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6121 Indian School Rd. NE Suite 200
Albuquerque, NM 87110
(505) 237-8440



TETRA TECH, INC.

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June 18, 2010

Mr. Glenn von Gonten
State of New Mexico Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

RE: (1) ConocoPhillips Company Federal 15 Site, Farmington, New Mexico. 2009 Quarterly
Groundwater Monitoring Report – December 2009

Dear Mr. von Gonten:

Enclosed please find one (1) copy of the above-referenced document as compiled by Tetra Tech, Inc.,
formerly Maxim Technologies, for this Farmington area site.

Please do not hesitate to contact me at (505) 237-8440 if you have any questions or require additional
information.

Sincerely,

A handwritten signature in cursive script that reads "Kelly E. Blanchard".

Kelly E. Blanchard
Project Manager/Geologist

Enclosures (1)

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**QUARTERLY GROUNDWATER
MONITORING REPORT
DECEMBER 2009**

**CONOCOPHILLIPS COMPANY
FEDERAL NO.15
FARMINGTON, SAN JUAN COUNTY, NEW MEXICO**

OCD # 3R087

API # 30-045-20078

Prepared for:


ConocoPhillips

420 South Keeler Avenue
Bartlesville, OK 74004

Prepared by:



TETRA TECH, INC.

6121 Indian School Rd. NE Suite 200
Albuquerque, NM 87110
Tetra Tech Project No. 114-690110.100

June 2010

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QUARTERLY GROUNDWATER MONITORING REPORT CONOCOPHILLIPS COMPANY FEDERAL #15 FARMINGTON, SAN JUAN COUNTY, NEW MEXICO

1.0 INTRODUCTION

This report presents the results of quarterly groundwater monitoring completed by Tetra Tech, Inc. (Tetra Tech) on December 16, 2009, at the ConocoPhillips Company Federal No. 15 site in Farmington, New Mexico (Site). This event represents the eighth consecutive quarter of groundwater monitoring conducted by Tetra Tech at the Site.

The Site is located on private property, on the north side of Gila Street between Washington Avenue and English Road. New Mexico 516 (Main Street) is located approximately 0.5 miles to the west. The Site consists of a gas production well and associated equipment and installations. The location and general features of the Site are shown as **Figures 1** and **2**, respectively.

1.1 Site History

The history of the Site is outlined on **Table 1** and discussed in more detail in the following paragraphs.

On October 23, 2004, a release of roughly 15 barrels of condensate was discovered at the Site. Approximately 1,500 cubic yards of affected soil were excavated and replaced with clean fill during the week of October 25, 2004.

Following soil remediation activities, Monitor Wells MW-1, MW-2, MW-3, and MW-4 were installed using 2-inch polyvinyl chloride (PVC) pipe on November 16 and 17, 2004 by Biosphere Environmental Sciences and Technologies, LLC. An additional, down-gradient monitor well (MW-5) was installed on property south of the Site on October 19, 2005 by Spectrum Drilling under the supervision of Tetra Tech.

Monitor Wells MW-1 through MW-4 were initially sampled on January 18, 2005 and again on October 18 and 19, 2005. Monitor Well MW-5 was initially sampled on October 19, 2005.

Due to the presence of light non-aqueous phase liquid (LNAPL) and constituent of concern (COC) concentrations, Tetra Tech conducted quarterly groundwater removal events at Monitor Well MW-2. A vacuum truck was used to pump a total of 4,343 gallons from MW-2 between July 2005 and January 2008. Pumped water was disposed of in an on-site produced water tank (**Figure 2**).

Tetra Tech conducted annual groundwater sampling of Monitor Wells MW-1, MW-2, MW-3, MW-4, and MW-5 in November of 2006 and 2007. The details of each sampling event can be found in the 2006 and 2007 Annual Groundwater Monitoring and Site Activities Reports, dated January 2, 2007 and January 30, 2008, respectively.

Quarterly groundwater monitoring events began in March 2008. Most recently a quarterly sampling event took place on December 16, 2009. This event marks the sixth consecutive quarterly groundwater monitoring event at the Site in which groundwater quality results for benzene, toluene, ethylbenzene and total xylenes (BTEX) were below New Mexico Water Quality Control Commission (NMWQCC) groundwater quality standards (GWQS) contained in Title 20, Chapter 6, Part 2, Section 3103 of the New Mexico Administrative Code (20.6.2.3103 NMAC).

2.0 METHODOLOGY AND RESULTS

2.1 Groundwater Monitoring Methodology

Groundwater Elevation Measurements

On December 16, 2009, groundwater elevation measurements were recorded for Monitor Wells MW-1, MW-2, MW-3, MW-4, and MW-5. **Table 2** presents the monitor well specifications and groundwater level data. A groundwater elevation contour map is presented as **Figure 3**, which illustrates that groundwater at the Site flows to the south-southwest at an approximate gradient of 0.02 feet/feet (ft/ft) toward the Animas River, located approximately 3,200 feet south of the Site.

Groundwater sampling

Groundwater quality samples were collected from Monitor Wells MW-1, MW-2, MW-3, MW-4, and MW-5 during the December 16, 2009 groundwater sampling event. Approximately 5 gallons of water, or three well volumes, were purged from each monitor well prior to sampling. A 1.5-inch polyethylene disposable bailer was used in each well to purge and collect groundwater samples. Purged groundwater was disposed of in the on-site produced water tank (**Figure 2**). Samples were placed in laboratory prepared bottles, packed on ice, and shipped under chain-of-custody documentation to Southern Petroleum Laboratory located in Houston, Texas. The samples were analyzed for presence of BTEX by Environmental Protection Agency (EPA) Method 8260B.

2.2 Groundwater Sampling Analytical Results

The December 16, 2009 analysis of collected groundwater samples indicates that all analyzed constituents are present in concentrations either below NMWQCC standards or were not detected above their respective laboratory reporting limits. Groundwater samples collected from MW-1, MW-3, MW-4 and MW-5 did not reveal BTEX in concentrations above the laboratory reporting limit of 1 microgram per liter ($\mu\text{g/l}$) for each individual BTEX component. Benzene concentrations in MW-2 were detected at 5.0 $\mu\text{g/L}$; a duplicate sample collected from MW-2 contained concentrations of Benzene at 1.9 $\mu\text{g/L}$, both are below NMWQCC standards. Historical laboratory analytical data are summarized on **Table 3**. The field groundwater sampling forms are presented in **Appendix A** and the laboratory analytical report is presented in **Appendix B**. A geologic cross section of the Site is included as **Figure 4**.

3.0 CONCLUSIONS

Tetra Tech conducted quarterly pumping events in Monitor Well MW-2 from July 2005 to January 2008. The concentrations of BTEX measured in this well have decreased steadily from January 2005 to December 2009 and are summarized below.

- MW-2 benzene concentrations have decreased from 1,200 µg/L to 5 µg/L in December 2009.
- MW-2 toluene concentrations decreased from 3,300 µg/L to less than the laboratory reporting limit of 1 µg/L.
- MW-2 ethylbenzene concentrations decreased from 380 µg/L to less than the laboratory reporting limit of 1 µg/L.
- MW-2 total xylenes concentrations decreased from 3,500 µg/L to less than the laboratory reporting limit of 1 µg/L.

