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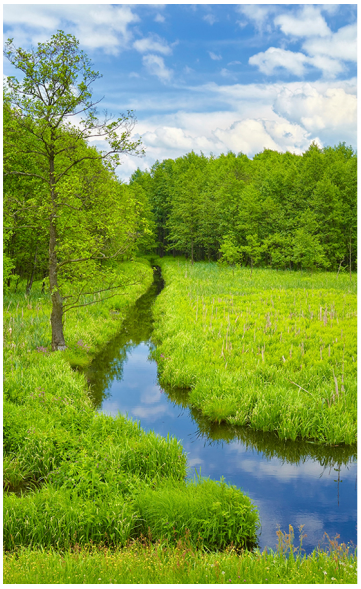

Remediation Progress Report
First Quarter 2014

Phillips 66 Renton Terminal
2423 Lind Avenue Southwest
Renton, Washington

Agreed Order No. DE 7882
Agency No. 2070

Conestoga-Rovers & Associates
20818 44th Ave. West, Suite 190
Lynnwood, Washington 98036

December 2014 • 070496 • Report No. 36

Partners in Sustainability

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Agreed Order No. DE 7882
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Matthew Davis, LG

Edwin Turner, LG

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Section 1.0 Introduction

This remediation progress report summarizes the field activities, system operational parameters, compliance sampling results, and system performance for the period of January 1, 2014 through March 31, 2014 at the Phillips 66 Company Renton Terminal located at 2423 Lind Avenue Southwest, Renton, Washington (Site, Figure 1). On August 5, 2010 ExxonMobil Oil Corporation, ConocoPhillips (now Phillips 66) Risk Management and Remediation, and The Washington State Department of Ecology (Ecology) entered into an Agreed Order (Order No. DE 7882). Prior to the agreed order, the site was divided into two separate sites; the northern portion associated with the pre-1990 release in the loading rack area managed by BP and ExxonMobil and the southern portion associated with the November 2002 release from AST No. 2 managed by Phillips 66. The agreed order was set in place to combine the sites and coordinate assessment and remediation activities between the two responsible parties. The purpose of this quarterly remediation progress report is to present the results of and evaluate the performance of the interim remedial actions. Remediation activities were completed in accordance with the Interim Action Work Plans included as an appendix to the Agreed Order and the site-specific Health and Safety Plan (HASP).

Section 2.0 Description of Remediation Systems and Operational Status

Phillips 66 Remediation System

The Phillips 66 remediation system is a dual-phase extraction (DPE) system consisting of six extraction wells (RWx-2, LAIx-4, LAIx-5, LAIx-7, LAIx-8, and LAIx-9) from which both soil vapor and groundwater are extracted and three extraction wells (LAIx-6, HWx-1W, and HWx-1E) from which only groundwater is extracted. The locations of the extraction wells are presented on Figure 2.

Extracted groundwater is pumped from the wells to a groundwater treatment system consisting of an oil/water separator, air stripper, solids settling tank, particulate filters, and 2-stage liquid-phase granular activated carbon (GAC) system. The treated water effluent is discharged to the combined sanitary/stormwater system under King County Discharge Authorization Permit No. 4057-03. Air effluent from the air stripper is routed to a 3-stage vapor-phase GAC vessel system that is part of the soil vapor treatment system.

Extracted soil vapor is pulled from the wells via vacuum to a soil vapor treatment system consisting of an air-water separator and the 3-stage GAC vessel system. The treated air effluent

is discharged to the atmosphere under Puget Sound Clean Air Agency (PSCAA) discharge permit No. 9648. A process and instrumentation diagram is presented on Figure 3.

During the reporting period, the Phillips 66 remediation system ran for approximately 60.9 days. Adjusted for routine maintenance shutdowns, the system uptime was approximately 81.6 percent. The following system shutdowns occurred during the reporting period:

- January 7, 2014 – System down due to batch tank high level alarm
- January 31, 2014 - System down due to knock out drum high level alarm
- March 11, 2014 - System down due to air stripper sump high level alarm
- March 27, 2014 – System down due to air stripper sump high level alarm

ExxonMobil/BP Remediation System

The ExxonMobil/BP remediation system is a groundwater extraction (GWE) system consisting of two GWE wells (R-1 and R-2). The locations of the system wells are presented on Figure 2.

Extracted groundwater is pumped from the wells to a groundwater treatment system consisting of an oil-water separator and air stripper. The treated water effluent is discharged to the combined sanitary/stormwater system under King County Discharge Authorization Permit 264-05. Air effluent from the air stripper is discharged to the atmosphere under PSCAA discharge permit No. 3601. A process and instrumentation diagram is presented on Figure 4.

During the reporting period, the ExxonMobil/BP Remediation System ran for approximately 55.8 days. Adjusted for routine maintenance shutdowns, the system uptime was approximately 78.4 percent. The following system shutdowns occurred during the reporting period:

- January 3, 2014 – System down due to an air stripper transfer tank high level alarm
- January 7, 2014 – System down due to an air stripper transfer tank high level alarm
- January 17, 2014 – System down due to an air stripper transfer tank high level alarm
- January 20, 2014 – System down due to an air stripper transfer tank high level alarm
- January 31, 2014 - System down due to an air stripper transfer tank high level alarm
- February 18, 2014 – System down due to tripped thermal overload switch
- February 26, 2014 – System down due to a blower low pressure alarm
- March 21, 2014 – System down due to an air stripper transfer tank high level alarm
- March 24, 2014 – System down due to SVE blower motor not functioning

Section 3.0 First Quarter 2014 Remediation Activities

Phillips 66 Remediation System

Remediation activities for the Phillips 66 remediation system consist of equipment maintenance, performance monitoring, monthly compliance sampling, system shutdown response, and troubleshooting/repairs. Scheduled visits for routine O&M are made once a week. Performance monitoring and monthly compliance sampling was performed on January 8, 2014, February 17, 2014, and March 27, 2014. Hydraulic monitoring to assess containment of the contaminant plume was performed on February 14, 2014. A summary of the operational data collected for the Phillips 66 system is presented in Table 1.

The following equipment repairs and maintenance activities were completed:

- January 3, 2014 – Cleaned return pipe to allow flow to pump
- February 28, 2014 – Repaired hose connection on carbon vessels
- March 21, 2014 – Compressor belt replaced
- March 21, 2014 – Carbon vessels drained for carbon change out

ExxonMobil/BP Remediation System

Remediation activities for the ExxonMobil/BP remediation system consist of equipment maintenance, performance monitoring, monthly compliance sampling, system shutdown response, and troubleshooting/repairs. Scheduled visits for routine O&M are made once a week. Performance monitoring and monthly compliance sampling was performed on January 8, 2014 and February 17, 2014. Hydraulic monitoring to assess containment of the contaminant plume was performed on February 14, 2014. A summary of the operational data collected for the ExxonMobil/BP system is presented in Table 2.

The following equipment repairs and maintenance activities were completed:

- January 3, 2014 – Adjusted float switch in feed tank

Section 4.0 Summary of Compliance Sampling

Phillips 66 Remediation System

The King County Discharge Authorization for the Phillips 66 system requires semi-annual compliance sampling. Samples were collected monthly during this period to monitor performance and verify compliance on January 8, 2014, February 17, 2014, and March 27, 2014. Groundwater samples were collected from the wellfield influent, air stripper effluent, midpoint between the two GAC vessels, and the treated water effluent. Samples were analyzed for total petroleum hydrocarbons quantified as gasoline (TPHg) per Ecology Method NWTPH-Gx, TPH quantified as diesel (TPHd) and TPH quantified as oil (TPHo) per Ecology Method NWTPH-Dx, benzene, toluene, ethylbenzene, total xylenes (BTEX) per EPA Method 8260, and fats, oils, and grease (FOG) per EPA Method 1664A. The point of compliance for the permit is after the last GAC vessel. All samples collected demonstrated compliance with the permit conditions. Laboratory analytical reports are presented in Appendix A. Water compliance sampling data is presented on Table 3.

The PSCAA air discharge permit for the Phillips 66 system requires monthly compliance sampling for TPHg and benzene. Compliance samples were collected on January 8, 2014, February 17, 2014, and March 27, 2014. Air samples were collected from the soil vapor extraction (SVE) wellfield influent, air stripper effluent, total vapor-phase GAC influent, midpoint between GAC vessels 1 and 2, midpoint between GAC vessels 2 and 3, and the treated vapor effluent. Samples were analyzed for TPHg and BTEX per EPA Method TO-14. All samples collected demonstrated compliance with permit conditions. Air compliance sampling data is presented on Table 4.

ExxonMobil/BP Remediation System

The King County Discharge Authorization for the ExxonMobil/BP system requires semi-annual compliance sampling. Samples were collected monthly this period to monitor performance and verify compliance on January 8, 2014, February 17, 2014. Samples were not collected in March due to a blower malfunction. Groundwater samples were collected from the well R-1 influent, well R-2 influent, total influent, and treated water effluent. Samples were analyzed for TPHg per Ecology Method NWTPH-Gx, TPHd and TPHo per Ecology Method NWTPH-Dx, BTEX per EPA Method 8260, and FOG per EPA Method 1664A (only in December). The point of compliance for the permit is at the treated water effluent. All samples collected demonstrated compliance with the permit conditions. Laboratory analytical reports are presented in Appendix A. Water compliance sampling data is presented on Table 5.

The PSCAA air discharge permit for the ExxonMobil/BP system requires monthly compliance sampling for TPHg and BTEX. Compliance samples were collected on January 8, 2014, February 17, 2014. Samples were not collected in March due to a blower malfunction. Air samples were collected from the air stripper effluent and analyzed for TPHg and BTEX per EPA Method TO-14. All samples collected demonstrated compliance with permit conditions. Air compliance sampling data is presented on Table 6.

Section 5.0 Summary of System Performance

Phillips 66 Remediation System

During the reporting period, the volume of groundwater extracted was consistent with the previous reporting period and is consistent with historical volumes. Influent contaminant concentrations in extracted groundwater have increased from the previous reporting period. Concentrations continue an overall downward trend. Influent concentrations will continue to be monitored to determine if this trend continues.

SVE well field influent concentrations have increased from the previous reporting period, which is consistent with the trend in concentrations observed over the last year. Mass removal rates and total mass removed are presented on Table 7 and Figures 5 and 6.

During the reporting period, the Phillips 66 DPE system operated consistently with the exception of the downtimes noted in Section 2.0. The process volumes and mass removed for the reporting period are as follows:

Period	*SVE Hours*	*Gallons of Water extracted*	*Pounds of TPH Removed*
Prior to January 3, 2014	78,968.8	4,594,635	53,928.4
January 3, 2014 to March 27, 2014	1,404.1	191,754	17.8
Since System Startup	80,372.9	4,786,389	53,946.2

ExxonMobil/BP Remediation System

During the reporting period, the volume of groundwater extracted has increased from the previous reporting period. The increase in the volume of water extracted is due to a higher water table during the wet season and is consistent with historical volumes. Influent contaminant concentrations continue to be significantly lower than concentrations in

monitoring wells surrounding the extraction wells. Based on influent concentrations, the current system does not appear to be effectively capturing areas of the plume with the highest concentrations. Contaminant removal rates for the ExxonMobil/BP system are consistent with historical removal rates. Mass removal rates and total mass removed are presented on Table 8 and Figures 7 and 8.

During the reporting period the ExxonMobil/BP groundwater extraction system operated consistently with the exception of the downtimes noted in Section 2.0. The process volumes and mass removed for the reporting period are as follows:

Period	***Gallons of Water extracted***	***Pounds of TPH Removed***
January 2007 to January 3, 2014	4,550,504	219.71
January 3, 2014 to March 24, 2014	327,916	25.3
Since January 2007	4,878,420	245.01

* Data prior to January 2007 not available

The primary purpose of the Phillips 66 and ExxonMobil/BP remediation systems is to remove contaminant mass from the subsurface and hydraulically contain the groundwater contaminant plume to prevent further migration. Hydraulic monitoring was performed during the groundwater sampling activities. Procedures for hydraulic monitoring are included in the Site Interim Compliance Monitoring Plan (CMP). Groundwater elevation contours in the area of the Phillips 66 system indicate radial flow from the middle of the tank farm area, which is consistent with historical flow patterns at the site. Groundwater elevation contours in the northern portion where the ExxonMobil/BP system is operating indicate a flow direction inward toward trench R-1 and west toward trench R-2, consistent with historical groundwater flow directions. Groundwater elevation contours are presented on Figure 9.

Section 6.0 Conclusions

Phillips 66 Remediation System

The Phillips 66 remediation system continues to operate consistent with historical performance. The current system size and configuration does not allow the SVE system to perform optimally. Isolating vacuum to higher concentration wells and reducing vacuum dilution would dramatically improve the performance of the SVE system. This, however, would

require significant changes to the current system components. These system improvements will be addressed as part of the final remedial action.

Groundwater flow directions and gradients on the southern portion of the Site are consistent with historical groundwater flow directions. The GWE portion of the Phillips 66 system does not appear to have a significant effect on flow directions and gradients. Groundwater quality data in wells to the south (downgradient) of tank 2 indicate that despite apparent inadequate groundwater control, contaminant migration is not likely occurring.

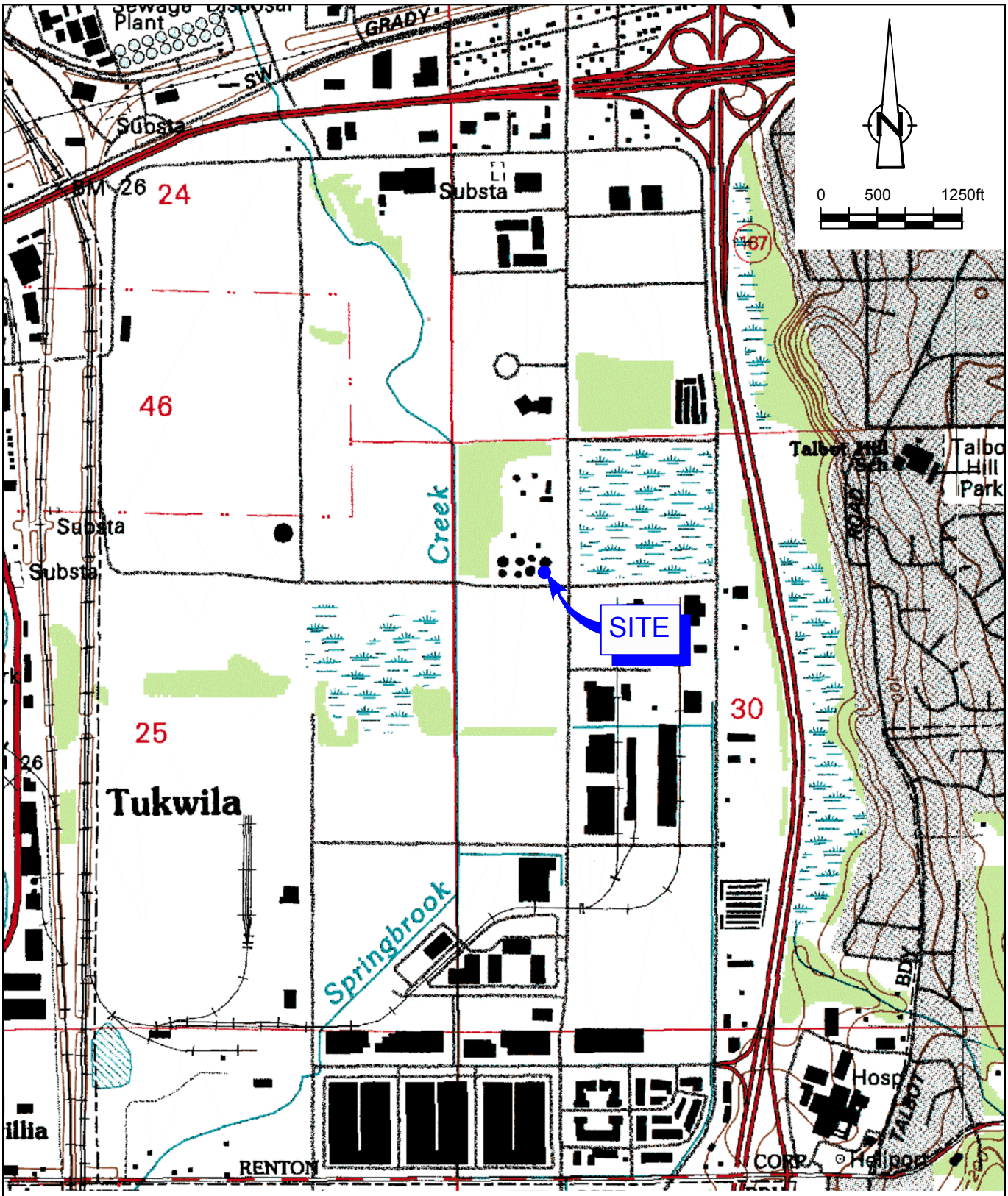
ExxonMobil/BP Remediation System

The ExxonMobil/BP system continues to operate consistent with historical performance. Groundwater elevation contours were consistent with historical groundwater flow directions. Based on the results of the recent remedial investigation, a significant portion of the contaminant plume to the north is outside of the influence of the current remediation system and will be addressed as part of the final remedial action.

The following activities will be performed during 2nd Quarter 2014:

- O&M of the current remediation systems in accordance with the CMP
- Groundwater sampling and hydraulic monitoring in accordance with the CMP
- Installation of the extraction wells for the new system

Figures



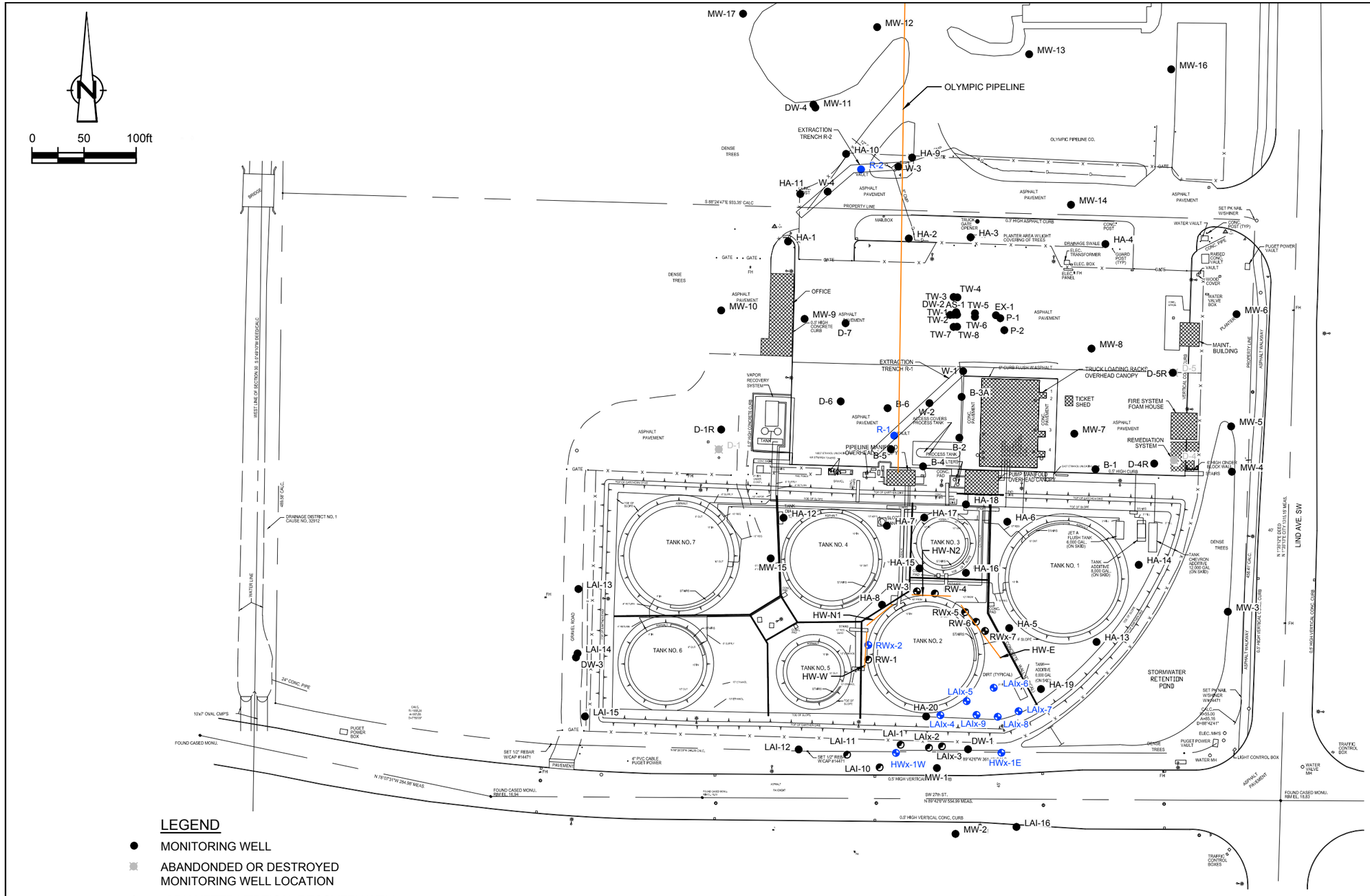
SOURCE: USGS QUADRANGLE MAP:
RENTON, WASHINGTON

figure 1

VICINITY MAP
PHILLIPS 66 RENTON TERMINAL
2423 LIND AVENUE SW
Renton, Washington

WASHINGTON

70496-3RM00(036)GN-WA001 JUL 17/2014



LEGEND

- MONITORING WELL
- ABANDONDED OR DESTROYED MONITORING WELL LOCATION
- 4" DIAMETER VERTICAL RECOVERY WELL (ACTIVELY PUMPING)
- 4" DIAMETER VERTICAL RECOVERY WELL (INACTIVE- NOT PUMPING)
- REMEDIATION WELL LOCATION

SOURCE: STATEWIDE LAND SURVEYING INC., DATED 1/26/12.

figure 2

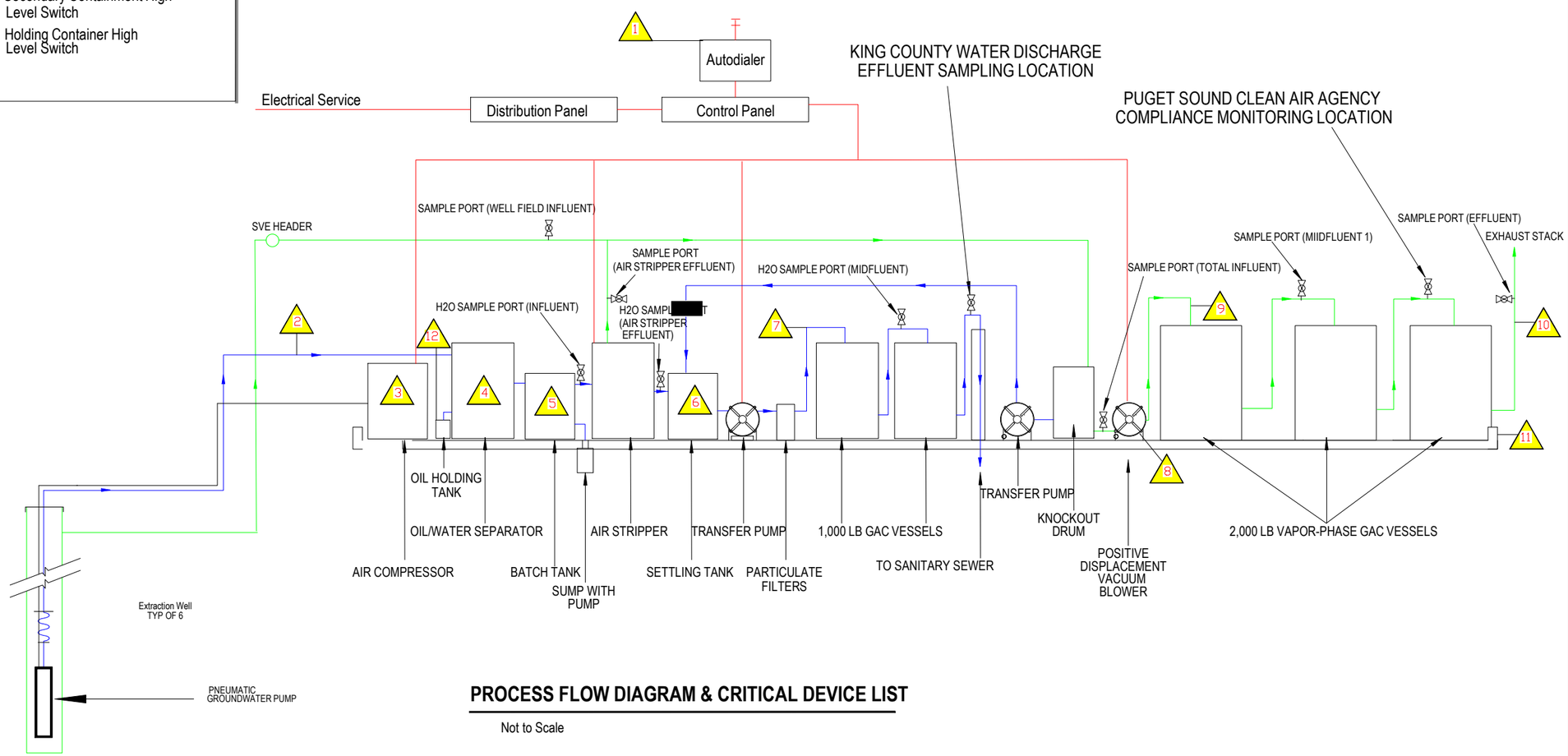
SITE PLAN
PHILLIPS 66 RENTON TERMINAL
2423 LIND AVENUE SW
Renton, Washington

CRITICAL DEVICES

1. Autodialer
2. Groundwater Flow Totalizer/ Meter
3. Air Compressor Pressure Gauge Relief Valve
4. Oil/ Water Separator High Level Switch
5. Batch Tank High Level Switch
6. Settling Tank High Level Switch
7. Liquid-Phase High Pressure Switch - Silt Filters
8. Automatic Shut Off Device
9. High Pressure Switch- Vapor- Phase Carbon
10. SVE Rotameter
11. Secondary Containment High Level Switch
12. Holding Container High Level Switch

EXPLANATION

- SVE Piping
- Electrical Power Wiring
- Groundwater Piping



PROCESS FLOW DIAGRAM & CRITICAL DEVICE LIST

Not to Scale

CLIENT

PHILLIPS 66 COMPANY

PROJECT

RENTON TERMINAL

RENTON, WASHINGTON

PROJECT # 070496

TITLE

DUAL PHASE EXTRACTION TREATMENT SYSTEM PROCESS FLOW DIAGRAM

DRAWING STATUS

NO	Revision	Date	Initial

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

Approved

CONESTOGA–ROVERS & ASSOCIATES

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EMERYVILLE, CA, 94608
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Source Reference:

Designed By:	Date: 11/01/11	Drawing No. 3
Drafted By: VAM	Date: 11/01/11	
Reviewed By:	Date: 11/01/11	
Scale: NA		

04/04/11

T-210
EQUALIZATION TANK
650 GALLONS
POLYETHYLENE

V-220
OIL/WATER SEPARATOR
24 GPM
165 GAL OPERATING VOLUME

T-280
FREE PRODUCT STORAGE TANK
55 GALLONS
CARBON STEEL

P-290
FREE PRODUCT TRANSFER PUMP
UNKNOWN GPM
UNKNOWN FT DIS HEAD
0.75 HP

T-230
FEED TANK
650 GALLONS
POLYETHYLENE

P-240
FEED PUMP
UNKNOWN GPM
UNKNOWN FT DIS HEAD
1 HP

F-250A
BAG FILTER
25 MICRON
SIZE 2 FILTER

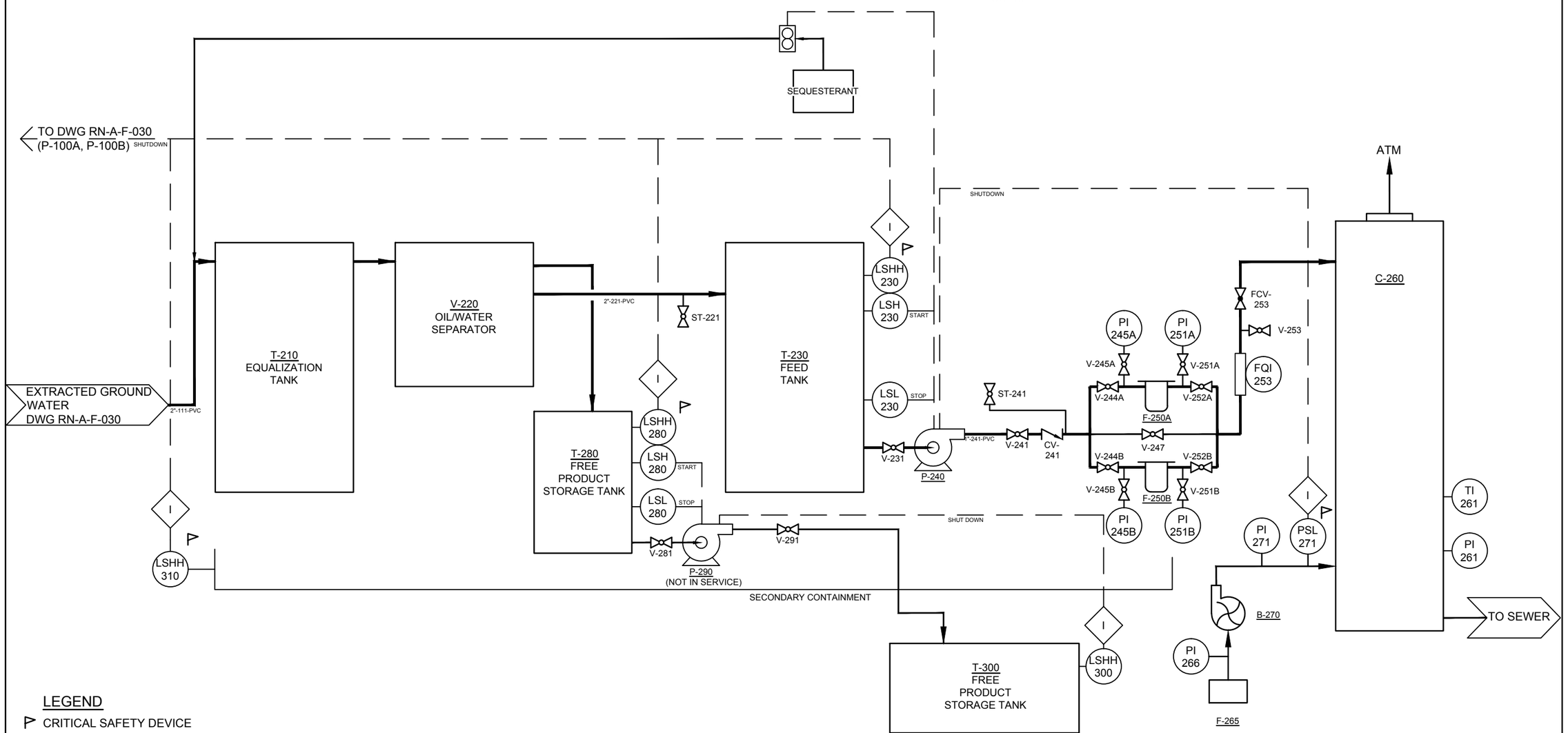
F-250B
BAG FILTER
25 MICRON
SIZE 2 FILTER

B-270
AIR STRIPPER BLOWER
488 SCFM ESTIMATED AT
0.7 PSIG DIS
2 HP

F-265
AIR FILTER
DP OF 0.008 IN H20 AT 600 SCFM

C-260
AIR STRIPPER
UNKNOWN GPM
PRESSURE RATING: UNKNOWN
BENZENE REMOVAL: UNKNOWN
MTBE REMOVAL: UNKNOWN
FIBERGLASS REINFORCED PLASTIC

T-300
FREE PRODUCT STORAGE TANK
1,000 GALLONS



LEGEND

CRITICAL SAFETY DEVICE

figure 4

EXXONMOBIL/BP SYSTEM - PROCESS AND INSTRUMENTATION DIAGRAM
PHILLIPS 66 RENTON TERMINAL
2423 LIND AVENUE SW
Renton, Washington

SOURCE: ACTON MICKELSON ENVIRONMENTAL, INC., GROUNDWATER REMEDIATION SYSTEM MECHANICAL FLOW DIAGRAM (2 OF2), SHEET 5 OF 13, DATED 8/07/08.

