



Stantec

Stantec Consulting Corporation
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**Well Installation Report
Former ConocoPhillips Facility No. 255353
600 Westlake Avenue North
Seattle, Washington**

**Prepared for:
ConocoPhillips Company**

**Prepared by:
Stantec Consulting Corporation
12034 134th Court Northeast, Suite 102
Redmond, Washington 98052
425-372-1600**

**Stantec Project No.:
01CP.01396.60.1222**

March 27, 2009

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1.0 INTRODUCTION

Stantec Consulting Corporation (Stantec) is submitting this report to ConocoPhillips Company (ConocoPhillips) describing installation of three groundwater monitoring wells (MW-209 through MW-211) at former ConocoPhillips facility number 255353 located at 600 Westlake Avenue North, in Seattle, Washington (the Site). Site location is illustrated on Figure 1. Principal site features and locations of the newly installed monitoring wells are shown on Figure 2.

Well installation activities were performed in accordance with Washington Administrative Code (WAC) 173-160, *Minimum Standards for Construction and Maintenance of Wells*. Wells were installed and developed by a Washington State licensed well driller employed by Cascade Drilling, Inc. of Woodinville, Washington. Installation, development, and surveying of the new wells are described in subsequent paragraphs of this report.

2.0 SITE DESCRIPTION

The Site is located on the northeast corner of the intersection of Mercer Street and Westlake Avenue north in Seattle, Washington (see Figure 1). The area surrounding the Site is used primarily by retail businesses. Adjacent properties owners are City Investors XI L.L.C. and West Marine. The Site is located in the southeast quarter of Section 30 in Township 25 North and Range 04 East. The Site is currently a vacant lot covered by cement, asphalt, and gravel. A site map of the facility, indicating the former locations of the above- and below-ground structures, is illustrated on Figure 2.

3.0 SCOPE OF WORK AND RESULTS

Stantec's scope of work included observing and documenting the installation, development and surveying of three groundwater monitoring wells (MW-209 through MW-211), and collecting soil samples from the associated borings during drilling. Stantec's scope of work included:

- Preparing a site-specific health and safety plan;
- Acquiring the required permits for well installation;
- Observing and documenting well installation, development and surveying activities;
- Collecting soil samples from each boring during drilling and submitting selected soil samples to an independent laboratory for chemical analysis;
- Collecting groundwater samples from each new well and submitting them to an independent laboratory for chemical analysis;
- Review analytical results for soil and groundwater samples and comparing the results to Model Toxics Control Act (MTCA) Method A cleanup levels; and,
- Preparing this written report describing the results of these activities.

These activities are described in subsequent sections of this report.

3.1 SITE HEALTH AND SAFETY PLAN

As required by the Occupational Safety and Health Administration (OSHA) Standard "Hazardous Waste Operations and Emergency Response" guidelines (29 CFR 1910.120), Stantec created an up-to-date site-specific Health and Safety Plan (HASP) prior to the commencement of fieldwork. The HASP was reviewed by field staff and contractors before beginning field operations, and was in the possession of Stantec personnel while conducting work activities at the Site.

3.2 PERMITTING

Prior to installing the three groundwater monitoring wells, Stantec obtained a utility permit (No. 77383) from Seattle Department of Transportation (SDOT) to perform well installation activities at the proposed well locations. A copy of the utility permit is included in Appendix A.

3.3 SUBSURFACE UTILITY CLEARANCE

Prior to initiating field activities, Stantec marked the boring locations, contacted Underground Service Alert a minimum of 48 hours prior to the initiation of field work, and contracted a private utility locator to determine that the proposed boring locations were clear of potential subsurface obstructions. In addition, the borings were air-knifed and/or hand cleared to 5 feet below ground surface (bgs) before machine drilling began. A Stantec borehole checklist was also completed to ensure that borehole locations were cleared of possible safety hazards.

3.4 MONITORING WELL INSTALLATION

Between October 10 and 14, 2008, groundwater monitoring wells MW-209 through MW-211 were installed at the Site (see Figure 2). The borings were drilled using 14-inch hollow-stem auger drilling equipment to a depth of approximately 20 feet bgs. Wells were constructed from 0 to 5 feet bgs using a 5-foot-long, 2-inch diameter, Schedule 40 polyvinyl chloride (PVC) casing, and from 5 to 20 feet bgs using a 15-foot-long section of 0.010-inch slotted PVC screen. RMC #2/12 sand was placed in the annular space across the entire screen interval, extending approximately 2 feet above the top of the screen. An approximately 2-foot-thick bentonite seal was placed above the sand pack. An approximate 1-foot-thick concrete seal was placed above the bentonite to secure the well vault in place and was finished flush to ground surface. Wellheads were completed at the ground surface with a lockable compression-type well cap and a flush-mounted 12-inch diameter traffic-rated well vault with bolt down lid. Well construction details are presented in Table 1 and field procedures are described in Appendix B. Boring logs and well construction diagrams are included in Appendix C.

3.5 SOIL SAMPLING

Borings were logged by Stantec under the direction of a Washington State Licensed Geologist. Subsurface geologic conditions encountered during drilling were recorded on boring logs. Soils encountered during drilling were classified using the Unified Soil Classification System (USCS).

Soil samples were collected at approximately five-foot intervals using a split-spoon sampler. The sampler was driven a maximum of 18 inches using a 300-pound hammer with a 30-inch drop. The subsurface is comprised of sands and silts with some clay and gravel from ground surface to the total depth explored. Non-native fill material was encountered throughout the total depth of the each boring. Groundwater was first encountered at approximately 8.5 to 9-feet bgs in each boring.

Soil samples collected from each boring were monitored using a photoionization detector (PID). The test procedure involved using an undisturbed soil sample, and placing this sample in a sealed container, typically a plastic Zip-Lock™ bag. The container was sealed for approximately 20 minutes, and the probe of the PID inserted into the head-space above the soil sample to evaluate organic vapors in the headspace. The instrument was calibrated prior to use using a 100-ppm isobutylene standard (in air) and a sensitivity factor of 55 which relates the photo-ionization potential of benzene to that of isobutylene at 100 ppm. The PID results are noted on the boring logs.

Soil samples selected for laboratory analysis were placed into laboratory-supplied, unpreserved 4-ounce jars, and 40-milliliter VOA vials preserved with methanol and sodium bisulphate. Soil was placed into the VOA vials using a clean, plastic syringe. Care was taken to obtain representative soil samples, to place the soils directly and quickly into the sample container, and to fill the sample jar to capacity to minimize loss of volatile constituents.

The threads of the sample jar were wiped clean of soil particles that would interfere with an airtight seal, and a Teflon-lined screw lid was immediately placed on the jar. The sample jars were placed in an iced cooler to await transport. United States Environmental Protection Agency (EPA) recommended protocols for sample management, including chain-of-custody documentation, were observed during sampling activities.

3.6 WELL DEVELOPMENT AND SAMPLING

The newly installed groundwater monitoring wells were developed by continuous purging on October 21, 2008. Groundwater monitoring well MW-209 was purged of approximately 70-gallons of groundwater, groundwater monitoring well MW-210 was purged of approximately 45-gallons of groundwater, and groundwater monitoring well MW-211 was purged of approximately 75-gallons of groundwater.

3.7 WELL SURVEYING

Stantec contracted OTAK, Inc. (OTAK) to survey the top-of-casing of the new monitoring wells (MW-209 through MW-211). The wells were surveyed on October 30, 2008 to establish horizontal position with respect to North American Datum 1983 (NAD 83) coordinates, and to establish elevation of top of casing with respect to mean sea level (msl). A copy of the OTAK survey data is included in Appendix D.

3.8 INVESTIGATION DERIVED WASTE

Soil cuttings and waste water generated during drilling, well installation and development activities were stored in Department of Transportation (DOT)-approved, 55-gallon drums. The drums were labeled and temporarily stored on site pending receipt of analytical results for soil and groundwater samples. General Environmental Management of Kent, Washington transported the drums to a licensed facility for proper disposal. Copies of disposal manifests are included in Appendix E.

3.9 CHEMICAL ANALYSIS OF SOIL SAMPLES AND ANALYTICAL RESULTS

Samples were submitted to TestAmerica in Bothell, Washington for the following chemical analyses:

- Total petroleum hydrocarbons (TPH) as gasoline (TPH-g) using Ecology Method NWTHP-Gx;
- TPH as diesel (TPH-d), TPH as heavy oil (TPH-o) and kerosene using Ecology Method NWTPH-Dx with acid/silica gel cleanup;
- Benzene, toluene, ethyl-benzene, and xylenes (collectively referred to as BTEX) using United States Environmental Protection Agency (EPA) Method 8260B;
- Methyl tert butyl ether (MTBE) and naphthalene using EPA Method 8260B; and,
- Total lead using EPA 6000/7000 series methods;

Analytical results for the soil samples indicate that the samples did not contain concentrations of the above-referenced analytes at concentrations exceeding their respective MTCA Method A cleanup levels. Analytical results for soil samples are summarized in Table 2. A copy of the analytical report is included in Appendix F.

3.10 ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

Groundwater samples were submitted to TestAmerica in Bothell, Washington for the following chemical analyses:

- Total petroleum hydrocarbons (TPH) as gasoline (TPH-g) using Ecology Method NWTHP-Gx;
- TPH as diesel (TPH-d), TPH as heavy oil (TPH-o) and kerosene using Ecology Method NWTPH-Dx with acid/silica gel cleanup;
- Benzene, toluene, ethyl-benzene, and xylenes (collectively referred to as BTEX) using United States Environmental Protection Agency (EPA) Method 8260B;
- Methyl tert butyl ether (MTBE) and naphthalene using EPA Method 8260B; and,
- Dissolved lead using EPA 6000/7000 series methods;

Analytical results indicate the groundwater samples collected from the new wells (MW-209 through MW-211) contained concentrations of the above-referenced analytes that did not exceed their respective MTCA Method A cleanup levels. Analytical results for groundwater samples are summarized in Table 3. A copy of the analytical report is included in Appendix F.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Three groundwater monitoring wells were installed at the site in October 2008 to approximately 20 feet bgs to further delineate potential concentrations of TPH and/or dissolved lead in groundwater. The wells were installed in accordance with WAC 173-160, Minimum Standards for Construction and Maintenance of Wells.

Based on analytical results for soil samples collected during drilling of monitoring wells MW-209 through MW-211, concentrations of TPH and total lead were not detected at concentrations exceeding their respective MTCA Method A cleanup levels.

Based on analytical results for groundwater samples collected from monitoring wells MW-209 through MW-211 during the fourth quarter 2008 groundwater sampling event at the site, TPH and dissolved lead concentrations were not detected at concentrations exceeding their respective MTCA Method A cleanup levels.

Stantec recommends continued sampling of groundwater monitoring wells MW-209 through MW-211 on a quarterly basis to provide consistent delineation between the source areas on the ConocoPhillips and City Investors properties and Lake Union.

5.0 LIMITATIONS AND CERTIFICATIONS

This report was prepared in accordance with the scope of work outlined in Stantec's contract and with generally accepted professional engineering and environmental consulting practices existing at the time this report was prepared and applicable to the location of the site. It was prepared for the exclusive use of ConocoPhillips Company for the express purpose stated above. Any re-use of this report for a different purpose or by others not identified above shall be at the user's sole risk without liability to Stantec. To the extent that this report is based on information provided to Stantec by third parties, Stantec may have made efforts to verify this third party information, but Stantec cannot guarantee the completeness or accuracy of this information. The opinions expressed and data collected are based on the conditions of the site existing at the time of the field investigation. No other warranties, expressed or implied are made by Stantec.

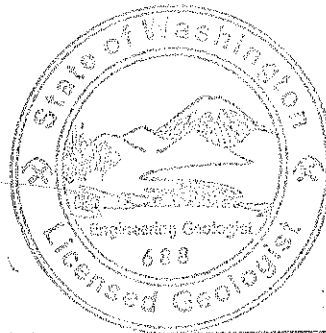
If you have any questions regarding this report, please feel free to contact the undersigned at (425) 372-1600 or at Jeff.Thompson@Stantec.com.

Sincerely,

Stantec Consulting Corporation

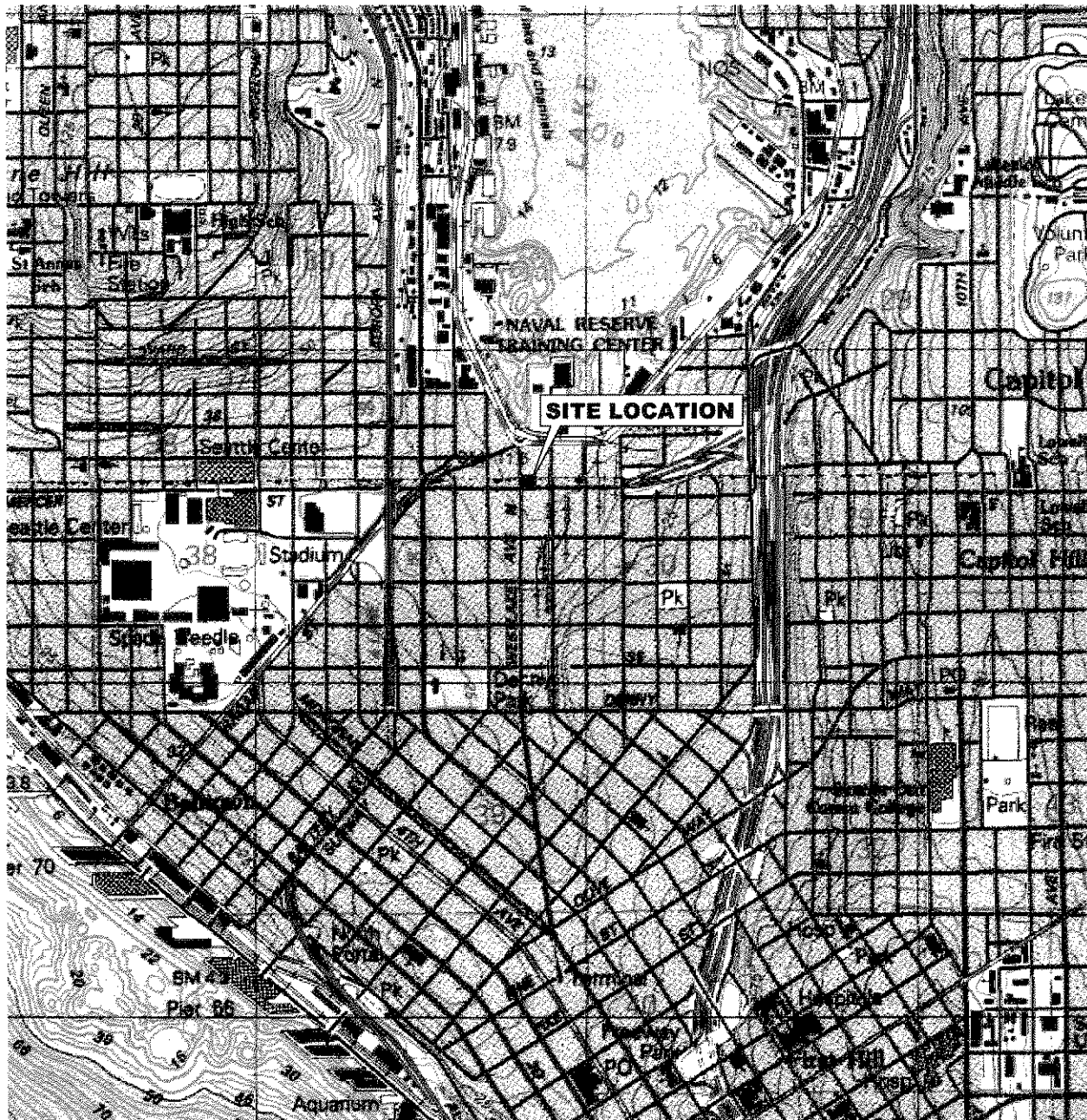


Jeffrey S. Thompson, L.G., L.E.G.
Principal Geologist



Distribution: Mr. Kipp Eckert, Shaw Environmental – 1 original and 4 copies
Mr. Roger Nye, Washington State Department of Ecology – 1 original
Stantec Project File – 1 original

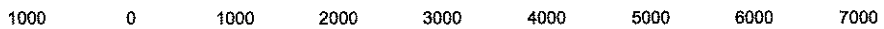
FIGURES



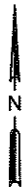
REFERENCE: USGS SEATTLE SOUTH (WA) QUADRANGLE; SEATTLE, WASHINGTON



SCALE IN MILE



SCALE IN FEET



WASHINGTON



Stantec

12034 134th COURT NE SUITE 102
 REDMOND, WASHINGTON
 PHONE: (425) 372-1590 FAX: (425) 372-1650

FOR:

ConocoPhillips

FACILITY NO. 255353
 600 WESTLAKE AVE NORTH
 SEATTLE, WASHINGTON

JOB NUMBER:

01CP.01396.60

DRAWN BY:

DJH

CHECKED BY:

SM

APPROVED BY:

