. The extent of groundwater impacts exceeding the CUL are indicated on Figure 25.

VC was identified in shallow groundwater at a concentration equal to or exceeding the CUL (6.8 µg/L) and REL (30 µg/L). VC was present in wells MW-1, MW-3 and MW-8 at a concentration exceeding the CUL and only in well MW-3 at a concentration exceeding the REL. As noted above, these impacts are co-located with much higher concentrations of TCE.

The distribution of shallow groundwater impacts appears to be affected by the presence of buried utilities within South Dakota Street. As the dissolved-phase plume migrates hydraulically downgradient to the northwest, it encounters the backfill for an 18-inch diameter sanitary sewer and a 60-inch diameter storm sewer pipelines. It appears that the more permeable backfill for those sewer lines provide a preferential migration pathway to the west along South Dakota Street. Wells installed within that utility backfill appear to have characterized the maximum westward extent of those impacts at SBW-4.

The lateral distribution of impacts to the shallow aquifer are well understood and well characterized by the current groundwater monitoring network. As discussed below, the vertical extent of impacts to groundwater are also well characterized and understood.

7.2.2 Intermediate Groundwater

The intermediate aquifer at the Site has been impacted by historic releases at the WII property. The COCs identified in the intermediate aquifer are also TCE and VC as in the shallow aquifer. No other COPCs are present at concentrations greater than the applicable CULs or RELs.

TCE was identified in the intermediate aquifer at concentrations exceeding the CUL in MW-05i (67 µg/L) and MW-20i (13 µg/L). The reported TCE concentration in MW-5i also exceeds the REL.

VC was identified in the intermediate aquifer at concentrations exceeding the CUL in MW-7ir (28 µg/L) and MW-15i (27 µg/L). Neither of these reported concentrations exceed the REL for VC.

The intermediate aquifer is generally protected from impacts in the shallow aquifer due to the significant upward hydraulic gradient between the intermediate and shallow aquifer. The vertical extent of the intermediate aquifer is well understood. Any impacts to the intermediate aquifer are likely related to chemical diffusion and cannot be related to mechanical dispersion in groundwater since groundwater transport is vertically upward. Transport solely through chemical diffusion is well understood to be at very low rates and low mass flux. Chemical diffusion transport is easily overwhelmed by groundwater migration. As noted herein, impacts to the intermediate aquifer are minor compared to the shallow aquifer and are only present in areas where very high concentrations are present in the shallow aquifer. In the absence of impacts to the shallow aquifer the lesser impacts to the intermediate aquifer would likely rapidly attenuate due to natural processes.

The bottom of the intermediate aquifer is at about 32 feet below grade and underlain by a dense and relatively impermeable plastic clay. As noted above, there are no detectable VOCs within soil samples collected from beneath the intermediate aquifer down to a depth of 90 feet below grade and no saturated conditions have been encountered below 32 feet below grade. These conditions support a conclusion that deeper groundwater that may be present at some undetermined depth below the Site is not at a risk of contamination from the Site.

7.3 Soil Gas

The analytical results of EPI's soil gas sampling suggest that concentrations of PCE and TCE in soil gas beneath portions of the Site exceed the corresponding Site-specific SLsg values for a commercial worker RME. Those soil gas impacts are likely the result of volatilization of PCE and TCE from the dissolved-phase plume into soil gas under normal environmental conditions. Any remedial actions to address the dissolved-phase plume will necessarily address the soil gas impacts and potential for vapor intrusion.

8.0 REMAINING DATA GAPS

Only two minor data gaps remain at the Site:

- The extent of soil gas at concentrations exceeding the SLsg. Minor gaps in this characterization exist at the limits of the dissolved-phase plume.
- The extent of TCE at a concentration exceeding the CUL and REL in shallow soil (less than 5 feet bgs) to the west of the WII Property.

These data gaps can be filled with limited effort as a component of future interim actions or remedial action implementation. The data gaps are not substantial and do not limit the ability to perform a feasibility study or evaluate remedial alternatives.

9.0 RI FINDINGS/CONCLUSIONS

The following conclusions are supported by the findings of the RI:

- The work documented herein is sufficient to characterize the Site to a degree that is appropriate for evaluation and selection of interim and final cleanup alternatives. No additional characterization is necessary before proceeding to the evaluation and selection of interim and/or final remedial alternatives.
- Soil and groundwater at the Site have been predominantly impacted with TCE and related VOCs. Those impacts represent a threat of VI to properties at the Site. The lateral and vertical impacts of contamination are currently well characterized and documented in this RI report.
- The primary source of impacts at the Site are related to the operations of the former Northwest Plating and include releases from historical metals plating operations and associated degreasing using chlorinated solvents.
- There is an area of TCE impacts to shallow soil on the Perine Property that is not contiguous with soil impacts on the WII Property. Additionally, this area of TCE impacts on the Perine Property cannot be explained by groundwater contamination at the Site. This area of TCE impact to shallow soil on the Perine Property also cannot be attributed to historic operations on the WII Property. It appears to represent a separate historic source of TCE release on the Perine Property unrelated to the operations conducted on the WII Property. It is in the area of the Perine Property at which an historic machine shop operated from the 1950s to the 1970s.
- The Site is within an industrial area of Seattle and is zoned Industrial General 2. Under the comprehensive plan for the City of Seattle the Site will remain an industrial property for the foreseeable future.

- The primary exposure pathway at the Site is VI. The CULs and RELs that have been developed are consistent with current and potential future land use and are protective of soil- and groundwater-to-air-pathways at concentrations that are protective of current and potential future workers at and near the Site.
- Groundwater at the Site does not qualify as potable groundwater. It is not currently used for drinking water and cannot be used for drinking water in the future due to statutory limitations on installation of drinking water wells within industrial zoning. The lateral extent of impacts to groundwater is well understood and the upward vertical gradient between the shallow and intermediate aquifers significantly limits the potential vertical migration of impacts. No saturated conditions have been observed at the Site below the intermediate aquifer to a depth of 90 feet bgs. Neither the shallow nor intermediate aquifers are in hydraulic connection with an aquifer that could be used for drinking water purposes, and the vertical extent of groundwater is well understood.
- Active remedial measures are necessary to address the observed contamination. Those remedial measures will likely include a combination of remedial technologies including source control through excavation, soil vapor extraction, and *in situ* chemical treatment of groundwater, as well as other potentially applicable alternatives.
- With the submittal of this report to Ecology, WII is requesting an advisory opinion under the VCP regarding the completeness of this RI and the selected CULs and RELs.

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Tables

Table 1
Summary of Groundwater Elevation Data
Remedial Investigation Report
Former Northwest Plating
825 South Dakota Street and 812 and 820 South Adams Street, Seattle, Washington

Monitoring Well	Groundwater Zone	Date Measured	Depth to Groundwater ^a (feet)	Depth to Bottom of Well ^a (feet)	Top of Casing Elevation ^b (feet)	Groundwater Elevation ^c (feet)
MW-1 (MW-1s)	Shallow	9/22/2014	9.14	11.09	21.03	11.89
		6/5/2015	8.91	11.10		12.12
		9/14/2015	9.00	NM		12.03
		11/30/2015	8.43	NM		12.60
		3/14/2016	7.61	NM		13.42
MW-1i	Intermediate	10/28/2013	6.22	25.00	21.19	14.97
		8/26/2014	6.28	NM		14.91
		9/22/2014	6.38	NM		14.81
		6/5/2015	6.12	25.21		15.07
		9/14/2015	6.48	NM		14.71
		11/30/2015	5.97	NM		15.22
		3/14/2016	4.85	NW		16.34
MW-2	Shallow	10/28/2013	7.34	12.49	22.18	14.84
		8/26/2014	7.41	NM		14.77
		9/22/2014	7.50	NM		14.68
		6/5/2015	7.29	12.53		14.89
		9/14/2015	7.45	NM		14.73
		11/30/2015	7.11	NM		15.07
		3/14/2016	6.69	NW		15.49
MW-3	Shallow	10/28/2013	9.10	12.31	21.26	12.16
		8/26/2014	9.20	NM		12.06
		9/22/2014	9.26	NM		12.00
		6/5/2015	9.09	12.51		12.17
		9/14/2015	9.22	NM		12.04
		11/30/2015	8.83	NM		12.43
		3/14/2016	8.21	NW		13.05
MW-4	Shallow	10/28/2013	8.06	11.65	22.98	14.92
		8/26/2014	8.19	NM		14.79
		9/22/2014	8.27	NM		14.71
		6/5/2015	7.92	11.86		15.06
		9/14/2015	8.21	NM		14.77
		11/30/2015	7.68	NM		15.30
		3/14/2016	7.14	NW		15.84
MW-4i	Intermediate	11/30/2015	5.01	NM	22.84	17.83
		3/14/2016	4.17	NM		18.67
MW-5	Intermediate	8/26/2014	5.30	24.93	21.80	16.50
		9/22/2014	5.40	NM		16.40
		6/5/2015	5.19	25.28		16.61
		9/14/2015	5.46	NM		16.34
		11/30/2015	5.19	NM		16.61
		3/14/2016	4.29	NM		17.51
MW-5B	Intermediate	10/28/2013	5.09	25.23	21.72	16.63
		8/26/2014	5.23	NM		16.49
		9/22/2014	5.32	NM		16.40
		6/5/2015	5.08	25.26		16.64
		9/14/2015	5.38	NM		16.34
		11/30/2015	5.09	NM		16.63
		3/14/2016	4.23	NM		17.49
MW-05 (MW-05s)	Shallow	8/26/2014	13.02	NM	27.32	14.30
		9/22/2014	13.13	NM		14.19
		6/5/2015	12.82	15.00		14.50
		9/14/2015	13.08	NM		14.24
		11/30/2015	12.96	NM		14.36
		3/14/2016	11.98	NM		15.34
MW-05i	Intermediate	6/5/2015	10.90	25.80	27.38	16.48
		9/14/2015	11.18	NM		16.20
		11/30/2015	10.84	NM		16.54
		3/14/2016	10.02	NM		17.36
MW-6	--	--	Well abandoned			
MW-7s	Shallow	6/5/2015	9.73	13.46	21.57	11.84
		9/14/2015	9.87	NM		11.70
		11/30/2015	9.16	NM		12.41
		3/14/2016	8.48	NM		13.09
MW-7i	Intermediate	10/28/2013	6.76	24.90	21.40	14.64
		8/26/2014	7.47	NM		13.93
		9/22/2014	7.62	NM		13.78
		6/5/2015	7.22	25.06		14.18
		9/14/2015	7.63	NM		13.77
		11/30/2015	6.58	NM		14.82
MW-7ir	Intermediate	11/30/2015	6.28	NM	21.48	15.20
		3/14/2016	5.49	NM		15.99

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Monitoring Well	Groundwater Zone	Date Measured	Depth to Groundwater ^a (feet)	Depth to Bottom of Well ^a (feet)	Top of Casing Elevation ^b (feet)	Groundwater Elevation ^c (feet)
MW-7 (MW-7d)	Deep	9/22/2014	3.87	39.00	21.29	17.42
		6/5/2015	3.60	39.45		17.69
		9/14/2015	3.85	NM		17.44
		11/30/2015	3.68	NM		17.61
		3/14/2016	2.75	NM		18.54
MW-07	Shallow	8/26/2014	11.79	NM	26.55	14.76
		9/22/2014	11.90	NM		14.65
		6/5/2015	11.53	14.32		15.02
		9/14/2015	11.80	NM		14.75
		11/30/2015	11.21	NM		15.34
		3/14/2016	10.65	NM		15.90
MW-8s	Shallow	6/5/2015	8.10	13.64	19.58	11.48
		9/14/2015	8.20	NM		11.38
		11/30/2015	7.57	NM		12.01
		3/14/2016	4.12	NM		15.46
MW-8 (MW-8i)	Intermediate	10/28/2013	5.59	25.00	19.49	13.90
		8/26/2014	5.64	NM		13.85
		9/22/2014	5.82	NM		13.67
		6/5/2015	5.54	25.19		13.95
		9/14/2015	5.81	NM		13.68
		11/30/2015	5.40	NM		14.09
		3/14/2016	5.09	NM		14.40
MW-9	Shallow	10/28/2013	10.34	14.86	19.03	8.69
		8/26/2014	10.49	NM		8.54
		9/22/2014	10.59	NM		8.44
		6/5/2015	10.47	15.06		8.56
		9/14/2015	10.39	NM		8.64
		11/30/2015	10.00	NM		9.03
		3/14/2016	9.67	NM		9.36
MW-10 (MW-10s)	Shallow	10/28/2013	11.98	23.71	18.60	6.62
		8/26/2014	12.02	NM		6.58
		9/22/2014	12.17	NM		6.43
		6/5/2015	11.84	24.35		6.76
		9/14/2015	12.08	NM		6.52
		11/30/2015	NM	NM		NM
		3/14/2016	11.11	NM		7.49
MW-10i	Intermediate	6/5/2015	12.60	32.93	18.88	6.28
		9/14/2015	11.83	NM		7.05
		11/30/2015	11.27	NM		7.61
		3/14/2016	11.18	NM		7.70
MW-11	Shallow	10/28/2013	6.61	14.13	13.33	6.72
		8/26/2014	7.14	NM		6.19
		9/22/2014	7.21	NM		6.12
		6/5/2015	6.95	14.99		6.38
		9/14/2015	7.12	NM		6.21
		11/30/2015	6.85	NM		6.48
		3/14/2016	6.60	NM		6.73
MW-12	Shallow	10/28/2013	4.83	12.22	11.46	6.63
		8/26/2014	4.87	NM		6.59
		9/22/2014	4.98	NM		6.48
		6/5/2015	4.66	14.88		6.80
		9/14/2015	4.84	NM		6.62
		11/30/2015	4.38	NM		7.08
		3/14/2016	3.98	NM		7.48
MW-13	--	--	Well abandoned			
MW-14	Shallow	10/28/2013	6.64	7.81	21.58	14.94
		8/26/2014	6.80	NM		14.78
		9/22/2014	6.91	NM		14.67
		6/5/2015	6.55	8.20		15.03
		9/14/2015	7.23	NM		14.35
		11/30/2015	6.29	NM		15.29
		3/14/2016	5.83	NM		15.75
MW-15 (MW-15s)	Shallow	10/28/2013	6.99	10.00	21.54	14.55
		8/26/2014	7.12	NM		14.42
		9/22/2014	7.18	NM		14.36
		6/5/2015	6.93	10.19		14.61
		9/14/2015	7.14	NM		14.40
		11/30/2015	6.69	NM		14.85
		3/14/2016	3.19	NM		18.35

Table 1
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Monitoring Well	Groundwater Zone	Date Measured	Depth to Groundwater ^a (feet)	Depth to Bottom of Well ^a (feet)	Top of Casing Elevation ^b (feet)	Groundwater Elevation ^c (feet)
MW-15i	Intermediate	6/5/2015	3.73	29.64	21.37	17.64
		9/14/2015	4.01	NM		17.36
		11/30/2015	3.79	NM		17.58
		3/14/2016	2.88	NM		18.49
MW-16	Shallow	10/28/2013	6.90	11.45	21.44	14.54
		8/26/2014	6.97	NM		14.47
		9/22/2014	7.20	NM		14.24
		6/5/2015	7.81	11.69		13.63
		9/14/2015	7.02	NM		14.42
		11/30/2015	6.68	NM		14.76
		3/14/2016	6.17	NM		15.27
MW-17	--	10/28/2013	Not measured, well inaccessible			
		8/26/2014				
		9/22/2014				
		6/5/2015				
		11/30/2015				
MW-18	Shallow	10/28/2013	Not measured, well inaccessible			
		8/26/2014	7.03	NM	21.67	14.64
		9/22/2014	7.18	NM		14.49
		6/5/2015	6.91	10.96		14.76
		9/14/2015	7.1	NM		14.57
		11/30/2015	6.69	NM		14.98
		3/14/2016	6.22	NM		15.45
MW-19	Shallow	10/28/2013	Not measured, well inaccessible			
		8/26/2014	6.88	NM	21.57	14.69
		9/22/2014	7.01	NM		14.56
		6/5/2015	6.77	10.68		14.80
		9/14/2015	6.95	NM		14.62
		11/30/2015	6.55	NM		15.02
		3/14/2016	6.06	NM		15.51
MW-20s	Shallow	10/28/2013	Not measured, well inaccessible			
		8/26/2014	13.72	NM	27.59	13.87
		9/22/2014	13.78	NM		13.81
		6/5/2015	14.53	18.78		13.06
		9/14/2015	13.75	NM		13.84
		11/30/2015	13.29	NM		14.30
		3/14/2016	9.88	NM		17.71
MW-20i	Intermediate	6/5/2015	10.80	29.62	27.52	16.72
		9/14/2015	11.09	NM		16.43
		11/30/2015	10.79	NM		16.73
		3/14/2016	12.73	NM		14.79
MW-21s	Shallow	10/28/2013	Not measured, well inaccessible			
		8/26/2014	8.55	NM	21.05	12.50
		9/22/2014	8.51	NM		12.54
		6/5/2015	8.54	15.15		12.51
		9/14/2015	8.53	NM		12.52
		11/30/2015	8.51	NM		12.54
		3/14/2016	7.92	NM		13.13
MW-21i	Intermediate	6/5/2015	6.01	24.68	21.30	15.29
		9/14/2015	6.22	NM		15.08
		11/30/2015	5.86	NM		15.44
		3/14/2016	4.93	NM		16.37
MW-22s	Shallow	6/5/2015	9.30	13.85	21.38	12.08
		9/14/2015	9.40	NM		11.98
		11/30/2015	9.00	NM		12.38
		3/14/2016	8.19	NM		13.19
MW-22i	Intermediate	6/5/2015	7.53	24.82	21.67	14.14
		9/14/2015	7.81	NM		13.86
		11/30/2015	7.42	NM		14.25
		3/14/2016	3.52	NM		18.15
MW-23s	Shallow	6/5/2015	13.19	13.79	27.52	14.33
		9/14/2015	13.38	NM		14.14
		11/30/2015	12.85	NM		14.67
		3/14/2016	12.19	NM		15.33
MW-23i	Intermediate	6/5/2015	11.46	29.08	27.49	16.03
		9/14/2015	11.69	NM		15.80
		11/30/2015	11.29	NM		16.20
		3/14/2016	10.42	NM		17.07
MW-24s	Shallow	6/5/2015	8.89	13.19	21.43	12.54
		9/14/2015	8.88	NM		12.55
		11/30/2015	8.56	NM		12.87
		3/14/2016	7.94	NM		13.49

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Monitoring Well	Groundwater Zone	Date Measured	Depth to Groundwater ^a (feet)	Depth to Bottom of Well ^a (feet)	Top of Casing Elevation ^b (feet)	Groundwater Elevation ^c (feet)
MW-24i	Intermediate	6/5/2015	5.58	24.80	21.38	15.80
		9/14/2015	6.83	NM		14.55
		11/30/2015	5.49	NM		15.89
		3/14/2016	4.48	NM		16.90
MW-24ir	Intermediate	11/30/2015	5.13	NM	21.06	15.93
		3/14/2016	3.37	NM		17.69
MW-25s	Shallow	6/5/2015	12.71	19.82	20.02	7.31
		9/14/2015	13.24	NM		6.78
		11/30/2015	12.53	NM		7.49
		3/14/2016	11.52	NM		8.50
MW-25i	Intermediate	6/5/2015	8.84	33.98	20.00	11.16
		9/14/2015	10.49	NM		9.51
		11/30/2015	10.05	NM		9.95
		3/14/2016	9.14	NM		10.86
MW-26s	Shallow	6/5/2015	12.37	19.49	19.10	6.73
		9/14/2015	12.62	NM		6.48
		11/30/2015	11.55	NM		7.55
		3/14/2016	11.70	NM		7.40
MW-26i	Intermediate	6/5/2015	14.12	33.73	19.05	4.93
		9/14/2015	11.25	NM		7.80
		11/30/2015	10.62	NM		8.43
		3/14/2016	10.83	NM		8.22
MW-27s	Shallow	6/5/2015	11.38	19.64	18.43	7.05
		9/14/2015	11.62	NM		6.81
		11/30/2015	10.95	NM		7.48
		3/14/2016	10.58	NM		7.85
MW-28s	Shallow	6/5/2015	6.19	15.10	12.04	5.85
		9/14/2015	6.20	NM		5.84
		11/30/2015	5.49	NM		6.55
		3/14/2016	5.72	NM		6.32
MW-29s	Shallow	6/11/2015	7.02	15.19	21.90	14.88
		9/14/2015	7.23	NM		14.67
		11/30/2015	6.70	NM		15.20
		3/14/2016	6.19	NM		15.71
SBW-1	Shallow	6/5/2015	8.81	11.66	21.29	12.48
		9/14/2015	8.92	NM		12.37
		11/30/2015	8.64	NM		12.65
		3/14/2016	8.34	NM		12.95
SBW-2	Shallow	6/5/2015	8.55	10.65	19.77	11.22
		9/14/2015	8.63	NM		11.14
		11/30/2015	8.05	NM		11.72
		3/14/2016	7.66	NM		12.11
SBW-3	Shallow	6/5/2015	11.06	12.10	17.68	6.62
		9/14/2015	11.30	NM		6.38
		11/30/2015	10.88	NM		6.80
		3/14/2016	10.46	NM		7.22
SBW-4	Shallow	6/5/2015	6.00	9.13	12.35	6.35
		9/14/2015	6.16	NM		6.19
		11/30/2015	5.90	NM		6.45
		3/14/2016	5.63	NM		6.72

Notes:
All site monitoring wells resurveyed on August 7 and 20, 2014.
More recently installed monitoring wells surveyed on June 11, 2015 and February 2, 2016.
a Depths in feet below top of well casing.
b Depths measured from north side of top edge of well casing.
c Elevations reported in feet above NAVD 88 datum.
NM Not measured.

Table 2
Summary of Soil Analytical Results (in mg/kg)
Remedial Investigation Report
Former Northwest Plating
825 South Dakota Street and 812 and 820 South Adams Street, Seattle, Washington

Sample Identification	Sample Depth (Feet)	Date Collected	Detected Volatile Organic Compounds ^a																				Requested Metals			
			Tetrachloro-ethene (PCE)	Trichloro-ethene (TCE)	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Chloroform	4-Methyl-2-Pentanone	Toluene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Ethylbenzene	Total Xylenes	Styrene	Isopropylbenzene	n-Butylbenzene	1,3,5-Trimethylbenzene	tert-Butylbenzene	1,2,4-Trimethylbenzene	s-Butylbenzene	P-Isopropyltoluene	Naphthalene	Chromium (VI) ^b	Chromium ^c
B-1	0.5	3/18/2014	0.180	0.71	<0.046	0.093	<0.010	<0.010	<0.047	<0.050	<0.049	<0.043	<0.051	<0.050	<0.133	<0.039	<0.042	<0.040	<0.038	<0.049	<0.041	<0.045	<0.037	<0.053	<5.0	15
	3	3/18/2014	0.140	0.46	<0.073	<0.080	<0.010	<0.010	<0.076	<0.076	<0.078	<0.068	<0.082	<0.080	<0.209	<0.062	<0.067	<0.064	<0.061	<0.079	<0.066	<0.072	<0.059	<0.084	<5.0	14
	6	3/18/2014	1.20	11.0	<0.055	0.390	<0.010	<0.010	<0.057	<0.057	<0.059	<0.051	<0.061	0.100	0.284	<0.046	0.130	<0.048	0.079	<0.059	0.086	0.075	<0.044	<0.063	<5.0	63
B-2	0.5	3/18/2014	0.910	6.1	<0.055	0.180	<0.010	<0.010	<0.051	<0.051	<0.053	<0.046	<0.055	<0.054	<0.145	<0.042	<0.045	<0.043	<0.041	<0.053	<0.045	<0.049	<0.040	<0.057	<5.0	18
	3	3/18/2014	0.096	0.53	<0.049	<0.054	<0.010	<0.010	<0.051	<0.051	<0.053	<0.046	<0.055	<0.054	<0.142	<0.042	<0.045	<0.043	<0.041	<0.053	<0.045	<0.049	<0.040	<0.057	<5.0	6.7
	6	3/18/2014	1.60	24.0	0.083	2.30	<0.010	<0.010	<0.060	<0.060	<0.063	<0.054	<0.065	<0.064	<0.165	<0.049	<0.053	<0.051	<0.049	<0.063	<0.053	<0.057	<0.047	<0.067	<5.0	37
B-3	0.5	3/18/2014	0.150	1.7	<0.048	0.067	<0.010	<0.010	<0.050	<0.050	<0.051	<0.045	<0.054	<0.053	<0.144	<0.041	<0.044	<0.042	0.074	<0.052	0.093	<0.047	<0.039	<0.055	<5.0	9.6
	3	3/18/2014	<0.010	0.4	<0.050	<0.055	<0.010	<0.010	<0.052	<0.052	<0.054	<0.047	<0.056	<0.055	<0.146	<0.042	<0.046	<0.044	<0.042	<0.054	<0.045	<0.049	<0.040	<0.058	<5.0	6.7
	6	3/17/2014	0.330	8.4	0.070	0.840	<0.010	<0.010	<0.051	<0.050	<0.052	<0.046	<0.055	<0.053	<0.142	<0.041	<0.045	<0.053	0.100	0.093	0.140	<0.048	0.069	<0.056	<5.0	110
B-4	0.5	3/17/2014	0.170	1.4	<0.044	0.085	<0.010	<0.010	<0.046	<0.050	<0.047	<0.041	<0.049	<0.048	<0.129	<0.037	<0.040	<0.038	<0.037	<0.047	<0.040	<0.043	<0.035	<0.051	<5.0	29
	3	3/17/2014	<0.010	0.34	<0.055	<0.061	<0.010	<0.010	<0.058	<0.057	<0.060	<0.052	<0.062	<0.061	<0.162	<0.047	<0.051	<0.048	<0.046	<0.060	<0.050	<0.055	<0.045	<0.064	<5.0	8.7
	6	3/17/2014	0.450	7.8	<0.043	0.510	<0.010	<0.010	<0.044	<0.050	<0.046	<0.040	0.098	<0.047	<0.124	<0.036	<0.039	<0.037	<0.036	<0.046	0.060	<0.042	<0.034	<0.049	<5.0	88
B-5	0.5	3/17/2014	0.260	4.0	<0.045	0.480	<0.010	<0.010	<0.047	<0.050	<0.048	<0.042	<0.050	<0.050	<0.132	<0.038	<0.041	<0.039	<0.038	<0.049	<0.041	<0.044	<0.036	<0.052	<5.0	16
	3	3/17/2014	0.060	0.38	<0.047	<0.051	<0.010	<0.010	<0.048	<0.050	<0.050	<0.044	<0.052	<0.051	<0.191	<0.039	<0.043	<0.041	<0.039	<0.050	<0.046	<0.038	<0.054	<5.0	10	
	6	3/18/2014	0.190	15	0.077	8.20	<0.010	0.330	<0.063	<0.062	<0.065	<0.056	<0.067	<0.066	0.200	<0.051	<0.055	<0.052	0.084	<0.065	0.110	<0.059	0.100	<0.070	<5.0	49
B-6	0.5	3/17/2014	0.410	20	0.350	48.0	0.049	0.150	<0.070	<0.070	0.073	<0.063	<0.075	<0.074	<0.194	<0.057	<0.062	<0.059	<0.056	<0.073	0.099	<0.066	<0.054	<0.078	<5.0	55
	3	3/17/2014	0.290	7.50	<0.049	0.490	<0.010	<0.010	<0.051	<0.051	<0.053	<0.046	<0.055	<0.054	<0.143	<0.042	<0.045	<0.043	<0.041	<0.053	<0.044	<0.048	<0.040	<0.057	<5.0	37
	6	3/17/2014	0.085	1.20	<0.047	0.084	<0.010	<0.010	<0.048	<0.050	<0.050	<0.043	<0.052	<0.051	<0.136	<0.039	<0.043	<0.041	<0.039	<0.050	<0.042	<0.046	<0.037	<0.054	<5.0	8.2
B-7	0.5	3/17/2014	2.0	28	<0.065	0.680	<0.010	<0.010	<0.067	<0.067	<0.069	<0.046	<0.072	<0.071	<0.191	<0.055	<0.059	<0.056	<0.054	<0.070	<0.058	<0.064	<0.052	<0.075	<5.0	190
	3	3/17/2014	0.130	1.20	<0.050	<0.054	<0.010	<0.010	<0.051	<0.051	<0.053	<0.046	<0.055	<0.054	<0.145	<0.042	<0.045	<0.043	<0.041	<0.053	<0.045	<0.049	<0.040	<0.057	<5.0	12
	6	3/17/2014	<0.010	0.32	<0.054	<0.059	<0.010	<0.010	<0.056	<0.056	<0.058	<0.051	<0.061	<0.059	<0.161	<0.046	<0.050	<0.047	<0.045	<0.058	<0.056	<0.053	<0.044	<0.063	<5.0	36
B-8	0.5	3/17/2014	0.055	0.82	<0.041	<0.045	<0.010	<0.010	<0.043	<0.050	<0.044	<0.038	<0.046	<0.045	<0.120	<0.035	<0.038	<0.036	<0.034	<0.044	<0.037	<0.041	<0.033	<0.048	<5.0	19
	3	3/17/2014	0.990	34.0	<0.045	1.20	<0.010	<0.010	<0.047	<0.050	<0.048	<0.042	<0.050	<0.049	<0.131	<0.038	<0.041	<0.039	<0.038	<0.048	<0.041	<0.044	<0.036	<0.052	<5.0	93
	6	3/17/2014	<0.010	0.58	<0.045	<0.049	<0.010	<0.010	<0.047	<0.050	<0.049	<0.042	<0.051	<0.050	<0.132	<0.038	<0.042	<0.039	<0.038	<0.049	<0.041	<0.045	<0.036	<0.052	<5.0	11
B-9	0.5	3/17/2014	0.280	6.1	<0.053	<0.057	<0.010	<0.010	<0.055	<0.054	<0.056	<0.049	<0.059	<0.058	<0.150	<0.044	<0.048	<0.046	<0.044	<0.057	<0.047	<0.052	<0.042	<0.061	<5.0	280
	3	3/17/2014	0.320	15.0	<0.053	0.120	<0.010	<0.010	<0.05.																	

Table 2
Summary of Soil Analytical Results (in mg/kg)
Remedial Investigation Report
Former Northwest Plating
825 South Dakota Street and 812 and 820 South Adams Street, Seattle, Washington

Sample Identification	Sample Depth (Feet)	Date Collected	Detected Volatile Organic Compounds ^a																				Requested Metals			
			Tetrachloro-ethene (PCE)	Trichloro-ethene (TCE)	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Chloroform	4-Methyl-2-Pentanone	Toluene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Ethylbenzene	Total Xylenes	Styrene	Isopropylbenzene	n-Butylbenzene	1,3,5-Trimethylbenzene	tert-Butylbenzene	1,2,4-Trimethylbenzene	s-Butylbenzene	P-Isopropyltoluene	Naphthalene	Chromium (VI) ^b	Chromium ^c
B-32 (NWP Property)	0.5	3/20/2014	<0.010	0.16	<0.047	<0.052	<0.010	<0.010	<0.049	<0.050	<0.051	<0.044	<0.053	<0.052	<0.138	<0.040	<0.043	<0.041	<0.039	<0.051	<0.043	<0.046	<0.038	<0.055	<5.0	130
	3	3/20/2014	<0.010	0.110	<0.049	<0.053	<0.010	<0.010	<0.051	<0.051	<0.053	<0.046	<0.055	<0.054	<0.138	<0.041	<0.045	<0.043	<0.041	<0.053	<0.044	<0.048	<0.039	<0.057	<5.0	83
	6	3/20/2014	<0.010	0.260	<0.059	<0.064	<0.010	<0.010	<0.061	<0.060	<0.063	<0.055	<0.065	<0.064	<0.175	<0.049	<0.054	<0.051	<0.049	<0.063	<0.053	<0.058	<0.047	<0.068	<5.0	41
B-32 (Perine Property)	0.5	7/24/2014	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.52	24
	3	7/24/2014	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.70	28
	6	7/24/2014	<0.01	0.029	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.59	23
	9	7/24/2014	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.51	9.3
	12	7/24/2014	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.54	73
	15	7/24/2014	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.59	59
	18	7/24/2014	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<1.0	42
B-33	0.5	7/24/2014	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.54	26
	5	7/24/2014	<0.01	0.016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.55	22
	12	7/24/2014	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.52	13
B-34	0.5	7/24/2014	<0.01	0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.51	26
	5	7/24/2014	<0.01	0.043	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.57	27
	12	7/24/2014	<0.01	0.015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.63	10
	13	7/24/2014	<0.01	0.011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	2.8	160
	16	7/24/2014	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.59	33
B-35	0.5	7/24/2014	<0.01	0.018	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.51	22
	5	7/24/2014	<0.01	0.041	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.53	29
	12	7/24/2014	<0.01	0.027	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.60	10
	0.5	7/24/2014	<0.01	0.029	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.53	29
	5	7/24/2014	<0.01	0.038	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.53	29
B-36	12	7/24/2014	0.013	0.330	<0.01	0.015	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.51	9.4
	13	7/24/2014	0.013	0.470	<0.01	0.019	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.55	21
	16	7/24/2014	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.57	150
	18																									

Table 2
Summary of Soil Analytical Results (in mg/kg)
Remedial Investigation Report
Former Northwest Plating
825 South Dakota Street and 812 and 820 South Adams Street, Seattle, Washington

Sample Identification	Sample Depth (Feet)	Date Collected	Detected Volatile Organic Compounds ^a																				Requested Metals			
			Tetrachloro-ethene (PCE)	Trichloro-ethene (TCE)	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Chloroform	4-Methyl-2-Pentanone	Toluene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Ethylbenzene	Total Xylenes	Styrene	Isopropylbenzene	n-Butylbenzene	1,3,5-Trimethylbenzene	tert-Butylbenzene	1,2,4-Trimethylbenzene	s-Butylbenzene	P-Isopropyltoluene	Naphthalene	Chromium (VI) ^b	Chromium ^c
B-52	0.5	3/2/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	29
	5	3/2/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	29
	8	3/2/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	25
	12	3/2/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	8.6
	0.5	3/2/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	27
B-53	0.5 (duplicate)	3/2/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	46
	5	3/2/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	28
	8	3/2/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	28
	11	3/2/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	49
	14	3/2/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	9.6
B-54	18	3/2/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	76
	0.5	3/3/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	29
	5	3/3/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	26
	8	3/3/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	21
	8 (duplicate)	3/3/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	29
B-55	12	3/3/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	15
	0.5	3/3/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	32
	5	3/3/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	34
	8	3/3/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	28
	12	3/3/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	8.1
B-56	0.5	3/9/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	33
	4	3/9/2015	<0.010	20	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	29
	9	3/9/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	8.8
	0.5	3/9/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	21
	3	3/9/2015	<0.010	0.30	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	34
B-57	6	3/9/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	7.9
	9	3/9/2015	<0.010	0.032	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	13
	15	3/9/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	16
	18	3/9/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	35
	0.5	3/9/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	34
B-58	5	3/9/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	8.2
	9	3/9/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	8.1
	9 (duplicate)	3/9/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	10
	0.5	3/9/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	17
	5	3/9/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	9.6
B-59	9	3/9/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	8.2
	0.5	3/9/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	4.8
	4	3/9/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	40
	8	3/9/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	8.3
	12	3/9/2015	<0.010																							

Table 2
Summary of Soil Analytical Results (in mg/kg)
Remedial Investigation Report
Former Northwest Plating
825 South Dakota Street and 812 and 820 South Adams Street, Seattle, Washington

Sample Identification	Sample Depth (Feet)	Date Collected	Detected Volatile Organic Compounds ^a																				Requested Metals			
			Tetrachloro-ethene (PCE)	Trichloro-ethene (TCE)	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Chloroform	4-Methyl-2-Pentanone	Toluene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Ethylbenzene	Total Xylenes	Styrene	Isopropylbenzene	n-Butylbenzene	1,3,5-Trimethylbenzene	tert-Butylbenzene	1,2,4-Trimethylbenzene	s-Butylbenzene	P-Isopropyltoluene	Naphthalene	Chromium (VI) ^b	Chromium ^c
MW-7ir	40	11/23/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	-	<0.010	<0.010	-	-	-	-	-	-	-	-	-	-	-	<5.0	56
	45	11/23/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	-	<0.010	<0.010	-	-	-	-	-	-	-	-	-	-	-	-	-
	50	11/23/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	-	<0.010	<0.010	-	-	-	-	-	-	-	-	-	-	-	-	-
	55	11/23/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	-	<0.010	<0.010	-	-	-	-	-	-	-	-	-	-	-	-	-
	60	11/23/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	-	<0.010	<0.010	-	-	-	-	-	-	-	-	-	-	-	-	-
	70	11/23/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	-	<0.010	<0.010	-	-	-	-	-	-	-	-	-	-	-	-	-
	80	11/23/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	-	<0.010	<0.010	-	-	-	-	-	-	-	-	-	-	-	-	-
	90	11/23/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	-	<0.010	<0.010	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-15i	8	6/2/2015	3.1	51	<0.010	0.73	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	40
	13	6/2/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	19
MW-15d	40	11/19/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	-	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	53
	45	11/19/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	-	<0.010	<0.010	-	-	-	-	-	-	-	-	-	-	-	<5.0	46
	50	11/19/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	-	<0.010	<0.010	-	-	-	-	-	-	-	-	-	-	-	<5.0	54
	55	11/19/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	-	<0.010	<0.010	-	-	-	-	-	-	-	-	-	-	-	<5.0	85
	60	11/19/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	-	<0.010	<0.010	-	-	-	-	-	-	-	-	-	-	-	<5.0	72
	70	11/19/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	-	<0.010	<0.010	-	-	-	-	-	-	-	-	-	-	-	<5.0	72
	80	11/20/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	-	<0.010	<0.010	-	-	-	-	-	-	-	-	-	-	-	<5.0	90
	90	11/20/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	-	<0.010	<0.010	-	-	-	-	-	-	-	-	-	-	-	<5.0	54
MW-20 (MW-20s)	1	7/25/2014	<0.01	0.033	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.50	25
	5	7/25/2014	<0.01	0.038	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.51	24
	11.5	7/25/2014	<0.01	0.044	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.51	9.5
MW-24s	0.5	4/30/2015	<0.010	1.2	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	250
	5	4/30/2015	<0.010	1.0	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	140
	8	4/30/2015	<0.010	0.015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	13
MW-25s	13	5/26/2015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	8.3
MW-29s	6	6/2/2015	<0.010	0.023	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<5.0	10
Site-Specific Soil RELs Developed for the Soil-Groundwater-Indoor Air Pathway ^d			4.4	0.2	9.3	880	NVE	0.2	NVE	NVE	NVE	390	NVE	NVE	NVE	NVE	NVE	NVE	NVE	NVE	NVE	NVE	NVE	NVE	3,610 ^e	188,038 ^e
MTCA Method C Soil Cleanup Level for Soil			1.0 ^e	0.05 ^e	1,600 ^f	7,000 ^f	175,000 ^f	0.04 ^e	4,230 ^f	280,000 ^f	280,000 ^f	89 ^e	2,300 ^f	350,000 ^f	700,000 ^f	700,000 ^f	350,000 ^f	NVE	35,000 ^f	NVE	NVE	NVE	NVE	70,000 ^f	10,500 ^f	5,520,000 ^f

Notes:

All results are presented in milligrams/kilogram (mg/kg).

Bold Bold results indicate that analyte is detected at a concentration greater than the laboratory reporting limit.

Shading Shading indicates that analyte is detected at a concentration greater than the remediation level.

< Indicates that the analyte is not detected at a concentration greater than the laboratory reporting limit.

-- Sample was not analyzed for this compound.

REL Remediation level.

NVE No cleanup value has been established for this compound.

CUL Cleanup level.

^a Analyzed by EPA Method 8260.

^b Analyzed by EPA Method 7196.

^c Analyzed by EPA Method 6020. Chromium III MTCA Soil Cleanup Levels used.

^d Site-Specific Groundwater RELs Developed for the Soil-Groundwater-Indoor Air Pathway for a construction worker reasonable maximum exposure (RME) scenario.

^e MTCA Method C CULs Developed for the Soil-Groundwater-Indoor Air Pathway for a construction worker RME scenario.

^f MTCA Method C Soil Cleanup Levels for Direct Contact (from Cleanup Levels and Risk Calculations [CLARC] spreadsheet). Where cleanup levels based on carcinogenic and non-carcinogenic risk were available, the lower value is listed.

