Expanded Contaminated Media Management Plan for the Former USPS Processing & Distribution Center Property, Portland, Oregon, DEQ ECSI #2183

Prepared for:
Prosper Portland
Contact: Colin Polk
222 NW 5th Avenue
Portland, OR 97209

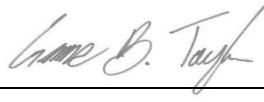
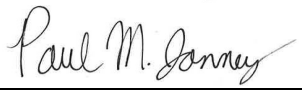
Prepared by:
Stantec Consulting Services Inc.
601 SW 2nd Avenue #1400
Portland, OR 97204

Stantec Project Number: 185750980

July 6, 2020

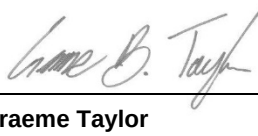
Sign-off Sheet

Document Title:	Expanded Contaminated Media Management Plan Former United States Postal Service Processing & Distribution Center Property 715 NW Hoyt Street Portland, Oregon 97209 Cooperative Agreement Number: BF-01J66401
Prepared by:	Graeme Taylor Stantec Consulting Services Inc. 601 SW 2nd Ave #1400 Portland, Oregon 97204
Date:	July 6, 2020

Title	Name	Signature	Date of Approval
EPA Region 10 Brownfields Project Officer	Margaret Olson		
EPA Region 10 Quality Assurance Manager	Donald Brown		
Prosper Portland Project Manager	Colin Polk		
Stantec Project Manager	Graeme Taylor		7/6/2020
Stantec Health & Safety Officer & Field Manager	Paul Janney		7/6/2020

This document entitled, Expanded Contaminated Media Management Plan for the Former USPS Processing & Distribution Center Property, Portland, Oregon, DEQ ECSI #2183 was prepared by Stantec Consulting Services Inc. (Stantec) for Prosper Portland. The material in it reflects Stantec's best judgment considering the information available at the time of preparation. Any use which a third party makes of this Expanded Contaminated Media Management Plan, or any reliance on or decisions made based on it, are the responsibilities of such third parties. Stantec accepts no responsibility for damages, if any, suffered by any third party because of decisions made or actions based on this Expanded Contaminated Media Management Plan.

This document was prepared under the supervision and direction of the staff identified below.

Author: 

Graeme Taylor
Associate / Project Manager

Reviewer: 

Leonard Farr Jr., RG
Principal Geologist

Table of Contents

ABBREVIATIONS I

1.0 INTRODUCTION 1
1.1 OBJECTIVES 1
1.2 PROPERTY LOCATION AND DESCRIPTION 1
1.3 PROPERTY HISTORY 2
1.4 PREVIOUS ENVIRONMENTAL INVESTIGATIONS 3
1.4.1 Investigations Under DEQ UST (LUST #26-92-0068) and Voluntary Cleanup (ECSI #2183) Programs 3
1.4.2 Independent Investigations Reported to DEQ 4
1.4.3 Investigations Governed by DEQ/USPS Intergovernmental Agreement 5
1.5 NATURE, EXTENT, AND CONCENTRATIONS OF CONTAMINATION 8
1.5.1 Soil Contamination 8
1.5.2 Groundwater Contamination 9

2.0 KEY REMEDIAL ACTION DOCUMENTATION 10
2.1 DEQ RECORD OF DECISION 10
2.2 2011 CONTAMINATED MEDIA MANAGEMENT PLAN 12
2.3 PROSPECTIVE PURCHASER AGREEMENT (PPA) 12
2.4 2016 MASTER REMEDIAL ACTION PLAN 13
2.4.1 General Approach 13
2.4.2 Contaminants of Concern to be Mitigated 13

3.0 PHASE 1 CLEANUP APPROACH 14
3.1 PLANNED EXCAVATION AREAS 14
3.2 REMEDIAL ACTION TEAM 16
3.3 TRAINING REQUIREMENTS FOR CONTAMINATED AREAS 16

4.0 CLEANUP AND SOIL MANAGEMENT 18
4.1 UST DECOMISSIONING 18
4.2 SOIL CLASSIFICATIONS AND METHODS OF CLASSIFICATION 18
4.2.1 No Apparent Impact Soil 19
4.2.2 Soil Classified as Solid Waste 19
4.2.3 Unanticipated and Unknown Contaminated Soil 19
4.3 EXCLUSION ZONE AND DECONTAMINATION 20
4.4 CONTROL OF EXCESS CONTAMINATED SOIL 20
4.5 STAGING OF EXCESS CONTAMINATED SOIL (STOCKPILING) 21
4.6 EXCAVATION AND LOADING OF CONTAMINATED SOIL 21
4.7 EXCAVATION LIMITS AND CONFIRMATION SAMPLING PROCEDURES 22
4.8 TRANSPORTATION OF CONTAMINATED SOIL 24
4.9 DISPOSAL OF CONTAMINATED SOILS 24
4.10 IMPORTED SOIL MANAGEMENT 25

5.0 GROUNDWATER MANAGEMENT 26

5.1 MONITORING WELL ABANDONMENT 26

6.0 CONTRACTOR HEALTH AND SAFETY 27

7.0 CONTRACTOR OVERSIGHT AND REPORTING 27

8.0 REDEVELOPMENT SCHEDULE 28

9.0 CLOSURE DOCUMENTATION 28

10.0 REFERENCES 29

LIST OF FIGURES

Figure 1 – Property Sampling Locations Map
Figure 2 – Vehicle Maintenance Facility Excavation Map
Figure 3 - Former Manufactured Gas Plant Excavation Map
Figure 4 – Electrical Utility Vault Excavation Map

LIST OF TABLES

Table 1 – Remedial Action Team

ATTACHMENTS

Attachment 1 – Vehicle Maintenance Area Data Tables
Attachment 2 – Remedial Investigation Data Tables
Attachment 3 – Abandoned Tanner Creek Sewer Information
Attachment 4 – Phase 1 Cleanup Standards
Attachment 5 – Historical Soil Sample Analytical Results – cPAHs

Abbreviations

µg/L	Microgram per Liter
ATCS	Abandoned Tanner Creek Sewer
bgs	Below Ground Surface
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
CFR	Code of Federal Regulations
City	City of Portland
CMMP	Contaminated Media Management Plan
COC	Contaminant of Concern
DEQ	Oregon Department of Environmental Quality
DRO	Diesel Range Organics
ECSI	Environmental Cleanup Site Information
EES	Easement and Equitable Servitude
ESCP	Erosion and Sediment Control Permits
EUV	Electric Utility Vault
FFS	Focused Feasibility Study
GRO	Gasoline Range Organics
HASP	Health and Safety Plan
HAZWOPER	Hazardous Waste Operations and Emergency Response
HOT	Heating Oil Tank
mg/kg	Milligram per Kilogram
mg/L	Milligrams per Liter
MGP	Former Pintsch Manufactured Gas Plant
MRAP	Master Remedial Action Work Plan
NAPI	No Apparent Impact
NFA	No Further Action
NPTC	Northern Pacific Terminal Company
OAR	Oregon Administrative Rule
ORO	Oil Range Organics
OWRD	Oregon Water Resources Department
PAH	Polynuclear Aromatic Hydrocarbon
P&DC	Processing and Distribution Center
PDC	Portland Development Commission
PID	Photoionization Detector
PPA	Prospective Purchaser Agreement
Property	715 NW Hoyt Street, Portland, Oregon

Prosper Portland	Property Owner
PTRR	Portland Terminal Railroad Company
RAO	Remedial Action Objective
RBC	Risk-based Concentration
RI	Remedial Investigation
ROD	Record of Decision
SOW	Prospective Purchaser Agreement Scope of Work
Stantec	Stantec Consulting Services Inc.
TEQ	Toxic Equivalency Quotient
TGA	Troutdale Gravel Aquifer
TPH	Total Petroleum Hydrocarbons
USEPA	United States Environmental Protection Agency
USPS	United States Postal Service
UST	Underground Storage Tank
VMF	Vehicle Maintenance Facility
VOC	Volatile Organic Compound

1.0 INTRODUCTION

This Expanded Contaminated Media Management Plan (CMMP) has been prepared by Stantec Consulting Services Inc. (Stantec) on behalf of Prosper Portland for the former United States Postal Service (USPS) Processing and Distribution Center (P&DC) Property located at 715 NW Hoyt Street in Portland, Oregon (hereafter referred to as "Property"). Cleanup and redevelopment of the Property is a significant component of the City of Portland's Broadway Corridor redevelopment project. This Expanded CMMP has been prepared to facilitate highly concentrated soil hot spot cleanup activities on the Property using a United States Environmental Protection Agency (USEPA) Brownfield Cleanup Grant awarded to Prosper Portland in 2019 under Cooperative Agreement BF-01J66401.

1.1 OBJECTIVES

The purpose of this Expanded CMMP is to provide Property-specific information and guidance regarding the control and management of contaminated media that is proposed to be removed from the Property during cleanup activities. Property cleanup activities will be completed in phases. This Expanded CMMP is being submitted to facilitate soil cleanup activities during Phase 1, which is limited to hot spot soil removal, underground storage tank (UST) decommissioning, completing an exploratory trench to locate potential connections to the Abandoned Tanner Creek Sewer (ATCS), and decommissioning the existing Property monitoring wells. Additional sub-parcel specific cleanup plans will be developed and submitted to the Oregon Department of Environmental Quality (DEQ) for future cleanup or redevelopment phases. USEPA cleanup grant funds will not be used to conduct the UST decommissioning or pocket-in-place cleanup activities near the former heating oil tank (HOT) on the south end of the P&DC building as these activities are not considered to be eligible for hazardous substance funding. This Expanded CMMP includes:

- A description of the type and magnitude of applicable hazardous substances detected in soil samples collected at the Property;
- Procedures for the management of soil containing hazardous substances at concentrations resulting in classification of the soil as a hot spot during Property cleanup activities;
- Procedures for the management of soil from specific areas of the Property requiring cleanup as determined by the DEQ;
- Procedures for abandoning existing Property monitoring wells and groundwater if encountered during this remedial action;
- Measures to control access to the Property during cleanup activities;
- Measures to control off-Property migration of contaminated soil via erosion and/or track-off; and,
- Procedures for minimizing worker exposure to hazardous substances present in soil during Property cleanup.

1.2 PROPERTY LOCATION AND DESCRIPTION

The Property is an approximately 13.4-acre, rectangular-shaped parcel located within the Pearl District in Portland, Oregon. The Property is comprised of tax lots 100 and 200 on Multnomah County tax map 1N

1E 34BC. The Property is bounded by the Lovejoy Street Ramp to the Broadway Bridge to the north, by the NW Broadway Ramp to the Broadway Bridge to the east, NW Hoyt Street to the south, and NW 9th Avenue to the west.

The Property previously processed all outgoing mail for the state of Oregon, though today the Property is leased by the USPS for use primarily as a retail post office. The Property includes a 398,000-square-foot former P&DC Building, a 10,025-square-foot Vehicle Maintenance Facility (VMF) with a fuel island and 10,000 gallon diesel UST, a 157,400-square-foot multi-story parking structure, and surface parking and maneuvering areas for postal vehicles (**Figure 1**). The entire Property is covered by either structures or paving, with the exception of a few small landscaped areas along the southern Property boundary adjacent to NW Hoyt Street and along the western Property boundary adjacent to NW 9th Avenue. Public access is restricted to all portions of the Property except the post office situated at the south end of the P&DC building along NW Hoyt Street.

The Property is zoned EXd (Central Employment), as is property to the immediate north and west. Surrounding properties to the immediate east and south are zoned CXd (Commercial). Both the EXd and CXd zones allow for residential development. The nearest surface water body is the Willamette River, located approximately 700 feet to the northeast.

1.3 PROPERTY HISTORY

The eastern area of the Property (9.0-acre tax lot 100) was owned by the Northern Pacific Terminal Company (NPTC, later becoming Portland Terminal Railroad Company or PTRR) from 1882 to 1959. The same entity owned the western portion of the Property (4.4-acre tax lot 200) from 1882 to 1974. NPTC/PTRR used the entire Property for railyard operations. Rail operations included numerous track lines and, for a brief period, a railroad turntable. Rail car repair and cleaning were performed along the west side of the Property in the 1890s and early 1900s (Coach Cleaning Area), while freight depots operated in the eastern portion of the Property from the 1890s to later 1950s. A former Pintsch Manufactured Gas Plant (MGP) operated in the northwest corner of the Property from approximately 1893 to the 1930s, producing compressed gas from naphtha-grade oil for railroad car lighting. MGP process equipment included an above-ground gas holder, high-pressure tanks, a tar well, and oil tanks. No definitive information has been found regarding operations and waste disposal practices at the MGP.

USPS purchased the eastern half of the Property in 1959, and subsequently sold it in 1960. The USPS then leased and began operation of the P&DC on the eastern portion of the Property in 1962. In 1974 USPS purchased the eastern and western halves of the Property, forming the Property as it is configured today. The P&DC and VMF buildings were constructed in 1962, and the parking structure was constructed in 1987.

In 2017, Prosper Portland purchased the Property and leased-back the Property facility to the USPS while processing and distribution operations were moved to a new offsite location. A USEPA Brownfield Cleanup Grant was awarded to Prosper Portland in 2019 to facilitate cleanup activities.

1.4 PREVIOUS ENVIRONMENTAL INVESTIGATIONS

Numerous environmental investigation and cleanup activities have been performed on the Property largely focused on the following areas associated with hazardous substances from historical operations:

- MGP Area;
- Coach Cleaning Area;
- VMF Area
- Electrical Utility Vault (EUV) Area; and,
- Storm Sewers.

Previous Property environmental cleanup and investigation activities are listed in the preceding subsections as summarized in the 2010 DEQ Record of Decision (ROD [DEQ 2010]) the 2011 CMMP (Exponent 2011), and the 2016 Master Remedial Action Plan (MRAP [Stantec 2016]). Investigation work completed under DEQ UST and Voluntary Cleanup Programs is presented in subsection 1.4.1, investigation work performed independently of DEQ is presented in subsection 1.4.2, and work performed under an Intergovernmental Agreement between USPS and DEQ is presented in subsection 1.4.3.

1.4.1 Investigations Under DEQ UST (LUST #26-92-0068) and Voluntary Cleanup (ECSI #2183) Programs

1992-1993 VMF and South Side of P&DC Building. Six USTs used by the USPS to store diesel, gasoline, waste oil, and heating oil were decommissioned by removal in 1992 and 1993. Five USTs were located at the USPS VMF, and one was located on the south side of the P&DC Building. Contamination was detected in both areas, and soil remediation was completed. DEQ's Northwest Region UST program issued a no further action (NFA) determination for the UST decommissioning activities on June 13, 1997 but noted that some pockets of elevated petroleum contamination were left in both areas because of inaccessibility beneath Property buildings.

1993 UST Decommissioning Report Review & Soil Investigation. This report, prepared by Dames & Moore, presents the results of a soil boring and test pit investigation that was completed at the VMF in the course of decommissioning five USTs: a 300-gallon waste oil UST; a 1,000-gallon and two 5,000-gallon diesel USTs; and a 10,000-gallon gasoline UST. Hand auger borings (B1 through B18, and EX-1) were advanced to a maximum of 4 feet below ground surface (bgs), with one to two soil samples from each boring analyzed for total petroleum hydrocarbons (TPH). Three deeper test pits were dug south of the VMF and select soil samples were analyzed for TPH. In analyzed hand auger samples, TPH was detected at a number of locations to a maximum concentration of 71,000 milligrams per kilogram (mg/kg) (diesel/oil). Deeper test pit samples were generally non-detect. Soil sampling results from beneath the VMF building presented in the 1993 Dames and Moore report are included in **Attachment 1.**

1994 UST Decommissioning & Soil Investigation Report. A 25,000-gallon Bunker C UST located immediately south of the existing P&DC Building was decommissioned in 1993. During removal, contamination was observed in the area of the product line, which had been hit during shoring activities. No impacts were observed in the UST excavation. Numerous soil samples were collected during

decommissioning of the UST. Results from the investigation and confirmatory sampling are documented in *Geotechnical Investigation, 25,000 Gallon UST Removal* (June 8, 1993) and *UST Decommissioning & Soil Investigation Report* (February 10, 1994) prepared by Dames & Moore. Impacted soil was removed from this location and transported offsite for disposal. A pocket of residual contamination (up to 770 mg/kg diesel) was left in place next to the P&DC Building foundation as noted in DEQ's June 13, 1997 NFA letter for the UST removal. A monitoring well was installed in 1993 by Dames & Moore near the southeast corner of the garage associated with the UST decommissioning at this location. Groundwater was analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX). No BTEX was detected in groundwater.

2001 Preliminary Assessment Report. Alisto Engineering Group completed a Preliminary Site Assessment for the Property dated March 8, 2001. Work included the advancement of borings to a maximum of 32 feet bgs at nine locations in the northwest corner of the Property (Former MGP Area), and the collection of deeper soil samples (8 to 32 feet bgs) and shallow groundwater samples from the same areas. Soil samples were analyzed for TPH, BTEX, polynuclear aromatic hydrocarbons (PAHs), and metals, and grab groundwater samples collected from the boreholes were analyzed for TPH and BTEX. Three monitoring wells (MW-1 to MW-3) were subsequently installed and sampled in August 2000. Sample results are discussed below in subsection 1.4.3.

1.4.2 Independent Investigations Reported to DEQ

1987 Parking Garage Geotechnical Investigation. Geotechnical borings (B-1 and B-2 and CC-1 to CC-4) were completed in 1986 and 1987 in association with construction of the Parking Garage. It appears from DEQ records that the 1986 work was completed by Cornforth Consultants and the 1987 work by Geotechnical Resources. Borings were advanced to 45 feet bgs. No visual evidence of contamination was noted. No samples were submitted for laboratory analysis of contaminants.

1993 Geotechnical Investigation. In association with decommissioning of the 25,000-gallon Bunker C UST located south of the P&DC Building, a soil and groundwater sample were collected near the UST. No petroleum hydrocarbons were detected in the samples.

1996/1997 Limited Subsurface Environmental Assessment, Proposed Utility Construction. As a prelude to utility construction west of the P&DC Building, shallow soil samples were collected from three of four soil borings (B-1 through B-4). In addition, a groundwater sample was collected in late1996 from monitoring well MW-A. Soil samples were analyzed for TPH, PAHs, and total metals. The groundwater sample was analyzed for TPH, PAHs, and BTEX. The well was resampled in November 1997. There were no analyte detections in either groundwater sample with the exception of fluoranthene at a concentration of <1 microgram per liter (µg/L) in the 1996 groundwater sample, and dissolved lead at a concentration of 1.5 µg/L in the 1997 groundwater sample.

1997 Work Plan, Excavation Monitoring and Oversight. Additional data from the utility trench was included in GeoEngineers' *Work Plan, Excavation Monitoring and Oversight* (May 16, 1997). A composite sample (SS-1/SS-2) collected from stockpiled soil excavated from the utility trench contained diesel and

heavy oil concentrations up to 5,170 mg/kg and 3,880 mg/kg, respectively. Individual PAH concentrations up to 292 mg/kg also were detected in the composite sample. A soil sample collected from the utility trench following excavation (TS-1) had reduced levels of hazardous substances. Soil Sample USPS-1 had elevated levels of hazardous substances.

1997 Report of Excavation Observation and Monitoring. GeoEngineers' report contained confirmatory sampling data from the five shallow utility trenches that were excavated to facilitate utility construction. Confirmatory samples were collected from depths varying from 1.5 to 13 feet bgs, and analyzed for TPH, metals, volatile organic compounds (VOCs), and PAHs. Elevated TPH, metals (arsenic and lead), and PAHs were detected. At location USPS-T#5-2 (3.5 feet bgs), diesel and heavy oil were detected at up to 175,000 mg/kg and 128,000 mg/kg respectively. Benzo(a)pyrene and naphthalene were detected at up to 73.1 mg/kg and 246 mg/kg, respectively.

2000/2001 Natural Gas Line. Soil sampling was completed in 2000 and 2001 in conjunction with rerouting of a natural gas line situated along the east side of the Property and in NW Broadway Street. TPH, PAHs, and metals were detected in the soil samples collected.

1.4.3 Investigations Governed by DEQ/USPS Intergovernmental Agreement

Former MGP Area. Investigation of the Former MGP Area located in the northwest Property corner was initiated in 2000. Initial work focused on soil sampling and VOCs, PAHs, and TPH were detected. Three shallow groundwater wells (MW-1 to MW-3) were subsequently installed and monitored between 2000 and 2003. Contaminants detected in soil and groundwater included primarily petroleum hydrocarbons, VOCs, and PAHs that are likely attributable to Former MGP operations and historical railyard activities in the area. Impacts to groundwater were primarily located in the vicinity of MW-3.

Petroleum hydrocarbons and VOCs were not detected in MW-1 or MW-2, located south (upgradient) and east (side-gradient) of the Former MGP footprint. PAHs were detected in both wells at concentrations of less than 1 µg/L. At MW-3, located within the footprint of the Former MGP, maximum detections of diesel, heavy oil, naphthalene, and benzene were 13,000 µg/L, 3,920 µg/L, 3,900 µg/L, and 1,020 µg/L, respectively. Monitoring of MW-1 and MW-2 was discontinued in 2003 based on a lack of significant detections. Monitoring of MW-3 was discontinued in 2005 when DEQ determined that groundwater impacts had been adequately delineated.

In 2004, 12 borings (P-3, P-6, and P-9; PP-1 through PP-7, and SS-2 and SS-3) were advanced in the Former MGP Area. Samples were collected at depths ranging from 3 to 90 feet bgs. Most borings were advanced for collection of shallow soil samples to assess near-surface impacts in the Former MGP Area to augment the deeper investigation completed in 2001. Boring PP-6 was advanced to the top of the Troutdale Gravel Aquifer (TGA) to determine the depth (elevation) of the TGA on the Property. Borings SS-2 and -3 were advanced to 32 feet bgs to evaluate conditions in the vicinity of the former (abandoned) Tanner Creek Sewer located west of the Property below NW 9th Avenue. Analysis included BTEX, VOCs, PAHs, and petroleum hydrocarbons.

Petroleum hydrocarbons, and PAHs in particular, were commonly detected, with the highest concentrations found in deeper unsaturated soil and extending into the top of the water table (7 to 16 feet bgs). The presence of elevated contamination at depth was surmised to be from fill placed on the Property subsequent to Former MGP and railroad activities.

At the presumed location of the Former MGP "tar well', a boring was advanced to the top of the TGA at approximately 90 feet bgs, and samples collected from multiple intervals for analysis. Hazardous substances typical of historical MGP and railyard activities were observed in soil and groundwater but attenuated with depth. Non-aqueous phase liquid was not observed in the TGA. A monitoring well (TGA-1) was subsequently installed near this location, and groundwater samples collected from December 2004 through September 2005. Petroleum hydrocarbons, benzene, and naphthalene were detected up to 0.78 milligrams per liter (mg/L), 1.72 µg/L, and 2.27 µg/L, respectively. Based on a lack of significant impact, USPS requested and received DEQ approval to discontinue sampling of TGA-1.

Storm Sewer. Investigation at the nearby Station Place site and within NW Lovejoy Street during construction of the new ramp in 2003 identified petroleum hydrocarbon, VOC, and PAH contamination in soil and shallow groundwater along the eastern margin of NW 9th Avenue. Former MGP wastes are considered the likely source of this contamination. Subsequent video survey of the sewer and sampling of stormwater within a 27-inch sewer beneath NW Lovejoy in the mid-2000s identified Former MGP waste (benzene, naphthalene, and other PAHs) within the sewer, but at low levels that did not exceed risk-based screening values at sample collection points (manholes) downstream of the Station Place site. Ambient water quality samples were collected during both low and high-water flow conditions.

To evaluate conditions in the northwestern area of the Property and in the vicinity of the ATCS, two borings (SS-2 and SS-3) were advanced as close to the sewer line as possible at DEQ's request in 2004. Soil samples were collected from depths between 16 and 32 feet bgs and analyzed for BTEX, VOCs, PAHs, petroleum hydrocarbons, and metals. Petroleum hydrocarbons (up to 1,380 mg/kg), PAHs, and VOCs (excluding benzene and others) were detected, indicating that Former MGP contamination extends off of the Property and beneath NW Lovejoy Street. Groundwater adjacent to the sewer was similarly impacted.

During construction of the new Lovejoy Ramp in the early 2000s, an unknown petroleum product was observed by DEQ seeping from shallow soil in an excavation sidewall. DEQ recalls that the seepage was observed near the northwest corner of the VMF. In contrast, the City indicated that seeps were observed near the northwest corner of the Property and not near the VMF (City of Portland, 2004 as cited in ARCADIS, 2006). The City noted that the seep was encountered during installation of a light pole adjacent to the Station Place property on the north side of vacated NW Lovejoy Street. According to DEQ staff, the area of seepage was subsequently covered, and the source of the contamination was not identified.

Electrical Utility Vault. Subsurface petroleum contamination was encountered in 1996 during geotechnical drilling associated with an electrical utility vault expansion west of the P&DC Building. Near-surface soil was visually impacted, and subsequent laboratory analysis identified petroleum

hydrocarbons, VOCs, PAHs, and lead in the soil. Impacted soil was excavated and transported offsite for disposal at the Hillsboro Subtitle D Landfill. A monitoring well (MW-A) was installed in the impacted area in 1996 by GeoEngineers and groundwater samples were collected during low and high-water conditions, and in October 2004. Significant groundwater impacts were not observed.

During subsequent investigations completed by ARCADIS in 2004, additional borings (UV-1 through UV-8) were advanced, generally to15 feet bgs, to further delineate the area. One boring (UV-8) was advanced to 30 feet bgs and a temporary shallow groundwater monitoring point was constructed. Soil and groundwater samples from the boring and wells (UV-8 and MW-A) were analyzed for BTEX, PAHs, and petroleum hydrocarbons. Elevated contaminants including PAHs were detected in soil. Two PAHs were detected in groundwater in the UV-8 boring; none were detected in monitoring well MW-A.

Coach Cleaning Area. According to Sanborn Fire Insurance Maps and other sources, the cleaning of railroad passenger (coach) cars was performed in the west-central portion of the Property. To evaluate environmental conditions in this area, seven borings (CC-1 to CC-7) were advanced to 15 feet bgs in this area in 2004, and two samples (surface and subsurface) at each location were collected and analyzed for VOCs, petroleum hydrocarbons, PAHs, and metals. Organic contaminants generally were detected at low concentrations or were absent. Arsenic and lead concentrations in soil were notably elevated. Detected arsenic ranged from 22 mg/kg to 48 mg/kg, and lead from 244 mg/kg to 1,080 mg/kg. In 2006, three additional borings (CC-8 to CC-10) were advanced in the area. Elevated lead and arsenic were detected up to 3,020 mg/kg and 50.9 mg/kg, respectively.

Parking Garage. As part of the remedial investigation, shallow and deeper soil samples were collected from a boring located immediately south of the Parking Garage on the Property (EH-1) in 2004 and analyzed for petroleum hydrocarbons, VOCs and PAHs. Soil samples were not analyzed for metals. Low levels of several PAHs were detected.

Northeast Corner. Sampling was completed in the northeast corner of the Property in 2004. Soil samples were collected (surface and at depth) at three locations (EH-3 through EH-5), with notable detections of petroleum hydrocarbons at EH-3. Soil samples were not analyzed for metals. Soil samples were later collected at two additional locations (EH-6 and EH-7). Petroleum hydrocarbons were detected at 2,000 mg/kg at one location (EH-6), and arsenic at both (to 17.2 mg/kg).

1.4.3.1 2006 Risk Assessment and Focused Feasibility Study

A draft human health risk assessment identifying baseline risk associated with soil and groundwater contamination at the Property was submitted in June 2005 as part of the Remedial Investigation Report. A Final Risk Assessment report was submitted in April 2006 and subsequently approved by DEQ. In these assessments, soil and groundwater sampling results were compared to screening values under two scenarios: the Existing Site Use scenario (current and reasonably likely future use based on continued USPS use), and a Hypothetical Future Site Use scenario where the site would be sold and redeveloped to include urban residential and occupational use.

In 2008, supplementary risk assessment RA work was completed as part of the site Focused Feasibility Study (FFS), specifically addressing the potential for future urban residual use under the Hypothetical Future Site Use scenario. DEQ required evaluation of urban resident risk as an amendment to the 2008 FFS, based on the initiation of property sale discussions between USPS and Portland Development Commission (PDC; now Prosper Portland).

The FFS was completed by Arcadis in 2008 and approved by the DEQ. The FFS evaluated Property risk and accompanying remedial actions under two separate scenarios: a) Existing Site Use (continuing site ownership, occupancy, and use by the USPS); and b) Hypothetical Future Site Use (sale of the property for redevelopment including commercial and urban residential use). The Existing Site Use scenario was in effect until 2019 when USPS vacated the Property. Under Hypothetical Future Site Use, remedies were evaluated to address urban resident, commercial worker, excavation worker, and construction worker excess risk.