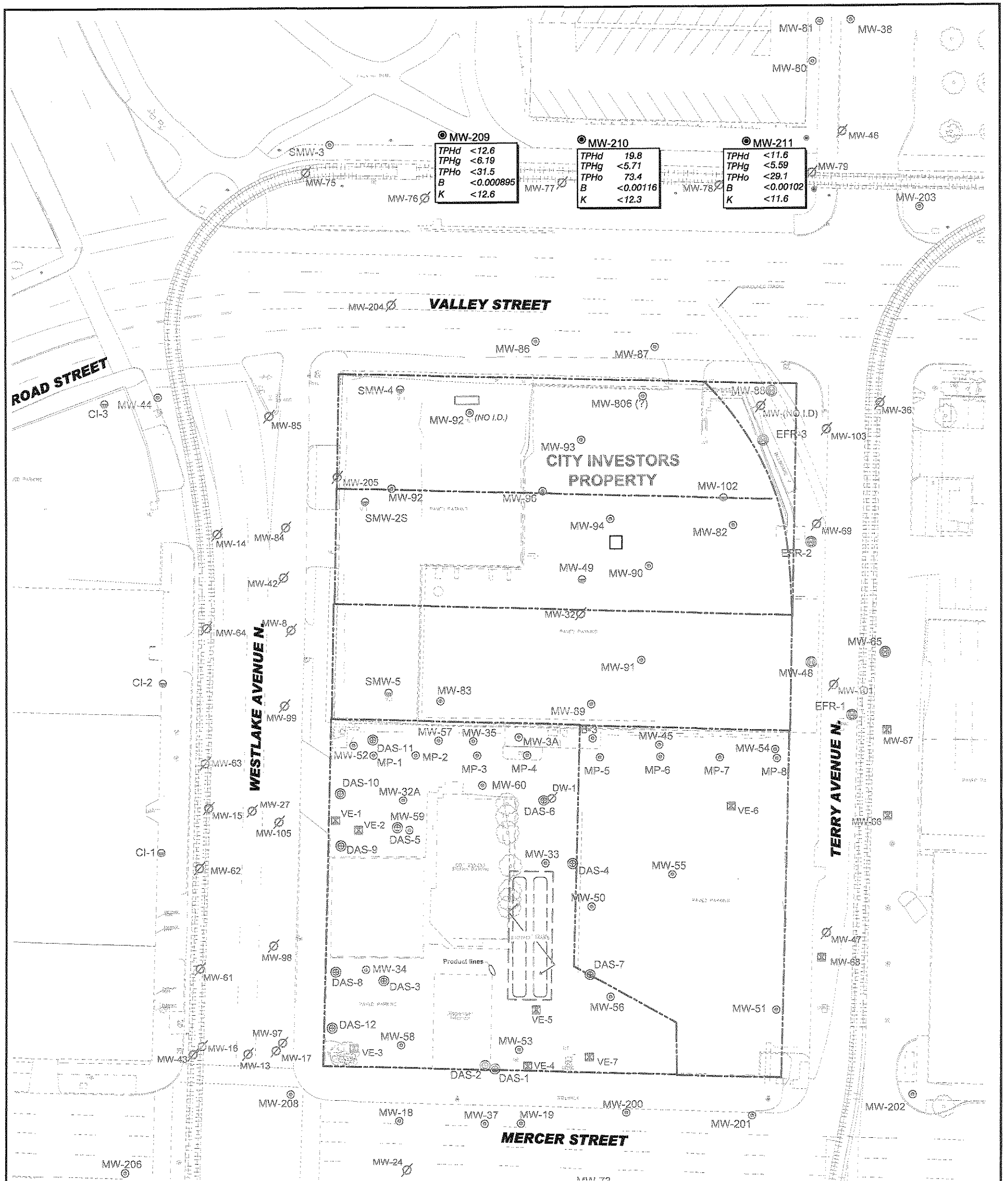
JY

FIGURE:

1

DATE:

12/05/08



MW-209
TPHd <12.6
TPHg <6.19
TPHo <31.5
B <0.000895
K <12.6

MW-210
TPHd 19.8
TPHg <5.71
TPHo 73.4
B <0.00116
K <12.3

MW-211
TPHd <11.6
TPHg <5.59
TPHo <29.1
B <0.00102
K <11.6

LEGEND:

- MW-209 ● NEWLY INSTALLED GROUNDWATER MONITORING WELL
- MW-71 ● COP GROUNDWATER MONITORING WELL
- SMW-4 ● CITY INVESTORS' GROUNDWATER MONITORING WELL
- MW-24 ⊘ ABANDONED OR DAMAGED WELL
- MW-68 ☒ SOIL VAPOR EXTRACTION WELL LOCATION
- DAS-4 ● AIR SPARGING WELL LOCATION
- MW-66 ● DUAL PHASE EXTRACTION WELL LOCATION

CHEMICAL ANALYTICAL RESULTS:

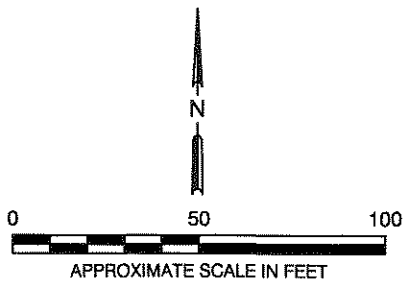
TPHd	<50
TPHg	<50
TPHo	<50
B	<0.05
K	<1.0

< NOT DETECTED AT OR ABOVE THE LABORATORY REPORTING LIMIT
 mg/kg MILLIGRAMS PER KILOGRAM

ANALYTES:

- TPHd TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
- TPHg TOTAL PETROLEUM HYDROCARBONS AS DIESEL
- TPHo TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL
- B BENZENE
- K KEROSENE

No warranty is made by Stantec as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and/or information.



<p>Stantec 12034 134th COURT NE, SUITE 102 REDMOND, WASHINGTON PH (425) 372-1800/FAX (425) 372-1850</p>	FOR: <p>ConocoPhillips FACILITY NO. 255353 WESTLAKE AND MERCER SEATTLE, WASHINGTON</p>	FIGURE: <p style="font-size: 2em; text-align: center;">2</p>	
	JOB NUMBER: 211301304	DRAWN BY: MDR/CM	CHECKED BY: SM
FILEPATH:M:_00 OTHER OFFICES\01-REDMOND\CONOCOPHILLIPS\255353\FIG-2-NEW WELL LOCATIONS.dwg Layout Tab: SITE MAP-FIG 1 Drafter: cfmiller Mar 27, 2009 at 15:00			DATE: 01/30/09

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TABLES

Table 1
 Well Construction Details
 Former ConocoPhillips Facility No. 255353
 600 Westlake Avenue North, Seattle, Washington

Monitoring Well ID	Installation Date	TOC Elevation (feet)	Boring Depth (feet bgs)	Casing Diameter (inches)	Casing Type	Depth to Top of Screen (feet bgs)	Depth to Bottom of Screen (feet bgs)	Screen Length (feet)
MW-209	10/14/08	27.00	20	2	PVC	5	20	15
MW-210	10/17/08	26.70	20	2	PVC	5	20	15
MW-211	10/14/08	26.55	20	2	PVC	5	20	15

Notes:
 TOC = top of casing
 bgs = below ground surface
 PVC = poly vinyl chloride

Table 2
Soil Analytical Results
Former ConocoPhillips Facility No. 255353
600 Westlake Avenue North, Seattle, Washington

Sample ID	Sample Depth (feet)	Sample Date	TPH-g (mg/kg)	TPH-d (mg/kg)	TPH-o (mg/kg)	Kerosene (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	Naphthalene (mg/kg)
MW-209-7	7	10/14/08	<6.19	<12.6	<31.5	<12.6	<0.000895	<0.000895	<0.00239	<0.00597	<0.000597	<0.00597
MW-210-15	15	10/14/08	<5.71	19.8	73.4	<12.3	<0.00116	<0.00116	<0.00310	0.0112	<0.000776	<0.00776
MW-211-7	7	10/14/08	<5.59	<11.6	<29.1	<11.6	<0.00102	<0.00102	<0.00272	<0.00681	<0.000681	<0.00681
MTCA Method A Cleanup Level for Soil			100	2,000	2,000	2,000	0.03	7	6	9	0.1	5

Notes:

TPH-g = total petroleum hydrocarbons as gasoline quantified using Northwest Method NWTPH-Gx
TPH-d = total petroleum hydrocarbons as diesel quantified using Northwest Method NWTPH-Dx with acid/silica gel cleanup
TPH-o = total petroleum hydrocarbons as oil quantified using Northwest Method NWTPH-Dx with acid/silica gel cleanup
Benzene, toluene, ethylbenzene, and xylenes quantified using EPA Method 8260B
MTBE (Methyl tert-Butyl Ether) and Naphthalene quantified using EPA Method 8260B
Total Lead quantified using EPA Method 6020
Values in **BOLD** indicate detectable concentrations exceeding the MTCA Method A soil cleanup level.
MTCA = Model Toxics Control Act regulation (WAC 173-340)

Table 3
 Groundwater Analytical Results
 Former ConocoPhillips Facility No. 255353
 600 Westlake Avenue North, Seattle, Washington

Sample ID	Sample Date	TPH-g (µg/L)	TPH-d (µg/L)	TPH-o (µg/L)	Kerosene (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	Total Lead (µg/L)	Dissolved Lead (µg/L)
MW-209	11/5/08	<50.0	<238	<476	<238	<0.500	<0.500	<0.500	<3.00	<1.00	<5.00	<1.00	<1.00
MW-210	11/5/08	<50.0	<243	<485	<243	<0.500	<0.500	<0.500	<3.00	<1.00	<5.00	<1.00	<1.00
MW-211	11/5/08	<50.0	<240	<481	<240	<0.500	<0.500	<0.500	<3.00	<1.00	<5.00	<1.00	<1.00
MTCA Method A Cleanup Level for Groundwater		1000/800^a	500	500	500	5	1,000	700	1,000	20	160	15	15

Notes:

TPH-g = total petroleum hydrocarbons as gasoline quantified using Northwest Method NWTPH-Gx
 TPH-d = total petroleum hydrocarbons as diesel quantified using Northwest Method NWTPH-Dx with acid/silica gel cleanup
 TPH-o = total petroleum hydrocarbons as oil quantified using Northwest Method NWTPH-Dx with acid/silica gel cleanup
 Benzene, toluene, ethylbenzene, and xylenes quantified using EPA Method 8260B
 MTBE (Methyl tert-Butyl Ether) and Naphthalene quantified using EPA Method 8260B
 Total Lead quantified using EPA Method 6020
 Values in **BOLD** indicate detectable concentrations exceeding the MTCA Method A groundwater cleanup level.
 MTCA = Model Toxics Control Act regulation (WAC 173-340)
^a MTCA Method A Cleanup Level for TPH-Gasoline is 1,000 ug/L if benzene is not detectable in groundwater the groundwater sample. If benzene is detected, then

APPENDIX A
COPY OF CITY OF SEATTLE
DEPARTMENT OF TRANSPORTATION UTILITY PERMIT
Site Assessment Report
Former ConocoPhillips Facility 255353
600 Westlake Avenue North, Seattle, Washington

UTILITY PERMIT PERMITTEE

Permit No.: 77383

Inspector: Jenelle Trokey

LOCATION

Inspection District: SOUTH LAKE UNION

Address: 600 WESTLAKE AVE N

Application Date: 8/14/08 9:05 am
 Issue Date: 9/8/08 10:33 am

Details: DRILLING LOCATIONS WILL BE NORTH OF THE LITE-RAIL TRACKS THAT ARE LOCATED ON THE NORTH SIDE OF VALLEY STREET IN BETWEEN TERRY AVE N AND WESTLAKE AVE N.

PARTIES (* Primary Applicant)

Role	Name	Address	Phone	From	To
*Bill-To	YOTZ, JENNIFER	12034 134TH COURT NE., REDMOND, WA, 98052	(425)372-1584		
Owner Agent	STANTEC	12034-134TH CT NE, SUITE 102, REDMOND, WA, 98052-	(425)372-1600		

PERMITTED USES

Use	Space	Start Date	Duration	Max Allowed Date	Sq. Ft.	Issued Date	Intended Vacate Date
511	A	8/11/08	10	8/20/08	300	9/8/08	8/20/08
511	A	10/6/08	10	10/15/08	300	9/8/08	10/15/08

Use Space	Description	Conditions
511 A	Preparatory and exploratory work for upcoming projects, including surveying, installing monitoring wells, and soil sampling.	
511 A	Preparatory and exploratory work for upcoming projects, including surveying, installing monitoring wells, and soil sampling.	This line added to change start date:

CONDITIONS OF USE

ARTERIAL PERMIT: ARTERIAL STREETS shall be open to its full driving width between the hours of 7-9:00am and 4-6:00pm weekdays. At all other times it may be reduced to one lane in each direction. Permittee shall contact King County/METRO Transit (684-2732) five days prior to starting any work which may affect bus stop zones or other bus operations. Maintain a 4-foot wide walkway for pedestrians around the work area. Permittee shall contact all residents who may be affected by this work at least 72 hours before the start of work. A minimum of one week's advance notice shall be given by permittee to the affected businesses/residents when driveway or delivery access will be restricted. Access to all businesses shall be maintained during construction. All driveways will be cleared and accessible at the end of every work day. Permittee is responsible to have parking restriction easels up a minimum of 24 hours in advance of the need to clear parking within the construction zone. Parking restriction easels must show either the permittee's or contractor's name and phone number. Permittee shall coordinate this work with any other contractors working near its work zone to avoid conflicts. Tree roots 2" or more in diameter shall not be cut or damaged. Permittee shall contact the City Arborist Office (684-7649) a minimum of two working-days prior to digging within the "drip line" of any street trees.

No permanent restoration of street or alley pavement shall be done by permittee or its contractor until a City of Seattle/Seattle Transportation-Street Use inspector has marked the periphery of the pavement to be repaired and/or replaced.

METRO OVERHEAD POWER LINES: Care shall be taken to assure that METRO Transit trolleys can access their overhead power lines at all times to maintain uninterrupted service. Contact the METRO Transit (684-2732) five days prior to the start of work.

FEES & PAYMENTS

Payment Method: FEES PAID OVER THE COUNTER

Description	Date	Amount	Unpaid Amount	Paid Amount	Waived
ISSUANCE FEE - USE 511	9/8/08	\$101.00	\$0	\$101.00	\$0
USE FEE - USE 511 - SPACE A	9/8/08	\$30.00	\$0	\$30.00	\$0
USE FEE - USE 511 - SPACE A	9/8/08	\$30.00	\$0	\$0	\$30.00
Totals:		\$161.00	\$0.00	\$131.00	\$30.00

STREET USE INSPECTOR

Jenelle Trokey (206) 684-0989

Permittee 

Director Per 



1. **Nature of permit.** This permit is issued pursuant to the Seattle Municipal Code (SMC), Chapter 15.04, for use and/or occupancy of the public right-of-way consistent with the terms and conditions set forth herein. This permit is wholly of a temporary nature, vests no permanent rights whatsoever, and is revocable pursuant to SMC 15.04.070.
2. **Acceptance of terms, conditions, and requirements.** Permittee accepts the terms, conditions, and requirements of this permit and agrees to comply with them to the satisfaction of the Seattle Department of Transportation, Street Use Division, or such other agency as may be designated by the City of Seattle. Permittee further agrees to comply with all applicable city ordinances, including but not limited to Title 15 SMC, and all applicable requirements of state and federal law.
3. **Expiration of permit.** This permit shall remain valid until revoked pursuant to SMC 15.04.070; provided that, the permit shall expire automatically if the authorized work does not begin within six months from the date the permit is issued.
4. **Superiority of street improvement contracts.** Rights acquired under this permit are inferior to those acquired under existing or future street improvement contracts.
5. **Compliance with technical requirements and standards.** All work within the public right-of-way must be performed and completed in accordance with requirements set forth in the following technical documents published by the City of Seattle, as now or hereafter amended: Right-of-Way Improvements Manual; Standard Specifications for Road, Bridge, and Municipal Construction; Standard Plans for Municipal Construction; Street and Sidewalk Pavement Opening and Restoration Rule; and Traffic Control Manual for In-Street Work.
6. **Notification prior to starting work.**
 - a. **UTILITY PERMITS:** Permittee shall be responsible for notifying Street Use Job Start at (206) 684-5270 or SDOTJobStart@Seattle.gov twenty-four (24) to seventy-two (72) hours prior to the start of work and provide the following information:
 - Permit Number
 - Job Site Address
 - Start Date
 - Brief Work Description
 - Job Site Contact Name and Phone Number
 Failure to do so will result in a penalty of \$300, or such other amount as may be established pursuant to SMC 15.04.074.
 - b. **ALL OTHER PERMITS:** Permittee shall be responsible for notifying the Street Use Inspector named on this permit twenty-four (24) to seventy-two (72) hours prior to starting work within the public right-of-way. Failure to do so will result in a penalty of \$300, or such other amount as may be established pursuant to SMC 15.04.074.
7. **Coordination of work.** In performing work authorized by this permit, the Permittee shall coordinate with other contractors working in the public right-of-way to avoid conflicts.
8. **Hours of work.** Work performed within the public right of way shall occur only during hours authorized under the City of Seattle Noise Control ordinance, codified at Chapter 25.08 SMC, and the Traffic Control Manual for In-Street Work, as now or hereafter amended.
9. **Moratorium.** Pursuant to SDOT Director's Rule 2004-02, no work in the public right-of-way shall be allowed in the following areas from Thanksgiving Day through January 1st:
 - a. The area bounded by Seneca Street, Interstate 5, Denny Way, Virginia Street, and 1st Avenue; and
 - b. The area bounded by Columbia Street, 2nd Avenue South, South King Street, and Elliott Bay.
10. **Inspection fees.** Permittee shall pay for city inspections of work authorized under this permit at a rate of \$150 per hour, or such other amount as may be established pursuant to SMC 15.04.074, and to cover all other associated costs.
11. **Billing.** All fees and costs billed pursuant to this permit shall be paid to the City of Seattle within thirty (30) days from the date of the invoice. Any invoice more than ninety (90) days past due will be forwarded for collection. All past due amounts will accrue interest at twelve (12) percent per annum. In the event suit is commenced to collect on unpaid invoices, the prevailing party will be entitled to reasonable attorney fees and costs of litigation.
12. **Indemnification.** The Permittee agrees to defend, indemnify, and hold harmless the City of Seattle, its officials, officers, employees, and agents against: (1) any liability, claims, causes of action, judgments, or expenses, including reasonable attorney fees, resulting directly or indirectly from any act or omission of the Permittee, its subcontractors, anyone directly or indirectly employed by them, and anyone for whose acts or omissions they may be liable, arising out of the Permittee's use or occupancy of the public right-of-way; and (2) all loss by the failure of the Permittee to fully or adequately perform, in any respect, all authorizations or obligations under this Permit.

EXISTING IMPROVEMENTS

1. **Costs of damage to city property and improvements.** Permittee shall be responsible for the costs of repairing any damage to city property or improvements resulting from work performed by or on behalf of the permittee within the public right-of-way.
2. **Utility protection.** Utility damage is costly! Permittee shall be responsible for checking locations and providing adequate protection for all utilities in the work area.
3. **Utility relocation.** Any necessary utility relocation shall be at the expense of the Permittee, who shall be responsible for notifying affected utilities and requesting the service relocation.
4. **Notification prior to ground disturbance.** Permittee shall call Utility Underground Locator Center (1-800-424-5555) 48 hours prior to ground disturbance.
5. **Survey monuments.** Prior to removing, destroying, disturbing, or covering a survey monument, such that the survey point is no longer visible or readily accessible, Permittee shall obtain a permit from the Department of Natural Resources pursuant to Washington Administrative Code, Chapter 332-120.