<div>Table 4</div> <div>Summary of Reconnaissance Groundwater Sample Analytical Results (in µg/L)</div> <div>Remedial Investigation Report</div> <div>Former Northwest Plating</div> <div>825 South Dakota Street and 812 and 820 South Adams Street, Seattle, Washington</div>										
Sample Identification	Date Collected	Detected Volatile Organic Compounds ^a							Requested Metals	
		Tetrachloro-ethene (PCE) ^a	Trichloro-ethene (TCE) ^a	trans-1,2-Dichloro-ethene ^a	cis-1,2-Dichloro-ethene ^a	1,1-Dichloro-ethene ^b	Vinyl Chloride ^a	1,1,1-Trichloro-ethane ^a	Chromium (VI) ^b	Chromium ^c
B-1:RGW	3/18/2014	15	590	2.4	160	<2.0	<0.20	<2.0	<10	47
B-2:RGW	3/17/2014	9.1	510	2.5	140	<2.0	<0.20	<2.0	<10	160
B-3:RGW	3/18/2014	5.1	500	4.7	280	<2.0	<0.20	<2.0	<10	46
B-4:RGW	3/17/2014	2.9	150	<2.0	17	<2.0	<0.20	<2.0	1,600	1,600
B-5:RGW	3/18/2014	3.9	290	<2.0	58	<2.0	<0.20	<2.0	<10	62
B-7:RGW	3/17/2014	3.8	760	5.9	280	<2.0	<0.20	<2.0	<10	280
B-8:RGW	3/17/2014	<2.0	58	<2.0	15	<2.0	<0.20	<2.0	120	370
B-9:RGW	3/17/2014	<2.0	79	<2.0	16	<2.0	<0.20	<2.0	<10	1,200
B-10:RGW	3/17/2014	<2.0	36	<2.0	8.4	<2.0	<0.20	<2.0	<10	1,300
B-11:RGW	3/17/2014	<2.0	72	<2.0	18	<2.0	<0.20	<2.0	<10	930
B-12:RGW	3/18/2014	<2.0	9.6	<2.0	2.8	<2.0	<0.20	<2.0	70,000	57,000
B-13:RGW	3/18/2014	<2.0	66	<2.0	4.6	<2.0	<0.20	<2.0	<10	520
B-14:RGW	3/18/2014	<2.0	6.1	<2.0	<2.0	<2.0	<0.20	<2.0	570	480
B-15:RGW	3/18/2014	<2.0	14	<2.0	<2.0	<2.0	<0.20	<2.0	<10	73
B-16:RGW	3/18/2014	<2.0	7.2	<2.0	<2.0	<2.0	<0.20	<2.0	13	100
B-17:RGW	3/20/2014	<2.0	2.7	<2.0	<2.0	<2.0	<0.20	<2.0	17	1,100
B-18:RGW	3/20/2014	<2.0	7.0	<2.0	<2.0	<2.0	<0.20	<2.0	<10	1,200
B-19:RGW	3/19/2014	<2.0	88	<2.0	<2.0	<2.0	<0.20	<2.0	<10	170
B-20:RGW	3/19/2014	<2.0	6.6	<2.0	<2.0	<2.0	<0.20	<2.0	<10	72
B-21:RGW	3/19/2014	<2.0	34	<2.0	<2.0	<2.0	<0.20	<2.0	<10	150
B-22:RGW	3/20/2014	<2.0	43	<2.0	<2.0	<2.0	<0.20	<2.0	<10	86
B-23:RGW	3/19/2014	42	1,000	<2.0	52	<2.0	<0.20	<2.0	<10	530
B-24:RGW	3/19/2014	3.7	160	<2.0	10	<2.0	<0.20	<2.0	<10	310
B-25:RGW	3/19/2014	23	2,700	<2.0	32	<2.0	<0.20	2.1	<10	210
B-26:RGW	3/20/2014	8.0	1,400	4.7	210	<2.0	<0.20	<2.0	<10	870
B-27:RGW	3/20/2014	15	1,700	2.7	280	<2.0	<0.20	<2.0	<10	1,500
B-28:RGW	3/20/2014	15	1,700	3.3	130	<2.0	<0.20	<2.0	<10	160
B-29:RGW	3/20/2014	4.9	590	3.0	100	<2.0	<0.20	<2.0	<10	860
B-30:RGW	3/20/2014	13	1,300	3.0	250	<2.0	<0.20	<2.0	<10	200
B-31:RGW	3/20/2014	28	950	3.4	200	<2.0	<0.20	<2.0	<10	1,300
B-32:RGW	3/20/2014	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<10	190
B-32W-S (Perine)	7/24/2014	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	10
B-32W-D (Perine)	7/24/2014	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	10
B-33W-S	7/24/2014	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	7.7
B-34W-S	7/24/2014	<2.0	5.7	<2.0	<2.0	<2.0	<2.0	<2.0	<10	8.9
B-34W-D	7/24/2014	<2.0	2.3	<2.0	<2.0	<2.0	<2.0	<2.0	<10	180
B-35W-S	7/24/2014	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	15
B-36W-S	7/24/2014	<2.0	120	<2.0	6.5	<2.0	<2.0	<2.0	<10	32
B-36W-D	7/24/2014	<2.0	77	<2.0	6.0	<2.0	<2.0	<2.0	<10	23
B-37W	7/29/2014	2.5	360	3.0	34	<2.0	<2.0	<2.0	<10	190
B-38W-S	7/28/2014	6.3	370	<2.0	16	<2.0	<2.0	<2.0	<10	550
B-38W-D	7/29/2014	<2.0	48	<2.0	5.4	<2.0	<2.0	<2.0	<10	760
B-40W	7/29/2014	<2.0	120	<2.0	2.3	<2.0	<2.0	<2.0	<10	1,900
B-41W	7/29/2014	<2.0	40	<2.0	<2.0	<2.0	<2.0	<2.0	<10	28
B-42W	7/29/2014	<2.0	18	<2.0	<2.0	<2.0	<2.0	<2.0	<10	29
B-43W	7/25/2014	<2.0	140	<2.0	2.5	<2.0	<2.0	<2.0	<10	49
B-44W-S	7/25/2014	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	92
B-44W-D	7/25/2014	<2.0	4.9	<2.0	<2.0	<2.0	<2.0	<2.0	<10	140
B-45W	7/25/2014	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	210
B-46W-S	7/28/2014	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	120
B-46W-D	7/28/2014	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	46
B-47W	7/28/2014	<2.0	10	<2.0	<2.0	<2.0	<2.0	<2.0	<10	50
B-48:RGW	3/2/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	50
B-49:RGW	3/2/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	20
B-50:RGW	3/2/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	13
B-51:RGW	3/3/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	57
B-52:RGW	3/2/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	120
B-53:RGW	3/2/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	3.5
B-54:RGW	3/3/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	18
B-55:RGW	3/3/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	3.8
B-56:RGW	3/9/2015	<2.0	20	<2.0	<2.0	<2.0	<2.0	<2.0	<10	17
B-57:RGW	3/9/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	21
B-58:RGW	3/9/2015	<2.0	3.5	<2.0	<2.0	<2.0	<2.0	<2.0	<10	34
B-59:RGW	3/9/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	15
B-60:RGW	3/9/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	110
B-61:RGW	3/9/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10	7.8
B-62:RGW	3/4/2015	4.9	420	4.7	54	<0.20	<0.20	<2.0	<10	73
B-65:RGW	3/4/2015	<2.0	12	<2.0	<2.0	<0.20	<0.20	<2.0	1,200	1,100
B-66:RGW	3/4/2015	<2.0	<2.0	<2.0	<2.0	<0.20	<0.20	<2.0	<10	18
B-67:RGW	3/4/2015	<2.0	<2.0	<2.0	<2.0	<0.20	<0.20	<2.0	<10	380
B-67:RGW (duplicate)	3/4/2015	<2.0	<2.0	<2.0	<2.0	<0.20	<0.20	<2.0	65	310
B-68:RGW	3/4/2015	<2.0	2.3	<2.0	<2.0	<0.20	<0.20	<2.0	<10	41
B-69:RGW	3/4/2015	<2.0	5.6	<2.0	<2.0	<0.20	<0.20	<2.0	<10	84
B70:RGW	5/26/2015	<2.0	<0.40	<2.0	<2.0	<0.20	<0.20	<2.0	<10	66


Table 4
Summary of Reconnaissance Groundwater Sample Analytical Results (in µg/L)
Remedial Investigation Report
Former Northwest Plating
825 South Dakota Street and 812 and 820 South Adams Street, Seattle, Washington

Sample Identification	Date Collected	Detected Volatile Organic Compounds ^a							Requested Metals	
		Tetrachloro-ethene (PCE) ^a	Trichloro-ethene (TCE) ^a	trans-1,2-Dichloro-ethene ^a	cis-1,2-Dichloro-ethene ^a	1,1-Dichloro-ethene ^b	Vinyl Chloride ^a	1,1,1-Trichloro-ethane ^a	Chromium (VI) ^b	Chromium ^c
SBB-1:RGW	3/9/2015	<2.0	<2.0	<2.0	<2.0	<0.20	<0.20	<2.0	<10	4.3
Site-Specific Groundwater RELs Developed for the Groundwater-Indoor Air Pathway ^d		440	37	NVE	NVE	NVE	30	52,340	NVE	NVE
Site-Specific Groundwater CULs Developed for the Groundwater-Indoor Air Pathway ^e		101	8.4	NVE	NVE	NVE	6.8	11,930	NVE	NVE
Groundwater CULs Adopted from ODEQ ^f		5,600	3,000	1,800	180,000	44,000	960	1,100,000	9,400	NVE

Notes:

All samples were analyzed by EPA Method 8260 and results are presented in micrograms/liter (µg/L).

Bold Bold results indicate that analyte is detected at a concentration greater than the laboratory reporting limit.

 Shading indicates that analyte is detected at a concentration greater than the Site-specific remediation level.

< Indicates that the analyte is not detected at a concentration greater than the laboratory reporting limit.

-- Sample was not analyzed for this compound.

REL Remediation level.

NVE No cleanup value has been established for this compound.

NR Not researched.

CUL Cleanup level.

a Analyzed by EPA Method 8260.

b Analyzed by EPA Method 7196.

c Analyzed by EPA Method 200.8.

d Site-Specific Groundwater RELs Developed for the Groundwater-Indoor Air Pathway for a construction worker reasonable maximum exposure (RME) scenario.

e Site-Specific Groundwater CULs Developed for the MTCA Method C Groundwater-Indoor Air CUL.

f Oregon Department of Environmental Quality (ODEQ) Risk-Based Cleanup Levels for direct contact with groundwater in an excavation for a construction worker (<http://www.deq.state.or.us/lq/pubs/docs/RBDMTable.pdf>).

Qualifiers:

J Laboratory estimated concentration

<div>Table 5</div> <div>Summary of Groundwater Analytical Results for Volatile Organic Compounds (in µg/L)</div> <div>Remedial Investigation Report</div> <div>Former Northwest Plating</div> <div>825 South Dakota Street and 812 and 820 South Adams Street, Seattle, Washington</div>										
Sample Identification	Date Collected	Tetrachloro-ethene (PCE) ^a	Trichloroethene (TCE) ^a	trans-1,2-Dichloro-ethene ^a	cis-1,2-Dichloro-ethene ^a	1,1-Dichloro-ethene ^b	Vinyl Chloride ^a	1,1,1-Trichloro-ethane ^a	1,1,2-Trichloro-ethane ^b	Chloroform ^a
MW-1 (MW-1s)	3/23/1989	86	9,500	4.1	390	<2.0	<5.0	12	<2.0	3.5
	9/21/1989	<100	6,900	<100	210	<100	<250	<100	<100	<100
	4/27/1999	36	4,100	5.0	140	--	2	4.3	--	1.6
	9/22/2014	4	230	5.4	<100	<2.0	8.5	<2.0	<2.0	<2.0
	6/9/2015	5.2	420	5.9	110	<2.0	12	<2.0	<2.0	<2.0
	9/16/2015	4.7	240	3.9	57	<2.0	25	<2.0	<2.0	<2.0
	12/4/2015	22	890	3.6	200	<2.0	4	<2.0	<2.0	<2.0
	3/16/2016	22	910	2.8	190	<2.0	0.77	<2.0	<2.0	<2.0
MW-1i	11/5/2013	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	11/5/13 Dup-1	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	8/26/2014	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	6/9/2015	<2.0	<0.40	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	6/9/15 Dup-3	<2.0	<0.40	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/15/2015	<2.0	2.9	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/15/15 Dup-1	<2.0	2.6	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/3/2015	<2.0	2.2	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
MW-2	3/15/2016	<2.0	2.9	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/23/1989	0.5	170	0.5	7.6	<0.2	<0.5	0.5	<0.2	0.4
	9/21/1989	<0.2	50	<0.2	6.4	<0.2	<0.5	<0.2	<0.2	3.4
	4/27/1999	<1.0	19	<1.0	4	--	<1.0	<1.0	--	<1.0
	11/5/2013	<2.0	7.0	<2.0	4.6	<2.0	<0.20	<2.0	<2.0	<2.0
	8/27/2014	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	6/9/2015	<2.0	0.62	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/16/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
MW-3	12/2/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/16/2016	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/16/2016 - DUP-2	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/23/1989	130	8,300	11	2,700	3.0	7.5	8.2	2.8	2.0
	9/22/1989	<100	5,400	<100	1,600	<100	<250	<100	<100	<100
	4/28/1999	15.0	1,000	<10	780	--	<10	<10	--	<10
	11/5/2013	6.6	200	<2.0	170	2.4	15	<2.0	<2.0	<2.0
	11/6/2013	--	--	<2.0	--	--	--	--	--	--
MW-4	8/26/2014	3.3	130	<2.0	150	<2.0	7.4	<2.0	<2.0	<2.0
	6/8/2015	<2.0	81	<2.0	93	<2.0	2.7	<2.0	<2.0	<2.0
	9/15/2015	5.4	280	3.8	420	9.2	44	<2.0	<2.0	<2.0
	12/3/2015	8.8	290	2	160	<2.0	5.7	<2.0	<2.0	<2.0
	3/15/2016	23	440	2.7	150	<2.0	0.41	<2.0	<2.0	<2.0
	3/23/1989	0.3	94	<0.2	<0.2	<0.2	<0.5	1.0	<0.2	<0.2
	9/21/1989	<0.2	72	<0.2	<0.2	<0.2	<0.5	1.1	<0.2	<0.2
	4/27/1999	<1.0	8.5	<1.0	<1.0	--	<1.0	<1.0	--	<1.0
MW-4i	11/4/2013	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	8/27/2014	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	6/9/2015	<2.0	1.9	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/16/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/2/2015	<2.0	4.9	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/17/2016	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/17/2016 - DUP-3	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/4/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
MW-5	12/4/2015 DUP-4	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/17/2016	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/21/1989	<0.2	<0.2	--	<0.2	--	--	--	--	--
	4/27/1999	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	--	<1.0
	11/4/2013	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	8/27/2014	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	6/9/2015	<2.0	<0.40	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/16/2015	Not Sampled								
MW-5B	12/2/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/2/15 DUP-2	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/16/2016	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	8/27/2014	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	6/10/2015	<2.0	<0.40	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/16/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/2/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/16/2016	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
MW-05 (MW-05s)	3/17/2011	1.1	81	<1	1.2	--	<0.2	--	--	--
	8/27/2014	<2.0	110	<2.0	2.5	<2.0	<0.20	<2.0	<2.0	<2.0
	6/9/15	<2.0	61	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	6/9/15 Dup-2	<2.0	66	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	42172	<2.0	100	<2.0	3.2	<2.0	<0.20	<2.0	<2.0	<2.0
	12/2/15	4.2	240	<2.0	3.6	<2.0	<0.20	<2.0	<2.0	<2.0
MW-05i	3/17/2016	3.1	210	<2.0	3	<2.0	<0.20	<2.0	<2.0	<2.0
	6/9/15	<2.0	3.6	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/17/15	<2.0	4.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/2/15	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
MW-7s	3/17/2016	<2.0	67	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	6/9/2015	13	810	7.9	380	<2.0	1.1	<2.0	<2.0	<2.0
	9/15/2015	Not Sampled Dry								
	12/3/2015	<50	1,200	5.5	340	<2.0	<0.20	<2.0	<2.0	<2.0
MW-7i	3/16/2016	32	880	4.5	290	<2.0	0.74	<2.0	<2.0	<2.0
	11/4/2013	<2.0	<2.0	<2.0	5.3	<2.0	0.72	<2.0	<2.0	<2.0
	8/26/2014	<2.0	<2.0	<2.0	3.6	<2.0	0.38	<2.0	<2.0	<2.0
	6/10/2015	<2.0	<0.40	<2.0	3.4	<2.0	0.32	<2.0	<2.0	<2.0
MW-7ir	9/16/2015	<2.0	<2.0	<2.0	3.0	<2.0	0.28	<2.0	<2.0	<2.0
	12/3/2015	3.4	72	<2.0	27	<2.0	<0.20	<2.0	<2.0	<2.0
	3/16/2016	<2.0	5.5	<2.0	84	<2.0	28	<2.0	<2.0	<2.0
MW-7 (MW-7d)	9/21/1989	<0.2	6.6	--	<0.2	--	--	--	--	--
	4/27/1999	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	--	<1.0
	9/22/2014	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	6/10/2015	<2.0	0.50	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/16/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/4/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/18/2016	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0

<div>Table 5</div> <div>Summary of Groundwater Analytical Results for Volatile Organic Compounds (in µg/L)</div> <div>Remedial Investigation Report</div> <div>Former Northwest Plating</div> <div>825 South Dakota Street and 812 and 820 South Adams Street, Seattle, Washington</div>										
Sample Identification	Date Collected	Tetrachloro-ethene (PCE) ^a	Trichloroethene (TCE) ^a	trans-1,2-Dichloro-ethene ^a	cis-1,2-Dichloro-ethene ^a	1,1-Dichloro-ethene ^b	Vinyl Chloride ^a	1,1,1-Trichloro-ethane ^a	1,1,2-Trichloro-ethane ^b	Chloroform ^a
MW-07	3/17/2011	<1	<1	<1	<1	--	<0.2	--	--	--
	8/27/2014	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	6/9/15	<2.0	<0.40	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/17/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/2/15	<2.0	2.5	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/17/2016	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
MW-8s	6/8/2015	2.5	390	4.1	240	<2.0	4.5	<2.0	<2.0	<2.0
	9/16/2015	2.5	250	3.6	240	<2.0	6.8	<2.0	<2.0	<2.0
	12/2/2015	6.8	490	2.9	130	<2.0	5.6	<2.0	<2.0	<2.0
	3/16/2016	10	870	2.9	190	<2.0	2.2	<2.0	<2.0	<2.0
MW-8 (MW-8i)	9/21/1989	<0.2	13	--	3.7	--	--	--	--	--
	11/4/2013	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	<2.0	<2.0	<2.0
	8/26/2014	<2.0	<2.0	<2.0	<2.0	<2.0	1.1	<2.0	<2.0	<2.0
	6/8/2015	<2.0	0.80	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	6/8/15 Dup-1	<2.0	0.62	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/16/2015	<2.0	<2.0	<2.0	<2.0	<2.0	0.91	<2.0	<2.0	<2.0
	12/2/2015	<2.0	<2.0	<2.0	<2.0	<2.0	0.84	<2.0	<2.0	<2.0
	3/16/2016	<2.0	<2.0	<2.0	<2.0	<2.0	0.72	<2.0	<2.0	<2.0
MW-9	9/21/1989	<0.2	<0.2	--	<0.2	--	--	--	--	--
	11/4/2013	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	8/26/2014	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	6/8/2015	<2.0	<0.40	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/16/2015	<2.0	<2.0	<2.0	<2.0	<2.0	0.27	<2.0	<2.0	<2.0
	9/16/15 Dup-3	<2.0	<2.0	<2.0	<2.0	<2.0	0.29	<2.0	<2.0	<2.0
	12/1/2015	<2.0	<2.0	<2.0	<2.0	<2.0	0.27	<2.0	<2.0	<2.0
	3/16/2016	<2.0	<2.0	<2.0	<2.0	<2.0	0.41	<2.0	<2.0	<2.0
MW-10 (MW-10s)	9/21/1989	<1.0	<1.0	--	45	--	--	--	--	--
	11/4/2013	<2.0	<2.0	<2.0	<2.0	<2.0	2.5	<2.0	<2.0	<2.0
	8/26/2014	<2.0	<2.0	<2.0	<2.0	<2.0	3.0	<2.0	<2.0	<2.0
	6/8/2015	<2.0	<0.40	<2.0	<2.0	<2.0	1.0	<2.0	<2.0	<2.0
	9/16/2015	<2.0	<2.0	<2.0	<2.0	<2.0	3.2	<2.0	<2.0	<2.0
	12/1/2015	<2.0	<2.0	<2.0	2.3	<2.0	3.6	<2.0	<2.0	<2.0
	3/16/2016	<2.0	<2.0	<2.0	<2.0	<2.0	4.2	<2.0	<2.0	<2.0
MW-10i	6/8/2015	<2.0	<0.40	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/16/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/1/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/16/2016	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
MW-11	9/21/1989	<100	4,300	--	670	--	--	--	--	--
	11/4/2013	2.6	89	<2.0	35	<2.0	<0.20	<2.0	<2.0	<2.0
	8/26/2014	<2.0	100	<2.0	45	<2.0	<0.20	<2.0	<2.0	<2.0
	6/8/2015	<2.0	54	<2.0	49	<2.0	<0.20	<2.0	<2.0	<2.0
	9/15/2015	<2.0	36	<2.0	25	<2.0	<0.20	<2.0	<2.0	<2.0
	12/1/2015	<2.0	90	<2.0	33	<2.0	<0.20	<2.0	<2.0	<2.0
	3/15/2016	2.6	100	<2.0	56	<2.0	0.22	<2.0	<2.0	<2.0
MW-12	9/21/1989	0.2	0.5	--	<0.2	--	--	--	--	--
	11/4/2013	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	8/26/2014	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	6/8/2015	<2.0	<0.40	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/16/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/16/15 Dup-2	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/1/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/15/2016	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
MW-13	10/11/1989	--	130	--	--	--	--	<8	--	--
MW-14	10/11/1989	--	580	--	--	--	--	<8	--	--
	11/5/2013	<2.0	3.2	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	11/5/2013 Dup-2	<2.0	3.8	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	8/28/2014	<2.0	4.1	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	6/10/2015	<2.0	7.8	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	6/10/15 Dup-4	<2.0	7.1	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/18/2015	<2.0	2.8	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/3/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
MW-15 (MW-15s)	3/17/2016	<2.0	19	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	10/11/1989	--	56,000	--	--	--	--	<150	--	--
	4/27/1999	9.1	2,600	3.7	180	--	<1.0	<1.0	--	1.0 J
	11/6/2013	8.2	820	6.8	230	<2.0	0.65	<2.0	<2.0	<2.0
	8/28/2014	8.0	1,600	4.8	490	<2.0	<0.20	2.1	<2.0	<2.0
	6/11/2015	12	2,100	4.7	530	<2.0	0.35	<2.0	<2.0	<2.0
	9/18/2015	10	1,700	5.4	460	<2.0	0.43	<2.0	<2.0	<2.0
	12/4/2015	<2.0	25	<2.0	89	<2.0	0.61	<2.0	<2.0	<2.0
	3/18/2016	4.4	670	2.5	<2.0	<2.0	0.22	<2.0	<2.0	<2.0
	6/11/2015	4.8	210	<2.0	7.1	<2.0	<0.20	<2.0	<2.0	<2.0
MW-15i	9/18/2015	3.1	130	<2.0	6.5	<2.0	<0.20	<2.0	<2.0	<2.0
	12/3/15	<2.0	9.3	<2.0	150	<2.0	0.52	<2.0	<2.0	<2.0
	3/18/2016	<2.0	2.6	<2.0	71	<2.0	27	<2.0	<2.0	<2.0
	3/18/2016 - DUP-4	<2.0	3.2	<2.0	36	<2.0	18	<2.0	<2.0	<2.0
MW-16	10/11/1989	--	9,600	--	--	--	--	20	--	--
	11/6/2013	<2.0	29	<2.0	14	<2.0	1.2	<2.0	<2.0	<2.0
	8/28/2014	<2.0	<2.0	<2.0	2.4	<2.0	<0.20	<2.0	<2.0	<2.0
	6/10/2015	<2.0	14	<2.0	6.4	<2.0	2.1	<2.0	<2.0	<2.0
	9/17/2015	<2.0	2.2	<2.0	3.7	<2.0	1.5	<2.0	<2.0	<2.0
	12/3/2015	<2.0	14	<2.0	9.7	<2.0	5.3	<2.0	<2.0	<2.0
	3/17/2016	<2.0	8.5	<2.0	3.4	<2.0	0.23	<2.0	<2.0	<2.0
MW-16PP*	8/28/2014	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
MW-17	10/11/1989	--	1,850	--	--	--	--	<8	--	--
	4/27/1999	<1.0	21.0	<1.0	11	--	<1.0	<1.0	--	<1.0
	11/4/2013	Not sampled, well inaccessible								

<div>Table 5</div> <div>Summary of Groundwater Analytical Results for Volatile Organic Compounds (in µg/L)</div> <div>Remedial Investigation Report</div> <div>Former Northwest Plating</div> <div>825 South Dakota Street and 812 and 820 South Adams Street, Seattle, Washington</div>										
Sample Identification	Date Collected	Tetrachloro-ethene (PCE) ^a	Trichloroethene (TCE) ^a	trans-1,2-Dichloro-ethene ^a	cis-1,2-Dichloro-ethene ^a	1,1-Dichloro-ethene ^b	Vinyl Chloride ^a	1,1,1-Trichloro-ethane ^a	1,1,2-Trichloro-ethane ^b	Chloroform ^a
MW-18	10/11/1989	--	260	--	--	--	--	<8	--	--
	11/4/2013	Not sampled, well inaccessible								
	8/27/2014	<2.0	53	<2.0	8.4	<2.0	<0.20	<2.0	<2.0	<2.0
	6/10/2015	<2.0	22	<2.0	5.7	<2.0	<0.20	<2.0	<2.0	<2.0
	9/18/2015	<2.0	38	<2.0	6.9	<2.0	<0.20	<2.0	<2.0	<2.0
	12/3/2015	<2.0	13	<2.0	2.9	<2.0	<0.20	<2.0	<2.0	<2.0
	3/17/2016	<2.0	24	<2.0	4.7	<2.0	<0.20	<2.0	<2.0	<2.0
MW-19	10/11/1989	--	53	--	--	--	--	<8	--	--
	11/4/2013	Not sampled, well inaccessible								
	8/27/2014	<2.0	190	<2.0	33	<2.0	<0.20	<2.0	<2.0	<2.0
	6/10/2015	<2.0	180	<2.0	22	<2.0	<0.20	<2.0	<2.0	<2.0
	9/18/2015	2.8	470	<2.0	40	<2.0	<0.20	<2.0	<2.0	<2.0
	12/4/2015	<2.0	180	<2.0	16	<2.0	<0.20	<2.0	<2.0	<2.0
	3/17/2016	<2.0	17	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
MW-20 (MW-20s)	8/27/2014	<2.0	16	<2.0	55	<2.0	<0.20	<2.0	<2.0	<2.0
	6/9/15	<2.0	54	<2.0	14	<2.0	<0.20	<2.0	<2.0	<2.0
	9/17/2015	2.3	160	<2.0	27	<2.0	<0.20	<2.0	<2.0	<2.0
	12/2/15	9.5	860	3.5	120	<2.0	<0.20	<2.0	<2.0	<2.0
	3/17/2016	16	890	<2.0	31	<2.0	<0.20	<2.0	<2.0	<2.0
MW-20i	6/9/15	<2.0	0.74	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/17/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/17/15 Dup-4	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/2/15	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/17/2016	<2.0	13	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
MW-21 (MW-21s)	8/27/2014	<2.0	24	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	6/9/15	<2.0	2.1	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/15/2015	<2.0	17	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/2/15	<2.0	12	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/15/2016	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
MW-21i	6/9/15	<2.0	<0.40	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/15/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/2/15	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/15/2016	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
MW-22s	6/9/15	<2.0	<0.40	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/15/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/2/15	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/15/2016	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
MW-22i	6/9/15	<2.0	<0.40	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/15/15	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/2/15	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/15/2016	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
MW-23s	6/9/15	<2.0	<0.40	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/17/15	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/2/15	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/17/2016	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
MW-23i	6/9/15	<2.0	<0.40	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/17/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/2/15	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/17/2016	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
MW-24s	6/9/2015	<2.0	38	2.9	24	<2.0	<0.20	<2.0	<2.0	<2.0
	6/15/2015	4.3	220	<2.0	23	<2.0	<0.20	<2.0	<2.0	<2.0
	12/3/2015	3.1	430	3	36	<2.0	<0.20	<2.0	<2.0	<2.0
	3/15/2016	3.1	180	4.2	45	<2.0	<0.20	<2.0	<2.0	<2.0
	3/15/2016 - DUP-1	2.5	140	4.7	50	<2.0	<0.20	<2.0	<2.0	<2.0
MW-24i	6/9/2015	<2.0	0.67	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/15/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/3/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/15/2016	<2.0	8.1	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
MW-24ir	12/3/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/15/2016	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
MW-25s	6/8/2015	<2.0	0.45	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/16/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/1/2015	<2.0	4.8	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/16/2016	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
MW-25i	6/8/2015	<2.0	<0.40	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/16/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/1/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/1/15 DUP 1	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/16/2016	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
MW-26s	6/8/2015	<2.0	9.5	<2.0	31	<2.0	0.94	<2.0	<2.0	<2.0
	9/15/2015	<2.0	8.0	<2.0	27	<2.0	0.67	<2.0	<2.0	<2.0
	12/1/2015	<2.0	6.3	<2.0	25	<2.0	<0.20	<2.0	<2.0	<2.0
	3/15/2016	<2.0	11	<2.0	26	<2.0	0.65	<2.0	<2.0	<2.0
MW-26i	6/8/2015	<2.0	<0.40	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/15/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/1/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/16/2016	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
MW-27s	6/8/2015	<2.0	<0.40	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	4.3
	9/15/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/1/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/16/2016	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
MW-28s	6/8/2015	<2.0	<0.40	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/15/2015	<2.0	<2.0	<2.0	<2.0	<2.0	0.31	<2.0	<2.0	<2.0
	12/1/2015	<2.0	<2.0	<2.0	<2.0	<2.0	0.35	<2.0	<2.0	<2.0
	3/15/2016	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
MW-29s	6/10/2015	<2.0	6.3	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/18/2015	<2.0	2.2	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/3/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/3/15 DUP-3	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/17/2016	<2.0	36	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
SBW-1	6/10/2015	<2.0	29	<2.0	15	<2.0	<0.20	<2.0	<2.0	<2.0
	9/17/2015	<2.0	55	<2.0	6.7	<2.0	<0.20	<2.0	<2.0	<2.0
	12/2/2015	<2.0	11	<2.0	10	<2.0	<0.20	<2.0	<2.0	<2.0
	3/15/2016	<2.0	15	<2.0	14	<2.0	<0.20	<2.0	<2.0	<2.0

Table 5
Summary of Groundwater Analytical Results for Volatile Organic Compounds (in µg/L)
Remedial Investigation Report
Former Northwest Plating
825 South Dakota Street and 812 and 820 South Adams Street, Seattle, Washington

Sample Identification	Date Collected	Tetrachloro-ethene (PCE) ^a	Trichloroethene (TCE) ^a	trans-1,2-Dichloro-ethene ^a	cis-1,2-Dichloro-ethene ^a	1,1-Dichloro-ethene ^b	Vinyl Chloride ^a	1,1,1-Trichloro-ethane ^a	1,1,2-Trichloro-ethane ^b	Chloroform ^a
SBW-2	6/10/2015	36	1,400	6.1	310	<2.0	0.23	<2.0	<2.0	<2.0
	9/17/2015	29	1,600	6.5	350	<2.0	<0.20	<2.0	<2.0	<2.0
	12/1/2015	30	1,900	6.5	510	<2.0	<0.20	<2.0	3.2	<2.0
	3/16/2016	37	1,000	4.2	390	<2.0	<0.20	<2.0	2.0	<2.0
SBW-3	6/8/2015	<2.0	70	<2.0	22	<2.0	<0.20	<2.0	<2.0	<2.0
	9/15/2015	<2.0	110	<2.0	25	<2.0	<0.20	<2.0	<2.0	<2.0
	12/1/2015	<2.0	96	<2.0	22	<2.0	<0.20	<2.0	<2.0	<2.0
	3/15/2016	2.0	100	<2.0	28	<2.0	<0.20	<2.0	<2.0	<2.0
SBW-4	6/8/2015	<2.0	0.47	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	9/15/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	12/1/2015	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
	3/15/2016	<2.0	<2.0	<2.0	<2.0	<2.0	<0.20	<2.0	<2.0	<2.0
Site-Specific Groundwater RELs Developed for the Groundwater-Indoor Air Pathway ^c		440	37	NVE	NVE	NVE	30	52,340	NVE	NVE
Site-Specific Groundwater CULs Developed for the Groundwater-Indoor Air Pathway ^d		101	8.4	NVE	NVE	NVE	6.8	11,930	NVE	NVE
Groundwater CULs Adopted from ODEQ ^e		5,600	3,000	1,800	180,000	44,000	960	1,100,000	49	720

Notes:

All samples were analyzed by EPA Method 8260 and results are presented in micrograms/liter (µg/L).

Bold Bold results indicate that analyte is detected at a concentration greater than the laboratory reporting limit.

Shading indicates that analyte is detected at a concentration greater than the Site-specific remediation level.

< Indicates that the analyte is not detected at a concentration greater than the laboratory reporting limit.

-- Sample was not analyzed for this compound.

REL Remediation level.

NVE No cleanup value has been established for this compound.

CUL Cleanup level.

* MW-16PP collected before low-flow purging.

a Samples collected in March 1989, September 1989 and October 1989 were analyzed by EPA Metthod 8010. Samples collected in April 1999 were analyzed by EPA Methold 8260.

b Samples collected in March 1989, September 1989 and October 1989 were analyzed by EPA Metthod 8010.

c Site-Specific Groundwater RELs Developed for the Groundwater-Indoor Air Pathway for a construction worker reasonable maximum exposure (RME) scenario.

d Site-Specific Groundwater CULs Developed for the MTCA Method C Groundwater-Indoor Air CUL.

e Oregon Department of Environmental Quality (ODEQ) Risk-Based Cleanup Levels for direct contact with groundwater in an excavation for a construction worker (<http://www.deq.state.or.us/lq/pubs/docs/RBDMTable.pdf>).

Qualifiers:

J Laboratory estimated concentration.

<div> <div>Table 6</div> <div>Summary of Groundwater Analytical Results for Metals and Cyanide (in µg/L)</div> <div>Remedial Investigation Report</div> <div>Former Northwest Plating</div> <div>825 South Dakota Street and 812 and 820 South Adams Street, Seattle, Washington</div> </div>										
Montitoring Well	Date Collected	Arsenic ^a	Cadmium ^b	Chromium (Hexavalent) ^c	Total Chromium ^d	Copper ^a	Lead ^a	Nickel ^e	Zinc ^f	Cyanide ^g
MW-1 (MW-1s)	3/23/1989	<5	170	<25	30	100	<5	90	130	2,700
	9/21/1989	--	500	<10	20	--	--	80	700	1,400
	4/27/1999	--	373	<10	14	--	--	--	583	25
	9/22/2014	--	--	<10	6.0	--	--	--	--	<50
	6/9/15	--	--	<10	12	--	--	--	--	--
	9/16/2015	--	--	<10	9.0	--	--	--	--	--
	12/4/15	--	--	18	27	--	--	--	--	--
	3/16/2016	--	--	16	28	--	--	--	--	--
MW-1i	11/5/2013	--	--	<10	<2.0	--	--	--	--	--
	11/5/2013 Dup-1	--	--	<10	<2.0	--	--	--	--	<50
	8/26/2014	--	--	<10	<2.0	--	--	--	--	<50
	6/9/15	--	--	<10	4.6	--	--	--	--	--
	6/9/15 Dup-3	--	--	<10	<2.0	--	--	--	--	--
	9/15/2015	--	--	<10	<2.0	--	--	--	--	--
	9/15/15 Dup-1	--	--	<10	<2.0	--	--	--	--	--
	12/3/15	--	--	<10	11	--	--	--	--	--
MW-2	3/15/2016	--	--	<10	4.2	--	--	--	--	--
	3/23/1989	<5	160	110,000	180,000	60	<5	90	60	520
	9/21/1989	--	700	280,000	280,000	--	--	200	400	30
	4/27/1999	--	44	8,100	8,260	--	--	--	<4	<5
	11/5/2013	--	--	54	150	--	--	--	--	<50
	8/27/2014	--	--	<10	23	--	--	--	--	<50
	6/9/15	--	--	<10	36	--	--	--	--	--
	9/16/2015	--	--	<10	41	--	--	--	--	--
	12/2/15	--	--	<10	56	--	--	--	--	--
	3/16/2016	--	--	<10	95	--	--	--	--	--
	3/16/2016 - DUP-2	--	--	<10	81	--	--	--	--	--
MW-3	3/23/1989	<5	70	25,000	30,000	20	<5	2,400	80	110
	9/22/1989	--	8	20	50	--	--	60	<10	150
	4/27/1999	--	48	3,400	455	--	--	--	7	33
	11/5/2013	--	--	<10	--	--	--	--	--	--
	11/6/2013	--	--	--	390	--	--	--	--	<50
	8/26/2014	--	--	<10	--	--	--	--	--	--
	8/27/2014	--	--	--	57	--	--	--	--	<50
	6/8/2015	--	--	<10	--	--	--	--	--	--
	6/9/2015	--	--	<10	230	--	--	--	--	--
	9/15/2015	--	--	<10	340	--	--	--	--	--
	12/3/15	--	--	320	690	--	--	--	--	--
	3/15/2016	--	--	3000	3400	--	--	--	--	--
MW-4	3/23/1989	<5	5	300	430	<20	<5	<30	<10	30
	9/21/1989	--	<5	<10	<10	--	--	<10	<10	10
	4/27/1999	--	<2	<10	<5	--	--	--	<4	<5
	11/4/2013	--	--	<10	<2.0	--	--	--	--	<50
	8/27/2014	--	--	<10	<2.0	--	--	--	--	<50
	6/9/2015	--	--	<10	<2.0	--	--	--	--	--
	9/16/2015	--	--	<10	<2.0	--	--	--	--	--
	12/2/15	--	--	<10	<2.0	--	--	--	--	--
	42446	--	--	<10	2.2	--	--	--	--	--
	3/17/2016 - DUP-3	--	--	<10	2.0	--	--	--	--	--
	12/4/15	--	--	<10	<2.0	--	--	--	--	--
	12/4/15 DUP-4	--	--	<10	<2.0	--	--	--	--	--
MW-4i	3/17/2016	--	--	<10	<2.0	--	--	--	--	--
MW-5	9/21/1989	--	<5	<10	<10	--	--	<10	<10	<10
	4/27/1999	--	<2	<10	<5	--	--	--	<4	<5
	11/4/2013	--	--	<10	<2.0	--	--	--	--	<50
	8/27/2014	--	--	<10	10	--	--	--	--	<50
	6/9/2015	--	--	<10	2.6	--	--	--	--	--
	9/15/2015	Not Sampled								
	12/2/15	--	--	<10	<2.0	--	--	--	--	--
	12/2/15 DUP-2	--	--	<10	<2.0	--	--	--	--	--
MW-5B	3/16/2016	--	--	<10	6.2	--	--	--	--	<50
	8/27/2014	--	--	<10	<2.0	--	--	--	--	<50
	9/16/2015	--	--	<10	<2.0	--	--	--	--	--
	12/2/15	--	--	<10	<2.0	--	--	--	--	--
MW-05 (MW-05s)	3/16/2016	--	--	270	<2.0	--	--	--	--	--
	8/27/2014	--	--	<10	15	--	--	--	--	<50
	6/9/15	--	--	<10	8.4	--	--	--	--	--
	6/9/15 Dup-2	--	--	<10	8.4	--	--	--	--	--
	9/17/2015	1.7	2.2	<10	20	<2.0	<1.0	--	--	--
	12/2/15	--	--	38	36	--	--	--	--	--
MW-05i	3/17/16	--	--	<10	6.7	--	--	--	--	--
	6/9/15	--	--	<10	5.8	--	--	--	--	--
	9/17/2015	--	--	<10	2.6	--	--	--	--	--
	12/2/15	--	--	<10	3.5	--	--	--	--	--
MW-7s	3/17/2016	--	--	<10	<2.0	--	--	--	--	--
	6/9/2015	--	--	12	43	--	--	--	--	--
	9/15/2015	Not Sampled Dry								
	12/3/15	--	--	24	40	--	--	--	--	--
MW-7i	3/16/2016	--	--	15	39	--	--	--	--	--
	11/4/2013	--	--	<10	<2.0	--	--	--	--	<50
	8/26/2014	--	--	<10	<2.0	--	--	--	--	<50
	9/16/2015	--	--	<10	<2.0	--	--	--	--	--
MW-7i	12/3/15	--	--	<10	<2.0	--	--	--	--	--