For both the existing use and redevelopment use scenarios, remedial action objectives (RAOs) were established, identification of remediation areas and volumes was completed, and remedial alternatives were recommended. A qualitative evaluation of residual risk was also completed. Based on the analysis, recommended remedial actions were reviewed and adopted in the 2010 DEQ Record of Decision (ROD) for existing site use and hypothetical future site use. The ROD is discussed in Section 2.1.

1.5 NATURE, EXTENT, AND CONCENTRATIONS OF CONTAMINATION

Between 1987 and 2006 (as listed above), extensive testing of Property soil and groundwater was conducted during multiple phases of environmental site assessment focused on specific areas of the Property to address specific sources of contamination. The nature and extent of contamination associated with activities at the Property are summarized in the 2006 Remedial Investigation (RI) Report (ARCADIS 2006). Available RI data tables are included in **Attachment 2**. Documented Property soil and groundwater contamination from prior investigation activities is summarized below.

1.5.1 Soil Contamination

Shallow soil at the site consists primarily of fill, having a variable grain size and in some cases containing man-made materials including brick, wood, and slag. Willamette River dredge sand is also present in some areas. The fill material is in turn underlain by alluvial/fluvial deposits of Pleistocene to Recent age. The deposits represent a combination of flood deposits of the Willamette River, and fine-grained sediments associated with the Ice-Age Bretz floods. These are underlain, in turn, by unconsolidated gravels of the Pliocene-age Troutdale Formation. In the northwest corner of the Property Troutdale gravels were encountered at a depth of approximately 80 feet bgs. These gravels are underlain at depth by Miocene-age flood basalts of the Columbia River Basalt Group.

In soil, metals, TPH, and PAHs have been detected at elevated concentrations in several areas of the Property. Outside of the MGP area, contamination is present primarily in shallow soil (less than 5 feet bgs) and appears to be associated primarily with historical use of the Property as a railyard. Arsenic

detections commonly exceed DEQ's default background concentration of 8.8 mg/kg, with a maximum of 50.9 mg/kg detected in the northern portion of the Property. Lead is likewise elevated above background in several areas of the Property with a maximum detected concentration of 3,020 mg/kg in the Coach Cleaning Area, but typically below DEQ's urban residential risk-based concentration (RBC) of 400 mg/kg in other areas of the Property. PAHs are notably elevated in the EUV and MGP areas. Impacts in the former are shallow, but in the latter extend below the top of the water table. The primary Property risk-driver is PAHs, in particular benzo(a)pyrene. VOCs have generally not been detected in Property soil.

Contaminant of concerns (COCs) in Property soils as listed in the 2011 CMMP (Exponent, 2011) include:

- Metals:
  - Arsenic;
  - Lead; and,
  - Chromium;
- TPH (diesel and heavy oil);
- Benzene, toluene, ethylbenzene and xylenes (BTEX); and,
- PAHs:
  - Naphthalene
  - 2-Methylnapthalene
  - Benz(a)anthracene
  - Benzo(a)pyrene
  - Benzo(b)fluoranthene
  - Benzo(k)fluoranthene;
  - Chrysene;
  - Dibenz(a,h)anthracene; and
  - Indeno(1,2,3-cd)pyrene.

1.5.2 Groundwater Contamination

Groundwater is typically present at a depth of approximately 10 to 20 feet bgs across the Property. Shallowest groundwater (unconfined water table aquifer) in the westernmost portion of the Property flows to the west, assumed to be influenced by utility corridors located beneath NW 9th Avenue. Shallow groundwater flow in the eastern portion of the Property and in deeper Alluvial Deposits is assumed to be to the north-northeast towards the Willamette River (a regional discharge boundary). Groundwater flow in the underlying TGA, present within unconsolidated gravels of the upper Troutdale Formation, is northeast (towards the Willamette River) based on information from adjacent properties. There is no current or reasonably likely future use of the shallow (Alluvial) aquifer at the Property beyond recharge to the Willamette River. In the past, deeper TGA groundwater was used in the Property vicinity for industrial and irrigation purposes. The only known current use of the TGA within approximately 1 mile of the Property is the City of Portland irrigation well at Waterfront Park, well outside of any Property influence. Water for resident and business use in the Property vicinity is supplied by the City of Portland from a distant surface water source (Bull Run Reservoir).

Groundwater contamination at the Property is confined mainly to the MGP area and related to releases from the MGP. At monitoring well MW-3, detected groundwater contaminants include VOCs and PAHs. In

shallow well MW-3 where the greatest impacts were found, diesel and heavy oil were detected to 13,000 and 3,920 µg/L, respectively. Naphthalene and benzo(a)pyrene were detected at concentrations of 3,900 and 27.5 µg/L, respectively. Benzene and other organic compounds were also detected at low levels.

In the EUV area, low level PAHs (less than 1 µg/L) were detected in limited groundwater investigation work. Given the apparent absence of deeper soil impacts, groundwater sampling was not performed in the Coach Cleaning Area, Parking Garage Area, or the eastern portion of the property (including below the main processing building). An exception is groundwater sampling completed during the heating oil UST decommissioning in 1993 ("B-1-93"). Groundwater beneath the VMF building was not encountered during UST decommissioning.

COCs in Property groundwater as listed in the 2011 CMMP (Exponent, 2011) include:

- TPH (diesel and heavy oil);
- BTEX; and,
- PAHs:
  - Naphthalene
  - 2-Methylnapthalene
  - Benz(a)anthracene
  - Benzo(a)pyrene
  - Benzo(b)fluoranthene
  - Benzo(k)fluoranthene;
  - Chrysene;
  - Dibenz(a,h)anthracene; and,
  - Indeno(1,2,3-cd)pyrene.

2.0 KEY REMEDIAL ACTION DOCUMENTATION

2.1 DEQ RECORD OF DECISION

The ROD was issued by the DEQ for the Property on September 14, 2010. In the ROD, remedial actions for existing site use and hypothetical future use were recommended and adopted by the DEQ based on the findings of the RI and FFS. Only the Hypothetical Future Site Use RAOs are presented herein since this Expanded CMMP is designated to facilitate Phase 1 cleanup and redevelopment objectives only.

Proposed Remedial Actions for soil and groundwater contaminants under the Hypothetical Future Site Use scenario include:

1. Maintenance of the existing Property cover (paving and buildings) until future redevelopment occurs, and temporary capping and access restrictions if cover is compromised or removed.

2. Concurrent with redevelopment, capping of areas where soil exceeds acceptable risk levels with a demarcation layer and a minimum of two feet of clean fill (landscape areas) or hardscape (buildings and paved areas). Cap specifications for paved/building areas to be determined in a remedial design document and subject to DEQ approval.

3. Excavation of soil exceeding hot spot concentrations (concentration more than 100 times higher than applicable risk-based concentration [RBC] for individual carcinogenic compounds, or 10 times higher for non-carcinogens including petroleum hydrocarbons) in the EUV and MGP areas. Excavated soil requires offsite disposal at a Subtitle D landfill or other DEQ-approved facility. This action will require confirmatory sampling to ensure that all hot spot soils are removed.

4. Installation of a vapor mitigation system beneath future buildings constructed in the MGP and EUV areas to prevent potential exposure of future users to contamination via vapor intrusion, or additional investigation to demonstrate that a vapor mitigation system is not needed to protect human health.

5. Removal of two pockets of petroleum contamination beneath existing Property buildings, as described in DEQ's June 13, 1997 approval letter for decommissioning of Property USTs. Alternatively, completion of a risk analysis confirming that the residual contamination does not pose a risk to human health or the environment under the appropriate Property use scenarios also will be acceptable.

6. Implementation of Engineering Controls for soil following hot spot removal and any other soil removal related to Property development to prevent excavation worker exposure to contaminated soils. Implementation of Engineering Controls for groundwater to prevent excavation worker exposure to contaminated groundwater in an excavation in the former MGP Area. Controls are to be outlined in a CMMP, including protocols for worker notification and requirements for personal protective equipment (PPE), dust suppression, soil management protocols, site access restrictions, etc.

7. Recording of a Sub-Parcel Specific Easement and Equitable Servitude (EES) with the Property deed (unless the 2011 EES recorded by USPS is determined to be adequate), outlining hazards, cap inspection and maintenance requirements, a prohibition of groundwater use for any purpose, and acknowledging the requirements set forth in the CMMP.

Further, the ROD also notes a number of assumptions or conditions with respect to Hypothetical Future Use Remedial Actions. These are summarized below.

1. The selected remedial actions for the Hypothetical Future Us scenario assume that under redevelopment, the Property will include an urban residential element, as is the case with nearly all new development in the area. If redevelopment of a Sub-Parcel does not include an urban residential component, re-evaluation of conclusions regarding hot spots, areas of excess risk requiring remedial action, etc. will need to be revisited. Similarly, as described in the selected remedial actions above, removal of significant soil and/or groundwater contamination under Sub-Parcel development (beyond the required hot spot removal) may reduce or eliminate the amount of contamination requiring remedial action, and thus modify the selected remedy. The DEQ has indicated that modification of the selected remedy is acceptable provided that necessary risk analysis is completed to the DEQ's satisfaction.

2. It is DEQ's expectation that railroad-related shallow soil contamination extends beneath Property buildings and other paved areas where sampling has not been performed. Capping will be required in these areas unless DEQ-approved sampling is performed to confirm the absence of significant contamination.

3. Given the nature of Property contamination, groundwater investigation at the Property has been limited to the areas where deeper soil or groundwater impacts were either observed or inferred (MGP and EUV areas, and the UST near the south Property boundary). If significant contamination (indicated by visible or olfactory evidence) is encountered during redevelopment in areas where analytical data is limited or absent, characterization sampling may be required by DEQ. If contamination is present at depth, DEQ may require groundwater sampling. Note that unexpected contamination applies both to contamination associated with past railroad and MGP operations, and to contamination associated with USPS operations not specifically addressed in the Property remedial investigation.

4. Following or in lieu of UST pocket-in-place removal, DEQ will require confirmatory sampling to verify that 1) the nature and extent of this contamination have been defined, 2) residual contamination does not pose an unacceptable risk, and 3) contamination does not extend to the water table. Groundwater sampling may be required by DEQ if deeper soil impacts are found.

5. DEQ will not require additional site characterization or remediation of contamination located off-site beneath the adjacent NW 9th Avenue and NW Lovejoy intersection, and extending to the north below NW 9th Avenue within and around the ATCS. The primary source of the contamination appears to be historical releases from the MGP. Investigation and cleanup, as necessary, will be pursued through the historical MGP owner/operator. As part of Property development, however, DEQ will require that any on-site utility connections to the ATCS be located and abandoned. Operating utility connections that may act as a preferential migration pathway for off-site migration of contaminants will likewise need to be addressed. Any unexpected contamination (beyond that identified under the Property RI and RA found during this effort will need to be addressed to DEQ's satisfaction.

6. At the discretion of DEQ and with prior approval, reuse of non-hot spot contaminated soil below Sub-Parcel surface cap features will be permitted. DEQ approval of non-hot spot contaminated soil reuse shall not be unreasonably withheld provided a demonstration is made that soil reuse does not exacerbate Property environmental conditions or present an unacceptable risk to human health or the environment. Reuse of Property demolition debris (primarily asphalt and concrete) also will be permitted (no prior DEQ approval required) provided the debris exhibits negligible visual or olfactory evidence of contamination and has negligible contaminated soil adhered to it.

2.2 2011 CONTAMINATED MEDIA MANAGEMENT PLAN

A previous CMMP (Exponent, 2011) was issued to fulfill the requirements stipulated in the ROD for Existing Site Use and Hypothetical Site Use scenarios. The 2011 CMMP included the following:

- Description of the nature and extent of subsurface environmental impacts
- Procedures to notify workers of potential environmental hazards
- Procedures for handling contaminated media
- Description of engineering controls to prevent unacceptable exposure to subsurface contaminants, including inspection and maintenance of the existing cover (including paving and buildings).

2.3 PROSPECTIVE PURCHASER AGREEMENT (PPA)

On September 8, 2016, a Consent Judgement was recorded (Document No. 2016-112772) in Multnomah County, Oregon between the DEQ and the Portland Development Commission (now Prosper Portland).

The mutual objectives of the Consent Judgement were to: (a) to protect public health, safety, and welfare and the environment in accordance with ORS 465.200 through 465.410, and regulations promulgated thereto; (b) to facilitate productive reuse of property; and, (c) to provide Prosper Portland with protection from potential liabilities in accordance with applicable law. This Consent Judgement constitutes a Prospective Purchaser Agreement (PPA).

The PPA included a Scope of Work (SOW) as Exhibit C for activities to be performed during different phases of Property use (e.g., Lease-Back, Pre-Construction and Redevelopment). The SOW included the MRAP (Stantec 2016) to provide generally applicable remedial action elements approved under the SOW.

2.4 2016 MASTER REMEDIAL ACTION PLAN

The MRAP provides generalized remedial actions that apply to the Property transition to redevelopment during pre-construction and in accordance with the PPA SOW. The MRAP states that if Prosper Portland elects to initiate an activity that is identified in the ROD as requiring DEQ oversight, then they will prepare a plan for such activity. Plans were prescribed to contain procedures for contaminated media management during the project that would supersede the 2011 CMMP. This Expanded CMMP provides specific procedures for Phase 1 cleanup activities as detailed in Section 4 of the MRAP (Soil Hot Spot and Pocket-in-Place Excavation and Offsite Disposal). The general approach and COCs mitigated for this activity are presented below.

2.4.1 General Approach

DEQ cleanup rules express a preference for treatment of hot spots. As a result, the ROD requires that soil hot spots present in the EUV and MGP Areas of the Property be excavated and transported offsite for disposal. The ROD also specifies that inaccessible contaminated soils impacted by previously decommissioned Property USTs be excavated and transported off-Property for disposal. The approximate footprints of soil hot spot and pocket-in-place soil contamination requiring removal are illustrated on **Figures 1, 2, 3 and 4**.

2.4.2 Contaminants of Concern to be Mitigated

COCs present at concentrations exceeding hot spot levels include several PAHs: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene. COCs present in the pocket-in-place areas include petroleum hydrocarbons.

3.0 PHASE 1 CLEANUP APPROACH

This Expanded CMMP is being submitted to 1) focus on specific remedial actions according to the Hypothetical Future Site Use scenario as presented in the ROD; 2) to provide specific media management information to contractors during Phase 1 cleanup activities, and 3) develop changes in DEQ risk screening values for PAHs since the 2011 CMMP submittal. Specific remedial actions recommended in the ROD and memorialized in the PPA and MRAP are planned to be implemented during Phase 1 cleanup activities but are proposed to be conducted using revised RBCs and corresponding hot spot concentrations.

The Phase 1 cleanup plan presented in this Expanded CMMP remain consistent with the 2010 ROD This Expanded CMMP aims to address measures that should be taken during Phase 1 cleanup activities to comply with the Hypothetical Future Site Use scenario and in compliance with the ROD and PPA. Select RAOs are planned to be achieved during this Phase 1 cleanup. Therefore, the remedial approach for Phase 1 cleanup activities include the following actions:

- Decommissioning of the 10,000-gallon diesel UST at the VMF Area by a DEQ-licensed service provider (not funded by EPA Brownfield Cleanup Grant);
- Removal of pocket-in-place contaminated soils beneath the VMF building with hazardous substance (51%) and petroleum hydrocarbons (49%) above urban residential direct contact RBCs;
- Trench investigation along NW 9th Avenue to evaluate and abandon (if discovered) potential connections from the MGP to the ATCS;
- Removal of Property soils with concentrations of individual carcinogenic PAHs and a calculated toxic equivalency quotient (TEQ) for carcinogenic PAHs above urban residential direct contact hot spot concentrations; and,
- Removal of pocket-in-place contaminated soils beneath the southern end of the P&DC building with TPH diesel concentrations above urban residential direct contact RBCs (not funded by EPA Brownfield Cleanup Grant).

3.1 PLANNED EXCAVATION AREAS

During Phase 1 of cleanup/redevelopment activities, six (6) excavation areas are planned, with two of the excavations to be performed for the purpose of hot spot cleanup. Excavation areas are shown on **Figures 1, 2, 3 and 4**. The following list summarizes the planned excavation areas, known COCs, and estimated excavation depths and volumes.

<u>VMF Area</u>

- Excavation Area 1 (not funded by EPA Brownfield Cleanup Grant) – UST decommissioning and limited soil cleanup will be conducted to an estimated depth of 10 feet bgs or shallower based on field observations and confirmation soil sample results. Elevated concentrations of TPH are expected to be present in this excavation. The approximate volume of the excavation is estimated at 540 cubic yards including the UST and limited soil cleanup surrounding the UST. Excavation Area 1 is shown on **Figure 2**.

- Excavation Area 2 – The VMF Area pocket-in-place excavation will be conducted after building demolition and to an approximate depth of 3 feet bgs. Elevated concentrations of commingled hazardous substances and petroleum are expected to be present in this excavation. Approximately 635 cubic yards of soil may be removed. Excavation Area 2 is shown on **Figure 2.**

Abandoned Tanner Creek Sewer Area

- Excavation Area 3 – There are some historical statements indicating that the MGP was lower in elevation. However, by 1901, the MGP had to be at or near current ground level as the railyard tracks were present at grade, a 1901 Sanborn® map shows the plant on fill, and a 1920 aerial photograph shows the plant at grade. The 24-inch sewer (installed in 1916) is approximately 13-16 feet bgs, and the top of the ATCS (abandoned in 1916) is 9 to 9.5 feet bgs (as found during recent investigation work in NW 9th Avenue). A potential connection to the ATCS is considered to be between 8 and 12 feet bgs on the Property based on the street sewer depths, observations in NW 9th Avenue and the slope down to street sewers. Information related to the possible location and depth of the ATCS and associated connection to the Property is included in **Attachment 3.**

  The ATCS exploration trench will be completed to a depth of approximately 12 feet bgs. It is recommended that Excavation 3 be completed at a distance from adjacent roadways approximately equal to the trench depth in order to maintain the structural integrity of the surrounding sidewalks, ramps, retaining walls, roadways and other infrastructure. Therefore, the trench excavation would be completed at least 12 feet from sidewalks and retaining walls within the NW 9th Avenue and NW Lovejoy Street rights of way. Elevated concentrations of metals and PAHs may be present in this area. If a sewer lateral is discovered in the trench excavation, it will be plugged with control density fill (or similar) for abandonment. Approximately 192 cubic yards of soil is anticipated to be removed from Excavation Area 3. Excavation 3, as shown on **Figure 3,** may require a different configuration than depicted based on field conditions and so as not to undermine the retaining wall on the north end of the Property adjacent to the Lovejoy Ramp.

MGP Area

- Excavation Area 4 – The MGP Area hot spot excavation will be conducted to a depth of 3 feet bgs. Elevated concentrations of metals and PAHs may be present in this area. Approximately 270 cubic yards of soil are anticipated to be removed. Excavation Area 4 is shown on **Figure 3.**

EUV Area

- Excavation Area 5 – EUV Area hot spot cleanup will be excavated to a depth of 3 feet bgs. Arsenic and PAHs exceed excavation, construction worker, occupational, and urban residential receptors in this area. Approximately 321 cubic yards of soil are anticipated to be removed. Excavation Area 5 is shown on **Figure 4.**

South P&DC Building Area Heating Oil Tank (not funded by EPA Brownfield Cleanup Grant)

- Excavation Area 6 – The pocket-in-place residual contamination from the decommissioning of a HOT near the south end of the P&DC building will be excavated to an approximate depth of 10 feet bgs or shallower based on field observations and confirmation soil sample results. This excavation will be conducted once the P&DC building is demolished. Elevated concentrations of TPH are expected to

be present in this excavation. Up to 400 cubic yards of soil are anticipated to be removed from excavation Area 6 as shown on **Figure 1.**

3.2 CLEANUP STANDARDS

In 2018, carcinogenic PAH slope factors were adopted by the DEQ. This resulted in changes to DEQ RBCs for carcinogenic PAHs which are the primary driver for the selected Property remedy (hot spot cleanup). These revised RBCs are therefore proposed to be used to facilitate the selected remedy for the Property. Phase 1 cleanup standards (RBCs and corresponding hot spot concentrations) that are proposed to be used to facilitate cleanup are included in **Attachment 4.**

As presented in the ROD and RA, a hot spot cleanup remedy in the MGP area and EUV area was determined to be the preferred cleanup alternative and was presented for occupational and urban residential receptors under the hypothetical future use scenario. Historical concentrations of carcinogenic PAHs detected in Property environmental assessments were compared to revised RBCs and associated hot spot concentrations. A comparison of proposed excavation areas presented in the 2010 ROD and proposed excavation areas using revised RBCs indicates that, in general, the hot spot cleanup for occupational receptors presented in the 2010 ROD now matches a hot spot cleanup for urban residential receptors. This data is presented in **Attachment 5** and the resulting excavation areas using the revised RBCs and hot spot cleanup values are depicted on **Figures 2 through 4**.

3.3 REMEDIAL ACTION TEAM

The remedial action team consists of the entities listed in the table below. Points of contact and responsibilities are shown in **Table 1**.

Table 1. Remedial Action Team

Project Team Role	Project Team Member	Point of Contact and Title	Contact Number
Property Owner	Prosper Portland	Colin Polk – Environmental Coordinator	(503) 936-9541 (cell)
Excavation Contractor	McDonald Excavating	Mike Logan – Project Manager	(360) 835-8794 (office)
Environmental Management	Oregon Department of Environmental Quality	Dan Hafley – Project Manager Kevin Dana – Project Manager Heidi Nelson – Environmental Engineer	(503) 229-5417 (office) (503) 229-5369 (office) (503) 229-6802
	Stantec (consultant to Prosper Portland)	Graeme Taylor – Project Manager Leonard Farr – Principal Geologist	(503) 367-6158 (cell) (503) 467-1657 (cell)

3.4 TRAINING REQUIREMENTS FOR CONTAMINATED AREAS

Stantec personnel will provide training to personnel who will be present during excavation activities and who will be responsible for determining reuse/disposal options for soil. This training will include: 1)

familiarizing remediation contractor personnel with environmental data obtained at the Property, and 2) educating remediation contractor personnel regarding the lines of evidence that may indicate the presence of hazardous substances in soil. Stantec personnel will be on-Property during remedial excavation activities.

Additionally, workers anticipated to handle or contact contaminated media, except where noted, must meet the following requirements:

- Personnel must follow the site-specific health and safety plan (HASP) at all time during Property cleanup activities;
- Personnel expected to be in contact with contaminated media must have either completed the appropriate Hazardous Waste Operations and Emergency Response (HAZWOPER) training requirements specified in Title 29 Code of Federal Regulations (29 CFR) Part 1910.120(e) or be under the direct supervision of a HAZWOPER-trained competent person. HAZWOPER training consists of an initial 40-hour training course and subsequent annual 8-hour refresher training courses;
- Subcontractors assigned with the task of providing and operating specialized equipment will also be required to have HAZWOPER training;
- Each individual expected to be in contact with contaminated media will be trained by their employer on Site-specific management methods for preventing exposure to contaminated soil at the Property during remedial implementation;
- Each individual expected to be in contact with contaminated media will be required to wear appropriate PPE to protect against direct exposure to contaminated media during remedial implementation;
- It is the responsibility of the individual's employer to provide necessary medical surveillance if required; and,
- Activities associated with this CMMP must be completed in compliance with (Center for Disease Control) CDC and State of Oregon COVID-19 guidelines at the time of work.

4.0 CLEANUP AND SOIL MANAGEMENT

The remediation contractor performing the excavation work will manage soil according to the procedures outlined in this section.

4.1 UST DECOMISSIONING

UST removal should be conducted by a DEQ-licensed UST Service Provider who will remove the UST, product supply lines, dispenser and UST vent lines in accordance with the DEQ UST Cleanup Manual (DEQ 2009) and the DEQ Risk-Based Decision Making for the Remediation of Contaminated Sites (DEQ 2018) guidance document. The contractor will decommission the UST by removal in accordance with Oregon Administrative Rules (OARs), 340-122-0205 through 340-122-0369. The list below provides a general UST decommissioning process but is not comprehensive.

The Service Provider shall notify DEQ with the following notifications:

- 30-Day Notice of Intent form to DEQ Northwest Region;
- Notification of DEQ Northwest Region by phone 3 days prior to decommissioning; and,
- UST Decommissioning Checklist and Site Assessment Report to DEQ Northwest Region within 30 days of decommissioning.

During UST removal, the Service Provider will:

- Remove any concrete or paving over the UST;
- Excavate and stockpile UST overburden soil on 6-mil plastic sheeting and cover the stockpile with plastic sheeting;
- Pump out any residual product from the UST, properly inert the UST interior, perform interior cleaning (triple-rinse) of the UST;
- Remove the UST and all existing product, vapor, and vent piping;
- Transport and properly dispose of the materials described above; and,
- Collect confirmation samples from the excavation cavity.

4.2 SOIL CLASSIFICATIONS AND METHODS OF CLASSIFICATION

In the subsections that follow, methods that must be employed in managing soil, by default classified as solid waste herein, during cleanup of the Property are described. Soil that does not contain contaminant concentrations exceeding DEQ clean fill screening values shall have no management restrictions.

Methods to be employed during Property cleanup to identify and manage unanticipated and unknown contaminated soil are described herein. Soil classified as solid waste and soil classified as clean fill must be characterized in order to confirm proper classification, and to ensure that it does not meet unanticipated and unknown contamination criteria. Soil generated from the planned excavations described in Section 3.1 is already classified as solid waste and are the only planned remedial excavations during Phase 1 cleanup activities.

If soil at the Property is encountered during cleanup activities outside of the planned excavations it will be classified either as 1) no apparent impact soil (NAPI Soil); 2) solid waste or 3) unanticipated and unknown contaminated soil, which is soil exhibiting evidence of contamination inconsistent with lines of evidence previously noted. Soil classification will be based on available environmental assessment data, and upon olfactory and visual lines of evidence (e.g., odor and staining). Each soil type, and the methods that will be used in classifying soil types, is described below.

4.2.1 No Apparent Impact Soil

NAPI soils can generally be described as soil, brown in color, exhibiting no staining or chemical odors. NAPI soil may be reused on the Property in an unrestricted manner and may also be disposed of off-Property in an unrestricted manner. To characterize soils as NAPI soils would require characterization prior to determining if they meet the criteria of NAPI. Samples must be collected of soil to be considered as NAPI for all soil COCs listed in Section 1.6.1.

4.2.2 Soil Classified as Solid Waste

During multiple phases of site assessment, soil with residual hazardous substance concentrations exceeding DEQ guidelines for multiple receptors has been identified: 1) environmental sampling has identified several COCs above highly concentrated hot spot concentrations at the Former MPG Area and EUV Area; and 2) environmental sampling has identified elevated concentrations of TPH remaining in place beneath Property buildings at the VMF Area and near the south end of the main P&DC building. Any MGP wastes or free product detected in soil or groundwater at the Property should be considered a hot spot based on the highly-concentrated criterion and will be managed as solid waste. The extent of soils classified as solid waste is shown in the Excavation Areas on **Figures 1, 2, 3 and 4**. Soil classified as solid waste can vary widely in its characteristics. In most cases it cannot be easily differentiated from NAPI soils. In some cases, it may exhibit: 1) staining, generally various shades of black or gray in color; 2) a diesel- or heavy oil-like odor; and/or 3) elevated photoionization detector (PID) measurements.

Soil classified as a solid waste may be disposed off-Property, at an appropriate disposal facility (i.e. a Resource Conservation and Recovery Act (RCRA) Subtitle D permitted landfill), such as the Waste Management Hillsboro landfill. Disposal also may be permitted at other facilities but would require a Solid Waste Letter of Authorization from the DEQ.

4.2.3 Unanticipated and Unknown Contaminated Soil

Although the Property has been adequately assessed and a remedy has been selected, areas and types of impact in unassessed areas where hazardous substance releases have occurred may be discovered during redevelopment of the Property. The most notable areas where hazardous substance releases may have occurred include areas beneath the former P&DC building and the adjacent parking garage. These areas are not included in this Phase 1 cleanup plan and will be managed during future cleanup phases.

The unanticipated and unknown soil type is used to categorize soil dissimilar in nature from soil classified as solid waste. On-Property reuse of unanticipated and unknown soil is not permitted. Following the

completion of unanticipated and unknown contaminated soil, it may retain its classification, or be reclassified as solid waste.

