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JUNE 2011 QUARTERLY GROUNDWATER MONITORING REPORT

CONOCOPHILLIPS CHARLES ET AL No. 1
SAN JUAN COUNTY, NEW MEXICO

API# 30-045-06623
NMOCD# TBD; Navajo EPA

Prepared For:

CONOCOPHILLIPS COMPANY
Risk Management and Remediation
420 South Keeler Avenue
Bartlesville, OK, 74004

DECEMBER 2011
REF. NO. 074935-95(2)

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CONESTOGA-ROVERS
& ASSOCIATES

6121 Indian School Road, NE Suite 200
Albuquerque, NM, USA 87110
Telephone: (505) 884-0672 Fax: (505) 884-4932
http://www.craworld.com

December 8, 2011

Reference No. 074935

Mr. Glenn von Gonten
New Mexico Oil Conservation Division
1220 South Saint Francis Dr.
Santa Fe, NM 87505

Re: ConocoPhillips Company Charles et al No. 1, San Juan County, NM, Quarterly Groundwater Monitoring Report - June 2011

Dear Mr. von Gonten:

Enclosed, please find a copy of the above-referenced document as compiled by Conestoga-Rovers and Associates, Inc.

If you have any questions or require additional information, please contact me at (505) 884-0672 or keblanchard@craworld.com.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Kelly E. Blanchard

Kelly E. Blanchard
Project Manager

KB/cd/1
Encl. (1)

cc: Steve Austin, NNEPA

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1.0 INTRODUCTION

This report discusses the June 23, 2011 quarterly groundwater sampling event performed by Conestoga-Rovers & Associates (CRA) at the ConocoPhillips Company Charles et al. No. 1 remediation site located near the Angel Peak area of northwestern New Mexico (Site). The Site is situated on Navajo Nation land in Section 12, Township 27N, Range 9W, of San Juan County, New Mexico. A site location map and detail map are included as **Figures 1** and **2**, respectively.

1.1 BACKGROUND

The historical timeline for the Site is summarized below, and is also presented in **Table 1**.

The Charles et al. No. 1 natural gas well was spudded in April 1965 by the Austral Oil Company of Houston, TX. Operatorship of the well was transferred several times before a subsidiary of Burlington Resources became the operator in August 1992. The well was abandoned shortly thereafter due to low production. The well was recompleted and production was restored on May 20, 2003. ConocoPhillips acquired Burlington Resources on March 30, 2006.

A ConocoPhillips employee discovered an area of dead vegetation approximately 100 feet from the Blanco Wash and approximately ¼ mile from the Charles et al. No. 1 wellhead while investigating a pipeline release on June 23, 2008 (**Figure 2**). ConocoPhillips reported the release to the NMOCD by phone and E-mail on June 24, 2008 and followed-up with submittal of a Form C-141 to NMOCD on June 30, 2008. Envirotech, Inc. (Envirotech) advanced several soil borings and installed seven piezometer/monitor wells using a hand auger between June 25 and 26, 2008. Solar-powered soil vapor extraction (SVE) equipment was installed over Monitor Well MW-1 on August 14, 2008 to facilitate the remediation of the area (Envirotech, 2009).

Envirotech conducted quarterly groundwater sampling events beginning June 25, 2008 and recommended discontinuing the sampling of Monitor Wells MW-5, MW-6, and MW-7 in March 2009. Tetra Tech began monitoring the Charles et al. No. 1 remediation site in March, 2010. On June 15, 2011, Site consulting responsibilities were transferred from Tetra Tech of Albuquerque, NM to CRA of Albuquerque, NM.

2.0 GROUNDWATER MONITORING SUMMARY, METHODOLOGY, AND ANALYTICAL RESULTS

2.1 GROUNDWATER MONITORING SUMMARY

A quarterly groundwater sampling event was conducted at the Site on June 23, 2011. Prior to collection of groundwater samples from Monitor Wells MW-1, MW-2, MW-3 and MW-4, depth to groundwater was measured in all Site monitor wells using a dual interface probe (**Table 2**). Depth to groundwater was not recorded for MW-5 due to an equipment malfunction. A groundwater elevation map reflecting June 23, 2011 groundwater elevations is presented as **Figure 3**. A historical groundwater elevation summary is included in **Table 2**.

2.2 GROUNDWATER MONITORING METHODOLOGY

During the June 23, 2011 groundwater monitoring event, Monitor Wells MW-1, MW-2, MW-3, and MW-4 were purged of at least 3 casing volumes of groundwater using a 1.5-inch diameter, polyethylene dedicated bailer. While bailing Monitor Wells MW-1, MW-2, MW-3, and MW-4, groundwater parameters were collected using a YSI 556 multi-parameter sonde and results were recorded on CRA Groundwater Sampling Field Forms (**Appendix A**). Groundwater samples were placed in laboratory prepared bottles, packed on ice, and shipped under chain-of-custody documentation to Accutest Laboratories of Houston, Texas. June 2011 groundwater samples were analyzed for BTEX by EPA Method 8260B (**Table 3**). The Laboratory analytical report is included as **Appendix B**.

2.3 GROUNDWATER MONITORING ANALYTICAL RESULTS

The Navajo Nation Environmental Protection Agency (NNEPA) has not established groundwater quality standards; however, drinking water quality on Navajo Nation land is mandated in Part II the Navajo Nation Primary Drinking Water Regulations (NNPDWR). Drinking water quality standards have been set for the protection of human health, domestic water supply, and irrigation use. Exceedences of NNPDWR water quality standards in Site monitoring wells are discussed below.

- **Benzene** – The NNPDWR drinking water quality standard for benzene is 5 µg/L. The laboratory analysis of a groundwater sample collected from Monitor Well MW-1 revealed a concentration of 3,200 µg/L.

- **Ethylbenzene** – The NNPDWR drinking water quality standard for ethylbenzene is 700 µg/L. The laboratory analysis of a groundwater sample collected from Monitor Well MW-1 revealed a concentration of 972 µg/L.

The corresponding laboratory analytical report for the June 2011 groundwater sampling event is included as **Appendix B**. A historical laboratory analytical summary is available as **Table 3**. A Site map showing the concentration of benzene present in groundwater is included as **Figure 4**. A hydrograph showing benzene concentration vs. groundwater level over time in MW-1 is included as **Figure 5**.

3.0 CONCLUSIONS AND RECOMMENDATIONS

Groundwater samples collected from MW-1 have continually exceeded NNPDWR drinking water quality standards for benzene from June 2008 to June 2011. Monitoring Well MW-1 was found to exceed NNPDWR drinking water quality standards for benzene and ethylbenzene in June 2011. Tetra Tech placed an oil absorbent sock in MW-1 during the September 2010 monitoring event. The sock appeared to contribute to a significant decrease of benzene between the September 2010 and March 2011 monitoring events. Even though the sock remained in place following the March 2011 monitoring event, benzene levels in MW-1 increased between the March 2011 and June 2011 monitoring events, possibly due to a drop in groundwater elevation in MW-1. Based on the historical groundwater quality data, groundwater samples collected from MW-3 and MW-4 have never exceeded NNPDWR drinking water quality standards for BTEX constituents during sampling conducted from June 2008 to June 2011. Groundwater samples collected from MW-2 have not exceeded the NNPDWR standards for BTEX constituents since the September 2008 sampling event when benzene was detected above the standard.