<div>Table 6</div> <div>Summary of Groundwater Analytical Results for Metals and Cyanide (in µg/L)</div> <div>Remedial Investigation Report</div> <div>Former Northwest Plating</div> <div>825 South Dakota Street and 812 and 820 South Adams Street, Seattle, Washington</div>										
Montitoring Well	Date Collected	Arsenic ^a	Cadmium ^b	Chromium (Hexavalent) ^c	Total Chromium ^d	Copper ^a	Lead ^a	Nickel ^e	Zinc ^f	Cyanide ^g
MW-7IR	12/3/15	--	--	<10	<2.0	--	--	--	--	--
	3/16/2016	--	--	<10	<2.0	--	--	--	--	--
MW-7 (MW-7d)	9/21/1989	--	<5	<10	<10	--	--	<10	<10	<10
	4/27/1999	--	<2	<10	<5	--	--	--	<4	<5
	9/22/2014	--	--	<10	<2.0	--	--	--	--	<0.050
	9/16/2015	--	--	<10	<2.0	--	--	--	--	--
	12/4/15	--	--	<10	3.2	--	--	--	--	--
	3/18/2016	--	--	<10	<2.0	--	--	--	--	--
MW-07	8/27/2014	--	--	<10	<2.0	--	--	--	--	<50
	6/9/15	--	--	<10	<2.0	--	--	--	--	--
	9/17/2015	--	--	<10	<2.0	--	--	--	--	--
	12/2/15	--	--	<10	<2.0	--	--	--	--	--
	3/17/2016	--	--	<10	<2.0	--	--	--	--	--
MW-8s	6/8/2015	--	--	<10	17	--	--	--	--	--
	9/16/2015	--	--	<10	18	--	--	--	--	--
	12/2/15	--	--	<10	25	--	--	--	--	--
	3/16/2016	--	--	<10	21	--	--	--	--	--
MW-8 (MW-8i)	9/21/1989	--	<5	<10	20	--	--	30	50	30
	11/4/2013	--	--	<10	2.7	--	--	--	--	<50
	8/26/2014	--	--	<10	2.3	--	--	--	--	<50
	6/8/2015	--	--	<10	<2.0	--	--	--	--	--
	6/8/15 Dup-1	--	--	<10	3.3	--	--	--	--	--
	9/16/2015	--	--	<10	<2.0	--	--	--	--	--
	12/2/15	--	--	<10	<2.0	--	--	--	--	--
	3/16/2016	--	--	<10	2.5	--	--	--	--	--
MW-9	9/21/1989	--	10	<10	<10	--	--	10	30	<10
	11/4/2013	--	--	<10	15	--	--	--	--	<50
	8/26/2014	--	--	<10	<2.0	--	--	--	--	<50
	6/8/2015	--	--	<10	6.0	--	--	--	--	--
	9/16/2015	--	--	<10	6.7	--	--	--	--	--
	9/16/15 Dup-3	--	--	<10	6.4	--	--	--	--	--
	12/1/15	--	--	<10	9	--	--	--	--	--
	3/16/2016	--	--	<10	8.1	--	--	--	--	--
MW-10 (MW-10s)	9/21/1989	--	<5	<10	<10	--	--	<10	<10	<10
	11/4/2013	--	--	<10	8.9	--	--	--	--	<50
	8/26/2014	--	--	<10	3.8	--	--	--	--	260
	6/8/2015	--	--	<10	4.9	--	--	--	--	--
	9/16/2015	--	--	<10	9.8	--	--	--	--	--
	12/1/15	--	--	<10	8.6	--	--	--	--	--
	3/16/2016	--	--	<10	8.9	--	--	--	--	--
MW-10i	6/8/2015	--	--	<10	12	--	--	--	--	--
	9/16/2015	--	--	<10	8.8	--	--	--	--	--
	12/1/15	--	--	<10	18	--	--	--	--	--
	3/16/2016	--	--	<10	26	--	--	--	--	--
MW-11	9/21/1989	--	<5	2,500	2,600	--	--	90	<10	80
	11/4/2013	--	--	70	83	--	--	--	--	<50
	8/26/2014	--	--	59	65	--	--	--	--	<50
	6/8/2015	--	--	23	35	--	--	--	--	--
	9/15/2015	--	--	27	53	--	--	--	--	--
	12/1/15	--	--	51	58	--	--	--	--	--
	3/15/2016	--	--	57	56	--	--	--	--	--
MW-12	9/21/1989	--	<5	<10	<10	--	--	<10	<10	<10
	11/4/2013	--	--	<10	<2.0	--	--	--	--	<50
	8/26/2014	--	--	<10	<2.0	--	--	--	--	<50
	6/8/2015	--	--	<10	<2.0	--	--	--	--	--
	9/16/2015	--	--	<10	<2.0	--	--	--	--	--
	9/16/15 Dup-2	--	--	<10	<2.0	--	--	--	--	--
	12/1/15	--	--	<10	<2.0	--	--	--	--	--
	3/15/2016	--	--	<10	<2.0	--	--	--	--	--
MW-13	10/11/1989	--	20	17,000	17,000	--	--	50	200	2,100
MW-14	10/11/1989	--	1.2	230	240	--	--	<30	30	40
	11/5/2013	--	--	16	19	--	--	--	--	<50
	11/5/2013 Dup-2	--	--	17	21	--	--	--	--	<50
	8/28/2014	--	--	19	25	--	--	--	--	<50
	6/10/2015	--	--	55	52	--	--	--	--	<50
	6/10/2015 Dup-4	--	--	57	53	--	--	--	--	--
	9/18/2015	--	--	<10	25	--	--	--	--	--
	12/3/15	--	--	13	12	--	--	--	--	--
	3/17/2016	--	--	58	60	--	--	--	--	--
MW-15 (MW-15s)	10/11/1989	--	50	20	20	--	--	350	210	4,300
	4/27/1999	--	13	820	918	--	--	--	519	370
	11/6/2013	--	--	<10	28	--	--	--	--	<50
	8/28/2014	--	--	<10	73	--	--	--	--	--
	6/11/2015	--	--	<10	7.4	--	--	--	--	--
	9/18/2015	--	--	<10	25	--	--	--	--	--
	12/4/15	--	--	<10	12	--	--	--	--	--
	3/18/2016	--	--	<10	28	--	--	--	--	--
MW-15i	6/11/2015	--	--	<10	4.0	--	--	--	--	--
	9/18/2015	1.9	<1.0	<10	4.8	<2.0	<1.0	--	--	--
	12/3/15	--	--	<10	3.9	--	--	--	--	--
	3/18/2016	--	--	<10	8.5	--	--	--	--	--
	3/18/2016 - DUP-4	--	--	<10	6.7	--	--	--	--	--

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Montitoring Well	Date Collected	Arsenic ^a	Cadmium ^b	Chromium (Hexavalent) ^c	Total Chromium ^d	Copper ^a	Lead ^a	Nickel ^e	Zinc ^f	Cyanide ^g
MW-16	10/11/1989	--	34	<10	<20	--	--	100	50	10,000
	11/6/2013	--	--	<10	--	--	--	--	--	--
	6/10/2015	--	--	<10	29	--	--	--	--	--
	9/17/2015	--	--	<10	2.5	--	--	--	--	--
	12/3/15	--	--	<10	4.8	--	--	--	--	--
	3/17/2016	--	--	<10	2.8	--	--	--	--	--
MW-16PP*	8/28/2014	--	--	<10	2.8	--	--	--	--	<50
MW-17	10/11/1989	--	270	200,000	200,000	--	--	410	160	200
	4/27/1999	--	18	6,900	8,160	--	--	--	48	7
	11/4/2013	Not sampled, well inaccessible								
MW-18	10/11/1989	--	11,000	430,000	440,000	--	--	7,400	9,200	<100
	11/4/2013	Not sampled, well inaccessible								
	8/27/2014	--	--	580	860	--	--	--	--	<50
	6/10/2015	--	--	300	640	--	--	--	--	<50
	9/18/2015	--	--	620	1,500	--	--	--	--	--
	12/3/15	--	--	2,600	3,500	--	--	--	--	--
	3/17/2016	--	--	5,300	4,500	--	--	--	--	--
MW-19	10/11/1989	--	20	150	490	--	--	50	40	13,000
	11/4/2013	Not sampled, well inaccessible								
	8/27/2014	--	--	<10	1,500	--	--	--	--	0.26
	6/10/2015	--	--	<10	23	--	--	--	--	0.26
	9/18/2015	--	--	<10	41	--	--	--	--	--
	12/4/15	--	--	120	120	--	--	--	--	--
	3/17/2016	--	--	<10	1700	--	--	--	--	--
MW-20 (MW-20s)	8/27/2014	--	--	<10	7.0	--	--	--	--	<50
	6/9/15	--	--	<10	9.9	--	--	--	--	--
	9/17/2015	--	--	<10	8.6	--	--	--	--	--
	12/2/15	--	--	<10	34	--	--	--	--	--
	3/17/2016	--	--	<10	45	--	--	--	--	--
MW-20i	6/9/15	--	--	<10	2.2	--	--	--	--	--
	9/17/2015	--	--	<10	<2.0	--	--	--	--	--
	9/17/15 Dup-4	--	--	<10	<2.0	--	--	--	--	--
	12/2/15	--	--	<10	<2.0	--	--	--	--	--
	3/17/2016	--	--	<10	<2.0	--	--	--	--	--
MW-21 (MW-21s)	8/27/2014	--	--	<10	<2.0	--	--	--	--	<50
	6/9/15	--	--	<10	3.0	--	--	--	--	--
	9/15/2015	--	--	<10	<2.0	--	--	--	--	--
	12/2/15	--	--	<10	<2.0	--	--	--	--	--
	3/15/2016	--	--	<10	<2.0	--	--	--	--	--
MW-21i	6/9/15	--	--	<10	<2.0	--	--	--	--	--
	9/15/2015	--	--	<10	<2.0	--	--	--	--	--
	12/2/15	--	--	<10	<2.0	--	--	--	--	--
	3/15/2016	--	--	<10	<2.0	--	--	--	--	--
MW-22s	6/9/15	--	--	<10	<2.0	--	--	--	--	--
	9/15/2015	--	--	<10	<2.0	--	--	--	--	--
	12/2/15	--	--	<10	<2.0	--	--	--	--	--
	3/15/2016	--	--	<10	<2.0	--	--	--	--	--
MW-22i	6/9/15	--	--	<10	<2.0	--	--	--	--	--
	9/15/2015	--	--	<10	<2.0	--	--	--	--	--
	12/2/15	--	--	<10	<2.0	--	--	--	--	--
	3/15/2016	--	--	<10	<2.0	--	--	--	--	--
MW-23s	6/9/15	--	--	<10	4.1	--	--	--	--	--
	9/17/2015	Not Sampled Dry								
	12/2/15	--	--	<10	<2.0	--	--	--	--	--
	3/17/2016	--	--	<10	<2.0	--	--	--	--	--
MW-23i	6/9/15	--	--	<10	<2.0	--	--	--	--	--
	9/17/2015	--	--	<10	<2.0	--	--	--	--	--
	12/2/15	--	--	<10	<2.0	--	--	--	--	--
	3/17/2016	--	--	<10	<2.0	--	--	--	--	--
MW-24s	6/9/15	--	--	<10	7.3	--	--	--	--	--
	9/15/2015	--	--	<10	11	--	--	--	--	--
	12/3/15	--	--	<10	6.8	--	--	--	--	--
	3/15/2016	--	--	<10	9.9	--	--	--	--	--
	3/15/2016 - DUP-1	--	--	<10	12	--	--	--	--	--
MW-24i	6/9/15	--	--	<10	4.5	--	--	--	--	--
	9/15/2015	--	--	<10	2.2	--	--	--	--	--
	12/3/15	--	--	<10	<2.0	--	--	--	--	--
	3/15/2016	--	--	<10	<2.0	--	--	--	--	--
MW-24IR	12/3/15	--	--	<10	<2.0	--	--	--	--	--
	3/15/2016	--	--	<10	<2.0	--	--	--	--	--
MW-25s	6/8/15	--	--	<10	<2.0	--	--	--	--	--
	9/16/2015	--	--	<10	3.0	--	--	--	--	--
	12/1/15	--	--	<10	10	--	--	--	--	--
	12/1/15 Dup 1	--	--	<10	<2.0	--	--	--	--	--
	3/16/2016	--	--	<10	<2.0	--	--	--	--	--
MW-25i	6/8/15	--	--	<10	<2.0	--	--	--	--	--
	9/16/2015	--	--	<10	<2.0	--	--	--	--	--
	12/1/15	--	--	<10	<2.0	--	--	--	--	--
	3/16/2016	--	--	<10	<2.0	--	--	--	--	--
MW-26s	6/8/15	--	--	<10	9.2	--	--	--	--	--
	9/15/2015	<1.0	<1.0	<10	5.8	<1.0	<1.0	--	--	--
	12/1/15	--	--	<10	6.1	--	--	--	--	--
	3/15/2016	--	--	<10	25	--	--	--	--	--


Table 6
Summary of Groundwater Analytical Results for Metals and Cyanide (in µg/L)
Remedial Investigation Report
Former Northwest Plating
825 South Dakota Street and 812 and 820 South Adams Street, Seattle, Washington

Montitoring Well	Date Collected	Arsenic ^a	Cadmium ^b	Chromium (Hexavalent) ^c	Total Chromium ^d	Copper ^a	Lead ^a	Nickel ^e	Zinc ^f	Cyanide ^g
MW-26i	6/8/15	--	--	<10	4.9	--	--	--	--	--
	9/15/2015	--	--	<10	15	--	--	--	--	--
	12/1/15	--	--	<10	15	--	--	--	--	--
	3/16/2016	--	--	<10	17	--	--	--	--	--
MW-27s	6/8/15	--	--	<10	<2.0	--	--	--	--	--
	9/15/2015	--	--	<10	<2.0	--	--	--	--	--
	12/1/15	--	--	<10	<2.0	--	--	--	--	--
	3/16/2016	--	--	<10	6.5	--	--	--	--	--
MW-28s	6/8/15	--	--	<10	<2.0	--	--	--	--	--
	9/15/2015	--	--	<10	<2.0	--	--	--	--	--
	12/1/15	--	--	<10	<2.0	--	--	--	--	--
	3/15/2016	--	--	<10	2.8	--	--	--	--	--
MW-29s	6/8/2015	--	--	<10	7.1	--	--	--	--	--
	9/18/2015	--	--	<10	18	--	--	--	--	--
	12/3/15	--	--	<10	6.6	--	--	--	--	--
	12/3/15 DUP-3	--	--	<10	8.6	--	--	--	--	--
	3/17/2016	--	--	<10	6.6	--	--	--	--	--
SBW-1	6/8/15	--	--	<10	<2.0	--	--	--	--	--
	9/17/2015	--	--	<10	<2.0	--	--	--	--	--
	12/2/15	--	--	<10	2.7	--	--	--	--	--
	3/15/2016	--	--	<10	<2.0	--	--	--	--	--
SBW-2	6/8/15	--	--	50	60	--	--	--	--	--
	9/17/2015	--	--	35	45	--	--	--	--	--
	12/1/15	--	--	180	180	--	--	--	--	--
	3/16/2016	--	--	<10	250	--	--	--	--	--
SBW-3	6/8/15	--	--	46	100	--	--	--	--	--
	9/15/2015	--	--	190	180	--	--	--	--	--
	12/1/15	--	--	150	140	--	--	--	--	--
	3/15/2016	--	--	170	150	--	--	--	--	--
SBW-4	6/8/15	--	--	<10	14	--	--	--	--	--
	9/15/2015	--	--	13	12	--	--	--	--	--
	12/1/15	--	--	<10	8.6	--	--	--	--	--
	3/15/2016	--	--	12	12	--	--	--	--	--
Groundwater CULs Adopted from ODEQ ^h		6,300	130,000	9,400	NVE	81,000	NVE	1.34E+07	NVE	81,000

Notes:

All results in micrograms/liter (µg/L).

Bold Bold results indicate that analyte is detected at a concentration greater than the laboratory reporting limit.

 Shading indicates that analyte is detected at a concentration greater than the Site-specific remediation level.

< Indicates that the analyte is not detected at a concentration greater than the laboratory reporting limit.

-- Sample was not analyzed for this compound.

CUL Cleanup level.

NVE No cleanup value has been established for this compound.

* MW-16PP collected before low-flow purging.

a Method of analysis of arsenic, copper, and lead is unknown for samples dated 03/23/1989.

b Samples collected on 3/23/89, 9/21/89 and 4/27/99 were analyzed for cadmium by EPA Metthod 6010. Samples collected on 10/11/89 were analyzed by EPA Methods 7130 and 7131.

c All samples analyzed for hexavalent chromium by EPA Metthod 7196 for all dates except 4/27/99, when Method SM3500Cr-D was used.

d Samples collected on 8/26/14 were analyzed for total chromium by EPA Method 200.8. Samples collected on all other dates were analyzed for total chromium by EPA Metthod 6010.

e Samples collected on 3/23/89 and 9/21/89 were analyzed for nickel by EPA Metthod 6010. Samples collected on 10/11/89 were analyzed by EPA Method 7520.

f Samples collected on 3/23/89, 9/21/89 and 4/27/99 were analyzed for zinc by EPA Metthod 6010. Samples collected on 10/11/89 were analyzed by EPA Method 7950.

g Samples collected on 3/23/89, 9/21/89 and 10/11/89 were analyzed for cyanide by EPA Metthod 9012. Samples collected on 4/27/99 were analyzed by EPA Method 335.2.

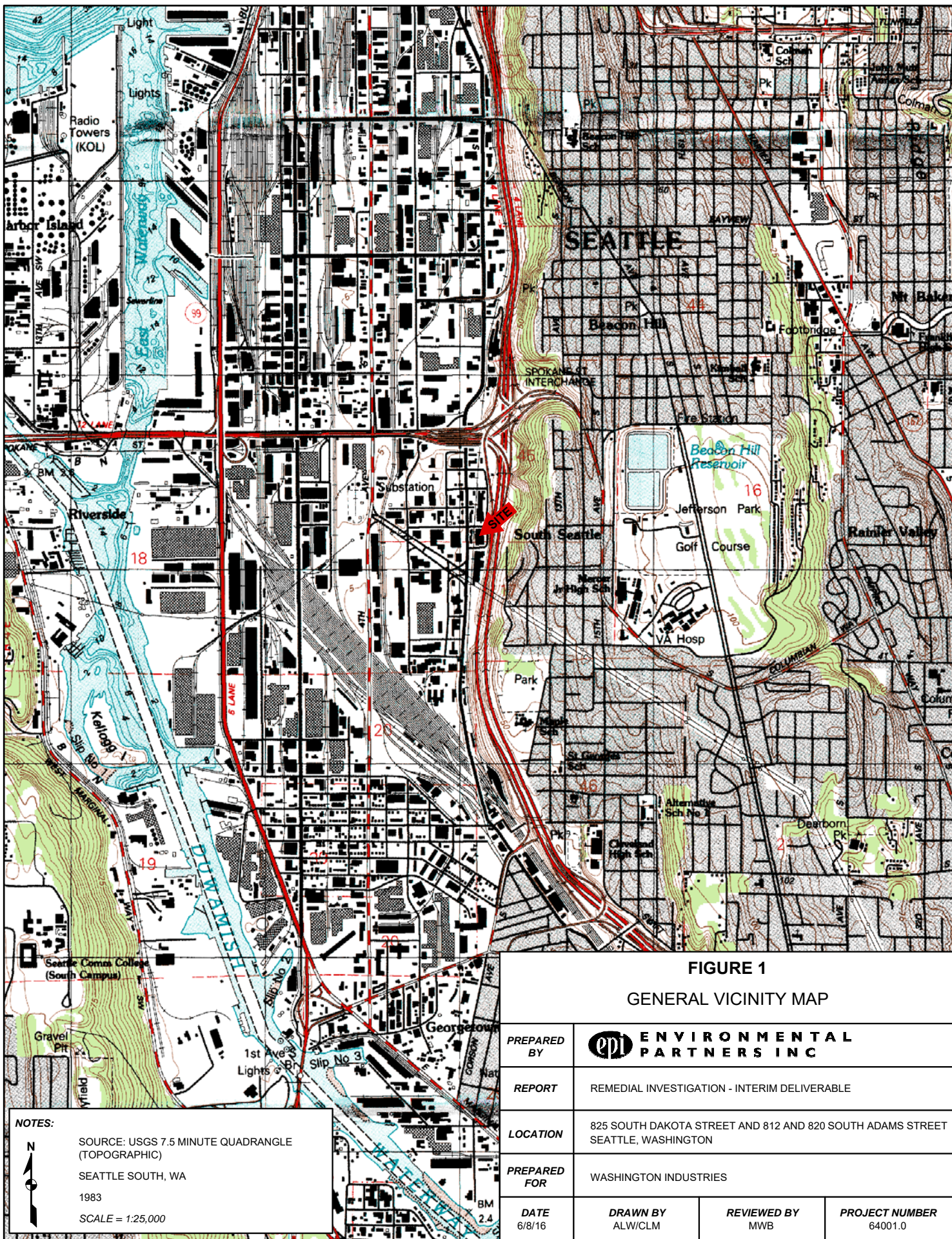
h Oregon Department of Environmental Quality (ODEQ) Risk-Based Cleanup Levels for direct contact with groundwater in an excavation for a construction worker (<http://www.deq.state.or.us/lq/pubs/docs/RBDMTable.pdf>).

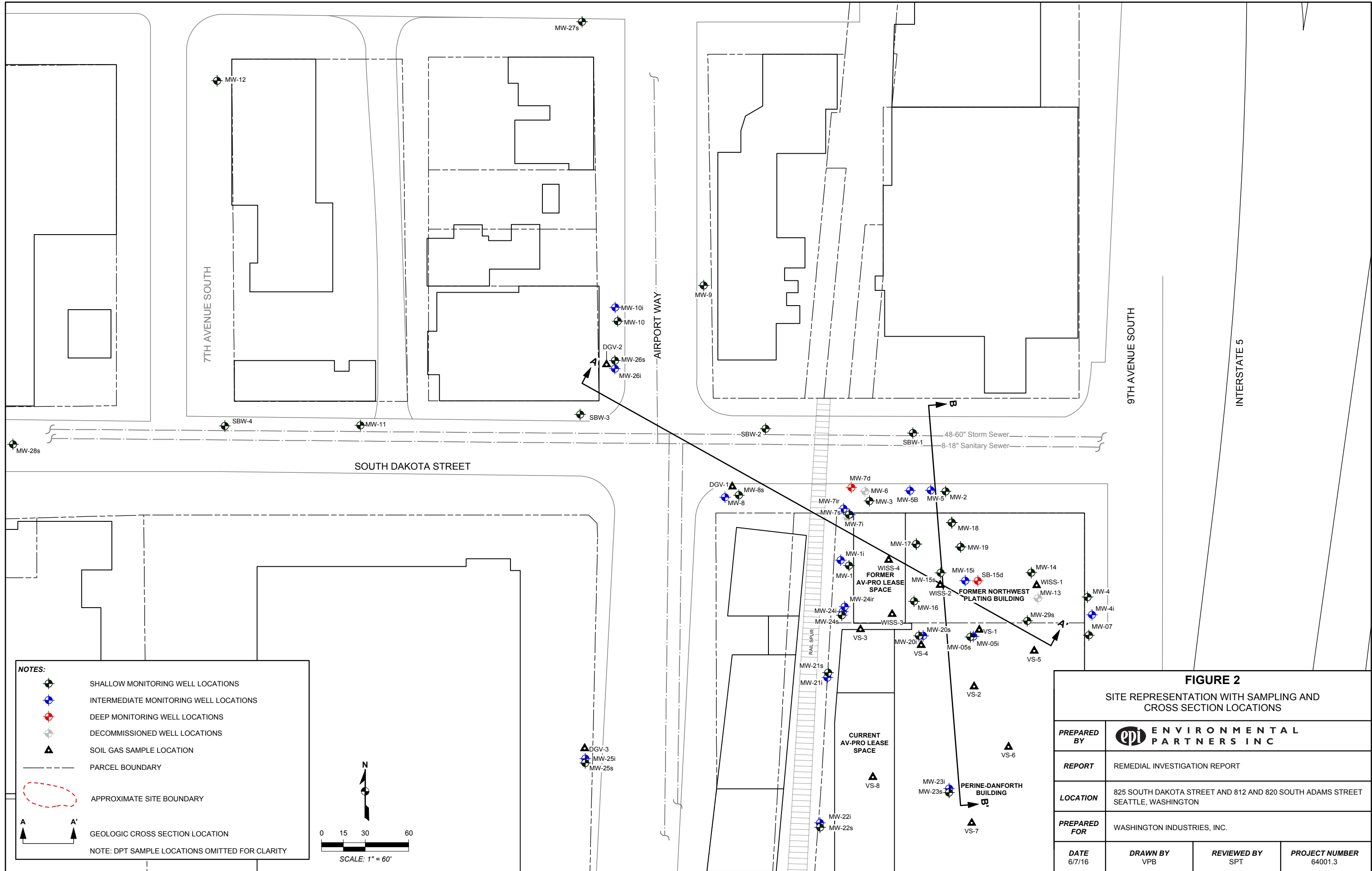
Table 9
Summary of Soil Gas Analytical Results (in µg/m³)
Remedial Investigation Report
Former Northwest Plating
825 South Dakota Street and 812 and 820 South Adams Street, Seattle, Washington

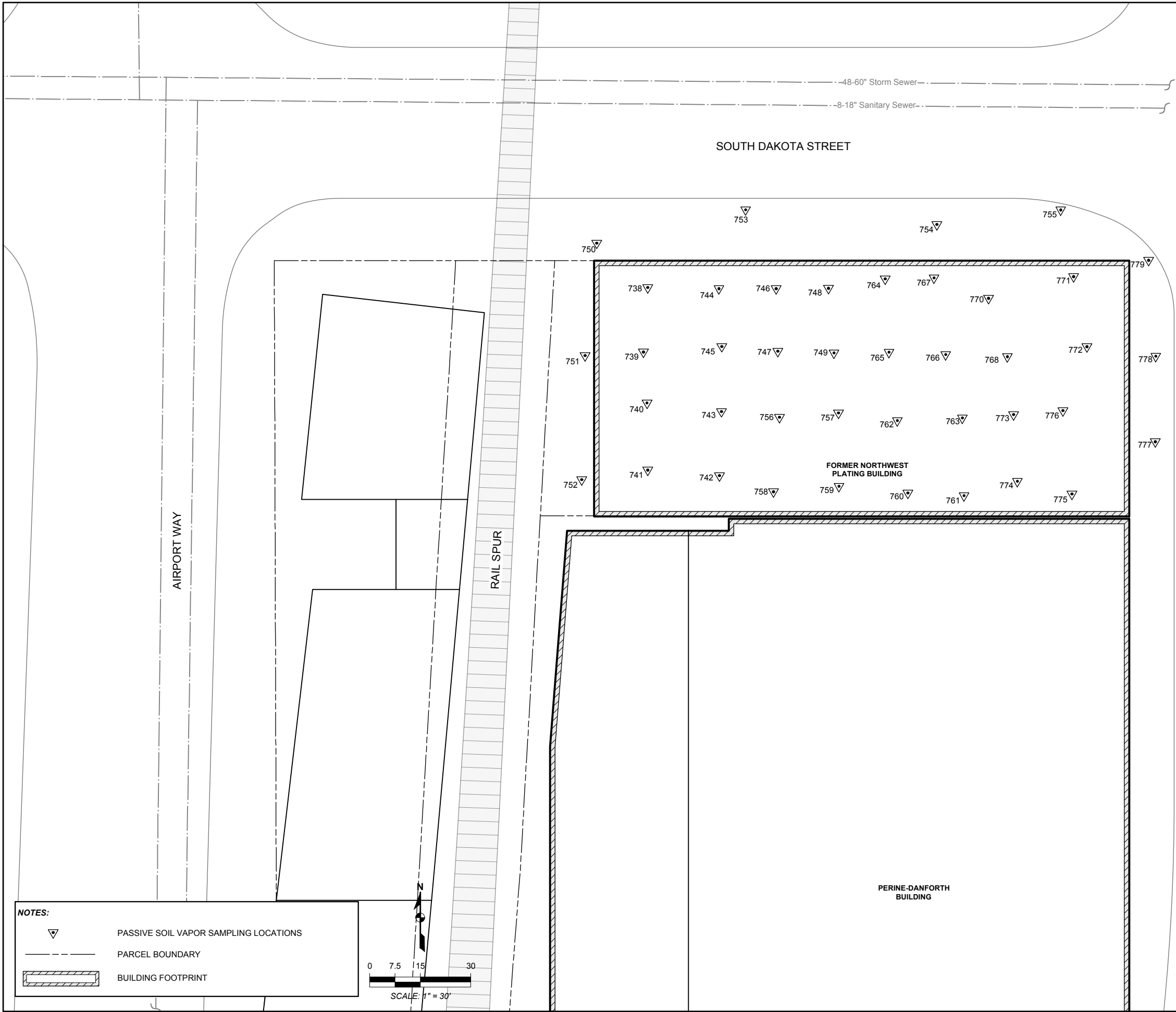
Sample Identification	Date Collected	Measured Volatile Organic Compounds ^a							
		Tetrachloro-ethene	Trichloro-ethene	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	1,1,1-Trichloro-ethane	1,1,2-Trichloro-ethane
WISS-1	3/19/2013	670	72,000	<72	260	<72	<72	170	<72
WISS-2	3/19/2013	6,200	1,200,000	<1,900	13,000	1,900	<1,900	<1,900	<1,900
WISS-3	3/19/2013	<680	10,000	<680	1,200	<680	<680	<680	<680
WISS-4	3/19/2013	2,800	59,000	460	6,000	<73	<73	<73	320
VS-1	3/19/2013	2,200	150,000	<160	3,100	<160	<160	180	<160
	8/7/2014	3,310	21,700	179	4,040	--	<1.74	--	--
VS-2	3/19/2013	400	53,000	<60	410	<60	<60	85	<60
	8/7/2014	1,180	19,000	59	1,100	--	<0.217	--	--
VS-3	3/19/2013	<470	970	<470	<470	<470	<470	<470	<470
	8/7/2014	4.83	42.5	<0.0238	<0.0793	--	<0.217	--	--
VS-4	8/7/2014	1,730	18,800	182	4,810	--	0.302	--	--
VS-5	8/7/2014	654	9,640	14.2	45	--	<0.217	--	--
VS-6	8/7/2014	18.6	2,630	<0.0238	<0.0793	--	<0.217	--	--
VS-7	7/1/2015	10.7	2.40	<0.0793	<0.0793	<0.0793	<0.511	1.37	<2.73
VS-8	7/1/2015	<2.03	<1.07	<0.0793	<0.0793	<0.0793	<0.511	<1.09	<2.73
DGV-1	7/1/2015	6,060	23,500	248	4,150	<0.0793	<0.511	62.3	<2.73
DGV-2	7/1/2015	18.0	64.3	<0.0793	2.17	<0.0793	<0.511	<1.09	<2.73
DGV-3	7/1/2015	13.7	5.52	<0.0793	<0.0793	<0.0793	<0.511	<1.09	<2.73
Site-Specific Sub-Slab Soil Gas Screening Level ^b		5,833	293	NVE	NVE	NVE	800	731,000	NVE
Sub-Slab Soil Gas Screening Level MTCA Method B (Carcinogen) ^c		321	12.3	NVE	NVE	3,050 ^d	9.33	76,200 ^d	5.21
Sub-Slab Soil Gas Screening Level MTCA Method C (Carcinogen) ^c		3,210	210	NVE	NVE	6,670 ^d	93.3	167,000 ^d	52.1

- Notes:
- All results presented in micrograms/cubic meter (µg/m³).
- Bold** Indicates analyte detected at a concentration greater than the laboratory reporting limit.
- Indicated concentration exceeds the applicable Soil Gas Screening Level.**
- < Indicates the analyte was not detected at a concentration greater than the laboratory reporting limit.
- Sample was not analyzed for this compound.
- a Volatile Organic Compounds analysis in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999.
- b Site-Specific Soil Gas screening level developed for the Groundwater-Indoor Air Pathway for a construction worker reasonable maximum exposure (RME) scenario.
- c Soil gas screening levels for soil gas "just beneath a building" from Vapor Intrusion Table, updated April 6, 2015, provided by Ecology.
- d Noncarcinogen value.


Figures









NOTES:




PASSIVE SOIL VAPOR SAMPLING LOCATIONS



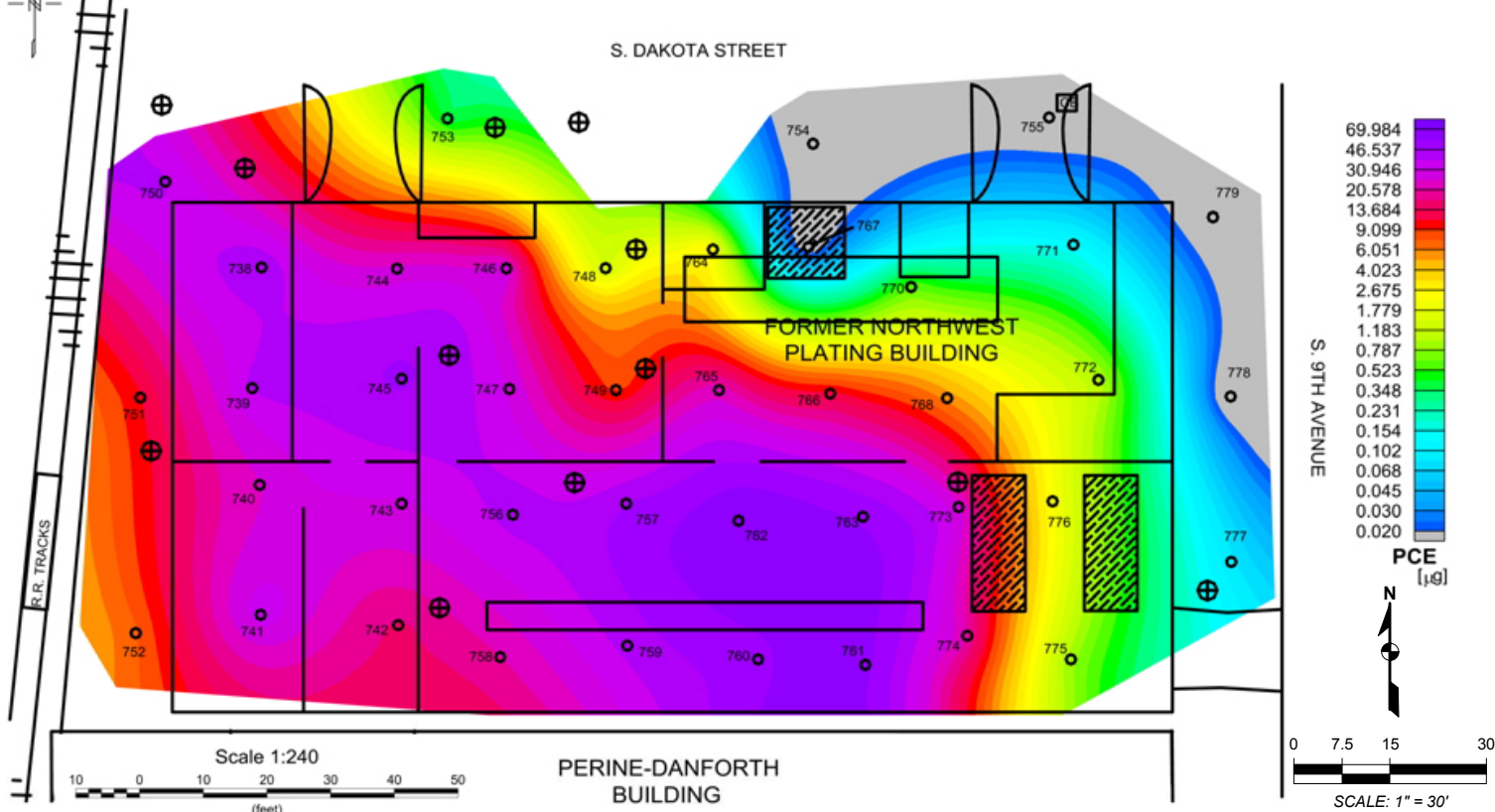
PARCEL BOUNDARY



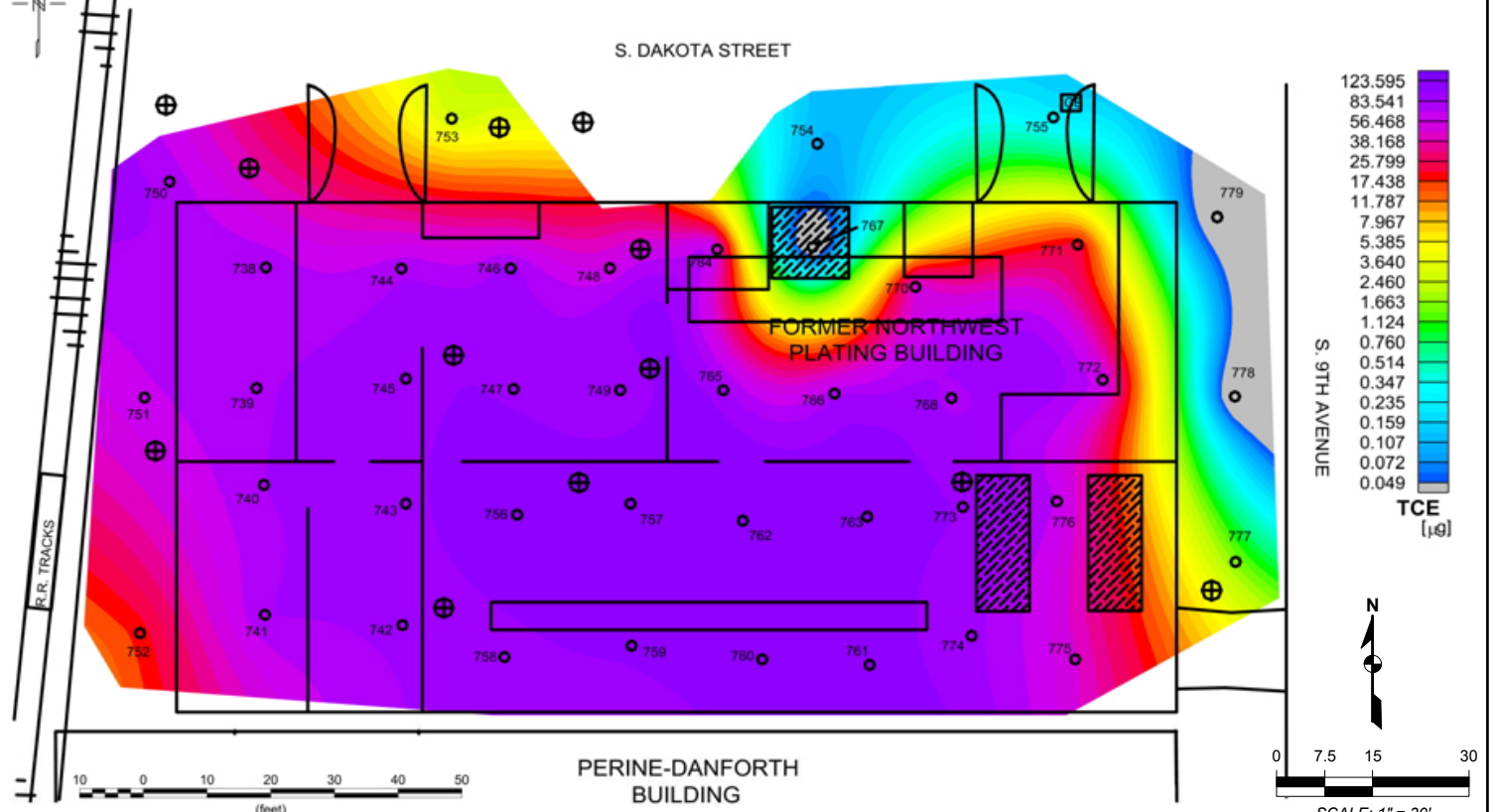
BUILDING FOOTPRINT

FIGURE 3			
PASSIVE SOIL GAS SAMPLING LOCATIONS			
PREPARED BY	 ENVIRONMENTAL PARTNERS INC		
REPORT	REMEDIAL INVESTIGATION REPORT		
LOCATION	825 SOUTH DAKOTA STREET AND 812 AND 820 SOUTH ADAMS STREET SEATTLE, WASHINGTON		
PREPARED FOR	WASHINGTON INDUSTRIES, INC.		
DATE 6/8/16	DRAWN BY VPB	REVIEWED BY SPT	PROJECT NUMBER 64001.3

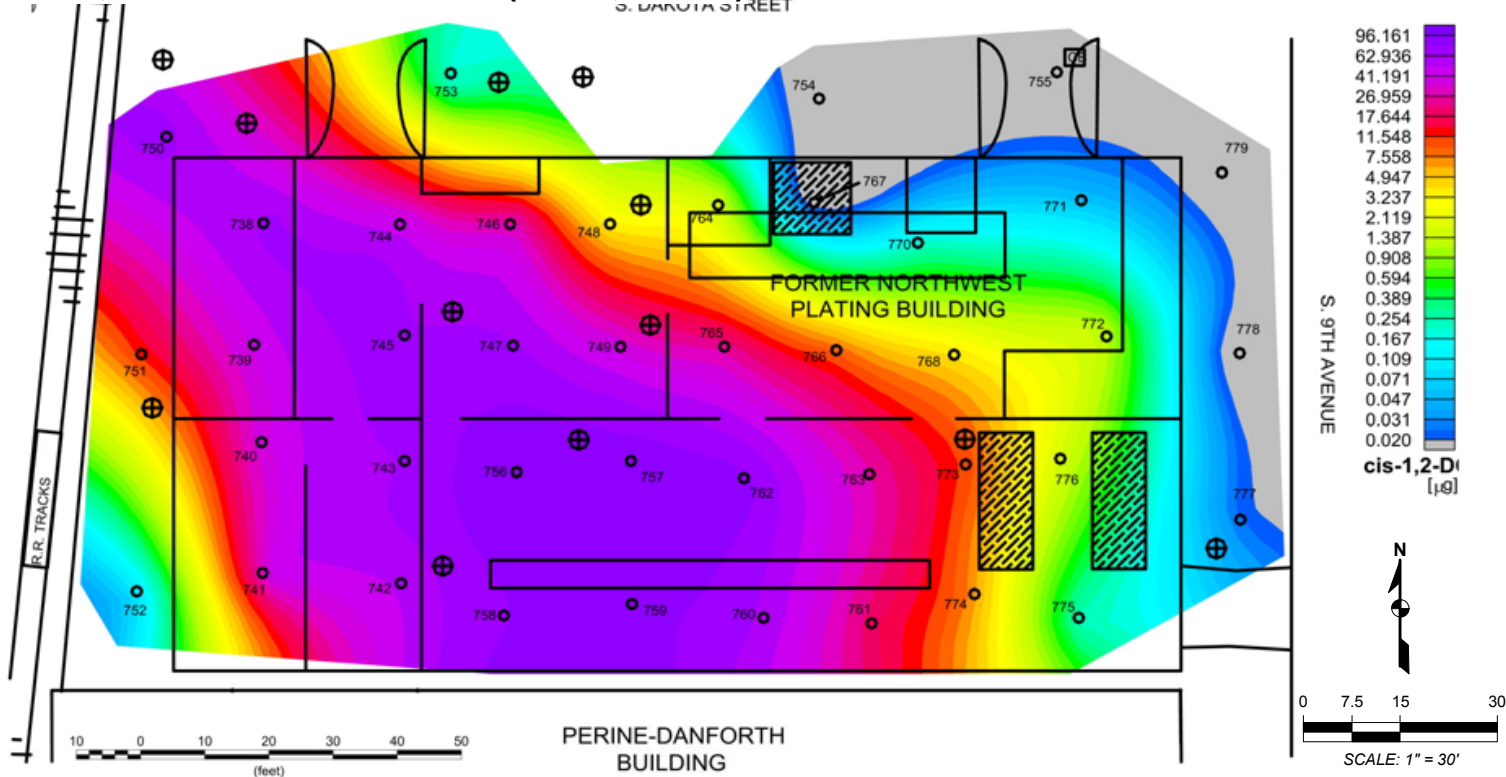
TETRACHLOROETHENE (PCE)