RESTORATION

1. **Full and continuous restoration.** The public right-of-way shall be left in original or better condition, continuous with job progress, pursuant to the Street and Sidewalk Pavement Opening and Restoration Rule, as now or hereafter amended.
2. **Environmental protection.**
 - 2.1 **Best management practices required.** The Permittee shall ensure the use of environmental best practices, as detailed in the Regional Road Maintenance Endangered Species Act (ESA) Program Guidelines. The Permittee shall be responsible for the control of surface runoff, erosion and sediment at the construction site, as required by: the Stormwater, Drainage and Grading Code, codified in Subtitle VIII SMC, the Standard Specifications for Road, Bridge, and Municipal Construction, and Department of Planning and Development Director's Rule 16-2000, as now or hereafter amended. The site and the surrounding area shall generally be kept clean and free of construction debris or other material, including but not limited to mud, dust, rock, asphalt, and concrete. Waste materials shall be collected and disposed of at an appropriate disposal site. These materials shall be prevented from entering any part of the public sewer and storm drain system, and any surface waters.
 - 2.2 **RESERVED**

TRAFFIC CONTROL REQUIREMENTS

1. **Compliance with traffic control manual.** In order to provide safe and effective work areas and to ward, control, protect, and expedite vehicular and pedestrian traffic, signage for all construction within the public right-of-way must comply with the City of Seattle Traffic Control Manual for In-Street Work, as now or hereafter amended, unless the construction is subject to a traffic control plan approved by the City Traffic Engineer or designee. A copy of the current City of Seattle Traffic Control Manual for In-Street Work, and approved traffic control plan for arterial streets, shall be kept at the work site.
2. **Lanes to remain open during peak hours.** No moving traffic lanes shall be closed during the following peak hours: 6-9:00 am and 3-7:00 pm in the central business district, and 7-9:00 am and 4-6:00 pm for arterials elsewhere.
3. **Access to business.** Access to all businesses shall be maintained during construction. At least one week prior to starting work within the public right-of-way, Permittee shall notify all potentially affected residents and businesses.
4. **Width of temporary traffic lanes.** Temporary traffic lanes created during this work shall be a minimum of eleven feet in width.
5. **Meter hoods.** When working in a metered zone, meter hoods must be obtained from SDOT Traffic Engineer's office (206) 684-5086.
6. **No parking signs.** "No parking" signs shall be placed 72 hours prior to the first day on which parking will be prohibited and shall clearly state the Permittee's name and telephone number. A copy of the "No parking sign" used by Permittee shall be faxed to Seattle Police Department, at (206) 684-5101, using the Notification of Temporary No parking Zone form.
7. **Flashing lights.** Four or more FLASHING AMBER LIGHTS of sufficient brilliance to be seen from 500 feet, must be maintained at all times during the hours of darkness at the points of obstruction or excavation of any public place.

APPENDIX B
FIELD AND LABORATORY PROCEDURES

Site Assessment Report
Former ConocoPhillips Facility 255353
600 Westlake Avenue North, Seattle, Washington

APPENDIX B FIELD AND LABORATORY PROCEDURES

STANTEC CONSULTING CORPORATION STANDARD PROCEDURE FOR HOLLOW STEM AUGER DRILLING

Prior to drilling, boring locations were marked with white paint and cleared for underground utilities through Underground Service Alert (USA). In addition, the first five feet of each borehole was air knifed or hand augered to evaluate the presence of underground structures or utilities.

Once pre-drilling efforts to identify subsurface structures was complete, pre-cleaned 8-inch hollow stem augers were advanced using a drill rig for the purpose of collecting samples and evaluating subsurface conditions. Upon completion of drilling and sampling, the augers were retracted, and the wells were constructed using concrete, bentonite grout, and hydrated bentonite chips or pellets as required by the regulatory agency. In areas where the borehole penetrated asphalt or concrete, the borehole was capped with an equivalent thickness of asphalt or concrete patch to match finished grade.

During the drilling process, a physical description of the encountered soil characteristics (i.e. moisture content, consistency, odor, color, etc.), drilling difficulty, and soil type as a function of depth was described on boring logs. The soil cuttings were classified in accordance with the Unified Soil Classification System (USCS).

Soil cuttings were temporarily stored on-site in 55-gallon DOT approved drums pending laboratory analysis, waste profiling, and proper disposal. Labels were affixed to the drums indicating the contents of the drums, date of drilling, and location of site.

STANDARD PROCEDURE FOR DUAL-COMPLETION MONITORING WELL CONSTRUCTION FOR WELLS SCREENED ABOVE THE PHREATIC SURFACE UNCONFINED AQUIFERS – HOLLOW STEM AUGER METHOD

Dual-completion monitoring wells were constructed by inserting well materials through the annulus of the hollow stem auger. In general, the deeper-screened wells were constructed with 5 feet of screen. Between the shallower- and deeper-screened well screens, approximately four feet of hydrated bentonite was emplaced to isolate the two well screens from each other. The shallower-screened wells were constructed with 10 feet of screen. The well screens consist of 2-inch diameter, flush-threaded, Schedule 40 polyvinyl chloride (PVC) casing with 0.010 or 0.020-inch machine-slotted screen.

Once the borehole was drilled to the desired depth, approximately six inches of filter sand was tremmied to the bottom of the boring. The well screen and blank well casing were then inserted through the annulus of the hollow stem augers. The well screen was sand packed by tremming the appropriate filter sand through the annulus between the casing and augers while slowly retracting the augers. During this operation, the depth of the sand pack in the auger was continuously sounded to make sure that the sand remained in the auger annulus during auger retraction to avoid shortcircuiting the well. The sand pack was tremmied to approximately two feet above the screen. Following construction of the sand pack, a

bentonite seal was emplaced to a depth of approximately 2 feet bgs, and hydrated in place. The well head was then capped with a locking cap and secured with a lock to protect the well from surface water intrusion and vandalism. The well head was further protected from damage with traffic rated well box in paved areas. The protective boxes or risers were set in concrete. The details of well construction were recorded on well construction logs.

STANDARD PROCEDURE FOR EQUIPMENT DECONTAMINATION

Equipment that could potentially contact subsurface media and compromise the integrity of the samples was carefully decontaminated prior to drilling and sampling. Drill augers and other large pieces of equipment were decontaminated using high pressure hot water spray. Samplers, groundwater pumps, liners and other equipment were decontaminated in an Alconox scrub solution and double rinsed in clean tap water rinse followed by a final distilled water rinse.

The rinsate and other wastewater were contained in 55-gallon DOT-approved drums, labeled (to identify the contents, generation date and project) and stored on-site pending waste profiling and disposal.

APPENDIX C
COPIES OF BORING LOGS AND WELL CONSTRUCTION
DIAGRAMS

Well Installation Report
Former ConocoPhillips Facility 255353
600 Westlake Avenue North, Seattle, Washington

PROJECT: **Former CP 5353 (1396)**
 LOCATION: **600 Westlake Ave N., Seattle WA**
 PROJECT NUMBER: **01CP.01396.60**

WELL / PROBEHOLE / BOREHOLE NO:

MW-209 PAGE 1 OF 1



DRILLING: STARTED **10/10/08** COMPLETED: **10/10/08**
 INSTALLATION: STARTED COMPLETED:
 DRILLING COMPANY: **Cascade Drilling**
 DRILLING EQUIPMENT: **HSA**
 DRILLING METHOD: **Split Spoon**
 SAMPLING EQUIPMENT:

NORTHING (ft): EASTING (ft):
 LATITUDE: LONGITUDE:
 GROUND ELEV (ft): TOC ELEV (ft):
 INITIAL DTW (ft): **8.5 10/14/08** BOREHOLE DEPTH (ft): **20.0**
 STATIC DTW (ft): **Not Encountered** WELL DEPTH (ft): **20.0**
 WELL CASING DIAMETER (in): **2** BOREHOLE DIAMETER (in): **14**
 LOGGED BY: **SM** CHECKED BY: **DH**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Well Construction
			SAND ; brown; fill material, concrete and gravel							Concrete
			SAND ; brown; fill material, concrete and gravel							Bentonite
5		ML	SILTY CLAY FINE GRAVEL ; ML							
		ML	SANDY CLAY WITH SILT SOME GRAVEL ; ML; gray					0	5	
		SM	SAND WITH CLAY SOME SILT ; SM; gray; wet; fine gravel		940 MW-209-7		5 8 10	0		
10		ML	SANDY SILT ; ML; gray; wet; sheen; gravel				5 8 11	0	10	Sand
15		ML	SILT WITH FINE GRAVEL ; ML; gray; wet; sheen				2 3 3	0	15	
20			Borehole terminated at 20 feet.				5 8 10	0	20	
25									25	
30									30	
35									35	

GEO FORM 304 5353 (1396) OCT 08.GPJ SECOR INTL.GDT 12/18/08

PROJECT: **Former CP 5353 (1396)**
 LOCATION: **600 Westlake Ave N., Seattle WA**
 PROJECT NUMBER: **01CP.01396.60**

WELL / PROBEHOLE / BOREHOLE NO:

MW-210 PAGE 1 OF 1



DRILLING: STARTED **10/10/08** COMPLETED: **10/10/08**
 INSTALLATION: STARTED COMPLETED:
 DRILLING COMPANY: **Cascade Drilling**
 DRILLING EQUIPMENT: **HSA**
 DRILLING METHOD: **Split Spoon**
 SAMPLING EQUIPMENT:

NORTHING (ft): EASTING (ft):
 LATITUDE: LONGITUDE:
 GROUND ELEV (ft): TOC ELEV (ft):
 INITIAL DTW (ft): **9 10/14/08** BOREHOLE DEPTH (ft): **20.0**
 STATIC DTW (ft): **Not Encountered** WELL DEPTH (ft): **20.0**
 WELL CASING DIAMETER (in): **2** BOREHOLE DIAMETER (in): **14**
 LOGGED BY: **SM** CHECKED BY: **DH**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID Method	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Well Construction
			SAND WITH GRAVEL ; dark gray; fill material, concrete							Concrete
5		ML	SAND SOME CLAY WITH ROOTS ML Wood debris		-			0.3	5	Bentonite
10			No recovery - wet		-		9 11 14		10	Sand
15		SM	SILTY SAND ; SM; gray; wet		1155 MW-210-15		4 5 5	0	15	
20		SM	SILTY SAND ; SM; gray; wet Borehole terminated at 20 feet.		-		5 8 11	0	20	
25									25	
30									30	
35									35	

PROJECT: **Former CP 5353 (1396)**
 LOCATION: **600 Westlake Ave N., Seattle WA**
 PROJECT NUMBER: **01CP.01396.60**

WELL / PROBEHOLE / BOREHOLE NO:



MW-211 PAGE 1 OF 1

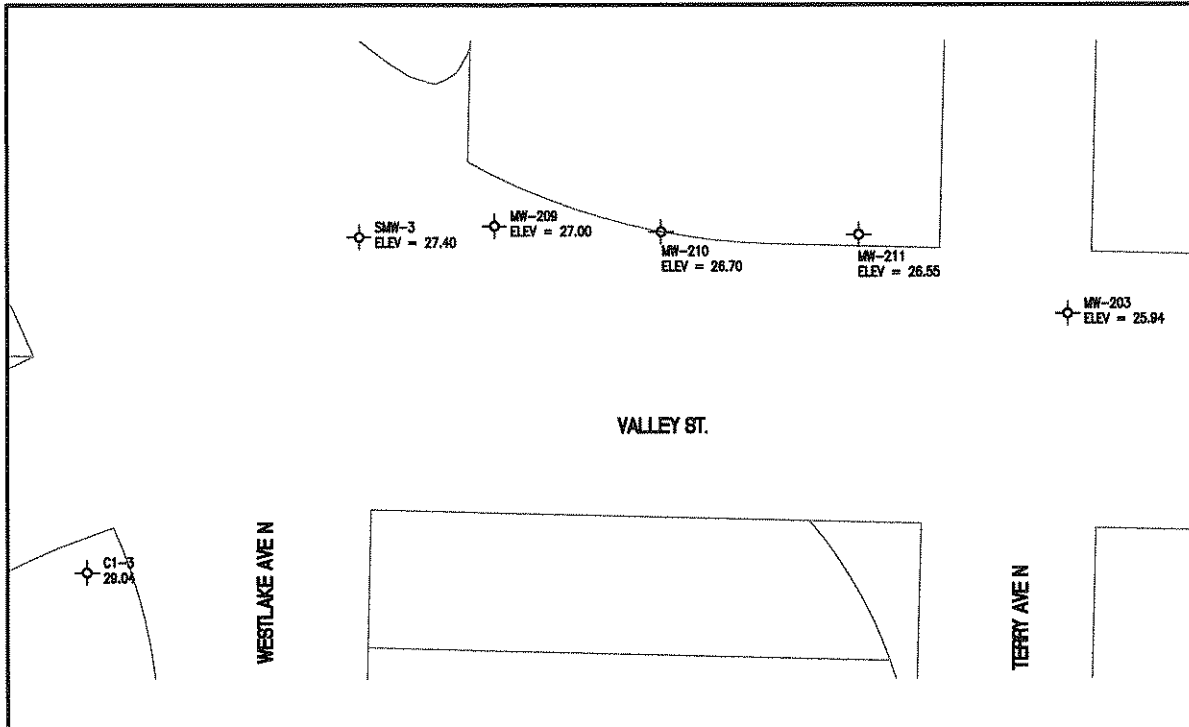
DRILLING: STARTED **10/10/08** COMPLETED: **10/10/08**
 INSTALLATION: STARTED COMPLETED:
 DRILLING COMPANY: **Cascade Drilling**
 DRILLING EQUIPMENT: **HSA**
 DRILLING METHOD: **Split Spoon**
 SAMPLING EQUIPMENT:

NORTHING (ft): EASTING (ft):
 LATITUDE: LONGITUDE:
 GROUND ELEV (ft): TOC ELEV (ft):
 INITIAL DTW (ft): **9 10/14/08** BOREHOLE DEPTH (ft): **20.0**
 STATIC DTW (ft): **Not Encountered** WELL DEPTH (ft): **20.0**
 WELL CASING DIAMETER (in): **2** BOREHOLE DIAMETER (in): **14**
 LOGGED BY: **SM** CHECKED BY: **DH**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Well Construction
			Sandy fill material, concrete & brick							
5		ML	SILT SOME CLAY WITH GRAVEL; ML; gray; dry		-			0	5	
		ML	SILT SOME CLAY; ML; gray; dry		1252 MW-211-7		8 10 10	0		
		SM	SILTY SAND FINE GRAVEL; SM; gray; wet				1			
10		SM	SAND WITH SILT FINE GRAVEL; SM; gray; wet				2 2		10	
		ML	SILT WITH CLAY FINE GRAVEL; ML; gray; wet		-		6 9 10	0	15	
20		SM	SAND WITH SILT; SM; gray; wet; woody debris @ bottom Borehole terminated at 20 feet.		-		4 5 6	0	20	

APPENDIX D
COPY OF SURVEY DATA

Site Assessment Report
Former ConocoPhillips Facility 255353
600 Westlake Avenue North, Seattle, Washington



SURVEYING & MAPPING NOTES:

HORIZONTAL DATUM: WASHINGTON STATE PLANE COORDINATE SYSTEM, NORTH ZONE, (NAD 83).

VERTICAL DATUM: NAVD 88

HORIZONTAL CONTROL WAS ESTABLISHED WITH GPS (TRIMBLE 5700 RECEIVERS) USING AN OPUS SOLUTION.

VERTICAL CONTROL WAS ESTABLISHED BY A DIFFERENTIAL LEVEL RUN FROM CITY OF SEATTLE BENCHMARK SNV-5120 ELEVATION OF 88.56

ALL WELL ELEVATIONS WERE DERIVED WITH DIFFERENTIAL LEVEL PROCEDURES DURING THE MONTH OF OCTOBER, 2008 BY OTAK INC.

RIGHT-OF-WAY AND PARCEL LINES SHOWN ON THIS MAP ARE PER CITY OF SEATTLE GIS (WAGDA 2001)

WELL LEGEND

WELL T.O.C ELEV.

SMW-3	27.40
MW-209	27.00
MW-210	26.70
MW-211	26.55
MW-203	25.94

SYMBOL LEGEND

- MONITORING WELL
- BENCHMARK



EXHIBIT MAP
FACILITY NO. 255353
WESTLAKE AND MERCER
SEATTLE, WASHINGTON



10250 NE Points Drive
 Suite 400
 Kirkland, Washington 98033
 Phone: (425) 822-4448
 FAX: (425) 827-9877
 Internet: WWW.otak.COM

Project Name Former ConocoPhillips Facility No. 255353
Site Address 600 Westlake Avenue North, Seattle, WA

Horizontal Datum: NAD 83
Vertical Datum: N.A.V.D. 88
Units: US survey feet

Well ID	Northing	Easting	Elevation
SMW-3	231957.62	1269332.53	27.40
MW-209	231962.50	1269391.41	27.00
MW-210	231959.85	1269463.96	26.70
MW-211	231958.59	1269549.77	26.55
MW-203	231924.19	1269640.16	25.94

APPENDIX E
COPIES OF DISPOSAL MANIFESTS FOR
INVESTIGATION-DERIVED WASTE

Well Installation Report
Former ConocoPhillips Facility 255353
600 Westlake Avenue North, Seattle, Washington

400421

NON-HAZARDOUS WASTE MANIFEST

186771-205

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. Exempt		Manifest Document No. 186771a	2. Page 1 of 2
3. Generator's Name and Mailing Address Conoco Phillips-255353, C/O Secor International, 12034 134th Court NE, #102, Redmond, WA 98052					
4. Generator's Phone (206-778-1676)					
5. Transporter 1 Company Name General Environmental Management, Inc.		6. US EPA ID Number CAD983649880		A. State Transporter's ID	
7. Transporter 2 Company Name Roadlink		8. US EPA ID Number WAH000010083		B. Transporter 1 Phone 800-326-1011	
9. Designated Facility Name and Site Address Chemical Waste Management, Inc. 17629 Cedar Springs Lane Arlington, OR 97812		10. US EPA ID Number ORD089452353		C. State Transporter's ID	
				D. Transporter 2 Phone	
				E. State Facility's ID	
				F. Facility's Phone (541) 454-2643	
11. WASTE DESCRIPTION			12. Containers		13. Total Quantity
			No.	Type	14. Unit Wt./Vol.
a. Non hazardous solid (IDW Soil Cuttings)			4	DM	3600 P
b.					
c.					
d.					
G. Additional Descriptions for Materials Listed Above 1) OR300656 GEM PO#			H. Handling Codes for Wastes Listed Above		
15. Special Handling Instructions and Additional Information Emergency Phone: (800) 326-1011 Conoco Phillips-255353 600 Westlake Ave North Seattle, WA 98109					
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.					
Printed/Typed Name Steve C Hill				Date 12/01/08	
Signature <i>Steve C Hill</i>					
17. Transporter 1 Acknowledgement of Receipt of Materials					
Printed/Typed Name Steve C Hill				Date 12/1/08	
Signature <i>Steve C Hill</i>					
18. Transporter 2 Acknowledgement of Receipt of Materials					
Printed/Typed Name Vemaya Evans for Roadlink				Date 1/14/09	
Signature <i>Vemaya Evans</i>					
19. Discrepancy Indication Space Drum # 1, 2, 3 free liquid is ground water, approval to solidify, drum #4 approval to add absorbent to make 90% full per Mark Foster/GEM sm-2-3-09					
20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.					
Printed/Typed Name Janice Strand				Date 1/20/09	
Signature <i>Janice Strand</i>					

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY

400927

NON-HAZARDOUS WASTE MANIFEST
(Continuation Sheet)

19. Generator ID Number
EXEMPT

20. Page
2 of 2

21. Waste Tracking Number
100771a

22. Generator's Name
Conoco Phillips

23. Transporter 3 Company Name
UPRR

U.S. EPA ID Number
NE001792910

24. Transporter 4 Company Name
Columbia Ridge Landfill

U.S. EPA ID Number
ORD 987173457

25. Waste Shipping Name and Description

26. Containers

No. Type

27. Total
Quantity

28. Unit
Wt./Vol.

29. Special Handling Instructions and Additional Information

30. Transporter 3 Acknowledgment of Receipt of Materials
Printed/Typed Name

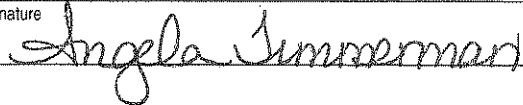
L Jatten

Signature 

Month Day Year
1/22/9

31. Transporter 4 Acknowledgment of Receipt of Materials
Printed/Typed Name

Angela Timmerman

Signature  Angela Timmerman

Month Day Year
1/27/09

32. Discrepancy

GENERATOR

TRANSPORTER

DESIGNATED FACILITY

APPENDIX F
COPY OF ANALYTICAL REPORT AND CHAIN-OF-CUSTODY
DOCUMENTATION

Well Installation Report
Former ConocoPhillips Facility 255353
600 Westlake Avenue North, Seattle, Washington

October 22, 2008

Jennifer Yotz
Stantec
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)
Redmond, WA/USA 98073

RE: ConocoPhillips Westlake & Mercer

Enclosed are the results of analyses for samples received by the laboratory on 10/15/08 10:30.
The following list is a summary of the Work Orders contained in this report, generated on 10/22/08
16:52.