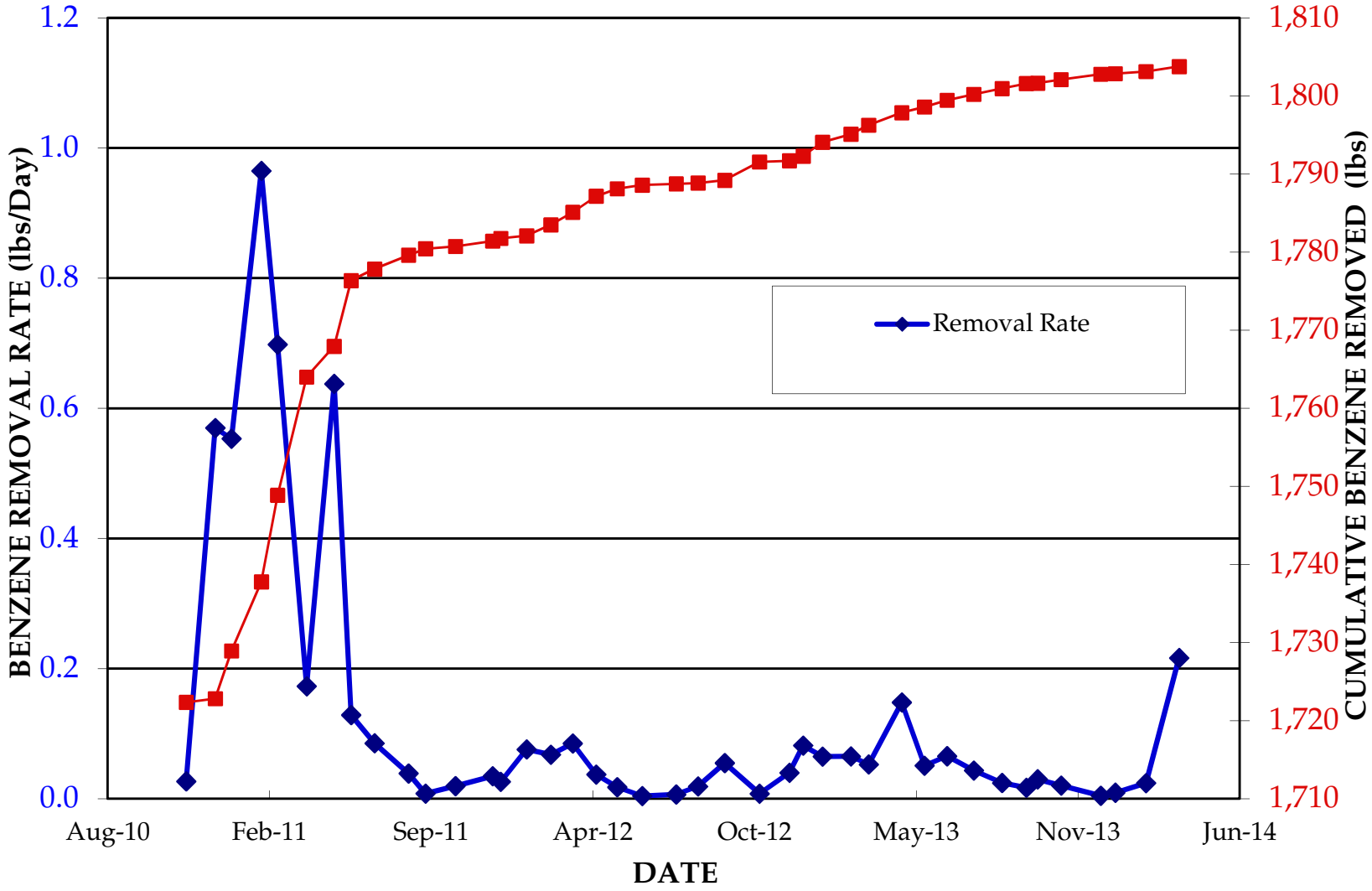


figure 5

PHILLIPS 66 SYSTEM - BENZENE MASS REMOVAL GRAPH

PHILLIPS 66 RENTON TERMINAL

Renton Washington

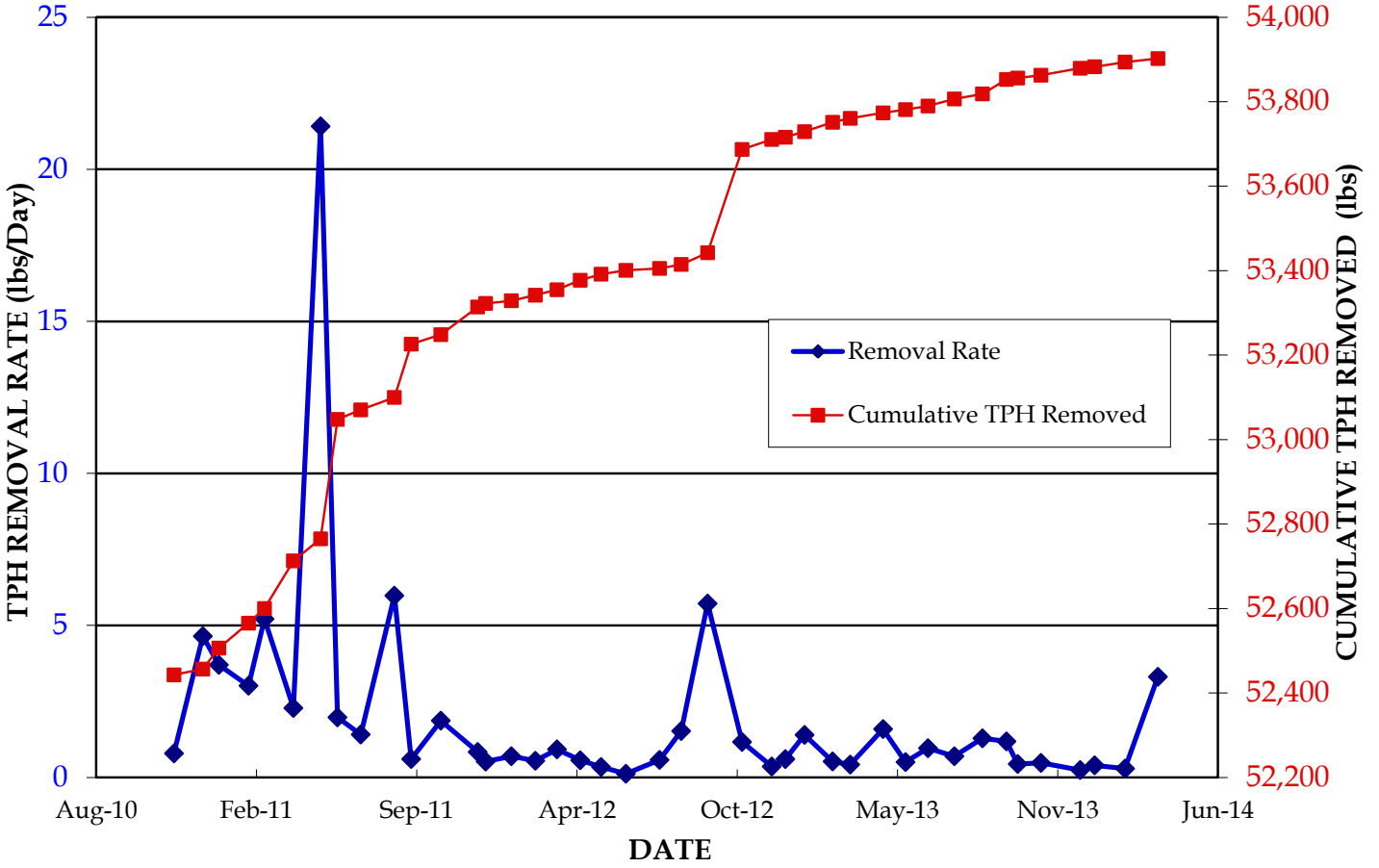


figure 6

PHILLIPS 66 SYSTEM - TPH MASS REMOVAL GRAPH

PHILLIPS 66 RENTON TERMINAL

Renton Washington

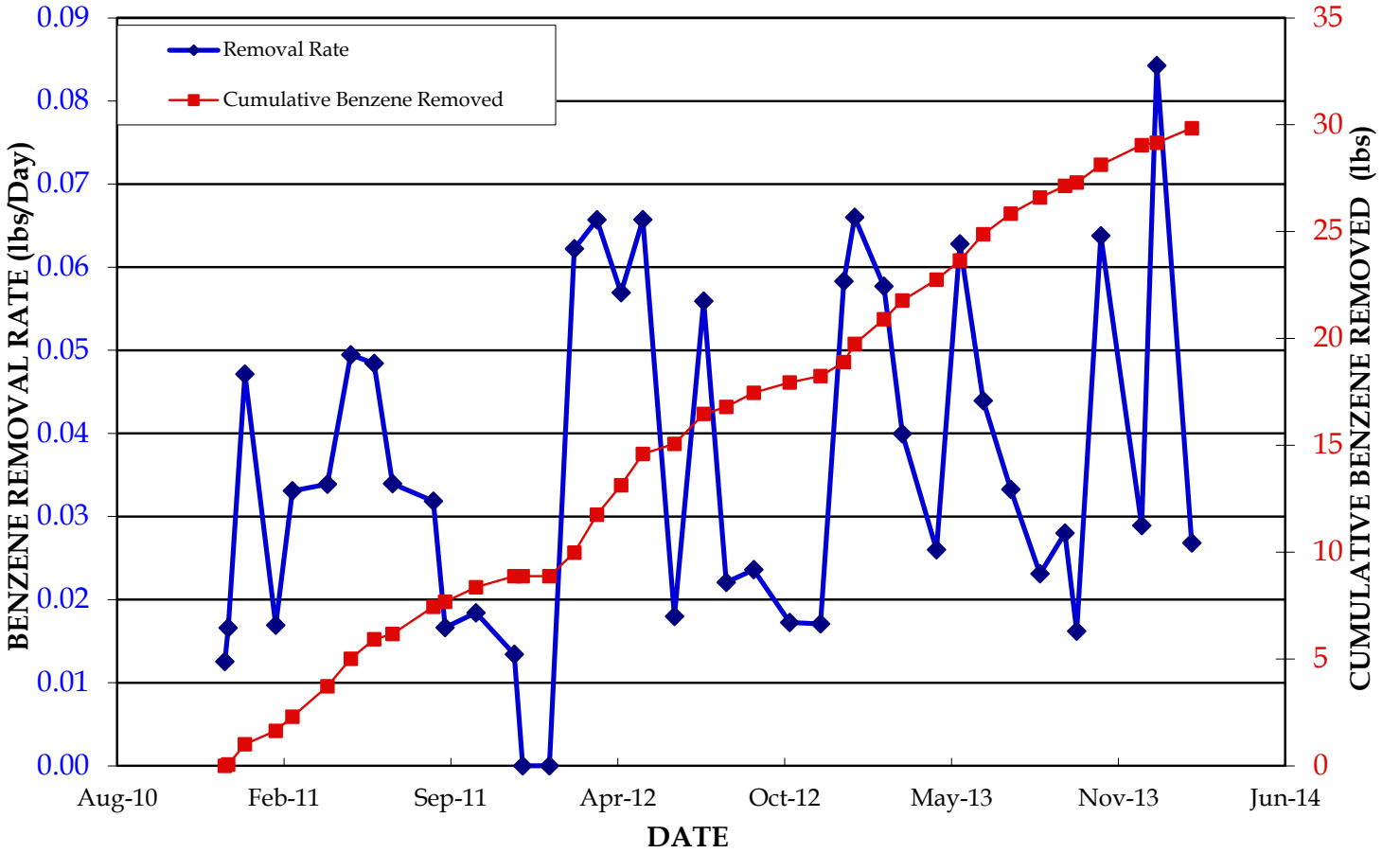


figure 7

EXXONMOBIL / BP SYSTEM - BENZENE MASS REMOVAL GRAPH

PHILLIPS 66 RENTON TERMINAL

Renton Washington

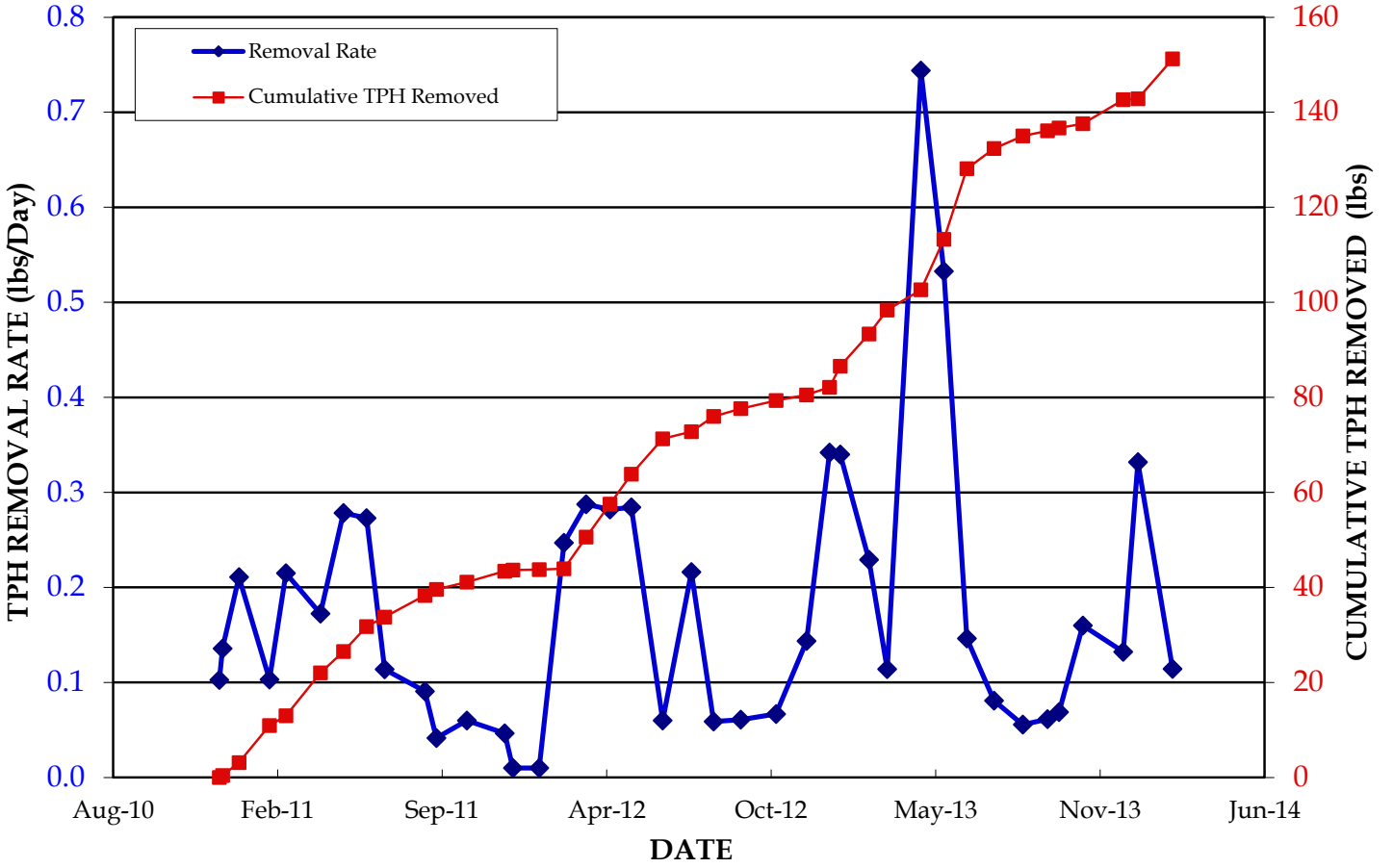
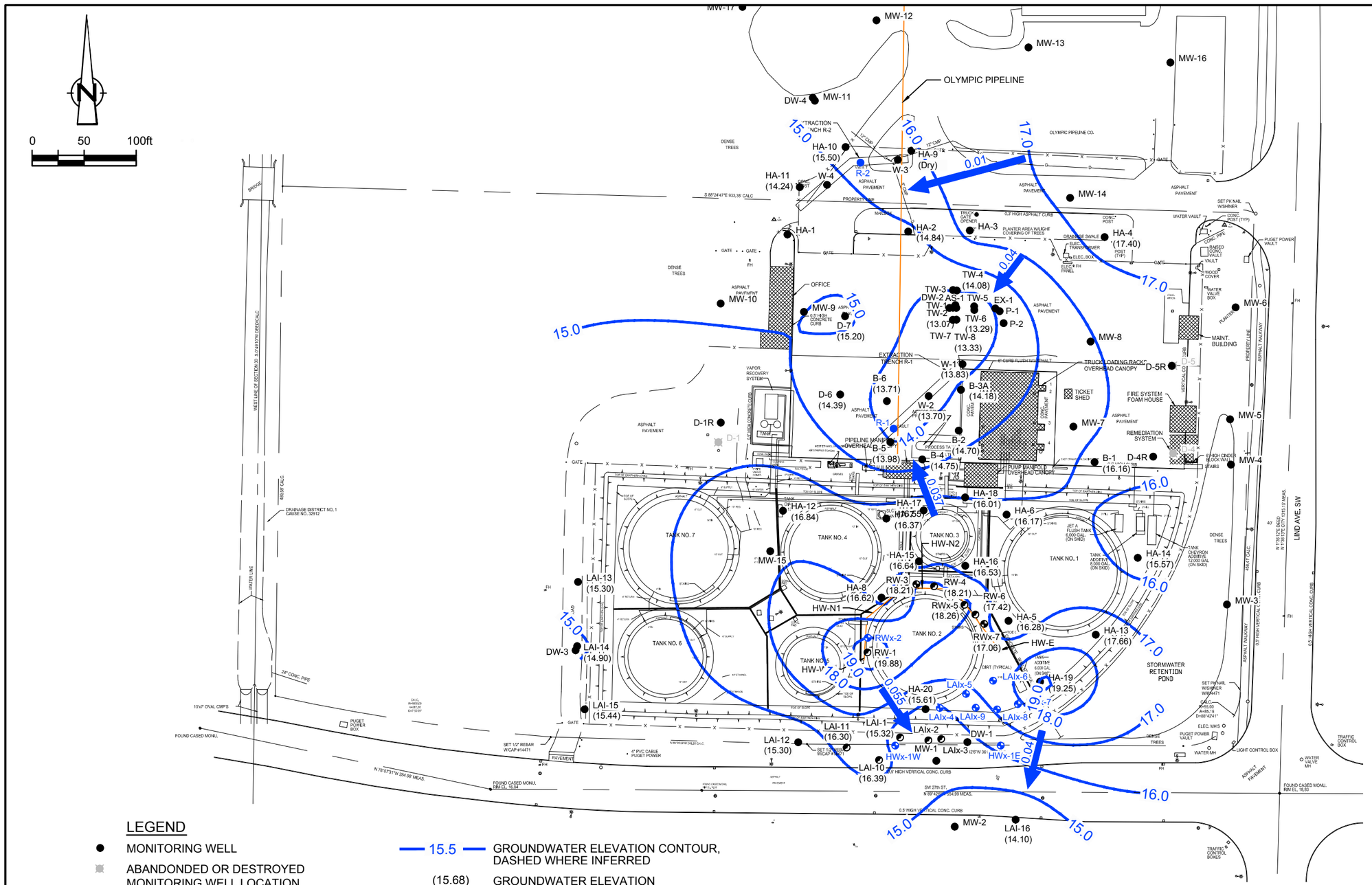


figure 8

EXXONMOBIL / BP SYSTEM - TPH MASS REMOVAL GRAPH

PHILLIPS 66 RENTON TERMINAL

Renton Washington



LEGEND

- MONITORING WELL
- ABANDONDED OR DESTROYED MONITORING WELL LOCATION
- 4" DIAMETER VERTICAL RECOVERY WELL (ACTIVELY PUMPING)
- 4" DIAMETER VERTICAL RECOVERY WELL (INACTIVE- NOT PUMPING)
- REMEDIATION WELL LOCATION

15.5 — GROUNDWATER ELEVATION CONTOUR, DASHED WHERE INFERRED

(15.68) GROUNDWATER ELEVATION

0.04 GROUNDWATER FLOW DIRECTION AND GRADIENT

NOTES:
1. GROUNDWATER ELEVATIONS ARE IN FEET.

SOURCE: STATEWIDE LAND SURVEYING INC., DATED 1/26/12.

70496-3RM00(036)GN-WA003 JUL 17/2014

figure 9

GROUNDWATER ELEVATION CONTOURS - SHALLOW WELLS (FEBRUARY 2014)
PHILLIPS 66 RENTON TERMINAL
2423 LIND AVENUE SW
Renton, Washington

Tables

Table 1
Phillips 66 System-Summary of Operational Parameters
Phillips 66 Renton Terminal
Renton, Washington

	Soil Vapor Extraction System								Groundwater Extraction System		
Date	*Hour Meter (hours)*	*Total Vacuum (in. H_2O)*	*Total Influent Temperature (°F)*	*Total Influent Flowrate (scfm)*	*Influent PID (ppmV)*	*C-1 PID (ppmV)*	*C-2 PID (ppmV)*	*Effluent PID (ppmV)*	*Hour Meter (hours)*	*Water Meter Reading (gallons)*	*Cumulative Volume of Water Treated (gallons)*
12/09/10	1,389.3	25	100	210	1.8	1.8	0.2	3.3	20,913.8	711,224	3,215,544
12/17/10	1,393.4	35	100	210	--	--	--	--	20,914.8	711,445	3,215,765
12/20/10	1,397.4	35	100	210	--	--	--	--	20,918.7	712,485	3,216,805
12/21/10	1,419.7	36	100	210	22.8	1.9	0.3	2.3	20,941.0	718,185	3,222,505
12/29/10	1,529.5	40	75	210	33.7	0.0	0.0	0.0	21,050.7	752,260	3,256,580
12/30/10	1,556.3	40	100	210	--	--	--	--	21,076.1	760,809	3,265,129
01/05/11	1,559.0	35	100	210	--	--	--	--	--	760,940	3,265,260
01/06/11	1,583.4	35	100	210	23.3	1.7	0.5	2.8	21,102.1	768,341	3,272,661
01/10/11	1,678.4	35	100	210	0.0	0.0	0.0	0.0	21,196.2	790,309	3,294,629
01/12/11	1,632.1	35	95	210	--	--	--	--	21,200.0	792,260	3,296,580
01/18/11	1,821.5	35	105	210	14.7	1.6	1.0	4.1	21,339.1	830,160	3,334,480
01/19/11	1,849.4	35	105	210	--	--	--	--	21,336.8	837,044	3,341,364
01/25/11	1,907.0	37	100	210	20.3	0.0	0.0	0.0	21,424.6	849,720	3,354,040
01/27/11	1,955.3	35	105	210	17.4	1.1	0.5	3.3	21,471.1	863,494	3,367,814
02/01/11	1,969.5	35	105	210	--	--	--	--	21,484.8	866,299	3,370,619
02/03/11	2,011.5	35	100	210	--	--	--	--	21,527.2	877,830	3,382,150
02/11/11	2,023.0	35	105	210	--	--	--	--	21,538.4	881,910	3,386,230
02/14/11	2,034.6	40	100	210	86.1	1.5	0.0	1.3	21,549.6	886,823	3,391,143
02/16/11	2,064.0	40	100	210	57.6	2.0	0.8	1.8	21,577.0	897,988	3,402,308
02/23/11	2,231.7	30	100	210	17.6	1.4	0.9	2.1	21,746.4	925,254	3,429,574
03/01/11	2,233.7	35	100	210	78.6	3.5	0.4	0.0	21,747.6	925,872	3,430,192
03/08/11	2,339.9	35	105	210	61.9	5.6	6.0	1.0	21,852.3	951,757	3,456,077
03/09/11	2,342.3	35	105	210	60	0.1	0.0	0.0	21,854.7	952,363	3,456,683
03/14/11	2,371.4	35	105	210	50	0.4	0.0	0.0	21,883.5	959,647	3,463,967
03/22/11	2,557.2	35	105	210	48	0.8	0.2	0.3	22,069.2	1,006,270	3,510,590
03/24/11	2,609.7	35	100	210	--	--	--	--	22,121.6	1,015,100	3,519,420
03/29/11	2,676.9	35	100	210	63.5	0.8	0.0	0.0	22,228.8	1,038,117	3,542,437
04/05/11	2,858.4	35	100	210	53	0.4	0.0	0.0	22,369.3	1,066,420	3,570,740
04/13/11	2860.7	35	100	210	0.0	0.0	0.0	0.0	22,370.8	1,066,420	3,570,740
04/15/11	2864.4	35	100	210	--	--	--	--	22,373.3	1,068,338	3,572,658
04/18/11	2897.9	35	100	210	38.3	0.0	0.0	0.0	22,406.5	1,077,180	3,581,500

Table 1
Phillips 66 System-Summary of Operational Parameters
Phillips 66 Renton Terminal
Renton, Washington

	Soil Vapor Extraction System								*Groundwater Extraction System*		
Date	*Hour Meter*	*Total Vacuum*	*Total Influent Temperature*	*Total Influent Flowrate*	*Influent PID*	*C-1 PID*	*C-2 PID*	*Effluent PID*	*Hour Meter*	*Water Meter Reading*	*Cumulative Volume of Water Treated*
04/19/11	--	--	--	--	--	--	--	--	--	--	--
04/26/11	3063.0	35	120	210	69.3	0.0	0.0	0.0	22,571.8	1,103,148	3,607,468
05/03/11	3147.3	35	120	210	70	0.0	0.0	0.0	22,655.8	1,117,500	3,621,820
05/13/11	3386.7	35	125	210	--	--	--	--	22,895.2	1,135,172	3,639,492
05/16/11	3389.3	35	112	210	15	0.4	0.1	0.1	22,898.0	1,135,792	3,640,112
05/17/11	3409.9	35	113	210	11.1	0.2	0.0	0.0	22,918.6	1,140,353	3,644,673
05/24/11	3580.8	35	115	196	8.3	0.3	0.1	0.0	23,089.5	1,170,742	3,675,062
06/02/11	3607.6	35	120	196	--	--	--	--	23,116.2	1,176,106	3,680,426
06/07/11	3726.8	30	105	210	7.8	0.1	0.0	0.0	23,235.4	1,181,785	3,686,105
06/14/11	3894.2	35	110	210	9.3	0.0	0.0	0.0	23,401.2	1,192,630	3,696,950
06/22/11	3973.9	35	120	210	--	--	--	--	23,484.0	1,198,593	3,702,913
06/28/11	3994.4	35	120	196	16.5	0.0	0.0	0.0	23,504.5	1,201,716	3,706,036
07/06/11	4000.1	33	140	210	15.1	--	--	--	23,510.2	1,202,600	3,706,920
07/12/11	4000.5	20	110	100	13.2	--	--	--	23,514.2	1,203,070	3,707,390
07/14/11	4008.3	20	95	100	--	--	--	--	23,514.3	1,203,109	3,707,429
07/19/11	4123.7	30	110	98	33	0.0	0.0	0.0	23,629.8	1,207,790	3,712,110
07/26/11	4224.5	27	70	100	--	--	--	--	23,730.4	1,211,680	3,716,000
08/03/11	4233.9	23	100	100	48.4	6.6	0.3	0.4	23,741.8	1,212,390	3,716,710
08/11/11	4431.7	35	120	100	--	--	--	--	23,939.8	1,217,794	3,722,114
08/17/11	4499.8	33	110	100	36.3	0.1	0.0	0.0	24,010.5	1,219,880	3,724,200
08/24/11	4667.8	30	110	100	30	0.0	0.0	0.0	24,178.3	1,222,796	3,727,116
08/30/11	4820.0	29	110	100	45.0	0.0	0.0	0.0	24322.3	1,224,480.0	3,728,800
09/07/11	5006.5	35	120	100	41.0	0.4	0.0	0.0	24517.0	1,226,561.0	3,730,881
09/15/11	5196.1	32	120	100	39.4	0.0	0.0	0.0	24706.8	1,228,430.0	3,732,750
09/21/11	5342.0	28	120	100	38.1	0.0	0.0	0.0	24862.5	1,229,880.0	3,734,200
09/28/11	5507.8	28	110	100	4.3	0.0	0.0	0.0	25018.9	1,231,530.0	3,735,850
10/03/11	5629.8	28	105	100	64	0.1	0.2	0.0	25141.0	1,232,740.0	3,737,060
10/14/11	5892.8	30	100	100	69.9	0.1	0.1	0.0	25404.0	1,235,348.0	3,739,668
10/17/11	5966.5	29	110	100	25.0	0.0	0.0	0.0	25477.6	1,236,020.0	3,740,340
10/25/11	6157.4	35	100	100	80.0	--	--	--	25668.6	1,238,147.0	3,742,467
11/02/11	6347.9	35	95	100	--	--	--	--	25859.2	1,247,837.0	3,752,157
11/08/11	6492.0	30	100	100	17.9	0.6	0.3	0.2	26003.4	1,252,432.0	3,756,752
11/16/11	6682.7	35	90	100	20.6	0.0	0.0	0.0	26194.0	1,259,230.0	3,763,550

Table 1
Phillips 66 System-Summary of Operational Parameters
Phillips 66 Renton Terminal
Renton, Washington

	Soil Vapor Extraction System								*Groundwater Extraction System*		
Date	*Hour Meter*	*Total Vacuum*	*Total Influent Temperature*	*Total Influent Flowrate*	*Influent PID*	*C-1 PID*	*C-2 PID*	*Effluent PID*	*Hour Meter*	*Water Meter Reading*	*Cumulative Volume of Water Treated*
11/23/11	6732.1	32	90	200	5.2	0.0	0.0	0.0	26243.1	1,261,060.0	3,765,380
11/29/11	6733.7	33	80	200	6.4	0.0	0.0	0.0	26244.1	1,261,275.0	3,765,595
12/09/11	6974.6	29	90	200	2.6	0.0	0.0	0.0	26485.0	1,284,500.0	3,788,820
12/14/11	7083.8	26	75	190	1.2	0.0	0.0	0.0	26590.9	1,290,910.0	3,795,230
12/21/11	7174.6	38	85	200	5.0	0.0	0.0	0.0	26681.6	1,298,390.0	3,802,710
12/29/11	7177.3	30	90	200	--	--	--	--	26684.2	1,298,690.0	3,803,010
01/04/12	7209.3	45	100	190	2.6	0.0	0.0	0.0	26716.2	1,302,370.0	3,806,690
01/10/12	7271.1	28	50	210	1.1	0.0	0.0	0.0	26778.2	1,310,770.0	3,815,090
01/17/12	7373.9	41	90	200	1.8	0.0	0.0	0.0	26881.0	1,319,880.0	3,824,200
01/24/12	7398.9	28	90	210	5.8	0.0	0.0	0.0	26905.9	1,323,120.0	3,827,440
01/31/12	7502.2	34	90	200	9.3	0.0	0.0	0.0	27009.0	1,337,860.0	3,842,180
02/09/12	7718.1	35	95	200	3.3	0.0	0.0	0.0	27225.0	1,362,440.0	3,866,760
02/16/12	7885.1	30	85	200	--	--	--	--	27391.9	1,378,194.0	3,882,514
02/21/12	8007.5	45	95	200	0.6	0.0	0.0	0.0	27514.3	1,391,524.0	3,895,844
03/02/12	8229.4	31	80	200	4.1	0.0	0.0	0.0	27736.1	1,413,780.0	3,918,100
03/07/12	8285.0	40	90	200	0.7	0.0	0.0	0.0	27791.7	1,420,688.0	3,925,008
03/15/12	8285.0	--	--	--	--	--	--	--	27791.7	1,420,688.0	3,925,008
03/20/12	8485.8	38	90	190	0.4	0.0	0.0	0.0	27992.4	1,439,440.0	3,943,760
03/27/12	8653.2	44	110	190	0.0	0.0	0.0	0.0	28159.8	1,458,610.0	3,962,930
04/05/12	8866.9	48	100	190	0.0	0.0	0.0	0.0	28373.8	1,476,720.0	3,981,040
04/12/12	9039.6	40	95	190	4.7	0.0	0.0	0.0	28546.6	1,490,172.0	3,994,492
04/20/12	9226.3	38	100	190	0.5	0.0	0.0	0.0	28733.3	1,508,710.0	4,013,030
04/26/12	9373.9	37	105	190	2.2	0.0	0.0	0.0	28880.9	1,521,208.0	4,025,528
05/01/12	9476.8	40	95	200	4.7	0.0	0.0	0.0	28983.8	1,531,500.0	4,035,820
05/11/12	9715.4	38	90	200	0.4	0.0	0.0	0.0	29222.3	1,550,120.0	4,054,440
05/17/12	9767.1	35	90	200	0.5	0.0	0.0	0.0	29274.1	1,556,050.0	4,060,370
05/24/12	9911.9	35	100	210	1.4	0.0	0.0	0.0	29419.1	1,564,702.0	4,069,022
06/01/12	10105.6	40	100	200	1.1	0.0	0.0	0.0	29612.8	1,571,790.0	4,076,110
06/08/12	10273.5	30	100	200	10.0	0.0	0.0	0.0	29780.9	1,580,170.0	4,084,490
06/18/12	10511.4	35	105	210	--	--	--	--	30018.8	1,580,225.0	4,084,545
06/29/12	10683.7	33	100	200	17.1	0.0	0.0	0.0	30191.1	1,580,500.0	4,084,820
07/03/12	10778.7	35	100	210	23.5	0.0	0.0	0.0	30286.1	1,587,800.0	4,092,120
07/13/12	11016.9	39	100	200	0.4	0.0	0.0	0.0	30524.4	1,596,090.0	4,100,410

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Phillips 66 Renton Terminal
Renton, Washington

	Soil Vapor Extraction System								*Groundwater Extraction System*		
Date	*Hour Meter*	*Total Vacuum*	*Total Influent Temperature*	*Total Influent Flowrate*	*Influent PID*	*C-1 PID*	*C-2 PID*	*Effluent PID*	*Hour Meter*	*Water Meter Reading*	*Cumulative Volume of Water Treated*
07/18/12	11073.3	35	100	200	0.8	0.0	0.0	0.0	30580.8	1,599,550	4,103,870
07/24/12	11217.2	30	100	210	--	--	--	--	30724.7	1,604,590	4,108,910
08/01/12	11406.3	30	120	210	3.1	0.2	0.1	0.0	30913.0	1,610,297	4,114,617
08/09/12	11406.3	30	120	210	3.1	0.2	0.1	0.0	30913.0	1,610,297	4,114,617
08/31/12	11574.9	30	100	210	0.1	0.0	0.0	0.0	31081.3	1,616,630	4,120,950
09/05/12	11700.3	30	100	200	0.1	0.0	0.0	0.0	31206.8	1,619,750	4,124,070
09/11/12	11842.5	30	100	200	4.9	0.0	0.0	0.0	31349.1	1,621,790	4,126,110
09/25/12	12174.8	30	110	210	26.3	2.8	0.8	0.3	31657.6	1,628,210	4,132,530
10/05/12	12414.7	30	100	200	18.8	3.3	0.2	0.6	31871.4	1,631,070	4,135,390
10/12/12	12581.4	25	100	200	37.7	3.8	0.6	0.4	32038.2	1,631,760	4,136,080
10/19/12	12746.5	30	110	210	25.5	6.1	0.1	0.1	32203.3	1,631,832	4,136,152
10/24/12	12868.7	--	--	210	21.4	0.3	0.3	0.0	32325.5	1,634,281	4,138,601
11/02/12	13082.2	30	100	210	4.4	2.4	1.4	0.0	32538.8	1,636,510	4,140,830
11/08/12	13226.7	28	115	200	3.5	3.6	1.1	0.0	32683.7	1,641,700	4,146,020
11/16/12	13352.1	25	75	210	2.9	2.6	1.4	0.0	32809.2	1,642,820	4,147,140
11/30/12	13353.6	40	105	210	1.3	0.0	0.0	0.0	32810.6	1,643,135	4,147,455
12/04/12	13448.9	35	100	200	--	--	--	--	32905.9	1,651,120	4,155,440
12/10/12	13595.7	35	100	200	--	--	--	--	33052.7	1,660,450	4,164,770
12/17/12	13706.1	33	90	200	0.6	1.6	0.0	0.0	33163.0	1,668,780	4,173,100
12/28/12	13969.2	35	95	210	2.1	0.0	0.0	0.0	33426.4	1,678,171	4,182,491
01/04/13	14084.2	35	90	210	8.1	0.0	0.0	0.0	33541.5	1,685,777	4,190,097
01/10/13	14229.2	35	100	200	12.3	0.0	0.0	0.0	33686.2	1,691,330	4,195,650
01/25/13	14234.0	35	105	210	0.2	0.0	0.0	0.0	33689.8	1,691,493	4,195,813
01/31/13	14376.5	40	90	210	0.2	0.0	0.0	0.0	33832.1	1,691,639	4,195,959
02/08/13	14567.6	28	100	200	12.4	0.0	0.0	0.0	34023.1	1,691,870	4,196,190
02/14/13	14611.9	30	100	210	1.9	0.0	0.0	0.0	34067.4	1,692,962	4,197,282
02/19/13	14641.3	30	100	210	0.6	0.0	0.0	0.0	34096.7	1,693,661	4,197,981
02/25/13	14773.7	38	100	200	0.4	0.0	0.0	0.0	34229.0	1,698,650	4,202,970
03/01/13	14867.0	36	100	200	--	--	--	--	34322.4	1,700,070	4,204,390
03/06/13	14986.6	35	100	210	0.4	0.0	0.0	0.0	34442.0	1,701,149	4,205,469
03/08/13	15035.2	35	100	210	1.5	0.0	0.0	0.0	34490.7	1,701,661	4,205,981
03/11/13	15106.1	35	100	210	0.8	0.0	0.0	0.0	34561.0	1,702,293	4,206,613
03/27/13	15489.7	35	105	200	1.3	0.0	0.0	0.0	34945.1	1,705,941	4,210,261

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Phillips 66 Renton Terminal
Renton, Washington

	Soil Vapor Extraction System								*Groundwater Extraction System*		
Date	*Hour Meter*	*Total Vacuum*	*Total Influent Temperature*	*Total Influent Flowrate*	*Influent PID*	*C-1 PID*	*C-2 PID*	*Effluent PID*	*Hour Meter*	*Water Meter Reading*	*Cumulative Volume of Water Treated*
04/03/13	15517.7	35	105	210	--	--	--	--	34973.5	1,706,223	4,210,543
04/10/13	15595.0	42	100	200	1.4	0.6	0.0	0.0	35038.8	1,712,000	4,216,320
04/18/13	15767.0	--	--	--	7.0	0.0	0.0	0.0	35210.5	1,730,944	4,235,264
05/09/13	15865.4	35	115	210	14.3	0.00	0.00	0.00	35352.4	1,737,114	4,241,434
05/16/13	15869.2	35	105	210	0.4	0.00	0.00	0.00	35356.2	1,738,866	4,243,186
05/21/13	15984.2	35	100	210	5.3	0.10	0.00	0.00	35471.2	1,765,951	4,270,271
05/30/13	16141.6	30	95	210	1.4	0.00	0.00	0.00	35629.3	1,797,991	4,302,311
06/04/13	16144.0	35	105	210	8.7	0.00	0.00	0.00	35631.5	1,798,804	4,303,124
06/13/13	16274.1	35	105	210	1.8	0.00	0.10	0.00	35761.6	1,822,664	4,326,984
06/21/13	16447.4	22	100	220	1.5	0.00	0.00	0.00	35765.8	1,823,430	4,327,750
06/28/13	16615.8	50	120	210	--	--	--	--	35838.3	1,835,191	4,339,511
07/02/13	16644.5	40	120	210	--	--	--	--	35866.7	1,839,189	4,343,509
07/10/13	16673.1	40	120	210	--	--	--	--	35895.2	136 a	4,347,761
07/16/13	16796.8	40	125	155	7.6	0.00	0.00	0.00	36018.9	14,570	4,362,195
07/23/13	16851.2	30	125	150	4.6	0.00	0.00	0.00	36068.0	18,097	4,365,722
07/30/13	17014.4	60	110	140	6.0	0.00	0.30	0.00	36231.3	33,212	4,380,837
08/08/13	17015.6	30	100	175	11.0	0.00	0.00	0.00	36232.5	33,444	4,381,069
08/12/13	17017.9	18	100	170	17.1	0.00	0.00	0.00	36234.7	33,636	4,381,261
08/20/13	17209.3	45	110	175	12.9	0.00	0.00	0.00	36426.2	49,760	4,397,385
08/26/13	17352.6	10	110	150	10.0	0.00	0.00	0.00	36569.5	54,346	4,401,971
09/05/13	17593.9	30	120	100	33.8	0.00	0.00	0.00	36810.8	61,491	4,409,116
09/09/13	17604.4	45	100	150	--	--	--	--	--	61,613	4,409,238
09/19/13	17845.6	35	100	160	31.0	1.20	0.00	0.00	37062.7	82,138	4,429,763
09/26/13	17856.8	35	100	160	31.5	0.00	0.00	0.00	37073.8	95,372	4,442,997
10/03/13	17912.8	35	100	160	23.9	0.00	0.00	0.00	37129.5	97,902	4,445,527
10/11/13	18104.2	35	90	160	3.5	0.00	0.00	0.00	37320.0	135,200	4,482,825
10/17/13	18212.1	35	90	160	4.7	0.00	0.00	0.00	37428.3	152,090	4,499,715
10/24/13	18216.2	35	80	175	3.6	0.00	0.00	0.00	37432.2	153,328	4,500,953
11/01/13	18273.3	45	100	150	2.7	0.00	0.00	0.00	37488.3	163,749	4,511,374
11/07/13	18416.0	35	90	170	2.4	0.00	0.00	0.00	37630.6	180,762	4,528,387
11/15/13	18603.5	35	90	170	1.2	0.00	0.10	0.10	37818.2	196,559	4,544,184
11/20/13	18728.1	45	110	150	5.4	0.00	0.00	0.00	37942.6	208,754	4,556,379
11/27/13	18883.5	40	90	160	1.6	0.30	0.20	0.00	38098.0	231,477	4,579,102

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Phillips 66 Renton Terminal
Renton, Washington

	Soil Vapor Extraction System								*Groundwater Extraction System*		
Date	*Hour Meter*	*Total Vacuum*	*Total Influent Temperature*	*Total Influent Flowrate*	*Influent PID*	*C-1 PID*	*C-2 PID*	*Effluent PID*	*Hour Meter*	*Water Meter Reading*	*Cumulative Volume of Water Treated*
12/02/13	19003.5	35	80	170	--	--	--	--	38218.2	246,090	4,593,715
12/16/13	19003.5	--	--	--	--	--	--	--	38218.2	246,090	4,593,715
12/20/13	19097.4	30	75	170	0.5	0.00	0.00	0.00	38310.3	246,410	4,594,035
12/23/13	19171.3	24	70	170	0.5	0.00	0.00	0.00	38384.2	246,410	4,594,035
01/03/14	19435.3	35	75	170	0.8	0.10	0.00	0.00	38648.3	247,010	4,594,635
01/07/14	19452.1	32	100	180	14.2	0.00	0.00	0.00	38665.1	250,319	4,597,944
01/17/14	19694.4	40	90	160	2.9	0.10	0.00	0.00	38907.4	286,563	4,634,188
01/20/14	19763.4	30	80	180	1.1	0.10	0.00	0.00	38976.5	295,629	4,643,254
01/31/14	19974.7	35	80	170	--	--	--	--	39185.2	323,067	4,670,692
02/14/14	20086.9	30	100	150	2.7	0.30	0.10	0.00	39395.5	342,869	4,690,494
02/26/14	20367.9	36	100	150	0.8	0.00	0.00	0.00	39576.4	400,227	4,747,852
02/28/14	20411.3	35	90	170	1.2	0.10	0.00	0.00	39597.3	403,816	4,751,441
03/03/14	20484.7	35	100	150	8.6	0.30	0.30	0.10	39670.6	415,225	4,762,850
03/11/14	20594.8	32	100	150	8.8	0.00	0.00	0.00	39780.7	436,795	4,784,420
03/21/14	20835.3	35	90	160	3.6	0.00	0.00	0.00	40021.2	437,833	4,785,458
03/27/14	20839.4	35	90	160	17.5	0.00	0.00	0.00	40025.3	438,764	4,786,389

Notes:

scfm Standard cubic feet per minute

^{o}F Degrees Fahrenheit

ppmV parts per million volume

-- Not collected

a Totalizer was not working and was replaced on 7/10/13. Final totalizer reading on old totalizer was 1,843,305 prior to replacement.