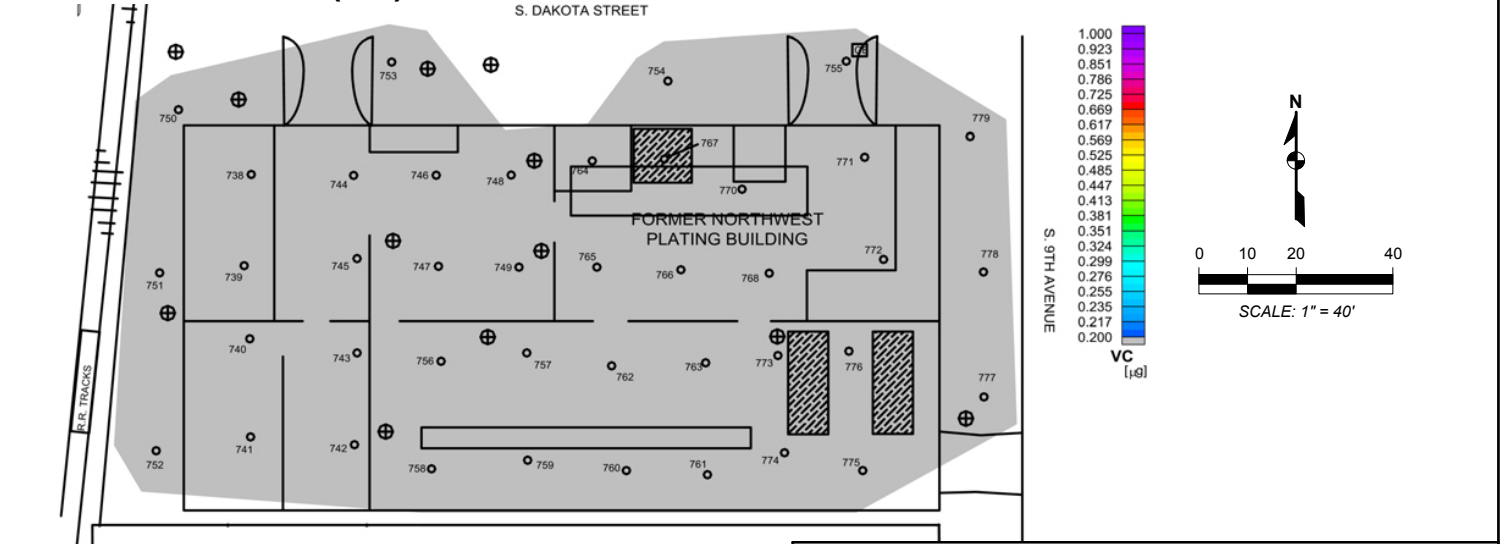
TRICHLOROETHENE (TCE)



CIS-1,2-DICHLOROETHENE (CIS-1,2-DCE)



VINYL CHLORIDE (VC)

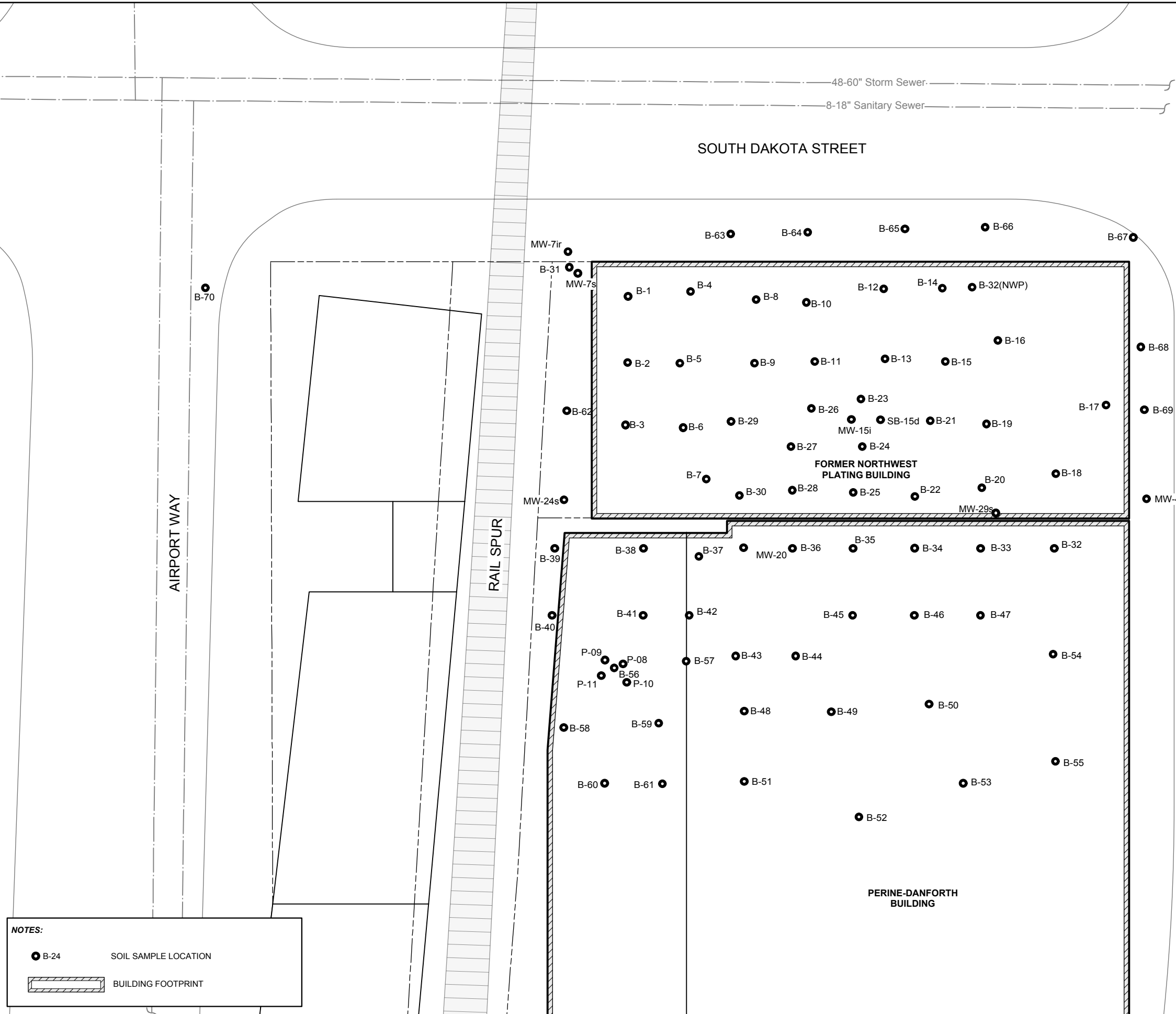


NOTES:

- PASSIVE SOIL VAPOR SAMPLING LOCATIONS
- ALL RESULTS PRESENTED IN MICROGRAMS (µg)
- FIGURES ADAPTED FROM ORIGINAL 2014 DRAWINGS BY AMPLIFIED GEOCHEMICAL IMAGING, LLC

210 Executive Drive, Suite 1
Newark, DE 19702-3335 USA
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FAX: +1-302-266-2429
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FIGURE 4			
PASSIVE SOIL GAS SAMPLING LOCATIONS AND RESULTS FOR PCE, TCE, CIS-1,2-DCE, AND VC			
PREPARED BY	epi ENVIRONMENTAL PARTNERS INC		
REPORT	REMEDIAL INVESTIGATION REPORT		
LOCATION	825 SOUTH DAKOTA STREET AND 812 AND 820 SOUTH ADAMS STREET SEATTLE, WASHINGTON		
PREPARED FOR	WASHINGTON INDUSTRIES, INC.		
DATE	DRAWN BY	REVIEWED BY	PROJECT NUMBER
6/8/16	VPB	SPT	64001.3



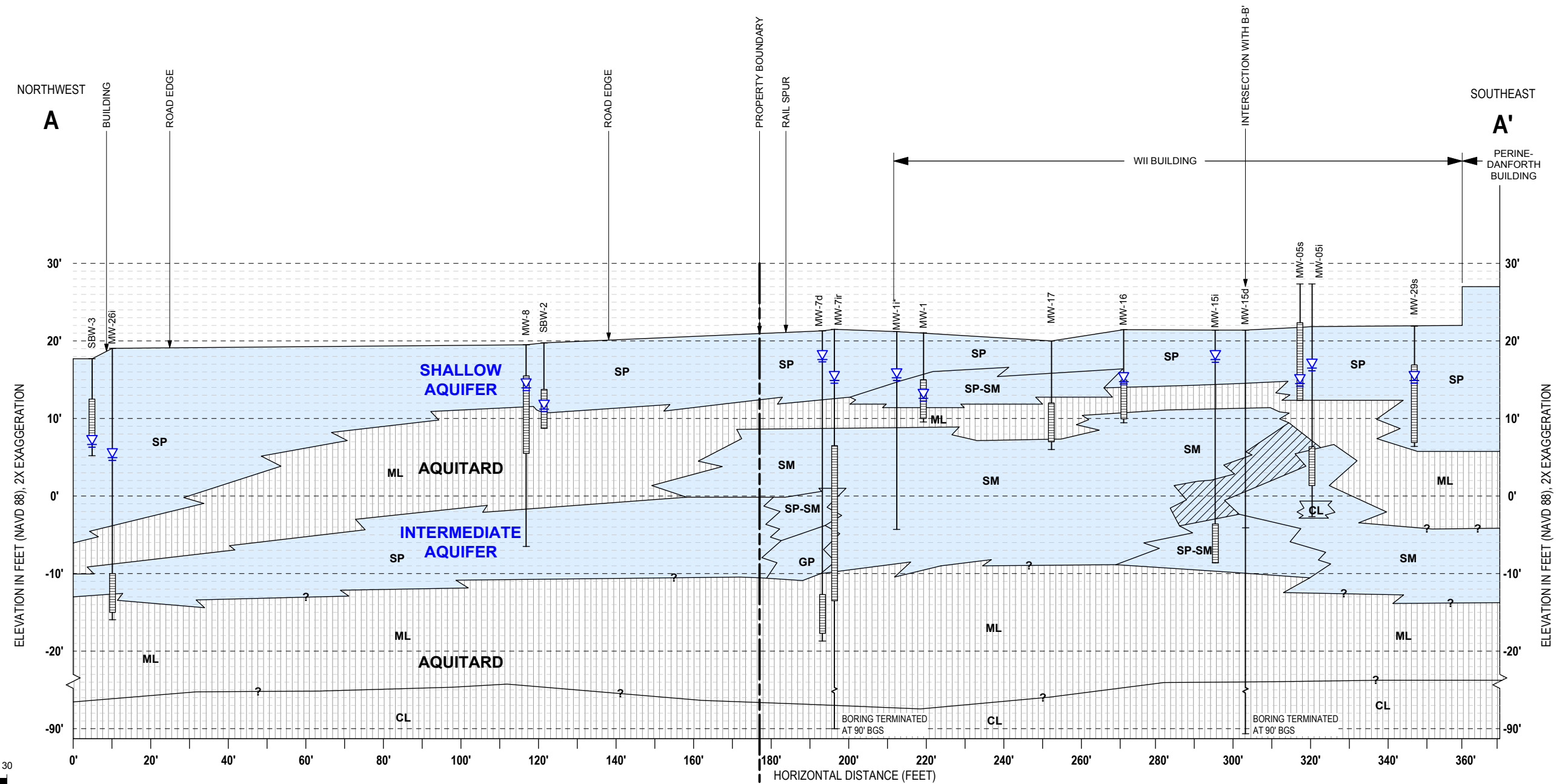
NOTES:

B-24

SOIL SAMPLE LOCATION

BUILDING FOOTPRINT

FIGURE 5			
SOIL SAMPLE LOCATIONS			
PREPARED BY	epi ENVIRONMENTAL PARTNERS INC		
REPORT	REMEDIAL INVESTIGATION REPORT		
LOCATION	825 SOUTH DAKOTA STREET AND 812 AND 820 SOUTH ADAMS STREET SEATTLE, WASHINGTON		
PREPARED FOR	WASHINGTON INDUSTRIES, INC.		
DATE 6/8/16	DRAWN BY VPB/CLM	REVIEWED BY SPT	PROJECT NUMBER 64001.3



0 7.5 15 30
SCALE: 1" = 30'
2X VERTICAL EXAGGERATION

NOTES:

- SP POORLY GRADED SANDS, GRAVELLY SANDS
- SM SILTY SANDS, SAND-SILT MIXTURES
- SP-SM POORLY GRADED/SILTY SANDS
- SW WELL GRADED SANDS, GRAVELLY SANDS
- ML INORGANIC SILTS, CLAYEY SILTS OF LOW TO MEDIUM PLASTICITY
- CL INORGANIC CLAYS, GRAVELLY, SANDY, AND SILTY CLAYS
- GP POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES, OR SAND-GRAVEL-COBBLE MIXTURES



INCREASING SILT CONTENT

- MW-8 — MONITORING WELL LOCATION
- TOP OF CASING ELEVATION
- GROUNDWATER ELEVATION (MEASURED 11/30/2015)
- SP — SOIL CLASSIFICATIONS AND LOCATIONS ENCOUNTERED
- ML — BORING TERMINATION

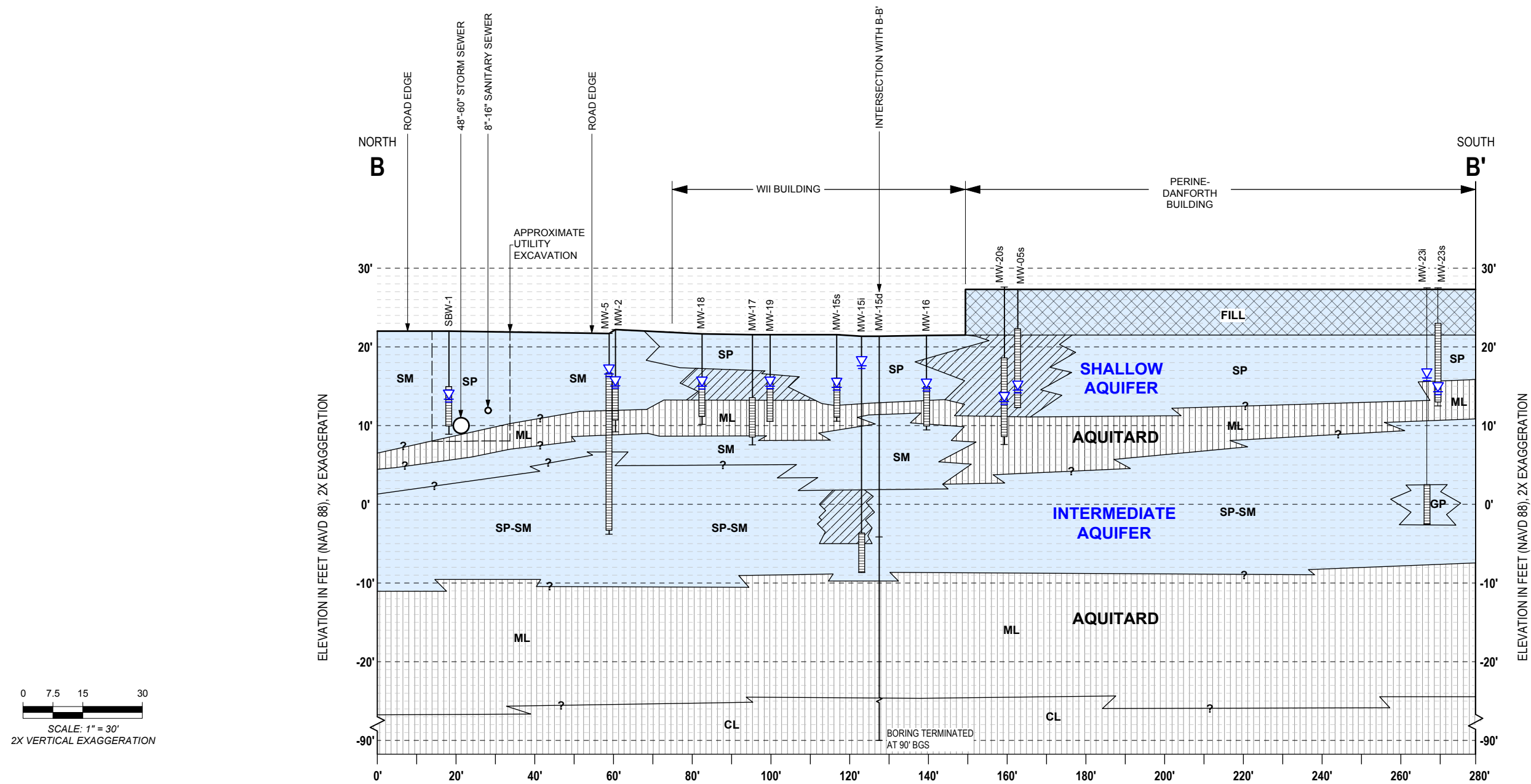
NOTE: WELLS PROJECTED TO GEOLOGIC CROSS SECTION. FOR DISTANCE AND DIRECTION, SEE FIGURE 2 (SITE REPRESENTATION)

* NO WELL CONSTRUCTION LOG AVAILABLE FOR MW-1i

FIGURE 6

GEOLOGIC CROSS SECTION A-A'

PREPARED BY	epi ENVIRONMENTAL PARTNERS INC		
REPORT	REMEDIAL ACTION REPORT		
LOCATION	825 SOUTH DAKOTA STREET AND 812 AND 820 SOUTH ADAMS STREET SEATTLE, WASHINGTON		
PREPARED FOR	WASHINGTON INDUSTRIES, INC.		
DATE 6/8/16	DRAWN BY VPB	REVIEWED BY SPT	PROJECT NUMBER 64001.3



NOTES:

SP

SM

SP-SM

ML

CL

POORLY GRADED SANDS, GRAVELLY SANDS

SILTY SANDS, SAND-SILT MIXTURES

POORLY GRADED/SILTY SANDS

INORGANIC SILTS, CLAYEY SILTS OF LOW TO MEDIUM PLASTICITY

INORGANIC CLAYS, GRAVELLY, SANDY, AND SILTY CLAYS

INCREASING SILT CONTENT

MW-5

MONITORING WELL LOCATION

TOP OF CASING ELEVATION

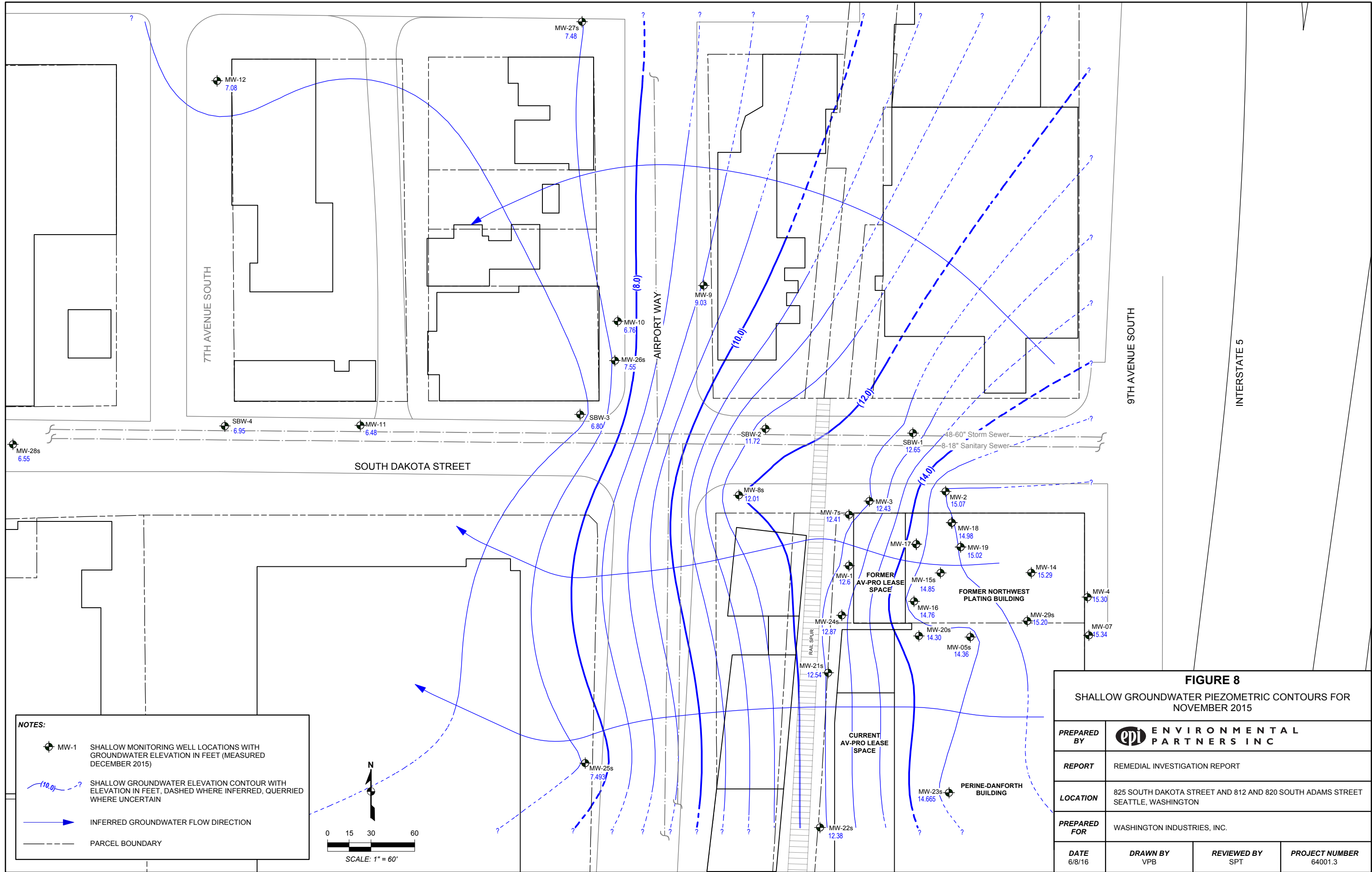
GROUNDWATER ELEVATION (MEASURED 11/30/2015)

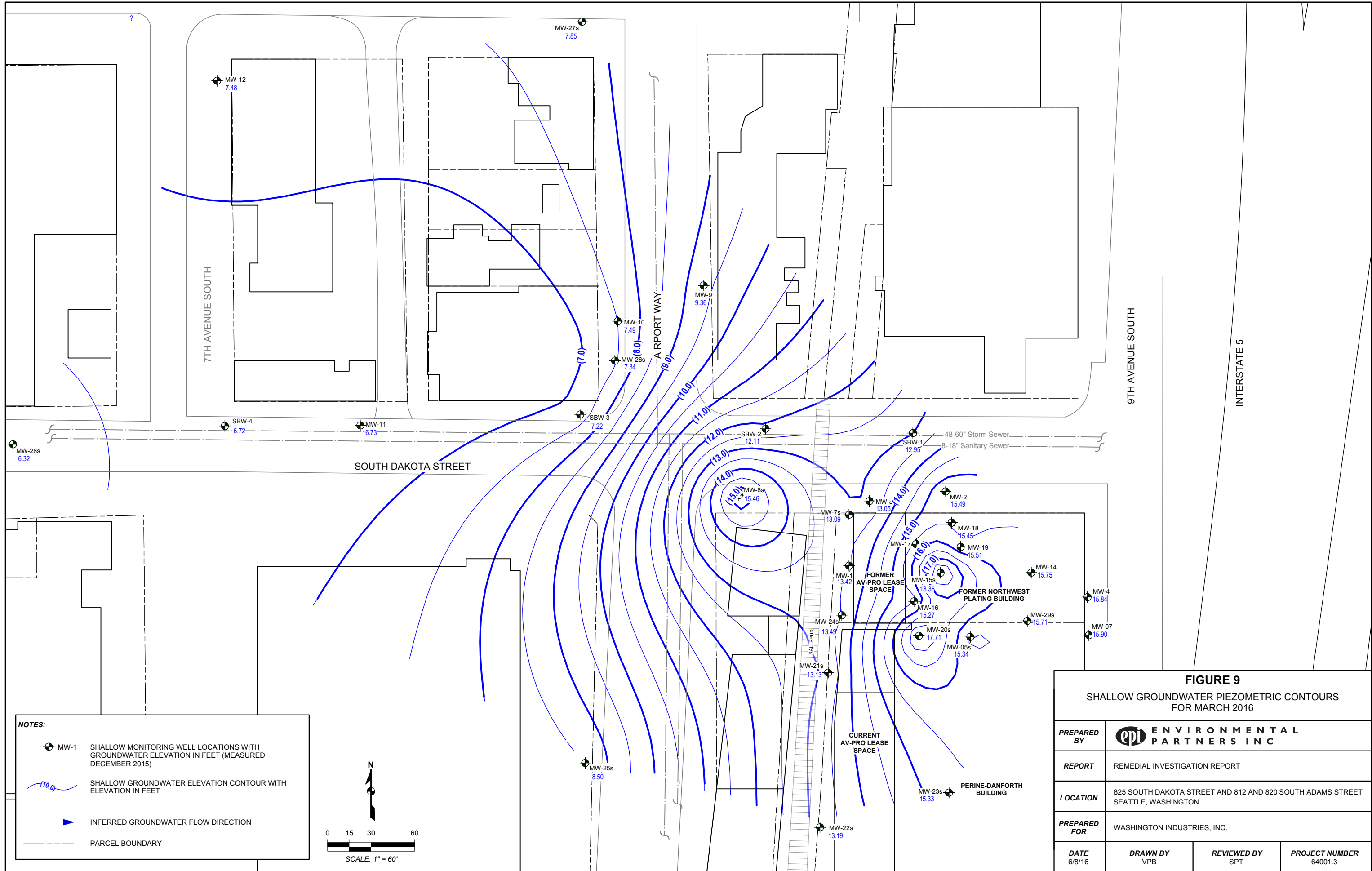
SOIL CLASSIFICATIONS AND LOCATIONS ENCOUNTERED

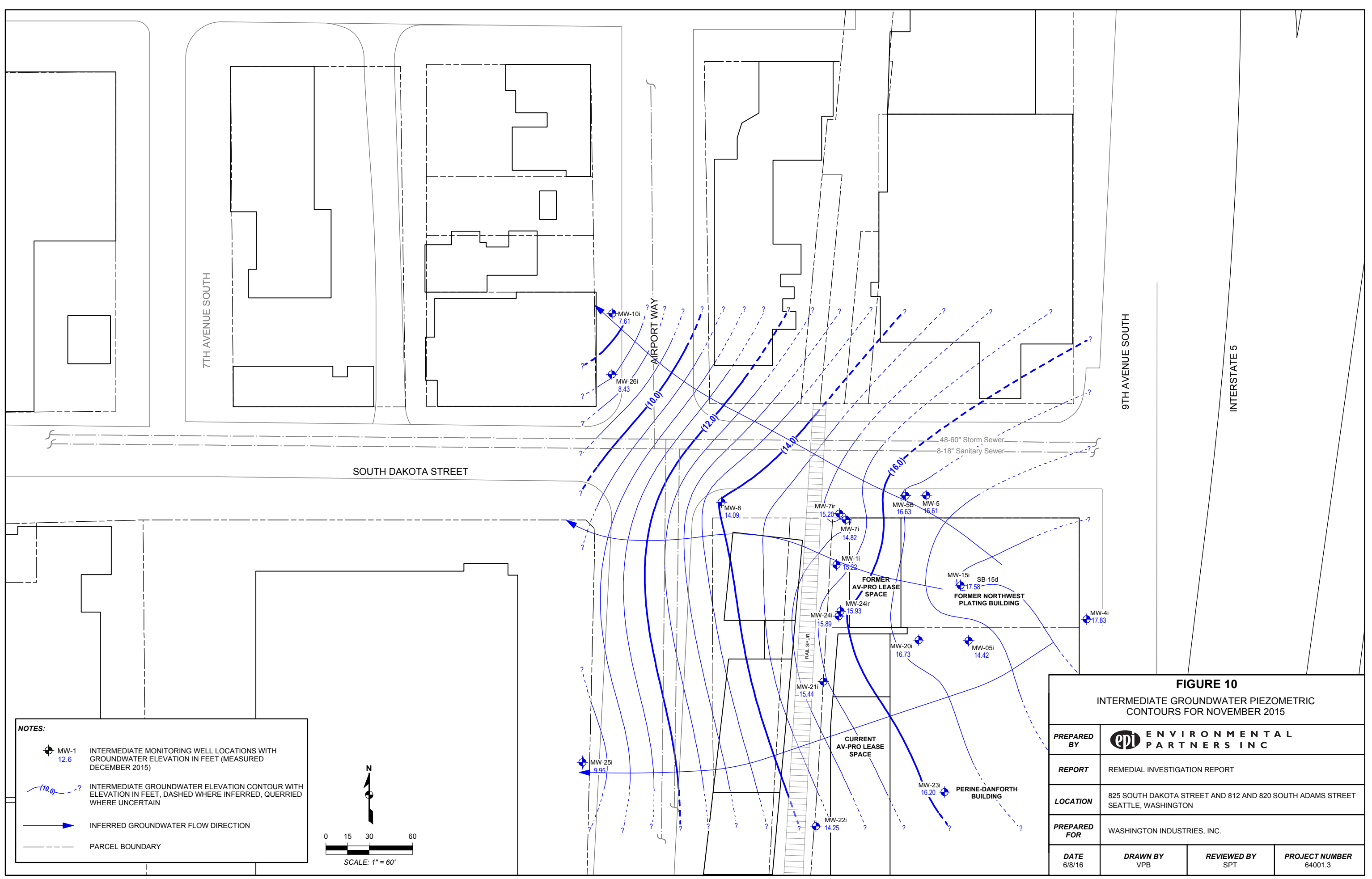
BORING TERMINATION

NOTE: WELLS PROJECTED TO GEOLOGIC CROSS SECTION. FOR DISTANCE AND DIRECTION, SEE FIGURE 2 (SITE REPRESENTATION)

FIGURE 7			
GEOLOGIC CROSS SECTION B-B'			
PREPARED BY	ENVIRONMENTAL PARTNERS INC		
REPORT	REMEDIAL ACTION REPORT		
LOCATION	825 SOUTH DAKOTA STREET AND 812 AND 820 SOUTH ADAMS STREET SEATTLE, WASHINGTON		
PREPARED FOR	WASHINGTON INDUSTRIES, INC.		
DATE 6/8/16	DRAWN BY VPB	REVIEWED BY SPT	PROJECT NUMBER 64001.3







NOTES:

- MW-1 12.6 INTERMEDIATE MONITORING WELL LOCATIONS WITH GROUNDWATER ELEVATION IN FEET (MEASURED DECEMBER 2015)
- INTERMEDIATE GROUNDWATER ELEVATION CONTOUR WITH ELEVATION IN FEET, DASHED WHERE INFERRED, QUERRIED WHERE UNCERTAIN
- INFERRED GROUNDWATER FLOW DIRECTION
- PARCEL BOUNDARY

0 15 30 60
SCALE: 1" = 60'

FIGURE 10			
INTERMEDIATE GROUNDWATER PIEZOMETRIC CONTOURS FOR NOVEMBER 2015			
PREPARED BY	ENVIRONMENTAL PARTNERS INC		
REPORT	REMEDIAL INVESTIGATION REPORT		
LOCATION	825 SOUTH DAKOTA STREET AND 812 AND 820 SOUTH ADAMS STREET SEATTLE, WASHINGTON		
PREPARED FOR	WASHINGTON INDUSTRIES, INC.		
DATE	DRAWN BY	REVIEWED BY	PROJECT NUMBER
6/8/16	VPB	SPT	64001.3

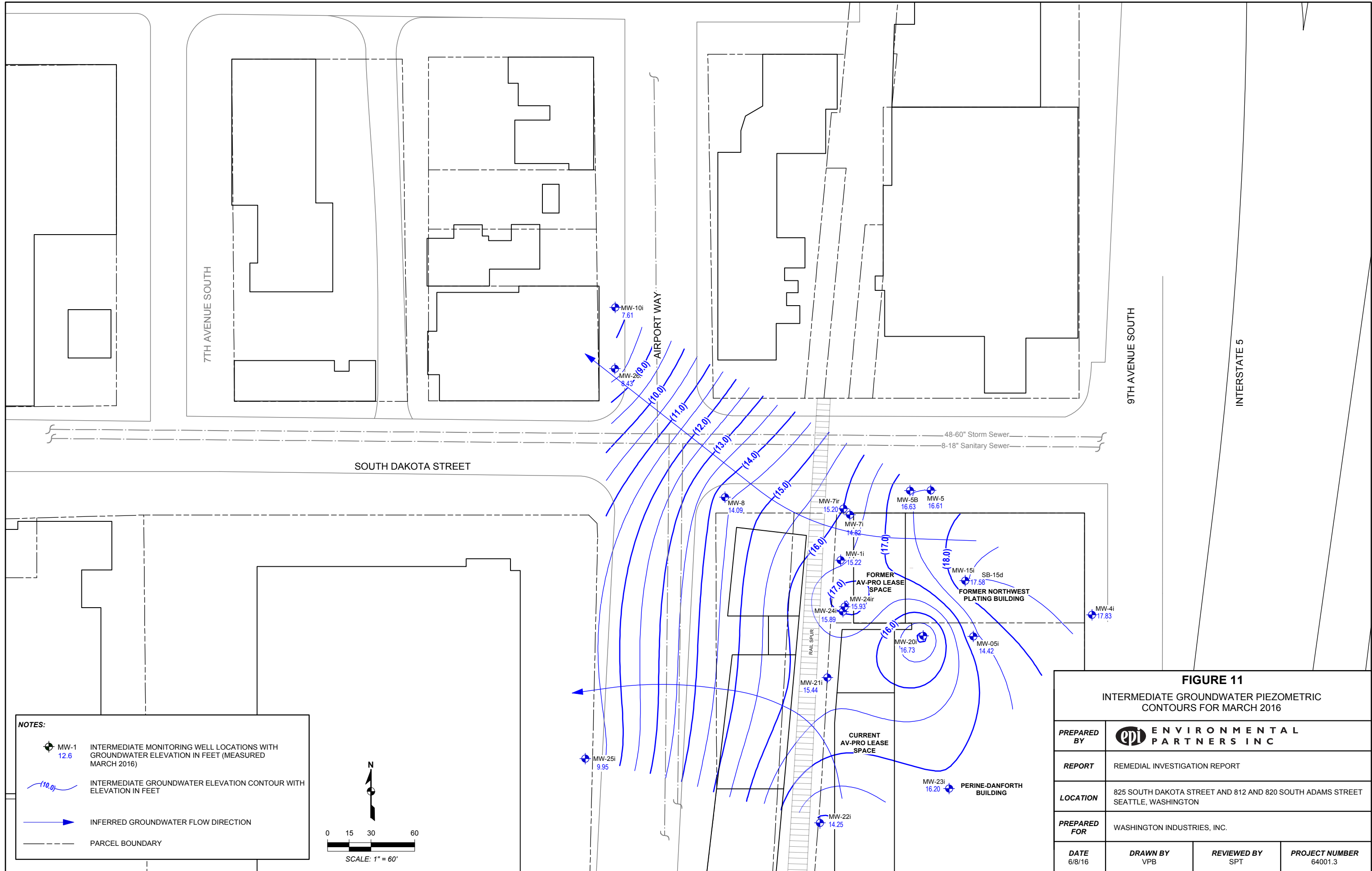
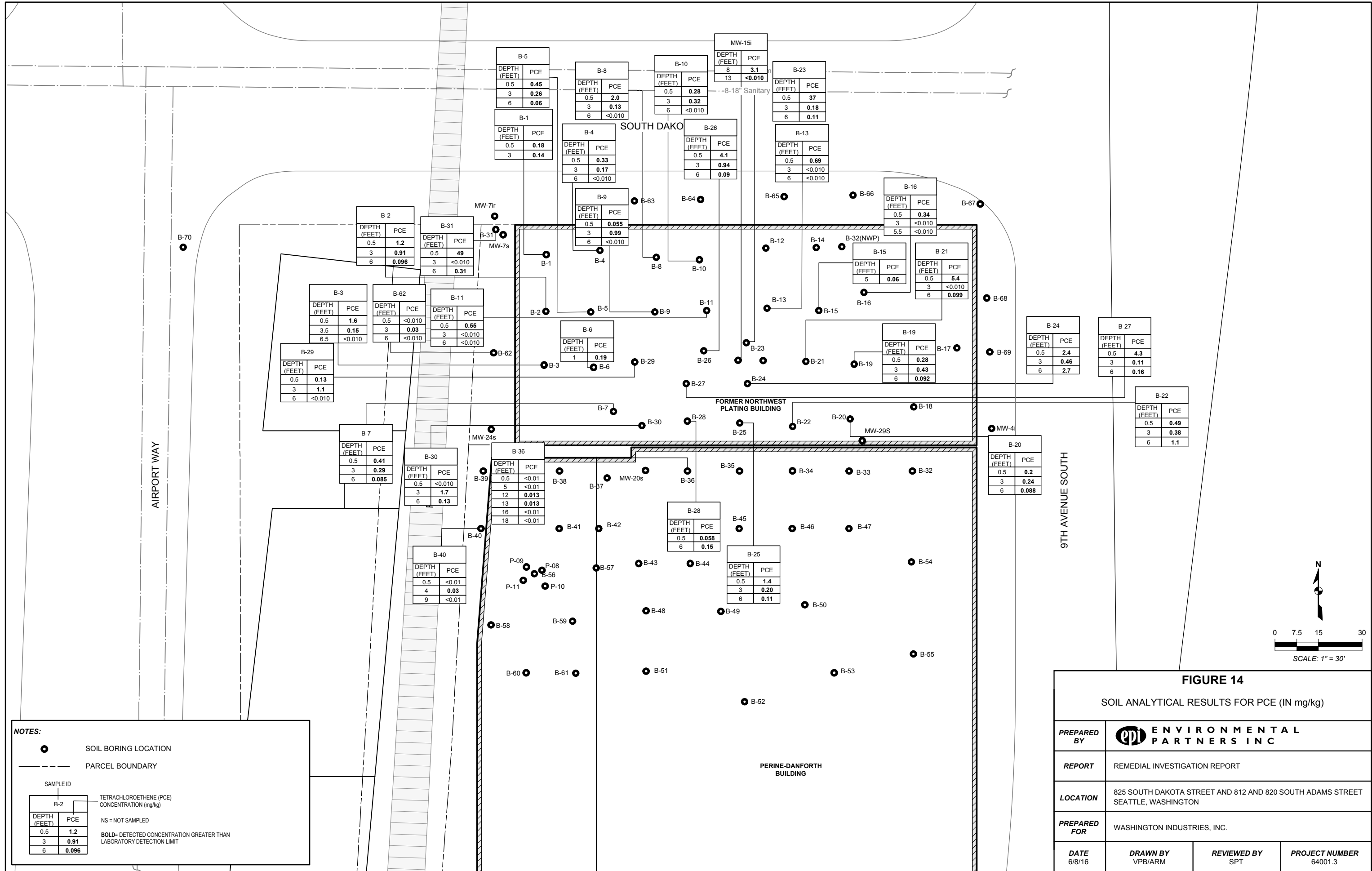


FIGURE 11			
INTERMEDIATE GROUNDWATER PIEZOMETRIC CONTOURS FOR MARCH 2016			
PREPARED BY	epi ENVIRONMENTAL PARTNERS INC		
REPORT	REMEDIAL INVESTIGATION REPORT		
LOCATION	825 SOUTH DAKOTA STREET AND 812 AND 820 SOUTH ADAMS STREET SEATTLE, WASHINGTON		
PREPARED FOR	WASHINGTON INDUSTRIES, INC.		
DATE	DRAWN BY	REVIEWED BY	PROJECT NUMBER
6/8/16	VPB	SPT	64001.3



FIGURE 12			
HYDRAULIC HEAD DIFFERENTIAL BETWEEN SHALLOW AND INTERMEDIATE AQUIFERS NOVEMBER 2015			
PREPARED BY	epi ENVIRONMENTAL PARTNERS INC		
REPORT	REMEDIAL INVESTIGATION REPORT		
LOCATION	825 SOUTH DAKOTA STREET AND 812 AND 820 SOUTH ADAMS STREET SEATTLE, WASHINGTON		
PREPARED FOR	WASHINGTON INDUSTRIES, INC.		
DATE	DRAWN BY	REVIEWED BY	PROJECT NUMBER
4/15/16	VPB	SPT	64001.3





