3R - 084

Q4 2008 GWMR

06/01/2010

3R084

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

TETRA TECH, INC.

June 1, 2010

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

RE: Farmington B-COM No. 1E, Farmington, New Mexico. 2008 Quarterly Groundwater Monitoring Report - Fourth Quarter 2008

Dear Mr. von Gonten:

Enclosed please find one (1) copy of each of the above-referenced documents as compiled by Tetra Tech, Inc., formerly Maxim Technologies, for this Farmington area site. This report supersedes any previously submitted reports for this quarter at this 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)

QUARTERLY GROUNDWATER MONITORING REPORT JANUARY 2009 SAMPLING EVENT

FARMINGTON B COM NO.1E GAS WELL PRODUCTION SITE FARMINGTON, SAN JUAN COUNTY, NEW MEXICO

OCD # 3R0084

API # 30-045-24774

Prepared for:

ConocoPhillips

420 South Keeler Avenue
Bartlesville, OK 74004

Prepared by:

TETRA TECH, INC.

6121 Indian School Rd. NE Suite 200
Albuquerque, NM 87110
Tetra Tech Project No. 8690096.100

June 2010

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1.0 INTRODUCTION

This report presents the results of quarterly groundwater monitoring completed by Tetra Tech, Inc. (Tetra Tech) on January 21, 2009, at the ConocoPhillips Farmington B Com No. 1E remediation site in Farmington, New Mexico (Site). This sampling event represents the fourth quarter of groundwater monitoring for 2008.

The Site is located on private property in southeast Farmington, New Mexico, near the corner of East Murray Drive and South Carlton Avenue. The Site consists of a former gas production well and associated equipment and installations. The location and general features of the Site are shown on **Figures 1** and **2**, respectively. A generalized cross section is included as **Figure 3**.

1.1 Site History

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

Conoco Inc., predecessor to ConocoPhillips Company, owned the property and operated the gas well between July 1991 and January 1997. Merrion Oil & Gas Company is the current property owner and well operator. A Phase II Environmental Site Assessment associated with the property transfer was conducted by On Site Technologies, Limited (On Site) in March 1997. Soil hydrocarbon impacts were confirmed north of a production storage tank and west of a separator/dehydrator pit (**Figure 2**). Impacts were described by On Site as limited to a former unlined pit area with hydrocarbon migration primarily occurring vertically through the soil profile due to the porous and permeable subsurface soils; lateral migration was considered minimal (On Site, 1997). Soil excavation of the two impacted areas occurred in September 1997. A total of 906 cubic yards of impacted soil were removed from two excavation areas. Of the 906 cubic yards, 328 were transported offsite and 578 were screened and placed back into the excavated areas along with clean fill. During backfill activities, approximately 10 gallons of liquid fertilizer was sprayed into both excavations to enhance insitu degradation of residual hydrocarbons (On Site, 1997).

Groundwater Monitor Wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 were installed at the Site in February and August 1998 under the supervision of On Site. During 1998 and 1999, results from groundwater samples collected from MW-2 through MW-6 did not have BTEX concentrations in excess of New Mexico Water Quality Control Commission (NMWQCC) groundwater quality standards. On Site then requested that groundwater quality monitoring in monitor wells MW-2 through MW-6 be discontinued. The request was approved by the New Mexico Energy, Minerals, and Natural Resources Department (NMEMNRD) in a letter to Ms. Shirley Ebert of Conoco Inc. (NMEMNRD, 2000).

Although Monitor Wells MW-2 through MW-6 showed no hydrocarbon impacts during 1998 and 1999, light non-aqueous phase liquid (LNAPL) has been present in MW-1 since its installation and recovery has been ongoing. Souder Miller and Associates (Souder Miller) placed active and passive skimmers in MW-1 in May 2004. The passive skimmer collected a small amount of LNAPL; the active skimmer did not collect any LNAPL. Souder Miller determined that an active skimmer was not a viable method of LNAPL recovery in MW-1 and proposed passive skimming or periodic hand bailing for recovery.