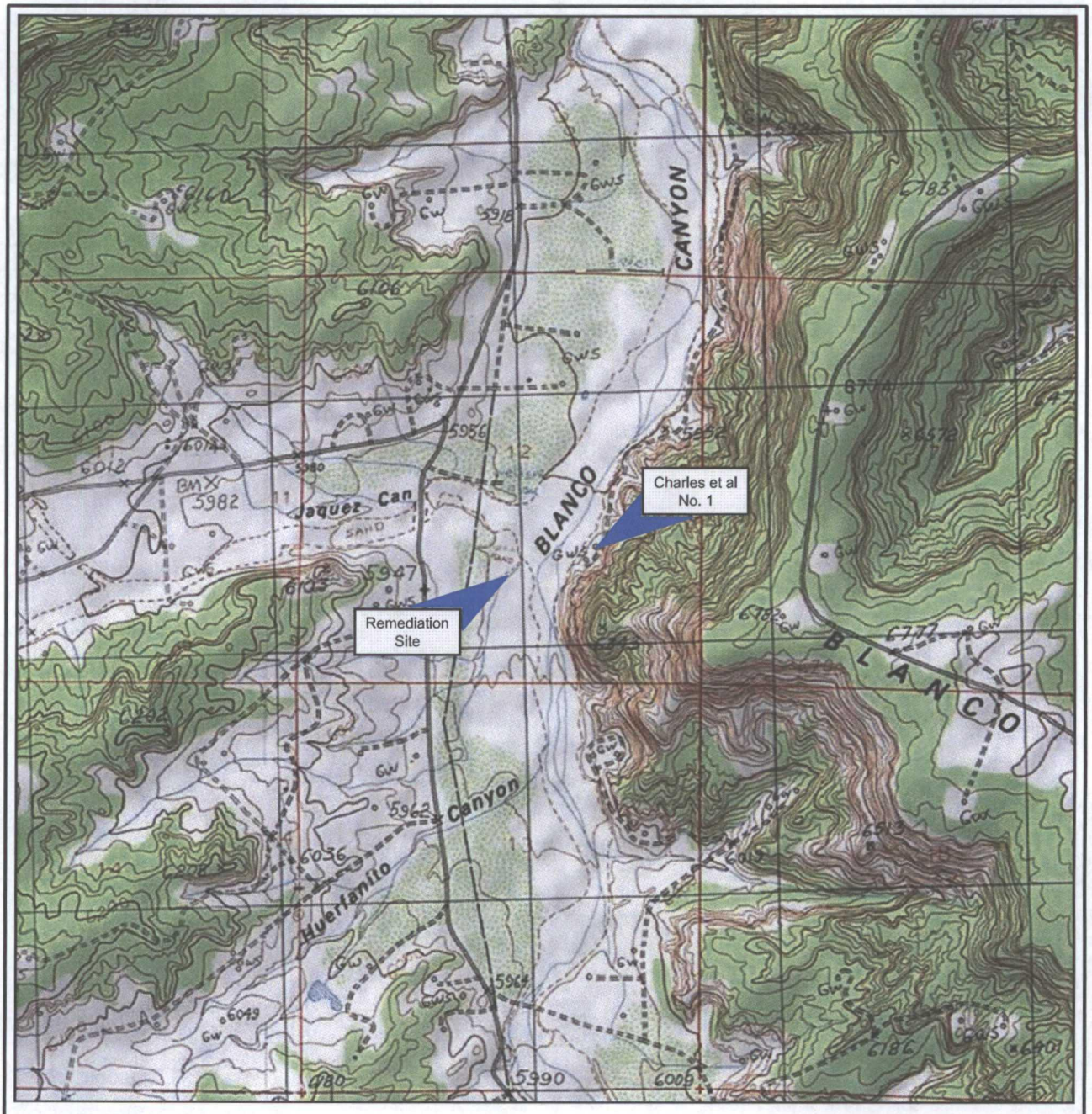
CRA recommends continued quarterly groundwater sampling at the Site. Site closure will be requested when groundwater analytical results indicate that all monitored groundwater quality parameters are consistently below NNPDWR drinking water quality standards.

4.0 REFERENCES

Envirotech Incorporated (2009). *June 2009 Groundwater Monitoring Report.* Prepared for ConocoPhillips. Report Dated August 2009.

State of New Mexico Energy Minerals and Natural Resources Form C-141 (2003). *Release Notification and Corrective Action.* Dated June 30, 2008.

FIGURES



SOURCE: USGS 7.5 MINUTE QUAD
"FRESNO CANYON, NEW MEXICO"

Figure 1

SITE VICINITY MAP
CHARLES et al No. 1
SEC 12 36.5860050 N, -107.740131 W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

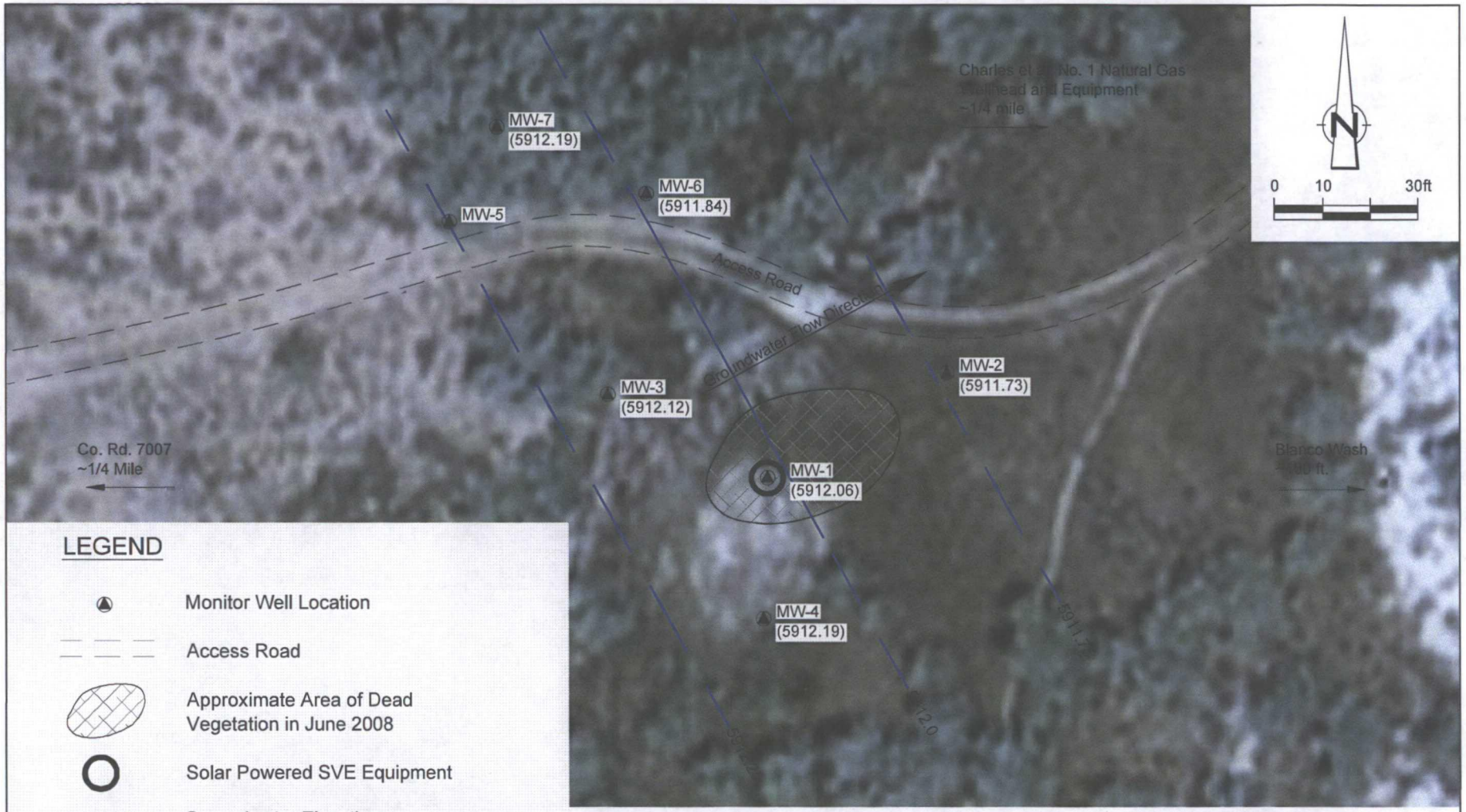
074935-95(002)GN-DL004 SEP 20/2011

Adapted from Tetratech, Inc. figure,
"Site Layout Map,"