TABLE 2

PHILLIPS 66 SYSTEM-DISSOLVED PHASE ANALYTICAL DATA
PHILLIPS 66 RENTON TERMINAL
RENTON, WASHINGTON

	Total Influent							*Air Stripper Effluent*						
Date	***Benzene (µg/L)***	***Toluene (µg/L)***	***Ethyl-benzene (µg/L)***	***Total Xylenes (µg/L)***	***TPHg (µg/L)***	***TPHd (µg/L)***	***TPHo (µg/L)***	***Benzene (µg/L)***	***Toluene (µg/L)***	***Ethyl-benzene (µg/L)***	***Total Xylenes (µg/L)***	***TPHg (µg/L)***	***TPHd (µg/L)***	***TPHo (µg/L)***
12/21/10	4,000	6,500	330	6,100	45,000	<2500	240 J	67	120	5.2	101	730	350	36 J
01/10/11	3,620	5,630	328	6,950	42,000	1,540	407	49.3	65.9	4	76.3	328	169	<385
02/16/11	2,330	3,120	224	4,500	43,000	1,580	<385	325	548	26	431	5,240	337	<426
03/08/11	3,480	4,330	219	5,650	45,100	12,800	2,550	187	313	16.5	209	2,720	386	<379
04/19/11	6,300	408	7,420	6,080	58,000	1,800	<380	111	9.5	177	145	1,510	320	<380
05/17/11	5,910	517	9,110	6,790	78,000	1,300	<380	78.6	8.1	142	119	993	270	<380
06/14/11	6,870	586	10,100	6,780	66,700	1,400	<380	147	3.5	176	221	1,590	210	<380
07/06/11	9,510	731	12,300	7,910	59,000	1,200	<380	<1.0	<1.0	<1.0	<3.0	<50.0	<76	<380
08/17/11	454	590	28.6	589	4,730	<390	170	<1.0	<1.0	<1.0	<3.0	<50.0	<380	<76
09/07/11	130	173	9.8	159	1,530	240	<380	<1.0	<1.0	<1.0	<3.0	<50.0	<76	<380
10/14/11	102	89.9	3.2	95.5	693	150	<380	<1.0	<1.0	<1.0	<3.0	<50.0	<77	<380
11/23/11	1,440	1,930	118	1,500	12,700	200	<390	<1.0	<1.0	<1.0	<3.0	<50.0	<76	<380
12/09/11	1,250	1,090	73.5	1,680	12,200	150	<380	11.3	7.4	<1.0	31.6	291	<82	<410
01/10/12	3,150	4,130	263	3,360	26,700	290	<380	2.9	2.8	<1.0	6.5	90	<76	<380
02/09/12	837	886	102	1,480	18,300	590	<380	2.0	1.4	1.6	5.3	69.9	140	<380
03/07/12	1,690	1,800	134	2,690	15,500	190	<380	10.7	9.5	<1.0	42.6	235	<76	<380
04/05/12	1,060	758	40.2	3,250	22,700	0.62	<380	<1.0	<1.0	<1.0	<3.0	<50.0	140	<390
05/01/12	1,300	993	46.3	3,160	20,900	1,300	<380	11.8	8.7	<1.0	32.9	279	150	<380
06/01/12	554	420	<10.0	1,070	4,520	300	<380	<1.0	<1.0	<1.0	<3.0	<50.0	<76	<380
07/13/12	752	892	32.6	671	5,270	120	<390	<1.0	1.8	1	<3.0	<50.0	<77	<380
08/09/12	118	176	13.8	305	2,050	120	<380	<1.0	<1.0	<1.0	<3.0	<50.0	120	<410
09/11/12	86.8	77.7	4.9	90	710	<77	<380	<1.0	<1.0	<1.0	<3.0	<50.0	<76	<380
10/24/12	459	320	9	888	5,590	430	<830	<1.0	<1.0	<1.0	<3.0	<50.0	<170	<830
11/30/12	1,860	2,710	155	2,080	17,100	1,900	230	<1.0	<1.0	<1.0	<3.0	<100	<110	<110
12/17/12	3,200	2,420	42	4,180	17,800	4,600	320	11.2	4.6	<1.0	94.8	455	780	490
01/10/13	2,560	2,410	52	3,050	11,100	14,400	27,500	<1.0	<1.0	<1.0	29.1	196	400	<100
02/14/13	2,550	2,500	75	2,480	17,300	3,400	<410	100	77.2	1.6	137	944	1,800	<420
03/08/13	408	342	<5.0	458	2,500	1,100	<430	<1.0	<1.0	<1.0	<3.0	<100	<430	<430
04/18/13	2,340	1,720	86	3,420	19,800	2,100	<400	155	75.2	2	311	1,510	1,900	<410
05/16/13	1,930	2,460	252	2,220	14,900	<390	<390	12.8	10.1	<1.0	14.5	124	<380	<380
06/13/13	2,500	1,970	107	3,090	15,200	640	<400	440	240	5.9	758	4,010	640	<390
07/16/13	828	449	<10.0	1730	8,040	690	<400	<1.0	<1.0	<1.0	23.2	154	500	<400
08/20/13	731	204	<10	1,630	7,140	1,100	<400	1.2	<1.0	<1.0	15.8	182	410	<390
09/19/13	396	274	13	296	1,880	490	<400	3.6	2	<1.0	<3.0	<100	<400	<400
10/03/13	182	68.0	8.9	179	1,200	410	<400	17.7	5.3	<1.0	29.9	209	<420	<420
11/01/13	678	245	20.3	698	3640	1100	<410	<1.0	<1.0	<1.0	<3.0	<100	620	<420
12/20/13	116	20.6	4.3	144	1290	1200	<400	<1.0	<1.0	<1.0	<3.0	<100	<400	<400
01/07/14	259	212	38.9	633	4,490	1,200	<400	47.3	35.2	2.4	56.5	375	590	<400
02/18/14	951	495	29.8	984	6,090	1,000	500	225	200	13	270	2,060	730	<430
03/27/14	1,840	1,680	132	3,810	29,500	1,600	620	<1.0	<1.0	<1.0	15.4	260	430	<400

	Carbon Midpoint							*Total Effluent*								
Date	***Benzene (µg/L)***	***Toluene (µg/L)***	***Ethyl-benzene (µg/L)***	***Total Xylenes (µg/L)***	***TPHg (µg/L)***	***TPHd (µg/L)***	***TPHo (µg/L)***	***Benzene (µg/L)***	***Toluene (µg/L)***	***Ethyl-benzene (µg/L)***	***Total Xylenes (µg/L)***	***TPHg (µg/L)***	***TPHd (µg/L)***	***TPHo (µg/L)***	***pH (S.U.)***	***FOG (µg/L)***
12/21/10	0.64 J	0.8 J	0.044 J	1.28 J	33 J	110 J	66 J	<2.0	0.36 J	0.016 J	0.10 J	<50	92 J	64 J	7.68	--
01/10/11	<1.0	<1.0	<1.0	<3.0	<50.0	< 76.9	< 385	<1.0	<1.0	<1.0	<3.0	<50	<77.7	<388	7.8	--
02/16/11	--	--	--	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<50.0	<320	<381	7.5	--
03/08/11	--	--	--	--	--	--	--	<1.0	<1.0	<1.0	<3.0	<50.0	114	<388	7.7	--
04/19/11	<1.0	<1.0	<1.0	<3.0	<50.0	<.77	<380	<1.0	<1.0	<1.0	<3.0	<50.0	<78	<390	--	--
05/17/11	<1.0	<1.0	<1.0	<3.0	<50.0	<75	380	<1.0	<1.0	<1.0	<3.0	<50.0	180	<400	--	--
06/14/11	<1.0	<1.0	<1.0	<3.0	<50.0	<75	<380	<1.0	<1.0	<1.0	<3.0	<50.0	<78	<390	7.1	--
07/06/11	<1.0	<1.0	<1.0	<3.0	<50.0	<76	<380	<1.0	<1.0	<1.0	<3.0	<50.0	<82	<410	--	--
08/17/11	<1.0	<1.0	<1.0	<3.0	<50.0	<380	<77	<1.0	<1.0	<1.0	<3.0	<50.0	<380	<76	--	--
09/07/11	<1.0	<1.0	<1.0	<3.0	<50.0	<76	<380	<1.0	<1.0	<1.0	<3.0	<50.0	170	<400	8.3	--
10/14/11	<1.0	<1.0	<1.0	<3.0	<50.0	<76	<380	<1.0	<1.0	<1.0	<3.0	<50.0	<78	<390	--	--
11/23/11	<1.0	<1.0	<1.0	<3.0	<50.0	<76	<380	<50.0	<1.0	<1.0	<3.0	<50.0	<77	<380	--	--
12/09/11	<1.0	<1.0	<1.0	<3.0	<50.0	<76	<380	<50.0	<1.0	<1.0	<3.0	<50.0	<76	<380	--	--
01/10/12	<1.0	<1.0	<1.0	<3.0	<50.0	<76	<380	<50.0	<1.0	<1.0	<3.0	<50.0	<76	<380	--	--
02/09/12	<1.0	<1.0	<1.0	<3.0	<50.0	<76	<380	<1.0	<1.0	<1.0	<3.0	<50.0	<75	<380	--	--
03/07/12	<1.0	<1.0	<1.0	<3.0	<50.0	<75	<380	<1.0	<1.0	<1.0	<3.0	<50.0	<75	<380	--	--
04/05/12	<1.0	<1.0	<1.0	<3.0	<50.0	<76	<380	<1.0	<1.0	<1.0	<3.0	<50.0	<80	<400	--	--
05/01/12	<1.0	<1.0	<1.0	<3.0	<50.0	<75	<380	<1.0	<1.0	<1.0	<3.0	<50.0	<77	<380	--	--
06/01/12	<1.0	<1.0	<1.0	<3.0	<50.0	<93	<470	<1.0	<1.0	<1.0	<3.0	<50.0	<75	<380	--	--
07/13/12	<1.0	<1.0	<1.0	<3.0	<50.0	<79	<400	<1.0	<1.0	<1.0	<3.0	<50.0	<78	<390	--	--
08/09/12	<1.0	<1.0	<1.0	<3.0	<50.0	<76	<380	<1.0	<1.0	<1.0	<3.0	<50.0	<77	<380	--	--
09/11/12	<1.0	<1.0	<1.0	<3.0	<50.0	<75	<380	<1.0	<1.0	<1.0	<3.0	<50.0	<76	<380	--	--
10/24/12	<1.0	<1.0	<1.0	<3.0	<50.0	<170	<850	<1.0	<1.0	<1.0	<3.0	<50.0	<160	<820	7.2	--
11/30/12	<1.0	<1.0	<1.0	<3.0	<100	<100	<100	<1.0	<1.0	<1.0	<3.0	<100	<100	400	--	--
12/17/12	<1.0	<1.0	<1.0	<3.0	<100	<100	440	<1.0	<1.0	<1.0	<3.0	<100	<100	400	--	--
01/10/13	<1.0	<1.0	<1.0	<3.0	<100	<100	<100	<1.0	<1.0	<1.0	<3.0	<100	<110	<110	--	--
02/14/13	<1.0	<1.0	<1.0	<3.0	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<100	<400	<400	--	--
03/08/13	<1.0	<1.0	<1.0	<3.0	<100	<410	<410	<1.0	<1.0	<1.0	<3.0	<100	<400	<400	--	--
04/18/13	<1.0	<1.0	<1.0	<3.0	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<100	<400	<400	--	--
05/16/13	<1.0	<1.0	<1.0	<3.0	<100	<380	<380	<1.0	<1.0	<1.0	<3.0	<100	<400	<400	--	--
06/13/13	<1.0	<1.0	<1.0	<3.0	<100	<390	<390	<1.0	<1.0	<1.0	<3.0	<100	<390	<390	7.1	<6200
07/16/13	<1.0	<1.0	<1.0	<3.0	<100	<380	<380	<1.0	<1.0	<1.0	<3.0	<100	<390	<390	--	--
08/20/13	<1.0	<1.0	<1.0	<3.0	<100	<380	<380	<1.0	<1.0	<1.0	<3.0	<100	<390	<390	--	--
09/19/13	<1.0	<1.0	<1.0	<3.0	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<100	<390	<390	--	--
10/03/13	<1.0	<1.0	<1.0	<3.0	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<100	<430	<430	--	--
11/01/13	<1.0	<1.0	<1.0	<3.0	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<100	<420	<420	--	--
12/20/13	<1.0	<1.0	<1.0	<3.0	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<100	<400	<400	7.4	<6,400
01/07/14	<1.0	<1.0	<1.0	<3.0	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<100	<400	<400	--	--
02/18/14	<1.0	<1.0	<1.0	<3.0	<100	<430	<430	29.9	20.9	1.1	56.7	<100	<400	<400	--	--
03/27/14	<1.0	<1.0	<1.0	<3.0	<100	<420	<420	<1.0	<1.0	<1.0	<3.0	<100	<400	<400	--	--

Notes:

BTEX	Benzene, Toluene, Ethylbenzene, and Total Xylenes analyzed by EPA method 8260B
TPHg	Total petroleum hydrocarbons as gasoline analyzed by Ecology method NWTPH-Gx
TPHd	Total petroleum hydrocarbons as diesel analyzed by Ecology method NWTPH-Dx
TPHo	Total petroleum hydrocarbons as heavy oil analyzed by Ecology method NWTPH-Dx
FOG	Fats, Oil, and Grease analyzed by EPA method 1664
µg/L	Micrograms per liter
--	Not analyzed
<X	Not detected above reporting limit X
J	Estimated Value

TABLE 3

PHILLIPS 66 SYSTEM-VAPOR PHASE ANALYTICAL DATA
PHILLIPS 66 RENTON TERMINAL
RENTON, WASHINGTON

	Soil Vapor Extraction Well Influent					Air Stripper Effluent				
Date	Benzene (ppmV)	Toluene (ppmV)	Ethyl-benzene (ppmV)	Total Xylenes (ppmV)	TPHg (ppmV)	Benzene (ppmV)	Toluene (ppmV)	Ethyl-benzene (ppmV)	Total Xylenes (ppmV)	TPHg (ppmV)
11/15/10	3.1	6.1	0.18	1.18	33.6	3.8	5.2	<0.16	4.5	<11.2
12/21/10	0.53	1.46	0.09	0.67	14.79	11.61	14.63	0.48	6.35	65.43
01/10/11	0.21	0.56	0.023	0.212	2.6	4.6	6.7	< 0.76	3.15	< 53.10
02/16/11	10.0	50.9	< 2.2	20.8	244	9.2	14.8	0.48	3.6	11.8
03/08/11	3.5	12.0	< 1.1	4.7	134	13.5	25.7	0.77	7.2	56.4
04/13/11	0.60	4.1	0.43	4.4	18.7	--	--	--	--	--
05/17/11	7.9	27.2	1.1	12.9	287	25.7	49.7	< 4.5	12.7	< 312
06/07/11	4.6	20	0.68	8.6	172	83.8	152	6.2	56.5	330
07/06/11	33.1	141	3.5	54.1	1,210	29.2	40.7	0.76	27.4	152
08/17/11	6.9	29.8	1.7	67	1,000	<0.00084	0.0011	<0.00084	0.0017	0.16
09/07/11	1.1	6.7	0.5	24.7	271	<0.0013	0.021	<0.0013	0.051	0.69
10/14/11	10.4	40.1	1.5	52.5	933	0.083	0.28	0.0092	0.29	6.2
11/29/11	4.5	6.7	<0.27	4.6	352	0.014	0.048	0.0023	0.070	1.8
12/09/11	1.3	2.8	<0.28	<0.84	111	0.61	0.47	0.025	0.66	4.1
01/10/12	1.5	3.1	0.12	0.99	42.1	0.013	0.039	0.0014	0.022	0.32
02/09/12	0.11	0.22	<0.017	0.15	<1.2	3.1	2.1	<0.13	3.6	<9.4
03/07/12	0.90	1.9	0.051	0.323	9.7	5.1	4.6	0.19	5.2	19.7
04/05/12	0.019	0.066	<0.0042	0.051	1.0	<0.0067	0.014	<0.0067	0.016	0.60
05/01/12	1.1	2.1	0.019	0.288	87.2	18.4	14.3	<0.54	13.8	77.4
06/08/12	2.7	5.4	<0.27	1.41	124	0.0014	0.006	<0.00084	0.003	0.84
07/13/12	7.1	16.1	1	8.7	374	0.0029	0.016	0.0021	0.0206	0.75
08/09/12	10.8	24.3	1.8	20.6	753	0.004	0.02	0.003	0.04	1.4
09/11/12	7.5	57.5	1.4	37.2	588	< 0.0067	0.012	< 0.0067	< 0.0080	1.2
10/24/12	3.4	34.2	1.6	36.2	615	<0.045	0.09	<0.045	0.305	<3.2
11/30/12	1.2	0.27	0.24	2.29	37.5	4.1	4.5	0.14	2.12	5.8
12/17/12	0.41	0.89	0.055	0.49	7.6	0.061	0.053	<0.015	0.061	<1.1
01/10/13	0.042	0.15	<0.017	0.29	7.1	<0.017	<0.017	<0.017	<0.051	<1.2
02/14/13	0.058	0.1	0.014	0.09	1.9	0.0085	0.012	0.0019	0.0164	0.14
03/08/13	<0.017	0.2	<0.017	0.223	81.3	1.4	0.85	<0.023	1.03	5
04/18/13	0.04	0.19	<0.028	0.27	9.1	14.9	10.3	<1.0	27.2	<70.3
05/16/13	3.5	5.6	0.33	1.6	24.4	27.3	26.8	3	17.9	<131
06/13/13	0.51	5.3	0.072	0.85	50	25.6	14.2	<1.8	19.8	<126
07/16/13	2.7	6.2	<0.27	7.1	263	2.6	0.61	<0.017	3.9	13.5
08/20/13	1.8	4.7	<0.27	21.5	298	0.0024	0.0051	0.001	0.039	0.59
09/19/13	2.6	7.3	<0.27	6.6	365	0.0015	0.0088	<0.00084	0.0198	0.42
10/03/13	24.6	56.4	2.1	21.7	917	6	3.1	0.21	3.7	12.3
11/01/13	2.6	4.1	0.13	1.58	356	<0.018	0.18	<0.018	<0.054	<1.3
12/20/13	2.6	3	<0.27	0.88	212	0.0021	0.0058	<0.00084	0.0072	0.47
01/07/14	5.4	7.4	<0.27	1.8	232	0.016	0.021	0.0022	0.0203	0.38
02/14/14	0.49	0.62	0.034	0.37	36.6	0.015	0.018	0.0018	0.0232	0.58
03/27/14	0.46	0.54	0.04	0.43	2.0	60.4	51.6	2.0	64.2	134.0

	Total Influent					Carbon Midpoint 1				
Date	Benzene (ppmV)	Toluene (ppmV)	Ethyl-benzene (ppmV)	Total Xylenes (ppmV)	TPHg (ppmV)	Benzene (ppmV)	Toluene (ppmV)	Ethyl-benzene (ppmV)	Total Xylenes (ppmV)	TPHg (ppmV)
11/15/10	0.13	0.41	0.02	0.242	2.6	0.018	0.033	<0.0015	0.0133	1.5
12/21/10	5.65	7.45	0.25	3.35	31.29	0.0056	0.06	0.004	0.03	2.53
01/10/11	5.7	7.7	0.24	2.89	18.0	0.064	0.096	< 0.01	< 0.042	2.4
02/16/11	14.3	13.4	0.65	8.4	18.9	1.6	< .07	< .07	< 4.97	< 4.9
03/08/11	8.9	14.5	< 0.54	3.88	< 37.6	< 0.0034	< 0.0034	< 0.0034	< 0.0101	< 0.24
04/13/11	<0.041	0.15	<.041	0.051	9.9	0.0047	0.042	0.0018	0.0047	2.2
05/17/11	7.9	27.2	1.1	12.9	287	0.0024	0.013	< 0.0015	0.0107	0.53
06/07/11	0.40	1.4	0.052	0.40	14.0	< 0.00084	0.0012	< 0.00084	< 0.00084	< 0.059
07/06/11	0.32	1.3	< 0.028	0.47	14.8	< 0.00084	0.0037	< 0.00084	< 0.00254	< 0.059
08/17/11	1.3	9.9	0.33	10.2	186	<0.00084	0.002	<0.00084	0.0029	0.2
09/07/11	<0.27	0.44	<0.27	2.13	<18.8	<0.0014	0.016	<0.0014	<0.0041	0.1
10/14/11	0.65	2.4	0.078	2.7	58.1	0.0061	0.028	<0.0014	0.036	1.2
11/29/11	0.12	0.18	<0.0067	0.112	9.2	< 0.0014	0.0017	< 0.0014	< 0.0042	0.22
12/09/11	0.065	0.12	<0.017	<0.015	4.7	< 0.00084	0.0081	< 0.00084	< 0.00254	0.29
01/10/12	0.047	0.076	<0.0039	0.027	1.1	< 0.00084	0.0039	< 0.00084	< 0.00254	< 0.059
02/09/12	0.87	0.64	0.035	1.24	2.5	<0.00084	0.013	<0.00084	0.005	0.33
03/07/12	0.90	1.9	0.051	0.323	9.7	< 0.00084	0.0045	< 0.00084	< 0.00254	0.62
04/05/12	0.33	0.3	<0.017	0.39	2.6	< 0.00084	0.011	< 0.00084	0.0027	0.17
05/01/12	0.02	0.0	<0.0042	<0.0126	0.95	0.0035	0.012	0.0016	0.066	0.48
06/08/12	0.02	0.0	0.002	0.0052	1.5	< 0.00084	0.0053	< 0.00084	< 0.00254	0.41
07/13/12	0.02	0.3	0.019	0.071	8.4	0.024	0.0028	< 0.00084	< 0.00254	1.30
08/09/12	0.30	1.0	0.054	0.67	22.5	0.0042	0.0073	0.0013	0.0059	1.40
09/11/12	0.94	3.8	0.160	3.1	89.1	< 0.00084	0.0018	< 0.00084	< 0.00254	1.50
10/24/12	0.1	0.68	0.051	0.61	17	0.0037	0.023	0.0037	0.0205	0.9
11/30/12	0.21	0.28	0.018	0.253	<1.2	<0.0042	<0.0042	<0.0042	<0.0126	0.97
12/17/12	0.021	0.037	<0.0050	0.035	0.49	0.032	0.056	0.0075	0.042	0.96
01/10/13	<0.017	<0.017	<0.017	<0.051	<1.2	<0.00084	0.0051	<0.00084	0.0025	<0.059
02/14/13	0.035	0.040	0.0025	0.0270	0.25	<0.00084	<0.00084	<0.00084	<0.00254	0.21
03/08/13	0.70	0.41	<0.023	0.35	5.0	<0.0013	<0.0013	<0.0013	<0.0039	0.24
04/18/13	1.5	0.85	<0.23	1.32	<15.8	0.0028	0.0055	<0.0015	0.0055	0.16
05/16/13	0.074	0.10	<0.023	<0.068	2.2	<0.00084	0.0014	<0.00084	<0.00254	0.27
06/13/13	0.079	0.26	<0.019	<0.103	8.6	<0.00084	<0.00084	<0.00084	<0.00254	0.28
07/16/13	0.52	0.32	<0.017	0.83	9.8	<0.00084	0.0014	<0.00084	<0.00254	0.39
08/20/13	0.13	0.32	<0.019	1.27	19.4	<0.00087	0.017	<0.00087	<0.00257	1.3
09/19/13	0.16	0.45	<0.017	0.46	22.0	<0.00084	<0.00084	<0.00084	<0.00254	1.3
10/03/13	0.55	0.45	0.023	0.30	7.9	0.015	0.0095	<0.00094	0.0090	0.57
11/01/13	0.092	0.13	<0.019	0.044	7.6	<0.019	<0.019	<0.019	<0.056	2.5
12/20/13	0.038	0.039	<0.017	<0.051	3.4	<0.00084	<0.00084	<0.00084	<0.00254	0.57
01/07/14	0.061	0.071	<0.017	<0.051	4.6	<0.00084	<0.00084	<0.00084	<0.00254	0.67
02/14/14	0.032	0.04	0.0021	0.023	2.3	<0.0016	0.0017	<0.0016	<0.0047	1.2
03/27/14	3.7	2.30	<0.27	2.22	49.70	<0.018	0.11	<0.018	0.06	1.30

	Carbon Midpoint 2					Total Effluent				
Date	Benzene (ppmV)	Toluene (ppmV)	Ethyl-benzene (ppmV)	Total Xylenes (ppmV)	TPHg (ppmV)	Benzene (ppmV)	Toluene (ppmV)	Ethyl-benzene (ppmV)	Total Xylenes (ppmV)	TPHg (ppmV)
11/15/10	<0.017	<0.017	<0.017	<0.051	6.7	0.21	0.68	<0.017	<0.051	11.2
12/21/10	< 0.0627	0.07	0.01	0.04	3.70	0.13	0.56	0.01	0.08	11.66
01/10/11	< 0.0014	0.0039	< 0.0014	< 0.042	0.33	0.051	0.23	< 0.018	< 0.054	3.5
02/16/11	< 0.017	0.058	< 0.017	0.125	< 1.2	< 0.072	0.29	< 0.072	< 0.212	< 5.0
03/08/11	< 0.00084	0.0014	< 0.00084	< 0.0017	< 0.00254	< 0.0056	0.0088	< 0.0056	< 0.0166	< 0.4
04/13/11	<0.00084	0.00088	<0.00084	<0.00084	0.88	<0.00084	<0.00084	<0.00084	<0.00084	1.1
05/17/11	< 0.0014	0.0023	< 0.0014	< 0.0014	0.17	0.019	0.054	0.0043	0.0304	0.26
06/07/11	0.0029	0.011	0.0012	0.0016	<0.059	< 0.00084	0.0057	< 0.00084	0.0026	0.12
07/06/11	< 0.00084	0.0015	< 0.00084	< 0.00254	< 0.059	< 0.0014	0.0015	< 0.0014	< 0.0028	<0.099
08/17/11	0.006	0.007	0.0035	0.0132	1.1	0.0057	0.005	<0.00084	0.0127	0.56
09/07/11	<0.0013	0.025	0.0017	0.109	1.5	<0.0013	0.018	<0.0013	<0.0039	0.14
10/14/11	<0.00087	0.0091	0.0018	0.092	3.3	<0.00084	0.0046	<0.00084	0.012	0.94
11/29/11	0.00091	0.0047	< 0.00084	0.0038	0.24	0.0014	0.0039	<0.00084	0.0035	0.21
12/09/11	0.0063	0.0074	< 0.00084	< 0.00254	0.38	<0.00084	0.0044	<0.00084	<0.00254	0.19
01/10/12	0.018	0.02	< 0.00084	< 0.00254	0.18	<0.00089	0.021	<0.00089	<0.00254	0.28
02/09/12	<0.00084	0.0046	<0.00084	< 0.00084	0.2	0.00088	0.012	<0.00084	0.0025	0.32
03/07/12	<0.00084	0.0033	< 0.00084	0.0137	0.74	<0.00084	0.0038	<0.00084	<0.00254	0.26
04/05/12	<0.00840	0.00089	0.0012	< 0.0101	0.41	<0.00084	0.0012	<0.00084	< 0.00254	0.35
05/01/12	0.001	0.0041	< 0.00840	0.0057	0.37	<0.00084	0.0047	<0.00084	< 0.00254	0.53
06/08/12	<0.00084	0.005	< 0.00084	< 0.00254	0.40	<0.00084	0.005	<0.00084	< 0.00254	0.25
07/13/12	0.0013	0.0034	< 0.00084	< 0.00254	1.00	0.001	0.0034	<0.00084	< 0.00254	0.93
08/09/12	0.0025	0.0025	< 0.00084	< 0.00254	0.72	0.00092	0.0015	<0.00084	< 0.00254	0.33
09/11/12	<0.00084	0.0021	< 0.00084	< 0.00254	1.60	<0.00084	0.0037	<0.00084	< 0.00254	0.71
10/24/12	0.00094	0.009	0.0015	0.0164	0.76	<0.00084	0.0021	<0.00084	<0.00254	0.087
11/30/12	<0.00084	<0.00084	<0.00084	<0.00254	0.071	<0.00084	0.00095	<0.00084	<0.00254	0.091
12/17/12	0.021	0.0091	<0.0010	0.0032	0.18	<0.00084	0.0012	<0.00084	<0.00254	0.11
01/10/13	<0.017	<0.017	<0.017	<0.051	<1.2	<0.00084	<0.00084	<0.00084	<0.00254	<0.059
02/14/13	0.0099	0.0019	< 0.00094	<0.00284	0.34	<0.00084	0.0017	<0.00084	<0.00254	<0.059
03/08/13	< 0.00084	0.0014	< 0.00084	<0.00254	0.27	<0.00084	0.030	<0.00084	<0.00254	0.15
04/18/13	<0.00084	0.00091	<0.00084	0.00096	0.2	<0.00087	0.0011	0.0011	0.0038	0.52
05/16/13	< 0.00084	0.0012	< 0.00084	<0.00254	0.11	<0.00090	0.00094	<0.00090	<0.0027	<0.063
06/13/13	< 0.00084	< 0.00084	< 0.00084	<0.00254	0.34	< 0.00084	< 0.00084	< 0.00084	<0.00254	<0.059
07/16/13	<0.00084	0.0014	<0.00084	<0.00254	0.39	<0.00087	0.0014	<0.00087	<0.00257	0.4
08/20/13	< 0.00094	0.0017	< 0.00094	<0.00284	0.60	< 0.00084	0.0032	< 0.00084	<0.00254	0.42
09/19/13	< 0.00084	< 0.00084	< 0.00084	<0.00254	0.66	< 0.00084	< 0.00084	< 0.00084	<0.00254	1.1
10/03/13	0.0011	< 0.00084	< 0.00084	<0.00254	0.49	< 0.00078	< 0.00078	< 0.00078	<0.00238	0.21
11/01/13	< 0.019	< 0.019	< 0.019	<0.058	2.1	< 0.019	< 0.019	< 0.019	<0.058	<1.4
12/20/13	< 0.00084	< 0.00084	< 0.00084	<0.00254	0.72	< 0.00084	< 0.00084	< 0.00084	<0.00254	0.67
01/07/14	< 0.00084	< 0.00084	< 0.00084	<0.00254	0.43	< 0.00084	< 0.00084	< 0.00084	<0.00254	0.48
02/14/14	< 0.00084	0.001	0.0013	<0.00254	1.3	< 0.0029	< 0.0029	< 0.0029	<0.0088	1.1
03/27/14	0.00	0.01	0.00	0.01	0.22	0.00	0.00	0.00	0.01	0.10

Notes: Benzene, Toluene, Ethylbenzene, and Total Xylenes analyzed by EPA method TO 14
TPHg Total petroleum hydrocarbons as gasoline analyzed by EPA method TO 14
ppmV Parts per million by volume
-- Not analyzed
<X Not detected above reporting limit X
J Estimated Value

TABLE 4

PHILLIPS 66 SYSTEM-MASS REMOVAL SUMMARY
PHILLIPS 66 RENTON TERMINAL
RENTON, WASHINGTON

	Soil Vapor Extraction System						*Groundwater Extraction System*										*Uncaptured Emissions*		
Date	*Hour Meter (hours)*	*Total Flowrate (scfm)*	*Total Influent TPHg Concentration (ppmV)*	*Total Influent Benzene Concentration (ppmV)*	*TPHg Removal Rate (lbs/day)*	*Benzene Removal Rate (lbs/day)*	*Hour Meter (hours)*	*Volume of Water Treated (gallons)*	*Total Influent TPH Concentration (µg/L)*	*Total Influent Benzene Concentration (µg/L)*	*TPH Removal Rate (lbs/day)*	*Benzene Removal Rate (lbs/day)*	*Total TPH Removal Rate (lbs/day)*	*Total Benzene Removal Rate (lbs/day)*	*Cumulative TPH Removed (lbs)*	*Cumulative Benzene Removed (lbs)*	*Effluent TPHg Concentration (ppmV)*	*Effluent Emissions Rate (lbs/day)*	*Cumulative Uncaptured Emissions (lbs)*
11/15/10	999.8	210	2.6	0.13	0.2	0.01	20,524.6	3,176,060	27,645	845	0.62	0.02	0.79	0.03	52,442.9	1,722.4	11.2	0.8	
12/21/10	1,419.7	210	31.14	5.62	2.1	0.3	20,941.0	3,222,505	45,000	4,000	2.55	0.23	4.65	0.57	52,456.7	1,722.8	11.7	0.8	13.7
01/10/11	1,678.4	210	18.00	5.7	1.2	0.3	21,196.2	3,294,629	43,947	3,620	2.49	0.21	3.70	0.55	52,506.4	1,728.9	3.5	0.2	16.3
02/16/11	2,064.0	210	18.9	14.3	1.3	0.9	21,577.0	3,402,308	44,580	2,330	1.74	0.09	3.02	0.97	52,565.4	1,737.8	< 5	0.0	16.3
03/08/11	2,339.9	210	<37.6	8.9	2.5	0.5	21,852.3	3,456,077	60,450	3,480	2.68	0.15	5.21	0.70	52,600.1	1,748.9	< 0.4	0.0	16.3
04/13/11	2,860.7	210	9.9	<0.041	0.7	0.003	22,370.8	3,570,740	59,800	6,300	1.62	0.17	2.28	0.17	52,712.9	1,764.0	1.1	0.1	17.9
05/17/11	3,409.9	210	287	7.9	19.3	0.5	22,918.6	3,644,673	79,300	5,910	2.08	0.15	21.41	0.64	52,765.1	1,767.9	0.26	0.018	18.3
06/07/11	3,726.8	210	14.0	0.40	0.9	0.02	23,235.4	3,686,105	68,100	6,870	1.03	0.10	1.98	0.13	53,047.8	1,776.4	0.12	0.008	18.4
07/06/11	4,001.1	210	14.8	0.32	1.0	0.02	23,510.2	3,706,920	60,200	9,510	0.42	0.07	1.41	0.09	53,070.4	1,777.8	< 0.099	0.0	18.4
08/17/11	4499.8	100	186	1.3	6.0	0.04	24,010.50	3,724,200	4,900	454	0.01	0.00	5.98	0.04	53,099.8	1,779.6	0.56	0.018	18.8
09/07/11	5006.5	100	18.8	<0.27	0.6	0.01	24,517.00	3,730,881	1,770	130	0.00	0.00	0.61	0.01	53,226.1	1,780.4	0.14	0.004	18.9
10/14/11	5892.8	100	58.1	0.65	1.9	0.02	25,404.00	3,739,668	843	102	0.01	0.00	1.87	0.02	53,248.5	1,780.7	0.94	0.030	20.0
11/29/11	6733.7	200	9.2	0.12	0.6	0.01	26244.1	3,765,595	12,900	1,440	0.25	0.03	0.84	0.03	53,314.0	1,781.4	0.21	0.013	20.5
12/09/11	6974.6	200	4.7	0.065	0.3	0.004	26485.0	3,788,820	12,350	1,250	0.22	0.02	0.52	0.03	53,322.4	1,781.8	0.19	0.012	20.6
01/10/12	7271.1	210	1.1	0.047	0.1	0.003	26778.2	3,815,090	26,990	3,150	0.63	0.07	0.70	0.08	53,328.8	1,782.1	0.28	0.019	20.8
02/09/12	7718.1	200	2.5	0.87	0.2	0.051	27,225.00	3,866,760	18,890	837	0.39	0.02	0.55	0.07	53,341.9	1,783.5	0.32	0.021	21.2
03/07/12	8285.0	200	9.7	0.90	0.6	0.052	27,791.70	3,925,008	15,690	1,690	0.30	0.03	0.92	0.08	53,354.8	1,785.1	0.26	0.017	21.6
04/05/12	8866.9	190	2.6	0.33	0.2	0.018	28,373.80	3,981,040	22,701	1,060	0.41	0.02	0.57	0.04	53,377.3	1,787.2	0.35	0.021	22.1
05/01/12	9476.8	200	0.95	0.02	0.1	0.001	28,983.80	4,035,820	22,200	1,300	0.28	0.02	0.35	0.02	53,391.7	1,788.1	0.53	0.034	23.0
06/01/12	10105.6	200	1.5	0.02	0.1	0.001	29,612.80	4,076,110	4,820	554	0.03	0.00	0.12	0.00	53,400.7	1,788.6	0.25	0.016	23.4
07/13/12	11016.9	200	8.4	0.02	0.5	0.001	30,524.40	4,100,410	5,390	752	0.04	0.01	0.58	0.01	53,405.4	1,788.8	0.93	0.060	25.7
08/09/12	11406.3	210	22.5	0.3	1.5	0.018	30913.00	4,114,617	2,170	118	0.01	0.00	1.53	0.02	53,414.8	1,788.9	0.33	0.022	26.0
09/11/12	11842.5	200	89.1	0.9	5.7	0.055	31349.10	4,126,110	710	87	0.00	0.00	5.72	0.05	53,442.5	1,789.2	0.71	0.046	26.8
10/24/12	12868.7	210	17.0	<0.1	1.15	0.0061	32325.50	4,138,601	6,020	459	0.02	0.00	1.17	0.01	53,687.0	1,791.6	0.087	0.006	27.1
11/30/12	13353.6	210	<1.2	0.2	0.1	0.013	32810.60	4,147,455	19,230	1,860	0.28	0.03	0.36	0.04	53,710.6	1,791.7	0.091	0.006	27.2
12/17/12	13706.1	200	0.5	0.0	0.03	0.001	33163.00	4,173,100	22,720	3,200	0.20	0.028	0.23	0.03	53,715.9	1,792.3	0.11	0.007	27.3
01/10/13	14229.2	200	<1.2	<0.017	0.1	0.001	33686.20	4,195,650	53,000	2,560	0.05	0.002	0.12	0.00	53,720.9	1,792.9	<0.059	0.004	27.4
02/14/13	14611.9	210	0.25	0.035	0.0	0.002	34067.40	4,197,282	20,700	2,550	0.09	0.010	0.10	0.01	53,722.8	1,793.0	<0.059	0.004	27.5
03/08/13	15035.2	210	5	0.7	0.3	0.043	34490.70	4,205,981	3,600	408	0.03	0.003	0.37	0.05	53,724.6	1,793.2	0.15	0.010	27.7
04/18/13	15767.0	210	<15.8	1.5	1.1	0.092	35210.50	4,235,264	21,900	2,340	0.24	0.025	1.30	0.12	53,735.8	1,794.6	0.52	0.035	28.7
05/16/13	15869.2	210	2.2	0.074	0.1	0.005	35356.20	4,243,186	14,900	1,930	0.62	0.080	0.77	0.08	53,741.8	1,795.1	<0.063	0.004	28.7
06/13/13	16274.1	210	8.6	0.079	0.6	0.005	35761.60	4,326,984	15,840	2,500	0.43	0.069	1.01	0.07	53,754.7	1,796.6	<0.059	0.004	28.8
07/16/13	16796.8	155	9.8	0.52	0.5	0.023	36018.90	4,362,195	8,730	828	0.15	0.014	0.64	0.04	53,772.0	1,797.4	0.4	0.020	29.2
08/20/13	17209.3	175	19.4	0.13	1.1	0.007	36426.20	4,397,385	8,240	731	0.08	0.007	1.17	0.01	53,782.9	1,798.1	0.42	0.024	29.6
09/19/13	17845.6	160	22	0.16	1.1	0.007	37062.70	4,429,763	2,370	396	0.11	0.019	1.24	0.03	53,814.0	1,798.4	1.1	0.056	31.1
10/03/13	17912.8	160	7.9	0.55	0.4	0.026	37129.50	4,445,527	1,610	182	0.06	0.007	0.46	0.03	53,817.5	1,798.5	0.21	0.011	31.2
11/01/13	18273.3	150	7.6	0.092	0.4	0.004	37488.30	4,511,374	4,740	678	0.10	0.014	0.46	0.02	53,824.5	1,799.0	<1.4	0.067	32.2
12/20/13	19097.4	170	3.4	0.038	0.2	0.002	38310.30	4,594,035	2,490	116	0.01	0.000	0.19	0.00	53,840.3	1,799.6	0.67	0.037	33.4
01/07/14	19452.1	180	4.6	0.061	0.3	0.003	38665.10	4,597,944	5,690	259	0.14	0.007	0.41	0.01	53,843.1	1,799.6	0.48	0.028	33.8
02/14/14	20086.9	150	2.3	0.032	0.1	0.001	39395.50	4,690,494	7,590	951	0.23	0.029	0.34	0.03	53,854.6	1,799.9	1.1	0.053	35.2
03/27/14	20839.4	160	49.7	3.7	2.6	0.172	40025.30	4,786,389	31,720	1,840	0.97	0.056	3.52	0.23	53,864.1	1,800.7	0.1	0.005	35.4

