



December 23, 2014

1006.008.04

Washington State Department of Ecology
Toxics Cleanup Program – NWRO
3190 160th Avenue SE
Bellevue, Washington 98008-5452

Attention: Ms. Maura O’Brien

**COMPLIANCE GROUNDWATER MONITORING – NOVEMBER 2014 REPORT
FORMER PACE NATIONAL SITE
500 7TH AVENUE SOUTH
KIRKLAND, WASHINGTON**

**SITE CLEANUP ID# 5063
FACILITY SITE ID #2159**

Dear Ms. O’Brien:

On behalf of SRMKII, LLC (SRMKII), PES Environmental, Inc. (PES) has prepared this letter to summarize the recent compliance groundwater monitoring and sampling event (sometimes referred to as the “Work”) for the Former Pace National Site (Site; Figure 1). The Site is comprised of the northern portion of property located at 500 7th Avenue South, in Kirkland, Washington (Property; see Figure 2), and is the subject of a cleanup action being performed pursuant to a Consent Decree between the Washington State Department of Ecology (Ecology), Ultra Corporation (Ultra), and SRMKII. The cleanup action being performed at the Site is described in detail in the Cleanup Action Plan (CAP) prepared by Ecology and included as Exhibit B to the Consent Decree (Ecology, 2012). The work was conducted in accordance with the Consent Decree and PES’s *Post Excavation Compliance Monitoring Plan*, dated October 10, 2013 and approved by Ecology in an e-mail dated October 11, 2013. On behalf of SRMKII, LLC, PES requested a modification of the compliance sampling schedule from annual to semi-annual sampling, in PES’s *Compliance Groundwater Monitoring – May 2014*, dated June 9, 2014 (revised June 23, 2014). Ecology approved of the modification in an e-mail dated June 18, 2014.

This report presents the results of the second compliance groundwater sampling event (conducted after the Property redevelopment soil excavation and subsurface disturbing activities were completed). The results of historical groundwater sampling are provided in tables and figures from Sound Earth Strategies’ (SES) *Draft Semiannual Groundwater Monitoring and Sampling Report – February 2013* (Attachment A).

PROPERTY REDEVELOPMENT ACTIVITIES

SRMKII is in the process of redeveloping the Property to construct an office building with two floors of subsurface parking. The Property was excavated to a general construction grade

elevation of 142.5 feet above mean sea level (amsl) from November 2013 to May 2014. Prior to the excavation activities, all on-site monitoring wells (HC-MW-3, HC-MW-5, HC-MW-7 through HC-MW-11, and HC-MW-24) were decommissioned by a licensed driller, with prior approval from Ecology. Per Ecology's request, compliance groundwater sampling was to begin after all subsurface disturbing activities were completed. SRMKII completed the final footing excavations in early May 2014.

GROUNDWATER MONITORING AND SAMPLING

Groundwater Level Monitoring

Groundwater level monitoring was conducted on November 10, 2014, in monitoring wells SES-MW25, SES-MW26, and SES-MW27. Depth to water was measured from the surveyed top of casing (TOC) to the nearest 0.01 foot using an electronic water level probe.

Groundwater Sampling

Groundwater samples were collected on November 10, 2014, using low-flow sampling techniques from wells SES-MW25, SES-MW26, and SES-MW27. A peristaltic pump with new tubing was lowered into each well, and the groundwater was purged prior to sample collection until field parameters stabilized. Field parameters measured during sampling consisted of temperature, pH, specific conductance, dissolved oxygen (DO), and oxidation reduction potential (ORP).

Samples were collected into preserved 40-ml VOA sampling containers and submitted to Fremont Analytical, Inc. (Fremont), in Seattle, Washington (an Ecology accredited laboratory) for analysis of vinyl chloride by United States Environmental Protection Agency (USEPA) Method 8260B.

Quality Assurance/Quality Control

One field duplicate sample was collected from well SES-MW27. One set of trip blanks was included in the coolers and was returned to Fremont for vinyl chloride analysis.

RESULTS

Groundwater Monitoring

Field parameter measurements, groundwater level measurements, and groundwater elevations are summarized in Table 1. Groundwater elevations ranged from 133.63 to 137.25 feet (relative to an arbitrary vertical datum) and were consistent with historical observations. The groundwater elevations are shown on Figure 2.

Groundwater Analytical Results

The laboratory analytical results from the November 2014 sampling event for vinyl chloride are summarized in Table 1 and on Figure 2. Vinyl chloride was not detected in any sample at or

above the laboratory practical quantitation limit (PQL) of 0.2 micrograms per liter ($\mu\text{g/L}$). Vinyl chloride was not detected at or above the PQL in the trip blank sample.

Laboratory Data Validation

The laboratory analytical reports were validated in accordance with the USEPA guidelines for organic data review¹. All of the data were judged to be acceptable for their intended use. A copy of the laboratory analytical report and data validation memorandum are included as Attachment B.


CONCLUSIONS AND RECOMMENDATIONS

The third and fourth compliance monitoring events will occur in May and November of 2015. If the groundwater analytical results indicate four consecutive compliance monitoring events with vinyl chloride concentrations below the Model Toxics Control Act (MTCA) Method A cleanup level, SRMKII will submit a site closure report to Ecology.

If you have any questions regarding this report, or need any additional information, please feel free to contact either of us at (206) 529-3980.

Sincerely,

PES ENVIRONMENTAL, INC.



Kelly L. Rankich
Project Engineer



Daniel A. Balbiani, P.E.
Principal Engineer

Attachments:

Figure 1– Site Location Map

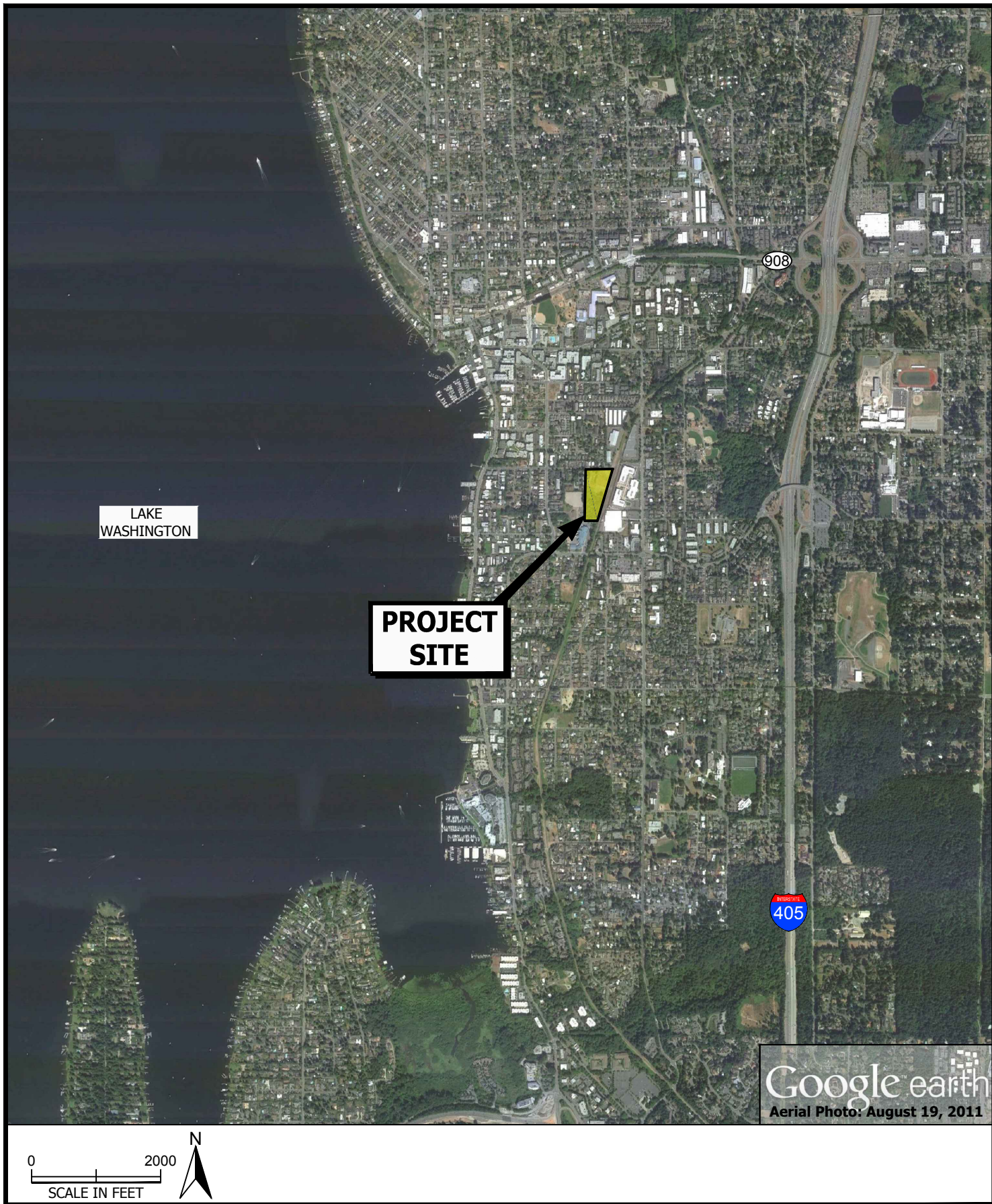
Figure 2 –Groundwater Elevations and Vinyl Chloride Results –November 2014

Table 1 – Summary of Groundwater Data

Attachment A – Tables and Figures from SES *Draft Semiannual Groundwater Monitoring and Sampling Report – February 2013*

Attachment B – Laboratory Report and Data Validation Memorandum

¹ USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review. OSWER 9240.1-05A-P PB99-963506 EPA540/R-99/008, October.







PES Environmental, Inc.
Engineering & Environmental Services

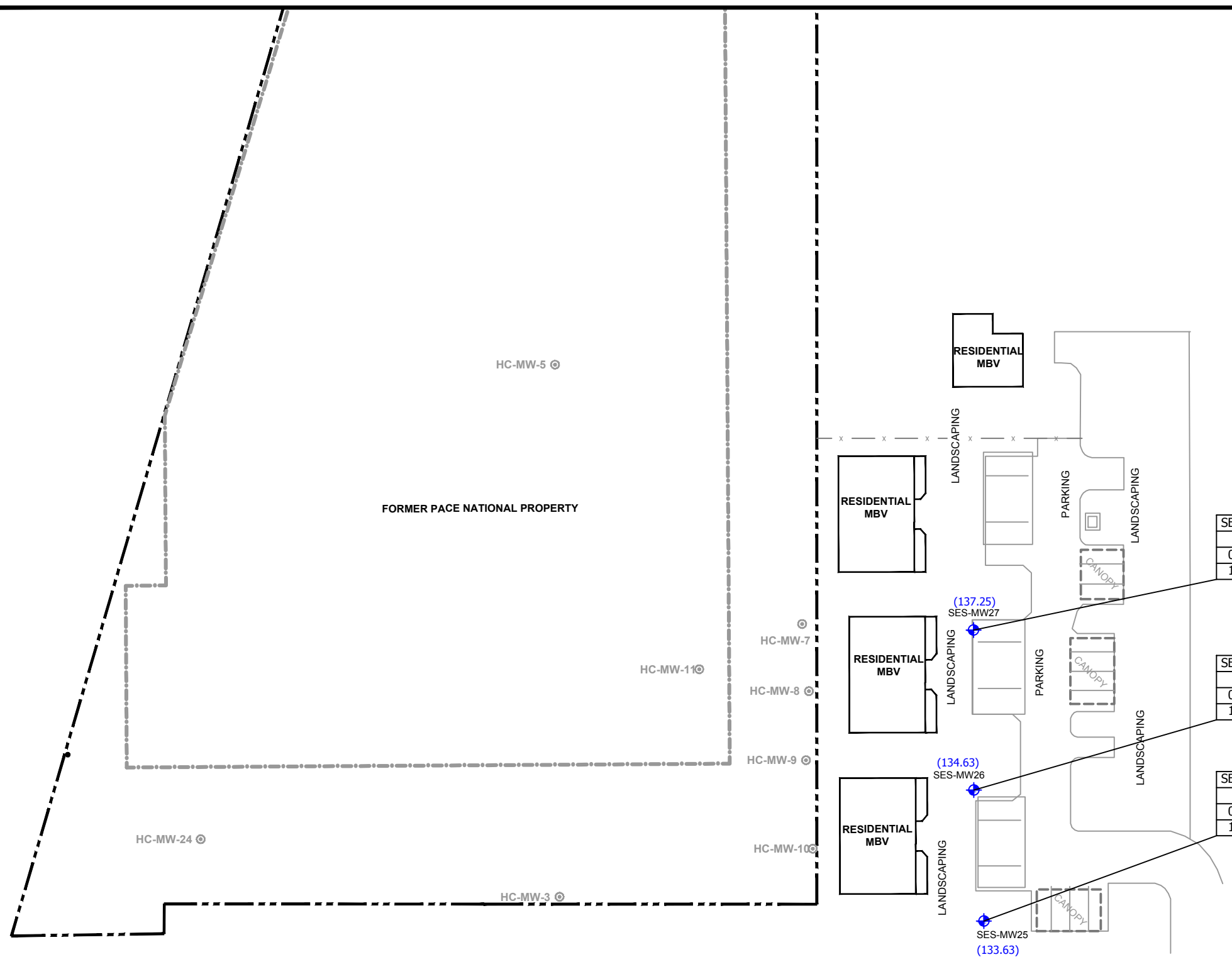
Site Location Map
Former Pace National Site
500 7th Avenue South
Kirkland, Washington