If you have any questions concerning this report, please feel free to contact me.

<u>Work Order</u>	<u>Project</u>	<u>ProjectNumber</u>
BRJ0225	ConocoPhillips Westlake & M	ConocoPhillips Westlake & M

TestAmerica Seattle

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.



Curtis D. Armstrong For Kate Haney, Project Manager



Stantec PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052) Redmond, WA/USA 98073	Project Name: ConocoPhillips Westlake & Mercer Project Number: ConocoPhillips Westlake & Mercer Project Manager: Jennifer Yotz	Report Created: 10/22/08 16:52
---	---	-----------------------------------

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-209-7	BRJ0225-01	Soil	10/14/08 09:40	10/15/08 10:30
MW-210-15	BRJ0225-02	Soil	10/14/08 11:55	10/15/08 10:30
MW-211-7	BRJ0225-03	Soil	10/14/08 12:52	10/15/08 10:30

TestAmerica Seattle

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.



Curtis D. Armstrong For Kate Haney, Project Manager



Stantec	Project Name: ConocoPhillips Westlake & Mercer	Report Created:
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number: ConocoPhillips Westlake & Mercer	10/22/08 16:52
Redmond, WA/USA 98073	Project Manager: Jennifer Yotz	

Volatile Petroleum Products by NWTPH-Gx
 TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BRJ0225-01 (MW-209-7)		Soil						Sampled: 10/14/08 09:40		
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	----	6.19	mg/kg dry	1x	8J17011	10/17/08 11:02	10/17/08 15:34	
<i>Surrogate(s): 4-BFB (FID)</i>			133%		50 - 150 %	"				"
BRJ0225-02 (MW-210-15)		Soil						Sampled: 10/14/08 11:55		
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	----	5.71	mg/kg dry	1x	8J17011	10/17/08 11:02	10/17/08 16:41	
<i>Surrogate(s): 4-BFB (FID)</i>			131%		50 - 150 %	"				"
BRJ0225-03 (MW-211-7)		Soil						Sampled: 10/14/08 12:52		
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	----	5.59	mg/kg dry	1x	8J17011	10/17/08 11:02	10/17/08 17:45	
<i>Surrogate(s): 4-BFB (FID)</i>			120%		50 - 150 %	"				"

TestAmerica Seattle

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.



Curtis D. Armstrong For Kate Haney, Project Manager



Stantec PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052) Redmond, WA/USA 98073	Project Name: ConocoPhillips Westlake & Mercer Project Number: ConocoPhillips Westlake & Mercer Project Manager: Jennifer Yotz	Report Created: 10/22/08 16:52
---	---	-----------------------------------

Identified Semivolatile Petroleum Products by NWTPH-Dx with Acid/Silica Gel Clean-up
 TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BRJ0225-01 (MW-209-7)		Soil		Sampled: 10/14/08 09:40						
Lube Oil	NWTPH-Dx	ND	----	31.5	mg/kg dry	1x	8J16033	10/16/08 12:01	10/16/08 23:02	
Kerosene	"	ND	----	12.6	"	"	"	"	"	
Diesel Range Hydrocarbons	"	ND	----	12.6	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>				79.9%		54 - 148 %	"			"
<i>Octacosane</i>				90.0%		62 - 142 %	"			"
BRJ0225-02 (MW-210-15)		Soil		Sampled: 10/14/08 11:55						
Lube Oil	NWTPH-Dx	73.4	----	30.7	mg/kg dry	1x	8J16033	10/16/08 12:01	10/16/08 23:24	
Kerosene	"	ND	----	12.3	"	"	"	"	"	
Diesel Range Hydrocarbons	"	19.8	----	12.3	"	"	"	"	"	Q6
<i>Surrogate(s): 2-FBP</i>				71.9%		54 - 148 %	"			"
<i>Octacosane</i>				81.8%		62 - 142 %	"			"
BRJ0225-03 (MW-211-7)		Soil		Sampled: 10/14/08 12:52						
Lube Oil	NWTPH-Dx	ND	----	29.1	mg/kg dry	1x	8J16033	10/16/08 12:01	10/16/08 23:47	
Kerosene	"	ND	----	11.6	"	"	"	"	"	
Diesel Range Hydrocarbons	"	ND	----	11.6	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>				85.6%		54 - 148 %	"			"
<i>Octacosane</i>				94.3%		62 - 142 %	"			"

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Curtis D. Armstrong For Kate Haney, Project Manager

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Stantec PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052) Redmond, WA/USA 98073	Project Name: ConocoPhillips Westlake & Mercer Project Number: ConocoPhillips Westlake & Mercer Project Manager: Jennifer Yotz	Report Created: 10/22/08 16:52
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Total Metals by EPA 6000/7000 Series Methods
TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BRJ0225-01 (MW-209-7)		Soil		Sampled: 10/14/08 09:40						
Lead	EPA 6020	9.50	----	0.527	mg/kg dry	1x	8J16054	10/16/08 21:36	10/19/08 18:02	
BRJ0225-02 (MW-210-15)		Soil		Sampled: 10/14/08 11:55						
Lead	EPA 6020	18.5	----	0.591	mg/kg dry	1x	8J16054	10/16/08 21:36	10/19/08 18:09	
BRJ0225-03 (MW-211-7)		Soil		Sampled: 10/14/08 12:52						
Lead	EPA 6020	5.19	----	0.588	mg/kg dry	1x	8J16054	10/16/08 21:36	10/19/08 18:15	

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Curtis D. Armstrong For Kate Haney, Project Manager

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Stantec PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052) Redmond, WA/USA 98073	Project Name: ConocoPhillips Westlake & Mercer Project Number: ConocoPhillips Westlake & Mercer Project Manager: Jennifer Yotz	Report Created: 10/22/08 16:52
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Volatile Organic Compounds (Special List) per EPA Method 8260B (Low Soil Method)
 TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BRJ0225-01 (MW-209-7)	Soil		Sampled: 10/14/08 09:40							
Benzene	EPA 8260B	ND	----	0.895	ug/kg dry	1x	8J15055	10/15/08 17:48	10/15/08 23:07	
Ethylbenzene	"	ND	----	2.39	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	0.597	"	"	"	"	"	
Naphthalene	"	ND	----	5.97	"	"	"	"	"	
Toluene	"	ND	----	0.895	"	"	"	"	"	
Total Xylenes	"	ND	----	5.97	"	"	"	"	"	
<i>Surrogate(s):</i>	<i>1,2-DCA-d4</i>		131%		60 - 140 %	"				"
	<i>Toluene-d8</i>		100%		60 - 140 %	"				"
	<i>4-BFB</i>		110%		60 - 140 %	"				"
BRJ0225-02 (MW-210-15)	Soil		Sampled: 10/14/08 11:55							
Benzene	EPA 8260B	ND	----	1.16	ug/kg dry	1x	8J15055	10/15/08 17:48	10/15/08 23:33	
Ethylbenzene	"	ND	----	3.10	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	0.776	"	"	"	"	"	
Naphthalene	"	ND	----	7.76	"	"	"	"	"	
Toluene	"	ND	----	1.16	"	"	"	"	"	
Total Xylenes	"	11.2	----	7.76	"	"	"	"	"	
<i>Surrogate(s):</i>	<i>1,2-DCA-d4</i>		130%		60 - 140 %	"				"
	<i>Toluene-d8</i>		98.7%		60 - 140 %	"				"
	<i>4-BFB</i>		108%		60 - 140 %	"				"
BRJ0225-03 (MW-211-7)	Soil		Sampled: 10/14/08 12:52							
Benzene	EPA 8260B	ND	----	1.02	ug/kg dry	1x	8J15055	10/15/08 17:48	10/15/08 23:58	
Ethylbenzene	"	ND	----	2.72	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	0.681	"	"	"	"	"	
Naphthalene	"	ND	----	6.81	"	"	"	"	"	
Toluene	"	ND	----	1.02	"	"	"	"	"	
Total Xylenes	"	ND	----	6.81	"	"	"	"	"	
<i>Surrogate(s):</i>	<i>1,2-DCA-d4</i>		128%		60 - 140 %	"				"
	<i>Toluene-d8</i>		102%		60 - 140 %	"				"
	<i>4-BFB</i>		109%		60 - 140 %	"				"

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Curtis D. Armstrong For Kate Haney, Project Manager

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Stantec	Project Name: ConocoPhillips Westlake & Mercer	Report Created:
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number: ConocoPhillips Westlake & Mercer	10/22/08 16:52
Redmond, WA/USA 98073	Project Manager: Jennifer Yotz	

Physical Parameters by APHA/ASTM/EPA Methods
 TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BRJ0225-01 (MW-209-7)		Soil			Sampled: 10/14/08 09:40					
Dry Weight	BSOPSPL003R0 8	78.5	----	1.00	%	1x	8J20036	10/20/08 13:14	10/21/08 00:00	
BRJ0225-02 (MW-210-15)		Soil			Sampled: 10/14/08 11:55					
Dry Weight	BSOPSPL003R0 8	81.4	----	1.00	%	1x	8J20036	10/20/08 13:14	10/21/08 00:00	
BRJ0225-03 (MW-211-7)		Soil			Sampled: 10/14/08 12:52					
Dry Weight	BSOPSPL003R0 8	85.0	----	1.00	%	1x	8J20036	10/20/08 13:14	10/21/08 00:00	

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Curtis D. Armstrong For Kate Haney, Project Manager



Stantec PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052) Redmond, WA/USA 98073	Project Name: ConocoPhillips Westlake & Mercer Project Number: ConocoPhillips Westlake & Mercer Project Manager: Jennifer Yotz	Report Created: 10/22/08 16:52
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Volatile Petroleum Products by NWTPH-Gx - Laboratory Quality Control Results
 TestAmerica Seattle

QC Batch: 8J17011 **Soil Preparation Method:** EPA 5030B (P/T)

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes		
Blank (8J17011-BLK1)													Extracted: 10/17/08 11:02			
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	---	5.00	mg/kg wet	1x	--	--	--	--	--	--	10/17/08 13:52			
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 102%</i>		<i>Limits: 50-150%</i>									10/17/08 13:52			
LCS (8J17011-BS1)													Extracted: 10/17/08 11:02			
Gasoline Range Hydrocarbons	NWTPH-Gx	50.9	---	5.00	mg/kg wet	1x	--	50.0	102%	(75-125)	--	--	10/17/08 14:25			
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 109%</i>		<i>Limits: 50-150%</i>									10/17/08 14:25			
Duplicate (8J17011-DUP1)													QC Source: BRJ0225-01		Extracted: 10/17/08 11:02	
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	---	6.19	mg/kg dry	1x	ND	--	--	--	34.6% (40)		10/17/08 16:08			
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 132%</i>		<i>Limits: 50-150%</i>									10/17/08 16:08			
Duplicate (8J17011-DUP2)													QC Source: BRJ0225-02		Extracted: 10/17/08 11:02	
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	---	5.71	mg/kg dry	1x	ND	--	--	--	10.0% (40)		10/17/08 17:13			
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 130%</i>		<i>Limits: 50-150%</i>									10/17/08 17:13			
Matrix Spike (8J17011-MS1)													QC Source: BRJ0225-03		Extracted: 10/17/08 11:02	
Gasoline Range Hydrocarbons	NWTPH-Gx	57.0	---	5.59	mg/kg dry	1x	ND	47.1	121%	(60-175)	--	--	10/17/08 19:23			
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 125%</i>		<i>Limits: 50-150%</i>									10/17/08 19:23			

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Curtis D. Armstrong For Kate Haney, Project Manager



Stantec PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052) Redmond, WA/USA 98073	Project Name: ConocoPhillips Westlake & Mercer Project Number: ConocoPhillips Westlake & Mercer Project Manager: Jennifer Yotz	Report Created: 10/22/08 16:52
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Identified Semivolatile Petroleum Products by NWTPH-Dx with Acid/Silica Gel Clean-up - Laboratory Quality Control Results
 TestAmerica Seattle

QC Batch: 8J16033 Soil Preparation Method: EPA 3550B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	---------------	-----------	-------	----------	-------	----------	----------	-------

Blank (8J16033-BLK1)

Extracted: 10/16/08 12:01

Lube Oil	NWTPH-Dx	ND	---	25.0	mg/kg wet	1x	--	--	--	--	--	--	10/16/08 20:26	
Kerosene	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
Diesel Range Hydrocarbons	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
<i>Surrogate(s): 2-FBP</i>		<i>Recovery: 90.1%</i>		<i>Limits: 54-148%</i>										10/16/08 20:26
<i>Octacosane</i>		<i>99.1%</i>		<i>62-142%</i>										"

LCS (8J16033-BS1)

Extracted: 10/16/08 12:01

Diesel Range Hydrocarbons	NWTPH-Dx	61.7	---	10.0	mg/kg wet	1x	--	66.7	92.6%	(58-140)	--	--	10/16/08 20:48	
<i>Surrogate(s): 2-FBP</i>		<i>Recovery: 101%</i>		<i>Limits: 54-148%</i>										10/16/08 20:48
<i>Octacosane</i>		<i>95.4%</i>		<i>62-142%</i>										"

Duplicate (8J16033-DUP1)

QC Source: BRJ0244-01

Extracted: 10/16/08 12:01

Lube Oil	NWTPH-Dx	145	---	26.4	mg/kg dry	1x	184	--	--	--	23.5%	(50)	10/16/08 21:10	
Kerosene	"	ND	---	10.6	"	"	ND	--	--	--	37.8%	"	"	
Diesel Range Hydrocarbons	"	15.8	---	10.6	"	"	21.3	--	--	--	29.7%	"	"	
<i>Surrogate(s): 2-FBP</i>		<i>Recovery: 50.7%</i>		<i>Limits: 54-148%</i>										10/16/08 21:10
<i>Octacosane</i>		<i>53.9%</i>		<i>62-142%</i>										"

ZX
ZX

Duplicate (8J16033-DUP2)

QC Source: BRJ0251-01

Extracted: 10/16/08 12:01

Lube Oil	NWTPH-Dx	ND	---	26.3	mg/kg dry	1x	ND	--	--	--	31.1%	(50)	10/16/08 21:33	
Kerosene	"	ND	---	10.5	"	"	ND	--	--	--	8.66%	"	"	
Diesel Range Hydrocarbons	"	ND	---	10.5	"	"	ND	--	--	--	NR	"	"	
<i>Surrogate(s): 2-FBP</i>		<i>Recovery: 77.7%</i>		<i>Limits: 54-148%</i>										10/16/08 21:33
<i>Octacosane</i>		<i>88.8%</i>		<i>62-142%</i>										"

Matrix Spike (8J16033-MS1)

QC Source: BRJ0244-01

Extracted: 10/16/08 12:01

Diesel Range Hydrocarbons	NWTPH-Dx	46.4	---	10.4	mg/kg dry	1x	21.3	69.7	36.1%	(46-155)	--	--	10/16/08 21:55	M2
<i>Surrogate(s): 2-FBP</i>		<i>Recovery: 60.6%</i>		<i>Limits: 54-148%</i>										10/16/08 21:55
<i>Octacosane</i>		<i>68.8%</i>		<i>62-142%</i>										"

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Curtis D. Armstrong For Kate Haney, Project Manager



Stantec PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052) Redmond, WA/USA 98073	Project Name: ConocoPhillips Westlake & Mercer Project Number: ConocoPhillips Westlake & Mercer Project Manager: Jennifer Yotz	Report Created: 10/22/08 16:52
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Total Metals by EPA 6000/7000 Series Methods - Laboratory Quality Control Results
 TestAmerica Seattle

