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TETRA TECH, INC.

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

June 10, 2011

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

RE: ConocoPhillips Company Faye Burdette No. 1 – March 2011 Groundwater Monitoring Report
San Juan County, New Mexico

Dear Mr. von Gonten:

Enclosed please find one copy of the above-referenced document as compiled by Tetra Tech, Inc. for this San Juan County area site.

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

Sincerely,

Kelly E. Blanchard

Kelly E. Blanchard
Project Manager/Geologist

Enclosures (1)

Cc: Brandon Powell, NMOCD (hardcopy)
Terry Lauck, ConocoPhillips Company (electronic)

MARCH 2011 QUARTERLY GROUNDWATER MONITORING REPORT

CONOCOPHILLIPS COMPANY

FAYE BURDETTE NO. 1
NATURAL GAS PRODUCTION SITE
SAN JUAN COUNTY, NEW MEXICO

API No. 30-045-09725

OCD No. TBD .

Prepared for:

ConocoPhillips

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

Prepared by:

TETRA TECH, INC.

6121 Indian School Rd. NE Suite 200
Albuquerque, NM 87110
Tetra Tech Project No. 114-690157

May 2011

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MARCH 2011 QUARTERLY GROUNDWATER MONITORING REPORT FAYE BURDETTE NO. 1, SAN JUAN COUNTY, NEW MEXICO

1.0 INTRODUCTION

This report presents the results of quarterly groundwater monitoring completed by Tetra Tech, Inc. (Tetra Tech) on March 16, 2011, at the ConocoPhillips Company Faye Burdette No. 1 natural gas well site located on private land in Unit Letter G, Section 9, Township 30N, Range 11W of San Juan County, New Mexico (Site). This event represents the eleventh quarter of groundwater sampling conducted by Tetra Tech at the Site.

The Site is located near the intersection of Highway 550 and Pioneer Avenue in Aztec, NM. The Site consists of a gas production well head and associated equipment and installations. The location and general features of the Site are presented as **Figures 1** and **2**, respectively. A generalized geologic cross section of the site is included as **Figure 3**.

1.1 Site History

The Faye Burdette No. 1 wellhead was spudded by Southwest Production Company in April 1962. Ownership was transferred to Beta Development Company in September 1963 and again to Mesa Operating Limited Partnership in August 1988. Conoco Inc., predecessor to ConocoPhillips Company, acquired the well in July 1991. A release occurred in May 2007 from a rusted portion of the on-site produced water tank. Evidence of pre-existing hydrocarbon impacted soil was encountered during excavation; possibly related to a former earthen pit. Temporary Monitor Well, MW-1, was drilled by Envirotech in September 2007. Groundwater samples from MW-1 indicate that benzene, toluene, ethylbenzene, and xylenes (BTEX) were below the New Mexico Water Quality Control Commission (NMWQCC) standards. Subsequently, Envirotech recommended plugging and abandoning MW-1 (Envirotech, 2007).

To complete additional investigation and sampling of the Site, as requested by the New Mexico Oil Conservation Division (OCD), Monitor Wells MW-2, MW-3, and MW-4 were installed under the supervision of Tetra Tech during January 2009. All four monitor wells have been incorporated into a quarterly monitoring program that was initiated on January 29, 2009. Site history is outlined in **Table 1**.

2.0 MONITORING SUMMARY, SAMPLING METHODOLOGY, AND RESULTS

2.1 Monitoring Summary

On March 16, 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 March 2011 monitoring event data, groundwater flow is to the northwest and is consistent with historic records at this site. The Animas River is approximately 1/3 mile from the site and flows west.

2.2 Groundwater Sampling Methodology

Monitor Wells MW-1, MW-2, MW-3, and MW-4 were sampled, representing the tenth round of consecutive quarterly groundwater monitoring at the Site. Approximately three well volumes were purged from each monitor well with a dedicated polyethylene 1.5-inch disposable bailer. Purge water was placed in the on-site produced water tank. Groundwater samples were placed in laboratory prepared bottles, packed on ice, and shipped under chain of custody documentation to Southern Petroleum Laboratories in Houston, Texas. The samples were analyzed for the presence of BTEX in accordance with Environmental Protection Agency (EPA) Method 8260B and dissolved manganese according to EPA Method 6010B. Groundwater sampling field forms are included as **Appendix A**.

2.3 Groundwater Sampling Analytical Results

Groundwater quality samples collected during the March 16, 2011 monitoring event indicate that Monitor Well MW-1 exceeds the NMWQCC standard for dissolved manganese at 2.23 milligrams per liter (mg/L). The NMWQCC standard for dissolved manganese is 0.2 mg/L. BTEX concentrations were below laboratory detection limits for all site monitor wells. **Table 3** summarizes the laboratory analytical results for the March 2011 groundwater sampling event. The corresponding laboratory analytical report is included in **Appendix B**.

3.0 CONCLUSIONS

Groundwater samples collected from MW-1 have continually exceeded NMWQCC groundwater quality standards for manganese constituents from October 2008 to March 2011. Based on the historical groundwater quality data, groundwater samples collected from MW-1, MW-2, MW-3, and MW-4 have never exceeded NMWQCC groundwater quality standards for BTEX constituents during sampling conducted from October 2008 to March 2011.

Tetra Tech recommends discontinuing BTEX analysis for groundwater samples since Site monitoring wells have never exceeded the NMWQCC standards for those constituents. Quarterly analysis for dissolved manganese will continue in all Site wells. Site closure will be requested when groundwater quality results begin to indicate that all constituents of concern are consistently below NMWQCC groundwater quality standards, stable, or are representative of background conditions at the Site. Please contact Kelly Blanchard at 505-237-8440 or kelly.blanchard@tetratech.com if you have any questions or require additional information.

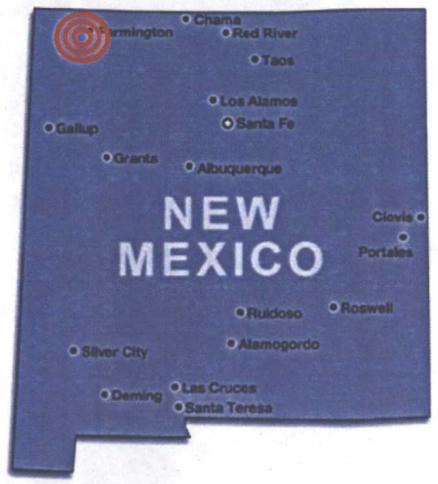
REFERENCES

Envirotech, Inc. (2007). *Drilling and Groundwater Sampling Report at Faye Burdette No. 1 Aztec, NM.* Prepared for ConocoPhillips, dated December 12, 2007.

FIGURES

ConcocoPhillips High Resolution Aerial Imagery 2008

FIGURE 1.
Site Location Map
CONOCOPHILLIPS COMPANY
FAYE BURDETTE NO.1 GAS PRODUCTION WELL SITE
Sec 9, T30N, R11W
Aztec, New Mexico



Approximate ConocoPhillips Faye Burdette No.1 Site location
Latitude: 36.829850°
Longitude: -107.991926°

N

0 240 Feet 480
APPROXIMATE SCALE

TETRA TECH, INC.