FIGURE

1

LEGEND

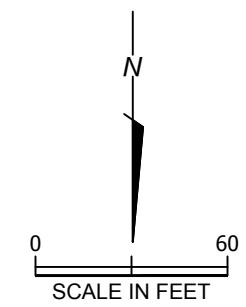
-  SUBJECT PROPERTY BOUNDARY
-  PLANNED GARAGE FOOTPRINT
-  HC-MW-7 \odot ABANDONED MONITORING WELL
-  SES-MW27 \blacklozenge MONITORING WELL
- (137.25) GROUNDWATER ELEVATION MEASURED ON NOVEMBER 10, 2014, REFERENCED TO AN ARBITRARY VERTICAL DATUM
- VC VINYL CHLORIDE CONCENTRATION IN MICROGRAMS PER LITER ($\mu\text{g/L}$)
- U NOT DETECTED AT OR ABOVE THE LABORATORY PRACTICAL QUANTITATION LIMIT
- MBV MOSS BAY VISTA CONDOMINIUM PROPERTY



SES-MW27	
Date	VC
05/13/14	0.200 U
11/10/14	0.200 U

SES-MW26	
Date	VC
05/13/14	0.200 U
11/10/14	0.200 U

SES-MW25	
Date	VC
05/13/14	0.200 U
11/10/14	0.200 U



Basemap Reference: SoundEarth Strategies



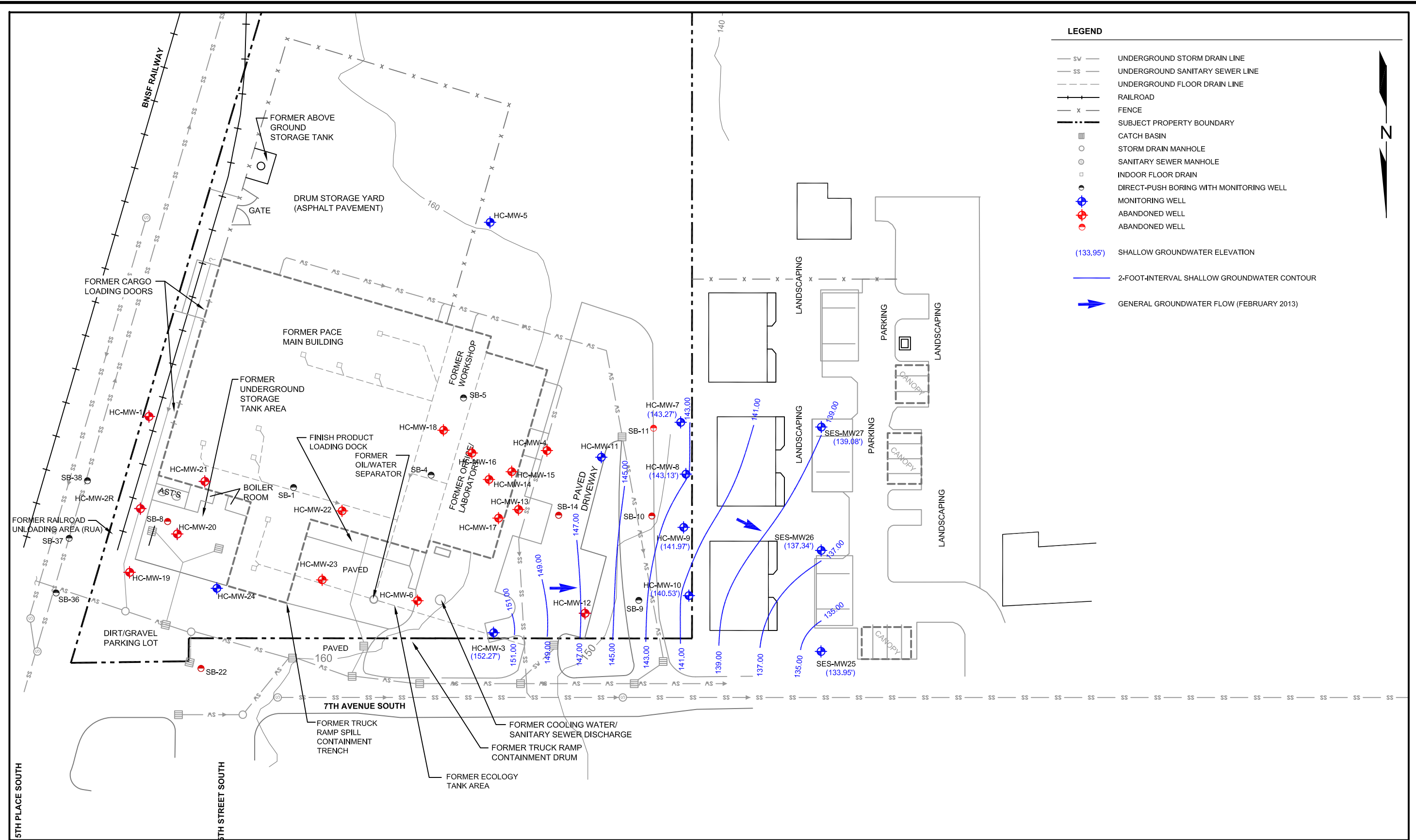
Groundwater Elevations and Vinyl Chloride Results - November 2014
 Former Pace National Site
 500 7th Avenue South
 Kirkland, Washington