The decrease in BTEX concentrations suggests that pumping events were effective. Tetra Tech has discontinued pumping of Monitor Well MW-2; but will continue monitoring all wells quarterly in order to move toward closure of the Site.

Benzene in MW-3 has decreased from 190 µg/L in January 2005 to less than the laboratory reporting limit of 1 µg/L in December 2009, while benzene in MW-4 has decreased from 36 µg/L in November 2007 to less than the laboratory reporting limit of 1 µg/L in December 2009. Additionally, chlorides have never been detected above NMWQCC standards in any Site monitor well. Therefore, analysis of this constituent has been discontinued as of the January 2009 sampling event.

If you have any questions regarding the content of this report, please contact Kelly Blanchard at (505) 237-8440 or at kelly.blanchard@tetrattech.com.

FIGURES

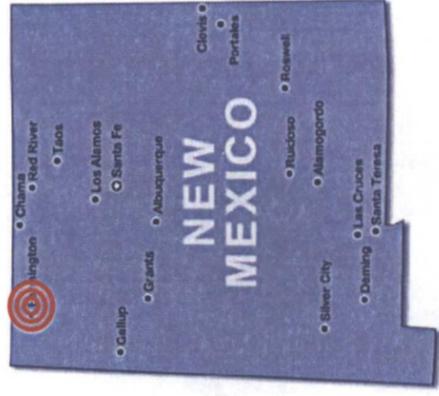
1. Site Location Map
2. Site Layout Map
3. Groundwater Elevation Contour Map
4. Geologic Cross Section



ConocoPhillips High Resolution Aerial Imagery

FIGURE 1.

Site Location Map
ConocoPhillips Company
Federal No.15
Farmington, NM



Approximate ConocoPhillips
Federal #15 Site location

Latitude = 36.759339 deg N
Longitude = -108.149891 deg W



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Figure 2. Site Layout Map
 ConocoPhillips Company
 Federal No.15
 Farmington, New Mexico

-  Monitoring Well
-  Well Head
-  General Site Boundary
-  Produced Water Tank
-  Waste Water Sump
-  Berm



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Figure 3: Groundwater Elevation Contour Map 12/16/2009

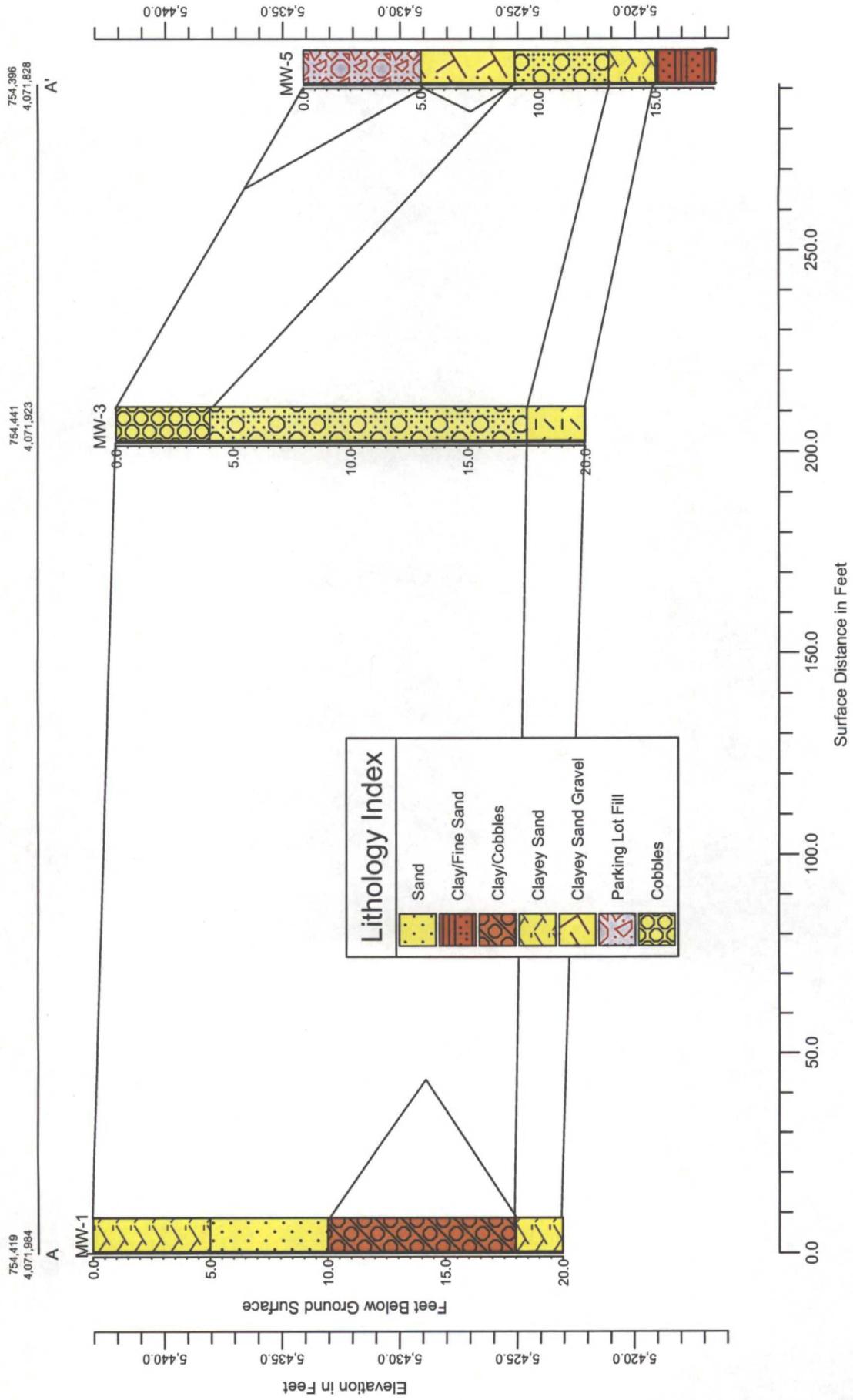
ConocoPhillips Company
Federal No.15
Farmington, New Mexico

-  Monitoring Well
-  Well Head
-  Groundwater contour line
-  Inferred groundwater contour line
-  General Site Boundary



TETRA TECH, INC.

Figure 4.
Federal No. 15 - Cross-Section A-A'



TABLES

- I. Site History Timeline**
- 2. Groundwater Elevation Summary (January 2005 – December 2009)**
- 3. Laboratory Analytical Data Summary (January 2005 – December 2009)**