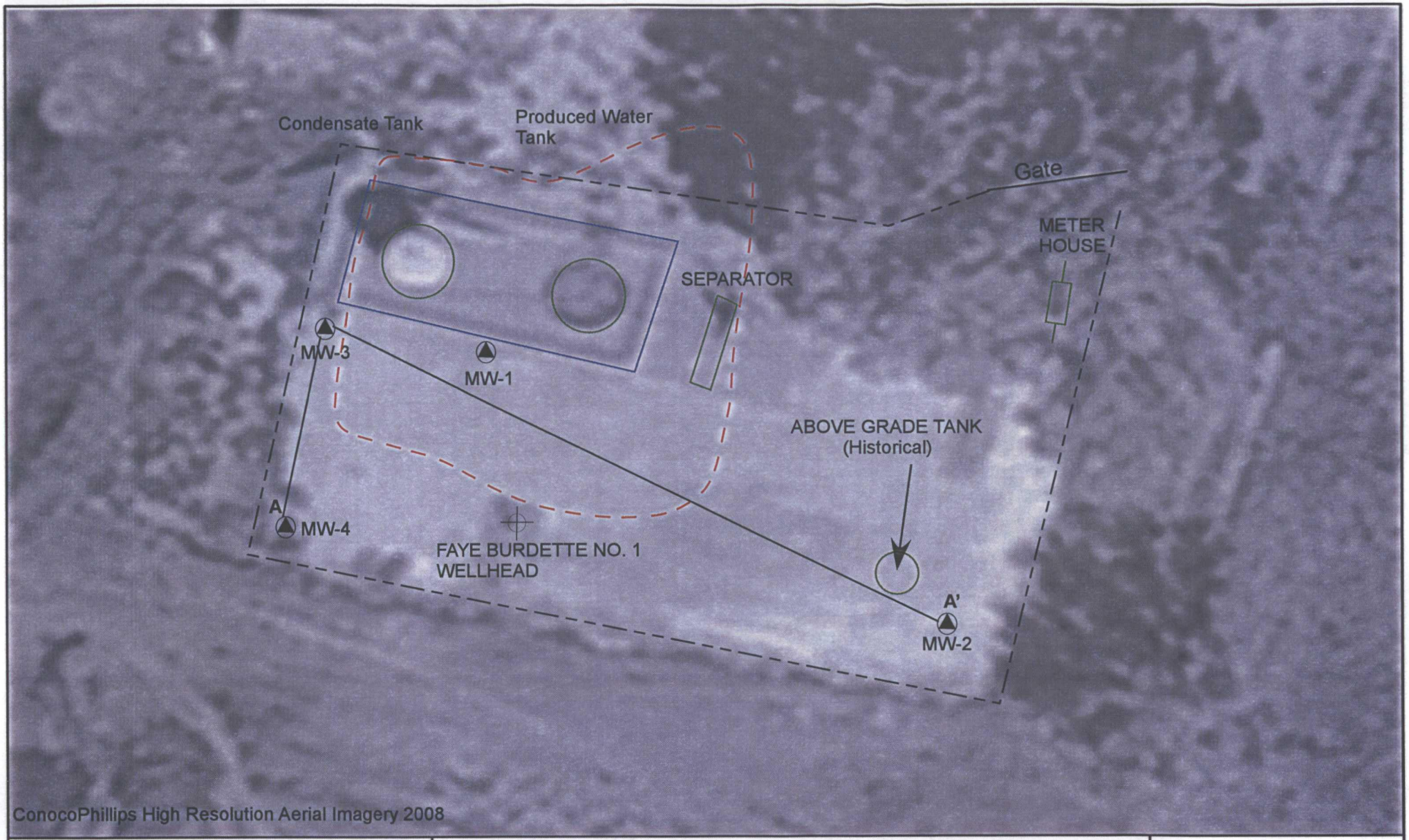


FIGURE 2.
Site Layout Map
CONOCOPHILLIPS COMPANY
FAYE BURDETTE NO.1 GAS PRODUCTION WELL SITE
Sec 9, T30N, R11W
Aztec, New Mexico

LEGEND

- MONITORING WELL
- BERM
- FENCE LINE
- EQUIPMENT
- APPROXIMATE 2007 EXCAVATION AREA

0 25 50
FEET

N

TETRA TECH, INC.

