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JUNE 2011 GWMR

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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. 074929,
074926,
074928,
074932,
074930

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

Re: Faye Berdette No. 1 Quarterly Groundwater Monitoring Report - June 2011
Flora Vista No. 1 Quarterly Groundwater Monitoring Report - June 2011 **SR-173**
Howell K No. 1 Quarterly Groundwater Monitoring Report - June 2011
Sategna No. 2E Quarterly Groundwater Monitoring Report - June 2011
Shepherd & Kelsey No. 1E Quarterly Groundwater Monitoring Report - June 2011 **SR-098**

Dear Mr. von Gonten:

Enclosed, please find a copy of the above-referenced documents 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
Project Manager

KB/cd/1
Encl.

cc: Brandon Powell, NMOCD
Terry Lauck, ConocoPhillips (electronic only)
Rose Carter, Landowner (Flora Vista No. 1 only)

Equal
Employment Opportunity
Employer



JUNE 2011 QUARTERLY GROUNDWATER MONITORING REPORT

**CONOCOPHILLIPS FLORA VISTA No. 1
SAN JUAN COUNTY, NEW MEXICO
API# 30-045-20073
NMOCD# 3R173**

Prepared For:

CONOCOPHILLIPS COMPANY

Risk Management and Remediation

420 South Keeler Avenue

Bartlesville, OK, 74004

DECEMBER 2011

REF. NO. 074926 (2)

This report is printed on recycled paper.

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1.0 INTRODUCTION

This report presents the results of the quarterly groundwater monitoring event conducted by Conestoga-Rovers & Associates (CRA) on June 24, 2011 at the Flora Vista No. 1 natural gas well site (Site), operated by Burlington Resources Oil & Gas Company LP (Burlington), a wholly-owned subsidiary of ConocoPhillips Company (Figure 1). The Site is located on private property in Unit Letter F, Section 22, Township 30N, Range 12W, of San Juan County, New Mexico. The Site consists of a gas well and associated equipment and installations. A detailed Site layout map is provided as Figure 2.

1.1 BACKGROUND

A previous operator removed an earthen dehydrator pit from service in March 1994. A large volume of hydrocarbon-impacted soil was subsequently excavated in April 1994 and again in November 1995. A pit closure report was submitted to New Mexico Oil Conservation Division (NMOCD) in August 1996 by El Paso Field Services. NMOCD issued a letter to El Paso Field Services on January 24, 1997 approving pit closure and remediation.

Burlington encountered hydrocarbon-impacted soil at the Site during a production facility resetting activity in early 2003. Burlington subsequently directed the excavation of approximately 9,443 cubic yards of soil in an attempt to remove all of the hydrocarbon-impacted soil. Groundwater was observed in the bottom of the excavation at approximately 25 feet below the ground surface. Field screening was conducted during excavation to determine extent of impacted soil. To enhance the remediation of the remaining amounts of residual hydrocarbon contamination in the excavated area, approximately 80 barrels (bbls) of a potassium permanganate oxidizer solution was sprayed on the soil.

In September 2003, Envirotech installed a groundwater monitor well (MW-1) slightly down-gradient from the center of the excavation (Figure 2). Subsequent monitoring during September 2003 included analyses for benzene, toluene, ethylbenzene, and total xylenes (BTEX), as well as total petroleum hydrocarbons (TPH). Groundwater analyses indicated the presence of benzene and total xylenes above regulatory standards. Monitor Wells MW-2, MW-3, and MW-4 were installed at the site in August 2008 in response to an April 2008 request from NMOCD for site characterization and enhanced laboratory analyses. A generalized geologic cross section was prepared using boring logs from the

August 2008 monitor well installation and is presented as **Figure 3**. On June 15, 2011, Site consulting responsibilities were transferred from Tetra Tech of Albuquerque, NM to CRA of Albuquerque, NM. The Flora Vista No. 1 site history is summarized in **Table 1**.

2.0 GROUNDWATER MONITORING SUMMARY, METHODOLOGY, AND ANALYTICAL RESULTS

2.1 GROUNDWATER MONITORING SUMMARY

On June 24, 2011, groundwater elevation measurements were recorded in Monitor Wells MW-1, MW-2, MW-3, and MW-4 using a dual interface probe. Groundwater elevations are detailed in **Table 2**. A groundwater elevation contour map is presented as **Figure 4**. Based on the June 2011 monitoring event data, groundwater flow is to the southwest and is consistent with historic records for this site.

2.2 GROUNDWATER MONITORING METHODOLOGY

Approximately three well volumes were purged from Monitor Wells MW-1, MW-2, MW-3, and MW-4 with a dedicated polyethylene 1.5-inch disposable bailer; or were bailed dry and allowed sufficient time to re-charge prior to sampling. Purge water generated during purging of Site monitor wells was placed in the onsite produced water tank (**Figure 2**). Domestic Well 1 (DW-1), located south of the Site at 32 Road 3581, Flora Vista, NM (**Figure 2**), was allowed to run for five minutes, then sampled directly from the spigot. Groundwater samples were placed in laboratory prepared bottles, packed on ice, and shipped under chain-of-custody documentation to Accutest Laboratories in Houston, Texas. Samples were analyzed for the presence of BTEX by Environmental Protection Agency (EPA) Method 8260B, dissolved iron and manganese by EPA Method 6010B, and sulfate by EPA method 300.0. The DW-1 sample was analyzed for the presence of BTEX only. CRA groundwater sampling field forms are included as **Appendix A**.

2.3 GROUNDWATER MONITORING ANALYTICAL RESULTS

Groundwater samples collected from Monitor Wells MW-2 and MW-3 did not exceed New Mexico Water Quality Control Commission (NMWQCC) groundwater quality standards for any target constituents. The groundwater sample collected from DW-1 did not exceed laboratory detection limits for any BTEX constituents. Groundwater collected from Monitor Wells MW-1 and MW-4 exceeded the NMWQCC standards for the following constituents:

- **Benzene** – The NMWQCC standard for benzene is 10 micrograms per liter ($\mu\text{g/L}$). The concentration of benzene found in the groundwater sample collected from MW-1 was 2,100 $\mu\text{g/L}$. The groundwater sample collected from MW-4, the down-gradient well, contained a concentration of benzene at 29.6 $\mu\text{g/L}$.
- **Xylenes** – The NMWQCC standard for total xylenes is 620 $\mu\text{g/L}$. The concentration of xylenes found in the groundwater sample collected from MW-1 was 2,030 $\mu\text{g/L}$.
- **Dissolved Iron** – The NMWQCC standard for dissolved iron is 1 milligram per liter (mg/L). The concentration of dissolved iron found in the groundwater sample collected from MW-4 was 1.5 mg/L .
- **Dissolved Manganese** – The NMWQCC standard for dissolved manganese is 0.2 mg/L . The concentration of dissolved manganese found in the groundwater sample collected from MW-1 was 0.894 mg/L . The groundwater sample collected from MW-4 contained a concentration of 4.9 mg/L .

A summary of the historical groundwater laboratory analytical results is presented as Table 3. The June 2011 laboratory analytical report is included as Appendix B.

3.0 CONCLUSIONS AND RECOMMENDATIONS

Groundwater samples collected from MW-1 and MW-4 have consistently exceeded NMWQCC groundwater quality standards for benzene and dissolved manganese constituents from October 2008 through June 2011. Groundwater samples from MW-1 have also historically exceeded NMWQCC groundwater quality standard for xylenes. BTEX constituent concentrations exhibit a decreasing trend over time in MW-1 and MW-4. Based on the historical groundwater quality data, groundwater samples collected from MW-2 and MW-3 have never exceeded NMWQCC groundwater quality standards for BTEX constituents.

CRA recommends the continuation of quarterly sampling of MW-1, MW-2, MW-3, and MW-4 in order to monitor ongoing natural attenuation at the site. Since sulfate has never been detected in Site monitor wells above the NMWQCC standard, CRA recommends discontinuing sampling for this constituent during quarterly monitoring. The next sampling event will take place in September 2011. CRA will collect samples for BTEX, dissolved iron, and dissolved manganese.

FIGURES



SOURCE: USGS 7.5 MINUTE QUADS
"FLORA VISTA, NEW MEXICO"

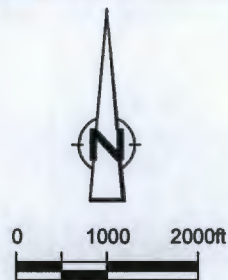


Figure 1
SITE VICINITY MAP
FLORA VISTA NO. 1 NATURAL GAS WELL SITE
SECTION 22, T30N-R12W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company



ConocoPhillips high resolution aerial imagery 2008.