Table 1. Site History Timeline - ConocoPhillips Company Federal No. 15

Date/Time Period	Event/Action	Description
October 23, 2004	Release Discovered	Estimated that 15 barrels of condensate was released to the subsurface soil and groundwater
October 25-29, 2004	Soil Excavation	Approximately 1500 cubic yards of impacted soil excavated and replaced with clean fill
November 16-17, 2004	Monitor Well Installation	Monitor wells MW-1, MW-2, MW-3, and MW-4 installed to depths of approximately 20 ft BGS
January 18, 2005	Monitor Well Sampling	Initial sampling of monitor wells MW-1, MW-2, MW-3, and MW-4
July 7, 2005	Groundwater Removal from Monitor Well MW-2	First removal of groundwater - 145 gallons removed
October 18-19, 2005	Monitor Well Sampling	Second sampling of monitor wells MW-1, MW-2, MW-3, and MW-4
October 19, 2005	Monitor Well Installation	Monitor well MW-5 installed to a depth of 17.5 ft BGS
October 19, 2005	Groundwater Removal from Monitor Well MW-2	558 gallons removed
October 20, 2005	Monitor Well Sampling	Initial sampling of monitor well MW-5
February 16, 2006	Groundwater Removal from Monitor Well MW-2	236 gallons removed
May 15, 2006		296 gallons removed
August 2, 2006		380 gallons removed
November 14, 2006		440 gallons removed
November 14-15, 2006	Monitor Well Sampling	Third sampling of monitor wells MW-1, MW-2, MW-3, and MW-4; second sampling of monitor well MW-5
February 20, 2007	Groundwater Removal from Monitor Well MW-2	346 gallons removed
May 15, 2007		474 gallons removed
August 21, 2007		528 gallons removed
November 7, 2007		575 gallons removed
November 7, 2007	Monitor Well Sampling	Fourth sampling of monitor wells MW-1, MW-2, MW-3, and MW-4; third sampling of monitor well MW-5
January 16, 2008	Groundwater Removal from Monitor Well MW-2	365 gallons removed
March 18, 2008	Groundwater Removal from Monitor Well MW-2	278 gallons removed
March 18, 2008	Groundwater Removal from Monitor Well MW-4	288 gallons removed
March 18, 2008	Monitor Well Sampling	Initiation of quarterly sampling for monitor wells MW-1, MW-2, MW-3, MW-4, and MW-5
July 21, 2008	Monitor Well Sampling	Continuation of quarterly sampling for monitor wells MW-1, MW-2, MW-3, MW-4, and MW-5
October 21, 2008	Monitor Well Sampling	Continuation of quarterly sampling for monitor wells MW-1, MW-2, MW-3, MW-4, and MW-5. First quarter of compliance with all COCs bellow NMWQCC standards.
January 22, 2009	Monitor Well Sampling	Continuation of quarterly sampling for monitor wells MW-1, MW-2, MW-3, MW-4, and MW-5. Second quarter of compliance with all COCs bellow NMWQCC standards.
March 30, 2009	Monitor Well Sampling	Continuation of quarterly sampling for monitor wells MW-1, MW-2, MW-3, MW-4, and MW-5. Third quarter of compliance with all COCs bellow NMWQCC standards.
June 16, 2009	Monitor Well Sampling	Continuation of quarterly sampling for monitor wells MW-1, MW-2, MW-3, MW-4, and MW-5. Fourth quarter of compliance with all COCs bellow NMWQCC standards.
September 28, 2009	Monitor Well Sampling	Continuation of quarterly sampling for monitor wells MW-1, MW-2, MW-3, MW-4, and MW-5. Fifth quarter of compliance with all COCs bellow NMWQCC standards.
December 16, 2009	Monitor Well Sampling	Continuation of quarterly sampling for monitor wells MW-1, MW-2, MW-3, MW-4, and MW-5. Sixth quarter of compliance with all COCs bellow NMWQCC standards.

Table 2. Groundwater Elevation Summary (January 2005 - December 2009) - ConocoPhillips Company Federal No.15

Well ID	Date Installed	Total Depth (ft bgs)	Screen Interval (ft)	Date Measured	Groundwater Level (R TOC)	Elevation (ft msl) (TOC)	Groundwater Elevation (ft msl)
MW-1	11/17/2004	20	5 - 20	1/18/2005	8.92	5437.99	5429.07
				7/7/2005	9.33		5428.66
				10/19/2005	8.03		5429.96
				2/16/2006	8.84		5429.15
				5/15/2006	8.96		5429.03
				8/2/2006	8.35		5429.64
				11/14/2006	8.10		5429.89
				2/20/2007	8.76		5429.23
				5/15/2007	9.67 ⁽¹⁾		5428.32
				8/21/2007	NM		NM
				11/7/2007	AM		AM
				1/16/2008	7.10		5430.89
				3/18/2008	7.61		5430.38
				7/21/2008	4.82		5433.17
				10/21/2008	4.72		5433.27
				1/22/2009	7.12		5430.87
				3/30/2009	7.98		5430.01
				6/16/2009	8.78		5429.21
				9/28/2009	9.51		5428.48
				12/16/2009	9.31		5428.68
MW-2	11/17/2004	20	5 - 20	1/18/2005	9.49	5437.33	5427.84
				7/7/2005	9.55		5427.78
				10/19/2005	8.66		5428.67
				2/16/2006	9.01		5428.32
				5/15/2006	9.00		5428.33
				8/2/2006	8.52		5428.81
				11/14/2006	8.28		5429.05
				2/20/2007	8.87		5428.46
				5/15/2007	8.59		5428.74
				8/21/2007	6.67		5430.66
				11/7/2007	AM		AM
				1/16/2008	7.41		5429.92
				3/18/2008	8.00		5429.33
				7/21/2008	4.63		5432.70
				10/21/2008	4.37		5432.96
				1/22/2009	7.39		5429.94
				3/30/2009	8.23		5429.10
				6/16/2009	8.73		5428.60
				9/28/2009	9.48		5427.85
				12/16/2009	9.49		5427.84
MW-3	11/22/2004	20	5 - 20	1/18/2005	8.54	5435.13	5426.59
				7/7/2005	8.51		5426.62
				10/19/2005	7.75		5427.38
				2/16/2006	NM		NM
				5/15/2006	8.42		5426.71
				8/2/2006	7.99		5427.14
				11/14/2006	7.72		5427.41
				2/20/2007	8.23		5426.90
				5/15/2007	7.90		5427.23
				8/21/2007	NM		NM
				11/7/2007	AM		AM
				1/16/2008	7.20		5427.93
				3/18/2008	7.73		5427.40
				7/21/2008	5.00		5430.13
				10/21/2008	4.12		5431.01
				1/22/2009	7.17		5427.96
				3/30/2009	7.91		5427.22
				6/16/2009	8.23		5426.90
				9/28/2009	8.85		5426.28
				12/16/2009	8.94		5426.19

Table 2. Groundwater Elevation Summary (January 2005 - December 2009) - ConocoPhillips Company Federal No.15

Well ID	Date Installed	Total Depth (ft bgs)	Screen Interval (ft)	Date Measured	Groundwater Level (ft TOC)	Elevation (ft msl) (TOC)	Groundwater Elevation (ft msl)
MW-4	11/22/2004	20	5 - 20	1/18/2005	8.65	5434.68	5426.03
				7/7/2005	8.50		5426.18
				10/19/2005	7.72		5426.96
				2/16/2006	8.35		5426.33
				5/15/2006	8.40		5426.28
				8/2/2006	7.96		5426.72
				11/14/2006	7.74		5426.94
				2/20/2007	8.18		5426.50
				5/15/2007	7.91		5426.77
				8/21/2007	NM		NM
				11/7/2007	AM		AM
				1/16/2008	7.37		5427.31
				3/18/2008	7.73		5426.95
				7/21/2008	5.90		5428.78
				10/21/2008	5.53		5429.15
				1/22/2009	7.36		5427.32
				3/30/2009	7.88		5426.80
6/16/2009	8.18	5426.50					
9/28/2009	8.71	5425.97					
12/16/2009	8.72	5425.96					
MW-5	10/19/2005	17.5	3.5-17.5	10/20/2005	9.11	5434.16	5425.05
				2/16/2006	10.62		5423.54
				5/15/2006	10.47		5423.69
				8/2/2006	9.42		5424.74
				11/14/2006	9.05		5425.11
				2/20/2007	9.84		5424.32
				5/15/2007	8.93		5425.23
				8/21/2007	NM		NM
				11/7/2007	AM		AM
				1/16/2008	NM		NM
				3/18/2008	10.21		5423.95
				7/21/2008	7.55		5426.61
				10/21/2008	6.18		5427.98
				1/22/2009	9.20		5424.96
				3/30/2009	10.30		5423.86
				6/16/2009	9.89		5424.27
				9/28/2009	10.53		5423.63
12/16/2009	11.46	5422.70					