QC Batch: 8J16054 Soil Preparation Method: EPA 3050B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (8J16054-BLK1)								Extracted: 10/16/08 21:36						
Lead	EPA 6020	ND	--	0.521	mg/kg wet	1x	--	--	--	--	--	--	10/17/08 13:17	
LCS (8J16054-BS1)								Extracted: 10/16/08 21:36						
Lead	EPA 6020	37.7	--	0.495	mg/kg wet	1x	--	39.6	95.1%	(80-120)	--	--	10/17/08 13:24	
Duplicate (8J16054-DUP1)				QC Source: BRJ0244-01				Extracted: 10/16/08 21:36						
Lead	EPA 6020	31.5	--	0.538	mg/kg dry	1x	28.4	--	--	--	10.2%	(20)	10/17/08 14:28	
Matrix Spike (8J16054-MS1)				QC Source: BRJ0244-01				Extracted: 10/16/08 21:36						
Lead	EPA 6020	66.2	--	0.538	mg/kg dry	1x	28.4	43.1	87.9%	(75-125)	--	--	10/17/08 13:36	
Post Spike (8J16054-PS1)				QC Source: BRJ0244-01				Extracted: 10/16/08 21:36						
Lead	EPA 6020	0.140	--		ug/ml	1x	0.0516	0.100	88.4%	(80-120)	--	--	10/17/08 13:30	

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Curtis D. Armstrong For Kate Haney, Project Manager

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Stantec	Project Name: ConocoPhillips Westlake & Mercer	Report Created: 10/22/08 16:52
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number: ConocoPhillips Westlake & Mercer	
Redmond, WA/USA 98073	Project Manager: Jennifer Yotz	

Volatile Organic Compounds (Special List) per EPA Method 8260B (Low Soil Method) - Laboratory Quality Control Results
 TestAmerica Seattle

QC Batch: 8J15055 Soil Preparation Method: EPA 5035

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (8J15055-BLK1)													Extracted: 10/15/08 17:48	
Acetone	EPA 8260B	ND	---	30.0	ug/kg wet	1x	--	--	--	--	--	--	10/15/08 20:34	
Benzene	"	ND	---	1.50	"	"	--	--	--	--	--	--	"	
Bromobenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Bromochloromethane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Bromodichloromethane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Bromoform	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Bromomethane	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
2-Butanone	"	ND	---	15.0	"	"	--	--	--	--	--	--	"	C, L
n-Butylbenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
sec-Butylbenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
tert-Butylbenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Carbon disulfide	"	ND	---	3.00	"	"	--	--	--	--	--	--	"	
Carbon tetrachloride	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Chlorobenzene	"	ND	---	2.00	"	"	--	--	--	--	--	--	"	
Chloroethane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Chloroform	"	ND	---	2.50	"	"	--	--	--	--	--	--	"	
Chloromethane	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
2-Chlorotoluene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
4-Chlorotoluene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Dibromochloromethane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,2-Dibromo-3-chloropropane	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
1,2-Dibromoethane (EDB)	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Dibromomethane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,2-Dichlorobenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,3-Dichlorobenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,4-Dichlorobenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Dichlorodifluoromethane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,1-Dichloroethane	"	ND	---	2.00	"	"	--	--	--	--	--	--	"	
1,2-Dichloroethane	"	ND	---	1.25	"	"	--	--	--	--	--	--	"	
1,1-Dichloroethene	"	ND	---	3.00	"	"	--	--	--	--	--	--	"	
cis-1,2-Dichloroethene	"	ND	---	3.00	"	"	--	--	--	--	--	--	"	
trans-1,2-Dichloroethene	"	ND	---	2.50	"	"	--	--	--	--	--	--	"	
1,2-Dichloropropane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,3-Dichloropropane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
2,2-Dichloropropane	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
1,1-Dichloropropene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
cis-1,3-Dichloropropene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
trans-1,3-Dichloropropene	"	ND	---	1.25	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	---	4.00	"	"	--	--	--	--	--	--	"	

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Curtis D. Armstrong For Kate Haney, Project Manager



Stantec	Project Name: ConocoPhillips Westlake & Mercer	Report Created:
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number: ConocoPhillips Westlake & Mercer	10/22/08 16:52
Redmond, WA/USA 98073	Project Manager: Jennifer Yotz	

Volatile Organic Compounds (Special List) per EPA Method 8260B (Low Soil Method) - Laboratory Quality Control Results
 TestAmerica Seattle

QC Batch: 8J15055 Soil Preparation Method: EPA 5035

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (8J15055-BLK1)													Extracted: 10/15/08 17:48	
Hexachlorobutadiene	EPA 8260B	ND	---	10.0	ug/kg wet	1x	--	--	--	--	--	--	10/15/08 20:34	
Methyl tert-butyl ether	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
n-Hexane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
2-Hexanone	"	ND	---	20.0	"	"	--	--	--	--	--	--	"	
Isopropylbenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
p-Isopropyltoluene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
4-Methyl-2-pentanone	"	ND	---	20.0	"	"	--	--	--	--	--	--	"	
Methylene chloride	"	ND	---	3.50	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
n-Propylbenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Styrene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,2,3-Trichlorobenzene	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
1,2,4-Trichlorobenzene	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
1,1,1,2-Tetrachloroethane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,1,2,2-Tetrachloroethane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Tetrachloroethene	"	ND	---	2.00	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	1.50	"	"	--	--	--	--	--	--	"	
1,1,1-Trichloroethane	"	ND	---	2.50	"	"	--	--	--	--	--	--	"	
1,1,2-Trichloroethane	"	ND	---	1.25	"	"	--	--	--	--	--	--	"	
Trichloroethene	"	ND	---	2.50	"	"	--	--	--	--	--	--	"	
Trichlorofluoromethane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,2,3-Trichloropropane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,2,4-Trimethylbenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,3,5-Trimethylbenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Vinyl chloride	"	ND	---	2.50	"	"	--	--	--	--	--	--	"	
o-Xylene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
m,p-Xylene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Total Xylenes	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
Surrogate(s):	1,2-DCA-d4	Recovery:	119%	Limits:	60-140%	"							10/15/08 20:34	
	Toluene-d8		98.7%		60-140%	"							"	
	4-BFB		103%		60-140%	"							"	

TestAmerica Seattle



Curtis D. Armstrong For Kate Haney, Project Manager

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Stantec	Project Name: ConocoPhillips Westlake & Mercer	Report Created: 10/22/08 16:52
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number: ConocoPhillips Westlake & Mercer	
Redmond, WA/USA 98073	Project Manager: Jennifer Yotz	

Volatile Organic Compounds (Special List) per EPA Method 8260B (Low Soil Method) - Laboratory Quality Control Results
 TestAmerica Seattle

QC Batch: 8J15055 Soil Preparation Method: EPA 5035

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Extracted: 10/15/08 17:48														
LCS (8J15055-BS1)														
Acetone	EPA 8260B	559	---	30.0	ug/kg wet	1x	--	500	112%	(70-130)	--	--	10/15/08 19:43	
Benzene	"	47.2	---	1.50	"	"	--	50.0	94.3%	"	--	--	"	
2-Butanone	"	640	---	15.0	"	"	--	500	128%	"	--	--	"	
Carbon disulfide	"	51.4	---	3.00	"	"	--	50.0	103%	"	--	--	"	
Chlorobenzene	"	46.9	---	2.00	"	"	--	"	93.8%	"	--	--	"	
1,1-Dichloroethane	"	49.5	---	2.00	"	"	--	"	98.9%	"	--	--	"	
1,1-Dichloroethene	"	50.1	---	3.00	"	"	--	"	100%	"	--	--	"	
cis-1,2-Dichloroethene	"	50.8	---	3.00	"	"	--	"	102%	"	--	--	"	
Ethylbenzene	"	47.9	---	4.00	"	"	--	"	95.8%	"	--	--	"	
Hexachlorobutadiene	"	45.5	---	10.0	"	"	--	"	91.0%	"	--	--	"	
4-Methyl-2-pentanone	"	577	---	20.0	"	"	--	500	115%	"	--	--	"	
Tetrachloroethene	"	48.1	---	2.00	"	"	--	50.0	96.2%	"	--	--	"	
Toluene	"	48.7	---	1.50	"	"	--	"	97.4%	"	--	--	"	
1,1,1-Trichloroethane	"	48.5	---	2.50	"	"	--	"	97.0%	"	--	--	"	
Trichloroethene	"	49.2	---	2.50	"	"	--	"	98.3%	"	--	--	"	
<i>Surrogate(s): 1,2-DCA-d4</i>		<i>Recovery: 110%</i>		<i>Limits: 60-140%</i>		"							10/15/08 19:43	
<i>Toluene-d8</i>		<i>96.6%</i>		<i>60-140%</i>		"							"	
<i>4-BFB</i>		<i>102%</i>		<i>60-140%</i>		"							"	

Extracted: 10/15/08 17:48														
LCS Dup (8J15055-BS1)														
Acetone	EPA 8260B	580	---	30.0	ug/kg wet	1x	--	500	116%	(70-130)	3.78% (30)		10/15/08 20:09	
Benzene	"	49.3	---	1.50	"	"	--	50.0	98.7%	"	4.48%	"	"	
2-Butanone	"	672	---	15.0	"	"	--	500	134%	"	4.88%	"	"	L1
Carbon disulfide	"	53.7	---	3.00	"	"	--	50.0	107%	"	4.40%	"	"	
Chlorobenzene	"	46.6	---	2.00	"	"	--	"	93.3%	"	0.577%	"	"	
1,1-Dichloroethane	"	50.8	---	2.00	"	"	--	"	102%	"	2.69%	"	"	
1,1-Dichloroethene	"	51.5	---	3.00	"	"	--	"	103%	"	2.76%	"	"	
cis-1,2-Dichloroethene	"	52.9	---	3.00	"	"	--	"	106%	"	3.91%	"	"	
Ethylbenzene	"	47.6	---	4.00	"	"	--	"	95.2%	"	0.607%	"	"	
Hexachlorobutadiene	"	46.4	---	10.0	"	"	--	"	92.7%	"	1.94%	"	"	
4-Methyl-2-pentanone	"	604	---	20.0	"	"	--	500	121%	"	4.52%	"	"	
Tetrachloroethene	"	49.3	---	2.00	"	"	--	50.0	98.7%	"	2.50%	"	"	
Toluene	"	48.3	---	1.50	"	"	--	"	96.7%	"	0.783%	"	"	
1,1,1-Trichloroethane	"	49.5	---	2.50	"	"	--	"	99.0%	"	2.04%	"	"	
Trichloroethene	"	51.3	---	2.50	"	"	--	"	103%	"	4.30%	"	"	
<i>Surrogate(s): 1,2-DCA-d4</i>		<i>Recovery: 106%</i>		<i>Limits: 60-140%</i>		"							10/15/08 20:09	
<i>Toluene-d8</i>		<i>98.5%</i>		<i>60-140%</i>		"							"	
<i>4-BFB</i>		<i>100%</i>		<i>60-140%</i>		"							"	

TestAmerica Seattle

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Curtis D. Armstrong For Kate Haney, Project Manager



Stantec PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052) Redmond, WA/USA 98073	Project Name: ConocoPhillips Westlake & Mercer Project Number: ConocoPhillips Westlake & Mercer Project Manager: Jennifer Yotz	Report Created: 10/22/08 16:52
---	---	-----------------------------------

Physical Parameters by APHA/ASTM/EPA Methods - Laboratory Quality Control Results
 TestAmerica Seattle

QC Batch: 8J20036 Soil Preparation Method: Dry Weight

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (8J20036-BLK1)													Extracted: 10/20/08 13:14	
Dry Weight	BSOPSP.L00 3R08	99.8	---	1.00	%	1x	--	--	--	--	--	--	10/21/08 00:00	

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Curtis D. Armstrong For Kate Haney, Project Manager



Stantec

PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)
Redmond, WA/USA 98073

Project Name: **ConocoPhillips Westlake & Mercer**

Project Number: ConocoPhillips Westlake & Mercer

Project Manager: Jennifer Yotz

Report Created:

10/22/08 16:52

CERTIFICATION SUMMARY

TestAmerica Seattle

Method	Matrix	Nelac	Washington
BSOPSPL003R08	Soil		
EPA 6020	Soil	X	X
EPA 8260B	Soil	X	X
NWTPH-Dx	Soil		X
NWTPH-Gx	Soil		X

Any abnormalities or departures from sample acceptance policy shall be documented on the 'Sample Receipt and Temperature Log Form' and 'Sample Non-conformance Form' (if applicable) included with this report.

For information concerning certifications of this facility or another TestAmerica facility, please visit our website at www.TestAmericaInc.com

Samples collected by TestAmerica Field Services personnel are noted on the Chain of Custody (COC) .

TestAmerica Seattle



Curtis D. Armstrong For Kate Haney, Project Manager

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Stantec

PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)
Redmond, WA/USA 98073

Project Name: **ConocoPhillips Westlake & Mercer**
Project Number: ConocoPhillips Westlake & Mercer
Project Manager: Jennifer Yotz

Report Created:
10/22/08 16:52

Notes and Definitions

Report Specific Notes:

- C - Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
- C8 - Calibration Verification recovery was above the method control limit for this analyte. A high bias may be indicated.
- L - Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.
- L1 - Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above acceptance limits.
- M2 - The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- Q6 - Results in the diesel organics range are primarily due to overlap from a heavy oil range product.
- ZX - Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.

Laboratory Reporting Conventions:

- DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
- ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
- NR/NA - Not Reported / Not Available
- dry - Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.
- wet - Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.
- RPD - RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).
- MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.
- MDL* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.
- Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.
- Reporting Limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
- Electronic Signature - Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy*. Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

TestAmerica Seattle

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Curtis D. Armstrong For Kate Haney, Project Manager



December 04, 2008

Jennifer Yotz
Stantec
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)
Redmond, WA/USA 98073

RE: COP Westlake

Enclosed are the results of analyses for samples received by the laboratory on 11/05/08 16:15.
The following list is a summary of the Work Orders contained in this report, generated on 12/04/08
09:22.

If you have any questions concerning this report, please feel free to contact me.

<u>Work Order</u>	<u>Project</u>	<u>ProjectNumber</u>
BRK0047	COP Westlake	01CP.01396.44

TestAmerica Seattle



Curtis D. Armstrong For Kate Haney, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.



Stantec PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052) Redmond, WA/USA 98073	Project Name: COP Westlake Project Number: 01CP.01396.44 Project Manager: Jennifer Yotz	Report Created: 12/04/08 09:22
---	--	-----------------------------------

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
C1-1	BRK0047-01	Water	11/05/08 11:15	11/05/08 16:15
C1-2	BRK0047-02	Water	11/05/08 11:30	11/05/08 16:15
MW-32A	BRK0047-03	Water	11/05/08 09:56	11/05/08 16:15
MW-34	BRK0047-04	Water	11/05/08 08:26	11/05/08 16:15
MW-35	BRK0047-05	Water	11/05/08 12:27	11/05/08 16:15
MW-52	BRK0047-06	Water	11/05/08 10:45	11/05/08 16:15
MW-57	BRK0047-07	Water	11/05/08 11:27	11/05/08 16:15
MW-59	BRK0047-08	Water	11/05/08 09:09	11/05/08 16:15
MW-60	BRK0047-09	Water	11/05/08 13:06	11/05/08 16:15
MW-202	BRK0047-10	Water	11/05/08 12:30	11/05/08 16:15
MW-207	BRK0047-11	Water	11/05/08 13:05	11/05/08 16:15
MW-209	BRK0047-12	Water	11/05/08 08:35	11/05/08 16:15
MW-210	BRK0047-13	Water	11/05/08 09:15	11/05/08 16:15
MW-211	BRK0047-14	Water	11/05/08 10:00	11/05/08 16:15

TestAmerica Seattle



Curtis D. Armstrong For Kate Haney, Project Manager

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Stantec

PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)
Redmond, WA/USA 98073

Project Name: **COP Westlake**

Project Number: 01CP.01396.44

Project Manager: Jennifer Yotz

Report Created:
12/04/08 09:22

Analytical Case Narrative

TestAmerica - Seattle, WA

BRK0047

SAMPLE RECEIPT

The samples were received November 5th, 2008 by TestAmerica - Seattle. The temperature of the samples at the time of receipt was 9.2 degrees Celsius which is outside the recommended temperature range of 2-6 Degrees Celsius. The samples are considered acceptable as they were recieved on-ice within four hours of the collection of the last sampled time on the COC.

PREPARATIONS AND ANALYSIS

No additional anomalies, discrepancies, or issues were associated with sample preparation, analysis and quality control other than those already qualified in the data and described in the Notes and Definitions page at the end of the report.