Figure 2

SITE PLAN
 FLORA VISTA NO. 1 NATURAL GAS WELL SITE
 SECTION 22, T30N-R12W, SAN JUAN COUNTY, NEW MEXICO
 ConocoPhillips Company



Flora Vista No. 1 - Cross-Section A-A'

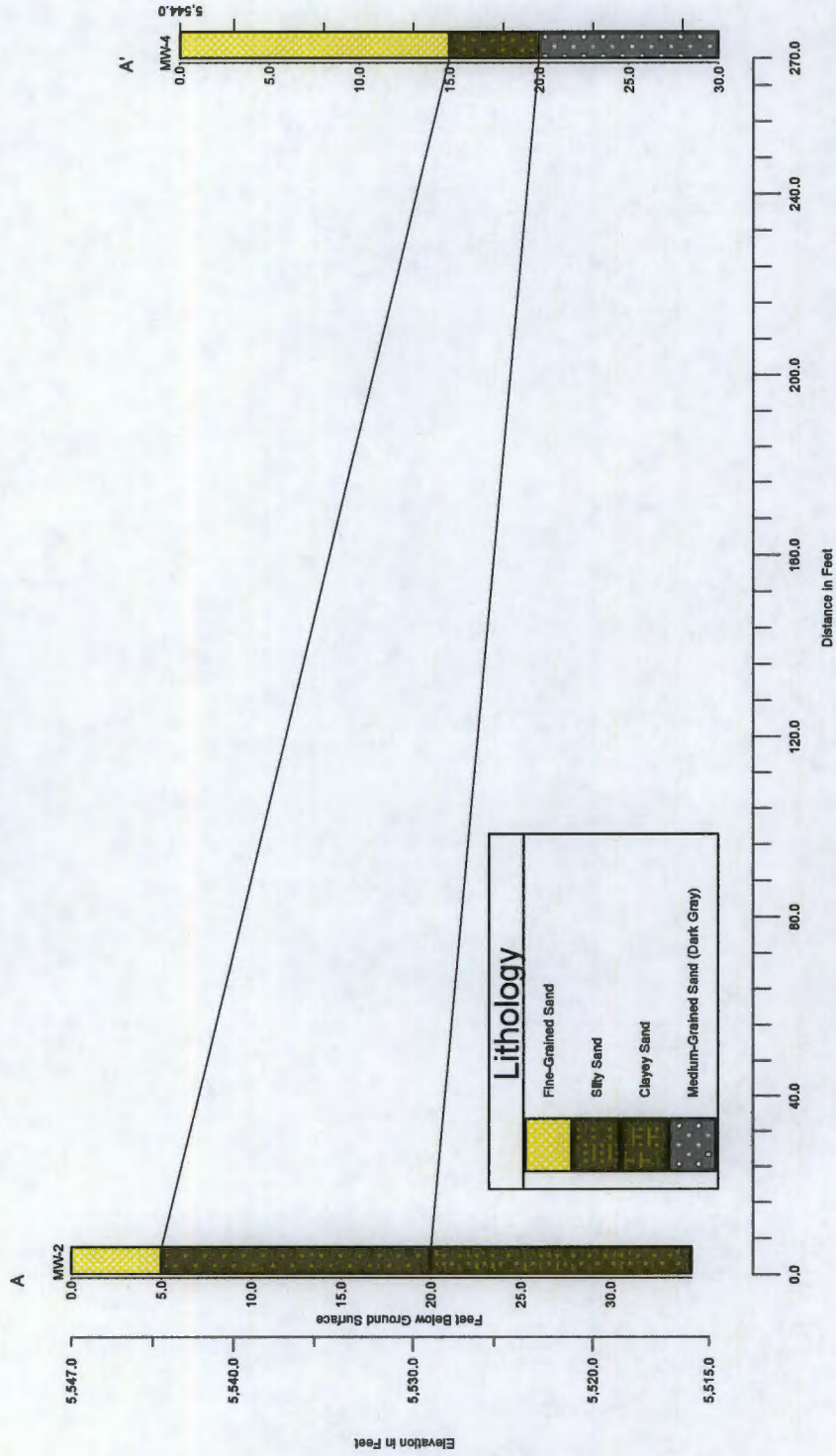


Figure 3
GEOLOGICAL CROSS SECTION
FLORA VISTA NO. 1 NATURAL GAS WELL SITE
SECTION 22, T30N-R12W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company





Figure 4

JUNE 2011 GROUNDWATER POTENTIOMETRIC SURFACE MAP
 FLORA VISTA NO. 1 NATURAL GAS WELL SITE
 SECTION 22, T30N-R12W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company





Figure 5

BENZENE CONCENTRATION MAP
FLORA VISTA NO. 1 NATURAL GAS WELL SITE
SECTION 22, T30N-R12W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company



TABLES

TABLE 1
SITE HISTORY TIMELINE
CONOCOPHILLIPS FLORA VISTA NO. 1

<i>Date/Time Period</i>	<i>Event/Action</i>	<i>Description/Comments</i>
November 28, 1995	Pit Closure Activities	Philip Environmental excavated and removed approximately 850 cubic yards of soil from the area where the Flora Vista No. 1 dehydrator pit was located. Excavation activities were stopped in the north and west directions due to the positions of the compressor and meter run equipment.
July and August 1996	Submittal of Pit Closure	El Paso Field Services submits Pit Closure Reports to the New Mexico Oil Conservation Division outlining the excavation and closure of the dehydrator pit at the site.
January 24, 1997	Pit Closure Approval	El Paso Field Services receives approval of pit closure from the New Mexico Oil Conservation Division.
June and July 2003	Initial Site Assessment	Historical petroleum contaminated soil discovered during a production facility resetting activity. Environmental investigation began with the excavation of approximately 4,986 cubic yards of impacted soil and 4,446 cubic yards of clean soil. Groundwater was encountered at approximately 25 feet below the ground surface. The impacted soil was taken to a commercial landfill facility located on Crouch Mesa in Farmington, New Mexico. Approximately 80 bbls of potassium permanganate was sprayed on the soils to breakdown any minor amounts of residual petroleum contaminants. The excavation area was backfilled with clean soil.
September 2, 2003	Groundwater Monitor Well Installation	One ground water Monitor Well, MW-1, was installed slightly down-gradient from the center of the soil excavation by Envirotech. Total depth of well is 26 feet.
September of 2003 through December 13, 2006	Quarterly Groundwater Monitoring	Quarterly groundwater monitoring of MW-1 for analysis of BTEX constituents. MW-1 remained above standards for benzene, ethylbenzene, and total xylenes.
March 31, 2006	Site Transfer	ConocoPhillips Company completes acquisition of Burlington Resources.
March 2007 through January 2008	Consultant Change and Groundwater Monitoring	After the acquisition of Burlington Resources by ConocoPhillips, consulting responsibilities were transferred from Lode Star LLC of Farmington, NM to Tetra Tech of Albuquerque, NM. Tetra Tech began sampling the Flora Vista site quarterly in March of 2007. Four consecutive quarters of groundwater sampling were conducted at the Flora Vista site. Groundwater was sampled from MW-1 and was analyzed for BTEX constituents during all sampling events. MW-1 remained above standards for benzene, ethylbenzene, and total xylenes.
March 28, 2008	Reporting	Annual report for 2007 is submitted to the Oil Conservation Division of NM Energy, Minerals, and Resources Department (OCD).
April 1, 2008	Additional Monitoring Requested by OCD	Oil Conservation Division of NM Energy, Minerals, and Resources Dept. indicates additional investigation and sampling is necessary for closure consideration during a meeting with Glenn Von Gonten.
July 23, 2008	Groundwater Monitoring	Groundwater monitoring of MW-1. One sample and a duplicate were collected. Benzene and Xylenes are above NMWQCC standards.
August 12 and 13, 2008	Groundwater Monitor Well Installation and Groundwater Monitoring	Three additional groundwater Monitor Wells, MW-2, MW-3 and MW-4 were installed by WDC and overseen by Tetra Tech. MW-2 was installed upgradient of MW-1. Both MW-3 and MW-4 were installed downgradient of MW-1. Soil samples were collected from just above the groundwater interface for each boring location and sent to Southern Petroleum Laboratory for a baseline soil analysis. All wells were developed by purging approximately 80 gallons of fluid using a surge block and hand bailer/purge pump.
October 21, 2008	Groundwater Monitoring	Third quarter 2008 groundwater monitoring was completed and was the first quarter of sampling to include all four monitor wells on site. A baseline suite was completed including major ions, total metals, semi-volatile organic compounds (SVOCs), volatile organic compounds (VOCs) including BTEX, diesel range organics, and gasoline range organics. There were 3 constituents that returned results above NMWQCC limits, Benzene (MW-1 and MW-4), Total Xylenes (MW-1), and Sulfate (MW-1).
January 28, 2009	Groundwater Monitoring	Tetra Tech conducted fourth quarter 2008 groundwater monitoring at the site for BTEX constituents in all four monitor wells. Benzene (MW-1 and MW-4), Ethylbenzene (MW-1) and Xylenes (MW-1) were above NMWQCC standards.
March 1, 2009	Initiate Annual Sampling	The Flora Vista No. 1 site is put on an annual monitoring schedule. The next sampling event was scheduled for September 2009.

TABLE 1
SITE HISTORY TIMELINE
CONOCOPHILLIPS FLORA VISTA NO. 1

<i>Date/Time Period</i>	<i>Event/Action</i>	<i>Description/Comments</i>
September 30, 2009	Groundwater Monitoring	Tetra Tech conducted 2009 annual groundwater monitoring at the site for BTEX constituents, dissolved iron and manganese, and sulfate. Benzene (MW-1 and MW-4), xylenes (MW-1) and manganese (MW-1 and MW-4) were above NMWQCC standards.
December 16, 2009	Private Irrigation Well Sampling	Tetra Tech collected a groundwater sample from a domestic well located to the south of the site to be analyzed for BTEX. All constituents were found to be below laboratory detection limits and NMWQCC standards.
May 14, 2010	Initiate Quarterly Sampling	The Flora Vista No. 1 site is put on a semi-annual monitoring schedule. Private domestic irrigation well sampling is also to be included in semi-annual sampling events.
June 10, 2010	Private Irrigation Well Sampling	Tetra Tech collected a groundwater sample from a second private down-gradient domestic well to be sampled for BTEX. All constituents were found to be below laboratory detection limits and NMWQCC standards.
June 10 and 11, 2010	Groundwater Monitoring	Tetra Tech conducted groundwater monitoring at the site for BTEX constituents, dissolved iron and manganese, and sulfate. Benzene (MW-1 and MW-4), xylenes (MW-1) and manganese (MW-1 and MW-4) were above NMWQCC standards.
September 27, 2010	Groundwater Monitoring	Tetra Tech conducted groundwater monitoring at the site for BTEX constituents, dissolved iron and manganese, and sulfate. Benzene (MW-1 and MW-4), xylenes (MW-1), dissolved iron and manganese (MW-1 and MW-4) were above NMWQCC standards.
December 14, 2010	Groundwater Monitoring	Tetra Tech conducted groundwater monitoring at the site for BTEX constituents, dissolved iron and manganese, and sulfate. Benzene (MW-1 and MW-4), xylenes (MW-1), dissolved iron and manganese (MW-1 and MW-4) were above NMWQCC standards.
March 17, 2011	Groundwater Monitoring	Tetra Tech conducted groundwater monitoring at the site for BTEX constituents, dissolved iron, dissolved manganese, and sulfate. Groundwater collected from MW-1 exceeded the NMWQCC standards for benzene, xylenes, dissolved iron and dissolved manganese. Groundwater collected from MW-4 exceeded the NMWQCC standards from benzene and dissolved manganese. Tetra Tech also collected a groundwater sample from a domestic well (DW-2) located to the south of the site to be analyzed for BTEX. All constituents were found to be below laboratory detection limits and NMWQCC standards in the domestic well sample.
June 15, 2011	Transfer of Site Consulting Responsibilities	On June 15, 2011, Site consulting responsibilities were transferred from Tetra Tech of Albuquerque, NM to Conestoga-Rovers & Associates (CRA) of Albuquerque, NM.
June 24, 2011	Groundwater Monitoring	CRA conducted groundwater monitoring at the site for BTEX constituents, dissolved iron and manganese, and sulfate. Benzene (MW-1 and MW-4), xylenes (MW-1), dissolved iron (MW-4) and dissolved manganese (MW-1 and MW-4) were above NMWQCC standards. CRA also collected a groundwater sample from Domestic Well DW-1 located south of the site to be analyzed for BTEX. All constituents were found to be below laboratory detection limits and NMWQCC standards in the domestic well sample.