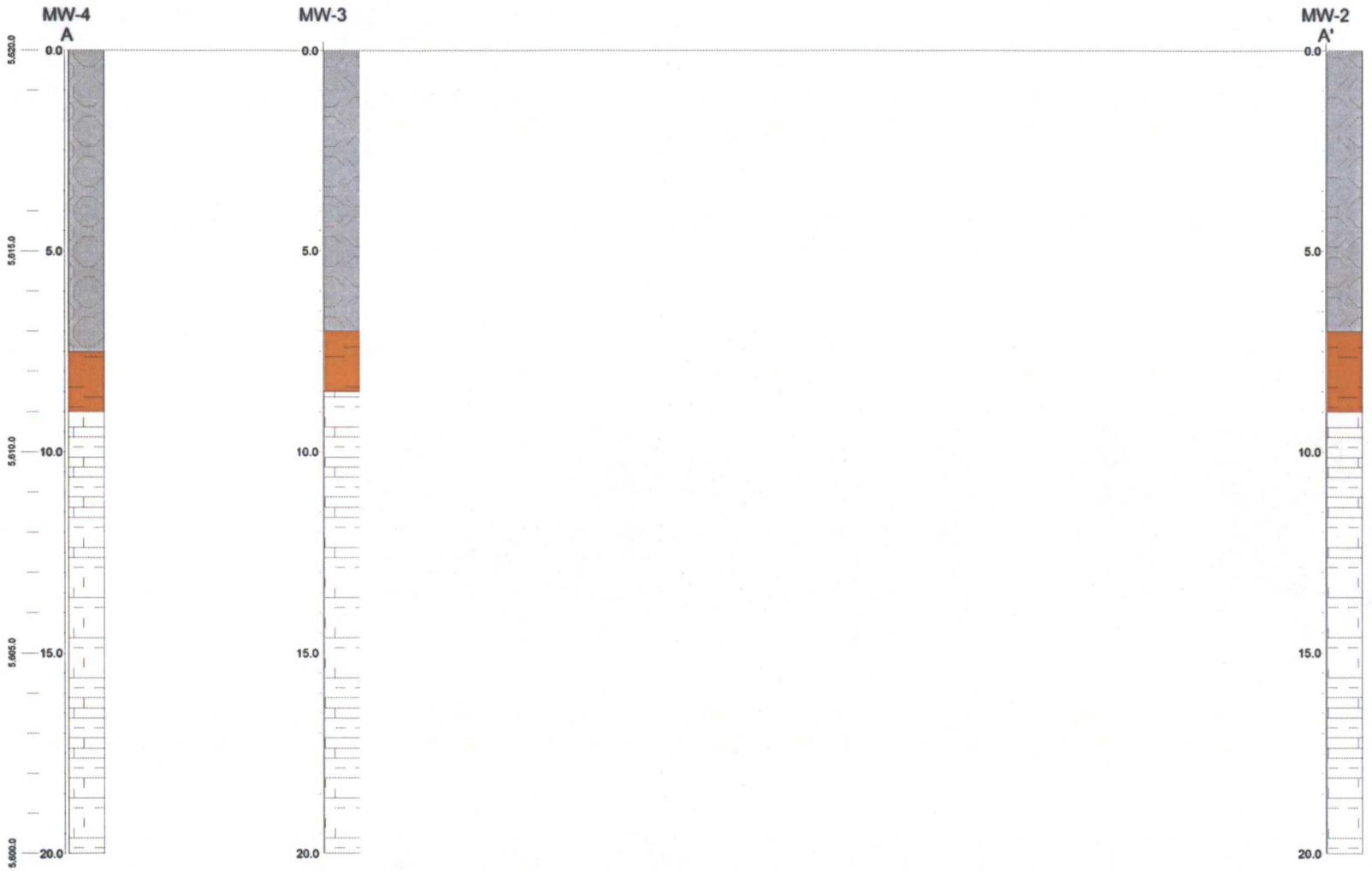


FIGURE 3:
Geologic Cross Section
CONOCOPHILLIPS COMPANY
FAYE BURDETTE NO. 1 GAS
PRODUCTION WELL SITE
Sec 9, T30N, R11W
San Juan County, New Mexico

LEGEND

- Medium grained sand
- Silty Sand
- Undefined

TETRA TECH, INC.

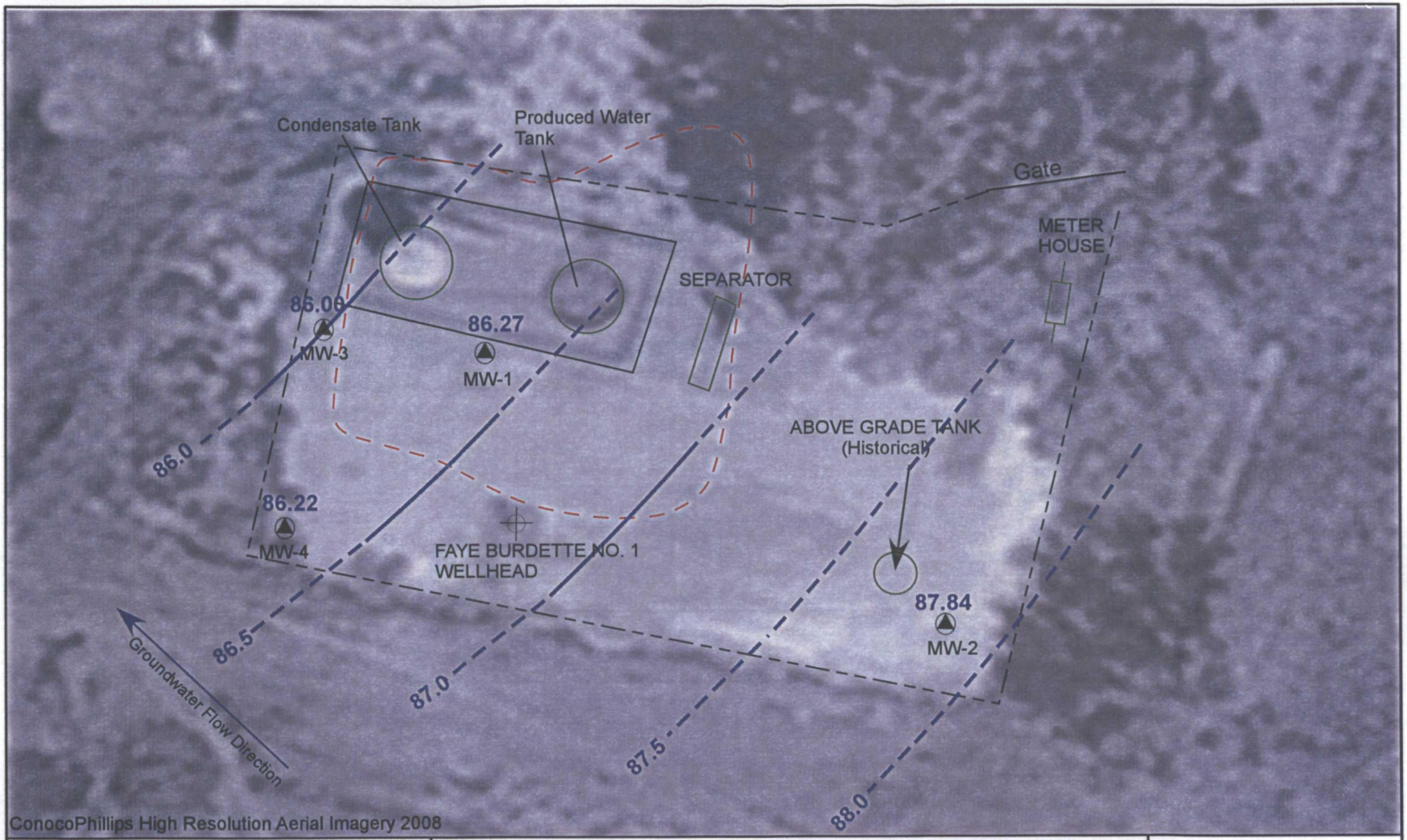


FIGURE 4:
MARCH 2011 GROUNDWATER ELEVATION CONTOUR MAP
CONOCOPHILLIPS COMPANY
FAYE BURDETTE NO. 1
Unit G - Sec 9, T30N, R11W
San Juan County, New Mexico

LEGEND

- MONITORING WELL
- BERM
- FENCE LINE
- EQUIPMENT
- APPROXIMATE 2007 EXCAVATION AREA
- GROUNDWATER ELEVATION CONTOUR (dashed where inferred)
- GROUNDWATER FLOW DIRECTION

0 25 50
FEET

N

TETRA TECH, INC.

