

FINAL REMEDIAL INVESTIGATION REPORT



Property:

Troy Laundry Seattle Site 300 Boren Avenue North and 399 Fairview Avenue North Seattle, Washington Ecology Facility ID: 19135499

Report Date:

August 20, 2020

Prepared for:

Touchstone SLU LLC & TB TS/RELP LLC 1425 Fourth Avenue, Suite 200 Seattle, Washington

FINAL REMEDIAL INVESTIGATION REPORT

CLARE TOCHILIN

Prepared for:

Touchstone SLU LLC & TB TS/RELP LLC 1425 Fourth Avenue, Suite 200 Seattle, Washington 98101

Troy Laundry Seattle Site

300 Boren Avenue North and 399 Fairview Avenue North Seattle, Washington 98121 Ecology Facility ID: 19135499

Project No.: 0731-004-07

Prepared by:

Levi Fernandes, PE

Senior Environmental Engineer

Clare Tochilin, LG

Associate Geologist

Thomas Cammarata, LHG, LG Principal Geochemist

August 20, 2020

TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONSvi			
1.0 INTRO	DUCTIO)N	1
1.1	PUBLIC	C PARTICIPATION	1
1.2	DOCUI	MENT PURPOSE AND OBJECTIVES	1
2.0 BACK	GROUND)	2
2.1	SITE LO	OCATION AND DESCRIPTION	3
	2.1.1	The Property	3
	2.1.2	West-Adjoining Property	3
	2.1.3	South-Adjoining Property (Seattle Times Site)	3
	2.1.4	Boren Avenue North ROW	
	2.1.5	Terry Avenue North ROW	3
	2.1.6	Thomas Street ROW	4
	2.1.7	Harrison Street ROW	4
2.2	SURRO	DUNDING PARCEL DESCRIPTIONS	4
	2.2.1	Northwest	4
	2.2.2	North	4
	2.2.3	Northeast	4
	2.2.4	East	5
	2.2.5	Southeast	5
	2.2.6	South of Seattle Times Site	5
	2.2.7	Southwest	5
	2.2.8	West of West-Adjoining	5
2.3	LAND	USE DESIGNATION	6
2.4	LAND	USE HISTORY OF THE SITE	6
	2.4.1	The Property	6
CHR	ONOLO	GICAL DEVELOPMENT AND USE HISTORY FOR THE PROPERTY	
	2.4.2	West-Adjoining Property	
	2.4.3	South-Adjoining Property (Seattle Times Site)	
2.5	HISTO	RICAL LAND USE OF SURROUNDING PARCELS	
	2.5.1	Northwest	
	2.5.2	North	13
	2.5.3	Northeast	13
	2.5.4	East	
	2.5.5	Southeast	13
	2.5.6	South of Seattle Times Site	14
	2.5.7	Southwest	14
	2.5.8	West of West-Adjoining	
2.6	CURRE	ENT LAND USE	
2.7	ENVIR	ONMENTAL SETTING	15
,	2.7.1	Meteorology	

	2.7.2	Topography	15
	2.7.3	Groundwater Use	
2.8	GEOLO	OGIC AND HYDROGEOLOGIC SETTING	16
	2.8.1	Regional Geology	16
	2.8.2	Regional Hydrogeology	16
	2.8.3	Site Geology	
	2.8.4	Site Hydrogeology	18
3.0 PREV	IOUS INV	ESTIGATIONS	19
3.1	. 1986 S	EATTLE TIMES CLOSURE REPORT	20
3.2	1994 F	RETEC GROUNDWATER SUPPLY WELL SAMPLING	20
3.3	2010 P	PHASE I ENVIRONMENTAL SITE ASSESSMENT	21
4.0 PREV	IOUS REN	MEDIAL INVESTIGATION WORK	21
4.1		ST 2010 GPR SURVEY, GROUNDWATER SAMPLING, AND PASSIVE SOIL	
		R SURVEY	
4.2		IMITED PHASE II ESA	
4.3		И 2010 SUBSURFACE INVESTIGATION	
4.4		011 SUPPLEMENTAL SUBSURFACE INVESTIGATION	
4.5	SEPTE	MBER AND OCTOBER 2011 REMEDIAL INVESTIGATION	24
4.6		// 2011 SVE SYSTEM OPERATION AND 2012 POST-SVE CONFIRMATIONAL ORINGS	
4.7	2012 S	UPPLEMENTAL REMEDIAL INVESTIGATION	26
4.8	2013 T	HIRD QUARTER GROUNDWATER MONITORING EVENT	27
4.9		UPPLEMENTAL SUBSURFACE INVESTIGATION FOR CONTAINED-OUT MINATION	28
4.1		UPPLEMENTAL SUBSURFACE INVESTIGATION FOR SHORING DESIGN	
5.0 INTE	RIM REMI	EDIAL ACTION	2 9
5.1	MASS	EXCAVATION AND SOIL SAMPLING	30
5.2	. INJECT	ION WELL INSTALLATION	30
5.3	EOS IN	JECTIONS	31
5.4	2017 B	SIOAUGMENTATION INJECTION EVENT	31
6.0 SUPF	PLEMENTA	AL REMEDIAL INVESTIGATION WORK	31
6.1	. 2015 N	MONITORING WELL INSTALLATION	31
6.2	2015 E	SASELINE GROUNDWATER SAMPLING EVENT	32
6.3	2015 A	ADDITIONAL MONITORING WELL INSTALLATION	33
6.4	2018 N	MONITORING WELL MW16 REPLACEMENT	33
6.5	2018 \	APOR INTRUSION EVALUATION	33

	6.6	2019 SUPPLEMENTAL VAPOR INTRUSION EVALUATION	34	
	6.7			
		SAMPLING	35	
	6.8	QUARTERLY GROUNDWATER MONITORING PROGRAM	36	
		6.8.1 Recent Groundwater Analytical Results	37	
7.0 9	STATIS	STICAL TREND ANALYSIS OF PLUME STABILITY	43	
	7.1	PCE AND TCE PLUME STABILITY	43	
	7.2	CIS-1,2-DCE AND VINYL CHLORIDE PLUME STABILITY	43	
8.0	DATA	QUALITY AND USABILITY	44	
9.0 (CONC	EPTUAL SITE MODEL	44	
	9.1	ON-PROPERTY CONFIRMED AND SUSPECTED SOURCE AREAS	45	
		9.1.1 On-Property Chlorinated and Stoddard Solvents in Soil and Groundwater	45	
	9.2	OFF-PROPERTY CONFIRMED AND SUSPECTED SOURCE AREAS	47	
		9.2.1 PCE in Groundwater	47	
		9.2.2 TCE in Primary Water Bearing Zone	47	
		9.2.3 TCE in Shallow Soil and Perched Groundwater	47	
	9.3	CONTAMINANTS OF CONCERN	49	
		9.3.1 Transport Mechanisms Affecting Distribution of Chlorinated Solvents	50	
		9.3.2 Environmental Fate of Chlorinated Solvents	50	
	9.4	EXPOSURE PATHWAYS AND POTENTIAL RECEPTORS		
		9.4.1 Soil	51	
		9.4.2 Groundwater		
		9.4.3 Soil Vapor		
	9.5	TERRESTRIAL ECOLOGICAL EVALUATION	52	
	9.6	CONCEPTUAL SITE MODEL INTERPRETATION	52	
10.0	CON	CLUSIONS	53	
11.0	LIMIT	TATIONS	55	
12.0	BIBLI	OGRAPHY	55	
FIGL	IRES			
1		operty Location Map		
2		roperty Plan		
3		istorical Property Plan		
4		egional Groundwater Flow Directions – South Lake Union		
5		Remedial Investigation Exploration Location Map		
6		Cross Section A–A'		
		CI 033 Section A-A		

7	Cross Section B–B'
8	Cross Section C–C'
9	Cross Section D–D'
10	Groundwater Elevation Contour Map with Rose Diagram (September 22, 2018)
11	Groundwater Elevation Contour Map with Rose Diagram (December 13, 2018)
12	Groundwater Elevation Contour Map with Rose Diagram (June 13, 2019)
13	Groundwater Elevation Contour Map with Rose Diagram (December 4, 2019)
14	Injection Well Network
15	Groundwater Analytical Results for Chlorinated Volatile Organic Compounds
16	Parking Garage Level P5 – Indoor Air Analytical Results for CVOCs and APH
17	Parking Garage Level P4 – Indoor Air Analytical Results for CVOCs and APH
18	Parking Garage Level P3 – Indoor Air Analytical Results for CVOCs and APH
19	Parking Garage Level P2 – Indoor Air Analytical Results for CVOCs and APH
20	Parking Garage Level P1 – Indoor Air Analytical Results for CVOCs and APH
21	Extent of Troy Property PCE and TCE Groundwater Plume – Pre-Interim Remedial Action (Q2 2015)
22	Extent of Troy Property VC/cis-1,2-DCE Groundwater Plume – Pre-Interim Remedial Action (Q2 2015)
23	Extent of Troy Property PCE and TCE Groundwater Plume – Post-Interim Remedial Action (Q4 2019)
24	Extent of Troy Property VC/cis-1,2-DCE Groundwater Plume – Post-Interim Remedial Action (Q4 2019–Q1 2020)
25	Extrapolated Extent of Troy Property CVOC Groundwater Plume – Post-Interim Remedial Action

TABLES

26

1 Soil Analytical Results for Petroleum Hydrocarbons and VOCs

Conceptual Site Model Exposure Assessment

2 Summary of Groundwater Elevations

(Q4 2019-Q1 2020)

- 3 Groundwater Analytical Results for CVOCs
- 4 Groundwater Analytical Results for Petroleum Hydrocarbons
- 5 Groundwater Analytical Results for Natural Attenuation Parameters
- 6 Groundwater Geochemical and Water Quality Parameters
- 7 Groundwater Analytical Results for Volatile Fatty Acids
- 8 Indoor and Outdoor Air Analytical Results for CVOCs
- 9 Summary of Indoor and Outdoor Air Analytical Results for APH

PHOTOGRAPHS

APPENDICES

A Boring Logs

- B Laboratory Analytical Reports
- C Groundwater Temporal Trend Analysis
- D Simplified Terrestrial Ecological Evaluation

ACRONYMS AND ABBREVIATIONS

μg/L micrograms per liter

AO Agreed Order

AST aboveground storage tank

bgs below ground surface

BTEX benzene, toluene, ethylbenzene, and total xylenes

cis-1,2-DCE cis-1,2-dichloroethene

COC contaminant of concern

CSM conceptual site model

CVOC chlorinated volatile organic compound

DHC Dehalococcoides genus bacteria

Final RI Report Final Remedial Investigation Report

DRPH diesel-range petroleum hydrocarbons

Ecology Washington State Department of Ecology

EOS edible oil substrate

EPA US Environmental Protection Agency

EPI Environmental Partners, Inc. n/k/a TRC Companies, Inc.

ERD enhanced reductive dechlorination

ESA Environmental Site Assessment

GPR ground-penetrating radar

GRPH gasoline-range petroleum hydrocarbons

IRA interim remedial action

mg/kg milligrams per kilogram

mg/L milligrams per liter

MTCA Washington State Model Toxics Control Act

ACRONYMS AND ABBREVIATIONS (CONTINUED)

NAVD88 North American Vertical Datum 1988

ORPH oil-range petroleum hydrocarbons

PAH polycyclic aromatic hydrocarbon

PCE tetrachloroethene

PPCD Prospective Purchaser Consent Decree

PPP public participation plan

Property 300 Boren Avenue North and 399 Fairview Avenue North, Seattle Washington

REC recognized environmental condition

RETEC Remediation Technologies Incorporated

RI remedial investigation

RMG Richard Martin Groundwater

ROW right-of-way

RPD relative percent difference

Seattle Times Site south-adjoining property located at 1120 John Street, Seattle, Washington

located across the Thomas Street right-of-way. Washington State Department of Ecology Cleanup Site (Cleanup Site ID: 14495; Facility Site ID; King County tax

parcel number 1986200525)

SES Sound Environmental Strategies Corporation

SI subsurface investigation

Site the Property and additional areas, including adjacent rights-of-way to the west

and south and the northern portion of the Seattle Times Site) where soil, soil vapor, or groundwater contaminated with gasoline-, diesel-, and oil-range petroleum hydrocarbons; tetrachloroethene; trichloroethene; cis-1,2-dichloroethene, and vinyl chloride originating from the Property have come to be

located

SoundEarth Strategies, Inc.

SPU Seattle Public Utilities

SSI supplemental subsurface investigation

ACRONYMS AND ABBREVIATIONS (CONTINUED)

SVE soil vapor extraction

SVOC semivolatile organic compound

TCE trichloroethene

TEE Terrestrial Ecological Evaluation

Touchstone Touchstone SLU LLC and TB TS/RELP LLC

TPH total petroleum hydrocarbons

trans-1,2-DCE trans-1,2-dichloroethene

USGS US Geological Survey

UST underground storage tank

VOC volatile organic compound

WAC Washington Administrative Code

1.0 INTRODUCTION

SoundEarth Strategies, Inc. (SoundEarth) on behalf of Touchstone SLU LLC and TB TS/RELP LLC (collectively, Touchstone), has prepared this Final Remedial Investigation Report (Final RI Report) for the Troy Laundry Seattle Site (Site). The Site includes the Troy Laundry Property located at 300 Boren Avenue North and 399 Fairview Avenue North in Seattle, Washington (Property). The location of the Property is shown on Figure 1.

This Final RI Report was prepared under the authority of Agreed Order No. DE 8996 (AO) between Touchstone and the Washington State Department of Ecology (Ecology). This Final RI Report was developed in accordance with the Washington State Model Toxics Control Act (MTCA) Regulation in Part 350 of Chapter 340 of Title 173 of the Washington Administrative Code (WAC 173-340-350) and is an update of the Final RI Report prepared by SoundEarth dated May 2, 2012 (SoundEarth 2012a). The remedial investigation (RI) was conducted following the procedures and protocols outlined in SoundEarth's Remedial Investigation Sampling and Analysis Plan dated September 23, 2011 (SoundEarth 2011b), and Supplemental Remedial Investigation Work Plan dated March 20, 2019 (SoundEarth 2019c). The Final RI Report includes data and information obtained through implementation of an interim remedial action (discussed herein), as well as additional information obtained pursuant to Site investigation conducted under Prospective Purchaser Consent Decree (PPCD) No. 19-2-07344-6 SEA for the Property between Ecology and Ponte Gadea Seattle LLC.

The Site is defined by the lateral and vertical extent of contamination that has resulted from the former operation of an industrial laundry and dry cleaning facility on the Property. Based on the information gathered to date, the Site includes soil, soil vapor, and groundwater contaminated with gasoline-, diesel-, and oil-range petroleum hydrocarbons (GRPH, DRPH, and ORPH, respectively); tetrachloroethene (PCE); trichloroethene (TCE); cis-1,2-dichloroethene (cis-1,2-DCE); and vinyl chloride. Available data establishes that contamination has come to be located in groundwater beneath the Property, and in soil and groundwater in areas to the west and south of the Property, including west- and south-adjoining rights-of-way (ROWs) and/or the separate Seattle Times Site (Figure 2).

1.1 PUBLIC PARTICIPATION

Consideration of public concerns is mandated under the MTCA cleanup regulation for certain remedial activities performed under an AO. A public participation plan (PPP) will be prepared by Ecology prior to finalizing this Final RI Report. The PPP will describe the remedial activities conducted at the Site. The public will have the opportunity to provide comments on the work performed to date in accordance with WAC 173-340-600. The typical comment period is 30 days, unless otherwise determined by Ecology.

1.2 DOCUMENT PURPOSE AND OBJECTIVES

The objective of this Final RI Report is to summarize data necessary to adequately characterize the Site for the purposes of developing and evaluating cleanup action alternatives. This report presents historical information regarding the former use of the Property and surrounding parcels, summarizes the information obtained during the review of historical information, summarizes the scope and findings of each subsurface investigation (SI) and interim remedial action (IRA) conducted at the Site, and presents an updated conceptual site model (CSM) to present the nature and extent of contamination and identify exposure receptors. This Final RI Report focuses on the nature and extent of contamination based on current Site conditions and documents the progress that has been made to date regarding the degradation of contaminants of concern (COCs) in the groundwater plume originating on the Property

since the completion of contaminated soil removal and the implementation of the groundwater treatment program.

This Final RI Report is organized into the following sections:

- Section 2.0, Background. This section provides a description of the Site features and location; a summary of the current and historical uses of the Property and adjoining properties; and a description of the Site's environmental setting, including the local meteorology, geology, and hydrology.
- **Section 3.0, Previous Investigations.** This section summarizes environmental investigations conducted at the Property prior to RI activities beginning in 2010.
- Section 4.0, Previous Remedial Investigation Work. This section provides a description of the RI activities conducted at the Site between 2010 and 2014, prior to the IRA. This section includes summaries of the field work performed, as well as a discussion of the findings and conclusions of each phase of investigation.
- Section 5.0, Interim Remedial Action. This section describes the IRA that has been conducted at the Property and the Site, including the objectives of the action, the contaminants and media addressed by the action, and the results obtained.
- Section 6.0, Supplemental Remedial Investigation Work. This section provides a description of the additional RI activities conducted at the Site between 2015 and 2019, including a summary of the scope of work, results, and a discussion of data gaps based on the findings of the RI.
- Section 7.0, Statistical Trend Analysis of Plume Stability. This section provides SoundEarth's evaluation of the stability of the contaminated groundwater plume originating from the Property.
- Section 8.0, Data Quality and Usability. This section discusses the data validation and quality control of RI activities.
- Section 9.0, Conceptual Site Model. This section provides a summary of the CSM derived primarily from the results of the historical research and cumulative investigations performed at the Site, including a discussion of the confirmed and suspected source areas, the contaminants and media of concern, the fate and transport characteristics of the release of hazardous substances, and the potential exposure pathways.
- Section 10.0, Conclusions. This section provides a summary of conclusions of the RI.
- Section 11.0, Limitations. This section discusses document limitations.
- Section 12.0, Bibliography. This section lists references reviewed for the development of this
 document.

2.0 BACKGROUND

This section provides a description of the Site features and location; a summary of the land use history of the Property and surrounding parcels; and a description of the local geology, hydrology, and land use pertaining to the Site. A detailed description of the history of the Site and surrounding parcels is available in SoundEarth's 2012 Final RI Report and discussed in detail in Section 2.4 of the RI.

2.1 SITE LOCATION AND DESCRIPTION

The Site, as defined by the extent of groundwater contamination, encompasses the Property, portions of the Boren Avenue North and Thomas Street ROWs, and the northern portion of the Seattle Times Site—all of which are located in the South Lake Union neighborhood of Seattle, Washington (Figure 2). The Site is defined by the extent of contamination caused by the releases of hazardous substances from the Property, as discussed in Section 1.0 above. The Property and adjoining properties, including the applicable ROWs and the northern portion of the Seattle Times Site, affected by the release(s) from the Property are described in the following subsections and presented on Figure 2.

2.1.1 The Property

The Property is comprised of one consolidated tax parcel (King County parcel number 869200-0000) that covers approximately 108,571 square feet (2.51 acres) of land. The Property address is listed as 300 Boren Avenue North and 399 Fairview Avenue North in Seattle, Washington. The Property is currently occupied by two office towers with a common 5-floor underground parking garage.

2.1.2 West-Adjoining Property

The west-adjoining property, located across the Boren Avenue North ROW at 301, 345, and 333 Boren Avenue North, includes five tax parcels (King County parcel numbers 198620-0410, 198620-0418, 198620-0420, 198620-0450, and 198620-0460) that cover a total of approximately 73,650 square feet (1.69 acres). This property contains a mixed-use development known as the Amazon Phase IV Buildings, and occupies the entire block bound by Terry Avenue North, Boren Avenue North, Harrison Street, and Thomas Street. The development was constructed in 2010 and includes two 12-story office/retail buildings and a 6-story common underground parking garage. Amazon is the current owner of the west-adjoining property.

2.1.3 South-Adjoining Property (Seattle Times Site)

The south-adjoining property is the Seattle Times Site, which is located across the Thomas Street ROW. The Seattle Times Site consists of one tax parcel (King County parcel number 198620-0525) that covers approximately 110,478 square feet (2.54 acres). The Seattle Times Site is slated for full redevelopment, but is currently used only as an asphalt-paved parking lot. Future land use plans for the Seattle Times Site include redevelopment as multistory, mixed-use commercial and residential buildings with underground parking to a depth of approximately 52 feet North American Vertical Datum 1988 (NAVD88). Onni John Street (Land) LLC is the current owner of the Seattle Times Site.

2.1.4 Boren Avenue North ROW

According to City of Seattle's Street Types Map, the Boren Avenue North ROW is zoned as an Urban Village Neighborhood Access street. Boren Avenue North is paved with concrete panels and runs north—south. The ROW is comprised of two through lanes and parallel parking lanes on the east and west sides.

2.1.5 Terry Avenue North ROW

According to City of Seattle's Street Types Map, the Terry Avenue North ROW is zoned as an Urban Village Neighborhood Access street. Terry Avenue North is paved with asphalt, concrete, and brick and runs north—south. A Seattle Streetcar track runs along the western side of the street. The

ROW is comprised of two through lanes running one way to the south, with angled parking on portions of the east side and a parallel parking lane on portions of the west side.

2.1.6 Thomas Street ROW

According to City of Seattle's Street Types Map, the Thomas Street ROW is zoned as an Urban Village Neighborhood Access street. Thomas Street is paved with concrete panels and runs east—west. The ROW is comprised of two through lanes and a parallel parking lane on the south side.

2.1.7 Harrison Street ROW

According to City of Seattle's Street Types Map, the Harrison Street ROW is zoned as an Urban Village Neighborhood Access street. Harrison Street is paved with asphalt and concrete and runs east—west. The ROW is comprised of two through lanes, a center turning lane, and a parallel parking lane on the north side.

2.2 SURROUNDING PARCEL DESCRIPTIONS

The following subsections describe the current use and ownership of each of the parcels located adjoining to and surrounding the Site.

2.2.1 Northwest

The northwest-adjoining property consists of three tax parcels (King County parcel numbers 198320-0270, 198320-0260, and 1998320-0290) that cover approximately 90,360 square feet (2.07 acres). This property is located on the northwest corner of the intersection of Boren Avenue North and Harrison Street and is occupied by two 6-story office/retail buildings and an underground parking garage constructed in 2009. The development is known as the Amazon 1A Building. Amazon is the current owner of the northwest-adjoining property.

2.2.2 North

The two north-adjoining properties are comprised of eight tax parcels (King County parcel numbers 198320-0605, 198320-0610, 198320-0615, 198320-0625, 198320-0626, 198320-0635, 198320-0645, and 198320-0655) that cover a total of approximately 100,550 square feet (2.31 acres). The properties are located on Harrison Street between Boren Avenue North and Fairview Avenue North.

The eastern parcels are occupied by a 7-story, mixed-use residential and commercial building with an underground parking garage, all of which were constructed in 2018. This development is known as Marlowe SLU. The current owner of this property is South Lake Union Fairview LLC.

The western parcel is occupied by a 9-story apartment building with an underground parking garage, all of which was constructed in 2014. This development is known as Radius SLU. The current owner of this property is KW/LF Radius LLC.

2.2.3 Northeast

The northeast-adjoining property is comprised of one tax parcel (King County parcel number 246740-0120) that covers approximately 42,351 square feet (0.97 acre). The property is located on the northeast corner of the intersection of Fairview Avenue North and Harrison Street and is currently occupied by a 14-story office building with an underground parking garage, all of which was constructed in 2015. The current owner of the property is 400 Fairview Avenue LLC.

2.2.4 East

Fairview Avenue North provides the eastern Property boundary. Beyond the ROW are five east-adjoining properties (King County parcel numbers 246740-0065, 246740-0073, 246740-0080, 246740-0085, and 246740-0090).

A 1959-vintage, two-story office building occupies the northernmost property. A parking lot is located on the parcel adjacent to the south of this office building. A 2008-vintage, one-story Seattle Streetcar maintenance building is located on the central parcel. A vacant, 1948-vintage office building is located on the parcel to the south of the Seattle Streetcar maintenance building, and a vacant, 1954-vintage office building is located on the southernmost parcel at the corner of Fairview Avenue North and Thomas Street. The current owner of the three northern parcels is Seattle Department of Transportation, and the current owner of the two southern parcels is Ron Amundson.

2.2.5 Southeast

The southeast-adjoining property, which is located across the intersection of Fairview Avenue North and Thomas Street, is comprised of one tax parcel (King County parcel number 246740-0005) that covers approximately 2,880 square feet (0.07 acre). This property is occupied by a 1926-vintage, single-story masonry building, which operates as a restaurant. Fairview Corner LLC owns the southeast-adjoining property.

2.2.6 South of Seattle Times Site

To the south of the Seattle Times Site beyond John Street are two parcels (King County parcel numbers 269310-0065 and 269310-0068) that cover a total of approximately 82,618 square feet (1.90 acres). This property is owned by Onni Twin Towers and is currently undergoing redevelopment. Future land use plans for this property include redevelopment as multistory, mixed-use commercial and residential buildings with underground parking.

2.2.7 Southwest

The southwest-adjoining property, which lies beyond the intersection of Boren Avenue North and Thomas Street, is comprised of two tax parcels (King County parcel numbers 198620-0350 and 198620-0370) that cover approximately 46,800 square feet (1.07 acres). This property is occupied by an 11-story office building with an underground parking garage constructed in 2012. The development is known as the Amazon Phase V Building. Amazon is the current owner of the southwest-adjoining property.

2.2.8 West of West-Adjoining

The properties west of the west-adjoining properties include a partial alley maintained by the City of Seattle and three tax parcels beyond the alley (King County parcel numbers 198620-0440, 198620-0450, and 198620-0460).

Beyond the alley, the northern parcel is developed with one of the Amazon Phase IV buildings that extends from the west-adjoining property. The central parcel is occupied by a 1915-vintage, masonry building that formerly operated as a warehouse and has been redeveloped into a restaurant. The southernmost parcel is currently undergoing redevelopment as a 15-story hotel. Current owners of the parcels west of the west-adjoining property include (from north to south) Amazon and South Lake Union Hotel LLC.

2.3 LAND USE DESIGNATION

The current land use of the Property and surrounding area is a mix of office, commercial, and residential. According to the City of Seattle's zoning map, the affected properties within the Site are located inside an urban village, labeled as the South Lake Union Urban Center. The Site is zoned as Seattle Mixed (SM-SLU 175/85-280). The areas surrounding the Site are also zoned as Seattle Mixed.

2.4 LAND USE HISTORY OF THE SITE

The historical usage of each affected property, as defined in Section 2.1, is summarized in the following subsections. Relevant historical features of the Property are depicted on Figure 3.

2.4.1 The Property

The Property was initially developed prior to 1893 with residences, which occupied the Property until 1925, when the Boren Investment Company Warehouse (also referred to as the David Smith Building) was constructed on the northwestern corner of the Property (334 Boren Avenue North). This single-story, masonry-framed warehouse building was used as a sales floor and storage for David Smith Antiques, a whole furnishings retailer and wholesaler.

The Troy Building, formerly located at 307 Fairview Avenue North, was constructed between 1926 and 1927 and used as storage space for Integrity Interior Solutions and David Smith Antiques. Additions to the Troy Building, constructed in 1943 and 1966, were used for industrial laundry, fur storage (Fur Vault), a tumbling and cleaning area on the western portion of the Property, and a two-story reinforced parking garage on the southwestern portion of the Property.

The Mokas Building, formerly located at 329 Fairview Avenue North, was constructed in 1960 and was originally used as a "pick-up" laundry shop and dry cleaner. This building was later occupied by Mokas Café and Coffee Bar.

According to historical records, the Property operated as one of the Pacific Northwest's largest laundry and dry cleaning facilities by 1948. At least 15 underground storage tanks (USTs) containing heating oil, fuel, and dry cleaning solvents, as well as several aboveground storage tanks (ASTs) containing propane, washwater, water-softening agents, dry cleaning solvents, and heating oil, were used on the Property throughout the operation of this facility.

The Mokas Building was demolished in 2013. The Boren Investment Company Warehouse and the Troy Building were demolished in 2014 as part of the redevelopment of the Property. Figure 3 depicts the Property prior to redevelopment and includes historical Property features.

The current buildings were developed on the Property between 2014 and 2017, including two office towers and a common five-floor underground parking garage.

CHRONOLOGICAL DEVELOPMENT AND USE HISTORY FOR THE PROPERTY

Date(s)	Source(s)	Description
1893–1908	Sanborn Maps Archived Tax Records Side Sewer Cards	The earliest records identified indicate that as many as eleven residences, along with five associated buildings, occupied the Property in 1893. An alley running north/south divided the Property in half. In 1905, an additional residence and three small structures located at 325½ Fairview Avenue North were depicted on the Property. A residence located at 1717½ Harrison Street and shown in the 1893 Sanborn Map was no longer present on the Property. Archived records were available for three of the residences described above: a 2-story duplex at 1119 Harrison Street was constructed in 1900 and utilized oil stove heat; a 3-story apartment building, located at 329 Fairview Avenue North, was constructed in 1904; and a 2.5-story duplex, located at 327 Fairview Avenue North, was constructed in 1908. The latter two residences reportedly utilized stove heat. These three buildings were reportedly connected to the side sewer between 1900 and 1902, indicating that the construction dates of the 327 and 329 Fairview buildings were likely earlier than reported in the tax records.
1917	Sanborn Maps	Fifteen residences were depicted on the Property.
1925	Archived Tax Records Side Sewer Cards	The David Smith Building, located on the Property at 334 Boren Avenue North, was constructed and used as a store and warehouse for Seattle Plumbing Supply Co. The building utilized three suspended gas heaters in the warehouse areas of the building and a hot water heater in the office. The David Smith Building was connected to the side sewer at the time of its construction.
1926/1927	Archived Tax Records Side Sewer Cards	The original Troy Building, located at 307–311 Fairview Avenue North, was constructed as a laundry facility. The building was heated by a hot water furnace fueled by heating oil, a coal stoker, and electric wall units. The Troy Building was connected to the side sewer located in the former alley.
1930	Side Sewer Cards	A sewer line on the Property at 309 to 313 Fairview Avenue North underwent repairs.
1932–1969	Archived Tax Records Sanborn Maps Reverse Directories	The owner of the David Smith Building was listed as Seattle Plumbing Supply. Reverse directories and archived tax photographs show the building as occupied by United States Radiator Corp. in 1937. The building was utilized as a plumbing supply store until at least 1969.
1936	Side Sewer Cards	The residence at 305 Fairview Avenue North was connected to the side sewer. Additional sewer connections were completed in 1944 and 1946. Repairs to the sewer lines were completed in 1946 and 1952.
1937	Aerial Photographs	Two smokestacks were visible in the center of the Property in the 1937 aerial photograph, adjoining the northwest corner of the original Troy Building. Seven residences remained on the Property.
1944	Archived Tax Records Building Plans	The Troy Building was expanded to the west. The addition encompassed approximately 4,200 square feet.

Date(s)	Source(s)	Description
1945	Archived Tax Records	Troy Laundry purchased lot 9 of Block 109 (the portion of the
		Property that the Fur Vault occupies).
1946	Archived Tax Records Building Plans Sanborn Maps Seattle Times Closure Plan	Building additions were constructed to the north of the Troy Building, including an additional boiler room and an industrial laundry room that housed water softening equipment. As many as three boilers were depicted in different generations of building plans. At least three USTs were installed to the north of the boiler room with capacities between 1,000 and 10,000 gallons. Hog fuel bins were also reportedly constructed within the boiler room addition. East-adjacent to the boiler room, building plans depicted the water softening area with five aboveground tanks, a below-ground water tank, and brine and water pits to the north and south of the water tank, respectively. The water tank was reportedly pressurized by an air compressor connected to a 520-foot-deep groundwater supply well. Four 2,000-gallon gasoline USTs were installed to the north of the original Troy Building. The building plans also depicted a sump and heating oil UST of unknown capacity
		outside of the Troy Building to the east of the boiler room.
1947/1948	Aerial Photographs Archived Tax Records Sanborn Maps Building Plans	The one-story Fur Vault addition to the Troy Building was constructed and opened for business by April 15, 1948. The addition is listed at 312 Boren Avenue North. In 1957, a tax card stated that "Glacier Fur Co." occupied the Fur Vault. Other occupants included the Troy Fur Company and North Star Fur Company. The Fur Vault contained a salon, cleaning and repairing rooms, and a process room. The Fur Vault utilized four suspended hot water heaters directed from the original Troy Laundry Building, as well as an air conditioning unit. Exterior portions of the building were paved with asphalt. A catch basin was installed to the north of the Fur Vault.
1949	Archived Tax Records	Troy Dry Cleaning Inc. purchased the northeast parcel of the Property, which is currently occupied by the Mokas Building.
1950	Aerial Photographs Archived Tax Records Sanborn Maps Building Plans Side Sewer Cards	A concrete laundry loading shed with a ramp was constructed on the southwest portion of the Property. A 2,000-gallon UST and fuel-dispensing pump island was located near the loading shed. The area was surrounded by service truck parking. The residence located at 325 Fairview Avenue North was no longer present. Side sewer cards indicate that the Troy Laundry building was connected to a sump.
1952	Seattle Department of Planning and Development (DPD) Utility Files Seattle Fire Department	An inspection form showed a 7-bbl (approximately 300-gallon) heating oil UST beneath the sidewalk along Boren Avenue North, approximately 110 feet south of the corner of Boren Avenue North and Harrison Street. The inspector stated that the UST was installed and covered prior to field inspection. The UST was last maintained by Troy Laundry under Utilities Permit No. 96972 granted in 1963.
1957	Archived Tax Records	The owner of the David Smith Building was listed as Troy Laundry. By 1957, three 80-foot-tall smokestacks were listed as an improvement to the Troy Building and depicted in the archived tax card photograph.

Date(s)	Source(s)	Description
1957–1960	Archived Tax Records	The remaining residences, located on the Property at 327 and 329 Fairview Avenue North and 1115 and 1119 Harrison Street, were demolished.
1960	King County Assessor Sanborn Maps Aerial Photographs	Mokas Building, located at 329 Fairview Avenue North, was constructed on the northwest portion of the Property where the remaining residences had been demolished. The building was originally utilized as a "pick-up" laundry shop and dry cleaner. The building was heated by suspended gas heaters and was surrounded by an asphalt-paved parking lot.
1961	Archived Tax Records	Troy Laundry purchased the parcel occupied by the David Smith Building.
1961	Archived Tax Records	The laundry shed located at in the southwest portion of the Property was demolished.
1964/1965	King County Assessor Building Plans Aerial Photographs Archived Tax Records Sanborn Maps Seattle Times Closure Plan Ecology UST Database	The existing two-story garage addition to the Troy Building was constructed in the southeastern portion of the Property and was heated by suspended hot water heaters. The southern portion of the former alley was vacated to allow for the construction of the garage addition. Building plans indicate that the 2,000-gallon UST present beneath the southwestern portion of the Property was removed prior to construction. The former dry cleaning machinery was upgraded during the construction of the garage addition. Building plans and tax records indicate that four USTs containing solvents were installed by 1965; three solvent-containing USTs were installed beneath the northwest portion of the garage addition in a room labeled "Dry Cleaning" and included one 1,000-gallon circulating tank, one 3,000-gallon dump UST, and one 350-gallon "Sta Dri" (Stoddard solvent) UST. The fourth UST, which had a capacity of 8,000 gallons, was installed northwest of the loading dock. According to the Seattle Times Closure Plan, the 8,000-gallon UST stored recycled Stoddard solvent. Three solvent-containing USTs inside the building and beneath the dry cleaning area contained used solvent that had passed through the dry cleaning process. The used solvent was recycled through two ASTs and a still before it was returned to the 8,000-gallon UST for reuse. Several aboveground tanks were also shown in building plans and included a "vic. solvent saver," solvent coolers, a pre-coat barrel, and a 275-gallon "caustic tank." Two 1,000-gallon solvent storage tanks were also shown in the southeast corner of the dry cleaning room. It was not apparent whether these tanks were installed above or below ground. Four floor drains and a 4-foot-deep sump were depicted along the central portion of the east interior wall of the garage addition. Ecology's UST database indicated that a UST containing leaded gasoline with an unknown capacity was installed on the Property in 1964. SoundEarth was unable to confirm the location of this UST, but it is likely the former 8

Date(s)	Source(s)	Description
		In addition to the garage, a transformer vault was installed
		south-adjacent to the existing boiler room and trenches were
		depicted in the north-central portion of the garage, running
		north-south.
1966	Building Plans	A laundry bay addition to the northeastern portion of the Troy
		Building was constructed. The 1940s-era 2,000-gallon gasoline
		USTs were reportedly removed prior to the laundry bay
		construction. A pit and two connecting trenches were installed within the addition. The trenches ran north–south
		from the Troy Building into the pit, and reportedly drained
		into the sewer.
1967/1968	Archived Tax Records	One 10,000-gallon UST was listed as an improvement for the
1307/1300	A CHIVE TAX NECOTAS	Mokas Building. The contents and location of the UST were
		not identified.
1969	Sanborn Maps	A parking lot was depicted to the north of the Fur Vault.
1970	Archived Tax Records	City Dry Cleaners Company was listed as the fee owner of the
		Property.
1970	Aerial Photographs	Aerial photographs show the Property configuration as
	Seattle Times Closure	generally unchanged from 1970 until the present. A cylindrical
	Plan	aboveground tank appeared to the north of the Mokas
		Building in aerial photographs from 1970 to 1985. The Seattle
		Times Closure Plan indicated that this tank was a 10,000-
		gallon propane tank. It was removed by 1989.
1971	Ecology Records	A permit to Appropriate Waters of the State of Washington
		was approved in 1971 for the supply well located within Troy
		Building. The permit allowed Troy Laundry Company to
		produce up to 1,000 gallons of water each minute from the
1973	Permit Files	supply well for the laundry operations. Two 12,000-gallon USTs containing heating oil were installed
1973	remit mes	on the Property to the north of the boiler room.
1975	King County Assessor	The David Smith Building and storage warehouse addition to
2070		the Troy Building were remodeled.
1979–1983	Reverse Directories	An air conditioner shop occupied the David Smith Building.
		.
1985	King County Assessor	According to the Seattle Times Closure Report, Troy Linen and
	Archived Tax Records	Uniform Service, Inc. sold its stock to American Linen Supply
	Seattle Times Records	Co., d/b/a Maryatt Industries (Maryatt), on March 1, 1985.
	Closure Plan	The report and King County Assessor Records state that
		Seattle Times purchased the Property from Troy Linen on
		March 5, 1985. Troy Linen was dissolved as an entity on
		March 14, 1985. Seattle Times leased the Property to Maryatt
		until June 30, 1985, at which time Maryatt discontinued the
		laundry and dry cleaning operations and removed most of the
		associated fixtures and some of the waste material. Maryatt left in place the interior solvent USTs, two aboveground
		settling tanks, and a still, as well as containers of various
		materials including kerosene. Four USTs were closed in-place
		by Maryatt: two 12,000-gallon USTs and one 1,000-gallon UST
		containing heating oil, located in the parking lot adjoining the
		north wall of the boiler room, and an 8,000-gallon UST
		containing gasoline, which was located in the parking lot of
	II.	, , , , , , , , , , , , , , , , , , , ,

Date(s)	Source(s)	Description
		the Mokas Building. Archived records listed a pump island as an improvement to the parcel occupied by Mokas Building in 1985, likely associated with the 8,000-gallon UST. At the time Seattle Times purchased the Property, the 8,000-gallon UST located near the loading dock contained 1,000 gallons of unused Stoddard solvents. The 350-, 1,000-, and 3,000-gallon USTs, located within the interior of the building in the dry cleaning area, contained approximately 4,000 gallons of used Stoddard solvent. All solvents were removed from the USTs and disposed of. After passing pressure tests, the interior tanks were reportedly temporarily closed in-place with sand and the 8,000-gallon UST was removed. Seattle Times relinquished their water rights for the Property on November 27, 1985.
1987–1989	Seattle Fire Department	Seattle Fire Department required that the interior solvent USTs be removed 2 years following their closure in-place. Seattle Times was granted a 2-year extension for removing the interior solvent USTs by the Seattle Fire Department in 1987 and another extension in 1989. Seattle Times cited that the USTs were too difficult to remove due to their location within the building and that they would remove the tanks after the Troy Building was demolished.
1988	Side Sewer Cards	The David Smith Building underwent sewer repairs.
1988	Seattle Fire Department	While installing a phone line, US West discovered that the 300-gallon heating oil UST within the Boren Avenue North ROW remained in place.
1990	Seattle Fire Department	Seattle Times was approved for a utilities permit to allow the UST beneath the Boren Avenue North ROW to remain in place.
1992	Building Plans	A hot water boiler was shown in the basement of the Troy Laundry building.
1996	Ecology UST Database	The 1964-vintage UST containing leaded gasoline was reportedly closed in-place by 1996.
1996	Seattle City Clerk	The Troy Building was designated as a Historical Landmark by the Landmarks Preservation Board.
2009	King County Auditor	Seattle Times sold an underground portion of the Property as a temporary tieback easement and temporary airspace for a crane boom to City Place IV LLC.
2011	King County Assessor	Seattle Times sold the Property to Touchstone on June 6.
2017	King County Assessor	Construction of current buildings on the Property are completed.
2019	King County Assessor	Touchstone sold the Property to the Ponte Gadea Seattle LLC on March 26.

2.4.2 West-Adjoining Property

The west-adjoining property was originally occupied by residences until approximately 1906, when a Feather Mill was constructed on the southern parcel of the property. This building was subsequently used as a metal cleaning shop. The remaining residences were demolished by 1951, and the property was redeveloped with warehouses. All aboveground structures were

demolished by 2009. The property was subsequently excavated, and the existing Amazon Phase IV building was constructed on the property in 2010.

2.4.3 <u>South-Adjoining Property (Seattle Times Site)</u>

The Seattle Times Site was initially developed with residences until 1930, when the Seattle Times Building was constructed on the eastern portion of the property. The building was utilized as a printing plant and offices. The original structure included a basement and sub-basement, a paper warehouse with rooftop parking, a press room, and a linotyping/printing/engraving area.

In 1950, three residences on the western portion of the property were demolished, and a garage addition to the Seattle Times Building was constructed. Seattle Times purchased the remaining parcels of the superblock between 1959 and 1961. The Seattle Times Building was remodeled between 1963 and 1968, when one 3-story and one 2-story building with basement additions were constructed on the northwestern portion of the property.

Between 1975 and 1980, an office addition was constructed on the southwest portion of the property to the south of the 1968-vintage press room. In 1990, a flammable storage area was constructed on the property to the south of the garage. The storage area was comprised of drum storage, mixing, and plate cleaning rooms on the first floor and a kerosene AST room on the ground floor. In 2009, Seattle Times sold an underground portion of the property as a temporary tieback easement and temporary airspace for a crane boom to City Place V LLC, the southwest-adjoining property owner.

In 2013, Seattle Times sold the property to Onni John Street (Land) LLC, and the Seattle Times Building and other structures on the property were demolished in 2016. The western portion of the property is currently used as an asphalt-paved parking lot, and the eastern portion of the property is currently used as an unpaved parking lot. The Seattle Times Site is planned for redevelopment as multistory, mixed-use commercial and residential buildings with underground parking.

According to historical records, at least 10 USTs containing heating oil, gasoline, diesel, waste oil, and ink, as well as several ASTs containing ink and kerosene, were used on the Seattle Times Site throughout the operation of the Seattle Times facility.

2.5 HISTORICAL LAND USE OF SURROUNDING PARCELS

The following sections present a summary of the historical land use on parcels adjoining the Site.

2.5.1 Northwest

Earliest available records indicate that a single-story store and cabins occupied the northwest-adjoining property in 1893. Between 1909 and 1919, the original structures were demolished, and a three-store warehouse with a basement was constructed on the property. The warehouse was occupied by various tenants, including Nelson's Furniture, a mattress manufacturer, and a wholesale electric appliance company. In 1956, a warehouse addition was constructed on the southern portion of the northwest-adjoining property. In 1996, City Investors VIII LLC/Vulcan NW, Inc. (now Lake Union III LLC) purchased the property. In 2009, the warehouse structures were demolished, and the property was redeveloped with a 415-stall underground parking garage and three buildings operated by Amazon—the North, South, and the Van Vorst Buildings. The North and South Buildings include six stories of retail and office space, and the Van Vorst Building includes two stories of office space.

2.5.2 North

The north-adjoining property was initially developed with residences in the 1890s. The property was occupied primarily by residences until 1953, when a warehouse/office building was constructed. By 1954, all the original residences were demolished, and a second warehouse/office building was constructed. The 1954-vintage building on the western portion of the property operated as an office building until 2010, when it was remodeled as a restaurant. This building was demolished in 2013, when the parcel was redeveloped with the existing 9-story apartment building with a 4-story, 306-stall underground parking garage.

The 1953-vintage building on the eastern portion of the property operated as an office building until 2011, when it was remodeled for use as an indoor participant sports/medical office and Pilates studio. This building was demolished in 2016, and the parcel was redeveloped with the existing 7-story commercial and residential building with a 4-story, 529-stall underground parking garage.

2.5.3 Northeast

The northeast-adjoining property was initially developed with residences. The property continued to be developed with residences until they were demolished between 1962 and 1965, after which time the property was redeveloped as a parking lot. The property remained unpaved until at least 1970. In 1977, a warehouse/office building was constructed and operated by Northwest Wholesale Florists. The warehouse/office building was demolished in 2013, and the existing 14-story building with a 5-story, 468-stall underground parking garage was constructed between 2013 and 2015. This building has undergone multiple remodels between 2015 and 2017 and has been occupied by offices, retail stores, and restaurants since that time.

2.5.4 **East**

The east-adjoining properties were initially developed with residences. In 1918, two fourplexes were constructed. These fourplexes were used as office spaces. In 1942, the residences formerly located on the southern parcel were demolished. The parcel was redeveloped with the existing two-story office/retail building and single-story warehouse, which was occupied by a photography studio and developer. In 1959, the existing two-story office building was constructed in the northern parcel of the east-adjoining property. The building included general office space, a lounge, and conference rooms. The building was heated by forced air. The 1959-vintage building initially operated as a union hall. The two fourplexes were demolished between 1965 and 1972, and the parcels were redeveloped as asphalt-paved parking lots. In 2006, the City of Seattle purchased the northern parcels. The 1942-office building was demolished, and approximately half the property was redeveloped into the existing South Lake Union Streetcar maintenance facility. Development activities included excavating, shoring, grading, and installing rail lines for the South Lake Union Streetcar.

2.5.5 Southeast

The southeast-adjoining property was initially developed with a residence, which was demolished by 1917. In 1926, the existing single-story masonry building was constructed. Between 1929 and 1943, a portion of the building was occupied by an automotive repair shop. In 1948, the building was remodeled to include two retail spaces; the eastern space included a hydraulic system, a spray room, and a service area and was operated by Jack Shop Hydraulic Repairs. The western retail space operated as a restaurant. Between 1951 and 1971, various tenants operated out of the eastern retail space, including metal-finishing/electroplating, refrigerator repair, welding

repair, and a locksmith. In 1985, the building was remodeled and has been used as a restaurant since that time.

2.5.6 South of Seattle Times Site

The property located to the south of the Seattle Times Site was initially developed with three residences on the northwestern parcel by 1905. Two additional residences were added by 1917. By 1953, much of the eastern parcel was occupied by a parking lot. By 1965, the residences had been demolished, and the majority of the property was paved and used as a parking lot. Since 2017, the property has been undergoing ongoing redevelopment.

2.5.7 Southwest

Earliest available records indicate that the southwest-adjoining property was initially developed in 1880 with a residence. The property remained primarily residential until 1920, when a 1-story store was constructed. All aboveground structures were demolished between 1950 and 1960, and the property was subsequently redeveloped as an asphalt-paved parking lot. In 1965, Seattle Times purchased the property. City Investors XVII LLC purchased the property from Seattle Times in 2004, and it was redeveloped with the existing 11-story office/retail building with 496-stall underground parking garage, which is now owned and occupied by Amazon.

2.5.8 West of West-Adjoining

A residence initially occupied the northern portion of the property located to the west of the westadjoining property in 1893. In 1905, two duplexes were constructed on the northern portion of the property. In 1915, the existing 2-story masonry warehouse building was constructed on the central parcel of the property and was initially occupied by Kelly-Goodwin Hardware Company. In 1917, one of the duplexes was replaced by a 1-story stove foundry. A single-story wood frame building occupied by Kellogg Fuel Company was constructed on the southeast corner of the property between 1919 and 1923. By 1937, the last of the residences was demolished, and the entire property remained unpaved. A single-story corrugated iron-frame warehouse was constructed to the south of the 1915-vintage warehouse and operated as a furniture warehouse. The Kellogg Fuel building was demolished in approximately 1945. Between 1954 and 1955, a concrete-frame warehouse was constructed on the southern parcel of the property. The building was originally one story and was remodeled in 1959 and 1965 to include a second and third story. The building was originally operated as a carpet warehouse and was owned by Beryl W. Davis Inc. In 1963, a 1-story masonry-frame warehouse was constructed in the northern parcel, which was owned at that time by Georgia Pacific Corp. and operated as a plywood warehouse. In 1985, the primary use of the 1955-vintage warehouse transitioned into a laboratory. In 1997, Seattle Times sold the central parcel to City Investors XVII LLC. In 2010, the north and central parcels located west of the west-adjoining property were redeveloped into the Amazon campus along with the west-adjoining property. Two 12-story office and retail buildings and a 6-story underground parking garage were constructed over most of the city block bound by Terry Avenue and Boren Avenue North, and Harrison and Thomas streets. The southernmost parcel is currently undergoing redevelopment as a 15-story hotel.

2.6 CURRENT LAND USE

Currently, the Troy Block development at the Property occupies a full city block bounded by Fairview Avenue North, Harrison Street, Boren Avenue North, and Thomas Street. The development includes two office towers and a 5-story below-grade parking garage with 1,120 parking stalls. The North Tower consists of 13 stories with 418,999 square feet of rentable space, and the South Tower consists of 12 stories with

392,521 square feet of rentable space. Both towers are currently leased and occupied by Amazon. The development also includes approximately 1 acre of public open space between the two towers.

2.7 ENVIRONMENTAL SETTING

This section provides a summary of the environmental setting of the Site.

2.7.1 Meteorology

Climate in the Seattle area is generally mild and experiences moderate seasonal fluctuations in temperature. Average temperatures range from the 60s in the summer to the 40s in the winter. The warmest month of the year is August, which has an average maximum temperature of 74.9 degrees Fahrenheit, while the coldest month of the year is January, which has an average minimum temperature of 36 degrees Fahrenheit.

The annual average rainfall in the Seattle area is 38.25 inches, with December as the wettest month of the year when the area receives an average rainfall total of 6.06 inches (IDcide 2019). The prevailing wind direction in the Seattle area is south to southwest in winter and spring, and southwest to north in the summer and fall (Western Regional Climate Center 2017).

2.7.2 Topography

The Site and vicinity lie within the Puget Trough or Lowland portion of the Pacific Border Physiographic Province (USGS 1983). The Puget Lowland is a broad, low-lying region situated between the Cascade Range to the east and the Olympic Mountains and Willapa Hills to the west. In the north, the San Juan Islands form the division between the Puget Lowland and the Strait of Georgia in British Columbia. The province is characterized by roughly north—south-oriented valleys and ridges, with the ridges that locally form an upland plain at elevations of up to about 500 feet above sea level. The moderately to steeply sloped ridges are separated by swales, which are often occupied by wetlands, streams, and lakes. The physiographic nature of the Puget Lowland was prominently formed by the last retreat of the Vashon Stade of the Fraser Glaciation, which is estimated to have occurred between 14,000 and 18,000 years before present (Waitt and Thorson 1983).

The Site is located on a topographically low-lying area within the South Lake Union neighborhood of the City of Seattle. Elevations range from 68 feet (northwest corner of the Property) to 105 feet (southeast corner of the Property) above mean sea level and slope toward the northwest (King County iMAP 2019). Lake Union is located approximately 0.4 mile to the north of the Site, and Elliot Bay is located approximately 1.5 miles to the west of the Site (USGS 1983; Figure 1).

2.7.3 **Groundwater Use**

A groundwater supply well historically operated on the Property in the vicinity of the water softening equipment in the Troy Building (Figure 3). This well was used to supply the laundry facility with water used in cleaning operations on the Property and was never used as a potable water source. The supply well was decommissioned by Richardson Well Drilling of Puyallup, Washington, on July 26, 2011.

According to the Ecology Well Report Viewer (Ecology 2019c), two water supply wells are located at 100 Fourth Avenue North, approximately 0.6 mile east—southeast of the Site. The two supply wells were installed on the property owned by Fisher Broadcasting in 1999 and 2001. The wells were drilled to depths of 148 and 155 feet below ground surface (bgs). Each well was fitted with 10 feet of screen from the well bottom. These water supply wells, reviewed in Ecology's database,

encountered static water levels between 77 and 80 feet bgs but appear hydrologically crossgradient from the primary water-bearing zone encountered in the monitoring wells installed at the Site. The purpose of the wells is unknown, but it is unlikely that they are used as a potable water source.

Seattle Public Utilities (SPU) provides the potable water supply to the City of Seattle. SPU's main source of water is derived from surface water reservoirs located within the Cedar and South Fork Tolt River watersheds. According to King County's Interactive Map for the County's Groundwater Program, there are no designated aquifer recharge or wellhead protection areas within several miles of the Site.

2.8 GEOLOGIC AND HYDROGEOLOGIC SETTING

The following sections summarize the regional geology and hydrogeology in the Site vicinity, and the geologic and hydrogeologic conditions encountered beneath the Site.

2.8.1 Regional Geology

According to *The Geologic Map of Seattle—A Progress Report* (Troost et al. 2005), the subsurface geology in the vicinity of the Site consists of deposits corresponding to the Vashon Stade of the Fraser Glaciation and pre-Fraser glacial and interglacial periods. The subsurface geology beneath and in the vicinity of the Site have been mapped as Vashon recessional outwash and ice-contact deposits, pre-Fraser Olympia beds, and pre-Fraser undifferentiated glacial and nonglacial deposits.

The youngest pre-Fraser deposits in the Seattle area, known as the Olympia beds, were deposited during the last interglacial period, approximately 18,000 to 70,000 years ago. The Olympia beds consist of very dense, fine to medium, clean to silty sands and intermittent gravel channel deposits, interbedded with hard silts and peats (Troost and Booth 2008). Organic matter and localized iron-oxide horizons are common. The Olympia beds have known thicknesses of up to 80 feet. Beneath the Olympia beds are various older deposits of glacial and nonglacial origin. In general, deposits from older interglacial and glacial periods are similar to deposits from the most recent glacial cycle, due to similar topographic and climactic conditions (Troost and Booth 2008).

The Vashon ice-contact deposits in the vicinity of the Site are generally discontinuous, highly variable in thickness and lateral extent, and consist of loose to very dense, intermixed glacial till and glacial outwash deposits. The till typically consists of sandy silts with gravel. The outwash consists of sands and gravels, with variable amounts of silt (Troost et al. 2005).

The Vashon recessional outwash deposits are generally discontinuous in the Site vicinity and consist of loose to very dense layered sands and gravels, which are generally well-sorted (poorly graded). Layers of silty sands and silts are less common. The Vashon recessional lacustrine deposits consist of layered silts and clays, which range in plasticity from low to high, and that may contain localized intervals of sand or peat. The recessional lacustrine deposits may grade into recessional outwash deposits (Troost et al. 2005).

2.8.2 Regional Hydrogeology

The glacial and nonglacial deposits beneath the Seattle area comprise the unconsolidated Puget Sound aquifer system, which can extend from ground surface to depths of more than 3,000 feet. Coarse-grained units within this sequence generally function as aquifers, and alternate at some scale with fine-grained units which function as aquitards (Vaccaro et al. 1998). Above local or regional water table aquifers, discontinuous perched groundwater may be present in coarse-

grained intervals seated above fine-grained intervals. Below the regional water table, the alternating pattern of coarse- and fine-grained units results in a series of confined aquifers. Regional groundwater flow is generally from topographic highs toward major surface water bodies such as Puget Sound and Lake Union. Vertical hydraulic gradients are typically upward near the major surface water bodies, and downward inland (Floyd Snider McCarthy Team 2003; Vaccaro et al. 1998).

In 2017, Richard Martin Groundwater (RMG) analyzed the regional groundwater flow in South Lake Union on behalf of SoundEarth (RMG 2017). The regional groundwater flow direction in South Lake Union is presented in Figure 4. RMG's analysis of the regional groundwater in South Lake Union shows that groundwater flows from the Queen Anne area to the east and southeast, with a component of the groundwater flowing toward Lake Union, approximately north of Mercer Street (Figure 4). A local groundwater divide is observed approximately between Mercer Street and Republican Street, with groundwater north of the divide flowing and presumably discharging to Lake Union. In areas to the south of the divide, including the area of the Site, groundwater flows to the south and southeast before turning toward Elliott Bay, approximately south of Denny Way.

In 2013, a localized reversal in the regional groundwater flow direction was observed in the vicinity of the Property as a result of construction dewatering within the regional aquifer at Block 45, which is located upgradient of the Troy Property (Figure 4). During the Block 45 construction dewatering, the groundwater flow direction at the Property shifted from southeast to northwest for approximately 12 months. Recent groundwater elevation data discussed in subsequent sections of this report shows that the primary groundwater flow direction to the southeast beneath the Property has been restored. The regional groundwater flow for the Property as evidenced by groundwater elevation data is to the east-southeast and is not anticipated to change in the absence of significant construction dewatering or other groundwater withdrawals from the regional aquifer proximal to the Property.

2.8.3 Site Geology

Based on the findings of the investigations summarized in later sections of this report, subsurface soil beneath the Site consists primarily of Vashon-age glacial deposits, pre-Fraser nonglacial deposits, and possible pre-Fraser glacial deposits. The locations of the borings and wells advanced at the Site are shown in Figure 5. Cross sections depicting subsurface soil characteristics and geologic units encountered in the explorations are presented as Figures 6 through 9. Detailed boring logs with well construction details are included as Appendix A.

The subsurface soil beneath the Site is interpreted to consist of the following geologic units from youngest to oldest: Vashon recessional outwash deposits; ice-contact deposits of either Vashon age or pre-Fraser age; and pre-Fraser nonglacial deposits. These units are described in the following sections.

2.8.3.1 Vashon Recessional Outwash (Qvr)

Vashon recessional outwash deposits were encountered in many of the explorations located in the western and northern portions of the Site. The recessional outwash consists primarily of loose to medium dense, gray to brown, poorly graded fine- to medium-grained sands and sands with silt, with varying amounts of gravel. Intervals of silty sand and silt of varying thicknesses were observed throughout several of the borings advanced at the Site. Discontinuous deposits of dense to very dense gravel and sand with gravel were also encountered.

The recessional outwash deposits were encountered at the surface in borings located in the central, northern, and western portions of the Site, with thicknesses ranging from less than 10 feet to approximately 50 feet. The extent and thickness of the recessional outwash deposits appear to define a pre-existing northeast—southwest-oriented erosional surface or channel located along the western margin of the Property. The recessional outwash deposits are absent at the surface along the eastern margin of the Site and increase in thickness along the western and northwestern portions of the Site (Figures 6 through 9).

2.8.3.2 Ice-Contact Deposits (Qi)

The dense to very dense, predominantly poorly graded silty fine sands with varying gravel contents encountered above the pre-Fraser nonglacial deposits in the southern and eastern portions of the Site are interpreted to be ice-contact deposits (Figures 6 through 9). The ice-contact deposits were encountered at the surface, or immediately beneath a thin layer of recessional outwash deposits, and overly the pre-Fraser nonglacial deposits. The ice-contact deposits ranged from about 10 to 25 feet thick, where encountered, in the borings located along the southern and eastern margins of the Site.

The corresponding age for these deposits could not be confirmed using the available subsurface data. Associated Earth Sciences, Inc., the geotechnical consultant for Touchstone, observed that some of the samples of the ice-contact deposits were effervescent in hydrochloric acid, which is often indicative of a pre-Fraser age for ice-contact deposits or glacial till.

2.8.3.3 Pre-Fraser Nonglacial Deposits (Qpfa)

A thick sequence of undifferentiated pre-Fraser deposits, interpreted to consist primarily of nonglacial alluvial deposits, was encountered beneath the recessional outwash and ice-contact deposits (Figures 6 through 9). The soil associated with the nonglacial alluvial deposits consists of very dense/hard, light brown to gray-brown, predominantly poorly graded fine to medium sands and sands with silts interbedded with silty fine sands. The gravel content in the samples was highly variable, with some discontinuous layers of gravel with sand. The color of these deposits is typically brown to light brown or gray-brown, with distinct, localized horizons of reddish-brown oxidation that are semi-continuous across the Site. The physical characteristics observed in the samples indicate that individual layers within these pre-Fraser nonglacial deposits are discontinuous and grade laterally within specific depth intervals across the Site (Figures 6 and 7).

A bed of dark brown to orange to reddish brown silt and silty sand, with local organic-rich zones, was encountered at or near the top of the nonglacial deposits. This layer of organic-rich silt/silty sand is semi-continuous across the Site and appears to mark the interface with the overlying ice-contact or recessional outwash deposits.

The finer-grained, less transmissive pre-Fraser deposits are at least 80 feet thick beneath the southern portion of the Site. The thickness decreases toward the north and northwest, corresponding to the increased thickness of the overlying recessional outwash deposits (Figure 7). The pre-Fraser nonglacial deposits extend to depths greater than about –26 feet NAVD88 based on the maximum depth explored (boring B31).

2.8.4 Site Hydrogeology

Two water-bearing zones have been encountered during the investigations conducted at the Site and are discussed below. Considering the significant elevation changes and associated relative depths bgs across the Site, discussions regarding elevation and depth are presented in elevations above NAVD88.

2.8.4.1 Perched Interval

An upper discontinuous water-bearing zone, referred to as the perched interval, was encountered in only 9 of the 78 borings advanced at the Property and is generally associated with coarser permeable zones overlying the uppermost dense silt layer in the pre-Fraser nonglacial deposits at elevations of approximately 75 feet above NAVD88. Prior to redevelopment, recharge to the perched interval formerly occurred within the vegetated slope in the center of the Property, the bottom of which is elevated just above the location of the perched water encountered during drilling.

2.8.4.2 Primary Water-Bearing Zone

The regional groundwater beneath the Site consists of a deeper continuous water-bearing zone, referred to as the primary water-bearing zone, occurring within the recessional outwash deposits and the pre-Fraser nonglacial deposits. The primary water-bearing zone comprises the shallowest contiguous aquifer beneath the Site, with elevations ranging from 13 to 17 feet NAVD88. The primary water-bearing zone is a heterogeneous aquifer consisting of several geologic units that is hydraulically unconfined beneath most of the Site. Based on data obtained from MW16 (which, as discussed below, was inadvertently destroyed and has been replaced with MW28), this zone appears to transition to a semi-confined condition in the southern portion of the Site near Thomas Street. The bottom of the primary water-bearing zone was not encountered during the RI or supplemental RI activities, although an increase in silt content observed near the bottom of monitoring wells MW08, MW09, and MW12 indicates a potential transition to an underlying aquifer (Figure 6).