TABLE 2
MONITORING WELL SPECIFICATIONS AND GROUNDWATER ELEVATIONS
JUNE 2003 - JUNE 2011
CONOCOPHILLIPS FLORA VISTA NO. 1

<i>Well ID</i>	<i>Total Depth (ft below TOC)</i>	<i>Elevation*</i>	<i>Screen Interval (ft bgs)</i>	<i>Date Measured</i>	<i>Depth to Groundwater (ft below TOC)</i>	<i>Relative Water Level</i>
MW-1	26.02	94.38	11.02-26.02	6/20/2003		standing
				9/23/2003	17.03	77.35
				12/16/2003	20.11	74.27
				3/16/2004	23.69	70.69
				6/21/2004	19.92	74.46
				9/30/2004	16.82	77.56
				12/13/2004	20.4	73.98
				3/22/2005	24.32	70.06
				6/22/2005	NM	NM
				10/24/2005	NM	NM
				12/13/2005	21.24	73.14
				3/22/2006	24.75	69.63
				6/22/2006	20.48	73.9
				10/20/2006	19.13	75.25
				12/13/2006	21.24	73.14
				11/9/2007	19.71	74.67
				1/15/2008	NM	NM
				3/19/2008	24.35	70.03
				7/23/2008	19.89	74.49
				10/21/2008	19.48	74.9
				1/28/2009	23.96	70.42
				9/30/2009	18.16	76.22
				6/10/2010	21.64	72.74
				9/27/2010	19.31	75.07
				12/14/2010	21.41	72.97
				3/17/2011	24.95	69.43
				6/24/2011	22.55	71.83
MW-2	31.35	97.1	12.35-27.35	10/21/2008	20.71	76.39
				1/28/2009	22.75	74.35
				9/30/2009	18.83	78.27
				6/11/2010	22.09	75.01
				9/27/2010	20.12	76.98
				12/14/2010	NM	NM
				3/17/2011	NM	NM
				6/24/2011	22.5	74.6
MW-3	30.87	92.9	11.87-26.87	10/21/2008	17.92	74.98
				1/28/2009	21.53	71.37
				9/30/2009	16.43	76.47
				6/10/2010	19.71	73.19
				9/27/2010	17.81	75.09
				12/14/2010	19.61	73.29
				3/17/2011	23.32	69.58
				6/24/2011	20.55	72.35

TABLE 2
 MONITORING WELL SPECIFICATIONS AND GROUNDWATER ELEVATIONS
 JUNE 2003 - JUNE 2011
 CONOCOPHILLIPS FLORA VISTA NO. 1

<i>Well ID</i>	<i>Total Depth (ft below TOC)</i>	<i>Elevation*</i>	<i>Screen Interval (ft bgs)</i>	<i>Date Measured</i>	<i>Depth to Groundwater (ft below TOC)</i>	<i>Relative Water Level</i>
MW-4	30.42	93.6	11.42-26.42	10/21/2008	18.06	75.54
				1/28/2009	24.55	69.05
				9/30/2009	17.89	75.71
				6/10/2010	21.02	72.58
				9/27/2010	18.93	74.67
				12/14/2010	21.04	72.56
				3/17/2011	24.58	69.02
				6/24/2011	21.8	71.8

Notes:

1. *Casing elevations are based on an arbitrary 100 ft relative surface elevation set at the gas well head
2. ft = Feet
3. TOC = Top of casing
4. bgs = below ground surface
5. NM = Not measured

TABLE 3
GROUNDWATER ANALYTICAL RESULTS SUMMARY
JUNE 2003 - JUNE 2011
CONOCOPHILLIPS FLORA VISTA NO. 1

Well ID	Groundwater Sample ID	Date	Benzene (mg/L)	Ethylbenzene (mg/L)	Toluene (mg/L)	Xylenes (total) (mg/L)	Sulfate (mg/L)	Iron (dissolved) (mg/L)	Manganese (dissolved) (mg/L)
NMWQCC Groundwater Quality Standards			0.01	0.75	0.75	0.62	600	1	0.2
MW-1		6/20/2003	1.7	0.49	0.3	5.09	--	--	--
		9/23/2003	7.5	0.66	0.02	9.22	--	--	--
		12/16/2003	7.93	1.18	0.01	0.864	--	--	--
		3/16/2004	6.86	1.16	ND	8.47	--	--	--
		6/21/2004	4.14	0.43	ND	3.12	--	--	--
		9/30/2004	9.08	1.41	0.03	9.98	--	--	--
		12/13/2004	8.52	1.34	ND	9.39	--	--	--
		3/22/2005	4.55	0.85	ND	5.95	--	--	--
		6/22/2005	--	--	0.02188	--	--	--	--
		10/24/2005	6.39	1.01	ND	7.416	--	--	--
		12/13/2005	6.17	1.01	ND	7.57	--	--	--
		3/22/2006	3.58	0.77	ND	5.84	--	--	--
		6/22/2006	3.1	0.5	ND	3.5	--	--	--
		10/20/2006	6.6	1.22	0.01	8.91	--	--	--
		12/13/2006	4.23	1.09	0.01	8.13	--	--	--
		3/27/2007	2.37	0.504	0.007	3.749	--	--	--
		6/25/2007	2.87	0.51	0.14	3.89	--	--	--
		11/9/2007	5.6	0.91	<0.0007	6.8	--	--	--
		1/15/2008	4.2	0.89	<0.0007	5.7	--	--	--
		3/19/2008	2.7	0.59	<0.005	4.7	--	--	--
		7/23/2008	2	0.38	<0.005	1.4	--	--	--
		10/21/2008	4.5	0.63	<0.005	5.3	--	--	--
		1/28/2009	4	0.88	<0.005	8.7	--	--	--
		9/30/2009	4.2	0.53	0.0016	5.1	11.7	2.08	1.09
		6/10/2010	1.7	0.33	0.0012	0.99	27	0.126	1.28
		9/27/2010	3.2	0.53	0.002	4.2016	1.8	7.73	1.19
		12/14/2010	3.2	0.62	0.0012	5.3016	1.03	4.13	0.888
		3/17/2011	1.7	0.48	0.0037	4.3092	2.27	1.11	1.07
	GW-74926-062411-PG-01	6/24/2011	2.10	0.494	0.0025	2.03	18.4	<0.1	0.894
MW-1 Duplicate	GW-74926-062411-PG-02	6/24/2011	1.97	0.458	0.0026	1.94	--	--	--
MW-2		10/21/2008	<0.0005	<0.0005	<0.0005	<0.0005	115	0.656 *	0.248*
		1/28/2009	<0.0005	<0.0005	<0.0005	<0.0005	ND	ND	ND
		9/30/2009	<0.0005	<0.0005	<0.0005	<0.0005	123	0.0223	<0.00500
		6/11/2010	<0.001	<0.001	<0.001	<0.001	156	<0.0200	<0.00500
		9/27/2010	<0.001	<0.001	<0.001	<0.001	179	<0.0200	<0.00500
MW-3	GW-74926-062411-PG-05	6/24/2011	<0.0010	<0.0010	<0.0010	<0.0030	176	0.191	<0.015
		10/21/2008	<0.0005	<0.0005	<0.0005	<0.0005	93	0.739 *	0.0867 *
		1/28/2009	<0.0005	<0.0005	<0.0005	<0.0005	ND	ND	ND
		9/30/2009	<0.0005	<0.0005	<0.0005	<0.0005	144	0.0543	<0.00500
		6/10/2010	<0.0005	<0.001	<0.001	<0.001	122	0.0425	<0.00500
		9/27/2010	<0.001	<0.001	<0.001	<0.001	170	<0.0200	<0.00500
		12/14/2010	<0.001	<0.001	<0.001	<0.001	142	<0.0200	<0.00500
		3/17/2011	<0.001	<0.001	<0.001	<0.001	119	<0.0200	<0.00500
	GW-74926-062411-PG-03	6/24/2011	<0.0010	<0.0010	<0.0010	<0.0030	127	0.189	<0.015