TABLES

Table 1. ConocoPhillips Company, Faye Burdette No. - 1 Site History Timeline

DATE	ACTIVITY
29-Apr-1962	Well was spudded by Southwest Production Company.
1-Sep-1963	Ownership of well transferred to Beta Development Company.
21-Feb-1983	NMOCD inspection noted a leaky 2-inch valve on a storage tank.
15-Aug-1988	Ownership of well transferred to Mesa Operating Limited Partnership.
1-Jul-1991	Ownership of well transferred to Conoco Inc.
24-May-2007	A small (<25 gallons) release occurred from the produced water tank after a rusty spot was scraped off. Follow-up excavation encountered evidence of pre-existing hydrocarbon-impacted soil, apparently related to a former earthen pit beneath the tank.
Jul-07	Contaminated soil excavated from the Site. Two ground water samples were obtained at the time of this excavation, and one (1) of these samples was found to contain total xylenes above the State of New Mexico drinking water standard.
26-Sep-07	Ground water monitoring well installed to a depth of 15 feet below ground surface (bgs) by Envirotech Inc. of Farmington, NM (Envirotech). A soil sample obtained from the well boring was analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) and total petroleum hydrocarbons (TPH). Results were below NMOCD regulations of 10 parts per million (ppm), 50 ppm, and 100 ppm, respectively.
	A ground water sample was collected from the temporary monitoring well (MW-1) and analyzed for BTEX; results were below the State of New Mexico drinking water standard for this constituent. Depth to ground water recorded at 9.5 feet bgs.
Nov-07	Envirotech report recommends plugging and abandonment of the temporary ground water monitoring well and a no further action determination for the Site (Envirotech, 2007).
Apr-08	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.
22-Oct-08	1st quarter sampling of MW-1 conducted by Tetra Tech.
Jan-09	WDC Exploration and Wells of Peralta, NM installed additional Monitoring Wells MW-2, MW-3 and MW-4 under the supervision of Tetra Tech.
29-Jan-09	Second quarter sampling of MW-1 conducted by Tetra Tech. Initial sampling of Monitoring Wells MW-2, MW-3, and MW-4.
31-Mar-09	Third consecutive quarter of sampling MW-1 conducted by Tetra Tech. Second quarter sampling of Monitoring Wells MW-2, MW-3, and MW-4.
17-Jun-09	Fourth consecutive quarter of sampling MW-1 conducted by Tetra Tech. Third quarter of sampling Monitoring Wells MW-2, MW-3, and MW-4.
22-Sep-09	Fifth consecutive quarter of sampling MW-1 by Tetra Tech. Fourth consecutive quarter of sampling Monitoring Wells MW-2, MW-3, and MW-4. Sampling for total metals discontinued as approved by NMOCD. Sampling for select dissolved metals based on total metals analyses begins.
16-Dec-09	Sixth consecutive quarter sampling of MW-1 conducted by Tetra Tech. Fifth consecutive quarter sampling of Monitoring Wells MW-2, MW-3, and MW-4 for BTEX and dissolved manganese only.
1-Apr-10	Seventh consecutive quarter sampling of MW-1 conducted by Tetra Tech. Sixth consecutive quarter sampling of Monitoring Wells MW-2, MW-3, and MW-4 for BTEX and dissolved manganese only.
9-Jun-10	Eighth consecutive quarter sampling of MW-1 conducted by Tetra Tech. Seventh consecutive quarter sampling of Monitoring Wells MW-2, MW-3, and MW-4 for BTEX and dissolved manganese only.
20-Sep-10	Ninth consecutive quarter sampling of MW-1 conducted by Tetra Tech. Eighth consecutive quarter sampling of Monitoring Wells MW-2, MW-3, and MW-4 for BTEX and dissolved manganese only.
17-Dec-10	Tenth consecutive quarter sampling of MW-1 conducted by Tetra Tech. Ninth consecutive quarter sampling of Monitoring Wells MW-2, MW-3, and MW-4 for BTEX and dissolved manganese only.
16-Mar-11	Eleventh consecutive quarter sampling of MW-1 conducted by Tetra Tech. Tenth consecutive quarter sampling of Monitoring Wells MW-2, MW-3, and MW-4 for BTEX and dissolved manganese only. Tetra Tech recommended that sampling for BTEX be discontinued.

Table 2. ConocoPhillips Company, Faye Burdette No. 1 - Groundwater Elevation Data Summary

Well ID	Total Depth (ft bgs)	Screen Interval (ft)	*Elevation (ft) (TOC)	Date Measured	Depth to Groundwater (ft below TOC)	Relative Groundwater Elevation
MW-1	17.52	4.8 - 14.8	97.66	10/22/2008	10.91	86.75
				1/29/2009	11.72	85.94
				3/31/2009	11.88	85.78
				6/17/2009	11.24	86.42
				9/22/2009	10.87	86.79
				12/16/2009	11.56	86.10
				4/1/2010	11.91	85.75
				6/9/2010	11.31	86.35
				9/20/2010	11.39	86.27
				12/17/2010	11.06	86.60
				3/16/2011	11.39	86.27
MW-2	19.45	5.0 - 20.0	98.54	1/29/2009	10.91	87.63
				3/31/2009	11.12	87.42
				6/17/2009	10.48	88.06
				9/22/2009	10.76	87.78
				12/16/2009	10.61	87.93
				4/1/2010	11.20	87.34
				6/9/2010	10.35	88.19
				9/20/2010	10.35	88.19
				12/17/2010	10.10	88.44
				3/16/2011	10.70	87.84
MW-3	22.96	5.0 - 20.0	97.16	1/29/2009	11.44	85.72
				3/31/2009	11.62	85.54
				6/17/2009	10.97	86.19
				9/22/2009	10.57	86.59
				12/16/2009	11.32	85.84
				4/1/2010	11.66	85.50
				6/9/2010	11.10	86.06
				9/20/2010	11.17	85.99
				12/17/2010	10.84	86.32
				3/16/2011	11.16	86.00
MW-4	22.28	5.0 - 20.0	97.06	1/29/2009	11.02	86.04
				3/31/2009	11.18	85.88
				6/17/2009	10.59	86.47
				9/22/2009	10.16	86.90
				12/16/2009	10.87	86.19
				4/1/2010	11.04	86.02
				6/9/2010	10.65	86.41
				9/20/2010	10.72	86.34
				12/17/2010	10.46	86.60
				3/16/2011	10.84	86.22

ft = Feet

TOC = Top of casing

bgs = below ground surface

* Elevation relative to an arbitrary point set at 100 feet

Table 3. ConocoPhillips Company, Faye Burdette No. 1 - Groundwater Laboratory Analytical Results