The general direction of groundwater flow in the primary water-bearing zone is toward the east—southeast (Figures 10 through 13), although the water table has historically been relatively flat beneath much of the Property. In December 2019, groundwater elevations ranged from 16.89 (MW15) to 13.19 (MW18) feet NAVD88 across the Site, and the groundwater gradient across the Site was measured to be approximately 0.007 feet per foot toward the east—southeast.

As discussed in Section 2.8.2, in 2013 for a period of approximately 12 months, a localized reversal in the regional groundwater flow direction was observed in the vicinity of the Property as a result of construction dewatering within the regional aquifer at Block 45, located upgradient of the Property (Figure 4). Recent groundwater elevation data discussed in subsequent sections of this report shows that the primary groundwater flow direction to the southeast beneath the Property has been restored. The regional groundwater flow for the Property, as evidenced by groundwater elevation data, remains to the east—southeast. Groundwater gradients at the Site between 2011 and 2019 have ranged from 0.002 to 0.011 feet per foot, with slightly higher gradients in the northwestern portion of the Site and lower gradients in the central and southeastern portions of the Site.

3.0 PREVIOUS INVESTIGATIONS

The following subsections summarize the results of previous investigations conducted at the Site prior to 2010.¹

¹ Additional information about prior environmental investigations, activities and conditions at the Troy Property prior to 2010 can be obtained in the Order re: Findings of Fact & Conclusions of Law issued in *Seattle Times Company v. Leathercare, Inc. et al.*, U.S. District Court (Western District of Washington) Case No. C15-1901TSZ.

3.1 1986 SEATTLE TIMES CLOSURE REPORT

Seattle Times prepared a Closure Plan to document the decommissioning of the former industrial laundry and dry cleaning facility in accordance with Washington's Dangerous Waste Standards for facility closure and post-closure, as described under WAC 173-303-610(a). The report identified the following chemicals stored on the Property: Stoddard solvents, wastewater and sludge, gasoline, and heating oil. At the time the report was prepared, approximately 5,000 gallons of new and used Stoddard solvent were pumped from the four solvent USTs. In 1985, the interior USTs were filled with sand and closed in place, and the exterior 8,000-gallon UST was removed.

The concrete floors on both the first (basement) and second stories of the Troy Building contained shallow drainage channels. These channels were used as catchments for freshwater when the Property operated as a dry cleaner and were reportedly connected to a separator pit. Both the first- and second-story channels were sampled, and the first-story channels were found to contain dangerous waste residue. The channels were reportedly cleaned, and the hazardous material was disposed of at an approved facility.

In addition, the following storage vessels were sampled and/or decommissioned as part of the facility closure:

- Two concrete pits. The first concrete pit was presumably the pit that formerly housed the pressurized water tank and contained standing water. The second concrete pit was a separator pit that was used as a laundry wastewater pit and contained standing water and solid residue.
- A 6-foot-deep sump inside the 1964-vintage garage addition.
- A fiberglass AST measuring 12 feet in diameter and 6 feet in height, which contained approximately 5,000 gallons of metal-contaminated water and sludge.
- Four USTs, including two 12,000-gallon USTs and one 1,000-gallon UST containing heating oil, which were located in the parking lot to the north of the boiler room, and one 8,000-gallon UST containing gasoline, located in the parking lot of the Mokas building.

Because no evidence of leaks was observed during the decommissioning of the USTs, AST, or sumps discussed above, the report concluded that it was unlikely a release to the subsurface had occurred, such that soil and groundwater sampling was unwarranted. A June 25, 1986, letter from Ecology concurred with the report's conclusions (SoundEarth 2012a).

3.2 1994 RETEC GROUNDWATER SUPPLY WELL SAMPLING

In October 1994, Remediation Technologies Incorporated (RETEC) sampled the groundwater supply well located inside the Troy Building. The purpose of the sampling event was to evaluate if the well was acting as a conduit for contamination into the subsurface. Prior to purging, water was observed at a depth of 73 feet below the top of the well casing, which extended approximately 1.5 feet above the floor of the building. The total depth of the well was measured at approximately 490 feet bgs. RETEC purged approximately 2,450 gallons of groundwater from the well at a rate of 3.5 gallons per minute. The purge water was discharged through a floor drain at the Property. At the time of sampling, pH was measured to be 9.88. A groundwater sample was submitted to the laboratory for analysis of volatile organic compounds (VOCs); semivolatile organic compounds (SVOCs); total petroleum hydrocarbons (TPH); metals, including arsenic, barium, cadmium, chromium, lead, selenium, silver; and polycyclic aromatic hydrocarbons (PAHs).

Concentrations of the VOCs, SVOCs, and PAHs were below the applicable 1989 MTCA Method A cleanup levels. A concentration of TPH of 420 micrograms per liter (μ g/L), exceeding the 1989 MTCA Method A cleanup level, was detected in the groundwater sample.

3.3 2010 PHASE I ENVIRONMENTAL SITE ASSESSMENT

SoundEarth conducted a Phase I Environmental Site Assessment (ESA) of the Property in 2010 (SES 2010). The purpose of the Phase I ESA was to identify recognized environmental conditions (RECs) associated with the use, manufacture, storage, or disposal of hazardous or toxic substances at the Property and adjacent properties.

SoundEarth identified the following RECs associated with the Property:

- The former operation of a dry cleaning facility and large laundry plant on the Property from 1926 until 1985.
- The likely historical use and storage of heating oil in ASTs or USTs at the residences formerly located on the Property.
- The current and historical operation of automotive repair facilities to the south, southeast, and east of the Property.
- The current and historical operation of a large newspaper facility adjoining the south of the Property.

4.0 PREVIOUS REMEDIAL INVESTIGATION WORK

The following subsections summarize the prior remedial investigation activities conducted at the Site between 2010 and 2014, prior to the implementation of the IRA in 2014 and 2015. The locations of soil borings and monitoring wells are shown on Figure 5. The soil and groundwater analytical results are summarized in Tables 1 through 7. Boring logs for soil borings and monitoring wells are provided in Appendix A. Laboratory analytical reports for soil and groundwater samples are provided in Appendix B.

4.1 AUGUST 2010 GPR SURVEY, GROUNDWATER SAMPLING, AND PASSIVE SOIL VAPOR SURVEY

Based on the findings of the Phase I ESA, SoundEarth conducted an SI on the Property in August 2010. This investigation included a ground-penetrating radar (GPR) survey to evaluate the current status of the USTs identified during the Phase I ESA, a groundwater sampling event for the on-Property supply well located inside the Troy Building, and a passive soil vapor survey to evaluate the potential for a historical release of petroleum hydrocarbons and/or VOCs to the subsurface. The findings of the investigation included the following:

- The GPR survey confirmed the removal of several known USTs on the Property and identified four anomalies indicative of additional USTs located near the southwest corner of the Mokas Building and in the parking lot between the David Smith and Mokas Buildings.
- Groundwater was observed at a depth of 75.25 feet below the top of well casing in the on-Property supply well. Samples collected from the top and bottom of the water column at depths of 75 and 490 feet, respectively, did not contain detectable concentrations of PAHs, VOCs, or GRPH. Concentrations of DRPH and ORPH below the applicable MTCA Method A cleanup levels were detected in the 490-foot sample. Concentrations of metals detected in the samples were representative of background levels for the Puget Sound region.

- The results of the passive soil vapor survey, which consisted of 67 passive-sampling GORE-Sorber modules at the Property on a 40-foot-square grid within 2.5-foot-deep soil borings, indicated the following:
 - Detectable levels of PCE were present throughout the western portion of the Property, with the highest levels near the former loading dock, beneath the Fur Vault, and within the David Smith Building.
 - TCE and cis-1,2-DCE were also observed on the western half of the Property, with the highest levels near the former loading dock.
 - Detected levels of TPH and associated compounds were also highest in the vicinity of the former loading dock.
 - A second potential source area for TPH was identified to the northeast of the Mokas Building.

A detailed description of work completed during this SI is provided in SoundEarth's Summary of Environmental Conditions at the Troy Laundry Property (SoundEarth 2010a).

4.2 2010 LIMITED PHASE II ESA

SoundEarth conducted a Limited Phase II ESA at the Property in October 2010 (SoundEarth 2010b) to evaluate the potential source areas identified during the Phase I ESA research and passive soil gas survey, as well as the shallow lateral extent of COCs as indicated by the soil vapor isoconcentration maps included in the Phase II ESA report. During this investigation, SoundEarth advanced 14 soil borings (P01 through P14) on the Property near the potential source areas to a maximum depth of 23 feet bgs (Figures 3 and 5). Perched groundwater was encountered during drilling in boring P10, and a reconnaissance groundwater sample was collected using a temporary screen installed from 19 to 21 feet bgs.

The findings of this investigation confirmed that the former use of the Property as a dry cleaning facility resulted in a release of solvents and petroleum hydrocarbons to the subsurface and included the following (Tables 1 through 7).

Soil

- PCE concentrations exceeding the applicable cleanup level were detected in soil samples collected from borings P03 and P05 through P11 at depths ranging from 2.5 feet bgs to the maximum depth explored of 23 feet bgs.
- The highest concentrations of PCE were confirmed near the loading dock for the Troy Building, with soil concentrations in boring P08 exceeding the Washington State land ban limit of 60 milligrams per kilogram (mg/kg).
- Soil samples collected at depths of 3, 7.5, and 10 feet bgs from boring P08 also contained concentrations of TCE exceeding the applicable cleanup level.
- DRPH and ORPH concentrations exceeding their respective cleanup levels were detected in boring P08 at a depth of 10 feet bgs.
- GRPH was detected at concentrations exceeding the cleanup level in soil collected from boring P07 at a depth of 11 feet and boring P08 at depths of 3, 7.5, and 10 feet bgs.

Groundwater

 Perched groundwater sampled from boring P10, located to the northeast of the loading dock, contained concentrations of PCE, TCE, and DRPH exceeding applicable cleanup levels.

A detailed description of work completed during this SI is provided in SoundEarth's Summary of Limited Phase II Environmental Assessment at the Troy Laundry Property (SoundEarth 2010b).

4.3 AECOM 2010 SUBSURFACE INVESTIGATION

AECOM conducted an SI at the Property in December 2010 in an effort to further delineate the lateral extent of the dangerous waste concentrations of PCE observed during SoundEarth's October 2010 investigation (AECOM 2011). AECOM advanced seven soil borings (shown as B01 through B07 on Table 1 and figures in this RI) to depths between 11.5 and 40 feet bgs in the vicinity of SoundEarth borings where PCE concentrations exceeding dangerous waste criteria were previously detected (Figure 5). Perched groundwater was encountered in boring B-7, and a reconnaissance groundwater sample was collected using a temporary screen installed from 23 to 24 feet bgs. The findings of this investigation included the following (Tables 1 through 7).

Soil

- Soil samples collected from borings B-1, B-2, and B-4 through B-7 contained concentrations of PCE exceeding the applicable cleanup level at every interval sampled to the maximum depth of 40 feet bgs. Soil samples were not collected from boring B-3.
- Concentrations of PCE detected in soil samples collected from boring B-2 at depths between 7 and 11 feet bgs and from boring B-4 at depths between 8 and 10 feet bgs exceeded Washington State's dangerous waste criteria of 1.9 mg/kg (WAC-173-303).

<u>Groundwater</u>

■ The reconnaissance groundwater sample collected from boring B-7, located near the loading dock, contained concentrations of GRPH, PCE, TCE, and cis-1,2-DCE exceeding applicable cleanup levels.

A detailed description of work completed during this SI is provided in AECOM's December 2010 Investigation Results and SVE Conceptual System Design Letter (AECOM 2011).

4.4 MAY 2011 SUPPLEMENTAL SUBSURFACE INVESTIGATION

In May 2011, SoundEarth conducted a supplemental subsurface investigation (SSI) at the Site (SoundEarth 2011a) to evaluate the vertical extent of contamination beneath the Site, to determine whether the confirmed release of dry cleaning solvents and petroleum hydrocarbons had impacted soil and/or groundwater beyond the Property boundaries, and to determine whether any additional constituents were present in soil or groundwater at the Site. Eight soil borings (B08 through B15) were advanced on the Property and within the Harrison Street and Boren Avenue North ROWs to depths ranging from 61 to 90 feet bgs (Figure 5). Soil borings B08 through B13 and B15 were completed as monitoring wells MW01 through MW07. Following well installation and development, a groundwater monitoring event was conducted, which included the collection of depth-to-groundwater measurements and groundwater samples from monitoring wells MW01 through MW07, in accordance with the US Environmental

Protection Agency's (EPA) Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures (April 1996).

The findings of this investigation included the following (Tables 1 through 7).

Soil

- Soil contamination generally appeared to be limited to within the Property boundaries. Soil samples collected from borings installed within the ROWs did not contain concentrations of COCs exceeding applicable cleanup levels, with the exception of a sample collected at a depth of 60 feet bgs in boring B12/MW05, located in the Boren Avenue North ROW, which contained a PCE concentration of 0.057 mg/kg.
- PCE was detected in on-Property borings B13 and B14 at concentrations exceeding the applicable cleanup level at depths ranging from 24 to 58 feet bgs.
- GRPH was detected in on-Property borings B13 at a depth 49 feet bgs and B14 at depths between 30 and 58 feet bgs.

Groundwater

- Groundwater beneath the western half of the Property and within the Boren Avenue North ROW exhibited concentrations of PCE, TCE, cis-1,2-DCE, and vinyl chloride exceeding applicable cleanup levels, with the highest concentration of PCE observed in monitoring well MW05 in the Boren Avenue North ROW.
- With the exception of the sample collected from well MW05, only TCE was detected above the applicable cleanup level in groundwater collected from the wells installed in the Boren Avenue North ROW.

A detailed description of work completed during this SSI is provided in SoundEarth's Supplemental Subsurface Investigation Report (SoundEarth 2011a).

4.5 SEPTEMBER AND OCTOBER 2011 REMEDIAL INVESTIGATION

SoundEarth conducted additional RI work at the Site in September and October 2011 to address the data gaps identified during previous investigations. During this investigation, 23 borings (B16 through B38) were advanced at the Site to a maximum depth of 110 feet bgs. Borings B16 through B36 were advanced within the Property boundaries, and borings B37 and B38 were advanced in the Boren Avenue North and Thomas Street ROWs, respectively (Figure 5). Borings B26, B27, B28, B30, B31, B37, and B38 were completed as monitoring wells MW08 through MW14, respectively.

Two water-bearing zones were identified during drilling activities, including a discontinuous perched zone at depths of approximately 18 to 25 feet, primarily located in the center of the Property above a dense silt layer, and a laterally continuous, deeper zone at depths between 60 and 95 feet bgs. As with the wells installed at the Site in May 2011, monitoring wells MW10, MW11, MW13, and MW14 (shallow wells) were constructed with 15 feet of screen set at approximately 5 feet above the primary water table (as observed during drilling) and 10 feet below the water table. Monitoring wells MW08, MW09, and MW12 (deep wells) were completed to between 30 and 35 feet below the water table (as observed during drilling) and constructed with 5 feet of screen at the bottom of the well in an effort to assess any vertical differences in groundwater chemistry 30 to 35 feet below the top of the primary water-bearing zone.

Following monitoring well installation, horizontal and vertical monitoring well locations and top of casing and monument elevations were surveyed relative to NAVD88 using City of Seattle Benchmark No. 36690702 as the source benchmark for the purposes of calculating groundwater flow gradient and direction. Updated surveys have subsequently been conducted at the Site as additional monitoring wells have been installed.

Following monitoring well installation and development, a groundwater monitoring event was conducted at the Site in October 2011, which included the collection of depth-to-groundwater measurements and groundwater samples from monitoring wells MW01 through MW14, in accordance with the EPA's April 1996 guidance document.

The findings of this investigation included the following (Tables 1 through 7).

Soil

- The highest concentrations of PCE in soil were observed to be present beneath the center of the Property at depths ranging from 3 to 10 feet bgs.
- PCE was found to be present in soil at concentrations exceeding the applicable cleanup level to depths of up to 65 feet bgs (approximately 10 to 15 feet above the primary water-bearing zone) in borings B17 and B18, located in the western portion of the Property.
- PCE contamination in soil was found to extend to the east approximately to the centerline of the Property and to the west up to the Property boundary. Based on the results of this investigation and the previous work conducted by SoundEarth, impacts to soil extending into the adjoining Boren Avenue North ROW appeared to be limited in extent.
- GRPH as Stoddard solvent was detected at concentrations exceeding the applicable cleanup level in soil collected from on-Property borings at depths of up to 58 feet bgs.

Groundwater

- PCE was detected at concentrations exceeding the applicable cleanup level in groundwater samples collected from monitoring well MW11 as well as MW05 and MW13, installed within the Boren Avenue North ROW.
- Concentrations of TCE were detected above the applicable cleanup level in wells MW04, MW05, and MW07, located within the Boren Avenue North ROW, and MW06, MW09, and MW12, located on the western portion of the Property.
- Concentrations of cis-1,2-DCE were detected above the applicable cleanup level in wells MW06 and MW09, and vinyl chloride was detected at a concentration above the cleanup level in well MW06.
- GRPH as Stoddard solvent was detected at a concentration exceeding the applicable cleanup level in groundwater collected from monitoring well MW09.
- Concentrations of COCs exceeding applicable cleanup levels were not detected in monitoring wells MW01 and MW03, located in the Harrison Street ROW; wells MW08 and MW10, located on the eastern portion of the Property; or MW14, located in the Thomas Street ROW near the southeastern Property corner. These results indicated that groundwater contamination beneath the Site did not extend beneath the eastern

portion of the Property or beyond the Property boundaries to the northeast and southeast.

A detailed description of work completed during this investigation is provided in SoundEarth's Draft Remedial Investigation Report (SoundEarth 2012a).

4.6 AECOM 2011 SVE SYSTEM OPERATION AND 2012 POST-SVE CONFIRMATIONAL SOIL BORINGS

In February 2011, AECOM (on behalf of Seattle Times and Century Pacific, LP) designed and installed a soil vapor extraction (SVE) system on the Property to reduce the concentrations of PCE in soil that exceeded 1.9 mg/kg to levels that would enable the excavation and off-site disposal of the soil as non-hazardous waste. The SVE system consisted of five SVE wells outside of the Troy Building and two SVE wells inside the Troy Building installed to depths between 20 and 23 feet bgs. The SVE system operated between February and December 2011.

In January 2012, the SVE wells were decommissioned, and confirmation soil samples were collected from 10 soil borings (B39 through B48) to evaluate the effectiveness of the SVE system in reducing COC concentrations in soil (Figure 5). The results of the confirmational soil sampling event indicated that concentrations of PCE in soil that previously exceeded the land ban criteria of 60 mg/kg had been reduced to below the land ban criteria. However, the analytical results of soil samples collected from borings B39, B44, and B45, located in the loading dock area, indicated that concentrations of PCE exceeding the dangerous waste criteria of 1.9 mg/kg remained beneath a small portion of the Property (Table 1).

A detailed description of AECOM's system operation and confirmational soil sampling is provided in SoundEarth's Draft Remedial Investigation Report (SoundEarth 2012a).

4.7 2012 SUPPLEMENTAL REMEDIAL INVESTIGATION

In December 2012, SoundEarth conducted supplemental RI activities at the Site to evaluate the western and southern extents of solvent contamination in groundwater, which were not fully defined during the previous RI work. The supplemental investigation consisted of the installation of two monitoring wells (MW15/B49 and MW16/B50) to depths of 56 and 106 feet bgs, respectively. MW15 was installed approximately one block west of the Property within the Terry Avenue North ROW due to physical drilling limitations on the west-adjoining property, and MW16 was installed within the Thomas Street ROW to the south of the Property (Figure 5).

Following well installation, development, and surveying, a groundwater monitoring event was conducted at the Site in December 2012, which included the collection of depth-to-water measurements from monitoring wells MW01 through MW07, MW10, MW11, and MW13 through MW16 and the collection of groundwater samples from wells MW15 and MW16, in accordance with the EPA's April 1996 guidance document. The findings of this investigation included the following (Tables 1 through 7).

Soil

- Analyzed soil samples from boring B49/MW15 in the Terry Avenue North ROW did not contain detectable concentrations of COCs.
- Soil samples collected at depths of 84 and 86 feet bgs in boring B50/MW16 in the Thomas Street ROW contained concentrations of GRPH and PCE exceeding the applicable MTCA Method A cleanup levels. The 84-foot sample also contained a concentration of TCE exceeding the applicable cleanup level. The sample collected at 91 feet bgs in this boring did not contain detectable concentrations of COCs.

Groundwater

- The groundwater sample collected from well MW15 contained a concentration of TCE exceeding the applicable cleanup level, indicating that concentrations of TCE in groundwater extended into the Terry Avenue North ROW. No other COCs were detected above laboratory reporting limits in this sample.
- The groundwater sample collected from well MW16 contained concentrations of PCE, TCE, cis-1,2-DCE, and vinyl chloride exceeding the applicable cleanup levels, indicating that the Site extended to the south beneath the Thomas Street ROW.

A detailed description of work completed during this investigation is provided in SoundEarth's Draft Addendum—Supplemental Remedial Investigation Report (SoundEarth 2012b).

4.8 2013 THIRD QUARTER GROUNDWATER MONITORING EVENT

In August and September 2013, a groundwater monitoring event was conducted at the Site to evaluate the environmental quality, flow direction, and gradient of groundwater beneath the Site prior to remedial excavation activities at the Property.

During the monitoring event, depth-to-groundwater measurements were collected from monitoring wells MW06 and MW08 through MW12 located on the Property; MW04, MW05, MW07, and MW13 located in the Boren Avenue North ROW; MW15 located in the Terry Avenue North ROW; MW14 and MW16 located in the Thomas Street ROW; MW-C located in the Fairview Avenue North ROW; MW01 through MW03, SMW01, SMW02, SMW06, and SMW08 located in the Harrison Street ROW; SMW09 located in the Westlake Avenue North ROW; and SLU-MW01 and SLU-MW02 located on the north-adjoining property. Groundwater samples were collected from monitoring wells MW01 through MW16, MW-C, SMW06, and SMW09, in accordance with the EPA's April 1996 guidance document.

The findings of the Third Quarter groundwater monitoring event included the following (Tables 2 through 7):

- Measured groundwater levels indicated a groundwater flow direction to the northwest with an average gradient of 0.002 feet per foot. This reversal from the generally flow of groundwater in South Lake Union to the southeast was likely the result of large-scale dewatering taking place to the northwest of the Property.
- Concentrations of PCE exceeding the MTCA Method A cleanup level were detected in the groundwater samples collected from monitoring wells MW11 located on the Property; MW05 and MW13 located in the Boren Avenue North ROW; and MW16 located in the Thomas Street ROW.
- Concentrations of TCE exceeding the MTCA Method A cleanup level were detected in the groundwater samples collected from monitoring wells MW09 and MW12 located on the Property; MW04, MW05, and MW07 located in the Boren Avenue North ROW; MW15 located in the Terry Avenue North ROW; and MW16 located in the Thomas Street ROW.
- Concentrations of cis-1,2-DCE and vinyl chloride exceeding the MTCA Method B and A cleanup levels, respectively, were detected in the groundwater samples collected from monitoring wells MW06 located on the Property and MW16 located in the Thomas Street ROW.
- Concentrations of GRPH; DRPH; ORPH; benzene, toluene, ethylbenzene, and total xylenes (BTEX); and trans-1,2-dichloroethene (trans-1,2-DCE) in the groundwater samples collected from all of the monitoring wells were below their respective laboratory reporting limits and/or MTCA Method A and B cleanup levels.

Concentrations of DRPH, ORPH, and trans-1,2-DCE, cis-1,2-DCE, TCE, PCE, and vinyl chloride in the groundwater samples collected in 2012 from SLU-MW01 and SLU-MW02 (located on the north-adjoining property) were below their respective laboratory reporting limits and/or MTCA Method A and B cleanup levels.

A detailed description of Third Quarter 2013 groundwater monitoring activities is provided in SoundEarth's Groundwater Monitoring Report—Third Quarter 2013 (SoundEarth 2013).

4.9 2014 SUPPLEMENTAL SUBSURFACE INVESTIGATION FOR CONTAINED-OUT DETERMINATION

In October 2013, SoundEarth submitted a request to Ecology for a contained-out determination for F002-listed soil to be excavated during Property redevelopment. In response, Ecology requested that additional soil samples be collected from locations in the central portion of the Property where the highest PCE concentrations had historically been detected.

In February 2014, SoundEarth conducted an SSI which included the advancement of six push-probe borings (P15 through P20) to depths ranging from 8 to 15 feet bgs in locations approved by Ecology (Figure 5). The findings of this investigation included the following (Table 1):

- Concentrations of PCE ranged from 0.11 to 0.56 mg/kg in soil samples collected from borings P18 and P19.
- PCE Toxicity Characteristic Leaching Procedure concentrations detected in soil samples collected from borings P15 through P17 were below the PCE Regulatory Level listed on Table 1 of 40 Code of Federal Regulations 261.24.

A detailed description of work completed during this investigation is provided in SoundEarth's Interim Action Progress Report (SoundEarth 2016).

4.10 2014 SUPPLEMENTAL SUBSURFACE INVESTIGATION FOR SHORING DESIGN

Prior to the implementation of the IRA, a shoring system was designed to allow for excavation of on-Property vadose zone soil to elevations ranging from 35 to 28 feet NAVD88 across the Property.

In March 2014, SoundEarth conducted an SSI to evaluate if the preliminary redevelopment shoring design provided for sufficient depth to excavate on-Property soil with concentrations of COCs above the remediation levels on the southern portion of the Property. During this investigation, three soil borings (B51 through B53) were advanced to depths between 82.5 and 90 feet bgs (16 to 10 feet NAVD88) in the north side walk of the Thomas Street ROW (Figure 5), and soil samples were collected at depths below approximately 70 feet bgs (30 feet NAVD88). The findings of this investigation included the following (Table 1):

- Concentrations of PCE exceeding the MTCA Method A cleanup level were detected in soil samples collected from borings B51 and B52 at elevations ranging from 15.85 to 14.54 feet NAVD88.
- Concentrations of GRPH, ethylbenzene, and total xylenes exceeding applicable MTCA Method A cleanup levels were detected in a soil sample collected from boring B51 at an elevation of 15.85 feet NAVD88.
- Concentrations of COCs in soil samples collected in the vadose zone were below laboratory reporting limits.

Based on these results, an alteration of the engineering design for the excavation shoring system was not required. A detailed description of work completed during this investigation is provided in SoundEarth's Interim Action Progress Report (SoundEarth 2016).

5.0 INTERIM REMEDIAL ACTION

An IRA was conducted at the Property between February 2014 and June 2017 in accordance with the First Amendment under Agreed Order No. DE 8996. A detailed description of IRA activities is provided in SoundEarth's Interim Action Progress Report (SoundEarth 2016).

Components of the IRA completed prior to or in conjunction with mass excavation include the following:

- In February 2014, three USTs located beneath the foundation of the Troy Building that were historically used in Stoddard solvent dry cleaning operations were decommissioned and removed from the Property. The three USTs were located within a single tank cavity and had capacities of approximately 350, 1,000, and 3,000 gallons. Soil samples collected from the north and west sidewalls of the excavation and from beneath the 350-gallon UST contained detectable concentrations of PCE, and samples collected from beneath the 350- and 1,000-gallon USTs and the west sidewall of the excavation contained concentrations of GRPH exceeding the MTCA Method A cleanup level. This soil was disposed of during excavation activities under a contained in determination from Ecology.
- To prevent potential cross-contamination of contaminated perched groundwater onto clean overburden soil during excavation activities, dewatering wells were designed to remove the perched groundwater prior to excavation in this area. In July 2014, five temporary dewatering wells were installed within the perched groundwater zone to depths of approximately 70 feet NAVD88. Perched groundwater was not encountered during dewatering well drilling activities or during subsequent depth-to-water measurements in the wells. Because groundwater was not detected in any of the dewatering wells, SoundEarth concluded that the perched groundwater observed during previous SIs was not then present in the central portion of the Property. The temporary dewatering wells were decommissioned in accordance with WAC 173-160-460.
- Monitoring wells MW06, MW08 through MW12, and MW14, located within the redevelopment excavation area, were decommissioned in August 2014.
- The shoring system was installed at the Property between July and December 2014 according to the design of the project civil and structural engineer, Magnusson Klemencic Associates of Seattle, Washington. The shoring consisted of soldier piles, timber lagging, walers, and tiebacks around the perimeter of the Property and allowed for excavation of on-Property soil to elevations ranging from 35 to 28 feet NAVD88 across the Property. In addition, the shoring system was able to accommodate for overexcavation along a portion of the west sidewall to an approximate elevation of 20 feet NAVD88 to allow for removal of local areas of deeper soil contamination.
- A construction dewatering system was in place throughout the duration of mass excavation activities. A low point in the excavation was used to collect wastewater generated by construction dewatering operations. Wastewater was pumped and stored in settlement tanks located in the Thomas Street ROW, where it was characterized in accordance with King County Minor Discharge Authorization No. 921-01 prior to discharge to the sanitary sewer. A total of 20,800 gallons of water was discharged to the sanitary sewer over the duration of this portion of the IRA.

5.1 MASS EXCAVATION AND SOIL SAMPLING

Between July 2014 and February 2015, the Property was excavated from lot-line to lot-line as part of the planned redevelopment, which included the removal of all solvent and petroleum-contaminated soil on the Property. When soil had been excavated to the final design depth for the redevelopment and all contaminated soil had been removed, soil samples were collected to evaluate the performance of the excavation and to document that all soil with contaminant concentrations exceeding applicable cleanup levels had been removed.

A total of 466 soil samples were collected and analyzed for chlorinated volatile organic compounds (CVOCs) at the limits of the remedial excavation areas. Of these soil samples, 84 contained detectable concentrations of CVOCs. The majority of these soil samples were collected from within the redevelopment excavation area and were overexcavated during the IRA.

Samples from the floor of the excavation contained PCE concentrations below laboratory reporting limits and/or applicable cleanup levels. Six samples collected from the western sidewall along Boren Avenue North at approximate elevations between 80 and 20 feet NAVD88 contained concentrations of PCE and TCE above interim action remediation levels. These samples were collected within an area extending approximately 100 feet north to south. The shoring design for the excavation prevented removal of this soil beyond the Property boundary.

During the course of excavation activities, one vault, five USTs, and numerous other locations with soil exhibiting petroleum-like odors were discovered. A total of 181 soil samples were collected from these areas and analyzed for petroleum hydrocarbons. Of these samples, 80 samples contained detectable concentrations of petroleum hydrocarbons. All of these soil samples were collected from within the redevelopment excavation area and were overexcavated during the interim action, with the exception of a small area of petroleum-contaminated soil at an approximate elevation of 32 feet NAVD88 extending past the north sidewall beneath the Harrison Street ROW, where a GRPH concentration of 690 mg/kg was detected in one north sidewall sample. The area of petroleum-contaminated soil remaining in place extended approximately 10 feet east to west. The shoring design for the excavation prevented removal of this soil beyond the Property boundary.

Approximately 97,000 tons of PCE-contaminated soil and 12,000 tons of petroleum-contaminated soil were disposed of at Subtitle D Landfills during the course of the mass excavation.

5.2 INJECTION WELL INSTALLATION

The IRA implemented at the Site included the installation of a network of injection wells in the P5 parking level of the Property development to treat the contaminated groundwater plume beneath the Property and the adjacent ROWs with edible oil substrate (EOS) and *Dehalococcoides* genus bacteria (DHC). The groundwater treatment program was designed to enhance the natural biodegradation of CVOCs dissolved in the groundwater beneath and directly adjacent to the Property through enhanced reductive dechlorination (ERD), which is facilitated by the injection of EOS and DHC. ERD is a biological process whereby chlorine (Cl⁻) atoms are sequentially removed from the PCE molecule, resulting in successive dechlorination from the original dry cleaning solvent PCE, to TCE, to trans-1,2-DCE/cis-1,2-DCE, to vinyl chloride, and finally to ethene and ethane. Injection well locations are shown on Figures 10 through 15.

The injection well network was also designed to create a permeable reactive barrier wall (Figure 14) on the west side of the Boren Avenue North ROW and north side of the Thomas Street ROW to prevent future recontamination of the Property from off-Property sources of solvent contamination.

Between November 2014 and February 2015, SoundEarth installed a network of 103 injection wells at the Property on transects spaced approximately 75 feet apart and perpendicular to the primary groundwater flow direction. The network included 12 angled injection wells beneath the Boren Avenue North and Thomas Street ROWs installed to an approximate elevation of –22 feet NAVD88 and 91 vertical injection wells beneath the Property installed to an approximate depth of –20 feet NAVD88. Injection well locations are shown on Figures 10 through 15.

5.3 EOS INJECTIONS

The first groundwater injection event was conducted in May and June 2015. SoundEarth used a skid-mounted injection system to inject EOS PRO, a food-grade oil/water emulsion, into injection wells IW01 through IW90 and angled injection wells AIW01 through AIW12. A total of 49,500 gallons of 10-percent-by-volume EOS PRO solution was injected during the initial injection event, with an assumed radius of influence of 10 feet. A detailed description of the 2015 EOS injections is provided in SoundEarth's Interim Action Progress Report (SoundEarth 2016).

Between April and May 2016, SoundEarth conducted a second groundwater injection event at the Property. During the second event, a total of 63,895 gallons of 10 percent by volume EOS PRO solution was injected. A detailed description of the 2016 EOS injections is provided in SoundEarth's Environmental Summary (SoundEarth 2017a).

5.4 2017 BIOAUGMENTATION INJECTION EVENT

Once the results of ongoing groundwater monitoring (discussed further in subsequent sections) indicated that significant anaerobic conditions had been achieved at the Site as a result of the 2015 and 2016 EOS injections, a third groundwater treatment event was conducted in June 2017. During this injection event, a total of 273 kilograms of an engineered strain of DHC was injected into 90 of the 103 injection wells installed beneath the Property. The 12 angled injection wells in the Boren Avenue North and Thomas Street ROWs did not receive DHC in the third groundwater treatment event. The targeted vertical wells received an injection consisting of a 50-gallon flush of conditioned water to assure strong anaerobic conditions to receive the bacteria, followed by 3.0 to 3.2 kilograms of DHC injected into each well.

6.0 SUPPLEMENTAL REMEDIAL INVESTIGATION WORK

The following subsections summarize the supplemental RI activities conducted at the Site between 2015 and 2019, following or concurrent with portions of the implementation of SoundEarth's IRA in 2014 and 2015. The locations of soil borings and monitoring wells are shown on Figure 5. Recent groundwater and indoor air analytical results are summarized on Figures 15 through 20. Soil, groundwater, and indoor air analytical results are summarized in Tables 1 through 9. Boring logs for soil borings and monitoring wells are provided in Appendix A. Laboratory analytical reports for soil and groundwater samples are provided in Appendix B. Photographs of supplemental remedial investigation work are included as an attachment to this document.

6.1 2015 MONITORING WELL INSTALLATION

In January and February 2015, monitoring wells MW17 through MW25 were installed on the Property to replace on-Property monitoring wells MW06, MW08 through MW12, and MW14, which were decommissioned prior to mass excavation (Figure 5). Monitoring well MW17 was installed to an approximate elevation of 0 feet NAVD88, and monitoring wells MW18 through MW25 were installed to

an approximate elevation of –20 feet NAVD88. Soil samples were not collected during the installation of these monitoring wells.

A detailed description of the 2015 monitoring well installation activities is provided in SoundEarth's Interim Action Progress Report (SoundEarth 2016).

6.2 2015 BASELINE GROUNDWATER SAMPLING EVENT

In May 2015, a baseline groundwater sampling event was conducted at the Site. The objectives of this sampling event were to establish baseline groundwater conditions at the Site post-excavation and prior to the commencement of the groundwater injection program described in Sections 5.2 through 5.4, and to provide additional data on the nature of groundwater flow at the Site. Data from the baseline groundwater sampling event has been compared to post-injection groundwater data (discussed in Sections 7.1 and 7.2) to evaluate the progress of the groundwater treatment program.

Depth-to-water measurements were collected from monitoring wells MW01, MW04, MW07, and MW15 through MW25 and injection wells IW04, IW06, and IW91. Groundwater samples were collected from monitoring wells MW04, MW07, MW13, and MW15 through MW25 and injection wells IW04, IW06, and IW91, in accordance with the EPA's April 1996 guidance document.

In addition to sampling for CVOCs and petroleum hydrocarbons, monitoring wells MW04, MW07, MW13, MW16, MW18, MW19, and MW23 through MW25 were sampled for natural attenuation and geochemical parameters, including:

- Nitrate by EPA Method 300.0
- Sulfate by EPA Method 300.0
- Methane, ethane, and ethene by Method RSK 175
- Alkalinity by Standard Method (SM) 2320B
- Total manganese by EPA Method 200.8
- Total iron by EPA Method 200.8
- Ferrous iron by SM 3500
- Total organic carbon by SM 5310C
- Chloride by EPA Method 300.0

Laboratory analytical results from the baseline groundwater sampling event indicated the following (Tables 2 through 7):

- Concentrations of PCE exceeding the remediation level were detected in the groundwater samples collected from monitoring wells IW06, MW21, MW22, and MW23 located on the Property; and MW16 located in the Thomas Street ROW.
- Concentrations of TCE exceeding the remediation level were detected in the groundwater samples collected from wells IW04, IW06, MW18, MW19, and MW23 through MW25 located on the Property; MW04 and MW07 located in the Boren Avenue North ROW; MW15 located in the Terry Avenue North ROW; and MW16 located in the Thomas Street ROW.
- Concentrations of cis-1,2-DCE exceeding the remediation level were detected in the groundwater samples collected from monitoring wells MW22 and MW24 located on the Property and MW16 located in the Thomas Street ROW.

- Concentrations of vinyl chloride exceeding the remediation level were detected in the groundwater samples collected from monitoring well MW24 located on the Property and MW16 located in the Thomas Street ROW.
- Concentrations of DRPH, ORPH, GRPH, BTEX, and trans-1,2-DCE in all analyzed groundwater samples were below the laboratory reporting limits and/or applicable cleanup levels.

During the baseline groundwater sampling event, monitoring wells MW02, MW03, and MW05 were not accessible. Additional investigation indicated that these monitoring wells were likely damaged by tie-back helical anchors installed during excavation and shoring activities. These monitoring wells were decommissioned in December 2015.

A detailed description of 2015 baseline groundwater sampling event is provided in SoundEarth's Interim Action Progress Report (SoundEarth 2016).

6.3 2015 ADDITIONAL MONITORING WELL INSTALLATION

In September 2015, Ecology requested that two of the three wells damaged during excavation and shoring activities be replaced. In November and December 2015, monitoring wells MW26 and MW27 were installed adjacent to the previously broken and decommissioned monitoring wells MW02, located in the Harrison Street ROW, and MW05, located in the Boren Avenue North ROW, respectively (Figure 5).

Monitoring wells MW26 and MW27 were installed to approximate elevations of –19 and –21 feet NAVD88, respectively. Soil samples were not collected during drilling because soil samples previously collected from wells MW02 and MW05 did not contain detectable concentrations of COCs, with the exception of samples collected at depths of 55 and 60 feet bgs in MW05, which contained concentrations of PCE (Table 1).

In December 2015, the horizontal locations and top of casing elevations were surveyed relative to NAVD88 for monitoring wells MW01, MW04, MW07, MW13, and MW15 through MW27, and injection well IW91.

A detailed description of the additional monitoring well installation activities is provided in SoundEarth's Environmental Summary (SoundEarth 2017a).

6.4 2018 MONITORING WELL MW16 REPLACEMENT

During a groundwater monitoring event in June 2018, SoundEarth observed ongoing road construction work and steel plates covering the location of monitoring well MW16 in the Thomas Street ROW. It was later discovered upon removal of the steel plates that the well had been destroyed during the road construction work. In December 2018, replacement well MW28 was installed on the south side of the Thomas Street ROW to an approximate elevation of –6 feet NAVD88 (Figure 5).

6.5 2018 VAPOR INTRUSION EVALUATION

Between January and March 2018, SoundEarth conducted a vapor intrusion assessment at the Property, which was approved in advance by Ecology, and included conducting a building survey and collecting indoor air samples and an outdoor background air sample. The assessment was performed to evaluate the potential vapor intrusion pathway at the Property and to assess whether indoor air remediation levels, as presented in SoundEarth's 2016 Interim Action Progress Report, have been met.

The vapor intrusion engineering control components implemented at the Property include a vapor barrier, capping (foundation slab), an air exchange system in the parking garage levels, and positive pressure in

the building elevator lobbies. The vapor intrusion assessment scope of work was conducted in accordance with Ecology's DRAFT: Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action (Ecology 2009).

The vapor intrusion assessment scope of work consisted of collecting 18 indoor air samples (IA01 through IA16, IA19, and IA20) and one outdoor air sample (OA01). Seven samples were collected on the P5 parking level (IA01 through IA07), three samples were collected on the P4 parking level (IA08 through IA10), three samples were collected on the P3 parking level (IA11 through IA13), three samples were collected on the P2 parking level (IA14 through IA16), and two samples were collected from the P1 parking level (IA19 and IA20). The outdoor air sample was collected from outside the HVAC intake on the north side of the building exterior. Sample locations are shown on Figures 16 through 20. Samples were collected using 6-liter, individually certified SUMMA canisters fitted with individually certified flow controllers for an approximate 24-hour sample collection.

Analytical results for samples collected as part of the vapor intrusion evaluation indicated the following (Tables 8 and 9):

- Concentrations of CVOCs in 13 of the 15 analyzed indoor air samples were below applicable laboratory reporting limits. These results showed that indoor air quality in the parking levels, stairwell, and the elevator shaft is protective of human health for the inhalation exposure pathway.
- CVOCs detected in the indoor air samples collected in the stairs at P1 and P5 parking garage levels (IA20 and IA02, respectively) contained concentrations of CVOCs well below the Modified Method B Indoor Air Remediation Level.
- Concentrations of air-phase petroleum hydrocarbons in the 10 analyzed indoor air samples were below the MTCA Method B cleanup level and Modified Method B Remediation Levels. These results showed that indoor air quality in parking levels, stairwells, and elevator shaft is protective of human health for the inhalation exposure pathway.

A detailed description of 2018 vapor intrusion evaluation activities is provided in SoundEarth's Vapor Intrusion Assessment Report (SoundEarth 2018d).

6.6 2019 SUPPLEMENTAL VAPOR INTRUSION EVALUATION

In February 2019, SoundEarth conducted a supplemental vapor intrusion evaluation at the Property to confirm the results from the 2018 vapor intrusion evaluation, which showed that concentrations of COCs in indoor air within the building on the Property did not present a risk to human health through the inhalation pathway.

The supplemental vapor intrusion evaluation scope of work consisted of collecting five indoor air samples (IA21 through IA25) and one outdoor air sample (OA02). Three samples were collected on the P5 parking level (IA21 through IA23), and two samples were collected on the P1 parking level (IA24 and IA25). The outdoor air sample was collected from outside the HVAC intake on the north side of the building exterior. Sample locations are shown on Figures 16 and 20. Samples IA21, IA23 through IA25, and OA02 were collected using 6-liter, individually certified SUMMA canisters fitted with individually certified flow controllers for an approximate 24-hour sample collection. IA22 was sampled separately in the south tower elevator shaft utilizing a passive Waterloo Membrane Sampler over a 3-week time period at the request of Ecology. During the supplemental indoor air sampling event, typical building use conditions were

simulated in accordance with the approved Vapor Intrusion Work Plan (SoundEarth 2019b) by simulating typical stairway usage and HVAC fan speeds.

Analytical results for the samples collected as part of the supplemental indoor air monitoring event indicated the following (Tables 8 and 9):

 Concentrations of CVOCs in the indoor and outdoor air samples were not detected above laboratory reporting limits and were below MTCA Modified Method B Indoor Air Commercial Land Use Cleanup Remediation Levels.

The results of the indoor and outdoor air sampling demonstrated compliance with applicable MTCA indoor air cleanup levels. In a letter dated July 8, 2019, Ecology stated that no further assessment of indoor air quality at the Site was required based on the results of the vapor intrusion assessments (Ecology 2019).

A detailed description of supplemental vapor intrusion evaluation activities is provided in SoundEarth's Supplemental Vapor Intrusion Assessment Report (SoundEarth 2019d).

6.7 2019 SUPPLEMENTAL MONITORING WELL INSTALLATION AND GROUNDWATER SAMPLING

In September 2019, SoundEarth conducted supplemental RI activities at the Site in an effort to differentiate groundwater contamination originating from the Property and potential groundwater contamination originating from separate sources adjacent to the Property, and to delineate the southern extent of groundwater contamination originating from the Property.

During this investigation, five soil borings were advanced to the north, northwest, and south of the Property within the Boren Avenue North ROW (B56), the Harrison Street ROW (B57 and B58), and on the northern portion of the Seattle Times Site (B54 and B55), to depths between 2 and –6 feet NAVD88. Soil borings B54 through B58 were completed as monitoring wells MW29 through MW33, respectively (Figure 5).

In October 2019, following well installation and development, a supplemental groundwater monitoring event was conducted. Depth-to-groundwater measurements and groundwater samples were collected from monitoring wells MW28 through MW33, in accordance with the EPA's April 1996 guidance document. At the time of sampling, depths to groundwater ranged from 40.30 (MW33) to 87.95 (MW30) feet bgs.

The findings of this investigation included the following (Tables 1 through 7).

Soil

- Concentrations of COCs were not detected in soil samples collected from borings B56, B57, or B58, located in the Boren Avenue North and Harrison Street ROWs, at concentrations exceeding applicable laboratory reporting limits.
- Concentrations of TCE exceeding the MTCA Method A cleanup level were detected in soil samples collected from shallow depths of 30 and 20 feet bgs in borings B54 and B55, respectively. Other COCs were not detected in soil samples from these borings at concentrations exceeding applicable laboratory reporting limits.

Groundwater

- Measured groundwater elevations indicated that groundwater at the Property flowed generally to the east—southeast with a hydraulic gradient of 0.008 feet per foot.
- The sample collected from MW31 did not contain concentrations of COCs above the applicable laboratory reporting limits and/or applicable MTCA cleanup level. These results indicate that the groundwater contamination observed in the Boren Avenue North and Harrison Street ROWs does not extend to the north beyond well MW31.
- CVOCs were not detected above laboratory reporting limits in groundwater samples
 collected from MW32 and MW33, located in the Harrison Street ROW. These results
 indicate that the groundwater contamination observed in the Harrison Street ROW
 does not extend to the east beyond well MW32 or to the west beyond well MW33.
- Concentrations of PCE, TCE, cis-1-2-DCE, and vinyl chloride exceeding applicable MTCA cleanup levels were detected in the groundwater samples collected from MW28, located in the Thomas Street ROW, and MW29, located on the northern portion of the Seattle Times Site.
- A concentration of cis-1-2-DCE exceeding the applicable MTCA cleanup level was detected in the groundwater sample collected from MW30, located on the northern portion of the Seattle Times Site. Additionally, this sample contained a concentration of TCE below the applicable cleanup level. Other COCs detected in this sample were at concentrations below the applicable laboratory reporting limits.

6.8 QUARTERLY GROUNDWATER MONITORING PROGRAM

A total of 15 quarterly groundwater monitoring events have been conducted at the Site following the baseline groundwater monitoring event in Second Quarter 2015, discussed in Section 6.2. Analytical data for all groundwater monitoring events are included in Tables 2 through 7. These events include the following:

- Third and Fourth Quarters 2015. The Third and Fourth Quarters 2015 monitoring events were conducted in August and December 2015, respectively, and included the collection of groundwater samples from monitoring wells MW01 (Third Quarter only), MW04, MW07, MW13, MW15 through MW25, MW26 and MW27 (Fourth Quarter only), injection well IW50, injection well IW61 (Fourth Quarter only), and injection well IW91, in accordance with the EPA's April 1996 guidance document. A detailed description of field activities and analytical data for the Third and Fourth Quarter 2015 groundwater monitoring events is provided in SoundEarth's 2015 Groundwater Monitoring Report (SoundEarth 2018a).
- First, Third, and Fourth Quarters 2016. The First, Third, and Fourth Quarters 2016 monitoring events were conducted in March, July, and October, respectively. A groundwater monitoring event was not conducted during Second Quarter 2016 due to access issues related to ongoing construction at the Property. The 2016 monitoring events included the collection of groundwater samples from monitoring wells MW01, MW04, MW07, MW13, and MW15 through MW27 and injection wells IW04, IW50, IW61, and IW91, in accordance with the EPA's April 1996 guidance document. A detailed description of field activities and analytical data for the 2016 groundwater monitoring events is provided in SoundEarth's 2016 Groundwater Monitoring Report (SoundEarth 2018b).

- First, Second, Third, and Fourth Quarters 2017. The First, Second, Third, and Fourth Quarters 2017 monitoring events were conducted in January, May and June, September, and December 2017, respectively. The 2017 groundwater monitoring events included the collection of groundwater samples from monitoring wells MW01 (First, Second, and Fourth Quarters only), MW04, MW07 (First and Second Quarters only), MW13, and MW15 through MW27 and from injection wells IW04, IW50, IW61, and IW91, in accordance with the EPA's April 1996 guidance document. A detailed description of field activities and analytical data for the 2017 groundwater monitoring events is provided in SoundEarth's 2017 Groundwater Monitoring Report (SoundEarth 2018c).
- First, Second, Third, and Fourth Quarters 2018. The First, Second, Third, and Fourth Quarters 2018 monitoring events were conducted in March, June, September, and December 2018, respectively. The 2018 groundwater monitoring events included the collection of groundwater samples from monitoring wells MW01, MW04, MW07, MW13, MW15, MW16 (First Quarter only), MW17, MW18, MW19 (First through Third Quarters only), MW20 through MW27, IW04, IW06 (First, Second, and Fourth Quarters only), IW50, IW61, and IW91, in accordance with the EPA's April 1996 guidance document. A detailed description of analytical data for the First and Second Quarter 2018 groundwater monitoring events is provided in SoundEarth's 2018 Attachment B to the PPCD (SoundEarth 2019a). A detailed description of analytical data for the Third and Fourth Quarter 2018 monitoring events is provided in subsequent sections of this report.
- Second and Fourth Quarters 2019. The Second and Fourth Quarters 2019 monitoring events were conducted in June and December 2019, respectively. These events included the collection of groundwater samples from monitoring wells MW01, MW04, MW07, MW13, MW15, MW17 through MW28, MW29 through MW33 (Fourth Quarter only), IW04, IW06, IW50, IW61, IW91, and Seattle Times Site wells ONNI-MW-4 and ONNI-MW-5 (Fourth Quarter only), in accordance with the EPA's April 1996 guidance document. A detailed description of analytical data for the Second and Fourth Quarters 2019 monitoring events is provided in subsequent sections of this report.
- First Quarter 2020. On February 10, 2020 SoundEarth conducted a resampling event of Seattle Times Site monitoring well ONNI-MW-5, in accordance with the EPA's April 1996 guidance document. A description of the analytical data is provided in subsequent sections of this report.

6.8.1 Recent Groundwater Analytical Results

The objective of this Final RI Report is to present the current Site conditions and document the progress that has been made to date regarding the degradation CVOCs in the groundwater plume originating on the Property since the completion of contaminated soil removal and the implementation of the groundwater treatment program. To that end, the following subsections describe the analytical results for the four most recent quarters of groundwater monitoring at the Site (Third Quarter 2018, Fourth Quarter 2018, Second Quarter 2019, and Fourth Quarter 2019). Groundwater analytical results from the baseline groundwater sampling event conducted in Second Quarter 2015, prior to the IRA, are described previously in Section 6.2. Analytical data for monitoring events conducted prior to Third Quarter 2018 are not included in this discussion but are provided in Tables 1 through 7.

Groundwater elevation and analytical data for all monitoring events conducted at the Site to date, including those conducted prior to Third Quarter 2018, are provided in Tables 2 through 7. Groundwater contour maps for Third Quarter 2018 through Fourth Quarter 2019 are provided on

Figures 10 through 13, and analytical results for these monitoring events are provided on Figure 15.

6.8.1.1 Third Quarter 2018 Results

The analytical results from the Third Quarter 2018 groundwater monitoring event indicated the following:

- Groundwater elevations measured during Third Quarter 2018 indicated that groundwater at the Property flowed generally to the east—southeast with a hydraulic gradient of 0.006 feet per foot (Figure 10).
- Concentrations of PCE exceeding the MTCA Method A cleanup level were detected in the groundwater samples collected from monitoring well IW61 located on the Property and monitoring well MW13 located in the Boren Avenue North ROW. The concentrations of PCE in the remaining groundwater samples were below the laboratory reporting limit and/or MTCA Method A cleanup level.
- Concentrations of TCE exceeding the MTCA Method A cleanup level were detected in the groundwater samples collected from monitoring wells MW04, MW07, and MW27 in the Boren Avenue North ROW; MW15 in the Terry Avenue North ROW; and MW26 in the Harrison Street ROW. TCE concentrations were not detected above the laboratory reporting limit and/or MTCA Method A cleanup level in the groundwater samples collected from any sampled wells on the Property or in MW13, located in the Boren Avenue North ROW, or MW01, located in the Harrison Street ROW.
- Concentrations of cis-1,2-DCE exceeding the MTCA Method B cleanup level were detected in the groundwater samples collected from monitoring wells MW18, MW22, MW24, MW25, and IW61 located on the Property. Concentrations of cis-1,2-DCE were below the MTCA Method B cleanup level in groundwater samples collected from monitoring wells MW17, MW19, MW20, MW21, MW23, IW04, IW06, IW50, and IW91 located on the Property. Concentrations of cis-1,2-DCE in all sampled off-Property monitoring wells were below the MTCA Method B cleanup level.
- Concentrations of vinyl chloride exceeding the MTCA Method A cleanup level were detected in groundwater samples collected from monitoring wells MW18, MW19, MW21, MW22, MW23, MW24, and MW25 and injection wells IW50 and IW61 located on the Property. Concentrations of vinyl chloride in groundwater samples collected from the remaining on-Property and off-Property monitoring wells were below the laboratory reporting limit and/or MTCA Method A cleanup level.
- Concentrations of trans-1,2-DCE in the groundwater samples collected from all sampled monitoring wells were below the laboratory reporting limit.
- DRPH and/or ORPH concentrations exceeding the applicable MTCA Method A cleanup levels were detected in groundwater samples collected from wells MW18, MW19, MW21, MW22, MW23, MW24, and MW25 located on the Property. These samples were flagged by the laboratory as having a chromatographic pattern that does not match the fuel standard used for quantification. This result was likely due to the presence of EOS PRO solution in the samples, which originated from the April/May 2016 injection event. The reported concentrations are not considered reflective of actual groundwater conditions at the Property. Concentrations of DPRH and ORPH in groundwater samples collected from the remaining on-Property and off-Property

- monitoring wells were below the laboratory reporting limit and/or MTCA Method A cleanup level.
- GRPH concentrations were below the laboratory reporting limit and/or MTCA Method A cleanup level in groundwater samples collected from all sampled monitoring wells.
- Concentrations of BTEX constituents in groundwater samples collected from all sampled monitoring wells were below their respective laboratory reporting limits and/or MTCA Method A cleanup levels.

6.8.1.2 Fourth Quarter 2018 Results

The analytical results from the Fourth Quarter 2018 groundwater monitoring event indicated the following:

- Groundwater elevations measured during Fourth Quarter 2018 indicated that groundwater at the Property flowed generally to the east—southeast with a hydraulic gradient of 0.006 feet per foot (Figure 11).
- Concentrations of PCE exceeding the MTCA Method A cleanup level were detected in the groundwater samples collected from monitoring well IW61 located on the Property and monitoring well MW13 located in the Boren Avenue North ROW. The concentrations of PCE in the remaining groundwater samples were below the laboratory reporting limit and/or MTCA Method A cleanup level.
- Concentrations of TCE exceeding the MTCA Method A cleanup level were detected in the groundwater samples collected from monitoring wells MW04, MW07, and MW27 in the Boren Avenue North ROW; MW15 in the Terry Avenue North ROW; and MW26 in the Harrison Street ROW. TCE concentrations were not detected above the laboratory reporting limit and/or MTCA Method A cleanup level in the groundwater samples collected from any sampled wells on the Property or in MW13, located in the Boren Avenue North ROW, or MW01, located in the Harrison Street ROW.
- Concentrations of cis-1,2-DCE exceeding the MTCA Method B cleanup level were detected in the groundwater samples collected from monitoring wells MW18, MW22, MW23, MW24, MW25, and IW61 located on the Property. Concentrations of cis-1,2-DCE were below the MTCA Method B cleanup level in groundwater samples collected from monitoring wells MW17, MW19, MW20, MW21, IW04, IW06, IW50, and IW91 located on the Property. Concentrations of cis-1,2-DCE in all sampled off-Property monitoring wells were below the MTCA Method B cleanup level.
- Concentrations of vinyl chloride exceeding the MTCA Method A cleanup level were detected in groundwater samples collected from monitoring wells MW18, MW19, MW21, MW22, MW24, and MW25 and injection wells IW04, IW50, and IW61 located on the Property. Concentrations of vinyl chloride in groundwater samples collected from the remaining on-Property and off-Property monitoring wells were below the laboratory reporting limit and/or MTCA Method A cleanup level.
- Concentrations of trans-1,2-DCE in the groundwater samples collected from all sampled monitoring wells were below the laboratory reporting limit.

- DRPH and/or ORPH concentrations exceeding the applicable MTCA Method A cleanup levels were detected in groundwater samples collected from wells MW18, MW21, MW22, MW23, MW24, and MW25 located on the Property. These samples were flagged by the laboratory as having a chromatographic pattern that does not match the fuel standard used for quantification. This result was likely due to the presence of EOS PRO solution in the samples, which originated from the April/May 2016 injection event. The reported concentrations are not considered reflective of actual groundwater conditions at the Property. Concentrations of DPRH and ORPH in groundwater samples collected from the remaining on-Property and off-Property monitoring wells were below the laboratory reporting limit and/or MTCA Method A cleanup level.
- GRPH concentrations were below the laboratory reporting limit and/or MTCA Method A cleanup level in groundwater samples collected from all sampled monitoring wells.
- Concentrations of BTEX constituents in groundwater samples collected from all sampled monitoring wells were below their respective laboratory reporting limits and/or MTCA Method A cleanup levels.

6.8.1.3 Second Quarter 2019 Results

The analytical results from the Second Quarter 2019 groundwater monitoring event indicated the following:

- Groundwater elevations measured during Second Quarter 2019 indicated that groundwater at the Property flowed generally to the southeast with a hydraulic gradient of 0.006 feet per foot (Figure 12).
- Concentrations of PCE exceeding the MTCA Method A cleanup level were detected in the groundwater samples collected from injection wells IW50 and IW61 located on the Property, monitoring well MW13 located in the Boren Avenue North ROW, and monitoring well MW28 located in the Thomas Street ROW. The concentrations of PCE in the remaining groundwater samples were below the laboratory reporting limit and/or MTCA Method A cleanup level.
- Concentrations of TCE exceeding the MTCA Method A cleanup level were detected in the groundwater samples collected from monitoring wells MW04, MW07, and MW27 in the Boren Avenue North ROW; MW15 in the Terry Avenue North ROW; MW26 in the Harrison Street ROW; and MW28 in the Thomas Street ROW. TCE concentrations were not detected above the laboratory reporting limit and/or MTCA Method A cleanup level in the groundwater samples collected from any sampled wells on the Property or in MW13, located in the Boren Avenue North ROW, or MW01, located in the Harrison Street ROW.
- Concentrations of cis-1,2-DCE exceeding the MTCA Method B cleanup level were detected in the groundwater samples collected from monitoring wells MW18, MW19, MW21, MW22, MW23, MW24, MW25, IW50, and IW61 located on the Property and monitoring well MW28 located in the Thomas Street ROW. Concentrations of cis-1,2-DCE were below the MTCA Method B cleanup level in groundwater samples collected from monitoring wells MW17, MW20, IW04, IW06, and IW91 located on the Property.

- Concentrations of cis-1,2-DCE in other off-Property monitoring wells were below the MTCA Method B cleanup level.
- Concentrations of vinyl chloride exceeding the MTCA Method A cleanup level were detected in groundwater samples collected from monitoring wells MW18, MW19, MW21, MW22, MW23, MW24, and MW25 and injection wells IW04, IW50, and IW61 located on the Property, and monitoring well MW28 located in the Thomas Street ROW. Concentrations of vinyl chloride in groundwater samples collected from the remaining on-Property and off-Property monitoring wells were below the laboratory reporting limit and/or MTCA Method A cleanup level.
- Concentrations of trans-1,2-DCE in the groundwater samples collected from all sampled monitoring wells were below the laboratory reporting limit.
- DRPH and/or ORPH concentrations exceeding the applicable MTCA Method A cleanup levels were detected in groundwater samples collected from wells MW18, MW19, MW21, MW22, MW23, MW24, and MW25 located on the Property. These samples were flagged by the laboratory as having a chromatographic pattern that does not match the fuel standard used for quantification. This result was likely due to the presence of EOS PRO solution in the samples, which originated from the April/May 2016 injection event. The reported concentrations are not considered reflective of actual groundwater conditions at the Property. Concentrations of DPRH and ORPH in groundwater samples collected from the remaining on-Property and off-Property monitoring wells were below the laboratory reporting limit and/or MTCA Method A cleanup level.
- GRPH concentrations were below the laboratory reporting limit and/or MTCA Method A cleanup level in groundwater samples collected from all sampled monitoring wells.
- Concentrations of BTEX constituents in groundwater samples collected from all sampled monitoring wells were below their respective laboratory reporting limits and/or MTCA Method A cleanup levels.

6.8.1.4 Fourth Quarter 2019 Results

- Groundwater elevations measured during Fourth Quarter 2019 indicated that groundwater at the Property flowed generally to the southeast with a hydraulic gradient of 0.007 feet per foot (Figure 13).
- Concentrations of PCE exceeding the MTCA Method A cleanup level were detected in the groundwater samples collected from injection well IW61 located on the Property, monitoring well MW13 located in the Boren Avenue North ROW, monitoring well MW28 located in the Thomas Street ROW, and monitoring well MW29 located on the northern portion of the Seattle Times Site. The concentrations of PCE in the remaining groundwater samples were below the laboratory reporting limit and/or MTCA Method A cleanup level.
- Concentrations of TCE exceeding the MTCA Method A cleanup level were detected in the groundwater samples collected from monitoring wells MW04, MW07, and MW27 in the Boren Avenue North ROW; MW26 in the Harrison Street ROW; MW28 in the Thomas Street ROW; and MW29 on the northern portion of the Seattle Times Site.