FIGURE
2

1006.008.03.005	100600803005_14Q3_2	<i>KLR</i>	12/14
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

**Table 1
Summary of Groundwater Data
Former Pace National Property
Kirkland, Washington**

Monitoring Well	Top of Casing Elevation (feet)	Date	Depth to Water (feet TOC)	Groundwater Elevation (feet)	pH (units)	Specific Conductivity (µS/cm)	Temp (°C)	DO (mg/L)	ORP (mV)	Vinyl Chloride (µg/L)
MTCA Method A Ground Water Cleanup Level										0.2
SES-MW25	138.48	05/13/14	5.35	133.13	6.61	630	16.1	0.2	-126.9	0.200 U
		11/10/14	4.85	133.63	6.51	424	13.4	0	-96	0.200 U
SES-MW26	139.54	05/13/14	4.80	134.74	6.29	309	13.7	0.7	-76	0.200 U
		11/10/14	4.91	134.63	6.38	277	12.8	0.1	-39.1	0.200 U
SES-MW27 (Dup) (Dup)	139.73	05/13/14	2.80	136.93	6.38	330	15.6	0.6	12.9	0.200 U
		05/13/14	--	--	--	--	--	--	--	0.200 U
		11/10/14	2.48	137.25	6.39	374	13.5	0.1	-41.7	0.200 U
		11/10/14	--	--	--	--	--	--	--	0.200 U
<p><u>NOTES:</u></p> <ol style="list-style-type: none"> TOC = top of casing (TOC) elevations provided by Sound Earth and referenced to an arbitrary vertical datum. units: pH standard units reported to 0.01. µS/cm = microsiemens per centimeter @ 25 degrees Celsius (°C). Dissolved Oxygen (DO) reported to 0.1 milligrams per liter (mg/L). ORP = oxidation-reduction potential. mV = millivolts. Vinyl chloride concentrations in micrograms per liter (µg/l). Groundwater samples analyzed using USEPA Method 8260B. U = concentration not detected at or above the laboratory practical quantitation limit (PQL). -- = not applicable Dup = field duplicate sample 										



5TH PLACE SOUTH

5TH STREET SOUTH

7TH AVENUE SOUTH



DATE: 03/01/13
 DRAWN BY: JQC
 CHECKED BY: TJC
 CAD FILE: 0698-001-2013Q1_CM

PROJECT NAME: FORMER PACE NATIONAL SITE
 PROJECT NUMBER: 0698-001
 STREET ADDRESS: 500 7TH AVENUE SOUTH
 CITY, STATE: KIRKLAND, WA

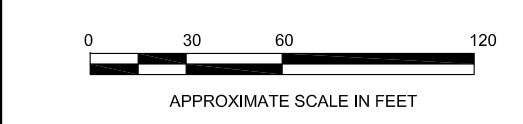
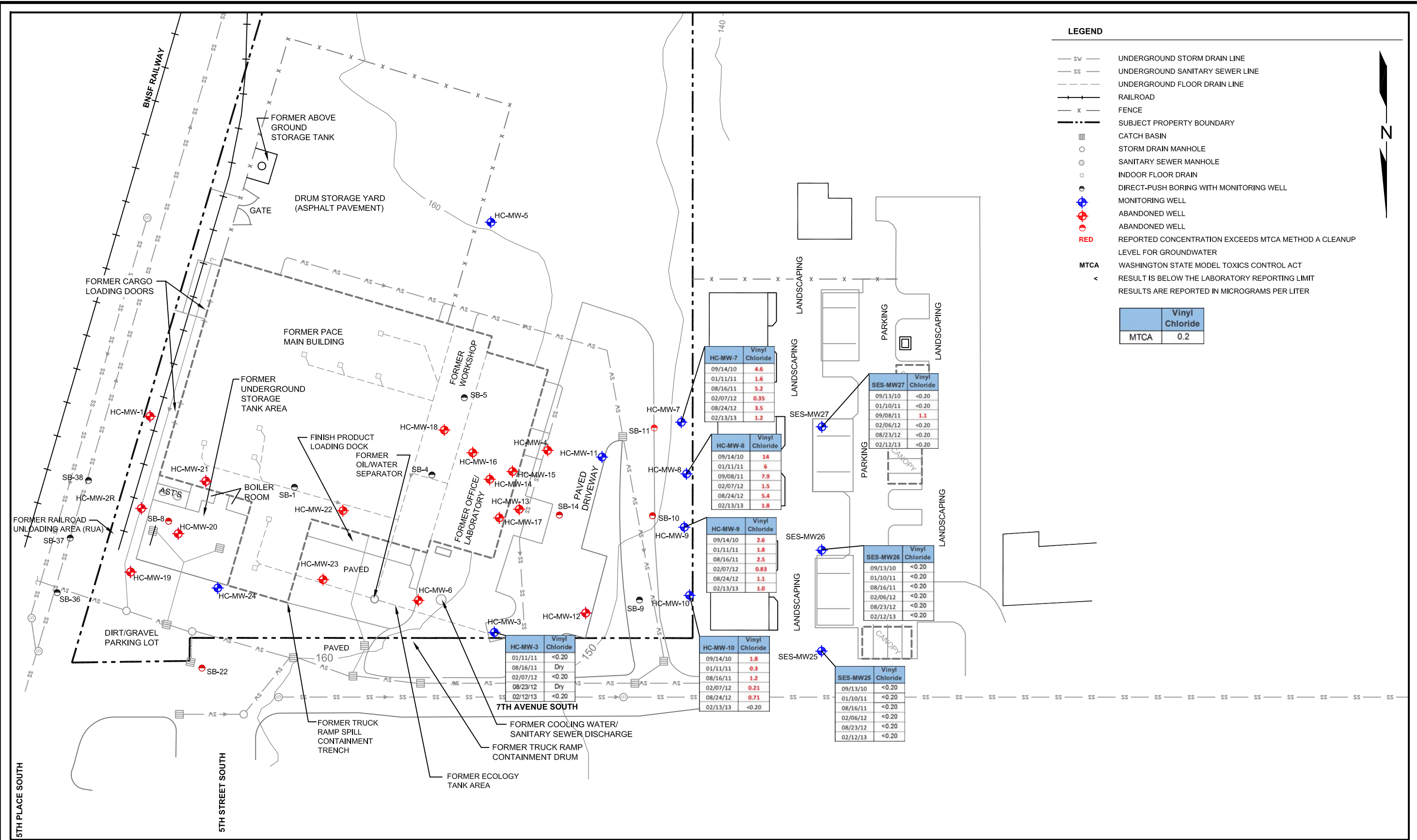