TABLE 3
GROUNDWATER ANALYTICAL RESULTS SUMMARY
JUNE 2003 - JUNE 2011
CONOCOPHILLIPS FLORA VISTA NO. 1

Well ID	Groundwater Sample ID	Date	Benzene (mg/L)	Ethylbenzene (mg/L)	Toluene (mg/L)	Xylenes (total) (mg/L)	Sulfate (mg/L)	Iron (dissolved) (mg/L)	Manganese (dissolved) (mg/L)
NMWQCC Groundwater Quality Standards			0.01	0.75	0.75	0.62	600	1	0.2
MW-4		10/21/2008	0.039	0.031	<0.0005	0.18	90.1	8.4*	4.16*
		1/28/2009	0.66	0.064	<0.0005	0.583	ND	ND	ND
		9/30/2009	0.34	0.054	<0.0005	0.572	48.9	0.148	4.48
		6/10/2010	0.14	0.027	<0.001	0.252	53.3	0.0566	4.65
		9/27/2010	0.033	0.041	<0.001	0.274	92.5	1.22	4.34
		12/14/2010	0.13	0.093	<0.001	0.899	67.5	1.75	4.69
		3/17/2011	0.017	0.018	<0.001	0.1966	83	0.0852	4.46
	GW-74926-062411-PG-04	6/24/2011	0.0296	0.0371	<0.0010	0.472	130	1.5	4.9
DW-1	RS-74926-062411-CB-01	6/24/11	<0.0010	<0.0010	<0.0010	<0.0030	--	--	--

Notes:

1. MW = monitoring well
2. DW = domestic well
3. NMWQCC = New Mexico Water Quality Control Commission
4. Constituents in **BOLD** are in excess of NMWQCC groundwater quality standards
5. mg/L = milligrams per liter (parts per million)
6. < 1.0 = Below laboratory detection limit of 1.0 mg/L
7. ND = not detected
8. -- = not analyzed
9. * = Results reported for total metals analysis, results can not be compared to NMWQCC Standards for dissolved metals

APPENDIX A

JUNE 2011 QUARTERLY GROUNDWATER SAMPLING FIELD FORMS

WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME:

Flora Vista No 1

JOB#

74926

SAMPLE ID:

GW-74926-062411-PG-01

WELL#

MW-1

WELL PURGING INFORMATION

6.24.11

PURGE DATE
(MM DD YY)

6.24.11

SAMPLE DATE
(MM DD YY)

0930

SAMPLE TIME
(24 HOUR)

0.63

WATER VOL. IN CASING
(GALLONS)

1.25

ACTUAL VOL. PURGED
(GALLONS)

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED ☒ N

(CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED ☒ N

(CIRCLE ONE)

PURGING DEVICE

G

A - SUBMERSIBLE PUMP

D - GAS LIFT PUMP

G - BAILER

X=

B - PERISTALTIC PUMP

E - PURGE PUMP

H - WATERRA®

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

D - PVC

X=

B - STAINLESS STEEL

E - POLYETHYLENE

PURGING MATERIAL OTHER (SPECIFY)

SAMPLING MATERIAL

E

C - POLYPROPYLENE

X - OTHER

X=

SAMPLING MATERIAL OTHER (SPECIFY)

PURGE TUBING

C

A - TEFLON

D - POLYPROPYLENE

G - COMBINATION

X=

B - TYGON

E - POLYETHYLENE

TEFLON/POLYPROPYLENE

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

22.55

(feet)

WELL ELEVATION

94.38

(feet)

WELL DEPTH

26.50

(feet)

GROUNDWATER ELEVATION

71.83

(feet)

TEMPERATURE

15.58

(°C)

pH

6.58

(std)

TDS

(g/L)

CONDUCTIVITY

2887

(µS/cm)

ORP

(mV)

VOLUME

0.75

(gal)

15.56

(°C)

6.44

(std)

(g/L)

2851

(µS/cm)

(mV)

1.0

(gal)

15.56

(°C)

6.36

(std)

(g/L)

2858

(µS/cm)

(mV)

1.25

(gal)

(°C)

(std)

(g/L)

(µS/cm)

(mV)

(gal)

(°C)

(std)

(g/L)

(µS/cm)

(mV)

(gal)

FIELD COMMENTS

SAMPLE APPEARANCE:

Slightly cloudy

ODOR:

slight

COLOR:

light gray

SHEEN Y/☒

WEATHER CONDITIONS:

TEMPERATURE

70°

WINDY Y/☒

PRECIPITATION Y/☒ (IF Y TYPE)

SPECIFIC COMMENTS:

dup GW-74926-062411-PG-02 collected @ 0935

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

DATE

6.24.11

PRINT

Bessie Brown

SIGNATURE

Bessie Brown

WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME: Flora Vista No 1 JOB# 74926
 SAMPLE ID: GW-74926-062411-PG-05 WELL# MW-2

WELL PURGING INFORMATION

6.24.11 6.24.11 1030 1.45 3
 PURGE DATE (MM DD YY) SAMPLE DATE (MM DD YY) SAMPLE TIME (24 HOUR) WATER VOL. IN CASING (GALLONS) ACTUAL VOL. PURGED (GALLONS)

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED ☒ Y ☐ N (CIRCLE ONE) SAMPLING EQUIPMENT.....DEDICATED ☒ Y ☐ N (CIRCLE ONE)

PURGING DEVICE	<u>C</u>	A - SUBMERSIBLE PUMP	D - GAS LIFT PUMP	G - BAILER	X=
		B - PERISTALTIC PUMP	E - PURGE PUMP	H - WATERRA®	PURGING DEVICE OTHER (SPECIFY)
SAMPLING DEVICE	<u>C</u>	C - BLADDER PUMP	F - DIPPER BOTTLE	X - OTHER	X=
					SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	<u>E</u>	A - TEFLON	D - PVC		X=
		B - STAINLESS STEEL	E - POLYETHYLENE		PURGING MATERIAL OTHER (SPECIFY)
SAMPLING MATERIAL	<u>E</u>	C - POLYPROPYLENE	X - OTHER		X=
					SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	<u>C</u>	A - TEFLON	D - POLYPROPYLENE	G - COMBINATION	X=
		B - TYGON	E - POLYETHYLENE	TEFLON/POLYPROPYLENE	PURGE TUBING OTHER (SPECIFY)
SAMPLING TUBING	<u>C</u>	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	<u>22.5</u>	(feet)	WELL ELEVATION	<u>97.10</u>	(feet)
WELL DEPTH	<u>31.6</u>	(feet)	GROUNDWATER ELEVATION	<u>74.60</u>	(feet)

TEMPERATURE	pH	TDS	CONDUCTIVITY	ORP	VOLUME
<u>15.86</u> (°C)	<u>6.93</u> (std)		<u>2374</u> (µS/cm)	<u>37.7</u> (mV)	<u>2.5</u> (gal)
<u>15.53</u> (°C)	<u>6.93</u> (std)		<u>2341</u> (µS/cm)	<u>41.5</u> (mV)	<u>2.75</u> (gal)
<u>15.53</u> (°C)	<u>6.29</u> (std)		<u>2334</u> (µS/cm)	<u>43.8</u> (mV)	<u>3</u> (gal)

FIELD COMMENTS

SAMPLE APPEARANCE: cloudy ODOR: _____ COLOR: tan SHEEN Y/☒ N
 WEATHER CONDITIONS: TEMPERATURE ~80° WINDY Y/☒ N PRECIPITATION Y/☒ N (IF Y TYPE) _____
 SPECIFIC COMMENTS:

Bailed dry @ 1.75 gallons. Surged well with bailer. Water came back in, recharge
st. 11 3/16

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

6.24.11 Cassie Brown [Signature]
 DATE PRINT SIGNATURE

WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME:

Flora Vista No. 1

JOB#

74926

SAMPLE ID:

GW-74926-062411-PG-03

WELL#

MW-3

WELL PURGING INFORMATION

6.24.11

PURGE DATE
(MM DD YY)

6.24.11

SAMPLE DATE
(MM DD YY)

0940

SAMPLE TIME
(24 HOUR)

1.56

WATER VOL. IN CASING
(GALLONS)

4.75

ACTUAL VOL. PURGED
(GALLONS)

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED ☒ N

(CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED ☒ N

(CIRCLE ONE)

PURGING DEVICE

G

A - SUBMERSIBLE PUMP

D - GAS LIFT PUMP

G - BAILER

X=

B - PERISTALTIC PUMP

E - PURGE PUMP

H - WATERA®

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

D - PVC

X=

B - STAINLESS STEEL

E - POLYETHYLENE

PURGING MATERIAL OTHER (SPECIFY)

SAMPLING MATERIAL

E

C - POLYPROPYLENE

X - OTHER

X=

SAMPLING MATERIAL OTHER (SPECIFY)

PURGE TUBING

C

A - TEFLON

D - POLYPROPYLENE

G - COMBINATION

X=

B - TYGON

E - POLYETHYLENE

TEFLON/POLYPROPYLENE

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

20.55

(feet)

WELL ELEVATION

92.90

(feet)

WELL DEPTH

30.30

(feet)

GROUNDWATER ELEVATION

72.35

(feet)

TEMPERATURE

pH

TDS

CONDUCTIVITY

ORP

VOLUME

14.94 (°C)

7.11 (std)

1631 (g/L)

1631 (µS/cm)

-28.1 (mV)

3.75 (gal)

14.80 (°C)

7.11 (std)

1612 (g/L)

1612 (µS/cm)

-21.3 (mV)

4.25 (gal)

14.71 (°C)

6.96 (std)

1602 (g/L)

1602 (µS/cm)

6.5 (mV)

4.75 (gal)

 (°C)

 (std)

 (g/L)

 (µS/cm)

 (mV)

 (gal)

 (°C)

 (std)

 (g/L)

 (µS/cm)

 (mV)

 (gal)

FIELD COMMENTS

SAMPLE APPEARANCE:

cloudy

ODOR:

COLOR:

tan

SHEEN Y

WEATHER CONDITIONS:

TEMPERATURE

~80°

WINDY Y

PRECIPITATION Y (IF Y TYPE)

SPECIFIC COMMENTS:

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

DATE

PRINT

SIGNATURE

6-24-11

Cassie Brown

Cassie Brown

WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME: Flora Vista No 1
 SAMPLE ID: GW-74926-062411-PG-04

JOB# 74926
 WELL# MW# 4

WELL PURGING INFORMATION

6.24.11 PURGE DATE (MM DD YY) 6.24.11 SAMPLE DATE (MM DD YY) 1015 SAMPLE TIME (24 HOUR) 1.38 WATER VOL. IN CASING (GALLONS) 4.5 ACTUAL VOL. PURGED (GALLONS)