Notes:

Benzene, Toluene, Ethylbenzene, and Total Xylenes analyzed by EPA method TO 14

TPHg	Total petroleum hydrocarbons as gasoline
TPH	Total petroleum hydrocarbons as the sum of TPHg, TPHd, and TPHo
scfm	Standard cubic feet per minute
ppmV	Parts per million by volume
lbs/day	Pounds per day
µg/L	Micrograms per liter
--	Data not available
<X	Not detected above reporting limit X. Report limit used in mass removal calculations
J	Estimated Value

Table 5
ExxonMobil/BP System-Summary of Operational Parameters
Phillips 66 Renton Terminal
Renton, Washington

	Groundwater Extraction Data								*Air Stripper Operational Data*			
Date	*R1 Hour Meter (hours)*	*R2 Hour Meter (hours)*	*Total Hour Meter (hours)*	*Air Stripper Hour Meter (hours)*	*R1 Totalizer Reading (gallons)*	*R2 Totalizer Reading (gallons)*	*Effluent Totalizer Reading (cf)*	*Volume of Water Treated (gallons)*	*Air Stripper Velocity (fpm)*	*Air Stripper Pressure (in. H_2O)*	*Air Stripper Flow Rate (scfm)*	*Effluent PID (ppmV)*
12/17/10	6,631.9	4,297.2	--	--	--	--	5,847	43,739	--	--	--	--
12/20/10	6,631.9	4,335.2	--	--	--	--	6,907	51,668	--	--	--	--
12/21/10	6,632.0	4,346.1	--	--	--	--	7,187	53,762	--	7.0	--	6.2
12/29/10	6,631.9	4,497.0	--	--	--	--	9,968	74,566	--	6.0	--	3.6
12/30/10	6,634.0	4,516.4	--	--	--	--	10,387	77,700	--	7.0	--	--
01/05/11	6,634.1	4,516.4	--	--	--	--	10,404	77,827	--	7.0	--	--
01/06/11	6,635.7	4,517.8	--	--	--	--	10,551	78,927	--	7.0	--	5.4
01/10/11	6,692.0	4,566.0	--	--	23,389	17,778	16,048	120,047	--	7.0	--	0.0
01/18/11	6,765.2	4,653.3	--	--	--	--	24,142	180,595	--	7.0	--	3.0
01/19/11	6,775.5	4,659.2	--	--	54,514	49,763	25,003	187,035	--	7.0	--	--
01/25/11	6,819.0	4,692.2	--	--	74,622	64,610	29,785	222,807	--	7.0	--	3.2
01/27/11	6,834.0	4,699.6	--	--	81,550	67,818	31,148	233,003	--	7.0	--	3.2
02/01/11	6,865.8	4,718.1	--	35.5	96,672	76,558	34,406	257,375	--	7.0	--	--
02/03/11	6,878.7	4,723.4	--	49.2	102,680	79,028	35,646	266,651	--	7.0	--	--
02/11/11	6,883.9	4,726.7	--	--	--	--	36,178	270,630	--	--	--	--
02/14/11	6,884.2	4,727.0	--	129.1	105,259	80,727	36,209	270,862	362	7.0	289.2	0.8
02/16/11	6,884.9	4,727.4	--	173.8	105,590	80,988	36,289	271,461	620	7.0	495.3	1.7
02/23/11	6,970.2	4,795.2	--	238.2	131,073	97,377	42,210	315,753	700	7.0	559.2	--
03/01/11	6,971.3	4,796.1	--	238.9	131,394	97,675	42,289	316,344	613	7.0	489.7	5
03/08/11	7,055.7	4,858.3	--	305.3	155,972	117,100	48,442	362,371	550	7.0	439.4	2
03/14/11	7,113.4	4,922.9	--	369.3	173,207	136,693	53,381	399,318	695	7.0	555.2	1
03/22/11	7,193.3	5,022.3	--	447.3	196,781	152,490	58,823	440,027	641	7.0	512.1	3
03/23/11	7,212.1	5,064.8	--	463.8	196,781	152,490	59,908	448,143	--	7.0	--	--
03/24/11	7,220.4	5,074.9	69.3	--	204,682	157,602	60,595	453,282	--	--	--	--
03/29/11	7,254.4	5,101.7	162.0	510.8	214,610	165,934	63,166	472,514	526	7.0	420.2	3
04/05/11	7,324.7	5,182.8	334.9	599.9	234,628	189,161	69,024	516,335	437	7.0	349.1	0.3
04/13/11	7,356.2	5,216.4	409.2	757.5	244,318	197,959	71,500	534,857	437	7	349.1	1.3
04/15/11	7,356.3	5,216.5	409.5	757.7	--	--	--	--	--	--	--	2.3
04/19/11	7,359.9	5,217.5	415.1	856.2	245,426	198,248	71,679	536,196	400	7	319.6	2.1
04/26/11	7,443.4	5,217.5	583.6	911.8	271,569	198,248	75,165	562,273	430	7	343.5	2.7

Table 5
ExxonMobil/BP System-Summary of Operational Parameters
Phillips 66 Renton Terminal
Renton, Washington

	Groundwater Extraction Data								*Air Stripper Operational Data*			
Date	*R1 Hour Meter*	*R2 Hour Meter*	*Total Hour Meter*	*Air Stripper Hour Meter*	*R1 Totalizer Reading*	*R2 Totalizer Reading*	*Effluent Totalizer Reading*	*Volume of Water Treated*	*Air Stripper Velocity*	*Air Stripper Pressure*	*Air Stripper Flow Rate*	*Effluent PID*
05/03/11	7,487.3	5,219.0	708.9	944.1	285,392	199,004	77,210	577,571	342	7	273.2	5.4
05/13/11	7,546.1	5,169.5	947.7	985.5	20,863	221,163	83,756	626,538	--	--	--	--
05/16/11	7,562.7	5,302.2	1,019.4	1,004.6	28,276	235,588	86,668	648,322	470	7	375.5	8
05/17/11	7,567.6	5,305.3	1,040.8	1,007.8	30,462	236,932	87,125	651,740	350	7	279.6	15
05/24/11	7,586.6	5,314.1	1,124.5	1,108.1	38,872	240,924	88,832	664,510	500	7	399.5	5
06/02/11	7,640.9	5,347.6	1,246.8	1,222.4	54,849	251,261	92,437	691,477	66.9	7	53.4	--
06/07/11	7,691.1	5,372.2	1,368.6	1,244.3	69,034	258,511	95,438	713,926	430	7	343.5	6
06/14/11	7,751.0	5,407.6	1,493.0	1,262.8	81,812	263,491	98,017	733,218	430	7	343.5	4.1
06/22/11	7,753.7	5,409.2	1,499.2	1,263.5	82,361	263,645	98,104	733,869	--	7	--	--
06/28/11	7,817.9	5,442.3	1,607.4	1,283.0	95,781	269,517	100,763	753,760	340	7	271.6	0
07/06/11	7,849.4	5,442.5	1,668.5	1,289.9	102,293	269,544	101,699	760,761	420	8	336.4	2.2
07/12/11	7,870.7	5,442.5	1,698.1	1,411.1	106,745	269,544	102,349	765,624	612	6	487.8	--
07/14/11	7,900.1	5,444.0	1,743.8	1,417.5	112,782	269,992	103,240	772,289	--	8	--	--
07/19/11	7,933.1	5,459.4	1,860.7	1,431.7	122,656	274,092	105,179	786,794	488	8	390.8	5.5
07/26/11	7,964.4	5,466.4	2,027.7	1,446.8	134,993	276,019	107,161	801,620	--	7	--	--
08/03/11	8,035.6	5,471.7	2,215.8	1,461.0	147,652	277,422	109,136	816,394	643	2	507.5	1.4
08/11/11	8,075.4	5,475.5	2,412.7	1,473.0	159,224	278,440	110,865	829,328	--	2	--	--
08/17/11	8,087.8	5,476.4	2,458.8	1,476.5	163,038	278,677	111,385	833,218	--	1.5	--	2.2
08/24/11	8,119.9	5,479.0	2,626.3	1,486.0	172,309	279,611	112,822	843,967	--	1.0	--	0.3
08/30/11	8,145.1	5,480.4	2,772.1	1,492.9	179,751	279,769	113,904	852,061	2.68	1	2.1	0.4
09/07/11	8,175.8	5,480.4	2,966.6	1,501.0	188,612	279,783	115,244	862,085	570	1	448.8	1.4
09/15/11	8,203.0	5,480.5	3,155.3	1,508.2	196,485	279,789	116,471	871,264	2.71	2	2.1	0.0
09/21/11	8,203.4	5,493.0	3,297.5	1,511.2	196,549	283,013	117,067	875,722	664	2	524.1	0.0
09/28/11	8,233.3	5,509.9	3,467.1	1,522.7	204,931	286,691	118,849	889,052	2.58	1	2.0	0.0
10/03/11	8,251.1	5,517.4	3,588.5	1,528.8	209,947	288,254	119,837	896,443	675	2	532.7	0.7
10/14/11	8,291.6	5,567.6	3,851.5	1,551.9	221,269	10,441	123,359	922,789	600	2	473.6	4.5
10/17/11	8,303.6	5,569.5	3,924.6	1,555.6	224,688	10,862	123,937	927,113	--	2	--	0.0
10/25/11	8,336.1	5,596.1	4,116.9	1,570.7	233,896	17,416	126,269	944,558	540	2	426.2	--
11/02/11	8,338.1	5,596.5	4,128.1	1,571.3	23,446	17,524	126,523	946,458	500	2	394.6	--
11/08/11	8,374.1	5,620.2	4,271.0	1,586.4	244,724	23,206	128,798	963,476	550	2	434.1	2.9
11/16/11	8,415.0	5,640.4	4,462.6	1,603.4	265,429	28,488	131,284	982,073	560	2.5	442.5	2.3
11/23/11	8,441.4	5,699.9	4,609.0	1,626.7	266,244	41,195	134,483	1,006,003	630	2	497.2	1.3
11/29/11	8,495.1	5,711.8	4,775.1	1,659.2	279,244	58,257	138,756	1,037,967	540	2	426.2	1.8

Table 5
ExxonMobil/BP System-Summary of Operational Parameters
Phillips 66 Renton Terminal
Renton, Washington

	Groundwater Extraction Data								*Air Stripper Operational Data*			
Date	*R1 Hour Meter*	*R2 Hour Meter*	*Total Hour Meter*	*Air Stripper Hour Meter*	*R1 Totalizer Reading*	*R2 Totalizer Reading*	*Effluent Totalizer Reading*	*Volume of Water Treated*	*Air Stripper Velocity*	*Air Stripper Pressure*	*Air Stripper Flow Rate*	*Effluent PID*
12/09/11	8,532.4	5,787.0	4,898.4	1,793.7	289,930	61,608	--	1,045,990	664	2	524.1	0.5
12/13/11	--	--	--	1,886.2	--	--	140,901	1,054,013	--	--	--	--
12/14/11	8,533.5	5,878.8	4,899.7	1,909.6	290,266	62,682	141,007	1,054,806	955	2	753.7	1.3
12/21/11	8,597.7	5,901.2	5,066.1	1,911.8	17,735	66,055	144,083	1,077,816	813	2	641.7	0.0
12/29/11	8,598.6	5,901.5	5,068.6	1,915.4	18,031	66,160	144,256	1,079,110	--	--	--	--
01/04/12	8,604.5	5,907.4	5,074.5	2,015.4	19,809	67,680	144,808	1,083,239	808	2	637.7	0.8
01/10/12	8,630.4	5,945.1	5,113.3	2,060.1	27,786	77,963	147,414	1,102,733	627	2	494.9	0.1
01/17/12	8,637.0	5,960.5	5,152.5	2,171.1	29,872	81,955	148,323	1,109,533	647	2	510.7	0.7
01/24/12	8,637.0	5,966.0	5,157.3	2,172.6	29,876	83,436	148,626	1,111,800	670	2	528.8	1.2
01/31/12	8,637.0	6,097.9	5,321.5	2,336.1	29,876	116,974	153,114	1,145,372	459	3	363.2	0.2
02/09/12	8,660.2	6,193.4	5,539.5	2,363.8	37,246	136,440	156,727	1,172,399	690	2	544.6	1.7
02/16/12	8,746.5	6,250.7	5,705.8	2,408.5	64,850	151,008	162,364	1,214,567	--	--	--	--
02/21/12	8,799.1	6,304.9	5,828.9	2,446.4	81,652	167,569	166,691	1,246,935	560	2	442.0	1.2
03/02/12	8,894.5	6,374.0	6,066.2	2,508.3	111,763	186,746	172,710	1,291,961	894	1	703.9	0.0
03/07/12	8,937.5	6,495.2	6,187.9	2,535.4	125,523	193,002	175,430	1,312,308	600	2	473.6	0.8
03/15/12	8,998.0	6,621.6	6,360.2	2,583.5	144,033	211,767	180,159	1,347,683	657	2	518.5	0.0
03/20/12	9,018.1	6,643.6	6,382.3	2,693.1	150,304	214,881	181,383	1,356,839	580	2	457.8	0.0
03/27/12	9,097.0	6,722.4	6,551.0	2,751.0	174,680	235,691	186,672	1,396,404	591	2	466.5	0.0
04/05/12	9,185.1	6,842.1	6,767.6	2,820.6	201,599	259,885	192,771	1,442,027	989	2	780.6	0.2
04/12/12	9,216.0	6,869.4	6,849.3	2,838.9	211,013	263,769	194,707	1,456,510	518	2	408.8	1.2
04/20/12	9,299.7	6,927.9	7,038.5	3,031.6	236,119	282,423	200,460	1,499,545	747	2	589.6	0.7
04/26/12	9,352.7	6,970.9	7,186.3	3,063.6	251,147	7,083	204,370	1,528,794	550	2	434.1	1.2
05/01/12	9,392.2	6,993.5	7,303.2	3,085.4	262,267	15,135	206,921	1,547,877	560	2	442.0	1.8
05/11/12	9,471.1	7,035.4	7,541.0	3,129.9	284,330	29,414	211,240	1,580,185	796	2	628.2	0.0
05/17/12	9,516.7	7,048.6	7,686.9	3,150.8	6,493	33,785	213,537	1,597,368	769	2	606.9	0.9
05/24/12	9,531.9	7,052.9	7,738.4	3,273.7	10,700	35,113	214,361	1,603,532	600	2	473.6	1.2
06/08/12	9,596.0	7,093.0	7,931.4	3,305.0	28,629	47,340	214,773	1,606,614	894	2	705.6	1.7
06/18/12	9,597.0	7,094.1	7,932.5	3,541.3	28,881	47,690	214,960	1,608,012	550	2	434.1	--
06/29/12	9,699.5	7,158.5	8,197.9	3,593.6	58,299	67,604	221,798	1,659,164	705	2	556.4	0.0
07/03/12	9,727.3	7,170.3	8,291.6	3,667.2	66,474	71,381	223,473	1,671,694	687	2	542.2	0.0
07/13/12	9,793.1	7,183.1	8,532.8	3,694.0	85,806	75,467	226,837	1,696,859	874	2	689.8	0.0
07/18/12	9,824.0	7,303.4	8,653.3	3,705.3	94,741	75,524	228,373	1,708,230	880	2	694.5	0.0
07/24/12	9,834.6	7,305.5	8,679.2	3,709.3	97,815	76,078	228,418	1,708,567	967	2	763.2	--

Table 5
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Phillips 66 Renton Terminal
Renton, Washington

	Groundwater Extraction Data								*Air Stripper Operational Data*			
Date	*R1 Hour Meter*	*R2 Hour Meter*	*Total Hour Meter*	*Air Stripper Hour Meter*	*R1 Totalizer Reading*	*R2 Totalizer Reading*	*Effluent Totalizer Reading*	*Volume of Water Treated*	*Air Stripper Velocity*	*Air Stripper Pressure*	*Air Stripper Flow Rate*	*Effluent PID*
08/01/12	9,888.2	7,322.2	8,889.6	3,729.8	113,325	80,766	231,346	1,730,468	530	2	418.3	1.2
08/09/12	9,888.2	7,322.2	8,889.6	3,729.8	113,325	80,766	231,346	1,730,468	--	--	--	--
08/31/12	9,940.6	7,327.4	9,293.1	3,753.6	--	82,145	235,039	1,758,092	694	2	547.7	0.0
09/05/12	9,965.6	7,328.9	9,417.2	3,761.3	135,760	82,506	236,194	1,766,731	717	2	565.9	0.0
09/11/12	9,991.2	7,330.0	9,560.3	3,769.1	143,269	82,776	237,384	1,775,632	1042	2	822.4	0.2
09/25/12	10,041.9	7,330.4	9,895.6	3,784.4	158,051	82,888	239,742	1,793,270	622	2	490.9	0.0
10/05/12	10,005.2	7,330.4	9,971.0	3,787.2	151,101	82,890	240,290	1,797,369	784	2	618.8	0.0
10/12/12	10,061.6	7,330.4	10,017.9	3,909.3	163,846	82,894	240,867	1,801,685	944	2	745.1	19.8
10/19/12	10,076.4	7,371.8	10,110.6	3,919.1	168,169	88,780	242,320	1,812,554	550	2	434.1	3.3
10/24/12	10,096.8	7,373.0	10,232.0	3,925.5	174,126	89,038	243,285	1,819,772	580	2	457.8	3.4
11/2/12	10,135.6	7,373.0	10,445.0	3,937.8	186,174	89,058	244,471	1,828,643	575	2	453.8	1.5
11/8/12	10,149.9	7,412.5	10,501.7	3,973.6	190,730	98,736	246,946	1,847,156	826	2	651.9	0.8
11/16/12	10,198.1	7,412.4	10,652.5	4,032.6	205,855	98,768	249,122	1,863,433	878	2	693.0	0.6
11/30/12	10,199.0	7,412.4	10,653.5	4,033.0	206,159	98,787	249,376	1,865,332	600	2	473.6	1.8
12/4/12	10,270.1	7,412.5	10,748.3	4,056.4	228,989	98,799	252,510	1,888,775	964	2	760.8	--
12/10/12	10,270.6	7,412.9	10,749.0	4,056.6	229,074	98,878	252,643	1,889,770	729	2	575.4	--
12/17/12	10,386.2	7,579.9	10,919.5	4,121.9	265,921	123,537	260,627	1,949,490	783	2	618.0	0.0
12/28/12	10,388.1	7,582.3	10,921.9	4,122.9	266,422	123,992	260,865	1,951,270	615	2	485.4	0.8
1/4/13	10,513.1	7,687.6	11,088.4	4,171.1	2,865	141,740	266,508	1,993,480	550	2	434.1	1.1
1/10/13	10,638.5	7,810.2	11,233.3	4,218.5	28,493	160,776	272,294	2,036,759	865	2	682.7	0.2
1/25/13	10,639.4	7,811.3	11,235.0	4,219.0	28,702	--	272,522	2,038,465	650	2	513.0	1.2
1/31/13	10,639.7	7,811.6	11,377.9	4,219.1	28,721	160,989	272,541	2,038,607	550	2	434.1	--
2/8/13	10,808.3	7,928.7	11,569.3	4,273.5	63,335	184,755	280,135	2,095,410	733	2	578.5	1.7
2/14/13	10,898.7	7,963.8	11,712.5	4,298.8	81,610	191,547	283,410	2,119,907	600	2	473.6	1.6
2/19/13	10,967.0	7,989.2	11,831.9	4,318.1	94,704	196,083	285,856	2,138,203	585	2	461.7	0.3
2/25/13	11,041.5	8,037.5	11,978.0	4,342.7	108,695	204,307	288,302	2,156,499	580	3	458.9	1.4
3/1/13	11,085.2	8,090.1	12,070.7	--	117,037	208,877	290,549	2,173,307	--	3	--	--
3/6/13	11,144.0	8,187.9	12,190.8	4,380.7	12,954	216,868	292,846	2,190,488	600	3	474.7	2.7
3/8/13	11,167.4	8,234.7	12,239.7	4,389.4	132,316	219,220	293,746	2,197,220	660	3	522.2	0.9
3/11/13	11,203.2	8,253.0	12,310.3	4,404.2	138,410	225,140	295,097	2,207,326	550	3	435.2	1.8
3/27/13	11,342.3	8,328.9	12,607.0	4,468.8	163,975	247,408	300,955	2,251,143	521	3	412.2	3.0
4/3/13	11,441.0	8,353.0	12,778.0	4,501.0	181,465	253,598	304,054	2,274,324	550	3	435.2	--
4/10/13	11,525.8	8,448.5	12,943.9	4,547.6	196,546	276,232	308,417	2,306,959	567	3	448.6	3.4

Table 5
ExxonMobil/BP System-Summary of Operational Parameters
Phillips 66 Renton Terminal
Renton, Washington

	Groundwater Extraction Data								*Air Stripper Operational Data*			
Date	*R1 Hour Meter*	*R2 Hour Meter*	*Total Hour Meter*	*Air Stripper Hour Meter*	*R1 Totalizer Reading*	*R2 Totalizer Reading*	*Effluent Totalizer Reading*	*Volume of Water Treated*	*Air Stripper Velocity*	*Air Stripper Pressure*	*Air Stripper Flow Rate*	*Effluent PID*
4/18/13	11,648.2	8,528.5	13,138.8	4,596.2	218,990	1,119	313,150	2,342,362	580	3	458.9	3.0
5/9/13	11,849	8,630	13,412	4678.7	255,904	19,812	320,777	2,399,412	530	3	416.3	8.4
5/16/13	11,888	8,640	13,481	4791.6	263,982	22,022	322,238	2,410,340	650	3	510.5	1.6
5/21/13	11,948	8,671	13,598.3	4810.4	275,855	27,678	324,826	2,429,698	590	3	463.4	1.5
5/30/13	12,044	8,776	13,816.5	4850.6	4,181	45,098	329,917	2,467,779	--	3	--	1.6
6/4/13	12,093	8,791	13,933.9	4968.0	13,907	47,673	331,728	2,481,325	--	3	--	5.9
6/13/13	12,176	8,811	14,151.5	4990.0	30,558	51,206	334,672	2,503,347	--	3	--	2.9
6/21/13	12,241	8,826	14,340.8	5007.0	44,773	53,501	336,991	2,520,693	--	3	--	1.3
6/28/13	12,265	8,831	14,411.3	5111.3	49,755	54,369	337,765	2,526,482	--	3	--	--
7/2/13	12,309	8,865	14,508.5	5124.9	58,355	58,953	339,604	2,540,238	--	3	--	--
7/10/13	12,377	8,891	14,706.0	5141.6	71,882	61,260	341,886	2,557,307	--	3	450.0	--
7/16/13	12,421	8,904	14,847.8	5152.0	80,757	62,303	343,308	2,567,944	--	3	350.0	--
7/23/13	12,471	8,918	15,016.8	5163.2	90,569	63,201	344,930	2,580,076	--	3	400.0	1.9
7/30/13	12,515	8,931	15,180.3	5173.0	99,360	63,662	346,367	2,590,825	--	3	459	2.5
8/8/13	12,569	8,932	15,395.8	5184.7	110,207	64,062	348,093	2,603,736	--	3	382	6.4
8/12/13	12,579	8,932	15,440.6	5240.6	112,330	64,109	348,483	2,606,653	--	3	391	2.3
8/20/13	12,614	8,932	15,632.3	5251.1	121,330	64,159	350,068	2,618,509	--	3	402	9.9
8/26/13	12,635	8,932	15,775.5	5257.4	127,129	64,159	351,078	2,626,063	--	3	487	15.5
9/5/13	12,644	8,934	15,841.7	5438.0	129,747	65,489	351,884	2,632,092	--	3	383	14.2
9/9/13	12,649	8,937	15,854.2	5521.2	131,185	67,476	352,464	2,636,431	--	--	--	--
9/19/13	12,719	8,945	16,098.7	5542.7	146,421	72,720	355,656	2,660,307	--	4	401	4.4
9/26/13	12,755	8,954	16,236.0	5585.8	155,680	78,706	357,815	2,676,456	--	4	404	404
10/3/13	12,794	9,005	16,331.0	5677.9	165,304	87,370	360,351	2,695,425	--	4	--	0.0
10/11/13	12,800	9,019	16,345.1	5858.8	166,680	89,541	361,061	2,700,736	--	4	422	0.3
10/17/13	12,864	9,070	16,427.4	5942.9	180,933	96,710	364,146	2,723,812	--	4	394	1.6
10/24/13	12,887	9,078	16,474.2	6072.1	188,230	98,255	365,266	2,732,190	--	4	394	1.2
11/01/13	12,984	9,109	16,644.0	6129.6	208,611	103,550	369,232	2,761,855	--	4	--	0.8
11/7/2013	13,000	9,122	16,667.5	6255.7	212,369	105,442	370,091	2,768,281	--	4	391	0.8
11/15/2013	13,096	9,190	16,734.9	6397.5	223,120	113,624	372,877	2,789,120	--	4	395	1.0

Table 5
ExxonMobil/BP System-Summary of Operational Parameters
Phillips 66 Renton Terminal
Renton, Washington

	Groundwater Extraction Data								*Air Stripper Operational Data*			
Date	*R1 Hour Meter*	*R2 Hour Meter*	*Total Hour Meter*	*Air Stripper Hour Meter*	*R1 Totalizer Reading*	*R2 Totalizer Reading*	*Effluent Totalizer Reading*	*Volume of Water Treated*	*Air Stripper Velocity*	*Air Stripper Pressure*	*Air Stripper Flow Rate*	*Effluent PID*
11/22/2013	13,113	9,252	16,838.8	6494.7	238,687	125,520	376,827	2,818,666	--	3	--	1.4
11/27/2013	13,165	9,271	16,955.5	6513.8	251,048	129,242	379,294	2,837,119	--	3	--	1.1
12/2/2013	13,172	9,273	16,972.8	6621.9	252,533	129,633	379,690	2,840,081	--	--	--	--
12/16/2013	13,172	9,273	16,972.8	6621.9	252,533	129,633	379,690	2,840,081	--	--	--	--
12/20/2013	13,227	9,292	17,404.1	6638.8	265,790	134,115	382,327	2,859,806	--	4	380	2.3
12/23/2013	13,228	9,293	17,405.7	6639.0	266,002	134,275	382,404	2,860,382	--	5	55	0.0
1/3/2014	13,229	9,294	17,407.1	6639.8	266,267	134,536	382,670	2,862,372	--	4	380	1.5
1/7/2014	13,254	9,317	17,436.9	6719.8	272,727	140,736	384,367	2,875,065	--	3	345	3.0
1/17/2014	13,358	9,416	17,634.9	6816.9	7,765	164,248	390,943	2,924,254	--	5	310	0.7
1/20/2014	13,368	9,425	17,644.1	6881.4	10,071	164,672	391,331	2,927,156	--	3	303	2.0
1/31/2014	13,465	9,563	17,846.2	6976.6	34,022	170,854	395,347	2,957,196	--	5	380	--
2/14/2014	13,541	9,647	17,970.0	7021.3	52,725	190,069	398,099	2,977,781	--	5	316	0.0
2/18/2014	13,582	9,706	18,044.6	7049.5	62,729	203,041	401,151	3,000,609	--	5	380	0.0
2/26/2014	13,681	9,843	18,211.0	7139.1	86,448	223,290	407,032	3,044,599	--	5	283	0.0
2/28/2014	13,715	9,873	18,254.2	7156.6	94,691	227,864	408,667	3,056,829	--	5	380	0.0
3/3/2014	13,759	9,913	18,329	7183.0	105,174	236,241	410,697	3,072,014	--	5	281	0.0
3/11/2014	13,878	10,098	18,517	7274.6	133,892	270,781	418,004	3,126,670	--	5	325	0.0
3/21/2014	14,016	10,275	18,707	7417.7	166,008	287,365	424,447	3,174,864	--	5	390	1.2
3/24/2014	14,065	10,305	18,759	7471.0	177,007	3,996	426,506	3,190,265	--	--	--	--

Notes:

scfm Standard cubic feet per minute

^{o}F Degrees Fahrenheit

ppmV Parts per million volume

-- Not collected

TABLE 6

EXXONMOBIL/BP SYSTEM-DISSOLVED PHASE ANALYTICAL DATA
PHILLIPS 66 RENTON TERMINAL
RENTON, WASHINGTON

	R1 Influent							*R2 Influent*						
Date	*Benzene (µg/L)*	*Toluene (µg/L)*	*Ethyl-benzene (µg/L)*	*Total Xylenes (µg/L)*	*TPHg (µg/L)*	*TPHd (µg/L)*	*TPHo (µg/L)*	*Benzene (µg/L)*	*Toluene (µg/L)*	*Ethyl-benzene (µg/L)*	*Total Xylenes (µg/L)*	*TPHg (µg/L)*	*TPHd (µg/L)*	*TPHo (µg/L)*
12/21/10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
01/10/11	1,750	37.2	547	138	4,750	871	<408	738	12.4	458	205	5,670	728	<388
02/16/11	548	25.9	381	98.3	4,830	563	<379	30	<1.0	58.9	25.5	1,430	281	<379
03/08/11	1,400	69.5	556	160	7,200	690	<377	500	4.8	247	145	4,820	331	<377
4/19/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5/17/2011	1,940	191	811	214	7,620	940	<380	754	9.5	706	251	7,810	850	<380
6/14/2011	1,670	230	671	158	8,040	840	<380	1,080	9.8	752	167	9,450	730	<380
7/6/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8/17/2011	1,920	36.2	465	66.8	6,110	1,600	<400	1,570	9	682	46	8,310	930	<400
9/7/2011	2,300	30.6	574	47	6,520	770	<380	976	6.5	517	15	5,830	600	<380
10/14/2011	2,090	26.1	409	37.1	4,940	770	<390	221	2.3	272	6.7	3,520	400	<380
11/22/2011	1,610	22.6	341	34.0	4,890	0.5	<0.39	45.7	1.1	35.9	4.4	565	<0.075	<0.38
12/9/2011	1,220	19.9	338	26.6	4,180	0.41	<0.38	301	2.3	514	4.5	5,760	0.36	<0.38
1/10/2012	2,070	28.2	750	41.5	4,090	480	<400	37.2	<1.0	55.3	4.0	629	78	<390
2/9/2012	2,050	34.4	854	72.6	6,150	430	<380	342	2.6	263	42.3	4,510	390	<380
3/7/2012	1,520	31.7	647	118	5,790	860	<380	--	--	--	--	--	--	--
4/5/2012	1,930	49.7	784	184	7,560	1,100	<380	631	3.9	408	52.7	5,320	630	<380
5/1/2012	1,880	56.6	714	132	6,270	940	<380	720	6	508	77	6,230	830	<380
6/1/2012	1,960	67.2	901	121	4,970	740	<380	17	<1.0	10	<3.0	215	--	--
7/13/2012	1,670	36.8	704	73	6,110	660	<390	882	6	712	22	8,290	840	<380
08/09/12	1,730	32.3	507	62.4	4,570	590	<390	745	5	632	15	6,010	590	<380
09/11/12	2,220	25.7	566	35.7	4,580	830	<380	977	5	501	6	5,590	690	<380
10/24/12	1,570	18.8	361	27.3	5,320	860	<820	420	4.2	87.7	4.9	1,380	<160	<820
11/30/12	855	20.0	406	<30.0	7,710	1800	410	11.7	<1.0	11.3	<3.0	660	210	<110
12/28/12	1,670	24.1	668	83.7	10,900	1700	420	9.2	<1.0	9.6	<3.0	315	<110	130
01/10/13	2,180	35.3	717	112	8,240	2600	<110	11.4	<1.0	8.5	<3.0	182	<100	<100
02/14/13	1,280	34.2	263	39.3	4,080	1,000	<410	660	<5.0	431	54.5	4,910	1,300	<420
03/08/13	2,110	94.0	656	81.4	4,860	1,700	<420	1.7	<1.0	<1.0	<3.0	<100	<410	<410
04/18/13	1,890	1,160	665	2,250	5,980	1,800	<420	858	3.8	483	18.4	4,950	1,300	<410
05/16/13	2,010	41.4	546	88.2	3,970	870	<390	924	<5.0	492	22.1	4,740	750	<420
06/13/13	1,940	36.4	542	76.2	4,550	850	<400	1,070	6	627	<15.0	6,100	1,100	<420
07/16/13	2190	24.6	482	51.2	4520	1200	<410	1050	<5.0	458	<15.0	5430	990	<400
08/20/13	2,300	23.1	415	34.4	4,310	1,100	<420	<5.0 a	<5.0 a	<5.0 a	<15.0 a	<100 a	590 a	<420 a
09/19/13	2210	21	384	<60	4030	960	<400	523	3.1	336	<3.0	3,220	580	<400
10/03/13	1,520	14.6	354	<30.0	3,810	960	<420	5.9	<1.0	1.7	<3.0	<100	<420	<420
11/01/13	2190	16.4	422	<30.0	3,230	1,100	<420	675	3.6	382	3.5	3,570	840	<400
12/20/13	1270	<20	362	<60	4,120	1,000	<400	663	<5.0	357	<15.0	3,880	950	<400
01/07/14	1800	17.7	523	<30	4,060	1,100	<400	129	<1.0	71.7	<3.0	878	<400	<400
2/18/2014	1820	20.4	486	35.2	5,250	1,000	<400	28.6	<1.0	25.1	<3.0	435	<410	430

	Total Influent							*Total Effluent*								
Date	*Benzene (µg/L)*	*Toluene (µg/L)*	*Ethyl-benzene (µg/L)*	*Total Xylenes (µg/L)*	*TPHg (µg/L)*	*TPHd (µg/L)*	*TPHo (µg/L)*	*Benzene (µg/L)*	*Toluene (µg/L)*	*Ethyl-benzene (µg/L)*	*Total Xylenes (µg/L)*	*TPHg (µg/L)*	*TPHd (µg/L)*	*TPHo (µg/L)*	*FOG (µg/L)*	*pH (S.U.)*
12/21/10	600	7.8	300	157	4,300	550	54 J	1.0 J	0.33 J	0.75 J	0.92 J	63	160	41 J	--	8.12
01/10/11	1,380	26.5	475	186	5,340	832	<377	5.2	<1.0	2.1	<3.0	<50.0	118	<381	--	7.6
02/16/11	446	11.9	99.5	58.2	2,280	436	<379	2.4	<1.0	<1.0	<3.0	53.8	159	<379	--	7.6
03/08/11	958	39.9	383	146	5,750	472	<377	3.2	<1.0	1.7	<3.0	62.1	<75.8	<379	--	7.9
4/19/2011	916	31.4	272	83.8	3,990	670	<380	5.1	<1.0	1.4	<3.0	134	290	<380	<4700	--
5/17/2011	1,370	116	662	189	6,870	840	<380	26.2	2.3	10.9	5	263	160	<380	--	--
6/14/2011	1,540	177	640	155	7,880	800	<380	25.2	2.9	9.5	4.1	252	120	<380	--	7.6
7/6/2011	1,080	66.4	118	61.2	3,060	560	<380	21.8	<1.0	1.3	<3.0	163	80	<380	<4800	--
8/17/2011	1,830	26.8	141	51.7	4,730	480	<380	5.4	<1.0	<1.0	<3.0	<50.0	<76	<380	--	--
9/7/2011	1,560	13.4	6.4	35	3,380	510	<380	<1.0	<1.0	<1.0	<3.0	<50.0	<76	<380	--	8.4
10/14/2011	1,340	16.3	218	23.8	3,720	640	<380	3.5	<1.0	<1.0	<3.0	<50.0	100	<380	--	--
11/22/2011	537	7.4	109	<15.0	1,670	190	<380	1.6	<1.0	<1.0	<3.0	<50.0	<75	<380	--	--
12/9/2011	132	1.8	435	5.7	4,290	190	<380	<1.0	<1.0	<1.0	<3.0	<50.0	<76	<380	--	--
1/10/2012	968	20.2	374	33.0	3,270	260	<390	6.9	<1.0	3.3	<3.0	<50.0	<77	<380	<5000	7.7
2/9/2012	1,900	25.5	754	67.7	7,000	540	<380	16.8	<1.0	7.1	<3.0	75.7	120	<380	--	--
3/7/2012	1,520	31.7	647	118	5,790	860	<380	2.7	<1.0	1.4	<3.0	<50.0	<76	<380	--	--
4/5/2012	1,270	28	500	113	5,630	660	<380	1.3	<1.0	<1.0	<3.0	<50.0	<76	<380	--	--
5/1/2012	1,660	40.8	682	108	5,980	1,200	<380	<1.0	<1.0	<1.0	<3.0	<50.0	<76	<380	--	--
6/1/2012	960	37.7	421	69.1	2,780	420	<380	<1.0	<1.0	<1.0	<3.0	<50.0	<76	<380	--	--
7/13/2012	1,860	32.5	547	67.1	6,410	780	<380	1.1	<1.0	<1.0	<3.0	<50.0	<76	<380	--	--
08/09/12	1,170	13.3	154	11.5	2,760	360	<400	<1.0	<1.0	<1.0	<3.0	<50.0	<76	<380	--	--
09/11/12	1,750	15.8	123	26	3,920	590	<380	<1.0	<1.0	<1.0	<3.0	<50.0	<76	<380	--	--
10/24/12	1310	14.7	254	22.8	4,380	690	<820	<1.0	<1.0	<1.0	<3.0	<50.0	<160	<820	<5200	7.60
11/30/12	789	11.4	174	<30.0	5,510	1000	120	1.3	<1.0	<1.0	<3.0	<100	180	<110	--	--
12/28/12	909	14.0	315	47.0	4,970	<110	360	<1.0	<1.0	<1.0	<3.0	<100	960	310	--	--
01/10/13	1,200	19.8	392	63.7	4,880	1300	<110	<1.0	<1.0	<1.0	<3.0	<100	<100	<100	--	--
02/14/13	1,660	45.9	508	80.4	4,790	1,800	<410	2.0	<1.0	<1.0	<3.0	<100	<410	<410	<5100	7.40
03/08/13	1,360	58.0	400	51.8	2,940	940	<430	<1.0	<1.0	<1.0	<3.0	<100	<400	<400	--	--
04/18/13	804	1670	270	1,060	18,100	4,900	<400	<1.0	<1.0	<1.0	<3.0	<100	<400	<400	--	--
05/16/13	1,580	148	232	1,500	11,900	1,500	<420	1.4	<1.0	<1.0	3.4	<100	<420	<420	--	--
06/13/13	1,580	26.1	129	112	4,160	1,100	<390	<1.0	<1.0	<1.0	<3.0	<100	<390	<390	<6300	7.3
07/16/13	1790	10	39.6	38.4	2840	1100	410	<1.0	<1.0	<1.0	<3.0	<100	<400	<400	--	--
08/20/13	1,790	<10	<10	<30	3,170	730	<410	<1.0	<1.0	<1.0	<3.0	<100	<400	<400	--	--
09/19/13	1,560	<10	28.8	<30	2,210	750	460	<1.0	<1.0	<1.0	<3.0	<100	<400	<400	--	--
10/03/13	535	5.5	113	<15.0	1,430	440	<400	<1.0	<1.0	<1.0	<3.0	<100	<400	<400	--	--
11/01/13	1500	12.7	330	19.1	2,940	820	<410	<1.0	<1.0	<1.0	<3.0	<100	<400	<400	--	--
12/20/13	1120	<20	329	<60	3,720	1,000	<400	1.8	<1.0	<1.0	<3.0	<100	<400	<400	<6300	7.7
01/07/14	904	<10	274	<30	2,300	800	460	3	<1.0	1.2	<3.0	<100	<400	<400	--	--
2/18/2014	648	7.8	196	15.2	2,160	600	<410	2.3	<1.0	<1.0	<3.0	<100	<400	<400	--	--

Benzene, Toluene, Ethylbenzene, and Total Xylenes analyzed by EPA method 8260B
Total petroleum hydrocarbons as gasoline analyzed by Ecology method NWTPH-Gx
Total petroleum hydrocarbons as diesel analyzed by Ecology method NWTPH-Dx
Notes: Total petroleum hydrocarbons as heavy oil analyzed by Ecology method NWTPH-Dx
BTEX Total petroleum hydrocarbos as fats, oils, and grease by EPA method 1664A
TPHg Micrograms per liter
TPHd Not analyzed
TPHo Not detected above reporting limit X
FOG Estimated Value
µg/L
--
<X
J
a Lab re-analyzed sample at 5x dilution to confirm results. Confirmed non-detectable concentrations for all analyses except Benzene. Anomalous data point based on historical concentrations.