TCE concentrations were not detected above the laboratory reporting limit and/or MTCA Method A cleanup level in the groundwater samples collected from any sampled wells on the Property; in MW13 and MW31 located in the Boren Avenue North ROW; MW01 and MW32 located in the Harrison Street ROW; or MW30 located on the northern portion of the Seattle Times Site.

- Concentrations of cis-1,2-DCE exceeding the MTCA Method B cleanup level were detected in the groundwater samples collected from monitoring wells MW18, MW19, MW21, MW22, MW23, MW24, MW25, IW50, and IW61 located on the Property, monitoring well MW28 located in the Thomas Street ROW, and monitoring well MW29 located on the northern portion of the Seattle Times Site. Concentrations of cis-1,2-DCE in the remaining groundwater samples were below the laboratory reporting limit and/or the MTCA Method B cleanup level.
- Concentrations of vinyl chloride exceeding the MTCA Method A cleanup level were detected in groundwater samples collected from monitoring wells MW18, MW19, MW21, MW22, MW23, MW24, and MW25 and injection wells IW04, IW50, and IW61 located on the Property, monitoring well MW28 located in the Thomas Street ROW, and monitoring wells MW29 and ONNI-MW-5 located on the Seattle Times Site. Concentrations of vinyl chloride in groundwater samples collected from the remaining on-Property and off-Property monitoring wells were below the laboratory reporting limit and/or MTCA Method A cleanup level.
- Concentrations of trans-1,2-DCE in the groundwater samples collected from all sampled monitoring wells were below the laboratory reporting limit.
- DRPH and/or ORPH concentrations exceeding the applicable MTCA Method A cleanup levels were detected in groundwater samples collected from wells MW18, MW19, MW21, MW22, MW23, MW24, and MW26 located on the Property. These samples were flagged by the laboratory as having a chromatographic pattern that does not match the fuel standard used for quantification. This result was likely due to the presence of EOS PRO solution in the samples, which originated from the April/May 2016 injection event. The reported concentrations are not considered reflective of actual groundwater conditions at the Property. Concentrations of DPRH and ORPH in groundwater samples collected from the remaining on-Property and off-Property monitoring wells were below the laboratory reporting limit and/or MTCA Method A cleanup level.
- GRPH concentrations were below the laboratory reporting limit and/or MTCA Method A cleanup level in groundwater samples collected from all sampled monitoring wells.
- Concentrations of BTEX constituents in groundwater samples collected from all sampled monitoring wells were below their respective laboratory reporting limits and/or MTCA Method A cleanup levels.

6.8.1.5 2020 Seattle Times Site ONNI-MW-5 Resampling Results

Concentrations of CVOCs in the groundwater sample collected from Seattle Times Site
well ONNI-MW-5 were below the laboratory reporting limit when resampled in
February 2020. A concentration of vinyl chloride was previously detected in this well
during the Fourth Quarter 2019 sampling event. However, concentrations of vinyl

chloride were not detected above laboratory reporting limits in this well when initially sampled by Environmental Partners, Inc. (EPI) in 2018 or when resampled by SoundEarth in February 2020.

7.0 STATISTICAL TREND ANALYSIS OF PLUME STABILITY

Using Ecology's Guidance on Remediation of Petroleum-Contaminated Groundwater by Natural Attenuation dated July 2005 (Module 2), SoundEarth evaluated the stability of the contaminated groundwater plume originating from the Property. Chlorinated solvent results (PCE, TCE, cis-1,2-DCE, and vinyl chloride) for groundwater samples collected between May 2015 and December 2019 (four monitoring events; Table 3) were used to evaluate the stability of the plume. The data results from the plume stability analysis are presented in Appendix C.

The stability of the CVOC groundwater plume beneath and downgradient of the Property was evaluated to assess if the plume is expanding, shrinking, or has reached steady state (stable). A shrinking or stable plume indicates that the plume is attenuating as a result of the source removal at the Property and intrinsic biodegradation, as well as groundwater treatment implemented at the Property and in the adjacent ROWs. For the purposes of this report, stability of the CVOC plume originating at the Property is evaluated separately with respect to PCE/TCE and cis-1,2-DCE/vinyl chloride.

7.1 PCE AND TCE PLUME STABILITY

Results from the PCE and TCE stability analyses were evaluated in conjunction with the current footprint of the PCE and TCE components of the CVOC plume (Figure 15) originating at the Property. The trend analyses were performed on groundwater analytical results gathered from May 2015 to December 2019.

The concentrations of PCE and TCE are stable off-Property in Thomas and Boren ROWs (MW13 and MW28) and are decreasing or stable on the Property (IW61). These stable conditions suggest that the extent of PCE and TCE concentrations on-Property and in the Boren and Thomas ROWs has reached steady state. Steady state indicates that there is currently a balance between the PCE and TCE in the groundwater released from EOS and desorbed from soil grains into the dissolved phase, and the mass removal of contaminants from the groundwater by natural attenuation processes in conjunction with the groundwater treatment.

Based on trend analysis of analytical results from 2015 to 2019 for injection well IW50 and monitoring well MW22 located on the Property, the PCE and TCE concentrations in these wells are decreasing. An evaluation of a subset of the results from 2018 to 2019 shows that the PCE and TCE components are expanding. The expansion of the PCE and TCE impacts to these wells is likely the result of loss of injectate (EOS), the release of PCE and TCE formerly sequestered in the EOS back into the groundwater, or the release of PCE and TCE from less permeable aquifer material into the dissolved phase. Concentrations of PCE and TCE in injection well IW50 and monitoring well MW22 are currently below MTCA cleanup levels.

Analysis of on-Property monitoring wells (MW18 to MW25) which at one time contained groundwater concentrations of PCE and TCE above MTCA cleanup levels, shows that the extent of PCE and TCE impacts have shrunk between 2015 and 2019.

7.2 CIS-1,2-DCE AND VINYL CHLORIDE PLUME STABILITY

Results from the cis-1,2-DCE and vinyl chloride stability analyses were evaluated in conjunction with the current footprint of the cis-1,2-DCE and vinyl chloride impacts in groundwater (Figure 15). In general, the

concentrations of cis-1,2-DCE and/or vinyl chloride on the Property north of well MW22 are increasing as expected since PCE and TCE are degrading in the groundwater to these daughter products under reducing conditions.

To the south of on-Property well MW22, the extent of cis-1,2-DCE and the vinyl chloride in groundwater is generally stable (MW23, IW61, and MW28). These findings suggest a state of equilibrium has been reached between the degradation of PCE and mineralization of cis-1,2-DCE and vinyl chloride to ethene and ethane. These conditions are evident in wells MW28, MW29, and MW30 where aerobic conditions present in the groundwater are conducive to the degradation of vinyl chloride and mineralization of ethene and ethane. This conclusion will be verified over time as additional results are obtained from monitoring wells MW29 and MW30 located on the northern portion of the Seattle Times Site, which have been sampled twice since they were installed in September 2019.

8.0 DATA QUALITY AND USABILITY

Data validation was conducted on current and past laboratory reports provided with each subsurface investigation, IRA, RI, and groundwater monitoring and sampling report prepared by SoundEarth and others. Analytical results were evaluated for holding times, blank contamination, and accuracy and precision using quality control limits (QC limits) provided by the laboratory at the time an analysis was performed. Analytical results reviewed included VOCs, GRPH, DPRH, ORPH, BTEX for soil and/or groundwater. Results from data validation of laboratory reports are as follows:

- Surrogate recoveries for organic analyses were acceptable. Surrogate recoveries outside QC limits were generally associated with high native concentrations of analytes in the sample matrix. High native concentrations of analytes required dilution of the sample extract, which led to poor surrogate recoveries. Since other associated QC data were acceptable for laboratory sample batch, no action is required.
- Spike recoveries for organic analyses were acceptable for matrix spike and laboratory control samples.
- Relative percent difference (RPD) for laboratory duplicate samples were acceptable.
- RPDs for groundwater field duplicates were acceptable.
- Technical holding times for organic analyses were acceptable.
- Laboratory reporting limits for the COCs were acceptable.

Based on the data validation results for the laboratory reports, the analytical results meet the objectives of the RI. Laboratory reports are presented in Appendix B.

9.0 CONCEPTUAL SITE MODEL

A CSM identifies confirmed and suspected source areas of hazardous substances, affected environmental media, fate and transport mechanisms, environmental media of potential concern, and exposure pathways for potential receptors.

This section discusses the components of the CSM developed for the Site based on the completion of multiple phases of investigation and remediation conducted by SoundEarth and others. Included in the following sections are a discussion of the confirmed and suspected source areas, affected environmental media, fate and transport mechanisms, COCs, exposure pathways and potential receptors, an updated

Terrestrial Ecological Evaluation (TEE), and a CSM summary. Figures 21 through 26 provide visual representations of the information presented below.

Based on results from the RI, the Property is a confirmed source of COCs for the Site. The RI also identified suspected off-Property sources for COCs that may impact groundwater quality at and in the vicinity of the Property. The following subsections provide a summary of the likely sources and extents of the COCs at the Property and off-Property identified during the RI.

9.1 ON-PROPERTY CONFIRMED AND SUSPECTED SOURCE AREAS

9.1.1 On-Property Chlorinated and Stoddard Solvents in Soil and Groundwater

The results of the remedial investigations conducted at the Site indicate that the chlorinated solvent and Stoddard solvent impacts detected in soil and groundwater beneath the Property, a portion of the south-adjacent Thomas Street ROW, and the northern portion of the Seattle Times Site are primarily the result of releases from the laundry and dry cleaning facility that operated on the Property from 1927 through 1985. Dry cleaners began using Stoddard solvent in 1928, which was the predominant dry cleaning solvent used in the United States through the late 1950s (Linn 2002). By 1962, however, PCE surpassed Stoddard solvent as the primary dry cleaning agent.

Although the type and location of dry cleaning operations conducted on the Property prior to 1964 could not be confirmed with specificity, historical building plans indicate that the bulk of the dry cleaning operations after the mid-1960s was conducted on the southwestern portion of the Property (Figure 3). Consistent with this information, the highest concentrations of chlorinated solvents in soil were historically located near the center of the Property in the vicinity of the former loading dock, and the highest concentrations of GRPH as Stoddard solvent were observed to the south of the three closed-in-place USTs inside the former Troy Building. The distribution of solvents in soil and groundwater on the Property, and in groundwater in the Thomas Street ROW and on the northern portion of the Seattle Times Site, indicates that the primary source of the release is located in these two areas of the Property (i.e., the loading dock and UST nest), although additional smaller releases from other source areas may have likely contributed to shallow solvent contamination elsewhere on the Property.

9.1.1.1 PCE in Groundwater

The results of groundwater monitoring events performed prior to implementation of the groundwater treatment program at the Property confirmed that PCE was formerly present at concentrations exceeding the MTCA Method A cleanup level in groundwater samples collected from on-Property wells MW11 and MW21 through MW25. In contrast, the results of groundwater monitoring events conducted after Third Quarter 2016, following implementation of the groundwater treatment program, indicate that PCE is not present in groundwater beneath the Property or upgradient to the north or west of the Property at concentrations above the laboratory reporting limit and/or MTCA Method A cleanup level, with the exception of PCE detected in on-Property well IW61 and wells MW07 and MW13 located in the Boren Avenue North ROW.

PCE has been detected at concentrations exceeding the MTCA Method A cleanup level in well MW13, located in the Boren Avenue North ROW in an area upgradient to crossgradient of the Property. Concentrations of TCE above laboratory reporting limits have also been detected in monitoring well MW13, but degradation products, including cis-1,2-DCE and vinyl chloride, have not been detected. The presence of both PCE and TCE and the absence of degradation products

found in MW13 are different conditions than those observed in the on-Property wells, suggesting that the source of PCE in MW13 may not be the same as the source of PCE in on-Property wells. The PCE observed in well MW13 is attributed to an upgradient source not related to the CVOCs originating at the Property.

9.1.1.2 TCE in Groundwater

With the exception of monitoring wells MW17 and MW22 and injection wells IW50 and IW61, TCE is not currently present in the groundwater beneath the Property at concentrations above the laboratory reporting limit and/or MTCA Method A cleanup level for TCE.

Concentrations of TCE continue to be observed in off-Property wells upgradient of MW17, including wells MW04 and MW26. Concentrations of TCE in upgradient wells have remained stable, while concentrations of TCE in MW17 have seen a slight rebound following implementation of the IRA, indicating the presence of an off-Property source. Additionally, due to the lack of PCE observed in MW17, concentrations of TCE in MW17 do not appear to be a result of PCE degradation. Therefore, the continued residual detections of TCE in well MW17 are attributable to an upgradient source of TCE observed in off-Property well MW26. The extent of TCE in off-Property groundwater is further discussed in Section 9.2.2.

TCE observed in well MW22, injection wells IW50 and IW61, and in groundwater crossgradient to downgradient of the Property in the Thomas Street ROW (MW28 and former well MW16) and on the northern portion of the Seattle Times Site (MW29 and MW30) can be attributed to the degradation of PCE released on the Property following implementation of the groundwater treatment program consisting of EOS and bioaugmentation injections completed in 2015 through 2017.

9.1.1.3 Cis-1,2-DCE and Vinyl Chloride

The results of recent groundwater monitoring events at the Property indicate that cis-1,2-DCE and/or vinyl chloride are present at concentrations exceeding the applicable MTCA cleanup levels in samples collected from on-Property wells MW18, MW19, MW21 through MW25, IW04, IW50, and IW61, and in crossgradient to downgradient off-Property wells MW16, MW28, and MW29. Vinyl chloride was present in concentrations slightly above the applicable MTCA cleanup level in a groundwater sample collected from Seattle Times Site well ONNI-MW-5 during the Fourth Quarter 2019 sampling event, but was not detected above laboratory reporting limits when initially sampled by EPI in 2018 (EPI 2018) or when resampled by SoundEarth in February 2020.

In contrast, cis-1,2-DCE and vinyl chloride are not present in groundwater upgradient of the Property in the Boren Avenue North or Harrison Street ROWs at concentrations above laboratory reporting limits and/or MTCA Method A cleanup levels. Cis-1,2-DCE and vinyl chloride in groundwater on the Property and crossgradient to downgradient of the Property in the Thomas Street ROW and on the northern portion of the Seattle Times Site can be attributed to the degradation of PCE and TCE following implementation of the groundwater treatment program consisting of EOS and bioaugmentation injections completed in 2015 through 2017.

9.1.1.4 Petroleum Hydrocarbons in Groundwater

The results of groundwater monitoring events performed following treatment of the groundwater on the Property indicate that concentrations of DRPH and/or ORPH exceeding the MTCA Method A cleanup levels were present in groundwater samples collected from on-Property monitoring wells MW18, MW19, MW21, MW22, MW23, MW24, and MW25. Additionally, concentrations of DRPH exceeding the MTCA Method A cleanup level have sporadically been detected in monitoring

wells MW16 (Third Quarter 2016; Second and Third Quarters 2017), MW26 (Fourth Quarter 2019), and MW27 (First Quarter 2018).

All of these samples were flagged by the laboratory as having a chromatographic pattern that does not match the fuel standard used for quantification. Additionally, these concentrations have all been detected in samples collected following the 2015 and 2016 EOS injection events. These concentrations of DRPH and/or ORPH are due to the presence of EOS PRO solution originating from the April/May 2016 injection event and are not considered reflective of actual petroleum constituents in groundwater on the Property.

9.2 OFF-PROPERTY CONFIRMED AND SUSPECTED SOURCE AREAS

9.2.1 PCE in Groundwater

PCE has been detected at concentrations exceeding the MTCA Method A cleanup level in well MW13, located in the Boren Avenue North ROW, upgradient to crossgradient of the Property. Concentrations of TCE above laboratory reporting limits have also been detected in monitoring well MW13, but degradation products, including cis-1,2-DCE and vinyl chloride, have not been detected.

The presence of both PCE and TCE and absence of degradation products in well MW13, the upgradient to crossgradient location MW13 relative to the historical release of CVOCs at Property, and the direction of groundwater flow to the southeast may suggest that the source of contamination in well MW13 originates upgradient of the Property. The absence of breakdown products may suggest that the geochemistry of groundwater in well MW13 is not conducive to reductive dechlorination like at the Property. Given the presence of PCE and TCE and the absence or low concentration of PCE in wells to the north of MW13 in Boren Avenue North, the current CSM attributes the source for the contamination in well MW13 to the Property. CVOCS in the wells located north of well MW13 in Boren Avenue North are attributed to historical releases of TCE upgradient of Boren Avenue North.

9.2.2 TCE in Primary Water Bearing Zone

The results of groundwater monitoring events performed prior to and since treatment of the groundwater at the Property indicate that TCE is present in the primary water-bearing zone at concentrations exceeding the MTCA Method A cleanup level in groundwater samples collected from upgradient, off-Property wells MW04, MW07, MW15, MW26, and MW27, located in the Boren Avenue North, Terry Avenue North, and Harrison Street ROWs. Neither PCE nor its degradation products are present in the groundwater at these upgradient wells. In contrast, with the exception of monitoring well MW22 and injection wells IW50 and IW61, TCE is not currently present in the groundwater beneath the Property at concentrations above the laboratory reporting limit and/or MTCA Method A cleanup level. TCE in deep groundwater in the Thomas Street ROW and on the northern portion of the Seattle Times Site can be attributed to the degradation of the PCE releases observed at the Property.

9.2.3 TCE in Shallow Soil and Perched Groundwater

Prior to redevelopment, shallow CVOC impacts to soil and perched groundwater were present in the central portion of the Property at depths of approximately 20 to 30 feet bgs. Of the 59 borings drilled at the Property, three borings (B21, B22, and B27) were advanced approximately 20 to 40 feet north of the southern Property boundary (Figure 5). SoundEarth collected soil samples from the borings at sample depth intervals of 5 to 10 feet to depths ranging from 5 to 110 feet bgs.

These soil samples did not contain PCE, TCE, 1,2-DCE, or vinyl chloride at concentrations above laboratory reporting limits, with the exception of a sample collected at 5 feet bgs in boring B21, which contained a PCE concentration of 0.28 mg/kg. Borings B21, B22, and B27 are located approximately 80 to 90 feet from the Seattle Times Site, with the Thomas Street ROW separating the two properties.

Following redevelopment excavation activities at the Property, 28 confirmation soil samples were collected from the south sidewall of the excavation, adjacent to the Thomas Street ROW, at depths of approximately 5 to 70 feet bgs (27 to 95 feet NAVD88). None of these samples contained concentrations of CVOCs above laboratory reporting limits.

9.2.3.1 TCE in Shallow Soil Beneath the Seattle Times Site

In May 2018, EPI performed a subsurface investigation at the Seattle Times Site. As part of that investigation, 16 soil borings (U1 through U16) were advanced proximal to the former Ink Room, Northern UST Complex and Fuel Dispenser, and Maintenance Garage formerly located on the northern portion of the Seattle Times Site. The USTs were reported to contain waste oils and liquids, heating oil, diesel and gasoline fuel, and petroleum- and solvent-based inks. Borings U1 through U16 were advanced to depths of 20 to 25 feet bgs. Reconnaissance groundwater samples collected from U10 through U13 contained TCE concentrations ranging from 1.9 to 7.9 μ g/L. The reconnaissance groundwater sample collected from boring U11 at 25 feet bgs contained a PCE concentration of 1.2 μ g/L. A soil sample collected from boring U11 at 15 feet bgs contained a TCE concentration of 0.021 mg/kg. Breakdown products of TCE were not detected in the soil and reconnaissance groundwater samples collected from the EPI borings.

EPI's findings from their previous 2013 investigation at the Seattle Times Site concluded that the TCE in shallow soil and groundwater originated from a source on the Seattle Times Site and not the Troy Laundry Property. In the *Limited Subsurface Investigation Report, Seattle Times Property, 1120 John Street, Seattle, Washington*, prepared by EPI and dated August 16, 2013, EPI states that "TCE is a known contaminant from the Troy laundry site adjacent to the north of the subject property; however, a water sample collected from a shallow ground water well installed on the northern property boundary did not contain detectable concentrations of TCE....This suggests that the TCE detected in shallow ground water may be from an on-site source."

During SoundEarth's 2019 supplemental monitoring well installation activities, TCE was detected at concentrations exceeding the MTCA Method A cleanup level in two soil samples collected from borings B54 and B55 advanced on the northern portion of the Seattle Times Site, completed as groundwater monitoring wells MW29 and MW30, at depths of approximately 30 feet bgs (72 feet NAVD88; 0.093 mg/kg) and 20 feet bgs (82 feet NAVD88; 0.033 mg/kg), respectively. Analytical results for soil samples collected from borings B54 and B55 correspond to soil sample results from borings advanced by EPI in 2018.

The results of the investigations described above confirm that the release of solvents on the Property have not impacted soil and shallow groundwater at the Seattle Times Site, based on the following conclusions:

Prior to redevelopment, shallow groundwater contaminated with PCE and its breakdown products was present at the Property at depths of 20 to 30 feet bgs. However, the shallow groundwater was intercepted in only 4 of 59 soil borings near the center of the Property. Shallow groundwater at the Seattle Times Site primarily contains TCE with no breakdown products. If a release at the Property impacted shallow soil and groundwater at the Seattle Times Site, PCE and its breakdown products would be present in the groundwater, but they are not.

- TCE was detected at depths of 15 to 30 feet bgs in soil samples collected from borings advanced by EPI and SoundEarth at the Seattle Times Site. The borings were advanced proximal to the former Ink Room, Northern UST Complex and Fuel Dispenser, and Maintenance Garage. Because TCE and/or other solvents were not detected in soil samples collected from depths of 5 to 110 feet bgs on the southern portion of the Troy Property at borings B21, B22, and B27 or in any of the soil samples collected from the south sidewall of the redevelopment excavation at depths of 5 to 70 feet bgs, and because there is no mechanism to transport solvents from Property to shallow soils on the Seattle Times Site, the TCE in the shallow soil at the Seattle Times Site is the result of a release on the Seattle Times Site, most likely from the former Ink Room, Northern UST Complex and Fuel Dispenser, and Maintenance Garage.
- The primary solvent of concern in the soil at the Seattle Times Site is TCE, while the primary solvents of concern in soil and groundwater at Troy Property are PCE and its breakdown products. Since PCE and its breakdown products are not present in the shallow soil at the Seattle Times Site, the source of TCE originated from the Seattle Times Site. This conclusion is supported by the fact that shallow reconnaissance groundwater samples collected by EPI proximal to the former Ink Room, Northern UST Complex and Fuel Dispenser, and Maintenance Garage only contained TCE and no PCE, with the exception of one reconnaissance groundwater sample collected from EPI boring U11 at 25 feet bgs.
- EPI's findings from their 2013 investigation at the Seattle Times Site concluded that the source of shallow TCE in soil and groundwater was the Seattle Times Site and not the Troy Property.

Due to the nature and horizontal distance between shallow TCE impacts identified on the Seattle Times Site and the TCE originating from the Property, as well as the discontinuous nature of the perched groundwater zone, the elevation change between the Property and the Seattle times Site, the inferred northerly flow of any perched groundwater due to local topography, and the lack of a defined transport mechanism, the TCE impacts identified in the shallow soil on the Seattle Times Site are attributed to a release at the Seattle Times Site and are not associated with the Site.

9.3 CONTAMINANTS OF CONCERN

Based on the findings of RIs conducted at the Site, the primary COCs at the Site include PCE, TCE, cis-1,2-DCE, and vinyl chloride in groundwater located beneath the western half of the Property, portions of the west- and south-adjoining ROWs, and beneath the northern portion of the Seattle Times Site. The CVOCs in groundwater beneath the Site are confirmed to be present at concentrations requiring cleanup in accordance with the AO.

Previous investigations at the Site identified GRPH (as Stoddard solvents), DRPH, and ORPH as COCs. Petroleum hydrocarbons previously present in soil at the Site were removed during the 2014 to 2015 construction excavation (SoundEarth 2016), with the exception of a small area (approximately 10 feet east to west at an approximate elevation of 32 feet NAVD88) of inaccessible petroleum-contaminated soil along the north sidewall along Harrison Street. Current concentrations of DRPH and/or ORPH in the groundwater are attributable to the presence of EOS and its polar breakdown products in the

groundwater, a conclusion supported by groundwater samples containing DRPH and/or ORPH being flagged by the laboratory as having a chromatographic pattern that does not match the fuel standard used for quantification. In addition, residual petroleum contamination at or outside the property boundary is located in the vadose zone in areas that are fully capped and contained. Therefore, the petroleum hydrocarbon source has been removed, and petroleum hydrocarbons should no longer be considered a COC for the Site in soil and groundwater. All identified soil on the Property containing CVOC concentrations exceeding cleanup levels was removed during the remedial excavation conducted as part of the IRA, with the exception of a small area (approximately 100 feet north to south at approximate elevations between 80 and 20 feet NAVD88) of inaccessible CVOC-contaminated soil along the western Property boundary along Boren Avenue North.

9.3.1 <u>Transport Mechanisms Affecting Distribution of Chlorinated Solvents</u>

Chlorinated solvents released to the environment are transported in groundwater in a dissolved phase and in partially saturated and unsaturated soil in a vapor phase. In groundwater, chlorinated solvents are transported through advection and dispersion and in the vapor phase by advection and diffusion. The primary mechanism for transport of chlorinated solvents originating at the Troy Property is currently advection and dispersion. Transportation of chlorinated solvents in soil vapor at the Troy Property has been eliminated as result of the removal of source areas and engineering controls implemented as part of the IRA.

PCE and its degradation products in the groundwater at the Site have migrated in the direction of groundwater flow by advection and dispersion. Given the relatively flat groundwater gradient at the Site and the heterogenous texture of the primary water-bearing zone, particularly in southern half of the Troy Property and beneath the Thomas Street ROW, the footprint of the chlorinated solvent plume has been primarily confined to Troy Property and parts of the Thomas Street and Boren Avenue North ROWs.

9.3.2 Environmental Fate of Chlorinated Solvents

The primary COC at the Site is PCE. Once PCE enters the subsurface, chemical attenuation processes, such as hydrolysis, direct mineralization, and reductive dehalogenation, may cause a natural reduction or breakdown into nontoxic components, such as chloride and carbon dioxide. Biological attenuation processes, such as reductive dechlorination and co-metabolic degradation, also may affect the reduction of PCE in soil and groundwater under conducive subsurface conditions.

If reductive dechlorination of PCE is occurring, the first indication is the presence of degradation compounds that include TCE, cis-1,2-DCE, trans-1,2-DCE, and vinyl chloride. The soil and groundwater analytical data for the Site indicate that concentrations of TCE and cis-1,2-DCE have been detected in the vadose zone, the discontinuous perched interval, and the primary water-bearing zone beneath the Site. This indicates that some biological and possibly chemical attenuation processes are occurring at the Site, which is consistent with data generated from the borings and wells completed throughout the Site. The implemented groundwater treatment program has enhanced the attenuation processes occurring beneath the Property.

PCE is a volatile compound that will volatilize into a gaseous state from soil and/or groundwater. In areas of the Site where an impermeable cover is not present, some PCE in vapor will escape to the atmosphere. Once in the atmosphere, it will rapidly attenuate via photodegradation.

9.4 EXPOSURE PATHWAYS AND POTENTIAL RECEPTORS

The exposure assessment identifies potential receptors for exposure pathways for environmental media of potential concern. Potential receptors at risk from exposure associated with the presence of COCs at the Site are human and ecological receptors.

The objective of the preliminary exposure assessment is to assess the completeness of exposure pathways from environmental media of potential concern and associated contaminant fate and transport mechanisms for the potential receptors at the Site. The results from the preliminary exposure assessment assist with the evaluation of potentially feasible cleanup alternatives that are protective of the potential human and ecological receptors. The preliminary exposure assessment for each exposure pathway and associated environmental media of potential concern is summarized below by affected environmental media. The exposure pathway assessment for the Site is depicted on Figure 26. Pathways associated with each media of concern are described below.

9.4.1 Soil

Potential exposure pathways for soil contamination include volatilization into soil vapor and subsequent exposure through the vapor pathway or via the direct contact pathway, which comprises direct contact via dermal contact with and/or ingestion of soil beneath the Site. Protection from direct contact exposure to affected soil would require capping or excavation.

Soil with concentrations of COCs that exceed applicable MTCA cleanup levels has been removed from the Property through remedial excavation completed in 2014 and 2015. Limited areas with concentrations of COCs exceeding cleanup levels are present beyond the western and northern Property boundaries, but these areas are covered with concrete, asphalt, or building structures, which minimize the risk of direct contact. This pathway has been mitigated by virtue of the removal of soil containing concentrations of COCs in excess of their respective cleanup levels during redevelopment activities.

9.4.2 Groundwater

Groundwater can be contaminated by infiltrating surface water leaching soluble COCs from the unsaturated soil, and by rising groundwater coming in contact with soluble COCs in unsaturated soil. Potential exposure pathways for groundwater contamination include volatilization into soil vapor and subsequent exposure through the vapor pathway or via the direct contact pathway, which comprises both the dermal contact and ingestion pathways.

No groundwater supply wells at or in the vicinity of the Site are used for potable water supply. The primary water-bearing zone underlying the Site may qualify as a potential future source of potable water; however, because of the availability of municipal water supplies in the Site vicinity, there is a low probability that groundwater in the primary water-bearing zone at the Site or adjoining parcels would be used as a potable water source.

Because there is no practical use of groundwater in the Site vicinity and because the primary water-bearing zone is at least 60 feet bgs in the vicinity of the Property, excavation activities would be required for direct contact with groundwater to become a potential risk to human health.

Potential future development activities at the Site within the discontinuous perched interval or primary water-bearing zone could result in exposure to contaminated groundwater.

9.4.3 Soil Vapor

The air in the pore space between soil grains in the unsaturated zone or partially saturated zone is referred to as soil gas or soil vapor. Soil vapor can become contaminated from volatilization of VOCs, such as PCE and its degradation products. Sources of contaminated soil vapor may include nonaqueous-phase liquid, absorbate on soil mineral surfaces, and dissolved-phase compounds in groundwater. Ecology guidance for evaluating soil vapor intrusion risks into structures provides chemical-specific screening levels for both groundwater and soil vapor that are protective of human health (Ecology 2009, 2018, 2019b).

In March 2018 and February 2019, SoundEarth conducted a soil vapor intrusion assessment and supplemental vapor intrusion assessment within the on-Property building. The results of the indoor and outdoor air sampling demonstrate compliance with applicable MTCA indoor air cleanup levels; therefore, the vapor intrusion pathway is considered to be incomplete. In a letter dated July 8, 2019, Ecology stated that no further assessment of indoor air quality at the Site is required based on the results of the vapor intrusion assessments (Ecology 2019a).

9.5 TERRESTRIAL ECOLOGICAL EVALUATION

A TEE is required by WAC 173-340-7940 at locations where a release of a hazardous substance to soil has occurred. The TEE is intended to assess potential risk to plants and animals that live entirely or primarily on affected land. The TEE takes into account Site area, Site land use, Site habitat quality, likelihood that the Site will attract wildlife, and COCs occurring in Site soil.

The Site qualifies for a TEE exclusion per WAC 173-340-7491(1)(a)(b) on the basis that soil contamination is at least 15 feet bgs and is covered by physical barriers that prevent exposure to plants and wildlife (Appendix D). No further consideration of ecological impacts is required under MTCA.

9.6 CONCEPTUAL SITE MODEL INTERPRETATION

The implementation of the IRA has resulted in the removal of the source material in soil on the Property and thereby eliminated the direct contact and inhalation exposure pathways for the Site, leaving groundwater as the primary medium of concern.

Ongoing treatment of the groundwater using ERD is expected to eliminate groundwater as a medium of concern within a reasonable restoration time frame. Concentrations of PCE, cis-1,2-DCE, and vinyl chloride in groundwater beneath the Property currently exceed applicable cleanup levels, but these compounds will eventually be degraded to methane, ethane, and/or ethene, the non-toxic breakdown products of vinyl chloride.

The geochemistry of the primary water-bearing zone beneath the Property currently supports biotic degradation of COCs. These conditions are evident based on concentrations of dissolved oxygen below 1 milligram per liter (mg/L), low oxidation reduction potential, the presence of fatty acids, dissolved carbon concentrations greater than 20 mg/L, and the presences of methane. The presence of PCE degradation products in groundwater indicates that the geochemistry of the primary water-bearing zone beneath the Property and downgradient of the Property is conducive to reductive dechlorination.

Concentrations of GRPH, DRPH, and ORPH observed in the groundwater at the Property can be attributed to residual EOS injectate in the groundwater and its breakdown polar compounds, such as alcohols, ketones, and fatty acids. Laboratory analytical results for petroleum hydrocarbons have consistently indicated that the chromatographic patterns do not resemble the laboratory fuel standards.

Groundwater monitoring results indicate the extent of the CVOC plume originating from the Property has been fully delineated. Analysis of CVOC concentrations in groundwater identified beneath the Boren Avenue North ROW upgradient of the Property, and in shallow perched soil and groundwater on the south-adjacent Seattle Times Site, indicate that these impacts are not related to a source originating from the Property. Solvents originating from the Property have migrated south—southeast beneath the Thomas Street ROW and the northern portion of the Seattle Times Site. On the Property, the downgradient eastern extent of the CVOC plume lies to the west of monitoring wells MW20 and IW91. On the northern portion of the Seattle Times Site, the downgradient southeastern extent of the CVOC plume lies approximately between monitoring wells MW29 and MW30 and Seattle Times Site monitoring wells ONNI-MW-4 and ONNI-MW-5, located to the south of monitoring wells MW29 and MW30 (Figures 23 and 24).

As shown on Figure 25, the southern extent of the CVOC plume originating from an on-Property source has been extrapolated toward monitoring wells ONNI-MW-4 and ONNI-MW-5 using applicable MTCA Method A and B cleanup levels as a threshold to acknowledge the fact that the CVOC plume likely extends beyond monitoring wells MW28 and MW29. The southern limit of the extrapolated plume is delineated by the absence of CVOCs in monitoring wells ONNI-MW-4 and ONNI-MW-5, which were first sampled in 2018.

Analysis of CVOC plume stability at monitoring well MW28 located in the Thomas Street ROW shows that concentrations of COCs in groundwater at the downgradient edge of the plume are stable, except for vinyl chloride concentrations, which are decreasing (Appendix C). Results of the stability analysis of the CVOC plume at monitoring wells at the Site, the age of the release at the Property, the natural attenuation occurring in the primary water-bearing zone, the groundwater treatment, and the groundwater flow direction at the Site indicate that the CVOC plume has reached equilibrium and will not migrate farther to the south. Due to the source area removal and implementation of groundwater treatment, the footprint of the CVOC plume is expected to diminish and retreat with time. Additionally, the CVOCs present in monitoring wells MW28 and MW29 are similar in ratio and concentration, which further supports the conclusion that concentrations of CVOCs have stabilized and will likely continue to decline with time.

10.0 CONCLUSIONS

The findings from the RI show that all necessary information has been collected to define the extent of contamination in all media of concern and to fully characterize the Site under WAC 173-340-350. In addition, sufficient information has been collected to confirm the IRA has removed the exposure pathways for the potential media of concern using engineering controls in accordance with WAC 173-340-440. These conclusions are based on the following findings:

- The former historical operations at the Property (Figure 3) are the source for chlorinated solvent and petroleum hydrocarbon contamination in soil, groundwater, and soil vapor at the Site. In addition, the RI identified the media of concern and exposure pathways at the Site. The IRA eliminated the source of COCs through the mass excavation of contaminated soil during redevelopment of the Property. Implementation of the ERD treatment has reduced the concentrations and mass of remaining CVOCs in groundwater within the primary water-bearing zone beneath and downgradient of the Property.
- The regional groundwater aquifer beneath the Site is the primary water-bearing zone containing the CVOC groundwater plume originating at the Troy Property. This water-bearing zone consists glacial and nonglacial deposits of Pleistocene age and is composed of transmissive, poorly graded sands beneath the Property, grading laterally into interbedded fine- and coarser-grained deposits

with variable transmissivity south of the Thomas Street ROW (Figures 6 and 7). Regionally and beneath the Site the primary water-bearing flows east to southeast. The groundwater gradient of the primary water-bearing zone is relatively flat with an order of magnitude of 1E10⁻³.

- The full nature and extent of the CVOC groundwater plume originating from the Property has been defined. The extent of the CVOC groundwater plume is defined by the following conditions:
 - Concentrations of CVOCs below MTCA Methods A and B cleanup levels in the groundwater in monitoring wells ONNI-MW-4 and ONNI-MW-5 located on the south adjoining Seattle Times Site (Figures 5, 23, 24, and 25).
 - The absence of CVOCs above MTCA Methods A and B cleanup levels in the groundwater in monitoring wells MW20 and IW91, located at the east side and southeast corner of the Property (Figures 15, 23, 24, and 25).
 - Concentrations of CVOCs below or slightly above MTCA Methods A and B cleanup levels in the groundwater in monitoring wells MW17, IW06, and IW04 (Figures 15, 23, 24, and 25) at the north side of the Property.
 - Concentrations of CVOCs below or slightly above MTCA Method A cleanup levels in the groundwater in monitoring wells MW13, MW19, and MW25 located on the west side of the Property and in the Boren Avenue North ROW (Figures 15, 23, 24, and 25).
 - Concentrations of CVOCs observed in the groundwater in monitoring wells MW04, MW07, and MW27 located in Boren Avenue North are attributed to a separate and yet undiscovered TCE-dominant source or sources not originating on or from the Property, but historically located adjacent to and west of Boren Avenue North.
 - The subsurface hydrogeology in conjunction with soil conditions influences the shape and extent of the CVOC groundwater plume beneath the Site. Less transmissive finer-grained soil to the south of Property is retarding the southern migration of the CVOC groundwater plume at the Thomas Street ROW.
- Shallow perched groundwater was identified in the central portion of the Property prior to the mass excavation of contaminated soil during development. The shallow perched groundwater was limited in extent and was not encountered in a majority of soil borings advanced on the Property. Shallow soil samples collected from borings B54 and B55 advanced on the northern portion of the Seattle Times Site (completed as groundwater monitoring wells MW29 and MW30) contained low concentrations of TCE at depths of approximately 20 and 30 feet bgs, respectively (Figure 5; Table 1). The RI has demonstrated there is no transport mechanism for shallow CVOC contamination to migrate from the Property to the Seattle Times Site. Results of the RI and investigations conducted by others at the Seattle Times Site demonstrate the source for TCE in shallow soil at the Seattle Times Site is a separate release in the vicinity of the former UST Complex and Fuel Dispenser or Maintenance Garage formerly located on the northern portion of the Seattle Times Site.
- The CVOC plume originating at the Property is degrading as a result of ERD technology used to treat the groundwater. Analysis of plume stability demonstrates that the extent of PCE and TCE has decreased considerably compared to their extent prior to implementation of the groundwater treatment in 2015 (Figures 21 and 22). Separately, and as predicted, the extent of cis-1,2-DCE and vinyl chloride has increased as a result of PCE and TCE degradation (Figures 23 and 24). Furthermore, the mass removal of the source area of chlorinated solvents at the Property, age of

the release at the Property, groundwater treatment, and the hydrology of the Site all support the conclusion that the CVOC plume has reached steady-state and will not migrate farther than the extrapolated extent shown in Figure 25.

- The petroleum hydrocarbon source has been removed, and petroleum hydrocarbons are no longer a COC in groundwater for the Site. Current concentrations of DRPH and/or ORPH in the groundwater are attributable to the presence of EOS and its polar breakdown products in the groundwater, a conclusion supported by groundwater samples containing DRPH and/or ORPH being flagged by the laboratory as having a chromatographic pattern that do not match the fuel standard used for quantification. In addition, residual petroleum contamination at or outside the property boundary is located in the vadose zone in areas that are fully capped and contained. As such, petroleum hydrocarbons should no longer be considered a COC for the Site in soil and groundwater.
- Ecology agrees that the results from the two indoor air sampling events demonstrate compliance with MTCA indoor air cleanup levels at the time the samples were taken in March 2018 and February 2019. Ecology, at this time, does not require any further assessment of the indoor air quality at the Troy Laundry Seattle Site (Ecology 2019a).
- The mass of chlorinated solvents in the media of concern has been reduced significantly through the IRA, resulting in a decrease in the concentrations of PCE and TCE in groundwater originating at the Property.

11.0 LIMITATIONS

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, expressed or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report are derived, in part, from data gathered by others, and from conditions evaluated when services were performed, and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We do not warrant and are not responsible for the accuracy or validity of work performed by others, or for the impacts of changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the use of segregated portions of this report.

12.0 BIBLIOGRAPHY

AECOM. 2011. Letter Regarding December 2010 Investigation Results and SVE Conceptual System Design, Troy Laundry Property, Seattle, Washington. From Jamie Stevens, PE and Renee Knecht, LG at AECOM. To Mr. Steven Wood, Managing Director Century Pacific, LP. January 12.

Associated Earth Sciences, Inc. (AESI). 2011. Subsurface Exploration, Geologic Hazard, and Preliminary Geotechnical Engineering Report, Troy Laundry Property, Fairview Avenue North and Thomas Street, Seattle, Washington. December 1.

City of Seattle. 1996. Council Bill Number 111147, Ordinance Number 118047. Approved March 14, 1996.

_____. 2019a. *City of Seattle: Generalized Zoning*. http://www.seattle.gov/dpd/research/GIS/webplots/Smallzonemap.pdf>. Accessed November 24.

2019b. Seattle Street Types Map. http://seattlecitygis.maps.arcgis.com/apps/webappviewer/index.html?id=dfeed51c66334b10a 82e7a23dc42086f>. Accessed on November 22, 2019. Conrad, Mark. 2012. Interview Regarding Degradation of Chlorinated Solvents. Between Erin Rothman, Principal Scientist at SoundEarth Strategies, Inc., and Mark Conrad, PhD, of E.O. Lawrence Berkeley National Laboratory. December 14. Environmental Partners, Inc. (EPI) 2013. Limited subsurface Investigation Report, Seattle Times Property, 1120 John Street, Seattle, Washington. August 16. . 2018. Technical Memorandum, Supplemental Investigation, Former Seattle Times, 1120 John Street, Seattle, Washington. May 30. Floyd Snider McCarthy Team. 2003. User's Guide: North BINMIC Hydrogeologic and Environmental Settings Report Brownfields Pilot Project. Gore Surveys. 2010. Final Report No. 20670007: Troy Laundry, Seattle, Washington. Prepared by W.L. Gore and Associates. September 8. IDcide.com (IDcide). 2019. Seattle, Washington Weather. http://www.idcide.com/weather/wa/ seattle.htm>. Viewed on November 24. King County iMAP. 2019. Property information for Site and Surrounding Parcels. Reviewed online at https://gismaps.kingcounty.gov/iMap. November 24. King County Recorder's Office. 2011. Official Public Records for the Property and Adjoining Properties. Accessed online at http://www.kingcounty.gov/business/Recorders/RecordsSearch.aspx>. October 20th. Linn, Bill. 2002. Chemicals Used in Dry Cleaning Operations. Florida Department of Environmental Protection for State Coalition for Remediation of Drycleaners. January. Revised July 2009. McLoughlin, Patrick. 2012. Interview Regarding Degradation of Chlorinated Solvents. Between Erin Rothman, Principal Scientist at SoundEarth Strategies, Inc., and Patrick McLoughlin, PhD, Technical Director at Microseeps. December 14. The Remediation Technologies Incorporated (RETEC). 1994. Letter to Mr. Eric Rosebrock, Facility Operations Manager, the Seattle Times. October 26. Richard Martin Groundwater (RMG). 2017. Draft Evaluation of Groundwater Flow Direction - South Lake Union Area, Former Troy Laundry Site, Seattle, Washington. September 5.

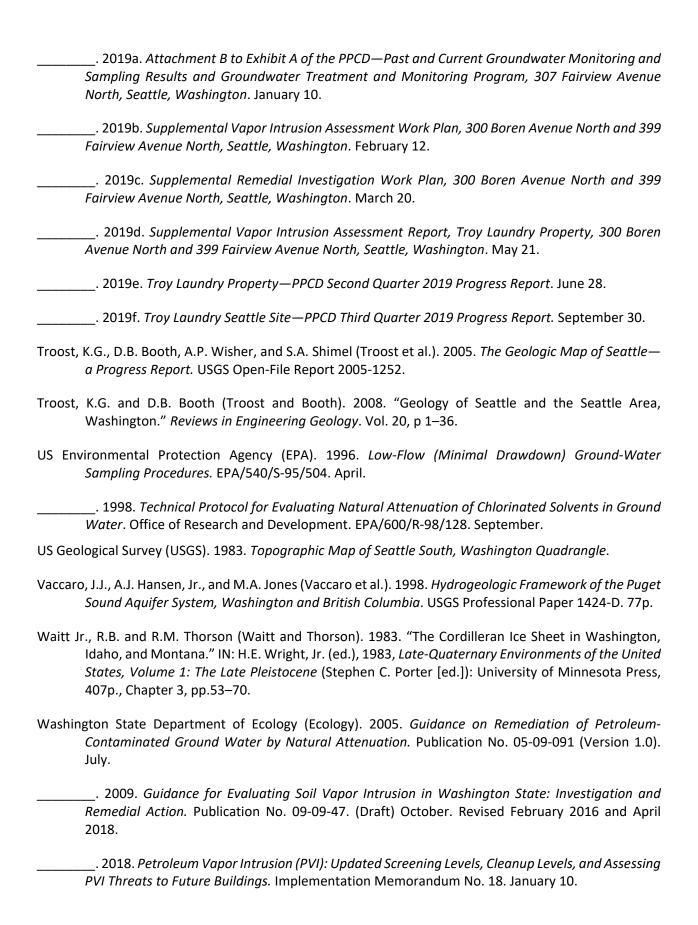
Sound Environmental Strategies Corporation (SES). 2010. Phase I Environmental Site Assessment (ESA) for the Troy Laundry Property, 307 Fairview Avenue North, Seattle Washington. September 15.

Seattle Times Company. 1986. Records, Letters, and Laboratory Analytical Results for waste generated

and USTs located on the Property.

__. 1986. Closure Plan for the Troy Laundry Facility.

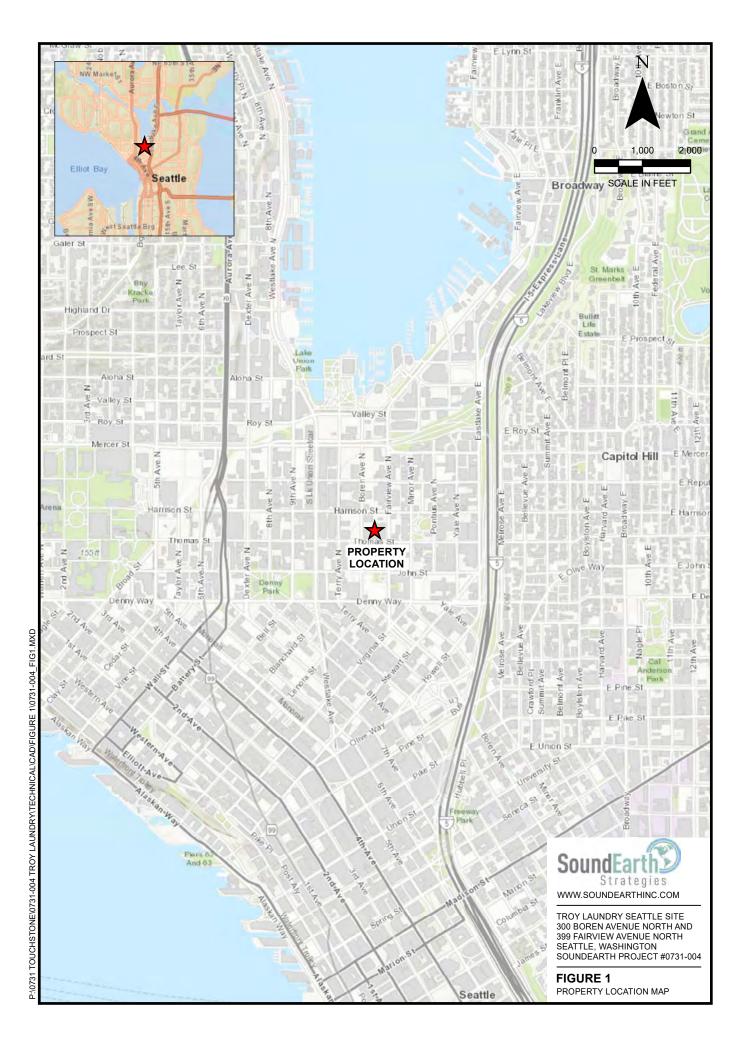
SoundEarth Strategies, Inc. (SoundEarth). 2010a. Summary of Environmental Conditions at the Troy Laundry Property, 307 Fairview Avenue North, Seattle; Washington. September 15.							
2010b. Summary of Limited Phase II Environmental Assessment at the Troy Laundry Property, 307 Fairview Avenue North, Seattle, Washington. October 28.							
2011a. Summary of Supplemental Subsurface Investigation Activities, Troy Laundry Property, 307 Fairview Avenue North, Seattle, Washington. June 6.							
2011b. Remedial Investigation Sampling and Analysis Plan, Troy Laundry Property, 307 Fairview Avenue North, Seattle, Washington. September 23.							
2011c. Interview regarding results of geotechnical investigations conducted at the Troy Laundry Property. Otto Paris, Senior Hydrogeologist, and Tim Peter of Associated Earth Sciences, Inc. November 1.							
2012a. Draft Remedial Investigation Report, Troy Laundry Property, 307 Fairview Avenue North, Seattle, Washington. May 2.							
2012b. Draft Addendum—Supplemental Remedial Investigation Report, Troy Laundry Property, 307 Fairview Avenue North, Seattle, Washington. December 17.							
2013. Groundwater Monitoring Report, Troy Laundry Property, Third Quarter 2013, 307 Fairview Avenue North, Seattle, Washington. October 16.							
2014. Engineering Design Report, Troy Laundry Property, 307 Fairview Avenue North, Seattle, Washington. February 13.							
2016. Interim Action Progress Report, 307 Fairview Avenue North, Seattle, Washington. January 22.							
2017a. Environmental Summary, 307 Fairview Avenue North, Seattle, Washington. April 17.							
2017b. Technical Memorandum—Nature and Extent of Contaminated Groundwater at the Troy Laundry Property. Draft in Regulatory Review October 19.							
2018a. 2015 Groundwater Monitoring Report, 307 Fairview Avenue North, Seattle, Washington. February 21.							
2018b. 2016 Groundwater Monitoring Report, 307 Fairview Avenue North, Seattle, Washington. February 21.							
2018c. 2017 Groundwater Monitoring Report, 307 Fairview Avenue North, Seattle, Washington. February 21.							
2018d. Vapor Intrusion Assessment Report, 307 Fairview Avenue North, Seattle, Washington. June 28.							

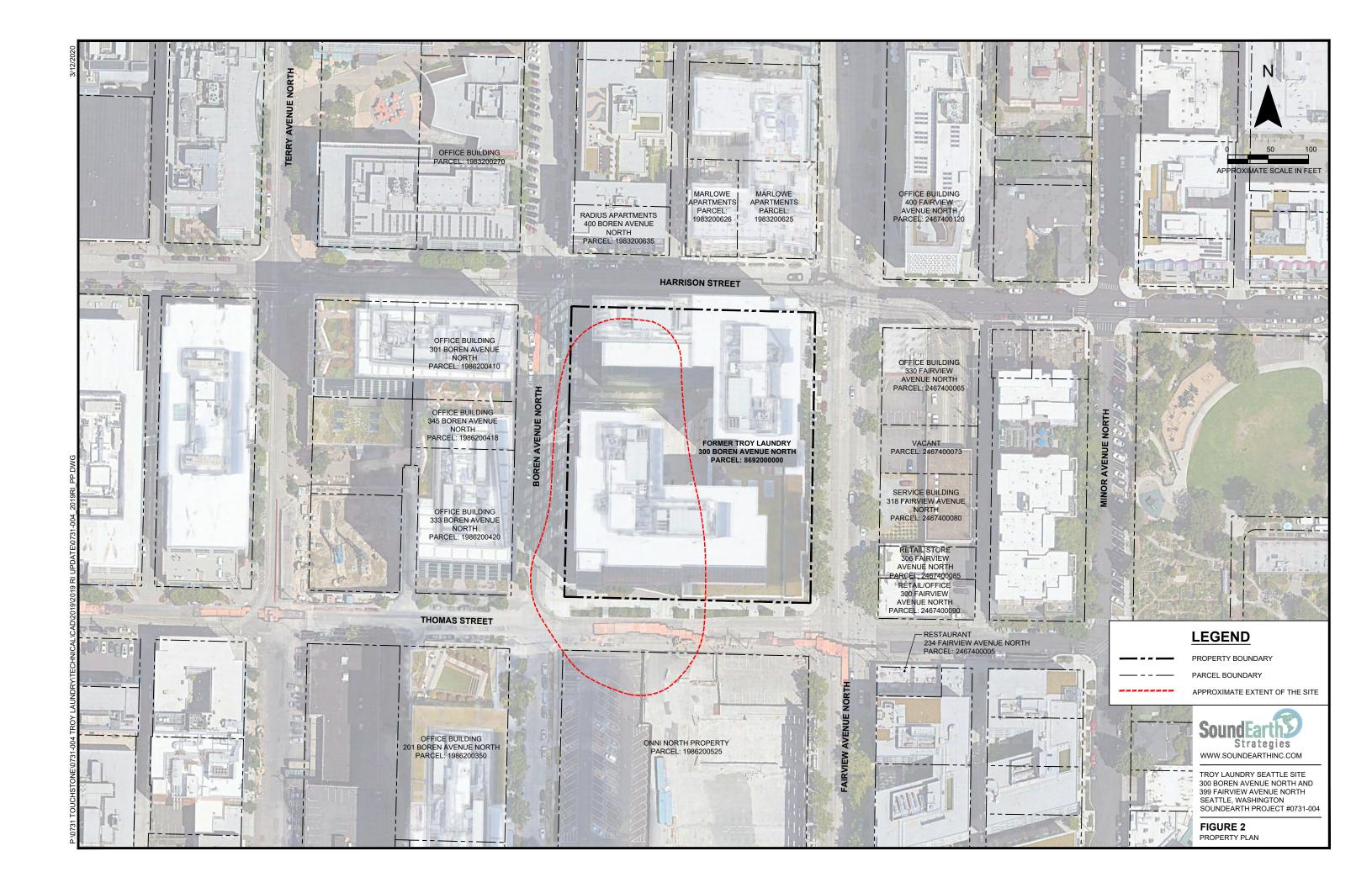


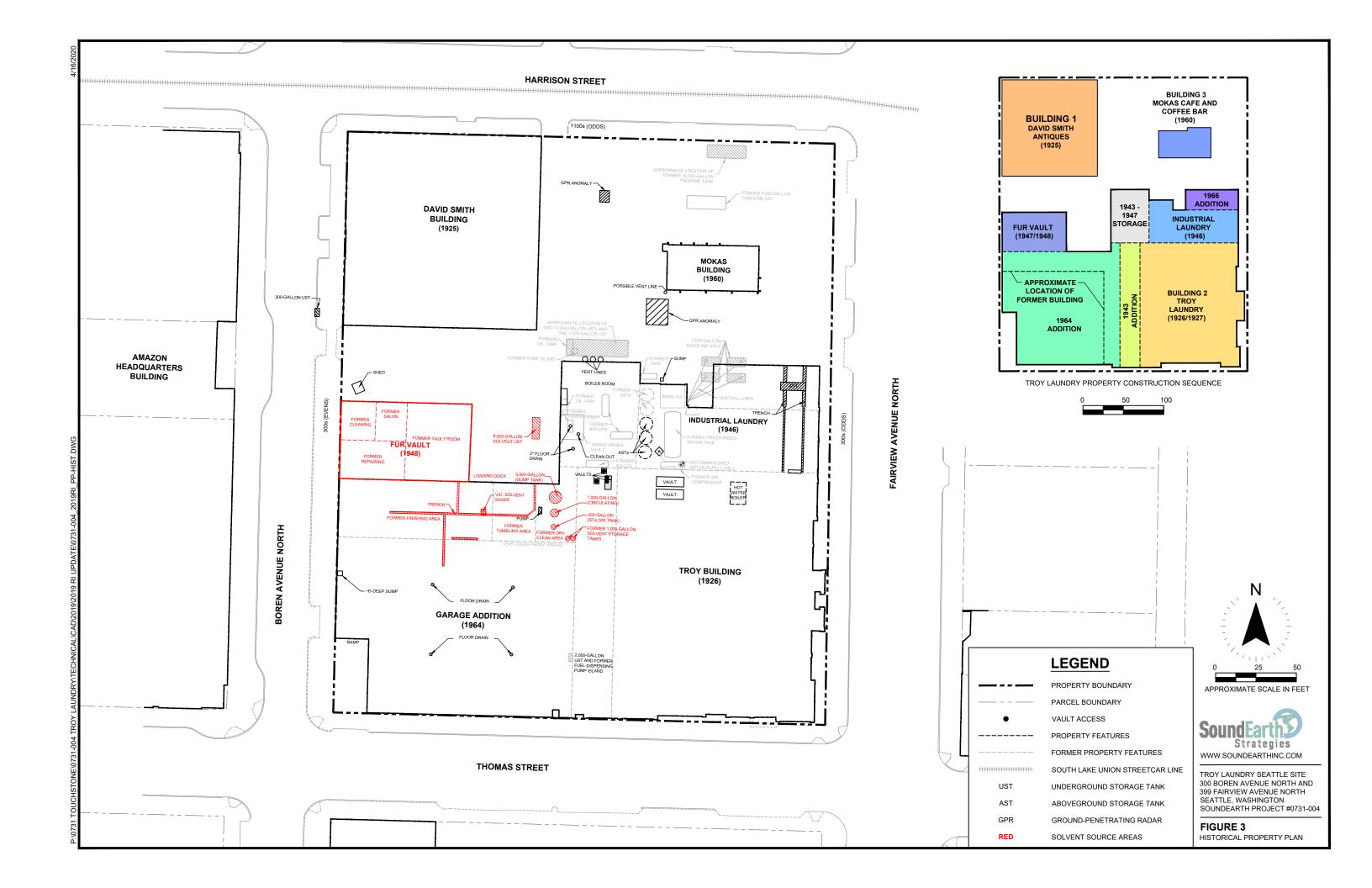
201	19a. <i>Vapor l</i>	Intrusion Assessn	nent at Tro	y Laundry	,, Seattle, W	ashington. J	uly 8.	
	•	r <i>Intrusion (VI) I</i> Memorandum No	-		Short-term	Trichloroethe	ene (TCE) To	xicity.
 <https 24.</https 	2019c. s://fortress.	Washington wa.gov/ecy/well	State constructi	Well on/map/\	Report WCLSWebMa	Viewer. ap/default.as	Accessed spx>. Nove	at ember
Western Region	onal Climat	e Center. 2017. I	Reviewed	online at	Western Re	gional Climat	te Center We	ebsite.

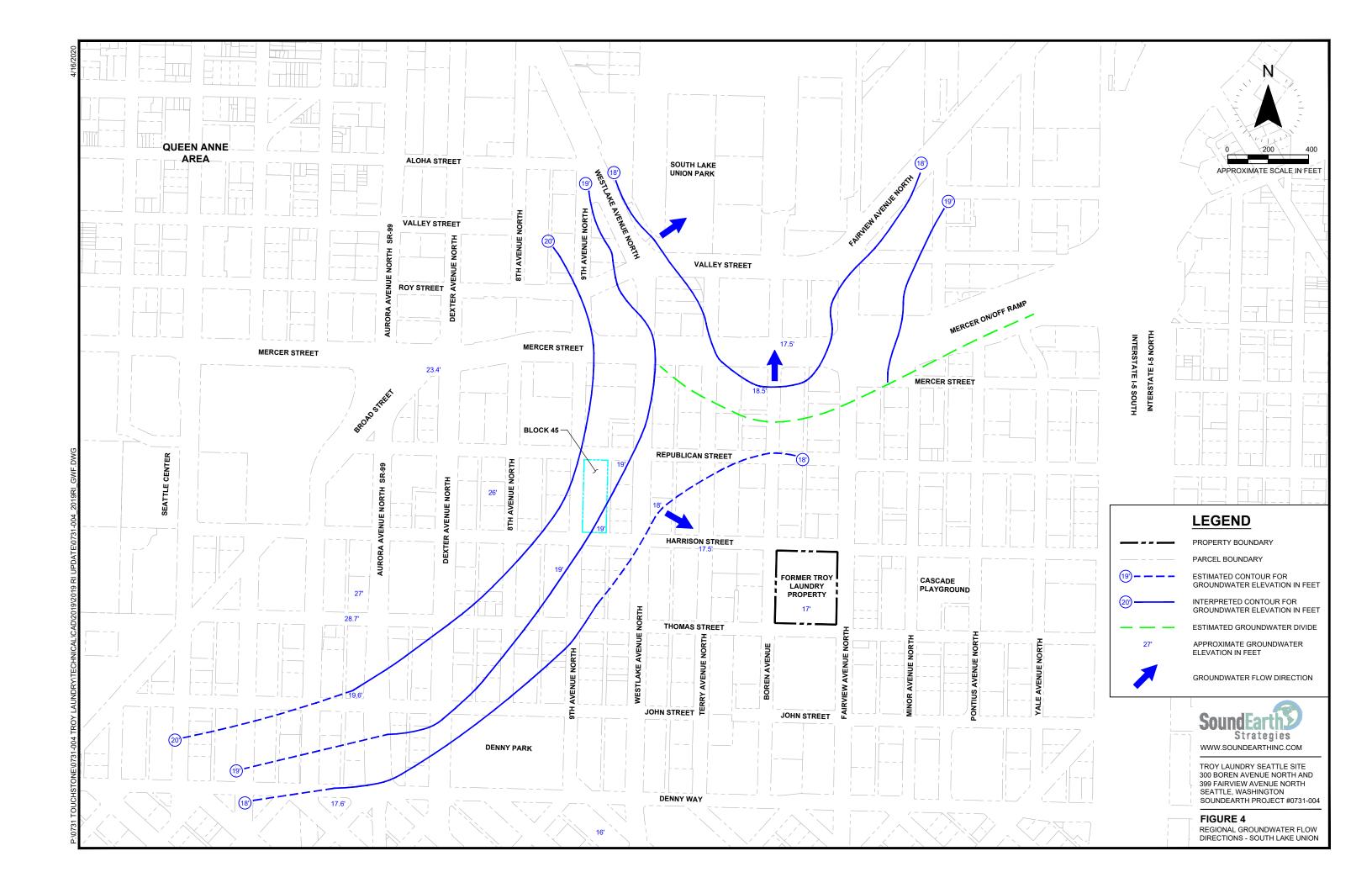
Western Regional Climate Center. 2017. Reviewed online at Western Regional Climate Center Website www.wrcc.dri.edu/htmlfiles/westwinddir.html. November 24.