TestAmerica Seattle

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Curtis D. Armstrong For Kate Haney, Project Manager



Stantec	Project Name: COP Westlake	Report Created:
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number: 01CP.01396.44	12/04/08 09:22
Redmond, WA/USA 98073	Project Manager: Jennifer Yotz	

Volatile Petroleum Products by NWTPH-Gx
 TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BRK0047-01 (C1-1)		Water			Sampled: 11/05/08 11:15					
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	----	50.0	ug/l	1x	8K06007	11/06/08 07:30	11/07/08 01:30	
Surrogate(s): 4-BFB (FID)			102%		58 - 144 %	"				"
BRK0047-02 (C1-2)		Water			Sampled: 11/05/08 11:30					
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	----	50.0	ug/l	1x	8K06007	11/06/08 07:30	11/07/08 02:03	
Surrogate(s): 4-BFB (FID)			102%		58 - 144 %	"				"
BRK0047-03 (MW-32A)		Water			Sampled: 11/05/08 09:56					
Gasoline Range Hydrocarbons	NWTPH-Gx	528	----	50.0	ug/l	1x	8K06007	11/06/08 07:30	11/07/08 02:35	
Surrogate(s): 4-BFB (FID)			104%		58 - 144 %	"				"
BRK0047-04 (MW-34)		Water			Sampled: 11/05/08 08:26					
Gasoline Range Hydrocarbons	NWTPH-Gx	1890	----	50.0	ug/l	1x	8K06007	11/06/08 07:30	11/07/08 07:59	
Surrogate(s): 4-BFB (FID)			106%		58 - 144 %	"				"
BRK0047-05 (MW-35)		Water			Sampled: 11/05/08 12:27					
Gasoline Range Hydrocarbons	NWTPH-Gx	94.8	----	50.0	ug/l	1x	8K06007	11/06/08 07:30	11/07/08 08:32	
Surrogate(s): 4-BFB (FID)			101%		58 - 144 %	"				"
BRK0047-06 (MW-52)		Water			Sampled: 11/05/08 10:45					
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	----	50.0	ug/l	1x	8K06007	11/06/08 07:30	11/07/08 03:07	
Surrogate(s): 4-BFB (FID)			103%		58 - 144 %	"				"
BRK0047-07 (MW-57)		Water			Sampled: 11/05/08 11:27					
Gasoline Range Hydrocarbons	NWTPH-Gx	76.2	----	50.0	ug/l	1x	8K06007	11/06/08 07:30	11/07/08 03:40	
Surrogate(s): 4-BFB (FID)			100%		58 - 144 %	"				"
BRK0047-08 (MW-59)		Water			Sampled: 11/05/08 09:09					
Gasoline Range Hydrocarbons	NWTPH-Gx	280	----	50.0	ug/l	1x	8K06007	11/06/08 07:30	11/07/08 09:04	
Surrogate(s): 4-BFB (FID)			109%		58 - 144 %	"				"

TestAmerica Seattle



Curtis D. Armstrong For Kate Haney, Project Manager

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Stantec	Project Name: COP Westlake	Report Created:
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number: 01CP.01396.44	12/04/08 09:22
Redmond, WA/USA 98073	Project Manager: Jennifer Yotz	

Volatile Petroleum Products by NWTPH-Gx
 TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BRK0047-09 (MW-60)		Water			Sampled: 11/05/08 13:06					
Gasoline Range Hydrocarbons	NWTPH-Gx	23300	----	1000	ug/l	20x	8K06007	11/06/08 07:30	11/07/08 11:36	
Surrogate(s): 4-BFB (FID)			112%		58 - 144 %	1x				"
BRK0047-10 (MW-202)		Water			Sampled: 11/05/08 12:30					
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	----	50.0	ug/l	1x	8K06007	11/06/08 07:30	11/07/08 04:12	
Surrogate(s): 4-BFB (FID)			102%		58 - 144 %	"				"
BRK0047-11 (MW-207)		Water			Sampled: 11/05/08 13:05					
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	----	50.0	ug/l	1x	8K06007	11/06/08 07:30	11/07/08 04:45	
Surrogate(s): 4-BFB (FID)			103%		58 - 144 %	"				"
BRK0047-12 (MW-209)		Water			Sampled: 11/05/08 08:35					
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	----	50.0	ug/l	1x	8K06007	11/06/08 07:30	11/07/08 05:17	
Surrogate(s): 4-BFB (FID)			104%		58 - 144 %	"				"
BRK0047-13 (MW-210)		Water			Sampled: 11/05/08 09:15					
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	----	50.0	ug/l	1x	8K06007	11/06/08 07:30	11/07/08 06:54	
Surrogate(s): 4-BFB (FID)			102%		58 - 144 %	"				"
BRK0047-14 (MW-211)		Water			Sampled: 11/05/08 10:00					
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	----	50.0	ug/l	1x	8K06007	11/06/08 07:30	11/07/08 07:27	
Surrogate(s): 4-BFB (FID)			101%		58 - 144 %	"				"

TestAmerica Seattle



Curtis D. Armstrong For Kate Haney, Project Manager

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Stantec PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052) Redmond, WA/USA 98073	Project Name: COP Westlake Project Number: 01CP.01396.44 Project Manager: Jennifer Yotz	Report Created: 12/04/08 09:22
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Identified Semivolatile Petroleum Products by NWTPH-Dx with Acid/Silica Gel Clean-up
 TestAmerica Seattle

Analyte	Method	Result	MDL ^A	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BRK0047-01 (C1-1)		Water			Sampled: 11/05/08 11:15					
Lube Oil	NWTPH-Dx	ND	----	0.481	mg/l	1x	8K06015	11/06/08 09:14	11/07/08 20:32	
Kerosene	"	ND	----	0.240	"	"	"	"	"	
Diesel Range Hydrocarbons	"	ND	----	0.240	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>				80.0%		53 - 125 %	"			"
<i>Octacosane</i>				91.4%		68 - 125 %	"			"
BRK0047-02 (C1-2)		Water			Sampled: 11/05/08 11:30					
Lube Oil	NWTPH-Dx	ND	----	0.481	mg/l	1x	8K06015	11/06/08 09:14	11/07/08 20:54	
Kerosene	"	ND	----	0.240	"	"	"	"	"	
Diesel Range Hydrocarbons	"	ND	----	0.240	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>				66.7%		53 - 125 %	"			"
<i>Octacosane</i>				75.0%		68 - 125 %	"			"
BRK0047-03 (MW-32A)		Water			Sampled: 11/05/08 09:56					
Lube Oil	NWTPH-Dx	ND	----	0.476	mg/l	1x	8K06015	11/06/08 09:14	11/07/08 21:17	
Kerosene	"	0.281	----	0.238	"	"	"	"	"	
Diesel Range Hydrocarbons	"	ND	----	0.238	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>				72.9%		53 - 125 %	"			"
<i>Octacosane</i>				81.2%		68 - 125 %	"			"
BRK0047-04 (MW-34)		Water			Sampled: 11/05/08 08:26					
Lube Oil	NWTPH-Dx	ND	----	0.476	mg/l	1x	8K06015	11/06/08 09:14	11/07/08 21:39	
Kerosene	"	1.06	----	0.238	"	"	"	"	"	
Diesel Range Hydrocarbons	"	ND	----	0.238	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>				73.9%		53 - 125 %	"			"
<i>Octacosane</i>				83.2%		68 - 125 %	"			"
BRK0047-05 (MW-35)		Water			Sampled: 11/05/08 12:27					
Lube Oil	NWTPH-Dx	ND	----	0.476	mg/l	1x	8K06015	11/06/08 09:14	11/07/08 22:01	
Kerosene	"	ND	----	0.238	"	"	"	"	"	
Diesel Range Hydrocarbons	"	ND	----	0.238	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>				67.0%		53 - 125 %	"			"
<i>Octacosane</i>				84.7%		68 - 125 %	"			"

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Curtis D. Armstrong For Kate Haney, Project Manager



Stantec PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052) Redmond, WA/USA 98073	Project Name: COP Westlake Project Number: 01CP.01396.44 Project Manager: Jennifer Yotz	Report Created: 12/04/08 09:22
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Identified Semivolatile Petroleum Products by NWTPH-Dx with Acid/Silica Gel Clean-up
 TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BRK0047-06 (MW-52)		Water			Sampled: 11/05/08 10:45					
Lube Oil	NWTPH-Dx	ND	----	0.472	mg/l	1x	8K06015	11/06/08 09:14	11/07/08 22:23	
Kerosene	"	ND	----	0.236	"	"	"	"	"	
Diesel Range Hydrocarbons	"	ND	----	0.236	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>				61.1%		53 - 125 %	"		"	
<i>Octacosane</i>				66.1%		68 - 125 %	"		"	Z
BRK0047-07 (MW-57)		Water			Sampled: 11/05/08 11:27					
Lube Oil	NWTPH-Dx	ND	----	0.476	mg/l	1x	8K06015	11/06/08 09:14	11/08/08 00:15	
Kerosene	"	0.367	----	0.238	"	"	"	"	"	
Diesel Range Hydrocarbons	"	ND	----	0.238	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>				72.5%		53 - 125 %	"		"	
<i>Octacosane</i>				89.1%		68 - 125 %	"		"	
BRK0047-08 (MW-59)		Water			Sampled: 11/05/08 09:09					
Lube Oil	NWTPH-Dx	ND	----	0.476	mg/l	1x	8K06015	11/06/08 09:14	11/08/08 00:38	
Kerosene	"	ND	----	0.238	"	"	"	"	"	
Diesel Range Hydrocarbons	"	ND	----	0.238	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>				77.8%		53 - 125 %	"		"	
<i>Octacosane</i>				84.8%		68 - 125 %	"		"	
BRK0047-09 (MW-60)		Water			Sampled: 11/05/08 13:06					
Lube Oil	NWTPH-Dx	ND	----	0.476	mg/l	1x	8K06015	11/06/08 09:14	11/08/08 01:00	
Diesel Range Hydrocarbons	"	0.740	----	0.238	"	"	"	"	"	Q5
<i>Surrogate(s): 2-FBP</i>				69.0%		53 - 125 %	"		"	
<i>Octacosane</i>				75.1%		68 - 125 %	"		"	
BRK0047-09RE1 (MW-60)		Water			Sampled: 11/05/08 13:06					
Kerosene	NWTPH-Dx	8.17	----	0.476	mg/l	2x	8K06015	11/06/08 09:14	11/10/08 10:09	
<i>Surrogate(s): 2-FBP</i>				69.0%		53 - 125 %	"		"	
<i>Octacosane</i>				74.6%		68 - 125 %	"		"	

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Curtis D. Armstrong For Kate Haney, Project Manager



Stantec	Project Name: COP Westlake	Report Created:
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number: 01CP.01396.44	12/04/08 09:22
Redmond, WA/USA 98073	Project Manager: Jennifer Yotz	

Identified Semivolatile Petroleum Products by NWTPH-Dx with Acid/Silica Gel Clean-up
 TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BRK0047-10 (MW-202)		Water			Sampled: 11/05/08 12:30					
Lube Oil	NWTPH-Dx	ND	----	0.485	mg/l	1x	8K06015	11/06/08 09:14	11/08/08 01:22	
Kerosene	"	ND	----	0.243	"	"	"	"	"	
Diesel Range Hydrocarbons	"	ND	----	0.243	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>				72.0%		53 - 125 %	"			"
<i>Octacosane</i>				85.0%		68 - 125 %	"			"
BRK0047-11 (MW-207)		Water			Sampled: 11/05/08 13:05					
Lube Oil	NWTPH-Dx	ND	----	0.481	mg/l	1x	8K06015	11/06/08 09:14	11/08/08 01:45	
Kerosene	"	ND	----	0.240	"	"	"	"	"	
Diesel Range Hydrocarbons	"	ND	----	0.240	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>				74.7%		53 - 125 %	"			"
<i>Octacosane</i>				84.0%		68 - 125 %	"			"
BRK0047-12 (MW-209)		Water			Sampled: 11/05/08 08:35					
Lube Oil	NWTPH-Dx	ND	----	0.476	mg/l	1x	8K06015	11/06/08 09:14	11/08/08 02:07	
Kerosene	"	ND	----	0.238	"	"	"	"	"	
Diesel Range Hydrocarbons	"	ND	----	0.238	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>				84.6%		53 - 125 %	"			"
<i>Octacosane</i>				94.3%		68 - 125 %	"			"
BRK0047-13 (MW-210)		Water			Sampled: 11/05/08 09:15					
Lube Oil	NWTPH-Dx	ND	----	0.485	mg/l	1x	8K06015	11/06/08 09:14	11/08/08 02:30	
Kerosene	"	ND	----	0.243	"	"	"	"	"	
Diesel Range Hydrocarbons	"	ND	----	0.243	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>				75.2%		53 - 125 %	"			"
<i>Octacosane</i>				85.2%		68 - 125 %	"			"
BRK0047-14 (MW-211)		Water			Sampled: 11/05/08 10:00					
Lube Oil	NWTPH-Dx	ND	----	0.481	mg/l	1x	8K06015	11/06/08 09:14	11/08/08 02:52	
Kerosene	"	ND	----	0.240	"	"	"	"	"	
Diesel Range Hydrocarbons	"	ND	----	0.240	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>				76.5%		53 - 125 %	"			"
<i>Octacosane</i>				87.8%		68 - 125 %	"			"

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Curtis D. Armstrong For Kate Haney, Project Manager



Stantec	Project Name: COP Westlake	Report Created:
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number: 01CP.01396.44	12/04/08 09:22
Redmond, WA/USA 98073	Project Manager: Jennifer Yotz	

Total Metals by EPA 6000/7000 Series Methods
 TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BRK0047-01 (C1-1)	Water		Sampled: 11/05/08 11:15							
Lead	EPA 6020	ND	----	0.00100	mg/l	1x	8K07031	11/07/08 13:42	11/11/08 13:42	
BRK0047-02 (C1-2)	Water		Sampled: 11/05/08 11:30							
Lead	EPA 6020	ND	----	0.00100	mg/l	1x	8K07031	11/07/08 13:42	11/11/08 13:48	
BRK0047-03 (MW-32A)	Water		Sampled: 11/05/08 09:56							
Lead	EPA 6020	0.00232	----	0.00100	mg/l	1x	8K07031	11/07/08 13:42	11/11/08 13:54	
BRK0047-04 (MW-34)	Water		Sampled: 11/05/08 08:26							
Lead	EPA 6020	0.00141	----	0.00100	mg/l	1x	8K07031	11/07/08 13:42	11/11/08 13:59	
BRK0047-05 (MW-35)	Water		Sampled: 11/05/08 12:27							
Lead	EPA 6020	0.229	----	0.00100	mg/l	1x	8K07031	11/07/08 13:42	11/11/08 14:05	
BRK0047-06 (MW-52)	Water		Sampled: 11/05/08 10:45							
Lead	EPA 6020	0.0178	----	0.00100	mg/l	1x	8K07031	11/07/08 13:42	11/11/08 14:17	
BRK0047-07 (MW-57)	Water		Sampled: 11/05/08 11:27							
Lead	EPA 6020	0.0128	----	0.00100	mg/l	1x	8K07031	11/07/08 13:42	11/11/08 14:40	
BRK0047-08 (MW-59)	Water		Sampled: 11/05/08 09:09							
Lead	EPA 6020	0.00229	----	0.00100	mg/l	1x	8K07031	11/07/08 13:42	11/11/08 14:46	
BRK0047-09 (MW-60)	Water		Sampled: 11/05/08 13:06							
Lead	EPA 6020	0.00214	----	0.00100	mg/l	1x	8K07031	11/07/08 13:42	11/11/08 14:52	
BRK0047-10 (MW-202)	Water		Sampled: 11/05/08 12:30							
Lead	EPA 6020	ND	----	0.00100	mg/l	1x	8K07031	11/07/08 13:42	11/11/08 14:57	
BRK0047-11 (MW-207)	Water		Sampled: 11/05/08 13:05							
Lead	EPA 6020	0.00102	----	0.00100	mg/l	1x	8K07031	11/07/08 13:42	11/11/08 15:03	

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Curtis D. Armstrong For Kate Haney, Project Manager



Stantec PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052) Redmond, WA/USA 98073	Project Name: COP Westlake Project Number: 01CP.01396.44 Project Manager: Jennifer Yotz	Report Created: 12/04/08 09:22
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Total Metals by EPA 6000/7000 Series Methods
TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BRK0047-12 (MW-209)		Water			Sampled: 11/05/08 08:35					
Lead	EPA 6020	ND	----	0.00100	mg/l	1x	8K07031	11/07/08 13:42	11/11/08 15:09	
BRK0047-13 (MW-210)		Water			Sampled: 11/05/08 09:15					
Lead	EPA 6020	ND	----	0.00100	mg/l	1x	8K07031	11/07/08 13:42	11/11/08 15:15	
BRK0047-14 (MW-211)		Water			Sampled: 11/05/08 10:00					
Lead	EPA 6020	ND	----	0.00100	mg/l	1x	8K07031	11/07/08 13:42	11/11/08 15:20	

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Curtis D. Armstrong For Kate Haney, Project Manager



Stantec PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052) Redmond, WA/USA 98073	Project Name: COP Westlake Project Number: 01CP.01396.44 Project Manager: Jennifer Yotz	Report Created: 12/04/08 09:22
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Dissolved Metals by EPA 6000/7000 Series Methods
TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BRK0047-01 (CI-1)		Water			Sampled: 11/05/08 11:15					P7
Lead	EPA 6020 - Diss	ND	----	0.00100	mg/l	1x	8K10012	11/10/08 09:30	11/10/08 22:33	
BRK0047-02 (CI-2)		Water			Sampled: 11/05/08 11:30					P7
Lead	EPA 6020 - Diss	ND	----	0.00100	mg/l	1x	8K10012	11/10/08 09:30	11/10/08 22:39	
BRK0047-03 (MW-32A)		Water			Sampled: 11/05/08 09:56					P7
Lead	EPA 6020 - Diss	ND	----	0.00100	mg/l	1x	8K10012	11/10/08 09:30	11/10/08 22:45	
BRK0047-04 (MW-34)		Water			Sampled: 11/05/08 08:26					P7
Lead	EPA 6020 - Diss	ND	----	0.00100	mg/l	1x	8K10012	11/10/08 09:30	11/10/08 22:50	
BRK0047-05 (MW-35)		Water			Sampled: 11/05/08 12:27					P7
Lead	EPA 6020 - Diss	ND	----	0.00100	mg/l	1x	8K10012	11/10/08 09:30	11/10/08 22:56	
BRK0047-06 (MW-52)		Water			Sampled: 11/05/08 10:45					P7
Lead	EPA 6020 - Diss	ND	----	0.00100	mg/l	1x	8K10012	11/10/08 09:30	11/10/08 23:02	
BRK0047-07 (MW-57)		Water			Sampled: 11/05/08 11:27					P7
Lead	EPA 6020 - Diss	ND	----	0.00100	mg/l	1x	8K10012	11/10/08 09:30	11/10/08 23:08	
BRK0047-08 (MW-59)		Water			Sampled: 11/05/08 09:09					P7
Lead	EPA 6020 - Diss	ND	----	0.00100	mg/l	1x	8K10012	11/10/08 09:30	11/10/08 23:14	
BRK0047-09 (MW-60)		Water			Sampled: 11/05/08 13:06					P7
Lead	EPA 6020 - Diss	ND	----	0.00100	mg/l	1x	8K10012	11/10/08 09:30	11/10/08 23:19	
BRK0047-10 (MW-202)		Water			Sampled: 11/05/08 12:30					P7
Lead	EPA 6020 - Diss	ND	----	0.00100	mg/l	1x	8K10012	11/10/08 09:30	11/10/08 23:43	
BRK0047-11 (MW-207)		Water			Sampled: 11/05/08 13:05					P7
Lead	EPA 6020 - Diss	ND	----	0.00100	mg/l	1x	8K10012	11/10/08 09:30	11/10/08 23:49	

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Curtis D. Armstrong For Kate Haney, Project Manager



Stantec	Project Name: COP Westlake	Report Created:
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number: 01CP.01396.44	12/04/08 09:22
Redmond, WA/USA 98073	Project Manager: Jennifer Yotz	

Dissolved Metals by EPA 6000/7000 Series Methods
 TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BRK0047-12 (MW-209)		Water				Sampled: 11/05/08 08:35				P7
Lead	EPA 6020 - Diss	ND	----	0.00100	mg/l	1x	8K10012	11/10/08 09:30	11/10/08 23:54	
BRK0047-13 (MW-210)		Water				Sampled: 11/05/08 09:15				P7
Lead	EPA 6020 - Diss	ND	----	0.00100	mg/l	1x	8K10012	11/10/08 09:30	11/11/08 00:00	
BRK0047-14 (MW-211)		Water				Sampled: 11/05/08 10:00				P7
Lead	EPA 6020 - Diss	ND	----	0.00100	mg/l	1x	8K10012	11/10/08 09:30	11/11/08 00:06	

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Curtis D. Armstrong For Kate Haney, Project Manager