Well ID	Date	Aluminum (mg/L)	Iron (mg/L)	Manganese (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW-1	10/22/2008	NA	3.74*	2.09*	< 5	< 5	< 5	< 5
	1/29/2009	2.14*	2.77*	1.41*	< 5	< 5	< 5	< 5
	3/31/2009	3.64*	4.83*	1.24*	< 5	< 5	< 5	< 5
	6/17/2009	2.5*	5.58*	2.47*	< 5	< 5	< 5	< 5
	9/22/2009	0.443	0.445	**1.44**	<1	<1	<1	<1
	12/16/2009	NA	NA	**0.732**	<1	<1	<1	<1
	4/1/2010	NA	NA	**1.71**	<1	<1	<1	<1
	6/9/2010	NA	NA	**1.61**	<1	<1	<1	<1
	9/20/2010	NA	NA	**0.895**	<1	<1	<1	<1
	12/17/2010	NA	NA	**0.773**	<1	<1	<1	<1
	3/16/2011	NA	NA	**2.23**	<1	<1	<1	<1
MW-1 Duplicate	1/29/2009	NA	NA	NA	< 5	< 5	< 5	< 5
	3/31/2009	NA	NA	NA	< 5	< 5	< 5	< 5
	6/17/2009	2.83	6.13*	2.52*	< 5	< 5	< 5	< 5
	9/22/2009	NA	NA	NA	<1	<1	<1	<1
	12/16/2009	NA	NA	NA	<1	<1	<1	<1
	4/1/2010	NA	NA	NA	<1	<1	<1	<1
	6/9/2010	NA	NA	NA	<1	<1	<1	<1
	9/20/2010	NA	NA	NA	<1	<1	<1	<1
	12/17/2010	NA	NA	NA	<1	<1	<1	<1
	3/16/2011	NA	NA	NA	<1	<1	<1	<1
MW-2	1/29/2009	4.15*	3.15*	1.79*	< 5	< 5	< 5	< 5
	3/31/2009	1.17*	1.02*	0.326*	< 5	< 5	< 5	< 5
	6/17/2009	3.4*	2.8*	1.37*	< 5	< 5	< 5	< 5
	9/22/2009	<0.1	<0.02	0.0264	<1	<1	<1	<1
	12/16/2009	NA	NA	0.0654	<1	<1	<1	<1
	4/1/2010	NA	NA	0.16	<1	<1	<1	<1
	6/9/2010	NA	NA	0.0323	<1	<1	<1	<1
	9/20/2010	NA	NA	0.0455	<1	<1	<1	<1
	12/17/2010	NA	NA	0.0332	<1	<1	<1	<1
	3/16/2011	NA	NA	0.0265	<1	<1	<1	<1
MW-3	1/29/2009	1.82*	2.24*	0.374*	< 5	< 5	< 5	< 5
	3/31/2009	1.64*	1.91*	0.271*	< 5	< 5	< 5	< 5
	6/17/2009	1.68*	2.14*	0.628*	< 5	< 5	< 5	< 5
	9/22/2009	<0.1	0.0291	0.0201	<1	<1	<1	<1
	12/16/2009	NA	NA	0.0607	<1	<1	<1	<1
	4/1/2010	NA	NA	0.0232	<1	<1	<1	<1
	6/9/2010	NA	NA	< 0.005	<1	<1	<1	<1
	9/20/2010	NA	NA	< 0.005	<1	<1	<1	<1
	12/17/2010	NA	NA	0.178	<1	<1	<1	<1
	3/16/2011	NA	NA	0.0424	<1	<1	<1	<1
MW-4	1/29/2009	6.92*	3.17*	4.15*	< 5	< 5	< 5	< 5
	3/31/2009	4.21*	3.22*	1.45*	< 5	< 5	< 5	< 5
	6/17/2009	2.43*	2.05*	0.854*	< 5	< 5	< 5	< 5
	9/22/2009	<0.1	0.108	**0.476**	<1	<1	<1	<1
	12/16/2009	NA	NA	0.0149	<1	<1	<1	<1
	4/1/2010	NA	NA	< 0.005	<1	<1	<1	<1
	6/9/2010	NA	NA	< 0.005	<1	<1	<1	<1
	9/20/2010	NA	NA	0.0152	<1	<1	<1	<1
	12/17/2010	NA	NA	0.0502	<1	<1	<1	<1
	3/16/2011	NA	NA	<0.005	<1	<1	<1	<1
Method		*SW6010B*	*SW6010B*	*SW6010B*	*8260B*	*8260B*	*8260B*	*8260B*
NMWQCC Groundwater Quality Standard		**5.0**	**1.0**	**0.2**	**10**	**750**	**750**	**620**

Notes:
MW = monitoring well
NMWQCC = New Mexico Water Quality Control Commission
Constituents in **BOLD** exceed NMWQCC groundwater quality standards
mg/L = milligrams per liter
µg/L = micrograms per liter
NA = not analyzed
<5 = result below laboratory detection limit
Total Metals analysis run for all samples through June 2009; September 2009 dissolved metals analysis run in order to compare to standards
* = total metals analysis result (NMWQCC standards do not apply)

APPENDIX A

TETRA TECH, INC.

WATER SAMPLING FIELD FORM

Project Name: Faye Burdette No. 1 — Page 1 of 4

ect No.:

Site Location: Aztec, NM

Site/Well No.: MW-1 — Coded/ Replicate No.: 1750 — Date: 3.16.11

Weather: Sunny, breezy 70° — Time Sampling Began: ~~1735~~ 1735 — Time Sampling Completed: 1745

EVACUATION DATA

Description of Measuring Point (MP): Top of Casing

Height of MP Above/Below Land Surface: ____ — MP Elevation: 97.66

Total Sounded Depth of Well Below MP: 17.52 — Water-Level Elevation: 86.27

Held ____ — Depth to Water Below MP: 11.39 — Diameter of Casing: 2"

Wet ____ — Water Column in Well: 6.13 — Gallons Pumped/Bailed Prior to Sampling: Pumped/Bailed 3.00

Gallons per Foot: 0.16

Gallons in Well: 0.98 x 3 = 2.94

Sampling Pump Intake Setting (feet below land surface):

Purging Equipment: Purge pump / Bailer

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm³)	TDS (g/L)	DO (mg/L)	DO %	ORP (mV)	Volume (gal.)
1738	11.70	7.21	1062	0.926	3.01	27.0	-6.9	2.0
1740	11.63	7.12	1060	0.925	2.86	26.1	-21.5	2.5
1742	11.62	7.10	1058	0.923	2.40	22.1	-25.5	3.0

Sampling Equipment: Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
BTEX	3 40mL VOA's	HCl
Dissolved Mn	16 oz Plastic	None

Remarks: H2O is brownish-orange. no odor or sheen observed.

Sampling Personnel: Christine Mathews, Cassie Brown

Well Casing Volumes

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

TETRA TECH, INC.

WATER SAMPLING FIELD FORM

Project Name Faye Burdette No. 1 Page 2 of 4

,ect No.

Site Location Aztec, NM

Site/Well No. MW-2 Coded/ Replicate No. Date 3/16/11

Weather Sunny, breezy 70° Time Sampling Began 1735 Time Sampling Completed 1755

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface MP Elevation 98.54

Total Sounded Depth of Well Below MP ~~19.45~~ Water-Level Elevation 87.84

Held Depth to Water Below MP 10.70 Diameter of Casing 2"

Wet Water Column in Well 8.75 Gallons Pumped/Bailed Prior to Sampling Pumped/Bailed 4.25

Gallons per Foot 0.16

Gallons in Well 1.4 x 3 = 4.2 Sampling Pump Intake (feet below land

Purging Equipment Purge pump / Bailer

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm³)	TDS (g/L)	DO (mg/L)	DO %	ORP (mV)	Volume (gal.)
1747	12.84	7.31	879	0.744	3.40	32.2	4.2	3.25
1749	12.87	7.32	881	0.745	3.34	31.7	12.7	3.75
1751	12.90	7.32	883	0.747	3.49	33.1	19.8	4.25

Sampling Equipment Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
BTEX	3 40mL VOA's	HCl
Dissolved Mn	16 oz Plastic	None

Remarks H2O is tan, No odor or sheen detected

Sampling Personnel Christine Mathews, Cassie Brown

Well Casing Volumes

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

TETRA TECH, INC.