Explanation

(1) = Water level near bottom of monitor well
 AM = Anomalous measurement due to meter malfunction - reading not recorded
 bgs = Below ground surface
 ft = Feet
 msl = Mean sea level
 NM = Not measured
 TOC = Top of casing

Table 3. Groundwater Laboratory Analytical Results Summary (January 2005 - December 2009) - ConocoPhillips Company Federal No.15

Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	2-Methylnaphthalene (µg/L)	1-Methylnaphthalene (µg/L)	Naphthalene (µg/L)	Total Naphthalene (µg/L)	Chloride (mg/L)
MW-1	1/18/2005	<1.0	<1.0	<1.0	<2.0	<10	<10	<10	<10	85
	10/18/2005	<1.0	<1.0	<1.0	<2.0	<10	<10	<10	<10	39
	11/15/2005	<1.0	<1.0	<1.0	<2.0	<10	<10	<10	<10	36
	11/7/2007	<1.0	<1.0	<1.0	<2.0	<10	<10	<10	<10	44
	3/18/2008	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA
	7/21/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	54
	10/21/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	57.8
	1/22/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	74.8
	3/30/2009	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA
	6/16/2009	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA
	9/28/2009	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA
	12/16/2009	<1.0	1	<1.0	<1.0	NA	NA	NA	NA	NA
MW-2	1/18/2005	1200	3300	380	3500	72	34	51	157	41
	Duplicate	1300	3700	410	3800	NA	NA	NA	NA	NA
	10/19/2005	1100	410	160	470	18	11	15	44	60
	Duplicate	1100	500	150	610	NA	NA	NA	NA	NA
	11/14/2006	23	29	6.6	120	<10	<10	<10	<10	50
	Duplicate	45	57	12	220	NA	NA	NA	NA	NA
	11/7/2007	4.2	8.8	24	74	<10	<10	<10	<10	35
	Duplicate	3.9	7.9	22	69	NA	NA	NA	NA	NA
	3/18/2008	5	<5.0	<5.0	9	NA	NA	NA	NA	NA
	7/21/2008	<5.0	<5.0	13	27	<5.0	<5.0	<5.0	<5.0	42.7
	Duplicate	<5.0	<5.0	13	27	NA	NA	NA	NA	NA
	10/21/2008	<5.0	<5.0	<5.0	5	<5.0	<5.0	<5.0	<5.0	71.3
Duplicate	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	
1/22/2009	<5.0	<5.0	<5.0	17	<5.0	<5.0	<5.0	<5.0	36.1	
Duplicate	<5.0	<5.0	5	12	NA	NA	NA	NA	NA	
3/30/2009	5.7	<5.0	11	22	NA	NA	NA	NA	NA	
6/16/2009	<5.0	<5.0	<5.0	5.1	NA	NA	NA	NA	NA	
Duplicate	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	
9/28/2009	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	
Duplicate	3.4	<1.0	1.8	3.4	NA	NA	NA	NA	NA	
12/16/2009	5	<1.0	1.9	2.1	NA	NA	NA	NA	NA	
Duplicate	1.9	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	
MW-3	1/18/2005	190	<5.0	<5.0	<10	<10	<10	<10	<10	34
	10/19/2005	<1.0	<1.0	<1.0	<2.0	<10	<10	<10	<10	42
	11/14/2006	<1.0	<1.0	<1.0	<2.0	<10	<10	<10	<10	39
	11/7/2007	<1.0	<1.0	<1.0	<2.0	<10	<10	<10	<10	34
	3/18/2008	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA
	7/21/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	22
	10/21/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	20.6
	1/22/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	22
	3/30/2009	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA
	6/16/2009	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA
	9/28/2009	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA
	12/16/2009	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA

Table 3. Groundwater Laboratory Analytical Results Summary (January 2005 - December 2009) - ConocoPhillips Company Federal No.15

Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	2-Methylnaphthalene (µg/L)	1-Methylnaphthalene (µg/L)	Naphthalene (µg/L)	Total Naphthalene (µg/L)	Chloride (mg/L)	
MW-4	1/18/2005	2.8	<1.0	<1.0	<2.0	<10	<10	<10	<10	37	
	10/19/2005	23	2.2	<1.0	4.3	<10	<10	<10	<10	51	
	11/14/2006	1.1	<1.0	<1.0	<2.0	<10	<10	<10	<10	44	
	1/17/2007	36	<1.0	22	<2.0	<10	<10	<10	<10	24	
	3/18/2008	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	
	7/21/2008	35	<5.0	18	<5.0	<5.0	<5.0	<5.0	<5.0	22	
	10/21/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	25.1	
	1/22/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	42.1	
	3/30/2009	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	
	Duplicate	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	
	6/16/2009	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	
	9/28/2009	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	
	12/16/2009	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	
	10/20/2005	<1.0	<1.0	<1.0	<2.0	<10	<10	<10	<10	73	
MW-5	11/14/2006	<1.0	<1.0	<1.0	<2.0	<10	<10	<10	<10	79	
	1/17/2007	<1.0	<1.0	<1.0	<2.0	<10	<10	<10	<10	58	
	3/18/2008	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	
	7/21/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	27.6	
	10/21/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	34.5	
	1/22/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	35.8	
	3/30/2009	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	
	6/16/2009	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	
	9/28/2009	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	
	12/16/2009	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	
	NMWWCC Groundwater Quality Standards										
			10 (µg/L)	750 (µg/L)	750 (µg/L)	620 (µg/L)	NE	NE	NE	30 (µg/L)	250 mg/L

Explanation

mg/L = milligrams per liter (parts per million)
 µg/L = micrograms per liter (parts per billion)
 NE=Not established
 NMWWCC = New Mexico Water Quality Control Commission
 NA = Not analyzed
 <1.0 = Not detected at the reporting limit
 Constituents in excess of NMWWCC groundwater quality standards are in **BOLD**

APPENDIX A
GROUNDWATER SAMPLING FIELD FORMS



WATER SAMPLING FIELD FORM

Project Name Federal #15

Page 1 of 5

Project No. _____

Site Location Farmington, NM

Site/Well No. MW-1 Coded/ Replicate No. _____

Date 12/16/09

Weather cool Time Sampling Began 1430

Time Sampling Completed 1457

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface _____

MP Elevation _____

Total Sounded Depth of Well Below MP 20

Water-Level Elevation _____

Held _____ Depth to Water Below MP 9.31

Diameter of Casing 2"