FIGURE 2
 MAP SHOWING
 GROUNDWATER ELEVATION CONTOURS
 (FEBRUARY 2013)



DATE: 03/01/13
 DRAWN BY: JQC
 CHECKED BY: TJC
 CAD FILE: 0698-001-2013Q1_GD_VINYL

PROJECT NAME: FORMER PACE NATIONAL SITE
 PROJECT NUMBER: 0698-001
 STREET ADDRESS: 500 7TH AVENUE SOUTH
 CITY, STATE: KIRKLAND, WA

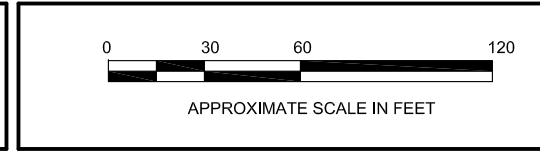
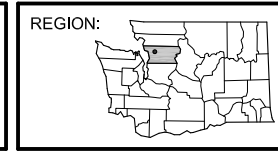


FIGURE 3
 MAP SHOWING GROUNDWATER ANALYTICAL RESULTS FOR VINYL CHLORIDE



Table 1
Summary of Groundwater Elevation Data
Former PACE National Site
500 7th Avenue South
Kirkland, Washington

Draft - Issued for Ecology Review

Well Identification	Date Measured	Top of Well Casing Elevation ¹ (feet)	Depth to Groundwater ² (feet)	Groundwater Elevation ¹ (feet)
HC-MW-3	02/24/09	154.91	4.69	150.22
	05/20/09	154.91	4.34	150.57
	08/10/09	154.91	Dry	NA
	09/13/10	154.91	Dry	NA
	01/10/11	154.91	2.54	152.37
	09/08/11	154.91	Dry	NA
	02/06/12	154.91	2.66	152.25
	08/23/12	154.91	Dry	NA
	02/12/13	154.91	2.64	152.27
HC-MW-7	07/09/08	148.03	7.16	140.87
	02/24/09	148.03	5.51	142.52
	05/20/09	148.03	4.83	143.20
	08/10/09	148.03	8.02	140.01
	09/13/10	148.03	7.66	140.37
	01/10/11	148.03	4.61	143.42
	09/08/11	148.03	8.00	140.03
	02/06/12	148.03	4.72	143.31
	08/23/12	148.03	7.83	140.20
	02/12/13	148.03	4.76	143.27
HC-MW-8	07/09/08	146.92	3.15	143.77
	02/24/09	146.92	4.53	142.39
	05/20/09	146.92	3.82	143.10
	08/10/09	146.92	6.85	140.07
	09/13/10	146.92	6.61	140.31
	01/10/11	146.92	3.59	143.33
	09/08/11	146.92	6.96	139.96
	02/06/12	146.92	3.76	143.16
	08/23/12	146.92	6.78	140.14
	02/12/13	146.92	3.79	143.13
HC-MW-9	07/09/08	144.45	4.60	139.85
	02/24/09	144.45	3.15	141.30
	05/20/09	144.45	2.39	142.06
	08/10/09	144.45	5.17	139.28
	09/13/10	144.45	4.91	139.54
	01/10/11	144.45	2.40	142.05
	09/08/11	144.45	5.31	139.14
	02/06/12	144.45	2.33	142.12
	08/23/12	144.45	5.04	139.41
	02/12/13	144.45	2.48	141.97
HC-MW-10	07/09/08	141.31	2.40	138.91
	02/24/09	141.31	1.15	140.16
	05/20/09	141.31	0.54	140.77
	08/10/09	141.31	3.34	137.97
	09/13/10	141.31	2.76	138.55
	01/10/11	141.31	0.60	140.71
	09/08/11	141.31	0.66	140.65
	02/06/12	141.31	0.84	140.47
	08/23/12	141.31	3.19	138.12
	02/12/13	141.31	0.78	140.53



Table 1
Summary of Groundwater Elevation Data
Former PACE National Site
500 7th Avenue South
Kirkland, Washington

Draft - Issued for Ecology Review

Well Identification	Date Measured	Top of Well Casing Elevation ¹ (feet)	Depth to Groundwater ² (feet)	Groundwater Elevation ¹ (feet)
SES-MW25	06/30/10	138.48	4.55	133.93
	09/13/10	138.48	6.32	132.16
	01/10/11	138.48	4.15	134.33
	09/08/11	138.48	7.05	131.43
	02/06/12	138.48	4.52	133.96
	08/23/12	138.48	6.86	131.62
	02/12/13	138.48	4.53	133.95
SES-MW26	06/30/10	139.54	3.66	135.88
	09/13/10	139.54	5.98	133.56
	01/10/11	139.54	2.28	137.26
	09/08/11	139.54	6.48	133.06
	02/06/12	139.54	2.53	137.01
	08/23/12	139.54	6.03	133.51
	02/12/13	139.54	2.20	137.34
SES-MW27	06/30/10	139.73	0.76	138.97
	09/13/10	139.73	4.28	135.45
	01/10/11	139.73	0.30	139.43
	09/08/11	139.73	4.58	135.15
	02/06/12	139.73	0.48	139.25
	08/23/12	139.73	3.92	135.81
	02/12/13	139.73	0.65	139.08

NOTES:

¹Measured relative to a temporary benchmark with an assumed elevation of 100.00 feet.

DRY = no measurable groundwater encountered within the screened interval in the well

²As measured from a fixed point at the top of the well casing.