PURGING AND SAMPLING EQUIPMENT

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

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

PURGING DEVICE	[G]	A - SUBMERSIBLE PUMP	D - GAS LIFT PUMP	G - BAILER	X= _____
		B - PERISTALTIC PUMP	E - PURGE PUMP	H - WATERRA®	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	D - PVC		X= _____
		B - STAINLESS STEEL	E - POLYETHYLENE		PURGING MATERIAL OTHER (SPECIFY)
SAMPLING MATERIAL	[E]	C - POLYPROPYLENE	X - OTHER		X= _____
					SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	[C]	A - TEFLON	D - POLYPROPYLENE	G - COMBINATION	X= _____
		B - TYGON	E - POLYETHYLENE	TEFLON/POLYPROPYLENE	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	<u>21.80</u>	(feet)	WELL ELEVATION	<u>93.60</u>	(feet)
WELL DEPTH	<u>30.46</u>	(feet)	GROUNDWATER ELEVATION	<u>71.80</u>	(feet)

TEMPERATURE	pH	TDS	CONDUCTIVITY	ORP	VOLUME
<u>15.45</u> (°C)	<u>6.74</u> (std)	_____ (g/L)	<u>2514</u> (µS/cm)	<u>-62.3</u> (mV)	<u>3.5</u> (gal)
<u>15.07</u> (°C)	<u>6.78</u> (std)	_____ (g/L)	<u>2505</u> (µS/cm)	<u>-75.1</u> (mV)	<u>4.0</u> (gal)
<u>15.09</u> (°C)	<u>6.76</u> (std)	_____ (g/L)	<u>2509</u> (µS/cm)	<u>-74.5</u> (mV)	<u>4.5</u> (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 ~80° WINDY Y/☒ _____ PRECIPITATION Y/☒ (IF Y TYPE) _____
 SPECIFIC COMMENTS: _____

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

6.24.11 DATE CASSIE BROWN PRINT CASSIE BROWN SIGNATURE

APPENDIX B

JUNE 2011 QUARTERLY GROUNDWATER LABORATORY ANALYTICAL REPORT



Gulf Coast
ACCUTEST
LABORATORIES

07/11/11



Technical Report for

Conoco Phillips

CRA: Flora Vista

FLORA VISTA / 74926

Accutest Job Number: T79848

Sampling Date: 06/24/11

Report to:

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

Total number of pages in report: 42



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)

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Test results relate only to samples analyzed.

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Sample Summary

Conoco Phillips

Job No: T79848

CRA: Flora Vista

Project No: FLORA VISTA / 74926

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
T79848-1	06/24/11	09:30 CB	06/28/11	AQ	Ground Water	GW-74926-062411-PG-01
T79848-1F	06/24/11	09:30 CB	06/28/11	AQ	Groundwater Filtered	GW-74926-062411-PG-01 (DISSOLVED)
T79848-2	06/24/11	09:35 CB	06/28/11	AQ	Ground Water	GW-74926-062411-PG-02
T79848-3	06/24/11	09:40 CB	06/28/11	AQ	Ground Water	GW-74926-062411-PG-03
T79848-3F	06/24/11	09:40 CB	06/28/11	AQ	Groundwater Filtered	GW-74926-062411-PG-03 (DISSOLVED)
T79848-4	06/24/11	10:15 CB	06/28/11	AQ	Ground Water	GW-74926-062411-PG-04
T79848-4F	06/24/11	10:15 CB	06/28/11	AQ	Groundwater Filtered	GW-74926-062411-PG-04 (DISSOLVED)
T79848-5	06/24/11	10:30 CB	06/28/11	AQ	Ground Water	GW-74926-062411-PG-05
T79848-5F	06/24/11	10:30 CB	06/28/11	AQ	Groundwater Filtered	GW-74926-062411-PG-05 (DISSOLVED)
T79848-6	06/24/11	00:00 CB	06/28/11	AQ	Trip Blank Water	TRIP BLANK



Gulf Coast
ACCUTEST.
LABORATORIES

2

Sample Results

Report of Analysis

Report of Analysis

Page 1 of 1

Client Sample ID: GW-74926-062411-PG-01**Lab Sample ID:** T79848-1**Date Sampled:** 06/24/11**Matrix:** AQ - Ground Water**Date Received:** 06/28/11**Method:** SW846 8260B**Percent Solids:** n/a**Project:** CRA: Flora Vista

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E0009013.D	1	06/30/11	LT	n/a	n/a	VE447
Run #2	E0009093.D	25	07/01/11	LT	n/a	n/a	VE451

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	2.10 ^a	0.025	0.0062	mg/l	
108-88-3	Toluene	0.0025	0.0010	0.00026	mg/l	
100-41-4	Ethylbenzene	0.494 ^a	0.025	0.0063	mg/l	
1330-20-7	Xylene (total)	2.03 ^a	0.075	0.018	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%	94%	79-122%
17060-07-0	1,2-Dichloroethane-D4	102%	93%	75-121%
2037-26-5	Toluene-D8	97%	100%	87-119%
460-00-4	4-Bromofluorobenzene	94%	92%	80-133%

(a) Result is from Run# 2

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

Report of Analysis

Client Sample ID:	GW-74926-062411-PG-01	Date Sampled:	06/24/11
Lab Sample ID:	T79848-1	Date Received:	06/28/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	CRA: Flora Vista		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sulfate	18.4	1.0	mg/l	2	07/08/11 23:03	ES	EPA 300/SW846 9056

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: GW-74926-062411-PG-01 (DISSOLVED)**Lab Sample ID:** T79848-1F**Date Sampled:** 06/24/11**Matrix:** AQ - Groundwater Filtered**Date Received:** 06/28/11**Percent Solids:** n/a**Project:** CRA: Flora Vista**Dissolved Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	< 100	100	ug/l	1	06/29/11	07/01/11 EG	SW846 6010B ¹	SW846 3010A ²
Manganese	894	15	ug/l	1	06/29/11	07/01/11 EG	SW846 6010B ¹	SW846 3010A ²

(1) Instrument QC Batch: MA5877

(2) Prep QC Batch: MP15113

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	GW-74926-062411-PG-02	Date Sampled:	06/24/11
Lab Sample ID:	T79848-2	Date Received:	06/28/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CRA: Flora Vista		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E0009014.D	1	06/30/11	LT	n/a	n/a	VE447
Run #2	E0009094.D	25	07/01/11	LT	n/a	n/a	VE451

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1.97 ^a	0.025	0.0062	mg/l	
108-88-3	Toluene	0.0026	0.0010	0.00026	mg/l	
100-41-4	Ethylbenzene	0.458 ^a	0.025	0.0063	mg/l	
1330-20-7	Xylene (total)	1.94 ^a	0.075	0.018	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%	93%	79-122%
17060-07-0	1,2-Dichloroethane-D4	103%	92%	75-121%
2037-26-5	Toluene-D8	97%	99%	87-119%
460-00-4	4-Bromofluorobenzene	94%	92%	80-133%

(a) Result is from Run# 2

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

Report of Analysis

Page 1 of 1

2.4

2

Client Sample ID: GW-74926-062411-PG-03**Lab Sample ID:** T79848-3**Date Sampled:** 06/24/11**Matrix:** AQ - Ground Water**Date Received:** 06/28/11**Method:** SW846 8260B**Percent Solids:** n/a**Project:** CRA: Flora Vista

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E0009113.D	1	07/05/11	LT	n/a	n/a	VE452
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	94%		79-122%
17060-07-0	1,2-Dichloroethane-D4	93%		75-121%
2037-26-5	Toluene-D8	93%		87-119%
460-00-4	4-Bromofluorobenzene	93%		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

Report of Analysis

Client Sample ID:	GW-74926-062411-PG-03	Date Sampled:	06/24/11
Lab Sample ID:	T79848-3	Date Received:	06/28/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	CRA: Flora Vista		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sulfate	127	5.0	mg/l	10	07/08/11 23:20	ES	EPA 300/SW846 9056

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: GW-74926-062411-PG-03 (DISSOLVED)**Lab Sample ID:** T79848-3F**Date Sampled:** 06/24/11**Matrix:** AQ - Groundwater Filtered**Date Received:** 06/28/11**Percent Solids:** n/a**Project:** CRA: Flora Vista

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	189	100	ug/l	1	06/29/11	07/01/11 EG	SW846 6010B ¹	SW846 3010A ²
Manganese	< 15	15	ug/l	1	06/29/11	07/01/11 EG	SW846 6010B ¹	SW846 3010A ²

(1) Instrument QC Batch: MA5877

(2) Prep QC Batch: MP15113

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	GW-74926-062411-PG-04	Date Sampled:	06/24/11
Lab Sample ID:	T79848-4	Date Received:	06/28/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CRA: Flora Vista		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E0009112.D	1	07/05/11	LT	n/a	n/a	VE452
Run #2	E0009117.D	5	07/05/11	LT	n/a	n/a	VE452

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.0296	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
100-41-4	Ethylbenzene	0.0371	0.0010	0.00025	mg/l	
1330-20-7	Xylene (total)	0.472 ^a	0.015	0.0036	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%	94%	79-122%
17060-07-0	1,2-Dichloroethane-D4	95%	93%	75-121%
2037-26-5	Toluene-D8	123% ^b	101%	87-119%
460-00-4	4-Bromofluorobenzene	97%	92%	80-133%

(a) Result is from Run# 2

(b) Outside control limits due to matrix interference. Confirmed by reanalysis.