Tetra Tech began groundwater quality monitoring at the site in May 2005. Tetra Tech monitors MW-6 in addition to MW-1 since it is down-gradient to MW-1. Most recently, groundwater quality monitoring took place on January 21, 2009. Groundwater elevation measurements were collected from MW-1, MW-2, MW-3, MW-4, MW-5 and MW-6. Groundwater samples collected from Monitor Well MW-6 were shipped to Southern Petroleum Laboratories in Houston, Texas to be analyzed for the presence of BTEX and dissolved iron. LNAPL was encountered in groundwater Monitor Well MW-1, and no sample was collected.

2.0 METHODOLOGY AND RESULTS

2.1 Groundwater Monitoring Methodology

Groundwater Elevation Measurements

On January 21, 2009, groundwater elevation measurements were recorded in Monitor Wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 using a dual interface probe. Groundwater elevations are detailed in **Table 2**. A groundwater elevation contour map is presented as **Figure 4.** Based on January 2009 monitoring event data, groundwater flow is to the west and is consistent with historic records at this site. The Animas River is approximately ¾ miles west of the Site and flows west.

Groundwater sampling

Monitor Well MW-6 was sampled during this event to initiate the fourth round of consecutive quarterly groundwater monitoring conducted by Tetra Tech at the site. No groundwater quality sample was collected in MW-1 due to the presence of LNAPL in the water column. Approximately three well volumes were purged from each monitor well with dedicated polyethylene 1.5-inch disposable bailers. The purge water was placed in a 55-gallon steel drum for storage until disposal at a ConocoPhillips approved facility. The groundwater samples were placed in laboratory prepared bottles, packed on ice, and shipped under chain of custody documentation to Southern Petroleum Laboratories located in Houston, Texas. The samples were analyzed for the presence of BTEX by Environmental Protection Agency (EPA) Method 8260B and ferrous iron by Standard Method (SM) 18, 3500-D. Groundwater sampling field forms are presented in **Appendix A**.

2.2 Groundwater Sampling Analytical Results

During the January 2009 quarterly sampling event, nitrate, orthophosphate, and BTEX constituents were not found above their respective laboratory detection limits in the groundwater quality sample collected from monitor well MW-6. Sulfate was detected at 31.1 milligrams per liter (mg/L), while the New Mexico Water Quality Control Commission (NMWQCC) groundwater quality standard for sulfate is 600 mg/L. **Table 2** presents the laboratory analytical results. The laboratory analytical reports are

included as **Appendix B**, and a BTEX concentration map is included as **Figure 5.** The Souder Miller historical analytical data is attached as **Appendix C**.

3.0 CONCLUSIONS

Groundwater analytical results for Monitor Well MW-6 continue to show BTEX concentrations below NMWQCC groundwater quality standards, while ferrous iron continues to be found in concentrations above NMWQCC groundwater quality standards. LNAPL was found in MW-1 for the first time during sampling events since January 2004; but a LNAPL sheen was intermittently detectable during quarterly groundwater pumping events from 2005 into 2008. Tetra Tech will continue quarterly monitoring of groundwater in MW-1 and will continue to check for the presence of LNAPL in MW-1. The first quarter of monitoring for 2009 is scheduled for March of 2009.