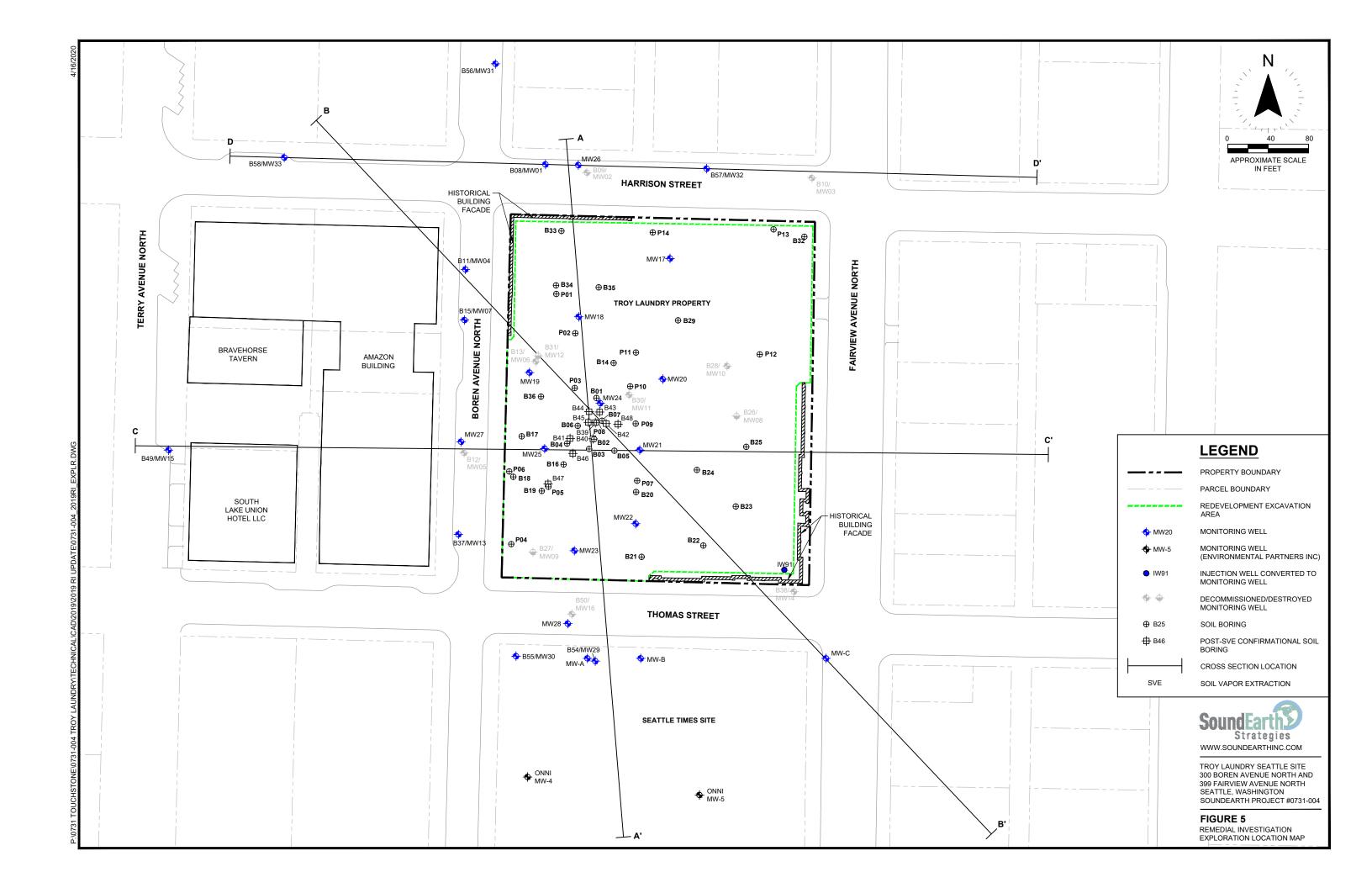
FIGURES SoundEarth Strategies, Inc.











SOUNDEARTH PROJECT #0731-004

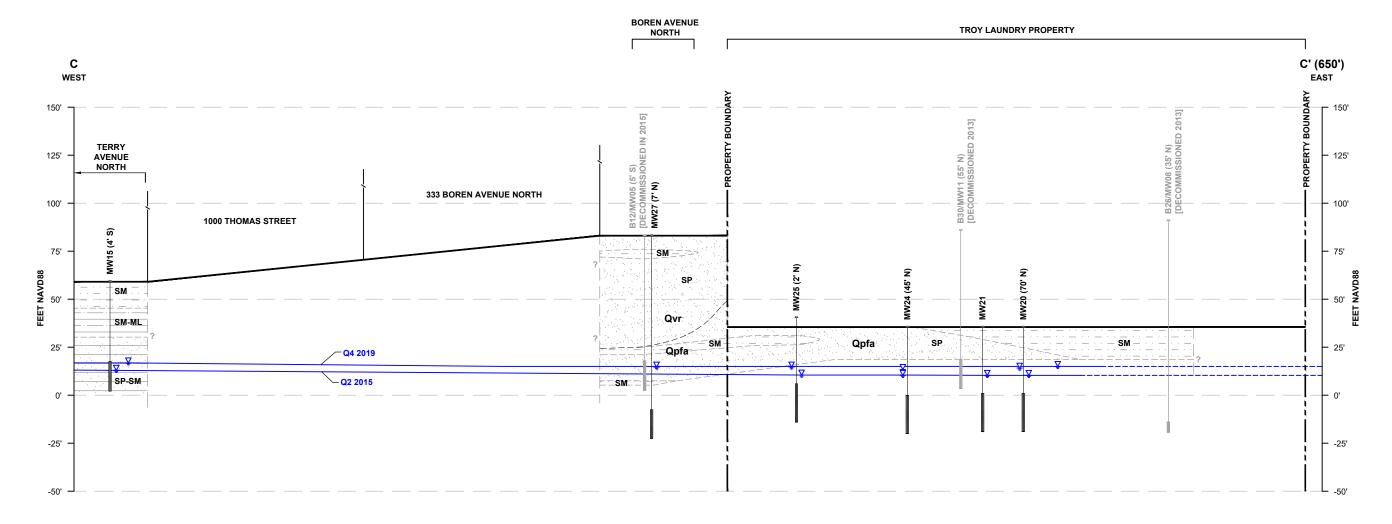
FIGURE 6

CROSS SECTION A - A'

NOTE:

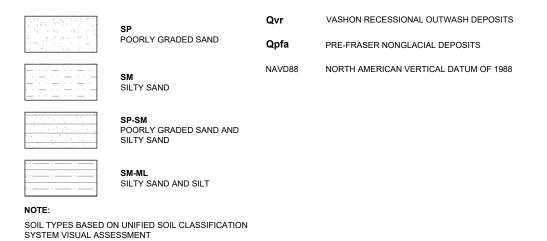
SOIL TYPES BASED ON UNIFIED SOIL CLASSIFICATION

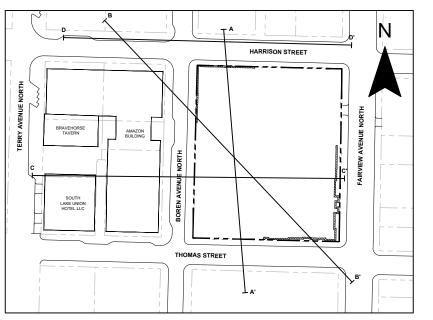
SYSTEM VISUAL ASSESSMENT

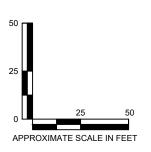


LEGEND

GROUNDWATER LEVEL







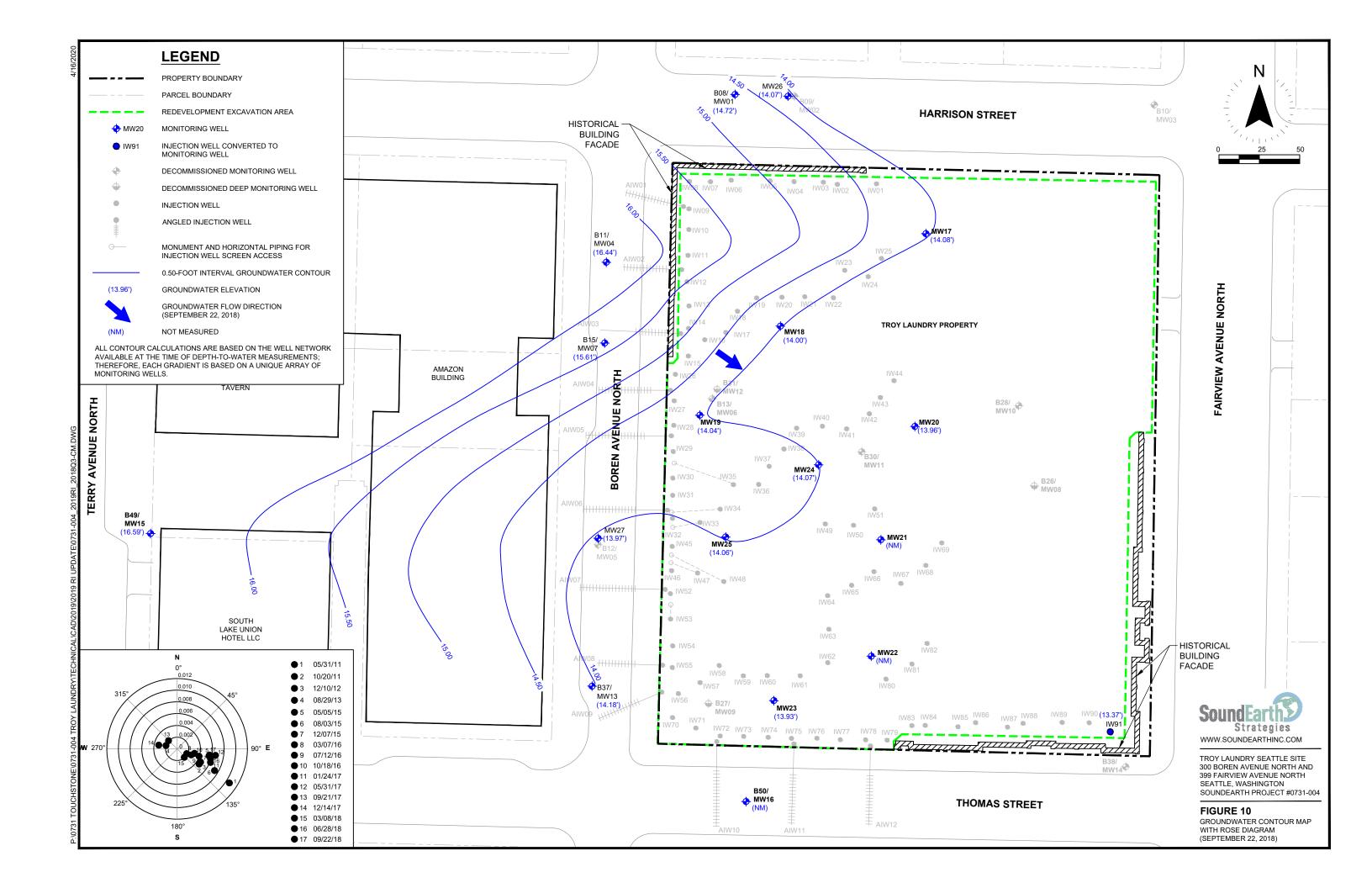


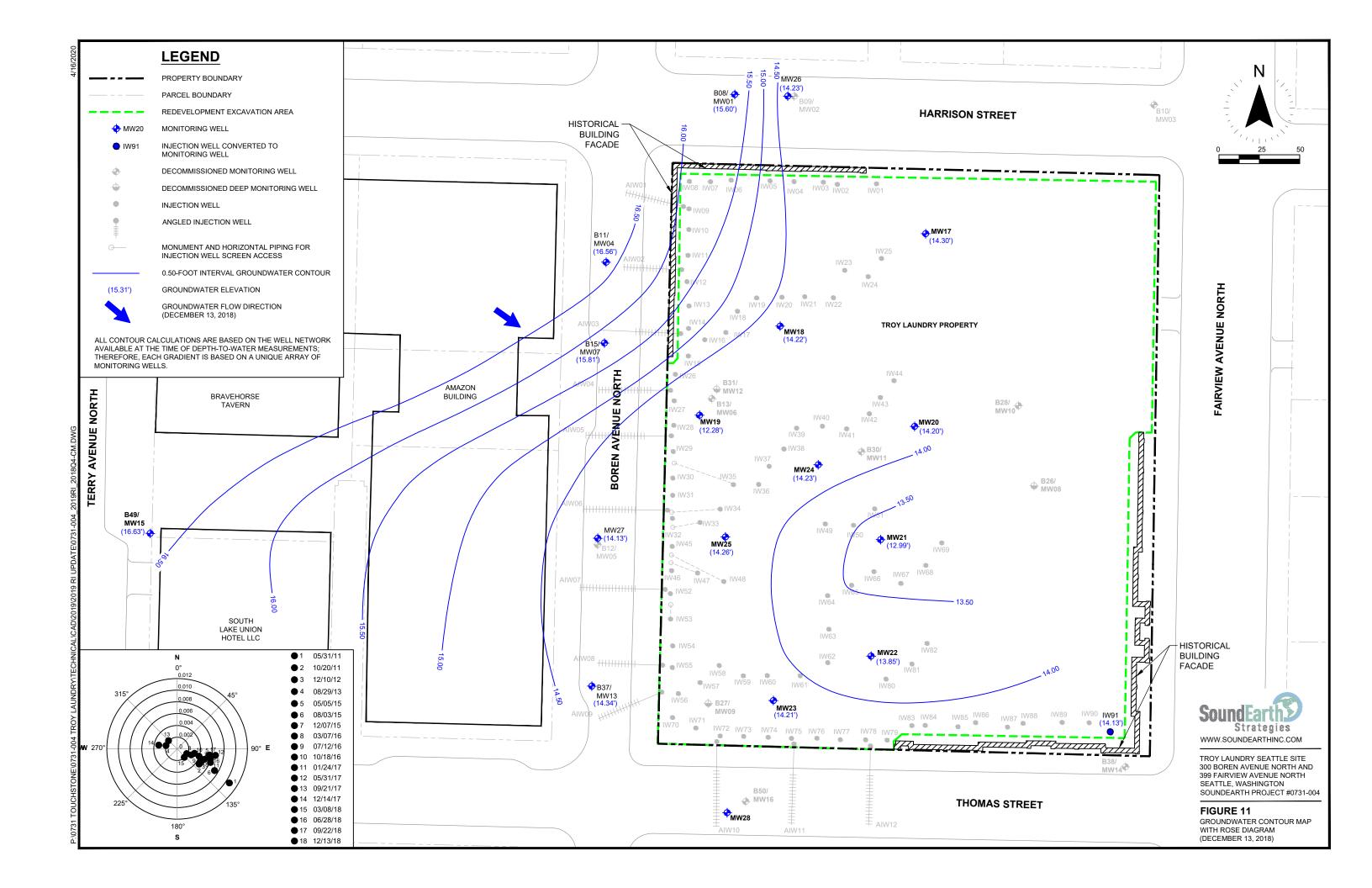
WWW.SOUNDEARTHINC.COM

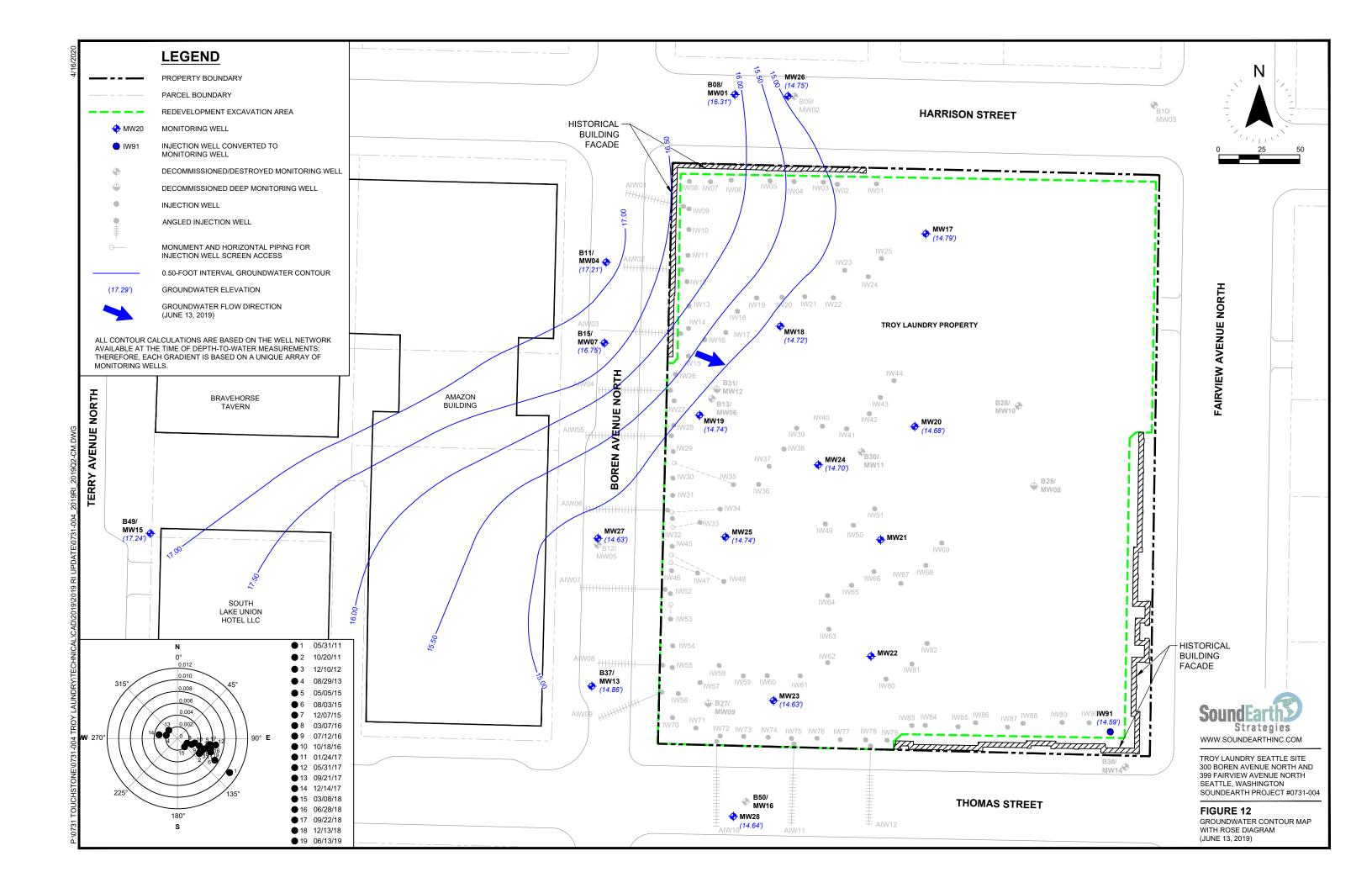
TROY LAUNDRY SEATTLE SITE
300 BOREN AVENUE NORTH AND
399 FAIRVIEW AVENUE NORTH
SEATTLE, WASHINGTON
SOUNDEARTH PROJECT #0731-004

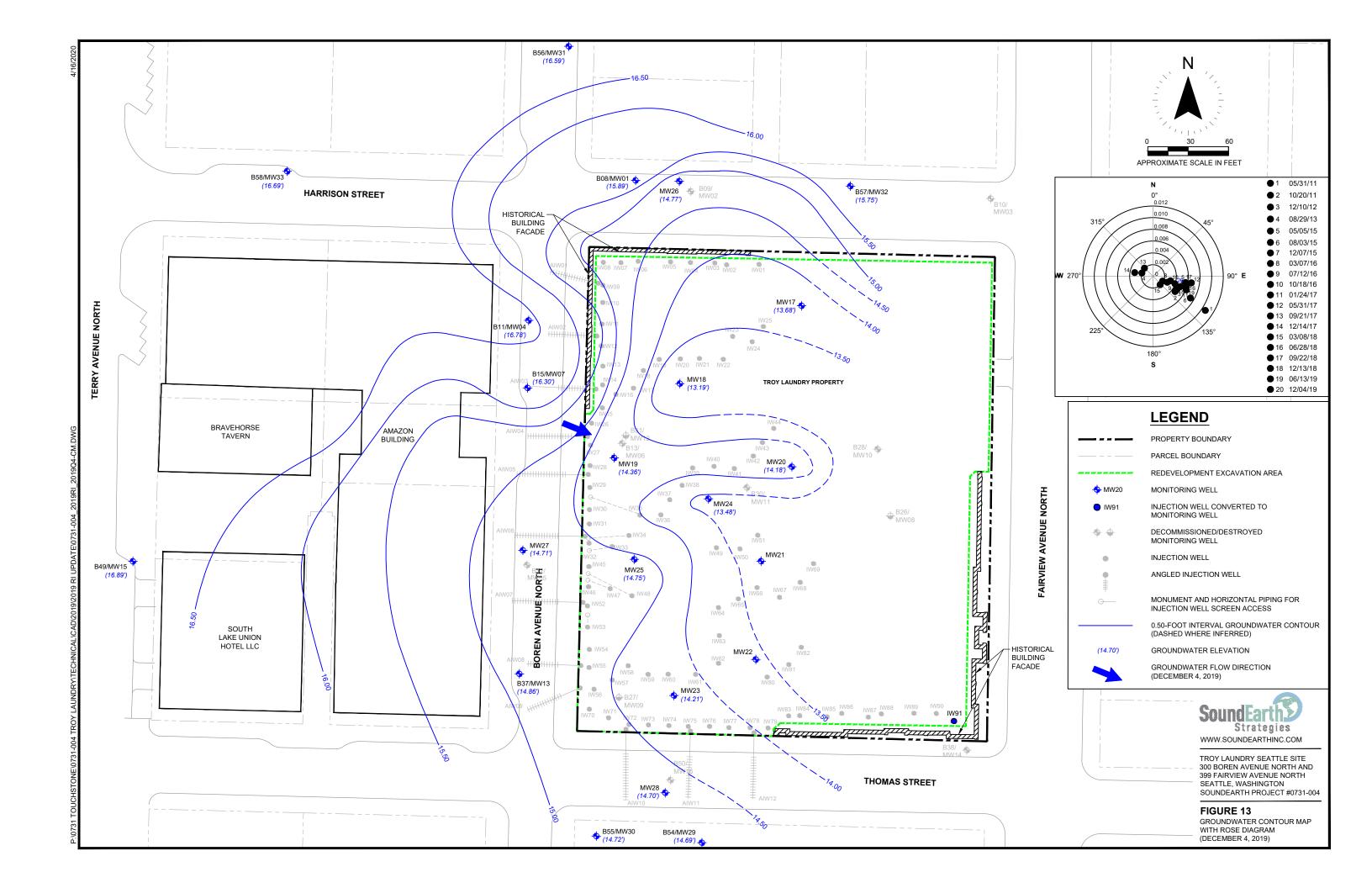
FIGURE 8 CROSS SECTION C - C'

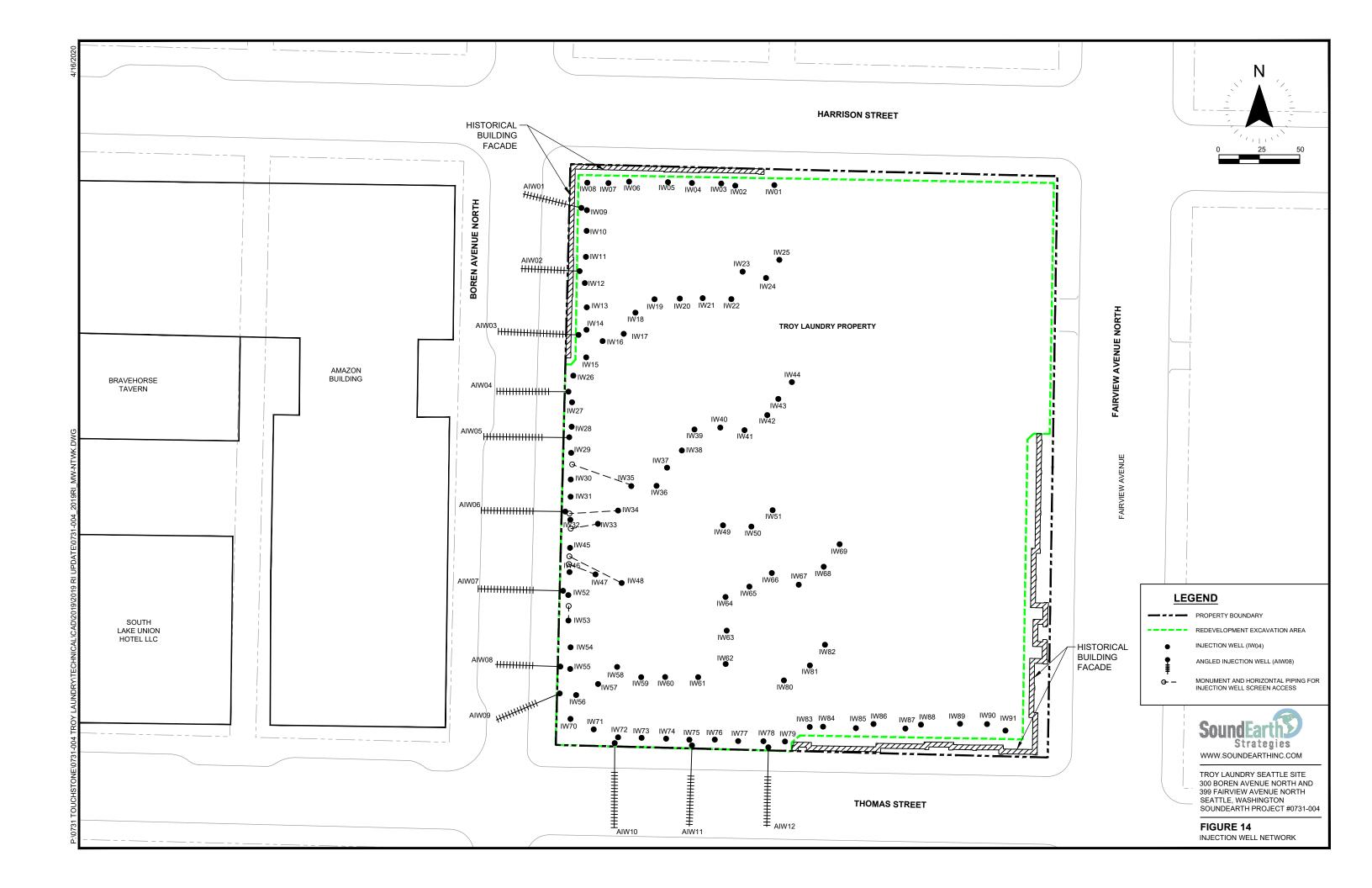
0731 TOUCHSTONE/0731-004 TROY LAUNDRY/TECHNICAL/CAD/2019/2019 RI UPDATE/0731-004 2019RI SCTN

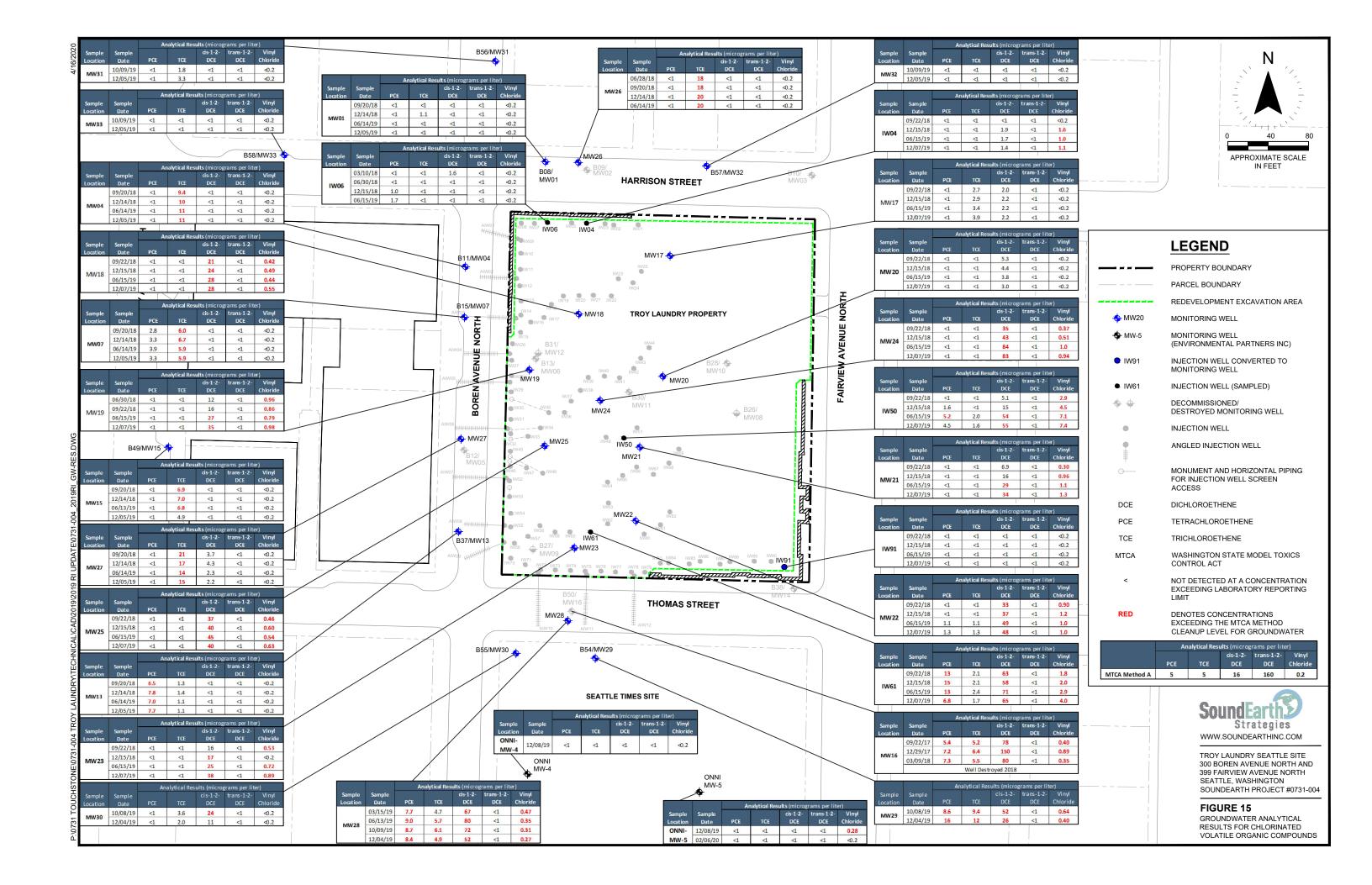


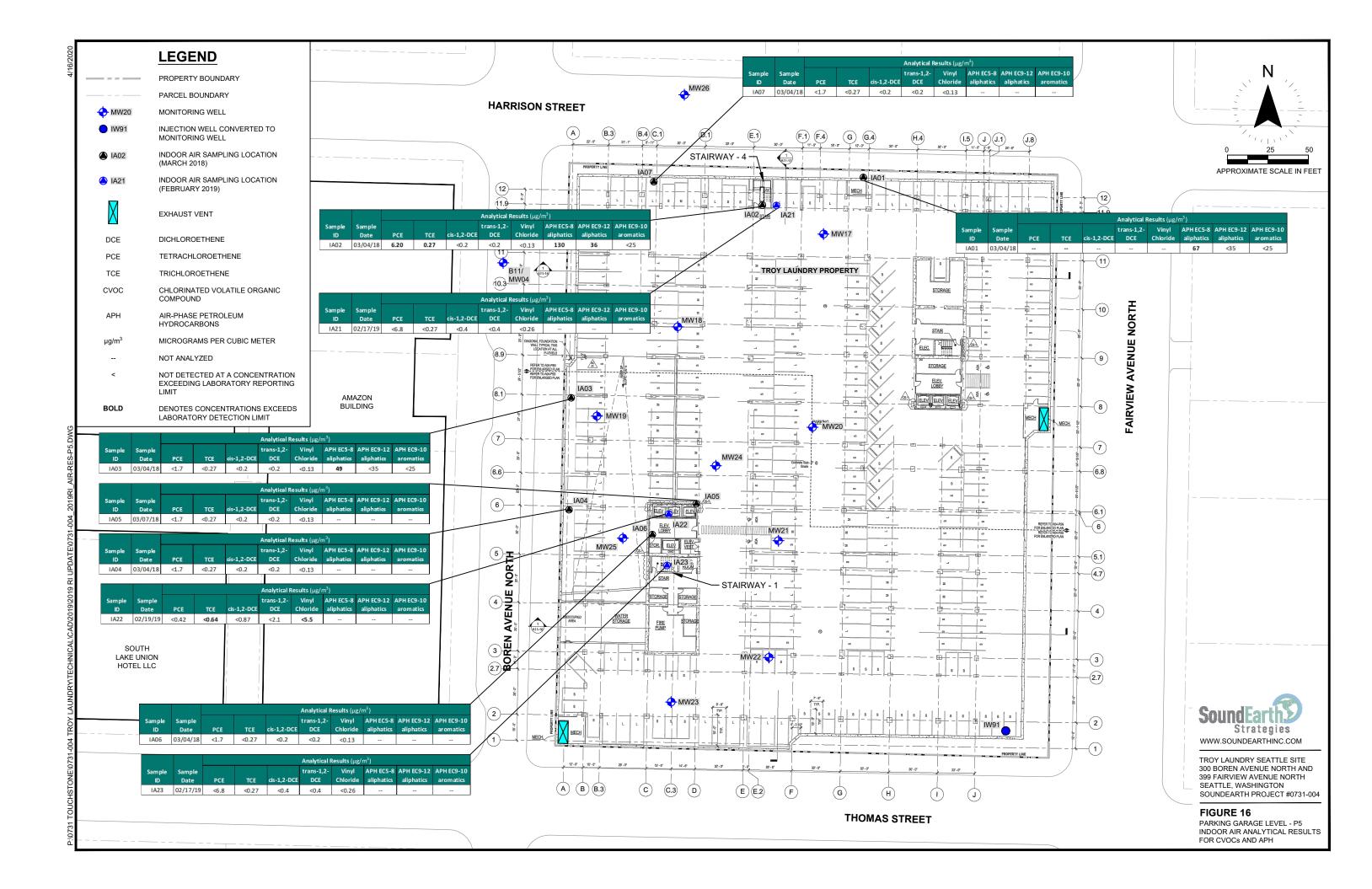


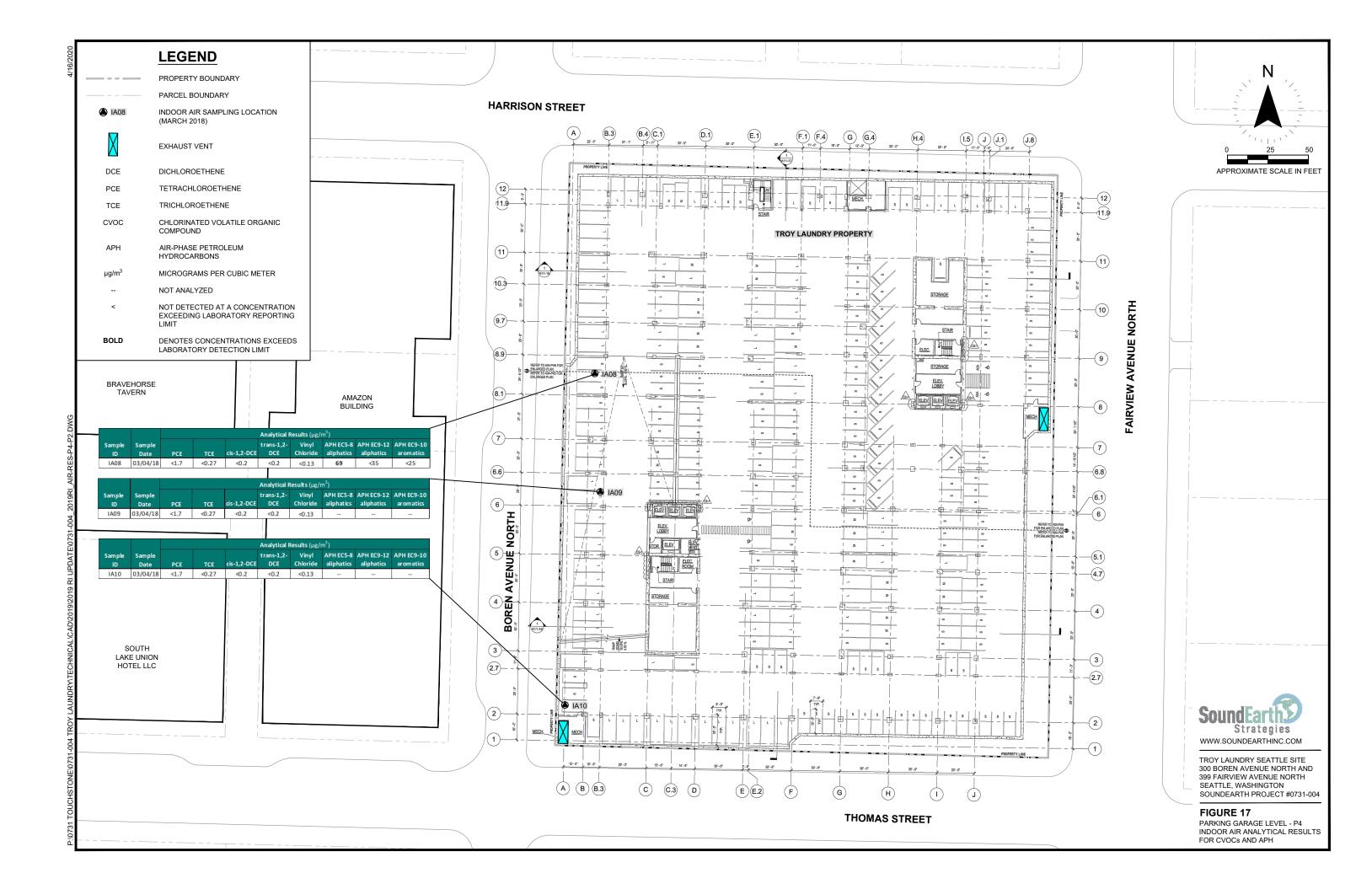


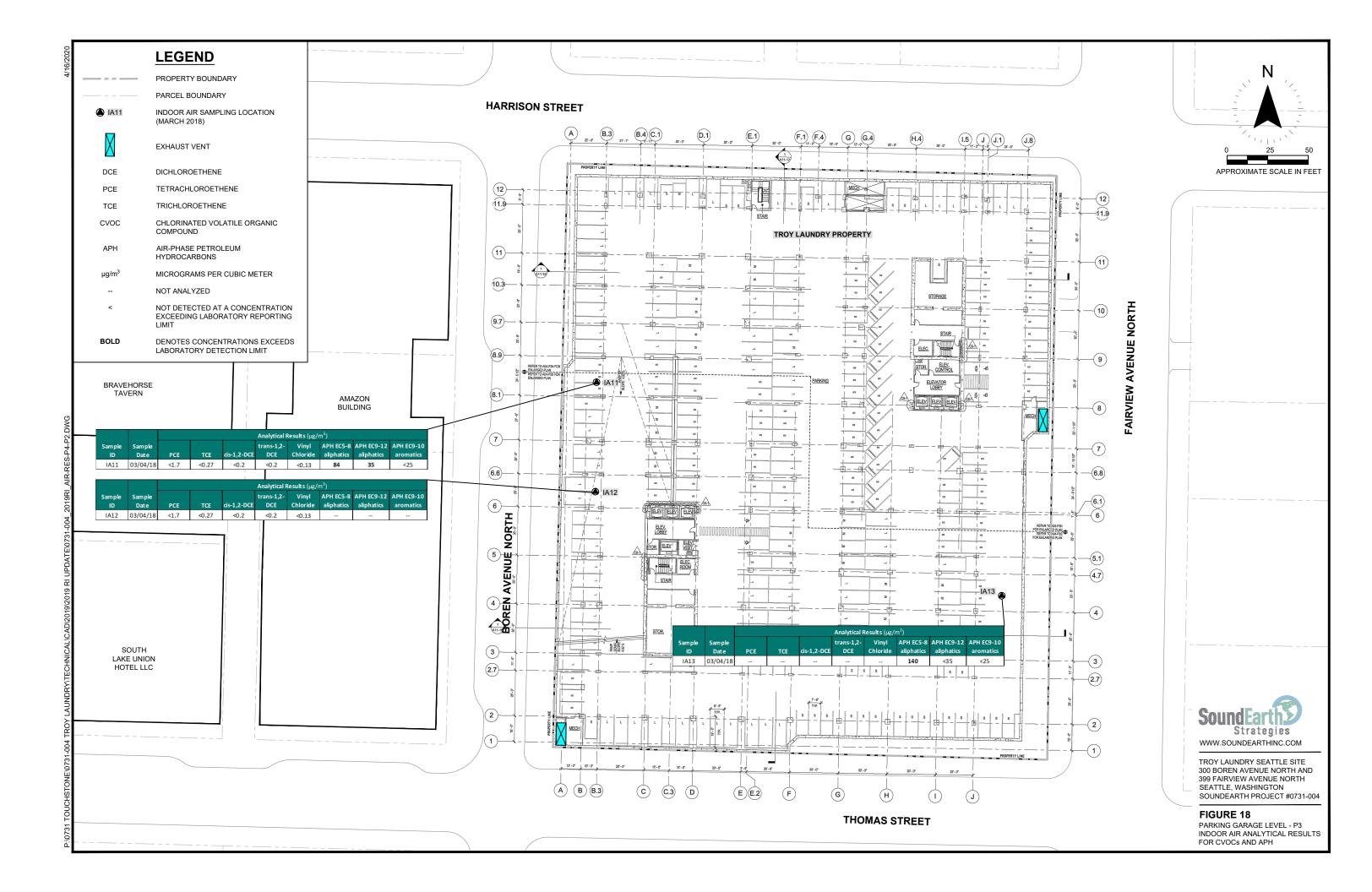


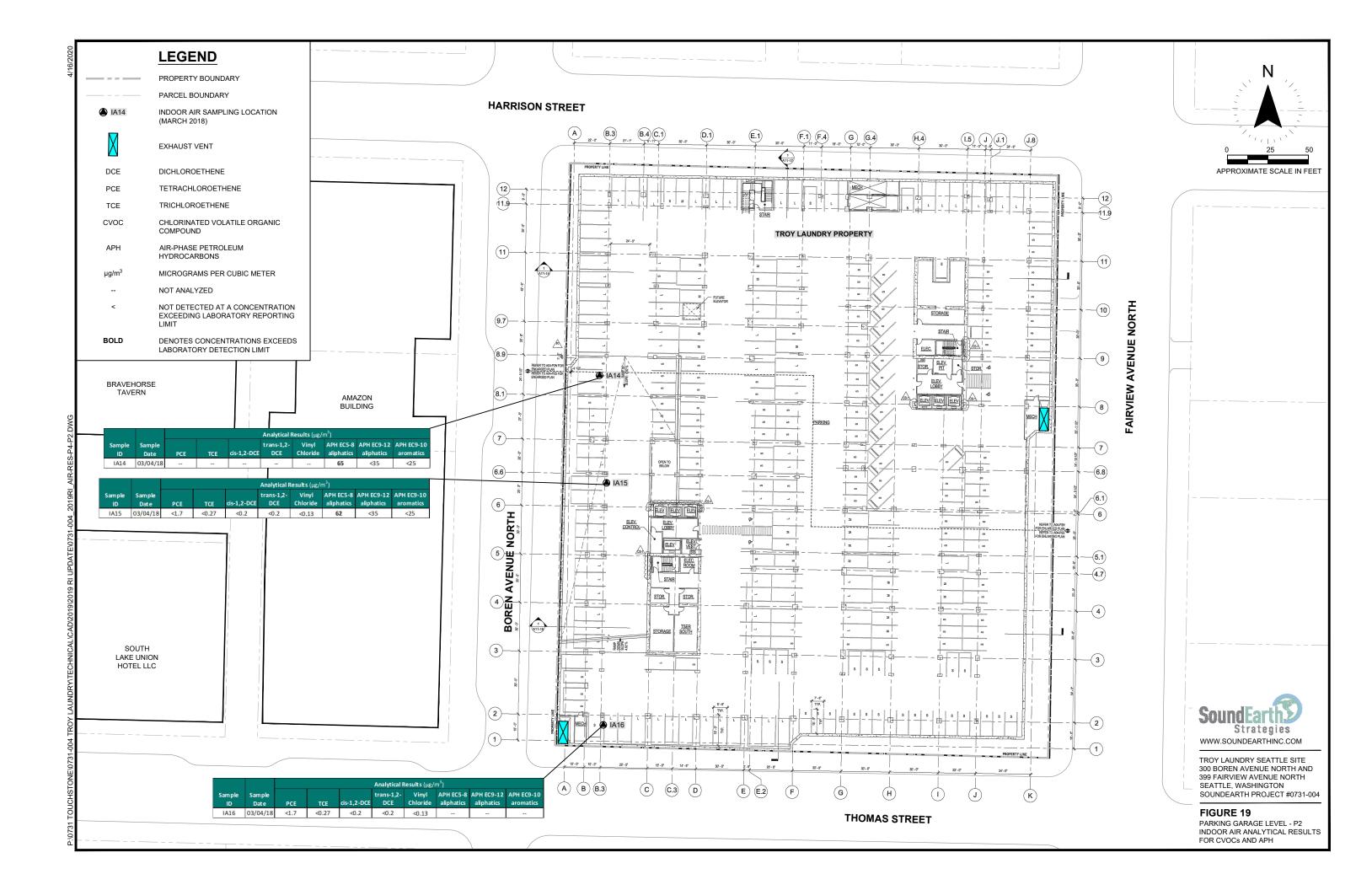


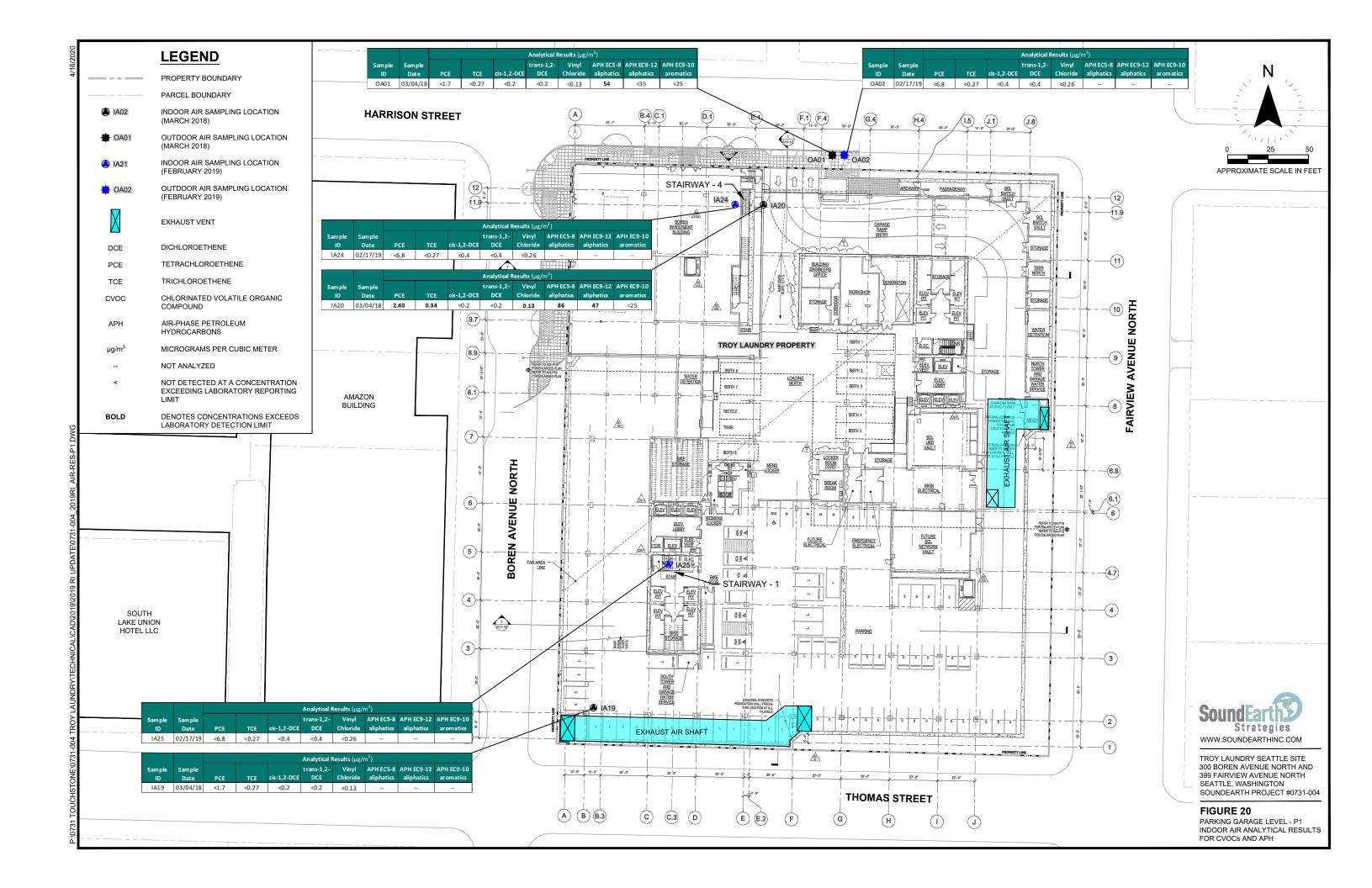










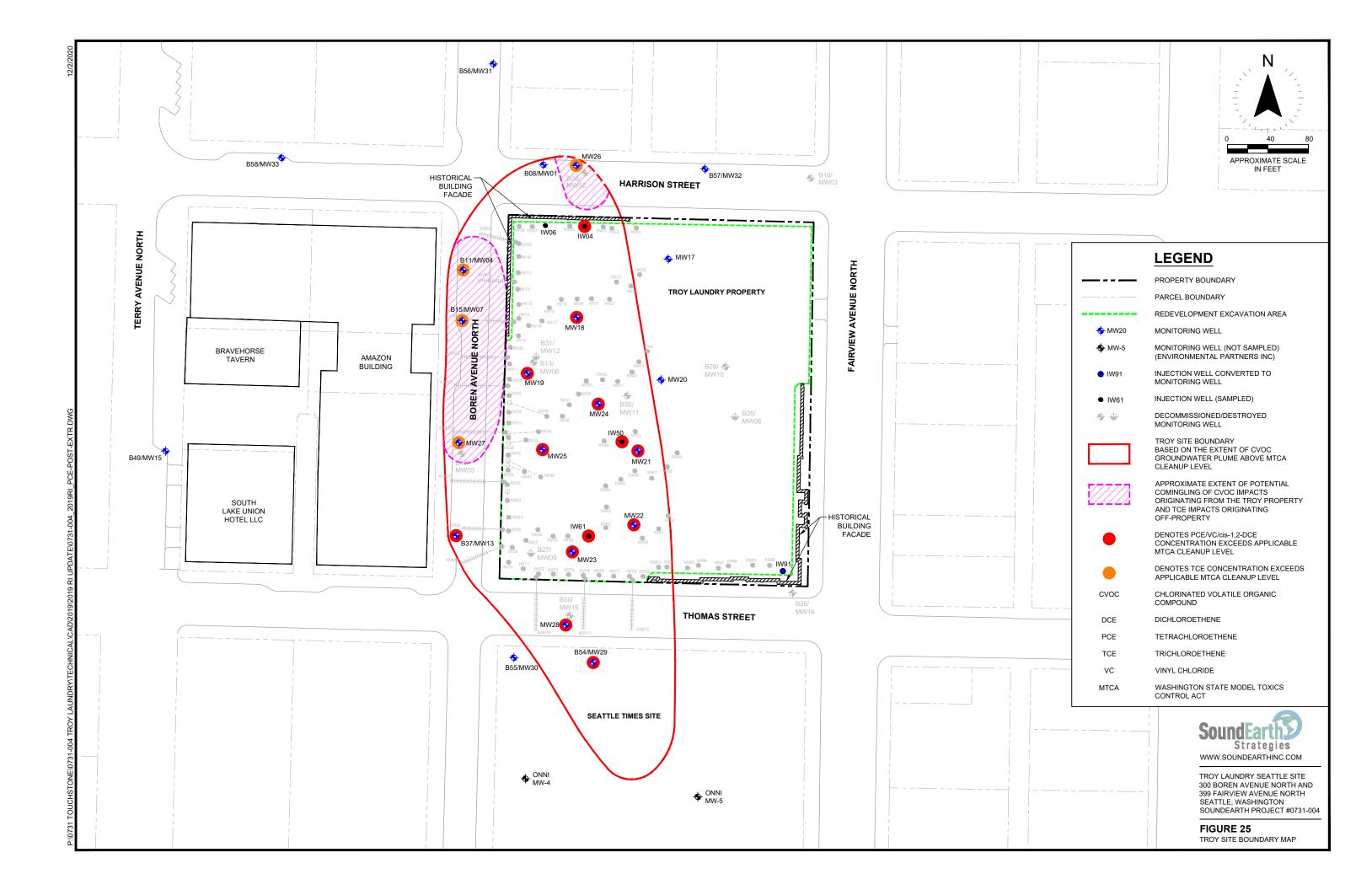






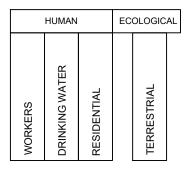


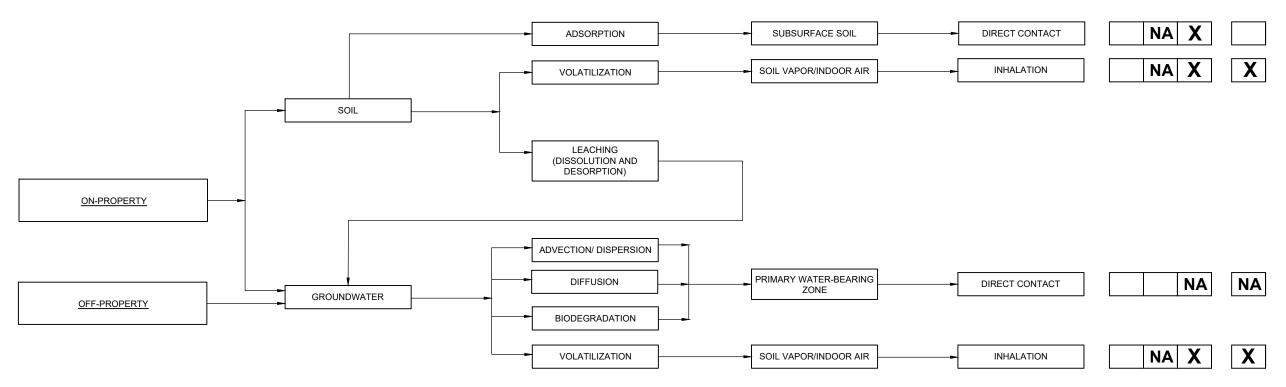




EXPOSURE PATHWAY

POTENTIAL RECEPTORS





LEGEND

EXPOSURE PATHWAY COMPLETE FOR POTENTIAL RECEPTOR



EXPOSURE PATHWAY COULD BE COMPLETE, BUT THE POTENTIAL RECEPTOR IS UNLIKELY



EXPOSURE PATHWAY INCOMPLETE



NOT APPLICABLE

NOTE: DIRECT CONTACT INCLUDES DERMAL AND INGESTION



TROY LAUNDRY SEATTLE SITE 300 BOREN AVENUE NORTH AND 399 FAIRVIEW AVENUE NORTH SEATTLE, WASHINGTON SOUNDEARTH PROJECT #0731-004

FIGURE 26

CONCEPTUAL SITE MODEL EXPOSURE ASSESSMENT

TABLES

SoundEarth Strategies, Inc.