Figure 2

SITE PLAN
CHARLES et al NO. 1
SEC 12, T27N-R9W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

074935-95(002)GN-DL001 DEC 6/2011



Adapted from Tetratech, Inc. figure, "Site Layout Map,"

Figure 3

JUNE 2011 GROUNDWATER POTENTIOMETRIC SURFACE MAP
CHARLES et al NO. 1
SEC 12, T27N-R9W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

074935-95(002)GN-DL002 DEC 6/2011

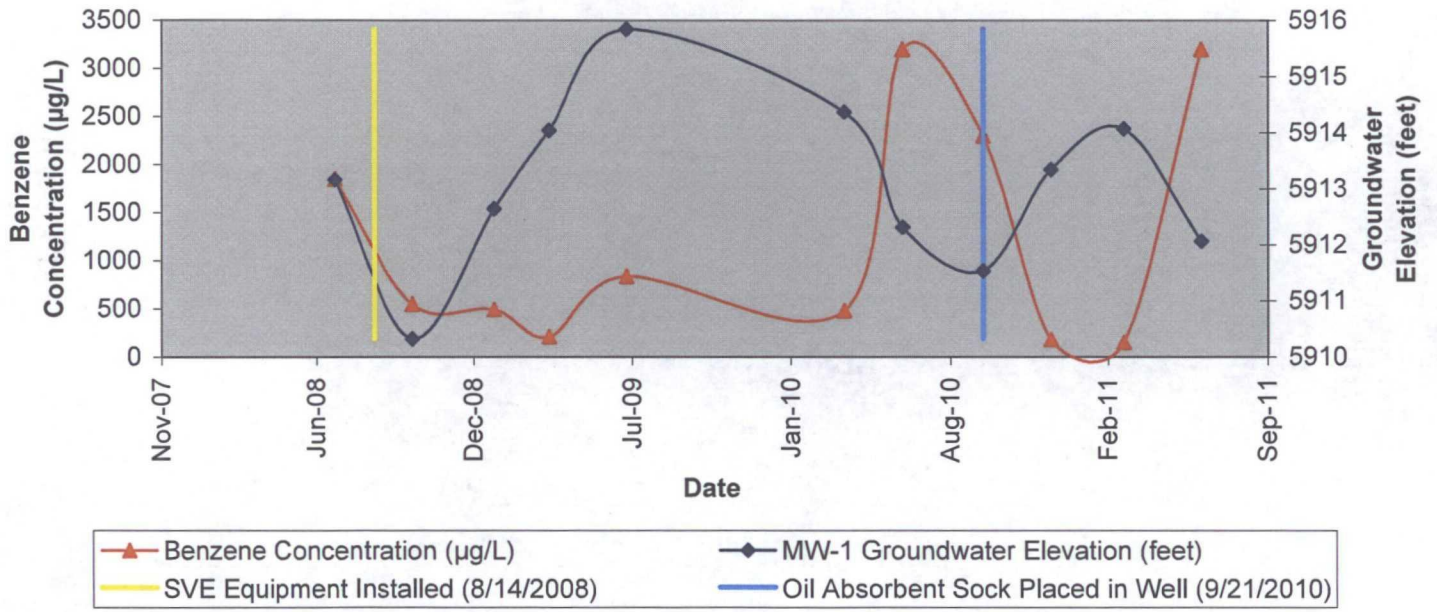
Adapted from Tetratech, Inc. figure, "Site Layout Map,"

Figure 4

BENZENE CONCENTRATION MAP
CHARLES et al NO. 1
SEC 12, T27N,-R9W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

074935-95(002)GN-DL003 DEC 6/2011

Figure 5. ConocoPhillips Charles et al. No. 1 Benzene Concentration vs. Groundwater Elevation Over Time in MW-1



TABLES

TABLE 1
SITE HISTORICAL TIMELINE
CONOCOPHILLIPS COMPANY
CHARLES ET AL. NO. 1

DATE	*ACTIVITY*
April 12, 1965	Well spudded by Austral Oil Company Inc.
March 30, 1978	Change in operatorship to the Superior Oil Company.
September 1, 1986	Change in operatorship to Mobil Producing TX and NM Inc.
August 1, 1992	Change in operatorship to Meridian Oil Inc, a subsidiary of Burlington Resources.
August 1, 2001	Burlington Resources abandons well due to low production.
May 20, 2003	The Charles et al. No. 1 natural gas well returned to production.
March 31, 2006	ConocoPhillips acquires Burlington Resources.
June 23, 2008	A release was discovered from the pipe running from the wellhead to the meter house; upon walking the pipeline, an area of dead vegetation was also discovered approximately 100 feet from Blanco Wash.
June 24, 2008	ConocoPhillips reported the release to the New Mexico Oil Conservation Division (NMOCD) via phone and email.
June 25-26, 2008	Envirotech, Inc. of Farmington, NM advances several soil borings and installed piezometers using a hand auger to determine the extent of impact (Envirotech, 2009). Envirotech also installed Monitor Wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, and MW-7; and obtained water level measurements and samples from all of the wells.
August 14, 2008	Envirotech, Inc. installed solar-powered Soil Vapor Extraction (SVE) equipment over the existing Monitor Well, MW-1; and obtained water level measurements and samples from all of the wells.
October 2, 2008	Envirotech, Inc. completed the third round of groundwater sampling.
January 13, 2009	Envirotech, Inc. completed the fourth round of groundwater sampling.
March 23, 2009	Envirotech, Inc. completed the fifth round of groundwater sampling and recommended sampling only Monitor Wells MW-1, MW-2, MW-3, and MW-4.
June 29, 2009	Envirotech, Inc. completed the sixth round of groundwater sampling and recommended drilling additional monitor wells downgradient of MW-2.
March 30, 2010	Tetra Tech, Inc. completed the seventh round of groundwater sampling.
June 11, 2010	Tetra Tech, Inc. completed the eighth round of groundwater sampling.
September 21, 2010	Tetra Tech, Inc. completed the ninth round of groundwater sampling.
December 16, 2010	Tetra Tech, Inc. completed the tenth round of groundwater sampling. The benzene level in MW-1 exceeded the Navajo Nation Primary Drinking Water Regulations (NNPDWR) standard.
March 18, 2011	Tetra Tech, Inc. completed the eleventh round of groundwater sampling. The benzene level in MW-1 exceeded the NNPDWR standard.
June 15, 2011	On June 15, 2011, Site consulting responsibilities were transferred from Tetra Tech of Albuquerque, NM to Conestoga-Rovers & Associates (CRA) of Albuquerque, NM.
June 23, 2011	CRA completed the twelfth round of groundwater sampling. Benzene and ethylbenzene levels in MW-1 exceeded the NNPDWR standards.