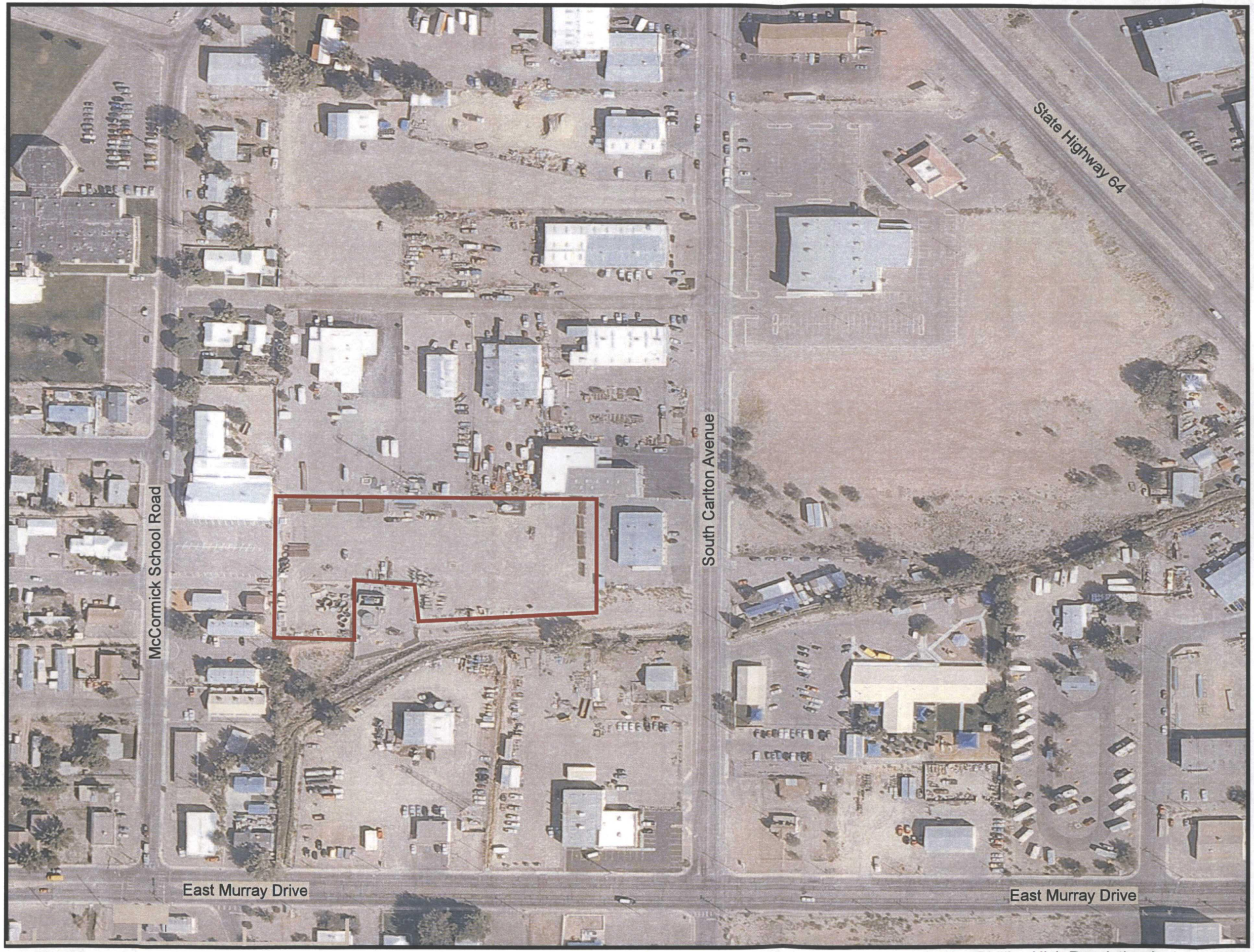
4.0 REFERENCES

New Mexico Energy, Minerals, and Natural Resources Department. (2000). *Re: Farmington B Com #1E Well Site.* Letter to Ms. Shirley Ebert, Conoco, Inc. December 13, 2000.

On-Site Technologies, Ltd. (1997). *Annual Summary, Pit Closures and Groundwater Impact Updates, State of New Mexico, 1996.* Prepared for Conoco Inc., Midland Division. Report dated April 22, 1997. 21 pp.

On-Site Technologies, Ltd. (1997). *Re: Remediation Summary Farmington B Com #1E.* . Letter Attn: Mr. Neal Goates, Senior Environmental Specialist, Conoco, Inc. November 26, 1997.

FIGURES



ConocoPhillips High Resolution Aerial imagery

FIGURE 1.

Site Location Map
Farmington
B Com No.1E
Farmington, NM

ConocoPhillips
Company B Com #1E
Site Location

Feet
0 150 300

Section 15, T29N, R13W
San Juan County, NM

N

TETRA TECH, INC.