													Analytic	al Results (mg	g/kg)						
Sample Location	Surface Elevation (NAVD88)	Sample ID	Depth (feet)	Elevation (NAVD88)	Date Sampled	Sampled By	GRPH ⁽¹⁾	DRPH ⁽²⁾	ORPH ⁽²⁾	Benzene ⁽³⁾	Toluene ⁽³⁾	Ethylbenzene ⁽³⁾	Total Xylenes ⁽³⁾	Vinyl Chloride ⁽³⁾	cis-1,2- DCE ⁽³⁾	trans-1,2- DCE ⁽³⁾	EDC ⁽³⁾	TCE ⁽³⁾	PCE ⁽³⁾	PCE TCLP ⁽⁴⁾ (mg/L)	SVOCs ⁽⁵⁾⁽⁶⁾
		204.05	_	60.00						On-Prop				-0.05	-0.05	.0.05	-0.05	.0.02	-0.025	1	
		P01-05	5	68.93		-								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		P01-07.5	7.5	66.43		H								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
P01	73.93	P01-10 P01-14	10 14	63.93 59.93	10/06/10	SoundEarth							-	<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.03 <0.03	<0.025 <0.025		
		P01-14 P01-18.5	18.5	55.43		l l								<0.05	<0.05	<0.05	<0.05	<0.03	0.026		
		P01-18.5	20	53.43		l l								<0.05	<0.05	<0.05	<0.05	<0.03	0.028		
		P01-20	2	71.93										<0.05	<0.05	<0.05	<0.05	<0.03	0.028		
		P02-02	5	68.93		 							-	<0.05	<0.05	<0.05	<0.05	<0.03	0.039		
P02	73.93	P02-03	7.5	66.43	10/06/10	SoundEarth					-			<0.05	<0.05	<0.05	<0.05	<0.03	0.042		
		P02-07.5	10	63.93		ļ ļ					-			<0.05	<0.05	<0.05	<0.05	<0.03	0.025		
		P03-05	5	68.93					-					<0.05	<0.05	<0.05	<0.05	<0.03	0.033		
		P03-09	9	64.93		l l							-	<0.05	<0.05	<0.05	<0.05	<0.03	0.099		
P03	73.93	P03-09	12.5	61.43	10/06/10	SoundEarth								<0.05	<0.05	<0.05	<0.05	<0.03	0.033		
. 05	75.55	P03-12.5	16	57.93	10,00,10	SoundEditii					-			<0.05	<0.05	<0.05	<0.05	<0.03	0.076		
		P03-10	19	54.93		l l					-		-	<0.05	<0.05	<0.05	<0.05	<0.03	0.037		
		P04-02.5	2.5	90.55										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		P04-05	5	88.05		H								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		P04-07.5	7.5	85.55										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
P04	93.05	P04-10	10	83.05	10/06/10	SoundEarth								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		P04-13	13	80.05	.,.,									<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		P04-17	17	76.05		l l								<0.05	<0.05	<0.05	<0.05	<0.03	0.029		
		P04-20	20	73.05		l l								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		P05-02.5	2.5	90.55										<0.05	<0.05	<0.05	<0.05	<0.03	1.4		
		P05-05	5	88.05										<0.05	<0.05	<0.05	<0.05	<0.03	2.5		
		P05-07.5	7.5	85.55										<0.05	<0.05	<0.05	<0.05	<0.03	0.073		
P05	93.05	P05-10	10	83.05	10/06/10	SoundEarth -								<0.05	<0.05	<0.05	<0.05	<0.03	0.087		
		P05-15	15	78.05		l					-			<0.05	<0.05	<0.05	<0.05	<0.03	0.082		
		P05-20	20	73.05										<0.05	<0.05	<0.05	<0.05	<0.03	0.14		
		P06-02.5	2.5	90.55										<0.05	<0.05	<0.05	<0.05	<0.03	0.15		
		P06-05	5	88.05										<0.05	<0.05	<0.05	<0.05	<0.03	0.68		
		P06-08	8	85.05										<0.05	<0.05	<0.05	<0.05	<0.03	0.44		
P06	93.05	P06-11	11	82.05	10/06/10	SoundEarth							-	<0.05	<0.05	<0.05	<0.05	<0.03	0.028		
		P06-14	14	79.05		l t								<0.05	<0.05	<0.05	<0.05	< 0.03	0.063		
		P06-20	20	73.05					-		-		-	<0.05	<0.05	<0.05	<0.05	<0.03	0.099		
		P07-02.5	2.5	90.55			<2			<0.03	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.03	0.047		
P07	93.05	P07-05	5	88.05	10/06/10	SoundEarth	<2			<0.03	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.03	0.13		
FU/	33.05	P07-07.5	7.5	85.55	10/00/10	JunuEditii	<2		-	<0.03	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.03	0.055		
		P01-11	11	82.05	<u> </u>	<u> </u>	1,400 ^x	-	-	<0.03	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.03	0.16		
		P08-03	3	82.82			52 [×]	100 ^x	<250	<0.03	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	0.15	63		
		P08-05	5	80.82		[2.6 ^x	-	-	<0.03	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.03	0.46		
		P08-07.5	7.5	78.32		[580 ^x		-	<0.03	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	0.14	450		
P08	85.8215	P08-10	10	75.82	10/07/10	SoundEarth	150 ^x	4,300 ^x	3,200	<0.03	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	0.13	250		
		P08-14	14	71.82		[<2	-	-	<0.03	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.03	1.3		
		P08-18	18	67.82		[<2		-	<0.03	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.03	1.6		
		P08-23	23	62.82			<2	<50	<250	<0.03	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.03	1.6		
MTCA Cleanup Lo	evel						100/30 ^{a,b}	2,000 ^b	2,000 ^b	0.03 ^b	7 ^b	6 ^b	9 ^b	0.67°	160 ^d	1,600 ^d	11°	0.03 ^b	0.05 ^b	0.7 ^e	NE



													Analytic	al Results (ma	g/kg)						
Comple	Surface		Danah	et	Data								Total	Vinyl	cis-1,2-	trans-1,2-				PCE TCLP ⁽⁴⁾	
Sample Location	(NAVD88)	Sample ID	Depth (feet)	(NAVD88)	Date Sampled	Sampled By	GRPH ⁽¹⁾	DRPH ⁽²⁾	ORPH ⁽²⁾	Benzene ⁽³⁾	Toluene ⁽³⁾	Ethylbenzene ⁽³⁾	Xylenes ⁽³⁾	Chloride ⁽³⁾	DCE ⁽³⁾	DCE ⁽³⁾	EDC ⁽³⁾	TCE ⁽³⁾	PCE ⁽³⁾	(mg/L)	SVOCs ⁽⁵⁾⁽⁶⁾
Location	(NAVD88)	P09-05	5	83.92	Jumpicu	Jumpicu by		DITTI 		Delizene 			Aylelles	<0.05	<0.05	<0.05	<0.05	<0.03	0.098	(IIIg/L)	
	ŀ	P09-07.5	7.5	81.42			<2	<50	<250	<0.03	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
P09	88.92304	P09-12	12	76.92	10/07/10	SoundEarth	2.3 ^x			<0.03	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.03	0.076		
	·	P09-15	15	73.92										<0.05	<0.05	<0.05	<0.05	<0.03	0.089		
		P10-02.5	2.5	85.28										<0.05	<0.05	<0.05	<0.05	<0.03	0.13		
	ļ.	P10-07.5	7.5	80.28			<2			<0.03	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.03	0.066		
P10	87.7803	P10-14	14	73.78	10/07/10	SoundEarth								<0.05	<0.05	<0.05	<0.05	<0.03	0.038		
	ļ.	P10-18	18	69.78										<0.05	<0.05	<0.05	<0.05	<0.03	0.069		
	ļ.	P10-22	22	65.78										<0.05	<0.05	<0.05	<0.05	<0.03	0.030		
		P11-02.5	2.5	80.23										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	ļ.	P11-07.5	7.5	75.23			<2	<50	<250	<0.03	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.03	0.039		
P11	82.72992	P11-11	11	71.73	10/07/10	SoundEarth								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	ļ.	P11-14	14	68.73										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	İ	P11-18	18	64.73										<0.05	<0.05	<0.05	<0.05	<0.03	0.10		
		P12-05	5	87.27										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
P12	92.26789	P12-10	10	82.27	10/07/10	SoundEarth	<2			<0.03	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	ļ.	P12-15	15	77.27										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		P13-02.5	2.5	82.11										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	ļ.	P13-07.5	7.5	77.11										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
P13	84.61304	P13-10	10	74.61	10/07/10	SoundEarth								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	ļ.	P13-18	18	66.61										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		P14-02.5	2.5	71.67										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		P14-07.5	7.6	66.57										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
P14	74.1706	P14-14	14	60.17	10/07/10	SoundEarth								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	Ī	P14-20	20	54.17										<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
P15	86.16	P15-07.5	7.5	78.66	02/20/14	SoundEarth														0.0839	
210		P16-02	2	83.82																0.00698	
P16	85.8215	P16-07.5	7.5	78.32	02/20/14	SoundEarth														0.00125	
P17	82.73	P17-07.5	7.5	75.23	02/20/14	SoundEarth														0.0397	
	== ==	P18-05	5	68.93	00/00/11									<0.05	<0.05	<0.05	<0.05	< 0.03	0.24		
P18	73.93	P18-10	10	63.93	02/20/14	SoundEarth								<0.05	<0.05	<0.05	<0.05	< 0.03	0.56		
		P19-05	5	68.93										<0.05	<0.05	<0.05	<0.05	<0.03	0.18		
P19	73.93	P19-10	10	63.93	02/20/14	SoundEarth								<0.05	<0.05	<0.05	<0.05	< 0.03	0.11		
		P19-15	15	58.93			-	-					-	<0.05	<0.05	< 0.05	<0.05	< 0.03	0.13		
P20	73.93				02/20/14	SoundEarth							No Sa	mples Collect	ed						
			6-8	74.35			<5.7	<5.1	<10	<0.001	NR	NR	NR	NR	<0.001	NR	NR	0.003	0.22		
B01	81.34854		8-10	72.35	12/08/10	AECOM		-		<0.0012	NR	NR	NR	NR	<0.0012	NR	NR	0.0028	0.2		
			18-20	62.35				-		<0.0009	NR	NR	NR	NR	0.0039	NR	NR	0.0058	0.86		
			7-9	85.05						0.0062	NR	NR	NR	NR	0.0013	NR	NR	0.031	2.3		
B02	93.05		9-11	83.05	12/08/10	AECOM	<6	<5.2	<10	0.001	NR	NR	NR	NR	0.0015	NR	NR	0.02	2.3		
			16-18	76.05				-		<0.0011	NR	NR	NR	NR	0.0013	NR	NR	0.0046	0.5		
B03	90.52796					AECOM							No Sa	mples Collect	ed						
			8-10	84.05						0.003	NR	NR	NR	NR	<0.0009	NR	NR	0.0098	2		
B04	93.05		14-16	78.05	12/08/10	AECOM	<5.2	<5	<10	<0.001	NR	NR	NR	NR	<0.001	NR	NR	0.0069	0.69		
			18-20	74.05				-		<0.001	NR	NR	NR	NR	<0.001	NR	NR	0.003	0.47		
MTCA Cleanup Le	evel						100/30 ^{a,b}	2,000 ^b	2,000 ^b	0.03 ^b	7 ^b	6 ^b	9 ^b	0.67°	160 ^d	1,600 ^d	11 ^c	0.03 ^b	0.05 ^b	0.7 ^e	NE



													Analytic	al Results (mg	z/kg)						
Sample Location	Surface Elevation (NAVD88)	Sample ID	Depth (feet)	Elevation (NAVD88)	Date Sampled	Sampled By	GRPH ⁽¹⁾	DRPH ⁽²⁾	ORPH ⁽²⁾	Benzene ⁽³⁾	Toluene ⁽³⁾	Ethylbenzene ⁽³⁾	Total Xylenes ⁽³⁾	Vinyl Chloride ⁽³⁾	cis-1,2- DCE ⁽³⁾	trans-1,2- DCE ⁽³⁾	EDC ⁽³⁾	TCE ⁽³⁾	PCE ⁽³⁾	PCE TCLP ⁽⁴⁾ (mg/L)	SVOCs ⁽⁵⁾⁽⁶⁾
			10-12	82.05						<0.0009	NR	NR	NR	NR	<0.0009	NR	NR	<0.0009	0.057		
B05	93.05		13-15	79.05	12/08/10	AECOM	<5	<5.2	<10	<0.0009	NR	NR	NR	NR	<0.0009	NR	NR	0.0012	0.34		
			18-20	74.05						<0.0009	NR	NR	NR NB	NR NR	<0.0009	NR NR	NR NB	0.0012	0.42 0.87		
B06	73.93		5-7 8-10	67.93 64.93	12/08/10	AECOM				<0.051 <0.047	NR NR	NR NR	NR NR	NR NR	<0.051 <0.047	NR NR	NR NR	<0.051 <0.047	0.87		
			10-11.5	63.43	,,		<4.9	<5.7	<1	<0.052	NR	NR.	NR	NR	<0.052	NR	NR	<0.052	0.43		
			23-26	61.98			<6.2	<5.9	<12	<0.06	NR	NR	NR	NR	0.064	NR	NR	<0.06	0.58		
B07	86.47833		35-37	50.48	12/08/10	AECOM				<0.058	NR	NR	NR	NR	<0.058	NR	NR	<0.058	1.7		
			37-40	47.98						<0.0009	NR	NR	NR	NR	0.017	NR	NR	0.0071	0.16		
		B13-04.5	4.5	70.28			2.8	<50	<250					<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		<0.3
		B13-09	9	65.78			<2	<50	<250					<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		<0.3
		B13-14 B13-19	14 19	60.78 55.78			<2 <2	<50 <50	<250 <250					<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.03 <0.03	<0.025 <0.025		<0.3 <0.3
		B13-19 B13-24	24	50.78			<2	<50	<250					<0.05	<0.05	<0.05	<0.05	<0.03	0.069		<0.3
		B13-29	29	45.78	05/25/11		<2	<50	<250					<0.05	<0.05	<0.05	<0.05	<0.03	0.039		<0.3
		B13-34	34	40.78			<2	<50	<250					<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		<0.3
B13/MW06	74.78	B13-39	39	35.78		SoundEarth	<2	<50	<250					<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		<0.3
B13/1VIVV00	74.76	B13-44	44	30.78		Journalaitii	<2	<50	<250					<0.05	<0.05	<0.05	<0.05	<0.03	0.037		<0.3
		B13-49	49	25.78			1,700	300	<250					<0.05	<0.05	<0.05	<0.05	<0.03	0.070		<0.3
		B13-54	54	20.78			<2	<50	<250	<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		<0.3
		B13-55 B13-58	55 58	19.78 16.78			<2 <2	<50 <50	<250 <250	<0.02	<0.02	<0.02	<0.06	<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.03 <0.03	<0.025 <0.025		<0.3 <0.3
		B13-58	64	10.78	05/26/11		<2							<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		<0.3
		B13-69	69	5.78			<2							<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		<0.3
		B13-74	74	0.78			<2							<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		<0.3
		B14-04	4	77.31			<2	<50	<250					<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		<0.3
		B14-09	9	72.31			<2	<50	<250					<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		<0.3
		B14-14	14	67.31			<2	<50	<250					<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		<0.3
		B14-19	19	62.31	0= (0.0 (4.4		<2	<50	<250					<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		<0.3
		B14-23.5	23.5	57.81	05/26/11		<2	<50	<250	<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		<0.3
		B14-30 B14-33.5	30 33.5	51.31 47.81			1,100 930	350 ^x	<250 <250	<0.2 <0.2	<0.2 <0.2	2.0	2.7 3.1	<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.03 <0.03	0.23 <0.025		<0.3
		B14-36	36	45.31			14	<50	<250	<0.02	<0.02	0.059	0.070	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		<0.3
B14	81.31295	B14-41	41	40.31		SoundEarth	<2	<50	<250	<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		0.31
	İ	B14-46	46	35.31			<2	<50	<250	<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		1.2
		B14-51	51	30.31			<2	<50	<250	<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		0.44
		B14-56	56	25.31			<2	<50	<250	<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		<0.3
		B14-58	58	23.31	05/27/11		2,000	<50	<250	<0.1	<0.1	2.7	3.9	<0.05	<0.05	<0.05	<0.05	<0.03	0.13		<0.3
		B14-61	61	20.31			<2	<50	<250	<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		1.1
	-	B14-65	65	16.31			<2	<50	<250	<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		<0.3
		B14-69 B14-75	69 75	12.31 6.31			<2	<50 <50	<250 <250	<0.02 <0.02	<0.02 <0.02	<0.02 <0.02	<0.06 <0.06	<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.03 <0.03	<0.025 <0.025		<0.3 <0.3
MTCA Cleanup Le	evel	D14-/3	/3	0.51	l .		100/30 ^{a,b}	2.000 ^b	2.000 ^b	0.02 0.03 ^b	7 ^b	<0.02 6 ^b	9 b	0.67°	160 ^d	1.600 ^d	11°	0.03 ^b	0.025	0.7 ^e	NE



													Analytic	al Results (mg	;/kg)						
Sample Location	Surface Elevation (NAVD88)	Sample ID	Depth (feet)	Elevation (NAVD88)	Date Sampled	Sampled By	GRPH ⁽¹⁾	DRPH ⁽²⁾	ORPH ⁽²⁾	Benzene ⁽³⁾	Toluene ⁽³⁾	Ethylbenzene ⁽³⁾	Total Xylenes ⁽³⁾	Vinyl Chloride ⁽³⁾	cis-1,2- DCE ⁽³⁾	trans-1,2- DCE ⁽³⁾	EDC ⁽³⁾	TCE ⁽³⁾	PCE ⁽³⁾	PCE TCLP ⁽⁴⁾ (mg/L)	SVOCs ⁽⁵⁾⁽⁶⁾
		B16-06	6	87.05				-						<0.05	<0.05	<0.05	<0.05	<0.03	0.38		
		B16-11	11	82.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B16-16	16	77.05										<0.05	<0.05	<0.05	<0.05	<0.03	0.051		
		B16-17	17	76.05																	
		B16-18	18	75.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B16-20	20	73.05																	-
		B16-22	22	71.05																	
		B16-23.5	23.5	69.55	09/26/11									<0.05	<0.05	<0.05	<0.05	<0.03	0.18		
B16	93.05	B16-25	25	68.05		SoundEarth								<0.05	<0.05	<0.05	<0.05	<0.03	0.085		
		B16-29	29	64.05																	
		B16-30	30	63.05										<0.05	<0.05	<0.05	<0.05	<0.03	0.028		
		B16-35	35	58.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B16-40	40	53.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B16-45	45	48.05					-					<0.05	<0.05	<0.05	<0.05	<0.03	0.046		
		B16-50	50	43.05										<0.05	<0.05	<0.05	<0.05	<0.03	0.18		-
		B16-55	55	38.05					-					<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B16-65	65	28.05	09/27/11				-					<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B16-70	70	23.05										<0.05	<0.05	<0.05	<0.05	<0.03	0.043		
		B17-06	6	87.05										<0.05	<0.05	<0.05	<0.05	<0.03	0.046		
		B17-11	11	82.05										<0.05	<0.05	<0.05	<0.05	<0.03	0.053		
		B17-16	16	77.05										<0.05	<0.05	<0.05	<0.05	<0.03	0.14		
		B17-21	21	72.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B17-26	26	67.05										<0.05	<0.05	<0.05	<0.05	<0.03	0.030		
		B17-30	30	63.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B17-35	35	58.05										<0.05	<0.05	<0.05	<0.05	<0.03	0.030		
B17	93.05	B17-40	40	53.05	09/27/11	SoundEarth								<0.05	<0.05	<0.05	<0.05	<0.03	0.076		
		B17-45	45	48.05										<0.05	<0.05	<0.05	<0.05	<0.03	0.082		
		B17-50	50	43.05										<0.05	<0.05 <0.05	<0.05 <0.05	<0.05	<0.03 <0.03	0.042		
		B17-55 B17-60	55 60	38.05 33.05										<0.05 <0.05	<0.05	<0.05	<0.05 <0.05	<0.03	0.047		
			65	28.05															0.062		+
		B17-65 B17-70	70	28.05										<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.03 <0.03	<0.025		
		B17-70 B17-75	75	18.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B17-75 B17-80	80	13.05	1									<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B17-80	25	68.05										<0.05	<0.05	<0.05	<0.05	<0.03	0.12		
		B18-25	30	63.05	1									<0.05	<0.05	<0.05	<0.05	<0.03	0.059		
		B18-30	35	58.05	1									<0.05	<0.05	<0.05	<0.05	<0.03	0.059		
		B18-40	40	53.05	1						-			<0.05	<0.05	<0.05	<0.05	<0.03	0.034		
		B18-45	45	48.05	1						-			<0.05	<0.05	<0.05	<0.05	<0.03	0.072		
B18	93.05	B18-50	50	43.05	09/28/11	SoundEarth								<0.05	<0.05	<0.05	<0.05	<0.03	0.072		
		B18-55	55	38.05	1									<0.05	<0.05	<0.05	<0.05	<0.03	0.11		
		B18-60	60	33.05	1									<0.05	<0.05	<0.05	<0.05	<0.03	0.12		
		B18-65	65	28.05	1									<0.05	<0.05	<0.05	<0.05	<0.03	0.11		
		B18-70	70	23.05	1									<0.05	<0.05	<0.05	<0.05	<0.03	0.027		
MTCA Cleanup L	evel	510,0		25.05		•	100/30 ^{a,b}	2,000 ^b	2.000 ^b	0.03 ^b	7 ^b	6 ^b	9 ^b	0.67°	160 ^d	1,600 ^d	11°	0.03 ^b	0.05 ^b	0.7 ^e	NE



													Analytic	al Results (mg	z/kg)						
Sample Location	Surface Elevation (NAVD88)	Sample ID	Depth (feet)	Elevation (NAVD88)	Date Sampled	Sampled By	GRPH ⁽¹⁾	DRPH ⁽²⁾	ORPH ⁽²⁾	Benzene ⁽³⁾	Toluene ⁽³⁾	Ethylbenzene ⁽³⁾	Total Xylenes ⁽³⁾	Vinyl Chloride ⁽³⁾	cis-1,2- DCE ⁽³⁾	trans-1,2-	EDC ⁽³⁾	TCE ⁽³⁾	PCE ⁽³⁾	PCE TCLP ⁽⁴⁾ (mg/L)	SVOCs ⁽⁵⁾⁽⁶⁾
Location	(IVAVD88)	B19-25	25	68.05	Jumpicu	Samplea by	GRF11	DIAFII	OKFII	Delizerie 				<0.05	<0.05	<0.05	<0.05	<0.03	0.11	(IIIg/L)	3VOC3
		B19-30	30	63.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B19-35	35	58.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B19-40	40	53.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B19-45	45	48.05	00/00/11									<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
B19	93.05	B19-50	50	43.05	09/29/11	SoundEarth								<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B19-55	55	38.05										<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B19-60	60	33.05			-	-						<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B19-65	65	28.05										<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B19-70	70	23.05										<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B20-15	15	78.05	09/29/11		2,200			<0.1	<0.1	4.6	22	<0.05	<0.05	<0.05	<0.05	< 0.03	0.22		
		B20-20	20	73.05			<2			<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B20-25	25	68.05			34		-	<0.02	<0.02	0.061	0.30	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B20-30	30	63.05			<2		-	<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B20-35	35	58.05			<2			<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
B20	93.05	B20-40	40	53.05		SoundEarth	-							<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
B20	93.03	B20-45	45	48.05	09/30/11	SoundLartin								<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B20-50	50	43.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B20-55	55	38.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B20-60	60	33.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B20-65	65	28.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B20-70	70	23.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B21-05	5	88.05										<0.05	<0.05	<0.05	<0.05	<0.03	0.28		
		B21-10	10	83.05	09/30/11									<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B21-15	15	78.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B21-20	20	73.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B21-25	25	68.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B21-30	30	63.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
B21	93.05	B21-35	35	58.05		SoundEarth								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	33.03	B21-40	40	53.05		234.1424.111								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B21-45	45	48.05	10/04/11									<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B21-50	50	43.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B21-55	55	38.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B21-60	60	33.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B21-65	65	28.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B21-70	70	23.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
MTCA Cleanup Le	evel						100/30 ^{a,b}	2,000 ^b	2,000 ^b	0.03 ^b	7 ^b	6 ^b	9 ^b	0.67°	160 ^d	1,600 ^d	11°	0.03 ^b	0.05 ^b	0.7 ^e	NE



													Analytic	al Results (mg	g/kg)						
Sample Location	Surface Elevation (NAVD88)	Sample ID	Depth (feet)	Elevation (NAVD88)	Date Sampled	Sampled By	GRPH ⁽¹⁾	DRPH ⁽²⁾	ORPH ⁽²⁾	Benzene ⁽³⁾	Toluene ⁽³⁾	Ethylbenzene ⁽³⁾	Total Xylenes ⁽³⁾	Vinyl Chloride ⁽³⁾	cis-1,2- DCE ⁽³⁾	trans-1,2- DCE ⁽³⁾	EDC ⁽³⁾	TCE ⁽³⁾	PCE ⁽³⁾	PCE TCLP ⁽⁴⁾ (mg/L)	SVOCs ⁽⁵⁾⁽⁶⁾
		B22-05	5	88.05					-					<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B22-10	10	83.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B22-15	15	78.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B22-20	20	73.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B22-25	25	68.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B22-30	30	63.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
B22	93.05	B22-35	35	58.05	10/03/11	SoundEarth								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B22-40	40	53.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B22-45	45	48.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B22-50	50	43.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B22-55	55	38.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B22-60	60	33.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B22-65	65	28.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B22-70	70	23.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B23-05	5	88.05				-	-					<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B23-10	10	83.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B23-15 B23-20	15 20	78.05 73.05										<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.03	<0.025 <0.025		
		B23-20 B23-25	25	68.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B23-25 B23-30	30	63.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B23-35	35	58.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
B23	93.05	B23-40	40	53.05	10/05/11	SoundEarth			-					<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B23-45	45	48.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B23-50	50	43.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B23-55	55	38.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B23-60	60	33.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B23-65	65	28.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B23-70	70	23.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B24-05	5	88.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B24-10	10	83.05										<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B24-15	15	78.05			-	1	1		-			< 0.05	< 0.05	< 0.05	< 0.05	< 0.03	<0.025		
		B24-20	20	73.05				-	-					<0.05	< 0.05	<0.05	<0.05	< 0.03	<0.025		
		B24-25	25	68.05	10/05/11									<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B24-30	30	63.05	10/05/11		-	-						<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
B24	93.05	B24-35	35	58.05		SoundEarth	-		-					<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
D24	95.05	B24-40	40	53.05		Journalin								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B24-45	45	48.05				-	1	-				<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B24-50	50	43.05]			-					<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B24-55	55	38.05		1			-					<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B24-60	60	33.05	10/06/11			-						<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B24-65	65	28.05	10,00,11									<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B24-70	70	23.05		1								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
MTCA Cleanup Lo	evel						100/30 ^{a,b}	2,000 ^b	2,000 ^b	0.03 ^b	7 ^b	6 ^b	9 ^b	0.67°	160 ^d	1,600 ^d	11°	0.03 ^b	0.05 ^b	0.7 ^e	NE



													Analytic	al Results (mg	g/kg)						
	Surface												Tatal	Visual	ain 1 3					(4)	
Sample	Elevation	Commis ID	Depth (fact)	Elevation	Date	Commission Dec	GRPH ⁽¹⁾	DRPH ⁽²⁾	ORPH ⁽²⁾	Benzene ⁽³⁾	Toluene ⁽³⁾	Ethylbenzene ⁽³⁾	Total Xvlenes ⁽³⁾	Vinyl Chloride ⁽³⁾	cis-1,2- DCE ⁽³⁾	trans-1,2- DCE ⁽³⁾	EDC ⁽³⁾	TCE ⁽³⁾	PCE ⁽³⁾	PCE TCLP ⁽⁴⁾	SVOCs ⁽⁵⁾⁽⁶⁾
Location	(NAVD88)	Sample ID	(feet)	(NAVD88)	Sampled	Sampled By		DKPH.	OKPH.	Benzene.	Toluene	,	xylenes							(mg/L)	
	F	B25-05 B25-10	5 10	88.05 83.05										<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.03 <0.03	<0.025 <0.025		
	F		20	73.05										<0.05		<0.05			<0.025		
	F	B25-20 B25-25	25											<0.05	<0.05 <0.05	<0.05	<0.05 <0.05	<0.03 <0.03	<0.025	 	
	F	B25-25 B25-30	30	68.05										<0.05	<0.05	<0.05		<0.03	<0.025		
	F	B25-30 B25-35	35	63.05 58.05										<0.05	<0.05	<0.05	<0.05 <0.05	<0.03	<0.025		
B25	93.05	B25-35 B25-40	40	53.05	10/06/11	SoundEarth								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
525	33.03	B25-45	45	48.05	10/00/11	SoundEarth			-					<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	F	B25-43	50	43.05					-	-	-			<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	F	B25-55	55	38.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	F	B25-55 B25-60	60	33.05							-			<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	F	B25-65	65	28.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	F	B25-03	70	23.05										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B26-05	5	87.88					-					<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	-	B26-05 B26-10	10	82.88										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	F	B26-15	15	77.88					-		-			<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	F	B26-20	20	72.88										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	F	B26-25	25	67.88										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	F	B26-25 B26-30	30	62.88										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	F	B26-35	35	57.88										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	F	B26-35 B26-40	40	52.88	10/07/11									<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
B26/MW08	92.88	B26-40 B26-45	45	47.88		SoundEarth								<0.05	<0.05	<0.05		<0.03			
B20/WW08	92.88		50			Journalaitii											<0.05		<0.025		
	F	B26-50		42.88						-				<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	F	B26-55	55	37.88						-				<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	F	B26-60	60	32.88 22.88										<0.05 <0.05	<0.05	<0.05 <0.05	<0.05	<0.03 <0.03	<0.025		
	F	B26-70	70												<0.05		<0.05		<0.025		
	F	B26-80	80 90	12.88										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	F	B26-90		2.88	10/10/11									<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	F	B26-100	100 110	-7.12 -17.12	10/10/11					-				<0.05	<0.05	<0.05 <0.05	<0.05	<0.03 <0.03	<0.025		
		B26-110												<0.05	<0.05		<0.05		<0.025	1	
	F	B27-20	20	72.92										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	F	B27-25	25	67.92										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	F	B27-30	30 35	62.92										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	F	B27-35		57.92										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	F	B27-40	40	52.92						-				<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	F	B27-45	45	47.92	10/11/11									<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
B27/MW09	92.92	B27-50	50	42.92		SoundEarth			-					<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
D2//IVIVVU9	92.92	B27-55	55	37.92		Souridearth								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	F	B27-60	60	32.92					-					<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	F	B27-65	65	27.92]								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	ŀ	B27-70	70	22.92										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	ļ	B27-80	80	12.92								~		<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B27-90	90	2.92	40/40/4:									<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B27-100	100	-7.08	10/12/11									<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B27-110	110	-17.08			ah		h	h	 -h		 -h	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
MTCA Cleanup Le	vel						100/30 ^{a,b}	2,000 ^b	2,000 ^b	0.03 ^b	7 ^b	6 ^b	9 ^b	0.67°	160 ^d	1,600 ^d	11°	0.03 ^b	0.05 ^b	0.7 ^e	NE



													Analytic	al Results (mg	g/kg)						
	Surface																				
Sample	Elevation		Depth	Elevation	Date		(*)	(2)	(*)	(4)	(-)	(4)	Total	Vinyl	cis-1,2-	trans-1,2-	(2)	(2)	(2)	PCE TCLP ⁽⁴⁾	(p)(e)
Location	(NAVD88)	Sample ID	(feet)	(NAVD88)	Sampled	Sampled By	GRPH ⁽¹⁾	DRPH ⁽²⁾	ORPH ⁽²⁾	Benzene ⁽³⁾	Toluene ⁽³⁾	Ethylbenzene ⁽³⁾	Xylenes ⁽³⁾	Chloride ⁽³⁾	DCE ⁽³⁾	DCE ⁽³⁾	EDC ⁽³⁾	TCE ⁽³⁾	PCE ⁽³⁾	(mg/L)	SVOCs ⁽⁵⁾⁽⁶⁾
		B28-05	5	87.73										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B28-10	10	82.73										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B28-15	15	77.73										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B28-20	20	72.73										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B28-25	25	67.73										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B28-30	30	62.73										<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B28-35	35	57.73										<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B28-40	40	52.73										<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
B28/MW10	92.73	B28-45	45	47.73	10/10/11	SoundEarth								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
520/1414410	32.73	B28-50	50	42.73	10/10/11	SoundEarth								<0.05	< 0.05	<0.05	<0.05	< 0.03	<0.025		
		B28-55	55	37.73										< 0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B28-60	60	32.73										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B28-65	65	27.73			1	1	1		-			<0.05	< 0.05	<0.05	<0.05	< 0.03	<0.025		
		B28-70	70	22.73			1	1	1		-			<0.05	< 0.05	<0.05	<0.05	< 0.03	<0.025		
		B28-75	75	17.73										<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B28-80	80	12.73										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B28-85	85	7.73										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B28-90	90	2.73										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B29-15	15	68.54										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B29-20	20	63.54										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B29-25	24	59.54										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B29-30	30	53.54										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B29-35	35	48.54					-					<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
			40	43.54													<0.05	<0.03			
B29	83.53891	B29-40		38.54	10/10/11	SoundEarth								<0.05	<0.05	<0.05			<0.025		
		B29-45	45											<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B29-50	50	33.54										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B29-55	55	28.54										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B29-60	60	23.54										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B29-65	65	18.54										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B29-70	70	13.54										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B30-15	15	73.23										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B30-16.5	16.5	71.73																	
		B30-18	18	70.23										<0.05	<0.05	<0.05	<0.05	<0.03	0.026		
		B30-20	20	68.23										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B30-21.5	21.5	66.73										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B30-23	23	65.23																	
		B30-24	24	64.23																	
		B30-30	30	58.23					-												
		B30-35	35	53.23			3.4			<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
B30/MW11	88.23	B30-40	40	48.23	10/11/11	SoundEarth	730			<0.1	<0.1	1.5	5.9	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B30-45	45	43.23			<2		-	<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B30-50	50	38.23					ī		-			<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B30-55	55	33.23	1		-	-	-					<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B30-60	60	28.23	1		-	-	-					<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B30-65	65	23.23	1									<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B30-70	70	18.23	1									<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B30-75	75	13.23	1									<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
1		B30-80	80	8.23	1									<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
[B30-83	83	5.23	1				-												
MTCA Cleanup L	ovol	550 05		, 5.25		1	100/30 ^{a,b}	2,000 ^b	2,000 ^b	0.03 ^b	7 ^b	6 ^b	9 ^b	0.67°	160 ^d	1,600 ^d	11°	0.03 ^b	0.05 ^b	0.7 ^e	NE



													Analytic	al Results (ma	7/kg)						
	Surface												Analytic	ar resures (mg	, 0,						
Sample	Elevation		Depth	Elevation	Date		(1)	(2)	(2)	_ (3)	(3)	(3)	Total	Vinyl	cis-1,2-	trans-1,2-	(3)	(3)	(3)	PCE TCLP ⁽⁴⁾	(5)(6)
Location	(NAVD88)	Sample ID	(feet)	(NAVD88)	Sampled	Sampled By	GRPH ⁽¹⁾	DRPH ⁽²⁾	ORPH ⁽²⁾	Benzene ⁽³⁾	Toluene ⁽³⁾	Ethylbenzene ⁽³⁾	Xylenes ⁽³⁾	Chloride ⁽³⁾	DCE ⁽³⁾	DCE ⁽³⁾	EDC ⁽³⁾	TCE ⁽³⁾	PCE ⁽³⁾ <0.025	(mg/L)	SVOCs ⁽⁵⁾⁽⁶⁾
		B31-80 B31-85	80 85	-5.56 -10.56										<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.03	<0.025		
B31/MW12	74.44	B31-90	90	-10.56	10/13/11	SoundEarth								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B31-90	95	-20.56	,,									<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B31-93	100	-25.56										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
B32	85.01239			25.50		AESI						G	eotech Borin			10.05	10.05	10.05	10.023	ı	
		B33-05	5	68.93										<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B33-10	10	63.93										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B33-15	15	58.93										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B33-20	20	53.93										<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B33-25	25	48.93				1	-	-				<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B33-30	30	43.93										<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
B33	73.93	B33-35	35	38.93	10/13/11	SoundEarth		1	-	-				< 0.05	< 0.05	<0.05	< 0.05	< 0.03	<0.025		
		B33-40	40	33.93				-						<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B33-45	45	28.93										<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B33-50	50	23.93										<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B33-55	55	18.93										<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B33-60	60	13.93										<0.05	<0.05	<0.05	< 0.05	< 0.03	<0.025		
		B33-65	65	8.93					-					<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B34-25	25	48.93										<0.05	<0.05	<0.05	<0.05	< 0.03	< 0.025		
		B34-30	30	43.93										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B34-35	35	38.93										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B34-40	40	33.93										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
B34	73.93	B34-45	45	28.93	10/14/11	SoundEarth								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B34-50	50	23.93										<0.05	<0.05	<0.05	<0.05	<0.03	0.029		
		B34-55	55	18.93										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B34-60	60	13.93										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B34-65	65	8.93				-						<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	[B35-05	5	68.93										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B35-10	10	63.93										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B35-15	15	58.93										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B35-20	20	53.93										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B35-25	25	48.93										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B35-30	30	43.93										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
B35	73.93	B35-35	35	38.93	10/14/11	SoundEarth								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B35-40	40	33.93										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B35-45	45	28.93										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B35-50	50	23.93										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B35-55	55	18.93										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B35-60	60	13.93										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B35-65	65	8.93				h		 h	 -b	 -b	 -h	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
MTCA Cleanup Le	evel						100/30 ^{a,b}	2,000 ^b	2,000 ^b	0.03 ^b	7 ^b	6 ^b	9 ^b	0.67°	160 ^d	1,600 ^d	11°	0.03 ^b	0.05 ^b	0.7 ^e	NE



													Analytic	al Results (mg	g/kg)						
	Surface																			400	
Sample	Elevation		Depth	Elevation	Date		(4)	(2)	(2)	(2)	(2)	(2)	Total	Vinyl	cis-1,2-	trans-1,2-	(2)	(2)	(2)	PCE TCLP ⁽⁴⁾	(5)(6)
Location	(NAVD88)	Sample ID	(feet)	(NAVD88)	Sampled	Sampled By	GRPH ⁽¹⁾	DRPH ⁽²⁾	ORPH ⁽²⁾	Benzene ⁽³⁾	Toluene ⁽³⁾	Ethylbenzene ⁽³⁾	Xylenes ⁽³⁾	Chloride ⁽³⁾	DCE ⁽³⁾	DCE ⁽³⁾	EDC ⁽³⁾	TCE ⁽³⁾	PCE ⁽³⁾	(mg/L)	SVOCs ⁽⁵⁾⁽⁶⁾
		B36-05	5	68.93										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B36-10	10	63.93										<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B36-15	15	58.93										<0.05	<0.05	<0.05	<0.05	<0.03	0.028		
		B36-20	20	53.93																	
		B36-25	25	48.93																	
		B36-30	30	43.93										<0.05	<0.05	<0.05	<0.05	<0.03	0.039		
B36	73.93	B36-35	35	38.93	10/17/11	SoundEarth						-		<0.05	< 0.05	<0.05	< 0.05	<0.03	<0.025		
650	73.93	B36-40	40	33.93	10/17/11	SoundEarth	-							< 0.05	< 0.05	<0.05	< 0.05	< 0.03	0.099		
		B36-45	45	28.93										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B36-50	50	23.93										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B36-55	55	18.93			-	-	-				-	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B36-60	60	13.93										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B36-65	65	8.93										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B36-70	70	3.93										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B39-3-4	3-4	82.66										<0.0011	0.0029	<0.0011	<0.0011	0.0077	5.1		
B39	86.16	B39-7-8	7-8	78.66	01/16/12	AECOM								<0.0011	<0.0023	<0.0011	<0.0011	<0.0012	0.088		
555	00.10	B39-11-12	11-12	74.66	01/10/12	71200111								<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	0.049		
		B40-7-8	7-8	81.78										<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	0.0017		
B40	89.28				01/16/12	AECOM												<0.0012			
		B40-11-12	11-12	77.78										<0.0011	<0.0011	<0.0011	<0.0011		0.0013		
B41	89.39	B41-7-8	7-8	81.89	01/16/12	AECOM								<0.0009	<0.0009	<0.0009	<0.0009	0.0015	0.180		
		B41-11-12	11-12	77.89										<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	0.130		
B42	86.16	B42-3-4	3-4	82.66	01/16/12	AECOM								<0.001	<0.001	<0.001	<0.001	<0.001	0.053		
		B42-7-8	7-8	78.66										<0.001	<0.001	<0.001	<0.001	<0.0012	0.028		
B43	84.78	B43-3-4	3-4	81.28	01/16/12	AECOM								<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	0.220		
		B43-7-8	7-8	77.28										<0.001	<0.001	<0.001	<0.001	<0.001	0.015		
		B44-3-4	3-4	79.23								-		<0.0009	0.019	<0.0009	<0.009	0.01	1.7		
B44	82.73	B44-7-8	7-8	75.23	01/16/12	AECOM								<0.0011	0.0013	<0.0011	<0.0011	0.092	5.6		
		B44-11-12	11-12	71.23										<0.0011	<0.0011	<0.0011	<0.0011	0.0009	0.057		
		B44-11-12	15-16	67.23										<0.0011	<0.0011	<0.0011	<0.0011	0.0007	0.045		
		B45-3-4	3-4	80.15										<0.0011	<0.063	<0.001	<0.001	0.0033	7.7		
B45	83.65	B45-7-8	7-8	76.15	01/16/12	AECOM								<0.0015	0.015	<0.0015	<0.0015	0.035	11		
- 10		B45-11-12	11-12	72.15	,,									<0.001	0.0068	<0.001	<0.001	0.018	6.4		
		B45-11-12	15-16	68.15										<0.0012	0.0006	<0.0012	<0.0012	0.0015	0.078		
										Boren Avenu	ie North	1									
		B11-05	5	65.69]								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B11-10	10	60.69										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B11-15	15	55.69										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B11-20	20	50.69			1	1	-		-		-	<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		ND
		B11-25	25	45.69										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B11-30	30	40.69										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
B11/MW04	70.69	B11-35	35	35.69	05/25/11	SoundEarth								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B11-40	40	30.69										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B11-45	45	25.69										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B11-50	50	20.69]								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B11-55	55	15.69										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B11-60	60	10.69]	<2	<50	<250	<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B11-65	65	5.69			<2	<50	<250	<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
MTCA Cleanup Le	evel						100/30 ^{a,b}	2,000 ^b	2,000 ^b	0.03 ^b	7 ^b	6 ^b	9 ^b	0.67°	160 ^d	1,600 ^d	11 ^c	0.03 ^b	0.05 ^b	0.7 ^e	NE



													Analytic	al Results (mg	g/kg)						
	Surface																			(4)	
Sample	Elevation	Commis ID	Depth	Elevation	Date	Complet D.	GRPH ⁽¹⁾	DDD11(2)	ODD11 ⁽²⁾	(3)	Toluene ⁽³⁾	E.I. II (3)	Total Xylenes ⁽³⁾	Vinyl Chloride ⁽³⁾	cis-1,2- DCE ⁽³⁾	trans-1,2- DCE ⁽³⁾	EDC ⁽³⁾	TCE ⁽³⁾	PCE ⁽³⁾	PCE TCLP ⁽⁴⁾	SVOCs ⁽⁵⁾⁽⁶⁾
Location	(NAVD88)	Sample ID B12-10	(feet) 10	(NAVD88) 74.04	Sampled	Sampled By	GKPH	DRPH ⁽²⁾	ORPH ⁽²⁾	Benzene ⁽³⁾	Toluene	Ethylbenzene ⁽³⁾	xylenes	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025	(mg/L)	ND
		B12-10 B12-15	15	69.04										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND ND
		B12-13	20	64.04										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND ND
		B12-25	25	59.04				-						<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B12-23	30	54.04	05/25/11			-	-					<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B12-35	35	49.04										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
B12/MW05	84.04	B12-45	45	39.04		SoundEarth								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B12-55	55	29.04										<0.05	<0.05	<0.05	<0.05	<0.03	0.044		ND
		B12-60	60	24.04										<0.05	<0.05	<0.05	<0.05	<0.03	0.057		ND
		B12-70	70	14.04										<0.05	<0.05	<0.05	<0.05	<0.03	0.035		ND
		B12-75	75	9.04	05/26/11		<2	<50	<250	<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B12-80	80	4.04			<2	<50	<250	<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B15-30	30	44.55										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B15-35	35	39.55	1									<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B15-40	40	34.55										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
4		B15-45	45	29.55										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
B15/MW07	74.55	B15-50	50	24.55	05/26/11	SoundEarth								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B15-60	60	14.55										<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		ND
		B15-65	65	9.55			<2	<50	<250	<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		ND
		B15-70	70	4.55			<2	<50	<250	<0.02	<0.02	<0.02	<0.06	<0.05	< 0.05	<0.05	< 0.05	< 0.03	<0.025		ND
		B37-15	15	75.66										<0.05	<0.05	<0.05	< 0.05	< 0.03	<0.025		
		B37-20	20	70.66			-	-						<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B37-25	25	65.66				-						<0.05	<0.05	<0.05	< 0.05	< 0.03	<0.025		
		B37-30	30	60.66				-						<0.05	<0.05	<0.05	< 0.05	< 0.03	<0.025		
		B37-35	35	55.66										<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B37-40	40	50.66										<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B37-45	45	45.66			-	-						<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
B37/MW13	90.66	B37-50	50	40.66	10/18/11	SoundEarth								<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B37-55	55	35.66										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B37-60	60	30.66										<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B37-65	65	25.66										<0.05	<0.05	<0.05	<0.05	< 0.03	<0.025		
		B37-70	70	20.66				-						<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B37-75	75	15.66										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B37-80	80	10.66										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B37-85	85	5.66										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B56-20.0	20	41.00				-						<0.05	<0.05	<0.05		<0.02	<0.025		
B56/MW31	61.00	B56-30.0	30	31.00	09/11/19	SoundEarth								<0.05	<0.05	<0.05		<0.02	<0.025		
		B56-40.0	40	21.00										<0.05	<0.05	<0.05		<0.02	<0.025		
		1				1			1	Terry Avenu		1	ı	1							
		B49-36	36	22.79	10/5-1:		<2			<0.03	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
B49/MW15	58.79	B49-41	41	17.79	12/05/12	SoundEarth	<2			<0.03	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B48-46	46	12.79	<u> </u>		<2			<0.03	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		D20.05	05	0.40		1			1	Thomas S		ı	l	-0.05	-0.05	-0.05	-0.05	-0.02	-0.025		
B38/MW14	104.4	B38-95	95	9.40	10/19/11	SoundEarth	-	-						<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
030/10/0014	104.4	B38-100	100 105	4.40	10/19/11	Journaldill								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
MTCA Cleaning	aval .	B38-105	105	-0.60	<u> </u>	l	100/30 ^{a,b}	2 000b	2.000 ^b	0.03 ^b	7 ^b	 6 ^b	9 ^b	<0.05 0.67 °	<0.05 160 ^d	<0.05	<0.05 11°	<0.03 0.03 ^b	<0.025 0.05 ^b	0.7 ^e	 NE
MTCA Cleanup Lo	evei						100/30%	2,000 ^b	2,000	0.03	T	6-	9-	0.67	160-	1,600 ^d	11	0.03	0.05	0.7	NE NE



													Δnalytic	al Results (mg	z/kg)						
Sample	Surface Elevation		Depth	Elevation	Date		(1)	(2)	(2)	(3)	(3)	(3)	Total	Vinyl	cis-1,2-	trans-1,2-	(3)	(3)	(3)	PCE TCLP ⁽⁴⁾	
Location	(NAVD88)	Sample ID	(feet)	(NAVD88)	Sampled	Sampled By	GRPH ⁽¹⁾	DRPH ⁽²⁾	ORPH ⁽²⁾	Benzene ⁽³⁾	Toluene ⁽³⁾	Ethylbenzene ⁽³⁾	Xylenes ⁽³⁾	Chloride ⁽³⁾	DCE ⁽³⁾	DCE ⁽³⁾	EDC ⁽³⁾	TCE ⁽³⁾	PCE ⁽³⁾	(mg/L)	SVOCs ⁽⁵⁾⁽⁶⁾
	-	B50-06	6	93.02	12/06/12	-	<2			<0.03	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	-	B50-11	11	88.02		-	<2			<0.03	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
B50/MW16	99.02	B50-81	81	18.02		SoundEarth	<2			<0.03	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
	-	B50-84	84	15.02	12/07/12	-	2,500			<0.03	<0.05	0.93	5	<0.05	0.12	<0.05	<0.05	0.10	2.3		
	-	B50-86	86	13.02		-	170			<0.03	<0.05	<0.05	0.12	<0.05	<0.05	<0.05	<0.05	<0.03	0.14		
		B50-91	91	8.02			<2			<0.03	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		
		B51-72.5	72.5	25.85	00/05/11		<2			<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.02	<0.025		
B51	98.35	B51-80	80	18.35	03/25/14	SoundEarth	<2			<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.02	<0.025		
		B51-82.5	82.5	15.85			3,200			<0.2	<0.2	24	52	<0.05	0.060	<0.05	<0.05	<0.02	0.16		
	-	B52-70	70	29.54		-	<2			<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.02	<0.025		
B52	99.54	B52-80	80	19.54	03/26/14	SoundEarth	<2			<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.02	<0.025		
	-	B52-82.5	82.5	17.04		-	65			<0.02	<0.02	0.081	0.30	<0.05	<0.05	<0.05	<0.05	<0.02	<0.025		
		B52-85	85	14.54			<2			<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.02	0.082		
	-	B53-70	70	30.54		-								<0.05	<0.05	<0.05	<0.05	<0.02	<0.025		
B53	100.54	B53-75	75	25.54	03/27/14	SoundEarth								<0.05	<0.05	<0.05	<0.05	<0.02	<0.025		
	-	B53-85	85	15.54		-								<0.05	<0.05	<0.05	<0.05	<0.02	<0.025		
		B53-90	90	10.54			<2			<0.02 Harrison S	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.02	<0.025		
		200.05	5	62.60								ı		.0.05	.0.05	-0.05	.0.05	.0.02	-0.025	1	
	ŀ	B08-05		63.68 58.68		-					-			<0.05 <0.05	<0.05	<0.05 <0.05	<0.05	<0.03 <0.03	<0.025 <0.025		ND
	ŀ	B08-10	10 15			-									<0.05	<0.05	<0.05	<0.03			ND
	ŀ	B08-15	20	53.68		-								<0.05	<0.05		<0.05		<0.025		ND ND
	-	B08-20 B08-25	25	48.68 43.68		-								<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.05	<0.03 <0.03	<0.025 <0.025		ND
	-	B08-25 B08-30	30	38.68		-								<0.05	<0.05	<0.05	<0.05 <0.05	<0.03	<0.025		ND
B08/MW01	68.68		35	33.68	05/19/11	SoundEarth									<0.05			<0.03			
	-	B08-35	40			-								<0.05		<0.05	<0.05		<0.025		ND
	-	B08-40 B08-45	45	28.68		-								<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.05	<0.03 <0.03	<0.025		ND ND
	-	B08-45 B08-50	50	18.68		-	<2	<50	<250	<0.2	<0.02	<0.2	<0.06	<0.05	<0.05	<0.05	<0.05 <0.05	<0.03	<0.025 <0.025		
	-	B08-55	55	13.68		-		<5U	<25U 	<0.2	<0.02	<0.2	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025	-	ND ND
	-	B08-55 B08-60	60	8.68		-	<2	<50	<250	<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025	-	ND ND
		B08-60 B09-07	7	63.92				<50	<250	<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND ND
	ŀ	B09-07 B09-10	10	60.92										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
	ŀ	B09-10 B09-15	15	55.92										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND ND
	ŀ	B09-13	20	50.92				-			-			<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
	ŀ	B09-25	25	45.92				-			-			<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
	ŀ	B09-23	30	40.92				-			-			<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
	ŀ	B09-35	35	35.92				-			-			<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
B09/MW02	70.92	B09-33	40	30.92	05/20/11	SoundEarth		-						<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
	ŀ	B09-40 B09-45	45	25.92			<2	<50	<250	<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND ND
	ŀ	B09-45 B09-50	50	20.92				<50 	<250	<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND ND
	-	B09-55	55	15.92				-						<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND ND
	-	B09-55 B09-60	60	10.92			<2	<50	<250	<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025	-	ND ND
	-	B09-65	65	5.92				<50	<250	<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025	-	ND ND
	-	B09-65 B09-70	70	0.92			<2	<50	<250	<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025	-	ND ND
MTCA Cleanup Le	wel	003-70	70	0.32			100/30 ^{a,b}	2,000 ^b	2,000 ^b	0.02 0.03 ^b	7 ^b	6 ^b	9 ^b	0.67°	160 ^d	1,600 ^d	11°	0.03 ^b	0.025	0.7 ^e	NE NE

P3/0731 Touchstone(0731 004 Troy Laundry/Technical/Tables/2019/0309 81 Tables/0731 004_20198(50 F-shx/Table 15 of - Petroleum & VOCs



						Analytical Results (mg/kg)															
Sample Location	Surface Elevation (NAVD88)	Sample ID	Depth (feet)	Elevation (NAVD88)	Date Sampled	Sampled By	GRPH ⁽¹⁾	DRPH ⁽²⁾	ORPH ⁽²⁾	Benzene ⁽³⁾	Toluene ⁽³⁾	Ethylbenzene ⁽³⁾	Total Xylenes ⁽³⁾	Vinyl Chloride ⁽³⁾	cis-1,2- DCE ⁽³⁾	trans-1,2- DCE ⁽³⁾	EDC ⁽³⁾	TCE ⁽³⁾	PCE ⁽³⁾	PCE TCLP ⁽⁴⁾ (mg/L)	SVOCs ⁽⁵⁾⁽⁶⁾
		B10-05	5	79.65							-		-	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B10-10	10	74.65			<2	<50	<250	<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B10-15	15	69.65										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B10-20	20	64.65										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B10-25	25	59.65										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B10-30	30	54.65										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B10-35	35	49.65							-			<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
B10/MW03	84.65	B10-40	40	44.65	05/24/11	SoundEarth								<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B10-45	45	39.65									-	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B10-50	50	34.65							-			<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B10-55	55	29.65							-			<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B10-60	60	24.65										<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B10-65	65	19.65					-	-	-		-	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B10-75	75	9.65			<2	<50	<250	<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B10-80	80	4.65			<2	<50	<250	<0.02	<0.02	<0.02	<0.06	<0.05	<0.05	<0.05	<0.05	<0.03	<0.025		ND
		B57-30.0	20	58.62			-				-		-	<0.05	<0.05	<0.05	-	<0.02	<0.025		
B57/MW32	78.62	B57-40.0	30	48.62	09/10/19	SoundEarth								<0.05	<0.05	<0.05		<0.02	<0.025		
037/WW32	70.02	B57-50.0	60	18.62	05/10/15	SoundEarth								<0.05	<0.05	<0.05		<0.02	<0.025		
		B57-60.0	80	-1.38										<0.05	<0.05	<0.05		<0.02	<0.025		
		B58-20.0	20	36.94							-			<0.05	<0.05	<0.05		<0.02	<0.025		
B58/MW33	56.94	B58-30.0	60	-3.06	09/12/19	SoundEarth					-			<0.05	<0.05	<0.05		<0.02	<0.025		
		B58-40.0	80	-23.06							-			<0.05	<0.05	<0.05		<0.02	<0.025		
	T		1	ı		T			S	outh-Adjoinin	g Property							1	1		
		B54-20.0	20	82.06										<0.05	<0.05	<0.05		<0.02	<0.025		
1 . 1		B54-30.0	30	72.06	1									<0.05	<0.05	<0.05		0.093	<0.025		
B54/MW29	102.06	B54-40.0	40	62.06	09/17/19	SoundEarth								<0.05	<0.05	<0.05		<0.02	<0.025		
1		B54-60.0	60	42.06	1									<0.05	<0.05	<0.05		<0.02	<0.025		
		B54-80.0	80	22.06										<0.05	<0.05	<0.05		<0.02	<0.025		
1		B55-20.0	20	82.34	1									<0.05	<0.05	<0.05		0.033	<0.025		
1	[B55-30.0	30	72.34	1					-	-		-	<0.05	<0.05	<0.05		<0.02	<0.025		
B55/MW30	102.34	B55-40.0	40	62.34	09/18/19	SoundEarth				-	-		-	<0.05	<0.05	<0.05		<0.02	<0.025		
1	[B55-60.0	60	42.34	1									<0.05	<0.05	<0.05		<0.02	<0.025		
		B55-80.0	80	22.34										<0.05	<0.05	<0.05		<0.02	<0.025		
MTCA Cleanup Le	evel						100/30 ^{a,b}	2,000 ^b	2,000 ^b	0.03 ^b	7 ^b	6 ^b	9 ^b	0.67°	160 ^d	1,600 ^d	11°	0.03 ^b	0.05 ^b	0.7 ^e	NE

NOTES:

Red denotes concentration exceeds MTCA Soil cleanup level.

Laboratory Note:

NWTPH = northwest total petroleum hydrocarbon

ORPH = oil-range petroleum hydrocarbons PCE = tetrachloroethylene

SoundEarth = SoundEarth Strategies, Inc.

SVOC = semivolatile organic compound

TCE = trichloroethylene

TCLP = Toxicity Characteristic Leaching Procedure

VOC = volatile organic compound

WAC = Washington Administrative Code

13 of 13

⁽¹⁾ Analyzed by NWTPH Method NWTPH-Gx.

⁽²⁾ Analyzed by NWTPH Method NWTPH-Dx.

⁽³⁾ Analyzed by EPA Method 8260C or 8021B.

⁽⁴⁾ Analyzed by SW8260/TCLP ZHE.

⁽⁵⁾ Analyzed by EPA Method 8270C.

⁽⁶⁾ Bis(2-ethylhexyl) phthalate was the only SVOC detected, the concentrations of which are well below the MTCA Method B cleanup level of 71 mg/kg. The reported results are the highest laboratory detection limit for all SVOCs analyzed or the concentration of (2-bis(2-ethylhexyl) phthalate, if detected in the sample.

 $^{^{\}rm a}100~{\rm mg/kg}$ when benzene is not present and 30 mg/kg when benzene is present.

bMTCA Method A Soil Cleanup Levels for Unrestricted Land Uses, Table 740-1 of Section 900 of Chapter 173-340 of WAC, revised November 2007.

^cMTCA Cleanup Regulation, Chapter 173-340 of WAC, CLARC, Soil, Method B, Carcinogen, Standard Formula Value, CLARC

Website https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx.

dMTCA Cleanup Regulation, Chapter 173-340 of WAC, CLARC, Soil, Method B, Non-Carcinogen, Standard Formula Value, CLARC Website

https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

^dProtection of Environment, Title 40 Part 261.24 of CFR, Table 1 - Maximum Concentration of Contaminants for the Toxicity Characteristic.

^{*}The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

^{-- =} not analyzed, measured, or calculated

^{= =} not analyzed, measured, or calculated
< = analytical result does not exceed laboratory reporting limit</p>

AECOM = AECOM Technology Corporation

AESI = Associated Earth Sciences, Inc.

CFR = Code of Federal Regulations

CLARC = cleanup levels and risk calculations

DCE = dichloroethene

DRPH = diesel-range petroleum hydrocarbons

EDC = 1,2-dichloroethane (ethylene dichloride) EPA = US Environmental Protection Agency

GRPH = gasoline-range petroleum hydrocarbons

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

MTCA = Washington State Model Toxics Control Act

NAVD88 = North American Vertical Datum 1988 NE = not established

NR = not reported



			Depth to	Тор	Bottom			
		Depth to Top	Bottom	of Well Screen	of Well Screen			
	тос	of Well Screen	of Well Screen	Elevation	Elevation		Depth to	Groundwater
	Elevation ⁽¹⁾	(feet	(feet	(feet NAVD88	(feet NAVD88		Groundwater	Elevation
Well	(feet)	approximate)	approximate)	approximate)	approximate)	Date	(feet below TOC)	(feet NAVD88)
	, , ,		<u> </u>	roy Laundry Prop				(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
						05/31/11	58.70	16.08
	74.78	60	75	15	0	10/20/11	58.91	15.87
MW06	74.78	60	/5	15	U	12/13/12	58.71	16.07
						08/29/13	60.30	14.48
				DECOMMIS	SIONED 2013			
	92.88	105	110	-12	-17	10/20/11	77.18	15.70
MW08	32.00	103	110	12	17	08/29/13	78.10	14.78
				DECOMMIS	SIONED 2013			
	92.92	105	110	-12	-17	10/20/11	77.24	15.68
MW09						08/29/13	78.51	14.41
		1	ı	DECOMMIS	SIONED 2013		1	
					_	10/20/11	77.14	15.59
MW10	92.73	75	90	18	3	12/13/12	77.01	15.72
						08/29/13	78.28	14.45
			I	DECOMMIS	SIONED 2013		I I	
	00.22	60	02	20	-	10/20/11	72.43	15.80
MW11	88.23	68	83	20	5	12/13/12	72.29	15.94
				DECOMMAN	CIONED 2012	08/29/13	73.78	14.45
			I	DECOMMIS	SIONED 2013	10/20/11	50.74	15.72
MW12	74.44	95	100	-21	-26	10/20/11 08/29/13	58.71 59.99	15.73
1010012				DECOMMIS	SIONED 2013	08/29/13	59.99	14.45
				DECOMINIS	310NLD 2013	05/05/15	25.26	10.46
						08/03/15	24.82	10.90
						12/07/15	25.49	10.23
						03/07/16	24.98	10.74
						07/12/16	24.61	11.11
						10/18/16	23.14	12.58
						01/24/17	20.84	14.88
						05/31/17	22.75	12.97
MW17	35.72	22	37	14	-1	09/21/17	25.73	9.99
						12/14/17	25.14	10.58
						03/08/18	23.04	12.68
						06/28/18	22.00	13.72
						09/19/18	21.64	14.08
						12/13/18	21.42	14.30
						06/13/19	20.93	14.79
						10/09/19	21.30	14.42
						12/04/19	22.04	13.68



Well	TOC Elevation ⁽¹⁾ (feet)	Depth to Top of Well Screen (feet approximate)	Depth to Bottom of Well Screen (feet approximate)	Top of Well Screen Elevation (feet NAVD88 approximate)	Bottom of Well Screen Elevation (feet NAVD88 approximate)	Date	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet NAVD88)
Well	(leet)	approximate)	аррголіпасе)	аррголіпасе)	аррголіпасе)			•
						05/05/15 08/03/15	24.92 24.49	10.42 10.85
						12/07/15	25.21	10.83
						03/07/16	24.64	10.70
						03/07/10	24.23	11.11
						10/18/16	22.81	12.53
						01/24/17	20.98	14.36
						05/31/17	22.49	12.85
MW18	35.34	35	55	0	-20	09/21/17	25.36	9.98
						12/14/17	24.70	10.64
						03/08/18	22.60	12.74
						06/28/18	21.70	13.64
						09/19/18	21.34	14.00
						12/13/18	21.12	14.22
						06/13/19	20.62	14.72
						10/09/19	20.50	14.84
						12/04/19	22.15	13.19
						05/05/15	27.24	10.45
						08/03/15	26.82	10.87
						12/07/15	27.51	10.18
						03/07/16	26.97	10.72
						07/12/16	26.57	11.12
						10/18/16	25.12	12.57
						01/24/17	22.97	14.72
						05/31/17	24.74	12.95
MW19	37.69	35	55	3	-17	09/21/17	27.60	10.09
						12/14/17	26.97	10.72
						03/08/18	24.89	12.80
						06/28/18	24.00	13.69
						09/19/18	23.65	14.04
						12/13/18	25.41	12.28
						06/13/19	22.95	14.74
						10/09/19	27.60	10.09
						12/04/19	23.33	14.36
						05/05/15	25.24	10.39
						08/03/15	24.44	11.19
						12/07/15	25.50	10.13
						03/07/16	24.94	10.69
						07/12/16	24.62	11.01
						10/18/16	23.13	12.50
						01/24/17	21.32	14.31
						05/31/17	22.70	12.93
MW20	35.63	35	55	1	-19	09/21/17	25.53	10.10
						12/14/17	24.91	10.72
						03/08/18	22.89	12.74
						06/28/18	22.01	13.62
						09/19/18	21.67	13.96
						12/13/18	21.43	14.20
						06/13/19	20.95	14.68
						10/09/19	24.25	11.38
						12/04/19	21.45	14.18



Well	TOC Elevation ⁽¹⁾ (feet)	Depth to Top of Well Screen (feet approximate)	Depth to Bottom of Well Screen (feet approximate)	Top of Well Screen Elevation (feet NAVD88 approximate)	Bottom of Well Screen Elevation (feet NAVD88 approximate)	Date	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet NAVD88)
-	(===,	,	,	1010	1010	05/05/15	25.21	10.37
						08/03/15	24.82	10.76
						12/07/15	25.49	10.09
						03/07/16	24.90	10.68
						07/12/16	24.56	11.02
						10/18/16	23.00	12.58
						01/24/17	21.54	14.04
						05/31/17	23.37	12.21
MW21	35.58	35	55	1	-19	09/21/17	25.96	9.62
						12/14/17	25.20	10.38
						03/08/18	24.10	11.48
						06/28/18	22.89	12.69
						09/19/18		ESSIBLE
						12/13/18	22.59	12.99
						06/13/19	23.70	11.88
						10/09/19	26.52	9.06
						12/04/19	20.50	15.08
						05/05/15	25.14	10.33
						08/03/15	24.75	10.72
						12/07/15	25.41	10.06
						03/07/16	24.86	10.61
						07/12/16	24.52	10.95
						10/18/16	23.05	12.42
						01/24/17	21.68	13.79
						05/31/17	23.45	12.02
MW22	35.47	35	55	0	-20	09/21/17	26.20	9.27
						12/14/17	25.60	9.87
						03/08/18	23.65	11.82
						06/28/18	23.30	12.17
						09/19/18		ESSIBLE
						12/13/18	21.62	13.85
						06/13/19		-
						10/09/19	20.73	14.74
						12/04/19	20.18	15.29
						05/05/15	25.08	10.35
						08/03/15	24.72	10.71
						12/07/15	25.34	10.09
						03/07/16	24.77	10.66
						07/12/16	24.54	10.89
						10/18/16	22.98	12.45
						01/24/17	21.06	14.37
						05/31/17	22.41	13.02
MW23	35.43	36	56	-1	-21	09/21/17	25.11	10.32
						12/14/17	24.65	10.78
						03/08/18	22.69	12.74
						06/28/18	21.03	14.40
						09/19/18	21.50	13.93
						12/13/18	21.22	14.21
						06/13/19	20.80	14.63
						10/09/19	22.03	13.40
						12/04/19	21.22	14.21



Well	TOC Elevation ⁽¹⁾ (feet)	Depth to Top of Well Screen (feet approximate)	Depth to Bottom of Well Screen (feet approximate)	Top of Well Screen Elevation (feet NAVD88 approximate)	Bottom of Well Screen Elevation (feet NAVD88 approximate)	Date	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet NAVD88)
weii	(leet)	approximate)	approximate)	approximate)	approximate)		,	•
						05/05/15	24.47	10.41
						08/03/15	24.06	10.82
						12/07/15	24.72 24.12	10.16
						03/07/16 07/12/16	23.76	10.76 11.12
						10/18/16	22.19	12.69
						01/24/17	19.95	14.93
						05/31/17	23.29	11.59
MW24	34.88	35	55	0	-20	09/21/17		ESSIBLE
	000				20	12/14/17	24.22	10.66
						03/08/18	22.10	12.78
						06/28/18	21.98	12.90
						09/19/18	20.81	14.07
						12/13/18	20.65	14.23
						06/13/19	20.18	14.70
						10/09/19	21.65	13.23
						12/04/19	21.40	13.48
						05/05/15	30.85	10.53
						08/03/15	30.60	10.78
						12/07/15	31.30	10.08
						03/07/16	30.71	10.67
						07/12/16	30.44	10.94
						10/18/16	28.95	12.43
						01/24/17	27.07	14.31
						05/31/17	28.24	13.14
MW25	41.38	35.5	55.5	6	-14	09/21/17	31.09	10.29
						12/14/17	30.52	10.86
						03/08/18	28.54	12.84
						06/28/18	27.69	13.69
						09/19/18	27.32	14.06
						12/13/18	27.12	14.26
						06/13/19	26.64	14.74
						10/09/19	27.79	13.59
						12/04/19	26.63	14.75
						05/05/15	25.56	10.26
						08/03/15	25.19	10.63
						12/07/15	25.84	9.98
						03/07/16	25.24	10.58
						07/12/16	24.90	10.92
						10/18/16	23.41	12.41
						01/24/17	21.61	14.21
						05/31/17	22.79	13.03
IW91	35.82	20	55	16	-19	09/21/17	25.42	10.40
						12/14/17	24.96	10.86
						03/08/18	23.08	12.74
						06/28/18	22.30	13.52
						09/19/18	21.95	13.87
						12/13/18	21.69	14.13
						06/13/19	21.23	14.59
						10/09/19	23.90	11.92
]					12/04/19	21.11	14.71