NA = not available



Table 2
Summary of Groundwater Analytical Data
Chlorinated Volatile Organic Compounds
Former PACE National Site
500 7th Avenue South
Kirkland, Washington

Draft - Issued for Ecology Review

Well ID	Sample Date	Analytical Results ¹ (micrograms per liter)											
		Tetrachloroethene	Trichloroethene	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Chloroethane	1,1-Dichloroethene	Methylene Chloride	1,1-Dichloroethane	1,2-Dichloroethane	1,1,1-Trichloroethane	1,2-Dichloropropane
HC-MW-3	01/11/11	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20
	08/16/11	Well Dry											
	02/07/12	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
	08/23/12	Well Dry											
	02/12/13	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
HC-MW-7	07/09/08	<1	<1	<1	<1	<0.2	<1	<1	<5	<1	<1	<1	<1
	02/24/09	<1	<1	<1	<1	0.39	<1	<1	<5	<1	<1	<1	<1
	05/21/09	<0.20	<0.20	<0.20	<0.20	0.60	<1.0	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20
	08/11/09	<0.20	<0.20	<0.20	0.72	3.5	<1.0	<0.20	<1.0	0.36	<0.20	<0.20	<0.20
	06/04/10	<0.20	<0.20	<0.20	0.4	1.8	<1.0	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20
	09/14/10	<0.20	<0.20	<0.20	0.63	4.6	<1.0	<0.20	<1.0	0.27	<0.20	<0.20	<0.20
	01/11/11	<0.20	<0.20	<0.20	0.30	1.6	<1.0	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20
	08/16/11	NA	NA	NA	NA	5.2	NA	NA	NA	NA	NA	NA	NA
	02/07/12	NA	NA	NA	NA	0.4	NA	NA	NA	NA	NA	NA	NA
	08/24/12	NA	NA	NA	NA	3.5	NA	NA	NA	NA	NA	NA	NA
02/13/13	NA	NA	NA	NA	1.2	NA	NA	NA	NA	NA	NA	NA	
HC-MW-8	07/09/08	<1	<1	<1	13	11	<1	<1	<5	<1	<1	<1	<1
	02/24/09	<1	<1	<1	10	20	<1	<1	<5	<1	<1	<1	<1
	05/21/09	<0.20	<0.20	0.56	8.6	13	<1.0	<0.20	<1.0	0.54	<0.20	<0.20	0.72
	08/11/09	<0.20	<0.20	0.99	18	24	<1.0	<0.20	<1.0	0.95	<0.20	<0.20	0.89
	06/04/10	<0.20	<0.20	0.76	10	16	<1.0	<0.20	<1.0	0.60	<0.20	<0.20	0.78
	09/14/10	<0.20	<0.20	0.59	9.8	14	<1.0	<0.20	<1.0	0.50	<0.20	<0.20	0.82
	01/11/11	<0.20	<0.20	0.29	3.9	6	<1.0	<0.20	<1.0	0.23	<0.20	<0.20	0.34
	09/08/11	NA	NA	NA	NA	7.9	NA	NA	NA	NA	NA	NA	NA
	02/07/12	NA	NA	NA	NA	1.5	NA	NA	NA	NA	NA	NA	NA
	08/24/12	NA	NA	NA	NA	5.4	NA	NA	NA	NA	NA	NA	NA
02/13/13	NA	NA	NA	NA	1.8	NA	NA	NA	NA	NA	NA	NA	
MTCA Cleanup Level		5^a	5^a	160^b	80^b	0.2^a	15^b	400^b	5^a	1,600^b	5^a	200^a	5^c



Table 2
 Summary of Groundwater Analytical Data
 Chlorinated Volatile Organic Compounds
 Former PACE National Site
 500 7th Avenue South
 Kirkland, Washington

Draft - Issued for Ecology Review

Well ID	Sample Date	Analytical Results ¹ (micrograms per liter)											
		Tetrachloroethene	Trichloroethene	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Chloroethane	1,1-Dichloroethene	Methylene Chloride	1,1-Dichloroethane	1,2-Dichloroethane	1,1,1-Trichloroethane	1,2-Dichloropropane
HC-MW-9	07/09/08	<1	<1	<1	6.4	5.3	<1	<1	<5	<1	<1	<1	<1
	02/24/09	<1	<1	<1	4.7	3.2	<1	<1	<5	<1	<1	<1	<1
	05/21/09	<0.20	<0.20	0.30	4.5	5.7	<1.0	0.33	<1.0	0.64	<0.20	<0.20	0.53
	08/11/09	<0.20	<0.20	0.42	8.3	5.9	<1.0	0.74	<1.0	1.3	<0.20	<0.20	0.77
	06/04/10	<0.20	<0.20	<0.20	3.5	2.3	<1.0	0.25	<1.0	0.49	<0.20	<0.20	0.33
	09/14/10	<0.20	<0.20	0.22	4.0	2.6	<1.0	0.23	<1.0	0.47	<0.20	<0.20	0.43
	01/11/11	<0.20	<0.20	<0.20	2.7	1.8	<1.0	0.31	<1.0	0.51	<0.20	<0.20	0.26
	08/16/11	NA	NA	NA	NA	2.5	NA	NA	NA	NA	NA	NA	NA
	02/07/12	NA	NA	NA	NA	0.83	NA	NA	NA	NA	NA	NA	NA
	08/24/12	NA	NA	NA	NA	1.1	NA	NA	NA	NA	NA	NA	NA
HC-MW-10	02/13/13	NA	NA	NA	NA	1.0	NA	NA	NA	NA	NA	NA	NA
	07/09/08	<1	<1	<1	<1	2.9	<1	<1	<5	<1	<1	<1	NA
	02/24/09	<1	<1	<1	<1	1.7	<1	<1	<5	<1	<1	<1	NA
	05/21/09	<0.20	<0.20	<0.20	0.29	0.51	<1.0	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20
	08/11/09	<0.20	<0.20	<0.20	0.57	2.7	<1.0	<0.20	<1.0	0.34	<0.20	<0.20	<0.20
	06/04/10	<0.20	<0.20	<0.20	0.45	0.89	<1.0	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20
	09/14/10	<0.20	<0.20	<0.20	0.40	1.8	<1.0	<0.20	<1.0	0.29	<0.20	<0.20	<0.20
	01/11/11	<0.20	<0.20	<0.20	<0.20	0.3	<1.0	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20
	08/16/11	NA	NA	NA	NA	1.2	NA	NA	NA	NA	NA	NA	NA
	02/07/12	NA	NA	NA	NA	0.21	NA	NA	NA	NA	NA	NA	NA
MTCA Cleanup Level	08/24/12	NA	NA	NA	NA	0.71	NA	NA	NA	NA	NA	NA	NA
	02/13/13	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
MTCA Cleanup Level		5 ^a	5 ^a	160 ^b	80 ^b	0.2 ^a	15 ^b	400 ^b	5 ^a	1,600 ^b	5 ^a	200 ^a	5 ^c



Table 2
Summary of Groundwater Analytical Data
Chlorinated Volatile Organic Compounds
Former PACE National Site
500 7th Avenue South
Kirkland, Washington