FIGURE 2:
SITE LAYOUT MAP

FARMINGTON
B COM NO. 1E
Section 15, T29N, R13W
San Juan County, NM

LEGEND

- WELLHEAD
- MONITORING WELL
- FENCE
- FORMER SEPARATOR/DEHYDRATOR
- FORMER SEPARATOR/DEHYDRATOR PIT
- EXISTING MERRION OIL EQUIPMENT
- FORMER PIT EXCAVATION

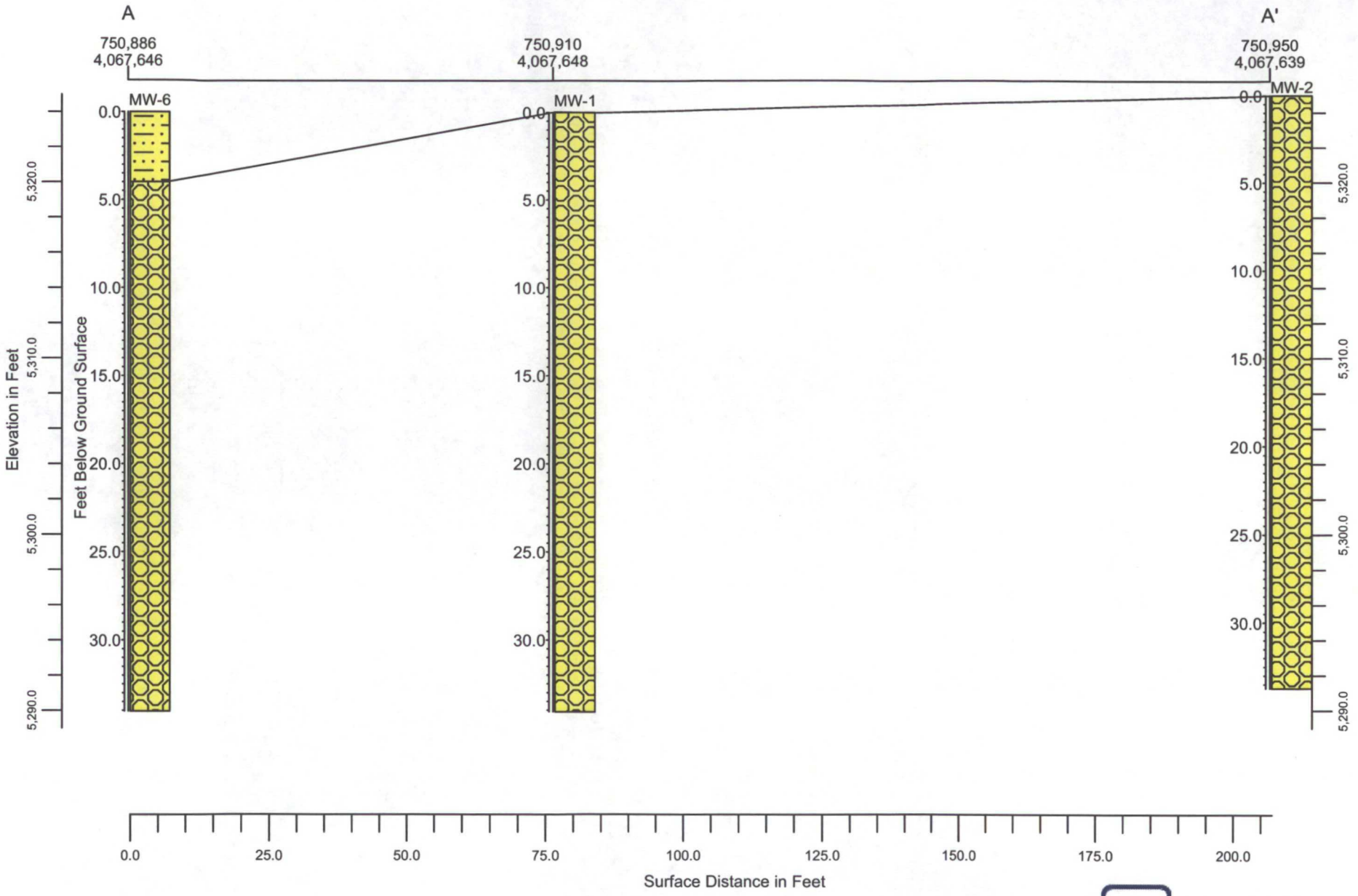
0 40 80
FEET

N

TETRA TECH, INC.

Figure 3.