4.3 EXCLUSION ZONE AND DECONTAMINATION

Before beginning soil excavation, the Excavation Contractor must establish an exclusion zone around the excavation area. Fencing of the exclusion zone is required during the entire duration of excavation to minimize access to the exclusion zone by unauthorized persons. Entrance/exit locations to the exclusion zone must be limited. The boundaries of the exclusion zone must be located at or wholly within the boundaries of the Property. Personnel and vehicle entry into the exclusion zone must be limited. Equipment may move freely within the exclusion zone. Cleaning of equipment is not required for movement of equipment within the exclusion zone. Truck loading areas should be located at the boundary of the exclusion zone to minimize the need for entry and subsequent decontamination, if practicable. Trucks or other soil loading/transport vehicles must be cleaned before leaving the loading area. Trucks must be broom-cleaned before leaving the loading area. Decontamination procedures for personnel exiting the exclusion zone must be described in the site-specific health and safety plan prepared for the Property by the Excavation Contractor.

4.4 CONTROL OF EXCESS CONTAMINATED SOIL AND STORMWATER PROTECTION MEASURES

The Excavation Contractor must use means and methods to prevent off-Property migration of any visible or measurable quantities of Property soils as airborne dust, track-out, or stormwater runoff. A 1200-C permit will not be obtained for the cleanup activities described in this Expanded CMMP because the area of disturbance is less than one acre. The Excavation Contractor has developed a site-specific erosion and sediment control plan (ESCP) and will implement the following measures to comply with applicable City of Portland BES requirements, DEQ regulations, and other regulatory requirements:

1. A water truck to wet soils to suppress airborne dust as necessary based on observed field conditions;

2. Broom clean soil from the exterior of vehicles before they leave designated soil loading areas and the Property;

3. Designate a construction entrance or entrances at egress points that will be regularly inspected and maintained to limit track off during cleanup activities. The existing Property entrance may be suitable to limit track off if properly maintained or a gravel apron or wheel wash may be required depending on inspection recommendations and the ESCP;

4. Catch basin sediment filters (woven polypropylene sacks and bio-filter bags) will be installed in catch basin inlets located on the Property within the designated project area and in streets adjacent to the project area to prevent contaminated soils from entering the City of Portland stormwater management system. These filtration systems will be inspected regularly and repaired to ensure that they are adequately filtering stormwater prior to entering catch basins and area drains;

5. Silt fences or other erosion control devices will be installed within each excavation area for the duration work period as detailed in the ESCP to prevent contaminated soils suspended in stormwater from migrating off-Property; and,

6. A Batch Discharge Authorization permit is required for temporary discharges of groundwater or construction related stormwater [channelized, collected and/or pumped] to the City of Portland's sanitary or storm sewer system and will be obtained if stormwater discharge is required. Stormwater would be collected in a temporary holding tank and managed in accordance with the procedures listed in Section 5.0 if stormwater discharge is determined to be necessary.

4.5 STAGING OF EXCESS CONTAMINATED SOIL (STOCKPILING)

Temporary staging and or stockpiling of soil generated during remediation activities may be permitted in areas designated by Stantec. Excess soil temporarily stockpiled on-Property must be placed on top of plastic sheeting (6-mil minimum) and completely covered with plastic sheeting (6-mil minimum) during periods of rain, wind or inactivity to prevent erosion. The plastic sheeting must be weighed down with sand bags, ropes and/or other control devices such that the piles do not become uncovered. Stockpiles must always be kept neat. Stantec must approve the location of all proposed soil stockpiles.

4.6 EXCAVATION AND LOADING OF CONTAMINATED SOIL

The Contractor must load all soil being transported off-Property for disposal using the following procedures.

1. Notify Stantec no less than 24 hours prior to beginning excavation of Property soil;

2. Use water as necessary to prevent the generation of visible dust during excavation activities. The Contractor will minimize equipment traffic through the exclusion zone to prevent contaminated soils from being transported via track-off to other parts of the Property, or off of the Property;

3. Maintain excavation equipment in good working order. The Contractor must immediately clean up any spilled hydraulic oils or other hazardous substances from equipment;

4. Locate loading areas for contaminated soil in, or at the edge of (preferred), the exclusion zone;

5. Wet soils with free water will not be loaded into trucks. Loads with free liquids are not permitted for transport;

6. Load trucks in a manner that prevents the spilling, tracking or dispersal of contaminated soils;

7. Remove contaminated soil from the exterior of each truck before the truck leaves the loading area. Place any contaminated soil collected in the loading area back into the truck. All trucks transporting contaminated soil must be covered with tight-fitting covers prior to leaving the Property;

8. Establish specific truck haul routes before beginning off-Property contaminated soil transport. Use on-Property truck routes that minimize or prevent movement of trucks over contaminated areas;

9. Ensure that loaded truck weights are within acceptable limits; and,

10. Prosper Portland shall be listed on the contaminated media disposal permit as the "Generator" of existing contaminated or hazardous materials excavated as part of this Project as described herein. For the disposal of additional media that are contaminated as a result of the Contractor's activities (e.g. spills or sloppy practices), the Contractor shall be identified as the generator.

4.7 EXCAVATION LIMITS AND CONFIRMATION SAMPLING PROCEDURES

Excavation volumes according to area are approximate based on historical data. Exact excavation dimensions will be determined by professional judgement of a qualified person and based on field observations and confirmation samples in consultation with DEQ. In each proposed excavation area, except for the UST removal, confirmation sidewall samples would be collected as grab samples approximately every 20 linear feet and from the middle of the vertical wall or from the area of highest observed impact. Confirmation bottom samples would be collected as composite samples with 5 aliquots per composite sample (a 5-point composite sample) representative of approximately 400 square feet (approximately 20-foot by 20-foot area). For example, if the excavation footprint is approximately 1,000 square feet then 3 composite samples would be collected from that footprint with each composite sample composed of 5 aliquots. All confirmation soil samples will be collected in accordance with the Master Quality Assurance Project Plan (QAPP [Stantec 2020]).

The excavation would be determined to be completed once the RAO is achieved. Specifically, the RAO for each excavation would be achieved according to the following criteria:

- **Excavation 1** (UST Decommissioning) – Confirmation soil samples collected from sidewalls and from beneath the UST will be submitted for a selection of the following analyses as determined by the DEQ-licensed Service Provider:
  - Gasoline range organics (GRO) by USEPA Methods 5035 (field methanol preservation) and Method NWTPH-Gx;
  - Diesel range organics (DRO) and oil range organics (ORO) by Method NWTPH-Dx;
  - VOCs by USEPA Methods 5035 and 8260C;
  - RCRA eight metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver); and,
  - PAHs by USEPA Method 8270 SIM.

  The RAO associated with Excavation 1 will be achieved once the UST is decommissioned, and closure samples are collected in accordance with OAR 340-122-0205 through 340-122-0369. Additional measures may be required to close this DEQ UST file depending on field conditions during UST decommissioning.

- **Excavations 2** (VMF Area) – Confirmation soil samples collected from the excavation sidewalls and bottom will be submitted for the following analyses:
  - GRO by USEPA Methods 5035 and Method NWTPH-Gx;
  - DRO and ORO by Method NWTPH-Dx;
  - VOCs by USEPA Methods 5035 and 8260C;
  - RCRA eight metals; and,
  - PAHs by USEPA Method 8270 SIM.

The RAO associated with Excavation 2 will be achieved once all collected confirmation sample results and a calculated TEQ for carcinogenic PAHs are at or below DEQ direct contact RBCs for urban residential receptors.

- **Excavation 3** (ATCS Trench Excavation) – Soil samples will only be collected to assess Property soils within the proposed trench exvaction if impact is observed in the trench exploration and, if collected, will be submitted for one or more of the following analyses:
  - GRO by USEPA Methods 5035 and Method NWTPH-Gx;
  - DRO and ORO by Method NWTPH-Dx;
  - VOCs by USEPA Methods 5035 and 8260C;
  - RCRA eight metals; and,
  - PAHs by USEPA Method 8270 SIM.

  The RAO associated with Excavation 3 will be achieved once the exploration trench is completed according to the proposed dimensions and the sewer lateral (if discovered) is abandoned.

- **Excavation 4** (MGP Area) and **Excavation 5** (EUV Area) - Confirmation soil samples collected from the excavation sidewalls and bottom will be submitted for the following analyses:
  - GRO by USEPA Methods 5035 and Method NWTPH-Gx;
  - DRO and ORO by Method NWTPH-Dx;
  - VOCs by USEPA Methods 5035 and 8260C;
  - RCRA eight metals; and,
  - PAHs by USEPA Method 8270 SIM.

  The RAOs associated with Excavation 4 and Excavation 5 will be achieved once the excavations are completed to 3 feet, confirmation samples are collected, and all sidewall confirmation sample results and a calculated TEQ for carcinogenic PAHs are at or below hot spot concentrations for urban residential receptors.

- **Excavation 6** (South P&DC Building Area HOT) – Confirmation soil samples collected from the excavation sidewalls and bottom will be submitted for the following analyses:
  - GRO by USEPA Methods 5035 and Method NWTPH-Gx;
  - DRO and ORO by Method NWTPH-Dx;
  - VOCs by USEPA Methods 5035 and 8260C;
  - RCRA eight metals; and,
  - PAHs by USEPA Method 8270 SIM.

  The RAO associated with Excavation 6 will be achieved once all collected confirmation sample results and a calculated TEQ for carcinogenic PAHs are at or below DEQ direct contact RBCs for urban residential receptors.

A demarcation layer in the form of a woven geotextile fabric (Mirafi® 500x or similar material) would be placed on the bottom of each excavation prior to backfilling. The geotextile fabric would demarcate where residual contaminated soil may be encountered during future Property excavation. Backfill material will consist of crushed rock and will be placed as a soil cap above the demarcation layer at a minimum thickness of three feet to protect Property receptors from direct contact with residual contaminated soils.

Excavations will not be backfilled until authorized by Stantec and will require time to receive and evaluate soil sampling results, collaborate with the DEQ, and determine if appropriate RAOs are achieved.

Confirmation soil sampling data is anticipated to be used to evaluate additional RAOs in collaboration with the DEQ to potentially 1) expand an excavation to achieve a specific cleanup standard or 2) revise risk evaluations for proposed future sub parcel cleanup phases including vapor mitigation.

4.8 TRANSPORTATION OF CONTAMINATED SOIL

The remediation contractor must comply with any and all applicable federal, state, or local laws, codes, and ordinances that govern or regulate contaminated soil transportation. Prior to transportation, obtain all required permits and furnish all labor, materials, equipment, and incidentals required for soil transport. Ensure that all drivers hauling contaminated soil have in their possession during hauling all applicable state and local vehicle insurance requirements, valid driver's license, and vehicle registration and license. Inform all drivers of haul vehicles of the nature of the material being hauled; the route to and from the disposal site and/or disposal staging area; applicable city street regulations and requirements; and State of Oregon Department of Transportation codes, regulations and requirements; and the legal maximum load limits per vehicle.

The construction contractor will ensure that the following requirements are met:

- Truck inspections and cleanings will occur in the excavation staging areas.
- Contaminated soil will not be spilled or tracked off-Property.
- No visible or measurable airborne soil (i.e., dust) will leave the Property.
- Each truck load of contaminated soil will be covered with a well-secured tarp prior to the truck leaving the Property.
- Soil on the exterior of trucks and other equipment will be removed using brooms and hand tools prior to the vehicle leaving the exclusion zone.
- Trucks will not exit the Property if liquids are draining from the load.
- The Contractor must be prepared to install a liner in the trucks upon request by Stantec.
- Trucks used for transportation of contaminated soil will be substance-compatible, licensed, insured, and permitted pursuant to federal, state, and local statutes, rules, regulations, and ordinances.
- Provide to Stantec all weigh tickets from any local scale and disposal facility within 2 days of disposal of contaminated soil.

4.9 DISPOSAL OF CONTAMINATED SOILS

Contaminated soil will be transported to a landfill permitted to accept it. Soils classified as a solid waste will be permitted for disposal at the Waste Management landfill in Hillsboro, a RCRA Subtitle D permitted landfill. Prior to excavation, transportation, and disposal of contaminated soil, the Excavation Contractor must obtain a disposal permit from the landfill for disposal of the soil. Historical analytical data to facilitate a disposal permit is included in **Attachments 1, 2 and 3**. If additional analytical data is required for disposal permitting, the Excavation Contractor shall notify Stantec at least 30 days prior to proposed excavation activities to assist with permit acquisition. Prior to initiating soil hauling/disposal, the

Excavation Contractor must submit permit documents authorizing acceptance of the soil by the disposal facility to Stantec for review and approval.

At least 14 days prior to transport of contaminated soil, the Contractor must provide a contact name and solid waste permit number for each facility that will receive contaminated soil. The Contractor must provide Stantec at least 72-hour notice prior to initial transport of contaminated soil off the Property, and at least 24-hour notice for all subsequent contaminated soil transportation events.

The Contractor must properly prepare bills of lading or other related documents required by the disposal facility. All receipts for disposal must be submitted to Stantec within 2 days of receipt of the contaminated soil at the disposal facility.

4.10 IMPORTED SOIL MANAGEMENT

Imported materials to be used as backfill material at the Property are anticipated to be crushed rock only. Commercial rock products (e.g. ¾-inch minus crushed rock) must be sourced from a reputable vendor and requires no testing.

If any soil is proposed to be imported to the Property for backfill or any other purposed it must first meet DEQ clean fill criteria. Coordination with Stantec and the DEQ will be required to facilitate the import of any soil to the Property to ensure protectiveness for all future Property receptors. Any source of backfill material other than a commercial rock product must be proposed by the contractor to Stantec along with all documentation indicating that the source material is “clean” in writing at least two weeks prior to anticipating import and must include the address of where the material was generated, approximate volume of the material, site contact, and any information related to site history. Specifically, the following procedure will be followed to identify sources of backfill: 1) coordinate with the DEQ; 2) establish a sampling plan; 3) sample the proposed material; 4) evaluate the sample results; and, 5) transport the material to the Property if soil conditions meet the clean fill criteria.

5.0 GROUNDWATER MANAGEMENT

Based on existing subsurface information, groundwater is not anticipated to be encountered in Phase 1 Property cleanup activities except during monitoring well abandonment. Depth to groundwater at the Property is anticipated to be between 10 and 20 feet bgs. Any precipitation that accumulates in excavations during Property cleanup will be allowed to naturally infiltrate.

Due to historical contamination found on the Property, all de-watering activities must have oversight by and meet the regulatory compliance and testing requirements of the DEQ. If dewatering is planned the Excavation Contractor must notify Stantec at least 72 hours in advance to coordinate with the DEQ and/or collect samples. Water samples may be collected for Property COCs as listed in Sections 1.6.1 and 1.6.2 or additional parameters as required by applicable project permits. Water may be temporarily pumped to a holding tank (Baker tank or similar) for temporary staging. The contractor must notify Stantec at least 48 hours in advance if temporary staging of groundwater is planned.

A Batch Discharge Authorization permit is required for temporary discharges of groundwater or construction related stormwater [channelized, collected and/or pumped] to the City of Portland's sanitary or storm sewer system. If de-watering to a City of Portland sanitary or storm sewer system is necessary, pre-authorization must be obtained from the BES Pretreatment or Stormwater Programs. A City of Portland *Source Control Dewatering Form* will be required to be filled out and completed City of Portland Bureau of Environmental Services to confirm if dewatering discharges to the City sewer will be/not be required. The phone number for batch discharge information and requests is 503-823-5600.

5.1 MONITORING WELL ABANDONMENT

Six groundwater monitoring wells are located on Property as shown in Figure 1. Abandonment of these wells will be conducted in accordance with Oregon Water Resources Department (OWRD) regulations by a licensed well driller and will be coordinated by Prosper Portland and Stantec. All wells that are to be abandoned will be over drilled. The above ground monuments, bollards, well casing and screen will be removed, and the open borehole will be filled with bentonite grout to the ground surface. Wells abandoned in this manner do not require prior OWRD approval however the well driller will notify OWRD of the abandonment methods and schedule. Abandonment logs will be submitted to OWRD and the DEQ after the wells are abandoned by the licensed well driller. If any additional wells are identified during Phase 1 cleanup activities, Stantec shall notify OWRD and DEQ and a plan will be developed to properly abandon these wells in accordance with OWRD regulations.

Soil cuttings during monitoring well abandonment will be collected in 55-gallon drums or a drop box container and managed according to the soil management procedures presented in Section 4.

Soil samples will be collected from containers to profile the waste and will be analyzed for the following:

- GRO by USEPA Methods 5035 and Method NWTPH-Gx;
- DRO and ORO by Method NWTPH-Dx;

- VOCs by USEPA Methods 5035 and 8260C;
- RCRA eight metals; and,
- PAHs by USEPA Method 8270 SIM.

If groundwater is displaced during well abandonment (grout injection) and requires containerization, that water will be collected in 55-gallon drums or a holding tank and sampled for Property-specific COCs as listed in Section 1.6.2 to facilitate disposal at a permitted receiving facility such as the PPV wastewater treatment facility in Portland, Oregon.

Water samples will be collected from containers to profile the waste and will be analyzed for the following:

- GRO and DRO by methods NWTPH-Gx and NWTPH-Dx;
- VOCs by USEPA Method 8260D;
- PAHs by USEPA Method 8270C SIM (only if NWTPH-Dx is detected); and,
- Total and dissolved RCRA-eight metals by USEPA Method 6020.

6.0 CONTRACTOR HEALTH AND SAFETY

The Contractor must develop and implement a site-specific HASP designed to ensure compliance with all applicable worker protection regulatory requirements, including 29 CFR 1910.120, the Hazardous Waste Operations, and Emergency Response ("HAZWOPER") rule promulgated by the federal OSHA. The HASP should also include COVID-19 related protective measures in accordance with the CDC and State of Oregon guidelines. The HASP must be submitted to Prosper Portland and the DEQ for review and approval at least 30 days prior to initiation of construction activities. The Contractor shall notify all project personnel of Property contaminants and appropriate health and safety measures.

During Property remediation activities, the Contractor will bear full responsibility for the implementation of its Property-specific HASP. Neither Prosper Portland nor Stantec bear any responsibility for implementation and/or monitoring of compliance with the approved HASP.

7.0 CONTRACTOR OVERSIGHT AND REPORTING

Oversight of the cleanup project will be conducted by Stantec. It is anticipated that Stantec personnel will conduct regular field visits throughout the duration of the project and will be onsite during all soil excavation activities, UST decommissioning, and monitoring well abandonment to document site conditions, coordinate with contractor and assist with contaminated media management activities. Stantec will be responsible for overseeing the removal of contaminated soil including directing the removal action and collecting confirmation samples. DEQ personnel may visit the Property during cleanup activities. Periodic meetings will be conducted at the Property at DEQ's request.

8.0 REDEVELOPMENT SCHEDULE

A schedule for Phase 1 cleanup activities at the Property has not been firmly established but is anticipated to commence over the Summer 2020.

9.0 CLOSURE DOCUMENTATION

At the conclusion of cleanup activities, a Closure Report will be prepared that will include, but is not limited to:

- Description of excavation and soil management activities, including sampling activities and results, and the amount and types of contaminated soil excavated and disposed;
- Property maps indicating areas where contaminated soil was removed; where it remains (if any); and where it was re-used;
- Photographs of Property remediation activities; and,
- Copies of analytical laboratory reports, permits and approvals, and disposal manifests and receipts.

10.0 REFERENCES

ARCADIS 2006. Remedial Investigation Report, USPS Portland P&DC/ April 21, 2006.

ARCADIS 2008. Focused Feasibility Study, USPS Portland P&DC. June 30, 2008.

ARCADIS 2009. Technical Memorandum, Reclassified Compounds. August 21, 2009.

Dames & Moore 1993. UST Decommissioning Report Review & Soil Investigation, Portland Main Post Office (GMF/VMF). September 23, 1993.

Dames & Moore 1994. UST Decommissioning & Soil Investigation Report, Portland General Mail Facility. February 10, 1994.

DEQ 2009. UST Cleanup Manual. Cleanup Rules for Leaking Petroleum UST Systems. OAR 340-122-0205 through 340-122-0369 and Associated Guidance Documents. Originally published December 2000. Editorial updates January 2008 and May 2009.

DEQ 2018. Risk-Based Decision Making for the Remediation of Contaminated Sites. Originally published September 22, 2003. Updated September 6 and October 2, 2017 and May 2018.

DEQ 2010. Record of Decision for the USPS-P&DC Site, Portland, Oregon. July 14, 2010.

DEQ 2012. Conditional No Further Action Determination, USPS Portland Processing and Distribution Center (P&DC), ECSI 2183. September 25, 2012.

DEQ 2014. Internal Management Directive – Clean Fill Determinations. Prepared by the DEQ for Internal Use. Last updated July 23, 2014.

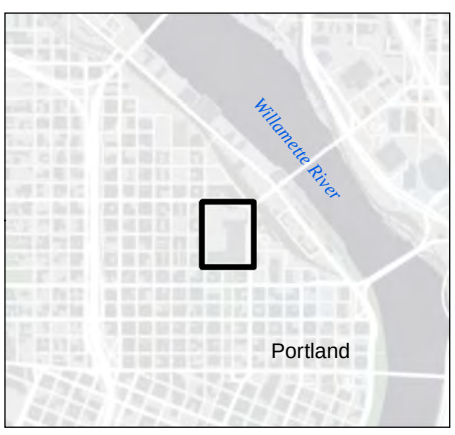
Exponent 2011. Final Contaminated Media Management Plan, USPS Portland P&DC. April 2011.

Stantec 2016. Master Remedial Action Work Plan, US Postal Service Processing & Distribution Center. April 2016.

Stantec 2020. Draft Master Quality Assurance Project Plan for the Former USPS Processing & Distribution Property, Portland, Oregon. May 2020.

FIGURES

V:\185?\Active\185750980_ProsperPDX\03_data\gis_cad\gis\mxds\figures\CMMP_Fig1_USPS_Master_Map.mxd Revised: 2020-05-27 By: jbrenner



Soil Sample Location

Monitoring Well Location

Approximate Excavation Area

Approximate Location of the Abandoned Tanner Creek Sewer (1890s - 1916)

USPS Property Area Designations

Excavation Area 6 - Pocket-in-Place Cleanup Area to be conducted by General Contractor. (Estimated excavation depth = 10 feet bgs. Estimated excavation volume = 397 cubic yards.)

0 50 100 Feet

1:1,000 (At Original document size of 11x17)

N

Stantec

Project Location 185750980

City of Portland
Multnomah County, Oregon

Prepared by JAC/JB on 2020-05-26
Technical Review by GT on 2020-05-26
Independent Review by LF on 2020-05-26

Client/Project

Client: Prosper Portland
Project: Former USPS P&DC Facility
Date Created: May 26, 2020

Figure No.

1

Title

Property Sampling Locations Map

Notes

1. Coordinate System: NAD 1983 2011 StatePlane Oregon North FIPS 3601 Ft Intl
2. Base features produced under license with: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, City of Portland, Oregon
3. Orthoimagery City of Portland, 2018.
4. Soil sample location, sample ID, and dataset: Arcadis RI, 2006 and Exponent CMMP, 2011.

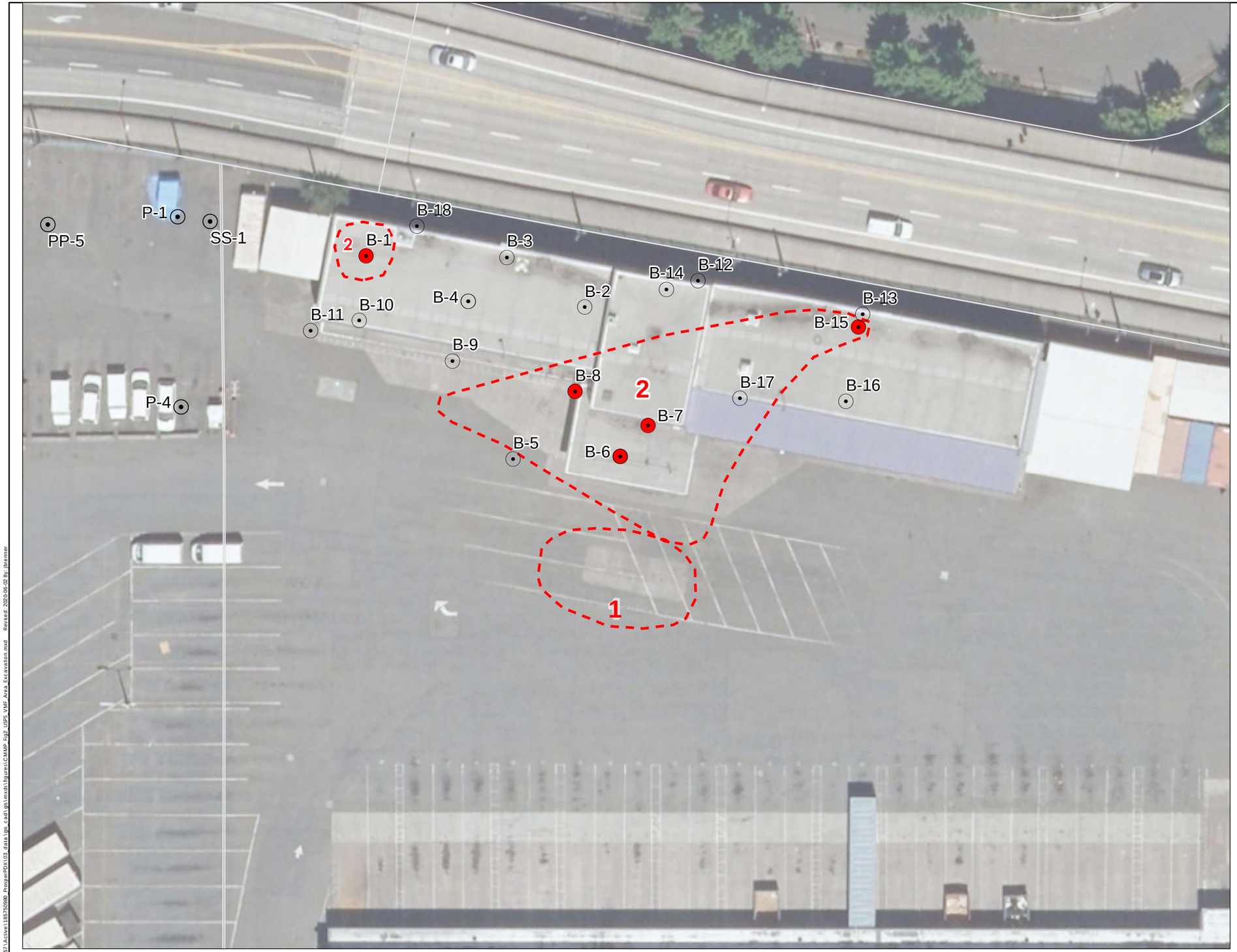


Figure No.
2

Title
Vehicle Maintenance Facility Excavation Map

Client/Project
Client: Prosper Portland
Project: Former USPS P&DC Facility
Date Created: June 2, 2020

Project Location
City of Portland
Multnomah County, Oregon

185750980

Prepared by JB on 2020-06-02
Technical Review by GT on 2020-06-02
Independent Review by LF on 2020-06-02

0 25 50 Feet
1:400 (At original document size of 11x17)

- Concentration exceeds direct contact RBC for Urban Residential Receptors from 0-3 feet bgs
- Concentration exceeds one or more potentially applicable RBC
- Sample location with no applicable RBC exceedance
- Approximate Excavation Area
- Taxlot

Excavation Area 1 – UST Decommissioning of 10,000-gallon diesel UST to be conducted by DEQ-licensed Service Provider (Estimated excavation depth = 10 feet bgs. Estimated excavation volume = 540 cubic yards.)
Excavation Area 2 – VMF Pocket-in-Place Cleanup Areas to be conducted by General Contractor. (estimated excavation depth = 3 feet bgs. Estimated excavation volume = 635 cubic yards.)

Notes
1. Coordinate System: NAD 1983 StatePlane Oregon North FIPS 3601 Feet Intl
2. Base features produced under license with: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, City of Portland, Oregon
3. Orthoimagery City of Portland, 2018.
4. Soil sample location, sample ID, and dataset: Arcadis RI, 2006 and Exponent CMMP, 2011.