TABLE 7

EXXONMOBIL/BP SYSTEM-VAPOR PHASE ANALYTICAL DATA
Phillips 66 Renton Terminal
Renton, Washington

	Air Stripper Effluent				
Date	***Benzene (ppmV)***	***Toluene (ppmV)***	***Ethyl-benzene (ppmV)***	***Total Xylenes (ppmV)***	***TPHg (ppmV)***
12/21/10	0.47	0.09	0.16	0.01	<14
01/10/11	0.83	0.023	0.24	0.107	3.5
02/16/11	0.32	0.28	<0.067	<0.197	<4.7
03/08/11	0.69	<0.067	0.17	<0.197	<4.7
04/13/11	0.47	<0.041	<0.041	<0.041	7.8
05/17/11	3.2	<0.28	0.94	<0.28	<19.5
06/07/11	2.6	0.27	0.57	0.021	5.4
7/6/2011	0.27	0.11	0.013	0.051	2.0
8/24/2011	0.88	0.01	0.00089	0.0281	1.5
9/7/2011	0.46	<0.017	<0.017	<0.052	<1.2
10/14/2011	0.76	0.012	0.055	0.0275	2.4
11/29/2011	0.14	< 0.017	0.019	< 0.051	< 1.2
12/9/2011	< 0.0014	0.0075	< 0.0014	< 0.0042	0.27
1/10/2012	0.013	0.0053	0.0029	0.0035	0.17
2/9/2012	0.18	0.015	0.05	0.0077	0.83
3/7/2012	0.38	0.011	0.11	0.0273	1.8
4/5/2012	0.58	0.067	0.15	0.1970	4.7
5/1/2012	0.86	0.036	0.29	0.0680	3.6
6/1/2012	0.44	0.015	0.10	0.0067	0.7
7/13/2012	0.79	0.007	0.08	0.1970	6.0
8/9/2012	0.11	0.010	<0.0067	<0.0197	0.79
9/11/2012	0.56	0.021	<0.017	0.023	5.0
10/24/2012	<0.0450	0.090	<0.0450	0.305	< 3.2
11/30/2012	0.21	0.28	0.140	0.253	< 1.2
12/17/2012	<0.0042	<0.0042	<0.0042	<0.0126	<0.29
1/10/2013	0.054	0.0020	0.018	0.0102	0.16
2/14/2013	<0.0036	0.0048	<0.0036	<0.0109	<0.25
3/8/2013	<0.0084	0.030	<0.0084	<0.00254	0.15
4/18/2013	0.83	0.31	0.21	0.62	3.7
5/16/2013	0.51	<0.017	<0.017	0.30	2.2
6/13/2013	0.55	0.0066	0.012	0.031	2.5
7/16/2013	0.74	<0.017	<0.017	<0.051	4.1
8/26/2013	0.85	<0.045	<0.045	<0.135	<3.1
9/19/2013	0.85	<0.017	<0.017	<0.051	2.7
10/3/2013	0.23	<0.017	0.027	<0.051	<1.2
11/1/2013	0.97	0.45	0.16	<0.051	3
12/20/13	1.6	<0.017	0.25	<0.051	4.1
1/7/2014	0.81	<0.034	0.12	<0.101	4.8
2/18/2014	0.0038	0.0019	<0.00084	<0.003	0.17

TABLE 7

EXXONMOBIL/BP SYSTEM-VAPOR PHASE ANALYTICAL DATA
Phillips 66 Renton Terminal
Renton, Washington

Notes:

BTEX	Benzene, Toluene, Ethylbenzene, and Total Xylenes analyzed by EPA method TO 14
TPHg	Total petroleum hydrocarbons as gasoline analyzed by EPA method TO 14
ppmV	Parts per million by volume
--	Not analyzed
<X	Not detected above reporting limit X
J	Estimated Value

Table 8
ExxonMobil/BP System-Mass Removal Summary
Phillips 66 Renton Terminal
Renton, Washington

Date	*Hour Meter (hours)*	*Volume of Water Treated (gallons)*	*Total Influent TPH Concentration (µg/L)*	*Total Influent Benzene Concentration (µg/L)*	*TPH Removal Rate (lbs/day)*	*Benzene Removal Rate (lbs/day)*	*Cumulative TPH Removed (lbs)*	*Cumulative Benzene Removed (lbs)*
12/17/10	--	43,739	--	--	0.10	0.01	0.00	0.00
12/21/10	--	53,762	4,904	600	0.14	0.02	0.41	0.07
01/10/11	--	120,047	6,172	1,380	0.21	0.05	3.12	1.01
02/16/11	--	271,461	2,716	446	0.10	0.02	10.93	1.64
03/08/11	--	362,371	6,222	958	0.21	0.03	12.99	2.30
04/19/11	415.1	536,196	4,660	916	0.17	0.03	22.02	3.72
05/17/11	1,040.8	651,740	7,710	1,370	0.28	0.05	26.51	5.01
06/14/11	1,493.0	733,218	8,680	1,540	0.27	0.05	31.75	5.92
07/06/11	1,668.5	760,761	3,620	1,080	0.11	0.03	33.75	6.17
08/24/11	2,626.3	843,967	5,210	1,830	0.09	0.03	38.29	7.44
09/07/11	2,966.6	862,085	3,890	1,560	0.04	0.02	39.58	7.68
10/14/11	3,851.5	922,789	4,360	1,340	0.06	0.02	41.11	8.36
11/29/11	4,775.1	1,037,967	1,860	537	0.05	0.01	43.41	8.87
12/09/11	4,898.4	--	4,480	132	0.01	0.00	43.65	8.87
01/10/12	5,113.3	1,102,733	3,530	968	0.01	0.00	43.74	8.87
02/09/12	5,539.5	1,172,399	7,540	1,900	0.25	0.06	43.92	9.98
03/07/12	6,187.9	1,312,308	6,650	1,520	0.29	0.07	50.59	11.75
04/05/12	6,767.6	1,442,027	6,290	1,270	0.28	0.06	57.54	13.13
05/01/12	7,303.2	1,547,877	7,180	1,660	0.28	0.07	63.83	14.60
06/08/12	7,931.4	1,606,614	3,200	960	0.06	0.02	71.27	15.07
07/13/12	8,532.8	1,696,859	7,190	1,860	0.22	0.06	72.77	16.47
08/09/12	8,889.6	1,730,468	3,120	1,170	0.06	0.02	75.99	16.80
09/11/12	9,560.3	1,775,632	4,510	1,750	0.06	0.02	77.63	17.46
10/24/12	10,232.0	1,819,772	5,070	1,310	0.07	0.02	79.33	17.94
11/30/12	10,653.5	1,865,332	6,630	789	0.14	0.02	80.51	18.24
12/28/12	10,921.9	1,951,270	5,330	909	0.34	0.06	82.11	18.89
01/10/13	11,233.3	2,036,759	6,180	1,200	0.34	0.07	86.55	19.75
02/14/13	11,712.5	2,119,907	6,590	1,660	0.23	0.06	93.34	20.90
03/08/13	12,239.7	2,197,220	3,880	1,360	0.11	0.04	98.37	21.78
04/18/13	13,138.8	2,342,362	23,000	804	0.74	0.03	102.64	22.75
05/16/13	13,481.4	2,410,340	13,400	1,580	0.53	0.06	113.26	23.65
06/13/13	14,151.5	2,503,347	5,260	1,580	0.15	0.04	128.13	24.87
07/16/13	14,847.8	2,567,944	4,350	1,790	0.08	0.03	132.37	25.84
08/20/13	15,632.3	2,618,509	4,310	1,790	0.06	0.02	135.02	26.60
09/19/13	16,098.7	2,660,307	3,420	1,560	0.06	0.03	136.10	27.14
10/03/13	16,331.0	2,695,425	2,270	535	0.07	0.02	136.69	27.30
11/01/13	16,644.0	2,761,855	3,760	1,500	0.16	0.06	137.59	28.13
12/20/13	17,404.1	2,859,806	5,120	1,120	0.13	0.03	142.65	29.04
01/07/14	17,436.9	2,875,065	3,560	904	0.33	0.08	142.83	29.16
02/18/14	18,044.6	3,000,609	2,760	648	0.11	0.03	151.24	29.84

Notes:

BTEX	Benzene, Toluene, Ethylbenzene, and Total Xylenes analyzed by EPA method TO 14
TPHg	Total petroleum hydrocarbons as gasoline
TPH	Total petroleum hydrocarbons as the sum of TPHg, TPHd, and TPHo
scfm	Standard cubic feet per minute
ppmV	Parts per million by volume
lbs/day	Pounds per day
µg/L	Micrograms per liter
--	Data not available
<X	Not detected above reporting limit X. Report limit used in mass removal calculations
J	Estimated Value

Soil Vapor Removal rate = C (ppmv) x Q (cfm) x (1lb-mole/386ft3) x MW (lb/lb-mole) x 60 min/hr x 24 hr/day x 10-6

Where: C = concentration, Q = flow, MW= molecular weight (86 lb/lb-mole for TPHg and 78 lb/lb-mole for benzene)

Groundwater Removal Rate = C (µg/L) x 2.204E-9 µg/lb x (1 liter/0.264 gallons) x V (gallons) x (1/T (days))

Where: C = concentration, V = volume of water treated, T= time between sampling events

Appendix A

Laboratory Analytical Reports

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

January 30, 2014

Edwin Turner
CRA_Conoco Phillips
20818 44th Ave. W
Lynnwood, WA 98036

RE: Project: Jan 2014 O&M Compliance 070496
Pace Project No.: 10254346

Dear Edwin Turner:
Enclosed are the analytical results for sample(s) received by the laboratory on January 08, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Jennifer Gross
jennifer.gross@pacelabs.com
Project Manager

Enclosures

cc: Yu Chen, CRA_Conoco Phillips
Jeffrey Cloud, Conestoga-Rovers Association
Matt Davis, CRA_Conoco Phillips
Matthew Smith, Conestoga-Rover's Association
Kelsey Whittaker, CRA

REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: Jan 2014 O&M Compliance 070496
Pace Project No.: 10254346

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alabama Dept of Environmental Management #40770
Alaska Certification #: UST-078
Alaska Certification #MN00064
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: Pace
EPA Region 5 #WD-15J
Florida/NELAP Certification #: E87605
Georgia Certification #: 959
Hawaii Certification #Pace
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Louisiana Certification #: 03086
Louisiana Certification #: LA080009
Maine Certification #: 2007029
Maryland Certification #: 322
Michigan DEQ Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT CERT0092
Nebraska Certification #: Pace
Nevada Certification #: MN_00064
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Dakota Certification #: R-036
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Tennessee Certification #: 02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Virginia/DCLS Certification #: 002521
Virginia/VELAP Certification #: 460163
Washington Certification #: C754
West Virginia Certification #: 382
Wisconsin Certification #: 999407970

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SAMPLE SUMMARY

Project: Jan 2014 O&M Compliance 070496
Pace Project No.: 10254346

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10254346001	**GW-010814-NH-TOTAL INF**	Water	01/08/14 09:15	01/08/14 15:00
10254346002	**GW-010814-NH-AS EFF**	Water	01/08/14 10:45	01/08/14 15:00
10254346003	**GW-010814-NH-MID CARBON**	Water	01/08/14 11:00	01/08/14 15:00
10254346004	**GW-010814-NH-TOTAL EFF**	Water	01/08/14 11:20	01/08/14 15:00
10254346005	**a-010814-NH-SVE INF**	Air	01/08/14 11:30	01/08/14 15:00
10254346006	**a-010814-NH-AS EFF**	Air	01/08/14 11:40	01/08/14 15:00
10254346007	**a-010814-NH-TOTAL INF**	Air	01/08/14 11:50	01/08/14 15:00
10254346008	**a-010814-NH-MID CARBON 1**	Air	01/08/14 12:00	01/08/14 15:00
10254346009	**a-010814-NH-MID CARBON 2**	Air	01/08/14 12:05	01/08/14 15:00
10254346010	**a-010814-NH-TOTAL EFF**	Air	01/08/14 12:10	01/08/14 15:00
10254346011	**GW-010814-NH-BP R1 INF**	Water	01/08/14 12:20	01/08/14 15:00
10254346012	**GW-010814-NH-BP R2 INF**	Water	01/08/14 12:30	01/08/14 15:00
10254346013	**GW-010814-NH-BP TOTAL INF**	Water	01/08/14 12:45	01/08/14 15:00
10254346014	**GW-010814-NH-BP TOTAL EFF**	Water	01/08/14 13:00	01/08/14 15:00
10254346015	**A-010814-NH-BP AS EFF**	Air	01/08/14 13:30	01/08/14 15:00

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SAMPLE ANALYTE COUNT

Project: Jan 2014 O&M Compliance 070496
Pace Project No.: 10254346

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10254346001	**GW-010814-NH-TOTAL INF**	NWTPH-Dx	JRH	4	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
10254346002	**GW-010814-NH-AS EFF**	NWTPH-Dx	JRH	4	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
10254346003	**GW-010814-NH-MID CARBON**	NWTPH-Dx	JRH	4	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
10254346004	**GW-010814-NH-TOTAL EFF**	NWTPH-Dx	JRH	4	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
10254346005	**a-010814-NH-SVE INF**	TO-14M Ambient Air	AH2	6	PASI-M
10254346006	**a-010814-NH-AS EFF**	TO-14M Ambient Air	AH2	6	PASI-M
10254346007	**a-010814-NH-TOTAL INF**	TO-14M Ambient Air	AH2	6	PASI-M
10254346008	**a-010814-NH-MID CARBON 1**	TO-14M Ambient Air	AH2	6	PASI-M
10254346009	**a-010814-NH-MID CARBON 2**	TO-14M Ambient Air	AH2	6	PASI-M
10254346010	**a-010814-NH-TOTAL EFF**	TO-14M Ambient Air	AH2	6	PASI-M
10254346011	**GW-010814-NH-BP R1 INF**	NWTPH-Dx	JRH	4	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
10254346012	**GW-010814-NH-BP R2 INF**	NWTPH-Dx	JRH	4	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
10254346013	**GW-010814-NH-BP TOTAL INF**	NWTPH-Dx	MT	4	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
10254346014	**GW-010814-NH-BP TOTAL EFF**	NWTPH-Dx	MT	4	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
10254346015	**A-010814-NH-BP AS EFF**	TO-14M Ambient Air	DR1	6	PASI-M

REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: Jan 2014 O&M Compliance 070496
Pace Project No.: 10254346

Sample: GW-010814-NH-TOTAL INF **Lab ID: 10254346001** Collected: 01/08/14 09:15 Received: 01/08/14 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	**1.2**	mg/L	0.40	1	01/10/14 08:33	01/13/14 15:24	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.40	1	01/10/14 08:33	01/13/14 15:24	64742-65-0	
Surrogates								
o-Terphenyl (S)	66	%.	30-125	1	01/10/14 08:33	01/13/14 15:24	84-15-1	
n-Triacontane (S)	79	%.	30-125	1	01/10/14 08:33	01/13/14 15:24	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	**4490**	ug/L	500	5		01/13/14 01:34		
Surrogates								
a,a,a-Trifluorotoluene (S)	95	%.	70-125	5		01/13/14 01:34	98-08-8	
8260 MSV UST	Analytical Method: EPA 8260							
Benzene	**259**	ug/L	2.0	2		01/15/14 14:26	71-43-2	
Ethylbenzene	**38.9**	ug/L	2.0	2		01/15/14 14:26	100-41-4	
Toluene	**212**	ug/L	2.0	2		01/15/14 14:26	108-88-3	
Xylene (Total)	**633**	ug/L	6.0	2		01/15/14 14:26	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	97	%.	75-125	2		01/15/14 14:26	17060-07-0	
Toluene-d8 (S)	100	%.	75-125	2		01/15/14 14:26	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	75-125	2		01/15/14 14:26	460-00-4	

Sample: GW-010814-NH-AS EFF **Lab ID: 10254346002** Collected: 01/08/14 10:45 Received: 01/08/14 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	**0.59**	mg/L	0.40	1	01/10/14 08:33	01/13/14 16:09	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.40	1	01/10/14 08:33	01/13/14 16:09	64742-65-0	
Surrogates								
o-Terphenyl (S)	77	%.	30-125	1	01/10/14 08:33	01/13/14 16:09	84-15-1	
n-Triacontane (S)	91	%.	30-125	1	01/10/14 08:33	01/13/14 16:09	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	**375**	ug/L	100	1		01/12/14 21:53		
Surrogates								
a,a,a-Trifluorotoluene (S)	89	%.	70-125	1		01/12/14 21:53	98-08-8	
8260 MSV UST	Analytical Method: EPA 8260							
Benzene	**47.3**	ug/L	1.0	1		01/13/14 15:47	71-43-2	
Ethylbenzene	**2.4**	ug/L	1.0	1		01/13/14 15:47	100-41-4	
Toluene	**35.2**	ug/L	1.0	1		01/13/14 15:47	108-88-3	
Xylene (Total)	**56.5**	ug/L	3.0	1		01/13/14 15:47	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	98	%.	75-125	1		01/13/14 15:47	17060-07-0	
Toluene-d8 (S)	99	%.	75-125	1		01/13/14 15:47	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	75-125	1		01/13/14 15:47	460-00-4	

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ANALYTICAL RESULTS

Project: Jan 2014 O&M Compliance 070496
Pace Project No.: 10254346

Sample: GW-010814-NH-MID CARBON **Lab ID: 10254346003** Collected: 01/08/14 11:00 Received: 01/08/14 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	ND	mg/L	0.40	1	01/10/14 08:33	01/13/14 16:32	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.40	1	01/10/14 08:33	01/13/14 16:32	64742-65-0	
Surrogates								
o-Terphenyl (S)	76	%.	30-125	1	01/10/14 08:33	01/13/14 16:32	84-15-1	
n-Triacontane (S)	95	%.	30-125	1	01/10/14 08:33	01/13/14 16:32	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	ND	ug/L	100	1		01/12/14 22:14		
Surrogates								
a,a,a-Trifluorotoluene (S)	93	%.	70-125	1		01/12/14 22:14	98-08-8	
8260 MSV UST	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		01/13/14 16:02	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		01/13/14 16:02	100-41-4	
Toluene	ND	ug/L	1.0	1		01/13/14 16:02	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		01/13/14 16:02	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%.	75-125	1		01/13/14 16:02	17060-07-0	
Toluene-d8 (S)	98	%.	75-125	1		01/13/14 16:02	2037-26-5	
4-Bromofluorobenzene (S)	101	%.	75-125	1		01/13/14 16:02	460-00-4	

Sample: GW-010814-NH-TOTAL EFF **Lab ID: 10254346004** Collected: 01/08/14 11:20 Received: 01/08/14 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	ND	mg/L	0.40	1	01/10/14 08:33	01/13/14 16:55	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.40	1	01/10/14 08:33	01/13/14 16:55	64742-65-0	
Surrogates								
o-Terphenyl (S)	83	%.	30-125	1	01/10/14 08:33	01/13/14 16:55	84-15-1	
n-Triacontane (S)	98	%.	30-125	1	01/10/14 08:33	01/13/14 16:55	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	ND	ug/L	100	1		01/12/14 22:34		
Surrogates								
a,a,a-Trifluorotoluene (S)	87	%.	70-125	1		01/12/14 22:34	98-08-8	
8260 MSV UST	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		01/13/14 16:16	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		01/13/14 16:16	100-41-4	
Toluene	ND	ug/L	1.0	1		01/13/14 16:16	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		01/13/14 16:16	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	99	%.	75-125	1		01/13/14 16:16	17060-07-0	
Toluene-d8 (S)	98	%.	75-125	1		01/13/14 16:16	2037-26-5	

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ANALYTICAL RESULTS

Project: Jan 2014 O&M Compliance 070496
Pace Project No.: 10254346

Sample: GW-010814-NH-TOTAL EFF **Lab ID: 10254346004** Collected: 01/08/14 11:20 Received: 01/08/14 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST	Analytical Method: EPA 8260							
Surrogates								
4-Bromofluorobenzene (S)	101	%.	75-125	1		01/13/14 16:16	460-00-4	

Sample: a-010814-NH-SVE INF **Lab ID: 10254346005** Collected: 01/08/14 11:30 Received: 01/08/14 15:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO-14M MSV AIR - Ambient	Analytical Method: TO-14M Ambient Air							
Benzene	**5.4**	ppmv	0.27	537.6		01/11/14 05:20	71-43-2	
Ethylbenzene	ND	ppmv	0.27	537.6		01/11/14 05:20	100-41-4	
THC as Gas	**232**	ppmv	18.8	537.6		01/11/14 05:20		
Toluene	**7.4**	ppmv	0.27	537.6		01/11/14 05:20	108-88-3	
m&p-Xylene	**1.3**	ppmv	0.54	537.6		01/11/14 05:20	179601-23-1	
o-Xylene	**0.50**	ppmv	0.27	537.6		01/11/14 05:20	95-47-6	

Sample: a-010814-NH-AS EFF **Lab ID: 10254346006** Collected: 01/08/14 11:40 Received: 01/08/14 15:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO-14M MSV AIR - Ambient	Analytical Method: TO-14M Ambient Air							
Benzene	**0.016**	ppmv	0.00084	1.68		01/11/14 02:25	71-43-2	
Ethylbenzene	**0.0022**	ppmv	0.00084	1.68		01/11/14 02:25	100-41-4	
THC as Gas	**0.38**	ppmv	0.059	1.68		01/11/14 02:25		
Toluene	**0.021**	ppmv	0.00084	1.68		01/11/14 02:25	108-88-3	
m&p-Xylene	**0.014**	ppmv	0.0017	1.68		01/11/14 02:25	179601-23-1	
o-Xylene	**0.0063**	ppmv	0.00084	1.68		01/11/14 02:25	95-47-6	

Sample: a-010814-NH-TOTAL INF **Lab ID: 10254346007** Collected: 01/08/14 11:50 Received: 01/08/14 15:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO-14M MSV AIR - Ambient	Analytical Method: TO-14M Ambient Air							
Benzene	**0.061**	ppmv	0.017	33.6		01/11/14 04:28	71-43-2	
Ethylbenzene	ND	ppmv	0.017	33.6		01/11/14 04:28	100-41-4	
THC as Gas	**4.6**	ppmv	1.2	33.6		01/11/14 04:28		
Toluene	**0.071**	ppmv	0.017	33.6		01/11/14 04:28	108-88-3	
m&p-Xylene	ND	ppmv	0.034	33.6		01/11/14 04:28	179601-23-1	
o-Xylene	ND	ppmv	0.017	33.6		01/11/14 04:28	95-47-6	

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ANALYTICAL RESULTS

Project: Jan 2014 O&M Compliance 070496
Pace Project No.: 10254346

Sample: a-010814-NH-MID CARBON 1 **Lab ID: 10254346008** Collected: 01/08/14 12:00 Received: 01/08/14 15:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO-14M MSV AIR - Ambient	Analytical Method: TO-14M Ambient Air							
Benzene	ND	ppmv	0.00084	1.68		01/11/14 04:03	71-43-2	
Ethylbenzene	ND	ppmv	0.00084	1.68		01/11/14 04:03	100-41-4	
THC as Gas	**0.69**	ppmv	0.059	1.68		01/11/14 04:03		
Toluene	ND	ppmv	0.00084	1.68		01/11/14 04:03	108-88-3	
m&p-Xylene	ND	ppmv	0.0017	1.68		01/11/14 04:03	179601-23-1	
o-Xylene	ND	ppmv	0.00084	1.68		01/11/14 04:03	95-47-6	

Sample: a-010814-NH-MID CARBON 2 **Lab ID: 10254346009** Collected: 01/08/14 12:05 Received: 01/08/14 15:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO-14M MSV AIR - Ambient	Analytical Method: TO-14M Ambient Air							
Benzene	ND	ppmv	0.00084	1.68		01/11/14 02:59	71-43-2	
Ethylbenzene	ND	ppmv	0.00084	1.68		01/11/14 02:59	100-41-4	
THC as Gas	**0.43**	ppmv	0.059	1.68		01/11/14 02:59		
Toluene	ND	ppmv	0.00084	1.68		01/11/14 02:59	108-88-3	
m&p-Xylene	ND	ppmv	0.0017	1.68		01/11/14 02:59	179601-23-1	
o-Xylene	ND	ppmv	0.00084	1.68		01/11/14 02:59	95-47-6	

Sample: a-010814-NH-TOTAL EFF **Lab ID: 10254346010** Collected: 01/08/14 12:10 Received: 01/08/14 15:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO-14M MSV AIR - Ambient	Analytical Method: TO-14M Ambient Air							
Benzene	ND	ppmv	0.00084	1.68		01/11/14 03:28	71-43-2	
Ethylbenzene	ND	ppmv	0.00084	1.68		01/11/14 03:28	100-41-4	
THC as Gas	**0.48**	ppmv	0.059	1.68		01/11/14 03:28		
Toluene	ND	ppmv	0.00084	1.68		01/11/14 03:28	108-88-3	
m&p-Xylene	ND	ppmv	0.0017	1.68		01/11/14 03:28	179601-23-1	
o-Xylene	ND	ppmv	0.00084	1.68		01/11/14 03:28	95-47-6	

Sample: GW-010814-NH-BP R1 INF **Lab ID: 10254346011** Collected: 01/08/14 12:20 Received: 01/08/14 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	**1.1**	mg/L	0.40	1	01/10/14 08:33	01/13/14 17:17	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.40	1	01/10/14 08:33	01/13/14 17:17	64742-65-0	
Surrogates								
o-Terphenyl (S)	74	%.	30-125	1	01/10/14 08:33	01/13/14 17:17	84-15-1	
n-Triacontane (S)	94	%.	30-125	1	01/10/14 08:33	01/13/14 17:17	638-68-6	

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ANALYTICAL RESULTS

Project: Jan 2014 O&M Compliance 070496
Pace Project No.: 10254346

Sample: GW-010814-NH-BP R1 INF **Lab ID: 10254346011** Collected: 01/08/14 12:20 Received: 01/08/14 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	**4060**	ug/L	200	2		01/13/14 00:14		
Surrogates								
a,a,a-Trifluorotoluene (S)	113	%.	70-125	2		01/13/14 00:14	98-08-8	
8260 MSV UST	Analytical Method: EPA 8260							
Benzene	**1800**	ug/L	10.0	10		01/13/14 17:00	71-43-2	
Ethylbenzene	**523**	ug/L	10.0	10		01/13/14 17:00	100-41-4	
Toluene	**17.7**	ug/L	10.0	10		01/13/14 17:00	108-88-3	
Xylene (Total)	ND	ug/L	30.0	10		01/13/14 17:00	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%.	75-125	10		01/13/14 17:00	17060-07-0	
Toluene-d8 (S)	98	%.	75-125	10		01/13/14 17:00	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	75-125	10		01/13/14 17:00	460-00-4	

Sample: GW-010814-NH-BP R2 INF **Lab ID: 10254346012** Collected: 01/08/14 12:30 Received: 01/08/14 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	ND	mg/L	0.40	1	01/10/14 08:33	01/13/14 17:40	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.40	1	01/10/14 08:33	01/13/14 17:40	64742-65-0	
Surrogates								
o-Terphenyl (S)	0	%.	30-125	1	01/10/14 08:33	01/13/14 17:40	84-15-1	1M,S0
n-Triacontane (S)	98	%.	30-125	1	01/10/14 08:33	01/13/14 17:40	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	**878**	ug/L	200	2		01/13/14 00:34		
Surrogates								
a,a,a-Trifluorotoluene (S)	94	%.	70-125	2		01/13/14 00:34	98-08-8	
8260 MSV UST	Analytical Method: EPA 8260							
Benzene	**129**	ug/L	1.0	1		01/15/14 14:09	71-43-2	
Ethylbenzene	**71.7**	ug/L	1.0	1		01/15/14 14:09	100-41-4	
Toluene	ND	ug/L	1.0	1		01/15/14 14:09	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		01/15/14 14:09	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	98	%.	75-125	1		01/15/14 14:09	17060-07-0	
Toluene-d8 (S)	101	%.	75-125	1		01/15/14 14:09	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	75-125	1		01/15/14 14:09	460-00-4	

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ANALYTICAL RESULTS

Project: Jan 2014 O&M Compliance 070496
Pace Project No.: 10254346

Sample: GW-010814-NH-BP TOTAL INF **Lab ID: 10254346013** Collected: 01/08/14 12:45 Received: 01/08/14 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	**0.80**	mg/L	0.40	1	01/10/14 08:33	01/13/14 19:11	68334-30-5	
Motor Oil Range SG	**0.46**	mg/L	0.40	1	01/10/14 08:33	01/13/14 19:11	64742-65-0	
Surrogates								
o-Terphenyl (S)	77	%.	30-125	1	01/10/14 08:33	01/13/14 19:11	84-15-1	
n-Triacontane (S)	89	%.	30-125	1	01/10/14 08:33	01/13/14 19:11	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	**2300**	ug/L	200	2		01/13/14 01:14		
Surrogates								
a,a,a-Trifluorotoluene (S)	100	%.	70-125	2		01/13/14 01:14	98-08-8	
8260 MSV UST	Analytical Method: EPA 8260							
Benzene	**904**	ug/L	10.0	10		01/13/14 17:15	71-43-2	
Ethylbenzene	**274**	ug/L	10.0	10		01/13/14 17:15	100-41-4	
Toluene	ND	ug/L	10.0	10		01/13/14 17:15	108-88-3	
Xylene (Total)	ND	ug/L	30.0	10		01/13/14 17:15	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	99	%.	75-125	10		01/13/14 17:15	17060-07-0	
Toluene-d8 (S)	98	%.	75-125	10		01/13/14 17:15	2037-26-5	
4-Bromofluorobenzene (S)	101	%.	75-125	10		01/13/14 17:15	460-00-4	

Sample: GW-010814-NH-BP TOTAL EFF **Lab ID: 10254346014** Collected: 01/08/14 13:00 Received: 01/08/14 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	ND	mg/L	0.40	1	01/10/14 08:33	01/13/14 19:34	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.40	1	01/10/14 08:33	01/13/14 19:34	64742-65-0	
Surrogates								
o-Terphenyl (S)	59	%.	30-125	1	01/10/14 08:33	01/13/14 19:34	84-15-1	
n-Triacontane (S)	67	%.	30-125	1	01/10/14 08:33	01/13/14 19:34	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	ND	ug/L	100	1		01/12/14 22:54		
Surrogates								
a,a,a-Trifluorotoluene (S)	91	%.	70-125	1		01/12/14 22:54	98-08-8	
8260 MSV UST	Analytical Method: EPA 8260							
Benzene	**3.0**	ug/L	1.0	1		01/13/14 16:31	71-43-2	
Ethylbenzene	**1.2**	ug/L	1.0	1		01/13/14 16:31	100-41-4	
Toluene	ND	ug/L	1.0	1		01/13/14 16:31	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		01/13/14 16:31	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%.	75-125	1		01/13/14 16:31	17060-07-0	

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ANALYTICAL RESULTS

Project: Jan 2014 O&M Compliance 070496
Pace Project No.: 10254346

Sample: GW-010814-NH-BP TOTAL EFF **Lab ID: 10254346014** Collected: 01/08/14 13:00 Received: 01/08/14 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST	Analytical Method: EPA 8260							
Surrogates								
Toluene-d8 (S)	98	%.	75-125	1		01/13/14 16:31	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	75-125	1		01/13/14 16:31	460-00-4	

Sample: A-010814-NH-BP AS EFF **Lab ID: 10254346015** Collected: 01/08/14 13:30 Received: 01/08/14 15:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO-14M MSV AIR - Ambient	Analytical Method: TO-14M Ambient Air							
Benzene	**0.81**	ppmv	0.034	67.2		01/13/14 03:52	71-43-2	
Ethylbenzene	**0.12**	ppmv	0.034	67.2		01/13/14 03:52	100-41-4	
THC as Gas	**4.8**	ppmv	2.4	67.2		01/13/14 03:52		
Toluene	ND	ppmv	0.034	67.2		01/13/14 03:52	108-88-3	
m&p-Xylene	ND	ppmv	0.067	67.2		01/13/14 03:52	179601-23-1	
o-Xylene	ND	ppmv	0.034	67.2		01/13/14 03:52	95-47-6	

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QUALITY CONTROL DATA

Project: Jan 2014 O&M Compliance 070496
Pace Project No.: 10254346

QC Batch: AIR/19153 Analysis Method: TO-14M Ambient Air
QC Batch Method: TO-14M Ambient Air Analysis Description: TO14 MSV AIR - AMBIENT
Associated Lab Samples: 10254346005, 10254346006, 10254346007, 10254346008, 10254346009, 10254346010

METHOD BLANK: 1606997 Matrix: Air
Associated Lab Samples: 10254346005, 10254346006, 10254346007, 10254346008, 10254346009, 10254346010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ppmv	ND	0.00050	01/10/14 21:40	
Ethylbenzene	ppmv	ND	0.00050	01/10/14 21:40	
m&p-Xylene	ppmv	ND	0.0010	01/10/14 21:40	
o-Xylene	ppmv	ND	0.00050	01/10/14 21:40	
THC as Gas	ppmv	ND	0.035	01/10/14 21:40	
Toluene	ppmv	ND	0.00050	01/10/14 21:40	

LABORATORY CONTROL SAMPLE: 1606998

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ppmv	.01	0.011	108	69-134	
Ethylbenzene	ppmv	.01	0.011	107	73-139	
m&p-Xylene	ppmv	.01	0.011	106	73-139	
o-Xylene	ppmv	.01	0.011	108	71-138	
THC as Gas	ppmv	.72	0.81	112	65-136	
Toluene	ppmv	.01	0.011	111	67-133	

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Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: Jan 2014 O&M Compliance 070496
Pace Project No.: 10254346

QC Batch: AIR/19160 Analysis Method: TO-14M Ambient Air
QC Batch Method: TO-14M Ambient Air Analysis Description: TO14 MSV AIR - AMBIENT
Associated Lab Samples: 10254346015