Wet _____ Water Column in Well 10.69

Gallons Pumped/Bailed Prior to Sampling _____

Gallons per Foot 0.16

Gallons in Well 1.71

Sampling Pump Intake Setting (feet below land surface) _____

Purging Equipment Purge pump / Bailer X3 = 5.13

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm³)	TDS (g/L)	DO (mg/L)	ORP (mV)
<u>1454</u>	<u>13.98</u>	<u>6.78</u>	<u>2122</u>	<u>1.379</u>	<u>4.04</u>	<u>-8.5</u>
<u>1456</u>	<u>13.96</u>	<u>6.76</u>	<u>2125</u>	<u>1.381</u>	<u>4.95</u>	<u>-10.7</u>
<u>1457</u>	<u>14.02</u>	<u>6.71</u>	<u>2126</u>	<u>1.382</u>	<u>3.11</u>	<u>-12.2</u>

vol
4.25
4.5
5

Sampling Equipment Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
<u>BTEX</u>	<u>3 40mL VOA's</u>	<u>HCl</u>

Remarks _____

Sampling Personnel _____

Well Casing Volumes			
Gal./ft.	<u>1 ¼" = 0.077</u>	<u>2" = 0.16</u>	<u>3" = 0.37</u>
	<u>1 ½" = 0.10</u>	<u>2 ½" = 0.24</u>	<u>3 ½" = 0.50</u>
			<u>4" = 0.65</u>
			<u>6" = 1.46</u>



WATER SAMPLING FIELD FORM

Project Name Federal #15

Page 2 of 5

Project No. _____

Site Location Farmington, NM

Site/Well No. MW-2

Coded/
Replicate No. Duplicate@1515

Date 12/16/09

Weather cloud

Time Sampling
Began 1440

Time Sampling
Completed 1510

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface _____

MP Elevation _____

Total Sounded Depth of Well Below MP 20

Water-Level Elevation _____

Held _____ Depth to Water Below MP 9.49

Diameter of Casing 2"

Wet _____ Water Column in Well 10.51

Gallons Pumped/Bailed
Prior to Sampling _____

Gallons per Foot 0.16

Gallons in Well 1.68

Sampling Pump Intake Setting
(feet below land surface) _____

Purging Equipment Purge pump / Bailer X3 = 5.04

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm ³)	TDS (g/L)	DO (mg/L)	ORP (mV)	Vol
1502 13:33	13.33	6.88	1778	1.150	4.82	-32.5	3.5
1505	14.31	6.83	1798	1.167	4.14	-59.4	4.5
1507	14.48	6.85	1786	1.161	3.99	-59.9	5.0

Sampling Equipment Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
<u>BTEX</u>	<u>3 40mL VOA's</u>	<u>HCl</u>
_____	_____	_____
_____	_____	_____

Remarks duplicate sample collected @ 1515

Sampling Personnel _____

Well Casing Volumes			
Gal./ft.	1 ¼" = 0.077	2" = 0.16	3" = 0.37
	1 ½" = 0.10	2 ½" = 0.24	3 ½" = 0.50
			4" = 0.65
			6" = 1.46



WATER SAMPLING FIELD FORM

Project Name Federal #15

Page 3 of 5

Project No. _____

Site Location Farmington, NM

Site/Well No. MW-3

Coded/
Replicate No. _____

Date 12/16/09

Weather warm, 45°

Time Sampling
Began 1400

Time Sampling
Completed 1435

1445

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface _____

MP Elevation _____

Total Sounded Depth of Well Below MP 20

Water-Level Elevation _____

Held _____ Depth to Water Below MP 8.94

Diameter of Casing 2"

Wet _____ Water Column in Well 11.06

Gallons Pumped/Bailed
Prior to Sampling _____

Gallons per Foot 0.16

Gallons in Well 1.7696

Sampling Pump Intake Setting
(feet below land surface) _____

Purging Equipment Purge pump / Bailer X3 = 5.31

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm³)	TDS (g/L)	DO (mg/L)	ORP (mV)
<u>1440</u>	<u>14.15</u>	<u>6.82</u>	<u>1721</u>	<u>1.119</u>	<u>2.87</u>	<u>-2.6</u>
<u>1443</u>	<u>14.38</u>	<u>6.82</u>	<u>1713</u>	<u>1.113</u>	<u>3.05</u>	<u>-11.0</u>
<u>1445</u>	<u>14.42</u>	<u>6.81</u>	<u>1711</u>	<u>1.112</u>	<u>2.93</u>	<u>-10.8</u>

gallons
4.25
4.75
5.50

Sampling Equipment Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
<u>BTEX</u>	<u>3 40mL VOA's</u>	<u>HCl</u>

Remarks _____

Sampling Personnel _____

Well Casing Volumes			
Gal./ft.	<u>1 ¼" = 0.077</u>	<u>2" = 0.16</u>	<u>3" = 0.37</u>
	<u>1 ½" = 0.10</u>	<u>2 ½" = 0.24</u>	<u>3" ½ = 0.50</u>
			<u>4" = 0.65</u>
			<u>6" = 1.46</u>



WATER SAMPLING FIELD FORM

Project Name Federal #15

Page 4 of 5

Project No. _____

Site Location Farmington, NM

Site/Well No. MW-4

Coded/
Replicate No. _____

Date 12/16/09

Weather cool, 38°F

Time Sampling
Began 1413

Time Sampling
Completed 1430

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface _____

MP Elevation _____

Total Sounded Depth of Well Below MP 20

Water-Level Elevation _____

Held _____ Depth to Water Below MP 8.72

Diameter of Casing 2"

Wet _____ Water Column in Well 11.28

Gallons Pumped/Bailed
Prior to Sampling 5.5 gallons

Gallons per Foot 0.16

Gallons in Well 1.805

Sampling Pump Intake Setting
(feet below land surface) _____

Purging Equipment Purge pump / Bailer x3 = 5.41

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm ³)	TDS (g/L)	DO (mg/L)	ORP (mV)
<u>1423</u>	<u>15.69</u>	<u>6.79</u>	<u>1738</u>	<u>1.130</u>	<u>6.14</u>	<u>-10.9</u>
<u>1425</u>	<u>15.62</u>	<u>6.80</u>	<u>1738</u>	<u>1.129</u>	<u>3.60</u>	<u>-10.5</u>
<u>1427</u>	<u>15.57</u>	<u>6.81</u>	<u>1738</u>	<u>1.130</u>	<u>3.66</u>	<u>-9.3</u>

gallons
04.5
5.0
5.5

Sampling Equipment Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
<u>BTEX</u>	<u>3 40mL VOA's</u>	<u>HCl</u>
_____	_____	_____
_____	_____	_____

Remarks _____

Sampling Personnel _____

Gal./ft.	1 ¼" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1 ½" = 0.10	2 ½" = 0.24	3" ½ = 0.50	6" = 1.46



WATER SAMPLING FIELD FORM

Project Name Federal #15

Page 5 of 5

Project No. _____

Site Location Farmington, NM

Site/Well No. MW-5

Coded/
Replicate No. _____

Date 12/16/09

Weather Cold, 38°

Time Sampling
Began 1445

Time Sampling
Completed 1520

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface _____

MP Elevation _____

Total Sounded Depth of Well Below MP 17.5

Water-Level Elevation _____

Held _____ Depth to Water Below MP 11.46

Diameter of Casing 2"