Stantec

N

V:\1857\Active\185750980 ProsperPDX\03 data\gis\mxds\figures\CMMP Fig2 USPS VMF Area Excavation.mxd Revised: 2020-06-02 By: jbrenner

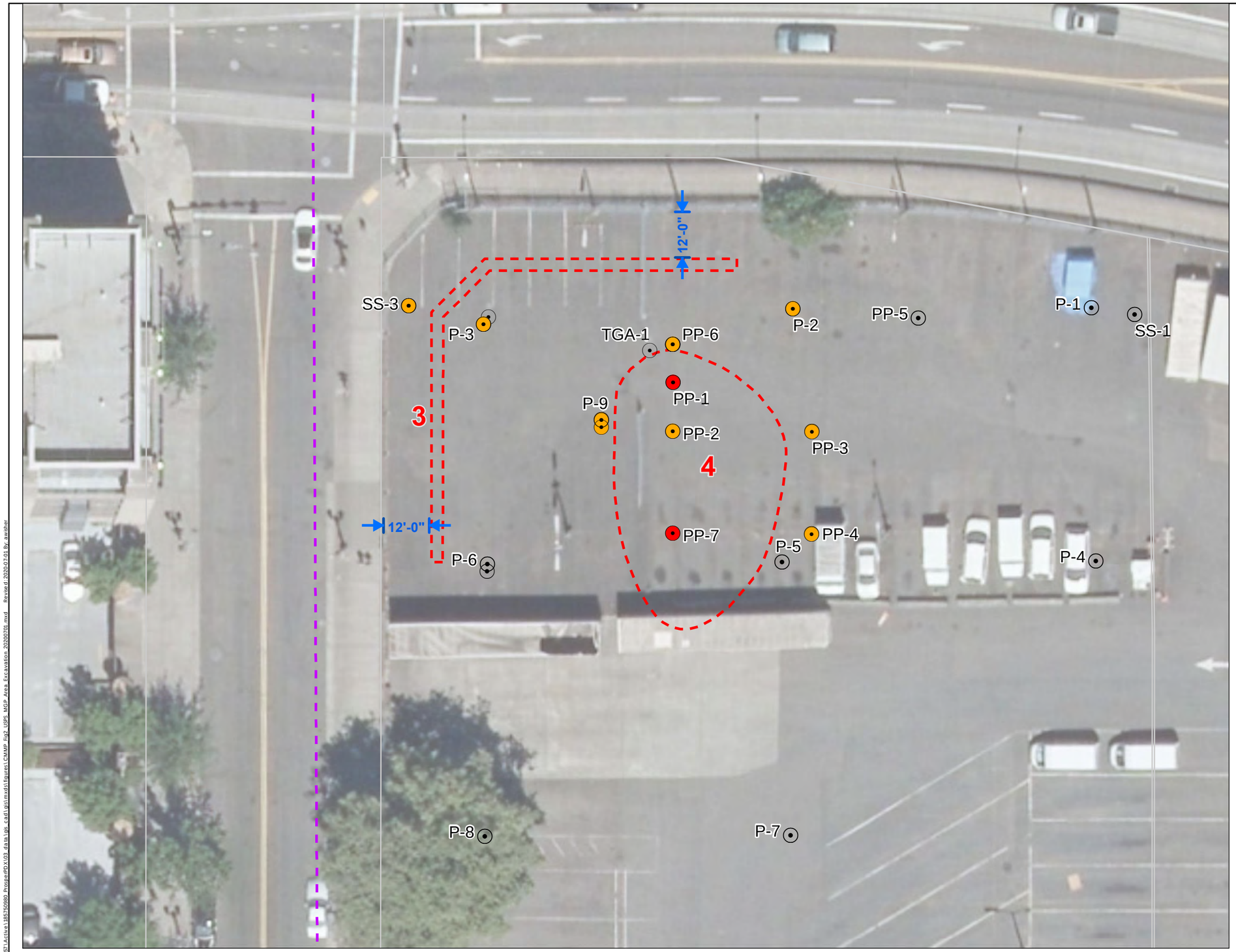


Figure No.
3

Title
Former Manufactured Gas Plant Excavation Map

Client/Project
Client: Prosper Portland
Project: Former USPS P&DC Facility
Date Created: May 26, 2020

Project Location
City of Portland
Multnomah County, Oregon

185750980

Prepared by JB on 2020-05-26
Technical Review by GT on 2020-05-26
Independent Review by LF on 2020-05-26

0 20 40 Feet
1:300 (At original document size of 11x17)

- Concentration exceeds highly concentrated hot spot value for Urban Residential Receptors (0-3 feet bgs only)
- Concentration exceeds one or more potentially applicable RBC
- Sample location with no applicable RBC exceedance
- Approximate Excavation Area
- Approximate Location of the Abandoned Tanner Creek Sewer (1890s - 1916)
- Taxlot

Excavation Area 3 – Trench exploration to locate potential ATCS connection to be conducted by General Contractor.
Excavation width = 3 feet,
Estimated excavation depth = 12 feet bgs,
Estimated excavation length = 144.5 feet, and
Estimated excavation volume = 192 cubic yards.

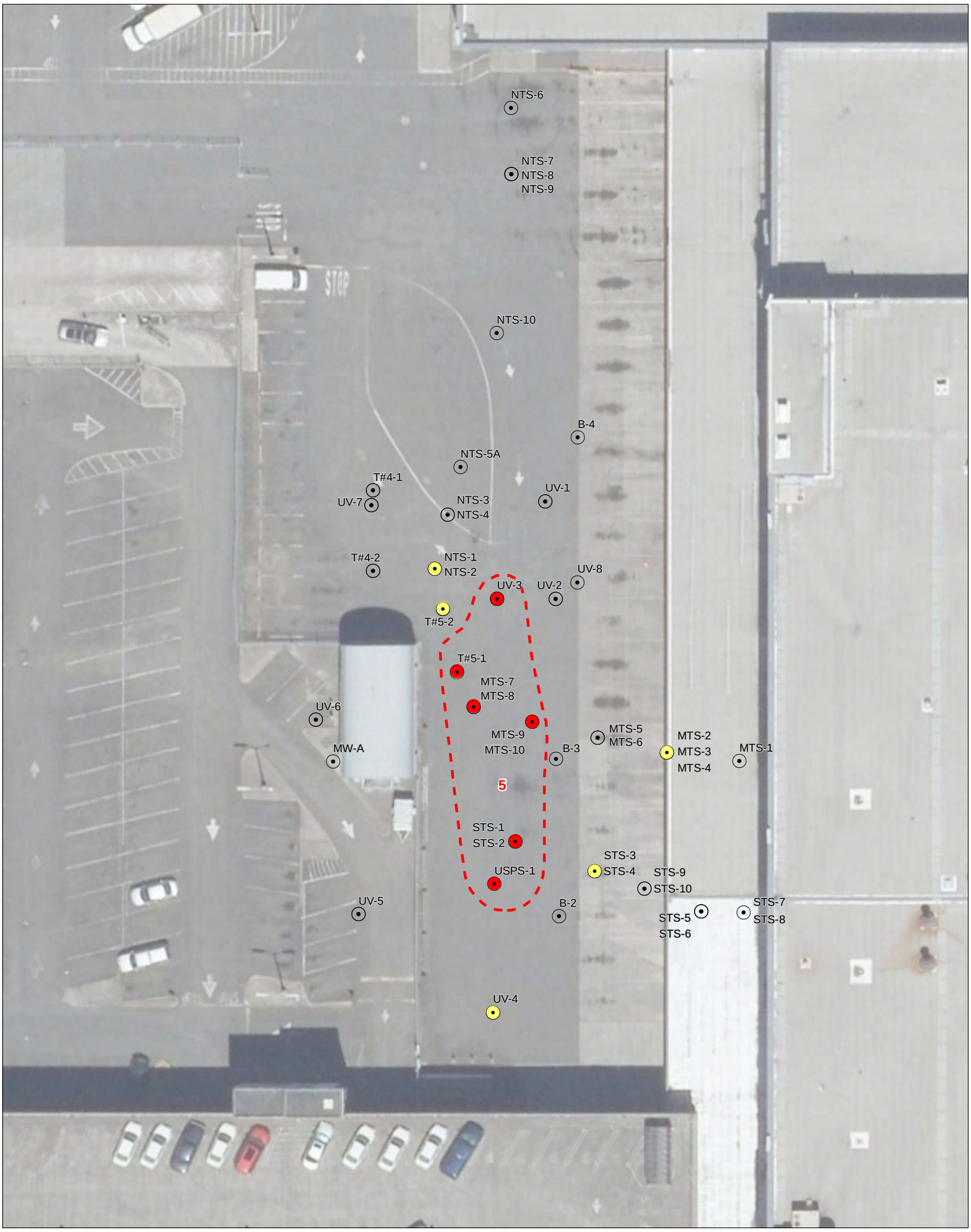
Excavation Area 4 – Former MGP Area Hot Spot Soil Removal to be conducted by General Contractor.
Estimated excavation depth = 3 feet bgs, and
Estimated excavation volume = 270 cubic yards.

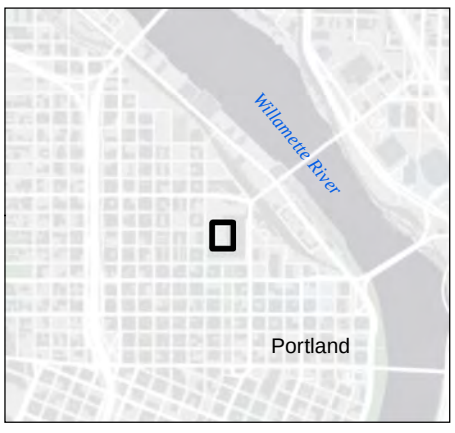
Notes
1. Coordinate System: NAD 1983 StatePlane Oregon North FIPS 3601 Feet Intl
2. Base features produced under license with: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, City of Portland, Oregon
3. Orthoimagery City of Portland, 2018.
4. Soil sample location, sample ID, and dataset: Arcadis RI, 2006 and Exponent CMMP, 2011.

Stantec

N

V:\1857\Active\185750980_ProsperPDX\03_data\gis_cad\gis\mxds\figures\CMMP_Fig4_USPS_EUV_Area_Excavation.mxd Revised: 2020-06-02 By: jbrenner





Concentration exceeds highly concentrated hot spot value for Urban Residential Receptors (0-3 feet bgs only)

Concentration exceeds one or more potentially applicable RBC

Sample location with no applicable RBC exceedance

Approximate Excavation Area

Excavation Area 5 - EUV Area Hot Spot Soil Removal to be conducted by General Contractor. (Estimated excavation depth = 3 feet bgs. Estimated excavation volume = 321 cubic yards.)

0 25 50 Feet

1:400 (At Original document size of 11x17)

N

Stantec

Project Location

City of Portland
Multnomah County, Oregon

185750980

Prepared by JAC/JB on 2020-05-26
Technical Review by GT on 2020-05-26
Independent Review by LF on 2020-05-26

Client/Project

Client: Prosper Portland
Project: Former USPS P&DC Facility
Date Created: May 26, 2020

Figure No.

4

Title

Electrical Utility Vault Excavation Map

Notes

1. Coordinate System: NAD 1983 2011 StatePlane Oregon North FIPS 3601 Ft Intl
2. Base features produced under license with: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, City of Portland, Oregon
3. Orthoimagery City of Portland, 2018.
4. Soil sample location, sample ID, and dataset: Arcadis RI, 2006 and Exponent CMMP, 2011.

ATTACHMENT 1

Vehicle Maintenance Area Data Tables

TABLE 1
SUMMARY OF LABORATORY RESULTS - SOILS BENEATH VMF BUILDING

Sample Number & Type		Analysis Performed	Hydrocarbon	Results (ppm)
PO-B1-2.0'	Soil	NA		
PO-B2-4.0'	Soil	NA		
PO-B3-3.5'	Soil	TPH-418.1 (ODEQ)	Diesel/Bunker	260
PO-B4-0.5'	Soil	NA		
PO-B4-1.0'	Soil	TPH-418.1 (ODEQ)	Diesel/Bunker	420
PO-B4-3.5'	Soil	TPH-HCID (ODEQ)	Gasoline	ND
			Diesel	ND
			Bunker/Related	Detected
		TPH-418.1 (ODEQ)	Diesel/Bunker	210
PO-B5-1.0'	Soil	TPH-418.1 (ODEQ)	Diesel/Bunker	18
PO-B6-1.0'	Soil	TPH-HCID (ODEQ)	Gasoline	ND
			Diesel	Detected
			Bunker/Related	Detected
		TPH-418.1 (ODEQ)	Diesel/Bunker	13,000
PO-B6-2.0'	Soil	TPH-HCID (ODEQ)	Gasoline	Detected
			Diesel	Detected
			Bunker/Related	Detected
		TPH-G (ODEQ)	Gasoline	12
		TPH-418.1 (ODEQ)	Diesel/Bunker	33,000
PO-B7-0.5'	Soil	TPH-HCID (ODEQ)	Gasoline	Detected
			Diesel	Detected
			Bunker/Related	Detected
		TPH-G (ODEQ)	Gasoline	11
		TPH-418.1 (ODEQ)	Diesel/Bunker	71,000
PO-B8-2.0'	Soil	TPH-HCID (ODEQ)	Gasoline	ND
			Diesel	Detected
			Bunker/Related	Detected
		TPH-418.1 (ODEQ)	Diesel/Bunker	14,000
PO-B9-2.0'	Soil	TPH-418.1 (ODEQ)	Diesel/Bunker	63
PO-B10-1.5'	Soil	TPH-418.1 (ODEQ)	Diesel/Bunker	360
PO-B11-2.0'	Soil	NA		
PO-EX-1.0'	Soil	TPH-HCID (ODEQ)	Gasoline	Detected
			Diesel	Detected
			Bunker/Related	Detected

TABLE 1 (continued)
SUMMARY OF LABORATORY RESULTS - SOILS BENEATH VMF BUILDING

Sample Number & Type		Analysis Performed	Hydrocarbon	Results (ppm)
PO-B1-2.0'	Soil	NA		
		TPH-G (ODEQ)	Gasoline	98
		TPH-418.1 (ODEQ)	Diesel/Bunker	3,100
PO-EX-1.5'	Soil	TPH-418.1 (ODEQ)	Diesel/Bunker	39,000
PO-B12-1'	Soil	TPH-HCID (ODEQ)	Gasoline	ND
			Diesel	ND
			Bunker/Related	ND
PO-B13-1'	Soil	NA		
PO-B13-2'	Soil	TPH-HCID (ODEQ)	Gasoline	ND
			Diesel	ND
			Bunker/Related	Detected
		TPH-418.1 (ODEQ)	Diesel/Bunker	240
PO-B14-1'	Soil	NA		
PO-B14-3'	Soil	TPH-HCID (ODEQ)	Gasoline	ND
			Diesel	ND
			Bunker/Related	ND
PO-B15-1'	Soil	NA		
PO-B15-1.5'	Soil	TPH-HCID (ODEQ)	Gasoline	Detected
			Diesel	Detected
			Bunker/Related	Detected
		TPH-418.1 (ODEQ)	Diesel/Bunker	9,800
PO-B17-3.5'	Soil	TPH-HCID (ODEQ)	Gasoline	ND
			Diesel	ND
			Bunker/Related	Detected
		TPH-418.1 (ODEQ)	Diesel/Bunker	28
PO-B18-1'	Soil	NA		
PO-B18-2.5'	Soil	TPH-HCID (ODEQ)	Gasoline	ND
			Diesel	ND
			Bunker/Related	ND

NA = not analyzed
ND = not detected
ppm = parts per million

For sample locations please refer to Figure 2.

TABLE 2
SUMMARY OF LABORATORY RESULTS - STOCKPILED SOILS

Sample Number & Type	Analysis Performed	Hydrocarbons	Results (ppm)
PDX-VMF-SS-1 Soil	TPH-HCID (ODEQ)	Gasoline	ND
		Diesel	Detected
		Bunker/Related	ND
	TPH-418.1 (ODEQ)	Diesel/Bunker	6,600
PDX-VMF-SS-2 Soil	TPH-HCID (ODEQ)	Gasoline	ND
		Diesel	Detected
		Bunker/Related	ND
	TPH-418.1 (ODEQ)	Diesel/Bunker	21,000
PDX-VMF-SS-3 Soil	TPH-HCID (ODEQ)	Gasoline	ND
		Diesel	Detected
		Bunker/Related	ND
	TPH-418.1 (ODEQ)	Diesel/Bunker	4,900

ND = not detected
ppm = parts per million

TABLE 3
SUMMARY OF LABORATORY RESULTS
SOILS AROUND SERVICE ISLAND

Sample Number & Type		Analysis Performed	Hydrocarbons	Results (ppm)
TP1-6'	Soil	TPH-HCID (ODEQ)	Gasoline	Detected
			Diesel	ND
			Bunker/Related	ND
		TPH-G (ODEQ)	Gasoline	245
		BETX 8020 (EPA)	Benzene	ND
			Toluene	ND
			Ethyl benzene	252 ppb
			Xylenes	442 ppb
TP1-8.5'	Soil	TPH-HCID (ODEQ)	Gasoline	ND
			Diesel	ND
			Bunker/Related	ND
TP1-11'	Soil	TPH-HCID (ODEQ)	Gasoline	ND
			Diesel	ND
			Bunker/Related	ND
TP1-13.5'	Soil	NA		
TP1-14.5'	Soil	NA		
TP3-6.5'	Soil	TPH-HCID (ODEQ)	Gasoline	ND
			Diesel	ND
			Bunker/Related	ND
TP3-9'	Soil	TPH-HCID (ODEQ)	Gasoline	ND
			Diesel	ND
			Bunker/Related	ND
TP3-11.5'	Soil	NA		
TP3-14.5'	Soil	NA		
TP2-6'	Soil	TPH-HCID (ODEQ)	Gasoline	ND
			Diesel	ND
			Bunker/Related	ND
TP2-8.5'	Soil	TPH-HCID (ODEQ)	Gasoline	ND
			Diesel	ND
			Bunker/Related	ND
TP2-11'	Soil	NA		
TP2-13.5'	Soil	NA		
TP2-15'	Soil	NA		

NA = not analyzed
ND = not detected
ppm = parts per million
ppb = parts per billion
For sample locations please refer to Figure 3.

ATTACHMENT 2

Remedial Investigation Data Tables

Appendix G-1
Historic Soil Data (1996-2000)
USPS Portland P&DC, Portland, Oregon

Sample ID	Date	Depth (feet)	TPH-G (mg/kg)	TPH-D (mg/kg)	TPH-O* (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	MTBE (mg/kg)	Iso-propylbenzene (mg/kg)	n-propylbenzene (mg/kg)	1,2,4-trimethylbenzene (mg/kg)	1,3,5-trimethylbenzene (mg/kg)	1,2-dibromoethane (mg/kg)	1,2-dichloroethane (mg/kg)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benz(a)anthracene (mg/kg)	Benzo(b)fluoranthene (mg/kg)	Benzo(k)fluoranthene (mg/kg)	Benzo(a)pyrene (mg/kg)	Chrysene (mg/kg)	Dibenz(a,h)anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno(1,2,3-c,d)pyrene (mg/kg)	Naphthalene (mg/kg)	Pyrene (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Electrical Utility Vault Area																																					
MW-A-14.0	11/27/1996	14.0	< 20	< 50	< 100	-	-	-	-	-	-	-	-	-	-	-	< 0.067	< 0.0067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.0067	1.60	113	< 0.25	19.3	17.5	0.0768	< 0.25	< 0.5
B-2-2.5	11/27/1996	2.5	< 20	< 50	< 100	-	-	-	-	-	-	-	-	-	-	-	< 0.067	< 0.0067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	0.00944	-	-	-	-	-	-	-	-
B-3-5.0	11/27/1996	5.0	< 20	< 50	< 100	-	-	-	-	-	-	-	-	-	-	-	< 0.067	< 0.0067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.0067	-	-	-	-	-	-	-	-
B-4-5.0	11/27/1996	5.0	< 20	< 50	< 100	-	-	-	-	-	-	-	-	-	-	-	< 0.067	< 0.0067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.0067	-	-	-	-	-	-	-	-
STS-1-3.0/TS-1	4/10/1997	3.0	detected	2,950	1,700	< 5	< 5	< 5	16.8	-	-	-	-	-	-	< 5	148	86.4	50.6	26.6	26.3	40.6	45.6	20.5	223	95.1	16.6	411	134	6.12	166	< 0.25	16.9	62.0	0.117	< 0.25	< 0.5
STS-2-6.0/TS-2	4/10/1997	6.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
STS-3-2.0	6/23/1997	2.0	< 20	67.5	95.5	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.67	0.107	1.51	1.75	0.863	2.04	2.3	< 0.067	3.33	< 0.067	0.819	< 0.67	3.05	11.9	174	1.01	35.3	160	0.474	< 0.25	< 0.5
STS-4-6.0	6/23/1997	6.0	< 20	< 50	< 100	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.168	< 0.0168	< 0.0168	< 0.0168	< 0.0168	< 0.0168	< 0.0168	< 0.0168	0.0255	< 0.0168	< 0.0168	< 0.168	0.0194	9.04	164	1.07	33.9	22.4	< 0.025	< 0.25	< 0.5
STS-5-2.5	6/25/1997	2.5	< 20	< 50	< 100	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.067	< 0.0067	0.00875	0.0119	< 0.0067	0.0100	0.0125	< 0.0067	0.0213	< 0.0067	0.0152	< 0.067	0.0213	1.36	63.9	< 0.25	8.37	45.3	< 0.025	< 0.25	< 0.5
STS-6-6.0	6/25/1997	6.0	< 20	< 50	< 100	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.335	< 0.0335	0.072	0.0836	0.0608	0.192	0.114	< 0.0335	0.266	< 0.0335	< 0.0335	< 0.335	0.186	9.39	162	1.01	27.6	152	0.0993	< 0.25	< 0.5
STS-7-12.0	6/25/1997	12.0	< 20	< 50	< 100	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.067	< 0.0067	< 0.067	< 0.0067	< 0.0067	< 0.0067	< 0.0067	< 0.0067	< 0.067	< 0.0067	< 0.0067	< 0.067	< 0.0067	8.38	151	0.908	28.9	15.5	< 0.025	< 0.25	< 0.5
STS-8-12.0	6/25/1997	12.0	< 20	< 50	< 100	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.067	< 0.0067	< 0.067	< 0.0067	< 0.0067	< 0.0067	< 0.0067	< 0.0067	< 0.067	< 0.0067	< 0.0067	< 0.067	< 0.0067	6.52	154	0.823	23.4	15.0	< 0.025	< 0.25	< 0.5
STS-9-3.0	6/26/1997	3.0	< 20	< 50	< 100	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.067	< 0.0067	< 0.067	< 0.0067	< 0.0067	0.0125	< 0.0067	< 0.0067	< 0.067	< 0.0067	< 0.0067	< 0.067	< 0.0067	7.81	124	0.710	25.0	15.5	< 0.025	< 0.25	< 0.5
STS-10-7.0	6/26/1997	7.0	< 20	< 50	< 100	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.067	< 0.0067	< 0.067	< 0.0067	< 0.0067	< 0.0067	< 0.0067	< 0.0067	< 0.067	< 0.0067	< 0.0067	< 0.067	< 0.0067	8.95	163	1.06	30.6	19.5	< 0.025	< 0.25	< 0.5
MTS-1-12.0	6/25/1997	12.0	< 20	< 50	< 100	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.067	< 0.0067	< 0.067	< 0.0067	< 0.0067	< 0.0067	< 0.0067	< 0.0067	< 0.067	< 0.0067	< 0.0067	< 0.067	< 0.0067	6.95	140	0.867	27.3	17.1	< 0.025	0.737	< 0.5
MTS-2-2.0	7/10/1997	2.0	< 20	44.5	92.5	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.335	< 0.0335	0.0459	0.158	0.0562	0.0899	0.124	< 0.0335	0.16	< 0.0335	0.058	< 0.335	0.176	8.05	171	1.13	20.7	221	0.114	< 0.25	< 0.5
MTS-3-5.0	7/10/1997	5.0	< 20	48.3	93.0	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.335	0.0564	0.231	0.221	0.109	0.248	0.248	< 0.0335	0.511	< 0.0335	0.11	< 0.335	0.509	7.23	223	0.755	23.5	79.3	1.76	< 0.25	< 0.5
MTS-4-12.0	7/10/1997	12.0	< 20	< 50	< 100	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.067	< 0.0067	< 0.067	< 0.0067	< 0.0067	< 0.0067	< 0.0067	< 0.0067	< 0.067	< 0.0067	< 0.0067	< 0.067	< 0.0067	7.39	131	< 0.25	20.1	17.8	< 0.025	< 0.25	< 0.5
MTS-5-3.0	7/11/1997	3.0	< 20	< 50	< 100	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.067	< 0.0067	< 0.067	< 0.0067	< 0.0067	< 0.0067	< 0.0067	< 0.0067	< 0.067	< 0.0067	< 0.0067	< 0.067	< 0.0067	12.6	190	0.856	29.6	15.2	< 0.025	< 0.25	< 0.5
MTS-6-8.0	7/11/1997	8.0	< 20	< 50	< 100	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	-	< 0.067	< 0.0067	< 0.067	< 0.0067	< 0.0067	< 0.0067	< 0.0067	< 0.0067	< 0.067	< 0.0067	< 0.0067	< 0.067	< 0.0067	9.04	169	0.809	23.7	19.0	< 0.025	< 0.25	< 0.5
MTS-7-2.0	7/14/1997	2.0	< 40	3,300	1,350	< 0.1	< 0.1	1.16	6.66	-	-	-	-	-	-	< 0.1	106	54.6	35.9	31.6	14	28.5	30.7	< 8.38	87.7	77.6	11.8	192	77.4	4.39	183	< 0.25	29.8	13.7	< 0.025	< 0.25	< 0.5
MTS-8-6.0	7/14/1997	6.0	< 20	33.8	< 50	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.067	0.0523	0.032	0.033	0.0143	0.0295	0.0307	< 0.0067	0.0963	0.0249	0.0127	0.27	0.0765	8.19	151	0.826	23.8	18.6	< 0.025	< 0.25	< 0.5
MTS-9-3.0	7/14/1997	3.0	< 400	11,400	6,900	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 83.8	37.2	40.3	33.8	16.6	36.2	36.9	< 8.38	88.2	31.4	13.2	< 83.8	84.6	14.5	198	0.904	27.5	52.3	< 0.025	< 0.25	< 0.5
MTS-10-6.0	7/14/1997	6.0	< 20	< 50	< 100	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 1.34	0.488	0.477	0.545	0.244	0.484	0.432	< 0.134	1.11	0.321	0.193	< 1.34	1.05	10.9	196	0.880	29.0	21.2	< 0.025	< 0.25	< 0.5
NTS-1-2.0	7/24/1997	2.0	< 20	2,710	1,840	< 0.2	< 0.2	0.205	1.76	-	-	-	-	-	-	< 0.2	15.5	8.96	6.08	3.71	2.19	4.62	3.28	< 0.838	15.6	9.9	1.94	28.3	12.9	7.50	156	< 0.25	23.4	18.3	0.0987	< 0.25	< 0.5
NTS-2-6.0	7/24/1997	6.0	< 100	4,680	3,800	< 0.2	< 0.2	0.903	3.17	-	-	-	-	-	-	< 0.2	111	71	30.3	33.8	22.4	46.2	26.3	< 8.38	124	80.5	21.2	207	115	4.84	231	< 0.25	26.9	43.0	0.0872	< 0.25	< 0.5
NTS-3-2.5	7/28/1997	2.5	< 20	< 50	< 100	< 0.2	< 0.2	< 0.2	< 0.4	-	-	-	-	-	-	< 0.2	< 0.067	< 0.0067	< 0.067	< 0.0067	< 0.0067	< 0.0067	< 0.0067	< 0.0067	0.0116	< 0.0067	< 0.0067	< 0.067	0.00944	4.62	152	< 0.25	23.0	42.6	0.136	< 0.25	< 0.5
NTS-4-6.0	7/28/1997	6.0	< 20	< 25	< 50	< 0.2	< 0.2	< 0.2	< 0.4	-	-	-	-	-	-	< 0.2	< 0.067	< 0.0067	< 0.067	0.0203	< 0.0067	< 0.0067	< 0.0067	< 0.0067	0.0129	< 0.0067	< 0.0067	< 0.067	0.0117	10.7	201	0.716	29.7	26.3	< 0.025	< 0.25	< 0.5
NTS-5A-2.5	8/4/1997	2.5	< 20	< 50	< 100	< 0.2	< 0.2	< 0.2	< 0.4	-	-	-	-	-	-	< 0.2	< 0.067	< 0.0067	< 0.067	< 0.0067	< 0.0067	< 0.0067	< 0.0067	< 0.0067	< 0.067	< 0.0067	< 0.0067	< 0.067	< 0.0067	10.4	191	0.772	21.9	19.2	0.0675	< 0.25	< 0.5
NTS-6-13.0	6/19/1997	13.0	< 20	< 50	< 100	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.067	< 0.0067	< 0.067	< 0.0067	< 0.0067	< 0.0067	< 0.0067	< 0.0067	< 0.067	< 0.0067	< 0.0067	< 0.067	< 0.0067	8.06	122	< 0.25	22.5	17	< 0.025	< 0.25	< 0.5
NTS-7-1	8/6/1997	1.0	< 20	< 50	< 100	< 0.2	< 0.2	< 0.2	< 0.4	-	-	-	-	-	-	< 0.2	< 0.67	< 0.067	< 0.67	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.67	0.0743	1.75	30.7	< 0.25	6.28	< 10	0.0601	< 0.25	< 0.5
NTS-8-3	8/6/1997	3.0	< 20	< 50	< 100	< 0.2	< 0.2	< 0.2	< 0.4	-	-	-	-	-	-	< 0.2	< 0.67	< 0.067	< 0.67	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.67	< 0.067	2.97	103	< 0.25	14.5	< 10	0.0945	< 0.25	< 0.5
NTS-9-6	8/6/1997	6.0	< 20	< 50	< 100	< 0.2	< 0.2	< 0.2	< 0.4	-	-	-	-	-	-	< 0.2	< 0.67	< 0.067	< 0.67	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.067	< 0.67	< 0.067	4.00	119	0.800	18.1	10	0.0996	< 0.25	< 0.5
NTS-10-6	8/8/1997	6.0	< 20	< 50	< 100	< 0.2	< 0.2	< 0.2	< 0.2	-	-	-	-	-	-	< 0.2	< 0.067	< 0.0067	< 0.067	< 0.0067	< 0.0067	< 0.0067	< 0.0067	< 0.0067	< 0.067	< 0.0067	< 0.0067	< 0.067	< 0.0067	11.7	213	1.19	27.2	26.3	< 0.025	< 0.25	< 0.5
T#4-1-3.0	8/1/1997	3.0	< 20	< 50	< 100	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.067	< 0.0067	0.00863	0.0187	0.0299	0.0102	0.0226	0.0261	< 0.0067	0.0451	0.00948	0.0139	< 0.067	0.0481	8.15	160	1.12	26.2	23.7	< 0.025	< 0.25	< 0.5
T#4-1-10.0	8/1/1997	10.0	< 20	< 50	< 100	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.067	0.0464	0.0441	0.0285	0.0154	0.0302	0.0413	< 0.0067	0.11	0.0512	0.0133	< 0.067	0.0887	9.78	160	1.13	27.0	17.5	< 0.025	< 0.25	< 0.5
T#4-2-3.0	8/19/1997	3.0	< 20	< 50	< 100	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.067	0.0328	< 0.067	< 0.0067	< 0.0067	< 0.0067	< 0.0067	< 0.0067	0.0779	0.04	< 0.0067	< 0.067	0.0516	10.5	201	1.37	29.5	17.9	< 0.025	< 0.25	< 0.5
T#4-2-6.0	8/19/1997	6.0	< 20	< 50	< 100	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.134	0.0296	0.0921	0.0637	0.0312	0.0746	0.08	< 0.0134	0.192	0.0338	0.0391	< 0.134	0.165	8.25	166	1.58	26.4	16.3	< 0.025	0.673	< 0.5
T#5-1-2.0	7/22/1997	2.0	< 400	7,150	2,830	< 5	< 5	< 5	< 5	-	-	-	-	-	-	< 5	166	81.1	39	41.5	28.5	57	78.1	14	201	94	26.2	137	172	2.55	215	0.764	24.0	21.7	0.0662	< 0.25	< 0.5
T#5-1-3.0	7/22/1997	3.0	< 20	142	90.5	< 2.5	< 2.5	< 2.5	< 2.5	-	-	-	-	-	-	< 2.5	1.27	0.902	0.344	0.165	0.102	0.208	0.349	< 0.067	1.24	0.964	0.0825	2.04	1.02	6.11	162	0.985	23.5	19.5	< 0.025	< 0.25	< 0.5
T#5-2-1.5	7/22/1997	1.5	< 20	< 50	< 100	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	< 0.1	< 0.067	0.0255	0.0407	0.0269	0.0153	0.0311	0.0463	< 0.0067	0.0782	0.0273	0.0137	< 0.067	0.0684	7.14	159	0.771	24.4	17.3	< 0.025	< 0.25	< 0.5
T#5-2-3.5	7/22/1997	3.5	< 400	17,500	12,800	< 2.5	< 2.5	< 2.5	< 2.5	-	-	-	-	-	-	< 2.5	< 166	89.9	44.3	50.5	34.2	73.1	102	24.2	234	174	49.5	246	217	5.03	247	< 0.25	16.5	31.6	0.113	< 0.25	< 0.5
USPS-1	4/9/1997	3.0	detected	detected	detected	0.15	0.26	0.47	3.4	< 0.25	0.33	< 0.25	3.8	0.33	< 0.25	< 0.25	84	46	40	52	< 40	54	43	< 40	100	71	< 40	85.7	96	5.3	170	< 1.0	15	52	0.3	< 1.0	< 1.0
Former Pintsch Gas Plant Area																																					
P1 S-3	6/28/2000	12.0	-	< 5	< 20	< 0.005	< 0.005	< 0.005	< 0.005	-	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.5	66	< 0.5	22	3.4	< 0.06	< 2.5	< 1.0
P1 S-8	6/28/2000	32.0	-	< 5	< 20	< 0.005	< 0.005	< 0.005	0.01	-	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.5	110	< 0.5	34	7.4	< 0.06	< 2.5	< 1.0
P2 S-2	6/28/2000	8.0	-	-	-	< 1	1.1	40	77	-	4.7	3.4	63	17	< 1	< 1	24	64	52	20	28	64	68	< 20	92	80	< 20	1,500	150	2.8	99	< 0.5	13	4.5	< 0.06	< 2.5	< 1.0
P2 S-3	6/28/2000	12.0	-	2,700	2,400	< 1	< 1	2.5	4.3	-	-	-	-	-	-	-	< 2	2.8	2.4	*	2.4	4.4	3.2	< 2	4.0	2.8	< 2	14	6.8	4.8	89	< 0.5	23	4.1	< 0.06	< 2.5	< 1.0
P2 S-8	6/29/2000	32.0	-	< 5	< 20	< 0.1	< 0.1	0.39	0.43	-	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	0.88	< 0.33	2.5	120	< 0.5	23	4.3	< 0.06	< 2.5	< 1.0
P3 S-4	6/29/2000	16.0	-	15,000	9,300	< 10	< 10	200	120	-	-	-	-	-	-	-	180	150	120	*	110	150	130	< 20	220	150	40	890	330	4.1	160	< 0.5	116	37	0.083	< 2.5	< 1.0
P3 S-7	6/29/2000	28.0	-	340	< 60	< 0.1	< 0.1	0.96	1.1	-	-	-	-	-	-	-	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	10	< 5	< 2.5	89	< 0.5	24	4.7	< 0.06	< 2.5	< 1.0
P4 S-3	6/29/2000	12.0	-	< 5	< 20	< 0.005	< 0.005	< 0.005	< 0.005	-	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.5	79	< 0.5	23	4.9	< 0.06	< 2.5	< 1.0
P4 S-8	6/29/2000	32.0	-	< 5	< 20	< 0.005	< 0.005	< 0.005	< 0.005	-	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	7.0	130	< 0.5	20	9.8	< 0.06	< 2.5	< 1.0
P5 S-3	6/29/2000	12.0	-	< 5	< 20	< 0.005	< 0.005	< 0.005	< 0.005	-	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	3.6	80	< 0.5	16	4.7	< 0.06	< 2.5	< 1.0
P5 S-8	6/29/2000	32.0	-	< 5	< 20	< 0.005	< 0.005	< 0.005	< 0.005	-	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.5	84	< 0.5	29	< 3.0	< 0.06	< 2.5	< 1.0
P6 S-3	6/30/2000	12.0	-	66	250	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	3.0	51	< 0.5	20	6.2	< 0.06	< 2.5	< 1.0
P6 S-9	6/30/2000	34.0	-	< 5	< 20	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.5	89	< 0.5	21	3.1	< 0.06	< 2.5	< 1.0
P7 S-3	6/29/2000	12.0	-	< 5	< 20	< 0.005	< 0.005	< 0.005	< 0.005	-	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	2.7	96	< 0.5	20	6.0	< 0.06	< 2.5	< 1.0
P7 S-8	6/29/2000	32.0	-	< 5	< 20	< 0.005	< 0.005	< 0.005	< 0.005	-	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.5	100	< 0.5	20	3.4	< 0.06	< 2.5	< 1.0
P8 S-4	6/30/2000	16.0	-	< 5	< 60	< 0.005	< 0.005	< 0.005	< 0.005	-	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.5	100	< 0.5	19	5.5	< 0.06	< 2.5	< 1.0
P8 S-8	6/30/2000	32.0	-	< 5	< 20	< 0.005	< 0.005	< 0.005	< 0.005	-	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	3.1	140	< 0.5	25	7.2	< 0.06	< 2.5	< 1.0
P9 S-3	6/30/2000	12.0	-	14,000	5,500	< 1	< 1	7.1	7.9	-	-	-	-	-	-	-	39	29	23	*	28	52	28	< 5	45	40	10	< 5	71	< 2.5	60	< 0.5	13	< 3.0	< 0.06	< 2.5	< 1.0
P9 S-4	6/30/2000	16.0	-	-	-	< 1	< 1	97	220	-	13	9	210	110	< 1	< 1	< 10	16	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	3,200	10	3.3	84	< 0.5	17	21	0.084	< 2.5	< 1.0
P9 S-8	6/30/2000	32.0	-	< 5	< 20	0.42	< 0.1	0.5	1.5	-	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.5	76	< 0.5	16	3.1	0.064	< 2.5	< 1.0