TABLE 2
MONITORING WELL SPECIFICATIONS AND GROUNDWATER ELEVATIONS
JUNE 2008 - JUNE 2011
CONOCOPHILLIPS COMPANY
CHARLES ET AL. NO. 1

Well ID	*TOC Elevation* (ft AMSL)*	*Date Measured*	*Depth to Groundwater (ft below TOC)*	*Relative Water Level (ft AMSL)*
MW-1	5917.87	06/25/2008	4.71	5913.16
		08/14/2008	5.21	5912.66
	5917.05	10/02/2008	5.13	5911.92
		01/13/2009	4.41	5912.64
		03/23/2009	3.01	5914.04
		06/29/2009	2.12	5914.93
		03/30/2010	2.68	5914.37
		06/11/2010	4.74	5912.31
		09/21/2010	5.52	5911.53
		12/16/2010	3.71	5913.34
		03/18/2011	2.98	5914.07
		06/23/2011	4.99	5912.06
MW-2	5917.33	06/25/2008	4.66	5912.67
		08/14/2008	5.35	5911.98
	5916.53	10/02/2008	5.12	5911.41
		01/13/2009	3.15	5913.38
		03/23/2009	2.65	5913.88
		06/29/2009	4.20	5912.33
		03/30/2010	2.57	5913.96
		06/11/2010	4.63	5911.90
		09/21/2010	5.53	5911.00
		12/16/2010	3.53	5913.00
		03/18/2011	2.70	5913.83
		06/23/2011	4.80	5911.73
MW-3	5920.57	06/25/2008	7.16	5913.41
		08/14/2008	8.86	5911.71
	5919.8	10/02/2008	7.63	5912.17
		01/13/2009	5.56	5914.24
		03/23/2009	5.56	5914.24
		06/29/2009	1.10	5918.70
		03/30/2010	5.38	5914.42
		06/11/2010	7.44	5912.36
		09/21/2010	8.22	5911.58
		12/16/2010	6.06	5913.74
		03/18/2011	5.42	5914.38
		06/23/2011	7.68	5912.12
MW-4	5920.48	06/25/2008	4.27	5916.21
		08/14/2008	7.89	5912.59
	5919.69	10/02/2008	7.73	5911.96
		01/13/2009	5.94	5913.75
		03/23/2009	5.64	5914.05
		06/29/2009	6.84	5912.85
		03/30/2010	5.40	5914.29
		06/11/2010	7.23	5912.46
		09/21/2010	8.17	5911.52
		12/16/2010	6.24	5913.45
		03/18/2011	5.50	5914.19
		06/23/2011	7.50	5912.19

TABLE 2
MONITORING WELL SPECIFICATIONS AND GROUNDWATER ELEVATIONS
JUNE 2008 - JUNE 2011
CONOCOPHILLIPS COMPANY
CHARLES ET AL. NO. 1

Well ID	*TOC Elevation* (ft AMSL)*	*Date Measured*	*Depth to Groundwater (ft below TOC)*	*Relative Water Level (ft AMSL)*
MW-5	5923.63	06/26/2008	8.23	5915.40
		08/14/2008	8.68	5914.95
	5921.55	10/02/2008	8.70	5912.85
		01/13/2009	6.96	5914.59
		03/23/2009	6.58	5914.97
		06/29/2009	4.10	5917.45
		03/30/2010	NM	NA
		06/11/2010	8.20	5913.35
		09/21/2010	9.25	5912.30
		12/16/2010	7.40	5914.15
		03/18/2011	6.74	5914.81
		06/23/2011	NM	NA
MW-6	5920.68	06/26/2008	6.75	5913.93
		08/14/2008	6.97	5913.71
	5918.64	10/02/2008	6.83	5911.81
		01/13/2009	4.89	5913.75
		03/23/2009	4.12	5914.52
		06/29/2009	1.80	5916.84
		03/30/2010	NM	NA
		06/11/2010	6.63	5912.01
		09/21/2010	7.41	5911.23
		12/16/2010	5.12	5913.52
		03/15/2011	4.49	5914.15
		06/23/2011	6.80	5911.84
MW-7	5920.75	06/26/2008	6.32	5914.43
		08/14/2008	7.17	5913.58
	5918.74	10/02/2008	6.42	5912.32
		01/13/2009	NM	NA
		03/23/2009	4.67	5914.07
		06/29/2009	1.56	5917.18
		03/30/2010	NM	NA
		06/11/2010	NM	NA
		09/21/2010	NM	NA
		12/16/2010	4.91	5913.83
		03/18/2011	4.4 (dry) (1)	NA
		06/23/2011	6.55	5912.19

Notes:

1. (1) Indication of well being dry is inconsistent with perviously recorded levels. Will continue to monitor depth to groundwater and total depth to determine a potential cause.
2. ft = feet
3. AMSL = Above mean sea level
4. NA = Not available
5. NM = Not measured
6. * = Elevation Measurements obtained from 2009 Envirotech investigation
7. Note: Measurements between 6/25/2008 and 6/29/2009 obtained by Envirotech, Inc.

TABLE 3
GROUNDWATER ANALYTICAL RESULTS SUMMARY
JUNE 2008 - JUNE 2011
CONOCOPHILLIPS COMPANY
CHARLES ET AL. NO. 1

Well ID	*Sample ID Number*	*Date*	*Benzene (µg/L)*	*Toluene (µg/L)*	*Ethylbenzene (µg/L)*	*Xylenes (µg/L)*
NNPDWR Standards			5 (µg/L)	1000 (µg/L)	700 (µg/L)	10,000 (µg/L)
MW-1		6/25/2008	**1850**	486	**971**	379
		9/25/2008	**575**	660	293	1547
		1/13/2009	**494**	581	474	3572
		3/23/2009	**210**	311	378	1418
		6/29/2009	**839**	107	674	3404
		3/30/2010	**480**	110	250	1573
		6/11/2010	**3,200**	450	690	4,510
		9/21/2010	**2,300**	**1100**	250	4,840
		12/16/2010	**180**	200	250	1,790
		3/18/2011	**150**	140	160	1,083
	GW-074935-062311-PG-04	6/23/2011	**3,200**	933	**972**	5,800
MW-1 Duplicate	GW-074935-062311-PG-05	6/23/2011	**3,380**	**1,450**	**1,060**	6,760
MW-2		6/25/2008	4.2	4.6	1.6	1.1
		9/25/2008	**19.5**	25.8	5.1	100.8
		1/13/2009	2.1	2	2.2	28.1
		3/23/2009	1.4	0.4	0.6	7.3
		6/29/2009	1.5	ND	0.2	0.4
		3/30/2010	< 1.0	< 1.0	< 1.0	< 1.0
		6/11/2010	< 1.0	< 1.0	< 1.0	< 1.0
		9/21/2010	< 1.0	< 1.0	< 1.0	< 1.0
		12/16/2010	< 1.0	< 1.0	< 1.0	< 1.0
		3/18/2011	< 1.0	< 1.0	< 1.0	< 1.0
	GW-074935-062311-PG-02	6/23/2011	< 1.0	< 1.0	< 1.0	< 3.0
MW-3		6/25/2008	ND	ND	ND	ND
		9/25/2008	ND	2.3	0.9	12.1
		1/13/2009	ND	ND	ND	ND
		3/23/2009	ND	0.2	0.2	1.4
		6/29/2009	ND	1.7	0.7	8.2
		3/30/2010	< 1.0	< 1.0	< 1.0	< 1.0
		6/11/2010	< 1.0	< 1.0	< 1.0	< 1.0
		9/21/2010	< 1.0	< 1.0	< 1.0	< 1.0
		12/16/2010	< 1.0	< 1.0	< 1.0	< 1.0
		3/18/2011	<1.0	<1.0	<1.0	<1.0
	GW-074935-062311-PG-01	6/23/2011	< 1.0	< 1.0	< 1.0	< 3.0
MW-4		6/25/2008	3.8	19.9	1.4	7
		9/25/2008	ND	ND	ND	ND
		1/13/2009	ND	ND	ND	ND
		3/23/2009	ND	ND	ND	ND
		6/29/2009	ND	ND	0.2	2.9
		3/30/2010	< 1.0	< 1.0	< 1.0	< 1.0
		6/11/2010	< 1.0	< 1.0	< 1.0	< 1.0
		9/21/2010	< 1.0	< 1.0	< 1.0	< 1.0
		12/16/2010	< 1.0	< 1.0	< 1.0	< 1.0
		3/18/2011	<1.0	<1.0	<1.0	<1.0
	GW-074935-062311-PG-03	6/23/2011	< 1.0	< 1.0	< 1.0	< 3.0