			Donath to	Ton	Dottom			
		Depth to Top	Depth to Bottom	Top of Well Screen	Bottom of Well Screen			
	тос	of Well Screen	of Well Screen	Elevation	Elevation		Depth to	Groundwater
	Elevation ⁽¹⁾	(feet	(feet	(feet NAVD88	(feet NAVD88		Groundwater	Elevation
Well	(feet)	approximate)	approximate)	approximate)	approximate)	Date	(feet below TOC)	(feet NAVD88)
			E	Boren Avenue No	rth			
						05/27/11	52.22	18.47
	70.69					10/20/11	52.82	17.87
	70.03					12/10/12	52.88	17.81
						08/29/13	57.25	13.44
						05/05/15	58.22	12.60
						08/03/15	56.87	13.95
						12/07/15	58.82	12.00
						03/07/16	59.25	11.57
						07/12/16	58.49	12.33
						10/18/16	57.02	13.80
MW04		50	65	21	6	01/24/17	54.06	16.76
						05/31/17	55.59	15.23
	70.82					09/21/17	62.08	8.74
						12/14/17	62.03	8.79
						03/08/18	57.70	13.12
						06/28/18	54.94	15.88
						09/19/18	54.38	16.44
						12/13/18	54.26	16.56
						06/13/19	53.61	17.21
						10/09/19	55.40	15.42
						12/04/19	54.04	16.78
						05/27/11	67.40	16.64
						10/20/11	67.91	16.13
	84.04	65	80	19	4	12/10/12	68.54	15.50
MW05	04.04	03	00	15	7	08/29/13	69.72	14.32
						05/05/15	INACC	ESSIBLE
						08/03/15	INACC	ESSIBLE
		1	1	DECOMMIS	SIONED 2015		, ,	
						05/31/11	56.33	18.22
	74.55					10/20/11	56.87	17.68
						12/10/12	56.96	17.59
		1				08/29/13	60.95	13.60
						05/05/15	62.69	11.99
						08/03/15	61.67	13.01
						12/07/15	63.19	11.49
						03/07/16	63.22	11.46
						07/12/16	62.82	11.86
					_	10/18/16	61.26	13.42
MW07		55	70	20	5	01/24/17	58.41	16.27
						05/31/17	59.90	14.78
	74.68					09/21/17	65.17	9.51
						12/14/17		ESSIBLE
						03/08/18	61.76	12.92
						06/28/18	59.45	15.23
						09/19/18	59.07	15.61
						12/13/18	58.87	15.81
						06/13/19	57.93	16.75
						10/09/19	61.02	13.66
		<u> </u>	<u> </u>			12/04/19	58.38	16.30



			Depth to	Тор	Bottom			
		Depth to Top	Bottom	of Well Screen	of Well Screen			
	тос	of Well Screen	of Well Screen	Elevation	Elevation		Depth to	Groundwater
	Elevation ⁽¹⁾	(feet	(feet	(feet NAVD88	(feet NAVD88		Groundwater	Elevation
Well	(feet)	approximate)	approximate)	approximate)	approximate)	Date	(feet below TOC)	(feet NAVD88)
	90.66					10/20/11	74.69	15.97
	90.66					12/10/12	75.38	15.28
		+				08/29/13	76.23	14.43 ESSIBLE
						05/05/15 08/03/15	80.07	10.79
						12/07/15	80.73	10.13
						03/07/16	80.07	10.79
						07/12/16	80.03	10.83
						10/18/16	78.16	12.70
						01/24/17	75.56	15.30
MW13		70	85	21	-15	05/31/17	77.40	13.46
	90.86					09/21/17	80.46	10.40
						12/14/17	80.19	10.67
						03/08/18	78.13	12.73
						06/28/18	77.01	13.85
						09/19/18	76.68	14.18
						12/13/18	76.52	14.34
						06/13/19	76.00	14.86
						10/09/19	81.45	9.41
						12/04/19	76.00	14.86
						12/07/15	73.86	9.96
						03/07/16	73.23	10.59
						07/12/16	73.01	10.81
						10/18/16	71.38	12.44
						01/24/17	69.57	14.25
						05/31/17	70.89	12.93
						09/21/17	73.87	9.95
MW27	83.82	90	105	-6	-21	12/14/17	73.25	10.57
						03/08/18	71.10	12.72
						06/28/18	70.20	13.62
						09/19/18	69.85	13.97
						12/13/18	69.69	14.13
						06/13/19	69.19	14.63
						10/09/19	70.30	13.52
						12/04/19	69.11 46.49	14.71 14.26
MW31	60.75	40	60	21	1	10/09/19 12/04/19	44.16	16.59
				Terry Avenue No	+h	12/04/19	44.10	10.59
		T		. city Avenue No		12/10/12	40.78	18.01
	58.79					08/29/13	45.37	13.42
		1				05/05/15	45.86	13.03
						08/03/15	44.81	14.08
						12/07/15	47.08	11.81
						03/07/16	47.58	11.31
						07/12/16	46.73	12.16
						10/18/16	44.97	13.92
						01/24/17	42.05	16.84
MW15		41	56	18	3	05/31/17	43.08	15.81
	58.89					09/21/17	49.62	9.27
						12/14/17	49.92	8.97
						03/08/18	45.80	13.09
						06/28/18	42.95	15.94
						09/19/18	42.35	16.54
						12/13/18	42.26	16.63
						06/13/19	41.65	17.24
						10/09/19	41.80	17.09
		1				12/04/19	42.00	16.89



Well	TOC Elevation ⁽¹⁾ (feet)	Depth to Top of Well Screen (feet approximate)	Depth to Bottom of Well Screen (feet approximate)	Top of Well Screen Elevation (feet NAVD88 approximate)	Bottom of Well Screen Elevation (feet NAVD88 approximate)	Date	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet NAVD88)
	(,		1,1	Thomas Street				, , , , , , , , , , , , , , , , , , , ,
						10/20/11	88.81	15.59
MW14	104.40	90	105	14	-1	12/13/12	88.66	15.74
1010014						08/29/13	89.99	14.41
				DECOMMIS	SIONED 2013			
	99.02					12/10/12	83.47	15.55
	33.02					08/29/13	84.59	14.43
						05/05/15	88.87	10.31
						08/03/15	88.53	10.65
						12/07/15	89.15	10.03
						03/07/16	88.54	10.64
MW16		91	106	8	-7	07/12/16	88.41	10.77
IVIVVIO	99.18					10/18/16	86.74	12.44
						01/24/17	84.71	14.47
						05/31/17	86.04	13.14
						09/21/17	88.85	10.33
						12/14/17	88.43	10.75
						03/08/18	86.51	12.67
				WELL DAN	//AGED 2018			
						06/13/19	84.54	14.64
MW28	99.18	90	105	9	-6	10/08/19	84.75	14.43
						12/04/19	84.48	14.70
			Fa	irview Avenue N	orth			
MW-C	107.75	85	100	23	8	08/29/13	93.32	14.43
	107175	00	100			05/05/15	97.64	10.11
	I	T	I	Harrison Street				
						05/25/11	50.59	18.09
	68.68					10/20/11	51.03	17.65
						12/10/12	51.24	17.44
		4				08/29/13	54.35	14.33
						05/05/15	58.11	10.71
	68.82					08/03/15		ESSIBLE
						12/07/15	58.60	10.22
						03/07/16	57.69	11.13
						07/12/16	57.42	11.23
						10/18/16	55.65	13.00
MW01		45	60	24	9	01/24/17	52.27	16.38
						05/31/17	54.69	13.96
						09/21/17	58.91	9.74
						12/14/17	58.14	10.51
	68.65					03/08/18	55.84	12.81
						06/28/18	54.20	14.45
						09/19/18	53.93	14.72
						12/13/18	53.05	15.60
						06/13/19	52.34	16.31
						10/09/19	56.65	12.00
		ļ				12/04/19	52.76	15.89
						05/25/11	54.84	16.08
						10/20/11	55.08	15.84
	70.92	55	70	16	1	12/10/12	55.27	15.65
MW02	3.52				_	08/29/13	56.48	14.44
						05/05/15		ESSIBLE
						08/03/15	INACCI	ESSIBLE
				DECOMMIS	SIONED 2015			



Well	TOC Elevation ⁽¹⁾ (feet)	Depth to Top of Well Screen (feet approximate)	Depth to Bottom of Well Screen (feet approximate)	Top of Well Screen Elevation (feet NAVD88 approximate)	Bottom of Well Screen Elevation (feet NAVD88 approximate)	Date	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet NAVD88)
vve	(1661)	арргохипассу	аррголитисе)	арргохинассу	арргохинассу	05/27/11	68.75	15.90
						10/20/11	68.97	15.68
					_	12/10/12	69.21	15.44
MW03	84.65	65	80	20	5	08/29/13	70.21	14.44
						05/05/15		ESSIBLE
						08/03/15		ESSIBLE
			I .	DECOMMIS	SIONED 2015		1	
						12/07/15	60.42	10.15
						03/07/16	59.82	10.75
						07/12/16	59.52	11.05
						10/18/16	58.10	12.47
						01/24/17	56.10	14.47
						05/31/17	57.79	12.78
						09/21/17	60.94	9.63
MW26	70.57	75	90	-4	-19	12/14/17	60.11	10.46
						03/08/18	57.79	12.78
						06/28/18	56.83	13.74
						09/19/18	56.50	14.07
						12/13/18	56.34	14.23
						06/13/19	55.82	14.75
						10/09/19	57.28	13.29
						12/04/09	55.80	14.77
MW32	78.38	60	75	18	3	10/09/19	65.80	12.58
			_	_		12/04/19	62.63	15.75
MW33	56.62	31	51	26	6	10/09/19	40.30	16.32
						12/04/19	39.93	16.69
SMW01	49.45	30	40	19	9	08/29/13	36.78	12.67
SMW02	49.26	30	40	19	9	08/29/13	36.67	12.59
SMW06	48.63	30	40	19	9	08/29/13	36.39	12.24
SMW08	49.30	30	40	19	9	08/29/13	36.69	12.61
SMW09	48.25	30	40	estlake Avenue N 18	ortn 8	09/20/12	35.84	12.41
SIVIVVUS	40.23	30	-	ıth-Adjoining Pro		08/29/13	33.84	12.41
						10/09/19	86.91	14.81
MW29	101.72	82	102	20	0	12/04/19	87.03	14.69
						10/09/19	87.95	14.02
MW30	101.97	84	104	18	-2	12/04/19	87.25	14.72
			Noi	rth-Adjoining Pro	perty	22, 34, 13	3,.23	
CILL NO. (2)	53.43	35	45	18	8	08/29/13	40.00	13.43
SLU-MW01 ⁽²⁾				DECOMMIS	SIONED 2013			
SLU-MW02 ⁽²⁾	52.76	30	40	23	13	08/29/13	Dry	
SLU-IVIVVUZ				DECOMMIS	SIONED 2013			

NOTES:

-- = not analyzed, measured, or calculated

NAVD88 = North American Vertical Datum of 1988

TOC = top of casing

⁽¹⁾TOC elevations surveyed relative to NAVD88.

 $^{^{(2)}} Groundwater\ elevation\ data\ compiled\ from\ reports\ on\ file\ at\ the\ Washington\ State\ Department\ of\ Ecology.$



					An	alytical Results (μ	g/L)	
Sample Location	Sample Identification	Sample Date	Sampled By	PCE ⁽¹⁾	TCE ⁽¹⁾	cis-1-2-DCE ⁽¹⁾	trans-1-2-DCE ⁽¹⁾	Vinyl Chloride ⁽¹⁾
Sample Location	Sample Identification	Sample Date		undry Property	ICE	CIS-1-2-DCE	trails-1-2-DCE	Villyl Chloride
	MW06-20110531	05/31/11	SoundEarth	3.1	8.2	150 ^{ve}	<1	0.76
	MW06-20111012	10/12/11	SoundEarth	3.6	11	120	<1	0.76
MW06	MW06-20130909	09/09/13	SoundEarth	3.8	4.5	150	<1	0.93
				DECOMMISSION	IED 2013	•	•	•
	MW08-20111013	10/13/11	SoundEarth	<1	<1	<1	<1	<0.2
MW08	MW08-20130910	09/10/13	SoundEarth	<1	<1	<1	<1	<0.2
				DECOMMISSION	ED 2013			
	MW09-20111013	10/13/11	SoundEarth	<1	16	22	<1	<0.2
MW09	MW09-20130910	09/10/13	SoundEarth	1.6	15	2.0	<1	<0.2
		1		DECOMMISSION	ED 2013	T	1	T
	MW10-20111012	10/12/11	SoundEarth	<1	<1	<1	<1	<0.2
MW10	MW10-20130909	09/09/13	SoundEarth	<1	<1	<1	<1	<0.2
				DECOMMISSION			1 .	T
NAVA/4.4	MW11-20111013	10/13/11	SoundEarth	21	2.6	5.6	<1	<0.2
MW11	MW11-20130909	09/09/13	SoundEarth	39	3.8	3.6	<1	<0.2
	NAVA12 20111017	10/17/11	Carried Facility	DECOMMISSION		4.2	-11	10.2
MW12	MW12-20111017	10/17/11	SoundEarth	<1	19	1.3	<1	<0.2
1010012	MW12-20130909	09/09/13	SoundEarth	<1 DECOMMISSION	20 IED 2012	<1	<1	<0.2
	MW17-20150506	05/06/15	SoundEarth	<1	2.2	<1	<1	<0.2
-	MW17-20150804	08/07/15	SoundEarth	<1	1.5	<1	<1	<0.2
F	MW17-20151207	12/07/15	SoundEarth	<1	1.5	<1	<1	<0.2
F	MW17-20160308	03/08/16	SoundEarth	<1	<1	<1	<1	<0.2
	MW17-20160714	07/14/16	SoundEarth	<1	1.2	<1	<1	<0.2
	MW17-20161020	10/20/16	SoundEarth	<1	2.1	<1	<1	<0.2
	MW17-20170126	01/26/17	SoundEarth	<1	1.9	<1	<1	<0.2
10147	MW17-20170601	06/01/17	SoundEarth	<1	2.5	<1	<1	<0.2
MW17	MW17-20170923	09/23/17	SoundEarth	<1	2.1	1.2	<1	<0.2
	MW17-20171216	12/16/17	SoundEarth	<1	2.5	1.7	<1	<0.2
	MW17-20180310	03/10/18	SoundEarth	<1	2.6	1.5	<1	<0.2
	MW17-20180630	06/30/18	SoundEarth	<1	2.8	2.2	<1	<0.2
	MW17-20180922	09/22/18	SoundEarth	<1	2.7	2.0	<1	<0.2
	MW17-20181215	12/15/18	SoundEarth	<1	2.9	2.2	<1	<0.2
	MW17-20190615	06/15/19	SoundEarth	<1	3.4	2.2	<1	<0.2
	MW17-20191207	12/07/19	SoundEarth	<1	3.9	2.2	<1	<0.2
	MW18-20150506	05/06/15	SoundEarth	<1	46	5.2	<1	<0.2
	MW18-20150803	08/03/15	SoundEarth	<1	51	4.6	<1	<0.2
	MW18-20151208	12/08/15	SoundEarth	<1	51	9.9	<1	<0.2
-	MW18-20160308	03/08/16	SoundEarth	<1	44	8.1	<1	<0.2
-	MW18-20160714	07/14/16	SoundEarth	<1	3.3	1.7	<1	<0.2
-	MW18-20161020	10/20/16	SoundEarth	<1	6.5	4.0	<1	<0.2
	MW18-20170126	01/26/17	SoundEarth	<1	7.7	14	<1	0.25
MW18	MW18-20170601	06/01/17	SoundEarth	<1	3.3	14	<1	0.31
-	MW18-20170923	09/23/17	SoundEarth	<1	<1	22	<1	0.38
}	MW18-20171216	12/16/17	SoundEarth	<1	<1	22	<1	0.24
-	MW18-20180310	03/10/18	SoundEarth	<1	<1	27	<1	0.40
}	MW18-20180630	06/30/18	SoundEarth	<1	<1	27	<1	0.43
}	MW18-20180922	09/22/18	SoundEarth	<1	<1	21	<1	0.42
}	MW18-20181215	12/15/18	SoundEarth	<1	<1	24	<1	0.49
-	MW18-20190615	06/15/19	SoundEarth SoundEarth	<1	<1 <1	28 28	<1 <1	0.44 0.55
/ITCA Cleanup Level	MW18-20191207	12/07/19	Journalin	<1 5 ⁽²⁾	5 ⁽²⁾	16 ⁽³⁾	160 ⁽³⁾	0.55



					An	alytical Results (με	g/L)	
Sample Location	Sample Identification	Sample Date	Sampled By	PCE ⁽¹⁾	TCE ⁽¹⁾	cis-1-2-DCE ⁽¹⁾	trans-1-2-DCE ⁽¹⁾	Vinyl Chloride ⁽¹⁾
	MW19-20150507	05/07/15	SoundEarth	<1	69	15	<1	<0.2
	MW19-20150803	08/03/15	SoundEarth	<1	61	20	<1	<0.2
	MW19-20151207	12/07/15	SoundEarth	<1	65	23	<1	<0.2
	MW19-20160308	03/08/16	SoundEarth	<1	52	26	<1	<0.2
	MW19-20160713	07/13/16	SoundEarth	<1	4.6	10	<1	<0.2
	MW19-20161021	10/21/16	SoundEarth	<1	10	4.4	<1	0.40
	MW19-20170125	01/25/17	SoundEarth	<1	5.5	3.9	<1	0.30
MW19	MW19-20170601	06/01/17	SoundEarth	<1	5.7	3.5	<1	0.44
	MW19-20170923	09/23/17	SoundEarth	<1	1.7	3.4	<1	0.97
	MW19-20171216	12/16/17	SoundEarth	<1	1.1	13	<1	0.97
	MW19-20180310	03/10/18	SoundEarth	<1	<1	12	<1	0.78
	MW19-20180630	06/30/18	SoundEarth	<1	<1	12	<1	0.96
	MW19-20180922	09/22/18	SoundEarth	<1	<1	16	<1	0.86
	MW19-20190615	06/15/19	SoundEarth	<1	<1	27	<1	0.79
	MW19-20191207	12/07/19	SoundEarth	<1	<1	35	<1	0.98
	MW20-20150506	05/06/15	SoundEarth	<1	<1	1.5	<1	<0.2
	MW20-20150803	08/03/15	SoundEarth	<1	<1	1.2	<1	<0.2
	MW20-20151207	12/07/15	SoundEarth	<1	<1	<1	<1	<0.2
	MW20-20160309	03/09/16	SoundEarth	<1	<1	<1	<1	<0.2
	MW20-20160715	07/15/16	SoundEarth	<1	<1	<1	<1	<0.2
	MW20-20161020	10/20/16	SoundEarth	<1	<1	<1	<1	<0.2
	MW20-20170125	01/25/17	SoundEarth	<1	<1	4.1	<1	<0.2
N414/20	MW20-20170601	06/01/17	SoundEarth	<1	<1	1.2	<1	<0.2
MW20	MW20-20170924	09/24/17	SoundEarth	<1	<1	9.5	<1	<0.2
	MW20-20171216	12/16/17	SoundEarth	<1	1.3	15	<1	0.35
	MW20-20180310	03/10/18	SoundEarth	<1	<1	11	<1	<0.2
	MW20-20180630	06/30/18	SoundEarth	<1	<1	7	<1	<0.2
	MW20-20180922	09/22/18	SoundEarth	<1	<1	5.3	<1	<0.2
	MW20-20181215	12/15/18	SoundEarth	<1	<1	4.4	<1	<0.2
	MW20-20190615	06/15/19	SoundEarth	<1	<1	3.8	<1	<0.2
	MW20-20191207	12/07/19	SoundEarth	<1	<1	3.0	<1	<0.2
	MW21-20150506	05/06/15	SoundEarth	5.1	1.6	7.2	<1	<0.2
	MW21-20150804	08/04/15	SoundEarth	4.9	1.4	4.5	<1	<0.2
	MW21-20151208	12/08/15	SoundEarth	7.3	2.0	6.7	<1	<0.2
	MW21-20160309	03/09/16	SoundEarth	5.3	1.4	7.9	<1	<0.2
	MW21-20160713	07/13/16	SoundEarth	<1	<1	1.2	<1	<0.2
	MW21-20161020	10/20/16	SoundEarth	<1	<1	1.7	<1	<0.2
	MW21-20170126	01/26/17	SoundEarth	<1	<1	2.4	<1	<0.2
NAVA/24	MW21-20170601	06/01/17	SoundEarth	<1	<1	2.4	<1	<0.2
MW21	MW21-20170923	09/23/17	SoundEarth	<1	<1	3.7	<1	<0.2
	MW21-20171216	12/16/17	SoundEarth	<1	<1	14	<1	0.49
	MW21-20180310	03/10/18	SoundEarth	<1	<1	14	<1	0.43
	MW21-20180630	06/30/18	SoundEarth	<1	<1	6.0	<1	0.29
	MW21-20180922	09/22/18	SoundEarth	<1	<1	6.9	<1	0.30
	MW21-20181215	12/15/18	SoundEarth	<1	<1	16	<1	0.96
	MW21-20190615	06/15/19	SoundEarth	<1	<1	29	<1	1.1
	MW21-20191207	12/07/19	SoundEarth	<1	<1	34	<1	1.3
MTCA Cleanup Leve		1 - 1		5 ⁽²⁾	5 ⁽²⁾	16 ⁽³⁾	160 ⁽³⁾	0.2 ⁽²⁾



					An	alytical Results (μ	g/L)	
Sample Location	Sample Identification	Sample Date	Sampled By	PCE ⁽¹⁾	TCE ⁽¹⁾	cis-1-2-DCE ⁽¹⁾	trans-1-2-DCE ⁽¹⁾	Vinyl Chloride ⁽¹⁾
,	MW22-20150506	05/06/15	SoundEarth	11	2.2	27	<1	<0.2
	MW22-20150804	08/04/15	SoundEarth	17	3.0	34	<1	<0.2
	MW22-20151208	12/08/15	SoundEarth	19	3.7	42	<1	<0.2
	MW22-20160308	03/08/16	SoundEarth	28	4.5	52	<1	0.35
	MW22-20160713	07/13/16	SoundEarth	<1	<1	5.5	<1	<0.2
	MW22-20161020	10/20/16	SoundEarth	<1	<1	6.7	<1	0.65
	MW22-20170126	01/26/17	SoundEarth	<1	<1	8.5	<1	0.51
NAVA/22	MW22-20170601	06/01/17	SoundEarth	<1	<1	10	<1	1.5
MW22	MW22-20170923	09/23/17	SoundEarth	<1	<1	18	<1	1.4
	MW22-20171216	12/16/17	SoundEarth	<1	<1	22	<1	1.2
	MW22-20180310	03/10/18	SoundEarth	<1	<1	22	<1	1.3
	MW22-20180630	06/30/18	SoundEarth	<1	<1	28	<1	1.2
	MW22-20180922	09/22/18	SoundEarth	<1	<1	33	<1	0.90
	MW22-20181215	12/15/18	SoundEarth	<1	<1	37	<1	1.2
	MW22-20190615	06/15/19	SoundEarth	1.1	1.1	49	<1	1.0
	MW22-20191207	12/07/19	SoundEarth	1.3	1.3	48	<1	1.0
	MW23-20150507	05/07/15	SoundEarth	6.1	18	13	<1	<0.2
	MW23-20150804	08/04/15	SoundEarth	6.1	24	20	<1	0.20
	MW23-20151208	12/08/15	SoundEarth	3.8	16	120	<1	0.57
	MW23-20160308	03/08/16	SoundEarth	4.1	14	95	<1	0.64
	MW23-20160714	07/14/16	SoundEarth	<1	1.6	14	<1	2.2
	MW23-20161020	10/20/16	SoundEarth	<1	2.1	9.9	<1	0.48
	MW23-20170126	01/26/17	SoundEarth	<1	2.9	41	<1	1.4
144422	MW23-20170601	06/01/17	SoundEarth	<1	2.7	23	<1	0.74
MW23	MW23-20170923	09/23/17	SoundEarth	<1	1.7	16	<1	0.50
	MW23-20171216	12/16/17	SoundEarth	<1	1.3	14	<1	0.51
	MW23-20180310	03/10/18	SoundEarth	<1	<1	20	<1	0.52
	MW23-20180630	06/30/18	SoundEarth	<1	<1	14	<1	0.53
	MW23-20180922	09/22/18	SoundEarth	<1	<1	16	<1	0.53
	MW23-20181215	12/15/18	SoundEarth	<1	<1	17	<1	<0.2
	MW23-20190615	06/15/19	SoundEarth	<1	<1	25	<1	0.72
	MW23-20191207	12/07/19	SoundEarth	<1	<1	38	<1	0.89
	MW24-20150506	05/06/15	SoundEarth	2.5	31	72	<1	0.26
	MW24-20150804	08/04/15	SoundEarth	5.5	28	75	<1	<0.2
	MW24-20151208	12/08/15	SoundEarth	11	28	54	<1	<0.2
	MW24-20160309	03/09/16	SoundEarth	11	23	45	<1	<0.2
	MW24-20160715	07/15/16	CoundForth	<1	1.7	12	<1	<0.2
	MW98-20160715 (DUP)	07/15/16	SoundEarth	<1	1.8	12	<1	<0.2
	MW24-20161020	10/20/16	SoundEarth	<1	2.7	12	<1	0.26
	MW24-20170125	01/25/17	SoundEarth	<1	3.5	20	<1	0.81
MW24	MW24-20170601	06/01/17	SoundEarth	1.1	4.8	35	<1	1.0
	MW24-20170924	09/24/17	SoundEarth	<1	1.8	33	<1	0.36
	MW24-20171216	12/16/17	SoundEarth	<1	1.3	30	<1	0.38
	MW24-20180310	03/10/18	SoundEarth	<1	<1	25	<1	0.36
	MW24-20180630	06/30/18	SoundEarth	1.5	1.9	41	<1	2.1
	MW24-20180922	09/22/18	SoundEarth	<1	<1	35	<1	0.37
	MW24-20181215	12/15/18	SoundEarth	<1	<1	43	<1	0.51
	MW24-20190615	06/15/19	SoundEarth	<1	<1	84	<1	1.0
	MW24-20191207	12/07/19	SoundEarth	<1	<1	83	<1	0.94
MTCA Cleanup Leve	el			5 ⁽²⁾	5 ⁽²⁾	16 ⁽³⁾	160 ⁽³⁾	0.2 ⁽²⁾



					An	alytical Results (με	g/L)	
				(4)	(4)	(4)	(4)	/41
Sample Location	Sample Identification	Sample Date	Sampled By	PCE ⁽¹⁾	TCE ⁽¹⁾	cis-1-2-DCE ⁽¹⁾		Vinyl Chloride ⁽¹⁾
-	MW25-20150507	05/07/15	SoundEarth	<1	68	5.2		<0.2
-	MW99-20150507 (DUP)			<1	69	5.3		<0.2
-	MW25-20150805	08/05/15	SoundEarth	3.0	75	7.9		<0.2
-	MW99-20150805 (DUP)			2.9	73	7.8		<0.2
-	MW25-20151209	12/09/15	SoundEarth	11	71	8.4		<0.2
-	MW99-20151209 (DUP)			11	72	8.3		<0.2
	MW25-20160308	03/08/16	SoundEarth	24	50	12		<0.2
	MW99-20160308(DUP)			25	50	12		<0.2
-	MW25-20160713	07/13/16	SoundEarth	6.1	4.8	23	<1	0.70
	MW25-20161019	10/19/16	SoundEarth	1.8	5.1	15	<1	0.96
	MW99-20161019 (DUP)	-, -, -		1.7	5.0	16	<1	1.0
	MW25-20170125	01/25/17	SoundEarth	1.0	3.6	44	<1	0.89
_	MW99-20170125 (DUP)	01/20/1/	554.1424.61	1.1	3.7	44	<1	0.92
_	MW25-20170601	06/01/17	SoundEarth	<1	1.2	15	<1	0.31
	MW99-20170601 (DUP)	00/01/17	SoundEarth	<1	1.3	15	<1	0.41
MW25	MW25-20170923	09/23/17	SoundEarth	<1	<1	15	<1	0.40
	MW99-20170923 (DUP)	09/23/17	SoundEarth	<1	<1	15	<1	0.34
	MW25-20171216	12/16/17	C	<1	<1	23	<1	0.41
	MW99-20171216 (DUP)	12/16/17	SoundEarth	<1	<1	23	<1	0.40
Ī	MW25-20180310	/ /		<1	<1	25		0.32
	MW99-20180310 (DUP)	03/10/18	SoundEarth	<1	<1	25		0.30
	MW25-20180630			<1	<1	31		0.52
	MW99-20180630 (DUP)	06/30/18	SoundEarth	<1	<1	32		0.49
<u> </u>	MW25-20180922			<1	<1	37		0.46
<u> </u>	MW99-20180922 (DUP)	09/22/18	SoundEarth	<1	<1	36		0.51
	MW25-20181215			<1	<1	40		0.60
	MW99-20181215 (DUP)	12/15/18	SoundEarth	<1	<1	39		0.57
-				<1	<1	45		
-	MW25-20190615	06/15/19	SoundEarth			43		0.54
}	MW99-20190615 (DUP)			<1	<1			0.50
-	MW25-20191207	12/07/19	SoundEarth	<1	<1	40		0.63
	MW99-20191207 (DUP)			<1	<1	36		0.58
-	IW04-20150508	05/08/15	SoundEarth	<1	15	1.9		<0.2
-	IW04-20160309	03/09/16	SoundEarth	<1	2.5	11		<0.2
-	IW04-20160714	07/14/16	SoundEarth	<1	<1	<1		<0.2
-	IW04-20161021	10/21/16	SoundEarth	<1	<1	1.8		<0.2
	IW04-20170126	01/26/17	SoundEarth	<1	1.1	4.8		<0.2
	IW04-20170601	06/01/17	SoundEarth	<1	1.2	12	<1	0.21
IW04	IW04-20170923	09/23/17	SoundEarth	<1	<1	14	<1	0.22
	IW04-20171216	12/16/17	SoundEarth	<1	<1	19	<1	0.54
Į	IW04-20180310	03/10/18	SoundEarth	<1	<1	9.0	<1	0.65
	IW04-20180630	06/30/18	SoundEarth	<1	<1	5.3	<1	0.68
	IW04-20180922	09/22/18	SoundEarth	<1	<1	<1	<1	<0.2
	IW04-20181215	12/15/18	SoundEarth	<1	<1	1.9	<1	1.6
ļ	IW04-20190615	06/15/19	SoundEarth	<1	<1	1.7		1.0
ļ	IW04-20191207	12/07/19	SoundEarth	<1	<1	1.4		1.1
	IW06-20150507	05/07/15	SoundEarth	6.3	13	<1		<0.2
ļ	IW06-20180310	03/10/18	SoundEarth	<1	<1	1.6		<0.2
ļ.,,,,	IW06-20180630	06/30/18	SoundEarth	<1	<1	<1		<0.2
IW06	IW06-20181215	12/15/18	SoundEarth	1.0	<1	<1		<0.2
Į.		06/15/19	SoundEarth	1.7	<1	<1		<0.2
l				1./	T	~1		~U.Z
F	IW06-20190615 IW06-20191207	12/07/19	SoundEarth	1.4	<1	<1	_1	<0.2



					An	alytical Results (με	g/L)	
Sample Location	Sample Identification	Sample Date	Sampled By	PCE ⁽¹⁾	TCE ⁽¹⁾	cis-1-2-DCE ⁽¹⁾	trans-1-2-DCE ⁽¹⁾	Vinyl Chloride ⁽¹
	IW50-20150803	08/03/15	SoundEarth	4.1	8.1	44	<1	<0.2
	IW50-20151208	12/08/15	SoundEarth	<1	<1	140	<1	1.8
	IW50-20160309	03/09/16	SoundEarth	<1	<1	110	<1	1.9
	IW50-20160715	07/15/16	SoundEarth	3.7	<1	38	<1	2.5
	IW50-20161021	10/21/16	SoundEarth	3.7	<1	23	<1	1.0
	IW50-20170126	01/26/17	SoundEarth	13	2.1	34	<1	0.74
	IW50-20170602	06/02/17	SoundEarth	<1	<1	81	<1	0.95
IW50	IW50-20170924	09/24/17	SoundEarth	<1	<1	26	<1	2.6
	IW50-20171216	12/16/17	SoundEarth	<1	<1	15	<1	2.2
	IW50-20180310	03/10/18	SoundEarth	<1	<1	8.0	<1	3.6
	IW50-20180630	06/30/18	SoundEarth	<1	<1	4.5	<1	2.5
	IW50-20180922	09/22/18	SoundEarth	<1	<1	5.1	<1	2.9
	IW50-20181215	12/15/18	SoundEarth	1.6	<1	15	<1	4.5
	IW50-20190615	06/15/19	SoundEarth	5.2	2.0	54	<1	7.1
	IW50-20191207	12/07/19	SoundEarth	4.5	1.6	55	<1	7.4
	IW61-20151208	12/08/15	SoundEarth	10	2.8	120	<1	0.86
	IW61-20160309	03/09/16	SoundEarth	23	4.2	140	<1	1.7
	IW61-20160714	07/14/16	SoundEarth	8.3	1.6	24	<1	1.6
	IW61-20161021	10/21/16	SoundEarth	9.5	2.8	34	<1	0.96
	IW61-20170126	01/26/17	SoundEarth	8.3	2.9	32	<1	0.96
	IW61-20170602	06/02/17	SoundEarth	9.9	3.4	41	<1	1.3
	IW61-20170923	09/23/17	SoundEarth	12	3.2	45	<1	1.2
IW61	IW61-20171216	12/16/17	SoundEarth	15	3.2	65	<1	1.2
	IW61-20180310	03/10/18	SoundEarth	15	2.7	71	<1	1.1
	IW61-20180323*	03/23/18	SoundEarth	15	2.9	82	<1	1.3
	IW61-20180630	06/30/18	SoundEarth	16	2.5	67	<1	1.7
	IW61-20180922	09/22/18	SoundEarth	13	2.1	63	<1	1.8
	IW61-20181215	12/15/18	SoundEarth	15	2.1	58	<1	2.0
	IW61-20190615	06/15/19	SoundEarth	13	2.4	71	<1	2.9
	IW61-20191207	12/07/19	SoundEarth	6.8	1.7	65	<1	4.0
	IW91-20150506	05/06/15	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20150804	08/04/15	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20151208	12/08/15	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20160309	03/09/16	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20160714	07/14/16	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20161020	10/20/16	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20170126	01/26/17	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20170601	06/01/17	SoundEarth	<1	<1	<1	<1	<0.2
IW91	IW91-20170923	09/23/17	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20171216	12/16/17	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20180310	03/10/18	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20180630	06/30/18	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20180922	09/22/18	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20181215	12/15/18	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20190615	06/15/19	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20191207	12/07/19	SoundEarth	<1	<1	<1	<1	<0.2
TCA Cleanup Leve		12,0,110	554424141	5 ⁽²⁾	5 ⁽²⁾	16 ⁽³⁾	160 ⁽³⁾	0.2 ⁽²⁾



					Ar	nalytical Results (μ	g/L)	
Sample Location	Sample Identification	Sample Date	Sampled By	PCE ⁽¹⁾	TCE ⁽¹⁾	cis-1-2-DCE ⁽¹⁾	trans-1-2-DCE ⁽¹⁾	Vinyl Chloride ⁽¹⁾
Sample Location	Sample Identification	Sample Date		Avenue North	ICL	CIS-1-2-DCL	trans-1-2-DCL	Villyl Cilionae
	MW04-20110527	05/27/11	SoundEarth	<1	15	<1	<1	<0.2
	MW04-20111012	10/12/11	SoundEarth	<1	15	<1	<1	<0.2
	MW04-20130909	09/09/13	SoundEarth	<1	22	15	<1	<0.2
	MW04-20150508	05/08/15	SoundEarth	1.4	13	4.2	<1	<0.2
	MW04-20150806	08/06/15	SoundEarth	<1	6.9	1.0	<1	<0.2
	MW04-20151209	12/09/15	SoundEarth	<1	9.2	<1	<1	<0.2
	MW04-20160308	03/08/16	SoundEarth	<1	9.6	1.1	<1	<0.2
	MW04-20160713	07/13/16	SoundEarth	1.0	8.9	1.3	<1	<0.2
	MW04-20161019	10/19/16	SoundEarth	<1	5.5	<1	<1	<0.2
MW04	MW04-20170124	01/24/17	SoundEarth	<1	9.4	<1	<1	<0.2
	MW04-20170531	05/31/17	SoundEarth	<1	9.3	<1	<1	<0.2
	MW04-20170921	09/21/17	SoundEarth	<1	5.7	3.2	<1	<0.2
	MW04-20171214	12/14/17	SoundEarth	<1	8.0	2.4	<1	<0.2
	MW04-20180309	03/09/18	SoundEarth	<1	8.6	<1	<1	<0.2
	MW04-20180629	06/29/18	SoundEarth	<1	9.4	<1	<1	<0.2
	MW04-20180920	09/20/18	SoundEarth	<1	9.4	<1	<1	<0.2
	MW04-20181214	12/14/18	SoundEarth	<1	10	<1	<1	<0.2
	MW04-20190614	06/14/19	SoundEarth	<1	11	<1	<1	<0.2
	MW04-20191205	12/05/19	SoundEarth	<1	11	<1	<1	<0.2
	MW05-20110527	05/27/11	SoundEarth	39	16	1.8	<1	<0.2
MW05	MW05-20111012	10/12/11	SoundEarth	29	14	1.5	<1	<0.2
	MW05-20130910	09/10/13	SoundEarth	21	13	1.9	<1	<0.2
		T		DECOMMISSION	ED 2015	1	1	
	MW07-20110531	05/31/11	SoundEarth	1.4	12	2.3	<1	<0.2
	MW07-20111012	10/12/11	SoundEarth	2.2	11	1.8	<1	<0.2
	MW07-20130909	09/09/13	SoundEarth	1.5	33	5.4	<1	<0.2
	MW07-20150508	05/08/15	SoundEarth	2.5	15	4.8	<1	<0.2
	MW07-20150805	08/05/15	SoundEarth	1.8	12	3.2	<1	<0.2
	MW07-20151209	12/09/15	SoundEarth	2.3	14	4.1	<1	<0.2
	MW07-20160308	03/08/16	SoundEarth	2.6	13	3.8	<1	<0.2
	MW07-20160713	07/13/16	SoundEarth	3.0	18	5.7	<1	<0.2
MW07	MW07-20161019	10/19/16	SoundEarth	3.5	13	2.3	<1	<0.2
	MW07-20170124	01/24/17	SoundEarth	4.8	8.1	<1	<1	<0.2
	MW07-20170531	05/31/17	SoundEarth	4.7	8.6	<1	<1	<0.2
	MW07-20180308	03/08/18	SoundEarth	2.6	11	1.1	<1	<0.2
	MW07-20180629	06/29/18	SoundEarth	3.3	7.3	<1	<1	<0.2
	MW07-20180920	09/20/18	SoundEarth	2.8	6.0	<1	<1	<0.2
	MW07-20181214	12/14/18	SoundEarth	3.3	6.7	<1	<1	<0.2
	MW07-20190614	06/14/19	SoundEarth	3.9	5.9	<1	<1	<0.2
	MW07-20191205	12/05/19	SoundEarth	3.3	5.9	<1	<1	<0.2
MTCA Cleanup Leve	l			5 ⁽²⁾	5 ⁽²⁾	16 ⁽³⁾	160 ⁽³⁾	0.2 ⁽²⁾



				Analytical Results (μg/L)						
Sample Location	Sample Identification	Sample Date	Sampled By	PCE ⁽¹⁾	TCE ⁽¹⁾	cis-1-2-DCE ⁽¹⁾	trans-1-2-DCE ⁽¹⁾	Vinyl Chloride ⁽¹		
Jampie Location	MW13-20111020	10/20/11	SoundEarth	5.1	1.2	<1	<1	<0.2		
	MW13-20130910	09/10/13	SoundEarth	11	1.4	<1	<1	<0.2		
	MW13-20150511	05/11/15	SoundEarth	4.6 ^{cf}	1.7 ^{cf}	<1 ^{cf}	<1 ^{cf}	<0.2 ^{cf}		
	MW13-20150805	08/05/15	SoundEarth	5.4	2.3	<1	<1	<0.2		
	MW13-20151215	12/15/15	SoundEarth	5.6	1.6	<1	<1	<0.2		
	MW13-20160307	03/07/16	SoundEarth	6.6	1.6	<1	<1	<0.2		
	MW13-20160712	07/12/16	SoundEarth	6.5	1.6	<1	<1	<0.2		
	MW13-20161019	10/19/16	SoundEarth	10	2.2	<1	<1	<0.2		
MW13	MW13-20170124	01/24/17	SoundEarth	6.4	1.0	<1	<1	<0.2		
	MW13-20170531	05/31/17	SoundEarth	10	1.5	<1	<1	<0.2		
-	MW13-20170921	09/21/17	SoundEarth	8.4	1.8	<1	<1	<0.2		
-	MW13-20171214	12/14/17	SoundEarth	5.2	1.4	<1	<1	<0.2		
-	MW13-20180308	03/08/18	SoundEarth	8.0	1.4	<1	<1	<0.2		
	MW13-20180629	06/29/18	SoundEarth	4.4	<1	<1	<1	<0.2		
-	MW13-20180920	09/20/18	SoundEarth	6.5	1.3	<1	<1	<0.2		
	MW13-20181214	12/14/18	SoundEarth	7.8	1.4	<1	<1	<0.2		
-	MW13-20190614	06/14/19	SoundEarth	7.0	1.1	<1	<1	<0.2		
	MW13-20191205	12/05/19	SoundEarth	7.7	1.1	<1	<1	<0.2		
-	MW27-20151210	12/10/15	SoundEarth	<1	21	2.5	<1	<0.2		
	MW27-20160307	03/07/16	SoundEarth	<1	21	3.8	<1	<0.2		
-	MW27-20160713	07/13/16	SoundEarth	<1	18	4.5	<1	<0.2		
-	MW27-20161019	10/19/16	SoundEarth	<1	23	4.8	<1	<0.2		
-	MW27-20170124	01/24/17	SoundEarth	<1	33	13	<1	<0.2		
-	MW27-20170531	05/31/17	SoundEarth	<1	18	5.5	<1	<0.2		
MW27	MW27-20170921	09/21/17	SoundEarth	<1	16	4.0	<1	<0.2		
1010027	MW27-20171214	12/14/17	SoundEarth	<1	81 60	4.4	<1	<0.2		
-	MW27-20171229	12/29/17	SoundEarth	<1		3.5 <1	<1	<0.2		
-	MW27-20180308 MW27-20180628	03/08/18 06/28/18	SoundEarth SoundEarth	<1 <1	13 37	3.4	<1 <1	<0.2 <0.2		
-	MW27-20180028	09/20/18	SoundEarth	<1	21	3.7	<1	<0.2		
-	MW27-20180920	12/14/18	SoundEarth	<1	17	4.3	<1	<0.2		
-	MW27-20181214 MW27-20190614	06/14/19	SoundEarth	<1	14	2.3	<1	<0.2		
-	MW27-20190014	12/05/19	SoundEarth	<1	15	2.2	<1	<0.2		
	MW31-20191009	10/09/19	SoundEarth	<1	1.8	<1	<1	<0.2		
MW31	MW31-20191205	12/05/19	SoundEarth	<1	3.3	<1	<1	<0.2		
				Avenue North	•	•	•			
	MW15-20121211	12/11/12	SoundEarth	<1	8.2	<1	<1	<0.2		
	MW15-20121221	12/21/12	SoundEarth	<1	7.2	<1	<1	<0.2		
	MW15-20130910	09/10/13	SoundEarth	<1	8.6	<1	<1	<0.2		
	MW15-20150508	05/08/15	SoundEarth	<1	6.5	<1	<1	<0.2		
	MW15-20150805	08/05/15	SoundEarth	<1	5.3	<1	<1	<0.2		
	MW15-20151209	12/09/15	SoundEarth	<1	6.8	<1	<1	<0.2		
	MW15-20160308	03/08/16	SoundEarth	<1	6.7	<1	<1	<0.2		
	MW15-20160713	07/13/16	SoundEarth	<1	5.8	<1	<1	<0.2		
<u> </u>	MW15-20161018	10/18/16	SoundEarth	<1	5.3	<1	<1	<0.2		
MW15	MW15-20170125	01/25/17	SoundEarth	<1	7.4	<1	<1	<0.2		
	MW15-20170531	05/31/17	SoundEarth	<1	7.9	<1	<1	<0.2		
_	MW15-20170922	09/22/17	SoundEarth	<1	3.9	<1	<1	<0.2		
	MW15-20171215	12/15/17	SoundEarth	<1	3.0	<1	<1	<0.2		
	MW15-20180309	03/09/18	SoundEarth	<1	3.3	<1	<1	<0.2		
	MW15-20180629	06/29/18	SoundEarth	<1	5.1	<1	<1	<0.2		
	MW15-20180920	09/20/18	SoundEarth	<1	6.9	<1	<1	<0.2		
	MW15-20181214	12/14/18	SoundEarth	<1	7.0	<1	<1	<0.2		
-	MW15-20190613	06/13/19	SoundEarth	<1	6.8	<1	<1	<0.2		
_	MW15-20191205	12/05/19	SoundEarth	<1	4.9	<1	<1	<0.2		
ITCA Cleanup Leve	I			5 ⁽²⁾	5 ⁽²⁾	16 ⁽³⁾	160 ⁽³⁾	0.2 ⁽²⁾		



					An	alytical Results (μ	g/L)	
Sample Location	Sample Identification	Sample Date	Sampled By	PCE ⁽¹⁾	TCE ⁽¹⁾	cis-1-2-DCE ⁽¹⁾	trans-1-2-DCE ⁽¹⁾	Vinyl Chloride ⁽¹⁾
			The	omas Street				
	MW14-20111020	10/20/11	SoundEarth	<1	<1	<1	<1	<0.2
MW14	MW14-20130911	09/11/13	SoundEarth	<1	<1	<1	<1	<0.2
				DECOMMISSION		ı	1	I
	MW16-20121211	12/11/12	SoundEarth	16	12	220	<1	0.69
	MW16-20130911	09/11/13	SoundEarth	6.4	5.0	610	<1	1.9
	MW16-20150508	05/08/15	SoundEarth	7.5	7.6	640	<1	2.8
	MW16-20150805	08/05/15	SoundEarth	7.8	7.3	550	<1	2.4
	MW16-20151210	12/10/15	SoundEarth	5.3	4.5	510	<1	3.2
	MW16-20160308	03/08/16	SoundEarth	3.7	2.0	190	<1	1.3
MW16	MW16-20160712	07/12/16	SoundEarth	<1	<1	160	<1	2.0
	MW16-20161019	10/19/16	SoundEarth	5.0	5.4	170	<1	1.2
	MW16-20170125	01/25/17	SoundEarth	6.4	6.8	220	<1	0.98
	MW16-20170531	05/31/17	SoundEarth	5.7	4.4	100	<1	0.49
	MW16-20170922	09/22/17	SoundEarth	5.4	5.2	78	<1	0.40
	MW16-20171229	12/29/17	SoundEarth	7.2	6.4	150	<1	0.89
	MW16-20180309	03/09/18	SoundEarth	7.3	5.5	80	<1	0.35
	MW/20 2010021F	02/15/10	CoundForth	WELL DAMAGE		67	-1	0.47
	MW28-20190315	03/15/19	SoundEarth	7.7 9.0	4.7 5.7	67 80	<1	0.47
MW28	MW28-20190613	06/13/19	SoundEarth				<1	0.35
	MW28-20191009	10/09/19	SoundEarth	8.7	6.1	72	<1	0.31
	MW28-20191204	12/04/19	SoundEarth	8.4 w Avenue North	4.9	52	<1	0.27
MW-C	MW-C-20130911	09/11/13	SoundEarth	<1	<1	<1	<1	<0.2
10100 C	WW C 20130311	03/11/13		rison Street	\ <u></u>	\1	\1	VO.2
	MW01-20110525	05/25/11	SoundEarth	<1	<1	<1	<1	<0.2
	MW01-20111011	10/11/11	SoundEarth	<1	<1	<1	<1	<0.2
	MW01-20130910	09/10/13	SoundEarth	<1	1.4	<1	<1	<0.2
	MW01-20150806	08/06/15	SoundEarth	<1	<1	<1	<1	<0.2
	MW01-20160308	03/08/16	SoundEarth	<1	<1	<1	<1	<0.2
	MW01-20160712	07/12/16	SoundEarth	<1	<1	<1	<1	<0.2
	MW01-20161018	10/18/16	SoundEarth	<1	<1	<1	<1	<0.2
MW01	MW01-20170124	01/24/17	SoundEarth	<1	<1	<1	<1	<0.2
IVIVVOI	MW01-20170531	05/31/17	SoundEarth	<1	<1	<1	<1	<0.2
	MW01-20171214	12/14/17	SoundEarth	<1	<1	<1	<1	<0.2
	MW01-20180309	03/09/18	SoundEarth	<1	<1	<1	<1	<0.2
	MW01-20180628	06/28/18	SoundEarth	<1	1.1	<1	<1	<0.2
	MW01-20180920	09/20/18	SoundEarth	<1	<1	<1	<1	<0.2
	MW01-20181214	12/14/18	SoundEarth	<1	1.1	<1	<1	<0.2
	MW01-20190614	06/14/19	SoundEarth	<1	<1	<1	<1	<0.2
	MW01-20191205	12/05/19	SoundEarth	<1	<1	<1	<1	<0.2
	MW02-20110525	05/25/11	SoundEarth	<1	5.2	<1	<1	<0.2
MW02	MW02-20111011	10/11/11	SoundEarth	<1	3.0	<1	<1	<0.2
1414402	MW02-20130911	09/11/13	SoundEarth	<1	3.6	<1	<1	<0.2
				DECOMMISSION	IED 2015			
	MW03-20110527	05/27/11	SoundEarth	<1	<1	<1	<1	<0.2
MW03	MW03-20111011	10/11/11	SoundEarth	<1	<1	<1	<1	<0.2
1414403	MW03-20130911	09/11/13	SoundEarth	<1	<1	<1	<1	<0.2
				DECOMMISSION		T		
MTCA Cleanup Leve	el			5 ⁽²⁾	5 ⁽²⁾	16 ⁽³⁾	160 ⁽³⁾	0.2 ⁽²⁾



					An	alytical Results (μ	g/L)	
Sample Location	Sample Identification	Sample Date	Sampled By	PCE ⁽¹⁾	TCE ⁽¹⁾	cis-1-2-DCE ⁽¹⁾	trans-1-2-DCE ⁽¹⁾	Vinyl Chloride ⁽¹⁾
	MW26-20151210	12/10/15	SoundEarth	<1	11	<1	<1	<0.2
	MW26-20160307	03/07/16	SoundEarth	<1	10	<1	<1	<0.2
	MW26-20160712	07/12/16	SoundEarth	<1	12	<1	<1	<0.2
	MW26-20161018	10/18/16	SoundEarth	<1	12	<1	<1	<0.2
	MW26-20170124	01/24/17	SoundEarth	<1	13	<1	<1	<0.2
	MW26-20170531	05/31/17	SoundEarth	<1	7.9	<1	<1	<0.2
MW26	MW26-20170921	09/21/17	SoundEarth	<1	7.1	<1	<1	<0.2
1010020	MW26-20171214	12/14/17	SoundEarth	<1	15	1.4	<1	<0.2
	MW26-20180309	03/09/18	SoundEarth	<1	6.0	<1	<1	<0.2
	MW26-20180628	06/28/18	SoundEarth	<1	18	<1	<1	<0.2
	MW26-20180920	09/20/18	SoundEarth	<1	18	<1	<1	<0.2
	MW26-20181214	12/14/18	SoundEarth	<1	20	<1	<1	<0.2
	MW26-20190614	06/14/19	SoundEarth	<1	20	<1	<1	<0.2
	MW26-20191205	12/05/19	SoundEarth	<1	13	<1	<1	<0.2
MW32	MW32-20191009	10/09/19	SoundEarth	<1	<1	<1	<1	<0.2
1010032	MW32-20191205	12/05/19	SoundEarth	<1	<1	<1	<1	<0.2
MW33	MW33-20191009	10/09/19	SoundEarth	<1	<1	<1	<1	<0.2
IVIVV33	MW33-20191205	12/05/19	SoundEarth	<1	<1	<1	<1	<0.2
SMW06	SMW06-20130910	09/10/13	SoundEarth	<1	<1	<1	<1	<0.2
			Westlal	ke Avenue North				
SMW09	SMW09-20130910	09/10/13	SoundEarth	<1	<1	<1	<1	<0.2
			South-A	djoining Property				
MW29	MW29-20191008	10/08/19	SoundEarth	8.6	9.4	52	<1	0.64
1414425	MW29-20191204	12/04/19	SoundEarth	16	12	26	<1	0.40
MW30	MW30-20191008	10/08/19	SoundEarth	<1	3.6	24	<1	<0.2
1414450	MW30-20191204	12/04/19	SoundEarth	<1	2.0	11	<1	<0.2
ONNI-MW-4	ONNI-MW-4-20191208	12/08/19	SoundEarth	<1	<1	<1	<1	<0.2
ONNI-MW-5	ONNI-MW-5-20191208	12/08/19	SoundEarth	<1	<1	<1	<1	0.28
CIVINI IVIVV 3	ONNI-MW-5-20200206	02/06/20	SoundEarth	<1	<1	<1	<1	<0.2
			North-A	djoining Property				
SLU-MW01	MW01-20120229	02/29/12 ⁽⁴⁾	SoundEarth	<1	<1	<1	<1	<0.2
		(4)		DECOMMISSION	I		1	
SLU-MW02	MW02-20120229	02/29/12 ⁽⁴⁾	SoundEarth	<1 DECOMMISSION	<1 FD 2013	<1	<1	<0.2
MTCA Cleanup Leve				5 ⁽²⁾	5 ⁽²⁾	16 ⁽³⁾	160 ⁽³⁾	0.2 ⁽²⁾

NOTES:

Red denotes concentrations exceeding the MTCA Method cleanup level for groundwater.

< = not detected at a concentration exceeding laboratory reporting limit

μg/L = micrograms per liter

CLARC = Cleanup Levels and Risk Calculations

DCE = dichloroethene

MTCA = Washington State Model Toxics Control Act

PCE = tetrachloroethene

 ${\bf SoundEarth = SoundEarth \ Strategies, \ Inc.}$

TCF = trichloroethene

WAC = Washington Administrative Code

⁽¹⁾Analyzed by US Environmental Protection Agency Method 8260C, 8021B, or 8240.

 $^{^{(2)}}$ MTCA Method A Cleanup Levels, Table 720-1 of Section 900 of Chapter 173-340 of WAC, revised November 2007.

⁽³⁾ MTCA Cleanup Regulation, Chapter 173-340 of WAC, CLARC, Groundwater, Method B, Non-Carcinogen, Standard Formula CVOC = chlorinated volatile organic compound $Value, CLARC\ Website\ < https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.$

⁽⁴⁾Sample data compiled from reports on file at the Washington State Department of Ecology.

 $[\]ensuremath{^{\text{cf}}} \text{The sample was centrifuged prior to analysis.}$

 $^{^{\}mathrm{ve}}\mathsf{Estimated}$ concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

^{*}The sample was collected with a passive diffusion bag.