WATER SAMPLING FIELD FORM

Project Name: Faye Burdette No. 1 — Page 3 of 4

ect No.:

Site Location: Aztec, NM

Site/Well No.: MW-3 — Coded/ Replicate No.: — Date: 3·16·11

Weather: Sunny, breezy, 70° — Time Sampling Began: 1750 — Time Sampling Completed: 1805

EVACUATION DATA

Description of Measuring Point (MP): Top of Casing

Height of MP Above/Below Land Surface: — MP Elevation: 97.16

Total Sounded Depth of Well Below MP: ~~22.96~~ 22.92 — Water-Level Elevation: 86.00

Held: — Depth to Water Below MP: 11.16 — Diameter of Casing: 2"

Wet: — Water Column in Well: 11.76 — Gallons Pumped/Bailed Prior to Sampling: Pumped/Bailed 5.75

Gallons per Foot: 0.16

Gallons in Well: 1.88 X 3 = 5.64 — Sampling Pump Intake Setting (feet below land surface):

Purging Equipment: Purge pump / Bailer

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm³)	TDS (g/L)	DO (mg/L)	DO %	ORP (mV)	Volume (gal.)
1800	13.07	7.32	981	0.826	3.00	30.5	43.9	4.75
1802	12.97	7.28	981	0.828	2.88	27.2	43.3	5.25
1804	13.05	7.25	985	0.830	2.47	23.5	43.2	6.75

Sampling Equipment: Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
BTEX	3 40mL VOA's	HCl
Dissolved Mn	16 oz Plastic	None

Remarks: H_2O is mostly clear. no odor or sheen observed.

Sampling Personnel: Christine Mathews, Cassie Brown

Well Casing Volumes

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

TETRA TECH, INC.

WATER SAMPLING FIELD FORM

Project Name: Faye Burdette No. 1 — Page 4 of 4

ect No.:

Site Location: Aztec, NM

Site/Well No.: MW-4 — Coded/ Replicate No.: — Date: 3-16-11

Weather: Sunny, breezy 70° — Time Sampling Began: 1805 — Time Sampling Completed: 1820

EVACUATION DATA

Description of Measuring Point (MP): Top of Casing

Height of MP Above/Below Land Surface: — MP Elevation: 97.06

Total Sounded Depth of Well Below MP: ~~22.08~~ 21.85 — Water-Level Elevation: 86.22

Held: — Depth to Water Below MP: 10.84 — Diameter of Casing: 2"

Wet: — Water Column in Well: 11.01 — Gallons Pumped/Bailed Prior to Sampling: Pumped/Bailed 5.5

Gallons per Foot: 0.16

Gallons in Well: 1.76 x 3 = 5.28

Sampling Pump Intake Setting (feet below land surface):

Purging Equipment: Purge pump / Bailer

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm³)	TDS (g/L)	DO (mg/L)	DO %	ORP (mV)	Volume (gal.)
1812	12.70	7.27	1015	0.863	7.63	67.7	57.8	4.5
1814	12.42	7.27	1031	0.882	3.99	34.4	57.9	5.0
1816	12.32	7.27	1041	0.893	3.40	31.7	59.7	5.5

Sampling Equipment: Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
BTEX	3 40mL VOA's	HCl
Dissolved Mn	16 oz Plastic	None

Remarks: H2O is light brown; no odor or sheen detected

Sampling Personnel: Christine Mathews, Cassie Brown

Well Casing Volumes

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

APPENDIX B

ACCUTEST LABORATORIES

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

Conoco Phillips

Certificate of Analysis Number:

11030463

Report To:		Project Name:	COP Faye Burdette No. 1
Tetra Tech, Inc.		Site:	Aztec, NM
Kelly Blanchard		Site Address:	
6121 Indian School Road, N.E.			
Suite 200		PO Number:	4510713617
Albuquerque		State:	New Mexico
NM		State Cert. No.:	
87110-		Date Reported:	3/28/2011
ph (505) 237-8440	fax: (505) 881-3283		

This Report Contains A Total Of 15 Pages

Excluding This Page, Chain Of Custody

And

Any Attachments

3/28/2011

Date

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

ACCUTEST LABORATORIES

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

Case Narrative for:

Conoco Phillips

Certificate of Analysis Number:

11030463

Report To:		Project Name:	COP Faye Burdette No. 1
Tetra Tech, Inc.		Site:	Aztec, NM
Kelly Blanchard		Site Address:	
6121 Indian School Road, N.E.			
Suite 200		PO Number:	4510713617
Albuquerque		State:	New Mexico
NM		State Cert. No.:	
87110-		Date Reported:	3/28/2011
ph (505) 237-8440	fax: (505) 881-3283		

.I. SAMPLE RECEIPT:

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

II: ANALYSES AND EXCEPTIONS:

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

III. GENERAL REPORTING COMMENTS:

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

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

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

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

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

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

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

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

3/28/2011

Erica Cardenas
Project Manager

Date

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

ACCUTEST®
LABORATORIES

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

Case Narrative for:

Conoco Phillips

Certificate of Analysis Number:

11030463

his designee, as verified by the following signature.

Erica Cardenas

3/28/2011

Erica Cardenas
Project Manager

Date

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

ACCUTEST LABORATORIES

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

Conoco Phillips

Certificate of Analysis Number:

11030463

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

Fax To:

Project Name: COP Faye Burdette No. 1
Site: Aztec, NM
Site Address:
PO Number: 4510713617
State: New Mexico
State Cert. No.:
Date Reported: 3/28/2011

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
MW-1	11030463-01	Water	03/16/2011 17:45	3/18/2011 9:06:00 AM	302866	☐
MW-2	11030463-02	Water	03/16/2011 17:55	3/18/2011 9:06:00 AM	302866	☐
MW-3	11030463-03	Water	03/16/2011 18:05	3/18/2011 9:06:00 AM	302866	☐
MW-4	11030463-04	Water	03/16/2011 18:20	3/18/2011 9:06:00 AM	302866	☐
Duplicate	11030463-05	Water	03/16/2011 17:50	3/18/2011 9:06:00 AM	302866	☐
Trip Blank	11030463-06	Water	03/16/2011 21:30	3/18/2011 9:06:00 AM	302866	☐

Erica Cardenas
Project Manager

3/28/2011
Date

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

Ted Yen
Quality Assurance Officer

ACCUTEST LABORATORIES

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

Client Sample ID MW-1 **Collected:** 03/16/2011 17:45 **SPL Sample ID:** 11030463-01

Site: Aztec, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6010B, DISSOLVED			**MCL**	**SW6010B**	**Units: mg/L**		
Manganese	2.23		0.005	1	03/25/11 18:57	EG	5752216

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3005A	03/18/2011 10:15	M_W	1.00