\+ Select samples analyzed by Method 418.1 and results may not be limited to the oil fraction.
* Result for benzo(b)fluoranthene and benzo(k)fluoranthene reported together.
\- Not analyzed, not applicable or not available.
< Not detected at the laboratory reporting limit shown

B Benzene
E Ethylbenzene
mg/kg Milligram per kilogram
MTBE Methyl Tertiary Butyl Ether
NA Not available
T Toluene
TPH-G Total petroleum hydrocarbons - gasoline
TPH-D Total petroleum hydrocarbons - diesel
TPH-O Total petroleum hydrocarbons - heavy oil
X Xylenes

Appendix G-3
RI Soil Data (2004)
USPS Portland P&DC, Portland, Oregon

Sample ID	Lab ID	Total Organic Carbon (mg/kg)	Solids % by weight	EPH (mg/kg)											Metals (mg/kg)									NWTPH-Dx (mg/kg)		SVOCs (mg/kg)																			
				C10-C12 Aliphatics	C10-C12 Aromatics	C12-C16 Aliphatics	C12-C16 Aromatics	C16-C21 Aliphatics	C16-C21 Aromatics	C21-C34 Aliphatics	C21-C34 Aromatics	C8-C10 Aliphatics	C8-C10 Aromatics	Total EPH	Arsenic	Barium	Cadmium	Chromium	Iron	Lead	Mercury	Selenium	Silver	Diesel Range Organics	Heavy Oil Range Hydrocarbons	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (ghi) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
Former Coach Cleaning Area																																													
CC-1 (0-3)	P4K0062-29		84.8																					51.2	211	0.0536	0.0536	0.0536	0.0536	0.0696	0.0768	0.0766	0.106	0.0635	0.107	0.0536	0.144	0.0536	0.0735	0.0536	0.1	0.177
CC-1 (7-11)	P4K0062-31		74.6																					25	50	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134
CC-2 (0-3)	P4K0062-17		94.8												43.6	84.7	1.02	10.9	23,500	299	0.606	0.5	0.5	88.8	182	0.075	0.0268	0.0268	0.0268	0.0328	0.0347	0.0762	0.0639	0.0475	0.0761	0.0268	0.0723	0.0268	0.0478	0.0681	0.0892	0.0902
CC-2 (11-15)	P4K0062-20		68.7																					25	50	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134
CC-3 (0-3)	P4K0062-25		90.6												22.5	215	2.84	17.4	43,400	244	0.393	0.5	0.5	69.5	285	0.0536	0.0536	0.0536	0.0536	0.0719	0.0715	0.0749	0.0746	0.0563	0.0963	0.0536	0.14	0.0536	0.0556	0.0536	0.107	0.161
CC-3 (3-7)	P4K0062-26		91.6	5	5	5	5	14.7	9.15	92	34.8	5	5	141										52.4	251	0.0134	0.0134	0.0134	0.0134	0.0134	0.0137	0.0232	0.0295	0.0136	0.0227	0.0134	0.0183	0.0134	0.0195	0.0134	0.0142	0.0223
CC-4 (0-3)	P4K0062-21		95.3	5	5	5	5	26	12.1	134	85	5	5	257										121	491	0.181	0.0538	0.0536	0.0536	0.0686	0.0776	0.129	0.125	0.0879	0.148	0.0536	0.172	0.0536	0.095	0.0937	0.154	0.203
CC-4 (3-7)	P4K0062-22		80.9																					25	50	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134
CC-5 (0-3)	P4K0134-01		78.9																					34	155	0.0536	0.0536	0.0536	0.0536	0.147	0.133	0.132	0.126	0.109	0.178	0.0536	0.246	0.0536	0.101	0.0536	0.132	0.291
CC-5 (7-11)	P4K0134-03		75.8																					25	50	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0139
CC-6 (0-3)	P4K0134-05		84												48.1	196	3.46	20.6		1,080	0.77	0.5	0.5	25	50	0.0516	0.0134	0.0134	0.0134	0.0137	0.0134	0.0197	0.0134	0.0134	0.0244	0.0134	0.0277	0.0134	0.0134	0.0376	0.0451	0.0287
CC-6 (11-15)	P4K0134-08		78.2																					25	50	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134
CC-7 (0-3)	P4K0134-09	18,400	78.2												31.5	422	1.79	21.7		409	0.159	0.5	1.05	25	50	0.0134	0.0134	0.0134	0.0134	0.0296	0.0373	0.0294	0.0273	0.0293	0.0302	0.0134	0.0292	0.0134	0.0247	0.0134	0.0151	0.0376
CC-7 (7-11)	P4K0134-11	7,910	74.7																					25	50	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134
Eastern Half of Property (South End)																																													
EH-1 (0-3)	P4K0062-01		75.2																					230	285	0.0783	0.0536	0.0536	0.0536	0.0657	0.0617	0.0856	0.0997	0.061	0.121	0.0536	0.187	0.0536	0.0686	0.0876	0.213	0.194
EH-1 (11-15)	P4K0062-04		70.6																					25	50	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134
EH-2 (0-3)	P4K0134-17	500	82																					25	50	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134
EH-2 (7-11)	P4K0134-19		74.3																					25	50	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0173
Eastern Half of Property (NEC)																																													
EH-3 (0-3)	P4K0134-13		81.7																					78.5	402	0.067	0.067	0.067	0.067	0.0713	0.0795	0.0974	0.117	0.067	0.107	0.067	0.125	0.067	0.0859	0.067	0.113	0.138
EH-3 (3-7)	P4K0134-14		94	129	200	1,660	200	3,860	2,440	7,510	9,090	200	200	24,700										9950	14700	0.838	0.838	0.838	0.838	1.51	1.39	1.05	0.853	0.904	1.52	0.838	3	0.838	0.838	0.838	1.86	3.12
EH-4 (0-3)	P4K0864-01		85.1																					916	5450	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067
EH-4 (11-15)	P4K0864-04		75.7																					25	150	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0142	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0153
[illegible]-5 (0-3)	P4K0864-05		89.6																					720	4510	0.134	0.134	0.134	0.134	0.134	0.134	0.134	0.134	0.134	0.239	0.134	0.134	0.134	0.134	0.134	0.134	0.134	0.134	0.134	0.134	0.134
[illegible]-5 (11-15)	P4K0864-08		71.3																					32.4	78.3	0.0268	0.0326	0.0816	0.32	1.02	0.793	0.489	0.435	0.573	0.847	0.127	1.67	0.0628	0.401	0.0404	0.587	1.54
Investigation Derived Waste																																													
IDW-Soil	P4L0329-01		74.8												5.68	155	0.5	18.9		69.6	0.0896	0.5	1.16	840	489	3.98	2.43	1.34	3.21	7.13	9.36	4.32	6.45	4.87	8.59	1.52	9.51	2.74	4.64	6.24	14.3	20.6
IDW-Soil bin	P4L0329-02		58.6												2.45	106	0.5	19		8.87	0.0758	0.5	0.5	72.5	112	0.615	0.238	0.161	0.323	0.51	1.1	0.596	1.02	0.629	0.63	0.251	0.558	0.305	0.709	1.04	1.41	1.16
Former Pintsch Gas Plant Area																																													
P-3 (0-3)	P4K0134-21		91.2																					361	565	0.388	0.335	0.335	0.571	2.01	3.15	2.08	2.76	2.05	2.63	0.695	2.6	0.335	2.12	0.628	2.59	4.62
P-6 (0-3)	P4K0134-23		87.1																					25	50	0.0134	0.0134	0.0134	0.0134	0.0439	0.049	0.0759	0.042	0.0535	0.0719	0.0147	0.0695	0.0134	0.036	0.0179	0.044	0.0625
P-9 (0-3)	P4K0134-22		90																					129	185	0.356	0.134	0.134	0.67	2.09	2.11	1.43	1.82	1.8	2.64	0.45	2.68	0.134	1.24	0.64	4.42	5.48
PP-1 (0-3)	P4K0134-24		75	32.2	84	414	600	598	1,050	722	2,040	50	50	6,440	4.65	217	0.5	6.89		61.7	0.233	0.5	0.5	17,100	9,550	269	15.8	54.7	68.7	276	246	165	217	198	402	57.9	334	108	149	213		
PP-1 (0-3)	P4K0134-24RE1																																									655	752
PP-1 (11-15)	P4K0134-27		85.2	144	1,760	358	1,980	320	2,950	249	1,970	27.8	286	10,000										29,200	7,320		645	109	837	769	850	373	502	398	790	109		689	327			
PP-1 (11-15)	P4K0134-27RE1																										3,150										1,260			9,990	3,970	2,600
PP-2 (0-3)	P4K0201-06		87.6																					99.2	251	1.4	0.67	1.31	1.71	7.74	11.8	7.23	10.5	6.41	9.94	2.39	8.41	0.828	7.19	1.57	8.97	17.9
PP-2 (7-11)	P4K0201-08		92.8																					4,800	908	39.4	18.4	2.92	21	21.3	22.1	10.5	11.1	12.6	24.8	2.92	37.8	25.8	8.49	4.3	111	81.4
PP-3 (0-3)	P4K0201-10		88.8																					260	639	0.207	0.067	0.17	0.311	0.5	0.574	0.578	0.82	0.371	0.686	0.177	1.04	0.095	0.641	0.246	0.846	1.14
PP-3 (7-11)	P4K0201-12		86.6																					25	50	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134
PP-4 (0-3)	P4K0201-14		92																					89	187	0.0515	0.0268	0.0818	0.104	0.35	0.427	0.394	0.681	0.401	0.551	0.165	0.432	0.0268	0.522	0.072	0.301	0.812
PP-4 (11-15)	P4K0201-17	500	78.9																					25	50	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134
PP-5 (0-3)	P4K0201-18		90.3																					54.8	112	0.0903	0.0134	0.0134	0.0134	0.0315	0.0292	0.0347	0.036	0.0211	0.0593	0.0134	0.0549	0.0134	0.0237	0.0703	0.109	0.0652
PP-5 (3-7)	P4K0201-19	500	82.9																					25	50	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134
PP-6 (0-3)	P4K0254-01		90.2												17.8	102	1.24	11.8		177	0.298	0.5	0.5	152	287	0.171	0.134	0.185	0.245	1.06	1.99	1.19	1.78	1.18	1.35	0.356	1.18	0.134	1.17	0.328	1.14	2.41
PP-6 (12-16)	P4K0254-04		81.1																					25,000	5,710		620	81.2	525	355	366	147	196	177	359	41	599	508	129			1200
PP-6 (12-16)	P4K0254-04RE1																										1940													5,790	1,760	
PP-6 (24-28)	P4K0254-07		70.9																					25	50	0.346	0.168	0.0245	0.136	0.125	0.125	0.053	0.0648	0.0692	0.133	0.016	0.238	0.142	0.0472		0.679	0.388
PP-6 (24-28)	P4K0254-07RE1																																							1.81		
PP-6 (48-52)	P4K0254-13		69.2																					25	50	0.0789	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134
PP-6 (48-52)	P4K0254-13RE1																																							18.3		
PP-6 (72-76)	P4K0323-05		75																					25	50	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134
PP-6 (88-90)	P4K0316-01		82.5																					25	50	0.359	0.169	0.0213	0.155	0.128	0.145	0.0707	0.0684	0.0706	0.137	0.0169	0.213	0.156	0.0482	0.608	0.704	0.419
PP-7 (0-3)	P4K0323-01		91.3																					586	440	5.43	1.68	4.43	6.63	25	26.5	12.9	22.7	17.3	32.2	5.8	30.5	2.32	16.3	4.69	45.6	60.9
PP-7 (11-15)	P4K0323-04		79.5																					233	86.8	88.5	45.9	3.73	37.7	34.1	41.6	15.7	24.8	20.7	35.2	4.98	54	35	14.7	47.2	137	106
Storm Sewer																																													
SS-1 (0-3)	P4K0201-01		92																					25	50	0.0279	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0721	0.0254	0.0144
SS-1 (11-15)	P4K0201-04		81.3																					25	50	0.0201	0.019	0.0137	0.0316	0.0859	0.111	0.0637	0.0815	0.0731	0.0839	0.0169	0.113	0.0173	0.0613	0.0627	0.103	0.199
SS-2 (16-20)	P4K0864-21		75.6																					220	135	1.07	4.28	1.12	6.8	8.97	9.54	3.9	5.46	4.52	9.75	1.41	11.6	4.68	4.23	2.23	24.7	26.5
[illegible]-2 (28-32)	P4K0864-24		73.1																					1,360	425		3.96	0.521	3.81	2.65	2.38	1.08	1.28	1.23	2.86	0.325	4.9	4.11	0.961			8.42
[illegible]-2 (28-32)	P4K0864-24RE1																										16													36.5	11.4	
SS-3 (0-3)	P4K0864-09		86																					93.6	308	0.168	0.168	0.168	0.168	0.175	0.205	0.256	0.283	0.168	0.276	0.168	0.357	0.168	0.212	0.168	0.262	0.349
SS-3 (12-16)	P4K0864-12		61.2																					549	476	51.8	248	27.2	286	223	184	80.5	99	104	236	29.8	389	245	77.9	188	950	717
SS-3 (28-32)	P4K0864-16		70.6																					307	84.2	103	41.8	4.4	27.5	19	17.6	6.97	9.2	9.29	19.3	2.55	33	27	7.42		117	62.9
SS-3 (28-32)	P4K0864-16RE1																																							287		

Appendix G-3
RI Soil Data (2004)
USPS Portland P&DC, Portland, Oregon

		VOCs (mg/kg)																																													
Sample ID	Lab ID	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethylbenzene	Hexachlorobutadiene
Former Coach Cleaning Area																																															
CC-1 (0-3)	P4K0062-29	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
CC-1 (7-11)	P4K0062-31	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
CC-2 (0-3)	P4K0062-17	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
CC-2 (11-15)	P4K0062-20	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
CC-3 (0-3)	P4K0062-25	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
CC-3 (3-7)	P4K0062-26	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
CC-4 (0-3)	P4K0062-21	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
CC-4 (3-7)	P4K0062-22	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
CC-5 (0-3)	P4K0134-01	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
CC-5 (7-11)	P4K0134-03	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.89	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
CC-6 (0-3)	P4K0134-05	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
CC-6 (11-15)	P4K0134-08	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
CC-7 (0-3)	P4K0134-09	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
CC-7 (7-11)	P4K0134-11	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
Eastern Half of Property (South End)																																															
EH-1 (0-3)	P4K0062-01	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
EH-1 (11-15)	P4K0062-04	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
EH-2 (0-3)	P4K0134-17	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
EH-2 (7-11)	P4K0134-19	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
Eastern Half of Property (NEC)																																															
EH-3 (0-3)	P4K0134-13	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
EH-3 (3-7)	P4K0134-14	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
EH-4 (0-3)	P4K0864-01	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
EH-4 (11-15)	P4K0864-04	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
H-5 (0-3)	P4K0864-05	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
-5 (11-15)	P4K0864-08	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
Investigation Derived Waste																																															
IDW-Soil	P4L0329-01	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.524	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.268	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.254	0.4 <
IDW-Soil bin	P4L0329-02	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.224	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.119	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.277	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.232	0.4 <
Former Pintsch Gas Plant Area																																															
P-3 (0-3)	P4K0134-21	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.101	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
P-6 (0-3)	P4K0134-23	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
P-9 (0-3)	P4K0134-22	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
PP-1 (0-3)	P4K0134-24	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
PP-1 (0-3)	P4K0134-24RE1																																														
PP-1 (11-15)	P4K0134-27	5 <	5 <	5 <	5 <	5 <	5 <	5 <	5 <	5 <	5 <	12.6	25 <	5 <	5 <	5 <	5 <	9.68	5 <	5 <	5 <	5 <	50 <	5 <	50 <	5 <	25 <	125 <	5 <	5 <	5 <	5 <	5 <	25 <	50 <	5 <	5 <	5 <	5 <	25 <	5 <	5 <	5 <	5 <	25 <	9.15	20 <
PP-1 (11-15)	P4K0134-27RE1																																														
PP-2 (0-3)	P4K0201-06	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
PP-2 (7-11)	P4K0201-08	0.2 <	0.2 <	0.2 <	0.2 <	0.2 <	0.2 <	0.2 <	0.2 <	0.2 <	0.2 <	3.09	1 <	0.2 <	0.2 <	0.2 <	0.2 <	4.31	0.2 <	0.2 <	0.2 <	0.2 <	2 <	0.2 <	2 <	0.2 <	1 <	5 <	0.2 <	0.2 <	0.2 <	0.2 <	0.2 <	1 <	2 <	0.2 <	0.2 <	0.2 <	0.2 <	1 <	0.2 <	0.2 <	0.2 <	0.2 <	1 <	1.38	0.8 <
PP-3 (0-3)	P4K0201-10	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
PP-3 (7-11)	P4K0201-12	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
PP-4 (0-3)	P4K0201-14	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
PP-4 (11-15)	P4K0201-17	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
PP-5 (0-3)	P4K0201-18	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
PP-5 (3-7)	P4K0201-19	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
PP-6 (0-3)	P4K0254-01	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
PP-6 (12-16)	P4K0254-04	2 <	2 <	2 <	2 <	2 <	2 <	2 <	2 <	2 <	2 <	16.8	10 <	2 <	2 <	2 <	2 <	6.86	2 <	2 <	2 <	2 <	20 <	2 <	20 <	2 <	10 <	50 <	2 <	2 <	2 <	2 <	2 <	10 <	20 <	2 <	2 <	2 <	2 <	10 <	2 <	2 <	2 <	2 <	10 <	25.1	8 <
PP-6 (12-16)	P4K0254-04RE1																																														
PP-6 (24-28)	P4K0254-07	0.2 <	0.2 <	0.2 <	0.2 <	0.2 <	0.2 <	0.2 <	0.2 <	0.2 <	0.2 <	1.73	1 <	0.2 <	0.2 <	0.2 <	0.2 <	0.691	0.2 <	0.2 <	0.2 <	0.2 <	2 <	0.2 <	2 <	0.2 <	1 <	5 <	1.61	0.2 <	0.2 <	0.2 <	0.2 <	1 <	2 <	0.2 <	0.2 <	0.2 <	0.2 <	1 <	0.2 <	0.2 <	0.2 <	0.2 <	1 <	3.73	0.8 <
PP-6 (24-28)	P4K0254-07RE1																																														
PP-6 (48-52)	P4K0254-13	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1.32	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.652	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	9.28	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	4.81	0.4 <
PP-6 (48-52)	P4K0254-13RE1																																														
PP-6 (72-76)	P4K0323-05	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	2.88	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
PP-6 (88-90)	P4K0316-01	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.119	0.4 <
PP-7 (0-3)	P4K0323-01	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
PP-7 (11-15)	P4K0323-04	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1.09	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.341	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.162	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.312	0.4 <
Storm Sewer																																															
SS-1 (0-3)	P4K0201-01																											0.05 <																		0.05 <	
SS-1 (11-15)	P4K0201-04																											0.05 <																		0.05 <	
SS-2 (16-20)	P4K0864-21																											0.05 <																		0.05 <	
S-2 (28-32)	P4K0864-24																											0.1 <																		4.9	
-2 (28-32)	P4K0864-24RE1																																														
SS-3 (0-3)	P4K0864-09	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	1 <	0.1 <	1 <	0.1 <	0.5 <	2.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.1 <	0.1 <	0.1 <	0.5 <	0.1 <	0.4 <
SS-3 (12-16)	P4K0864-12	0.5 <	0.5 <	0.5 <	0.5 <	0.5 <	0.5 <	0.5 <	0.5 <	0.5 <	0.5 <	1.59	2.5 <	0.5 <	0.5 <	0.5 <	0.5 <	0.571	0.5 <	0.5 <	0.5 <	0.5 <	5 <	0.5 <	5 <	0.5 <	2.5 <	12.5 <	0.5 <	0.5 <	0.5 <	0.5 <	0.5 <	2.5 <	5 <	0.5 <	0.5 <	0.5 <	0.5 <	2.5 <	0.5 <	0.5 <	0.5 <	0.5 <	2.5 <	3.2	2 <
SS-3 (28-32)	P4K0864-16	2 <	2 <	2 <	2 <	2 <	2 <	2 <	2 <	2 <	2 <	21.2	10 <	2 <	2 <	2 <	2 <	9.28	2 <	2 <	2 <	2 <	20 <	2 <	20 <	2 <	10 <	50 <	2 <	2 <	2 <	2 <	2 <	10 <	20 <	2 <	2 <	2 <	2 <	10 <	2 <	2 <	2 <	2 <	10 <	41.8	8 <
SS-3 (28-32)	P4K0864-16RE1																																														