Stantec	Project Name: COP Westlake	Report Created:
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number: 01CP.01396.44	12/04/08 09:22
Redmond, WA/USA 98073	Project Manager: Jennifer Yotz	

Volatile Organic Compounds by EPA Method 8260B
 TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BRK0047-01 (CI-1)		Water				Sampled: 11/05/08 11:15				
Benzene	EPA 8260B	ND	----	0.500	ug/l	1x	8K06024	11/06/08 08:00	11/06/08 16:09	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Naphthalene	"	ND	----	5.00	"	"	"	"	"	
Toluene	"	ND	----	0.500	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Xylenes (total)	"	ND	----	3.00	"	"	"	"	"	
<i>Surrogate(s): 1,2-DCA-d4</i>			97.0%		70 - 130 %	"				"
<i>Toluene-d8</i>			96.8%		75 - 125 %	"				"
<i>4-BFB</i>			101%		75 - 125 %	"				"

BRK0047-02 (CI-2)		Water				Sampled: 11/05/08 11:30				
Benzene	EPA 8260B	ND	----	0.500	ug/l	1x	8K06024	11/06/08 08:00	11/06/08 16:37	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Naphthalene	"	ND	----	5.00	"	"	"	"	"	
Toluene	"	ND	----	0.500	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Xylenes (total)	"	ND	----	3.00	"	"	"	"	"	
<i>Surrogate(s): 1,2-DCA-d4</i>			102%		70 - 130 %	"				"
<i>Toluene-d8</i>			96.3%		75 - 125 %	"				"
<i>4-BFB</i>			102%		75 - 125 %	"				"

BRK0047-03 (MW-32A)		Water				Sampled: 11/05/08 09:56				
Benzene	EPA 8260B	ND	----	0.500	ug/l	1x	8K06024	11/06/08 08:00	11/06/08 17:06	
Ethylbenzene	"	0.650	----	0.500	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Naphthalene	"	ND	----	5.00	"	"	"	"	"	
Toluene	"	ND	----	0.500	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Xylenes (total)	"	ND	----	3.00	"	"	"	"	"	
<i>Surrogate(s): 1,2-DCA-d4</i>			104%		70 - 130 %	"				"
<i>Toluene-d8</i>			97.2%		75 - 125 %	"				"
<i>4-BFB</i>			99.2%		75 - 125 %	"				"

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Curtis D. Armstrong For Kate Haney, Project Manager



Stantec	Project Name: COP Westlake	Report Created:
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number: 01CP.01396.44	12/04/08 09:22
Redmond, WA/USA 98073	Project Manager: Jennifer Yotz	

Volatile Organic Compounds by EPA Method 8260B
 TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes	
BRK0047-04 (MW-34)		Water					Sampled: 11/05/08 08:26				
Benzene	EPA 8260B	23.2	----	0.500	ug/l	1x	8K06024	11/06/08 08:00	11/06/08 17:35		
Ethylbenzene	"	10.4	----	0.500	"	"	"	"	"		
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"		
Naphthalene	"	8.55	----	5.00	"	"	"	"	"		
Toluene	"	1.20	----	0.500	"	"	"	"	"		
o-Xylene	"	ND	----	1.00	"	"	"	"	"		
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"		
Xylenes (total)	"	ND	----	3.00	"	"	"	"	"		
<i>Surrogate(s):</i>	<i>1,2-DCA-d4</i>			99.6%		70 - 130 %	"			"	
	<i>Toluene-d8</i>			93.9%		75 - 125 %	"			"	
	<i>4-BFB</i>			96.4%		75 - 125 %	"			"	

BRK0047-05 (MW-35)		Water					Sampled: 11/05/08 12:27				
Benzene	EPA 8260B	ND	----	0.500	ug/l	1x	8K06024	11/06/08 08:00	11/06/08 18:04		
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"		
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"		
Naphthalene	"	ND	----	5.00	"	"	"	"	"		
Toluene	"	1.35	----	0.500	"	"	"	"	"		
o-Xylene	"	ND	----	1.00	"	"	"	"	"		
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"		
Xylenes (total)	"	ND	----	3.00	"	"	"	"	"		
<i>Surrogate(s):</i>	<i>1,2-DCA-d4</i>			94.3%		70 - 130 %	"			"	
	<i>Toluene-d8</i>			94.2%		75 - 125 %	"			"	
	<i>4-BFB</i>			99.0%		75 - 125 %	"			"	

BRK0047-06 (MW-52)		Water					Sampled: 11/05/08 10:45				
Benzene	EPA 8260B	ND	----	0.500	ug/l	1x	8K06024	11/06/08 08:00	11/06/08 18:32		
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"		
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"		
Naphthalene	"	ND	----	5.00	"	"	"	"	"		
Toluene	"	ND	----	0.500	"	"	"	"	"		
o-Xylene	"	ND	----	1.00	"	"	"	"	"		
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"		
Xylenes (total)	"	ND	----	3.00	"	"	"	"	"		
<i>Surrogate(s):</i>	<i>1,2-DCA-d4</i>			97.0%		70 - 130 %	"			"	
	<i>Toluene-d8</i>			96.6%		75 - 125 %	"			"	
	<i>4-BFB</i>			101%		75 - 125 %	"			"	

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Curtis D. Armstrong For Kate Haney, Project Manager



Stantec	Project Name: COP Westlake	Report Created:
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number: 01CP.01396.44	12/04/08 09:22
Redmond, WA/USA 98073	Project Manager: Jennifer Yotz	

Volatile Organic Compounds by EPA Method 8260B
 TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BRK0047-07 (MW-57)		Water				Sampled: 11/05/08 11:27				
Benzene	EPA 8260B	ND	----	0.500	ug/l	1x	8K06024	11/06/08 08:00	11/06/08 19:01	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Naphthalene	"	ND	----	5.00	"	"	"	"	"	
Toluene	"	ND	----	0.500	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Xylenes (total)	"	ND	----	3.00	"	"	"	"	"	
<i>Surrogate(s): 1,2-DCA-d4</i>			99.7%		70 - 130 %	"				"
<i>Toluene-d8</i>			96.9%		75 - 125 %	"				"
<i>4-BFB</i>			98.2%		75 - 125 %	"				"
BRK0047-08 (MW-59)		Water				Sampled: 11/05/08 09:09				
Benzene	EPA 8260B	ND	----	0.500	ug/l	1x	8K06024	11/06/08 08:00	11/06/08 19:30	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Naphthalene	"	ND	----	5.00	"	"	"	"	"	
Toluene	"	ND	----	0.500	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Xylenes (total)	"	ND	----	3.00	"	"	"	"	"	
<i>Surrogate(s): 1,2-DCA-d4</i>			98.8%		70 - 130 %	"				"
<i>Toluene-d8</i>			96.7%		75 - 125 %	"				"
<i>4-BFB</i>			99.0%		75 - 125 %	"				"
BRK0047-09 (MW-60)		Water				Sampled: 11/05/08 13:06				
Methyl tert-butyl ether	EPA 8260B	ND	----	1.00	ug/l	1x	8K06024	11/06/08 08:00	11/06/08 19:59	
Toluene	"	24.6	----	0.500	"	"	"	"	"	
<i>Surrogate(s): 1,2-DCA-d4</i>			112%		70 - 130 %	"				"
<i>Toluene-d8</i>			92.9%		75 - 125 %	"				"
<i>4-BFB</i>			102%		75 - 125 %	"				"

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Curtis D. Armstrong For Kate Haney, Project Manager



Stantec PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052) Redmond, WA/USA 98073	Project Name: COP Westlake Project Number: 01CP.01396.44 Project Manager: Jennifer Yotz	Report Created: 12/04/08 09:22
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Volatile Organic Compounds by EPA Method 8260B
TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BRK0047-09RE1 (MW-60)		Water			Sampled: 11/05/08 13:06					
Ethylbenzene	EPA 8260B	1760	----	10.0	ug/l	20x	8K07015	11/07/08 11:21	11/07/08 17:39	
Naphthalene	"	267	----	100	"	"	"	"	"	
o-Xylene	"	48.6	----	20.0	"	"	"	"	"	
m,p-Xylene	"	2390	----	40.0	"	"	"	"	"	
Xylenes (total)	"	2440	----	60.0	"	"	"	"	"	

<i>Surrogate(s):</i>	<i>1,2-DCA-d4</i>	<i>102%</i>	<i>70 - 130 %</i>	<i>1x</i>	
	<i>Toluene-d8</i>	<i>99.6%</i>	<i>75 - 125 %</i>	<i>"</i>	
	<i>4-BFB</i>	<i>99.7%</i>	<i>75 - 125 %</i>	<i>"</i>	

BRK0047-09RE2 (MW-60)		Water			Sampled: 11/05/08 13:06					
Benzene	EPA 8260B	2200	----	40.0	ug/l	80x	8K10052	11/10/08 17:31	11/10/08 21:25	
<i>Surrogate(s):</i>	<i>1,2-DCA-d4</i>	<i>101%</i>	<i>70 - 130 %</i>	<i>1x</i>						
	<i>Toluene-d8</i>	<i>94.2%</i>	<i>75 - 125 %</i>	<i>"</i>						
	<i>4-BFB</i>	<i>95.7%</i>	<i>75 - 125 %</i>	<i>"</i>						

BRK0047-10RE1 (MW-202)		Water			Sampled: 11/05/08 12:30					
Benzene	EPA 8260B	ND	----	0.500	ug/l	1x	8K07015	11/07/08 11:21	11/07/08 18:04	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Naphthalene	"	ND	----	5.00	"	"	"	"	"	
Toluene	"	ND	----	0.500	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Xylenes (total)	"	ND	----	3.00	"	"	"	"	"	
<i>Surrogate(s):</i>	<i>1,2-DCA-d4</i>	<i>103%</i>	<i>70 - 130 %</i>	<i>"</i>						
	<i>Toluene-d8</i>	<i>98.6%</i>	<i>75 - 125 %</i>	<i>"</i>						
	<i>4-BFB</i>	<i>101%</i>	<i>75 - 125 %</i>	<i>"</i>						

BRK0047-11 (MW-207)		Water			Sampled: 11/05/08 13:05					
Benzene	EPA 8260B	ND	----	0.500	ug/l	1x	8K06024	11/06/08 08:00	11/06/08 20:56	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Naphthalene	"	ND	----	5.00	"	"	"	"	"	
Toluene	"	ND	----	0.500	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Xylenes (total)	"	ND	----	3.00	"	"	"	"	"	
<i>Surrogate(s):</i>	<i>1,2-DCA-d4</i>	<i>93.7%</i>	<i>70 - 130 %</i>	<i>"</i>						
	<i>Toluene-d8</i>	<i>95.1%</i>	<i>75 - 125 %</i>	<i>"</i>						

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Curtis D. Armstrong For Kate Haney, Project Manager



Stantec PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052) Redmond, WA/USA 98073	Project Name: COP Westlake Project Number: 01CP.01396.44 Project Manager: Jennifer Yotz	Report Created: 12/04/08 09:22
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Volatile Organic Compounds by EPA Method 8260B
TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BRK0047-11 (MW-207)	Water			Sampled: 11/05/08 13:05						
4-BFB		100%		75 - 125 %	1x				11/06/08 20:56	
BRK0047-12 (MW-209)	Water			Sampled: 11/05/08 08:35						
Benzene	EPA 8260B	ND	----	0.500	ug/l	1x	8K06024	11/06/08 08:00	11/06/08 21:25	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Naphthalene	"	ND	----	5.00	"	"	"	"	"	
Toluene	"	ND	----	0.500	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Xylenes (total)	"	ND	----	3.00	"	"	"	"	"	
<i>Surrogate(s):</i>										
1,2-DCA-d4		95.2%		70 - 130 %	"					"
Toluene-d8		97.2%		75 - 125 %	"					"
4-BFB		102%		75 - 125 %	"					"
BRK0047-13 (MW-210)	Water			Sampled: 11/05/08 09:15						
Benzene	EPA 8260B	ND	----	0.500	ug/l	1x	8K06024	11/06/08 08:00	11/06/08 21:54	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Naphthalene	"	ND	----	5.00	"	"	"	"	"	
Toluene	"	ND	----	0.500	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Xylenes (total)	"	ND	----	3.00	"	"	"	"	"	
<i>Surrogate(s):</i>										
1,2-DCA-d4		98.6%		70 - 130 %	"					"
Toluene-d8		94.6%		75 - 125 %	"					"
4-BFB		98.0%		75 - 125 %	"					"
BRK0047-14 (MW-211)	Water			Sampled: 11/05/08 10:00						
Benzene	EPA 8260B	ND	----	0.500	ug/l	1x	8K06024	11/06/08 08:00	11/06/08 22:23	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
Naphthalene	"	ND	----	5.00	"	"	"	"	"	
Toluene	"	ND	----	0.500	"	"	"	"	"	
o-Xylene	"	ND	----	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.00	"	"	"	"	"	
Xylenes (total)	"	ND	----	3.00	"	"	"	"	"	
<i>Surrogate(s):</i>										
1,2-DCA-d4		101%		70 - 130 %	"					"
Toluene-d8		96.0%		75 - 125 %	"					"
4-BFB		99.8%		75 - 125 %	"					"

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Curtis D. Armstrong For Kate Haney, Project Manager



Stantec PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052) Redmond, WA/USA 98073	Project Name: COP Westlake Project Number: 01CP.01396.44 Project Manager: Jennifer Yotz	Report Created: 12/04/08 09:22
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Volatile Organic Compounds by EPA Method 8260B
TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
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Curtis D. Armstrong For Kate Haney, Project Manager

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Stantec PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052) Redmond, WA/USA 98073	Project Name: COP Westlake Project Number: 01CP.01396.44 Project Manager: Jennifer Yotz	Report Created: 12/04/08 09:22
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Volatile Petroleum Products by NWTPH-Gx - Laboratory Quality Control Results
 TestAmerica Seattle

QC Batch: 8K06007 **Water Preparation Method:** EPA 5030B (P/T)

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (8K06007-BLK1)													Extracted: 11/06/08 07:30	
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	---	50.0	ug/l	1x	--	--	--	--	--	--	11/06/08 17:57	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 98.8%</i>		<i>Limits: 58-144%</i>		"							11/06/08 17:57	
LCS (8K06007-BS1)													Extracted: 11/06/08 07:30	
Gasoline Range Hydrocarbons	NWTPH-Gx	921	---	50.0	ug/l	1x	--	1000	92.1%	(80-120)	--	--	11/06/08 18:29	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 105%</i>		<i>Limits: 58-144%</i>		"							11/06/08 18:29	
Duplicate (8K06007-DUP1)													Extracted: 11/06/08 07:30	
						QC Source: BRK0042-01								
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	---	50.0	ug/l	1x	ND	--	--	--	NR (25)		11/06/08 19:34	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 99.9%</i>		<i>Limits: 58-144%</i>		"							11/06/08 19:34	
Duplicate (8K06007-DUP2)													Extracted: 11/06/08 07:30	
						QC Source: BRK0042-02								
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	---	50.0	ug/l	1x	ND	--	--	--	NR (25)		11/06/08 20:39	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 100%</i>		<i>Limits: 58-144%</i>		"							11/06/08 20:39	
Matrix Spike (8K06007-MS1)													Extracted: 11/06/08 07:30	
						QC Source: BRK0042-01								
Gasoline Range Hydrocarbons	NWTPH-Gx	1010	---	50.0	ug/l	1x	16.9	1000	99.3%	(75-131)	--	--	11/06/08 22:16	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 104%</i>		<i>Limits: 58-144%</i>		"							11/06/08 22:16	
Matrix Spike Dup (8K06007-MSD1)													Extracted: 11/06/08 07:30	
						QC Source: BRK0042-01								
Gasoline Range Hydrocarbons	NWTPH-Gx	999	---	50.0	ug/l	1x	16.9	1000	98.2%	(75-131)	1.06% (25)		11/06/08 22:48	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 105%</i>		<i>Limits: 58-144%</i>		"							11/06/08 22:48	

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Curtis D. Armstrong For Kate Haney, Project Manager



Stantec	Project Name: COP Westlake	Report Created:
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number: 01CP.01396.44	12/04/08 09:22
Redmond, WA/USA 98073	Project Manager: Jennifer Yotz	

Identified Semivolatile Petroleum Products by NWTPH-Dx with Acid/Silica Gel Clean-up - Laboratory Quality Control Results
 TestAmerica Seattle

QC Batch: 8K06015 Water Preparation Method: EPA 3520C

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (8K06015-BLK1)													Extracted: 11/06/08 09:14	
Lube Oil	NWTPH-Dx	ND	---	0.500	mg/l	1x	--	--	--	--	--	--	11/07/08 19:02	
Kerosene	"	ND	---	0.250	"	"	--	--	--	--	--	--	"	
Diesel Range Hydrocarbons	"	ND	---	0.250	"	"	--	--	--	--	--	--	"	
Surrogate(s): 2-FBP		Recovery:	79.6%	Limits: 53-125%		"							11/07/08 19:02	
Octacosane			85.2%	68-125%		"							"	
LCS (8K06015-BS1)													Extracted: 11/06/08 09:14	
Diesel Range Hydrocarbons	NWTPH-Dx	1.78	---	0.250	mg/l	1x	--	2.00	88.8%	(61-132)	--	--	11/07/08 19:24	
Surrogate(s): 2-FBP		Recovery:	84.6%	Limits: 53-125%		"							11/07/08 19:24	
Octacosane			89.6%	68-125%		"							"	
LCS Dup (8K06015-BSD1)													Extracted: 11/06/08 09:14	
Diesel Range Hydrocarbons	NWTPH-Dx	1.79	---	0.250	mg/l	1x	--	2.00	89.5%	(61-132)	0.715%	(35)	11/07/08 19:46	
Surrogate(s): 2-FBP		Recovery:	84.6%	Limits: 53-125%		"							11/07/08 19:46	
Octacosane			92.5%	68-125%		"							"	

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Curtis D. Armstrong For Kate Haney, Project Manager



Stantec	Project Name: COP Westlake	Report Created:
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number: 01CP.01396.44	12/04/08 09:22
Redmond, WA/USA 98073	Project Manager: Jennifer Yotz	

Total Metals by EPA 6000/7000 Series Methods - Laboratory Quality Control Results
 TestAmerica Seattle