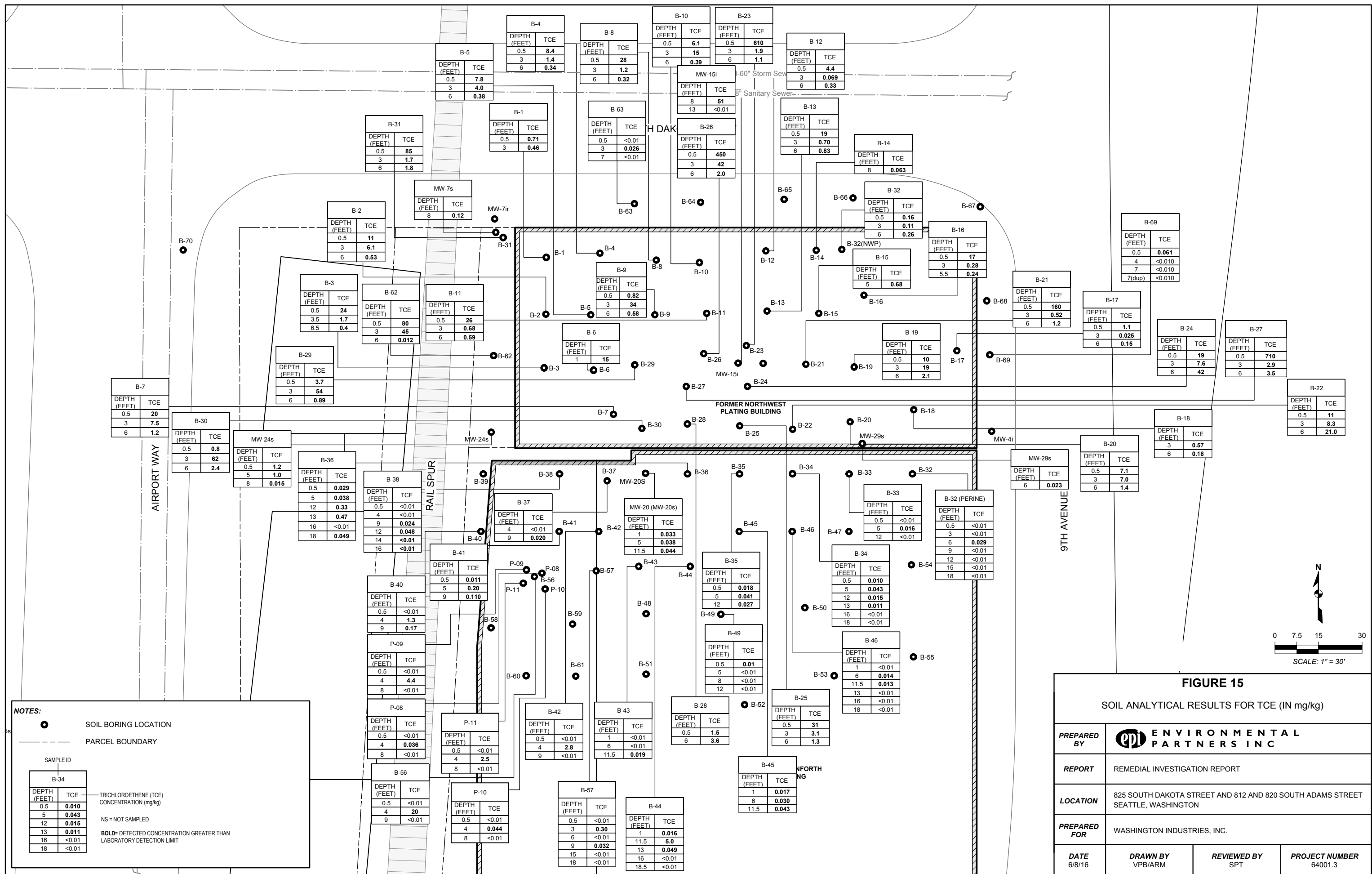
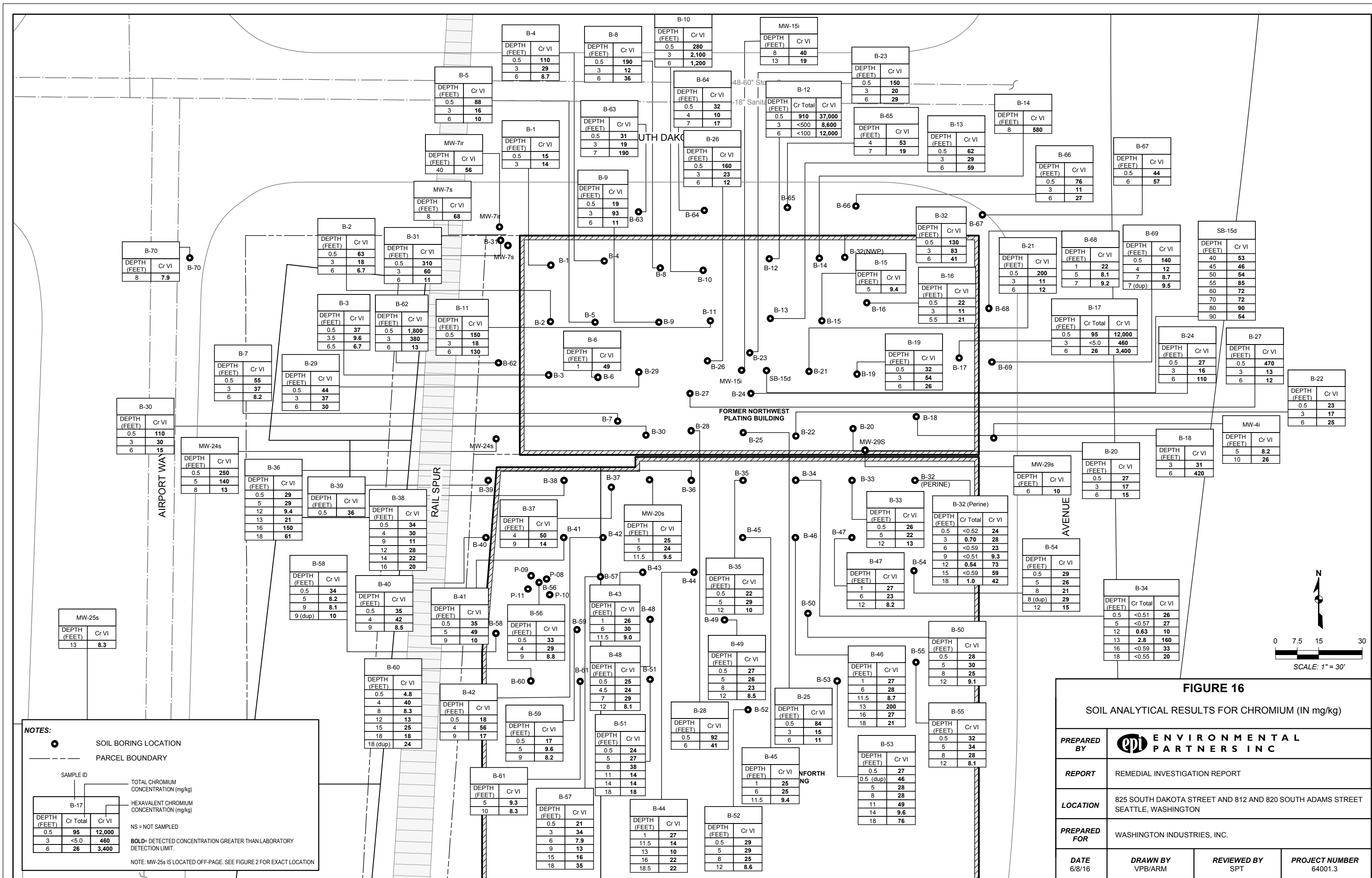
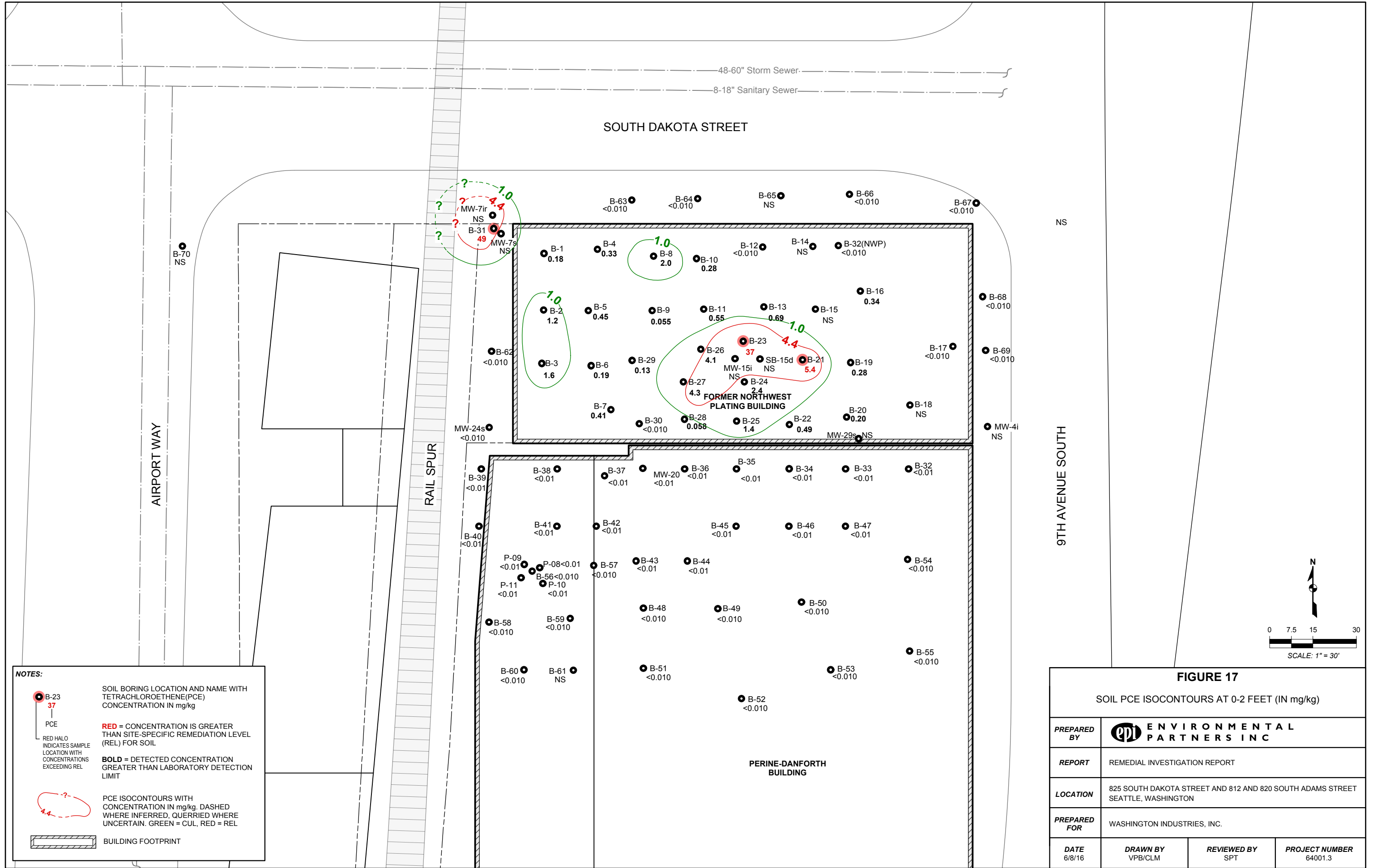


FIGURE 15			
SOIL ANALYTICAL RESULTS FOR TCE (IN mg/kg)			
PREPARED BY	epi ENVIRONMENTAL PARTNERS INC		
REPORT	REMEDIAL INVESTIGATION REPORT		
LOCATION	825 SOUTH DAKOTA STREET AND 812 AND 820 SOUTH ADAMS STREET SEATTLE, WASHINGTON		
PREPARED FOR	WASHINGTON INDUSTRIES, INC.		
DATE	DRAWN BY	REVIEWED BY	PROJECT NUMBER
6/8/16	VPB/ARM	SPT	64001.3





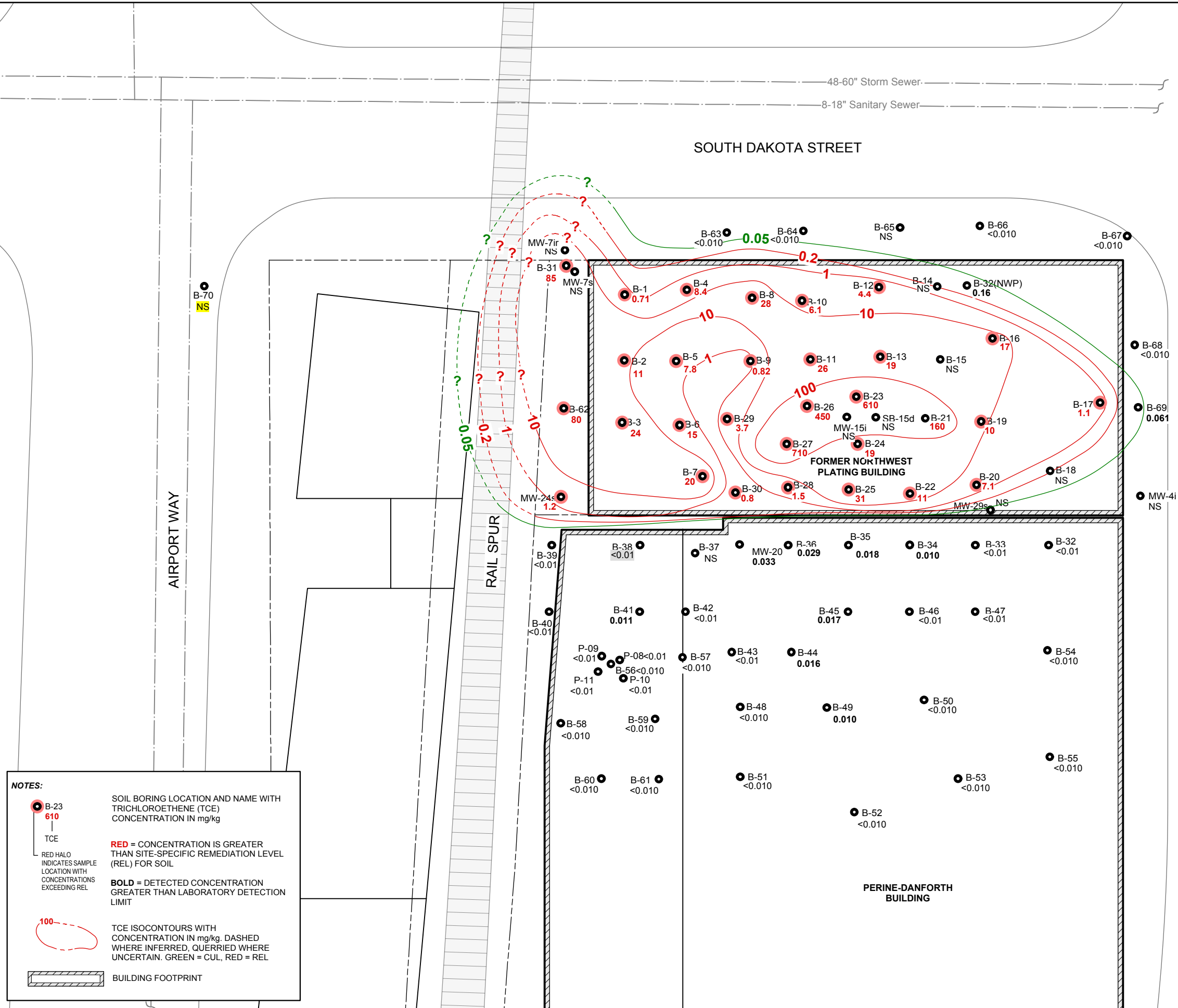
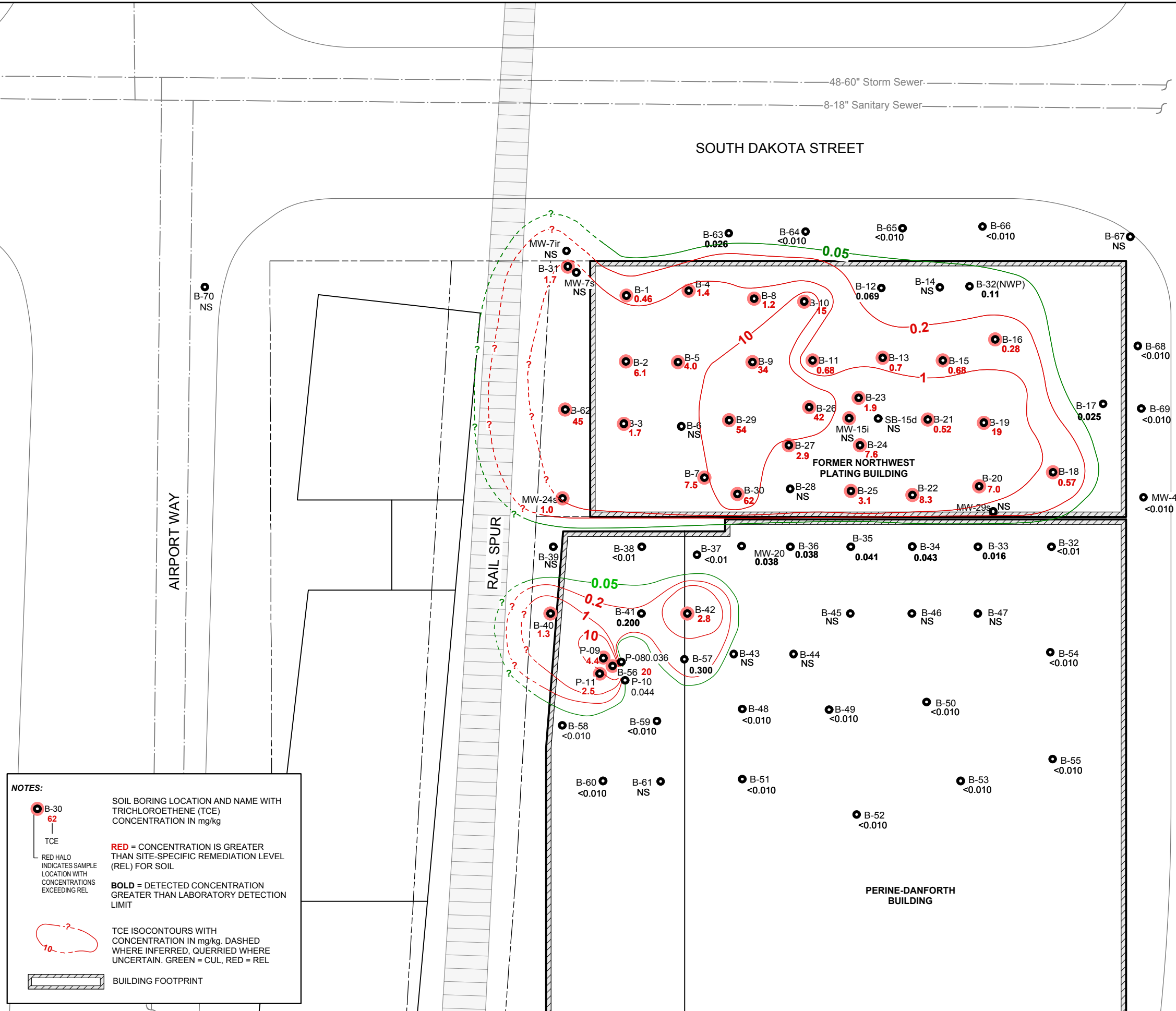


FIGURE 18			
SOIL TCE ISOCONTOURS AT 0-2 FEET (IN mg/kg)			
PREPARED BY	epi ENVIRONMENTAL PARTNERS INC		
REPORT	REMEDIAL INVESTIGATION REPORT		
LOCATION	825 SOUTH DAKOTA STREET AND 812 AND 820 SOUTH ADAMS STREET SEATTLE, WASHINGTON		
PREPARED FOR	WASHINGTON INDUSTRIES, INC.		
DATE	DRAWN BY	REVIEWED BY	PROJECT NUMBER
6/8/16	VPB/CLM	SPT	64001.3



NOTES:

B-30

62

TCE

RED HALO INDICATES SAMPLE LOCATION WITH CONCENTRATIONS EXCEEDING REL

10

?

TCE ISOCONTOURS WITH CONCENTRATION IN mg/kg. DASHED WHERE INFERRED, QUERIED WHERE UNCERTAIN. GREEN = CUL, RED = REL

BUILDING FOOTPRINT

SOIL BORING LOCATION AND NAME WITH TRICHLOROETHENE (TCE) CONCENTRATION IN mg/kg

RED = CONCENTRATION IS GREATER THAN SITE-SPECIFIC REMEDIATION LEVEL (REL) FOR SOIL

BOLD = DETECTED CONCENTRATION GREATER THAN LABORATORY DETECTION LIMIT

FIGURE 19			
SOIL TCE ISOCONTOURS AT 2.5-5 FEET (IN mg/kg)			
PREPARED BY	epi ENVIRONMENTAL PARTNERS INC		
REPORT	REMEDIAL INVESTIGATION REPORT		
LOCATION	825 SOUTH DAKOTA STREET AND 812 AND 820 SOUTH ADAMS STREET SEATTLE, WASHINGTON		
PREPARED FOR	WASHINGTON INDUSTRIES, INC.		
DATE	DRAWN BY	REVIEWED BY	PROJECT NUMBER
6/8/16	VPB/CLM	SPT	64001.3



NOTES:

B-31

1.5

VC

RED HALO INDICATES SAMPLE LOCATION WITH CONCENTRATIONS EXCEEDING REL

0.2

VC ISOCONTOURS WITH CONCENTRATION IN mg/kg. DASHED WHERE INFERRED, QUERRIED WHERE UNCERTAIN. GREEN = CUL, RED = REL

BUILDING FOOTPRINT

SOIL BORING LOCATION AND NAME WITH VINYL CHLORIDE (VC) CONCENTRATION IN mg/kg

RED = CONCENTRATION IS GREATER THAN SITE-SPECIFIC REMEDIATION LEVEL (REL) FOR SOIL

BOLD = DETECTED CONCENTRATION GREATER THAN LABORATORY DETECTION LIMIT

FIGURE 21			
SOIL VINYL CHLORIDE ISOCONTOURS AT 0-2 FEET (IN mg/kg)			
PREPARED BY	epi ENVIRONMENTAL PARTNERS INC		
REPORT	REMEDIAL INVESTIGATION REPORT		
LOCATION	825 SOUTH DAKOTA STREET AND 812 AND 820 SOUTH ADAMS STREET SEATTLE, WASHINGTON		
PREPARED FOR	WASHINGTON INDUSTRIES, INC.		
DATE	DRAWN BY	REVIEWED BY	PROJECT NUMBER
4/15/16	VPB/CLM	SPT	64001.3

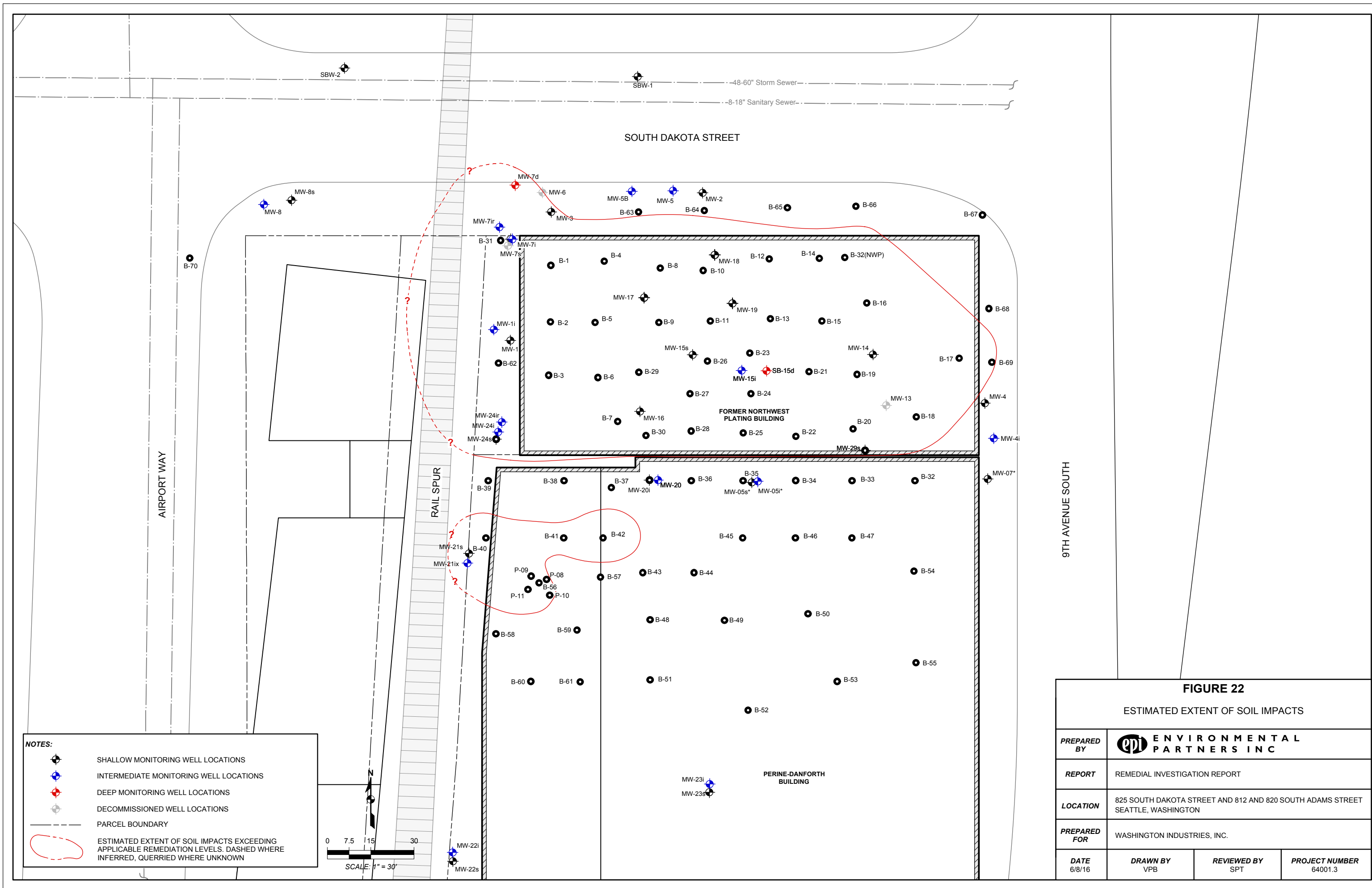
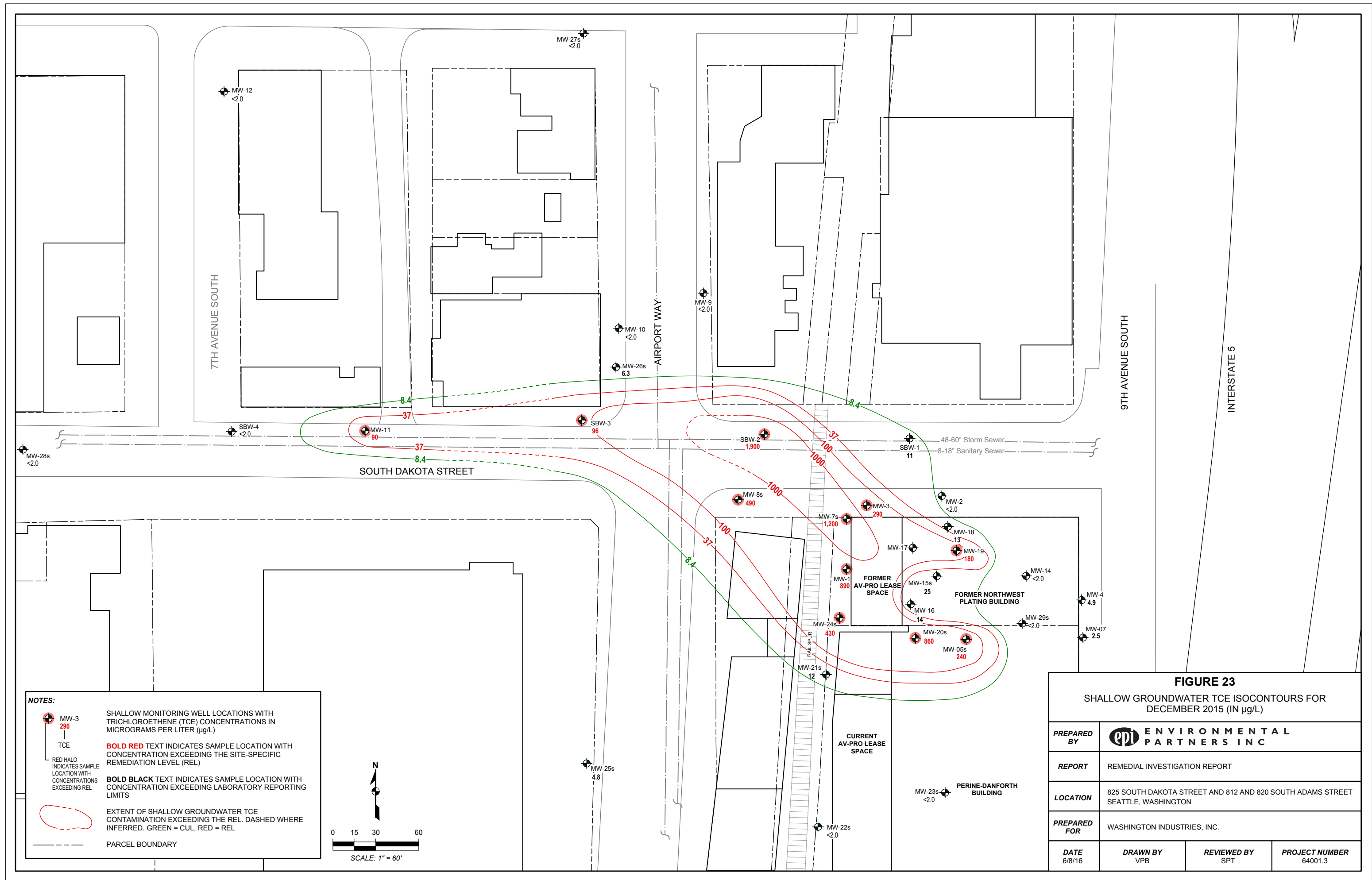
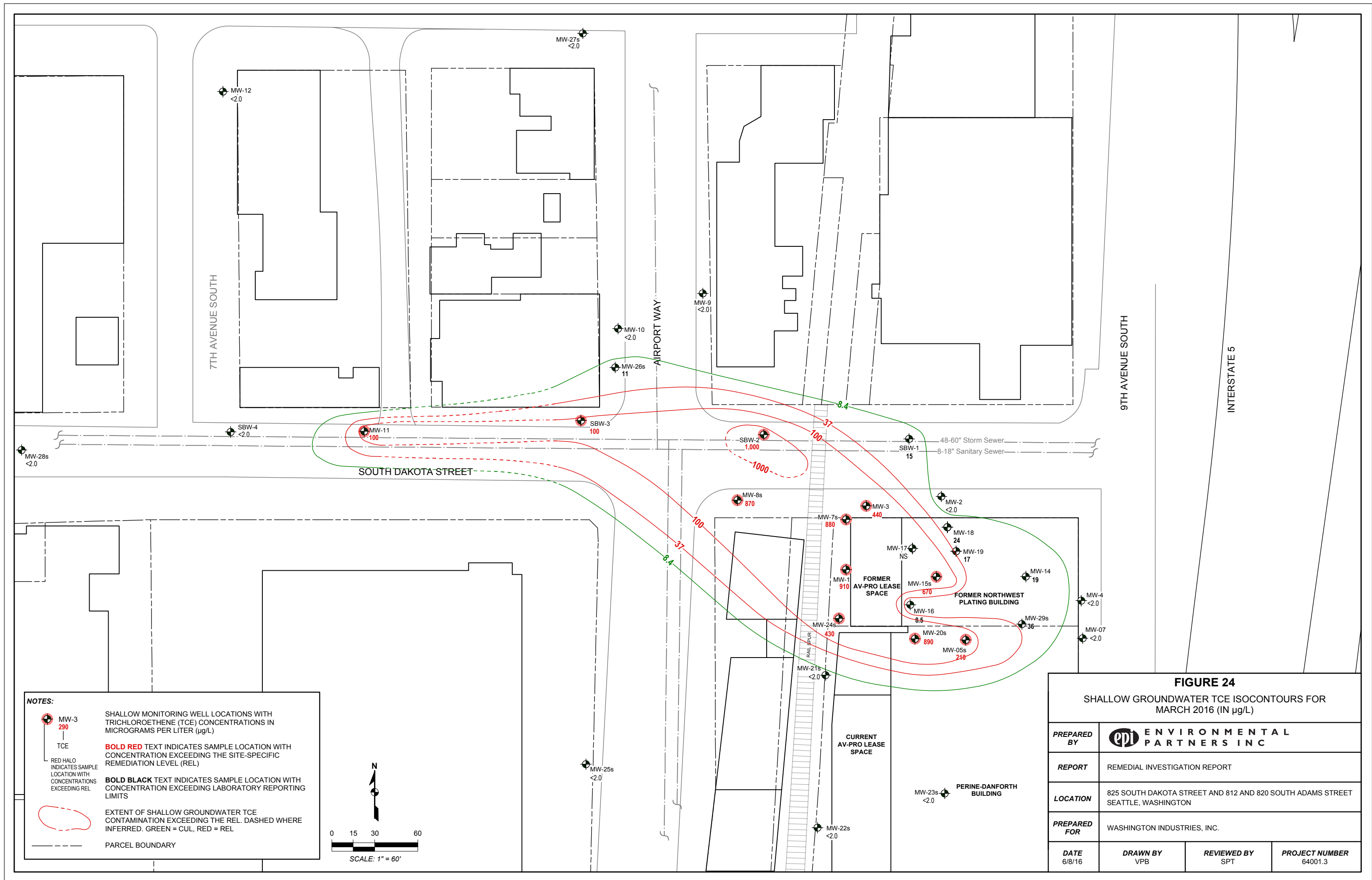
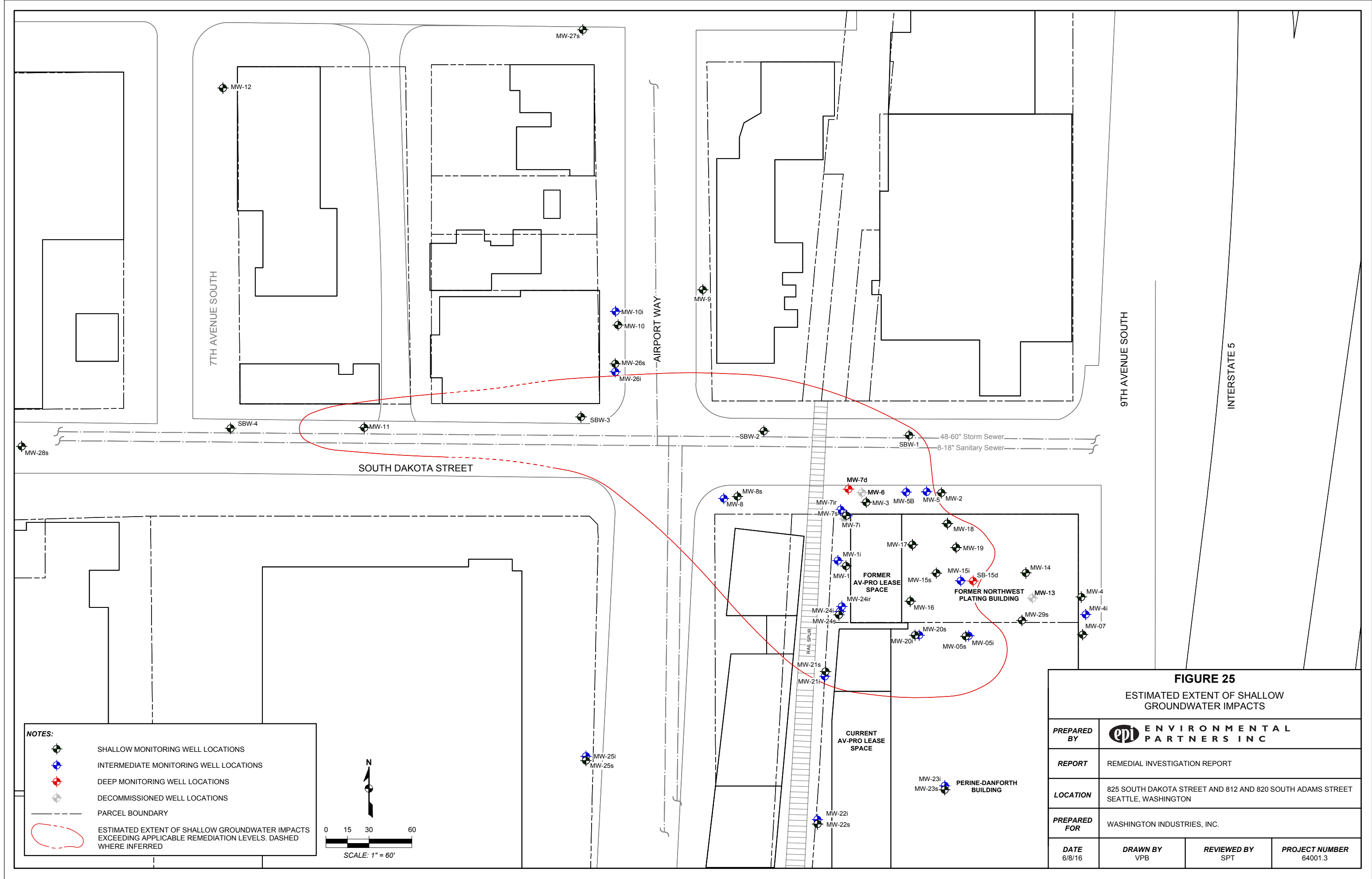


FIGURE 22			
ESTIMATED EXTENT OF SOIL IMPACTS			
PREPARED BY	epi ENVIRONMENTAL PARTNERS INC		
REPORT	REMEDIAL INVESTIGATION REPORT		
LOCATION	825 SOUTH DAKOTA STREET AND 812 AND 820 SOUTH ADAMS STREET SEATTLE, WASHINGTON		
PREPARED FOR	WASHINGTON INDUSTRIES, INC.		
DATE 6/8/16	DRAWN BY VPB	REVIEWED BY SPT	PROJECT NUMBER 64001.3







Attachment A
AGI Passive Soil Gas Mapping Report



AMPLIFIED
GEOCHEMICAL
IMAGING, LLC

Mapping Report

Site: Washington Industries, Inc.
Seattle, WA

Prepared for:

Environmental Partners
295 NE Gilman Boulevard
Issaquah, WA
UNITED STATES

Prepared on:

January 20, 2014

Project Summary

Amplified Geochemical Imaging, LLC. (AGI) provided the AGI Environmental Survey used at:

Washington Industries. Inc.

Seattle, WA

The service provided by AGI included delivery of the required quantity of AGI Universal Samplers, analysis by the method described for the requested organic compounds, and reporting of the data. A Laboratory Report was issued previously which summarized the field sampling and analytical procedures, and contained the

Normally, when printed at scale, the maps are 11 x 17 inch in size. Other sizes are available upon request. General and project specific comments on the contouring and mapping can be found on the next page.