Wet _____ Water Column in Well 6.04

Gallons Pumped/Bailed
Prior to Sampling 4.25 gallons

Gallons per Foot 0.16

Gallons in Well .96

Sampling Pump Intake Setting
(feet below land surface) _____

Purging Equipment Purge pump / Bailer X3 = 2.89

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm ²)	TDS (g/L)	DO (mg/L)	ORP (mV)
<u>1520</u>	<u>15.51</u>	<u>6.83</u>	<u>1923</u>	<u>1.250</u>	<u>2.23</u>	<u>-31.7</u>

4 gallons

Sampling Equipment Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
<u>BTEX</u>	<u>3 40mL VOA's</u>	<u>HCl</u>

Remarks _____

Sampling Personnel _____

Well Casing Volumes			
Gal./ft.	<u>1 ¼" = 0.077</u>	<u>2" = 0.16</u>	<u>3" = 0.37</u>
	<u>1 ½" = 0.10</u>	<u>2 ½" = 0.24</u>	<u>3 ½" = 0.50</u>
			<u>4" = 0.65</u>
			<u>6" = 1.46</u>

APPENDIX B
LABORATORY ANALYTICAL REPORT



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips

Certificate of Analysis Number:

09120771

<u>Report To:</u> Tetra Tech, Inc. Kelly Blanchard 6121 Indian School Road, N.E. Suite 200 Albuquerque NM 87110- ph: (505) 237-8440 fax:	<u>Project Name:</u> COP Federal Com #15 <u>Site:</u> Farmington, NM <u>Site Address:</u> <u>PO Number:</u> 4511988512 <u>State:</u> New Mexico <u>State Cert. No.:</u> <u>Date Reported:</u> 12/29/2009
--	---

This Report Contains A Total Of 18 Pages

Excluding This Page, Chain Of Custody

And

Any Attachments

12/29/2009

Date

Test results meet all requirements of NELAC, unless specified in the narrative.



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

**Case Narrative for:
 Conoco Phillips**

**Certificate of Analysis Number:
09120771**

<p>Report To: Tetra Tech, Inc. Kelly Blanchard 6121 Indian School Road, N.E. Suite 200 Albuquerque NM 87110- ph: (505) 237-8440 fax:</p>	<p>Project Name: COP Federal Com #15 Site: Farmington, NM Site Address: PO Number: 4511988512 State: New Mexico State Cert. No.: Date Reported: 12/29/2009</p>
---	--

I. SAMPLE RECEIPT:

All samples were received intact. The internal ice chest temperatures were measured on receipt and are recorded on the attached Sample Receipt Checklist.

II: ANALYSES AND EXCEPTIONS:

Per the Conoco Phillips TSM Revision 0, a copy of the internal chain of custody is to be included in final data package. However, due to LIMS limitations, this cannot be provided at this time.

III. GENERAL REPORTING COMMENTS:

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

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

Some of the percent recoveries and RPD's on the QC report for the MS/MSD may be different than the calculated recoveries and RPD's using the sample result and the MS/MSD results that appear on the report because, the actual raw result is used to perform the calculations for percent recovery and RPD.

Any other exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

This report shall not be reproduced except in full, without the written approval of the laboratory. The reported results are only representative of the samples submitted for testing.

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or by his designee, as verified by the following signature.

09120771 Page 1

12/29/2009

Erica Cardenas
 Project Manager

Test results meet all requirements of NELAC, unless specified in the narrative.

Date



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Conoco Phillips

Certificate of Analysis Number:

09120771

Report To: Tetra Tech, Inc.
 Kelly Blanchard
 6121 Indian School Road, N.E.
 Suite 200
 Albuquerque
 NM
 87110-
 ph: (505) 237-8440 fax: (505) 881-3283

Project Name: COP Federal Com #15
Site: Farmington, NM
Site Address:

PO Number: 4511988512
State: New Mexico

State Cert. No.:

Date Reported: 12/29/2009

Fax To:

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
MW-1	09120771-01	Water	12/16/2009 2:57:00 PM	12/18/2009 9:30:00 AM	09120771	<input type="checkbox"/>
MW-2	09120771-02	Water	12/16/2009 3:10:00 PM	12/18/2009 9:30:00 AM	292813	<input type="checkbox"/>
MW-3	09120771-03	Water	12/16/2009 2:45:00 PM	12/18/2009 9:30:00 AM	292813	<input type="checkbox"/>
MW-4	09120771-04	Water	12/16/2009 2:30:00 PM	12/18/2009 9:30:00 AM	292813	<input type="checkbox"/>
MW-5	09120771-05	Water	12/16/2009 3:20:00 PM	12/18/2009 9:30:00 AM	292813	<input type="checkbox"/>
Duplicate	09120771-06	Water	12/16/2009 3:15:00 PM	12/18/2009 9:30:00 AM	292813	<input type="checkbox"/>
Trip Blank	09120771-07	Water	12/16/2009 11:30:00 PM	12/18/2009 9:30:00 AM	292813	<input type="checkbox"/>

Erica Cardenas

12/29/2009

Erica Cardenas
 Project Manager

Date

Kesavalu M. Bagawandoss Ph.D., J.D.
 Laboratory Director

Ted Yen
 Quality Assurance Officer



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW-1

Collected: 12/16/2009 14:57 SPL Sample ID: 09120771-01

Site: Farmington, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B				MCL	SW8260B	Units: ug/L	
Benzene	ND		1	1	12/23/09 17:34	D_R	5341890
Ethylbenzene	ND		1	1	12/23/09 17:34	D_R	5341890
Toluene	1		1	1	12/23/09 17:34	D_R	5341890
m,p-Xylene	ND		2	1	12/23/09 17:34	D_R	5341890
o-Xylene	ND		1	1	12/23/09 17:34	D_R	5341890
Xylenes, Total	ND		1	1	12/23/09 17:34	D_R	5341890
Surr: 1,2-Dichloroethane-d4	107		% 71-140	1	12/23/09 17:34	D_R	5341890
Surr: 4-Bromofluorobenzene	101		% 70-130	1	12/23/09 17:34	D_R	5341890
Surr: Toluene-d8	102		% 61-121	1	12/23/09 17:34	D_R	5341890

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW-2

Collected: 12/16/2009 15:10 SPL Sample ID: 09120771-02

Site: Farmington, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B				MCL	SW8260B	Units: ug/L	
Benzene	5		1	1	12/24/09 13:55	D_R	5342958
Ethylbenzene	1.9		1	1	12/24/09 13:55	D_R	5342958
Toluene	ND		1	1	12/24/09 13:55	D_R	5342958
m,p-Xylene	2.1		2	1	12/24/09 13:55	D_R	5342958
o-Xylene	ND		1	1	12/24/09 13:55	D_R	5342958
Xylenes, Total	2.1		1	1	12/24/09 13:55	D_R	5342958
Surr: 1,2-Dichloroethane-d4	107		% 71-140	1	12/24/09 13:55	D_R	5342958
Surr: 4-Bromofluorobenzene	102		% 70-130	1	12/24/09 13:55	D_R	5342958
Surr: Toluene-d8	101		% 61-121	1	12/24/09 13:55	D_R	5342958

Qualifiers:

ND/U - Not Detected at the Reporting Limit

B/V - Analyte detected in the associated Method Blank

* - Surrogate Recovery Outside Advisable QC Limits

J - Estimated Value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution

MI - Matrix Interference



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW-3

Collected: 12/16/2009 14:45 SPL Sample ID: 09120771-03

Site: Farmington, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B				MCL	SW8260B	Units: ug/L	
Benzene	ND		1	1	12/24/09 14:17	D_R	5342959
Ethylbenzene	ND		1	1	12/24/09 14:17	D_R	5342959
Toluene	ND		1	1	12/24/09 14:17	D_R	5342959
m,p-Xylene	ND		2	1	12/24/09 14:17	D_R	5342959
o-Xylene	ND		1	1	12/24/09 14:17	D_R	5342959
Xylenes, Total	ND		1	1	12/24/09 14:17	D_R	5342959
Surr: 1,2-Dichloroethane-d4	106		% 71-140	1	12/24/09 14:17	D_R	5342959
Surr: 4-Bromofluorobenzene	102		% 70-130	1	12/24/09 14:17	D_R	5342959
Surr: Toluene-d8	101		% 61-121	1	12/24/09 14:17	D_R	5342959

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW-4

Collected: 12/16/2009 14:30 SPL Sample ID: 09120771-04

Site: Farmington, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B				MCL	SW8260B	Units: ug/L	
Benzene	ND		1	1	12/24/09 14:39	D_R	5342969
Ethylbenzene	ND		1	1	12/24/09 14:39	D_R	5342969
Toluene	ND		1	1	12/24/09 14:39	D_R	5342969
m,p-Xylene	ND		2	1	12/24/09 14:39	D_R	5342969
o-Xylene	ND		1	1	12/24/09 14:39	D_R	5342969
Xylenes, Total	ND		1	1	12/24/09 14:39	D_R	5342969
Surr: 1,2-Dichloroethane-d4	106		% 71-140	1	12/24/09 14:39	D_R	5342969
Surr: 4-Bromofluorobenzene	102		% 70-130	1	12/24/09 14:39	D_R	5342969
Surr: Toluene-d8	102		% 61-121	1	12/24/09 14:39	D_R	5342969

Qualifiers:

ND/U - Not Detected at the Reporting Limit

B/V - Analyte detected in the associated Method Blank

* - Surrogate Recovery Outside Advisable QC Limits

J - Estimated Value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution

MI - Matrix Interference



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW-5

Collected: 12/16/2009 15:20

SPL Sample ID: 09120771-05

Site: Farmington, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B				MCL	SW8260B	Units: ug/L	
Benzene	ND		1	1	12/24/09 0:30	D_R	5342015
Ethylbenzene	ND		1	1	12/24/09 0:30	D_R	5342015
Toluene	ND		1	1	12/24/09 0:30	D_R	5342015
m,p-Xylene	ND		2	1	12/24/09 0:30	D_R	5342015
o-Xylene	ND		1	1	12/24/09 0:30	D_R	5342015
Xylenes, Total	ND		1	1	12/24/09 0:30	D_R	5342015
Surr: 1,2-Dichloroethane-d4	108		% 71-140	1	12/24/09 0:30	D_R	5342015
Surr: 4-Bromofluorobenzene	99.7		% 70-130	1	12/24/09 0:30	D_R	5342015
Surr: Toluene-d8	101		% 61-121	1	12/24/09 0:30	D_R	5342015

Qualifiers:

ND/U - Not Detected at the Reporting Limit

B/V - Analyte detected in the associated Method Blank

* - Surrogate Recovery Outside Advisable QC Limits

J - Estimated Value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution

MI - Matrix Interference



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: Duplicate

Collected: 12/16/2009 15:15 SPL Sample ID: 09120771-06

Site: Farmington, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B				MCL	SW8260B	Units: ug/L	
Benzene	1.9		1	1	12/24/09 0:51	D_R	5342016
Ethylbenzene	ND		1	1	12/24/09 0:51	D_R	5342016
Toluene	ND		1	1	12/24/09 0:51	D_R	5342016
m,p-Xylene	ND		2	1	12/24/09 0:51	D_R	5342016
o-Xylene	ND		1	1	12/24/09 0:51	D_R	5342016
Xylenes, Total	ND		1	1	12/24/09 0:51	D_R	5342016
Surr: 1,2-Dichloroethane-d4	106		% 71-140	1	12/24/09 0:51	D_R	5342016
Surr: 4-Bromofluorobenzene	102		% 70-130	1	12/24/09 0:51	D_R	5342016
Surr: Toluene-d8	100		% 61-121	1	12/24/09 0:51	D_R	5342016

Qualifiers:

ND/U - Not Detected at the Reporting Limit

B/V - Analyte detected in the associated Method Blank

* - Surrogate Recovery Outside Advisable QC Limits

J - Estimated Value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution

Mi - Matrix Interference



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: Trip Blank

Collected: 12/16/2009 23:30 SPL Sample ID: 09120771-07

Site: Farmington, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B				MCL	SW8260B	Units: ug/L	
Benzene	ND		1	1	12/24/09 1:13	D_R	5342017
Ethylbenzene	ND		1	1	12/24/09 1:13	D_R	5342017
Toluene	ND		1	1	12/24/09 1:13	D_R	5342017
m,p-Xylene	ND		2	1	12/24/09 1:13	D_R	5342017
o-Xylene	ND		1	1	12/24/09 1:13	D_R	5342017
Xylenes, Total	ND		1	1	12/24/09 1:13	D_R	5342017
Surr: 1,2-Dichloroethane-d4	108		% 71-140	1	12/24/09 1:13	D_R	5342017
Surr: 4-Bromofluorobenzene	102		% 70-130	1	12/24/09 1:13	D_R	5342017
Surr: Toluene-d8	102		% 61-121	1	12/24/09 1:13	D_R	5342017

Qualifiers: ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)
B/V - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution
* - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count

Quality Control Documentation



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
COP Federal Com #15

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 09120771
Lab Batch ID: R292161

Method Blank

Samples in Analytical Batch:

RunID: MSDVOA1_091223A-5341869 Units: ug/L
Analysis Date: 12/23/2009 11:10 Analyst: D_R

Lab Sample ID: 09120771-01A
Client Sample ID: MW-1

Table with 3 columns: Analyte, Result, Rep Limit. Rows include Benzene, Ethylbenzene, Toluene, m,p-Xylene, o-Xylene, Xylenes, Total, and various Surr: (Surrogate) compounds.

Laboratory Control Sample (LCS)

RunID: MSDVOA1_091223A-53418 Units: ug/L
Analysis Date: 12/23/2009 10:05 Analyst: D_R

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Rows include Benzene, Ethylbenzene, Toluene, m,p-Xylene, o-Xylene, Xylenes, Total, and various Surr: (Surrogate) compounds.

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 09120771-01
RunID: MSDVOA1_091223A-53418 Units: ug/L
Analysis Date: 12/23/2009 19:46 Analyst: D_R

Qualifiers: ND/U - Not Detected at the Reporting Limit
B - Analyte Detected In The Associated Method Blank
J - Estimated Value Between MDL And PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
COP Federal Com #15

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 09120771
Lab Batch ID: R292161

Table with 12 columns: Analyte, Sample Result, MS Spike Added, MS Result, MS % Recovery, MSD Spike Added, MSD Result, MSD % Recovery, RPD, RPD Limit, Low Limit, High Limit. Rows include Benzene, Ethylbenzene, Toluene, m,p-Xylene, o-Xylene, Xylenes, Total, and various Surrogate compounds.