VOLATILE ORGANICS BY METHOD 8260B			MCL	SW8260B	Units: ug/L		
Benzene	ND		1	1	03/21/11 20:32	JC	5748376
Ethylbenzene	ND		1	1	03/21/11 20:32	JC	5748376
Toluene	ND		1	1	03/21/11 20:32	JC	5748376
m,p-Xylene	ND		2	1	03/21/11 20:32	JC	5748376
o-Xylene	ND		1	1	03/21/11 20:32	JC	5748376
Xylenes,Total	ND		1	1	03/21/11 20:32	JC	5748376
Surr: 1,2-Dichloroethane-d4	78.4	%	70-130	1	03/21/11 20:32	JC	5748376
Surr: 4-Bromofluorobenzene	93.2	%	74-125	1	03/21/11 20:32	JC	5748376
Surr: Toluene-d8	97.4	%	82-118	1	03/21/11 20:32	JC	5748376

Qualifiers:

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

ACCUTEST LABORATORIES

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

Client Sample ID MW-2 **Collected:** 03/16/2011 17:55 **SPL Sample ID:** 11030463-02

Site: Aztec, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6010B, DISSOLVED			**MCL**	**SW6010B**	**Units: mg/L**		
Manganese	0.0265		0.005	1	03/25/11 19:03	EG	5752217

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3005A	03/18/2011 10:15	M_W	1.00

VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**	**Units: ug/L**		
Benzene	ND		1	1	03/21/11 21:01	JC	5748377
Ethylbenzene	ND		1	1	03/21/11 21:01	JC	5748377
Toluene	ND		1	1	03/21/11 21:01	JC	5748377
m,p-Xylene	ND		2	1	03/21/11 21:01	JC	5748377
o-Xylene	ND		1	1	03/21/11 21:01	JC	5748377
Xylenes,Total	ND		1	1	03/21/11 21:01	JC	5748377
Surr: 1,2-Dichloroethane-d4	88.7	%	70-130	1	03/21/11 21:01	JC	5748377
Surr: 4-Bromofluorobenzene	94.6	%	74-125	1	03/21/11 21:01	JC	5748377
Surr: Toluene-d8	101	%	82-118	1	03/21/11 21:01	JC	5748377

Qualifiers:

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

ACCUTEST LABORATORIES

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

Client Sample ID MW-3 **Collected:** 03/16/2011 18:05 **SPL Sample ID:** 11030463-03

Site: Aztec, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6010B, DISSOLVED			**MCL**	**SW6010B**	**Units: mg/L**		
Manganese	0.0424		0.005	1	03/25/11 19:09	EG	5752218

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3005A	03/18/2011 10:15	M_W	1.00

VOLATILE ORGANICS BY METHOD 8260B				MCL	SW8260B	Units: ug/L	
Benzene	ND		1	1	03/21/11 21:30	JC	5748378
Ethylbenzene	ND		1	1	03/21/11 21:30	JC	5748378
Toluene	ND		1	1	03/21/11 21:30	JC	5748378
m,p-Xylene	ND		2	1	03/21/11 21:30	JC	5748378
o-Xylene	ND		1	1	03/21/11 21:30	JC	5748378
Xylenes,Total	ND		1	1	03/21/11 21:30	JC	5748378
Surr: 1,2-Dichloroethane-d4	83.3	%	70-130	1	03/21/11 21:30	JC	5748378
Surr: 4-Bromofluorobenzene	94.6	%	74-125	1	03/21/11 21:30	JC	5748378
Surr: Toluene-d8	99.6	%	82-118	1	03/21/11 21:30	JC	5748378

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

ACCUTEST LABORATORIES

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

Client Sample ID MW-4 **Collected:** 03/16/2011 18:20 **SPL Sample ID:** 11030463-04

Site: Aztec, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6010B, DISSOLVED			**MCL**	**SW6010B**	**Units: mg/L**		
Manganese	ND		0.005	1	03/25/11 19:15	EG	5752219

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3005A	03/18/2011 10:15	M_W	1.00

VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**	**Units: ug/L**		
Benzene	ND		1	1	03/21/11 21:59	JC	5748379
Ethylbenzene	ND		1	1	03/21/11 21:59	JC	5748379
Toluene	ND		1	1	03/21/11 21:59	JC	5748379
m,p-Xylene	ND		2	1	03/21/11 21:59	JC	5748379
o-Xylene	ND		1	1	03/21/11 21:59	JC	5748379
Xylenes,Total	ND		1	1	03/21/11 21:59	JC	5748379
Surr: 1,2-Dichloroethane-d4	81.6	%	70-130	1	03/21/11 21:59	JC	5748379
Surr: 4-Bromofluorobenzene	93.1	%	74-125	1	03/21/11 21:59	JC	5748379
Surr: Toluene-d8	97.5	%	82-118	1	03/21/11 21:59	JC	5748379

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

ACCUTEST LABORATORIES

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

Client Sample ID Duplicate **Collected:** 03/16/2011 17:50 **SPL Sample ID:** 11030463-05

Site: Aztec, NM

Analyses/Method	Result	QUAL	Rep.Limit		Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B				**MCL**	**SW8260B**	**Units: ug/L**		
Benzene	ND		1		1	03/21/11 22:28	JC	5748380
Ethylbenzene	ND		1		1	03/21/11 22:28	JC	5748380
Toluene	ND		1		1	03/21/11 22:28	JC	5748380
m,p-Xylene	ND		2		1	03/21/11 22:28	JC	5748380
o-Xylene	ND		1		1	03/21/11 22:28	JC	5748380
Xylenes,Total	ND		1		1	03/21/11 22:28	JC	5748380
Surr: 1,2-Dichloroethane-d4	84.4		% 70-130		1	03/21/11 22:28	JC	5748380
Surr: 4-Bromofluorobenzene	95.3		% 74-125		1	03/21/11 22:28	JC	5748380
Surr: Toluene-d8	96.9		% 82-118		1	03/21/11 22:28	JC	5748380

Qualifiers:

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

ACCUTEST LABORATORIES

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

Client Sample ID Trip Blank **Collected:** 03/16/2011 21:30 **SPL Sample ID:** 11030463-06

Site: Aztec, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**	**Units: ug/L**		
Benzene	ND		1	1	03/21/11 22:57	JC	5748381
Ethylbenzene	ND		1	1	03/21/11 22:57	JC	5748381
Toluene	ND		1	1	03/21/11 22:57	JC	5748381
m,p-Xylene	ND		2	1	03/21/11 22:57	JC	5748381
o-Xylene	ND		1	1	03/21/11 22:57	JC	5748381
Xylenes,Total	ND		1	1	03/21/11 22:57	JC	5748381
Surr: 1,2-Dichloroethane-d4	82.3		% 70-130	1	03/21/11 22:57	JC	5748381
Surr: 4-Bromofluorobenzene	96.4		% 74-125	1	03/21/11 22:57	JC	5748381
Surr: Toluene-d8	99.2		% 82-118	1	03/21/11 22:57	JC	5748381

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

Quality Control Documentation

ACCUTEST LABORATORIES

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

Quality Control Report

Conoco Phillips

COP Faye Burdette No. 1

Analysis: Metals by Method 6010B, Dissolved
Method: SW6010B
WorkOrder: 11030463
Lab Batch ID: 105539

Method Blank

RunID: ICP2_110325A-5752201 Units: mg/L
Analysis Date: 03/25/2011 17:25 Analyst: EG
Preparation Date: 03/18/2011 10:15 Prep By: M_ Method SW3005A