Maps prepared by:

Jim E Whetzel

Project Manager

Maps reviewed:

Dayna M Cobb

Project Manager

Report reviewed/ approved by:

Jay W Hodny

Project Manager

General Comments

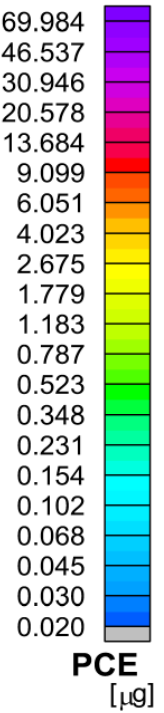
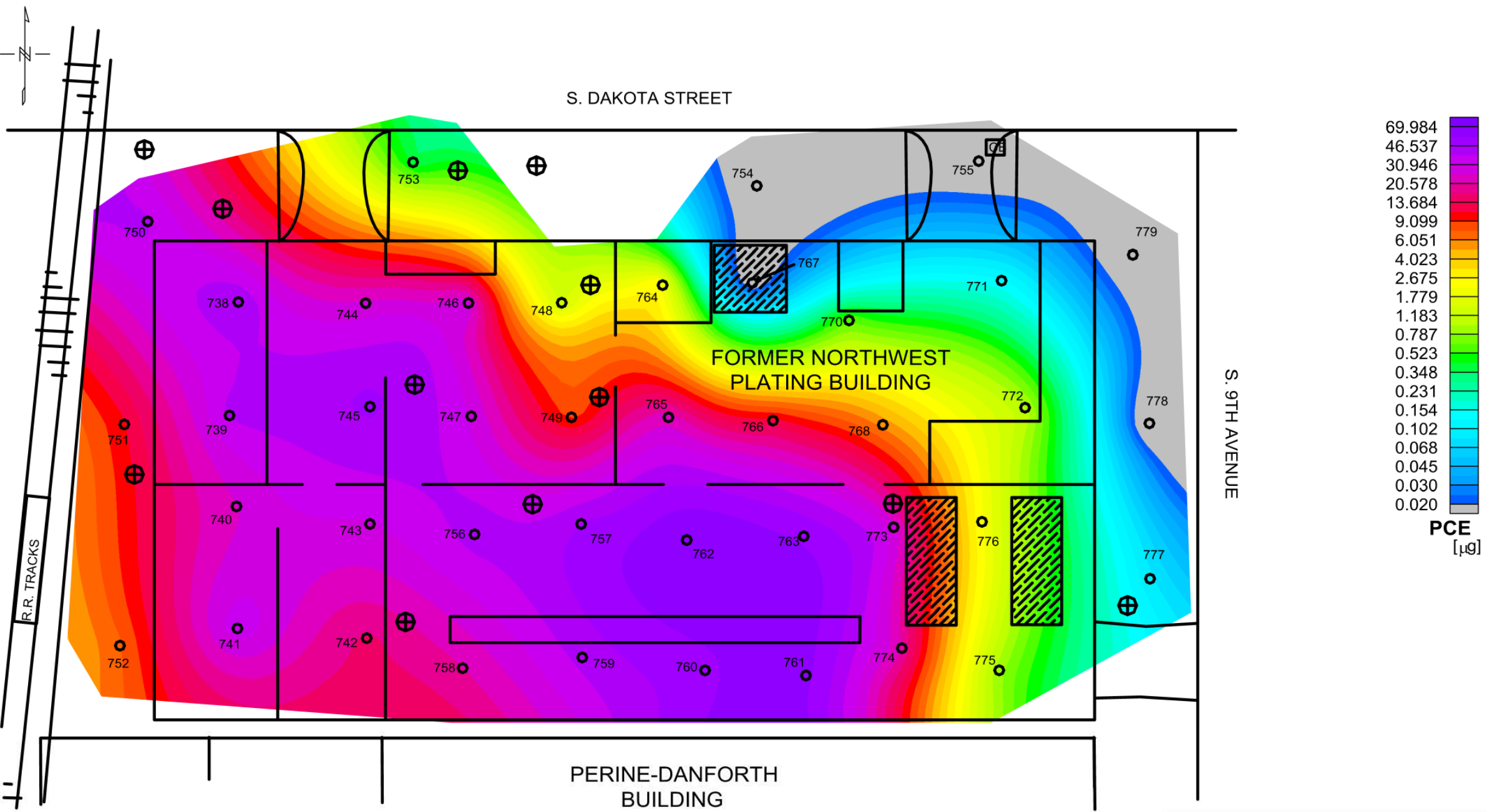
A minimum curvature algorithm was used to interpolate the data from the sample locations to a regularly-spaced grid. The resulting surface is considered to be the smoothest possible surface that will fit the observed values at each sample location (i.e., data honoring). The interpolation is performed in log space, with grid cell sizes approximately one-tenth the average distance between sample locations. For example, when AGI Universal Samplers are placed about 50 feet apart, the grid cell size is set to five feet.

Where observations trend from lower to higher values, and moving towards the edge of the area sampled, the contour surface will continue to rise (showing warmer colors) as no additional data exist to constrain the interpolation. Where observations trend from high to low, towards the edge of the area sampled, the opposite is true.

Contour minimums and maximums used in the color interval assignment are established based on the QA blank levels (trip and method blanks), method detection limits, and maximum values observed. The minimum contour level (gray color) is established using the maximum QA blank level or method detection limit, whichever is greater, per compound or groups of compounds. The maximum contour level is set at the maximum value observed, per compound or groups of compounds. Contour interval assignments can be modified at the client's request.

Project Specific Comments

None



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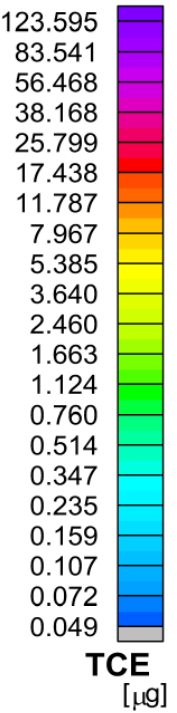
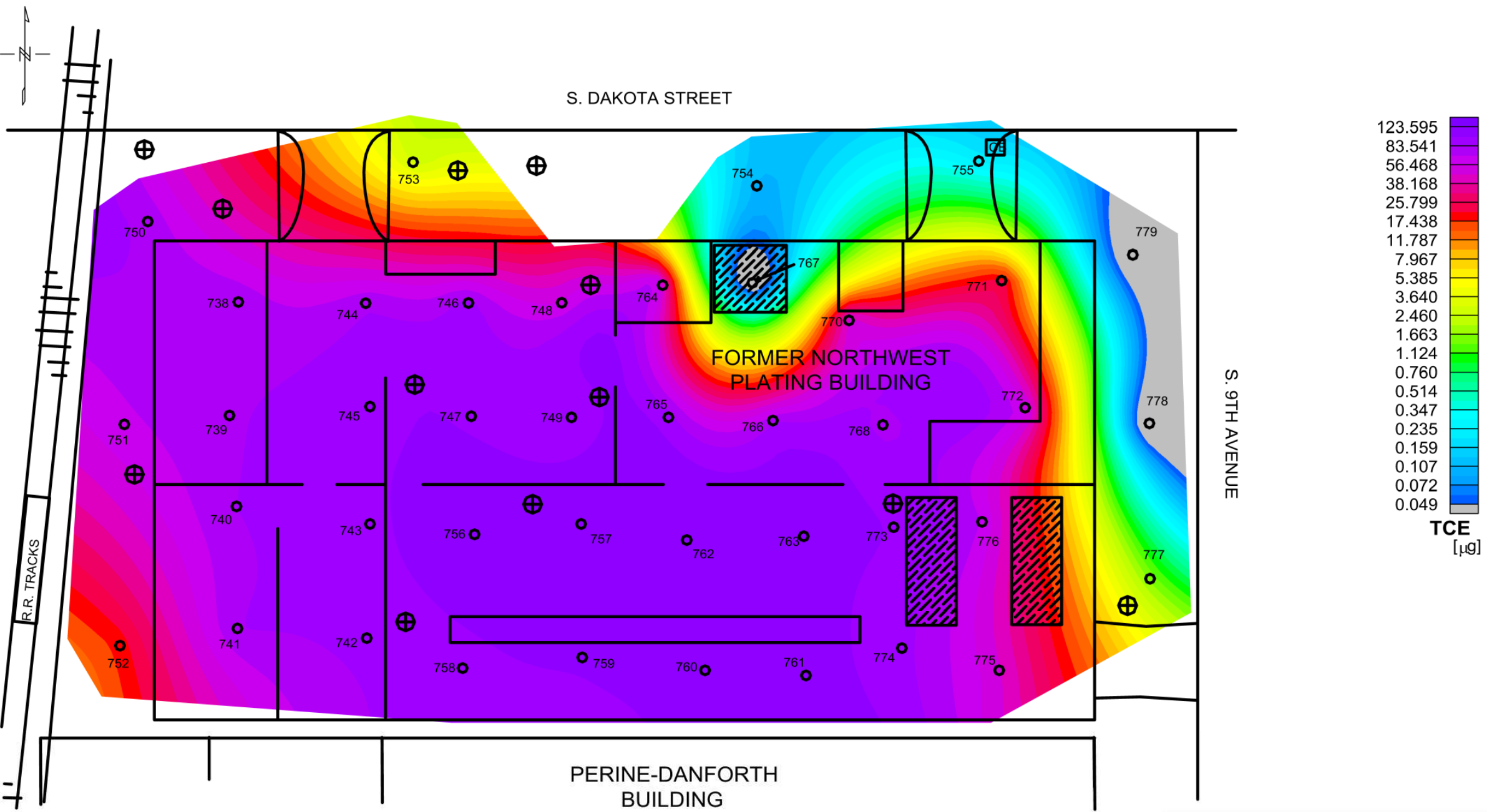
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FAX: +1-302-266-2429
WWW.AGISURVEYS.NET



Environmental Partners, Inc., Issaquah, WA
Washington Industries, Inc.
Tetrachloroethene

DATE DRAWN: 17 Jan 2014	DRAWN BY: JW	ORIG. CAD: AGI...DWG	SITE CODE:
REV. DATE:	REV. #:	PROJECT NUMBER: 30000178	



PERINE-DANFORTH
BUILDING

S. DAKOTA STREET

S. 9TH AVENUE

FORMER NORTHWEST
PLATING BUILDING

R.R. TRACKS



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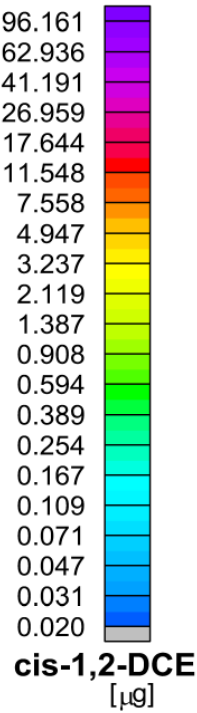
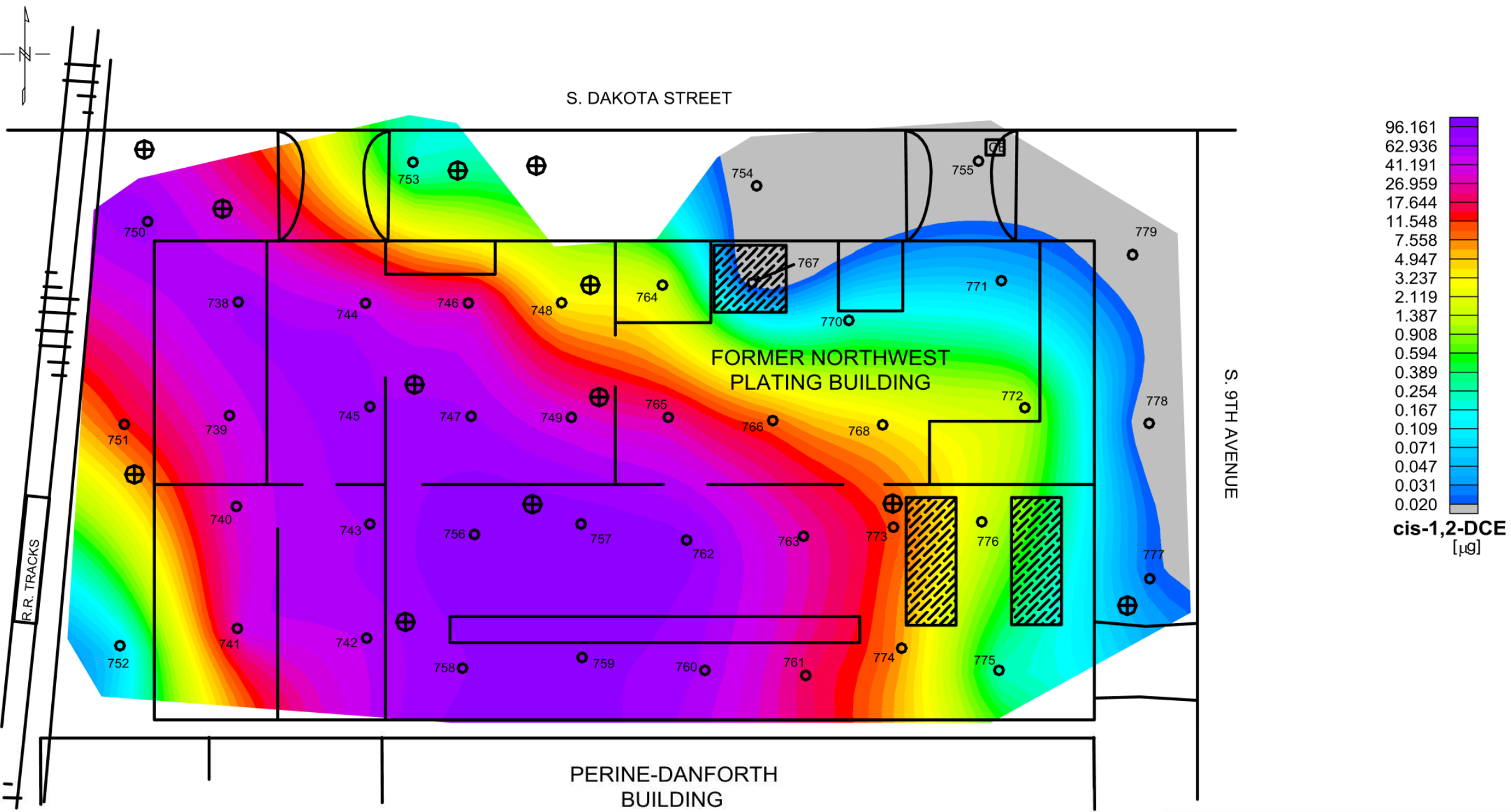
Environmental Partners, Inc., Issaquah, WA
Washington Industries, Inc.
Trichloroethene

Scale 1:240



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cis-1,2-DCE
[µg]

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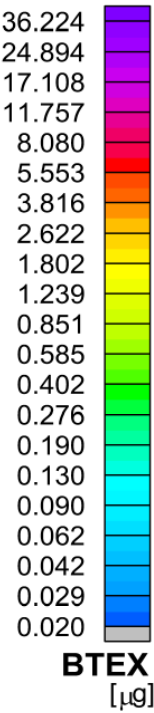
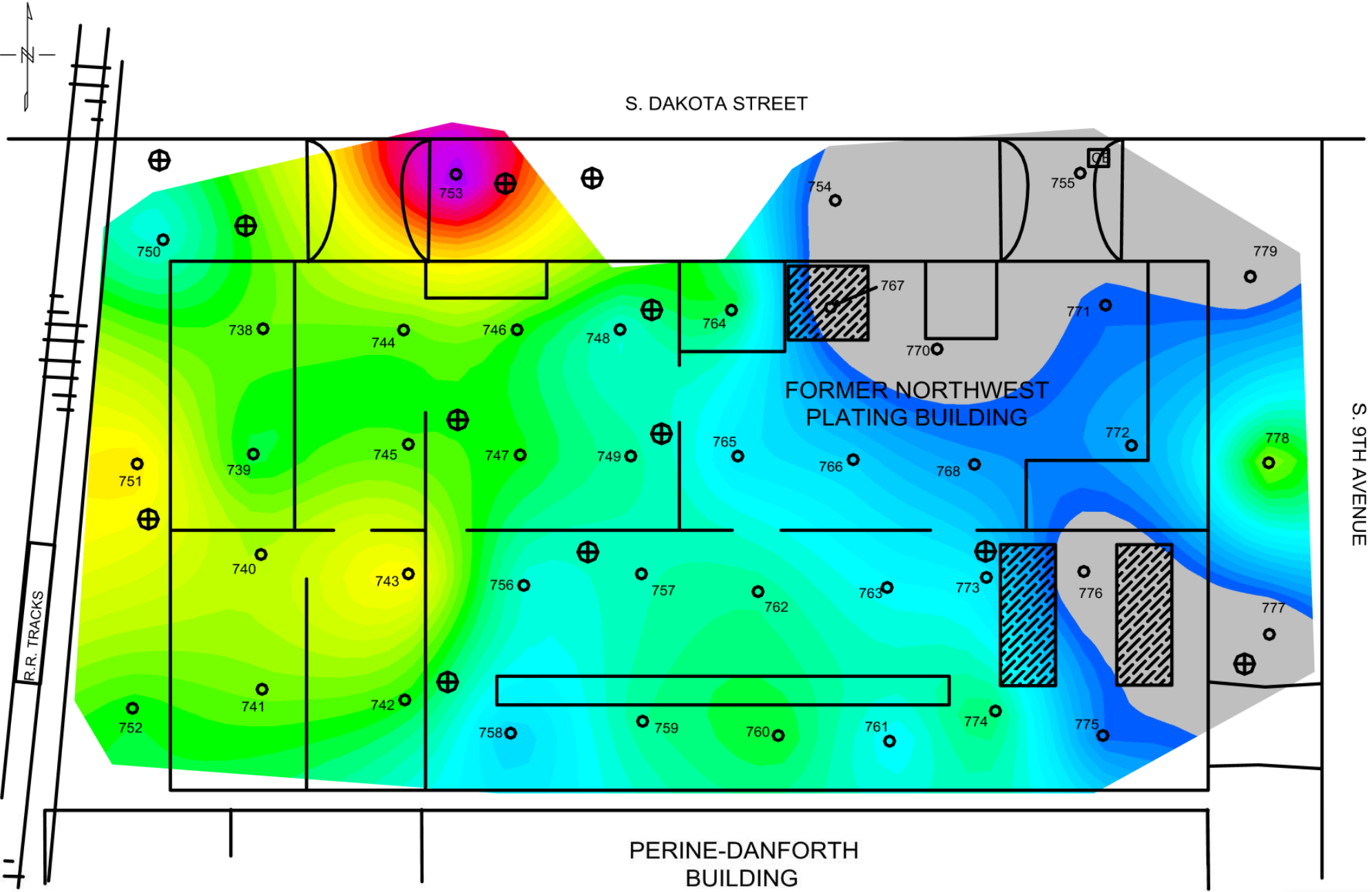


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Environmental Partners, Inc., Issaquah, WA
Washington Industries, Inc.
cis-1,2-Dichloroethene

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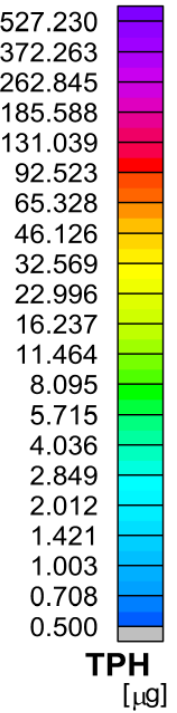
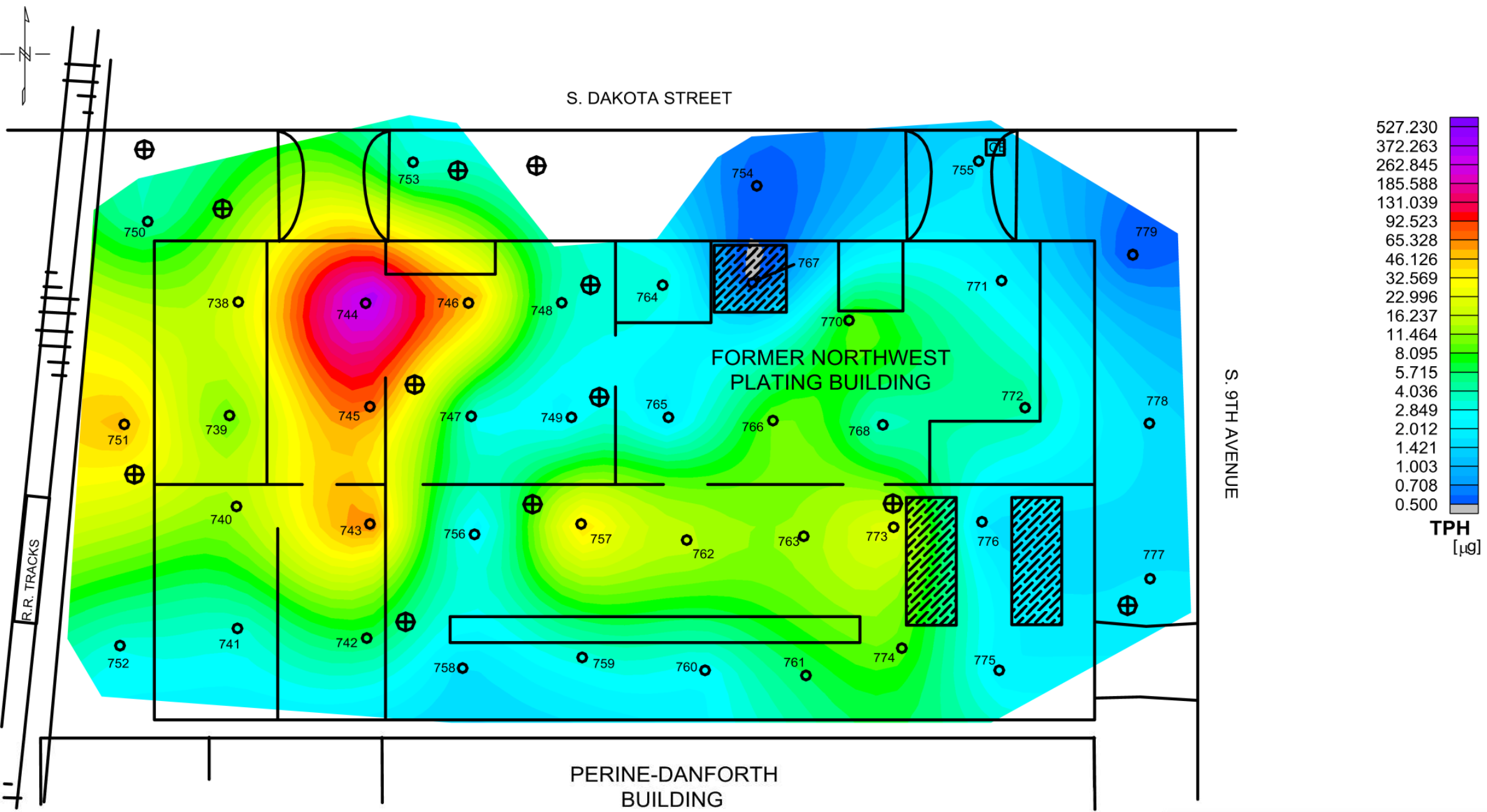


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Washington Industries, Inc.
BTEX

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REV. DATE:	REV. #:	PROJECT NUMBER: 30000178	



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Environmental Partners, Inc., Issaquah, WA
Washington Industries, Inc.
Total Petroleum Hydrocarbons

Scale 1:240



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DATE DRAWN: 17 Jan 2014	DRAWN BY: JW	ORIG. CAD: AGI...DWG	SITE CODE:
REV. DATE:	REV. #:	PROJECT NUMBER: 30000178	

Amplified Geochemical Imaging, LLC
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Newark, DE 19702-3335
Phone: 302.266.2428

AGIsurveys.net

European Sales Office:
+49.89.638.7927-12


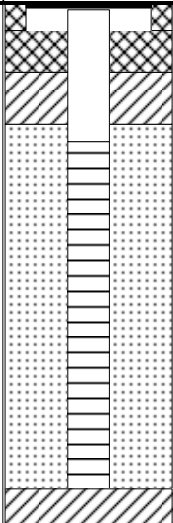


Attachment B
Soil Boring Logs

epi ENVIRONMENTAL PARTNERS INC				BORING ID: MW-4i			
SITE ADDRESS 825 South Dakota Street, Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 2" PVC	
DRILLING CONTRACTOR: Cascade Drilling				PROJECT #: 64001.4		SCREEN SIZE: 0.01	
DRILLING EQUIPMENT: Spider Sonic Truck				DATE: 11/25/15		SCREEN INTERVAL: 25'-40'	
DRILLING METHOD: Sonic				GROUND SURFACE ELEV. FT AMSL: Not Measured		FILTER PACK: Silica Sand	
LOGGED BY: Bryan Miles L.G.		BOREHOLE SIZE: 2" PVC		TOTAL DEPTH: 40 fbg		FILTER PACK INTERVAL: 23'-40'	
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	Blows per 6"	Sample	PID (ppm)	Well Construction
0	SM	SILTY SAND; Asphalt surface ~ 8" thick; dark grey with tan silt lenses; damp; dense; fine grain	100				
5	SP	POORLY-GRADED SAND; dark grey; moist; medium dense; fine grain	100		MW-4i: 5 (1300)	0.2	
10		Wet @ 9'	30		MW-4i: 10 (1315)	0.1	
15	ML	SILT; dark grey; moist; hard; non-plasti; no odor or staining	100			3.8	
20		Some sand					
25		POORLY-GRADED SAND WITH SILT; moist; mostly fine grain sand; no odor or staining	100				
30	SP-SM		100				
35			100				
40	ML	SILT; dark grey; damp; hard; non-plasti; few very fine grain sand; no odor	100				
45		End of Borehole					

NOTES: PID lamp not working



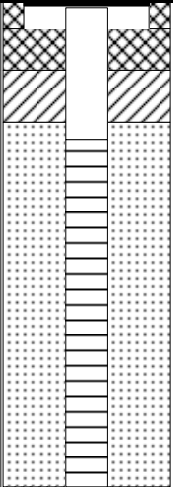

1 of 1

<div> ENVIRONMENTAL PARTNERS INC</div>			BORING ID: MW-7s			
SITE ADDRESS 825 S. Dakota St. Seattle, WA			CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 2-inch PVC Sch. 40	
DRILLING CONTRACTOR: Holt Services			PROJECT #: 64001		SCREEN SIZE: 0.010"-Slot	
DRILLING EQUIPMENT: Geoprobe 7822DT			DATE: 4/28/15		SCREEN INTERVAL: 4'-14'	
DRILLING METHOD: Direct-Push Technology			GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: 10/20 Prepack Sand	
LOGGED BY: M. Busbee			TOTAL DEPTH: 15'		FILTER PACK INTERVAL: 3.5'-14'	
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0	SP	POORLY-GRADED SAND; brown; dry; fine sand with some fine gravel; no odor.	80	0.8	MW-7S:8	
2	ML	SILT; gray; moist; silt with minor fine sand; no odor.				
4		POORLY-GRADED SAND; brown; moist; fine sand; no odor.	90	4.8		10/20 Sand
6						
8	SP					
10		Wet	90	1.7		2-inch 0.010"-Slot Screen
12						
14	ML	SILT; gray; moist; silt with trace shells; no odor.		0		Hydrated Bentonite
16		End of Borehole				
18						
20						
22						
24						
26						
28						
30						
32						
34						
36						
NOTES:						


1 of 1

ENVIRONMENTAL PARTNERS INC				BORING ID: MW-7ir			
SITE ADDRESS 825 South Dakota Street, Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 2" PVC	
DRILLING CONTRACTOR: Cascade Drilling				PROJECT #: 64001.4		SCREEN SIZE: 0.01	
DRILLING EQUIPMENT: Spider Sonic Truck				DATE: 11/23/15		SCREEN INTERVAL: 15'-35'	
DRILLING METHOD: Sonic				GROUND SURFACE ELEV. FT AMSL: Not Measured		FILTER PACK: Silica Sand	
LOGGED BY: Bryan Miles L.G.		BOREHOLE SIZE: 2" PVC		TOTAL DEPTH: 90 fbg		FILTER PACK INTERVAL: 13'-36'	
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	Blows per 6"	Sample	PID (ppm)	Well Construction
0	SW	WELL-GRADED SAND; brown and dark grey; moist; dense; fine to coarse grains	100			69	Cement
5	SP	POORLY-GRADED SAND; dark grey; moist; dense; fine grain	100			77	Bentonite Chips
10	ML	SILT; brown; very moist; stiff; non plastic; some white flat clam shells less than 1.5"	100			23	Blank 2" PVC
15	SM	Increasing sand				0.4	.010 slot 2" PVC
20		SILTY SAND; brown; wet; few white flat clam shells less than 1.5" wide; very fine grain sand; no odor	100			0.3	
25		Increasing sand				0.3	
30	SW	WELL-GRADED SAND WITH GRAVEL; dark grey; wet; dense; fine to coarse sand; trace shell fragments	100			0.3	Sand
35	ML	SILT; bluish grey; damp; hard; low plast.; trace very fine grain sand	100			0.3	
40			100		MW-7ir: 40 (1220)	0.3	
45	ML	SANDY SILT; bluish grey; damp; hard; non-plastic; very fine grain sand	100		MW-7ir :45 (1300)	0.2	Bentonite Chips
50	ML	SILT; bluish grey; damp; hard; low plasti; trace very fine grain	100		MW-7ir: 50 (1310)	0.2	
55	ML		100			0.2	
60	CL	SANDY SILT; bluish grey; damp; hard; non plastic; very fine grain	100		MW-7ir: 55 (1320)		
65		CLAY; bluish grey; damp; hard; high plasti; inter trace white shell fragments	100		MW-7ir: 60 (1330)	0.2	
70		No shells	100			0.2	
75			100		MW-7ir: 70 (1345)	0.3	
80		Clay; bluish gray; damp; hard; high plasticity	100		MW-7ir: 80 (1400)	0.2	
85		100			0.7		
90		End of Borehole			MW-7ir: 90 (1430)	0.4	
95							
NOTES:							


1 of 1


 ENVIRONMENTAL PARTNERS INC		BORING ID: MW-8s					
SITE ADDRESS 825 S. Dakota St. Seattle, WA		CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 2-inch PVC Sch. 40			
DRILLING CONTRACTOR: Holt Services		PROJECT #: 64001		SCREEN SIZE: 0.010"-Slot			
DRILLING EQUIPMENT: Geoprobe 7822DT		DATE: 5/28/15		SCREEN INTERVAL: 4'-14'			
DRILLING METHOD: Direct-Push Technology		GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: 10/20 Prepack Sand			
LOGGED BY: M. Busbee		TOTAL DEPTH: 15'		FILTER PACK INTERVAL: 3.5'-14'			
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction	
0	 SP	POORLY-GRADED SAND; brown; dry; mostly fine sand; no odor.	40	0.8		 Flush Monument Hydrated Bentonite 2-inch PVC Casing 10/20 Sand 2-inch 0.010"-Slot Screen	
2			80	1			
4		 ML	SILT; gray; moist; silt; no odor.	20			0.4
6				Wet			
8							
10							
12							
14							
16		End of Borehole					
18							
20							
22							
24							
26							
28							
30							
32							
34							
36							
NOTES:							

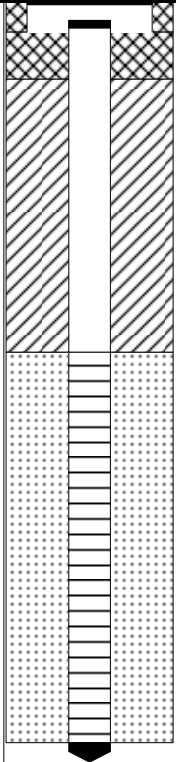
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SITE ADDRESS 825 S. Dakota St. Seattle, WA			CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 2-inch PVC Sch. 40		
DRILLING CONTRACTOR: Holt Services			PROJECT #: 64001		SCREEN SIZE: 0.010"-Slot		
DRILLING EQUIPMENT: Geoprobe 7822DT			DATE: 5/27/15		SCREEN INTERVAL: 29'-34'		
DRILLING METHOD: Direct-Push Technology			GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: 10/20 Prepack Sand		
LOGGED BY: M. Busbee			TOTAL DEPTH: 35'		FILTER PACK INTERVAL: 28.5'-34'		
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction	
0	ML	SILT WITH GRAVEL; light brown; dry; mostly silt with minor gravel and few fine sand; no odor.	60	0		Flush Monument	
2							
4	SP	POORLY-GRADED SAND; dark brown; damp; mostly fine sand; no odor.	70	0		2-inch PVC Casing	
6							
8		Increased moisture					
10		Wet	90	0		Hydrated Bentonite	
12							
14			100	0			
16							
18			100	0			
20							
22			100	0			
24	ML	SILT; gray; damp; silt; no odor.				10/20 Sand	
26							
28			100	0			
30		No recovery					
32			0			2-inch 0.010"-Slot Screen	
34							
36		End of Borehole					
NOTES:							
1 of 1							

<div> ENVIRONMENTAL PARTNERS INC</div>			BORING ID: MW-15i				
SITE ADDRESS 825 S. Dakota St. Seattle, WA			CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 2-inch PVC Sch. 40		
DRILLING CONTRACTOR: Holt Services			PROJECT #: 64001		SCREEN SIZE: 0.010"-Slot		
DRILLING EQUIPMENT: Geoprobe 7822DT			DATE: 6/2/15		SCREEN INTERVAL: 25'-30'		
DRILLING METHOD: Direct-Push Technology			GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: 10/20 Prepack Sand		
LOGGED BY: M. Busbee			TOTAL DEPTH: 30'		FILTER PACK INTERVAL: 24'-30'		
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction	
0	SP	Concrete	90	27		Flush Monument	
2		POORLY-GRADED SAND; brown; dry; loose; mostly fine sand; no odor.					
4			90	162		2-inch PVC Casing	
6		Increased moisture				Hydrated Bentonite	
8	SM		80	1.7			
10		SILTY SAND; gray; moist; mostly fine sand with some silt; no odor.					
12			90	1.4			
14							
16	ML		100	0.1			
18		SILT; gray; damp; stiff; silt; no odor.					
20		Wet and soft	100	0.1			
22							
24	SP-SM		100	0.1			
26		POORLY-GRADED SAND WITH SILT; gray; wet; mostly fine sand with minor silt; no odor.				10/20 Sand	
28						2-inch 0.010"-Slot Screen	
30		End of Borehole					
32							
34							
36							
NOTES:							

1 of 1


 ENVIRONMENTAL PARTNERS INC				BORING ID: SB-15d			
SITE ADDRESS 825 South Dakota Street, Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: N/A	
DRILLING CONTRACTOR: Cascade Drilling				PROJECT #: 64001.4		SCREEN SIZE:	
DRILLING EQUIPMENT: Spider Sonic Truck				DATE: 11/19/15		SCREEN INTERVAL:	
DRILLING METHOD: Sonic				GROUND SURFACE ELEV. FT AMSL: Not Measured		FILTER PACK:	
LOGGED BY: Bryan Miles		BOREHOLE SIZE:		TOTAL DEPTH: 90 fbg		FILTER PACK INTERVAL:	
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	Blows per 6"	Sample	PID (ppm)	Well Construction
0		CEMENT SURFACE					
		POORLY-GRADED SAND; dark grey; moist; loose	100		MW-15d: 2 (1005)	2E+3	
5	SP				MW-15d: 5 (1007)	3.8E+2	
			100				
10	ML	SILT; dark grey; very moist; stiff; non-plastic; abundant white flat clam shells less than 1.5"			MW-15d: 10 (1015)	9.3	
		SILTY SAND; dark grey; wet; dense; abundant white flat clam shells up to 1.5"; very fine grain	100				
15	SM				MW-15d: 15 (1025)	2.5	
			0				
20	ML	SILT; dark grey; moist; hard; non-plastic					
			100				
25	SP-SM	POORLY-GRADED SAND WITH SILT; dark grey; wet; fine grain					
			100				
30	SM	SILTY SAND; dark grey; moist; dense; very fine grain sand				8	
		POORLY-GRADED SAND; dark grey; moist; dense; fine grain	100			0.3	
35	SP					1	
			100			2	
40		SILT; dark grey; damp; hard; non-plastic; few very fine grain sand			MW-15d: 40 (1400)	4.6	
			100			0.9	
45	ML					1	
			100				
NOTES: Unable to detect odor because wearing respirator							

 ENVIRONMENTAL PARTNERS INC		BORING ID: MW-20			
SITE ADDRESS 820 South Adams St. Seattle, WA		CLIENT: Washington Industries		CASING MATERIAL AND SIZE: Temp: 3/4" PVC	
DRILLING CONTRACTOR: Holocene Drilling Inc.		PROJECT #: 64001.1		SCREEN SIZE: 0.010"- Slot	
DRILLING EQUIPMENT: AMS DPT LAR		DATE: July 25, 2014		SCREEN INTERVAL: 9'-19'	
DRILLING METHOD: Direct-Push Technology		GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: 10/20 Silica Sand	
LOGGED BY: M. Busbee		BOREHOLE SIZE:		TOTAL DEPTH: 20'	
FILTER PACK INTERVAL: 10'-20'					

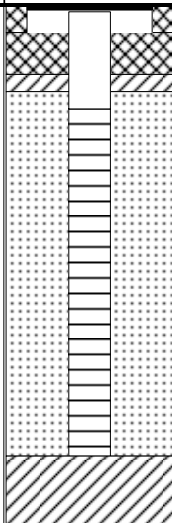
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		POORLY-GRADED SAND; brown; dry; fine sand with trace silt; no odor; moist at 7'	90	1.3	MW-20:1	
4	SP		60	1	MW-20:5	
8	ML	SILT; dark brown; moist; some rock; no odor	90	3.4	MW-20:11.5	
12	SW	WELL-GRADED SAND; dark brown; moist; fine-medium sand; no odor	95	0.7		
16	SW	wet at 14'	100	0.9		
20	ML	SILT WITH SAND; gray; wet; silt with some fine sand; no odor		1.1		
20	End of Borehole					
24						
28						
32						



NOTES:

1 of 1


 ENVIRONMENTAL PARTNERS INC			BORING ID: MW-21i			
SITE ADDRESS 812 S. Adams St. Seattle, WA			CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 2-inch PVC Sch. 40	
DRILLING CONTRACTOR: Holt Services			PROJECT #: 64001		SCREEN SIZE: 0.010"-Slot	
DRILLING EQUIPMENT: Geoprobe 7822DT			DATE: 4/30/15		SCREEN INTERVAL: 20'-25'	
DRILLING METHOD: Direct-Push Technology			GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: 10/20 Prepack Sand	
LOGGED BY: M. Busbee			TOTAL DEPTH: 25'		FILTER PACK INTERVAL: 19'-25'	
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Very limited recovery. Brick in cutting shoe.				Flush Monument
2			5			
4				0.1		2-inch PVC Casing
6	SP	POORLY-GRADED SAND; brown; wet; mostly fine sand with trace silt; no odor; limited recovery.	5		MW-21i:10	Hydrated Bentonite
8				0.1		
10				0.1		
12	ML	SILT; gray; moist; elastic silt; no odor.	100	0.1		
14	SP-SM	POORLY-GRADED SAND WITH SILT; gray; wet; mostly fine sand with few silt trace shells and trace fine gravel; no odor.				
16			100			
18				0.1		10/20 Sand
20				0.1		
22				90	2-inch 0.010"-Slot Screen	
24				0.1		
26		End of Borehole				
28						
30						
32						
34						
36						
NOTES:						


1 of 1


EPI ENVIRONMENTAL PARTNERS INC			BORING ID: MW-24s			
SITE ADDRESS 825 S. Dakota St. Seattle, WA			CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 2-inch PVC Sch. 40	
DRILLING CONTRACTOR: Holt Services			PROJECT #: 64001		SCREEN SIZE: 0.010"-Slot	
DRILLING EQUIPMENT: Geoprobe 7822DT			DATE: 4/30/15		SCREEN INTERVAL: 3'-13'	
DRILLING METHOD: Direct-Push Technology			GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: 10/20 Prepack Sand	
LOGGED BY: M. Busbee			TOTAL DEPTH: Boring 15', Well 13'		FILTER PACK INTERVAL: 2.5'-13'	
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Gravel + Bricks		1.4	MW-24S:0.5	
2	ML	SILT; tan; moist; silt; no odor.	50			
4		POORLY-GRADED SAND; brown; dry; mostly fine sand; no odor.		3	MW-24S:5	
6	SP		80	1.3	MW-24S:8	
8		Wet				
10	SM	SILTY SAND; gray; wet; mostly fine sand with some silt; no odor.				
10	SP	POORLY-GRADED SAND; brown; wet; mostly fine sand; no odor.				
12		SILT; gray; moist; silt; no odor.	100	0.3		
12	ML					
14						
16		End of Borehole				Hydrated Bentonite
18						
20						
22						
24						
26						
28						
30						
32						
34						
36						
NOTES:						
1 of 1						

<div> ENVIRONMENTAL PARTNERS INC</div>			BORING ID: MW-24i			
SITE ADDRESS 825 S. Dakota St. Seattle, WA			CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 2-inch PVC Sch. 40	
DRILLING CONTRACTOR: Holt Services			PROJECT #: 64001		SCREEN SIZE: 0.010"-Slot	
DRILLING EQUIPMENT: Geoprobe 7822DT			DATE: 4/30/15		SCREEN INTERVAL: 20'-25'	
DRILLING METHOD: Direct-Push Technology			GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: 10/20 Prepack Sand	
LOGGED BY: M. Busbee			TOTAL DEPTH: 25'		FILTER PACK INTERVAL: 19'-25'	
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Gravel + Bricks				 Flush Monument
2	ML	SILT; tan; moist; silt; no odor.	60			
4		POORLY-GRADED SAND; brown; dry; fine sand; no odor.				2-inch PVC Casing
6	SP		90	0.9		Hydrated Bentonite
8						
10	SM SP	SILTY SAND; gray; wet; mostly fine sand with some silt; no odor. POORLY-GRADED SAND; brown; wet; fine sand; no odor.				
12		SILT; gray; moist; silt; no odor.	100			
14	ML					
16		POORLY-GRADED SAND WITH SILT; gray; wet; mostly fine sand with few silt and trace shells; no odor.	100	0.1		
18						
20	SP,SM					10/20 Sand
22			100			2-inch 0.010"-Slot Screen
24				0.1		
26		End of Borehole				
28						
30						
32						
34						
36						
NOTES:						


1 of 1


 ENVIRONMENTAL PARTNERS INC				BORING ID: MW-24ir			
SITE ADDRESS 825 South Dakota Street, Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 2" PVC	
DRILLING CONTRACTOR: Cascade Drilling				PROJECT #: 64001.4		SCREEN SIZE: 0.01	
DRILLING EQUIPMENT: Spider Sonic Truck				DATE: 11/24/15		SCREEN INTERVAL: 16'-36'	
DRILLING METHOD: Sonic				GROUND SURFACE ELEV. FT AMSL: Not Measured		FILTER PACK: Silica Sand	
LOGGED BY: Bryan Miles L.G.		BOREHOLE SIZE: 2" PVC		TOTAL DEPTH: 45 fbg		FILTER PACK INTERVAL: 14'-37'	
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	Blows per 6"	Sample	PID (ppm)	Well Construction
0		TOPSOIL/BACKFILL					
	ML	SILT; brown with red streaks; moist; medium stiff; low plast.; few gravel	100			0.2	Cement
5	SP	POORLY-GRADED SAND; dark brown; moist; dense; fine grain; no odor Increasing sand				1.7	
			100				Bentonite Chips
10	ML	SILT; brown; very moist; stiff; non-plastic; some white clam shells less than 2" wide; no odor				0.2	Blank 2" PVC
			100				
15	SM	SILTY SAND; brown; wet; abundant white clam shells; very fine grain sand				0.2	
			100				
20	SP	POORLY-GRADED SAND; dark brown; wet; dense; fine grain; few white shell fragments less than 1.5 inches wide; very fine grain; few silt; no odor				0.2	Sand
			100				
25		WELL-GRADED SAND WITH GRAVEL; dark grey; wet; fine to coarse gravel dense				0.1	
	SW		100				
30		POORLY-GRADED SAND; dark grey; moist; dense; fine grain; no odor; trace silt No silt				0.2	.010 slot 2" PVC
	SP		100				
35		Increasing silt				0.2	
			100				
40	ML	SILT; bluish-grey; moist; hard; low plast.; few very fine grain sand Decreasing silt				0.2	
			100				Bentontite Chips
45		End of Borehole				0.2	
50							
NOTES:							