METHOD BLANK: 1607372 Matrix: Air
Associated Lab Samples: 10254346015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ppmv	ND	0.00050	01/12/14 16:03	
Ethylbenzene	ppmv	ND	0.00050	01/12/14 16:03	
m&p-Xylene	ppmv	ND	0.0010	01/12/14 16:03	
o-Xylene	ppmv	ND	0.00050	01/12/14 16:03	
THC as Gas	ppmv	ND	0.035	01/12/14 16:03	
Toluene	ppmv	ND	0.00050	01/12/14 16:03	

LABORATORY CONTROL SAMPLE: 1607373

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ppmv	1.1	0.011	1	69-134	
Ethylbenzene	ppmv	.99	0.011	1	73-139	
m&p-Xylene	ppmv	2	0.011	.5	73-139	
o-Xylene	ppmv	.93	0.011	1	71-138	
THC as Gas	ppmv	72	0.77	1	65-136	
Toluene	ppmv	1	0.012	1	67-133	

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QUALITY CONTROL DATA

Project: Jan 2014 O&M Compliance 070496
Pace Project No.: 10254346

QC Batch: GCV/11576 Analysis Method: NWTPH-Gx/8021
QC Batch Method: NWTPH-Gx/8021 Analysis Description: NWTPH-Gx/8021B Water
Associated Lab Samples: 10254346001, 10254346002, 10254346003, 10254346004, 10254346011, 10254346012, 10254346013, 10254346014

METHOD BLANK: 1606877 Matrix: Water
Associated Lab Samples: 10254346001, 10254346002, 10254346003, 10254346004, 10254346011, 10254346012, 10254346013, 10254346014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	ND	100	01/12/14 21:33	
a,a,a-Trifluorotoluene (S)	%.	96	70-125	01/12/14 21:33	

LABORATORY CONTROL SAMPLE & LCSD: 1606878 1606879

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	1000	945	919	95	92	75-125	3	20	
a,a,a-Trifluorotoluene (S)	%.				100	97	70-125			

MATRIX SPIKE SAMPLE: 1609460

Parameter	Units	10254346004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
TPH as Gas	ug/L	ND	1000	971	97	52-150	
a,a,a-Trifluorotoluene (S)	%.				108	70-125	

SAMPLE DUPLICATE: 1609461

Parameter	Units	10254346012 Result	Dup Result	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	878	720	20	30	
a,a,a-Trifluorotoluene (S)	%.	94	100	6		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Jan 2014 O&M Compliance 070496
Pace Project No.: 10254346

QC Batch: MSV/26115 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 10254346002, 10254346003, 10254346004, 10254346011, 10254346013, 10254346014

METHOD BLANK: 1607584 Matrix: Water
Associated Lab Samples: 10254346002, 10254346003, 10254346004, 10254346011, 10254346013, 10254346014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	01/13/14 11:33	
Ethylbenzene	ug/L	ND	1.0	01/13/14 11:33	
Toluene	ug/L	ND	1.0	01/13/14 11:33	
Xylene (Total)	ug/L	ND	3.0	01/13/14 11:33	
1,2-Dichloroethane-d4 (S)	%.	95	75-125	01/13/14 11:33	
4-Bromofluorobenzene (S)	%.	102	75-125	01/13/14 11:33	
Toluene-d8 (S)	%.	99	75-125	01/13/14 11:33	

LABORATORY CONTROL SAMPLE: 1607585

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	18.5	92	75-125	
Ethylbenzene	ug/L	20	18.0	90	75-125	
Toluene	ug/L	20	18.3	92	75-125	
Xylene (Total)	ug/L	60	54.9	91	75-125	
1,2-Dichloroethane-d4 (S)	%.			96	75-125	
4-Bromofluorobenzene (S)	%.			100	75-125	
Toluene-d8 (S)	%.			99	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1607739 1607740

Parameter	Units	10254574003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	ND	100	100	94.3	104	94	104	75-129	10	30	
Ethylbenzene	ug/L	ND	100	100	89.1	101	89	101	75-128	13	30	
Toluene	ug/L	ND	100	100	90.0	101	90	101	75-129	12	30	
Xylene (Total)	ug/L	ND	300	300	271	307	90	102	75-129	12	30	
1,2-Dichloroethane-d4 (S)	%.						96	95	75-125			
4-Bromofluorobenzene (S)	%.						99	100	75-125			
Toluene-d8 (S)	%.						100	100	75-125			

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Jan 2014 O&M Compliance 070496
Pace Project No.: 10254346

QC Batch: MSV/26126
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 10254346001, 10254346012

METHOD BLANK: 1608244
Matrix: Water
Associated Lab Samples: 10254346001, 10254346012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	01/15/14 10:27	
Ethylbenzene	ug/L	ND	1.0	01/15/14 10:27	
Toluene	ug/L	ND	1.0	01/15/14 10:27	
Xylene (Total)	ug/L	ND	3.0	01/15/14 10:27	
1,2-Dichloroethane-d4 (S)	%.	97	75-125	01/15/14 10:27	
4-Bromofluorobenzene (S)	%.	100	75-125	01/15/14 10:27	
Toluene-d8 (S)	%.	99	75-125	01/15/14 10:27	

LABORATORY CONTROL SAMPLE: 1608245

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	18.4	92	75-125	
Ethylbenzene	ug/L	20	20.0	100	75-125	
Toluene	ug/L	20	19.3	97	75-125	
Xylene (Total)	ug/L	60	58.9	98	75-125	
1,2-Dichloroethane-d4 (S)	%.			98	75-125	
4-Bromofluorobenzene (S)	%.			98	75-125	
Toluene-d8 (S)	%.			102	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1609357 1609358

Parameter	Units	10254890003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	ND	100	100	91.5	86.8	91	87	75-129	5	30	
Ethylbenzene	ug/L	ND	100	100	97.1	93.1	97	93	75-128	4	30	
Toluene	ug/L	ND	100	100	95.1	91.2	95	91	75-129	4	30	
Xylene (Total)	ug/L	ND	300	300	295	275	98	92	75-129	7	30	
1,2-Dichloroethane-d4 (S)	%.						99	100	75-125			
4-Bromofluorobenzene (S)	%.						100	99	75-125			
Toluene-d8 (S)	%.						101	102	75-125			

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QUALITY CONTROL DATA

Project: Jan 2014 O&M Compliance 070496
Pace Project No.: 10254346

QC Batch: OEXT/24104 Analysis Method: NWTPH-Dx
QC Batch Method: EPA 3510 Analysis Description: NWTPH-Dx GCS LV SG
Associated Lab Samples: 10254346001, 10254346002, 10254346003, 10254346004, 10254346011, 10254346012, 10254346013, 10254346014

METHOD BLANK: 1606608 Matrix: Water
Associated Lab Samples: 10254346001, 10254346002, 10254346003, 10254346004, 10254346011, 10254346012, 10254346013, 10254346014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Fuel Range SG	mg/L	ND	0.40	01/13/14 14:15	
Motor Oil Range SG	mg/L	ND	0.40	01/13/14 14:15	
n-Triacontane (S)	%.	80	30-125	01/13/14 14:15	
o-Terphenyl (S)	%.	65	30-125	01/13/14 14:15	

LABORATORY CONTROL SAMPLE & LCSD: 1606609 1606610

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Fuel Range SG	mg/L	2	1.9	1.7	95	83	50-150	14	20	
Motor Oil Range SG	mg/L	2	1.9	1.7	97	85	50-150	13	20	
n-Triacontane (S)	%.				92	87	30-125			
o-Terphenyl (S)	%.				74	76	30-125			

SAMPLE DUPLICATE: 1606611

Parameter	Units	10254346001 Result	Dup Result	RPD	Max RPD	Qualifiers
Diesel Fuel Range SG	mg/L	1.2	1.1	14	30	
Motor Oil Range SG	mg/L	ND	0.48		30	
n-Triacontane (S)	%.	79	56	35		
o-Terphenyl (S)	%.	66	48	33		

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Jan 2014 O&M Compliance 070496
Pace Project No.: 10254346

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

SAMPLE QUALIFIERS

Sample: 10254346015

[1]	This result is reported from a serial dilution.

ANALYTE QUALIFIERS

1M	Prep analyst missed o-Terphenyl spike. Ok to report per client.
S0	Surrogate recovery outside laboratory control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Jan 2014 O&M Compliance 070496
Pace Project No.: 10254346

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10254346005	**a-010814-NH-SVE INF**	TO-14M Ambient Air	AIR/19153		
10254346006	**a-010814-NH-AS EFF**	TO-14M Ambient Air	AIR/19153		
10254346007	**a-010814-NH-TOTAL INF**	TO-14M Ambient Air	AIR/19153		
10254346008	**a-010814-NH-MID CARBON 1**	TO-14M Ambient Air	AIR/19153		
10254346009	**a-010814-NH-MID CARBON 2**	TO-14M Ambient Air	AIR/19153		
10254346010	**a-010814-NH-TOTAL EFF**	TO-14M Ambient Air	AIR/19153		
10254346015	**A-010814-NH-BP AS EFF**	TO-14M Ambient Air	AIR/19160		
10254346001	**GW-010814-NH-TOTAL INF**	EPA 3510	OEXT/24104	NWTPH-Dx	GCSV/12687
10254346002	**GW-010814-NH-AS EFF**	EPA 3510	OEXT/24104	NWTPH-Dx	GCSV/12687
10254346003	**GW-010814-NH-MID CARBON**	EPA 3510	OEXT/24104	NWTPH-Dx	GCSV/12687
10254346004	**GW-010814-NH-TOTAL EFF**	EPA 3510	OEXT/24104	NWTPH-Dx	GCSV/12687
10254346011	**GW-010814-NH-BP R1 INF**	EPA 3510	OEXT/24104	NWTPH-Dx	GCSV/12687
10254346012	**GW-010814-NH-BP R2 INF**	EPA 3510	OEXT/24104	NWTPH-Dx	GCSV/12687
10254346013	**GW-010814-NH-BP TOTAL INF**	EPA 3510	OEXT/24104	NWTPH-Dx	GCSV/12687
10254346014	**GW-010814-NH-BP TOTAL EFF**	EPA 3510	OEXT/24104	NWTPH-Dx	GCSV/12687
10254346001	**GW-010814-NH-TOTAL INF**	NWTPH-Gx/8021	GCV/11576		
10254346002	**GW-010814-NH-AS EFF**	NWTPH-Gx/8021	GCV/11576		
10254346003	**GW-010814-NH-MID CARBON**	NWTPH-Gx/8021	GCV/11576		
10254346004	**GW-010814-NH-TOTAL EFF**	NWTPH-Gx/8021	GCV/11576		
10254346011	**GW-010814-NH-BP R1 INF**	NWTPH-Gx/8021	GCV/11576		
10254346012	**GW-010814-NH-BP R2 INF**	NWTPH-Gx/8021	GCV/11576		
10254346013	**GW-010814-NH-BP TOTAL INF**	NWTPH-Gx/8021	GCV/11576		
10254346014	**GW-010814-NH-BP TOTAL EFF**	NWTPH-Gx/8021	GCV/11576		
10254346001	**GW-010814-NH-TOTAL INF**	EPA 8260	MSV/26126		
10254346002	**GW-010814-NH-AS EFF**	EPA 8260	MSV/26115		
10254346003	**GW-010814-NH-MID CARBON**	EPA 8260	MSV/26115		
10254346004	**GW-010814-NH-TOTAL EFF**	EPA 8260	MSV/26115		
10254346011	**GW-010814-NH-BP R1 INF**	EPA 8260	MSV/26115		
10254346012	**GW-010814-NH-BP R2 INF**	EPA 8260	MSV/26126		
10254346013	**GW-010814-NH-BP TOTAL INF**	EPA 8260	MSV/26115		
10254346014	**GW-010814-NH-BP TOTAL EFF**	EPA 8260	MSV/26115		

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CHAIN OF CUSTODY RECORD

COC NO.: 33713

PAGE 1 OF 1

CONESTOGA-ROVERS & ASSOCIATES

Address: 737 BROADWAY, TACOMA, WA. 98402

Phone: 253.573.1218 Fax: 253.573.1667

(See Reverse Side for Instructions)

10254346

Project No/ Phase/Task Code: 070496-2RM00	Laboratory Name: PACE
Project Name: P66 - RENTON TERMINAL	Lab Contact: J. GROSS
Project Location: RENTON, WA.	Lab Location: SEATTLE, WA.
Chemistry Contact: M. DAVIS / J. CLOND	Lab Quote No:
Sampler(s): N. LINSPERGER	SSOW ID: / Cooler No: / Carrier: / Airbill No: / Date Shipped:

Item	Sample Identification (Containers for each sample may be combined on one line)	Date (mm/dd/yy)	Time (hh:mm)	Matrix Code (see back of COC)	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)	Sulfuric Acid (H_2SO_4)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	Other:	Total Containers/Sample	AWSTPH DX	AWSTPH GX	BTEX 8260	BTEX 76-14	MS/MSD Request	Comments/ Special Instructions:
1	GW-010814-NH-TOTAL INF	01/08/14	915	WG	G		X							8	X	X	X			001
2	GW-010814-NH-AS EFF	01/08/14	1045	WG	G		X							8	X	X	X			002
3	GW-010814-NH-MID CARBON	01/08/14	1100	WG	G		X							8	X	X	X			003
4	GW-010814-NH-TOTAL EFF	01/08/14	1120	WG	G		X							8	X	X	X			004
5	a-010814-NH-SVE INF	01/08/14	1130	A	G									1				X		005
6	a-010814-NH-AS EFF	01/08/14	1140	A	G									1				X		006
7	a-010814-NH-TOTAL INF	01/08/14	1150	A	G									1				X		007
8	a-010814-NH-MID CARBON1	01/08/14	1200	A	G									1				X		008
9	a-010814-NH-MID CARBON2	01/08/14	1205	A	G									1				X		009
10	a-010814-NH-TOTAL EFF	01/08/14	1210	A	G									1				X		010
11	GW-010814-NH-BP R1 INF	01/08/14	1220	WG	G		X							8	X	X	X			011
12	GW-010814-NH-BP R2 INF	01/08/14	1230	WG	G		X							8	X	X	X			012
13	GW-010814-NH-BT TOTAL INF	01/08/14	1245	WG	G		X							8	X	X	X			013
14	GW-010814-NH-BP TOTAL EFF	01/08/14	1300	WG	G		X							8	X	X	X			014
15	a-010814-NH-BP AS EFF	01/08/14	1330	A	G									1				X		015

TAT Required in business days (use separate COCs for different TATs):

☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☒ Other: STANDARD

Total Number of Containers: 71

All Samples in Cooler must be on COC

Notes/ Special Requirements:

T = 1.6, 1.0

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
1.	CRA	01/08/14	1430	1.	PACE	1/9/14	1550
2.				2.	Pace	1/9/14	1055
3.				3.			

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

Temp: 4.9, 3.9

Distribution: WHITE – Fully Executed Copy (CRA) YELLOW – Receiving Laboratory Copy PINK – Shipper GOLDENROD – Sampling Crew

CRA Form: COC-1SB (20110901)

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 07Nov2013 Page 1 of 1
	Document No.: F-MN-L-213-rev.08	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: ERA

Project #: WO#: 10254346

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:

Tracking Number: 7975 8937 3920 8045 4560 7832

Custody Seal on Cooler/Box Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☑ Other: Zip Loc Temp Blank? ☑ Yes ☐ No

Thermom. Used: ☐ 80512447 ☐ 72337080 ☑ B88A912167504 ☐ B88A9132521491 Type of Ice: ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 1.4, 1.8 Cooler Temp Corrected (°C): 1.6, 1.0 Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Temp should be above freezing to 6°C Correction Factor: +0.2 Date and Initials of Person Examining Contents: 1/9/14 AM

				Comments:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☑ Yes	☐ No	☐ N/A	12.
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	☐ Yes	☐ No	☑ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH>12) Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water) DOC	☐ Yes	☐ No	☑ N/A	Initial when completed: AA Lot # of added preservative:
	☑ Yes	☐ No		
Headspace in VOA Vials (>6mm)?	☐ Yes	☑ No	☐ N/A	14.
Trip Blank Present?	☐ Yes	☑ No	☐ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☑ No	☐ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION Field Data Required? ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: JENNA GROSS Date: 1/9/14

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical	Document Name: Air Sample Condition Upon Receipt	Document Revised: 19Sep2013 Page 1 of 1
	Document No.: F-MN-A-106-rev.08	Issuing Authority: Pace Minnesota Quality Office

Air Sample Condition Upon Receipt

Client Name: Pace, WA

Project #: WO# : 10254346

10254346

Courier: ☐Fed Ex ☐UPS ☐USPS ☐Client ☐Commercial ☐Pace ☐Other:

Tracking Number: 7975 8937 3942

Custody Seal on Cooler/Box Present? ☐Yes ☑No **Seals Intact?** ☐Yes ☐No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☑Bubble Wrap ☐Bubble Bags ☐Foam ☐None ☐Other:

Temp. (TO17 and TO13 samples only) (°C): — **Corrected Temp (°C):** — **Thermom. Used:** ☐B88A912167504 ☐B88A9132521491 ☐72387880 ☐80512447

Temp should be above freezing to 6°C **Correction Factor:** — **Date & Initials of Person Examining Contents:** 1-

Comments:

Chain of Custody Present?	☑Yes	☐No	☑N/A	1. CW 1-9-13
Chain of Custody Filled Out?	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished?	☑Yes	☐No	☐N/A	3.
Sampler Name and/or Signature on COC?	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time?	☑Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72 hr)?	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time Requested?	☐Yes	☑No	☐N/A	7.
Sufficient Volume?	☑Yes	☐No	☐N/A	8.
Correct Containers Used?	☑Yes	☐No	☐N/A	9.
-Pace Containers Used?	☑Yes	☐No	☐N/A	
Containers Intact?	☑Yes	☐No	☐N/A	10.
Media: AirCan				11.
Sample Labels Match COC?	☐Yes	☐No	☐N/A	12.

Samples Received: 7 Air Cans, 7 Air Bags

Canisters		Flow Controllers		Stand Alone G	
Sample Number	Can ID	Sample Number	Can ID	Sample Number	Can ID
K010914-NH-MidCan	1153				
" " Total Eff	1009				
" BP ASEFF	1314				
" AS EFF	2441				
" MidCarbon 1	2615				
" TotalINF	2072				
" SVE INF	1332				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐Yes ☐No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: ERIN GROSS **Date:** 1/9/14

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

March 04, 2014

Edwin Turner
CRA_Conoco Phillips
20818 44th Ave. W
Lynnwood, WA 98036

RE: Project: 070496-2RM00 P66-Renton Termin
Pace Project No.: 10258181

Dear Edwin Turner:
Enclosed are the analytical results for sample(s) received by the laboratory on February 18, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Jennifer Gross
jennifer.gross@pacelabs.com
Project Manager

Enclosures

cc: Yu Chen, CRA_Conoco Phillips
Jeffrey Cloud, Conestoga-Rovers Association
Matt Davis, CRA_Conoco Phillips
Matthew Smith, Conestoga-Rover's Association
Kelsey Whittaker, CRA

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CERTIFICATIONS

Project: 070496-2RM00 P66-Renton Termin
Pace Project No.: 10258181

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alabama Certification #40770
Alabama Certification #40770
Alaska Certification #: UST-078
Alaska Certification #MN00064
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #: Pace
Georgia Certification #: 959
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nebraska Certification #: Pace
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
Wisconsin Certification #: 999407970
West Virginia Certification #: 382
West Virginia TO-15 Approval
West Virginia DHHR #:9952C

Montana Certification IDs

602 South 25th Street, Billings, MT 59101
Colorado Asbestos #:17119
EPA Region 8 Certification #: 8TMS-L
Idaho Certification #: MT00012
Minnesota Dept of Health Certification #: 030-999-442
Montana Certification #: MT CERT0040
NVLAP Certification #: 101292-0
Washington Department of Ecology #: C993

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 070496-2RM00 P66-Renton Termin
Pace Project No.: 10258181

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10258181001	**a-021714-NH_SVE INF**	Air	02/17/14 13:10	02/18/14 11:00
10258181002	**a-021714-NH-AS EFF**	Air	02/17/14 13:15	02/18/14 11:00
10258181003	**a-021714-NH-TOTAL INF**	Air	02/17/14 13:20	02/18/14 11:00
10258181004	**a-021714-NH-MID CARBON 1**	Air	02/17/14 13:25	02/18/14 11:00
10258181005	**a-021714-NH-MID CARBON 2**	Air	02/17/14 13:30	02/18/14 11:00
10258181006	**a-021714-NH-TOTAL EFF**	Air	02/17/14 13:35	02/18/14 11:00
10258181007	**GW-021714-NH-TOTAL INF**	Water	02/17/14 11:15	02/18/14 11:00
10258181008	**GW-021714-NH-AS EFF**	Water	02/17/14 11:40	02/18/14 11:00
10258181009	**GW-021714-NH-MID CARBON**	Water	02/17/14 11:55	02/18/14 11:00
10258181010	**GW-021714-NH-TOTAL EFF**	Water	02/17/14 12:15	02/18/14 11:00
10258181011	**GW-021714-NH-TOTAL EFF-1,2,3**	Water	02/17/14 12:50	02/18/14 11:00
10258181012	**GW-021714-NH-TOTAL EFF pH**	Water	02/17/14 12:55	02/18/14 11:00
10258181013	**GW-021714-NH-BP RI INF**	Water	02/17/14 13:40	02/18/14 11:00
10258181014	**GW-021714-NH-BP R2 INF**	Water	02/17/14 16:10	02/18/14 11:00
10258181015	**GW-021714-NH-BP TOTAL INF**	Water	02/17/14 16:20	02/18/14 11:00
10258176001	**A-021814-MD-BP AS EFF**	Air	02/18/14 09:15	02/18/14 11:00
10258176002	**GW-21814-MD-BP Total EFF-1,2,3**	Water	02/18/14 09:25	02/18/14 11:00
10258176003	**GW-21814-MD-BP Total EFF**	Water	02/18/14 09:25	02/18/14 11:00

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SAMPLE ANALYTE COUNT

Project: 070496-2RM00 P66-Renton Termin
Pace Project No.: 10258181

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10258181001	**a-021714-NH_SVE INF**	TO-14M Ambient Air	DR1	6	PASI-M
10258181002	**a-021714-NH-AS EFF**	TO-14M Ambient Air	DR1	6	PASI-M
10258181003	**a-021714-NH-TOTAL INF**	TO-14M Ambient Air	DR1	6	PASI-M
10258181004	**a-021714-NH-MID CARBON 1**	TO-14M Ambient Air	DR1	6	PASI-M
10258181005	**a-021714-NH-MID CARBON 2**	TO-14M Ambient Air	DR1	6	PASI-M
10258181006	**a-021714-NH-TOTAL EFF**	TO-14M Ambient Air	DR1	6	PASI-M
10258181007	**GW-021714-NH-TOTAL INF**	NWTPH-Dx	JRH	4	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
10258181008	**GW-021714-NH-AS EFF**	NWTPH-Dx	JRH	4	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
10258181009	**GW-021714-NH-MID CARBON**	NWTPH-Dx	JRH	4	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
10258181010	**GW-021714-NH-TOTAL EFF**	NWTPH-Dx	JRH	4	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
10258181011	**GW-021714-NH-TOTAL EFF-1,2,3**	EPA 1664 OG	AS1	1	PASI-M
10258181012	**GW-021714-NH-TOTAL EFF pH**	SM 4500-H+B	SC1	1	PASI-MT
10258181013	**GW-021714-NH-BP RI INF**	NWTPH-Dx	JRH	4	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
10258181014	**GW-021714-NH-BP R2 INF**	NWTPH-Dx	JRH	4	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
10258181015	**GW-021714-NH-BP TOTAL INF**	NWTPH-Dx	JRH	4	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
10258176001	**A-021814-MD-BP AS EFF**	TO-14M Ambient Air	DR1	6	PASI-M
10258176002	**GW-21814-MD-BP Total EFF-1,2,3**	EPA 1664 OG	AS1	1	PASI-M
10258176003	**GW-21814-MD-BP Total EFF**	NWTPH-Dx	JRH	4	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
		SM 4500-H+B	SC1	1	PASI-MT

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ANALYTICAL RESULTS

Project: 070496-2RM00 P66-Renton Termin
Pace Project No.: 10258181

Sample: a-021714-NH_SVE INF **Lab ID: 10258181001** Collected: 02/17/14 13:10 Received: 02/18/14 11:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO-14M MSV AIR - Ambient	Analytical Method: TO-14M Ambient Air							
Benzene	**0.49**	ppmv	0.0084	16.8		03/02/14 22:31	71-43-2	
Ethylbenzene	**0.034**	ppmv	0.0084	16.8		03/02/14 22:31	100-41-4	
THC as Gas	**36.6**	ppmv	0.59	16.8		03/02/14 22:31		
Toluene	**0.62**	ppmv	0.0084	16.8		03/02/14 22:31	108-88-3	E
m&p-Xylene	**0.28**	ppmv	0.017	16.8		03/02/14 22:31	179601-23-1	
o-Xylene	**0.090**	ppmv	0.0084	16.8		03/02/14 22:31	95-47-6	

Sample: a-021714-NH-AS EFF **Lab ID: 10258181002** Collected: 02/17/14 13:15 Received: 02/18/14 11:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO-14M MSV AIR - Ambient	Analytical Method: TO-14M Ambient Air							
Benzene	**0.015**	ppmv	0.0016	3.26		03/02/14 22:06	71-43-2	
Ethylbenzene	**0.0018**	ppmv	0.0016	3.26		03/02/14 22:06	100-41-4	
THC as Gas	**0.58**	ppmv	0.11	3.26		03/02/14 22:06		
Toluene	**0.018**	ppmv	0.0016	3.26		03/02/14 22:06	108-88-3	
m&p-Xylene	**0.015**	ppmv	0.0033	3.26		03/02/14 22:06	179601-23-1	
o-Xylene	**0.0082**	ppmv	0.0016	3.26		03/02/14 22:06	95-47-6	

Sample: a-021714-NH-TOTAL INF **Lab ID: 10258181003** Collected: 02/17/14 13:20 Received: 02/18/14 11:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO-14M MSV AIR - Ambient	Analytical Method: TO-14M Ambient Air							
Benzene	**0.032**	ppmv	0.0016	3.14		03/02/14 21:40	71-43-2	
Ethylbenzene	**0.0021**	ppmv	0.0016	3.14		03/02/14 21:40	100-41-4	
THC as Gas	**2.3**	ppmv	0.11	3.14		03/02/14 21:40		
Toluene	**0.040**	ppmv	0.0016	3.14		03/02/14 21:40	108-88-3	
m&p-Xylene	**0.017**	ppmv	0.0031	3.14		03/02/14 21:40	179601-23-1	
o-Xylene	**0.0060**	ppmv	0.0016	3.14		03/02/14 21:40	95-47-6	

Sample: a-021714-NH-MID CARBON 1 **Lab ID: 10258181004** Collected: 02/17/14 13:25 Received: 02/18/14 11:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO-14M MSV AIR - Ambient	Analytical Method: TO-14M Ambient Air							
Benzene	ND	ppmv	0.0016	3.14		03/02/14 21:15	71-43-2	
Ethylbenzene	ND	ppmv	0.0016	3.14		03/02/14 21:15	100-41-4	
THC as Gas	**1.2**	ppmv	0.11	3.14		03/02/14 21:15		
Toluene	**0.0017**	ppmv	0.0016	3.14		03/02/14 21:15	108-88-3	
m&p-Xylene	ND	ppmv	0.0031	3.14		03/02/14 21:15	179601-23-1	
o-Xylene	ND	ppmv	0.0016	3.14		03/02/14 21:15	95-47-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 070496-2RM00 P66-Renton Termin
Pace Project No.: 10258181

Sample: a-021714-NH-MID CARBON 2 **Lab ID: 10258181005** Collected: 02/17/14 13:30 Received: 02/18/14 11:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO-14M MSV AIR - Ambient	Analytical Method: TO-14M Ambient Air							
Benzene	ND	ppmv	0.00084	1.68		03/01/14 22:55	71-43-2	
Ethylbenzene	ND	ppmv	0.00084	1.68		03/01/14 22:55	100-41-4	
THC as Gas	**1.3**	ppmv	0.059	1.68		03/01/14 22:55		
Toluene	**0.0013**	ppmv	0.00084	1.68		03/01/14 22:55	108-88-3	
m&p-Xylene	ND	ppmv	0.0017	1.68		03/01/14 22:55	179601-23-1	
o-Xylene	ND	ppmv	0.00084	1.68		03/01/14 22:55	95-47-6	

Sample: a-021714-NH-TOTAL EFF **Lab ID: 10258181006** Collected: 02/17/14 13:35 Received: 02/18/14 11:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO-14M MSV AIR - Ambient	Analytical Method: TO-14M Ambient Air							
Benzene	ND	ppmv	0.0029	5.87		03/03/14 17:22	71-43-2	
Ethylbenzene	ND	ppmv	0.0029	5.87		03/03/14 17:22	100-41-4	
THC as Gas	**1.1**	ppmv	0.21	5.87		03/03/14 17:22		
Toluene	ND	ppmv	0.0029	5.87		03/03/14 17:22	108-88-3	
m&p-Xylene	ND	ppmv	0.0059	5.87		03/03/14 17:22	179601-23-1	
o-Xylene	ND	ppmv	0.0029	5.87		03/03/14 17:22	95-47-6	

Sample: GW-021714-NH-TOTAL INF **Lab ID: 10258181007** Collected: 02/17/14 11:15 Received: 02/18/14 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	**1.0**	mg/L	0.42	1	02/20/14 18:23	02/22/14 16:39	68334-30-5	
Motor Oil Range SG	**0.50**	mg/L	0.42	1	02/20/14 18:23	02/22/14 16:39	64742-65-0	
Surrogates								
o-Terphenyl (S)	81	%.	30-125	1	02/20/14 18:23	02/22/14 16:39	84-15-1	
n-Triacontane (S)	86	%.	30-125	1	02/20/14 18:23	02/22/14 16:39	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	**6090**	ug/L	1000	10		02/25/14 14:30		
Surrogates								
a,a,a-Trifluorotoluene (S)	99	%.	70-125	10		02/25/14 14:30	98-08-8	
8260 MSV UST	Analytical Method: EPA 8260							
Benzene	**951**	ug/L	10.0	10		02/25/14 14:55	71-43-2	
Ethylbenzene	**29.8**	ug/L	1.0	1		02/23/14 15:14	100-41-4	
Toluene	**495**	ug/L	10.0	10		02/25/14 14:55	108-88-3	
Xylene (Total)	**984**	ug/L	30.0	10		02/25/14 14:55	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%.	75-125	1		02/23/14 15:14	17060-07-0	
Toluene-d8 (S)	99	%.	75-125	1		02/23/14 15:14	2037-26-5	
4-Bromofluorobenzene (S)	101	%.	75-125	1		02/23/14 15:14	460-00-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 070496-2RM00 P66-Renton Termin
Pace Project No.: 10258181

Sample: GW-021714-NH-AS EFF **Lab ID: 10258181008** Collected: 02/17/14 11:40 Received: 02/18/14 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	**0.73**	mg/L	0.43	1	02/20/14 18:23	02/22/14 17:01	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.43	1	02/20/14 18:23	02/22/14 17:01	64742-65-0	
Surrogates								
o-Terphenyl (S)	75	%.	30-125	1	02/20/14 18:23	02/22/14 17:01	84-15-1	
n-Triacontane (S)	80	%.	30-125	1	02/20/14 18:23	02/22/14 17:01	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	**2060**	ug/L	100	1		02/25/14 13:50		
Surrogates								
a,a,a-Trifluorotoluene (S)	102	%.	70-125	1		02/25/14 13:50	98-08-8	
8260 MSV UST	Analytical Method: EPA 8260							
Benzene	**225**	ug/L	1.0	1		02/25/14 22:47	71-43-2	
Ethylbenzene	**13.0**	ug/L	1.0	1		02/25/14 22:47	100-41-4	
Toluene	**200**	ug/L	1.0	1		02/25/14 22:47	108-88-3	
Xylene (Total)	**270**	ug/L	3.0	1		02/25/14 22:47	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	97	%.	75-125	1		02/25/14 22:47	17060-07-0	
Toluene-d8 (S)	101	%.	75-125	1		02/25/14 22:47	2037-26-5	
4-Bromofluorobenzene (S)	101	%.	75-125	1		02/25/14 22:47	460-00-4	

Sample: GW-021714-NH-MID CARBON **Lab ID: 10258181009** Collected: 02/17/14 11:55 Received: 02/18/14 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	ND	mg/L	0.43	1	02/20/14 18:23	02/22/14 17:22	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.43	1	02/20/14 18:23	02/22/14 17:22	64742-65-0	
Surrogates								
o-Terphenyl (S)	77	%.	30-125	1	02/20/14 18:23	02/22/14 17:22	84-15-1	
n-Triacontane (S)	83	%.	30-125	1	02/20/14 18:23	02/22/14 17:22	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	ND	ug/L	100	1		02/25/14 13:09		
Surrogates								
a,a,a-Trifluorotoluene (S)	102	%.	70-125	1		02/25/14 13:09	98-08-8	
8260 MSV UST	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		02/26/14 10:45	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		02/26/14 10:45	100-41-4	
Toluene	ND	ug/L	1.0	1		02/26/14 10:45	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		02/26/14 10:45	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	102	%.	75-125	1		02/26/14 10:45	17060-07-0	
Toluene-d8 (S)	101	%.	75-125	1		02/26/14 10:45	2037-26-5	

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ANALYTICAL RESULTS

Project: 070496-2RM00 P66-Renton Termin
Pace Project No.: 10258181

Sample: GW-021714-NH-MID CARBON **Lab ID: 10258181009** Collected: 02/17/14 11:55 Received: 02/18/14 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST	Analytical Method: EPA 8260							
Surrogates								
4-Bromofluorobenzene (S)	99	%.	75-125	1		02/26/14 10:45	460-00-4	

Sample: GW-021714-NH-TOTAL EFF **Lab ID: 10258181010** Collected: 02/17/14 12:15 Received: 02/18/14 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	ND	mg/L	0.40	1	02/20/14 18:23	02/22/14 17:44	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.40	1	02/20/14 18:23	02/22/14 17:44	64742-65-0	
Surrogates								
o-Terphenyl (S)	75	%.	30-125	1	02/20/14 18:23	02/22/14 17:44	84-15-1	
n-Triacontane (S)	81	%.	30-125	1	02/20/14 18:23	02/22/14 17:44	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	ND	ug/L	100	1		02/25/14 13:30		
Surrogates								
a,a,a-Trifluorotoluene (S)	101	%.	70-125	1		02/25/14 13:30	98-08-8	
8260 MSV UST	Analytical Method: EPA 8260							
Benzene	**29.9**	ug/L	1.0	1		02/26/14 14:33	71-43-2	
Ethylbenzene	**1.1**	ug/L	1.0	1		02/26/14 14:33	100-41-4	
Toluene	**20.9**	ug/L	1.0	1		02/26/14 14:33	108-88-3	
Xylene (Total)	**56.7**	ug/L	3.0	1		02/26/14 14:33	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	99	%.	75-125	1		02/26/14 14:33	17060-07-0	
Toluene-d8 (S)	100	%.	75-125	1		02/26/14 14:33	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	75-125	1		02/26/14 14:33	460-00-4	

Sample: GW-021714-NH-TOTAL EFF-1,2,3 **Lab ID: 10258181011** Collected: 02/17/14 12:50 Received: 02/18/14 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
1664 HEM, Oil and Grease	Analytical Method: EPA 1664 OG							
Oil and Grease	ND	mg/L	6.4	1		02/21/14 14:45		

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ANALYTICAL RESULTS

Project: 070496-2RM00 P66-Renton Termin
Pace Project No.: 10258181

Sample: GW-021714-NH-TOTAL EFF pH **Lab ID: 10258181012** Collected: 02/17/14 12:55 Received: 02/18/14 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B							
pH at 25 Degrees C	**7.8**	Std. Units	0.10	1		02/24/14 14:15		H6

Sample: GW-021714-NH-BP RI INF **Lab ID: 10258181013** Collected: 02/17/14 13:40 Received: 02/18/14 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	**1.0**	mg/L	0.40	1	02/20/14 18:23	02/22/14 18:06	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.40	1	02/20/14 18:23	02/22/14 18:06	64742-65-0	
Surrogates								
o-Terphenyl (S)	76	%.	30-125	1	02/20/14 18:23	02/22/14 18:06	84-15-1	
n-Triacontane (S)	81	%.	30-125	1	02/20/14 18:23	02/22/14 18:06	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	**5250**	ug/L	1000	10		02/25/14 16:50		
Surrogates								
a,a,a-Trifluorotoluene (S)	104	%.	70-125	10		02/25/14 16:50	98-08-8	
8260 MSV UST	Analytical Method: EPA 8260							
Benzene	**1820**	ug/L	10.0	10		02/23/14 16:54	71-43-2	
Ethylbenzene	**486**	ug/L	10.0	10		02/23/14 16:54	100-41-4	
Toluene	**20.4**	ug/L	10.0	10		02/23/14 16:54	108-88-3	
Xylene (Total)	**35.2**	ug/L	30.0	10		02/23/14 16:54	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	99	%.	75-125	10		02/23/14 16:54	17060-07-0	
Toluene-d8 (S)	101	%.	75-125	10		02/23/14 16:54	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	75-125	10		02/23/14 16:54	460-00-4	

Sample: GW-021714-NH-BP R2 INF **Lab ID: 10258181014** Collected: 02/17/14 16:10 Received: 02/18/14 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	ND	mg/L	0.41	1	02/20/14 18:23	02/22/14 19:11	68334-30-5	
Motor Oil Range SG	**0.43**	mg/L	0.41	1	02/20/14 18:23	02/22/14 19:11	64742-65-0	
Surrogates								
o-Terphenyl (S)	75	%.	30-125	1	02/20/14 18:23	02/22/14 19:11	84-15-1	
n-Triacontane (S)	79	%.	30-125	1	02/20/14 18:23	02/22/14 19:11	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	**435**	ug/L	100	1		02/25/14 14:10		
Surrogates								
a,a,a-Trifluorotoluene (S)	102	%.	70-125	1		02/25/14 14:10	98-08-8	