TABLE 3
GROUNDWATER ANALYTICAL RESULTS SUMMARY
JUNE 2008 - JUNE 2011
CONOCOPHILLIPS COMPANY
CHARLES ET AL. NO. 1

Well ID	*Sample ID Number*	*Date*	*Benzene (µg/L)*	*Toluene (µg/L)*	*Ethylbenzene (µg/L)*	*Xylenes (µg/L)*
NNPDWR Standards			5 (µg/L)	1000 (µg/L)	700 (µg/L)	10,000 (µg/L)
MW-5		6/26/2008	ND	ND	ND	ND
		9/25/2008	ND	ND	ND	ND
		1/13/2009	ND	ND	ND	ND
		3/23/2009	ND	ND	ND	ND
		6/29/2009	NS	NS	NS	NS
		3/30/2010	NS	NS	NS	NS
		6/11/2010	NS	NS	NS	NS
		9/21/2010	NS	NS	NS	NS
		12/16/2010	NS	NS	NS	NS
		3/18/2011	NS	NS	NS	NS
		6/23/2011	NS	NS	NS	NS
MW-6		6/26/2008	ND	ND	ND	ND
		9/25/2008	ND	ND	ND	ND
		1/13/2009	ND	ND	ND	ND
		3/23/2009	ND	ND	ND	ND
		6/29/2009	NS	NS	NS	NS
		3/30/2010	NS	NS	NS	NS
		6/11/2010	NS	NS	NS	NS
		9/21/2010	NS	NS	NS	NS
		12/16/2010	NS	NS	NS	NS
		3/18/2011	NS	NS	NS	NS
		6/23/2011	NS	NS	NS	NS
MW-7		6/26/2008	ND	ND	ND	ND
		9/25/2008	ND	ND	ND	ND
		1/13/2009	NS	NS	NS	NS
		3/23/2009	ND	ND	ND	ND
		6/29/2009	NS	NS	NS	NS
		3/30/2010	NS	NS	NS	NS
		6/11/2010	NS	NS	NS	NS
		9/21/2010	NS	NS	NS	NS
		12/16/2010	NS	NS	NS	NS
		3/18/2011	NS	NS	NS	NS
		6/23/2011	NS	NS	NS	NS

Notes:

1. MW = monitoring well
2. ND = Not Detected
3. NS = Not Sampled
4. NNPDWR = Navajo Nation Primary Drinking Water Regulations
5. µg/L = micrograms per liter (parts per billion)
6. < 1.0 = Below laboratory detection limit of 1.0 ug/L
7. **Bold** = concentrations that exceed the NNEPA limits
8. Analytes sampled between 6/25/2008 and 6/29/2009 obtained by Envirotech, Inc.

APPENDIX A

JUNE 2011 QUARTERLY GROUNDWATER SAMPLING FIELD FORMS

WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME: Charles et al No. 1 JOB# 74935

SAMPLE ID: GW-74935-062311-PG04 WELL# MW-1

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	SAMPLE TIME (24 HOUR)	WATER VOL. IN CASING (GALLONS)	ACTUAL VOL. PURGED (GALLONS)
6.23.11	6.23.11	1325	0.35	0.75

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	G	A - SUBMERSIBLE PUMP	D - GAS LIFT PUMP	G - BAILER	X= PURGING DEVICE OTHER (SPECIFY)
		B - PERISTALTIC PUMP	E - PURGE PUMP	H - WATERRA®	
SAMPLING DEVICE	G	C - BLADDER PUMP	F - DIPPER BOTTLE	X - OTHER	X= SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	E	A - TEFLON	D - PVC		X= PURGING MATERIAL OTHER (SPECIFY)
		B - STAINLESS STEEL	E - POLYETHYLENE		
SAMPLING MATERIAL	E	C - POLYPROPYLENE	X - OTHER		X= SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	C	A - TEFLON	D - POLYPROPYLENE	G - COMBINATION TEFLON/POLYPROPYLENE	X= PURGE TUBING OTHER (SPECIFY)
		B - TYGON	E - POLYETHYLENE		
SAMPLING TUBING	C	C - ROPE	F - SILICONE	X - OTHER	X= SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45		A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

DEPTH TO WATER: 4.99 (feet) WELL ELEVATION: 5917.05 (feet)

WELL DEPTH: 7.20 (feet) GROUNDWATER ELEVATION: 5912.06 (feet)

TEMPERATURE	pH	TDS	CONDUCTIVITY	ORP	VOLUME
15.07 (°C)	7.02 (std)	(g/L)	14954 (µS/cm)	(mV)	0.5 (gal)
15.04 (°C)	7.00 (std)	(g/L)	14919 (µS/cm)	322.1 (mV)	0.75 (gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)

FIELD COMMENTS

SAMPLE APPEARANCE: cloudy ODOR: COLOR: black SHEEN Y/(N)

WEATHER CONDITIONS: TEMPERATURE / WINDY Y/N PRECIPITATION Y/N (IF Y TYPE)

SPECIFIC COMMENTS: Sunny and clear

Duplicate sample collected at 1330 Sample ID# GW-74935-062311-PG05

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

DATE	PRINT	SIGNATURE
6.23.11	Cassie Brown	Cassie Brown

WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME: Charles et al No. 1 JOB# 74935

SAMPLE ID: GW-74935-062311-PG-02 WELL# MW-2

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	SAMPLE TIME (24 HOUR)	WATER VOL. IN CASING (GALLONS)	ACTUAL VOL. PURGED (GALLONS)
6.23.11	6.23.11	1310	0.424	1.0

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	G	A - SUBMERSIBLE PUMP	D - GAS LIFT PUMP	G - BAILER	X= PURGING DEVICE OTHER (SPECIFY)
		B - PERISTALTIC PUMP	E - PURGE PUMP	H - WATERRA®	
SAMPLING DEVICE	G	C - BLADDER PUMP	F - DIPPER BOTTLE	X - OTHER	X= SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	E	A - TEFLON	D - PVC		X= PURGING MATERIAL OTHER (SPECIFY)
		B - STAINLESS STEEL	E - POLYETHYLENE		
SAMPLING MATERIAL	E	C - POLYPROPYLENE	X - OTHER		X= SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	C	A - TEFLON	D - POLYPROPYLENE	G - COMBINATION TEFLON/POLYPROPYLENE	X= PURGE TUBING OTHER (SPECIFY)
		B - TYGON	E - POLYETHYLENE		
SAMPLING TUBING	C	C - ROPE	F - SILICONE	X - OTHER	X= SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45		A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

DEPTH TO WATER	4.80	(feet)	WELL ELEVATION	5916.53	(feet)
WELL DEPTH	7.45	(feet)	GROUNDWATER ELEVATION	5911.73	(feet)