Analyte	Result	Rep Limit
Manganese	ND	0.005

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
11030463-01A	MW-1
11030463-02A	MW-2
11030463-03A	MW-3
11030463-04A	MW-4

Laboratory Control Sample (LCS)

RunID: ICP2_110325A-5752202 Units: mg/L
Analysis Date: 03/25/2011 17:31 Analyst: EG
Preparation Date: 03/18/2011 10:15 Prep By: M_ Method SW3005A

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Manganese	0.1000	0.1050	105.0	80	120

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

Sample Spiked: 11030446-02
RunID: ICP2_110325A-5752204 Units: mg/L
Analysis Date: 03/25/2011 17:43 Analyst: EG
Preparation Date: 03/18/2011 10:15 Prep By: M_ Method SW3005A

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Manganese	1.211	0.1	1.354	N/C	0.1	1.308	N/C	N/C	20	75	125

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

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

3/28/2011 3:49:39 PM

ACCUTEST LABORATORIES

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

Quality Control Report

Conoco Phillips

COP Faye Burdette No. 1

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 11030463
Lab Batch ID: R317340

Method Blank

RunID: Q_110321A-5748366 Units: ug/L
Analysis Date: 03/21/2011 16:12 Analyst: JC

Analyte	Result	Rep Limit
Benzene	ND	1.0
Ethylbenzene	ND	1.0
Toluene	ND	1.0
m,p-Xylene	ND	2.0
o-Xylene	ND	1.0
Xylenes,Total	ND	1.0
Surr: 1,2-Dichloroethane-d4	103.3	70-130
Surr: 4-Bromofluorobenzene	91.3	74-125
Surr: Toluene-d8	99.8	82-118

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
11030463-01B	MW-1
11030463-02B	MW-2
11030463-03B	MW-3
11030463-04B	MW-4
11030463-05B	Duplicate
11030463-06B	Trip Blank

Laboratory Control Sample (LCS)

RunID: Q_110321A-5748365 Units: ug/L
Analysis Date: 03/21/2011 15:43 Analyst: JC

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	20.0	17.2	86.1	74	123
Ethylbenzene	20.0	20.9	105	72	127
Toluene	20.0	21.2	106	74	126
m,p-Xylene	40.0	42.2	105	71	129
o-Xylene	20.0	20.7	103	74	130
Xylenes,Total	60.0	62.9	105	71	130
Surr: 1,2-Dichloroethane-d4	50.0	38.6	77.2	70	130
Surr: 4-Bromofluorobenzene	50.0	47	94.1	74	125
Surr: Toluene-d8	50.0	48	96.1	82	118

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

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

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

3/28/2011 3:49:39 PM

ACCUTEST LABORATORIES

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

Quality Control Report

Conoco Phillips

COP Faye Burdette No. 1

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 11030463
Lab Batch ID: R317340

Sample Spiked: 11030462-01
RunID: Q_110321A-5748369 Units: ug/L
Analysis Date: 03/21/2011 17:10 Analyst: JC

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Benzene	ND	20	19.4	97.0	20	18.7	93.4	3.77	22	70	124
Ethylbenzene	ND	20	21.4	107	20	21.6	108	0.795	20	76	122
Toluene	ND	20	21.8	109	20	21.0	105	3.57	24	80	117
m,p-Xylene	ND	40	43.4	108	40	43.9	110	1.13	20	69	127
o-Xylene	ND	20	21.1	105	20	21.0	105	0.247	20	84	114
Xylenes,Total	ND	60	64.5	107	60	64.9	108	0.682	20	69	127
Surr: 1,2-Dichloroethane-d4	ND	50	43	86.0	50	36.7	73.5	15.7	30	70	130
Surr: 4-Bromofluorobenzene	ND	50	46.4	92.8	50	47.6	95.2	2.57	30	74	125
Surr: Toluene-d8	ND	50	48.5	96.9	50	49.3	98.5	1.64	30	82	118

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

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

3/28/2011 3:49:39 PM

Sample Receipt Checklist

And

Chain of Custody

ACCUTEST®
LABORATORIES

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

Sample Receipt Checklist

Workorder:	11030463	Received By:	NB
Date and Time Received:	3/18/2011 9:06:00 AM	Carrier name:	Fedex-Standard Overnight
Temperature:	2.0/2.0°C	Chilled by:	Water Ice

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

*VOA Preservation Checked After Sample Analysis

SPL Representative: _____ Contact Date & Time: _____

Client Name Contacted: _____

Non Conformance Issues: _____

Client Instructions: _____

SPL, Inc.
Analysis Request & Chain of Custody Record

SPL Workorder No.: 302866
1103046 3 page 1 of 1

Client Name: Tetratech
Address: 6121 Indian School Rd NE Ste 200
City: Albuquerque State: NM Zip: 87110
Phone/Fax: 505.237.8440
Client Contact: Kelly Blanchard Email: kelly.blanchard@tetratech.com
Project Name/No.: Faye Burdette No. 1
Site Name:
Site Location: Aztec, NM
Invoice To: Ph:

SAMPLE ID	DATE	TIME	comp	grab	matrix (W=water S=soil O=oil A=air SL=sludge E=solid X=other)	bottle (P=plastic A=amber glass G=glass V=vial X=other)	size (1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other)	pres. (1=HCl 2=HNO3 3=H2SO4 X=other)	Number of Containers	Requested Analysis: BTEX	Requested Analysis: dissolved Mn
MW-1	3.16.11	1745		X	W	P	16	Na	1		X
MW-1	3.16.11	1745		X	W	V	40	1	3	X	
MW-2	3.16.11	1755		X	W	P	16	Na	1		X
MW-2	3.16.11	1756		X	W	V	40	1	3	X	
MW-3	3.16.11	1805		X	W	P	16	Na	1		X
MW-3	3.16.11	1805		X	W	V	40	1	3	X	
MW-4	3.16.11	1820		X	W	P	16	Na	1		X
MW-4	3.16.11	1820		X	W	V	40	1	3	X	
duplicate	3.16.11	1760		X	W	V	40	1	3	X	
trip blank	3.16.11	2130		X	W	V	40	1	2	X	

NO HT HOLDS

Client/Consultant Remarks: Please filter & preserve at use lab

Laboratory remarks:

Intact? ☐ Y ☐ N
Ice? ☐ Y ☐ N
Temp:

Requested TAT
☐ 1 Business Day ☐ Contract
☐ 2 Business Days ☒ Standard
☐ 3 Business Days
☐ Other
Rush TAT requires prior notice

Special Reporting Requirements Results: Fax ☐ Email ☒ PDF ☒
Standard QC ☒ Level 3 QC ☐ Level 4 QC ☐ TX TRRP ☐ LA RECAP ☐

Special Detection Limits (specify):

PM review (initial):

	date	time		date	time
1. Relinquished by Sampler:	3.17.11	0730	2. Received by:		
3. Relinquished by:			4. Received by:		
5. Relinquished by:	3/18/11	0906	6. Received by Laboratory:		

☒ 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