						An	alytical Results (με	g/L)		
Sample Location	Sample Identification	Sample Date	Sampled By	DRPH ⁽¹⁾	ORPH ⁽¹⁾	GRPH ⁽²⁾	Benzene ⁽³⁾	Toluene ⁽³⁾	Ethylbenzene ⁽³⁾	Total Xylenes ⁽³
				Troy La	undry Property					
	MW06-20110531	05/31/11	SoundEarth	330 ^x	<250	<100	<1	<1	<1	<3
MW06	MW06-20111011	10/10/11	SoundEarth	83 ^x	<250	<100	<1	<1	<1	<3
	MW06-20130909	09/09/13	SoundEarth	150 ^x	<250	<100	<1	<1	<1	<3
		1	1		DECOMMISSIONE			1		1
	MW08-20111013	10/13/11	SoundEarth	<50	<250	<100	<1	<1	<1	<3
MW08	MW08-20130910	09/10/13	SoundEarth	120 ^X	<250	<100	<1	<1	<1	<3
				1	DECOMMISSIONE	2013				
	MW09-20111013	10/13/11	SoundEarth	240 ^x	<250	1,400	<1	<1	2.7	10
MW09	MW09-20130910	09/10/13	SoundEarth	<50	<250	<100	<1	<1	<1	<3
					DECOMMISSIONE	2013				
	MW10-20111012	10/12/11	SoundEarth	68 ^x	<250	<100	<1	<1	<1	<3
MW10	MW10-20130909	09/09/13	SoundEarth	<50	<250	<100	<1	<1	<1	<3
					DECOMMISSIONE	2013				
	MW11-20111013	10/13/11	SoundEarth	110 ^x	<250	<100	<1	<1	<1	<3
MW11	MW11-20130909	09/09/13	SoundEarth	97 ^x	<250	<100	<1	<1	<1	<3
					DECOMMISSIONE	2013				
	MW12-20111017	10/17/11	SoundEarth	<50	<250	<100	<1	<1	<1	<3
MW12	MW12-20130909	09/09/13	SoundEarth	<50	<250	<100	<1	<1	<1	<3
					DECOMMISSIONE	2013				
	MW17-20150506	05/06/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW17-20150804	08/04/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW17-20151207	12/07/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW17-20160308	03/08/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW17-20160714	07/14/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW17-20161020	10/20/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW17-20170126	01/26/17	SoundEarth	<50	<250	<100	< 0.35	<1	<1	<3
MW17	MW17-20170601	06/01/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
1010017	MW17-20170923	09/23/17	SoundEarth	<50	<250	<100	< 0.35	<1	<1	<3
	MW17-20171216	12/16/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW17-20180310	03/10/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW17-20180630	06/30/18	SoundEarth	<60	<300	<100	<1	<1	<1	<3
	MW17-20180922	09/22/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
Ī	MW17-20181215	12/15/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW17-20190615	06/15/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW17-20191207	12/07/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
ATCA Cleanup Lev	el			500 ⁽⁴⁾	500 ⁽⁴⁾	1,000/800 ⁽⁴⁾⁽⁵⁾	5 ⁽⁴⁾	1,000 ⁽⁴⁾	700 ⁽⁴⁾	1,000 ⁽⁴⁾



						An	alytical Results (με	z/L)		
ample Location	Sample Identification	Sample Date	Sampled By	DRPH ⁽¹⁾	ORPH ⁽¹⁾	GRPH ⁽²⁾	Benzene ⁽³⁾	Toluene ⁽³⁾	Ethylbenzene ⁽³⁾	Total Xylenes ⁽
	MW18-20150506	05/06/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW18-20150803	08/03/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW18-20151208	12/08/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW18-20160308	03/08/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW18-20160714	07/14/16	SoundEarth	31,000 ^{x, ip}	5,100 ^{x, ip}	<100	<0.35	<1	<1	<3
	MW18-20161020	10/20/16	SoundEarth	61,000 ^{x, ip}	<8,400 ^{x, ip}	1,100 ^x	<0.35	<1	<1	<3
	MW18-20170126	01/26/17	SoundEarth	22,000 ^{x, ip}	3,500 ^{x, ip}	840	<0.35	<1	<1	<3
NAVA/10	MW18-20170601	06/01/17	SoundEarth	77,000 ^{x, ip}	1,600 ^{x, ip}	470	<0.35	<1	<1	<3
MW18	MW18-20170923	09/23/17	SoundEarth	34,000 ^x	<3,500	210	<0.35	<1	<1	<3
	MW18-20171216	12/16/17	SoundEarth	18,000 ^{x, ip}	<2,500 ^{ip}	380	<0.35	<1	<1	<3
	MW18-20180310	03/10/18	SoundEarth	6,000 ^x	<2,500	390	<1	1.3	<1	<3
	MW18-20180630	06/30/18	SoundEarth	12,000 ^x	1,600 ^x	230	<1	1.3	<1	12
	MW18-20180922	09/22/18	SoundEarth	1,400 ^{x, ip}	<2,500 ^{ip}	290	<1	<1	<1	6.9
	MW18-20181215	12/15/18	SoundEarth	1,600 ^x	490 ^x	<100	<1	<1	<1	<3
	MW18-20190615	06/15/19	SoundEarth	1,100 ^x	830 ^x	<100	<1	<1	<1	<3
	MW18-20191207	12/07/19	SoundEarth	830 ^x	480 ^x	<100	<1	<1	<1	<3
	MW19-20150507	05/07/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW19-20150803	08/03/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW19-20151207	12/07/15	SoundEarth	85 ^x	<250	<100	<0.35	<1	<1	<3
	MW19-20160308	03/08/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW19-20160713	07/13/16	SoundEarth	21,000 ^{x, ip}	4,100 ^{x, ip}	<100	<0.35	<1	<1	<3
	MW19-20161021	10/21/16	SoundEarth	18,000 ^{x, ip}	2,300 ^{x, ip}	<100	<0.35	<1	<1	<3
	MW19-20170125	01/25/17	SoundEarth	29,000 ^x	4,400 ^x	210 ^x	<0.35	<1	<1	<3
MW19	MW19-20170601	06/01/17	SoundEarth	31,000 ^{x, ip}	3,400 ^{x, ip}	180	<0.35	<1	<1	<3
	MW19-20170923	09/23/17	SoundEarth	27,000 ^{x, ip}	<3,000 ^{ip}	150	<0.35	<1	<1	<3
	MW19-20171216	12/16/17	SoundEarth	9,700 ^{x, ip}	<2,500 ^{ip}	470	<0.35	<1	<1	<3
	MW19-20180310	03/10/18	SoundEarth	1,600 ^x	<2,500	250	<1	<1	<1	<3
	MW19-20180630	06/30/18	SoundEarth	13,000 ^x	820 ^x	310	<1	<1	<1	9.6
	MW19-20180922	09/22/18	SoundEarth	3,300 ^{x, ip}	<2,500 ^{ip}	300	<1	<1	<1	5.0
	MW19-20190615	06/15/19	SoundEarth	650 ^x	430 ^x	<100	<1	<1	<1	<3
	MW19-20191207	12/07/19	SoundEarth	610 ^x	690 ^x	<100	<1	<1	<1	<3
TCA Cleanup Lev	el			500 ⁽⁴⁾	500 ⁽⁴⁾	1,000/800(4)(5)	5 ⁽⁴⁾	1,000 ⁽⁴⁾	700 ⁽⁴⁾	1,000 ⁽⁴⁾

P\0731 Touchstone\0731-004 Troy Laundny\7technical\7ables\7031004\709 Laundny\7technical\7ables\7031004\7091\8quare (W_F



						An	alytical Results (με	z/L)		
Sample Location	Sample Identification	Sample Date	Sampled By	DRPH ⁽¹⁾	ORPH ⁽¹⁾	GRPH ⁽²⁾	Benzene ⁽³⁾	Toluene ⁽³⁾	Ethylbenzene ⁽³⁾	Total Xylenes ⁽³⁾
Sample Location	MW20-20150506	05/06/15	SoundEarth	120 ^x	<250	<100	<0.35	roluene <1	<1	<3
 	MW20-20150506 MW20-20150803	08/03/15	SoundEarth	120 140 ^x	<250	<100	<0.35	<1	<1	<3
 	MW20-20150803	12/07/15	SoundEarth	84 ^x	<250	<100	<0.35	<1	<1	<3
	MW20-20151207	03/09/16	SoundEarth	130 ^x	<300	<100	<0.35	<1	<1	<3
	MW20-20160303	07/15/16	SoundEarth	150 ^x	<250	<100	<0.35	<1	<1	<3
	MW20-20161020	10/20/16	SoundEarth	110 ^x	<250	<100	<0.35	<1	<1	<3
	MW20-20101020	01/25/17	SoundEarth	64 ^x	<250	<100	<0.35	<1	<1	<3
	MW20-20170123	06/01/17	SoundEarth	94 ^x	<250	<100	<0.35	<1	<1	<3
MW20	MW20-20170924	09/24/17	SoundEarth	130 ^x	<300	<100	<0.35	<1	<1	<3
1	MW20-20170324	12/16/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW20-20171210	03/10/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
1	MW20-20180630	06/30/18	SoundEarth	120 ^x	<250	<100	<1	<1	<1	<3
1	MW20-20180922	09/22/18	SoundEarth	100 ^x	<250	<100	<1	<1	<1	<3
1	MW20-20180322	12/15/18	SoundEarth	72 ^x	<250	<100	<1	<1	<1	<3
1	MW20-20190615	06/15/19	SoundEarth	140 ^x	<250	<100	<1	<1	<1	<3
1	MW20-20191207	12/07/19	SoundEarth	80 ^x	<250	<100	<1	<1	<1	<3
	MW21-20150506	05/06/15	SoundEarth	160 ^x	<250	<100	<0.35	<1	<1	<3
	MW21-20150804	08/04/15	SoundEarth	150 ^x	<250	<100	<0.35	<1	<1	<3
	MW21-20151208	12/08/15	SoundEarth	110 ^x	<250	<100	<0.35	<1	<1	<3
	MW21-20160309	03/09/16	SoundEarth	120 ^x	<250	<100	<0.35	<1	<1	<3
	MW21-20160713	07/13/16	SoundEarth	12,000 ^x	2,700 ^x	<100	<0.35	<1	<1	<3
	MW21-20161020	10/20/16	SoundEarth	77,000 ^{x, ip}	8,600 ^{x, ip}	<100	<0.35	<1	<1	<3
	MW21-20170126	01/26/17	SoundEarth	16,000 ^{x, ip}	10,000 ^{x, ip}	<100	<0.35	<1	<1	<3
	MW21-20170601	06/01/17	SoundEarth	48,000 ^{x, ip}	18,000 ^{x, ip}	130	<0.35	<1	<1	<3
MW21	MW21-20170923	09/23/17	SoundEarth	67,000 ^{x, ip}	7,700 ^{x, ip}	220	<0.35	<1	<1	<3
	MW21-20171216	12/16/17	SoundEarth	27,000 ^x	<2,500	390	<0.35	<1	<1	<3
1	MW21-20180310	03/10/18	SoundEarth	23,000 [×]	<2,500	130	<1	<1	<1	<3
[MW21-2018630	06/30/18	SoundEarth	65,000 ^{x, ip}	5,200 ^{x, ip}	670	<1	3.0	11	11
[MW21-20180922	09/22/18	SoundEarth	53,000 ^{x, ip}	8,600 ^{x, ip}	400	<1	<1	<1	3.4
[MW21-20181215	12/15/18	SoundEarth	47,000 [×]	2,100 ^x	180	<1	<1	<1	6.5
[MW21-20190615	06/15/19	SoundEarth	6,400 ^x	<2,500	<100	<1	<1	<1	3.8
į į	MW21-20191207	12/07/19	SoundEarth	21,000 ^x	2,100 ^x	300	<1	<1	<1	4.8
MTCA Cleanup Lev				500 ⁽⁴⁾	500 ⁽⁴⁾	1,000/800 ⁽⁴⁾⁽⁵⁾	5 ⁽⁴⁾	1,000 ⁽⁴⁾	700 ⁽⁴⁾	1,000 ⁽⁴⁾

P\(0731 Touchstone\(0731-004 Troy Laundry\Technica\(1\alpha\) (2019\(1\alpha\) (2019\(1\alpha\) (301-404\(2\alpha\) (301-404\(

3 of 10



						An	alytical Results (με	;/L)		
Sample Location	Sample Identification	Sample Date	Sampled By	DRPH ⁽¹⁾	ORPH ⁽¹⁾	GRPH ⁽²⁾	Benzene ⁽³⁾	Toluene ⁽³⁾	Ethylbenzene ⁽³⁾	Total Xylenes ⁽³
	MW22-20150506	05/06/15	SoundEarth	97 ^x	<250	<100	<0.35	<1	<1	<3
	MW22-20150804	08/05/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW22-20151208	12/08/15	SoundEarth	69 ^x	<300	<100	<0.35	<1	<1	<3
	MW22-20160308	03/08/16	SoundEarth	110 ^x	<250	<100	<0.35	<1	<1	<3
	MW22-20160713	07/13/16	SoundEarth	8,000 ^{x, ip}	2,100 ^{x, ip}	140	<0.35	<1	<1	<3
	MW22-20161020	10/20/16	SoundEarth	29,000 ^{x, ip}	7,500 ^{x, ip}	130	<0.35	<1	<1	<3
	MW22-20170126	01/26/17	SoundEarth	13,000 ^{x, ip}	13,000 ^{x, ip}	730	< 0.35	<1	<1	<3
MW22	MW22-20170601	06/01/17	SoundEarth	59,000 ^x	8,700 ^x	660	<0.35	<1	<1	<3
1010022	MW22-20170923	09/23/17	SoundEarth	85,000 ^{x,ip}	<2,500 ^{ip}	390	< 0.35	<1	<1	<3
	MW22-20171216	12/16/17	SoundEarth	58,000 ^{x,ip}	<3,000 ^{ip}	1,800	< 0.35	<1	<1	<3
	MW22-20180310	03/10/18	SoundEarth	50,000 ^x	<2,500	530	<0.35	<1	<1	10
	MW22-20180630	06/30/18	SoundEarth	86,000 ^{x, ip}	4,500 ^{x, ip}	620	<1	<1	<1	34
	MW22-20180922	09/22/18	SoundEarth	73,000 ^{x, ip}	6,800 ^{x, ip}	320	<1	<1	<1	21
	MW22-20181215	12/15/18	SoundEarth	49,000 ^x	7,700 ^x	180	<1	<1	<1	14
	MW22-20190615	06/15/19	SoundEarth	24,000 ^x	4,600 ^x	170	<1	<1	<1	21
	MW22-20191207	12/07/19	SoundEarth	40,000 ^x	3,400 ^x	810	<1	<1	<1	74
	MW23-20150507	05/07/15	SoundEarth	<50	<250	<100	< 0.35	<1	<1	<3
	MW23-20150804	08/04/15	SoundEarth	520 ^x	<250	<100	<0.35	<1	<1	<3
	MW23-20151208	12/08/15	SoundEarth	190 ^x	<300	<100	<0.35	<1	<1	<3
	MW23-20160308	03/08/16	SoundEarth	410 ^x	<250	<100	< 0.35	<1	<1	<3
	MW23-20160714	07/14/16	SoundEarth	26,000 ^{x, ip}	1,500 ^{x, ip}	190	<0.35	<1	<1	<3
	MW23-20161020	10/20/16	SoundEarth	80,000 ^{x, ip}	<5,000 ^{ip}	350	<0.35	<1	<1	<3
	MW23-20170126	01/26/17	SoundEarth	14,000 ^{x, ip}	5,600 ^{x, ip}	240	<0.35	<1	<1	<3
MW23	MW23-20170601	06/01/17	SoundEarth	140,000 ^{x, ip}	4,000 ^{x, ip}	210	<0.35	<1	<1	<3
1010025	MW23-20170923	09/23/17	SoundEarth	140,000 ^x	<2,500	170	< 0.35	<1	<1	<3
	MW23-20171216	12/16/17	SoundEarth	110,000 ^{x, ip}	<2,500 ^{ip}	2,200	<0.35	<1	<1	<3
	MW23-20180310	03/10/18	SoundEarth	11,000 ^x	<2,500	600	<1	<1	<1	4.6
Ī	MW23-20180630	06/30/18	SoundEarth	30,000 ^x	1,000*	540	<1	<1	<1	31
	MW23-20180922	09/22/18	SoundEarth	19,000 ^{x, ip}	<2,600 ^{ip}	150	<1	<1	<1	11
	MW23-20181215	12/15/18	SoundEarth	14,000 [×]	500 ^x	180	<1	<1	<1	7.1
ļ	MW23-20190615	06/15/19	SoundEarth	3,400 ^x	<2,500	260	<1	<1	<1	7.1
Ī	MW23-20191207	12/07/19	SoundEarth	1,400 [×]	790 [×]	<100	<1	<1	<1	<3
TCA Cleanup Lev				500 ⁽⁴⁾	500 ⁽⁴⁾	1,000/800 ^{(4) (5)}	5 ⁽⁴⁾	1,000 ⁽⁴⁾	700 ⁽⁴⁾	1,000 ⁽⁴⁾

P\0731 Touchstone\0731-004 Troy Laundny\Technical\Tables\7031\094\Touchstone\0731-004\Toy Laundny\Technical\Tables\7031-004\Toy\0381-004\To\0381-004\T



						An	alytical Results (με	g/L)		
Sample Location	Sample Identification	Sample Date	Sampled By	DRPH ⁽¹⁾	ORPH ⁽¹⁾	GRPH ⁽²⁾	Benzene ⁽³⁾	Toluene ⁽³⁾	Ethylbenzene ⁽³⁾	Total Xylenes ⁽³⁾
	MW24-20150506	05/06/15	SoundEarth	93 ^x	<250	<100	<0.35	<1	<1	<3
F	MW24-20150804	08/04/15	SoundEarth	94 ^x	<250	<100	<0.35	<1	<1	<3
Ī	MW24-20151208	12/08/15	SoundEarth	240 ^x	<250	<100	<0.35	<1	<1	<3
Ī	MW24-20160309	03/09/16	SoundEarth	130 ^x	<250	<100	<0.35	<1	<1	<3
	MW24-20160715		SoundEarth	13,000 ^{x, ip}	1.400 ^{x, ip}	<100	<0.35	<1	<1	<3
	MW98-20160715 (DUP)	07/15/16	SoundEarth	11,000 ^{x, ip}	1.900 ^{x, ip}	<100	<0.35	<1	<1	<3
	MW24-20161020	10/20/16	SoundEarth	3,200 ^{x,ip}	1,900 ^{x,ip}	<100	<0.35	<1	<1	<3
	MW24-20170125	01/25/17	SoundEarth	12,000 ^x	2,000 ^x	<100	<0.35	<1	<1	<3
MW24	MW24-20170601	06/01/17	SoundEarth	510,000 ^{x, ip}	27,000 ^{x, ip}	<100	<0.35	<1	<1	<3
	MW24-20170601	09/24/17	SoundEarth	39,000 ^{x, ip}	<3,000 ^{ip}	250	<0.35	<1	<1	<3
İ	MW24-20171216	12/16/17	SoundEarth	10,000*	<3,000	990	<0.35	<1	<1	<3
ļ į	MW24-20180310	03/10/18	SoundEarth	990 ^x	<2,500	460	<1	<1	<1	3.7
F	MW24-20180630	06/30/18	SoundEarth	75,000 ^{x, ip}	7,700 ^{x,ip}	2,700	<1	3.6	6.5	110
ļ l	MW24-20180922	09/22/18	SoundEarth	7,800 ^{x, ip}	<2,500 ^{ip}	190	<1	<1	<1	7.5
ļ l	MW24-20180322	12/15/18	SoundEarth	20.000*	2.700 [×]	<100	<1	<1	<1	<3
-	MW24-20190615	06/15/19	SoundEarth	6,400 ^x	<2,500	<100	<1	<1	<1	<3
F	MW24-20191207	12/07/19	SoundEarth	7,100 [×]	1,400 [×]	<100	<1	<1	<1	<3
	MW25-20150507		Journalaith	<50	<250	<100	<0.35	<1	<1	<3
F	MW99-20150507 (DUP)	05/07/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
F	MW25-20150805			<50	<250	<100	<0.35	<1	<1	<3
	MW99-20150805 (DUP)	08/05/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW25-20151209			86 ^x	<250	<100	<0.35	<1	<1	<3
ŀ		12/09/15	SoundEarth	100 ^x	<300	<100	<0.35	<1	<1	<3
ŀ	MW99-20151209 (DUP)			190 ^x	<250	<100	<0.35	<1	<1	<3
	MW25-20160308 MW99-20160308(DUP)	03/08/16	SoundEarth	160 ^x	<250	<100	<0.35	<1	<1	<3
ŀ	MW25-20160713	07/13/16	SoundEarth	43,000 [×]	5,000 ^x	110	<0.35	<1	<1	<3
		07/13/10	SoundEarth				<0.35			
F	MW25-20161019 MW99-20161019(DUP)	10/19/16	SoundEarth	26,000 ^x 29,000 ^x	1,500 ^x 1,600 ^x	160 160				
ŀ	, ,				340 ^x	120 ^x			+	
	MW25-20170125	01/25/17	SoundEarth	8,200 ^x 6,900 ^x	340 350 ^x	150 ^x	<0.35	<1	<1	<3 <3
ŀ	MW99-20170125(DUP) MW25-20170601			50,000 ^{x, ip}	<1,000 ^{ip}	370	<0.35	<1 <1	<1 <1	<3
ŀ		06/01/17	SoundEarth	46,000 ^{x, ip}	<1,000 ^{ip}	410	<0.35 <0.35	<1	<1	<3
MW25	MW99-20170601(DUP) MW25-20170923			12,000 ^{x, ip}	,	270		<1	<1	<3
 		09/23/17	SoundEarth	13,000 ^{x, ip}	<2,500 ^{ip}		<0.35			
ŀ	MW99-20170923(DUP)			4,000 ^{x, ip}	<2,500 ^{ip}	220	<0.35	<1	<1	<3
ŀ	MW25-20171216	12/16/17	SoundEarth	4,000 x, ip	<3,000 ^{ip}	580	<0.35	<1	<1	<3 <3
<u> </u>	MW99-20171216 (DUP)			3,300 ^x		700	<0.35	<1	<1	4.7
	MW25-20180310	03/10/18	SoundEarth	3,300 3,800 ^x	<2,500	490 510	<1	<1 <1	<1	4.7
	MW99-20180310 (DUP)			5,300 ^{x, ip}	<2,500 630 ^{x, ip}		<1		<1	
<u> </u>	MW25-20180630	06/30/18	SoundEarth	5,300°′°° 5,500 ^{x, ip}	410 ^{x, ip}	490	<1	<1	<1	31
}	MW99-20180630 (DUP) MW25-20180922			1,500 ^{x, ip}	<2,500 ^{ip}	340 300	<1 <1	<1 <1	<1 <1	26 17
ŀ		09/22/18	SoundEarth	1,500 ^{x, ip}	<2,500 ^{ip}	160	<1	<1	<1	17
}	MW99-20180922 (DUP) MW25-20181215			1,900 ×	< 2,500 · <250	160 <100	<1 <1	<1	<1	13 <3
ŀ	MW99-20181215 (DUP)	12/15/18	SoundEarth	960 ^x	<250	<100	<1	<1	<1	<3
<u> </u>	MW25-20190615	05/4-7		1,000*	<2,500	<100	<1	<1	<1	<3
ļ	MW99-20190615 (DUP)	06/15/19	SoundEarth	1,100 ^x	<2,500	<100	<1	<1	<1	<3
ļ	MW25-20191207	12/07/10	CoundEarth	240 ^x	<250	<100	<1	<1	<1	<3
	MW99-20191207 (DUP)	12/07/19	SoundEarth	300 [×]	<250	<100	<1	<1	<1	<3
MTCA Cleanup Lev	rel			500 ⁽⁴⁾	500 ⁽⁴⁾	1,000/800 ⁽⁴⁾⁽⁵⁾	5 ⁽⁴⁾	1,000 ⁽⁴⁾	700 ⁽⁴⁾	1,000 ⁽⁴⁾

P\0731 Touchstone\0731-004 Troy Laundry\Technical\Table\2019\02019 RI Table\0731-004_709\Laundry\Technical\Table\2019\02019 RI Table\0731-004_7019RI_CM_F



						An	alytical Results (με	g/L)		
				(1)	(1)	(2)	_ (3)	(3)	(3)	(3)
Sample Location	Sample Identification	Sample Date	Sampled By	DRPH ⁽¹⁾	ORPH ⁽¹⁾	GRPH ⁽²⁾	Benzene ⁽³⁾	Toluene ⁽³⁾	Ethylbenzene ⁽³⁾	Total Xylenes (3)
IW04	IW04-20150508	05/08/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
IW06	IW04-20170601	06/01/17	SoundEarth	 <50	<250	<100	<0.35	<1 <1	<1 <1	<3 <3
10000	IW06-20150507 IW50-20150803	05/07/15 08/03/15	SoundEarth SoundEarth	5,000 ^x	<250	<100	<0.35 <0.35	<1	<1	<3
IW50	IW50-20150803	07/15/16	SoundEarth	39,000 ^x	1.900 ^x	640	<0.35	<1	<1	<3
	IW91-20150506	05/06/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	IW91-20150804	08/04/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	IW91-20151208	12/08/15	SoundEarth	<60	<300	<100	<0.35	<1	<1	<3
	IW91-20160309	03/09/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	IW91-20160714	07/14/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	IW91-20161020	10/20/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	IW91-20170126	01/26/17	SoundEarth	200 ^x	<300	<100	<0.35	<1	<1	<3
114/04	IW91-20170601	06/01/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
IW91	IW91-20170923	09/23/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	IW91-20171216	12/16/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	IW91-20180310	03/10/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	IW91-20180630	06/30/18	SoundEarth	<60	<300	<100	<1	<1	<1	<3
	IW91-20180922	09/22/18	SoundEarth	<60	<300	<100	<1	<1	<1	<3
	IW91-20181215	12/15/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	IW91-20190615	06/15/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	IW91-20191207	12/07/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
				Boren	Avenue North					
	MW04-20110527	05/27/11	SoundEarth	<50	<250	<100	<1	1.3	<1	<3
	MW04-20111012	10/12/11	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW04-20130909	09/09/13	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW04-20150508	05/08/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW04-20150806	08/06/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW04-20151209	12/09/15	SoundEarth	<60	<300	<100	<0.35	<1	<1	<3
	MW04-20160308	03/08/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW04-20160713	07/13/16	SoundEarth	<56	<280	<100	<0.35	<1	<1	<3
	MW04-20161019	10/19/16	SoundEarth	<50	<250	<100				
MW04	MW04-20170124	01/24/17	SoundEarth	150 ^x	<250	<100	<0.35	<1	<1	<3
	MW04-20170531	05/31/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW04-20170921	09/21/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW04-20171214	12/14/17	SoundEarth	<60	<300	<100	<0.35	<1	<1	<3
	MW04-20180309	03/09/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW04-20180629	06/29/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW04-20180920	09/20/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW04-20181214	12/14/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW04-20190614	06/14/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW04-20191205	12/05/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
MTCA Cleanup Lev	el			500 ⁽⁴⁾	500 ⁽⁴⁾	1,000/800 ⁽⁴⁾⁽⁵⁾	5 ⁽⁴⁾	1,000 ⁽⁴⁾	700 ⁽⁴⁾	1,000 ⁽⁴⁾

P\0731 Touchstone\0731-004 Troy Laundry\Technical\Table\2019\02019 RI Table\0731-004_709\Laundry\Technical\Table\2019\02019 RI Table\0731-004_7019\u2019 RI Table



						An	alytical Results (με	g/L)		
Sample Location	Sample Identification	Sample Date	Sampled By	DRPH ⁽¹⁾	ORPH ⁽¹⁾	GRPH ⁽²⁾	Benzene ⁽³⁾	Toluene ⁽³⁾	Ethylbenzene ⁽³⁾	Total Xylenes ⁽³⁾
	MW05-20110527	05/27/11	SoundEarth	<50	<250	<100	<1	<1	<1	<3
MW05	MW05-20111012	10/12/11	SoundEarth	<50	<250	<100	<1	<1	<1	<3
IVIVVOS	MW05-20130910	09/10/13	SoundEarth	<50	<250	<100	<1	<1	<1	<3
					DECOMMISSIONE	2015				
	MW07-20110531	05/31/11	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW07-20111012	10/12/11	SoundEarth	240 ^x	<250	<100	<1	<1	<1	<3
	MW07-20130909	09/09/13	SoundEarth	120 ^x	<250	<100	<1	<1	<1	<3
	MW07-20150508	05/08/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW07-20150805	08/05/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW07-20151209	12/09/15	SoundEarth	<60	<300	<100	<0.35	<1	<1	<3
	MW07-20160308	03/08/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW07-20160713	07/13/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
MW07	MW07-20161019	10/19/16	SoundEarth	76 ^x	<250	<100				
	MW07-20170124	01/24/17	SoundEarth	120 ^x	<250	<100	<0.35	<1	<1	<3
	MW07-20170531	05/31/17	SoundEarth	54 ^x	<250	<100	<0.35	<1	<1	<3
	MW07-20180308	03/08/18	SoundEarth	<50	<250	<100	<1	<1	<1	<1
	MW07-20180629	06/29/18	SoundEarth	<60	<300	<100	<1	<1	<1	<3
	MW07-20180920	09/20/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW07-20181214	12/14/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW07-20190614	06/14/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW07-20191205	12/05/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW13-20111020	10/20/11	SoundEarth	150 ^x	<250	<100	<1	<1	<1	<3
	MW13-20130910	09/10/13	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW13-20150511	05/11/15	SoundEarth	<70	<350	<100	<0.35 ^{cf}	<1 ^{cf}	<1 ^{cf}	<3 ^{cf}
	MW13-20150805	08/05/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW13-20151215	12/15/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
L	MW13-20160307	03/07/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW13-20160712	07/12/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW13-20161019	10/19/16	SoundEarth	<50	<250	<100				
MW13	MW13-20170124	01/24/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
1010015	MW13-20170531	05/31/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW13-20170921	09/21/17	SoundEarth	120 ^x	<300	<100	<0.35	<1	<1	<3
	MW13-20171214	12/14/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW13-20180308	03/08/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
Ĺ	MW13-20180629	06/29/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
Ĺ	MW13-20180920	09/20/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
Ĺ	MW13-20181214	12/14/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW13-20190614	06/14/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW13-20191205	12/05/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
MTCA Cleanup Lev	rel			500 ⁽⁴⁾	500 ⁽⁴⁾	1,000/800 ⁽⁴⁾⁽⁵⁾	5 ⁽⁴⁾	1,000 ⁽⁴⁾	700 ⁽⁴⁾	1,000 ⁽⁴⁾

P\0731 Touchstone\0731-004 Troy Laundny\Technical\Tables\0731-004\Troy Laundny\Technical\Tables\0731-004\Z0198I_GW_F



						An	alytical Results (με	g/L)		
Sample Location	Sample Identification	Sample Date	Sampled By	DRPH ⁽¹⁾	ORPH ⁽¹⁾	GRPH ⁽²⁾	Benzene ⁽³⁾	Toluene ⁽³⁾	Ethylbenzene ⁽³⁾	Total Xylenes ⁽ⁱ
	MW27-20151210	12/10/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW27-20160307	03/07/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW27-20160713	07/13/16	SoundEarth	<52	<260	<100	<0.35	<1	<1	<3
	MW27-20161019	10/19/16	SoundEarth	<50	<250	<100				
	MW27-20170124	01/24/17	SoundEarth	<60	<300	<100	<0.35	<1	<1	<3
	MW27-20170531	05/31/17	SoundEarth	<60	<300	<100	<0.35	<1	<1	<3
	MW27-20170921	09/21/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
MW27	MW27-20171214	12/14/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW27-20180308	03/08/18	SoundEarth	540 ^x	<250	<100	<1	<1	<1	<3
	MW27-20180628	06/28/18	SoundEarth	<60	<300	<100	<1	<1	<1	<3
	MW27-20180920	09/20/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW27-20181214	12/14/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW27-20190614	06/14/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW27-20191205	12/05/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
				Terry A	Venue North					
	MW15-20121211	12/11/12	SoundEarth			<100	<0.35	<1	<1	<3
	MW15-20130910	09/10/13	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW15-20150508	05/08/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW15-20150805	08/05/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW15-20151209	12/09/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW15-20160308	03/08/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW15-20160713	07/13/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW15-20161018	10/18/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW15-20170125	01/25/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
MW15	MW15-20170531	05/31/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW15-20170922	09/22/17	SoundEarth	<60	<300	<100	<0.35	<1	<1	<3
	MW15-20171215	12/15/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW15-20180309	03/09/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW15-20180629	06/29/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW15-20180920	09/20/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW15-20181214	12/14/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
ļ	MW15-20190613	06/13/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW15-20191205	12/05/19	SoundEarth	78 ^x	<250	<100	<1	<1	<1	<3
TCA Cleanup Lev		,,		500 ⁽⁴⁾	500 ⁽⁴⁾	1,000/800 ⁽⁴⁾⁽⁵⁾	5 ⁽⁴⁾	1,000 ⁽⁴⁾	700 ⁽⁴⁾	1,000 ⁽⁴⁾

P\0731 Touchstone\0731-004 Troy Laundry\Technical\Tables\7031\094\Troy \taundry\Technical\Tables\7031\094\Troy \taundry\Technical\Technical\Tables\7031\094\Troy \taundry\Technical\Techni



						An	alytical Results (με	g/L)		
				(1)	(1)	(2)	(3)	. (3)	(3)	(3)
Sample Location	Sample Identification	Sample Date	Sampled By	DRPH ⁽¹⁾	ORPH ⁽¹⁾ mas Street	GRPH ⁽²⁾	Benzene ⁽³⁾	Toluene ⁽³⁾	Ethylbenzene ⁽³⁾	Total Xylenes ⁽³⁾
	ANA/4 A 2044 4 020	40/20/44	Carrad Caret			-100	-4	I .a	1	-2
MW14	MW14-20111020 MW14-20130911	10/20/11 09/11/13	SoundEarth SoundEarth	160 ^x	<250 <250	<100 <100	<1 <1	<1 <1	<1 <1	<3 <3
1010014	WW14-20130311	09/11/13	SoundEarth	\30	DECOMMISSION		\1	<u> </u>	\1	\3
	MW16-20121211	12/11/12	SoundEarth	420 ^x	<250	640	<0.35	<1	<1	1.1
	MW16-20130911	09/11/13	SoundEarth	170 ^x	<250	110	<1	<1	<1	<3
	MW16-20150508	05/08/15	SoundEarth	150 ^x	<250	<100	<0.35	<1	<1	<3
	MW16-20150805	08/05/15	SoundEarth	210 ^x	<250	<100	<0.35	<1	<1	<3
	MW16-20151210	12/10/15	SoundEarth	420 ^x	<250	110	<0.35	<1	<1	<3
	MW16-20160308	03/08/16	SoundEarth	410 ^x	<250	140	<0.35	<1	<1	<3
	MW16-20160712	07/12/16	SoundEarth	510 ^x	<250	130	<0.35	<1	<1	<3
MW16	MW16-20161019	10/19/16	SoundEarth	310 ^x	<250	<100				
	MW16-20170125	01/25/17	SoundEarth	140 [×]	<250	<100	<0.35	<1	<1	<3
	MW16-20170531	05/31/17	SoundEarth	740 [×]	<250	140	<0.35	<1	<1	<3
	MW16-20170931	09/22/17	SoundEarth	570	<250	130	<0.35	<1	<1	<3
	MW16-20170322	12/29/17	SoundEarth	160*	<250	120	<0.35	<1	<1	<3
	MW16-20171229	03/09/18	SoundEarth	260 ^x	<250	120	<1	<1	<1	<3
	WW 10-20180303	03/03/18	Journalaith	200	WELL DAMAGED		\1	\1	\1	\3
	MW28-20190613	06/13/19	SoundEarth	140 ^x	<250	160	<1	<1	<1	<3
MW28	MW28-20191205	12/05/19	SoundEarth	98 ^x	<250	150	<1	<1	<1	<3
1					Avenue North					
MW-C	MW-C-20130911	09/11/13	SoundEarth	<50	<250	<100	<1	<1	<1	<3
				Harr	ison Street					
	MW01-20110525	05/25/11	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW01-20111011	10/11/11	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW01-20130910	09/10/13	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW01-20150806	08/06/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW01-20160308	03/08/16	SoundEarth	<65	<330	<100	<0.35	<1	<1	<3
	MW01-20160712	07/12/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW01-20161018	10/18/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
NAVA/01	MW01-20170124	01/24/17	SoundEarth	<25	<125	<100	< 0.35	<1	<1	<3
MW01	MW01-20170531	05/31/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW01-20171214	12/14/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW01-20180309	03/09/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW01-20180628	06/28/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW01-20180920	09/20/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW01-20181214	12/14/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW01-20190614	06/14/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
L	MW01-20191205	12/05/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW02-20110525	05/25/11	SoundEarth	100 [×]	<250	<100	<1	<1	<1	<3
NAVA/02	MW02-20111011	10/11/11	SoundEarth	<50	<250	<100	<1	<1	<1	<3
MW02	MW02-20130911	09/11/13	SoundEarth	<50	<250	<100	<1	<1	<1	<3
					DECOMMISSIONED	2015				
MTCA Cleanup Leve	2			500 ⁽⁴⁾	500 ⁽⁴⁾	1,000/800(4)(5)	5 ⁽⁴⁾	1,000 ⁽⁴⁾	700 ⁽⁴⁾	1,000 ⁽⁴⁾



							1 15 1. /	(1)		
					1	An	alytical Results (με	3/L)	T	
Sample Location	Sample Identification	Sample Date	Sampled By	DRPH ⁽¹⁾	ORPH ⁽¹⁾	GRPH ⁽²⁾	Benzene ⁽³⁾	Toluene ⁽³⁾	Ethylbenzene ⁽³⁾	Total Xylenes ⁽³⁾
	MW03-20110527	05/27/11	SoundEarth	130 ^x	<250	<100	<1	<1	<1	<3
MW03	MW03-20111011	10/11/11	SoundEarth	<50	<250	<100	<1	<1	<1	<3
1010005	MW03-20130911	09/11/13	SoundEarth	<50	<250	<100	<1	<1	<1	<3
					DECOMMISSIONE	D 2015				
	MW26-20151210	12/10/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW26-20160307	03/07/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW26-20160712	07/12/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW26-20161018	10/18/16	SoundEarth	59 ^x	<250	<100	<0.35	<1	<1	<3
	MW26-20170124	01/24/17	SoundEarth	<60	<300	<100	< 0.35	<1	<1	<3
	MW26-20170531	05/31/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
MW26	MW26-20170921	09/21/17	SoundEarth	130 ^x	<250	<100	<0.35	<1	<1	<3
1010020	MW26-20171214	12/14/17	SoundEarth	<50	<250	<100	< 0.35	<1	<1	<3
	MW26-20180309	03/09/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW26-20180628	06/28/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW26-20180920	09/20/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW26-20181214	12/14/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW26-20190614	06/14/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW26-20191205	12/05/19	SoundEarth	680 ^x	<250	<100	<1	<1	<1	<3
SMW06	SMW06-20130910	09/10/13	SoundEarth	130 ^x	<250	400	<1	<1	3.5	3.7
				Westlak	e Avenue North					
SMW09	SMW09-20130910	09/10/13	SoundEarth	79 ^x	<250	<100	<1	<1	<1	<3
MTCA Cleanup Leve	el			500 ⁽⁴⁾	500 ⁽⁴⁾	1,000/800 ^{(4) (5)}	5 ⁽⁴⁾	1,000 ⁽⁴⁾	700 ⁽⁴⁾	1,000 ⁽⁴⁾
				North-Ad	ljoining Property					
SLU-MW01	MW01-20120229	02/29/12 ⁽⁶⁾	SoundEarth	150	<250					
310-14/4401					DECOMMISSIONE	D 2013				
SLU-MW02	MW02-20120229	02/29/12 ⁽⁶⁾	SoundEarth	<50	<250					
					DECOMMISSIONE					
MTCA Cleanup Leve	el			500 ⁽⁴⁾	500 ⁽⁴⁾	1,000/800 ⁽⁴⁾⁽⁵⁾	5 ⁽⁴⁾	1,000 ⁽⁴⁾	700 ⁽⁴⁾	1,000 ⁽⁴⁾

NOTES:

Red denotes concentrations exceeding the MTCA Method cleanup level for groundwater.

(1) Analyzed by Method NWTPH-Dx. The supply well samples collected in August 2010 were passed through a silica gel column prior to analysis to remove organic interference.

Laboratory Notes:

- -- = not analyzed, measured, or calculated
- < = not detected at a concentration exceeding laboratory reporting limit
- μg/L = micrograms per liter
- DRPH = diesel-range petroleum hydrocarbons
- EPA = US Environmental Protection Agency
- GRPH = gasoline-range petroleum hydrocarbons
- MTCA = Washington State Model Toxics Control Act
- NWTPH = Northwest Total Petroleum Hydrocarbon
- ORPH = heavy oil-range petroleum hydrocarbons
- SoundEarth = SoundEarth Strategies, Inc.
- WAC = Washington Administrative Code

⁽²⁾ Analyzed by EPA Method 418.1 or Method NWTPH-Gx.

⁽³⁾Analyzed by EPA Method 8260C, 8021B or 8240.

 $^{^{(4)}}$ MTCA Method A Cleanup Levels, Table 720-1 of Section 900 of Chapter 173-340 of WAC, revised November 2007.

 $^{^{(5)} 1,\!000~\}mu g/L$ when benzene is not present and 800 $\mu g/L$ when benzene is present.

 $^{^{(6)}}$ Sample data compiled from reports on file at the Washington State Department of Ecology.

^{cf}The sample was centrifuged prior to analysis.

^{ip}Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

 $^{^{\}rm x}\! {\rm The}$ sample chromatographic pattern does not resemble the fuel standard used for quantitation.



							А	nalytical Resul	ts				
			Dissolved			Total	Total	Ferrous	Ferric				
Well	Sample	Sample	Oxygen ⁽¹⁾	Chloride ⁽²⁾	Nitrate ⁽²⁾	Manganese ⁽³⁾	Iron ⁽³⁾	Iron ⁽⁴⁾	Iron ⁽⁵⁾	Sulfate ⁽²⁾	Methane ⁽⁶⁾	Ethane ⁽⁶⁾	Ethene ⁽⁶⁾
Identification	Identification	Date	(mg/L)	(mg/L)	(mg/L)	(μg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(μg/L)	(μg/L)	(μg/L)
						Troy Laundry Pr	operty						
	MW18-20150506	05/06/15	1.99	16.2	5.44	83.7	0.0919	0.0400	0.0519	47.0	<5	<10	<10
	MW18-20150803	08/03/15	2.66										
	MW18-20151208	12/08/15	1.64						-	43.6	<5	<10	<10
	MW18-20160714	07/14/16	0.47		-				1	1.54	170	<10	<10
	MW18-20170126	01/26/17	1.50						1		2,200	<10	<10
	MW18-20170601	06/01/17	0.58	19.2 ^D							3,500	<10	<10
MW18	MW18-20170923	09/23/17	0.48	15.4 ^D					-		3,900	<10	<10
IVIVVIO	MW18-20171216	12/16/17	0.77	21.5 ^D					-		2,400	<10	<10
	MW18-20180310	03/10/18	0.38	19.0 ^D					-		4,700	<10	<10
	MW18-20180630	06/30/18	0.68	17.0 ^D					-		6,300	<10	<10
	MW18-20180922	09/22/18	0.19	17.4 ^D					-		4,200 ^{ve}	<10	<10
	MW18-20181215	12/15/18	0.62		<1.00 ^{D,H}	10,800	12.300	<0.0500 ^H		<3.00 ^D	6,400	<10	<10
	MW18-20190615	06/15/19	0.30		<0.100 ^H	10,100	13.500	8.35 ^{DH}		0.422 ^H	5,290 ^D	<809 ^D	<757 ^D
	MW18-20191207	12/07/19	0.69		<0.100 ^H	9,660	13.800	15.6 ^{DH}		<0.300	2,230 ^D	<15.1	<16.2
	MW19-20150507	05/07/15	1.75	15.9	4.98	71.6	0.156	< 0.0300	0.156	50.3	<5	<10	<10
MW19	MW19-20150803	08/03/15	2.33										
1010019	MW19-20190615	06/15/19	0.28		<0.100 ^H	11,400	10.000	7.81 ^{DH}		0.380 ^H	2,530 ^D	<324 ^D	<303 ^D
	MW19-20191207	12/07/19	0.54		<0.100 ^H	9,030	13.300	12.6 ^{DH}		<0.300	6,520 ^D	<15.1	<16.2
	MW21-20170601	06/01/17	0.54	26.2 ^D							3,500	<10	<10
	MW21-20170923	09/23/17	0.69	33.5 ^D							4,000	<10	<10
	MW21-20171216	12/16/17	2.67	85.7 ^D							4,800	<10	<10
	MW21-20180310	03/10/18	0.71	89.2 ^D							5,400	<10	<10
MW21	MW21-20180630	06/30/18	0.34	124 ^D							4,400	<10	<10
	MW21-20180922	09/22/18	0.33	97.8 ^D							2,800 ^{ve}	<10	<10
	MW21-20181215	12/15/18	1.57								4,800	<10	<10
	MW21-20190615	06/15/19	0.19								2,460 ^D	<809 ^D	<757 ^D
	MW21-20191207	12/07/19	0.77								3,980 ^D	<15.1	<16.2
MW22	MW22-20191207	12/07/19	2.02		<0.200 ^{DH}	10,900	8.010	7.41		0.762 ^D	5,370 ^D	<15.1	<16.2
	MW23-20150507	05/07/15	2.19	30.9	8.84	173	0.262	0.0800	0.182	49.2	<5	<10	<10
	MW23-20150804	08/04/15	0.73										
	MW23-20170601	06/01/17	0.49	25.8 ^D							2,600	<10	<10
	MW23-20170923	09/23/17	0.46	10.5 ^D					-		1,700	<10	<10
	MW23-20171216	12/16/17	0.84	30.9 ^D							3,700	<10	<10
MW23	MW23-20180310	03/10/18	2.25	26.1 ^D							3,900	<10	<10
	MW23-20180630	06/30/18	0.70	21.1 ^D					-		3,400	<10	<10
	MW23-20180922	09/22/18	0.31	20.3 ^D							4,600 ^{ve}	<10	<10
	MW23-20181215	12/15/18	0.79		<1.00 ^{D,H}	32,300	14.300	3.95 ^{D,H}	1	<3.00 ^D	3,800	<10	<10
	MW23-20190615	06/15/19	0.50		<0.100 ^H	26,700	12.300	13.0 ^{DH}		0.378 ^H	2,900 ^D	<809 ^D	<757 ^D
	MW23-20191207	12/07/19	2.12		<0.200 ^{DH}	22,100	14.600	13.8 ^{DH}		0.876 ^D	2,570 ^D	<15.1	<16.2



							A	nalytical Resul	ts				
Well Identification	Sample Identification	Sample Date	Dissolved Oxygen ⁽¹⁾ (mg/L)	Chloride ⁽²⁾ (mg/L)	Nitrate ⁽²⁾ (mg/L)	Total Manganese ⁽³⁾ (µg/L)	Total Iron ⁽³⁾ (mg/L)	Ferrous Iron ⁽⁴⁾ (mg/L)	Ferric Iron ⁽⁵⁾ (mg/L)	Sulfate ⁽²⁾ (mg/L)	Methane ⁽⁶⁾ (μg/L)	Ethane ⁽⁶⁾ (μg/L)	Ethene⁽⁶⁾ (μg/L)
	MW24-20150506	05/06/15	1.04	16.7	1.93	18.2	0.0714	0.0300	0.0414	16.3	<5	<10	<10
	MW24-20150804	08/04/15	0.45	1	-				1			1	-
	MW24-20151208	12/08/15	1.00						-	15.8	<5	<10	<10
	MW24-20160715	07/15/16	0.29							1.56	13 ^{jl}	<10	<10
	MW24-20170125	01/25/17	1.10							<1.50	2,100	<10	<10
	MW24-20170601	06/01/17	0.38	16.0 ^D							4,500	<10	<10
MW24	MW24-20170924	09/24/17	0.27	19.4 ^D							2,800	<10	<10
IVI VV 24	MW24-20171216	12/16/17	2.69	22.4 ^D							3,600	<10	<10
	MW24-20180310	03/10/18	0.70	20.2 ^D							3,900 ^{ve}	<10	<10
	MW24-20180630	06/30/18	0.44	13.6 ^D							1,800	<10	<10
	MW24-20180630	06/30/18	3.20	30.4 ^D					-		1,300	<10	<10
	MW24-20181215	12/15/18	0.44	-	<1.00 ^{D,H}	17,400	11.300	1.53 ^H		<3.00 ^D	3,600	<10	<10
	MW24-20190615	06/15/19	0.29	-	<0.100 ^H	21,900	11.600	11.1 ^{DH}		0.348 ^H	2,660 ^D	<809 ^D	<757 ^D
	MW24-20191207	12/07/19	0.66		<0.100 ^H	20,700	10.700	10.6 ^{DH}	-1	<0.300	3,960 ^D	<15.1	<16.2
	MW25-20150507	05/07/15	2.87	21.8	8.32	190	1.850	0.190 ^{RA}	1.66	56.7	<5	<10	<10
	MW25-20150805	08/06/15	1.47										
MW25	MW25-20181215	12/15/18	0.69		<1.00 ^{D,H}	14,600	9.970	<0.0500 ^H	-1	<3.00 ^D	8,900	<10	<10
	MW25-20190615	06/15/19	0.59		<0.100 ^H	9,560	12.300	7.60 ^{DH}		0.380 ^H	9,670 ^{DE}	<324 ^D	<303 ^D
	MW25-20191207	12/07/19	0.63		<0.100 ^H	6,850	13.500	13.8 ^{DH}		<0.300	7,480 ^D	<15.1	<16.2
	IW04-20150508	05/08/15	6.28	10.8	3.75	12.0	0.230	<0.0300	0.230	34.1	<5	<10	<10
	IW04-20181215	12/15/18	0.64		1.03 ^{D,H}	11,800	19.700	0.169 ^H	-1	8.89 ^D		-	
IW04	IW04-20190615	06/15/19	0.24	-	<0.100 ^H	12,900	17.900	0.0865 ^H		0.759		-	
	IW04-20191207	12/07/19	0.98		<0.200 ^{DH}	11,700	15.600	<0.0500 ^H	-	0.912 ^D			
	IW50-20170602	06/02/17	0.60	29.9 ^D							3,700	<10	<10
	IW50-20170924	09/24/17	0.24	16.1 ^D					-		3,200	<10	<10
	IW50-20171216	12/16/17	2.71	20.5 ^D					-		5,900	<10	<10
	IW50-20180310	03/10/18	0.40	20.5 ^D							5,100	<10	<10
IW50	IW50-20180630	06/30/18	0.31	23.8 ^D							2,700	<10	<10
	IW50-20180922	09/22/18	0.66	22.3 ^D							4,000 ^{ve}	<10	<10
	IW50-20181215	12/15/18	1.28		<1.00 ^{D,H}	11,900	10.300	1.88 ^H		12.1 ^D	6,100	<10	<10
	IW50-20190615	06/15/19	0.38		<0.100 ^H	9,670	7.550	7.08 ^{DH}		11.0	3,110 ^D	<324 ^D	<303 ^D
	IW50-20191207	12/07/19	1.02		<0.100 ^H	8,090	7.170	7.46 ^{DH}		11.0	4,120 ^D	<15.1	<16.2

2 of 4



							A	nalytical Resul	ts				
Well Identification	Sample Identification	Sample Date	Dissolved Oxygen ⁽¹⁾ (mg/L)	Chloride ⁽²⁾ (mg/L)	Nitrate ⁽²⁾ (mg/L)	Total Manganese ⁽³⁾ (µg/L)	Total Iron ⁽³⁾ (mg/L)	Ferrous Iron ⁽⁴⁾ (mg/L)	Ferric Iron ⁽⁵⁾ (mg/L)	Sulfate ⁽²⁾ (mg/L)	Methane ⁽⁶⁾ (μg/L)	Ethane ⁽⁶⁾ (µg/L)	Ethene ⁽⁶⁾ (µg/L)
	IW61-20170602	06/02/17	0.49	7.18 ^D		(F-87 =7					4,900	<10	<10
	IW61-20170923	09/23/17	0.79	9.25 ^D							4,400	<10	<10
	IW61-20171216	12/16/17	0.79	11.0 ^D							3.000	<10	<10
	IW61-20180310	03/10/18	1.28	17.8 ^D							3,400	<10	<10
IW61	IW61-20180630	06/30/18	0.39	15.3 ^D							2,900	<10	<10
	IW61-20180922	09/22/18	0.17	11.4 ^D							5,400 ^{ve}	<10	<10
	IW61-20181215	12/15/18	0.73		<1.00 ^{D,H}	20,100	50.500	8.83 ^{D,H}		<3.00 ^D	5,500	<10	<10
	IW61-20190615	06/15/19	0.32		<0.100 ^H	11,800	25.500	30.5 ^{DH}		0.338	2,440 ^D	<324 ^D	<303 ^D
	IW61-20191207	12/07/19	0.82	-	<0.100 ^H	11,000	22.300	24.8 ^{DH}		<0.300	3,860 ^D	<15.1	<16.2
		<u>, , , , , , , , , , , , , , , , , , , </u>				Boren Avenue	North						
	MW04-20110527	05/27/11	6.24										
	MW04-20111012	10/12/11	6.17	-									
	MW04-20130909	09/09/13	5.49										
MW04	MW04-20150508	05/08/15	0.433	29.9	16.7	3.32	0.0667	< 0.0300	0.0667	45.6	<5	<10	<10
1010004	MW04-20150806	08/06/15	6.09	-									
	MW04-20181214	12/14/18	4.83		17.9 ^{D,H}	22.9	0.506	0.0677 ^H		43.2 ^D	<5	<10	<10
	MW04-20190614	06/14/19	4.15		14.8 ^{D,H}	15.9	0.327	0.129		46.7 ^D	<8.63	<16.2	<15.1
	MW04-20191205	12/05/19	7.97	1	24.4 ^{D,H}	7.59	254	< 0.0500		41.4 ^D	<8.63	<16.2	<15.1
	MW07-20110531	05/31/11	5.70	1	1	-			-			-	
	MW07-20111012	10/12/11	2.92	1	1	-			-			-	
	MW07-20130909	09/09/13	2.71	-									
	MW07-20150508	05/08/15	4.79	34.5	30.1	18.2	0.0825	< 0.0300	0.0825	41.1	<5	<10	<10
	MW07-20150805	08/05/15	4.65										
MW07	MW07-20170531	05/31/17	4.45	27.9 ^D							<5	<10	<10
1010007	MW07-20180308	03/08/18	7.75	23.3 ^D							<5	<10	<10
	MW07-20180629	06/29/18	7.38	32.5 ^D							<5	<10	<10
	MW07-20180920	09/20/18	8.76	28.7 ^D							<5	<10	<10
	MW07-20181214	12/14/18	7.57		26.5 ^{D,H}	13.5	0.117	0.0959 ^H		56.1 ^D	<5	<10	<10
	MW07-20190614	06/14/19	7.91		29.1 ^{D,H}	9.26	0.225	0.0818		51.0 ^D	<8.63	<16.2	<15.1
	MW07-20191205	12/05/19	6.85		34.9 ^{D,H}	5.89	203	0.0654 ^H		49.6 ^D	<8.63	<16.2	<15.1
	MW13-20111020	10/20/11	2.12	1					-			-	
MW13	MW13-20130910	09/10/13	3.67										
	MW13-20150511	05/11/15	4.71	32.9	5.07	2.770	73.200	4.60	68.60	44.5	<5	<10	<10
	MW13-20150805	08/05/15	3.91										

3 of 4



		А	nalytical Resul	ts									
Well Identification	Sample Identification	Sample Date	Dissolved Oxygen ⁽¹⁾ (mg/L)	Chloride ⁽²⁾ (mg/L)	Nitrate ⁽²⁾ (mg/L)	Total Manganese ⁽³⁾ (µg/L)	Total Iron ⁽³⁾ (mg/L)	Ferrous Iron ⁽⁴⁾ (mg/L)	Ferric Iron ⁽⁵⁾ (mg/L)	Sulfate ⁽²⁾ (mg/L)	Methane ⁽⁶⁾ (μg/L)	Ethane ⁽⁶⁾ (μg/L)	Ethene ⁽⁶⁾ (μg/L)
						Thomas Stre	et						
	MW16-20130911	09/11/13	3.64		-					-			
	MW16-20150508	05/08/15	0.68	27.6	0.694	484	0.488	0.0700	0.4180	7.28	<5	<10	<10
	MW16-20150805	08/05/15	0.40									-	
	MW16-20151210	12/10/15	0.73							8.09	<5	<10	<10
	MW16-20160712	07/12/16	0.47							4.57	2,500 ^{ve}	<10	<10
MW16	MW16-20170125	01/25/17	0.46							14.2	530	<10	<10
	MW16-20170531	05/31/17	0.65	11.6 ^D							25	<10	<10
	MW16-20170922	09/22/17	0.72	10.2 ^D	-					-	8	<10	<10
	MW16-20171229	12/29/17	2.13	15.2 ^D							340	<10	<10
	MW16-20180309	03/09/18	0.23	11.8 ^D							6.5	<10	<10
						WELL DA	AMAGED 2018						
MW28	MW28-20190613	06/13/19	1.08		<0.500 ^{D,H}	1,140	1.100	1.02 ^H		2.10 ^D	15.3	<16.2	<15.1
1010028	MW28-20191204	12/04/19	0.24		<0.200 ^{D,H}	651	1550	1.26 ^H		<0.600 ^D	59.0	<16.2	<15.1
	MW26-20181214	12/14/18	0.62		5.06 ^{D,H}	35.4	0.134	0.133 ^H		34.2 ^D	1,500	<10	<10
MW26	MW26-20190614	06/14/19	0.59		7.10 ^{D,H}	62.1	0.29	0.136		45.0 ^D	4,120 ^D	<324 ^D	<303 ^D
	MW26-20191205	12/05/19	0.7		1.74 ^D	906	4,830	6.12 ^{D,H}		27.8 ^D	3,800 ^D	<16.2	<15.1
MW22	MW22-20181215	12/15/18	0.67		1.09 ^{D,H}	13,000	6.010	4.06 ^{D,H}		<3.00 ^D	4,900	<10	<10
1010022	MW22-20190615	06/15/19	0.38		<1.00 ^H	11,400	11.200	11.6 ^{D,H}		<0.300 ^H	3090 ^D	<809 ^D	<757 ^D

NOTES

Analyses performed by Friedman & Bruya, Inc. or Fremont Analytical Inc. of Seattle, Washington.

Laboratory Notes:

-- = not measured/ not applicable

< = not detected at a concentration exceeding the laboratory reporting limit

μg/L = micrograms per liter

EPA = US Environmental Protection Agency

mg/L = milligrams per liter

⁽¹⁾Parameter is measured in the field using water quality meter with flow-through cell. The reported value is the last reading prior to sampling groundwater.

⁽²⁾Analyzed by EPA Method 300.0.

⁽³⁾ Analyzed by EPA Method 200.8.

⁽⁴⁾Analyzed by Standard Method 3500-Fe B.

 $^{^{(5)}}$ Ferric iron concentration = total iron concentration – ferrous iron concentration.

⁽⁶⁾ Analyzed by Method RSK-175.

Dilution was required.

 $^{^{\}rm H}\!$ Holding times for preparation or analysis exceeded.

^{jl} The analyte result in the laboratory control sample is out of control limits. The reported concentrations is an estimate.

RA Indicates reanalysis with background correction for turbidity.

^{ve}They analyte response exceeded the valid instrument calibration range. The value reported is an estimate.



Table 6 Groundwater Geochemical and Water Quality Parameters Troy Laundry Seattle Site 300 Boren Avenue North and 399 Fairview Avenue North Seattle, Washington

						Analy	tical Results			
Well Identification	Sample Identification	Sample Date	pH ⁽¹⁾	ORP ⁽¹⁾ (mV)	Dissolved Oxygen ⁽¹⁾ (mg/L)	Specific Conductivity ⁽¹⁾ (mS/cm)	Turbidity ⁽¹⁾ (NTU)	Temperature ⁽¹⁾ (°C)	Alkalinity ⁽²⁾ (mg/L CaCO ₃)	Total Organic Carbon ⁽³⁾ (mg/L)
		,			Troy Laundry Pr			(-,	(8/ = ====3/	(3,)
	MW17-20150506	05/06/15	6.87	169.0	3.30	0.387	1.01	14.53		
	MW17-20150804	08/04/15	6.17	129.0	4.45	0.477	2.61	15.52		
	MW17-20151207	12/07/15	6.89	221.5	4.12	0.398	3.3	14.60		
	MW17-20160308	03/08/16	6.67	160	1.39	0.365	0.8	14.30		
	MW17-20160714	07/14/16	6.62	51.1	3.59	0.355	1.19	14.36		
	MW17-20161020	10/20/16	6.75	203.3	0.84	0.384	2.72	14.44		
	MW17-20170126	01/26/17	6.66	-40.7	0.57	0.386	2.24	14.14		
N 414/4 7	MW17-20170601	06/01/17	6.50	-147.6	0.54	0.375	12.61	14.48		
MW17	MW17-20170923	09/23/17	6.34	170.4	0.31	0.509	3.96	15.13		
	MW17-20171216	12/16/17	6.82	22.3	0.26	0.501	3.37	12.60		
	MW17-20180310	03/10/18	6.82	22.3	0.26	0.501	3.37	12.60		
	MW17-20180630	06/30/18	6.85	14.8	1.07	0.723	8.60	14.87		
	MW17-20180922	09/22/18	6.79	16.9	0.17	0.71	9.38	15.20		
	MW17-20181215	12/15/18	6.58	18.8	0.41	0.677	6.70	14.77		
	MW17-20190615	06/15/19	6.67	83.8	0.36	0.634	3.81	14.90		
	MW17-20191207	12/07/19	6.62	-9.8	1.34	0.581	2.12	11.32		
	MW18-20150506	05/06/15	6.52	172.5	1.99	0.480	0.88	14.34	142	<0.500
	MW18-20150803	08/03/15	5.75	82.2	2.66	0.598	2.74	15.70		
	MW18-20151208	12/08/15	7.74	115.6	1.64	0.594	1.85	14.08		
	MW18-20160308	03/08/16	6.41	156.7	1.30	0.469	1.3	14.26		1.01
	MW18-20160608	06/08/16	6.66	8.8	1.5					
	MW18-20160616	06/16/16	6.2	0.8	1.4					
	MW18-20160623	06/23/16	5.87	-57.9	0.43					
	MW18-20160629	06/29/16	5.43	-33	1.08					
	MW18-20160706	07/06/16	5.29	-33.7	1.8					
	MW18-20160714	07/14/16	5.43	8.7	0.47	0.883	9.3	14.89		2,300
MW18	MW18-20160825	08/25/16	4.97	38.9	0.55					
1010010	MW18-20161020	10/20/16	5.46	65.5	0.79	1.220	7.69	14.83		1,900
	MW18-20170126	01/26/17	5.65	7.2	1.50	0.956	8.1	13.85		823
	MW18-20170601	06/01/17	6.19	-167.3	0.58	1.284	6.02	15.21		1,090 ^D
	MW18-20170923	09/23/17	6.13	48.1	0.48	1.014	55.7	16.37		253 ^D
	MW18-20171216	12/16/17	6.52	-21.2	0.77	0.911	40.9	12.04		173 ^D
	MW18-20180310	03/10/18	6.18	-8.0	0.38	0.833	27.1	14.73		108 ^D
	MW18-20180630	06/30/18	6.30	-31.9	0.68	1.008	12.4	15.49		47.2 ^D
	MW18-20180922	09/22/18	6.31	-18.7	0.19	1.000	20.8	16.10		37.8 ^D
	MW18-20181215	12/15/18	6.6	-4.0	0.62	0.980	9.34	15.39	533	16.9
	MW18-20190615	06/15/19	6.23	69.2	0.30	1.043	10.98	15.71	531	10.6
	MW18-20191207	12/07/19	5.82	-137.4	0.69	0.870	15.0	15.00	497	9.61 ^B



Table 6 Groundwater Geochemical and Water Quality Parameters Troy Laundry Seattle Site 300 Boren Avenue North and 399 Fairview Avenue North Seattle, Washington

			Analytical Results Dissolved Specific Total On								
Well Identification	Sample Identification	Sample Date	pH ⁽¹⁾	ORP ⁽¹⁾ (mV)	Dissolved Oxygen ⁽¹⁾ (mg/L)	Specific Conductivity ⁽¹⁾ (mS/cm)	Turbidity ⁽¹⁾ (NTU)	Temperature ⁽¹⁾ (°C)	Alkalinity ⁽²⁾ (mg/L CaCO ₃)	Total Organic Carbon ⁽³⁾ (mg/L)	
	MW19-20150507	05/07/15	6.68	156.1	1.75	0.502	1.27	14.44	144	<0.500	
	MW19-20150803	08/03/15	5.67	222.2	2.33	0.523	5.8	15.47			
	MW19-20151207	12/07/15	7.08	95.6	0.99	0.685	4.29	14.64			
	MW19-20160308	03/08/16	6.27	154.7	1.29	0.613	0.84	14.73			
	MW19-20160713	07/13/16	5.62	5.7	0.32	0.821	1017	15.59			
	MW19-20160825	08/25/16	4.82	31.4	0.73						
	MW19-20161021	10/21/16	5.62	27.0	0.15	1.404	3.00	15.59			
MW19	MW19-20170125	01/25/17	5.40	-10.4	0.40	1.120	7.98	14.40			
1010019	MW19-20170601	06/01/17	5.34	-148.6	0.53	0.963	4.02	15.99			
	MW19-20170923	09/23/17	5.47	169.2	0.77	0.816	17.8	18.07			
	MW19-20171216	12/16/17	6.39	-30.9	0.58	0.602	4.92	13.43			
	MW19-20180310	03/10/18	6.06	-14.3	0.26	0.542	14.0	15.36			
	MW19-20180630	06/30/18	6.15	-22.7	0.86	0.744	9.95	16.54			
	MW19-20180922	09/22/18	6.23	-26.7	0.16	0.800	37.30	16.90			
	MW19-20190615	06/15/19	6.24	40.6	0.28	1.060	11.4	16.41	556		
	MW19-20191207	12/07/19	5.57	-134.0	0.54	0.785		15.75	473		
	MW20-20150506	05/06/15	6.91	287.1	0.59	0.678	0.00	13.68			
	MW20-20150803	08/03/15	6.11	175.6	1.11	0.784	9.4	14.45			
	MW20-20151207	12/07/15	6.86	228.5	0.85	0.716	9.0	13.81			
	MW20-20160309	03/09/16	6.72	66.1	0.41	0.711	1.2	13.81			
	MW20-20160715	07/15/16	6.71	201.4	0.64	0.726	2.14	14.28			
	MW20-20161020	10/20/16	6.96	92.0	0.92	0.731	1.90	14.30			
	MW20-20170125	01/25/17	6.82	-0.1	0.67	0.732	0.56	0.67			
MW20	MW20-20170601	06/01/17	6.68	-175.7	0.85	0.735	3.07	14.38			
1010020	MW20-20170924	09/24/17	6.63	177.6	0.57	0.779	2.12	15.25			
	MW20-20171216	12/16/17	6.36	47.0	0.27	0.895	2.14	12.31			
	MW20-20180310	03/10/18	6.71	61.4	0.26	0.855	6.07	14.16			
	MW20-20180630	06/30/18	6.71	21.7	1.64	0.884	3.18	15.06			
	MW20-20180922	09/22/18	6.80	13.9	0.19	0.85	3.18	15.10			
	MW20-20181215	12/15/18	6.61	28.0	0.37	0.827	0.73	14.56			
	MW20-20190615	06/15/19	6.72	95.1	0.50	0.928	1.70	14.94			
	MW20-20191207	12/07/19	6.66	-14.9	1.23	0.883	0.99	11.37			



Table 6 Groundwater Geochemical and Water Quality Parameters Troy Laundry Seattle Site 300 Boren Avenue North and 399 Fairview Avenue North Seattle, Washington