TEMPERATURE	pH	TDS	CONDUCTIVITY	ORP	VOLUME
13.41 (°C)	6.86 (std)	(g/L)	11285 (µS/cm)	-108.8 (mV)	.5 (gal)
12.98 (°C)	6.70 (std)	(g/L)	1129 (µS/cm)	-121.2 (mV)	1.0 (gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)

FIELD COMMENTS

SAMPLE APPEARANCE: cloudy ODOR: COLOR: gray SHEEN Y/(N)

WEATHER CONDITIONS: TEMPERATURE / WINDY Y/N / PRECIPITATION Y/N (IF Y TYPE)

SPECIFIC COMMENTS: sunny + clear

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

6.23.11 (DATE) Jesse Brown (PRINT) (SIGNATURE)

WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME: Charles et al No. 1 JOB# 74935

SAMPLE ID: GW-74935-062311-PG-01 WELL# MW-3

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	SAMPLE TIME (24 HOUR)	WATER VOL. IN CASING (GALLONS)	ACTUAL VOL. PURGED (GALLONS)
6.23.11	6.23.11	1302	0.43	0.5

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	G	A - SUBMERSIBLE PUMP B - PERISTALTIC PUMP	D - GAS LIFT PUMP E - PURGE PUMP	G - BAILER H - WATERRA®	X= PURGING DEVICE OTHER (SPECIFY)
SAMPLING DEVICE	G	C - BLADDER PUMP	F - DIPPER BOTTLE	X - OTHER	X= SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	E	A - TEFLON B - STAINLESS STEEL	D - PVC E - POLYETHYLENE		X= PURGING MATERIAL OTHER (SPECIFY)
SAMPLING MATERIAL	E	C - POLYPROPYLENE	X - OTHER		X= SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	C	A - TEFLON B - TYGON	D - POLYPROPYLENE E - POLYETHYLENE	G - COMBINATION TEFLON/POLYPROPYLENE	X= PURGE TUBING OTHER (SPECIFY)
SAMPLING TUBING	C	C - ROPE	F - SILICONE	X - OTHER	X= SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45		A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

DEPTH TO WATER 7.68 (feet) WELL ELEVATION 5919.80 (feet)

WELL DEPTH 10.40 (feet) GROUNDWATER ELEVATION 5912.12 (feet)

TEMPERATURE	pH	TDS	CONDUCTIVITY	ORP	VOLUME
15.15 (°C)	7.30 (std)	(g/L)	9927 (µS/cm)	(mV)	6.5 (gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)

FIELD COMMENTS

SAMPLE APPEARANCE: cloudy ODOR: COLOR: SHEEN Y/(N)

WEATHER CONDITIONS: TEMPERATURE / WINDY Y/N PRECIPITATION Y/N (IF Y TYPE)

SPECIFIC COMMENTS: Sunny + clear

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

6.23.11 (DATE) Cassie Brown (PRINT) Cassie Brown (SIGNATURE)

WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME: Charles et al No. 1 JOB# 74935

SAMPLE ID: GW-74935-062311-PG-03 WELL# MW-4

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	SAMPLE TIME (24 HOUR)	WATER VOL. IN CASING (GALLONS)	ACTUAL VOL. PURGED (GALLONS)
6·23·11	6·27·11	1315	0.464	0.75

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.........DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQUIPMENT.........DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	G	A - SUBMERSIBLE PUMP	D - GAS LIFT PUMP	G - BAILER	X= ____ PURGING DEVICE OTHER (SPECIFY)
		B - PERISTALTIC PUMP	E - PURGE PUMP	H - WATERRA®	
SAMPLING DEVICE	G	C - BLADDER PUMP	F - DIPPER BOTTLE	X - OTHER	X= ____ SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	E	A - TEFLON	D - PVC		X= ____ PURGING MATERIAL OTHER (SPECIFY)
		B - STAINLESS STEEL	E - POLYETHYLENE		
SAMPLING MATERIAL	E	C - POLYPROPYLENE	X - OTHER		X= ____ SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	C	A - TEFLON	D - POLYPROPYLENE	G - COMBINATION TEFLON/POLYPROPYLENE	X= ____ PURGE TUBING OTHER (SPECIFY)
		B - TYGON	E - POLYETHYLENE		
SAMPLING TUBING	C	C - ROPE	F - SILICONE	X - OTHER	X= ____ SAMPLING TUBING OTHER (SPECIFY)

FILTERING DEVICES 0.45 [ ] A - IN-LINE DISPOSABLE B - PRESSURE C - VACUUM

FIELD MEASUREMENTS

DEPTH TO WATER	7.5	(feet)	WELL ELEVATION	5919.69	(feet)
WELL DEPTH	10.4	(feet)	GROUNDWATER ELEVATION	5912.19	(feet)

TEMPERATURE (°C)	pH (std)	TDS (g/L)	CONDUCTIVITY (µS/cm)	ORP (mV)	VOLUME (gal)
12.20	7.03		9069	-191.8	0.5
12.18	7.08		9134	-209.9	0.75

FIELD COMMENTS

SAMPLE APPEARANCE: ____ ODOR: ____ COLOR: ____ SHEEN Y/(N) ____

WEATHER CONDITIONS: TEMPERATURE ____ WINDY Y/N ____ PRECIPITATION Y/N (IF Y TYPE) ____

SPECIFIC COMMENTS: Sunny + clear

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

6·23·11 Cosme Brown [signature]

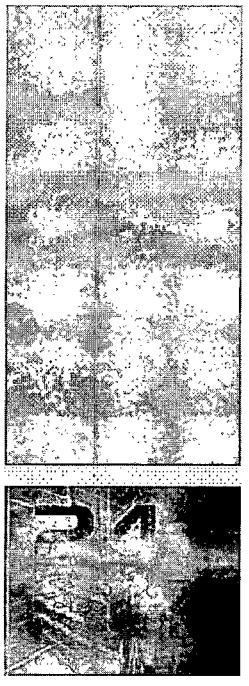
DATE PRINT SIGNATURE

APPENDIX B

JUNE 2011 QUARTERLY GROUNDWATER LABORATORY ANALYTICAL REPORT

Gulf Coast ACCUTEST LABORATORIES

07/05/11



Technical Report for

Conoco Phillips

CRA: Charles Et Al 1

CHARLES ET AL 1

Accutest Job Number: T79694

Sampling Date: 06/23/11

Report to:

Conestoga Rovers & Associates
6121 Indian School Rd. NE, Ste. 200
Albuquerque, NM 87110
keblanchard@craworld.com; christine.mathews@tetratech.com;
cassandre.brown@tetratech.com
ATTN: Kelly Blanchard

Total number of pages in report: **21**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Paul K Canevaro

Paul Canevaro
Laboratory Director

Client Service contact: Erica Cardenas 713-271-4700

Certifications: TX (T104704220-10-3) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004) OK (9103)

Sections: 1 2 3 4

Table of Contents

-1-

Sample Summary

Conoco Phillips

Job No: T79694

CRA: Charles Et Al 1
Project No: CHARLES ET AL 1

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
T79694-1	06/23/11	13:02	06/25/11	AQ	Ground Water	GW-74935-062311-PG01
T79694-2	06/23/11	13:10	06/25/11	AQ	Ground Water	GW-74935-062311-PG02
T79694-3	06/23/11	13:15	06/25/11	AQ	Ground Water	GW-74935-062311-PG03
T79694-4	06/23/11	13:25	06/25/11	AQ	Ground Water	GW-74935-062311-PG04
T79694-5	06/23/11	13:30	06/25/11	AQ	Ground Water	GW-74935-062311-PG05
T79694-6	06/23/11	00:00	06/25/11	AQ	Trip Blank Water	TRIP BLANK