Draft - Issued for Ecology Review

Well ID	Sample Date	Analytical Results ¹ (micrograms per liter)											
		Tetrachloroethene	Trichloroethene	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Chloroethane	1,1-Dichloroethene	Methylene Chloride	1,1-Dichloroethane	1,2-Dichloroethane	1,1,1-Trichloroethane	1,2-Dichloropropane
SES-MW25	06/03/10	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20
	09/14/10	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20
	01/10/11	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20
	08/16/11	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
	02/06/12	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
	08/23/12	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
SES-MW26	06/03/10	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20
	09/13/10	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20
	01/10/11	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20
	08/16/11	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
	02/06/12	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
	08/23/12	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
SES-MW27	06/03/10	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20
	09/13/10	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20
	01/10/11	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20
	08/16/11	NA	NA	NA	NA	0.53	NA	NA	NA	NA	NA	NA	NA
	09/08/11	NA	NA	NA	NA	1.1	NA	NA	NA	NA	NA	NA	NA
	02/06/12	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
MTCA Cleanup Level		5 ^a	5 ^a	160 ^b	80 ^b	0.2 ^a	15 ^b	400 ^b	5 ^a	1,600 ^b	5 ^a	200 ^a	5 ^c

NOTES:

Red denotes concentration exceeds MTCA cleanup level for groundwater.

Samples analyzed by Friedman & Bruya, Inc., of Seattle, Washington, Analytical Resources, Incorporated, and/or Onsite Environmental Inc. of Redmond, Washington.

¹Analyzed by EPA Method 8260B or 8260C.

^aMTCA Method A Groundwater Cleanup Level, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, revised November 2007.

^bCLARC Groundwater MTCA Method B Carcinogenic and Non-carcinogenic Standard Formula, Unrestricted Land Use.

^cEPA and State of Washington Maximum Contaminant Level.

< = not detected at concentrations exceeding the laboratory reporting limit

CLARC = Cleanup Levels and Risk Calculations

EPA = U.S. Environmental Protection Agency

MTCA = Washington State Model Toxics Control Act

NA = not analyzed



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Seattle, WA 98103
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F: (206) 352-7178
info@fremontanalytical.com

PES Environmental, Inc.
Kelly Rankich
1215 Fourth Avenue, Suite 1350
Seattle, WA 98161

RE: Former Pace - Google Phase II
Lab ID: 1411091

November 17, 2014

Attention Kelly Rankich:

Fremont Analytical, Inc. received 5 sample(s) on 11/10/2014 for the analyses presented in the following report.

Volatile Organic Compounds by EPA Method 8260

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

A handwritten signature in black ink, appearing to read "Chelsea Ward", written in a cursive style.

Chelsea Ward
Project Manager



Date: 11/17/2014

CLIENT: PES Environmental, Inc.
Project: Former Pace - Google Phase II
Lab Order: 1411091

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1411091-001	SES-MW25-20141110	11/10/2014 11:00 AM	11/10/2014 1:35 PM
1411091-002	SES-MW26-20141110	11/10/2014 11:45 AM	11/10/2014 1:35 PM
1411091-003	SES-MW27-20141110	11/10/2014 12:00 AM	11/10/2014 1:35 PM
1411091-004	SES-MW27-20141110-D	11/10/2014 12:00 AM	11/10/2014 1:35 PM
1411091-005	Trip Blank	11/04/2014 12:47 PM	11/10/2014 1:35 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

CLIENT: PES Environmental, Inc.
Project: Former Pace - Google Phase II

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.



CLIENT: PES Environmental, Inc.

Project: Former Pace - Google Phase II

Lab ID: 1411091-001

Collection Date: 11/10/2014 11:00:00 AM

Client Sample ID: SES-MW25-20141110

Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R18058 Analyst: BC

Vinyl chloride	ND	0.200		µg/L	1	11/15/2014 8:27:00 AM
Surr: Dibromofluoromethane	101	61.7-130		%REC	1	11/15/2014 8:27:00 AM
Surr: Toluene-d8	99.2	40.1-139		%REC	1	11/15/2014 8:27:00 AM
Surr: 1-Bromo-4-fluorobenzene	98.8	68.2-127		%REC	1	11/15/2014 8:27:00 AM

Lab ID: 1411091-002

Collection Date: 11/10/2014 11:45:00 AM

Client Sample ID: SES-MW26-20141110

Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R18058 Analyst: BC

Vinyl chloride	ND	0.200		µg/L	1	11/15/2014 10:15:00 AM
Surr: Dibromofluoromethane	102	61.7-130		%REC	1	11/15/2014 10:15:00 AM
Surr: Toluene-d8	99.8	40.1-139		%REC	1	11/15/2014 10:15:00 AM
Surr: 1-Bromo-4-fluorobenzene	96.3	68.2-127		%REC	1	11/15/2014 10:15:00 AM

Qualifiers: B Analyte detected in the associated Method Blank
 E Value above quantitation range
 J Analyte detected below quantitation limits
 RL Reporting Limit

D Dilution was required
 H Holding times for preparation or analysis exceeded
 ND Not detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits



CLIENT: PES Environmental, Inc.

Project: Former Pace - Google Phase II

Lab ID: 1411091-003

Collection Date: 11/10/2014

Client Sample ID: SES-MW27-20141110

Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R18058

Analyst: BC

Vinyl chloride	ND	0.200		µg/L	1	11/15/2014 10:42:00 AM
Surr: Dibromofluoromethane	104	61.7-130		%REC	1	11/15/2014 10:42:00 AM
Surr: Toluene-d8	99.9	40.1-139		%REC	1	11/15/2014 10:42:00 AM
Surr: 1-Bromo-4-fluorobenzene	96.4	68.2-127		%REC	1	11/15/2014 10:42:00 AM

Lab ID: 1411091-004

Collection Date: 11/10/2014

Client Sample ID: SES-MW27-20141110-D

Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R18058

Analyst: BC

Vinyl chloride	ND	0.200		µg/L	1	11/15/2014 11:10:00 AM
Surr: Dibromofluoromethane	99.8	61.7-130		%REC	1	11/15/2014 11:10:00 AM
Surr: Toluene-d8	97.5	40.1-139		%REC	1	11/15/2014 11:10:00 AM
Surr: 1-Bromo-4-fluorobenzene	101	68.2-127		%REC	1	11/15/2014 11:10:00 AM

Qualifiers: B Analyte detected in the associated Method Blank
 E Value above quantitation range
 J Analyte detected below quantitation limits
 RL Reporting Limit

D Dilution was required
 H Holding times for preparation or analysis exceeded
 ND Not detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits



CLIENT: PES Environmental, Inc.