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ANALYTICAL RESULTS

Project: 070496-2RM00 P66-Renton Termin
Pace Project No.: 10258181

Sample: GW-021714-NH-BP R2 INF **Lab ID: 10258181014** Collected: 02/17/14 16:10 Received: 02/18/14 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST	Analytical Method: EPA 8260							
Benzene	**28.6**	ug/L	1.0	1		02/26/14 14:50	71-43-2	
Ethylbenzene	**25.1**	ug/L	1.0	1		02/26/14 14:50	100-41-4	
Toluene	ND	ug/L	1.0	1		02/26/14 14:50	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		02/26/14 14:50	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	99	%.	75-125	1		02/26/14 14:50	17060-07-0	
Toluene-d8 (S)	100	%.	75-125	1		02/26/14 14:50	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	75-125	1		02/26/14 14:50	460-00-4	

Sample: GW-021714-NH-BP TOTAL INF **Lab ID: 10258181015** Collected: 02/17/14 16:20 Received: 02/18/14 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	**0.60**	mg/L	0.41	1	02/20/14 18:23	02/22/14 19:32	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.41	1	02/20/14 18:23	02/22/14 19:32	64742-65-0	
Surrogates								
o-Terphenyl (S)	76	%.	30-125	1	02/20/14 18:23	02/22/14 19:32	84-15-1	
n-Triacontane (S)	81	%.	30-125	1	02/20/14 18:23	02/22/14 19:32	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	**2160**	ug/L	500	5		02/25/14 16:30		
Surrogates								
a,a,a-Trifluorotoluene (S)	103	%.	70-125	5		02/25/14 16:30	98-08-8	
8260 MSV UST	Analytical Method: EPA 8260							
Benzene	**648**	ug/L	5.0	5		02/25/14 18:34	71-43-2	
Ethylbenzene	**196**	ug/L	1.0	1		02/23/14 16:37	100-41-4	
Toluene	**7.8**	ug/L	1.0	1		02/23/14 16:37	108-88-3	
Xylene (Total)	**15.2**	ug/L	3.0	1		02/23/14 16:37	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	102	%.	75-125	1		02/23/14 16:37	17060-07-0	
Toluene-d8 (S)	100	%.	75-125	1		02/23/14 16:37	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	75-125	1		02/23/14 16:37	460-00-4	

Sample: A-021814-MD-BP AS EFF **Lab ID: 10258176001** Collected: 02/18/14 09:15 Received: 02/18/14 11:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO-14M MSV AIR - Ambient	Analytical Method: TO-14M Ambient Air							
Benzene	**0.0038**	ppmv	0.00084	1.68		03/01/14 20:41	71-43-2	
Ethylbenzene	ND	ppmv	0.00084	1.68		03/01/14 20:41	100-41-4	
THC as Gas	**0.17**	ppmv	0.059	1.68		03/01/14 20:41		
Toluene	**0.0019**	ppmv	0.00084	1.68		03/01/14 20:41	108-88-3	

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ANALYTICAL RESULTS

Project: 070496-2RM00 P66-Renton Termin
Pace Project No.: 10258181

Sample: A-021814-MD-BP AS EFF **Lab ID: 10258176001** Collected: 02/18/14 09:15 Received: 02/18/14 11:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO-14M MSV AIR - Ambient	Analytical Method: TO-14M Ambient Air							
m&p-Xylene	ND	ppmv	0.0017	1.68		03/01/14 20:41	179601-23-1	
o-Xylene	ND	ppmv	0.00084	1.68		03/01/14 20:41	95-47-6	

Sample: GW-21814-MD-BP Total EFF-1,2,3 **Lab ID: 10258176002** Collected: 02/18/14 09:25 Received: 02/18/14 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
1664 HEM, Oil and Grease	Analytical Method: EPA 1664 OG							
Oil and Grease	ND	mg/L	6.7	1		02/21/14 14:45		

Sample: GW-21814-MD-BP Total EFF **Lab ID: 10258176003** Collected: 02/18/14 09:25 Received: 02/18/14 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	ND	mg/L	0.40	1	02/20/14 18:23	02/22/14 16:17	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.40	1	02/20/14 18:23	02/22/14 16:17	64742-65-0	
Surrogates								
o-Terphenyl (S)	76	%.	30-125	1	02/20/14 18:23	02/22/14 16:17	84-15-1	
n-Triacontane (S)	81	%.	30-125	1	02/20/14 18:23	02/22/14 16:17	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	ND	ug/L	100	1		02/25/14 12:49		
Surrogates								
a,a,a-Trifluorotoluene (S)	100	%.	70-125	1		02/25/14 12:49	98-08-8	
8260 MSV UST	Analytical Method: EPA 8260							
Benzene	**2.3**	ug/L	1.0	1		02/25/14 22:29	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		02/25/14 22:29	100-41-4	
Toluene	ND	ug/L	1.0	1		02/25/14 22:29	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		02/25/14 22:29	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%.	75-125	1		02/25/14 22:29	17060-07-0	
Toluene-d8 (S)	100	%.	75-125	1		02/25/14 22:29	2037-26-5	
4-Bromofluorobenzene (S)	98	%.	75-125	1		02/25/14 22:29	460-00-4	
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B							
pH at 25 Degrees C	**7.8**	Std. Units	0.10	1		02/24/14 14:16		H6

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QUALITY CONTROL DATA

Project: 070496-2RM00 P66-Renton Termin
Pace Project No.: 10258181

QC Batch: AIR/19544 Analysis Method: TO-14M Ambient Air
QC Batch Method: TO-14M Ambient Air Analysis Description: TO14 MSV AIR - AMBIENT
Associated Lab Samples: 10258176001, 10258181005

METHOD BLANK: 1632317 Matrix: Air
Associated Lab Samples: 10258176001, 10258181005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ppmv	ND	0.00050	03/01/14 16:06	
Ethylbenzene	ppmv	ND	0.00050	03/01/14 16:06	
m&p-Xylene	ppmv	ND	0.0010	03/01/14 16:06	
o-Xylene	ppmv	ND	0.00050	03/01/14 16:06	
THC as Gas	ppmv	ND	0.035	03/01/14 16:06	
Toluene	ppmv	ND	0.00050	03/01/14 16:06	

LABORATORY CONTROL SAMPLE: 1632318

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ppmv	.01	0.0079	79	69-134	
Ethylbenzene	ppmv	.01	0.0092	92	73-139	
m&p-Xylene	ppmv	.01	0.0098	98	73-139	
o-Xylene	ppmv	.01	0.0096	96	71-138	
THC as Gas	ppmv	.72	0.77	107	65-136	
Toluene	ppmv	.01	0.0092	92	67-133	

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QUALITY CONTROL DATA

Project: 070496-2RM00 P66-Renton Termin
Pace Project No.: 10258181

QC Batch: AIR/19548 Analysis Method: TO-14M Ambient Air
QC Batch Method: TO-14M Ambient Air Analysis Description: TO14 MSV AIR - AMBIENT
Associated Lab Samples: 10258181001, 10258181002, 10258181003, 10258181004

METHOD BLANK: 1632397 Matrix: Air
Associated Lab Samples: 10258181001, 10258181002, 10258181003, 10258181004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ppmv	ND	0.00050	03/02/14 16:42	
Ethylbenzene	ppmv	ND	0.00050	03/02/14 16:42	
m&p-Xylene	ppmv	ND	0.0010	03/02/14 16:42	
o-Xylene	ppmv	ND	0.00050	03/02/14 16:42	
THC as Gas	ppmv	ND	0.035	03/02/14 16:42	
Toluene	ppmv	ND	0.00050	03/02/14 16:42	

LABORATORY CONTROL SAMPLE: 1632398

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ppmv	.01	0.0090	90	69-134	
Ethylbenzene	ppmv	.01	0.0099	99	73-139	
m&p-Xylene	ppmv	.01	0.011	106	73-139	
o-Xylene	ppmv	.01	0.010	101	71-138	
THC as Gas	ppmv	.72	0.71	98	65-136	
Toluene	ppmv	.01	0.010	105	67-133	

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QUALITY CONTROL DATA

Project: 070496-2RM00 P66-Renton Termin
Pace Project No.: 10258181

QC Batch: AIR/19566 Analysis Method: TO-14M Ambient Air
QC Batch Method: TO-14M Ambient Air Analysis Description: TO14 MSV AIR - AMBIENT
Associated Lab Samples: 10258181006

METHOD BLANK: 1633297 Matrix: Air
Associated Lab Samples: 10258181006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ppmv	ND	0.00050	03/03/14 10:37	
Ethylbenzene	ppmv	ND	0.00050	03/03/14 10:37	
m&p-Xylene	ppmv	ND	0.0010	03/03/14 10:37	
o-Xylene	ppmv	ND	0.00050	03/03/14 10:37	
THC as Gas	ppmv	ND	0.035	03/03/14 10:37	
Toluene	ppmv	ND	0.00050	03/03/14 10:37	

LABORATORY CONTROL SAMPLE: 1633298

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ppmv	.01	0.0088	88	69-134	
Ethylbenzene	ppmv	.01	0.0099	99	73-139	
m&p-Xylene	ppmv	.01	0.010	104	73-139	
o-Xylene	ppmv	.01	0.010	100	71-138	
THC as Gas	ppmv	.72	0.65	90	65-136	
Toluene	ppmv	.01	0.010	104	67-133	

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QUALITY CONTROL DATA

Project: 070496-2RM00 P66-Renton Termin
Pace Project No.: 10258181

QC Batch: GCV/11709 Analysis Method: NWTPH-Gx/8021
QC Batch Method: NWTPH-Gx/8021 Analysis Description: NWTPH-Gx/8021B Water
Associated Lab Samples: 10258176003, 10258181007, 10258181008, 10258181009, 10258181010, 10258181013, 10258181014, 10258181015

METHOD BLANK: 1629171 Matrix: Water
Associated Lab Samples: 10258176003, 10258181007, 10258181008, 10258181009, 10258181010, 10258181013, 10258181014, 10258181015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	ND	100	02/25/14 12:05	
a,a,a-Trifluorotoluene (S)	%.	98	70-125	02/25/14 12:05	

LABORATORY CONTROL SAMPLE & LCSD: 1629172 1629173

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	1000	1010	933	101	93	75-125	8	20	
a,a,a-Trifluorotoluene (S)	%.				113	112	70-125			

MATRIX SPIKE SAMPLE: 1630266

Parameter	Units	10256845062 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
TPH as Gas	ug/L	27100	50000	85800	117	52-150	
a,a,a-Trifluorotoluene (S)	%.				118	70-125	

SAMPLE DUPLICATE: 1630265

Parameter	Units	10258181007 Result	Dup Result	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	6090	5930	3	30	
a,a,a-Trifluorotoluene (S)	%.	99	99	.3		

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QUALITY CONTROL DATA

Project: 070496-2RM00 P66-Renton Termin
Pace Project No.: 10258181

QC Batch: MSV/26408 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 10258181007, 10258181013, 10258181015

METHOD BLANK: 1628875 Matrix: Water
Associated Lab Samples: 10258181007, 10258181013, 10258181015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	02/23/14 11:55	
Ethylbenzene	ug/L	ND	1.0	02/23/14 11:55	
Toluene	ug/L	ND	1.0	02/23/14 11:55	
Xylene (Total)	ug/L	ND	3.0	02/23/14 11:55	
1,2-Dichloroethane-d4 (S)	%.	102	75-125	02/23/14 11:55	
4-Bromofluorobenzene (S)	%.	98	75-125	02/23/14 11:55	
Toluene-d8 (S)	%.	99	75-125	02/23/14 11:55	

LABORATORY CONTROL SAMPLE: 1628876

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	20.3	102	75-125	
Ethylbenzene	ug/L	20	20.3	102	75-125	
Toluene	ug/L	20	21.0	105	75-125	
Xylene (Total)	ug/L	60	60.8	101	75-125	
1,2-Dichloroethane-d4 (S)	%.			103	75-125	
4-Bromofluorobenzene (S)	%.			100	75-125	
Toluene-d8 (S)	%.			103	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1628877 1628878

Parameter	Units	10256845059 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	995	20	20	775	770	-1100	-1120	75-129	.6	30	E,M1
Ethylbenzene	ug/L	2770	20	20	728	726	-10200	-10200	75-128	.3	30	E,M1
Toluene	ug/L	4430	20	20	1340	1330	-15500	-15500	75-129	.6	30	E,M1
Xylene (Total)	ug/L	3580	60	60	3660	3610	136	58	75-129	1	30	ES,MS
1,2-Dichloroethane-d4 (S)	%.						104	102	75-125			
4-Bromofluorobenzene (S)	%.						100	101	75-125			
Toluene-d8 (S)	%.						93	94	75-125			

REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 070496-2RM00 P66-Renton Termin
Pace Project No.: 10258181

QC Batch: MSV/26422
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 10258176003, 10258181008

METHOD BLANK: 1629341
Matrix: Water
Associated Lab Samples: 10258176003, 10258181008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	02/25/14 20:31	
Ethylbenzene	ug/L	ND	1.0	02/25/14 20:31	
Toluene	ug/L	ND	1.0	02/25/14 20:31	
Xylene (Total)	ug/L	ND	3.0	02/25/14 20:31	
1,2-Dichloroethane-d4 (S)	%.	100	75-125	02/25/14 20:31	
4-Bromofluorobenzene (S)	%.	101	75-125	02/25/14 20:31	
Toluene-d8 (S)	%.	100	75-125	02/25/14 20:31	

LABORATORY CONTROL SAMPLE: 1629342

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	21.9	110	75-125	
Ethylbenzene	ug/L	20	22.0	110	75-125	
Toluene	ug/L	20	22.5	113	75-125	
Xylene (Total)	ug/L	60	66.1	110	75-125	
1,2-Dichloroethane-d4 (S)	%.			101	75-125	
4-Bromofluorobenzene (S)	%.			100	75-125	
Toluene-d8 (S)	%.			102	75-125	

MATRIX SPIKE SAMPLE: 1629985

Parameter	Units	10258577003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	ND	20	20.2	101	75-129	
Ethylbenzene	ug/L	ND	20	20.5	102	75-128	
Toluene	ug/L	ND	20	21.2	106	75-129	
Xylene (Total)	ug/L	ND	60	61.3	102	75-129	
1,2-Dichloroethane-d4 (S)	%.				104	75-125	
4-Bromofluorobenzene (S)	%.				100	75-125	
Toluene-d8 (S)	%.				103	75-125	

SAMPLE DUPLICATE: 1629984

Parameter	Units	10258577002 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%.	101	100	.8		

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(612)607-1700

QUALITY CONTROL DATA

Project: 070496-2RM00 P66-Renton Termin
Pace Project No.: 10258181

SAMPLE DUPLICATE: 1629984

Parameter	Units	10258577002 Result	Dup Result	RPD	Max RPD	Qualifiers
4-Bromofluorobenzene (S)	%.	99	98	.7		
Toluene-d8 (S)	%.	101	100	.3		

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QUALITY CONTROL DATA

Project: 070496-2RM00 P66-Renton Termin
Pace Project No.: 10258181

QC Batch: MSV/26432 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 10258181009, 10258181010, 10258181014

METHOD BLANK: 1630154 Matrix: Water
Associated Lab Samples: 10258181009, 10258181010, 10258181014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	02/26/14 09:08	
Ethylbenzene	ug/L	ND	1.0	02/26/14 09:08	
Toluene	ug/L	ND	1.0	02/26/14 09:08	
Xylene (Total)	ug/L	ND	3.0	02/26/14 09:08	
1,2-Dichloroethane-d4 (S)	%.	100	75-125	02/26/14 09:08	
4-Bromofluorobenzene (S)	%.	99	75-125	02/26/14 09:08	
Toluene-d8 (S)	%.	101	75-125	02/26/14 09:08	

LABORATORY CONTROL SAMPLE: 1630155

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	20.5	103	75-125	
Ethylbenzene	ug/L	20	20.6	103	75-125	
Toluene	ug/L	20	21.6	108	75-125	
Xylene (Total)	ug/L	60	62.3	104	75-125	
1,2-Dichloroethane-d4 (S)	%.			102	75-125	
4-Bromofluorobenzene (S)	%.			100	75-125	
Toluene-d8 (S)	%.			102	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1630424 1630425

Parameter	Units	10258781003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	ND	100	100	102	98.1	102	98	75-129	4	30	
Ethylbenzene	ug/L	ND	100	100	101	95.6	101	96	75-128	5	30	
Toluene	ug/L	ND	100	100	105	99.0	104	99	75-129	5	30	
Xylene (Total)	ug/L	ND	300	300	300	289	100	96	75-129	4	30	
1,2-Dichloroethane-d4 (S)	%.						101	104	75-125			
4-Bromofluorobenzene (S)	%.						102	98	75-125			
Toluene-d8 (S)	%.						103	100	75-125			

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 070496-2RM00 P66-Renton Termin
Pace Project No.: 10258181

QC Batch: MT/15052
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Associated Lab Samples: 10258176003, 10258181012

LABORATORY CONTROL SAMPLE: 1629374

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
pH at 25 Degrees C	Std. Units	7	7.0	100	98-102	H6

SAMPLE DUPLICATE: 1629375

Parameter	Units	10258561001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.6	8.6	.1	3	H6

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(612)607-1700

QUALITY CONTROL DATA

Project: 070496-2RM00 P66-Renton Termin
Pace Project No.: 10258181

QC Batch: OEXT/24425 Analysis Method: NWTPH-Dx
QC Batch Method: EPA 3510 Analysis Description: NWTPH-Dx GCS LV SG
Associated Lab Samples: 10258176003, 10258181007, 10258181008, 10258181009, 10258181010, 10258181013, 10258181014, 10258181015

METHOD BLANK: 1627968 Matrix: Water
Associated Lab Samples: 10258176003, 10258181007, 10258181008, 10258181009, 10258181010, 10258181013, 10258181014, 10258181015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Fuel Range SG	mg/L	ND	0.40	02/22/14 14:51	
Motor Oil Range SG	mg/L	ND	0.40	02/22/14 14:51	
n-Triacontane (S)	%.	82	30-125	02/22/14 14:51	
o-Terphenyl (S)	%.	78	30-125	02/22/14 14:51	

LABORATORY CONTROL SAMPLE & LCSD: 1627969 1627970

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Fuel Range SG	mg/L	2	1.7	1.7	87	86	50-150	1	20	
Motor Oil Range SG	mg/L	2	1.9	1.9	93	95	50-150	2	20	
n-Triacontane (S)	%.				77	76	30-125			
o-Terphenyl (S)	%.				78	77	30-125			

SAMPLE DUPLICATE: 1627971

Parameter	Units	10258181015 Result	Dup Result	RPD	Max RPD	Qualifiers
Diesel Fuel Range SG	mg/L	0.60	0.58	3	30	
Motor Oil Range SG	mg/L	ND	.29J		30	
n-Triacontane (S)	%.	81	81	2		
o-Terphenyl (S)	%.	76	77	.4		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 070496-2RM00 P66-Renton Termin
Pace Project No.: 10258181

QC Batch: WET/34430 Analysis Method: EPA 1664 OG
QC Batch Method: EPA 1664 OG Analysis Description: 1664 HEM, Oil and Grease
Associated Lab Samples: 10258176002, 10258181011

METHOD BLANK: 1627772 Matrix: Water
Associated Lab Samples: 10258176002, 10258181011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil and Grease	mg/L	ND	5.1	02/21/14 11:06	

LABORATORY CONTROL SAMPLE: 1627773

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	40.8	38.5	94	78-114	

MATRIX SPIKE SAMPLE: 1627774

Parameter	Units	10257915001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	ND	45.5	44.8	93	78-114	

SAMPLE DUPLICATE: 1627775

Parameter	Units	1230574001 Result	Dup Result	RPD	Max RPD	Qualifiers
Oil and Grease	mg/L	12.0	11.1	7	18	

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 070496-2RM00 P66-Renton Termin
Pace Project No.: 10258181

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis
PASI-MT	Pace Analytical Services - Montana

BATCH QUALIFIERS

Batch: GCSV/12862

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
ES	The reported result is estimated because one or more of the constituent results are qualified as such.
H6	Analysis initiated outside of the 15 minute EPA recommended holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
MS	Analyte recovery in the matrix spike was outside QC limits for one or more of the constituent analytes used in the calculated result.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 070496-2RM00 P66-Renton Termin
Pace Project No.: 10258181

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10258176001	A-021814-MD-BP AS EFF	TO-14M Ambient Air	AIR/19544		
10258181001	a-021714-NH_SVE INF	TO-14M Ambient Air	AIR/19548		
10258181002	a-021714-NH-AS EFF	TO-14M Ambient Air	AIR/19548		
10258181003	a-021714-NH-TOTAL INF	TO-14M Ambient Air	AIR/19548		
10258181004	a-021714-NH-MID CARBON 1	TO-14M Ambient Air	AIR/19548		
10258181005	a-021714-NH-MID CARBON 2	TO-14M Ambient Air	AIR/19544		
10258181006	a-021714-NH-TOTAL EFF	TO-14M Ambient Air	AIR/19566		
10258176003	GW-21814-MD-BP Total EFF	EPA 3510	OEXT/24425	NWTPH-Dx	GCSV/12862
10258181007	GW-021714-NH-TOTAL INF	EPA 3510	OEXT/24425	NWTPH-Dx	GCSV/12862
10258181008	GW-021714-NH-AS EFF	EPA 3510	OEXT/24425	NWTPH-Dx	GCSV/12862
10258181009	GW-021714-NH-MID CARBON	EPA 3510	OEXT/24425	NWTPH-Dx	GCSV/12862
10258181010	GW-021714-NH-TOTAL EFF	EPA 3510	OEXT/24425	NWTPH-Dx	GCSV/12862
10258181013	GW-021714-NH-BP RI INF	EPA 3510	OEXT/24425	NWTPH-Dx	GCSV/12862
10258181014	GW-021714-NH-BP R2 INF	EPA 3510	OEXT/24425	NWTPH-Dx	GCSV/12862
10258181015	GW-021714-NH-BP TOTAL INF	EPA 3510	OEXT/24425	NWTPH-Dx	GCSV/12862
10258176003	GW-21814-MD-BP Total EFF	NWTPH-Gx/8021	GCV/11709		
10258181007	GW-021714-NH-TOTAL INF	NWTPH-Gx/8021	GCV/11709		
10258181008	GW-021714-NH-AS EFF	NWTPH-Gx/8021	GCV/11709		
10258181009	GW-021714-NH-MID CARBON	NWTPH-Gx/8021	GCV/11709		
10258181010	GW-021714-NH-TOTAL EFF	NWTPH-Gx/8021	GCV/11709		
10258181013	GW-021714-NH-BP RI INF	NWTPH-Gx/8021	GCV/11709		
10258181014	GW-021714-NH-BP R2 INF	NWTPH-Gx/8021	GCV/11709		
10258181015	GW-021714-NH-BP TOTAL INF	NWTPH-Gx/8021	GCV/11709		
10258176003	GW-21814-MD-BP Total EFF	EPA 8260	MSV/26422		
10258181007	GW-021714-NH-TOTAL INF	EPA 8260	MSV/26408		
10258181008	GW-021714-NH-AS EFF	EPA 8260	MSV/26422		
10258181009	GW-021714-NH-MID CARBON	EPA 8260	MSV/26432		
10258181010	GW-021714-NH-TOTAL EFF	EPA 8260	MSV/26432		
10258181013	GW-021714-NH-BP RI INF	EPA 8260	MSV/26408		
10258181014	GW-021714-NH-BP R2 INF	EPA 8260	MSV/26432		
10258181015	GW-021714-NH-BP TOTAL INF	EPA 8260	MSV/26408		
10258176003	GW-21814-MD-BP Total EFF	SM 4500-H+B	MT/15052		
10258181012	GW-021714-NH-TOTAL EFF pH	SM 4500-H+B	MT/15052		
10258176002	GW-21814-MD-BP Total EFF-1,2,3	EPA 1664 OG	WET/34430		
10258181011	GW-021714-NH-TOTAL EFF-1,2,3	EPA 1664 OG	WET/34430		

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CONESTOGA-ROVERS & ASSOCIATES

CHAIN OF CUSTODY RECORD

Address: 732 BROADWAY, TACOMA, WA 98402 10258181

Phone: 253.573.1218 Fax: 253.573.1663

COC NO.: 3843

PAGE 1 OF 2

(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 070496-2RM00		Laboratory Name: PACE		Lab Location: SEATTLE, WA		SSOW ID:	
Project Name: P66 - RENTON TERMINAL		Lab Contact: J. GROSS		Lab Quote No:		Cooler No:	
Project Location: RENTON, WA.						Carrier:	
Chemistry Contact: M. DAVIS / J. CLOUD						Airbill No:	
Sampler(s): N. HINSPERGER						Date Shipped:	

Item	SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)	DATE (mm/dd/yy)	TIME (hh:mm)	Matrix Code (see back of COC)	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)	Sulfuric Acid (H_2SO_4)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	Other:	Total Containers/Sample	NWTPH Dx+SG	NWTPH Gx	BTEX 8260	BTEX/TPHg TO14	Oil/Grease 1664	pH	MS/MSD Request	COMMENTS/ SPECIAL INSTRUCTIONS:
1	GW-021714-NH-TOTAL INF	02/17/14	11:15	WG	G		X							8	X	X	X					007
2	GW-021714-NH-AS EFF	02/17/14	11:40	WG	G		X							7	X	X	X					008
3	GW-021714-NH-MID CARBON	02/17/14	11:55	WG	G		X							8	X	X	X					009
4	GW-021714-NH-TOTAL EFF	02/17/14	12:15	WG	G		X							8	X	X	X					010
5	GW-021714-NH-TOTAL EFF 1	02/17/14	12:40	WG	G		X							1					X			011 Composite 1,2,3
6	GW-021714-NH-TOTAL EFF 2	02/17/14	12:45	WG	G		X							1					X			" for FOG
7	GW-021714-NH-TOTAL EFF 3	02/17/14	12:50	WG	G		X							1					X			"
8	GW-021714-NH-TOTAL EFF pH	02/17/14	12:55	WG	G	X								1						X		012
9	a-021714-NH-SVE INF	02/17/14	13:10	a	G									1				X				001
10	a-021714-NH-AS EFF	02/17/14	13:15	a	G									1				X				002
11	a-021714-NH-TOTAL INF	02/17/14	13:20	a	G									1				X				003
12	a-021714-NH-MID CARBON 1	02/17/14	13:25	a	G									1				X				004
13	a-021714-NH-MID CARBON 2	02/17/14	13:30	a	G									1				X				005
14	a-021714-NH-TOTAL EFF	02/17/14	13:35	a	G									1				X				006
15	GW-021714-NH-BP RI INF	02/17/14	13:40	WG	G		X							8	X	X	X					013

TAT Required in business days (use separate COCs for different TATs):

☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☒ Other: STANDARD

Total Number of Containers: 49

Notes/ Special Requirements:

All Samples in Cooler must be on COC

	RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
1.	[signature]	CRA	02/17/14	17:30	[signature]	PACE	02/18/14	11:00
2.					[signature] PACE		2/19/14	927 T=1.4
3.						Temp:	3.3, 4.2	

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT — ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE – Fully Executed Copy (CRA) YELLOW – Receiving Laboratory Copy PINK – Shipper GOLDENROD – Sampling Crew

CRA Form: COC-10B (20110804)

CHAIN OF CUSTODY RECORD

COC NO.: 38449

1025818

PAGE 2 OF 2

(See Reverse Side for Instructions)

CONESTOGA-ROVERS & ASSOCIATES

Address: 732 BROADWAY, TACOMA, WA. 98402

Phone: 253.573.1218 Fax: 253.573.1663

Project No/ Phase/Task Code: 070496-2RM00	**Laboratory Name:** PACE	**Lab Location:** SEATTLE, WA.	**SSOW ID:**
Project Name: P66 - RENTON TERMINAL	**Lab Contact:** J. GROSS	**Lab Quote No:**	**Cooler No:**
Project Location: RENTON, WA.			**Carrier:**
Chemistry Contact: M. DAVIS / J. CLOUD			**Airbill No:**
Sampler(s): N. HINSPERGER			**Date Shipped:**

Item	SAMPLE IDENTIFICATION (Containers for each sample may be continued on one line)	DATE (mm/dd/yy)	TIME (hh:mm)	Matrix Code (see back of COC)	Grab (G) or Comp (C)	CONTAINER QUANTITY & PRESERVATION: Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)	Sulfuric Acid (H_2SO_4)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	Other:	Total Containers/Sample	ANALYSIS REQUESTED (See Back of COC for Definitions): NWTPH Dx+ SG	NWTPH GX	BTEX 8260	BTEX/TPHg TOI4	OIL/GREASE 1664	PH						HS/MSD Request	COMMENTS/ SPECIAL INSTRUCTIONS:
1	GW - 021714 - NH - BP R2 INF	02/17/14	16:10	WG	G		X							8	X	X	X									014
2	GW - 021714 - NH - BP TOTAL INF	02/17/14	16:20	WG	G		X							8	X	X	X									015
3	~~GW - 021714 - NH - BP TOTAL EFF~~	~~02/17/14~~	~~16:30~~	~~WG~~	~~G~~		~~X~~							~~8~~	X	X	X									DISPOSE
4	~~GW 021714 - NH - BP TOTAL EFF 1~~	~~02/17/14~~	~~16:40~~	~~WG~~	~~G~~		~~X~~							~~1~~					X							DISPOSE
5	~~GW 021714 - NH - BP TOTAL EFF 2~~	~~02/17/14~~	~~16:45~~	~~WG~~	~~G~~		~~X~~							~~1~~					X							DISPOSE (EMPTY)
6	~~GW 021714 - NH - BP TOTAL EFF 3~~	~~02/17/14~~	~~16:50~~	~~WG~~	~~G~~		X							~~1~~					X							DISPOSE (EMPTY)
7	~~GW - 021714 - NH - BP TOTAL EFF DI~~	~~02/17/14~~	~~16:55~~	~~WG~~	~~G~~	X								~~1~~						1						DISPOSE
8	~~GW - 021714 - NH - BP AS EFF~~	~~02/17/14~~	~~17:00~~	~~GW~~	~~G~~									~~1~~			X									
9																										
10																										
11																										
12																										
13																										
14																										
15																										

TAT Required in business days (use separate COCs for different TATs):

☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☒ Other: STANDARD

Total Number of Containers: 16

All Samples in Cooler must be on COC

Notes/ Special Requirements:

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
1.	CRA	02/17/14	17:30	1.	PACE	02/18/14	11:00
2.				2.			
3.				3.			

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE – Fully Executed Copy (CRA) YELLOW – Receiving Laboratory Copy PINK – Shipper GOLDENROD – Sampling Crew

CRA Form: COC 10/28/2010

Pace Analytical	Document Name: Air Sample Condition Upon Receipt	Document Revised: 26Dec2013 Page 1 of 1
	Document No.: F-MN-A-106-rev.09	Issuing Authority: Pace Minnesota Quality Office

Air Sample Condition Upon Receipt

Client Name: Pace Seattle

Project #: 10258181

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:

Tracking Number: 5779 5331 1329

Custody Seal on Cooler/Box Present? ☒ Yes ☐ No Seals Intact? ☒ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☐ Other: Temp Blank rec: ☐ Yes ☒ No

Temp. (TO17 and TO13 samples only) (°C): — Corrected Temp (°C): — Thermom. Used: ☐ B88A912167504 ☐ B88A9132521491 ☐ 72337080 ☐ 80512447

Temp should be above freezing to 6°C Correction Factor: — Date & Initials of Person Examining Contents: 02/19/14

Type of Ice Received ☐ Blue ☐ Wet ☒ None

				Comments:
Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☒ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☒ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	7.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	10.
Media: air can				11.
Sample Labels Match COC?	☒ Yes	☐ No	☐ N/A	12.

Samples Received:

Canisters		Flow Controllers		Stand Alone G	
Sample Number	Can ID	Sample Number	Can ID	Sample Number	Can ID
SVE - inf	2503				
As eff	2588				
Total inf	2087				
mid carbon 1	2214				
Mid carbon 2	2556				
Total eff	2215				

CLIENT NOTIFICATION/RESOLUTION Field Data Required? ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: JENNY GROSS Date: 02/20/14

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 07Nov2013 Page 1 of 1
	Document No.: F-MN-L-213-rev.08	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: CRA

Project.#: WO# : 10258181

10258181

Courier: [x] Fed Ex [ ] UPS [ ] USPS [ ] Client [ ] Commercial [ ] Pace [ ] Other: ________

Tracking Number: 5779 5731 1207 1318

Custody Seal on Cooler/Box Present? [x] Yes [ ] No — Seals intact? [x] Yes [ ] No

Optional: Proj. Due Date: Proj. Name:

Packing Material: [ ] Bubble Wrap [x] Bubble Bags [ ] None [ ] Other: ________ — Temp Blank? [x] Yes [ ] No

Thermom. Used: [ ] 80512447 [ ] 72337080 [ ] B88A912167504 [x] B88A9132521491 — Type of Ice: [x] Wet [ ] Blue [ ] None [ ] Samples on ice, cooling process has begun

Cooler Temp Read (°C): 1.4, 1.2 — Cooler Temp Corrected (°C): 1.4, 1.2 — Biological Tissue Frozen? [ ] Yes [ ] No [x] N/A

Temp should be above freezing to 6°C — Correction Factor: [illegible] — Date and Initials of Person Examining Contents: 2/19/14 [initials]

	Yes	No	N/A	Comments
Chain of Custody Present?	[x]	[ ]	[ ]	1.
Chain of Custody Filled Out?	[x]	[ ]	[ ]	2.
Chain of Custody Relinquished?	[x]	[ ]	[ ]	3.
Sampler Name and/or Signature on COC?	[x]	[ ]	[ ]	4.
Samples Arrived within Hold Time?	[x]	[ ]	[ ]	5.
Short Hold Time Analysis (<72 hr)?	[ ]	[x]	[ ]	6.
Rush Turn Around Time Requested?	[ ]	[x]	[ ]	7.
Sufficient Volume?	[x]	[ ]	[ ]	8.
Correct Containers Used?	[x]	[ ]	[ ]	9.
-Pace Containers Used?	[x]	[ ]	[ ]	
Containers Intact?	[x]	[ ]	[ ]	10.
Filtered Volume Received for Dissolved Tests?	[ ]	[ ]	[x]	11.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	[x] (circled)	~~[x]~~	[ ]	~~12. Missing 1 cooler of samples 4-19~~ 2/19/14
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	[ ]	[ ]	[x]	13. [ ] HNO_3 [ ] H_2SO_4 [ ] NaOH [ ] HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH>12)	[ ]	[ ]	[x]	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water) DOC	[x]	[ ]		Initial when completed: ____ Lot # of added preservative: ____
Headspace in VOA Vials (>6mm)?	[ ]	[x]	[ ]	14.
Trip Blank Present?	[ ]	[x]	[ ]	15.
Trip Blank Custody Seals Present?	[ ]	[ ]	[x]	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? [ ] Yes [ ] No

Person Contacted: ________ Date/Time: ________

Comments/Resolution: ________

Project Manager Review: Jenn Gross — Date: 02/20/14

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical	Document Name: MN to MT Sample Transfer Form Document Number: F-MN-C-043-rev.08	Revised Date: 15May2013 Page: 1 of 1 Issuing Authority: Pace Minnesota Quality Office

Shipping (circle):	UPS Fed Ex
Tracking #:	5628 6529 4663
Client:	CRA_COP
Due Date:	4-Mar-2014
Pace WO:	10258181
Project Manager:	Jenni Gross

MN to MT Sample Transfer Condition Upon Receipt Form

ANALYSIS REQUESTED

Method Number & Description	Container Type	# of Bottles	Number of Samples	Preservative Yes or No	Verify Arrival Date & Initials
Tests					
pH by 4500H+B	BP3U	1	1	No	MW 2/24/14

REPORTING REQUIREMENTS/ADDITIONAL COMMENTS

~~001~~ CMS 2-20-14

Sample 012

MONTANA SAMPLE RECEIPT INFORMATION

IR Gun: **1383045**, Correction Factor:		Sample Matrix:	H2O
Cooler Temp Read (°C): 0.8	Cooler Temp Corrected (°C): 0.8	Filtred volume rec'd for dissolved tests:	Yes __ No__ NA ✓
Arrived on Ice:	Yes ✓ No__	Samples pH have been checked:	Yes __ No__ NA ✓
Custody Seal Present:	Yes ✓ No__	Trip Blank Present:	Yes __ No__ NA ✓
Short Hold Time Requested < 72 Hours:	Yes ✓ No__	Trip Blank Custody Seals Present:	Yes __ No__ NA ✓
Rush TAT Requested:	Yes __ No ✓	Pace Trip Blank Lot #:	N/A
Sufficient Sample Volume:	Yes ✓ No__	Sample Composites Required:	Yes __ No__ NA ✓
Samples Arrived within Hold Time:	Yes __ No ✓	Report Samples:	Wet Wt. __ Dry Wt.__
Containers Intact:	Yes ✓ No__	Reporting Units:	

CUSTODY TRANSFER

Relinquished by/Affiliation	Date	Time	Accepted By Affiliation	Date	Time
Cassy Sparks Pace MN	2-20-14	1450			
FedEx			MWalters - Pace	2/24/14	0930

CLIENT NOTIFICATION/RESOLUTION

Person Contacted: ______________________ **Date:** ____________

Comments/Resolution: ______________________

Project Manager Review: Cassy Sparks **Date:** 2-24-14

10258176

CHAIN OF CUSTODY RECORD

CONESTOGA-ROVERS & ASSOCIATES Tacoma	SHIPPED TO (Laboratory Name): PACE	REFERENCE NUMBER: 070496

SAMPLER'S SIGNATURE: [signature] PRINTED NAME: MATT DAVIS

SEQ. No.	DATE	TIME	SAMPLE No.	SAMPLE TYPE	No. of Containers	TPH g	BTEX	TPH d	FOG	pH					REMARKS
	2/18/14	915	GW-021814-MD-BP total EFF-1	GW	1			X							Composite 1,2,3 for FOG analysis 002
	↓	920	GW-021814-MD-BP total EFF-2	↓	1			X							"
		925	GW-021814-MD-BP total EFF-3		1			X							"
		925	GW-021814-MD-BP total EFF	↓	9	X	X	X		X					003
	↓	915	A-021814-MD-BP AS EFF	AIR	1	X	X								001

TOTAL NUMBER OF CONTAINERS

HEALTH/CHEMICAL HAZARDS

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
① [signature]	DATE: 2/18/14 TIME: 950	① [signature] PACE	DATE: 02/18/14 TIME: 11:00
②	DATE: TIME:	② [signature] / PACE	DATE: 2/19/14 TIME: 927 T=1.4
③	DATE: TIME:	③	DATE: TIME:

METHOD OF SHIPMENT:

WAY BILL No.