Qualifiers: ND/U - Not Detected at the Reporting Limit
B - Analyte Detected In The Associated Method Blank
J - Estimated Value Between MDL And PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
COP Federal Com #15

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 09120771
Lab Batch ID: R292169

Method Blank

Samples in Analytical Batch:

RunID: MSDVOA1_091223B-5342011 Units: ug/L
Analysis Date: 12/23/2009 22:39 Analyst: D_R

Lab Sample ID Client Sample ID
09120771-05A MW-5
09120771-06A Duplicate
09120771-07A Trip Blank

Table with 3 columns: Analyte, Result, Rep Limit. Rows include Benzene, Ethylbenzene, Toluene, m,p-Xylene, o-Xylene, Xylenes, Total, and various Surr: (Surrogate) compounds.

Laboratory Control Sample (LCS)

RunID: MSDVOA1_091223B-53420 Units: ug/L
Analysis Date: 12/23/2009 21:34 Analyst: D_R

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Rows include Benzene, Ethylbenzene, Toluene, m,p-Xylene, o-Xylene, Xylenes, Total, and various Surr: (Surrogate) compounds.

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 09120780-01
RunID: MSDVOA1_091223B-53420 Units: ug/L
Analysis Date: 12/23/2009 23:00 Analyst: D_R

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
B - Analyte Detected In The Associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated Value Between MDL And PQL * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TN/C - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
COP Federal Com #15

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 09120771
Lab Batch ID: R292169

Table with 12 columns: Analyte, Sample Result, MS Spike Added, MS Result, MS % Recovery, MSD Spike Added, MSD Result, MSD % Recovery, RPD, RPD Limit, Low Limit, High Limit. Rows include Benzene, Ethylbenzene, Toluene, m,p-Xylene, o-Xylene, Xylenes, Total, and various surrogates.

Qualifiers: ND/U - Not Detected at the Reporting Limit
B - Analyte Detected In The Associated Method Blank
J - Estimated Value Between MDL And PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
COP Federal Com #15

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 09120771
Lab Batch ID: R292229

Method Blank

Samples in Analytical Batch:

RunID: MSDVOA1_091224A-5342950 Units: ug/L
Analysis Date: 12/24/2009 10:56 Analyst: D_R

Lab Sample ID Client Sample ID
09120771-02A MW-2
09120771-03A MW-3
09120771-04A MW-4

Table with 3 columns: Analyte, Result, Rep Limit. Rows include Benzene, Ethylbenzene, Toluene, m,p-Xylene, o-Xylene, Xylenes, Total, and various Surr: entries.

Laboratory Control Sample (LCS)

RunID: MSDVOA1_091224A-53429 Units: ug/L
Analysis Date: 12/24/2009 9:51 Analyst: D_R

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Rows include Benzene, Ethylbenzene, Toluene, m,p-Xylene, o-Xylene, Xylenes, Total, and various Surr: entries.

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 09120781-05
RunID: MSDVOA1_091224A-53432 Units: ug/L
Analysis Date: 12/24/2009 15:22 Analyst: D_R

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
B - Analyte Detected In The Associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated Value Between MDL And PQL * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
COP Federal Com #15

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 09120771
Lab Batch ID: R292229

Table with 12 columns: Analyte, Sample Result, MS Spike Added, MS Result, MS % Recovery, MSD Spike Added, MSD Result, MSD % Recovery, RPD, RPD Limit, Low Limit, High Limit. Rows include Benzene, Ethylbenzene, Toluene, m,p-Xylene, o-Xylene, Xylenes, Total, and various Surrogate standards.

Qualifiers: ND/U - Not Detected at the Reporting Limit
B - Analyte Detected In The Associated Method Blank
J - Estimated Value Between MDL And PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

*Sample Receipt Checklist
And
Chain of Custody*



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Sample Receipt Checklist

Workorder:	09120771	Received By:	BF
Date and Time Received:	12/18/2009 9:30:00 AM	Carrier name:	FedEx
Temperature:	3.0°C	Chilled by:	Water Ice

- 1. Shipping container/cooler in good condition? Yes No Not Present
- 2. Custody seals intact on shipping container/cooler? Yes No Not Present
- 3. Custody seals intact on sample bottles? Yes No Not Present
- 4. Chain of custody present? Yes No
- 5. Chain of custody signed when relinquished and received? Yes No
- 6. Chain of custody agrees with sample labels? Yes No
- 7. Samples in proper container/bottle? Yes No
- 8. Sample containers intact? Yes No
- 9. Sufficient sample volume for indicated test? Yes No
- 10. All samples received within holding time? Yes No
- 11. Container/Temp Blank temperature in compliance? Yes No
- 12. Water - VOA vials have zero headspace? Yes No VOA Vials Not Present
- 13. Water - Preservation checked upon receipt (except VOA*)? Yes No Not Applicable

*VOA Preservation Checked After Sample Analysis

SPL Representative:

Contact Date & Time:

Client Name Contacted:

Non Conformance Issues:

Client Instructions:



SPL, Inc.

Analysis Request & Chain of Custody Record

OFFICE: 7708888888 (INTL)

292813

09120771

page 1 of 1

Client Name: Tetra Tech / Cnicco Phillips
 Address: 6121 Indian School Rd NE Ste 200
 City: Albuquerque NM Zip: 87110
 Phone/Fax: 505.226.5055 / 505.237.8656
 Client Contact: Kelly Blanchard Email: kelly.blanchard@tetra.tech.com
 Project Name: Federal 15

Site Name: Farmington, NM
 Site Location: Farmington, NM
 Invoice To: Cnicco Phillips

SAMPLE ID	DATE	TIME	No.		LABORATORY REMARKS
			COMP	GRAB	
MW-1	12/16/09	1457	X	X	
MW-2	12/16/09	1510	X	X	
MW-3	12/16/09	1445	X	X	
MW-4	12/16/09	1430	X	X	
MW-5	12/16/09	1520	X	X	
Duplicate	12/16/09	1515			
trip Bank	12/17/09	1130			

matrix	W=water S=soil O=oil A=air SL=sudge E=encore X=other	bottle F=plastic A=amber glass G=glass V=vial X=other	size 1=liter 4=4oz 16=16oz 3=H2SO4 2=HNO3 X=other	pres.	Number of Containers	Requested Analysis
	W	V	40	1	3	BTEX
	W	V	40	1	3	
	W	V	40	1	3	
	W	V	40	1	3	
	W	V	40	1	3	
	W	V	40	1	3	
	W	V	40	1	2	

Contact: [Signature] Email: [Signature] Temp: 3.0
 Laboratory remarks: [Signature]

Requested TAT: 1 Business Day Contract Standard 3 Business Days Other

Rush TAT requires prior notice

Special Reporting Requirements: Level 3 QC Level 4 QC TX TRIP LA RECAP

1. Relinquished by: [Signature] date: 12/17/09

2. Received by: [Signature] time: [Signature]

3. Relinquished by: [Signature] date: 12/16/09

4. Received by: [Signature] time: 9:30

5. Relinquished by: [Signature] date: 12/16/09

6. Received by Laboratory: [Signature]

8880 Interchange Drive Houston, TX 77054 (713) 660-0901
 500 Ambassador Caffery Parkway Scott, LA 70583 (337) 237-4775
 459 Hughes Drive Traverse City, MI 49686 (231) 947-5777