Project: Former Pace - Google Phase II

Lab ID: 1411091-005

Collection Date: 11/4/2014 12:47:00 PM

Client Sample ID: Trip Blank

Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R18058

Analyst: BC

Vinyl chloride	ND	0.200		µg/L	1	11/15/2014 8:00:00 AM
Surr: Dibromofluoromethane	100	61.7-130		%REC	1	11/15/2014 8:00:00 AM
Surr: Toluene-d8	100	40.1-139		%REC	1	11/15/2014 8:00:00 AM
Surr: 1-Bromo-4-fluorobenzene	98.6	68.2-127		%REC	1	11/15/2014 8:00:00 AM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- RL Reporting Limit

- D Dilution was required
- H Holding times for preparation or analysis exceeded
- ND Not detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Work Order: 1411091
CLIENT: PES Environmental, Inc.
Project: Former Pace - Google Phase II

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1411140-001ADUP	SampType: DUP	Units: µg/L	Prep Date: 11/15/2014	RunNo: 18058							
Client ID: BATCH	Batch ID: R18058		Analysis Date: 11/15/2014	SeqNo: 359967							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Vinyl chloride	ND	0.200						0		30	
Surr: Dibromofluoromethane	50.2		50.00		100	61.7	130		0		
Surr: Toluene-d8	49.8		50.00		99.7	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	49.1		50.00		98.2	68.2	127		0		

Sample ID: 1411091-001AMS	SampType: MS	Units: µg/L	Prep Date: 11/15/2014	RunNo: 18058							
Client ID: SES-MW25-20141110	Batch ID: R18058		Analysis Date: 11/15/2014	SeqNo: 359977							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Vinyl chloride	18.0	0.200	20.00	0	90.1	58.1	158				
Surr: Dibromofluoromethane	51.1		50.00		102	61.7	130				
Surr: Toluene-d8	49.0		50.00		97.9	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	49.7		50.00		99.4	68.2	127				

Sample ID: LCS-R18058	SampType: LCS	Units: µg/L	Prep Date: 11/15/2014	RunNo: 18058							
Client ID: LCSW	Batch ID: R18058		Analysis Date: 11/15/2014	SeqNo: 359983							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Vinyl chloride	18.1	0.200	20.00	0	90.4	53.6	139				
Surr: Dibromofluoromethane	49.9		50.00		99.9	61.7	130				
Surr: Toluene-d8	49.2		50.00		98.4	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	48.3		50.00		96.6	68.2	127				

Qualifiers:

B	Analyte detected in the associated Method Blank	D	Dilution was required	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Work Order: 1411091
CLIENT: PES Environmental, Inc.
Project: Former Pace - Google Phase II

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: MB-R18058	SampType: MBLK	Units: µg/L	Prep Date: 11/15/2014	RunNo: 18058							
Client ID: MBLKW	Batch ID: R18058		Analysis Date: 11/15/2014	SeqNo: 359984							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Vinyl chloride	ND	0.200									
Surr: Dibromofluoromethane	50.4		50.00		101	61.7	130				
Surr: Toluene-d8	49.1		50.00		98.1	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	48.4		50.00		96.7	68.2	127				

Qualifiers:	B Analyte detected in the associated Method Blank	D Dilution was required	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits	ND Not detected at the Reporting Limit
	R RPD outside accepted recovery limits	RL Reporting Limit	S Spike recovery outside accepted recovery limits

Client Name: **PES**
 Logged by: **Erica Silva**

Work Order Number: **1411091**
 Date Received: **11/10/2014 1:35:00 PM**

Chain of Custody

1. Is Chain of Custody complete? Yes No Not Present
 2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes No NA
 4. Shipping container/cooler in good condition? Yes No
 5. Custody seals intact on shipping container/cooler? Yes No Not Required
 6. Was an attempt made to cool the samples? Yes No NA
 7. Were all coolers received at a temperature of >0°C to 10.0°C? Yes No NA
 8. Sample(s) in proper container(s)? Yes No
 9. Sufficient sample volume for indicated test(s)? Yes No
 10. Are samples properly preserved? Yes No
 11. Was preservative added to bottles? Yes No NA
 12. Is the headspace in the VOA vials? Yes No NA
 13. Did all samples containers arrive in good condition(unbroken)? Yes No
 14. Does paperwork match bottle labels? Yes No
 15. Are matrices correctly identified on Chain of Custody? Yes No
 16. Is it clear what analyses were requested? Yes No
 17. Were all holding times able to be met? Yes No

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes No NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

Item Information

Item #	Temp °C	Condition
Cooler	4.7	Good
Sample	0.4	Good



Fremont

Chain of Custody Record

3600 Fremont Ave N. Tel: 206-352-3790
 Seattle, WA 98103 Fax: 206-352-7178

Date: 11-10-14

Laboratory Project No (Internal): 1411091

Client: PBS ENVIRONMENT INC.
 Address: 1215 4th AVE STE 1330
 City, State, Zip: SEATTLE, WA 98161 Tel: 206-524-3880 Location: Former PHE - GRAVUE PHASE II
Seattle, WA
 Reports To (PM): Kelly Ren Kida Fax: 206-524-3985 Collected by: Karsten Springstead
 Email: Kelly.Ren.Kida@pbsenv.com Project No: 1006.028.03.005

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	Analytes													Comments/Depth	
				VOC (EPA 8260)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DH)	SEMI VOL (EPA 8270)	PAH (EPA 8270)	PCBs (EPA 806)	Metals** (6020 / 200.8)	Total (T) Dissolved (D)	Anions (IC)***	EDB (801.1)		
1 SES-MW25-204 1110	11-10-14	1100	W	X														VC ONLY
2 SES-MW26-204 1110	11-10-14	1145	W	X														VC ONLY
3 SES-MW27-204 1110	11-10-14		W	X														VC ONLY
4 SES-MW27-204 1110-D	11-10-14		W	X														VC ONLY
5 TRP BANK				X														VC ONLY
6																		
7																		
8																		
9																		
10																		

Special Remarks:
 Report to ADES for next
 EDD in Elm Forest
 Vinyl Chloride only

Distribution: White - Lab, Yellow - File, Pink - Originator

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