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

Report of Analysis

Page 1 of 1

Client Sample ID: GW-74926-062411-PG-04**Lab Sample ID:** T79848-4**Matrix:** AQ - Ground Water**Project:** CRA: Flora Vista**Date Sampled:** 06/24/11**Date Received:** 06/28/11**Percent Solids:** n/a**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sulfate	130	5.0	mg/l	10	07/08/11 23:37	ES	EPA 300/SW846 9056

RL = Reporting Limit

Report of Analysis

Page 1 of 1

2.7

2

Client Sample ID: GW-74926-062411-PG-04 (DISSOLVED)	Date Sampled: 06/24/11
Lab Sample ID: T79848-4F	Date Received: 06/28/11
Matrix: AQ - Groundwater Filtered	Percent Solids: n/a
Project: CRA: Flora Vista	

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	1500	100	ug/l	1	06/29/11	07/01/11 EG	SW846 6010B ¹	SW846 3010A ²
Manganese	4900	15	ug/l	1	06/29/11	07/01/11 EG	SW846 6010B ¹	SW846 3010A ²

(1) Instrument QC Batch: MA5877

(2) Prep QC Batch: MP15113

RL = Reporting Limit

Report of Analysis

Page 1 of 1

2.8

2

Client Sample ID: GW-74926-062411-PG-05**Lab Sample ID:** T79848-5**Date Sampled:** 06/24/11**Matrix:** AQ - Ground Water**Date Received:** 06/28/11**Method:** SW846 8260B**Percent Solids:** n/a**Project:** CRA: Flora Vista

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E0009017.D	1	06/30/11	LT	n/a	n/a	VE447
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	97%		79-122%
17060-07-0	1,2-Dichloroethane-D4	99%		75-121%
2037-26-5	Toluene-D8	94%		87-119%
460-00-4	4-Bromofluorobenzene	90%		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

Report of Analysis

Client Sample ID:	GW-74926-062411-PG-05	Date Sampled:	06/24/11
Lab Sample ID:	T79848-5	Date Received:	06/28/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	CRA: Flora Vista		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Sulfate	176	10	mg/l	20	07/08/11 23:54	ES	EPA 300/SW846 9056

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: GW-74926-062411-PG-05 (DISSOLVED)**Lab Sample ID:** T79848-5F**Date Sampled:** 06/24/11**Matrix:** AQ - Groundwater Filtered**Date Received:** 06/28/11**Percent Solids:** n/a**Project:** CRA: Flora Vista

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	191	100	ug/l	1	06/29/11	07/01/11 EG	SW846 6010B ¹	SW846 3010A ²
Manganese	< 15	15	ug/l	1	06/29/11	07/01/11 EG	SW846 6010B ¹	SW846 3010A ²

(1) Instrument QC Batch: MA5877

(2) Prep QC Batch: MP15113

RL = Reporting Limit



Gulf Coast
ACCUTEST
LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Client / Reporting Information				Project Information														Requested Analyses														Matrix Codes													
Company Name: Tetra Tech, Inc. Street Address: 6121 Indian School Rd. NE, Ste. 200 City: Albuquerque State: NM Zip: 87110 Project Name: Flora Vista Street: Flora Vista City: Albuquerque State: NM Zip: 87110 Project ID: 74926 Client Purchase Order #: 505-237-8656 Sample(s) Name(s): Carole Brown Phone #: 505-237-8656 Project Manager: Terry Lauck				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														Dissolved Manganese and Iron Sulfate BTEX by 8260														DW - Drinking Water GW - Ground Water WW - Wastewater SW - Surface Water SO - Soil SL - Sludge SED - Sediment OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WIP - Wipe FB - Field Blank													
Accretion Sample # Field ID / Point of Collection Date Time Matrix # of bottles HCl NaOH ZnAcOH HNO3 H2SO4 HClO4 DI Water Meq/L TSP Na2SO4 ENCORE OTHER				Number of preserved bottles HCl NaOH ZnAcOH HNO3 H2SO4 HClO4 DI Water Meq/L TSP Na2SO4 ENCORE OTHER														LAB USE ONLY																											
1 GW-74926-062411-RS-01 6.24.11 930 GW 5 X 2 GW-74926-062411-RS-02 6.24.11 935 GW 3 X 3 GW-74926-062411-RS-03 6.24.11 940 GW 5 X 4 GW-74926-062411-RS-04 6.24.11 1015 GW 5 X 5 GW-74926-062411-RS-05 6.24.11 1030 GW 5 X																																													
Turnaround Time (Business days) 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 (Accretion PM): / Date: _____														Data Deliverable Information Commercial "A" (Level 1) Commercial "B" (Level 2) FULT1 (Level 3 & 4) REDT1 (Level 3 & 4) Commercial "C" TRRP EDD Format Other														Comments / Special Instructions Please filter & preserve metals @ lab													
Relinquished by: Carole Brown Date/Time: 6.24.11 11:00 Received By: Felix				Relinquished by: Felix Date/Time: 6.24.11 11:00 Received By: Felix														Relinquished by: Felix Date/Time: 6.24.11 11:00 Received By: Felix														Relinquished by: Carole Brown Date/Time: 6.24.11 11:00 Received By: Carole Brown													

T79848: Chain of Custody

Page 1 of 4



Accutest Laboratories Sample Receipt Summary

Page 1 of 3

Accutest Job Number: T79848 Client: CRA Project: FLORA VISTA
Date / Time Received: 6/28/2011 Delivery Method: FedEx Airbill #'s: 4868-9990-4894
No. Coolers: 1 Therm ID: IRGUN4; Temp Adjustment Factor: -0.1;
Cooler Temps (Initial/Adjusted): #1: (0.4/0.3);

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

Cooler Temperature Y or N
1. Temp criteria achieved: ☒ ☐
2. Cooler temp verification: IR Gun
3. Cooler media: Ice (Bag)

Quality Control Preservation Y or 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 or N
1. Sample labels present on bottles: ☒ ☐
2. Container labeling complete: ☒ ☐
3. Sample container label / COC agree: ☒ ☐

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

Sample Integrity - Instructions Y or 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 RECEIVED TRIP BLANKS NOT LISTED ON C.O.C.

Accutest Laboratories
V: 713.271.4700

10185 Harwin Drive
F: 713.271.4770

Houston, TX 77038
www.accutest.com

Bob de *Ng* *6/28/11*

T79848: Chain of Custody
Page 2 of 4

Sample Receipt Log

Page 2 of 3

Job #: T79848

Date / Time Received: 6/28/2011 10:10:00 AM

Initials: BG

Client: CRA

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	T79848-1	500 ml	1	1EE	N/P	Note #2 - Preservative check not applicable.	IRGUN4	0.4	-0.1	0.3
1	T79848-1	250 ml	2	3B	N/P	Note #2 - Preservative check not applicable.	IRGUN4	0.4	-0.1	0.3
1	T79848-1	40 ml	3	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.4	-0.1	0.3
1	T79848-1	40 ml	4	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.4	-0.1	0.3
1	T79848-1	40 ml	5	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.4	-0.1	0.3
1	T79848-2	40 ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.4	-0.1	0.3
1	T79848-2	40 ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.4	-0.1	0.3
1	T79848-2	40 ml	3	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.4	-0.1	0.3
1	T79848-3	500 ml	1	1EE	N/P	Note #2 - Preservative check not applicable.	IRGUN4	0.4	-0.1	0.3
1	T79848-3	250 ml	2	3B	N/P	Note #2 - Preservative check not applicable.	IRGUN4	0.4	-0.1	0.3
1	T79848-3	40 ml	3	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.4	-0.1	0.3
1	T79848-3	40 ml	4	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.4	-0.1	0.3
1	T79848-3	40 ml	5	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.4	-0.1	0.3
1	T79848-4	500 ml	1	1EE	N/P	Note #2 - Preservative check not applicable.	IRGUN4	0.4	-0.1	0.3
1	T79848-4	250 ml	2	3B	N/P	Note #2 - Preservative check not applicable.	IRGUN4	0.4	-0.1	0.3
1	T79848-4	40 ml	3	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.4	-0.1	0.3
1	T79848-4	40 ml	4	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.4	-0.1	0.3
1	T79848-4	40 ml	5	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.4	-0.1	0.3
1	T79848-5	500 ml	1	1EE	N/P	Note #2 - Preservative check not applicable.	IRGUN4	0.4	-0.1	0.3
1	T79848-5	250 ml	2	3B	N/P	Note #2 - Preservative check not applicable.	IRGUN4	0.4	-0.1	0.3
1	T79848-5	40 ml	3	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.4	-0.1	0.3
1	T79848-5	40 ml	4	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.4	-0.1	0.3
1	T79848-5	40 ml	5	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.4	-0.1	0.3

T79848: Chain of Custody

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 3.1
 3

Sample Receipt Log

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Job #: T79848

Date / Time Received: 6/28/2011 10:10:00 AM

Initials: BG

Client: CRA

3.1

3

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	T79848-6	40 ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.4	-0.1	0.3
1	T79848-6	40 ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.4	-0.1	0.3

T79848: 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

Page 1 of 1

Job Number: T79848

Account: CONOCO Conoco Phillips

Project: CRA: Flora Vista

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VE447-MB	E0008998.D	1	06/29/11	LT	n/a	n/a	VE447

The QC reported here applies to the following samples:

Method: SW846 8260B

T79848-1, T79848-2, T79848-5

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	97%	79-122%
17060-07-0	1,2-Dichloroethane-D4	102%	75-121%
2037-26-5	Toluene-D8	96%	87-119%
460-00-4	4-Bromofluorobenzene	93%	80-133%

Method Blank Summary

Page 1 of 1

Job Number: T79848
Account: CONOCO Conoco Phillips
Project: CRA: Flora Vista

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VE451-MB	E0009086.D	1	07/01/11	LT	n/a	n/a	VE451

The QC reported here applies to the following samples:

Method: SW846 8260B

T79848-1, T79848-2

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	
1330-20-7	Xylene (total)	ND	3.0	0.71	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	93% 79-122%
17060-07-0	1,2-Dichloroethane-D4	92% 75-121%
2037-26-5	Toluene-D8	97% 87-119%
460-00-4	4-Bromofluorobenzene	91% 80-133%

Method Blank Summary

Page 1 of 1

Job Number: T79848

Account: CONOCO Conoco Phillips

Project: CRA: Flora Vista

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VE452-MB	E0009106.D	1	07/05/11	LT	n/a	n/a	VE452

The QC reported here applies to the following samples:

Method: SW846 8260B

T79848-3, T79848-4

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	94%	79-122%
17060-07-0	1,2-Dichloroethane-D4	93%	75-121%
2037-26-5	Toluene-D8	99%	87-119%
460-00-4	4-Bromofluorobenzene	93%	80-133%

Blank Spike Summary

Page 1 of 1

Job Number: T79848

Account: CONOCO Conoco Phillips

Project: CRA: Flora Vista

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VE447-BS	E0008996.D	1	06/29/11	LT	n/a	n/a	VE447

The QC reported here applies to the following samples:

Method: SW846 8260B

T79848-1, T79848-2, T79848-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	22.0	88	76-118
100-41-4	Ethylbenzene	25	23.4	94	75-112
108-88-3	Toluene	25	22.7	91	77-114
1330-20-7	Xylene (total)	75	71.9	96	75-111

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	106%	79-122%
17060-07-0	1,2-Dichloroethane-D4	108%	75-121%
2037-26-5	Toluene-D8	101%	87-119%
460-00-4	4-Bromofluorobenzene	98%	80-133%

Blank Spike Summary

Page 1 of 1

Job Number: T79848

Account: CONOCO Conoco Phillips

Project: CRA: Flora Vista

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VE451-BS	E0009084.D	1	07/01/11	LT	n/a	n/a	VE451

The QC reported here applies to the following samples:

Method: SW846 8260B

T79848-1, T79848-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	24.9	100	76-118
100-41-4	Ethylbenzene	25	25.3	101	75-112
1330-20-7	Xylene (total)	75	75.8	101	75-111

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	96%	79-122%
17060-07-0	1,2-Dichloroethane-D4	94%	75-121%
2037-26-5	Toluene-D8	99%	87-119%
460-00-4	4-Bromofluorobenzene	93%	80-133%

Blank Spike Summary

Page 1 of 1

Job Number: T79848

Account: CONOCO Conoco Phillips

Project: CRA: Flora Vista

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VE452-BS	E0009103.D	1	07/05/11	LT	n/a	n/a	VE452

The QC reported here applies to the following samples:

Method: SW846 8260B

T79848-3, T79848-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	25.5	102	76-118
100-41-4	Ethylbenzene	25	25.6	102	75-112
108-88-3	Toluene	25	25.6	102	77-114
1330-20-7	Xylene (total)	75	76.5	102	75-111

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	103%	79-122%
17060-07-0	1,2-Dichloroethane-D4	102%	75-121%
2037-26-5	Toluene-D8	106%	87-119%
460-00-4	4-Bromofluorobenzene	100%	80-133%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T79848
Account: CONOCO Conoco Phillips
Project: CRA: Flora Vista

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T79697-16MS	E0009000.D	200	06/29/11	LT	n/a	n/a	VE447
T79697-16MSD	E0009001.D	200	06/29/11	LT	n/a	n/a	VE447
T79697-16	E0009021.D	10	06/30/11	LT	n/a	n/a	VE447
T79697-16	E0008999.D	200	06/29/11	LT	n/a	n/a	VE447

The QC reported here applies to the following samples:

Method: SW846 8260B

T79848-1, T79848-2, T79848-5

CAS No.	Compound	T79697-16 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD	
71-43-2	Benzene	21200 ^a		5000	25600	88	25100	78	2	76-118/16
100-41-4	Ethylbenzene	59.8		5000	5210	103	5070	100	3	75-112/12
108-88-3	Toluene	81.3		5000	5130	101	5050	99	2	77-114/12
1330-20-7	Xylene (total)	244		15000	15900	104	15400	101	3	75-111/12

CAS No.	Surrogate Recoveries	MS	MSD	T79697-16	T79697-16	Limits
1868-53-7	Dibromofluoromethane	99%	100%	97%	94%	79-122%
17060-07-0	1,2-Dichloroethane-D4	101%	103%	104%	101%	75-121%
2037-26-5	Toluene-D8	95%	95%	93%	94%	87-119%
460-00-4	4-Bromofluorobenzene	93%	89%	92%	91%	80-133%

(a) Result is from Run #2.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T79848
Account: CONOCO Conoco Phillips
Project: CRA: Flora Vista

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T79914-3MS	E0009088.D	100	07/01/11	LT	n/a	n/a	VE451
T79914-3MSD	E0009089.D	100	07/01/11	LT	n/a	n/a	VE451
T79914-3 ^a	E0009087.D	100	07/01/11	LT	n/a	n/a	VE451

The QC reported here applies to the following samples:

Method: SW846 8260B

T79848-1, T79848-2

CAS No.	Compound	T79914-3 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		2500	2520	101	2430	97	4	76-118/16
100-41-4	Ethylbenzene	ND		2500	2580	103	2460	98	5	75-112/12
1330-20-7	Xylene (total)	ND		7500	7590	101	7360	98	3	75-111/12

CAS No.	Surrogate Recoveries	MS	MSD	T79914-3	Limits
1868-53-7	Dibromofluoromethane	94%	93%	92%	79-122%
17060-07-0	1,2-Dichloroethane-D4	91%	92%	91%	75-121%
2037-26-5	Toluene-D8	100%	96%	99%	87-119%
460-00-4	4-Bromofluorobenzene	93%	90%	90%	80-133%

(a) Reported for QC purposes only.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T79848

Account: CONOCO Conoco Phillips

Project: CRA: Flora Vista

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T79506-21MS	E0009109.D	20	07/05/11	LT	n/a	n/a	VE452
T79506-21MSD	E0009110.D	20	07/05/11	LT	n/a	n/a	VE452
T79506-21 ^a	E0009108.D	20	07/05/11	LT	n/a	n/a	VE452

The QC reported here applies to the following samples:

Method: SW846 8260B

T79848-3, T79848-4

CAS No.	Compound	T79506-21 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1290	500	1750	92	1660	74* ^b	5	76-118/16
100-41-4	Ethylbenzene	255	500	747	98	705	90	6	75-112/12
108-88-3	Toluene	49.6	500	538	98	514	93	5	77-114/12
1330-20-7	Xylene (total)	929	1500	2360	95	2250	88	5	75-111/12

CAS No.	Surrogate Recoveries	MS	MSD	T79506-21	Limits
1868-53-7	Dibromofluoromethane	94%	93%	94%	79-122%
17060-07-0	1,2-Dichloroethane-D4	93%	90%	89%	75-121%
2037-26-5	Toluene-D8	98%	96%	100%	87-119%
460-00-4	4-Bromofluorobenzene	92%	91%	94%	80-133%

(a) Sample was not preserved to a pH < 2

(b) Outside control limits due to high level in sample relative to spike amount.



Metals Analysis



QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: T79848
Account: CONOCO - Conoco Phillips
Project: CRA: Flora Vista

QC Batch ID: MP15113
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 06/29/11

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	8.3	12		
Antimony	5.0	1	1		
Arsenic	5.0	1.7	1		
Barium	200	.97	3.4		
Beryllium	5.0	.056	.16		
Boron	100	1.4	7.8		
Cadmium	4.0	.11	.09		
Calcium	5000	7.4	25		
Chromium	10	.23	.27		
Cobalt	50	.15	.22		
Copper	25	1.1	5.9		
Iron	100	1.1	23	21.0	<100
Lead	3.0	1	1.8		
Lithium	300	2	2		
Magnesium	5000	7.7	7.9		
Manganese	15	.054	1.9	0.86	<15
Molybdenum	10	.39	.2		
Nickel	40	.69	1.4		
Potassium	5000	39	45		
Selenium	5.0	1.5	.98		
Silver	10	1.2	.24		
Sodium	5000	9.2	100		
Strontium	10	.061	.4		
Thallium	10	.67	1.2		
Tin	20	.69	2.8		
Titanium	20	.29	.3		
Vanadium	50	.3	.3		
Zinc	20	.51	3.5		

Associated samples MP15113: T79848-1F, T79848-3F, T79848-4F, T79848-5F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

5.1.1
5

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T79848
 Account: CONOCO - Conoco Phillips
 Project: CRA: Flora Vista

QC Batch ID: MP15113
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 06/29/11 06/29/11

Metal	T79839-5F Original	DUP	RPD	QC Limits	T79839-5F Original MS	SpikeLot MPTW4	% Rec	QC Limits
Aluminum								
Antimony								
Arsenic	anr							
Barium	anr							
Beryllium								
Boron								
Cadmium	anr							
Calcium								
Chromium	anr							
Cobalt								
Copper								
Iron	26000	26800	3.0	0-20	26000	75300	50000	98.6 80-120
Lead	anr							
Lithium								
Magnesium								
Manganese	5270	5500	4.3	0-20	5270	5500	400	57.5 (a) 80-120
Molybdenum								
Nickel								
Potassium								
Selenium	anr							
Silver	anr							
Sodium								
Strontium								
Thallium								
Tin								
Titanium								
Vanadium								
Zinc								

Associated samples MP15113: T79848-1F, T79848-3F, T79848-4F, T79848-5F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T79848
Account: CONOCO - Conoco Phillips
Project: CRA: Flora Vista

QC Batch ID: MP15113
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 06/29/11

Metal	T79839-5F Original MSD	Spikelot MPTW4	% Rec	MSD RPD	QC Limit
-------	---------------------------	-------------------	-------	------------	-------------

Aluminum

Antimony

Arsenic anr

Barium anr

Beryllium

Boron

Cadmium anr

Calcium

Chromium anr

Cobalt

Copper

Iron 26000 76800 50000 101.6 2.0 20

Lead anr

Lithium

Magnesium

Manganese 5270 5650 400 95.0 2.7 20

Molybdenum

Nickel

Potassium

Selenium anr

Silver anr

Sodium

Strontium

Thallium

Tin

Titanium

Vanadium

Zinc

Associated samples MP15113: T79848-1F, T79848-3F, T79848-4F, T79848-5F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

5.1.2
5

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T79848
Account: CONOCO - Conoco Phillips
Project: CRA: Flora Vista

QC Batch ID: MP15113
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 06/29/11

Metal	BSP Result	Spikelot MPTW4	% Rec	QC Limits
-------	---------------	-------------------	-------	--------------