Appendix G-3
RI Soil Data (2004)
USPS Portland P&DC, Portland, Oregon

		VOCs (mg/kg)																								VPH (mg/kg)													
Sample ID	Lab ID	Isopropylbenzene	m,p-Xylene	Methyl tert-butyl ether	Methylene chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	p-Isopropyltoluene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl chloride	Xylenes (total)	Benzene	C10-C12 Aliphatics	C10-C12 Aromatics	C12-C13 Aromatics	C5-C6 Aliphatics	C5-C8 Aliphatics	C8-C10 Aliphatics	C8-C10 Aromatics	Ethylbenzene	Methyl tert-Butyl Ether (MTBE)	n-Hexane	Toluene	Total VPH	Xylenes (total)
Former Coach Cleaning Area																																							
CC-1 (0-3)	P4K0062-29	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
CC-1 (7-11)	P4K0062-31	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
CC-2 (0-3)	P4K0062-17	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
CC-2 (11-15)	P4K0062-20	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
CC-3 (0-3)	P4K0062-25	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
CC-3 (3-7)	P4K0062-26	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <		0.05 <	1.25 <	1.25 <	1.25 <	1.25 <	1.25 <	1.25 <	1.25 <	0.05 <	0.1 <	0.05 <	0.05 <	62.5 <	0.05 <
CC-4 (0-3)	P4K0062-21	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <		0.05 <	1.25 <	1.25 <	1.25 <	1.25 <	1.25 <	1.25 <	1.25 <	0.05 <	0.1 <	0.05 <	0.05 <	62.5 <	0.05 <
CC-4 (3-7)	P4K0062-22	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
CC-5 (0-3)	P4K0134-01	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
CC-5 (7-11)	P4K0134-03	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
CC-6 (0-3)	P4K0134-05	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
CC-6 (11-15)	P4K0134-08	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
CC-7 (0-3)	P4K0134-09	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
CC-7 (7-11)	P4K0134-11	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
Eastern Half of Property (South End)																																							
EH-1 (0-3)	P4K0062-01	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
EH-1 (11-15)	P4K0062-04	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
EH-2 (0-3)	P4K0134-17	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
EH-2 (7-11)	P4K0134-19	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
Eastern Half of Property (NEC)																																							
EH-3 (0-3)	P4K0134-13	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <		0.1 <	7.78	8.35	6.32	2.5 <	2.5 <	2.5 <	2.5 <	0.1 <	0.2 <	0.1 <	0.1 <	125 <	0.1 <
EH-3 (3-7)	P4K0134-14	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
EH-4 (0-3)	P4K0864-01	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
EH-4 (11-15)	P4K0864-04	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
H-5 (0-3)	P4K0864-05	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
H-5 (11-15)	P4K0864-08	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
Investigation Derived Waste																																							
IDW-Soil	P4L0329-01	0.2 <	0.246	0.1 <	0.5 <	16.4	0.5 <	0.1 <	0.145	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
IDW-Soil bin	P4L0329-02	0.2 <	0.314	0.1 <	0.5 <	4.78	0.5 <	0.1 <	0.113	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
Former Pintsch Gas Plant Area																																							
P-3 (0-3)	P4K0134-21	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.111	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
P-6 (0-3)	P4K0134-23	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
P-9 (0-3)	P4K0134-22	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
PP-1 (0-3)	P4K0134-24	0.2 <	0.2 <	0.1 <	0.5 <	0.313	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <		1 <	25 <	48.8	102	25 <	25 <	25 <	30.9	2.36	2 <	1 <	1 <	1,250 <	2.18
PP-1 (0-3)	P4K0134-24RE1																																						
PP-1 (11-15)	P4K0134-27	10 <	10 <	5 <	25 <	736	25 <	5 <	5 <	10 <	5 <	5 <	5 <	5 <	5 <	5 <	5 <	5 <	5 <	5 <		29.7	758	1,970	962	500 <	500 <	500 <	523	169	40 <	20 <	20 <	25,000 <	67
PP-1 (11-15)	P4K0134-27RE1																																						
PP-2 (0-3)	P4K0201-06	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
PP-2 (7-11)	P4K0201-08	2.42	0.881	0.2 <	1 <	5.64	3 <	1.73	0.756	1.07	0.2 <	0.2 <	0.2 <	0.2 <	0.429	0.2 <	0.2 <	0.2 <	0.2 <	0.2 <																	
PP-3 (0-3)	P4K0201-10	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
PP-3 (7-11)	P4K0201-12	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.729	0.1 <	0.1 <																	
PP-4 (0-3)	P4K0201-14	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
PP-4 (11-15)	P4K0201-17	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
PP-5 (0-3)	P4K0201-18	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
PP-5 (3-7)	P4K0201-19	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
PP-6 (0-3)	P4K0254-01	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
PP-6 (12-16)	P4K0254-04	4 <	7	2 <	10 <	429	10 <	2 <	5.4	4 <	2 <	2 <	2 <	2 <	2 <	2 <	2 <	2 <	2 <	2 <																	
PP-6 (12-16)	P4K0254-04RE1																																						
PP-6 (24-28)	P4K0254-07	0.4 <	4.94	0.2 <	1 <	37.8	1 <	0.2 <	2.32	0.4 <	0.2 <	0.2 <	0.2 <	0.2 <	0.33	0.2 <	0.2 <	0.2 <	0.2 <	0.2 <																	
PP-6 (24-28)	P4K0254-07RE1																																						
PP-8 (48-52)	P4K0254-13	0.217	7.92	0.1 <	0.5 <	22.8	0.5 <	0.1 <	2.5	0.328	0.1 <	0.1 <	0.1 <	0.1 <	0.173	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
PP-8 (48-52)	P4K0254-13RE1																																						
PP-6 (72-76)	P4K0323-05	0.2 <	0.2 <	0.1 <	0.5 <	0.379	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
PP-6 (88-90)	P4K0316-01	0.2 <	0.2 <	0.1 <	0.5 <	1.41	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
PP-7 (0-3)	P4K0323-01	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
PP-7 (11-15)	P4K0323-04	0.581	0.2 <	0.1 <	0.5 <	2.22	0.5 <	0.371	0.181	0.2 <	0.111	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
Storm Sewer																																							
SS-1 (0-3)	P4K0201-01														0.05 <						0.1 <																	
SS-1 (11-15)	P4K0201-04														0.05 <						0.1 <																	
SS-2 (16-20)	P4K0864-21														0.05 <						0.1 <																	
S-2 (28-32)	P4K0864-24														0.1 <						5.48																	
S-2 (28-32)	P4K0864-24RE1																																						
SS-3 (0-3)	P4K0864-09	0.2 <	0.2 <	0.1 <	0.5 <	0.2 <	0.5 <	0.1 <	0.1 <	0.2 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <																	
SS-3 (12-16)	P4K0864-12	1 <	1 <	0.5 <	2.5 <	67	2.5 <	0.5 <	0.568	1 <	0.5 <	0.5 <	0.5 <	0.5 <	0.5 <	0.5 <	0.5 <	0.5 <	0.5 <	0.5 <																	
SS-3 (28-32)	P4K0864-16	4 <	50	2 <	10 <	259	10 <	2.01	17.8	4 <	2 <	2 <	2 <	2 <	2 <	2 <	2 <	2 <	2 <	2 <																	
SS-3 (28-32)	P4K0864-16RE1																																						

Appendix G-3
RI Soil Data (2004)
USPS Portland P&DC, Portland, Oregon

				EPH (mg/kg)											Metals (mg/kg)									NWTPH-Dx (mg/kg)		SVOCs (mg/kg)																					
Sample ID	Lab ID	Total Organic Carbon (mg/kg)	Solids % by weight	C10-C12 Aliphatics	C10-C12 Aromatics	C12-C16 Aliphatics	C12-C16 Aromatics	C16-C21 Aliphatics	C16-C21 Aromatics	C21-C34 Aliphatics	C21-C34 Aromatics	C8-C10 Aliphatics	C8-C10 Aromatics	Total EPH	Arsenic	Barium	Cadmium	Chromium	Iron	Lead	Mercury	Selenium	Silver	Diesel Range Organics	Heavy Oil Range Hydrocarbons	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (ghi) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
Electrical Utility Vault Area																																															
UV-1 (0-4)	P4J1303-05		84.2																					26.5	188	0.0268 <	0.0268 <	0.0268 <	0.0268 <	0.0516	0.0583	0.0548	0.0551	0.0401	0.0713	0.0268 <	0.102	0.0268 <	0.0426	0.0268 <	0.073	0.104
UV-1 (12-15)	P4J1303-08		74.6																					25 <	50 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <
UV-2 (0-4)	P4J1303-01		74.2																					33.2	113	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0263	0.0377	0.0382	0.0357	0.0318	0.0432	0.0134 <	0.0519	0.0134 <	0.0311	0.0134 <	0.0326	0.0509
UV-2 (4-8)	P4J1303-02		83.9																					25 <	50 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0141	0.0159	0.0134	0.0134	0.0134 <	0.0182	0.0134 <	0.0214	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.023
UV-3 (0-4)	P4J1303-13		81.2	10 <	53.2	8.21	152	13.4	472	19.4	288	10 <	5.98	1,010											722	616	5.5	8.97	8.17	18.2	20.5	18.4	12.5	9.51	12.5	20.6	3.64	43.2	17.7	10.1	20.2	54.1	43.5
UV-3 (4-8)	P4J1303-14		75.5	5 <	16.6	5 <	11.9	5 <	29.3	10.5	27.4	5 <	5.27	101											283	218	8.36	10.5	3.2	9.97	8.13	5.97	3.38	2.74	5.02	7.4	0.996	19.9	12.1	2.68	19.9	29.8	17.4
UV-4 (0-4)	P4J1303-09		78.1																					25 <	50 <	0.0169	0.0235	0.0981	0.181	0.349	0.277	0.208	0.131	0.202	0.3	0.0425	0.748	0.106	0.123	0.0142	0.551	0.683
UV-4 (8-12)	P4J1303-11		77.6																					25 <	50 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <
UV-5 (0-3)	P4K0062-09		92.7																					50 <	189	0.0268 <	0.0268 <	0.0268 <	0.0268 <	0.0268 <	0.0291	0.0268 <	0.0307	0.0268 <	0.0337	0.0268 <	0.0447	0.0268 <	0.0268 <	0.0268 <	0.0268 <	0.0587
UV-5 (3-7)	P4K0062-10		71.8																					35.1	50 <	0.0268 <	0.0268 <	0.0268 <	0.0268 <	0.0664	0.0559	0.0468	0.0412	0.0456	0.0703	0.0268 <	0.172	0.0293	0.0322	0.0268 <	0.108	0.167
UV-6 (0-3)	P4K0062-13	1,590	90.4																					25 <	50 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0141
UV-6 (11-15)	P4K0062-16	9,300	73																					25 <	50 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <
UV-7 (0-3)	P4K0062-05		90.1																					25 <	50 <	0.0134 <	0.0134 <	0.0134 <	0.0134 <	0.0242	0.0758	0.0636	0.0493	0.0269	0.0509	0.0656	0.0134 <	0.117	0.0134 <	0.0297	0.0134 <	0.0464	0.113
UV-7 (7-11)	P4K0062-07		87.1																					25 <	50.8	0.182	0.782	0.0536 <	0.0536 <	0.105	0.094	0.106	0.0995	0.0741	0.126	0.0536 <	0.236	0.236	0.0785	0.281	0.196	0.199
UV-8 (0-4)	P4J1303-17		78.5																																											

Appendix G-3
RI Soil Data (2004)
USPS Portland P&DC, Portland, Oregon

Sample ID	Lab ID	VOCs (mg/kg)																																													
		1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethylbenzene	Hexachlorobutadiene
Electrical Utility Vault Area																																															
UV-1 (0-4)	P4J1303-05																											0.05 <																	0.05 <	
UV-1 (12-15)	P4J1303-08																											0.05 <																	0.05 <	
UV-2 (0-4)	P4J1303-01																											0.05 <																	0.05 <	
UV-2 (4-6)	P4J1303-02																											0.05 <																	0.05 <	
UV-3 (0-4)	P4J1303-13											0.1 <						0.05 <											0.04 <																	0.05 <	
UV-3 (4-8)	P4J1303-14											1.22						0.411											0.257																	0.221	
UV-4 (0-4)	P4J1303-09																											0.05 <																	0.05 <	
UV-4 (8-12)	P4J1303-11																											0.05 <																	0.05 <	
UV-5 (0-3)	P4K0062-09																											0.05 <																	0.05 <	
UV-5 (3-7)	P4K0062-10																											0.05 <																	0.05 <	
UV-6 (0-3)	P4K0062-13																											0.05 <																	0.05 <	
UV-6 (11-15)	P4K0062-16																											0.05 <																	0.05 <	
UV-7 (0-3)	P4K0062-05																											0.05 <																	0.05 <	
UV-7 (7-11)	P4K0062-07																											0.05 <																	0.05 <	
UV-8 (0-4)	P4J1303-17																											0.05 <																	0.05 <	

Appendix G-3
RI Soil Data (2004)
USPS Portland P&DC, Portland, Oregon

		VOCs (mg/kg)																					VPH (mg/kg)																
Sample ID	Lab ID	Isopropylbenzene	m,p-Xylene	Methyl tert-butyl ether	Methylene chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	p-Isopropyltoluene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl chloride	Xylenes (total)	Benzene	C10-C12 Aliphatics	C10-C12 Aromatics	C12-C13 Aromatics	C5-C6 Aliphatics	C6-C8 Aliphatics	C8-C10 Aliphatics	C8-C10 Aromatics	Ethylbenzene	Methyl tert-Butyl Ether (MTBE)	n-Hexane	Toluene	Total VPH	Xylenes (total)
Electrical Utility Vault Area																																							
UV-1 (0-4)	P4J1303-05														0.05	<					0.1	<																	
UV-1 (12-15)	P4J1303-08														0.05	<					0.1	<																	
UV-2 (0-4)	P4J1303-01														0.05	<					0.1	<																	
UV-2 (4-8)	P4J1303-02														0.05	<					0.1	<																	
UV-3 (0-4)	P4J1303-13					1.75									0.05	<					0.1	<	0.5	<	12.5	<	28.5	38.1	12.5	<	12.5	<	12.5	<	19.7	0.5	<	1	<	0.5	<	0.5	<	625	<	0.5	<
UV-3 (4-8)	P4J1303-14					24.4									0.143						0.923		0.1	<	3.17		9.12	4.92	2.5	<	2.5	<	2.5	<	3.27	0.1	<	0.2	<	0.1	<	0.1	<	125	<	0.219	
UV-4 (0-4)	P4J1303-09														0.05	<					0.1	<																	
UV-4 (8-12)	P4J1303-11														0.05	<					0.1	<																	
UV-5 (0-3)	P4K0062-09														0.05	<					0.1	<																	
UV-5 (3-7)	P4K0062-10														0.05	<					0.1	<																	
UV-6 (0-3)	P4K0062-13														0.05	<					0.1	<																	
UV-6 (11-15)	P4K0062-16														0.05	<					0.1	<																	
UV-7 (0-3)	P4K0062-05														0.05	<					0.1	<																	
UV-7 (7-11)	P4K0062-07														0.05	<					0.1	<																	
UV-8 (0-4)	P4J1303-17														0.05	<					0.1	<																	

<	Not detected at the laboratory reporting limit shown.
EPH	Extractable petroleum hydrocarbons
mg/kg	Milligram per kilogram
NWTPH-Dx	Diesel and oil range petroleum hydrocarbons
SVOCs	Semi-volatile organic compounds
VOCs	Volatile organic compounds
VPH	Volatile petroleum hydrocarbons

Appendix G-2
Historic Groundwater Data (1996-2003)
USPS Portland P&DC, Portland, Oregon

Sample ID	Date	TPH-G (µg/L)	TPH-D (µg/L)	TPH-O+ (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	Iso-propylbenzene (µg/L)	n-propylbenzene (µg/L)	1,2,4-trimethylbenzene (µg/L)	1,3,5-trimethylbenzene (µg/L)	1,2-dibromoethane (µg/L)	1,2-dichloroethane (µg/L)	Acenaphthene (µg/L)	Anthracene (µg/L)	Benz(a)anthracene (µg/L)	Benzo(b)fluoranthene (µg/L)	Benzo(k)fluoranthene (µg/L)	Benzo(a)pyrene (µg/L)	Chrysene (µg/L)	Dibenz(a,h)anthracene (µg/L)	Fluoranthene (µg/L)	Fluorene (µg/L)	Indeno(1,2,3-c,d)pyrene (µg/L)	Naphthalene (µg/L)	Pyrene (µg/L)
Electrical Utility Vault Area																												
MW-A	11/27/1996	-	-	< 500	< 0.5	< 0.5	< 0.5	< 1	-	-	-	-	-	-	-	< 5	< 5	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.357	< 0.5	< 0.1	< 5	< 0.5
MW-A	11/20/1997	-	-	-	< 0.5	< 0.5	< 0.5	< 1	-	-	-	-	-	-	-	< 5	< 5	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5	< 0.1	< 5	< 0.1
Former Pintsch Gas Plant Area																												
P-1	6/28/2000	-	< 50	< 500	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-2	6/28/2000	-	2,700	< 1,000	5.1	1.3	13	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-3	6/29/2000	-	23,000	13,000	29	6.9	220	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-4	6/29/2000	-	< 50	< 500	< 0.5	3.7	0.7	4.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-5	6/29/2000	-	< 50	< 500	< 0.5	1.6	< 0.5	2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-6	6/30/2000	-	300	< 500	0.9	< 0.5	< 0.5	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-7	6/29/2000	-	< 50	< 500	< 0.5	0.6	< 0.5	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-8	6/30/2000	-	< 50	< 500	< 0.5	0.6	< 0.5	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-9	6/30/2000	-	29,000	< 5,000	340	< 100	1,300	2,100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-1	8/29/2000	-	< 50	< 500	< 5	< 5	< 5	< 5	-	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
MW-1	4/26/2001	-	< 250	< 500	< 0.5	< 0.5	< 0.5	< 1	-	-	-	-	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2	< 0.1	< 0.1	< 0.1	0.108	0.179
MW-1	7/30/2001	-	< 250	< 500	< 0.5	< 0.5	< 0.5	< 1	-	-	-	-	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	0.176
MW-1	10/21/2001	-	< 250	< 500	< 0.5	< 0.5	< 0.5	< 1	-	-	-	-	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2	< 0.1	< 0.1	< 0.1	0.212	0.143
MW-1	2/27/2002	-	< 250	< 500	< 0.5	< 0.5	< 0.5	< 1	-	-	-	-	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
MW-1	8/27/2002	-	< 250	< 500	< 0.5	< 0.5	< 0.5	< 1	-	-	-	-	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
MW-1	2/20/2003	-	< 250	< 500	< 0.5	< 0.5	< 0.5	< 1	-	-	-	-	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
MW-1	8/29/2003	-	< 250	< 500	< 0.5	< 0.5	< 0.5	< 1	-	-	-	-	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
MW-2	8/29/2000	-	< 50	< 500	< 5	< 5	< 5	< 5	-	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
MW-2	4/26/2001	-	< 250	< 500	< 0.5	< 0.5	< 0.5	< 1	-	-	-	-	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
MW-2	7/30/2001	-	< 250	< 500	< 0.5	< 0.5	< 0.5	< 1	-	-	-	-	-	-	-	< 0.1	< 0.1	0.117	< 0.1	0.101	0.126	0.106	< 0.2	0.134	< 0.1	< 0.1	< 0.1	0.199
MW-2	10/21/2001	-	< 250	< 500	< 0.5	< 0.5	< 0.5	< 1	-	-	-	-	-	-	-	< 0.1	< 0.1	0.331	0.234	0.158	0.156	0.285	< 0.2	0.277	< 0.1	< 0.1	< 0.1	0.279
MW-2	2/27/2002	-	< 250	< 500	< 0.5	< 0.5	< 0.5	< 1	-	-	-	-	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
MW-2	8/27/2002	-	< 250	< 500	< 0.5	< 0.5	< 0.5	< 1	-	-	-	-	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
MW-2	2/20/2003	-	< 250	< 500	< 0.5	< 0.5	< 0.5	< 1	-	-	-	-	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
MW-2	8/29/2003	-	< 250	< 500	< 0.5	< 0.5	< 0.5	< 1	-	-	-	-	-	-	-	< 0.1	< 0.1	< 0.5	< 0.1	< 0.1	< 0.1	< 0.5	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5
MW-3	8/29/2000	-	3,400	< 1,000	190	< 25	180	36	-	42	27	< 25	< 25	< 25	< 25	52	< 10	< 10	< 10	< 10	< 10	< 10	< 10	19	< 10	3,900	< 10
MW-3	4/26/2001	-	6,180	< 500	638	< 5	345	79.5	-	-	-	-	-	-	-	71.5	6.26	< 1	< 1	< 1	< 1	< 1	< 2	3.68	33.5	< 1	1,720	5.54
MW-3	7/30/2001	-	8,800	1,380	314	< 2.5	148	33.4	-	-	-	-	-	-	-	116	24.2	18.9	8.04	12.9	20.1	21.5	< 2	30.9	58.9	7.75	1,520	60.6
MW-3	10/21/2001	-	6,010	< 500	506	3.42	191	40.7	-	-	-	-	-	-	-	43.9	4.48	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	2.47	19.4	< 0.5	1,090	3.98
MW-3	2/27/2002	-	13,000	3,920	899	5.3	353	54.8	-	-	-	-	-	-	-	103	31.7	26	11.9	11.6	27.5	23.4	4.5	38	48.7	11.7	1,840	61.5
MW-3	8/27/2002	-	7,220	< 1,000	847	6.43	371	62.6	-	-	-	-	-	-	-	62.4	6.02	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	3.38	26.7	< 0.5	1,310	4.77
MW-3	2/20/2003	-	< 250	< 500	779	< 5	313	52.3	-	-	-	-	-	-	-	107	8.74	0.339	< 0.1	< 0.1	< 0.1	0.376	< 0.2	4.53	42.1	< 0.1	2,570	6.42
MW-3	8/29/2003	-	3,990	< 500	409	< 5	141	10.9	-	-	-	-	-	-	-	< 100	7.83	< 1	< 1	< 1	< 1	< 1	< 2	4.96	< 100	< 1	1,660	5.77

+ Select samples analyzed by Method 418.1 and results may not be limited to the oil fraction.
- Not analyzed, not applicable or not available.
< Not detected at the laboratory reporting limit shown.
B Benzene
E Ethylbenzene
µg/L Microgram per liter
MTBE Methyl Tertiary Butyl Ether
NA Not available.
T Toluene
TPH-G Total petroleum hydrocarbons - gasoline
TPH-D Total petroleum hydrocarbons - diesel
TPH-O Total petroleum hydrocarbons - heavy oil
X Xylenes

Appendix G-4
RI Groundwater Data (2004)
USPS Portland P&DC, Portland, Oregon

		Metals (mg/L)								NWTPH-Dx (mg/L)				SVOCs (µg/L)																VOCs (µg/L)											
Sample ID	Lab ID	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	Diesel Range Organics	Diesel Range Organics (with a silica gel clean-up)	Heavy Oil Range Hydrocarbons	Heavy Oil Range Hydrocarbons (with a silica gel clean-up)	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (ghi) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane
Electrical Utility Vault Area																																								
MW-A	P4J1302-01									0.25 <		0.5 <		0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <										
UV-8	P4J1302-04									0.25 <		0.5 <																													
UV-8	P4J1302-04RE1													0.112	0.0881	0.0804	0.148	0.133	0.0962	0.0654	0.0451	0.0748	0.129	0.04 <	0.314	0.155	0.0439	0.302	0.423	0.37										
Former Pintsch Gas Plant Area																																								
MW-3	P4J1302-02									7.28	3.60	0.5 <	0.5 <				6.73	0.41	0.2 <	0.2 <	0.2 <	0.2 <	0.483	0.2 <	3.81	42.9	0.2 <			7.24										
MW-3	P4J1302-02RE1													371	104	2 <													62.2											
MW-3	P4J1302-02RE2																											1070												
TGA-1	P4L0932-02									0.25 <		0.5 <		0.244	0.0587	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.0244	0.02 <	1.85	0.0531	0.02 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <
TGA-2	P4L0932-03									0.25 <		0.5 <		0.296	0.0713	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.0284	0.02 <	2.27	0.0565	0.02 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <
Investigation Derived Waste																																								
Baker-1	P4L0932-04	0.001 <	0.0138	0.001 <	0.00899	0.001 <	0.0002 <	0.002 <	0.001	0.25 <		0.5 <		1.3	0.344	0.0712	0.0585	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.0322	0.238	0.02 <		0.407	0.059	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <
Baker-1	P4L0932-04RE1																												7.13												
IDW-Water	P4L0331-01	0.0045	0.0214	0.001 <	0.0063	0.00224	0.0002 <	0.002 <	0.001 <	1.06		0.5 <		105	38.3	2.19	7.2	0.981	0.778	0.5 <	0.5 <	0.5 <	1.08	0.5 <	5.25 <	19.5	0.5 <			52.5	6.92	2 <	2 <	2 <	2 <	2 <	2 <	2 <	2 <	2 <	2 <
IDW-Water	P4L0331-01RE1																											285												
QA/QC																																								
Rinsate-3	P4K0200-02													0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <
Rinsate-3	P4K0200-02RE1									0.08 <		0.5 <																													
Rinsate-1	P4K0058-01	0.001 <	0.001 <	0.001 <	0.001 <	0.001 <	0.0002 <	0.001 <	0.001 <	0.25 <		0.5 <		0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <
Rinsate-2	P4K0133-01	0.001 <	0.001 <	0.001 <	0.001 <	0.001 <	0.0002 <	0.001 <	0.001 <	0.25 <		0.5 <		0.0225	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.0439	0.0466	0.0263	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <
Rinsate-2	P4K0133-01RE1	0.001 <	0.001 <	0.001 <	0.001 <	0.001 <		0.001 <	0.001 <																															
Rinsate-4	P4K0251-01									0.08 <		0.5 <		0.0362	0.0216	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.0283	0.0253	0.02 <	0.0646	0.124	0.065	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <
Rinsate-4	P4K0251-01RE1						0.0002 <																																	
Rinsate-4	P4K0251-01RE2	0.001 <	0.001 <	0.001 <	0.001 <	0.001 <		0.001 <	0.001 <																															
Rinsate-5	P4K0317-01									0.25 <		0.5 <		0.069	0.0477	0.02 <	0.0527	0.0277	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.0337	0.02 <	0.099	0.0644	0.02 <	0.139	0.452	0.188	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <
Rinsate-6	P4K0863-02									0.25 <		0.5 <		0.144	0.08	0.0791	0.184	0.302	0.299	0.151	0.234	0.211	0.391	0.0639	0.457	0.0792	0.156	0.232	0.648	0.958	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <
GA-Rinsate	P4L0932-01									0.25 <		0.5 <		0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.0449	0.02 <	0.02 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <
Trip Blank	P4J1302-03																															1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <
Trip Blank	P4K0863-01																																							
Trip Blank	P4L0932-05																																							
Trip Blank1	P4J1302-05																																							
Storm Sewer																																								
SS-1	P4K0200-01									0.08 <		0.5 <		0.02 <	0.0972	0.0412	0.0296	0.0526	0.087	0.0494	0.107	0.0513	0.06	0.02 <	0.0603	0.02 <	0.0665	0.0657	0.0559	0.202										
SS-2	P4K0863-03									0.466		0.5 <		6.23	17.3	2.76	4.54	6.25	7.52	4.02	7.11	4.61	7.5	1.52	11.2	10.6	4.56	24.5	12.9	19.6										
Storm Drains																																								
9th/Lovejoy SD	P4K0200-04									0.0922		0.5 <		1.68	3.4	0.25 <	0.642	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.1 <	0.562	3.24	0.1 <	3.25	1.45	0.837										
VMF-SD	P4K0200-03									0.08 <		0.5 <		0.02 <	0.105	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.02 <	0.0506	0.02 <	0.0395										

Appendix G-4
RI Groundwater Data (2004)
USPS Portland P&DC, Portland, Oregon

VOCs (µg/L)