 ENVIRONMENTAL PARTNERS INC		BORING ID: MW-25s				
SITE ADDRESS 825 S. Dakota St. Seattle, WA		CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 2-inch PVC Sch. 40		
DRILLING CONTRACTOR: Holt Services		PROJECT #: 64001		SCREEN SIZE: 0.010"-Slot		
DRILLING EQUIPMENT: Geoprobe 7822DT		DATE: 5/26/15		SCREEN INTERVAL: 10'-20'		
DRILLING METHOD: Direct-Push Technology		GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: 10/20 Prepack Sand		
LOGGED BY: M. Busbee		TOTAL DEPTH: 20'		FILTER PACK INTERVAL: 9'-20'		
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Concrete				Flush Monument
2		POORLY-GRADED SAND; brown; dry; mostly fine sand with minor bricks and few wood pieces; no odor.	50	0		
4						Hydrated Bentonite
6			60	0		2-inch PVC Casing
8						
10	SP					10/20 Sand
12			100	0	MW-25S:13	2-inch 0.010"-Slot Screen
14						
16		Wet at 15'				
18	SP-SM	POORLY-GRADED SAND WITH SILT; gray; wet; mostly fine sand with few silt; no odor.	100	0		
20		End of Borehole				
22						
24						
26						
28						
30						
32						
34						
36						
NOTES:						

<div> ENVIRONMENTAL PARTNERS INC</div>			BORING ID: MW-26i			
SITE ADDRESS 825 S. Dakota St. Seattle, WA			CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 2-inch PVC Sch. 40	
DRILLING CONTRACTOR: Holt Services			PROJECT #: 64001		SCREEN SIZE: 0.010"-Slot	
DRILLING EQUIPMENT: Geoprobe 7822DT			DATE: 5/27/15		SCREEN INTERVAL: 29'-34'	
DRILLING METHOD: Direct-Push Technology			GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: 10/20 Prepack Sand	
LOGGED BY: M. Busbee			TOTAL DEPTH: 35'		FILTER PACK INTERVAL: 28'-34'	
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		POORLY-GRADED SAND; light brown; dry; mostly fine sand with trace gravel and few silt; no odor.				Flush Monument
2			80	0.1		
4						
6						2-inch PVC Casing
8		Increased moisture	85	0.1		
10						Hydrated Bentonite
12	SP		100	0.1		
14		Wet				
16						
18			100	0.1		
20						
22						
24			100	0.1		
26		SILT; gray; moist; silt; no odor.				
28	ML		100	0		
30						10/20 Sand
32	SP	POORLY-GRADED SAND; dark brown; wet; mostly fine sand with few silt; no odor.	100	0		2-inch 0.010"-Slot Screen
34	ML	SILT; gray; moist; silt; no odor.				
36		End of Borehole				Hydrated Bentonite
NOTES:						



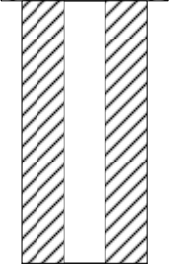
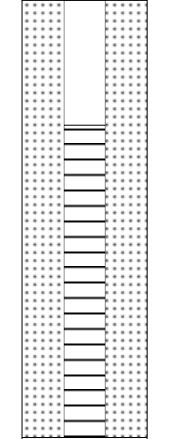
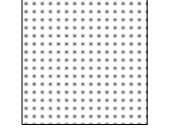
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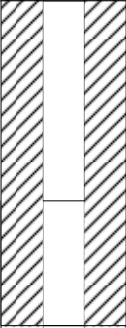
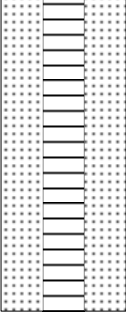
 ENVIRONMENTAL PARTNERS INC		BORING ID: MW-26s						
SITE ADDRESS 825 S. Dakota St. Seattle, WA		CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 2-inch PVC Sch. 40				
DRILLING CONTRACTOR: Holt Services		PROJECT #: 64001		SCREEN SIZE: 0.010"-Slot				
DRILLING EQUIPMENT: Geoprobe 7822DT		DATE: 5/27/15		SCREEN INTERVAL: 10'-20'				
DRILLING METHOD: Direct-Push Technology		GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: 10/20 Prepack Sand				
LOGGED BY: M. Busbee		TOTAL DEPTH: 20'		FILTER PACK INTERVAL: 9'-20'				
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction		
0	SP	POORLY-GRADED SAND; light brown; dry; mostly fine sand with trace gravel and few silt; no odor.	80			Flush Monument		
2								
4		Color change to dark brown					Hydrated Bentonite	
6							2-inch PVC Casing	
8			85					
10		Increased moisture					10/20 Sand	
12			100					2-inch 0.010"-Slot Screen
14								
16		Wet						
18			100					
20		End of Borehole						
22								
24								
26								
28								
30								
32								
34								
36								
NOTES:								



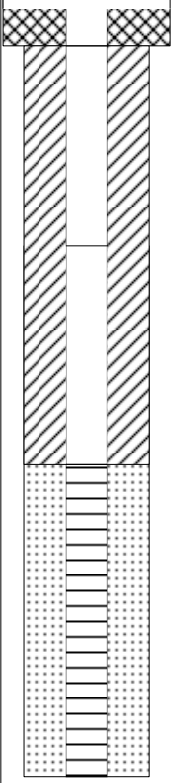
 ENVIRONMENTAL PARTNERS INC		BORING ID: MW-27s				
SITE ADDRESS 825 S. Dakota St. Seattle, WA		CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 2-inch PVC Sch. 40		
DRILLING CONTRACTOR: Holt Services		PROJECT #: 64001		SCREEN SIZE: 0.010"-Slot		
DRILLING EQUIPMENT: Geoprobe 7822DT		DATE: 5/28/15		SCREEN INTERVAL: 10'-20'		
DRILLING METHOD: Direct-Push Technology		GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: 10/20 Prepack Sand		
LOGGED BY: M. Busbee		TOTAL DEPTH: 20'		FILTER PACK INTERVAL: 9'-20'		
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0	SP	POORLY-GRADED SAND; brown; dry; mostly fine sand with few silt and few gravel; no odor.	60	0.1	MW-27S:10	Flush Monument
2		POORLY-GRADED SAND; dark brown; dry; loose; mostly fine sand; no odor.				Hydrated Bentonite
4	Wet		90	0.1		2-inch PVC Casing
6						10/20 Sand
8						
10						
12						
14						
16						
18						
20	End of Borehole	100	0			
22						
24						
26						
28						
30						
32						
34						
36						
NOTES:						



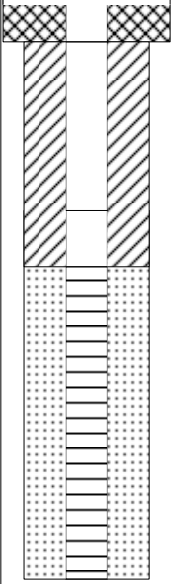
 ENVIRONMENTAL PARTNERS INC		BORING ID: MW-28s				
SITE ADDRESS 825 S. Dakota St. Seattle, WA		CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 2-inch PVC Sch. 40		
DRILLING CONTRACTOR: Holt Services		PROJECT #: 64001		SCREEN SIZE: 0.010"-Slot		
DRILLING EQUIPMENT: Geoprobe 7822DT		DATE: 6/3/15		SCREEN INTERVAL: 5'-15'		
DRILLING METHOD: Direct-Push Technology		GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: 10/20 Prepack Sand		
LOGGED BY: B. Miles P.G.		TOTAL DEPTH: 15'		FILTER PACK INTERVAL: 4'-15'		
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Asphalt surface				Flush Monument
2		POORLY-GRADED SAND; dark brown; damp; mostly fine sand; no odor.				
4						Hydrated Bentonite
6		Increased moisture				2-inch PVC Casing
8	SP	Wet				
10				0.1		10/20 Sand
12		2-inch silt layer		0.1		2-inch 0.010"-Slot Screen
14		Medium sand				
16		End of Borehole		0.1		
18						
20						
22						
24						
26						
28						
30						
32						
34						
36						
NOTES:						

epl ENVIRONMENTAL PARTNERS INC		BORING ID: MW-29s					
SITE ADDRESS		CLIENT:		CASING MATERIAL AND SIZE:			
825 S. Dakota St. Seattle, WA		Washington Industries		2-inch PVC Sch. 40			
DRILLING CONTRACTOR:		PROJECT #:		SCREEN SIZE:			
Holt Services		64001		0.010"-Slot			
DRILLING EQUIPMENT:		DATE:		SCREEN INTERVAL:			
Geoprobe 7822DT		6/8/15		5'-15'			
DRILLING METHOD:		GROUND SURFACE ELEV. FT AMSL:		FILTER PACK:			
Direct-Push Technology				10/20 Prepack Sand			
LOGGED BY:		TOTAL DEPTH:		FILTER PACK INTERVAL:			
M. Busbee		32'		4'-15'			
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction	
0	SP	Concrete	60	0.3	MW-29S:8	Flush Monument	
2		POORLY-GRADED SAND; brown; dry; mostly fine sand; no odor.				Hydrated Bentonite	
4		Wet				100	2-inch PVC Casing
6							10/20 Sand
8	SM	SILTY SAND; gray; wet; mostly fine sand with some silt; no odor.	100	0.2		2-inch 0.010"-Slot Screen	
10							
12							
14							
16	GP	POORLY-GRADED GRAVEL; gray; wet; gravel with few silt; no odor.	0	0.6	Hydrated Bentonite		
18							
20							
22							
24	ML	SILT; gray; dry; silt; no odor.	100	0			
26	SP, SM	POORLY-GRADED SAND WITH SILT; gray; moist; mostly fine sand with minor silt.					
28	SP	POORLY-GRADED SAND; gray; moist; mostly fine sand with few silt; no odor.					
30							
32	End of Borehole						
34							
36							
NOTES:							
1 of 1							

 ENVIRONMENTAL PARTNERS INC				BORING ID: SBW-1			
SITE ADDRESS 825 S Dakota St. Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 2" PVC	
DRILLING CONTRACTOR: Cascade Drilling				PROJECT #: 64001		SCREEN SIZE: 0.010-inch Slot	
DRILLING EQUIPMENT: Vac Masters				DATE: 3/9/15		SCREEN INTERVAL: 7-12 feet bgs	
DRILLING METHOD: Air Knife Vacume Excavation				GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: 2/12 sand	
LOGGED BY: Bryan Miles P.G.		BOREHOLE SIZE: 2"		TOTAL DEPTH: 14'		FILTER PACK INTERVAL: 5-12 fbg	
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction	
0		Cement					Cement
2		POORLY-GRADED SAND; very dark gray; moist; few silt					Bentonite
4		Some Bricks					
6							
8		SP					Screen
10		Few Bricks Wet					
12							Backfill
14		End of Borehole					
16							
18							
20							
NOTES:							

 ENVIRONMENTAL PARTNERS INC			BORING ID: SBW-2					
SITE ADDRESS 825 S Dakota St. Seattle, WA			CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 2" PVC			
DRILLING CONTRACTOR: Cascade Drilling			PROJECT #: 64001		SCREEN SIZE: 0.010-inch Slot			
DRILLING EQUIPMENT: Vac Masters			DATE: 3/10/15		SCREEN INTERVAL: 6-11 feet bgs			
DRILLING METHOD: Air Knife Vacume Excavation			GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: 2/12 sand			
LOGGED BY: Bryan Miles P.G.		BOREHOLE SIZE: 2"	TOTAL DEPTH: 11'		FILTER PACK INTERVAL: 4-11 fbg			
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction		
0	SC	POORLY-GRADED SAND; very dark gray; moist; few silt					Cement	
2							Bentonite	
4								Screen
6								
8	ML	SANDY SILT; very dark gray; wet; poorly graded						
10		End of Borehole						
12								
14								
16								
18								
20								
NOTES:								

 ENVIRONMENTAL PARTNERS INC				BORING ID: SBW-3		
SITE ADDRESS 825 S Dakota St. Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 2" PVC
DRILLING CONTRACTOR: Cascade Drilling				PROJECT #: 64001		SCREEN SIZE: 0.010-inch Slot
DRILLING EQUIPMENT: Vac Masters				DATE: 3/10/15		SCREEN INTERVAL: 7.5 - 12.5 feet bgs
DRILLING METHOD: Air Knife Vacume Excavation				GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: 2/12 sand
LOGGED BY: Bryan Miles P.G.		BOREHOLE SIZE: 2"		TOTAL DEPTH: 12.5'		FILTER PACK INTERVAL: 4-12.5 fbg
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0	 SP	POORLY-GRADED SAND; very dark gray; moist; few silt				 Cement
2						
4						
6						
8						
10						
12						
14						
16						
18						
20						
		Wet				
		End of Borehole				
NOTES:						

 ENVIRONMENTAL PARTNERS INC				BORING ID: SBW-4		
SITE ADDRESS 825 S Dakota St. Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 2" PVC
DRILLING CONTRACTOR: Cascade Drilling				PROJECT #: 64001		SCREEN SIZE: 0.010-inch Slot
DRILLING EQUIPMENT: Vac Masters				DATE: 3/10/15		SCREEN INTERVAL: 4.4 - 9.4 fbg
DRILLING METHOD: Air Knife Vacume Excavation				GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: 2/12 sand
LOGGED BY: Bryan Miles P.G.		BOREHOLE SIZE: 2"		TOTAL DEPTH: 9.4'		FILTER PACK INTERVAL: 3.5 - 9.4 fbg
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0	 SP	POORLY-GRADED SAND; very dark gray; moist; few silt				 Cement
2						
4						
6						
8						
10						
12						
14						
16						
18						
20		End of Borehole				Screen
NOTES:						



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-1

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010"- Slot

DRILLING EQUIPMENT:

Jackhammer

DATE:

3/18/14

SCREEN INTERVAL:

6'-11'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

M. Busbee

BOREHOLE SIZE:

TOTAL DEPTH:

11'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0	SW	WELL-GRADED SAND; brown; wet; fine-coarse sand with few fine gravel; no odor	50	0.4	B-1:0.5'	
1						
2	SW	SILTY SAND; brown; moist; well graded fine-coarse sand with some silt; no odor	100	2.6	B-1:3'	Temporary Well 3/4" PVC
3						
4						
5		Hole wet from a roof leak. No further soil sampling				
6						
7						
8						
9						
10					B-1:RGW	0.010" Slot
11		End of Borehole				
12						
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-2

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010"- Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/17/14

SCREEN INTERVAL:

6'-11'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

M. Busbee

BOREHOLE SIZE:

TOTAL DEPTH:

12'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Sub-Base Gravel				
1		SILT; brown; moist; silt; no odor		33.8	B-2:0.5'	
2	ML		50			
3		POORLY-GRADED SAND; dark brown; dry; fine sand with trace silt; wet at 7'; no odor		5.8	B-2:3'	
4						
5						
6	SP		100	2.2	B-2:6'	
7						
8						
9						
10		SILT; gray; wet	100			
11	ML					
12		End of Borehole			B-2:RGW	
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-3

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/18/14

SCREEN INTERVAL:

8'-12'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

M. Busbee

BOREHOLE SIZE:

TOTAL DEPTH:

12'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0	ML	SILT; brown; wet; silt with fine gravel	60	7.5	B-3:0.5'	Temporary Well 3/4" PVC
1						
2						
3	SP	Brick; red; dry	100	4.2	B-3:3.5'	0.010" Slot
4		POORLY-GRADED SAND; brown; moist; fine sand; no odor				
5						
6						
7	ML		100	4.5	B-3:6.5'	
8						
9						
10	ML	SILT; gray; wet; silt; no odor	100			
11						
12		End of Borehole			B-3:RGW	
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-4

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/17/14

SCREEN INTERVAL:

8'-12'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

M. Busbee

BOREHOLE SIZE:

TOTAL DEPTH:

12'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		WELL-GRADED GRAVEL; gray; dry; gravel with trace silt; no odor; contains brick fragments		5.8	B-4:0.5'	
1	GW					
2	ML	SILT; brown; moist; silt; no	90			
3		POORLY-GRADED SAND; brown; moist; fine sand; no odor; wet at 7'		4.9	B-4:3'	
4						
5						
6	SP		100	1.5	B-4:6'	
7						
8						
9		SILT; gray; wet; silt; no odor				
10	ML		100			
11						
12		End of Borehole			B-4:RGW	
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-5

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/17/14

SCREEN INTERVAL:

8'-12'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

M. Busbee

BOREHOLE SIZE:

TOTAL DEPTH:

12'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0	GW	WELL-GRADED GRAVEL; gray; dry; gravel with trace silt; no odor; contains brick fragments		4.1	B-5:0.5'	
1	GW					
2	ML	SILT; brown; moist; silt; no	70			
3	ML			6.1	B-5:3'	
4	SO	POORLY-GRADED SAND; brown; moist; fine sand; no odor; wet at 7'				
5	SO					
6	SO		100	1.7	B-5:6'	
7	SO					
8	SO					
9	ML	SILT; gray; wet; silt; no odor				
10	ML		100			
11	ML					
12		End of Borehole			B-5:RGW	
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-6

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/18/14

SCREEN INTERVAL:

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

LOGGED BY:

M. Busbee

BOREHOLE SIZE:

TOTAL DEPTH:

2'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Sub-Base Gravel				
1	ML	SILT; gray; dry; silt with some fine gravel; no odor	50	1.1	B-6:1'	Temporary Well 3/4" PVC
2		Refusal				
3		End of Borehole				
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-7

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/17/14

SCREEN INTERVAL:

7'-12'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

M. Busbee

BOREHOLE SIZE:

TOTAL DEPTH:

12'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Sub-Base Gravel				
1	ML	SILT; dark brown; dry; silt		27.8	B-7:0.5'	
2			70			
3		POORLY-GRADED SAND; dark brown; dry; fine sand with trace silt; no odor; moist at 7"		34.3	B-7:3'	
4						
5	SP					
6			100	4.6	B-7:6'	
7						
8		SILT; gray; wet; soft; silt; no odor				
9						
10	ML		100			
11						
12		End of Borehole			B-7:RGW	
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:



**ENVIRONMENTAL
PARTNERS INC**

BORING ID: B-8

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/17/14

SCREEN INTERVAL:

7'-12'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

M. Busbee

BOREHOLE SIZE:

TOTAL DEPTH:


12'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Sub-Base Gravel				
1	ML	SILT; dark brown; dry; silt		12.6	B-8:0.5'	
2			60			
3		POORLY-GRADED SAND; dark brown; dry; fine sand with trace silt; no odor; moist at 7'		3.1	B-8:3'	
4						
5	SP					
6			100	0.5	B-8:6'	
7						
8		SILT; gray; wet; soft; silt; no odor		0.3		
9						
10	ML		100			
11						
12		End of Borehole		0.2	B-8:RGW	
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:

 ENVIRONMENTAL PARTNERS INC				BORING ID: B-9			
SITE ADDRESS 825 South Dakota St. Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: Temp: 3/4" PVC	
DRILLING CONTRACTOR: Holocene Drilling Inc.				PROJECT #: 64001		SCREEN SIZE: 0.010" - Slot	
DRILLING EQUIPMENT: AMS DPT LAR				DATE: 3/17/14		SCREEN INTERVAL: 6'-11'	
DRILLING METHOD: Direct-Push Technology				GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: Native	
LOGGED BY: M. Busbee			BOREHOLE SIZE:	TOTAL DEPTH: 11'		FILTER PACK INTERVAL: n/a	
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction	
0		Sub-Base Gravel		0.5	B-9:0.5'		
1	ML	SILT; dark brown; dry; silt					
2		POORLY-GRADED SAND; dark brown; dry; fine sand with trace silt; no odor; moist at 7'	20	6	B-9:3'		Temporary Well 3/4" PVC
3							
4							
5	SP						
6			20	1.2	B-9:6'		
7							
8		SILT; gray; wet; soft; silt; no odor					
9							
10	ML		30				0.010" Slot
11							
12		End of Borehole			B-9:RGW		
13							
14							
15							
16							
17							
18							
19							
20							
NOTES:							



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-10

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/17/14

SCREEN INTERVAL:

7'-12'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

M. Busbee

BOREHOLE SIZE:

TOTAL DEPTH:


12'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Sub-Base Gravel				
1	SW	WELL-GRADED SAND; light gray; dry; fine-coarse sand; no odor		8.1	B-10:0.5'	
2		POORLY-GRADED SAND; dark brown; dry; fine sand; no odor; wet at 7'	40			
3				11.1	B-10:3'	
4	SP					
5						
6			100	2.3	B-10:6'	
7						
8		SILT; gray; wet; silt; no odor				
9						
10	ML		100			
11						
12		End of Borehole		0	B-10:RGW	
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:

 ENVIRONMENTAL PARTNERS INC				BORING ID: B-11			
SITE ADDRESS 825 South Dakota St. Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: Temp: 3/4" PVC	
DRILLING CONTRACTOR: Holocene Drilling Inc.				PROJECT #: 64001		SCREEN SIZE: 0.010" - Slot	
DRILLING EQUIPMENT: AMS DPT LAR				DATE: 3/17/14		SCREEN INTERVAL: 5'-10'	
DRILLING METHOD: Direct-Push Technology				GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: Native	
LOGGED BY: M. Busbee			BOREHOLE SIZE:	TOTAL DEPTH: 12'		FILTER PACK INTERVAL: n/a	

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Sub-Base Gravel				
1	ML	SILT; dark brown; dry; silt		28.3	B-11:0.5'	
2						
3		POORLY-GRADED SAND; dark brown; dry; fine sand with trace silt; no odor; moist at 7'	60	2.2	B-11:3'	Temporary Well 3/4" PVC
4						
5						
6						
7			100	1.4	B-11:6'	
8		8'-12' No Recovery; Wet				0.010" Slot
9						
10			0			
11						
12		End of Borehole			B-11:RGW	
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:

1 of 1



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-12

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/19/14

SCREEN INTERVAL:

7'-12'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

M. Busbee

BOREHOLE SIZE:

TOTAL DEPTH:

12'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Sub-Base Gravel				
1	SP	POORLY-GRADED SAND; dark brown; dry; cemented fine sand (clay like); no odor		3.5	B-12:0.5'	
2		POORLY-GRADED SAND; brown; dry; fine sand; no odor; wet at 8'	90			
3				1.7	B-12:3'	
4						
5	SP					
6			100	4.7	B-12:6'	
7						
8						
9		SILT; gray; wet; soft silt; no odor				
10	ML		100			
11						
12		End of Borehole			B-12:RGW	
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-13

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/18/14

SCREEN INTERVAL:

5'-10'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

M. Busbee

BOREHOLE SIZE:

TOTAL DEPTH:

12'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Sub-Base Gravel				
1	ML	SILT; dark brown; moist; silt with few fine sand; no odor		10.1	B-13:0.5'	
2		POORLY-GRADED SAND; dark brown; moist; fine sand; no odor; wet at 7'	60			
3				4.9	B-13:3'	
4	SP					
5						
6			100	8.1	B-13:6'	
7						
8		SILT; gray; wet; some debris; very soft 9.5'-10.5'				
9						
10	ML		100			
11						
12		End of Borehole		0	B-13:RGW	
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-14

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/18/14

SCREEN INTERVAL:

5'-10'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

M. Busbee

BOREHOLE SIZE:

TOTAL DEPTH:

10'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		SILTY SAND; gray; wet; soft; fine-coarse sand with some silt; no odor; fill				
1			100			
2						
3				1.4	B-14:6' (not collected)	
4	SM		100			
5						
6				2.2	B-14:8'	
7			100			
8		No Recovery; some fine sand in the bottom of 0'-8'; dark brown	0			
9						
10		End of Borehole			B-14:RGW	
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-15

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/18/14

SCREEN INTERVAL:

7'-12'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

M. Busbee

BOREHOLE SIZE:

TOTAL DEPTH:

12'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		No Recovery				
1						
2			0			
3						Temporary Well 3/4" PVC
4		POORLY-GRADED SAND; brown; moist; fine sand; no odor; wet at 6.5'			B-15:5'	
5						
6			90			
7	SP					
8						
9		SILT; gray; wet; soft; silt; no odor				0.010" Slot
10	ML		100			
11						
12		End of Borehole			B-15:RGW	
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-16

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/18/14

SCREEN INTERVAL:

5'-10'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

M. Busbee

BOREHOLE SIZE:

TOTAL DEPTH:

10'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Sub-Base Gravel				
1	ML	SILT; dark gray; moist; organic silt		5.5	B-16:0.5'	
2		POORLY-GRADED SAND; brown; dry; fine sand; no odor; wet at 6'	15			
3				1.5	B-16:3'	
4						
5	SP		100	1.1	B-16:5.5'	
6						
7						
8			100			
9	ML	SILT; gray; wet; trace shell fragments; no odor				
10		End of Borehole				
11						
12					B-16:RGW	
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-17

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/20/14

SCREEN INTERVAL:

5'-10'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

E. Caddey

BOREHOLE SIZE:

TOTAL DEPTH:

12'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		0-2" Concrete				
1		Sub-Base Gravel and Sand		2.2	B-17:0.5'	
2		Silt and bricks; interbedded organic silt and bricks; brown and red; dry; no odor	10			
3				1.3	B-17:1.3'	
4						
5		POORLY-GRADED SAND; brown; moist; medium sand; no odor; wet at 7'				
6			90	1.8	B-17:6'	
7						
8	SP					
9						
10			80		B-17:RGW	
11	ML	SILT; gray; wet; soft; silt; no odor				
12		End of Borehole				
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:



**ENVIRONMENTAL
PARTNERS INC**

BORING ID: B-18

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/19/14

SCREEN INTERVAL:

5'-10'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

E. Caddey

BOREHOLE SIZE:

TOTAL DEPTH:

12'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0	ML	0-2" Concrete	5	1.8	B-18:3'	Temporary Well 3/4" PVC
1		Sub-Base Gravel and Sand				
2		SILT; brown and red; dry; interbedded organic silt and bricks; no odor				
3	ML	POORLY-GRADED SAND; brown; moist; fine sand; no odor; wet at 7'	60	1.8	B-18:6'	0.010" Slot
4						
5						
6	ML	SILT; gray; wet; soft; silt; no odor	60	1.8	B-18:RGW	0.010" Slot
7						
8						
9	ML	End of Borehole	60	1.8	B-18:RGW	0.010" Slot
10						
11						
12	ML	End of Borehole	60	1.8	B-18:RGW	0.010" Slot
13						
14						
15	ML	End of Borehole	60	1.8	B-18:RGW	0.010" Slot
16						
17						
18	ML	End of Borehole	60	1.8	B-18:RGW	0.010" Slot
19						
20						

NOTES:



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-19

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/19/14

SCREEN INTERVAL:

7'-12'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

M. Busbee

BOREHOLE SIZE:

TOTAL DEPTH:

12'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		0-2" Concrete				
1		Sub-Base Gravel and Sand		19	B-19:0.5'	
2		Silt and bricks; brown and red; dry; interbedded organic silt and bricks; no odor	60			
3				10.1	B-19:3'	
4						
5		POORLY-GRADED SAND; brown; moist; fine sand; no odor; wet at 7'				
6			70	8.6	B-19:6'	
7						
8	SP					
9						
10			80	4	B-19:RGW	
11	ML	SILT; gray; wet; soft; silt; no odor				
12		End of Borehole				
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-20

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/19/14

SCREEN INTERVAL:

7'-12'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

M. Busbee

BOREHOLE SIZE:

TOTAL DEPTH:

12'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Sub-Base Gravel				
1	ML	SILT; brown; dry; organic silt; no odor		9.8	B-20:0.5'	
2		POORLY-GRADED SAND; brown; dry; fine sand; no odor; 6'-6.2' bricks; moist beneath bricks; wet at 8'	40			
3				5.2	B-20:3'	
4						
5						
6	SP		70	3.1	B-20:6'	
7						
8						
9						
10			60			
11						
12		End of Borehole			B-20:RGW	
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-21

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/19/14

SCREEN INTERVAL:

7'-12'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

M. Busbee

BOREHOLE SIZE:

TOTAL DEPTH:

12'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Sub-Base Gravel				
		Organic Silt		122	B-21:0.5'	
1		POORLY-GRADED SAND; wet at 7'				
2			60			
3				7	B-21:3'	
4						
5	SP					
6			90	11	B-21:6'	
7						
8						
9		SILT				
10	ML		100			
11						
12		End of Borehole			B-21:RGW	
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-22

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/19/14

SCREEN INTERVAL:

5'-10'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

E. Caddey

BOREHOLE SIZE:

TOTAL DEPTH:

10'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Sub-Base Gravel				
		Organic Silt		17.2	B-22:0.5'	
1		POORLY-GRADED SAND; wet at 7'				
2			50			
3				2.7	B-22:3'	
4						
5	SP					
6			20	13	B-22:6'	
7						
8						
9		SILT	0			
10	ML				B-22:RGW	
11						
12		End of Borehole				
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:



**ENVIRONMENTAL
PARTNERS INC**

BORING ID: B-23

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/19/14

SCREEN INTERVAL:

7'-12'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

M. Busbee

BOREHOLE SIZE:

TOTAL DEPTH:

12'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Sub-Base Gravel				
1	ML	GRAVELLY SILT; brown; moist; mostly silt; some fine gravel; no odor		1151	B-23:0.5'	
2		POORLY-GRADED SAND; brown; dry; fine sand; wet at 7'; no odor	60			
3				48.5	B-23:3'	
4	SP					
5						
6			100	36.7	B-23:6'	
7						
8		SILT; gray; wet; silt				
9						
10	ML		100	5.5	B-23:RGW	
11						
12		End of Borehole				
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-24

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/19/14

SCREEN INTERVAL:

7'-12'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

M. Busbee

BOREHOLE SIZE:

TOTAL DEPTH:

12'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Sub-Base Gravel				
1	ML	SANDY SILT		15.6	B-24:0.5'	
2		POORLY-GRADED SAND; wet at 7'	90			
3				39.9	B-24:3'	
4						
5	SP					
6			100	16.9	B-24:6'	
7						
8		SILT; gray; wet; silt; no odor				
9						
10	ML		100			
11						
12		End of Borehole			B-24:RGW	
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-25

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/19/14

SCREEN INTERVAL:

6'-11'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

M. Busbee

BOREHOLE SIZE:

TOTAL DEPTH:

11'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Sub-Base Gravel				
1		Organic Silt		158	B-25:0.5'	
2		POORLY-GRADED SAND; wet at 7'	60			
3				12	B-25:3'	
4						
5	SP					
6			100	5.5	B-25:6'	
7						
8						
9		SILT				
10	ML		100			
11						
12		End of Borehole			B-25:RGW	
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-26

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/20/14

SCREEN INTERVAL:

5'-10'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

E. Caddey

BOREHOLE SIZE:

TOTAL DEPTH:

12'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		0-4" Concrete				
1		Sub-Base Gravel and Sand; alternating yellow and green banding		1190	B-26:0.5'	
2		POORLY-GRADED SAND; gray; damp; medium sand with some silt; some bricks at top of unit	80			
3				41.4	B-26:3'	
4						
5	SP					
6			90	8.8	B-26:6'	
7						
8					B-26:RGW	
9						
10	SM	SILTY SAND; gray; wet; mostly silt with some sand	90			
11						
12		End of Borehole				
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-27

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/20/14

SCREEN INTERVAL:

5'-10'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

E. Caddey

BOREHOLE SIZE:

TOTAL DEPTH:

12'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		0-4" Concrete				
		Sub-grade Gravel and Sand				
1		POORLY-GRADED SAND; gray; damp; medium sand with some silt; some bricks at top of unit		5000+	B-27:0.5'	
2			50			
3				30.3	B-27:3'	
4						
5	SP					
6			80	17.5	B-27:6'	
7						
8						
9		SILTY SAND; gray; wet; mostly silt with some sand				
10	SM		95		B-27:RGW	
11						
12		End of Borehole				
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-28

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/20/14

SCREEN INTERVAL:

5'-10'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

E. Caddey

BOREHOLE SIZE:

TOTAL DEPTH:

12'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Sub-grade gravel and sand		21.9	B-28:0.5'	
1		POORLY-GRADED SAND WITH GRAVEL; gray; coarse sand with gravel	5			
2						
3						
4						
5	SP					
6			10	23.7	B-28:6'	
7						
8						
9		SILTY SAND; gray; wet; low plasticity; mostly silt with some sand				
10	SM				B-28:RGW	
11						
12		End of Borehole				
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-29

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/20/14

SCREEN INTERVAL:

5'-10'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

E. Caddey

BOREHOLE SIZE:

TOTAL DEPTH:

12'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		0-4" Concrete				
1		Sub-grade Gravel and Sand		43.3	B-29:0.5'	
2		POORLY-GRADED SAND; gray; damp; medium sand with some silt; some bricks at top of unit	90			
3				20.2	B-29:3'	
4						
5	SP					
6			90	4.9	B-29:6'	
7						
8						
9		SILTY SAND; gray; wet; mostly silt with some sand			B-29:RGW	
10	SM		95			
11						
12		End of Borehole				
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:



**ENVIRONMENTAL
PARTNERS INC**

BORING ID: B-30

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/20/14

SCREEN INTERVAL:

5'-10'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

E. Caddey

BOREHOLE SIZE:

TOTAL DEPTH:

12'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		0-4" Concrete				
		Sub-grade Gravel and Sand				
1		POORLY-GRADED SAND; gray; damp; medium sand with some silt; some bricks at top of unit		4.8	B-30:0.5'	
2			50			
3				30	B-30:3'	
4						
5	SP					
6			95	9.6	B-30:6'	
7						
8						
9		SILTY SAND; gray; wet; mostly silt with some sand				
10	SM		90		B-30:RGW	
11						
12		End of Borehole				
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-31

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/20/14

SCREEN INTERVAL:

5'-10'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

E. Caddey

BOREHOLE SIZE:

TOTAL DEPTH:

12'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Gravel surface; 0-2' debris, bricks and gravel; some black staining		11.1	B-31:0.5'	
1						
2		SILT WITH SAND; gray; damp; medium dense; medium plasticity; mostly silt with minor sand	60			
3	ML			3	B-31:3'	
4		POORLY-GRADED SAND; gray and brown; damp; mostly medium sand with few silt				
5						
6			95	4.1	B-31:6'	
7						
8	SP					
9						
10			95		B-31:RGW	
11		SILTY SAND; gray; wet; medium dense; medium plasticity; mostly silt with minor sand; contains some shell fragments				
12	SM					
13		End of Borehole				
14						
15						
16						
17						
18						
19						
20						

NOTES:



ENVIRONMENTAL
PARTNERS INC

BORING ID: B-32A

SITE ADDRESS

825 South Dakota St. Seattle, WA

CLIENT:

Washington Industries

CASING MATERIAL AND SIZE:

Temp: 3/4" PVC

DRILLING CONTRACTOR:

Holocene Drilling Inc.