Gulf Coast
ACCUTEST
LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	GW-74935-062311-PG01		
Lab Sample ID:	T79694-1	**Date Sampled:**	06/23/11
Matrix:	AQ - Ground Water	**Date Received:**	06/25/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	CRA: Charles Et Al 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F035656.D	1	06/28/11	AK	n/a	n/a	VF4313
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		79-122%
17060-07-0	1,2-Dichloroethane-D4	95%		75-121%
2037-26-5	Toluene-D8	112%		87-119%
460-00-4	4-Bromofluorobenzene	124%		80-133%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	GW-74935-062311-PG02		
Lab Sample ID:	T79694-2	**Date Sampled:**	06/23/11
Matrix:	AQ - Ground Water	**Date Received:**	06/25/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	CRA: Charles Et Al 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F035657.D	1	06/28/11	AK	n/a	n/a	VF4313
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.00060	0.0010	0.00025	mg/l	J
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		79-122%
17060-07-0	1,2-Dichloroethane-D4	102%		75-121%
2037-26-5	Toluene-D8	116%		87-119%
460-00-4	4-Bromofluorobenzene	130%		80-133%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	GW-74935-062311-PG03		
Lab Sample ID:	T79694-3	**Date Sampled:**	06/23/11
Matrix:	AQ - Ground Water	**Date Received:**	06/25/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	CRA: Charles Et Al 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F035658.D	1	06/28/11	AK	n/a	n/a	VF4313
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		79-122%
17060-07-0	1,2-Dichloroethane-D4	99%		75-121%
2037-26-5	Toluene-D8	112%		87-119%
460-00-4	4-Bromofluorobenzene	126%		80-133%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	GW-74935-062311-PG04		
Lab Sample ID:	T79694-4	**Date Sampled:**	06/23/11
Matrix:	AQ - Ground Water	**Date Received:**	06/25/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	CRA: Charles Et Al 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F035693.D	25	06/30/11	AK	n/a	n/a	VF4315
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	3.20	0.025	0.0062	mg/l	
108-88-3	Toluene	0.933	0.025	0.0064	mg/l	
100-41-4	Ethylbenzene	0.972	0.025	0.0063	mg/l	
1330-20-7	Xylene (total)	5.80	0.075	0.018	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		79-122%
17060-07-0	1,2-Dichloroethane-D4	96%		75-121%
2037-26-5	Toluene-D8	110%		87-119%
460-00-4	4-Bromofluorobenzene	118%		80-133%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	GW-74935-062311-PG05		
Lab Sample ID:	T79694-5	**Date Sampled:**	06/23/11
Matrix:	AQ - Ground Water	**Date Received:**	06/25/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	CRA: Charles Et Al 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F035694.D	25	06/30/11	AK	n/a	n/a	VF4315
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	3.38	0.025	0.0062	mg/l	
108-88-3	Toluene	1.45	0.025	0.0064	mg/l	
100-41-4	Ethylbenzene	1.06	0.025	0.0063	mg/l	
1330-20-7	Xylene (total)	6.76	0.075	0.018	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		79-122%
17060-07-0	1,2-Dichloroethane-D4	96%		75-121%
2037-26-5	Toluene-D8	109%		87-119%
460-00-4	4-Bromofluorobenzene	117%		80-133%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	T79694-6	**Date Sampled:**	06/23/11
Matrix:	AQ - Trip Blank Water	**Date Received:**	06/25/11
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	CRA: Charles Et Al 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F035655.D	1	06/28/11	AK	n/a	n/a	VF4313
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		79-122%
17060-07-0	1,2-Dichloroethane-D4	93%		75-121%
2037-26-5	Toluene-D8	112%		87-119%
460-00-4	4-Bromofluorobenzene	125%		80-133%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST Laboratories

CHAIN OF CUSTODY

Accutest Gulf Coast/SPL Environmental
10165 Harwin Drive, Suite 150, Houston, TX 77036
TEL.713-271-4700 FAX: 713-271-4770
www.accutest.com

PAGE 1 OF 1

FED-EX Tracking #: | Bottle Order Control #:
Accutest Quote #: | Accutest Job #: T79694

Client / Reporting Information

Company Name: ~~Tetra Tech, Inc.~~ CRA
Street Address: 6121 Indian School Rd. NE, Ste. 200
City: Albuquerque State: NM Zip: 87110
Project Contact: Kelly Blanchard E-mail: kblanchard@craworld.com
Phone #: ~~505-237-8440~~ 505-884-0672 Fax #: 505-237-8656
Sampler(s) Name(s): Cassie Bowen Phone #:

Project Information

Project Name: Charles Et Al 1
Street:
City: State:
Project #: 74935
Client Purchase Order #:
Project Manager:

Billing Information (If different from Report to)

Company Name: ConocoPhillips
Street Address: 1358 Phillips Bldg., 420 S. Keeler Ave.
City: Bartlesville State: OK Zip: 74004
Attention: Terry Lauck

Requested Analyses

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank

Accutest Sample #	Field ID / Point of Collection	Collection Date	Collection Time	Matrix	# of bottles	HCl	NaOH	ZnAcOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	Na2SO4	ENCORE	OTHER	BTEX by 8260	LAB USE ONLY
1	GW-74935-062311-PB-01	6.23.11	1302	GW	3	X												X	
2	GW-74935-062311-PB-02	6.23.11	1310	GW	3	X												X	
3	GW-74935-062311-PB-03	6.23.11	1315	GW	3	X												X	
4	GW-74935-062311-PB-04	6.23.11	1325	GW	3	X												X	
5	GW-74935-062311-PB-05	6.23.11	1330	GW	3	X												X	
6	trip blank	—	—	—	2	X												X	

Turnaround Time (Business days)

- [x] Standard
- [ ] 5 Day *RUSH*
- [ ] 4 Day *RUSH*
- [ ] 3 Day *RUSH*
- [ ] 2 Day *RUSH*
- [ ] 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [x] Commercial "B" (Level 2)
- [ ] FULT1 (Level 3 & 4)
- [ ] REDT1 (Level 3 & 4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC & Surrogate Summary

Comments / Special Instructions

(*) ~~Ag, B, Ba, Be, Cd, Ca, Cr, Co, Cu, Pb, Mn, Mo, Ni, Se, Ag, Zn, Hg~~

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Cassie Bowen	6.23.11 1200	1	2	6.24.11 1055	2
3			3	4		4
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	☐ Intact ☐ Not Intact	Preserved where applicable ☐	On Ice ☐	Cooler Temp.