Aluminum

Antimony

Arsenic anr

Barium anr

Beryllium

Boron

Cadmium anr

Calcium

Chromium anr

Cobalt

Copper

Iron 52900 50000 105.8 80-120

Lead anr

Lithium

Magnesium

Manganese 426 400 106.5 80-120

Molybdenum

Nickel

Potassium

Selenium anr

Silver anr

Sodium

Strontium

Thallium

Tin

Titanium

Vanadium

Zinc

Associated samples MP15113: T79848-1F, T79848-3F, T79848-4F, T79848-5F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

5.1.3
5

SERIAL DILUTION RESULTS SUMMARY

Login Number: T79848
Account: CONOCO - Conoco Phillips
Project: CRA: Flora Vista

QC Batch ID: MP15113
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 06/29/11

T79839-5F		QC	
Metal	Original SDL 1:5	%DIF	Limits

Aluminum

Antimony

Arsenic anr

Barium anr

Beryllium

Boron

Cadmium anr

Calcium

Chromium anr

Cobalt

Copper

Iron 26000 25900 0.2 0-10

Lead anr

Lithium

Magnesium

Manganese 5270 5230 0.8 0-10

Molybdenum

Nickel

Potassium

Selenium anr

Silver anr

Sodium

Strontium

Thallium

Tin

Titanium

Vanadium

Zinc

Associated samples MP15113: T79848-1F, T79848-3F, T79848-4F, T79848-5F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

5.1.4
5



General Chemistry

QC Data Summaries

Includes the following where applicable:

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

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T79848
Account: CONOCO - Conoco Phillips
Project: CRA: Flora Vista

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Sulfate	GP13815/GN32828	0.50	0.0	mg/l	10	9.28	92.8	90-110%

Associated Samples:
Batch GP13815: T79848-1, T79848-3, T79848-4, T79848-5
(*) Outside of QC limits

6.1

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DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T79848
Account: CONOCO - Conoco Phillips
Project: CRA: Flora Vista

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Sulfate	GP13815/GN32828	T79848-5	mg/l	176	172	2.3	0-20%

Associated Samples:

Batch GP13815: T79848-1, T79848-3, T79848-4, T79848-5

(*) Outside of QC limits

6.2

6

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T79848
Account: CONOCO - Conoco Phillips
Project: CRA: Flora Vista

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Sulfate	GP13815/GN32828	T79848-5	mg/l	176	200	371	97.5	80-120%

Associated Samples:
Batch GP13815: T79848-1, T79848-3, T79848-4, T79848-5
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

6.3
9



07/05/11



Technical Report for

Conoco Phillips

CRA: Flora Vista

Flora Vista, NM - 74926

Accutest Job Number: T79903

Sampling Date: 06/24/11

Report to:

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

Total number of pages in report: 14



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.

A handwritten signature in black ink that reads '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)

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Test results relate only to samples analyzed.

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Sample Summary

Conoco Phillips

Job No: T79903

CRA: Flora Vista

Project No: Flora Vista, NM - 74926

Sample Number	Collected Date	Time By	Received	Matrix Code Type	Client Sample ID
T79903-1	06/24/11	11:09	06/28/11	AQ Ground Water	RS-74926-062411-CB-01
T79903-2	06/24/11	00:00	06/28/11	AQ Trip Blank Water	TRIP BLANK



Sample Results

Report of Analysis

Report of Analysis

Page 1 of 1

Client Sample ID: RS-74926-062411-CB-01
Lab Sample ID: T79903-1
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: CRA: Flora Vista

Date Sampled: 06/24/11
Date Received: 06/28/11
Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F035792.D	1	07/05/11	AK	n/a	n/a	VF4320
Run #2							

Run #	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	81%		79-122%
17060-07-0	1,2-Dichloroethane-D4	76%		75-121%
2037-26-5	Toluene-D8	118%		87-119%
460-00-4	4-Bromofluorobenzene	139% ^a		80-133%

(a) Outside control limits biased high.

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

Report of Analysis

Page 1 of 1

Client Sample ID:	TRIP BLANK	Date Sampled:	06/24/11
Lab Sample ID:	T79903-2	Date Received:	06/28/11
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CRA: Flora Vista		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F035793.D	1	07/05/11	AK	n/a	n/a	VF4320
Run #2							

Run #	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	81%		79-122%
17060-07-0	1,2-Dichloroethane-D4	76%		75-121%
2037-26-5	Toluene-D8	118%		87-119%
460-00-4	4-Bromofluorobenzene	138% ^a		80-133%

(a) Outside control limits biased high.

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



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

[illegible]

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

T79903: Chain of Custody

Page 1 of 3



Accutest Laboratories Sample Receipt Summary

Page 1 of 2

Accutest Job Number: T79903 Client: CRA Project: 74926
Date / Time Received: 6/28/2011 Delivery Method: FedEx Airbill #'s: 4868-9990-4931
No. Coolers: 1 Therm ID: IRGUN4; Temp Adjustment Factor: -0.1;
Cooler Temps (Initial/Adjusted): #1: (2/1.9):

Cooler Security

Y or N

1. Custody Seals Present: ☒ ☐

3. COC Present: ☒ ☐

2. Custody Seals Intact: ☒ ☐

4. SmpI Dates/Time OK ☒ ☐

Cooler Temperature

Y or N

1. Temp criteria achieved: ☒ ☐

2. Cooler temp verification: IR Gun

3. Cooler media: Ice (Bag)

Quality Control Preservation

Y or N

N/A

1. Trip Blank present / cooler: ☐ ☐ ☒

2. Trip Blank listed on COC: ☐ ☐ ☒

3. Samples preserved properly: ☒ ☐

4. VOCs headspace free: ☐ ☐ ☒

Y or N

3. COC Present: ☒ ☐

4. SmpI Dates/Time OK ☒ ☐

WTB STB

☐ ☐

Sample Integrity - Documentation

Y or N

1. Sample labels present on bottles: ☒ ☐

2. Container labeling complete: ☒ ☐

3. Sample container label / COC agree: ☒ ☐

Sample Integrity - Condition

Y or N

1. Sample recvd within HT: ☒ ☐

2. All containers accounted for: ☒ ☐

3. Condition of sample: Intact

Sample Integrity - Instructions

Y or 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

Accutest Laboratories
V: 713.271.4700

10185 Harwin Drive
F: 713.271.4770

Houston, TX 77036
www.accutest.com

T79903: Chain of Custody

Page 2 of 3

Sample Receipt Log

Page 2 of 2

Job #: T79903

Date / Time Received: 6/28/2011 10:10:00 AM

Initials: BG

Client: CRA

3.1

3

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	T79903-1	40 ml	1	VR	HCL	pH < 2	IRGUN4	2	-0.1	1.9
1	T79903-1	40 ml	2	VR	HCL	pH < 2	IRGUN4	2	-0.1	1.9
1	T79903-1	40 ml	3	VR	HCL	pH < 2	IRGUN4	2	-0.1	1.9
1	T79903-2	40 ml	1	VR	HCL	pH < 2	IRGUN4	2	-0.1	1.9
1	T79903-2	40 ml	2	VR	HCL	pH < 2	IRGUN4	2	-0.1	1.9

T79903: Chain of Custody

Page 3 of 3



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

Page 1 of 1

Job Number: T79903

Account: CONOCO Conoco Phillips

Project: CRA: Flora Vista

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF4320-MB	F035791.D	1	07/05/11	AK	n/a	n/a	VF4320

The QC reported here applies to the following samples:

Method: SW846 8260B

T79903-1, T79903-2

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	81%	79-122%
17060-07-0	1,2-Dichloroethane-D4	76%	75-121%
2037-26-5	Toluene-D8	119%	87-119%
460-00-4	4-Bromofluorobenzene	139%* a	80-133%

(a) Outside control limits biased high.

Blank Spike Summary

Page 1 of 1

Job Number: T79903

Account: CONOCO Conoco Phillips

Project: CRA: Flora Vista

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF4320-BS	F035789.D	1	07/05/11	AK	n/a	n/a	VF4320

The QC reported here applies to the following samples:

Method: SW846 8260B

T79903-1, T79903-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	19.0	76	76-118
100-41-4	Ethylbenzene	25	26.4	106	75-112
108-88-3	Toluene	25	27.0	108	77-114
1330-20-7	Xylene (total)	75	80.7	108	75-111

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	81%	79-122%
17060-07-0	1,2-Dichloroethane-D4	77%	75-121%
2037-26-5	Toluene-D8	121%* a	87-119%
460-00-4	4-Bromofluorobenzene	137%* a	80-133%

(a) Outside control limits biased high.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T79903

Account: CONOCO Conoco Phillips

Project: CRA: Flora Vista

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T79673-3MS	F035798.D	1	07/05/11	AK	n/a	n/a	VF4320
T79673-3MSD	F035799.D	1	07/05/11	AK	n/a	n/a	VF4320
T79673-3	F035797.D	1	07/05/11	AK	n/a	n/a	VF4320

The QC reported here applies to the following samples:

Method: SW846 8260B

T79903-1, T79903-2

CAS No.	Compound	T79673-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	280	E	25	297	68* a	293	52* a	1	76-118/16
100-41-4	Ethylbenzene	17.5		25	43.0	102	42.7	101	1	75-112/12
108-88-3	Toluene	5.2		25	31.4	105	31.3	104	0	77-114/12
1330-20-7	Xylene (total)	1.8		75	81.4	106	80.9	105	1	75-111/12

CAS No.	Surrogate Recoveries	MS	MSD	T79673-3	Limits
1868-53-7	Dibromofluoromethane	81%	81%	80%	79-122%
17060-07-0	1,2-Dichloroethane-D4	80%	78%	77%	75-121%
2037-26-5	Toluene-D8	119%	120%* b	119%	87-119%
460-00-4	4-Bromofluorobenzene	134%* b	137%* b	140%* b	80-133%

(a) Outside control limits due to high level in sample relative to spike amount.

(b) Outside control limits biased high.