QC Batch: 8K07031 Water Preparation Method: EPA 3020A

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (8K07031-BLK1)													Extracted: 11/07/08 13:42	
Lead	EPA 6020	ND	---	0.00100	mg/l	1x	--	--	--	--	--	--	11/11/08 12:38	
LCS (8K07031-BS1)													Extracted: 11/07/08 13:42	
Lead	EPA 6020	0.0795	---	0.00100	mg/l	1x	--	0.0800	99.4%	(80-120)	--	--	11/11/08 12:44	
Duplicate (8K07031-DUP1)													QC Source: BRK0047-01 Extracted: 11/07/08 13:42	
Lead	EPA 6020	ND	---	0.00100	mg/l	1x	ND	--	--	--	2.47% (20)	--	11/11/08 13:02	
Matrix Spike (8K07031-MS1)													QC Source: BRK0047-01 Extracted: 11/07/08 13:42	
Lead	EPA 6020	0.0807	---	0.00100	mg/l	1x	0.000410	0.0800	100%	(75-125)	--	--	11/11/08 12:56	
Post Spike (8K07031-PS1)													QC Source: BRK0047-01 Extracted: 11/07/08 13:42	
Lead	EPA 6020	0.103	---		ug/ml	1x	0.000410	0.100	102%	(80-120)	--	--	11/11/08 12:50	

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Curtis D. Armstrong For Kate Haney, Project Manager

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Stantec	Project Name: COP Westlake	Report Created:
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number: 01CP.01396.44	12/04/08 09:22
Redmond, WA/USA 98073	Project Manager: Jennifer Yotz	

Dissolved Metals by EPA 6000/7000 Series Methods - Laboratory Quality Control Results
 TestAmerica Seattle

QC Batch: 8K10012 Water Preparation Method: EPA 3005A

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (8K10012-BLK1)													Extracted: 11/10/08 09:30	
Lead	EPA 6020 - Diss	ND	---	0.00100	mg/l	1x	--	--	--	--	--	--	11/10/08 21:52	
LCS (8K10012-BS1)													Extracted: 11/10/08 09:30	
Lead	EPA 6020 - Diss	0.200	---	0.00100	mg/l	1x	--	0.200	100%	(80-120)	--	--	11/10/08 21:58	
Duplicate (8K10012-DUP1)													QC Source: BRK0047-01 Extracted: 11/10/08 09:30	
Lead	EPA 6020 - Diss	ND	---	0.00100	mg/l	1x	ND	--	--	--	NR (20)	--	11/10/08 22:27	
Matrix Spike (8K10012-MS1)													QC Source: BRK0047-01 Extracted: 11/10/08 09:30	
Lead	EPA 6020 - Diss	0.0926	---	0.00100	mg/l	1x	ND	0.100	92.2%	(75-125)	--	--	11/10/08 22:04	

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Curtis D. Armstrong For Kate Haney, Project Manager



Stantec	Project Name: COP Westlake	Report Created:
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number: 01CP.01396.44	12/04/08 09:22
Redmond, WA/USA 98073	Project Manager: Jennifer Yotz	

Volatile Organic Compounds by EPA Method 8260B - Laboratory Quality Control Results
 TestAmerica Seattle

QC Batch: 8K06024 Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (8K06024-BLK1)													Extracted: 11/06/08 08:00	
Benzene	EPA 8260B	ND	---	0.500	ug/l	1x	--	--	--	--	--	--	11/06/08 12:47	
Ethylbenzene	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Methyl tert-butyl ether	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
o-Xylene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
m,p-Xylene	"	ND	---	2.00	"	"	--	--	--	--	--	--	"	
Xylenes (total)	"	ND	---	3.00	"	"	--	--	--	--	--	--	"	
<i>Surrogate(s): 1,2-DCA-d4</i>		<i>Recovery: 93.9%</i>		<i>Limits: 70-130%</i>								<i>11/06/08 12:47</i>		
<i>Toluene-d8</i>		<i>97.2%</i>		<i>75-125%</i>								<i>"</i>		
<i>4-BFB</i>		<i>100%</i>		<i>75-125%</i>								<i>"</i>		
LCS (8K06024-BS1)													Extracted: 11/06/08 08:00	
Benzene	EPA 8260B	33.6	---	0.500	ug/l	1x	--	40.0	84.0%	(80-120)	--	--	11/06/08 11:47	
Ethylbenzene	"	35.8	---	0.500	"	"	--	"	89.6%	(75-125)	--	--	"	
Methyl tert-butyl ether	"	34.9	---	1.00	"	"	--	"	87.2%	(75-126)	--	--	"	
Naphthalene	"	34.8	---	5.00	"	"	--	"	87.1%	(65-144)	--	--	"	
Toluene	"	32.7	---	0.500	"	"	--	"	81.8%	(75-125)	--	--	"	
o-Xylene	"	35.3	---	1.00	"	"	--	"	88.3%	(75-130)	--	--	"	
m,p-Xylene	"	69.6	---	2.00	"	"	--	80.0	87.0%	(75-125)	--	--	"	
Xylenes (total)	"	105	---	3.00	"	"	--	120	87.5%	"	--	--	"	
<i>Surrogate(s): 1,2-DCA-d4</i>		<i>Recovery: 95.2%</i>		<i>Limits: 70-130%</i>								<i>11/06/08 11:47</i>		
<i>Toluene-d8</i>		<i>94.7%</i>		<i>75-125%</i>								<i>"</i>		
<i>4-BFB</i>		<i>97.5%</i>		<i>75-125%</i>								<i>"</i>		
LCS Dup (8K06024-BS1)													Extracted: 11/06/08 08:00	
Benzene	EPA 8260B	34.7	---	0.500	ug/l	1x	--	40.0	86.8%	(80-120)	3.37%	(20)	11/06/08 12:16	
Ethylbenzene	"	36.8	---	0.500	"	"	--	"	92.0%	(75-125)	2.67%	"	"	
Methyl tert-butyl ether	"	36.3	---	1.00	"	"	--	"	90.7%	(75-126)	3.96%	"	"	
Naphthalene	"	36.1	---	5.00	"	"	--	"	90.3%	(65-144)	3.66%	"	"	
Toluene	"	34.0	---	0.500	"	"	--	"	85.1%	(75-125)	4.02%	"	"	
o-Xylene	"	35.4	---	1.00	"	"	--	"	88.5%	(75-130)	0.226%	"	"	
m,p-Xylene	"	71.4	---	2.00	"	"	--	80.0	89.2%	(75-125)	2.45%	"	"	
Xylenes (total)	"	107	---	3.00	"	"	--	120	89.0%	"	1.71%	"	"	
<i>Surrogate(s): 1,2-DCA-d4</i>		<i>Recovery: 94.4%</i>		<i>Limits: 70-130%</i>								<i>11/06/08 12:16</i>		
<i>Toluene-d8</i>		<i>93.7%</i>		<i>75-125%</i>								<i>"</i>		
<i>4-BFB</i>		<i>98.2%</i>		<i>75-125%</i>								<i>"</i>		

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Curtis D. Armstrong For Kate Haney, Project Manager



Stantec	Project Name: COP Westlake	Report Created:
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number: 01CP.01396.44	12/04/08 09:22
Redmond, WA/USA 98073	Project Manager: Jennifer Yotz	

Volatile Organic Compounds by EPA Method 8260B - Laboratory Quality Control Results
 TestAmerica Seattle

QC Batch: 8K07015 Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (8K07015-BLK1)													Extracted: 11/07/08 11:21	
Benzene	EPA 8260B	ND	---	0.500	ug/l	1x	--	--	--	--	--	--	11/07/08 13:20	
Ethylbenzene	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Methyl tert-butyl ether	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
o-Xylene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
m,p-Xylene	"	ND	---	2.00	"	"	--	--	--	--	--	--	"	
Xylenes (total)	"	ND	---	3.00	"	"	--	--	--	--	--	--	"	
<i>Surrogate(s): 1,2-DCA-d4</i>		<i>Recovery: 104%</i>		<i>Limits: 70-130%</i>										11/07/08 13:20
<i>Toluene-d8</i>		<i>98.6%</i>		<i>75-125%</i>										"
<i>4-BFB</i>		<i>101%</i>		<i>75-125%</i>										"
LCS (8K07015-BS1)													Extracted: 11/07/08 11:21	
Benzene	EPA 8260B	39.2	---	0.500	ug/l	1x	--	40.0	97.9%	(80-120)	--	--	11/07/08 12:16	
Ethylbenzene	"	41.7	---	0.500	"	"	--	"	104%	(75-125)	--	--	"	
Methyl tert-butyl ether	"	43.7	---	1.00	"	"	--	"	109%	(75-126)	--	--	"	
Naphthalene	"	36.8	---	5.00	"	"	--	"	92.0%	(65-144)	--	--	"	
Toluene	"	36.6	---	0.500	"	"	--	"	91.6%	(75-125)	--	--	"	
o-Xylene	"	36.1	---	1.00	"	"	--	"	90.2%	(75-130)	--	--	"	
m,p-Xylene	"	74.6	---	2.00	"	"	--	80.0	93.3%	(75-125)	--	--	"	
Xylenes (total)	"	111	---	3.00	"	"	--	120	92.3%	"	--	--	"	
<i>Surrogate(s): 1,2-DCA-d4</i>		<i>Recovery: 103%</i>		<i>Limits: 70-130%</i>										11/07/08 12:16
<i>Toluene-d8</i>		<i>94.5%</i>		<i>75-125%</i>										"
<i>4-BFB</i>		<i>101%</i>		<i>75-125%</i>										"
LCS Dup (8K07015-BSD1)													Extracted: 11/07/08 11:21	
Benzene	EPA 8260B	37.9	---	0.500	ug/l	1x	--	40.0	94.8%	(80-120)	3.17%	(20)	11/07/08 12:42	
Ethylbenzene	"	39.8	---	0.500	"	"	--	"	99.4%	(75-125)	4.69%	"	"	
Methyl tert-butyl ether	"	45.2	---	1.00	"	"	--	"	113%	(75-126)	3.33%	"	"	
Naphthalene	"	34.5	---	5.00	"	"	--	"	86.2%	(65-144)	6.51%	"	"	
Toluene	"	35.3	---	0.500	"	"	--	"	88.3%	(75-125)	3.67%	"	"	
o-Xylene	"	34.9	---	1.00	"	"	--	"	87.2%	(75-130)	3.41%	"	"	
m,p-Xylene	"	72.1	---	2.00	"	"	--	80.0	90.2%	(75-125)	3.43%	"	"	
Xylenes (total)	"	107	---	3.00	"	"	--	120	89.2%	"	3.43%	"	"	
<i>Surrogate(s): 1,2-DCA-d4</i>		<i>Recovery: 104%</i>		<i>Limits: 70-130%</i>										11/07/08 12:42
<i>Toluene-d8</i>		<i>93.6%</i>		<i>75-125%</i>										"
<i>4-BFB</i>		<i>98.8%</i>		<i>75-125%</i>										"

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Curtis D. Annstrong For Kate Haney, Project Manager



Stantec	Project Name: COP Westlake	Report Created:
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number: 01CP.01396.44	12/04/08 09:22
Redmond, WA/USA 98073	Project Manager: Jennifer Yotz	

Volatile Organic Compounds by EPA Method 8260B - Laboratory Quality Control Results
 TestAmerica Seattle

QC Batch: 8K10052 Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (8K10052-BLK1)													Extracted: 11/10/08 17:31	
Benzene	EPA 8260B	ND	---	0.500	ug/l	1x	--	--	--	--	--	--	11/10/08 19:21	
Ethylbenzene	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Methyl tert-butyl ether	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
o-Xylene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
m,p-Xylene	"	ND	---	2.00	"	"	--	--	--	--	--	--	"	
Xylenes (total)	"	ND	---	3.00	"	"	--	--	--	--	--	--	"	
<i>Surrogate(s): 1,2-DCA-d4</i>		<i>Recovery:</i>	<i>88.8%</i>	<i>Limits: 70-130%</i>		<i>"</i>							<i>11/10/08 19:21</i>	
<i>Toluene-d8</i>		<i>94.0%</i>		<i>75-125%</i>		<i>"</i>							<i>"</i>	
<i>4-BFB</i>		<i>102%</i>		<i>75-125%</i>		<i>"</i>							<i>"</i>	

LCS (8K10052-BS1)													Extracted: 11/10/08 17:31	
Benzene	EPA 8260B	34.2	---	0.500	ug/l	1x	--	40.0	85.6%	(80-120)	--	--	11/10/08 17:46	
Ethylbenzene	"	34.9	---	0.500	"	"	--	"	87.2%	(75-125)	--	--	"	
Methyl tert-butyl ether	"	36.6	---	1.00	"	"	--	"	91.4%	(75-126)	--	--	"	
Naphthalene	"	38.9	---	5.00	"	"	--	"	97.2%	(65-144)	--	--	"	
Toluene	"	32.9	---	0.500	"	"	--	"	82.3%	(75-125)	--	--	"	
o-Xylene	"	35.4	---	1.00	"	"	--	"	88.6%	(75-130)	--	--	"	
m,p-Xylene	"	70.6	---	2.00	"	"	--	80.0	88.3%	(75-125)	--	--	"	
Xylenes (total)	"	106	---	3.00	"	"	--	120	88.4%	"	--	--	"	
<i>Surrogate(s): 1,2-DCA-d4</i>		<i>Recovery:</i>	<i>97.6%</i>	<i>Limits: 70-130%</i>		<i>"</i>							<i>11/10/08 17:46</i>	
<i>Toluene-d8</i>		<i>93.6%</i>		<i>75-125%</i>		<i>"</i>							<i>"</i>	
<i>4-BFB</i>		<i>100%</i>		<i>75-125%</i>		<i>"</i>							<i>"</i>	

Matrix Spike (8K10052-MS1)													QC Source: BRK0071-05		Extracted: 11/10/08 17:31	
Benzene	EPA 8260B	34.3	---	0.500	ug/l	1x	ND	40.0	85.7%	(80-124)	--	--	11/10/08 18:15			
Ethylbenzene	"	34.9	---	0.500	"	"	0.320	"	86.4%	(62-151)	--	--	"			
Methyl tert-butyl ether	"	35.5	---	1.00	"	"	ND	"	88.7%	(75-126)	--	--	"			
Naphthalene	"	38.1	---	5.00	"	"	1.38	"	91.8%	(59-182)	--	--	"			
Toluene	"	33.5	---	0.500	"	"	ND	"	83.8%	(75-125)	--	--	"			
o-Xylene	"	34.8	---	1.00	"	"	ND	"	87.1%	(75-130)	--	--	"			
m,p-Xylene	"	69.8	---	2.00	"	"	ND	80.0	87.2%	(75-135)	--	--	"			
Xylenes (total)	"	105	---	3.00	"	"	ND	120	87.2%	(60-146)	--	--	"			
<i>Surrogate(s): 1,2-DCA-d4</i>		<i>Recovery:</i>	<i>94.2%</i>	<i>Limits: 70-130%</i>		<i>"</i>							<i>11/10/08 18:15</i>			
<i>Toluene-d8</i>		<i>92.4%</i>		<i>75-125%</i>		<i>"</i>							<i>"</i>			
<i>4-BFB</i>		<i>97.2%</i>		<i>75-125%</i>		<i>"</i>							<i>"</i>			

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Curtis D. Armstrong For Kate Haney, Project Manager

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Stantec	Project Name: COP Westlake	Report Created:
PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052)	Project Number: 01CP.01396.44	12/04/08 09:22
Redmond, WA/USA 98073	Project Manager: Jennifer Yotz	

Volatile Organic Compounds by EPA Method 8260B - Laboratory Quality Control Results
 TestAmerica Seattle

QC Batch: 8K10052 Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (8K10052-MSD1)			QC Source: BRK0071-05				Extracted: 11/10/08 17:31							
Benzene	EPA 8260B	33.4	---	0.500	ug/l	1x	ND	40.0	83.4%	(80-124)	2.72%	(30)	11/10/08 18:44	
Ethylbenzene	"	34.5	---	0.500	"	"	0.320	"	85.4%	(62-151)	1.04%	"	"	
Methyl tert-butyl ether	"	34.8	---	1.00	"	"	ND	"	86.9%	(75-126)	2.05%	"	"	
Naphthalene	"	36.5	---	5.00	"	"	1.38	"	87.9%	(59-182)	4.15%	"	"	
Toluene	"	32.7	---	0.500	"	"	ND	"	81.8%	(75-125)	2.54%	"	"	
o-Xylene	"	34.5	---	1.00	"	"	ND	"	86.3%	(75-130)	0.865%	"	"	
m,p-Xylene	"	68.3	---	2.00	"	"	ND	80.0	85.3%	(75-135)	2.20%	"	"	
Xylenes (total)	"	103	---	3.00	"	"	ND	120	85.7%	(60-140)	1.75%	"	"	
<i>Surrogate(s):</i>		<i>Recovery:</i>		<i>Limits:</i>										
1,2-DCA-d4		93.8%		70-130%		11/10/08 18:44								
Toluene-d8		94.0%		75-125%		"								
4-BFB		98.8%		75-125%		"								

TestAmerica Seattle

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Curtis D. Armstrong For Kate Haney, Project Manager



Stantec PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052) Redmond, WA/USA 98073	Project Name: COP Westlake Project Number: 01CP.01396.44 Project Manager: Jennifer Yotz	Report Created: 12/04/08 09:22
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CERTIFICATION SUMMARY

TestAmerica Seattle

Method	Matrix	Nelac	Washington
EPA 6020 - Diss	Water	X	X
EPA 6020	Water	X	X
EPA 8260B	Water	X	X
NWTPH-Dx	Water		X
NWTPH-Gx	Water		X

Any abnormalities or departures from sample acceptance policy shall be documented on the 'Sample Receipt and Temperature Log Form' and 'Sample Non-conformance Form' (if applicable) included with this report.

For information concerning certifications of this facility or another TestAmerica facility, please visit our website at www.TestAmericaInc.com

Samples collected by TestAmerica Field Services personnel are noted on the Chain of Custody (COC) .

TestAmerica Seattle



Curtis D. Armstrong For Kate Haney, Project Manager

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Stantec PO Box 230, 12034 - (134th Ct NE Ste 102, zip 98052) Redmond, WA/USA 98073	Project Name: COP Westlake Project Number: 01CP.01396.44 Project Manager: Jennifer Yotz	Report Created: 12/04/08 09:22
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Notes and Definitions

Report Specific Notes:

- P7 - Sample filtered in lab.
- Q5 - Results in the diesel organics range are primarily due to overlap from a gasoline range product.
- Z - Due to sample matrix effects, the surrogate recovery was below the acceptance limits.

Laboratory Reporting Conventions:

- DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
- ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
- NR/NA - Not Reported / Not Available
- dry - Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.
- wet - Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.
- RPD - RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).
- MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.
- MDL* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results
- Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.
- Reporting Limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
- Electronic Signature - Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy*. Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Curtis D. Armstrong For Kate Haney, Project Manager