White —Fully Executed Copy
Yellow —Receiving Laboratory Copy
Pink —Shipper Copy
Goldenrod —Sampler Copy

SAMPLE TEAM: MATT DAVIS

RECEIVED FOR LABORATORY BY:

DATE: TIME:

№ CRA 21095

1001 (D) APR 28/97(NF) REV. 0 (F-15)

Pace Analytical	Document Name: Air Sample Condition Upon Receipt	Document Revised: 26Dec2013 Page 1 of 1
	Document No.: F-MN-A-106-rev.09	Issuing Authority: Pace Minnesota Quality Office

Air Sample Condition Upon Receipt

Client Name: CR9

Project #: 10258176

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:

Tracking Number: 5779 5331 1329

Custody Seal on Cooler/Box Present? ☒ Yes ☐ No Seals Intact? ☒ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☐ Other: Temp Blank rec: ☐ Yes ☒ No

Temp. (TO17 and TO13 samples only) (°C): — Corrected Temp (°C): — Thermom. Used: ☐ B88A912167504 ☐ 72337080 ☐ B88A9132521491 ☐ 80512447

Temp should be above freezing to 6°C Correction Factor: — Date & Initials of Person Examining Contents: 02/19/14

Type of Ice Received ☐ Blue ☐ Wet ☒ None

				Comments:
Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☒ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☒ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	7.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	10.
Media: air can				11.
Sample Labels Match COC?	☒ Yes	☐ No	☐ N/A	12.

Samples Received:

Canisters		Flow Controllers		Stand Alone G	
Sample Number	Can ID	Sample Number	Can ID	Sample Number	Can ID
BP ASEFF	2494				

CLIENT NOTIFICATION/RESOLUTION Field Data Required? ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: ENV Gross **Date:** 02/20/14

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 07Nov2013 Page 1 of 1
	Document No.: F-MN-L-213-rev.08	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: CRA

Project #: WO# : 10258176

10258176

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:

Tracking Number: 5779 5331 1287 1318

Custody Seal on Cooler/Box Present? ☑ Yes ☐ No **Seals Intact?** ☑ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other: **Temp Blank?** ☑ Yes ☐ No

Thermom. Used: ☐ 80512447 ☐ 72337080 ☐ B88A912167504 ☑ B88A9132521491 **Type of Ice:** ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 1.4, 1.2 **Cooler Temp Corrected (°C):** 1.4, 1.2 **Biological Tissue Frozen?** ☐ Yes ☐ No ☑ N/A

Temp should be above freezing to 6°C **Correction Factor:** _____ **Date and Initials of Person Examining Contents:** 2/19/14 [initials]

	Yes	No	N/A	Comments:
Chain of Custody Present?	☑	☐	☐	1.
Chain of Custody Filled Out?	☑	☐	☐	2.
Chain of Custody Relinquished?	☑	☐	☐	3.
Sampler Name and/or Signature on COC?	☑	☐	☐	4.
Samples Arrived within Hold Time?	☑	☐	☐	5.
Short Hold Time Analysis (<72 hr)?	☐	☑	☐	6.
Rush Turn Around Time Requested?	☐	☑	☐	7.
Sufficient Volume?	☑	☐	☐	8.
Correct Containers Used?	☑	☐	☐	9.
-Pace Containers Used?	☑	☐	☐	
Containers Intact?	☑	☐	☐	10.
Filtered Volume Received for Dissolved Tests?	☐	☐	☑	11.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☑	~~☑~~	☐	~~12. Missing 1 cooler w/ Samples 2/19~~ [initials]
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	☐	☐	☑	13. ☐ HNO₃ ☐ H₂SO₄ ☐ NaOH ☐ HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO₃, H₂SO₄, HCl<2; NaOH>12)	☐	☐	☑	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water) DOC	☑	☐		Initial when completed: _____ Lot # of added preservative: _____
Headspace in VOA Vials (>6mm)?	☐	☑	☐	14.
Trip Blank Present?	☐	☑	☐	15.
Trip Blank Custody Seals Present?	☐	☐	☑	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: [signature] **Date:** 02/20/14

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers,

Pace Analytical	Document Name: MN to MT Sample Transfer Form	Revised Date: 15May2013
	Document Number: F-MN-C-043-rev.08	Page: 1 of 1
		Issuing Authority: Pace Minnesota Quality Office

Shipping (circle):	UPS Fed Ex
Tracking #:	5679 6579 4663
Client:	CRA_COP
Due Date:	4-Mar-2014
Pace WO:	10258176
Project Manager:	Jenni Gross

MN to MT Sample Transfer Condition Upon Receipt Form

ANALYSIS REQUESTED

Method Number & Description	Container Type	# of Bottles	Number of Samples	Preservative Yes or No	Verify Arrival Date & Initials
Tests					
pH by 4500H+B	BP3U	1	1	No	MW 2/24/14

REPORTING REQUIREMENTS/ADDITIONAL COMMENTS

~~001~~ cms 2-20-14

Sample 003

MONTANA SAMPLE RECEIPT INFORMATION

IR Gun: **1383045**, Correction Factor:		Sample Matrix:	H2O
Cooler Temp Read (°C): 0.8	Cooler Temp Corrected (°C): 0.8	Filtred volume rec'd for dissolved tests:	Yes __ No __ NA ✓
Arrived on Ice:	Yes ✓ No __	Samples pH have been checked:	Yes __ No __ NA ✓
Custody Seal Present:	Yes ✓ No __	Trip Blank Present:	Yes __ No __ NA ✓
Short Hold Time Requested < 72 Hours:	Yes ✓ No __	Trip Blank Custody Seals Present:	Yes __ No __ NA ✓
Rush TAT Requested:	Yes __ No ✓	Pace Trip Blank Lot #:	NA
Sufficient Sample Volume:	Yes ✓ No __	Sample Composites Required:	Yes __ No __ NA ✓
Samples Arrived within Hold Time:	Yes __ No ✓	Report Samples:	Wet Wt. __ Dry Wt. __
Containers Intact:	Yes ✓ No __	Reporting Units:	

CUSTODY TRANSFER

Relinquished by/Affiliation	Date	Time	Accepted By Affiliation	Date	Time
Cassy Sparks Pace MN	2-20-14	1450			
Fed Ex			Mulazzu Pace	2/24/14	0930

CLIENT NOTIFICATION/RESOLUTION

Person Contacted: ______________ **Date:** ______________

Comments/Resolution: ______________

Project Manager Review: Cassy Sparks **Date:** 2-24-14

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

April 14, 2014

Edwin Turner
CRA_Conoco Phillips
20818 44th Ave. W
Lynnwood, WA 98036

RE: Project: Renton Terminal Mar O&M 070496
Pace Project No.: 10261605

Dear Edwin Turner:
Enclosed are the analytical results for sample(s) received by the laboratory on March 27, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Jennifer Gross
jennifer.gross@pacelabs.com
Project Manager

Enclosures

cc: Yu Chen, CRA_Conoco Phillips
Jeffrey Cloud, Conestoga-Rovers Association
Matt Davis, CRA_Conoco Phillips
Matthew Smith, Conestoga-Rover's Association
Kelsey Whittaker, CRA

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: Renton Terminal Mar O&M 070496
Pace Project No.: 10261605

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alabama Certification #40770
Alabama Certification #40770
Alaska Certification #: UST-078
Alaska Certification #MN00064
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #: Pace
Georgia Certification #: 959
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nebraska Certification #: Pace
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
Wisconsin Certification #: 999407970
West Virginia Certification #: 382
West Virginia TO-15 Approval
West Virginia DHHR #:9952C

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: Renton Terminal Mar O&M 070496
Pace Project No.: 10261605

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10261605001	**GW-032714-MD-TOTAL INF**	Water	03/27/14 09:15	03/27/14 11:30
10261605002	**GW-032714-MD-AS EFF**	Water	03/27/14 09:25	03/27/14 11:30
10261605003	**GW-032714-MD-MIDCARBON**	Water	03/27/14 09:35	03/27/14 11:30
10261605004	**GW-032714-MD-TOTAL EFF**	Water	03/27/14 09:45	03/27/14 11:30
10261605005	**A-032714-MD-SVE INF**	Air	03/27/14 09:47	03/27/14 11:30
10261605006	**A-032714-MD-AS EFF**	Air	03/27/14 09:49	03/27/14 11:30
10261605007	**A-032714-MD-Total Inf**	Air	03/27/14 09:51	03/27/14 11:30
10261605008	**A-032714-MD-MID1**	Air	03/27/14 09:53	03/27/14 11:30
10261605009	**A-032714-MD-MID2**	Air	03/27/14 09:55	03/27/14 11:30
10261605010	**A-032714-MD-Total Eff**	Air	03/27/14 09:57	03/27/14 11:30
10261605011	**Unused Tedlar**	Air		03/27/14 11:30

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SAMPLE ANALYTE COUNT

Project: Renton Terminal Mar O&M 070496
Pace Project No.: 10261605

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10261605001	**GW-032714-MD-TOTAL INF**	NWTPH-Dx	MT	4	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
10261605002	**GW-032714-MD-AS EFF**	NWTPH-Dx	MT	4	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
10261605003	**GW-032714-MD-MIDCARBON**	NWTPH-Dx	MT	4	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
10261605004	**GW-032714-MD-TOTAL EFF**	NWTPH-Dx	MT	4	PASI-M
		NWTPH-Gx/8021	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
10261605005	**A-032714-MD-SVE INF**	TO-14M Ambient Air	AH2	6	PASI-M
10261605006	**A-032714-MD-AS EFF**	TO-14M Ambient Air	AH2	6	PASI-M
10261605007	**A-032714-MD-Total Inf**	TO-14M Ambient Air	DR1	6	PASI-M
10261605008	**A-032714-MD-MID1**	TO-14M Ambient Air	AH2	6	PASI-M
10261605009	**A-032714-MD-MID2**	TO-14M Ambient Air	AH2	6	PASI-M
10261605010	**A-032714-MD-Total Eff**	TO-14M Ambient Air	AH2	6	PASI-M

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ANALYTICAL RESULTS

Project: Renton Terminal Mar O&M 070496
Pace Project No.: 10261605

Sample: GW-032714-MD-TOTAL INF **Lab ID: 10261605001** Collected: 03/27/14 09:15 Received: 03/27/14 11:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	**1.6**	mg/L	0.40	1	03/31/14 13:26	04/02/14 11:12	68334-30-5	
Motor Oil Range SG	**0.62**	mg/L	0.40	1	03/31/14 13:26	04/02/14 11:12	64742-65-0	
Surrogates								
o-Terphenyl (S)	71	%.	30-125	1	03/31/14 13:26	04/02/14 11:12	84-15-1	
n-Triacontane (S)	78	%.	30-125	1	03/31/14 13:26	04/02/14 11:12	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	**29500**	ug/L	5000	50		04/08/14 21:48		
Surrogates								
a,a,a-Trifluorotoluene (S)	93	%.	70-125	50		04/08/14 21:48	98-08-8	
8260 MSV UST	Analytical Method: EPA 8260							
Benzene	**1840**	ug/L	10.0	10		04/09/14 14:24	71-43-2	
Ethylbenzene	**132**	ug/L	10.0	10		04/09/14 14:24	100-41-4	
Toluene	**1680**	ug/L	10.0	10		04/09/14 14:24	108-88-3	
Xylene (Total)	**3810**	ug/L	30.0	10		04/09/14 14:24	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	108	%.	75-125	10		04/09/14 14:24	17060-07-0	
Toluene-d8 (S)	93	%.	75-125	10		04/09/14 14:24	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	75-125	10		04/09/14 14:24	460-00-4	

Sample: GW-032714-MD-AS EFF **Lab ID: 10261605002** Collected: 03/27/14 09:25 Received: 03/27/14 11:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	**0.43**	mg/L	0.40	1	03/31/14 13:26	04/02/14 11:56	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.40	1	03/31/14 13:26	04/02/14 11:56	64742-65-0	
Surrogates								
o-Terphenyl (S)	79	%.	30-125	1	03/31/14 13:26	04/02/14 11:56	84-15-1	
n-Triacontane (S)	85	%.	30-125	1	03/31/14 13:26	04/02/14 11:56	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	**260**	ug/L	100	1		04/01/14 14:18		
Surrogates								
a,a,a-Trifluorotoluene (S)	95	%.	70-125	1		04/01/14 14:18	98-08-8	
8260 MSV UST	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		04/09/14 14:09	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		04/09/14 14:09	100-41-4	
Toluene	ND	ug/L	1.0	1		04/09/14 14:09	108-88-3	
Xylene (Total)	**15.4**	ug/L	3.0	1		04/09/14 14:09	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	106	%.	75-125	1		04/09/14 14:09	17060-07-0	
Toluene-d8 (S)	93	%.	75-125	1		04/09/14 14:09	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	75-125	1		04/09/14 14:09	460-00-4	

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ANALYTICAL RESULTS

Project: Renton Terminal Mar O&M 070496
Pace Project No.: 10261605

Sample: GW-032714-MD-MIDCARBON **Lab ID: 10261605003** Collected: 03/27/14 09:35 Received: 03/27/14 11:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	ND	mg/L	0.42	1	03/31/14 13:26	04/02/14 12:17	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.42	1	03/31/14 13:26	04/02/14 12:17	64742-65-0	
Surrogates								
o-Terphenyl (S)	74	%.	30-125	1	03/31/14 13:26	04/02/14 12:17	84-15-1	
n-Triacontane (S)	81	%.	30-125	1	03/31/14 13:26	04/02/14 12:17	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	ND	ug/L	100	1		04/01/14 13:38		
Surrogates								
a,a,a-Trifluorotoluene (S)	95	%.	70-125	1		04/01/14 13:38	98-08-8	
8260 MSV UST	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		04/09/14 16:37	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		04/09/14 16:37	100-41-4	
Toluene	ND	ug/L	1.0	1		04/09/14 16:37	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		04/09/14 16:37	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	107	%.	75-125	1		04/09/14 16:37	17060-07-0	
Toluene-d8 (S)	93	%.	75-125	1		04/09/14 16:37	2037-26-5	
4-Bromofluorobenzene (S)	101	%.	75-125	1		04/09/14 16:37	460-00-4	

Sample: GW-032714-MD-TOTAL EFF **Lab ID: 10261605004** Collected: 03/27/14 09:45 Received: 03/27/14 11:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Silica Gel LV	Analytical Method: NWTPH-Dx Preparation Method: EPA 3510							
Diesel Fuel Range SG	ND	mg/L	0.40	1	03/31/14 13:26	04/02/14 12:39	68334-30-5	
Motor Oil Range SG	ND	mg/L	0.40	1	03/31/14 13:26	04/02/14 12:39	64742-65-0	
Surrogates								
o-Terphenyl (S)	90	%.	30-125	1	03/31/14 13:26	04/02/14 12:39	84-15-1	
n-Triacontane (S)	95	%.	30-125	1	03/31/14 13:26	04/02/14 12:39	638-68-6	
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx/8021							
TPH as Gas	ND	ug/L	100	1		04/01/14 13:58		
Surrogates								
a,a,a-Trifluorotoluene (S)	93	%.	70-125	1		04/01/14 13:58	98-08-8	
8260 MSV UST	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		04/09/14 17:09	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		04/09/14 17:09	100-41-4	
Toluene	ND	ug/L	1.0	1		04/09/14 17:09	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		04/09/14 17:09	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	110	%.	75-125	1		04/09/14 17:09	17060-07-0	

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ANALYTICAL RESULTS

Project: Renton Terminal Mar O&M 070496
Pace Project No.: 10261605

Sample: GW-032714-MD-TOTAL EFF **Lab ID: 10261605004** Collected: 03/27/14 09:45 Received: 03/27/14 11:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST	Analytical Method: EPA 8260							
Surrogates								
Toluene-d8 (S)	92	%.	75-125	1		04/09/14 17:09	2037-26-5	
4-Bromofluorobenzene (S)	101	%.	75-125	1		04/09/14 17:09	460-00-4	

Sample: A-032714-MD-SVE INF **Lab ID: 10261605005** Collected: 03/27/14 09:47 Received: 03/27/14 11:30 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO-14M MSV AIR - Ambient	Analytical Method: TO-14M Ambient Air							
Benzene	**0.46**	ppmv	0.010	20		04/12/14 01:55	71-43-2	
Ethylbenzene	**0.038**	ppmv	0.010	20		04/12/14 01:55	100-41-4	
THC as Gas	**2.0**	ppmv	0.70	20		04/12/14 01:55		CL,L2
Toluene	**0.54**	ppmv	0.010	20		04/12/14 01:55	108-88-3	
m&p-Xylene	**0.32**	ppmv	0.020	20		04/12/14 01:55	179601-23-1	
o-Xylene	**0.11**	ppmv	0.010	20		04/12/14 01:55	95-47-6	

Sample: A-032714-MD-AS EFF **Lab ID: 10261605006** Collected: 03/27/14 09:49 Received: 03/27/14 11:30 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO-14M MSV AIR - Ambient	Analytical Method: TO-14M Ambient Air							
Benzene	**60.4**	ppmv	1.1	2150.4		04/12/14 02:45	71-43-2	
Ethylbenzene	**2.0**	ppmv	1.1	2150.4		04/12/14 02:45	100-41-4	
THC as Gas	**134**	ppmv	75.3	2150.4		04/12/14 02:45		CL,L2
Toluene	**51.6**	ppmv	1.1	2150.4		04/12/14 02:45	108-88-3	
m&p-Xylene	**43.5**	ppmv	2.2	2150.4		04/12/14 02:45	179601-23-1	
o-Xylene	**20.7**	ppmv	1.1	2150.4		04/12/14 02:45	95-47-6	

Sample: A-032714-MD-Total Inf **Lab ID: 10261605007** Collected: 03/27/14 09:51 Received: 03/27/14 11:30 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO-14M MSV AIR - Ambient	Analytical Method: TO-14M Ambient Air							
Benzene	**3.7**	ppmv	0.27	537.2		04/13/14 21:37	71-43-2	
Ethylbenzene	ND	ppmv	0.27	537.2		04/13/14 21:37	100-41-4	
THC as Gas	**49.7**	ppmv	18.8	537.2		04/13/14 21:37		
Toluene	**2.3**	ppmv	0.27	537.2		04/13/14 21:37	108-88-3	
m&p-Xylene	**1.5**	ppmv	0.54	537.2		04/13/14 21:37	179601-23-1	
o-Xylene	**0.72**	ppmv	0.27	537.2		04/13/14 21:37	95-47-6	

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ANALYTICAL RESULTS

Project: Renton Terminal Mar O&M 070496
Pace Project No.: 10261605

Sample: A-032714-MD-MID1 **Lab ID: 10261605008** Collected: 03/27/14 09:53 Received: 03/27/14 11:30 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO-14M MSV AIR - Ambient	Analytical Method: TO-14M Ambient Air							
Benzene	ND	ppmv	0.018	36.79		04/12/14 01:06	71-43-2	
Ethylbenzene	ND	ppmv	0.018	36.79		04/12/14 01:06	100-41-4	
THC as Gas	ND	ppmv	1.3	36.79		04/12/14 01:06		CL,L2
Toluene	**0.11**	ppmv	0.018	36.79		04/12/14 01:06	108-88-3	
m&p-Xylene	ND	ppmv	0.037	36.79		04/12/14 01:06	179601-23-1	
o-Xylene	ND	ppmv	0.018	36.79		04/12/14 01:06	95-47-6	

Sample: A-032714-MD-MID2 **Lab ID: 10261605009** Collected: 03/27/14 09:55 Received: 03/27/14 11:30 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO-14M MSV AIR - Ambient	Analytical Method: TO-14M Ambient Air							
Benzene	**0.0024**	ppmv	0.0019	3.85		04/12/14 00:42	71-43-2	
Ethylbenzene	ND	ppmv	0.0019	3.85		04/12/14 00:42	100-41-4	
THC as Gas	**0.22**	ppmv	0.13	3.85		04/12/14 00:42		CL,L2
Toluene	**0.0057**	ppmv	0.0019	3.85		04/12/14 00:42	108-88-3	
m&p-Xylene	ND	ppmv	0.0038	3.85		04/12/14 00:42	179601-23-1	
o-Xylene	ND	ppmv	0.0019	3.85		04/12/14 00:42	95-47-6	

Sample: A-032714-MD-Total Eff **Lab ID: 10261605010** Collected: 03/27/14 09:57 Received: 03/27/14 11:30 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO-14M MSV AIR - Ambient	Analytical Method: TO-14M Ambient Air							
Benzene	ND	ppmv	0.0018	3.53		04/12/14 00:11	71-43-2	
Ethylbenzene	ND	ppmv	0.0018	3.53		04/12/14 00:11	100-41-4	
THC as Gas	**0.13**	ppmv	0.12	3.53		04/12/14 00:11		CL,L2
Toluene	**0.0041**	ppmv	0.0018	3.53		04/12/14 00:11	108-88-3	
m&p-Xylene	ND	ppmv	0.0035	3.53		04/12/14 00:11	179601-23-1	
o-Xylene	ND	ppmv	0.0018	3.53		04/12/14 00:11	95-47-6	

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QUALITY CONTROL DATA

Project: Renton Terminal Mar O&M 070496
Pace Project No.: 10261605

QC Batch: AIR/19888 Analysis Method: TO-14M Ambient Air
QC Batch Method: TO-14M Ambient Air Analysis Description: TO14 MSV AIR - AMBIENT
Associated Lab Samples: 10261605005, 10261605006, 10261605008, 10261605009, 10261605010

METHOD BLANK: 1651767 Matrix: Air
Associated Lab Samples: 10261605005, 10261605006, 10261605008, 10261605009, 10261605010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ppmv	ND	0.00050	04/11/14 11:30	
Ethylbenzene	ppmv	ND	0.00050	04/11/14 11:30	
m&p-Xylene	ppmv	ND	0.0010	04/11/14 11:30	
o-Xylene	ppmv	ND	0.00050	04/11/14 11:30	
THC as Gas	ppmv	ND	0.035	04/11/14 11:30	CL,L2
Toluene	ppmv	ND	0.00050	04/11/14 11:30	

LABORATORY CONTROL SAMPLE: 1651768

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ppmv	.01	0.010	100	69-134	
Ethylbenzene	ppmv	.01	0.012	118	73-139	
m&p-Xylene	ppmv	.01	0.013	128	73-139	
o-Xylene	ppmv	.01	0.011	114	71-138	
THC as Gas	ppmv	.72	0.39	55	65-136	CL,L2
Toluene	ppmv	.01	0.010	104	67-133	

SAMPLE DUPLICATE: 1656406

Parameter	Units	10261605008 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ppmv	ND	ND		30	
Ethylbenzene	ppmv	ND	ND		30	
m&p-Xylene	ppmv	ND	ND		30	
o-Xylene	ppmv	ND	ND		30	
THC as Gas	ppmv	ND	.66J		30	CL,L2
Toluene	ppmv	0.11	0.12	8	30	

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QUALITY CONTROL DATA

Project: Renton Terminal Mar O&M 070496
Pace Project No.: 10261605

QC Batch: AIR/19946
QC Batch Method: TO-14M Ambient Air
Analysis Method: TO-14M Ambient Air
Analysis Description: TO14 MSV AIR - AMBIENT
Associated Lab Samples: 10261605007

METHOD BLANK: 1656213
Matrix: Air
Associated Lab Samples: 10261605007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ppmv	ND	0.00050	04/13/14 14:33	
Ethylbenzene	ppmv	ND	0.00050	04/13/14 14:33	
m&p-Xylene	ppmv	ND	0.0010	04/13/14 14:33	
o-Xylene	ppmv	ND	0.00050	04/13/14 14:33	
THC as Gas	ppmv	ND	0.035	04/13/14 14:33	
Toluene	ppmv	ND	0.00050	04/13/14 14:33	

LABORATORY CONTROL SAMPLE: 1656214

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ppmv	.01	0.011	107	69-134	
Ethylbenzene	ppmv	.01	0.010	102	73-139	
m&p-Xylene	ppmv	.01	0.010	100	73-139	
o-Xylene	ppmv	.01	0.010	102	71-138	
THC as Gas	ppmv	.72	0.76	106	65-136	
Toluene	ppmv	.01	0.010	100	67-133	

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QUALITY CONTROL DATA

Project: Renton Terminal Mar O&M 070496
Pace Project No.: 10261605

QC Batch: GCV/11824 Analysis Method: NWTPH-Gx/8021
QC Batch Method: NWTPH-Gx/8021 Analysis Description: NWTPH-Gx/8021B Water
Associated Lab Samples: 10261605002, 10261605003, 10261605004

METHOD BLANK: 1647884 Matrix: Water
Associated Lab Samples: 10261605002, 10261605003, 10261605004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	ND	100	04/01/14 12:38	
a,a,a-Trifluorotoluene (S)	%.	92	70-125	04/01/14 12:38	

METHOD BLANK: 1647890 Matrix: Water
Associated Lab Samples: 10261605002, 10261605003, 10261605004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	ND	100	04/01/14 16:18	
a,a,a-Trifluorotoluene (S)	%.	94	70-125	04/01/14 16:18	

LABORATORY CONTROL SAMPLE & LCSD: 1647885 1647886

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	1000	886	954	89	95	75-125	7	20	
a,a,a-Trifluorotoluene (S)	%.				102	105	70-125			

MATRIX SPIKE SAMPLE: 1647887

Parameter	Units	10261032002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
TPH as Gas	ug/L	<100	1000	1100	109	52-150	
a,a,a-Trifluorotoluene (S)	%.				113	70-125	

SAMPLE DUPLICATE: 1647888

Parameter	Units	10261451004 Result	Dup Result	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	ND	ND		30	
a,a,a-Trifluorotoluene (S)	%.	95	94	.5		

SAMPLE DUPLICATE: 1647889

Parameter	Units	10261738006 Result	Dup Result	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	ND	ND		30	
a,a,a-Trifluorotoluene (S)	%.	96	95	.8		

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QUALITY CONTROL DATA

Project: Renton Terminal Mar O&M 070496
Pace Project No.: 10261605

QC Batch: GCV/11840 Analysis Method: NWTPH-Gx/8021
QC Batch Method: NWTPH-Gx/8021 Analysis Description: NWTPH-Gx/8021B Water
Associated Lab Samples: 10261605001

METHOD BLANK: 1651889 Matrix: Water
Associated Lab Samples: 10261605001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	ND	100	04/08/14 20:45	
a,a,a-Trifluorotoluene (S)	%.	98	70-125	04/08/14 20:45	

LABORATORY CONTROL SAMPLE & LCSD: 1651890 1651891

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	1000	983	923	98	92	75-125	6	20	
a,a,a-Trifluorotoluene (S)	%.				103	101	70-125			

MATRIX SPIKE SAMPLE: 1651892

Parameter	Units	10261605001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
TPH as Gas	ug/L	29500	50000	80700	102	52-150	
a,a,a-Trifluorotoluene (S)	%.				110	70-125	

SAMPLE DUPLICATE: 1651893

Parameter	Units	10261738010 Result	Dup Result	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	1120	1110	1	30	
a,a,a-Trifluorotoluene (S)	%.	170	169	.6		1M

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: Renton Terminal Mar O&M 070496
Pace Project No.: 10261605

QC Batch: MSV/26737 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 10261605001, 10261605002, 10261605003, 10261605004

METHOD BLANK: 1652082 Matrix: Water
Associated Lab Samples: 10261605001, 10261605002, 10261605003, 10261605004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	04/09/14 09:02	
Ethylbenzene	ug/L	ND	1.0	04/09/14 09:02	
Toluene	ug/L	ND	1.0	04/09/14 09:02	
Xylene (Total)	ug/L	ND	3.0	04/09/14 09:02	
1,2-Dichloroethane-d4 (S)	%.	106	75-125	04/09/14 09:02	
4-Bromofluorobenzene (S)	%.	101	75-125	04/09/14 09:02	
Toluene-d8 (S)	%.	95	75-125	04/09/14 09:02	

LABORATORY CONTROL SAMPLE: 1652083

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	22.8	114	75-125	
Ethylbenzene	ug/L	20	18.3	91	75-125	
Toluene	ug/L	20	19.5	97	75-125	
Xylene (Total)	ug/L	60	59.9	100	75-125	
1,2-Dichloroethane-d4 (S)	%.			104	75-125	
4-Bromofluorobenzene (S)	%.			102	75-125	
Toluene-d8 (S)	%.			95	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1653152 1653153

Parameter	Units	10262743005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	ND	100	100	126	113	126	113	75-129	11	30	
Ethylbenzene	ug/L	ND	100	100	100	89.2	100	89	75-128	12	30	
Toluene	ug/L	ND	100	100	106	92.8	105	93	75-129	13	30	
Xylene (Total)	ug/L	ND	300	300	320	287	107	96	75-129	11	30	
1,2-Dichloroethane-d4 (S)	%.						104	105	75-125			
4-Bromofluorobenzene (S)	%.						101	100	75-125			
Toluene-d8 (S)	%.						93	93	75-125			

REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: Renton Terminal Mar O&M 070496
Pace Project No.: 10261605

QC Batch: OEXT/24697 Analysis Method: NWTPH-Dx
QC Batch Method: EPA 3510 Analysis Description: NWTPH-Dx GCS LV SG
Associated Lab Samples: 10261605001, 10261605002, 10261605003, 10261605004

METHOD BLANK: 1647455 Matrix: Water
Associated Lab Samples: 10261605001, 10261605002, 10261605003, 10261605004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Fuel Range SG	mg/L	ND	0.40	04/02/14 10:08	
Motor Oil Range SG	mg/L	ND	0.40	04/02/14 10:08	
n-Triacontane (S)	%.	89	30-125	04/02/14 10:08	
o-Terphenyl (S)	%.	82	30-125	04/02/14 10:08	

LABORATORY CONTROL SAMPLE & LCSD: 1647456 1647457

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Fuel Range SG	mg/L	2	1.8	1.9	90	94	50-150	5	20	
Motor Oil Range SG	mg/L	2	1.9	2.0	93	101	50-150	9	20	
n-Triacontane (S)	%.				87	90	30-125			
o-Terphenyl (S)	%.				85	90	30-125			

SAMPLE DUPLICATE: 1647458

Parameter	Units	10261605001 Result	Dup Result	RPD	Max RPD	Qualifiers
Diesel Fuel Range SG	mg/L	1.6	1.7	7	30	
Motor Oil Range SG	mg/L	0.62	.38J		30	
n-Triacontane (S)	%.	78	77	1		
o-Terphenyl (S)	%.	71	73	3		

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Renton Terminal Mar O&M 070496
Pace Project No.: 10261605

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

SAMPLE QUALIFIERS

Sample: 10261605005
[1] The internal standard recoveries associated with this sample exceed the lower control limit. The reported results should be considered estimated values.

Sample: 10261605006
[1] The internal standard recoveries associated with this sample exceed the lower control limit. The reported results should be considered estimated values.
[2] This result is reported from a serial dilution.

Sample: 10261605007
[1] This result is reported from a serial dilution.

Sample: 10261605008
[1] The internal standard recoveries associated with this sample exceed the lower control limit. The reported results should be considered estimated values.

Sample: 10261605009
[1] The internal standard recoveries associated with this sample exceed the lower control limit. The reported results should be considered estimated values.

Sample: 10261605010
[1] The internal standard recoveries associated with this sample exceed the lower control limit. The reported results should be considered estimated values.

Sample: 1656406
[1] The internal standard recoveries associated with this sample exceed the lower control limit. The reported results should be considered estimated values.

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QUALIFIERS

Project: Renton Terminal Mar O&M 070496
Pace Project No.: 10261605

ANALYTE QUALIFIERS

1M	Surrogate recovery outside laboratory control limits due to matrix interferences.
CL	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Renton Terminal Mar O&M 070496
Pace Project No.: 10261605

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10261605005	**A-032714-MD-SVE INF**	TO-14M Ambient Air	AIR/19888		
10261605006	**A-032714-MD-AS EFF**	TO-14M Ambient Air	AIR/19888		
10261605007	**A-032714-MD-Total Inf**	TO-14M Ambient Air	AIR/19946		
10261605008	**A-032714-MD-MID1**	TO-14M Ambient Air	AIR/19888		
10261605009	**A-032714-MD-MID2**	TO-14M Ambient Air	AIR/19888		
10261605010	**A-032714-MD-Total Eff**	TO-14M Ambient Air	AIR/19888		
10261605001	**GW-032714-MD-TOTAL INF**	EPA 3510	OEXT/24697	NWTPH-Dx	GCSV/13031
10261605002	**GW-032714-MD-AS EFF**	EPA 3510	OEXT/24697	NWTPH-Dx	GCSV/13031
10261605003	**GW-032714-MD-MIDCARBON**	EPA 3510	OEXT/24697	NWTPH-Dx	GCSV/13031
10261605004	**GW-032714-MD-TOTAL EFF**	EPA 3510	OEXT/24697	NWTPH-Dx	GCSV/13031
10261605001	**GW-032714-MD-TOTAL INF**	NWTPH-Gx/8021	GCV/11840		
10261605002	**GW-032714-MD-AS EFF**	NWTPH-Gx/8021	GCV/11824		
10261605003	**GW-032714-MD-MIDCARBON**	NWTPH-Gx/8021	GCV/11824		
10261605004	**GW-032714-MD-TOTAL EFF**	NWTPH-Gx/8021	GCV/11824		
10261605001	**GW-032714-MD-TOTAL INF**	EPA 8260	MSV/26737		
10261605002	**GW-032714-MD-AS EFF**	EPA 8260	MSV/26737		
10261605003	**GW-032714-MD-MIDCARBON**	EPA 8260	MSV/26737		
10261605004	**GW-032714-MD-TOTAL EFF**	EPA 8260	MSV/26737		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

10261605

Page: of

1505103

Section A Required Client Information:

Company:	CRA
Address:	732 Broadway Tacoma, WA
Email To:	MDavis@craworld
Phone:	Fax:
Requested Due Date/TAT:	Standard

Section B Required Project Information:

Report To:	CRA Jessow
Copy To:	
Purchase Order No.:	
Project Name:	Reston terminal March 2014
Project Number:	070496

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	31060 1+2

REGULATORY AGENCY

NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE:

Requested Analysis Filtered (Y/N)

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test	NWTPH-Gx	NWTPH-Dx WSG	BTEX (8260)	TO15 / Gas (TO15)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	GW-032714-MD-Total INF	WT				3/27/14	915		8															10261605 001
2	GW-032714-MD-AS EFF						925																	002
3	GW-032714-MD-MidCarbon						935																	003
4	GW-032714-MD-Total EFF						945																	004
5	A-032714-MD-SVE INF	AR					947																	005
6	A-032714-MD-AS EFF						949																	006
7	~~A-032714-MD-Total INF~~																							
8																								
9	A-032714-MD-Total INF						951																	007
10	A-032714-MD-Mid 1						953																	008
11	A-032714-MD-Mid 2						955																	009
12	A-032714-MD-Total EFF						957																	010

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	[signature]	3/27/14	1130	[signature] / PACE	3/27/14	11:30	5.1	Y	N	Y
				[signature] / PACE-MN	3/28/14	9:30	0	Y	Y	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 28Feb2014 Page 1 of 1
	Document No.: F-MN-L-213-rev.09	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: CRA

Project #: WO#: 10261605

10261605

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client

☐ Commercial ☐ Pace ☐ SpeeDee ☐ Other: _____

Tracking Number: 577953314317

Custody Seal on Cooler/Box Present? ☒ Yes ☐ No Seals Intact? ☒ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other: _____ Temp Blank? ☒ Yes ☐ No

Thermom. Used: ☐ B88A9130516413 ☒ B88A912167504 ☐ B88A9132521491 Type of Ice: ☒ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 0.3 Cooler Temp Corrected (°C): 0

Temp should be above freezing to 6 °C Correction Factor: -0.3 Biological Tissue Frozen? ☐ Yes ☐ No ☒ N/A

Date and Initials of Person Examining Contents: JT 3/28/14

				Comments:
Chain of Custody Present?	☒ Yes	☐ No	☐	1.
Chain of Custody Filled Out?	☒ Yes	☐ No	☐	2.
Chain of Custody Relinquished?	☒ Yes	☐ No	☐	3.
Sampler Name and/or Signature on COC?	☐ Yes	☒ No	☐	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No	☐	6.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐	7.
Sufficient Volume?	☒ Yes	☐ No	☐	8.
Correct Containers Used?	☒ Yes	☐ No	☐	9.
-Pace Containers Used?	☒ Yes	☐ No	☐	
Containers Intact?	☒ Yes	☐ No	☐	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒	11.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☒ Yes	☐ No	☐ N/A	12.
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☒ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	☐ Yes	☐ No	☒ N/A	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC	☒ Yes	☐ No		Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☒ No	☐ N/A	14.
Trip Blank Present?	☐ Yes	☒ No	☐ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION Field Data Required? ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: [signature] Date: 3/28/14

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical	Document Name: Air Sample Condition Upon Receipt	Document Revised: 26Dec2013 Page 1 of 1
	Document No.: F-MN-A-106-rev.09	Issuing Authority: Pace Minnesota Quality Office

Air Sample Condition Upon Receipt

Client Name: CRA

Project #: WO# : 10261605

10261605

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:

Tracking Number: 5779 5331 4328

Custody Seal on Cooler/Box Present? ☒ Yes ☐ No Seals Intact? ☒ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☐ Other: Temp Blank rec: ☐ Yes ☐ No

Temp. (TO17 and TO13 samples only) (°C): — Corrected Temp (°C): — Thermom. Used: ☐ 888A912167504 ☐ 72337080 ☐ 888A9132521491 ☐ 80512447

Temp should be above freezing to 6°C Correction Factor: — Date & Initials of Person Examining Contents: 3/28/14

Type of Ice Received ☐ Blue ☐ Wet ☒ None

Comments:

Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☒ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☒ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☐ Yes	☒ No	☐ N/A	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	7.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	10.
Media: air can				11. logged in to profile JMG wrote
Sample Labels Match COC?	☒ Yes	☐ No	☐ N/A	12. on paper, but COC says TO15 profile for TO14

Samples Received:

Canisters		Flow Controllers		Stand Alone G	
Sample Number	Can ID	Sample Number	Can ID	Sample Number	Can ID
SVE inf	1456				
AS Eff	2008				
total inf	1434				
mid 1	0750				
mid 2	1392				
total eff	1178				
unused	0755				

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? ☐ Yes ☐ No

Person Contacted: Matt Davis @ CRA Date/Time: 3/28/14 15:27

Comments/Resolution: Per Matt, analyze air by TO-14. ae

Project Manager Review: Jean Cross Date: 3/28/14

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)