PROJECT #:

64001

SCREEN SIZE:

0.010" - Slot

DRILLING EQUIPMENT:

AMS DPT LAR

DATE:

3/20/14

SCREEN INTERVAL:

5'-10'

DRILLING METHOD:

Direct-Push Technology

GROUND SURFACE ELEV. FT AMSL:

FILTER PACK:

Native

LOGGED BY:

E. Caddey

BOREHOLE SIZE:

TOTAL DEPTH:

12'

FILTER PACK INTERVAL:

n/a

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0	SW-SM	WELL-GRADED SAND WITH SILT; gray; wet; medium sand with minor silt		2.9	B-32A:0.5'	Temporary Well 3/4" PVC
1						
2						
3				2.3	B-32A:3'	
4	SP	POORLY-GRADED SAND; brown and gray; damp; medium sand with trace silt				0.010" Slot
5						
6				1.8	B-32A:6'	
7						
8	SW-SM	WELL-GRADED SAND WITH SILT; gray; wet; medium sand with minor silt, contains broken shells				
9					B-32A:RGW	
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

NOTES:


epl ENVIRONMENTAL PARTNERS INC			BORING ID: B-32			
SITE ADDRESS 820 South Adams			CLIENT: Washington Industries		CASING MATERIAL AND SIZE: Temp: 3/4" PVC	
DRILLING CONTRACTOR: Holocene Drilling Inc.			PROJECT #: 64001.1		SCREEN SIZE: 0.010"- Slot	
DRILLING EQUIPMENT: AMS DPT LAR			DATE: July 24, 2014		SCREEN INTERVAL: 12'-15' and 16'-18'	
DRILLING METHOD: Direct-Push Technology			GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: Native	
LOGGED BY: K. Addis		BOREHOLE SIZE:	TOTAL DEPTH: 18'		FILTER PACK INTERVAL: n/a	
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Concrete				
1		POORLY-GRADED SAND; brown; damp; mostly fine sand with trace gravel		0.1	B-32:0.5'	
2			75			
3	SP			0.6	B-32:3'	
4				0.3		
5						
6		POORLY-GRADED SAND WITH SILT; dark brown; moist; mostly fine sand with few silt, few organics	80	0.6	B-32:6'	
7	SP-SM					
8	SP	POORLY-GRADED SAND; brown; damp; mostly fine sand with trace gravel		1		
9	SP-SM	POORLY-GRADED SAND WITH SILT; dark brown; moist; mostly fine sand with few silt, few organics		0.1	B-32:9'	
10		POORLY-GRADED SAND, dark brown; damp; mostly fine to medium sand	95	0		
11				0.1		
12				0.5	B-32:12'	
13			80	0.6		
14	SP					
15				0.2	B-32:15'	
16			100			
17						
18		End of Borehole			B-32:18'	
19						
20						


2
Temporary
Wells 3/4"
PVC

0.010" Slot:
12'-15' and
16'-18'

NOTES: B-32:W-S screened 12'-15'; B-32: W-D screened 16'-18'


1 of 1

 ENVIRONMENTAL PARTNERS INC				BORING ID: B-33				
SITE ADDRESS 820 South Adams St. Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: Temp: 3/4" PVC		
DRILLING CONTRACTOR: Holocene Drilling Inc.				PROJECT #: 64001.1		SCREEN SIZE: 0.010"- Slot		
DRILLING EQUIPMENT: AMS DPT LAR				DATE: July 24, 2014		SCREEN INTERVAL: 12'-15'		
DRILLING METHOD: Direct-Push Technology				GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: Native		
LOGGED BY: K. Addis			BOREHOLE SIZE:		TOTAL DEPTH: 15'		FILTER PACK INTERVAL: n/a	
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction		
0		Concrete		0.1	B-33:0.5'			
1		POORLY-GRADED SAND; brown; damp; mostly fine sand with trace gravel						
2			90	0.1				
3								
4	SP			0.5				
5				0.1	B-33:5'			
6			70	0.2			Temporary Well 3/4" PVC	
7				0.1				
8	SP-SM	POORLY-GRADED SAND WITH SILT; dark brown; moist; mostly fine to medium sand with silt						
9								
10		POORLY-GRADED SAND; dark brown; moist; mostly fine to medium sand; 12': 2" silty sand seam; 14.7': 1" silt seam	100	1.1				
11								
12	SP			1.6	B-33:12'			
13								
14				0.5			0.010"- Slot	
15		End of Borehole		0.3	B-33W-S:			
16								
17								
18								
19								
20								
NOTES:								

 ENVIRONMENTAL PARTNERS INC				BORING ID: B-34			
SITE ADDRESS 820 South Adams St. Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: Temp: 3/4" PVC	
DRILLING CONTRACTOR: Holocene Drilling Inc.				PROJECT #: 64001.1		SCREEN SIZE: 0.010"- Slot	
DRILLING EQUIPMENT: AMS DPT LAR				DATE: July 24, 2014		SCREEN INTERVAL: 13'-15' and 16'-18'	
DRILLING METHOD: Direct-Push Technology				GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: Native	
LOGGED BY: K. Addis			BOREHOLE SIZE:	TOTAL DEPTH: 19'		FILTER PACK INTERVAL: n/a	

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction		
0	SP	POORLY-GRADED SAND; strong brown; damp; mostly fine to medium sand with few gravel		0.8	B-34:0.5'	<div style="display: flex; align-items: center; justify-content: center;"> <div style="width: 10px; height: 100%; border: 1px solid black; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 100%; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> <div style="margin-left: 10px;"> <p>2 Temporary Wells 3/4" PVC</p> </div> </div>		
1								
2								
3								
4	SP	POORLY-GRADED SAND; dark brown; damp; mostly fine to medium sand with few gravel		1.4	B-34:5'		<div style="display: flex; align-items: center; justify-content: center;"> <div style="width: 10px; height: 100%; border: 1px solid black; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 100%; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> <div style="margin-left: 10px;"> <p>0.010" Slot 13-15' and 16-18'</p> </div> </div>	
5								
6								
7								
8	SP	POORLY-GRADED SAND; dark brown; damp; mostly fine to medium sand, becomes wet at 13'		2.2				<div style="display: flex; align-items: center; justify-content: center;"> <div style="width: 10px; height: 100%; border: 1px solid black; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 100%; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> <div style="margin-left: 10px;"> <p>0.010" Slot 13-15' and 16-18'</p> </div> </div>
9								
10								
11								
12	ML	SILT WITH SAND; dark gray; wet; mostly silt with minor fine sand and trace shells	50	0.4	B-34:12'			
13								
14								
15								
16	SM	SILTY SAND; dark gray; wet; mostly fine to medium sand with some silt and minor shells		0.3		<div style="display: flex; align-items: center; justify-content: center;"> <div style="width: 10px; height: 100%; border: 1px solid black; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 100%; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> <div style="margin-left: 10px;"> <p>0.010" Slot 13-15' and 16-18'</p> </div> </div>		
17								
18								
19								
20	End of Borehole at 19'			0			<div style="display: flex; align-items: center; justify-content: center;"> <div style="width: 10px; height: 100%; border: 1px solid black; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 100%; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> <div style="margin-left: 10px;"> <p>0.010" Slot 13-15' and 16-18'</p> </div> </div>	

NOTES: B-34: W-S screened 13'-15', B-34: W-D screened 16'-18'


 ENVIRONMENTAL PARTNERS INC				BORING ID: B-35				
SITE ADDRESS 820 South Adams St. Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: Temp: 3/4" PVC		
DRILLING CONTRACTOR: Holocene Drilling Inc.				PROJECT #: 64001.1		SCREEN SIZE: 0.010"- Slot		
DRILLING EQUIPMENT: AMS DPT LAR				DATE: July 24, 2014		SCREEN INTERVAL: 12'-15'		
DRILLING METHOD: Direct-Push Technology				GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: Native		
LOGGED BY: K. Addis			BOREHOLE SIZE:		TOTAL DEPTH: 15'		FILTER PACK INTERVAL: n/a	

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Concrete				
1		POORLY-GRADED SAND; dark brown; damp; mostly fine to medium sand		0.1	B-34:0.5'	
2			60			
3						
4	SP					
5				0.7	B-35:5'	
6			70			Temporary Well 3/4" PVC
7						
8		POORLY-GRADED SAND; brown; moist; mostly fine to medium sand				
9						
10			80			
11	SP					
12				1.2	B-35:12'	
13			70			0.010"- Slot
14	SM	SILTY SAND; dark brown; wet; mostly fine to medium sand with minor silt				
15		End of Borehole				
16						
17						
18						
19						
20						

NOTES:

1 of 1


epl ENVIRONMENTAL PARTNERS INC				BORING ID: B-36			
SITE ADDRESS 820 South Adams St. Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: Temp: 3/4" PVC	
DRILLING CONTRACTOR: Holocene Drilling Inc.				PROJECT #: 64001.1		SCREEN SIZE: 0.010"- Slot	
DRILLING EQUIPMENT: AMS DPT LAR				DATE: July 24, 2014		SCREEN INTERVAL: 15'-17'	
DRILLING METHOD: Direct-Push Technology				GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: Native	
LOGGED BY: K. Addis			BOREHOLE SIZE:	TOTAL DEPTH: 18'		FILTER PACK INTERVAL: n/a	
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction	
0		Concrete				<div>Temporary Well 3/4" PVC</div> <div>0.010"- Slot</div>	
1	GP	GRAVEL FILL; dry; no odor					
2		Concrete					
3	SP	POORLY-GRADED SAND; brown; damp; mostly fine to medium sand	40	2.2	B-36:0.5'		
4				0.7	B-36:5'		
5							
6			80	0.6			
7				0.8			
8	SM	SILTY SAND; dark brown; moist; fine to medium sand with minor silt		9.5			
9	SP	POORLY-GRADED SAND; dark brown; moist; mostly fine to medium sand					
10			80	1.4			
11							
12				1.3	B-36:12'		
13				1.7	B-36:13'		
14			60	3.1			
15							
16	SM	SILTY SAND		0.4	B-36:16'		
17	MH	ELASTIC SILT; dark gray	100	0.2			
18	SP	POORLY-GRADED SAND		1	B-36:18'		
		End of Borehole					
19							
20							
NOTES:							
1 of 1							

 ENVIRONMENTAL PARTNERS INC				BORING ID: B-37			
SITE ADDRESS 812 South Adams St. Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: Temp: 3/4" PVC	
DRILLING CONTRACTOR: Holocene Drilling Inc.				PROJECT #: 64001.1		SCREEN SIZE: 0.010"- Slot	
DRILLING EQUIPMENT: AMS DPT LAR				DATE: July 24, 2014		SCREEN INTERVAL: 10'-12'	
DRILLING METHOD: Direct-Push Technology				GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: Native	
LOGGED BY: M. Busbee			BOREHOLE SIZE:	TOTAL DEPTH: 12'		FILTER PACK INTERVAL: n/a	

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Concrete Dust and Gravel				
1						
2			100			
3						
4	SM	SILTY SAND; brown; dry; hard; mostly fine sand with some silt and trace fine gravel		0.6	B-37:4'	Temporary Well 3/4" PVC
5						
6	SP	POORLY-GRADED SAND; brown; moist; fine sand; no odor; wet at 10'	100			0.010"- Slot
7						
8						
9					2	
10			100		B-37:W	
11	ML	SILT; gray; wet; silt; no odor				
12		End of Borehole				
13						
14						
15						
16						
17						
18						
19						
20						



NOTES:


1 of 1

 ENVIRONMENTAL PARTNERS INC		BORING ID: B-38			
SITE ADDRESS 812 South Adams St. Seattle, WA		CLIENT: Washington Industries		CASING MATERIAL AND SIZE: Temp: 3/4" PVC	
DRILLING CONTRACTOR: Holocene Drilling Inc.		PROJECT #: 64001.1		SCREEN SIZE: 0.010"- Slot	
DRILLING EQUIPMENT: AMS DPT LAR		DATE: July 28, 2014		SCREEN INTERVAL: 10'-12' and 14'-16'	
DRILLING METHOD: Direct-Push Technology		GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: Native	
LOGGED BY: M. Busbee		BOREHOLE SIZE:		TOTAL DEPTH: 16'	
				FILTER PACK INTERVAL: n/a	

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0	GP	GRAVEL FILL; dry; no odor	60	0.8	B-38:0.5'	<div> <div>2 Temporary Wells 3/4" PVC</div> <div>0.010" Slot: 10'-12' and 14'-16'</div> </div>
0.5	ML	SILT; brown; dry; silt				
1	GP	GRAVEL FILL; dry; no odor				
1.5	ML	SILT; dark brown; silty gravel				
2	ML		90	0.7	B-38:4'	
3		GRAVELLY SILT; brown; moist; mostly silt with some gravel				
4	ML					
5						
6		POORLY-GRADED SAND; brown; moist; loose; fine sand	100	1.8	B-38:9'	
7						
8	SP					
9						
10			100	1.2	B-38:W-S; B-38:12'	
11		SILT; gray; wet; soft; mostly silt with trace shells and fine sand				
12	ML					
13						
14			100	0.1	B-38:14'	
15						
16						
16		End of Borehole		0.1	B-38:16'; B-38:W-D	
17						
18						
19						
20						

NOTES: B-38: W-S screened 10'-12'; B-38: W-D screened 14'-16'


 ENVIRONMENTAL PARTNERS INC				BORING ID: B-39		
SITE ADDRESS 812 South Adams St. Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE:
DRILLING CONTRACTOR: Holocene Drilling Inc.				PROJECT #: 64001.1		SCREEN SIZE:
DRILLING EQUIPMENT: AMS DPT LAR				DATE: July 29, 2014		SCREEN INTERVAL:
DRILLING METHOD: Direct-Push Technology				GROUND SURFACE ELEV. FT AMSL:		FILTER PACK:
LOGGED BY: M. Busbee			BOREHOLE SIZE:	TOTAL DEPTH: 3.5'		FILTER PACK INTERVAL:
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Sub-Base Gravel	50	0.4	B-39:0.5'	No Well
1		SILTY SAND; brown; dry; loose; mostly fine sand and some silt; no odor				
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
NOTES:						

 ENVIRONMENTAL PARTNERS INC		BORING ID: B-40			
SITE ADDRESS 812 South Adams St. Seattle, WA		CLIENT: Washington Industries		CASING MATERIAL AND SIZE: Temp: 3/4" PVC	
DRILLING CONTRACTOR: Holocene Drilling Inc.		PROJECT #: 64001.1		SCREEN SIZE: 0.010"- Slot	
DRILLING EQUIPMENT: AMS DPT LAR		DATE: July 29, 2014		SCREEN INTERVAL: 10'-12'	
DRILLING METHOD: Direct-Push Technology		GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: Native	
LOGGED BY: M. Busbee		BOREHOLE SIZE:		TOTAL DEPTH: 12'	
				FILTER PACK INTERVAL: n/a	

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Sub-Base Gravel				
1		SILTY SAND; brown; loose; mostly fine sand with some silt; no odor				
2	SM		60	0	B-40:0.5'	
3						
4	ML	GRAVELLY SILT; dry; gray; loose; fine gravel		0.3	B-40:4'	
5	ML	SILT; brown; dry; soft; silt with trace fine sand; no odor				
6			90			
7		POORLY-GRADED SAND; brown; dry; loose; fine sand; no odor; wet at 10'				
8						
9	SP			0.5	B-40:9'	
10			100		B-40:W	
11	ML	SILT; gray; wet; soft; silt; no odor				
12		End of Borehole				
13						
14						
15						
16						
17						
18						
19						
20						


NOTES:

1 of 1

 ENVIRONMENTAL PARTNERS INC		BORING ID: B-41			
SITE ADDRESS 812 South Adams St. Seattle, WA		CLIENT: Washington Industries		CASING MATERIAL AND SIZE: Temp: 3/4" PVC	
DRILLING CONTRACTOR: Holocene Drilling Inc.		PROJECT #: 64001.1		SCREEN SIZE: 0.010"- Slot	
DRILLING EQUIPMENT: AMS DPT LAR		DATE: July 29, 2014		SCREEN INTERVAL: 10'-12'	
DRILLING METHOD: Direct-Push Technology		GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: Native	
LOGGED BY: M. Busbee		BOREHOLE SIZE:		TOTAL DEPTH: 12'	
				FILTER PACK INTERVAL: n/a	

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0	GM	SILTY GRAVEL; gray and brown; dry; mostly gravel with some silt and trace fine sand; no odor	50	0.9	B-41:0.5'	<div> <div>Temporary Well 3/4" PVC</div> <div>0.010" Slot</div> </div>
1						
2						
3						
4	ML	SILT; gray; moist; soft; silt; no odor	50	0.1	B-41:5'	
5						
6	SP	POORLY-GRADED SAND; moist; no odor; wet at 10'	50	0.3	B-41:9'	
7						
8						
9						
10						
11	ML	SILT; wet; soft; mostly silt with few clay; no odors	100		B-41:W	
12	End of Borehole					
13						
14						
15						
16						
17						
18						
19						
20						



NOTES:



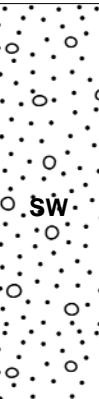



 ENVIRONMENTAL PARTNERS INC		BORING ID: B-42			
SITE ADDRESS 812 South Adams St. Seattle, WA		CLIENT: Washington Industries		CASING MATERIAL AND SIZE: Temp: 3/4" PVC	
DRILLING CONTRACTOR: Holocene Drilling Inc.		PROJECT #: 64001.1		SCREEN SIZE: 0.010"- Slot	
DRILLING EQUIPMENT: AMS DPT LAR		DATE: July 28, 2014		SCREEN INTERVAL: 10'-12'	
DRILLING METHOD: Direct-Push Technology		GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: Native	
LOGGED BY: M. Busbee		BOREHOLE SIZE:		TOTAL DEPTH: 12'	
				FILTER PACK INTERVAL: n/a	

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Sub-Base Gravel				
1	SW	WELL-GRADED SAND; brown; dry; few fine gravel; no odor				
2	GP	GRAVEL FILL; dry; no odor	50	0.1	B-42:0.5'	
3						
4	ML	SILT; light brown; dry; no odor				
5						
6		POORLY-GRADED SAND; brown; moist; fine sand; no odor; wet at 10'	100	2.6	B-42:4'	
7						
8	SP					
9				1	B-42:9'	
10			100		B-42:W	
11	ML	SILT; gray; wet; silt; no odor				
12		End of Borehole				
13						
14						
15						
16						
17						
18						
19						
20						


NOTES:




1 of 1

 ENVIRONMENTAL PARTNERS INC				BORING ID: B-43			
SITE ADDRESS 812 South Adams St. Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: Temp: 3/4" PVC	
DRILLING CONTRACTOR: Holocene Drilling Inc.				PROJECT #: 64001.1		SCREEN SIZE: 0.010" - Slot	
DRILLING EQUIPMENT: AMS DPT LAR				DATE: July 25, 2014		SCREEN INTERVAL: 13'-15'	
DRILLING METHOD: Direct-Push Technology				GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: Native	
LOGGED BY: M. Busbee		BOREHOLE SIZE:		TOTAL DEPTH: 15'		FILTER PACK INTERVAL: n/a	
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction	
0	SP	POORLY-GRADED SAND; brown; dry; loose; fine sand; no odor	70	1.1	B-43:1'		Temporary Well 3/4" PVC
1							
2							
3							
4							
5	ML	SILTY SAND; dark brown; moist; fine-medium sand with some silt; no odor	50	1.1	B-43:6'		
6							
7							
8							
9							
10	SP	POORLY-GRADED SAND; brown; moist; fine-medium sand with few silt; no odor; wet at 13.5'	80	0.9	B-43:11.5'		
11							
12							
13							
14							
15	End of Borehole		90		B-43:W		0.010" Slot
16							
17							
18							
19							
20							
NOTES:							
1 of 1							





epl ENVIRONMENTAL PARTNERS INC				BORING ID: B-44				
SITE ADDRESS 812 South Adams St. Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: Temp: 3/4" PVC		
DRILLING CONTRACTOR: Holocene Drilling Inc.				PROJECT #: 64001.1		SCREEN SIZE: 0.010" - Slot		
DRILLING EQUIPMENT: AMS DPT LAR				DATE: July 25, 2014		SCREEN INTERVAL: 14'-16' and 17'-19'		
DRILLING METHOD: Direct-Push Technology				GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: Native		
LOGGED BY: M. Busbee		BOREHOLE SIZE:		TOTAL DEPTH: 19'		FILTER PACK INTERVAL: n/a		
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction		
0		POORLY-GRADED SAND; brown; dry; loose; mostly fine sand	50	2.6	B-44:1'		2 Temporary Wells 3/4" PVC	
1								
2								
3								
4		No Recovery	0					
5								
6								
7								
8		WELL-GRADED SAND; dark brown; dry; loose; fine-medium sand trace silt; no odor; wet at 13.5'	60	2.7	B-44:11.5'			
9								
10								
11								
12			100	0.9	B-44:13'			
13								
14								
15		SILT; gray; wet; mostly silt trace fine sand and shells						
16		WELL-GRADED SAND; dark brown; wet; mostly fine-medium sand with few silt; no odor	100	2	B-44:16'			0.010" Slot: 14'-16' and 17'-19'
17		SILTY SAND; gray; wet; fine-coarse sand with some silt; no odor			B-44:W-S			
18					B-44:18.5'			
19		End of Borehole			B-44:W-D			
20								
NOTES: B-44: W-S screened 14'-16'; B-44: W-D screened 17'-19'								
1 of 1								


epl ENVIRONMENTAL PARTNERS INC				BORING ID: B-45			
SITE ADDRESS 812 South Adams St. Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: Temp: 3/4" PVC	
DRILLING CONTRACTOR: Holocene Drilling Inc.				PROJECT #: 64001.1		SCREEN SIZE: 0.010" - Slot	
DRILLING EQUIPMENT: AMS DPT LAR				DATE: July 25, 2014		SCREEN INTERVAL: 14'-16'	
DRILLING METHOD: Direct-Push Technology				GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: Native	
LOGGED BY: M. Busbee		BOREHOLE SIZE:		TOTAL DEPTH: 16'		FILTER PACK INTERVAL: n/a	
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction	
0	SP	POORLY-GRADED SAND; brown; dry; loose; mostly fine sand; no odor	80	1.5	B-45:1'		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13	ML	SILT; dry; silt with clay and some sand	100	2	B-45:11.5'		
14							
15							
16							
17		End of Borehole			B-45:W		
18							
19							
20							
NOTES:							
1 of 1							


 ENVIRONMENTAL PARTNERS INC				BORING ID: B-46				
SITE ADDRESS 812 South Adams St. Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: Temp: 3/4" PVC		
DRILLING CONTRACTOR: Holocene Drilling Inc.				PROJECT #: 64001.1		SCREEN SIZE: 0.010"- Slot		
DRILLING EQUIPMENT: AMS DPT LAR				DATE: July 28, 2014		SCREEN INTERVAL: 13'-15' and 16'-18'		
DRILLING METHOD: Direct-Push Technology				GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: Native		
LOGGED BY: M. Busbee			BOREHOLE SIZE:		TOTAL DEPTH: 18'		FILTER PACK INTERVAL: n/a	

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		POORLY-GRADED SAND; brown; dry; loose; mostly fine sand; no odor	80	1.4	B-46:1'	
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14				SILT WITH SAND; medium gray; wet; soft; mostly silt with some fine sand; no odor; moist at 17.5'	80	
15						
16	100	0.1			B-46:W-S; B-46:16'	
17						
18	End of Borehole		0.1	B-46:18'; B-46:W-D		
19						
20						

NOTES: B-46: W-S screened 13'-15'; B-46: W-D screened 16'-18'


				BORING ID: B-47				
SITE ADDRESS 812 South Adams St. Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: Temp: 3/4" PVC		
DRILLING CONTRACTOR: Holocene Drilling Inc.				PROJECT #: 64001.1		SCREEN SIZE: 0.010" - Slot		
DRILLING EQUIPMENT: AMS DPT LAR				DATE: July 25, 2014		SCREEN INTERVAL: 13'-15'		
DRILLING METHOD: Direct-Push Technology				GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: Native		
LOGGED BY: M. Busbee			BOREHOLE SIZE:	TOTAL DEPTH: 15'		FILTER PACK INTERVAL: n/a		
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction		
0		POORLY-GRADED SAND; brown; dry; loose; mostly fine sand; no odor	100	0.7	B-47:1'		Temporary Well 3/4" PVC	
1								
2								
3								
4								
5								
6			100	0.8	B-47:6'			
7								
8								
9								
10			100	0.8	B-47:12'			
11								
12								
13		WELL-GRADED SAND; dark brown; wet; loose; fine-medium sand; no odor						
14								
15								
16	End of Borehole				B-47:W		0.010" Slot	
17								
18								
19								
20								
NOTES:								
1 of 1								


 ENVIRONMENTAL PARTNERS INC				BORING ID: B-48			
SITE ADDRESS 820 South Adams St. Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 1/2-inch PVC Temporary Well	
DRILLING CONTRACTOR: ESN Northwest				PROJECT #: 64001		SCREEN SIZE: 0.010-inch Slot	
DRILLING EQUIPMENT: Limited Access DP Rig				DATE: 3/2/15		SCREEN INTERVAL: 10-15 feet bgs	
DRILLING METHOD: Direct-Push Technology				GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: N/A	
LOGGED BY: M. Busbee			BOREHOLE SIZE: 2.25 inch	TOTAL DEPTH: 15'		FILTER PACK INTERVAL: N/A	

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Concrete				
2	SP	POORLY-GRADED SAND; brown; dry; loose; mostly fine sand; no odor.	60	1.3	B-48:0.5	
4				1.1	B-48:4.5	
6				1.5	B-48:7	
8						
10	SM	SILTY SAND; dark brown; moist; trace clay; no odor. Color change to brown	100			
12				1.7	B-48:12	
14	SP	POORLY-GRADED SAND; medium-coarse sand with clay; wet at 14'.			B-48:RGW	
End of Borehole						
16						
18						
20						

NOTES:

1 of 1


 ENVIRONMENTAL PARTNERS INC				BORING ID: B-49			
SITE ADDRESS 820 South Adams St. Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 1/2-inch PVC Temporary Well	
DRILLING CONTRACTOR: ESN Northwest				PROJECT #: 64001		SCREEN SIZE: 0.010-inch Slot	
DRILLING EQUIPMENT: Limited Access DP Rig				DATE: 3/2/15		SCREEN INTERVAL: 10-15 feet bgs	
DRILLING METHOD: Direct-Push Technology				GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: N/A	
LOGGED BY: M. Busbee			BOREHOLE SIZE: 2.25 inch	TOTAL DEPTH: 15'		FILTER PACK INTERVAL: N/A	
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction	
0		Concrete					
2		POORLY-GRADED SAND; brown; dry; mostly very fine sand with trace silt; no odor.	75	1.7	B-49:0.5		
4							
6				2.5	B-49:5		
8	SP		100	1.6	B-49:8		
10							
12		Color change to black					
14		Moist at 13'	90	1.9	B-49:12		
16	ML	Wet at 14'					
18		SILT; gray; moist to wet; silt with few shells; no odor.			B-49:RGW		
20		End of Borehole					
NOTES:							

 ENVIRONMENTAL PARTNERS INC			BORING ID: B-50			
SITE ADDRESS 820 South Adams St. Seattle, WA			CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 1/2-inch PVC Temporary Well	
DRILLING CONTRACTOR: ESN Northwest			PROJECT #: 64001		SCREEN SIZE: 0.010-inch Slot	
DRILLING EQUIPMENT: Limited Access DP Rig			DATE: 3/2/15		SCREEN INTERVAL: 10-15 feet bgs	
DRILLING METHOD: Direct-Push Technology			GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: N/A	
LOGGED BY: M. Busbee		BOREHOLE SIZE: 2.25 inch	TOTAL DEPTH: 15'		FILTER PACK INTERVAL: N/A	

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Concrete				
0		POORLY-GRADED SAND; brown; dry; mostly fine sand; no odor.		1.8	B-50:0.5	
2			90			
4				1.8	B-50:5	
6						
8	SP		100	1.1	B-50:8	
10						
12			100	1.9	B-50:12	
14	SPo	WELL-GRADED SAND; black; wet; fine to medium sand; trace fine gravel and trace shells; no odor.			B-50:RGW	
		End of Borehole				
16						
18						
20						

NOTES:


1 of 1

 ENVIRONMENTAL PARTNERS INC				BORING ID: B-51			
SITE ADDRESS 820 South Adams St. Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 1/2-inch PVC Temporary Well	
DRILLING CONTRACTOR: ESN Northwest				PROJECT #: 64001		SCREEN SIZE: 0.010-inch Slot	
DRILLING EQUIPMENT: Limited Access DP Rig				DATE: 3/2/15-3/3/15		SCREEN INTERVAL: 13-18 feet bgs	
DRILLING METHOD: Direct-Push Technology				GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: N/A	
LOGGED BY: M. Busbee			BOREHOLE SIZE: 2.25 inch	TOTAL DEPTH: 18'		FILTER PACK INTERVAL: N/A	

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Concrete				
0		POORLY-GRADED SAND; brown; dry; mostly fine sand; no odor.		0.2	B-51:0.5	
2			60			
4				0.1	B-51:5	
6						
8	SP		100	0.3	B-51:8	
10				0.2	B-51:11	
12			100			
14		Moist at 13'		0.9	B-51:14	
16		Wet at 14'				
16	ML	SILT; gray; moist to wet; silt with few shells; no odor.	100			
18		End of Borehole		0.9	B-51:18 and B-51:RGW	
20						

NOTES:


1 of 1

 ENVIRONMENTAL PARTNERS INC				BORING ID: B-52			
SITE ADDRESS 820 South Adams St. Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 1/2-inch PVC Temporary Well	
DRILLING CONTRACTOR: ESN Northwest				PROJECT #: 64001		SCREEN SIZE: 0.010-inch Slot	
DRILLING EQUIPMENT: Limited Access DP Rig				DATE: 3/2/15		SCREEN INTERVAL: 10-15 feet bgs	
DRILLING METHOD: Direct-Push Technology				GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: N/A	
LOGGED BY: S. Gilley			BOREHOLE SIZE: 2.25 inch	TOTAL DEPTH: 15'		FILTER PACK INTERVAL: N/A	

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Concrete				
0		POORLY-GRADED SAND; brown; loose; no odor.		0.2	B-52:0.5	
2			75			
4	SP			0.1	B-52:5	
6						
8			100	0.2	B-52:8	
8		SILT; dark brown; moist; dense; no odor.				
10		Color change to gray with increased sand content				
12	ML		90	0.2	B-52:12	
14						
14		End of Borehole			B-52:RGW	
16						
18						
20						

NOTES:


1 of 1

 ENVIRONMENTAL PARTNERS INC			BORING ID: B-53			
SITE ADDRESS 820 South Adams St. Seattle, WA			CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 1/2-inch PVC Temporary Well	
DRILLING CONTRACTOR: ESN Northwest			PROJECT #: 64001		SCREEN SIZE: 0.010-inch Slot	
DRILLING EQUIPMENT: Limited Access DP Rig			DATE: 3/2/15		SCREEN INTERVAL: 13-18 feet bgs	
DRILLING METHOD: Direct-Push Technology			GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: N/A	
LOGGED BY: M. Busbee		BOREHOLE SIZE: 2.25 inch	TOTAL DEPTH: 18'		FILTER PACK INTERVAL: N/A	

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Concrete				
0		POORLY-GRADED SAND; brown; dry; mostly fine sand; no odor.		1.4	B-53:0.5 (Soil Dup 1)	
2			70			
4				2.5	B-53:5	
6						
8	SP		100	2.1	B-53:8	
10				2.3	B-53:11	
12			100			
14		Wet at 14'		1.5	B-53:14	
16	SP	WELL-GRADED SAND; black; wet; loose; medium-coarse sand with trace gravel and trace shells; no odor.	100			
18		End of Borehole		1	B-53:18 and B-53:RGW	
20						

NOTES:


1 of 1

 ENVIRONMENTAL PARTNERS INC				BORING ID: B-54			
SITE ADDRESS 820 South Adams St. Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 1/2-inch PVC Temporary Well	
DRILLING CONTRACTOR: ESN Northwest				PROJECT #: 64001		SCREEN SIZE: 0.010-inch Slot	
DRILLING EQUIPMENT: Limited Access DP Rig				DATE: 3/3/15		SCREEN INTERVAL: 10-15 feet bgs	
DRILLING METHOD: Direct-Push Technology				GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: N/A	
LOGGED BY: M. Busbee			BOREHOLE SIZE: 2.25 inch	TOTAL DEPTH: 15'		FILTER PACK INTERVAL: N/A	

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Concrete				
2		POORLY-GRADED SAND; brown; dry; mostly fine sand; no odor.	50	0.1	B-54:0.5	
4	SP					
6				0.1	B-54:5	
8			90	0.2	B-54:8 (Soil Dup 2)	
10		POORLY-GRADED SAND; black; moist; mostly fine sand with minor silt and trace gravel; no odor.				
12	SP	Moist at 12.5'	70	0.1	B-54:12	
14		Wet at 13.5'				
		End of Borehole			B-54:RGW	
16						
18						
20						

NOTES:


1 of 1

 ENVIRONMENTAL PARTNERS INC			BORING ID: B-55			
SITE ADDRESS 820 South Adams St. Seattle, WA			CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 1/2-inch PVC Temporary Well	
DRILLING CONTRACTOR: ESN Northwest			PROJECT #: 64001		SCREEN SIZE: 0.010-inch Slot	
DRILLING EQUIPMENT: Limited Access DP Rig			DATE: 3/3/15		SCREEN INTERVAL: 10-15 feet bgs	
DRILLING METHOD: Direct-Push Technology			GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: N/A	
LOGGED BY: M. Busbee		BOREHOLE SIZE: 2.25 inch	TOTAL DEPTH: 15'		FILTER PACK INTERVAL: N/A	

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Concrete				
2		POORLY-GRADED SAND; brown; dry; mostly fine sand with trace silt; no odor.	80	0.2	B-55:0.5	
4	SP			0.2	B-55:5	
6			50	0.2	B-55:8	
8		POORLY-GRADED SAND; black; moist; loose; mostly fine sand; no odor.		0.2	B-55:12	
10	SP		100	0.1	B-55:12	
12		Wet at 13'				
14						
16		End of Borehole			B-55:RGW	
18						
20						

NOTES:


1 of 1

 ENVIRONMENTAL PARTNERS INC				BORING ID: B-56			
SITE ADDRESS 812 South Adams St. Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 1/2-inch Stainless Steel Temp	
DRILLING CONTRACTOR: ESN Northwest				PROJECT #: 64001		SCREEN SIZE: 0.010-inch Slot	
DRILLING EQUIPMENT: Geoprobe Truck				DATE: 3/9/15		SCREEN INTERVAL: 10-14 feet bgs	
DRILLING METHOD: Direct-Push Technology				GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: N/A	
LOGGED BY: M. Busbee			BOREHOLE SIZE: 2.25 inch	TOTAL DEPTH: 15'		FILTER PACK INTERVAL: N/A	

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Concrete				
0.5	SP	POORLY-GRADED SAND; brown; dry; mostly fine sand with minor gravel; no odor.			B-56:0.5	
1.5		Bricks				
2		Asphalt	60			
4	ML	SILT; dry brown; mostly silt with minor gravel; no odor.			B-56:4	
6		POORLY-GRADED SAND; brown; dry; mostly fine sand; no odor.				
8	SP		100			
10		Wet at 10'			B-56:9	
12						
12	ML	SILT; wet; soft; mostly silt with trace shells; no odor.	100			
14					B-56:RGW	
15		End of Borehole				
16						
18						
20						

NOTES:


1 of 1


 ENVIRONMENTAL PARTNERS INC		BORING ID: B-57			
SITE ADDRESS 812 South Adams St. Seattle, WA		CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 1/2-inch Stainless Steel Temp	
DRILLING CONTRACTOR: ESN Northwest		PROJECT #: 64001		SCREEN SIZE: 0.010-inch Slot	
DRILLING EQUIPMENT: Geoprobe Truck		DATE: 3/9/15		SCREEN INTERVAL: 14-18 feet bgs	
DRILLING METHOD: Direct-Push Technology		GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: N/A	
LOGGED BY: M. Busbee		BOREHOLE SIZE: 2.25 inch		TOTAL DEPTH: 18'	
FILTER PACK INTERVAL: N/A					

Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Concrete				
0.5	GM	SILTY GRAVEL; moist.	100		B-57:0.5	
2		SILT; dry; hard; no odor.				
4	ML		100		B-57:3	
6		POORLY-GRADED SAND; brown; dry; mostly fine sand; no odor.				
8	SP		100		B-57:6	
10		Wet at 10'				
12		SILT; wet; trace shells.	100			
14	ML					
16	SM	SILTY SAND; wet; silt with fine sand.	100		B-57:15	
18		End of Borehole			B-57:18 and B-57:RGW	
20						

NOTES:

1 of 1


 ENVIRONMENTAL PARTNERS INC				BORING ID: B-58			
SITE ADDRESS 812 South Adams St. Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 1/2-inch Stainless Steel Temp	
DRILLING CONTRACTOR: ESN Northwest				PROJECT #: 64001		SCREEN SIZE: 0.010-inch Slot	
DRILLING EQUIPMENT: Geoprobe Truck				DATE: 3/9/15		SCREEN INTERVAL: 10-14 feet bgs	
DRILLING METHOD: Direct-Push Technology				GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: N/A	
LOGGED BY: M. Busbee			BOREHOLE SIZE: 2.25 inch	TOTAL DEPTH: 15'		FILTER PACK INTERVAL: N/A	
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction	
0		Concrete					
		Fine sand fill			B-58:0.5		
2		Bricks					
		Asphalt					
		No recovery	30				
6		POORLY-GRADED SAND; brown; dry; mostly fine sand; no odor.			B-58:5		
8	SP		100				
10		Wet at 10'			B-58:9 (Soil Dup 4)		
12		SILT; wet; soft; mostly silt with trace shells; no odor.					
14	ML		100				
		End of Borehole			B-58:RGW		
16							
18							
20							
NOTES:							

 ENVIRONMENTAL PARTNERS INC			BORING ID: B-59		
SITE ADDRESS 812 South Adams St. Seattle, WA			CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 1/2-inch Stainless Steel Temp
DRILLING CONTRACTOR: ESN Northwest			PROJECT #: 64001		SCREEN SIZE: 0.010-inch Slot
DRILLING EQUIPMENT: Geoprobe Truck			DATE: 3/9/15		SCREEN INTERVAL: 10-14 feet bgs
DRILLING METHOD: Direct-Push Technology			GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: N/A
LOGGED BY: M. Busbee		BOREHOLE SIZE: 2.25 inch	TOTAL DEPTH: 15'		FILTER PACK INTERVAL: N/A

Depth (feet)	USCS	Description <small>USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other</small>	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Loose concrete				
0 - 2	GP	POORLY-GRADED GRAVEL; light gray; moist; sandy gravel; limited recovery; no odor.			B-59:0.5	
2 - 12	SP	POORLY-GRADED SAND; brown; dry; mostly fine sand; no odor.	20			
4 - 6					B-59:5	
6 - 10			70			
10 - 12		Wet at 10'			B-59:9	
12 - 15	ML	SILT; gray; wet; no odor.	100			
15 - 20		End of Borehole			B-59:RGW	

NOTES:


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 ENVIRONMENTAL PARTNERS INC			BORING ID: B-60		
SITE ADDRESS 812 South Adams St. Seattle, WA			CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 1/2-inch Stainless Steel Temp
DRILLING CONTRACTOR: ESN Northwest			PROJECT #: 64001		SCREEN SIZE: 0.010-inch Slot
DRILLING EQUIPMENT: Geoprobe Truck			DATE: 3/9/15		SCREEN INTERVAL: 14-18 feet bgs
DRILLING METHOD: Direct-Push Technology			GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: N/A
LOGGED BY: M. Busbee		BOREHOLE SIZE: 2.25 inch	TOTAL DEPTH: 18'		FILTER PACK INTERVAL: N/A


Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Concrete and gravel; no odor				
	SP	POORLY-GRADED SAND; fill; no odor.			B-60:0.5	
2		Bricks				
		Asphalt				
		POORLY-GRADED SAND; brown; dry; fine sand; no odor.	80		B-60:4	
4						
6						
8	SP		100		B-60:8	
10		Wet at 10'				
12		SILT; gray; wet; silt; no odor.	100		B-60:12	
14						
16	ML		100		B-60:15	
18		End of Borehole			B-60:18 (Soil Dup 5) and B-60:RGW	
20						

NOTES:


Water comes slowly

 ENVIRONMENTAL PARTNERS INC				BORING ID: B-61			
SITE ADDRESS 812 South Adams St. Seattle, WA				CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 1/2-inch Stainless Steel Temp	
DRILLING CONTRACTOR: ESN Northwest				PROJECT #: 64001		SCREEN SIZE: 0.010-inch Slot	
DRILLING EQUIPMENT: Geoprobe Truck				DATE: 3/9/15		SCREEN INTERVAL: 10-14 feet bgs	
DRILLING METHOD: Direct-Push Technology				GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: N/A	
LOGGED BY: M. Busbee			BOREHOLE SIZE: 2.25 inch	TOTAL DEPTH: 15'		FILTER PACK INTERVAL: N/A	
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction	
0		Concrete; very limited recovery; collapsed liner.			Not Sampled		
2			5				
4							
6		POORLY-GRADED SAND; brown; mostly fine sand; no odor.			B-61:5		
8	SP		90				
10		Wet at 10'			B-61:10		
12		SILT; no odor.					
14	ML		80				
16		End of Borehole			B-61:RGW		
18							
20							
NOTES:							

 ENVIRONMENTAL PARTNERS INC		BORING ID: B-70				
SITE ADDRESS 825 S. Dakota St. Seattle, WA		CLIENT: Washington Industries		CASING MATERIAL AND SIZE: 2.25-inch rods		
DRILLING CONTRACTOR: Holt Services		PROJECT #: 64001		SCREEN SIZE: 1/2-inch SST wire		
DRILLING EQUIPMENT: Geoprobe 7822DT		DATE: 5/26/15		SCREEN INTERVAL: 15'-19'		
DRILLING METHOD: Direct-Push Technology		GROUND SURFACE ELEV. FT AMSL:		FILTER PACK: Native		
LOGGED BY: M. Busbee		TOTAL DEPTH: 20'		FILTER PACK INTERVAL: NA		
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Well Construction
0		Asphalt				
		Concrete				
2		Gravel; dry; no odor.	100	0		
4		POORLY-GRADED SAND; light brown; dry; mostly fine sand; no odor.				
6						
8			70	0	B-70:8	
10	SP					
12		Wet	70	2	B-70:RGW	
14						
16		No recovery				
18			0			
20		End of Borehole				
22						
24						
26						
28						
30						
32						
34						
36						
NOTES:						





 ENVIRONMENTAL PARTNERS INC		BORING ID: P-08					
SITE ADDRESS 812 South Adams Street		CLIENT: Washington Industries					
DRILLING CONTRACTOR: ESN		PROJECT #: 64001.3					
DRILLING EQUIPMENT: PowerProbe 9630		DATE: 5/16/16					
DRILLING METHOD: Direct Push		GROUND SURFACE ELEV. FT AMSL: Not Measured			DECOMMISSIONING MATERIAL:		
LOGGED BY: S. Trimble		TOTAL DEPTH: 10 ft bgs			BOREHOLE SIZE: 2.25"		
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Sheen	Notes
0		4" Concrete					
1	SP	POORLY-GRADED SAND; brown; dry; minor gravel; no odor	70	1.0	P-08:0.5		
2							
3							
		6" Layer of Brick					
		6" Layer of Asphalt					
4	ML	SANDY SILT; brown; dry; no odor		2.5	P-08:4		
5	SP	POORLY-GRADED SAND; dark brown; moist; medium grained; no odor	90	1.5	P-08:6		
6							
7							
8							
9							
10		End of Borehole					
11							





NOTES: 5' core length

 ENVIRONMENTAL PARTNERS INC		BORING ID: P-09					
SITE ADDRESS 812 South Adams Street		CLIENT: Washington Industries					
DRILLING CONTRACTOR: ESN		PROJECT #: 64001.3					
DRILLING EQUIPMENT: PowerProbe 9630		DATE: 5/16/16					
DRILLING METHOD: Direct Push		GROUND SURFACE ELEV. FT AMSL: Not Measured				DECOMMISSIONING MATERIAL:	
LOGGED BY: S. Trimble		TOTAL DEPTH: 10 ft bgs				BOREHOLE SIZE: 2.25"	
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Sheen	Notes
0		4" Concrete					
1	SP	POORLY-GRADED SAND; brown; dry; fine grained; minor gravel; no odor	60	1.5	P-09:0.5		
2				1.5			
3				3.8			
		6" Layer of Brick					
		6" Layer of Asphalt					
4	ML	SANDY SILT; dark brown; dry; minor gravel; no odor		2.5	P-09:4		
5	SP	POORLY-GRADED SAND; dark brown; moist; medium grained; no odor	90				
6				2.0	P-09:6		
7							
8				1.6	P-09:8		
9							
10		End of Borehole					
11							

NOTES: 5' core length

1 of 1

 ENVIRONMENTAL PARTNERS INC		BORING ID: P-10					
SITE ADDRESS 812 South Adams Street		CLIENT: Washington Industries					
DRILLING CONTRACTOR: ESN		PROJECT #: 64001.3					
DRILLING EQUIPMENT: PowerProbe 9630		DATE: 5/16/16					
DRILLING METHOD: Direct Push		GROUND SURFACE ELEV. FT AMSL: Not Measured				DECOMMISSIONING MATERIAL:	
LOGGED BY: S. Trimble		TOTAL DEPTH: 10 ft bgs				BOREHOLE SIZE: 2.25"	
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Sheen	Notes
0		4" Concrete					
1		POORLY-GRADED SAND; brown; dry; fine grained with minor gravel; no odor		1.8			
2				1.8			
3				60			
3		6" Layer of Brick					
4		12" Layer of Asphalt					
5		SANDY SILT; dark brown; dry; minor gravel; no odor		3.2			
6		POORLY-GRADED SAND; dark brown; moist; medium grained; no odor		2.3			
7							
8							
9							
10							
10		End of Borehole	75	1.8			
11							
NOTES: 5' core length							

 ENVIRONMENTAL PARTNERS INC		BORING ID: P-11					
SITE ADDRESS 812 South Adams Street		CLIENT: Washington Industries					
DRILLING CONTRACTOR: ESN		PROJECT #: 64001.3					
DRILLING EQUIPMENT: PowerProbe 9630		DATE: 5/16/16					
DRILLING METHOD: Direct Push		GROUND SURFACE ELEV. FT AMSL: Not Measured				DECOMMISSIONING MATERIAL:	
LOGGED BY: S. Trimble		TOTAL DEPTH: 10 ft bgs				BOREHOLE SIZE: 2.25"	
Depth (feet)	USCS	Description USCS name; Color; Moisture; Density; Plasticity; Dilatency; EPI description; Other	Interval & % Recovery	PID (ppm)	Sample	Sheen	Notes
0		4" Concrete					
1	 SP	POORLY-GRADED SAND; brown; dry; fine grained with minor gravel; no odor	60	2.0	P-11:0.5		
2							
3		6" Layer of Brick					
		12" Layer of Asphalt					
4							
5	 ML	SANDY SILT; dark brown; dry; minor gravel; no odor		3.2	P-11:4.5		
6	 SP	POORLY-GRADED SAND; dark brown; moist; medium grained; no odor	90	2.1	P-11:6		
7							
8							
9							
10		End of Borehole					
11							
NOTES: 5' core length							