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T79694: Chain of Custody
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ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: T79694 **Client:** CRA **Project:** CHARLES ET AL 1

Date / Time Received: 6/25/2011 **Delivery Method:** FedEx **Airbill #'s:** 4868-9990-4997

No. Coolers: 1 **Therm ID:** 110; **Temp Adjustment Factor:** -0.5;

Cooler Temps (Initial/Adjusted): #1: (18.7/18.2);

Cooler Security	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☐	☑

Cooler Temperature	Y	N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	Glass Thermometer	
3. Cooler media:	Ice (Bag)	

Quality Control Preservation	Y	N	N/A	WTB	STB
1. Trip Blank present / cooler:	☑	☐	☐	☑	☐
2. Trip Blank listed on COC:	☑	☐	☐		
3. Samples preserved properly:	☑	☐			
4. VOCs headspace free:	☐	☐	☑		

Sample Integrity - Documentation	Y	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☐	☑

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments NO TIME LIST ON SAMPLE 1 VIALS

6/25/11

Accutest Laboratories
V:713.271.4700

10165 Harwin Drive
F: 713.271.4770

Houston, TX 77036
www.accutest.com

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T79694: Chain of Custody
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Sample Receipt Log

Job #: T79694 **Date / Time Received:** 6/25/2011 10:55:00 AM **Initials:** BG

Client: CRA

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	T79694-1	40 ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	18.7	-0.5	18.2
1	T79694-1	40 ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	18.7	-0.5	18.2
1	T79694-1	40 ml	3	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	18.7	-0.5	18.2
1	T79694-2	40 ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	18.7	-0.5	18.2
1	T79694-2	40 ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	18.7	-0.5	18.2
1	T79694-2	40 ml	3	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	18.7	-0.5	18.2
1	T79694-3	40 ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	18.7	-0.5	18.2
1	T79694-3	40 ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	18.7	-0.5	18.2
1	T79694-3	40 ml	3	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	18.7	-0.5	18.2
1	T79694-4	40 ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	18.7	-0.5	18.2
1	T79694-4	40 ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	18.7	-0.5	18.2
1	T79694-4	40 ml	3	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	18.7	-0.5	18.2
1	T79694-5	40 ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	18.7	-0.5	18.2
1	T79694-5	40 ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	18.7	-0.5	18.2
1	T79694-5	40 ml	3	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	18.7	-0.5	18.2
1	T79694-6	40 ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	18.7	-0.5	18.2
1	T79694-6	40 ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	18.7	-0.5	18.2

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T79694: Chain of Custody
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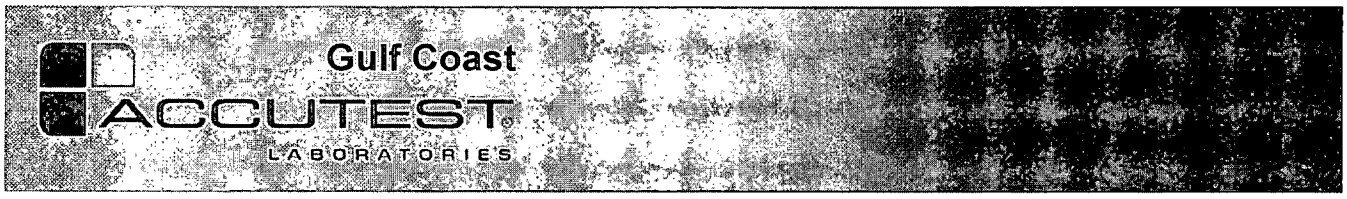

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: T79694
Account: CONOCO Conoco Phillips
Project: CRA: Charles Et Al 1

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF4313-MB	F035642.D	1	06/28/11	AK	n/a	n/a	VF4313

The QC reported here applies to the following samples: **Method:** SW846 8260B

T79694-1, T79694-2, T79694-3, T79694-6

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.26	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.71	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	79-122%
17060-07-0	1,2-Dichloroethane-D4	95%	75-121%
2037-26-5	Toluene-D8	114%	87-119%
460-00-4	4-Bromofluorobenzene	126%	80-133%

Method Blank Summary

Job Number: T79694
Account: CONOCO Conoco Phillips
Project: CRA: Charles Et Al 1

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF4315-MB	F035686.D	1	06/30/11	AK	n/a	n/a	VF4315

The QC reported here applies to the following samples: **Method:** SW846 8260B

T79694-4, T79694-5

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.26	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.71	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	105%	79-122%
17060-07-0	1,2-Dichloroethane-D4	93%	75-121%
2037-26-5	Toluene-D8	111%	87-119%
460-00-4	4-Bromofluorobenzene	118%	80-133%

Blank Spike Summary

Job Number: T79694
Account: CONOCO Conoco Phillips
Project: CRA: Charles Et Al 1

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF4313-BS	F035640.D	1	06/28/11	AK	n/a	n/a	VF4313

The QC reported here applies to the following samples: **Method:** SW846 8260B

T79694-1, T79694-2, T79694-3, T79694-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	25.7	103	76-118
100-41-4	Ethylbenzene	25	27.0	108	75-112
108-88-3	Toluene	25	27.6	110	77-114
1330-20-7	Xylene (total)	75	82.8	110	75-111

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	79-122%
17060-07-0	1,2-Dichloroethane-D4	95%	75-121%
2037-26-5	Toluene-D8	111%	87-119%
460-00-4	4-Bromofluorobenzene	120%	80-133%

Blank Spike Summary

Job Number: T79694
Account: CONOCO Conoco Phillips
Project: CRA: Charles Et Al 1

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF4315-BS	F035684.D	1	06/30/11	AK	n/a	n/a	VF4315

The QC reported here applies to the following samples: **Method:** SW846 8260B

T79694-4, T79694-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	24.1	96	76-118
100-41-4	Ethylbenzene	25	24.0	96	75-112
108-88-3	Toluene	25	24.4	98	77-114
1330-20-7	Xylene (total)	75	73.9	99	75-111

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	106%	79-122%
17060-07-0	1,2-Dichloroethane-D4	98%	75-121%
2037-26-5	Toluene-D8	112%	87-119%
460-00-4	4-Bromofluorobenzene	118%	80-133%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T79694
Account: CONOCO Conoco Phillips
Project: CRA: Charles Et Al 1

4.3.1

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T79470-1MS	F035644.D	10	06/28/11	AK	n/a	n/a	VF4313
T79470-1MSD	F035645.D	10	06/28/11	AK	n/a	n/a	VF4313
T79470-1	F035643.D	10	06/28/11	AK	n/a	n/a	VF4313

The QC reported here applies to the following samples: **Method:** SW846 8260B

T79694-1, T79694-2, T79694-3, T79694-6

CAS No.	Compound	T79470-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	200		250	463	105	458	103	1	76-118/16
100-41-4	Ethylbenzene	76.3		250	355	111	348	109	2	75-112/12
108-88-3	Toluene	3.0		250	285	113	283	112	1	77-114/12
1330-20-7	Xylene (total)	27.0		750	890	115*	872	113*	2	75-111/12

CAS No.	Surrogate Recoveries	MS	MSD	T79470-1	Limits
1868-53-7	Dibromofluoromethane	103%	99%	101%	79-122%
17060-07-0	1,2-Dichloroethane-D4	100%	96%	96%	75-121%
2037-26-5	Toluene-D8	116%	111%	113%	87-119%
460-00-4	4-Bromofluorobenzene	125%	119%	125%	80-133%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T79694
Account: CONOCO Conoco Phillips
Project: CRA: Charles Et Al 1

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T79914-2MS	F035690.D	1	06/30/11	AK	n/a	n/a	VF4315
T79914-2MSD	F035691.D	1	06/30/11	AK	n/a	n/a	VF4315
T79914-2	F035689.D	1	06/30/11	AK	n/a	n/a	VF4315

The QC reported here applies to the following samples: **Method:** SW846 8260B

T79694-4, T79694-5

CAS No.	Compound	T79914-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		25	24.5	98	24.6	98	0	76-118/16
100-41-4	Ethylbenzene	ND		25	24.7	99	24.2	97	2	75-112/12
108-88-3	Toluene	ND		25	25.0	100	24.9	100	0	77-114/12
1330-20-7	Xylene (total)	ND		75	76.1	101	75.0	100	1	75-111/12

CAS No.	Surrogate Recoveries	MS	MSD	T79914-2	Limits
1868-53-7	Dibromofluoromethane	107%	106%	107%	79-122%
17060-07-0	1,2-Dichloroethane-D4	99%	98%	99%	75-121%
2037-26-5	Toluene-D8	113%	111%	112%	87-119%
460-00-4	4-Bromofluorobenzene	118%	118%	122%	80-133%