						Analy	rtical Results			
Well Identification	Sample Identification	Sample Date	pH ⁽¹⁾	ORP ⁽¹⁾ (mV)	Dissolved Oxygen ⁽¹⁾ (mg/L)	Specific Conductivity ⁽¹⁾ (mS/cm)	Turbidity ⁽¹⁾ (NTU)	Temperature ⁽¹⁾ (°C)	Alkalinity ⁽²⁾ (mg/L CaCO ₃)	Total Organic Carbon ⁽³⁾ (mg/L)
identification	MW21-20150506	05/06/15	6.58	295.0	0.45	0.675	0.00	14.06	(IIIg/L CaCO ₃)	(IIIg/L)
	MW21-20150506 MW21-20150804	08/04/15	6.09	77.5	0.43	0.873	2.61	15.13		
	MW21-20150804 MW21-20151208	12/08/15	7.91	96.8	0.08	1.486	0.83	14.03		
	MW21-20151208 MW21-20160309	03/09/16	5.03	137.3	1.84	0.879	1.28	14.03		2.29
	MW21-20160608	06/08/16	6.28	-0.5	2.46	0.879		14.19		
	MW21-20160608 MW21-20160616	06/08/16	0.28	-0.5	2.40					
	MW21-20160616	06/23/16								
	MW21-20160629	06/29/16	5.5	52.6	1.95					
	MW21-20160029	07/06/16	5.27	47.1	2.16					
	MW21-20160700	07/13/16	5.41	61.2	0.45	1.104	10.3	14.73		1,800
	MW21-20160713 MW21-20160825	08/25/16	4.97	67.9	0.43	1.104	10.5	14.75		
MW21	MW21-20160823	10/20/16	5.64	71.7	1.26	1.268	>2000	14.61		1,800
	MW21-20101020	01/26/17	5.78	-22.0	0.50	0.846	3.59	13.78		884
	MW21-20170120 MW21-20170601	06/01/17	5.69	246.8	0.54	0.920	5.90	14.94		755 ^D
	MW21-20170001 MW21-20170923	09/23/17	5.36	14.9	0.69	1.180	4.42	14.67		871 ^D
	MW21-20170923 MW21-20171216	12/16/17	5.54	26.3	2.67	1.146	6.00	14.81		722 ^D
	MW21-20171210 MW21-20180310	03/10/18	5.27	58.1	0.71	1.102	4.29	14.43		466 ^D
	MW21-20180630	06/30/18	5.18	49.5	0.71	1.546	4.05	14.94		718 ^D
	MW21-20180030	09/22/18	5.72	97.2	0.33	1.090	6.84	16.00		549 ^D
	MW21-20180322	12/15/18	5.67	-20.1	1.57	1.041	6.10	15.41		124 ^D
	MW21-20190615	6/15/19	5.84	1.0	0.19	1.023	2.81	15.27		163 ^D
	MW21-20191207	12/7/19	5.55	-142.2	0.77	0.913	7.64	14.81		110 ^D
	MW22-20150506	05/06/15	6.34	280.6	0.30	0.707	0.00	14.4		
	MW22-20150804	08/04/15	6.29	103.9	0.96	0.794	6.8	15.05		
	MW22-20151208	12/08/15	5.91	212.8	2.18	0.702	0.4	14.49		
	MW22-20160308	03/08/16	6.34	153.8	0.54	0.579	0.81	14.46		
	MW22-20160608	06/08/16	6	-3.2	1.55					
	MW22-20160616	06/16/16	4.99	95.2	1.65					
	MW22-20160623	06/23/16	5.1	64	0.68					
	MW22-20160629	06/29/16	5.22	84.8	1.85					
	MW22-20160706	07/06/16	5.17	26.1	1.88					
	MW22-20160713	07/13/16	5.55	88.1	0.42	1.276	7.26	14.85		
N 414/22	MW22-20160825	08/25/16	5.06	21.2	0.42					
MW22	MW22-20161020	10/20/16	5.48	108.8	0.24	1.408	8.66	14.86		
	MW22-20170126	1/26/2017	5.55	21.2	0.27	1.19	4.83	14.23		
	MW22-20170601	06/01/17	5.67	239.2	0.62	1.118	5.32	15.32		
	MW22-20170923	09/23/17	5.38	104.1	0.27	1.29	3.52	15.12		
	MW22-20171216	12/16/17	5.44	84.2	0.64	1.186	7.21	14.83		
	MW22-20180310	03/10/18	5.32	82	6.61	0.868	4.57	14.44		
	MW22-20180630	06/30/18	5.47	41.9	0.23	1.128	5.12	15.74		
	MW22-20180922	09/22/18	5.94	73.1	0.38	0.82	5.67	17.00		
	MW22-20181215	12/15/18	5.67	18.4	0.67	0.817	8.6	15.50	269	388 ^D
	MW22-20190615	06/15/19	5.68	106.8	0.38	0.858	7.40	15.63	273	286 ^D
	MW22-20191207	12/07/19	5.69	-76.4	2.02	0.803	71.2	12.14	283	318 ^D



						Analy	tical Results			
Well				ORP ⁽¹⁾	Dissolved Oxygen ⁽¹⁾	Specific Conductivity ⁽¹⁾	Turbidity ⁽¹⁾	Temperature ⁽¹⁾	Alkalinity ⁽²⁾	Total Organic Carbon ⁽³⁾
Identification	Sample Identification	Sample Date	pH ⁽¹⁾	(mV)	(mg/L)	(mS/cm)	(NTU)	(°C)	(mg/L CaCO ₃)	(mg/L)
	MW23-20150507	05/07/15	6.09	223.7	2.19	0.452	0.00	14.65	106	<0.500
	MW23-20150804	08/04/15	6.40	105.5	0.73	0.582	6.8	15.42		
	MW23-20151208	12/08/15	5.80	197	2.12	0.548	12.6	15.10		
	MW23-20160308	03/08/16	6.30	92.5	0.49	0.575	1.2	14.78		3.14
	MW23-20160608	06/08/16	5.14	66.9	3.15					
	MW23-20160616	06/16/16	4.77	109.5	2.00					
	MW23-20160623	06/23/16	4.75	58.8	0.94					
	MW23-20160629	06/29/16	4.73	92.3	2.40					
	MW23-20160706	07/06/16	4.74	42	2.04					
	MW23-20160714	07/14/16	5.26	38	0.23	1.339	8.0	15.06		2,300
MW23	MW23-20160825	08/25/16	4.68	64.2	0.69					
	MW23-20161020	10/20/16	5.38	45.5	0.20	1.637	2.53	15.12		2,300
	MW23-20170126	01/26/17	5.71	-43.40	14.39	0.88	8.03	14.39		520.00
	MW23-20170601	06/01/17	5.80	232.1	0.49	1.542	5.60	15.60		1,620 ^D
	MW23-20170923	09/23/17	5.69	-4.4	0.46	1.362	7.30	15.45		1,160 ^D
	MW23-20171216	12/16/17	5.96	-6.3	0.84	0.973	18.0	15.23		865 ^D
	MW23-20180310	03/10/18	5.85	-1.4	2.25	0.802	34.1	14.92		127 ^D
	MW23-20180630	06/30/18	6.15	-82.6	0.70	1.228	178.0	15.80		198 ^D
	MW23-20180922	09/22/18	6.52	11.1	0.31	0.950	17.5	17.00		159 ^D
	MW23-20181215	12/15/18	6.30	-72.9	0.79	1.118	40.8	15.89	600	148 ^D
	MW23-20190615	06/15/19	6.20	89.0	0.50	1.219	20.0	15.96	639	60.7 ^D
	MW23-20191207	12/07/19	6.24	-42.8	2.12	1.070	33.3	12.50	614	17.4 ⁸
	MW24-20150506	05/06/15	6.03	182.9	1.04	0.454	1.81	14.91	172	1.12
	MW24-20150804	08/04/15	5.80	83.7	0.45	0.563	2.89	16.05		
	MW24-20151208	12/08/15	7.62	120.8	1.00	0.685	1.29	15.10		
	MW24-20160309	03/09/16	6.27	113.7	0.38	0.589	1	15.07		2.19
	MW24-20160608	06/08/16	6.73	-69.2	2.34					
	MW24-20160616	06/16/16	5.92	-3	1.59					
	MW24-20160623	06/23/16	5.83	-20	0.87					
	MW24-20160629	06/29/16	5.83	36.1	1.54					
	MW24-20160706	07/06/16	5.67	19.7	1.54					
	MW24-20160715	07/15/16	6.00	31.9	0.29	1.142	8	15.39		1,000
MW24	MW24-20160825	08/25/16	5.30	30.5	0.24					
	MW24-20161020	10/20/16	5.93	27.5	0.94	1.440	3.56	15.22		640
	MW24-20170125	01/25/17	5.49	-33.5	1.10	0.917	589	14.56		375
	MW24-20170601	06/01/17	5.75	240.7	0.38	0.998	3034	15.38		1,470 ^D
	MW24-20170924	09/24/17	5.54	76.3	0.27	0.641	122	16.06		390 ^D
	MW24-20171216	12/16/17	5.93	-33.4	2.69	0.579	50.2	14.83		233 ^D
	MW24-20180310	03/10/18	5.73	17.4	0.70	0.614	72.4	14.77		22.1 ^D
	MW24-20180630	06/30/18	5.60	-43.1	0.44	1.393	15.1	15.81		770 ^D
	MW24-20180922	09/22/18	6.08	18.9	3.20	0.760	92.4	17.10		45.5 ^D
	MW24-20181215	12/15/18	6.08	-0.7	0.44	0.735	72.8	15.44	358	52.2 ^D
	MW24-20190615	06/15/19	5.93	-2.8	0.29	0.798	7.68	16.00	414	20.5
	MW24-20191207	12/07/19	5.66	-139.0	0.66	0.779	20.4	15.21	434	12.6 ^B



						Analy	tical Results			
Well Identification	Sample Identification	Sample Date	pH ⁽¹⁾	ORP ⁽¹⁾ (mV)	Dissolved Oxygen ⁽¹⁾ (mg/L)	Specific Conductivity ⁽¹⁾ (mS/cm)	Turbidity ⁽¹⁾ (NTU)	Temperature ⁽¹⁾ (°C)	Alkalinity ⁽²⁾ (mg/L CaCO ₃)	Total Organic Carbon ⁽³⁾ (mg/L)
	MW25-20150507	05/07/15	6.31	140.5	2.87	0.498	76.5	14.54	112	<0.500
	MW25-20150805	08/05/15	5.67	158.1	1.47	0.667	2.3	15.16		
	MW25-20151209	12/09/15	7.94	114.9	1.55	0.881	7.6	15.12		
	MW25-20160308	03/08/16	6.25	171.8	0.79	0.524	1.2	15.05		
	MW25-20160713	07/13/16	5.60	-13.5	0.29	0.933	>2000	15.39		
	MW25-20161019	10/19/16	5.40	22.2	0.18	1.304	9.14	15.48		
	MW25-20170125	01/25/17	5.77	-134.5	0.37	0.712	4.18	14.68		
MW25	MW25-20170601	06/01/17	5.81	-136.3	0.31	1.140	4.82	15.67		
IVIVV25	MW25-20170923	09/23/17	6.17	66.3	0.37	1.103	14.6	16.86		
	MW25-20171216	12/16/17	6.61	-35.3	0.50	1.052	8.68	13.67		
	MW25-20180310	03/10/18	6.22	-19.9	0.32	0.890	9.10	15.52		
	MW25-20180630	06/30/18	6.48	-55.4	0.67	1.381	13.10	16.15		
	MW25-20180922	09/22/18	6.48	-51.4	0.09	1.380	17.50	16.20		
	MW25-20181215	12/15/18	6.42	-2.4	0.69	1.306	5.21	15.84	745	18.4
	MW25-20190615	06/15/19	6.22	-48.1	0.59	1.067	3.92	16.27	575	25.8
	MW25-20191207	12/07/19	6.16	-16.5	0.63	0.810	7.61	12.58	424	6.87 ^B
	IW04-20150508	05/08/15	6.58	160.2	6.28	0.322	15.1	14.80	88.0	<0.500
	IW04-20160309	03/09/16	6.08	-18.6	0.55	0.579	3.5	14.18		
	IW04-20160714	07/14/16	5.17	58.2	0.43	1.401	19.8	14.76		
	IW04-20161021	10/21/16	5.30	27.5	0.10	1.575	7.71	15.01		
	IW04-20170126	01/26/17	5.40	-18.0	0.71	1.288	17.7	14.11		
	IW04-20170601	06/01/17	5.78	-151.8	0.62	0.809	12.7	14.99		
IW04	IW04-20170923	09/23/17	5.99	2.7	0.84	1.189	21.7	18.00		
10004	IW04-20171216	12/16/17	6.37	-47.8	0.37	0.940	18.8	13.01		
	IW04-20180310	03/10/18	6.22	-40.3	0.82	0.792	56.3	14.77		
	IW04-20180630	06/30/18	6.29	-59.3	0.89	0.914	18	15.59		
	IW04-20180922	09/22/18	6.13	26.1	0.21	0.318	5.1	16.20		
	IW04-20181215	12/15/18	6.32	-26.6	0.64	0.969	14.7	15.27	478	157 ^D
	IW04-20190615	06/15/19	6.32	-60.8	0.24	1.112	13.2	15.48	611	148 ^D
	IW04-20191207	12/07/19	6.41	-24.1	0.98	1.059	22.6	11.91	595	94.8 ^D
	IW06-20150507	05/07/15	6.70	262.1	7.55	0.224	17.83	15.02		
	IW06-20180310	03/10/18	5.97	-162.5	0.34	0.284	8.41	14.84		
	IW06-20180630	06/30/18	6.25	-95.9	0.67	0.312	6.99	15.87		
IW06	IW06-20180922	09/22/18	6.35	-55.9	0.17	0.92	43.3	16.20		
	IW06-20181215	12/15/18	6.20	-9.7	0.43	0.297	5.60	15.51		
	IW06-20190615	06/15/19	5.96	67.7	0.58	0.471	11.50	15.81		
	IW06-20191207	12/07/19	6.45	-4.5	0.88	0.446	0.21	12.05		



						Analy	tical Results			
Well Identification	Sample Identification	Sample Date	pH ⁽¹⁾	ORP ⁽¹⁾ (mV)	Dissolved Oxygen ⁽¹⁾ (mg/L)	Specific Conductivity ⁽¹⁾ (mS/cm)	Turbidity ⁽¹⁾ (NTU)	Temperature ⁽¹⁾ (°C)	Alkalinity ⁽²⁾ (mg/L CaCO ₃)	Total Organic Carbon ⁽³⁾ (mg/L)
IW07	IW07-20160825	08/25/16	5.15	-11.4	0.61					
	IW15-20160608	06/08/16	5.19	86.6	2.75					
	IW15-20160616	06/16/16	7.59	70.1	1.95					
	IW15-20160623	06/23/16	5.07	16.6	1.05					
IW15	IW15-20160629	06/29/16	5.11	47.3	1.38					
10012	IW15-20160706	07/06/16	5.09	28.6	1.55					
	IW15-20160825	08/25/16	4.96	35.9	0.58					
	IW15-20161021	10/21/16	5.42	-16.6	0.12	2.065	3.75	15.46		
	IW15-20170602	06/02/17	5.65	-217.5	0.49	1.00	9.42	15.68		
	IW38-20160608	06/08/16	5.53	57.9	2.4					
	IW38-20160616	06/16/16	5.05	91.4	2					
	IW38-20160623	06/23/16	5.1	39	0.73					
IW38	IW38-20160629	06/29/16	5.13	80.6	1.45					
10030	IW38-20160706	07/06/16	5.06	49.1	1.65					
	IW38-20160825	08/25/16	4.8	73.4	0.29					
	IW38-20161021	10/21/16	5.06	77.7	0.59	2.07	2.19	15.40		
	IW38-20170602	06/02/17	5.72	-234.3	0.46	0.838	2.80	15.69		
	IW50-20151208	12/08/15	7.44	122.1	0.56	0.984	2.68	14.71		
	IW50-20160309	03/09/16	3.46	149.7	0.70	0.726	3.01	14.52		115
	IW50-20160715	07/15/16	5.45	40.6	0.44	1.35	4.77	14.80		1,100
	IW50-20161021	10/21/16	5.69	43.7	0.83	2.055	11.8	14.79		1,600
	IW50-20170126	01/26/17	6.43	-59.5	0.80	1.058	43.2	14.46		391
	IW50-20170602	06/02/17	6.34	198.5	0.60	0.688	17.4	14.98		85.2 ^D
IW50	IW50-20170923	09/23/17	6.29	-103.0	0.24	1.004	24.1	15.29		214 ^D
10050	IW50-20171216	12/16/17	6.30	-72.4	2.71	1.048	106	14.99		224 ^D
	IW50-20180310	03/10/18	6.34	-43.1	0.40	1.038	76.8	14.81		55.0 ^D
	IW50-20180630	06/30/18	6.41	-115.4	0.31	1.204	11.35	15.21		41.9 ^D
	IW50-20180922	09/22/18	6.65	-37.4	0.66	0.76	5.81	17.40		29.6 ^D
	IW50-20181215	12/15/18	6.35	-120.3	1.28	0.681	4.74	15.50	338	12.2
	IW50-20190615	06/15/19	6.26	65.8	0.38	0.670	5.18	15.86	299	7.56
	IW50-20191207	12/07/19	6.24	-30.3	1.02	0.618	5.33	12.31	288	6.72 ^B



						A li	tical Results			
						Anaiy	tical Results			
Well Identification	Sample Identification	Sample Date	pH ⁽¹⁾	ORP ⁽¹⁾ (mV)	Dissolved Oxygen ⁽¹⁾ (mg/L)	Specific Conductivity ⁽¹⁾ (mS/cm)	Turbidity ⁽¹⁾ (NTU)	Temperature ⁽¹⁾ (°C)	Alkalinity ⁽²⁾ (mg/L CaCO ₃)	Total Organic Carbon ⁽³⁾ (mg/L)
	IW57-20160608	06/08/16	4.46	138.7	5.59					
	IW57-20160616	06/16/16	4.51	109.9	2.28					
	IW57-20160623	06/23/16	4.48	56.2	1.88					
IW57	IW57-20160629	06/29/16	4.45	105.5	2.41					
10057	IW57-20160706	07/06/16	4.56	41.7	2.68					
	IW57-20160825	08/25/16	4.52	38.0	1.01					
	IW57-20161021	10/21/16	5.44	28.9	0.81	2.085	4.16	14.85		
	IW57-20170602	06/02/17	5.76	-242.1	0.33	0.808	22.5	15.25		
	IW61-20151208	12/08/16	4.27	200.3	3.34	0.655	24.2	14.25		
	IW61-20160309	03/09/16	6.12	-17.9	1.40	0.65	30.1	14.35		114
	IW61-20160714	07/14/16	5.31	39.7	0.56	1.624	52.4	15.38		2,900
	IW61-20161021	10/21/16	5.63	48.5	0.81	2.283	4.53	15.09		3,000
	IW61-20170126	01/26/17	5.89	-47.9	0.41	1.326	1.96	14.27		1,300
	IW61-20170602	06/02/17	6.00	219.6	0.49	0.812	7.57	15.42		908 ^D
IW61	IW61-20170923	09/23/17	5.28	-9.6	0.79	2.264	7.67	15.55		1,490 ^D
1001	IW61-20171216	12/16/17	6.07	-66.1	0.79	1.158	510	15.28		765 ^D
	IW61-20180310	03/10/18	5.80	-1.5	1.28	0.911	185	14.39		432 ^D
	IW61-20180630	06/30/18	6.02	-92.1	0.39	1.127	22.0	15.72		406 ^D
	IW61-20180922	09/22/18	6.38	-3.8	0.17	0.75	13.5	16.50		228 ^D
	IW61-20181215	12/15/18	6.82	-45.1	0.73	1.171	22.0	15.96	494	628 ^D
	IW61-20190615	06/15/19	5.94	-21.1	0.32	0.913	12.60	15.97	429	140 ^D
	IW61-20191207	12/07/19	5.61	-131.0	0.82	0.819	37.2	15.39	444	101 ^D
	IW64-20160608	06/08/16	5.22	69.8	3.25					
	IW64-20160616	06/16/16	4.97	94.3	2.27					
	IW64-20160623	06/23/16	5.04	41.5	1.15					
IW64	IW64-20160629	06/29/16	5.09	80.3	2.25					
04	IW64-20160706	07/06/16	5.03	36.4	2.05					
	IW64-20160825	08/25/16	5.03	37.0	0.87					
	IW64-20161021	10/21/16	5.70	33.2	0.99	1.980	32.0	15.22		
	IW64-20170602	06/02/17	5.86	-242.4	0.34	0.981	12.6	15.10		

P/(0731 Touchstone)(0731-004 Troy Laundny/Technical/Tables/2019/2019 N Tables/0731-004_2019NI_GW_FTable 6-Geochemical



						Analy	tical Results			
Well Identification	Sample Identification	Sample Date	pH ⁽¹⁾	ORP ⁽¹⁾ (mV)	Dissolved Oxygen ⁽¹⁾ (mg/L)	Specific Conductivity ⁽¹⁾ (mS/cm)	Turbidity ⁽¹⁾ (NTU)	Temperature ⁽¹⁾ (°C)	Alkalinity ⁽²⁾ (mg/L CaCO ₃)	Total Organic Carbon ⁽³⁾ (mg/L)
	IW91-20150506	05/06/15	6.54	171.4	1.57	0.300	0.19	14.35		
	IW91-20150804	08/04/15	6.11	143.7	2.26	0.363	1.91	14.66		
	IW91-20151208	12/08/15	5.88	218.9	5.23	0.342	8.2	14.18		
	IW91-20160309	03/09/16	6.87	209.2	3.99	0.325	2.98	14.15		
	IW91-20160714	07/14/16	6.79	118	5.51	0.299	0.81	14.60		
	IW91-20161020	10/20/16	6.62	143.2	0.25	0.509	6.69	14.68		
	IW91-20170126	01/26/17	6.93	-65.2	0.35	0.461	3.99	14.17		
IW91	IW91-20170601	06/01/17	6.92	192.4	1.90	0.442	3.57	14.54		
10091	IW91-20170923	09/23/17	6.92	173.0	2.21	0.433	5.16	14.64		
	IW91-20171216	12/16/17	7.09	223.6	2.10	0.337	23.0	14.49		
	IW91-20180310	03/10/18	6.68	196.6	5.81	0.385	20.1	14.55		
	IW91-20180630	06/30/18	6.67	22.4	12.00	0.563	2.52	14.34		
	IW91-20180922	09/22/18	7.00	199.8	5.59	0.462	2.17	15.70		
	IW91-20181215	12/15/18	6.94	12.5	6.43	0.524	0.97	14.99		
	IW91-20190615	06/15/19	6.51	25.1	9.86	0.557	2,27	15.30		
	IW91-20191207	12/07/19	6.63	-131.6	4.45	0.585	1.98	14.62		
AIW02	AIW02-20160825	08/25/16	4.88	15.3	0.77					
AIW05	AIW05-20160825	08/25/16	4.89	31.5	1.77					
	MW31-20191009	10/09/19	9.75	100.2	4.02	0.2	16.2	15.02		
MW31	MW31-20191205	12/05/19	6.45	4.1	6.75	0.159	13.6	11.29		
		· · · · · ·			Boren Avenue	North	•	•		
	MW04-20110527	05/27/11	6.93	11	6.24	0.330	122	15.09		
	MW04-20111012	10/12/11	6.46	201.6	6.17	0.252	25.1	15.0		
	MW04-20130909	09/09/13	6.15	-136.0	5.49	0.305	>200	17.6		
	MW04-20150508	05/08/15	6.76	287.3	0.433	0.433	0.00	17.03	54.0	<0.500
	MW04-20150806	08/06/15	6.39	111.2	6.09	0.350	0.9	18.01		
	MW04-20151209	12/09/15	6.49	221.3	7.48	0.344	1.1	16.74		
	MW04-20160308	03/08/16	6.60	136.4	3.56	0.292	1.46	16.11		
	MW04-20160713	07/13/16	6.48	-1.3	0.99	0.392	1.06	16.78		
	MW04-20161019	10/19/16	7.18	190.7	3.15	0.300	4.06	15.98		
MW04	MW04-20170124	01/24/17	6.91	-1.1	2.95	0.237	3.22	14.74		
	MW04-20170531	05/31/17	6.93	219.6	7.11	0.453	6.06	15.70		
	MW04-20170921	09/21/17	6.71	120.3	8.65	0.460	6.82	15.49		
	MW04-20171214	12/14/17	7.13	237.0	8.36	0.465	3.01	13.12		
	MW04-20180309	03/09/18	6.60	159.4	1.80	0.290	3.01	14.96		
	MW04-20180629	06/29/18	6.61	132.9	4.55	0.351	1.50	15.78		
	MW04-20180920	09/20/18	6.55	189.1	7.07	0.387	1.27	15.80		
	MW04-20181214	12/14/18	6.47	38.2	4.83	0.388	0.73	14.58	41.0	
	MW04-20190614	06/14/19	6.58	100.0	4.15	0.386	3.98	16.50	66.3	
	MW04-20191205	12/05/19	6.68	-64.1	7.97	0.463	2.67	14.07	45.8	



						Analy	ytical Results			
Well Identification	Sample Identification	Sample Date	pH ⁽¹⁾	ORP ⁽¹⁾ (mV)	Dissolved Oxygen ⁽¹⁾ (mg/L)	Specific Conductivity ⁽¹⁾ (mS/cm)	Turbidity ⁽¹⁾ (NTU)	Temperature ⁽¹⁾ (°C)	Alkalinity ⁽²⁾ (mg/L CaCO ₃)	Total Organic Carbon ⁽³⁾ (mg/L)
	MW07-20110531	05/31/11	6.63	26	5.70	0.281		14.71		
	MW07-20111012	10/12/11	6.36	166.4	2.92	0.181	14.9	15.2		
	MW07-20130909	09/09/13	6.48	124.5	2.71	0.373	17.1	18.0		
	MW07-20150508	05/08/15	5.94	304.5	4.79	0.491	5.34	17.19	39.0	<0.500
	MW07-20150805	08/05/15	6.22	84.4	4.65	0.597	0.96	18.43		
	MW07-20151209	12/09/15	6.59	210.8	3.10	0.446	4.4	16.86		
	MW07-20160308	03/08/16	6.42	252.3	3.78	0.375	8.12	15.00		0.862
	MW07-20160713	07/13/16	6.44	222.8	0.77	0.330	1.01	16.82		0.83
MW07	MW07-20161019	10/19/16	6.79	120.8	2.96	0.328	4.00	16.24		1.70
	MW07-20170124	01/24/17	6.68	-36.8	4.92	0.275	12.21	13.47		4.25
	MW07-20170531	05/31/17	6.32	-76.4	4.45	0.474	7.21	15.95		4.58
	MW07-20180308	03/08/18	6.47	124.4	7.75	0.374	2.75	14.33		0.877
	MW07-20180629	06/29/18	6.32	176.2	7.38	0.509	1.43	16.31		1.80
	MW07-20180920	09/20/18	6.42	198.7	8.76	0.486	6.50	16.30		0.963
	MW07-20181214	12/14/18	6.32	55.0	7.57	0.465	3.86	15.59	25.5	0.942
	MW07-20190614	06/14/19	6.12	115.9	7.91	0.469	5.23	15.86	23.4	0.869
	MW07-20191205	12/05/19	6.41	-71.1	6.85	0.531	6.35	14.45	20.5	0.736
	MW13-20111020	10/20/11	7.10	138.0	2.12	1.04	21.8	15.9		
	MW13-20130910	09/10/13	6.50	34.9	3.67	0.256	>200	18.4		
	MW13-20150511	05/11/15	6.83	107.0	4.71	0.367	131.0	17.13	40.0	<0.500
	MW13-20150805	08/05/15	6.50	97.7	3.91	0.400	>200	17.82		-
	MW13-20151215	12/15/15	8.72	91.8	3.61	0.384	51.2	15.53		
	MW13-20160307	03/07/16	6.80	190.3	2.94	0.348	4.06	15.83		
	MW13-20160712	07/12/16	6.67	82.4	4.29	0.386	6.65	17.75		
	MW13-20161019	10/19/16	6.50	161.4	4.95	0.339	33.4	16.74		
MW13	MW13-20170124	01/24/17	6.78	-58.5	4.44	0.359	8.68	14.96		
1010015	MW13-20170531	05/31/17	6.59	-84.5	2.38	0.353	8.31	16.32		
	MW13-20170921	09/21/17	6.27	351.8	6.20	0.337	89.7	15.74		
	MW13-20171214	12/14/17	6.83	122.5	3.81	0.363	overrange	12.39		
	MW13-20180308	03/08/18	6.57	186.2	5.98	0.331	40.5	15.22		
	MW13-20180629	06/29/18	6.68	76.4	3.66	0.396	18.2	16.34		
	MW13-20180920	09/20/18	6.64	157.6	4.38	312.500	26.7	16.20		
	MW13-20181214	12/14/18	6.49	22.2	3.30	0.320	38.0	14.93		-
	MW13-20190614	06/14/19	6.41	106.2	4.31	0.315	9.63	15.83		
	MW13-20191205	12/05/19	6.28	-0.2	7.31	0.214	18.6	11.38		



						Analy	tical Results			
Well Identification	Sample Identification	Sample Date	pH ⁽¹⁾	ORP ⁽¹⁾ (mV)	Dissolved Oxygen ⁽¹⁾ (mg/L)	Specific Conductivity ⁽¹⁾ (mS/cm)	Turbidity ⁽¹⁾ (NTU)	Temperature ⁽¹⁾ (°C)	Alkalinity ⁽²⁾ (mg/L CaCO ₃)	Total Organic Carbon ⁽³⁾ (mg/L)
	MW27-20151210	12/10/15	6.75	217.6	5.56	0.417	4.5	16.74		
	MW27-20160309	03/07/16	6.51	214.9	3.31	0.406	3.12	16.09		114
	MW27-20160713	07/13/16	6.47	78.8	2.60	0.414	5.17	17.36		
	MW27-20161019	10/19/16	6.66	97.6	0.89	0.420	0.77	16.82		
	MW27-20170124	01/24/17	6.55	113.9	0.68	0.617	4.01	0.68		
	MW27-20170531	05/31/17	6.89	195.9	1.96	0.377	1.98	16.42		
MW27	MW27-20170921	09/21/17	6.51	126.3	2.39	0.365	2.27	15.64		
1010027	MW27-20171214	12/14/17	6.42	92.3	0.32	0.532	0.41	15.82		
	MW27-20180308	03/08/18	6.46	-24.8	0.54	0.289	12.4	14.35		
	MW27-20180628	06/28/18	6.32	-12.8	0.77	0.455	1.30	16.40		
	MW27-20180920	09/20/18	6.42	40.9	0.21	0.388	1.34	16.80		
	MW27-20181214	12/14/18	6.32	39.7	1.58	0.359	0.85	15.52		
	MW27-20190614	06/14/19	6.44	49.6	3.22	0.360	1.47	15.92		
	MW27-20191205	12/05/19	6.75	-69.3	5.25	0.372	1.68	14.20		-
					Terry Avenue N	North				
	MW15-20150508	05/08/15	6.09	167.7	8.25	0.135	4.07	15.35		
	MW15-20150805	08/05/15	6.16	134.1	8.64	0.163	0.5	15.90		
	MW15-20151209	12/09/15	7.33	164.8	7.53	0.169	2.57	14.58		
	MW15-20160308	03/08/16	6.19	181.1	7.26	0.197	2.63	14.44		
	MW15-20160713	07/13/16	6.28	196.9	4.62	0.341	1.28	15.40		
	MW15-20161018	10/18/16	6.41	192.6	4.75	0.289	6.48	15.35		
	MW15-20170125	01/25/17	6.14	70.2	4.21	0.159	1.78	1.88		
	MW15-20170531	05/31/17	5.67	-48.0	9.71	0.126	7.01	15.22		
MW15	MW15-20170922	09/22/17	5.81	382.3	7.69	0.156	1.72	15.06		
	MW15-20171215	12/15/17	6.50	117.0	5.31	0.251	4.84	12.66		
	MW15-20171215	12/15/17	6.50	117.0	5.31	0.251	4.84	12.66		
	MW15-20180309	03/09/18	6.30	44.5	0.36	0.359	6.01	14.13		
	MW15-20180629	06/29/18	6.14	36.2	4.13	0.228	11.55	14.39		
	MW15-20180920	09/20/18	5.88	169.7	7.66	0.273	14.3	15.70		
	MW15-20181214	12/14/18	6.00	46.7	6.24	0.238	5.61	14.60		
	MW15-20190613	06/13/19	5.97	128.9	5.70	0.154	5.95	16.27		
	MW15-20191205	12/05/19	6.84	-85.7	4.43	0.235	29.2	13.62		



						Analy	tical Results			
Well Identification	Sample Identification	Sample Date	pH ⁽¹⁾	ORP ⁽¹⁾ (mV)	Dissolved Oxygen ⁽¹⁾ (mg/L)	Specific Conductivity ⁽¹⁾ (mS/cm)	Turbidity ⁽¹⁾ (NTU)	Temperature ⁽¹⁾ (°C)	Alkalinity ⁽²⁾ (mg/L CaCO ₃)	Total Organic Carbon ⁽³⁾ (mg/L)
					Thomas Stre	et				
	MW16-20130911	09/11/13	7.22	48.0	3.64	0.686	162.0	19.04		
	MW16-20150508	05/08/15	6.40	145.4	0.68	0.676	22.1	15.59	266	0.961
	MW16-20150805	08/05/15	6.10	34.4	0.40	0.771	1.45	16.37		
	MW16-20151210	12/10/15	7.80	114.5	0.73	0.789	1.34	14.90		-
	MW16-20160308	03/08/16	6.60	15.7	0.89	0.753	0.72	14.65		-
	MW16-20160712	07/12/16	6.68	-90.8	0.47	0.928	0.47	17.38		
MW16	MW16-20161019	10/19/16	6.49	-56.3	0.41	0.788	8.32	15.66		9.4
	MW16-20170125	01/25/17	6.57	112.90	0.46	0.70	1.98	14.20		13.50
	MW16-20170531	05/31/17	6.71	-106.2	0.65	0.985	3.81	16.63		46.0 ^D
	MW16-20170922	09/22/17	6.62	189.4	0.72	0.995	1.35	16.96		92.1 ^D
	MW16-20171229	12/29/17	6.87	96.9	2.13	0.830	1.95	14.11		93.5 ^D
	MW16-20180309	03/09/18	6.70	68.4	0.23	0.941	7.98	15.28		1.87
				1	WELL D	AMAGED 2018		T	1	
	MW28-20190613	6/13/2019	6.62	81.3	1.08	0.867	4.22	18.72	424	
MW28	MW28-20191009	10/9/2019	8.1	87.4	1.58	0.789	5.72	16.13		
	MW28-20191204	12/4/2019	6.68	161.5	0.24	0.790	7.72	15.49	391	
T					Harrison Str		T	T		
	MW01-20150806	08/06/15	5.71	126.9	9.20	0.308	3.41	21.37		
	MW01-20160308	03/08/16	6.63	157.2	7.20	0.215		13.07		
	MW01-20160712	07/12/16	6.69	157.7	7.48	0.225	24.9	17.28		
	MW01-20161018	10/18/16	6.73	125.0	8.01	0.228	3.90	15.31		
	MW01-20170124	01/24/17	6.72	144.0	8.00	0.222	2.27	13.25		
	MW01-20170531	05/31/17	6.15	-30.9	8.24	0.262	8.66	15.17		
MW01	MW01-20171214	12/14/17	6.23	73.1	4.89	0.253	26.8	11.21		
	MW01-20180309	03/09/18	6.34	185.7	5.40	0.219	5.27	12.87		
	MW01-20180628	06/28/18	6.37	112.2	3.85	0.255	2.32	15.93		-
	MW01-20180920	09/20/18	6.35	179.8	5.91	0.260	2.82	16.10		
	MW01-20181214	12/14/18	6.45	114.3	6.46	0.244	2.90	14.44		
	MW01-20190614	06/14/19	6.30	111.2	8.19	0.288	1.73	15.45		
	MW01-20191205	12/05/19	6.65	-80.8	7.20	0.325	2.61	13.81		



						Analy	tical Results			
Well Identification	Sample Identification	Sample Date	pH ⁽¹⁾	ORP ⁽¹⁾ (mV)	Dissolved Oxygen ⁽¹⁾ (mg/L)	Specific Conductivity ⁽¹⁾ (mS/cm)	Turbidity ⁽¹⁾ (NTU)	Temperature ⁽¹⁾ (°C)	Alkalinity ⁽²⁾ (mg/L CaCO ₃)	Total Organic Carbon ⁽³⁾ (mg/L)
	MW26-20151210	12/10/15	8.26	142.3	4.58	0.359	34.8	14.39		
	MW26-20160307	03/07/16	6.54	108.6	0.93	0.234	3.21	14.20		
	MW26-20160712	07/12/16	6.28	101.8	5.39	0.313	1.30	16.08		
	MW26-20161018	10/18/16	6.39	181.0	5.55	0.312	7.52	14.69		
	MW26-20170124	01/24/17	6.49	75.0	0.88	0.316	2.67	13.80		
	MW26-20170531	05/31/17	6.50	213.1	0.86	0.23	2.97	14.82		
MW26	MW26-20170921	09/21/17	6.15	182.7	0.35	0.268	5.98	14.91		
IVIVV26	MW26-20171214	12/14/17	6.06	163.4	0.32	0.354	2.66	12.65		
	MW26-20180309	03/09/18	6.39	166.2	0.28	0.281	8.47	13.37		
	MW26-20180628	06/28/18	6.21	68.0	0.28	0.379	8.52	15.44		
	MW26-20180920	09/20/18	6.23	174.5	0.28	0.359	3.98	15.90		
	MW26-20181214	12/14/18	6.23	23.8	0.62	0.196	5.96	13.96	103	1.23
	MW26-20190614	06/14/19	6.27	83.0	0.59	0.370	6.41	15.73	78.0	1.13
	MW26-20191205	12/05/19	6.58	-107.0	0.70	0.284	7.07	14.04	103	21.2 ^B
MW32	MW32-20191009	10/09/19	6.16	-39.9	2.22	0.208	9.71	13.35		
1010032	MW32-20191205	12/05/19	5.92	-9.0	2.26	0.167	23.6	10.44		
MW33	MW33-20191009	10/09/19	8.03	97.2	4	0.257	7.3	15.85		
1010033	MW33-20191205	12/05/19	6.38	-25.6	5.79	170	3.43	11.28		
				So	outh-Adjoining F	roperty				
MW29	MW29-20191008	10/08/19	6.55	-146.2	1.67	0.777	32	14.09		
	MW29-20191204	12/04/19	6.28	155.3	0.56	0.937	9.23	15.10		
MW30	MW30-20191008	10/08/19	2.98	133.8	2.30	0.495	158	15.29		
	MW30-20191204	12/04/19	5.88	173.1	0.37	0.440	13.9	14.30		
ONNI-MW-4	ONNI-MW-4-20191208	12/08/19	6.46	-157.2	1.40	0.469	49.0	13.69		
ONNI-MW-5	ONNI-MW-5-20191208	12/08/19	6.92	-176.5	1.71	0.423	45.0	12.75		
	ONNI-MW-5-20200206	02/06/20	7.11	-38.1	1.17	0.368	20.5	14.79		

NOTES:

Analyses performed by Friedman & Bruya, Inc., Fremont Analytical Inc., or Aquatic Research Inc., of Seattle, Washington; or Amtest Inc. of Kirkland, Washington.

⁽¹⁾Parameter is measured in the field using water quality meter with flow-through cell. The reported value is the last reading prior to sampling groundwater.

(2)Analyzed by SM 2320B.

(3)Analyzed by SM 5310C.

Laboratory Notes:

 $^{\rm D} \hbox{Dilution was required}.$

^BAnalyte detected in the associated Method Blank.

-- = not measured/ not applicable

< = not detected at a concentration exceeding the laboratory reporting limit

°C = degrees Celius

CaCO₃ = calcium carbonate

mg/L = milligrams per liter

mS/cm = millisiemens per centimeter

mV = millivolts

NTU = nephelometric turbidity unit

ORP = oxidation-reduction potential

SM = Standard Method



						Analytic	al Results			
Well Identification	Sample Identificiation	Sample Date	Lactate ⁽¹⁾ (mg/L)	Acetate ⁽¹⁾ (mg/L)	Propionate ⁽¹⁾ (mg/L)	Formate ⁽¹⁾ (mg/L)	Butyrate ⁽¹⁾ (mg/L)	Pyruvate ⁽¹⁾ (mg/L)	Lactic ⁽²⁾ (mg/L)	Acetic ⁽³⁾ (mg/L)
				Troy	Laundry Proper	ty				
	MW07-20160308	03/08/16	<0.39	<0.54	<0.31	<0.22	<0.41	<0.69		
	MW07-20160713	07/16/16							<20	<20 ^{X,D}
	MW07-20161019	10/19/16	<0.39	<0.54	<0.31	<0.22	<0.41	<0.69		
	MW07-20170124	01/24/17	<0.39	<0.54	<0.31	<0.22	<0.41	<0.69		
MW07	MW07-20170531	05/31/17	<0.39	<0.54	<0.31	<0.22	<0.41	<0.69		
	MW07-20180308	03/08/18	<0.39	<0.54	<0.31	<0.22	<0.41	<0.69		
	MW07-20180629	06/29/18	<0.39	<0.54	<0.31	<0.22	<0.41	<0.69		
	MW07-20180920	09/20/18	<0.39	<0.54	<0.31	<0.22	<0.41	<0.69	-	
	MW07-20190614	06/14/19							-	
	MW16-20161019	10/19/16	<0.39	<0.54	<0.31	<0.22	<0.41	<0.69	-	
	MW16-20170125	01/25/17	<0.39	<0.54	<0.31	<0.22	<0.41	<0.69		
	MW16-20170531	05/31/17	<0.39	<0.54	<0.31	<0.22	<0.41	<0.69		
MW16	MW16-20170922	09/22/17	<0.39	1.1	<0.31	2	<0.41	<0.69		
	MW16-20171229	12/29/17	<0.39	<0.54	<0.31	<0.22	<0.41	<0.69		
	MW16-20180309	03/09/18	<0.39	<0.54	<0.31	<0.22	<0.41	<0.69		
					WELL DAMA	GED 2018				
	MW18-20150506	05/06/15							-	
	MW18-20160308	03/08/16	<0.39	<0.54	<0.31	<0.22	<0.41	<0.69		
	MW18-20160714	07/14/16							<100	64 ^{X,D}
	MW18-20161020	10/20/16	<7.8	959	494	<4.4	131	<14		
	MW18-20170126	01/26/17	<7.8	830	200	<4.4	121	<14		
	MW18-20170601	06/01/17	<7.8	512	300	<4.4	115	<14		
MW18	MW18-20170923	09/23/17	<0.39	25	232	<0.22	<0.41	2		
	MW18-20171216	12/16/17	<0.39	<0.54	81	0.79	<0.41	<0.69		
	MW18-20180310	03/10/18	<0.39	193	79	0.55	1.6	1.7		
	MW18-20180630	06/30/18	<0.39	28	53	<0.22	<0.41	<0.69		
	MW18-20180922	09/22/18	<0.39	26	5.4	<0.22	<0.41	<0.69		
	MW18-20190615	06/15/19	<0.39	<0.54	<0.31	<0.22	<0.41	<0.69		
	MW18-20191207	12/07/19	<0.39	10	<0.31	<0.22	<0.41	<0.69		



						Analytic	al Results			
Well Identification	Sample Identificiation	Sample Date	Lactate ⁽¹⁾ (mg/L)	Acetate ⁽¹⁾ (mg/L)	Propionate ⁽¹⁾ (mg/L)	Formate ⁽¹⁾ (mg/L)	Butyrate ⁽¹⁾ (mg/L)	Pyruvate ⁽¹⁾ (mg/L)	Lactic ⁽²⁾ (mg/L)	Acetic ⁽³⁾ (mg/L)
	MW21-20160309	03/09/16	<0.39	<0.54	<0.31	<0.22	<0.41	<0.69		
	MW21-20160713	07/13/16							<100	<100 ^{X,D}
	MW21-20161020	10/20/16	<7.8	509	1,032	<4.4	43	<14		
	MW21-20170126	01/26/17	<0.39	201	311	1.1	31	0.91	-	
	MW21-20170601	06/01/17	<7.8	682	393	<4.4	88	<14		
	MW21-20170924	09/24/17	<7.8	880	507	<4.4	148	<14		
MW21	MW21-20171216	12/16/17	<7.8	630	151	45	148	13		
	MW21-20180310	03/10/18	<0.39	490	124	1.0	73	16		
	MW21-20180630	06/30/18	<7.8	811	278	<4.4	151	28		
	MW21-20180922	09/22/18	<0.39	460	173	<0.22	114	<0.69		
	MW21-20190615	06/15/19	<0.39	140	66	<0.22	12	4		
	MW21-20191207	12/07/19	<0.39	116	139	<0.22	13	12		
NAVA/22	MW22-20190615	06/15/19	<0.39	270	150	<0.22	39	13		
MW22	MW22-20191207	12/07/19	<0.39	418	134	<0.22	42	13	-	
	MW23-20150507	05/07/15								
	MW23-20160308	03/08/16	<0.39	<0.54	<0.31	<0.22	<0.41	<0.69		
	MW23-20160714	07/14/16	-1	-				1	<100	<100 ^X
	MW23-20161020	10/20/16	<7.8	986	1,229	<4.4	144	<14		
	MW23-20170126	01/26/17	<7.8	613	256	<4.4	57	<14	-	
	MW23-20170601	06/01/17	<7.8	1,300	656	<4.4	280	<14		
MW23	MW23-20170923	09/23/17	<7.8	705	388	<4.4	295	59	-	
	MW23-20171216	12/16/17	<0.39	131	176	8.0	106	31		
	MW23-20180310	03/10/18	<0.39	25	151	2.8	<0.41	7.2		
	MW23-20180630	06/30/18	<0.39	52	213	<0.22	<0.41	8.5		
	MW23-20180922	09/22/18	<0.39	26	230	<0.22	<0.41	<0.69		
	MW23-20190615	06/15/19	<0.39	19	86	<0.22	0.42	1.8		
	MW23-20191207	12/07/19	<0.39	24	<0.31	2.7	<0.41	<0.69		



						Analytic	al Results			
Well Identification	Sample Identificiation	Sample Date	Lactate ⁽¹⁾ (mg/L)	Acetate ⁽¹⁾ (mg/L)	Propionate ⁽¹⁾ (mg/L)	Formate ⁽¹⁾ (mg/L)	Butyrate ⁽¹⁾ (mg/L)	Pyruvate ⁽¹⁾ (mg/L)	Lactic ⁽²⁾ (mg/L)	Acetic ⁽³⁾ (mg/L)
	MW24-20150506	05/06/15								
	MW24-20160309	03/09/16	<0.39	<0.54	<0.31	<0.22	<0.41	<0.69		
	MW24-20160715	07/15/16							<100	56.7 ^{X,D}
	MW24-20161020	10/20/16	<7.8	1,431	143	<4.4	20	<14		
	MW24-20170126	01/26/17	<7.8	901	133	<4.4	34	<14		
	MW24-20170601	06/01/17	<7.8	1,036	204	78	251	<14		
MW24	MW24-20170924	09/24/17	<0.39	28	140	4.2	38	7.9		
	MW24-20171216	12/16/17	<0.39	12	70	1.2	2.0	0.80		
	MW24-20180310	03/10/18	<0.39	8.0	10	<0.22	<0.41	<0.69		
	MW24-20180630	06/30/18	<7.8	681	164	<4.4	123	<13.8		
	MW24-20180922	09/22/18	<0.39	26	10	<0.22	1	<0.69		
	MW24-20190615	06/15/19	<0.39	39	5.6	<0.22	0.46	<0.69		
	MW24-20191207	12/07/19	5.7	29	<0.31	3.0	<0.41	<0.69		
	MW25-20150507	05/07/15								
MW25	MW25-20190615	06/15/19	<0.39	45	1.3	<0.22	1.3	<0.69		
	MW25-20191207	12/07/19	<0.39	21	<0.31	2.9	<0.41	<0.69		
	IW04-20150508	05/08/15								
IW04	IW04-20190615	06/15/19	<0.39	31	6.1	<0.22	3.2	0.42		
	IW04-20191207	12/07/19	<0.39	25	<0.31	3.3	<0.41	<0.69		
	IW50-20160309	03/09/16	<0.39	358	82	1.1	22	<0.69		
	IW50-20160715	07/15/16							<100	<100 ^{X,D}
	IW50-20161021	10/21/16	<7.8	1,492	683	8.2	476	<14		
	IW50-20170126	01/26/17	<0.39	73	102	4.0	61	9.4		
	IW50-20170602	06/02/17	<0.39	39	5.2	<0.22	1.3	<0.69		
IW50	IW50-20170924	09/24/17	<0.39	87	108	<0.22	4.2	2.5		
IVVOU	IW50-20171216	12/16/17	<0.39	43	8.0	<0.22	<0.41	<0.69		
	IW50-20180310	03/10/18	<0.39	41	3.1	<0.22	0.79	<0.69		
	IW50-20180630	06/30/18	<0.39	4.9	<0.31	<0.22	<0.41	<0.69		
	IW50-20180922	09/22/18	<0.39	2.3	<0.31	<0.22	<0.41	<0.69		
	IW50-20190615	06/15/19	<0.39	<0.54	<0.31	<0.22	<0.41	<0.69		
	IW50-20191207	12/07/19	<0.39	18	<0.31	3.3	<0.41	<0.69		



			Analytical Results								
Well Identification	Sample Identificiation	Sample Date	Lactate ⁽¹⁾ (mg/L)	Acetate ⁽¹⁾ (mg/L)	Propionate ⁽¹⁾ (mg/L)	Formate ⁽¹⁾ (mg/L)	Butyrate ⁽¹⁾ (mg/L)	Pyruvate ⁽¹⁾ (mg/L)	Lactic ⁽²⁾ (mg/L)	Acetic ⁽³⁾ (mg/L)	
	IW61-20160309	03/09/16	<0.39	368	51	0.69	28	<0.69			
	IW61-20160713	07/13/16							<100	217 ^{X,D}	
	IW61-20161021	10/21/16	<7.8	1,543	538	122	837	<14			
	IW61-20170126	01/26/17	<7.8	612	253	38	363	<14			
	IW61-20170602	06/02/17	< 0.39	171	118	<0.22	189	< 0.69			
IW61	IW6120170923	09/23/17	<7.8	2,589	231	37	705	19			
10001	IW61-20171216	12/16/17	<0.39	235	151	45	148	13			
	IW61-20180310	03/10/18	< 0.39	184	176	31	92	16			
	IW61-20180630	06/30/18	<0.39	111	200	<0.22	44	14			
	IW61-20180922	09/22/18	< 0.39	71	170	14	21	<0.69			
	IW61-20190615	06/15/19	<0.39	88	72	<0.22	4.4	0.58			
I	IW61-20191207	12/07/19	<0.39	98	7.2	1.8	5	<0.69			

NOTES:

Analyses performed by SiREM in Guelph, ON or AmTEST Lab oratories in Kirkland, Washington.

Laboratory Notes:

- -- = not measured/ not applicable
- < = not detected at a concentration exceeding the laboratory reporting limit

EPA = US Environmental Protection Agency

mg/L = milligrams per liter

⁽¹⁾Analyzed by Ion Chromatography.

⁽²⁾Analyzed by EPA Method 300.0.

⁽³⁾Analyzed by EPA Method 300.0 modified.

^DThe reported value is from a dilution.

^XAcetic and proprionic acids co-eluted. Results are quantitated at acetic acid.



Table 8 Indoor and Outdoor Air Analytical Results for CVOCs Troy Laundry Seattle Site 300 Boren Avenue North and 399 Fairview Avenue North Seattle, Washington

						Analytical Results ⁽¹⁾ (μg/m ³)				
Sample	Sample	Sample	Sampled	Sample	Sample					
ID	Name	Location	Ву	Туре	Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
				2018 Indoor Air S	Sampling Event					
OA01	OA01-20180304	Outdoor - HVAC Intake		Outdoor Air (24 hours)	03/04/18–03/05/18	<1.7	<0.27	<0.2	<0.2	<0.13
IA01	IA01-20180304	P5 - North wall								
IA02	IA02-20180304	P5 - Interior Stairway - North				6.2	0.27	<0.2	<0.2	<0.13
IA03	IA03-20180304	P5 - West wall				<1.7	<0.27	<0.2	<0.2	<0.13
IA04	IA04-20180304	P5 - West wall]			<1.7	<0.27	<0.2	<0.2	<0.13
IA05	IA05-20180307	P5 - South Tower Parking Elevator Shaft			03/07/18-03/08/18	<1.7	<0.27	<0.2	<0.2	<0.13
IA06	IA06-20180304	P5- Elevator lobby			03/04/18–03/05/18	<1.7	<0.27	<0.2	<0.2	<0.13
IA07	IA07-20180304	North wall		Indoor Air (24 hours)		<1.7	<0.27	<0.2	<0.2	<0.13
IA08	IA08-20180304	P4 - West wall				<1.7	<0.27	<0.2	<0.2	<0.13
IA09	IA09-20180304	P4 - West wall	SoundEarth			<1.7	<0.27	<0.2	<0.2	<0.13
IA10	IA10-20180304	P4 - South wall				<1.7	<0.27	<0.2	<0.2	<0.13
IA11	IA11-20180304	P3 - West wall				<1.7	<0.27	<0.2	<0.2	<0.13
IA12	IA12-20180304	P3 - West wall				<1.7	<0.27	<0.2	<0.2	<0.13
IA13	IA13-20180304	P3 - East wall								
IA14	IA14-20180304	P2 - West wall								
IA15	IA15-20180304	P2 - West wall				<1.7	<0.27	<0.2	<0.2	<0.13
IA16	IA16-20180304	P2 - South wall				<1.7	<0.27	<0.2	<0.2	<0.13
IA19	IA19-20180304	P1 - South wall				<1.7	<0.27	<0.2	<0.2	<0.13
IA20	IA20-20180304	P1 - Interior Stairway - North				2.4	0.34	<0.2	<0.2	0.13
				2019 Supplemental Indo	oor Air Sampling Event					
OA02	OA02-20190217	Outdoor - HVAC Intake		Outdoor Air (24 hours)	02/17/19-02/18/19	<6.8	<0.27	<0.4	<0.4	<0.26
IA21	IA21-20190217	P5 - Interior Stairway - North		Indoor Air (24 hours	02/17/13 02/10/13	<6.8	<0.27	<0.4	<0.4	<0.26
IA22	IA22-20190219	P5 - South Tower Parking Elevator Shaft	SoundEarth	Indoor Air (3 weeks)	02/19/19-03/12/19	<0.42	<0.64	<0.87	<2.1	<5.5
IA23	IA23-20190217	P5 - Interior Stairway - South Tower	Journalaitii	Indoor Air (24 hours)	02/17/19–02/18/19	<6.8	<0.27	<0.4	<0.4	<0.26
IA24	IA24-20190217	P1 - Interior Stairway - North				<6.8	<0.27	<0.4	<0.4	<0.26
IA25	IA25-20190217	P1 - Interior Stairway - South Tower				<6.8	<0.27	<0.4	<0.4	<0.26
MTCA Method	TCA Method B Indoor Air Cleanup Levels					9.62 ⁽²⁾	0.37 ⁽²⁾	NE	NE	0.28 ⁽²⁾
Modified Meth	dified Method B Indoor Air Remediation Levels ⁽³⁾					323.08 ⁽³⁾	20.49 ⁽³⁾	NE	NE	9.55 ⁽³⁾

NOTES:

Bold indicates laboratory detection limit exceeds MTCA Method B Indoor Air Cleanup Level but less than the Modified Method B Indoor Air

Sample analysis performed by Friedman & Bruya, Inc., Seattle, Washington, or Eurofins Air toxics, Inc. of Folsom, California.

-- = not tested

< = not detected at a concentration exceeding the laboratory reporting limit

μg/m³ = micrograms per cubic meter

CVOC = chlorinated volatile organic compound

DCE = dichloroethene

EPA = US Environmental Protection Agency

MTCA = Washington State Model Toxics Control Act

NE = not established

PCE = tetrachloroethene

SoundEarth = SoundEarth Strategies, Inc.

TCE = trichloroethene

P:\0731 Touchstone\0731-004 Troy Laundry\Technical\Tables\2019\2019 RI Tables\0731-004_2019RI_IA_F.xlsx/Tbi 8 - cVOCs

⁽¹⁾Analyzed by EPA Method TO-15 or Modified Method TO-17.

⁽²⁾MTCA Method B Indoor Air Cleanup Levels, Noncancer, DRAFT: Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action, October 2009 and updated in February 2016.

⁽³⁾ Modified Method B Indoor Air Remediation Levels, calculated from MTCA Equation 750-2 and assumes an exposure frequency of 5 days/week, 1 hour/day, and 52 weeks/year.



Table 9

Summary of Indoor and Outdoor Air Analytical Results for APH Troy Laundry Seattle Site 300 Boren Avenue North and 399 Fairview Avenue North Seattle, Washington

						Anal	ytical Results ⁽¹⁾ (μ	cal Results ⁽¹⁾ (μg/m³)	
Sample ID	Sample Name	Sample Location	Sampled By	Sample Type	Sample Date	APH EC5-8 aliphatics	APH EC9-12 aliphatics	APH EC9-10 aromatics	
			2018 Indoor Air Sa	mpling Event					
OA01	OA01-20180304	Outdoor—HVAC Intake		Outdoor Air (24 hours)		54	<35	<25	
IA01	IA01-20180304	P5—North Wall				67	<35	<25	
IA02	IA02-20180304	P5—Interior Stairway—North			03/04/18-03/05/18	130	36	<25	
IA03	IA03-20180304	P5—West Wall				49	<35	<25	
IA04	IA04-20180304	P5—West Wall							
IA05	IA05-20180307	P5—South Tower Parking Elevator Shaft	SoundEarth	Indoor Air (24 hours)	03/07/18-03/08/18				
IA06	IA06-20180304	P5—Elevator Lobby			03/04/18–03/05/18				
IA07	IA07-20180304	North wall							
IA08	IA08-20180304	P4—West Wall				69	<35	<25	
IA09	IA09-20180304	P4—West Wall							
IA10	IA10-20180304	P4—South Wall							
IA11	IA11-20180304	P3—West Wall	SoundEarth			84	35	<25	
IA12	IA12-20180304	P3—West Wall							
IA13	IA13-20180304	P3—East Wall				140	<35	<25	
IA14	IA14-20180304	P2—West Wall				65	<35	<25	
IA15	IA15-20180304	P2—West Wall				62	<35	<25	
IA16	IA16-20180304	P2—South Wall							
IA19	IA19-20180304	P1—South Wall							
IA20	IA20-20180304	P1—Interior Stairway—North				86	47	<25	
MTCA Method	d B Indoor Air Cleanup Level	s ⁽²⁾	-		-	2,700	140	180	
Modified Met	hod B Indoor Remediation L	evels ⁽³⁾				113,400	5,880	7,560	

NOTES:

Bold indicates concentration exceeds laboratory detection limits.

Sample analysis performed by Friedman & Bruya, Inc., Seattle, Washington.

-- = not tested

< = not detected at a concentration exceeding the laboratory reporting limit $\mu g/m^3$ = micrograms per cubic meter

APH = air-phase hydrocarbons

AFTI – all-pliase flydrocarbolis

MTCA = Washington State Model Toxics Control Act

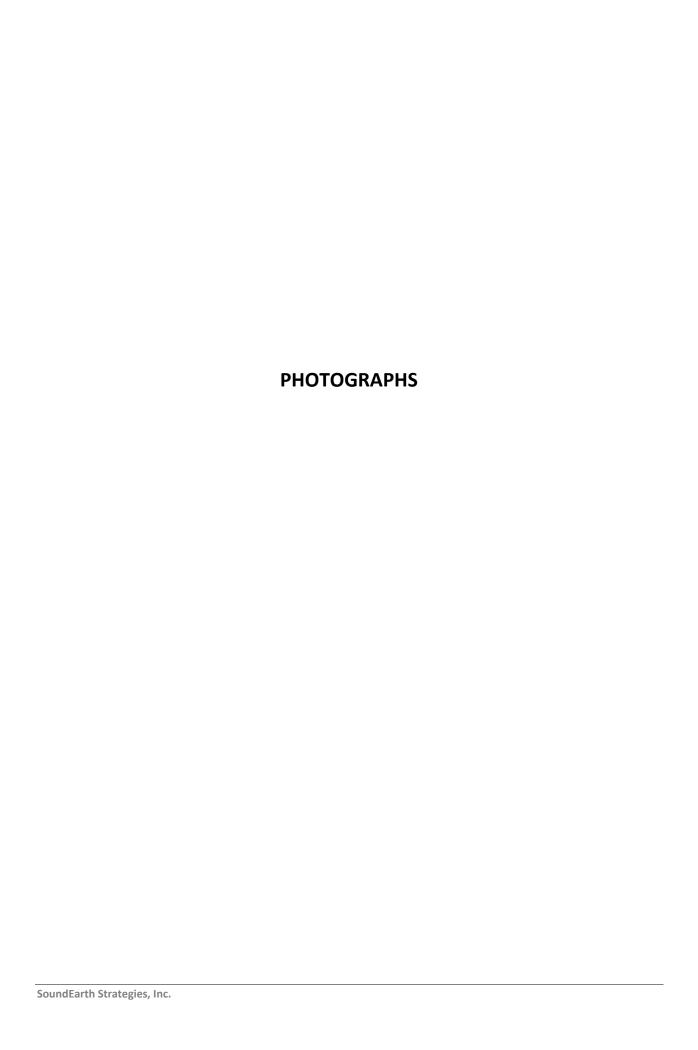
SoundEarth = SoundEarth Strategies, Inc.

P:\0731 Touchstone\0731-004 Troy Laundry\Technical\Tables\2019\2019 RI Tables\0731-004_2019RI_IA_F.xlsx/Tbl 9 - APH

⁽¹⁾Analyzed by Method MA-APH.

⁽²⁾MTCA Method B Indoor Air Cleanup Levels, Noncancer, DRAFT: Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action, October 2009 and updated in February 2016.

⁽³⁾ Modified Method B Indoor Remediation Levels, calculated from MTCA Equation 750-2 and assumes an exposure frequency of 5 days/week, 1 hour/day, and 52 weeks/year.





PROPERTY PHOTOGRAPHS
Troy Laundry Seattle Site
300 Boren Avenue North and
399 Fairview Avenue North
Seattle, Washington

Project No.: 0731-004
Date: January 31, 2020
Drawn By: LDS
Chk By: LDS



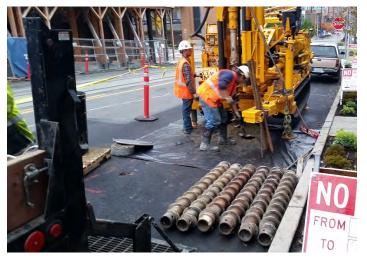
Photograph 1. Installing supplemental monitoring well MW27 in Boren Avenue North ROW; December 1, 2015.



Photograph 3. Quarterly Groundwater Monitoring.



Photograph 5. 2018 vapor intrusion evaluation; ambient outdoor air sampling; March 4, 2018.



Photograph 2. Installing supplemental monitoring well MW26 in Harrison Street ROW; December 2, 2015.



Photograph 4. Installing MW16 replacement well MW28 in Thomas Street ROW; December 11, 2018.



Photograph 6. 2019 supplemental vapor intrusion evaluation; indoor air sampling in stairwell; February 17, 2019.



PROPERTY PHOTOGRAPHS
Troy Laundry Seattle Site
300 Boren Avenue North and
399 Fairview Avenue North
Seattle, Washington

Project No.: 0731-004
Date: January 31, 2020
Drawn By: LDS
Chk By: LDS



Photograph 7. Installing supplemental monitoring well MW32 in Harrison Street ROW; September 9, 2019.



Photograph 9. Installing supplemental monitoring well MW33 in Harrison Street ROW; September 13, 2019.



Photograph 11. Installing supplemental monitoring well MW30 on south-adjacent property; September 19, 2019.



Photograph 8. Installing supplemental monitoring well MW31 in Boren Avenue North ROW; September 11, 2019.



Photograph 10. Installing supplemental monitoring well MW29 on south-adjacent property; September 16, 2019.



Photograph 12. Installing dedicated bladder pumps in supplemental monitoring wells; September 20, 2019.