Sample ID	Lab ID	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene	Methyl tert-butyl ether	Methylene chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene	p-Isopropyltoluene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl chloride	Xylenes (total)
Electrical Utility Vault Area																																																										
MW-A	P4J1302-01																			0.5 <																	0.5 <															0.5 <						1 <
UV-8	P4J1302-04																			0.5 <																	0.5 <															0.5 <						1 <
UV-8	P4J1302-04RE1																																																									
Former Pintsch Gas Plant Area																																																										
MW-3	P4J1302-02																			1,020																																						
MW-3	P4J1302-02RE1																																																									
MW-3	P4J1302-02RE2																																																									
TGA-1	P4L0932-02	1 <	1 <	5 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	10 <	1 <	10 <	1 <	5 <	25 <	1 <	1 <	1 <	1 <	1 <	5 <	10 <	1 <	1 <	1 <	1 <	5 <	1 <	1 <	1 <	1 <	5 <	1 <	4 <	2 <	2 <	1 <	5 <	2 <	5 <	1 <	1 <	2 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	
TGA-2	P4L0932-03	1 <	1 <	5 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	10 <	1 <	10 <	1 <	5 <	25 <	1 <	1 <	1 <	1 <	1 <	5 <	10 <	1 <	1 <	1 <	1 <	5 <	1 <	1 <	1 <	1 <	5 <	1 <	4 <	2 <	2 <	1 <	5 <	2 <	5 <	1 <	1 <	2 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	
Investigation Derived Waste																																																										
Baker-1	P4L0932-04	1 <	1 <	5 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	10 <	1 <	10 <	1 <	5 <	25 <	3.22	1 <	1 <	1 <	1 <	5 <	10 <	1 <	1 <	1 <	1 <	5 <	1 <	1 <	1 <	1 <	5 <	1 <	4 <	2 <	2 <	1 <	5 <	8.49	5 <	1 <	1 <	2 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	
Baker-1	P4L0932-04RE1																																																									
IDW-Water	P4L0331-01	2 <	14.1	10 <	2 <	2 <	2 <	2 <	6.7	2 <	2 <	2 <	2 <	20 <	2 <	20 <	2 <	10 <	102	13.6	2 <	2 <	2 <	2 <	10 <	20 <	2 <	2 <	2 <	4.02	10 <	2 <	2 <	2 <	2 <	10 <	21.7	8 <	4 <	18.1	2 <	10 <	386	10 <	2 <	11.6	4 <	2 <	2 <	2 <	19.2	103	2 <	2 <	2 <	2 <	2 <	
IDW-Water	P4L0331-01RE1																																																									
QA/QC																																																										
Rinsate 3	P4K0200-02	1 <	1 <	5 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	10 <	1 <	10 <	1 <	5 <	25 <	1 <	1 <	1 <	1 <	1 <	5 <	10 <	1 <	1 <	1 <	1 <	5 <	1 <	1 <	1 <	1 <	5 <	1 <	4 <	2 <	2 <	1 <	5 <	2 <	5 <	1 <	1 <	2 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	
Rinsate 3	P4K0200-02RE1																																																									
Rinsate-1	P4K0058-01	1 <	1 <	5 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	10 <	1 <	10 <	1 <	5 <	25 <	1 <	1 <	1 <	1 <	1 <	5 <	10 <	1 <	1 <	1 <	3.23	5 <	1 <	1 <	1 <	1 <	5 <	1 <	4 <	2 <	2 <	1 <	5 <	2 <	5 <	1 <	1 <	2 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	
Rinsate-2	P4K0133-01	1 <	1 <	5 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	10 <	1 <	10 <	1 <	5 <	25 <	1 <	1 <	1 <	1 <	1 <	5 <	10 <	1 <	1 <	1 <	3.52	5 <	1 <	1 <	1 <	1 <	5 <	1 <	4 <	2 <	2 <	1 <	5 <	2 <	5 <	1 <	1 <	2 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	
Rinsate-2	P4K0133-01RE1																																																									
Rinsate-4	P4K0251-01	1 <	1 <	5 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	10 <	1 <	10 <	1 <	5 <	25 <	1 <	1 <	1 <	1 <	1 <	5 <	10 <	1 <	1 <	1 <	1 <	5 <	1 <	1 <	1 <	1 <	5 <	1 <	4 <	2 <	2 <	1 <	5 <	2 <	5 <	1 <	1 <	2 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	
Rinsate-4	P4K0251-01RE1																																																									
Rinsate-4	P4K0251-01RE2																																																									
Rinsate-5	P4K0317-01	1 <	1 <	5 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	10 <	1 <	10 <	1 <	5 <	25 <	1 <	1 <	1 <	1 <	1 <	5 <	10 <	1 <	1 <	1 <	1 <	5 <	1 <	1 <	1 <	1 <	5 <	1 <	4 <	2 <	2 <	1 <	5 <	2 <	5 <	1 <	1 <	2 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	
Rinsate-6	P4K0863-02	1 <	1 <	5 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	10 <	1 <	10 <	1 <	5 <	25 <	1 <	1 <	1 <	1 <	1 <	5 <	10 <	1 <	1 <	1 <	2.46	5 <	1 <	1 <	1 <	1 <	5 <	1 <	4 <	2 <	2 <	1 <	5 <	2 <	5 <	1 <	1 <	2 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	
TGA-Rinsate	P4L0932-01	1 <	1 <	5 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	10 <	1 <	10 <	1 <	5 <	25 <	1 <	1 <	1 <	1 <	1 <	5 <	10 <	1 <	1 <	1 <	2.84	5 <	1 <	1 <	1 <	1 <	5 <	1 <	4 <	2 <	2 <	1 <	5 <	2 <	5 <	1 <	1 <	2 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	
Trip Blank	P4J1302-03																			0.5 <																	0.5 <															0.5 <						1 <
Trip Blank	P4K0863-01																			0.5 <																	0.5 <															0.5 <						1 <
Trip Blank	P4L0932-05	1 <	1 <	5 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	10 <	1 <	10 <	1 <	5 <	25 <	1 <	1 <	1 <	1 <	1 <	5 <	10 <	1 <	1 <	1 <	1 <	5 <	1 <	1 <	1 <	1 <	5 <	1 <	4 <	2 <	2 <	1 <	5 <	2 <	5 <	1 <	1 <	2 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	1 <	
Trip Blank1	P4J1302-05																			0.5 <																	0.5 <															0.5 <						1 <
Storm Sewer																																																										
SS-1	P4K0200-01																			0.5 <																	0.5 <															0.5 <						1 <
SS-2	P4K0863-03																			3.96																	1.27															1.58						1.39
Storm Drains																																																										
9th/Lovejoy SD	P4K0200-04																			47.9																	14.7															0.5 <						6.48
VMF-SD	P4K0200-03																			0.5 <																	0.5 <															0.5 <						1 <

<	Not detected at the laboratory reporting limit shown.
µg/L	Micrograms per liter
mg/L	Milligrams per liter
NWTPH-Dx	Diesel and oil range petroleum hydrocarbons
SVOCs	Semi-volatile organic compounds
VOCs	Volatile organic compounds

Appendix G-5
1 Groundwater Data (2004)
JSPS Portland P&DC, Portland, Oregon

Sample ID	Lab ID	TCLP Metals (mg/L): Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
Investigation Derived Waste									
Baker-1	P4L0932-04	0.5 <	1 <	0.1 <	0.1 <	0.1 <	0.001 <	0.5 <	0.1 <
IDW-Soil	P4L0329-01	0.025 <	2.23	0.025 <	0.025 <	0.025 <	0.0002 <	0.025 <	0.025 <
IDW-Soil bin	P4L0329-02	0.025 <	1.83	0.0996	0.33	0.025 <	0.0002 <	0.105	0.025 <
IDW-Water	P4L0331-01	0.025 <	0.25 <	0.025 <	0.025 <	0.025 <	0.0002 <	0.025 <	0.025 <

Sample ID	TCLP VOCs (µg/L): 1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane
Baker-1	20 <	20 <	20 <	20 <	20 <	20 <	20 <	20 <	20 <	20 <	20 <	50 <	20 <	20 <	20 <	20 <	20 <	20 <	20 <	20 <	20 <
IDW-Soil																					
IDW-Soil bin						10 <									10 <					10 <	
IDW-Water						10 <									10 <					10 <	

Sample ID	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane
Baker-1	20 <	100 <	20 <	200 <	500 <	20 <	20 <	20 <	20 <	20 <	100 <	20 <	20 <	50 <	20 <	100 <	20 <	20 <	20 <	20 <
IDW-Soil						10 <														
IDW-Soil bin						10 <						10 <	10 <		10 <					
IDW-Water						11.2						10 <	10 <		10 <					

Appendix G-5
| Groundwater Data (2004)
JSPS Portland P&DC, Portland, Oregon

TCLP VOCs (µg/L)

Sample ID	Lab ID	Dichlorodifluoromethane	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene	Methyl Ethyl Ketone	Methyl tert-butyl ether	Methylene chloride	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene
Investigation Derived Waste													
Baker-1	P4L0932-04	100 <	20 <	50 <	20 <	20 <	500 <	10000 <	500 <	20 <	20 <	20 <	20 <
IDW-Soil	P4L0329-01												
IDW-Soil bin	P4L0329-02						100 <						
IDW-Water	P4L0331-01						100 <						

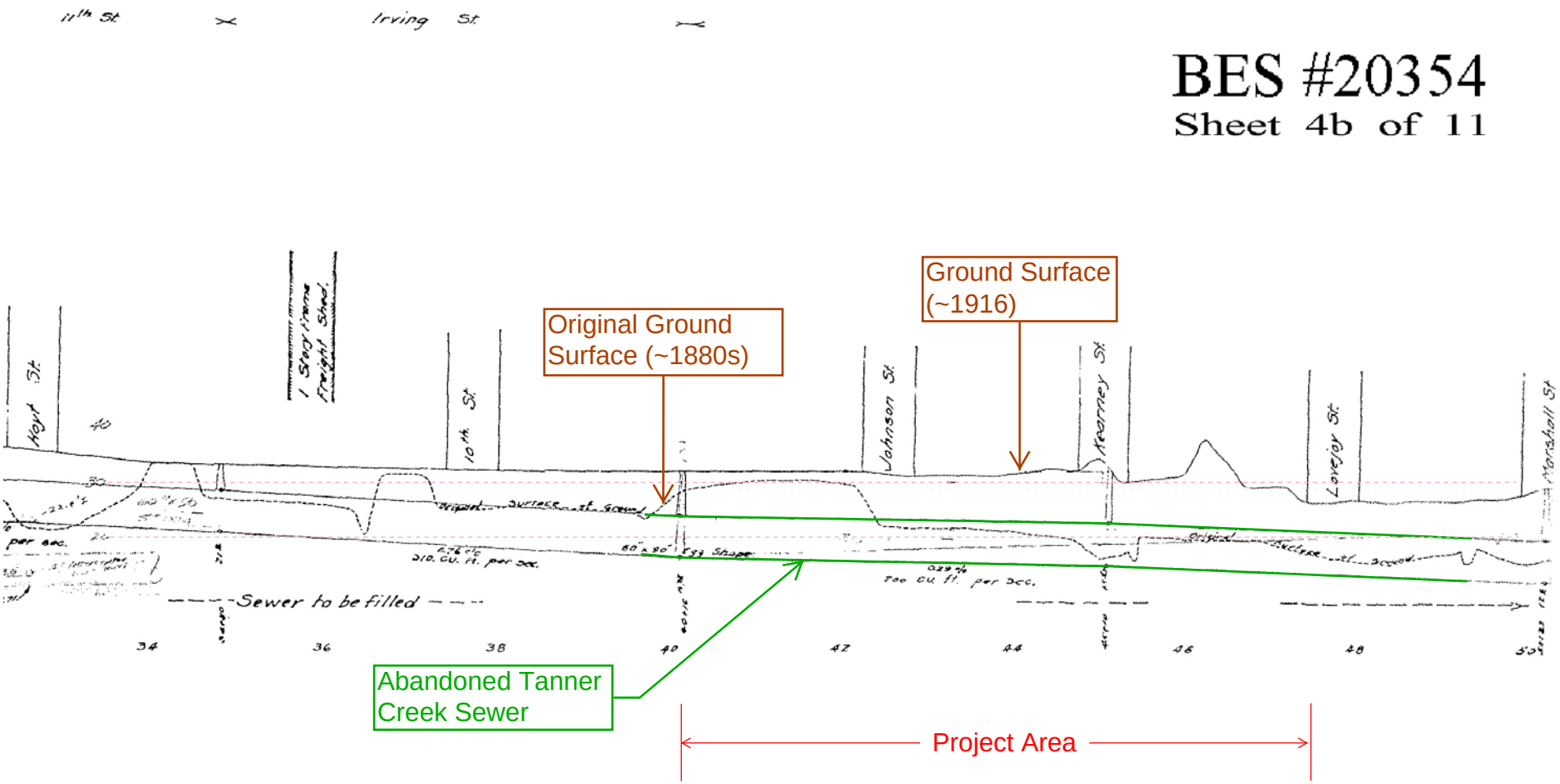
Sample ID	Lab ID	p-Isopropyltoluene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl chloride
Investigation Derived Waste												
Baker-1	P4L0932-04	20 <	20 <	20 <	20 <	20 <	20 <	20 <	20 <	20 <	50 <	20 <
IDW-Soil	P4L0329-01											
IDW-Soil bin	P4L0329-02					10 <				10 <		10 <
IDW-Water	P4L0331-01					17.4				10 <		10 <

<	Not detected at the laboratory reporting limit shown.
µg/L	Micrograms per liter
mg/L	Milligrams per liter
TCLP	Toxicity characteristic leaching procedure
VOCs	Volatile organic compounds

ATTACHMENT 3

Abandoned Tanner Creek Sewer Information

BES #20354
Sheet 4b of 11



From Plan Set for Construction of New Tanner Creek Sewer (~1916)

Ground Surface

Abandoned Tanner Creek Sewer

Current Storm Sewer

Current Storm Sewer

N W KEARNEY ST

N W JOHNSON ST

N W IRVING ST

N W HOYT ST

50' TUNNEL

Const Smh

Abandoned 60" x 90" Outfall Sewer

24" S.P.

12" S.P.

See Detail A-A

10" Storm

Const Smh

5'-9" I.D. TUNNEL

5'-6½" I.D.

26" S.P.

1st Comb.

N W 9th AVE

ASTM C-14-59 "Extra Strength"

ASTM C-76 Class IV

PROFILE

SCALE - Horiz. 1" = 40'
Vert. 1" = 6'

14+00 13+00 12+00 11+00 10+00 9+00 8+00 7+00 6+00

N W IRVING ST

Const Std. 10" Diversion Wye (See Sheet 4 of 5)

Const Smh

10" S.P. (ASTM C-14 Extra Strength)

Existing 24" Comb.

New 12" Inter.

DETAIL A-A

SCALE - Horiz. 1" = 40'
Vert. 1" = 6'

SHEET No 3

(Vacated)

3mh No 6 (Offset to East)

Inlet (Remove & Replace)

3mh No 5 (Offset to East)

Inlet (Remove & Replace

3mh No 4 (See Detail A A)

12" S P 260

12" S P 269

12" S P 253

10" S P 27

10" Dmh No 4A

Abandoned 60 x 90 Outfall Sewer

24" S P

24" S P

24" S P

12" Comb

R R Spur Track

PT & T

PP & L

10" Storm

10" Comb

3mh No 3 W U

16" H P Gas

8" Water

12" Comb

12" Water

4" Gas

12" Comb

Inlet

N W KEARNEY ST

N W JOHNSON ST

N W 9th AVE

N W IRVING ST

N W HOYT ST

SHEET No 1

PLAN

SCALE 1 40

AS BUILT

AS BUILT

AS BUILT

CITY OF PORTLAND OREGON
DEPARTMENT OF PUBLIC WORKS
WM A BOWES COMMISSIONER
L H ROSENTHAL P.E. CITY ENGINEER

RIVER POLLUTION CONTROL PROJECT

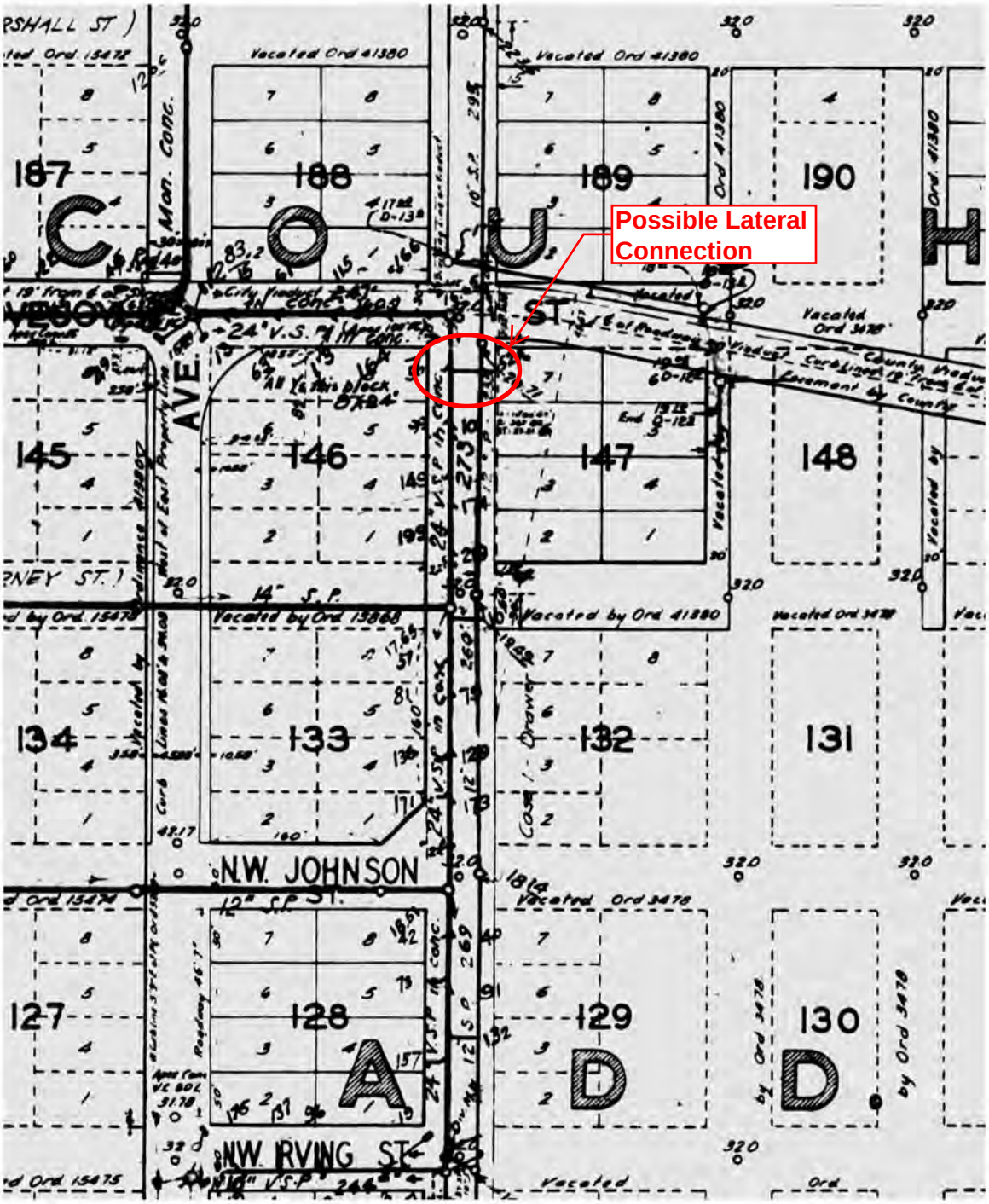
N W 9th AVE & N W HOYT ST INTERCEPTOR SEWER

3 3 64 T HGE "As Built"	
REVISIONS	
DATE DRAWN JUNE 12 1963	
SCALE AS SHOWN	
APPROVED L H Rosenthal	H.G.E. A.E.W.
APPROVED A E W 6-13 63	A.E.W. H.G.E.
	O.F.S. FILE NO WC 36
	2 OF 6

2-2304

W_CENTRL \ NW9_HOY2

Historical Sewer Map - NW 9th Avenue (City of Portland 2015)



270332-400134

SEWER TV INSPECTION

Upstream Address	900 NW 9TH AVE
Downstream Address	900 NW LOVEJOY ST *S OF INTER W/ 9TH, ON 9TH
Area	TANNER B
Subarea	2929
Location	MAX
District	WEST
Map Number	
As Built	20354
Install Date	07/27/1916
Service Status	IN
Owner	BES
Main Type	STML STORM GRAVITY MAIN
Pipe Type	VSP VITRIFIED CLAY SEWER PIPE
Pipe Shape	CIRC CIRCULAR (PIPE)
Pipe Size	24
Pipe Length	230
Slope	0.00913043478261
Upstream Depth	13.2
Downstream Depth	16.3
Upstream Elevation	17.8
Downstream Elevation	15.7
Comments	FOR HISTORY SEE JOB 2-0341 (1894) DWN MH BUILT PER JOB E09183, PG U200.
Inspection Number	270332
Work Order Number	245456
Activity	STMNFT
Asset ID	STMN ABG274 TO APQ103
Address	900 NW 9TH AVE
Started	06/10/2009
Project	
Weather	OVC
Completed	06/12/2009
Operator	MBBDL
Flow Depth	1
Reverse	N
Format	M
Media Number	
Index	
To	
Top Distance	0
Joint Length	0
Tv Distance	230
Root Score	
Root Rating	
Structural Score	0
Structural Rating	1
Inspection Comments	\\besfile2\SewerVideos\Mainlines\Processed\ABG274-APQ103-2009_06_10.MPG \\besfile2\SewerVideos\Mainlines\Processed\ABG274-APQ103-2009_06_12.MPG
Summary	ESWDM FLOW NNW COND.PIPE HAS 18" OF MORTAR AT UPS MH TAPERING DOWN TO 4" 164'.WILL NEED TO END FOR END FROM LOVEJOY.FROM DWN MH 98'TO MORTAR SOME INFILL WITH MIN.DEP.AT SOME JOINTS.
Recommendations	REMOVE MORTAR.

Associated Readings

Setup	From	To	Clock From	Clock To	Type	Code	Description	Comments
B	0	0	0	0	BEG	IN	INSPECTION - BEGIN	SMH AT 900 NW 9TH AVE 13.2'CON.ABG274
B	0	165	0	0	MCC	DB	DEBRIS -MORTAR/CONCRETE >15% RESTRICTION	MORTAR FROM 18" TAPERING TO 4" AT THE END STOPPED END FOR END.
B	2	2	0	0	MVSP	CH	CHANGE IN PIPE - CHANGE MATERIAL VSP	VSP
B	23	23	3	0	IIA	II	INFLOW/INFILTRATION - WEEPER. MOISTURE PRESENT	MIN.DEP.
B	34	34	0	0	DSA	DB	DEBRIS - SAND/GRAVEL <5% RESTRICTION	
B	41	41	9	0	IIA	II	INFLOW/INFILTRATION - WEEPER. MOISTURE PRESENT	
B	43	43	9	0	IIA	II	INFLOW/INFILTRATION - WEEPER. MOISTURE PRESENT	
B	45	45	0	0	IIA	II	INFLOW/INFILTRATION - WEEPER. MOISTURE PRESENT	MIN.DEP.
B	50	50	11	8	IIA	II	INFLOW/INFILTRATION - WEEPER. MOISTURE PRESENT	MIN.DEP.
B	53	53	9	0	IIA	II	INFLOW/INFILTRATION - WEEPER. MOISTURE PRESENT	MIN.DEP.
B	55	55	2	0	LP	LT	LATERAL - PLUG VISIBLE FROM MAIN	
B	70	70	8	0	IIA	II	INFLOW/INFILTRATION - WEEPER. MOISTURE PRESENT	MIN.DEP.

Setup	From	To	Clock From	Clock To	Type	Code	Description	Comments
B	75	75	10	0	WYE	LT	LATERAL - FACTORY WYE	
B	76	76	11	0	IIA	II	INFLOW/INFILTRATION - WEEPER. MOISTURE PRESENT	MIN.DEP.
B	82	82	9	0	IIA	II	INFLOW/INFILTRATION - WEEPER. MOISTURE PRESENT	MIN.DEP.
B	98	98	9	0	IIA	II	INFLOW/INFILTRATION - WEEPER. MOISTURE PRESENT	MIN. DEP.
B	100	100	2	0	LP	LT	LATERAL - PLUG VISIBLE FROM MAIN	
B	100	100	0	0	IIA	II	INFLOW/INFILTRATION - WEEPER. MOISTURE PRESENT	MIN.DEP.
B	118	118	7	0	IIA	II	INFLOW/INFILTRATION - WEEPER. MOISTURE PRESENT	MIN.DEP.
B	124	124	10	0	LP	LT	LATERAL - PLUG VISIBLE FROM MAIN	MIN.DEP.
B	124	124	10	0	IIA	II	INFLOW/INFILTRATION - WEEPER. MOISTURE PRESENT	MIN.DEP.
B	150	150	9	0	IIA	II	INFLOW/INFILTRATION - WEEPER. MOISTURE PRESENT	MIN.DEP.
B	164	164	0	0	MCB	DB	DEBRIS -MORTAR/CONCRETE 5-15% RESTRICTION	4"
B	164	164	0	0	ABN	IN	INSPECTION - ABANDONED (ADD COMMENT)	
E	0	0	0	0	BEG	IN	INSPECTION - BEGIN	LOCATION OF ADDED MH APQ103
E	3	3	2	0	LP	LT	LATERAL - PLUG VISIBLE FROM MAIN	
E	5	5	8	0	IIB	II	INFLOW/INFILTRATION - DRIPPER. LESS THEM 1 GPM	Footage reading on video incorrect.
E	7	7	10	0	WYE	LT	LATERAL - FACTORY WYE	
E	14	14	8	0	IIA	II	INFLOW/INFILTRATION - WEEPER. MOISTURE PRESENT	
E	23	23	3	0	IIA	II	INFLOW/INFILTRATION - WEEPER. MOISTURE PRESENT	MIN.DEP.
E	29	29	9	0	IIA	II	INFLOW/INFILTRATION - WEEPER. MOISTURE PRESENT	MIN.DEP.
E	40	40	3	0	LP	LT	LATERAL - PLUG VISIBLE FROM MAIN	
E	45	45	10	0	WYE	LT	LATERAL - FACTORY WYE	
E	52	52	3	0	MDA	DB	DEBRIS - MINERAL DEPOSITS <5% RESTRICTION	MIN.DEP.
E	52	52	2	0	LP	LT	LATERAL - PLUG VISIBLE FROM MAIN	
E	56	56	0	0	MDA	DB	DEBRIS - MINERAL DEPOSITS <5% RESTRICTION	MIN.DEP.
E	61	61	0	0	MCA	DB	DEBRIS - MORTAR/CONCRETE <5% RESTRICTION	START OF MORTAR FROM DWN MH
E	61	61	0	0	E/E	IN	INSPECTION - END FOR END. ADD COMMENT	
E	70	70	9	0	IIA	II	INFLOW/INFILTRATION - WEEPER. MOISTURE PRESENT	MIN.DEP.
E	75	75	8	0	IIA	II	INFLOW/INFILTRATION - WEEPER. MOISTURE PRESENT	MIN.DEP.
E	82	82	2	0	IIA	II	INFLOW/INFILTRATION - WEEPER. MOISTURE PRESENT	MIN.DEP.
E	89	89	2	0	LP	LT	LATERAL - PLUG VISIBLE FROM MAIN	
E	90	90	10	0	LP	LT	LATERAL - PLUG VISIBLE FROM MAIN	

ATTACHMENT 4

Phase 1 Cleanup Standards

Attachment 4
Former USPS P&DC Property Phase 1 Cleanup Standards

Analyte	CAS No.	Current Urban Residential Direct Contact RBC [a] (mg/kg)	Current Urban Residential Direct Contact Hot Spot [b] (mg/kg)	Previous Urban Residential Direct Contact RBC [c] (mg/kg)	Previous Urban Residential Direct Contact Hot Spot [c] (mg/kg)	2020 versus 2010 Screening Value (Higher or Lower concentration)
VOCs						
Acrylonitrile	107-13-1	2.5	250	NP	NP	NA
Benzene	71-43-2	24	2,400	NP	NP	NA
Bromodichloromethane	75-27-4	12	1,200	NP	NP	NA
Bromoform	75-25-2	170	17,000	NP	NP	NA
Bromomethane	74-83-9	92	920	NP	NP	NA
Carbon tetrachloride	56-23-5	21	2,100	NP	NP	NA
Chlorobenzene	108-90-7	1,100	11,000	NP	NP	NA
Chlorodibromomethane (dibromochloromethane)	124-48-1	12	1,200	NP	NP	NA
Chloroethane (ethyl chloride)	75-00-3	320,000	> Max	NP	NP	NA
Chloroform	67-66-3	22	2,200	NP	NP	NA
Chloromethane	74-87-3	2,900	29,000	NP	NP	NA
1,2-Dichlorobenzene	95-50-1	4,400	44,000	NP	NP	NA
1,4-Dichlorobenzene	106-46-7	62	6,200	NP	NP	NA
1,1-Dichloroethane	75-34-3	190	19,000	NP	NP	NA
1,1-Dichloroethene	75-35-4	3,500	35,000	NP	NP	NA
cis-1,2-Dichloroethene	156-59-2	310	3,100	NP	NP	NA
trans-1,2-Dichloroethene	156-60-5	3,100	31,000	NP	NP	NA
Dichloroethylether	111-44-4	0.96	96	NP	NP	NA
Dichloromethane	75-09-2	170	8,900	NP	NP	NA
EDB (1,2-dibromoethane)	106-93-4	0.53	53	NP	NP	NA
EDC (1,2-dichloroethane)	107-06-2	12	1,200	NP	NP	NA
Ethylbenzene	100-41-4	110	11,000	NP	NP	NA
Hexachlorobenzene	118-74-1	0.67	67	NP	NP	NA
Hexachloroethane	67-72-1	24	810	NP	NP	NA
MTBE (methyl t-butyl ether)	1634-04-4	730	73,000	NP	NP	NA
iso-Propylbenzene (cumene)	98-82-8	7,000	70,000	NP	NP	NA
Styrene	100-42-5	16,000	160,000	NP	NP	NA
Tetrachloroethene (PCE)	127-18-4	540	5,400	NP	NP	NA
Toluene	108-88-3	12,000	120,000	NP	NP	NA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	800,000	> Max	NP	NP	NA
1,1,1-Trichloroethane	71-55-6	110,000	> Max	NP	NP	NA
1,1,2-Trichloroethane	79-00-5	6	63	NP	NP	NA
Trichloroethene	79-01-6	17	350	NP	NP	NA
Trichlorofluoromethane (Freon 11)	75-69-4	15,000	150,000	NP	NP	NA
1,2,4-Trimethylbenzene	95-63-6	860	8,600	NP	NP	NA
1,3,5-Trimethylbenzene	108-67-8	860	8,600	NP	NP	NA
Vinyl chloride	75-01-4	0.80	80	NP	NP	NA
Xylenes	1330-20-7	2,900	29,000	NP	NP	NA
PAHs						
Acenaphthene	83-32-9	9,400	94,000	NP	NP	NA
Anthracene	120-12-7	47,000	470,000	NP	NP	NA
Benz[a]anthracene	56-55-3	2.5	250	0.33	33	Higher
Benzo[a]pyrene (BaP equivalents)	50-32-8	0.25	25	0.033	3.3	Higher
Benzo[b]fluoranthene	205-99-2	2.5	250	0.33	33	Higher
Benzo[k]fluoranthene	207-08-9	25	2,500	3.3	NP	NA
Chrysene	218-01-9	250	25,000	33	NP	NA
Dibenz[a,h]anthracene	53-70-3	0.25	25	0.033	3.3	Higher
Fluoranthene	206-44-0	4,800	48,000	NP	NP	NA
Fluorene	86-73-7	6,300	63,000	NP	NP	NA
Indeno[1,2,3-cd]pyrene	193-39-5	2.5	250	0.33	33	Higher
Naphthalene	91-20-3	25	1,200	25	NP	NA
Pyrene	129-00-0	3,600	36,000	NP	NP	NA
TPH						
GRO	--	2,500	NA	NP	NP	NA
DRO	--	2,200	NA	NP	NP	NA
RRO	--	5,700	NA	NP	NP	NA
Metals						
Arsenic	7440-38-2	1.0	100	7	NP	Higher*
Barium	7440-39-3	31,000	310,000	NP	NP	NA
Cadmium	7440-43-9	160	1,600	NP	NP	NA
Chromium (III)	16065-83-1	230,000	> Max	NP	NP	NA
Lead	7439-92-1	400	4,000	400	NP	Same
Mercury	7439-97-6	47	470	NP	NP	NA
Silver	7440-22-4	780	7,800	NP	NP	NA

Notes:

[a] Oregon Department of Environmental Quality Risk-Based Concentrations, May 2018 revision

[b] Oregon Department of Environmental Quality Hot Spot Concentrations for Individual Chemicals, May 2018 revision

[c] Screening values presented in 2010 DEQ ROD (Attachment 10) sourced from 2008 Arcadis Focused Feasibility Study, Table 2 "Remedial Action Objectives, Assumed Hypothetical Change in Site Use in Future". Only those RAOs for Urban Residents Direct Contact Soil Risk Exceedances and Soil Hot Spots are presented herein.

* = Concentration presented in 2010 ROD was a background concentration.
NA = Not Applicable / Not Available
NP = Not published in reference document
CAS = Chemical Abstracts Service
mg/kg = milligrams per kilogram
DRO = diesel range organics
GRO = gasoline range organics
PAHs = polynuclear aromatic hydrocarbons
RRO = residual range organics
TPH = total petroleum hydrocarbons
VOCs = volatile organic compounds
> Max = The constituent RBC for this pathway is calculated as greater than 1,000,000 mg/kg or 1,000,000 mg/L. Therefore, this substance is deemed not to pose risks in this scenario.

ATTACHMENT 5

Historical Soil Sample Analytical Results – cPAHs

Attachment 5
Historical Soil Sample Analytical Results - Carcinogenic Polycyclic Aromatic Hydrocarbons
Prosper Portland USPS Site
715 NW Hoyt Street
Portland, Oregon

Sample ID	Sample Depth (feet bgs)	Date Sampled	Benz[a]-anthracene	Benzo[a]-pyrene	Benzo[b]-fluoranthene	Benzo[g,h,i]-perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Indeno[1,2,3-cd]pyrene	Naphthalene	Benzo[a]-pyrene TEQ
Electrical Utility Vault Area												
MW-A	14.0	11/27/1996	0.0067 U	0.0067 U	0.0067 U	--	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.0155
B-2	2.5	11/27/1996	0.0067 U	0.0067 U	0.0067 U	--	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.0155
B-3	5.0	11/27/1996	0.0067 U	0.0067 U	0.0067 U	--	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.0155
B-4	5.0	11/27/1996	0.0067 U	0.0067 U	0.0067 U	--	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.0155
STS-1	3.0	4/10/1997	**50.8**	**40.6**	**26.8**	--	**26.3**	**45.6**	**20.5**	**16.6**	**411**	**70.8**
STS-2	6.0	4/10/1997	--	--	--	--	--	--	--	--	--	--
STS-3	2.0	6/23/1997	**1.51**	**2.04**	**1.75**	--	**0.863**	**2.3**	0.067 U	**0.819**	0.67 U	**2.53**
STS-4	8.0	6/23/1997	0.0168 U	0.0168 U	0.0168 U	--	0.0168 U	0.0168 U	0.0168 U	0.0168 U	0.0168 U	0.0388
STS-5	2.5	6/25/1997	**0.00875**	**0.0106**	**0.0119**	--	0.0067 U	**0.0125**	0.0067 U	**0.0152**	0.067 U	**0.0210**
STS-6	6.0	6/25/1997	**0.072**	**0.192**	**0.0836**	--	**0.0608**	**0.114**	0.0335 U	0.0335 U	0.335 U	**0.245**
STS-7	12.0	6/25/1997	0.0067 U	0.0067 U	0.0067 U	--	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.067 U	0.0155
STS-8	12.0	6/25/1997	0.0067 U	0.0067 U	0.0067 U	--	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.067 U	0.0155
STS-9	3.0	6/26/1997	0.0067 U	**0.0125**	0.0067 U	--	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.067 U	**0.0213**
STS-10	7.0	6/26/1997	0.0067 U	0.0067 U	0.0067 U	--	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.067 U	0.0155
MTS-1	12.0	6/25/1997	0.0067 U	0.0067 U	0.0067 U	--	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.067 U	0.0155
MTS-2	2.0	7/10/1997	**0.0459**	**0.0899**	**0.158**	--	**0.0562**	**0.124**	0.0335 U	**0.058**	0.335 U	**0.150**
MTS-3	5.0	7/10/1997	**0.231**	**0.246**	**0.221**	--	**0.109**	**0.248**	0.0335 U	**0.11**	0.335 U	**0.337**
MTS-4	12.0	7/10/1997	0.0067 U	0.0067 U	0.0067 U	--	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.067 U	0.0155
MTS-5	3.0	7/11/1997	0.0067 U	0.0067 U	0.0067 U	--	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.067 U	0.0155
MTS-6	8.0	7/11/1997	0.0067 U	0.0067 U	0.0067 U	--	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.067 U	0.0155
MTS-7	2.0	7/14/1997	**35.9**	**28.5**	**31.6**	--	**14**	**30.7**	8.38 U	**11.8**	**192**	**45.0**
MTS-8	6.0	7/14/1997	**0.032**	**0.0295**	**0.033**	--	**0.0143**	**0.0307**	0.0067 U	**0.0127**	**0.27**	**0.0441**
MTS-9	3.0	7/14/1997	**40.3**	**36.2**	**33.8**	--	**16.5**	**36.9**	8.38 U	**13.2**	83.8 U	**53.5**
MTS-10	6.0	7/14/1997	**0.477**	**0.484**	**0.545**	--	**0.244**	**0.432**	0.134 U	**0.193**	1.34 U	**0.742**
NTS-1	2.0	7/14/1997	**6.08**	**4.62**	**3.71**	--	**2.19**	**3.28**	0.838 U	**1.94**	**28.3**	**6.66**
NTS-2	6.0	7/24/1997	**30.3**	**48.2**	**33.8**	--	**22.4**	**26.3**	8.38 U	**21.2**	**207**	**65.4**
NTS-3	2.5	7/28/1997	0.0067 U	0.0067 U	0.0067 U	--	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.067 U	0.0155
NTS-4	6.0	7/28/1997	0.0067 U	0.0067 U	**0.0203**	--	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.067 U	**0.0168**
NTS-5A	2.5	8/4/1997	0.0067 U	0.0067 U	0.0067 U	--	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.067 U	0.0155
NTS-6	13.0	6/19/1997	0.0067 U	0.0067 U	0.0067 U	--	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.067 U	0.0155
NTS-7	1	8/6/1997	0.067 U	0.067 U	0.067 U	--	0.067 U	0.067 U	0.067 U	0.067 U	0.67 U	0.155
NTS-8	3	8/6/1997	0.067 U	0.067 U	0.067 U	--	0.067 U	0.067 U	0.067 U	0.067 U	0.67 U	0.155
NTS-9	6	8/6/1997	0.067 U	0.067 U	0.067 U	--	0.067 U	0.067 U	0.067 U	0.067 U	0.67 U	0.155
NTS-10	6	8/8/1997	0.0067 U	0.0067 U	0.0067 U	--	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.067 U	0.0155
T#4-1	3	8/1/1997	**0.0187**	**0.0226**	**0.0299**	--	**0.0102**	**0.0261**	0.0067 U	**0.0138**	0.067 U	**0.0357**
T#4-1	10	8/1/1997	**0.0441**	**0.0302**	**0.0285**	--	**0.0154**	**0.0413**	0.0067 U	**0.0133**	0.067 U	**0.0457**
T#4-2	3	8/19/1997	0.0067 U	0.0067 U	0.0067 U	--	0.0067 U	0.0067 U	0.0067 U	0.0067 U	0.067 U	0.0155
T#4-2	6	8/19/1997	**0.0921**	**0.0746**	**0.0637**	--	**0.0312**	**0.08**	0.0134 U	**0.0391**	0.134 U	**0.108**
T#5-1	2	7/22/1997	**39**	**57**	**41.5**	--	**28.5**	**76.1**	**14**	**26.2**	**137**	**82.0**
T#5-1	3	7/22/1997	**0.344**	**0.208**	**0.165**	--	**0.102**	**0.349**	0.067 U	**0.0825**	**2.04**	**0.336**
T#5-2	1.5	7/22/1997	**0.0407**	**0.0311**	**0.0269**	--	**0.0153**	**0.0463**	0.0067 U	**0.0137**	0.067 U	**0.0461**
T#5-2	3.5	7/22/1997	**44.3**	**73.1**	**50.5**	--	**34.2**	**102**	**24.2**	**49.5**	**246**	**112**
USPS-1	3	4/9/1997	**40**	**54**	**52**	--	40 U	**43**	40 U	40 U	**85.7**	**108**
UV-1	0-4	2004[a]	**0.0516**	**0.0583**	**0.0548**	**0.0551**	**0.0401**	**0.0713**	**0.0268**	**0.0426**	0.0268 U	**0.101**
UV-1	12-15	2004[a]	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0311
UV-2	0-4	2004[a]	**0.0263**	**0.0377**	**0.0382**	**0.0357**	**0.0318**	**0.0432**	0.0134 U	**0.0311**	0.0134 U	**0.0614**
UV-2	4-8	2004[a]	**0.0141**	**0.0159**	**0.0134**	**0.0134**	0.0134 U	**0.0182**	0.0134 U	0.0134 U	0.0134 U	**0.0337**
UV-3	0-4	2004[a]	**20.5**	**18.4**	**12.5**	**9.51**	**12.5**	**20.6**	**3.64**	**10.1**	**20.2**	**26.6**
UV-3	4-8	2004[a]	**8.13**	**5.97**	**3.38**	**2.74**	**5.02**	**7.4**	**0.996**	**2.68**	**19.9**	**8.47**

Attachment 5
Historical Soil Sample Analytical Results - Carcinogenic Polycyclic Aromatic Hydrocarbons
Prosper Portland USPS Site
715 NW Hoyt Street
Portland, Oregon

Sample ID	Sample Depth (feet bgs)	Date Sampled	Benz[a]-anthracene	Benzo[a]-pyrene	Benzo[b]-fluoranthene	Benzo[g,h,i]-perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Indeno[1,2,3-cd]pyrene	Naphthalene	Benzo[a]-pyrene TEQ
UV-4	0-4	2004[a]	**0.349**	**0.277**	**0.208**	**0.131**	**0.202**	**0.3**	**0.0425**	**0.123**	**0.0142**	**0.391**
UV-4	8-12	2004[a]	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0311
UV-5	0-3	2004[a]	0.0268 U	**0.0291**	0.0268 U	**0.0307**	0.0268 U	**0.0337**	0.0268 U	0.0268 U	0.0268 U	**0.0645**
UV-5	3-7	2004[a]	**0.0664**	**0.0559**	**0.0486**	**0.0412**	**0.0456**	**0.0703**	0.0268 U	**0.0322**	0.0268 U	**0.0984**
UV-6	0-3	2004[a]	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0311
UV-6	11-15	2004[a]	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0311
UV-7	0-3	2004[a]	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0311
UV-7	7-11	2004[a]	**0.0758**	**0.0636**	**0.0493**	**0.0269**	**0.0509**	**0.0658**	0.0134 U	**0.0267**	0.0134 U	**0.0930**
UV-8	0-4	2004[a]	**0.105**	**0.094**	**0.106**	**0.0995**	**0.0741**	**0.126**	0.0536 U	**0.0785**	**0.281**	**0.178**

Attachment 5
Historical Soil Sample Analytical Results - Carcinogenic Polycyclic Aromatic Hydrocarbons
Prosper Portland USPS Site
715 NW Hoyt Street
Portland, Oregon

Sample ID	Sample Depth (feet bgs)	Date Sampled	Benz[a]-anthracene	Benzo[a]-pyrene	Benzo[b]-fluoranthene	Benzo[g,h,i]-perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Indeno[1,2,3-cd]pyrene	Naphthalene	Benzo[a]-pyrene TEQ
Former Pintach Gas Plant Area												
P-1	12	6/28/2000	0.33 U	0.33 U	0.33 U	--	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.763
P-1	32	6/28/2000	0.33 U	0.33 U	0.33 U	--	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.763
P-2	8	6/28/2000	**52**	**64**	**20**	--	**28**	**68**	20 U	20 U	**1,500**	**93.5**
P-2	12	6/28/2000	**2.4**	**4.4**	[b]	--	**2.4**	**3.2**	2 U	2 U	**14**	**6.87**
P-2	32	6/29/2000	0.33 U	0.33 U	0.33 U	--	0.33 U	0.33 U	0.33 U	0.33 U	**0.88**	0.763
P-3	16	6/29/2000	**120**	**150**	[b]	--	**110**	**130**	20 U	**40**	**890**	**187**
P-3	28	6/29/2000	5 U	5 U	5 U	--	5 U	5 U	5 U	5 U	**10**	11.6
P-4	12	6/29/2000	0.33 U	0.33 U	0.33 U	--	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.763
P-4	32	6/29/2000	0.33 U	0.33 U	0.33 U	--	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.763
P-5	12	6/29/2000	0.33 U	0.33 U	0.33 U	--	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.763
P-5	32	6/29/2000	0.33 U	0.33 U	0.33 U	--	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.763
P-6	12	6/30/2000	0.33 U	0.33 U	0.33 U	--	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.763
P-6	34	6/30/2000	0.33 U	0.33 U	0.33 U	--	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.763
P-7	12	6/29/2000	0.33 U	0.33 U	0.33 U	--	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.763
P-7	32	6/29/2000	0.33 U	0.33 U	0.33 U	--	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.763
P-8	16	6/30/2000	0.33 U	0.33 U	0.33 U	--	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.763
P-8	32	6/30/2000	0.33 U	0.33 U	0.33 U	--	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.763
P-9	12	6/30/2000	**23**	**52**	[b]	--	**28**	**28**	5 U	**10**	5 U	**60.6**
P-9	16	6/30/2000	10 U	10 U	10 U	--	10 U	10 U	10 U	10 U	**3,200**	23.1
P-9	32	6/30/2000	0.33 U	0.33 U	0.33 U	--	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.763
P-3	0-3	2004[a]	**2.01**	**3.15**	**2.08**	**2.76**	**2.05**	**2.63**	**0.695**	**2.12**	**0.628**	**4.52**
P-6	0-3	2004[a]	**0.0439**	**0.049**	**0.0759**	**0.042**	**0.0535**	**0.0719**	**0.0147**	**0.035**	**0.0179**	**0.0802**
P-9	0-3	2004[a]	**2.09**	**2.11**	**1.43**	**1.82**	**1.6**	**2.64**	**0.45**	**1.24**	**0.64**	**3.07**
PP-1	0-3	2004[a]	**276**	**246**	**165**	**217**	**198**	**402**	**57.9**	**149**	**213**	**367**
PP-1	11-15	2004[a]	**769**	**850**	**373**	**502**	**396**	**790**	**109**	**327**	**9,990**	**1,116**
PP-2	0-3	2004[a]	**7.74**	**11.8**	**7.23**	**10.5**	**6.41**	**9.94**	**2.39**	**7.19**	**1.57**	**16.6**
PP-2	7-11	2004[a]	**21.3**	**22.1**	**10.5**	**11.1**	**12.6**	**24.8**	**2.92**	**8.49**	**4.3**	**29.3**
PP-3	0-3	2004[a]	**0.5**	**0.574**	**0.578**	**0.82**	**0.371**	**0.686**	**0.177**	**0.641**	**0.246**	**0.935**
PP-3	7-11	2004[a]	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0311
PP-4	0-3	2004[a]	**0.35**	**0.427**	**0.394**	**0.681**	**0.401**	**0.551**	**0.165**	**0.522**	**0.072**	**0.730**
PP-4	11-15	2004[a]	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0311
PP-5	0-3	2004[a]	**0.0315**	**0.0292**	**0.0347**	**0.036**	**0.0211**	**0.0593**	0.0134 U	**0.0237**	**0.0703**	**0.0522**
PP-5	3-7	2004[a]	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0311
PP-6	0-3	2004[a]	**1.06**	**1.99**	**1.19**	**1.78**	**1.16**	**1.35**	**0.358**	**1.17**	**0.328**	**2.72**
PP-6	12-16	2004[a]	**355**	**366**	**147**	**196**	**177**	**359**	**41**	**129**	**5,790**	**474**
PP-6	24-28	2004[a]	**0.125**	**0.125**	**0.053**	**0.0648**	**0.0692**	**0.133**	**0.016**	**0.0472**	**1.81**	**0.165**
PP-6	48-52	2004[a]	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	**18.3**	0.0311
PP-6	72-76	2004[a]	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	**0.0223**	0.0311
PP-6	88-90	2004[a]	**0.128**	**0.145**	**0.0707**	**0.0684**	**0.0706**	**0.137**	**0.0169**	**0.0482**	**0.608**	**0.188**
PP-7	0-3	2004[a]	**25**	**26.5**	**12.9**	**22.7**	**17.3**	**32.2**	**5.8**	**16.3**	**4.69**	**38.2**
PP-7	11-15	2004[a]	**34.1**	**41.6**	**15.7**	**24.8**	**20.7**	**35.2**	**4.98**	**14.7**	**47.2**	**53.5**

Attachment 5
Historical Soil Sample Analytical Results - Carcinogenic Polycyclic Aromatic Hydrocarbons
Prosper Portland USPS Site
715 NW Hoyt Street
Portland, Oregon

Sample ID	Sample Depth (feet bgs)	Date Sampled	Benz[a]-anthracene	Benzo[a]-pyrene	Benzo[b]-fluoranthene	Benzo[g,h,i]-perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Indeno[1,2,3-cd]pyrene	Naphthalene	Benzo[a]-pyrene TEQ
Former Coach Cleaning Area												
CC-1	0-3	2004[a]	**0.0696**	**0.0768**	**0.0786**	**0.106**	**0.0635**	**0.107**	0.0536 U	**0.0735**	0.0536 U	**0.154**
CC-1	7-11	2004[a]	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0311
CC-2	0-3	2004[a]	**0.0328**	**0.0347**	**0.0762**	**0.0639**	**0.0475**	**0.0761**	0.0268 U	**0.0476**	**0.0681**	**0.0784**
CC-2	11-15	2004[a]	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0311
CC-3	0-3	2004[a]	**0.0719**	**0.0715**	**0.0749**	**0.0746**	**0.0563**	**0.0963**	0.0536 U	**0.0556**	0.0538 U	**0.147**
CC-3	3-7	2004[a]	0.0134 U	**0.0137**	**0.0232**	**0.0295**	**0.0136**	**0.0227**	0.0134 U	**0.0195**	0.0134 U	**0.0332**
CC-4	0-3	2004[a]	**0.0686**	**0.0776**	**0.129**	**0.125**	**0.0679**	**0.148**	0.0536 U	**0.095**	**0.0937**	**0.163**
CC-4	3-7	2004[a]	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0311
CC-5	0-3	2004[a]	**0.147**	**0.133**	**0.132**	**0.126**	**0.109**	**0.178**	0.0536 U	**0.101**	0.0536 U	**0.227**
CC-5	7-11	2004[a]	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0311
CC-6	0-3	2004[a]	**0.0137**	0.0134 U	**0.0197**	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	**0.0376**	**0.0318**
CC-6	11-15	2004[a]	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0311
CC-7	0-3	2004[a]	**0.0296**	**0.0373**	**0.0294**	**0.0273**	**0.0293**	**0.0302**	0.0134 U	**0.0247**	0.0134 U	**0.0597**
CC-7	7-11	2004[a]	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0311
Eastern Half of Property (South End)												
EH-1	0-3	2004[a]	**0.0657**	**0.0617**	**0.0856**	**0.0997**	**0.061**	**0.121**	0.0536 U	**0.0686**	**0.0876**	**0.139**
EH-1	11-15	2004[a]	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0311
EH-2	0-3	2004[a]	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0311
EH-2	7-11	2004[a]	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0311

Attachment 5
Historical Soil Sample Analytical Results - Carcinogenic Polycyclic Aromatic Hydrocarbons
Prosper Portland USPS Site
715 NW Hoyt Street
Portland, Oregon

Sample ID	Sample Depth (feet bgs)	Date Sampled	Benz[a]-anthracene	Benzo[a]-pyrene	Benzo[b]-fluoranthene	Benzo[g,h,i]-perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Indeno[1,2,3-cd]pyrene	Naphthalene	Benzo[a]-pyrene TEQ
Eastern Half of Property (NEC)												
EH-3	0-3	2004[a]	**0.0713**	**0.0795**	**0.0974**	**0.117**	0.067 U	**0.107**	0.067 U	**0.0859**	0.067 U	**0.174**
EH-3	3-7	2004[a]	**1.51**	**1.39**	**1.05**	**0.853**	**0.904**	**1.52**	0.838 U	0.838 U	0.838 U	**2.59**
EH-4	0-3	2004[a]	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.156
EH-4	11-15	2004[a]	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	**0.0142**	0.0134 U	0.0134 U	0.0134 U	**0.0311**
EH-5	0-3	2004[a]	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U	**0.239**	0.134 U	0.134 U	0.134 U	**0.311**
EH-5	11-15	2004[a]	**1.02**	**0.793**	**0.489**	**0.435**	**0.573**	**0.847**	**0.127**	**0.401**	**0.0404**	**1.12**
Storm Sewer												
SS-1	0-3	2004[a]	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0134 U	0.0142	0.0134 U	0.0134 U	**0.0721**	0.0311
SS-1	11-15	2004[a]	**0.0859**	**0.111**	**0.0637**	**0.0815**	**0.0731**	**0.0839**	**0.0169**	**0.0613**	**0.0627**	**0.151**
SS-2	16-20	2004[a]	**8.97**	**9.54**	**3.9**	**5.46**	**4.52**	**9.75**	**1.41**	**4.23**	**2.23**	**12.8**
SS-2	28-32	2004[a]	**2.65**	**2.38**	**1.08**	**1.26**	**1.23**	**2.86**	**0.325**	**0.961**	**36.5**	**3.20**
SS-3	0-3	2004[a]	**0.175**	**0.205**	**0.256**	**0.263**	**0.168**	**0.276**	0.168 U	**0.212**	0.168 U	**0.442**
SS-3	12-16	2004[a]	**223**	**184**	**80.5**	**99**	**104**	**236**	**29.8**	**77.9**	**188**	**254**
SS-3	28-32	2004[a]	**19**	**17.6**	**6.97**	**9.2**	**9.29**	**19.3**	**2.55**	**7.42**	**287**	**23.7**
Urban Residential Direct Contract RBC			2.5	0.25	2.5	NA	25	250	0.25	2.5	25	0.25
Occupational Direct Contract RBC			21	2.1	21	NA	210	2,100	2.1	21	23	2.1
Construction Worker Direct Contact RBC			170	17	170	NA	1,700	17,000	17	170	580	17
Excavation Worker Direct Contact RBC			4,800	490	4,900	NA	49,000	490,000	490	4,900	16,000	490
Urban Residential Volatilization to Outdoor Air RBC			NV	NV	NV	NV	NV	NA	NA	NV	15	NA
Urban Residential Vaport Intrusion into Buildings RBC			NV	NV	NV	NV	NV	NA	NA	NV	15	NA
Occupational Volatilization to Outdoor Air RBC			NV	NV	NV	NV	NV	NA	NA	NV	83	NA
Occupational Vapor Intrusion into Buildings RBC			NV	NV	NV	NV	NV	NA	NA	NV	83	NA
Highly Concentrated Hot Spot Value (Urban Residential)			250	25	250	NA	2,500	25,000	25	250	2,500	25
Highly Concentrated Hot Spot Value			2,100	210	2,100	NA	21,000	210,000	210	2,100	2,300	210
Highly Concentrated Hot Spot Value			17,000	1,700	17,000	NA	170,000	1,700,000	1,700	17,000	58,000	1,700
Highly Concentrated Hot Spot Value			480,000	49,000	490,000	NA	4,900,000	49,000,000	49,000	490,000	1,600,000	49,000

Notes:
All results expressed as milligrams per kilogram
bold = indicates concentrations detected above method reporting limits

Highly concentrated hot spot value is 100 times applicable RBC.
Shaded yellow = indicates concentration exceeds one or more potentially applicable RBCs
Shaded orange = indicates concentration exceeds highly concentrated hot spot value for urban residential receptors (0-3 feet bgs only)
Shaded red = indicates concentration exceeds highly concentrated hot spot value for occupational receptors (0-3 feet bgs only)
No concentrations exceed highly concentrated hot spot value for construction worker or excavation worker receptors (0-20 feet bgs)

FD = field duplicate
NA = Not Available, no screening value is listed for this analyte.
NV = Undicates chemcial is non-volatile
bgs = below ground surface
TEF = Toxic Equivalency Factor
TEQ = Toxic Equivalency Quotient

U = Not detected, the associated value is the method reporting limit

[a] - From RI Soil Data (2004) USPS Portland P&DC, Portland, Oregon Data tables - No sample dates
[b] - Results for benzo(b)fluoranthene and benzo(k)fluoranthene reported together.

RBCs = Oregon DEQ Risk-Based Concentrations, May 2018 revision