B Com No. 1E - Cross-Section A-A'



5/24/2010

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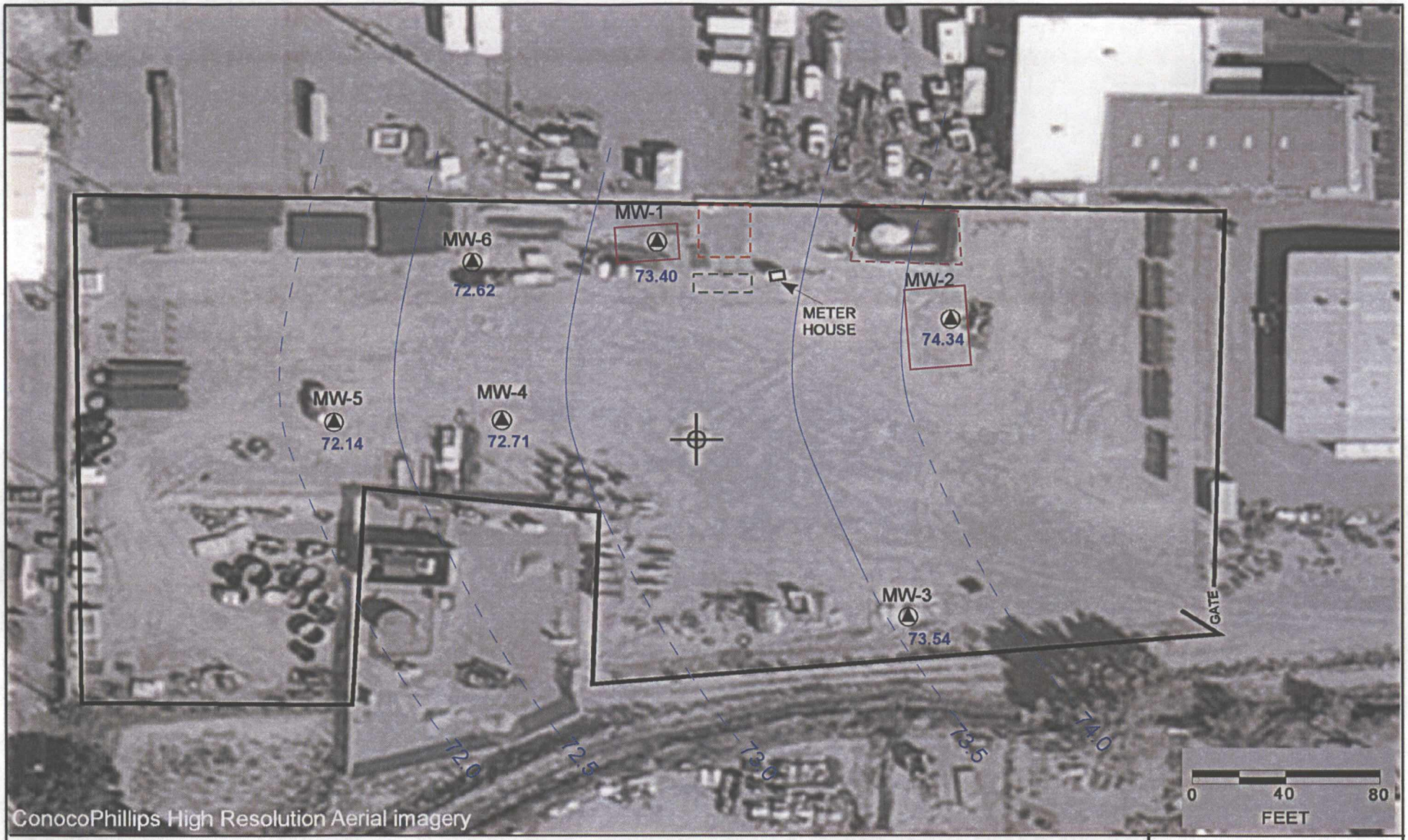

FIGURE 4:
GROUNDWATER ELEVATION CONTOUR MAP
01/21/2009
FARMINGTON B COM NO. 1E
Section 15, T29N, R13W
San Juan County, NM

LEGEND

- WELLHEAD
- MONITORING WELL
- FENCE
- GW CONTOUR LINE
- INFERRED GW CONTOUR LINE
- FORMER SEPARATOR/DEHYDRATOR
- FORMER SEPARATOR/DEHYDRATOR PIT
- EXISTING MERRION OIL PRODUCED WATER AND CONDENSATE TANKS
- FORMER PIT EXCAVATION

N

TETRA TECH, INC.

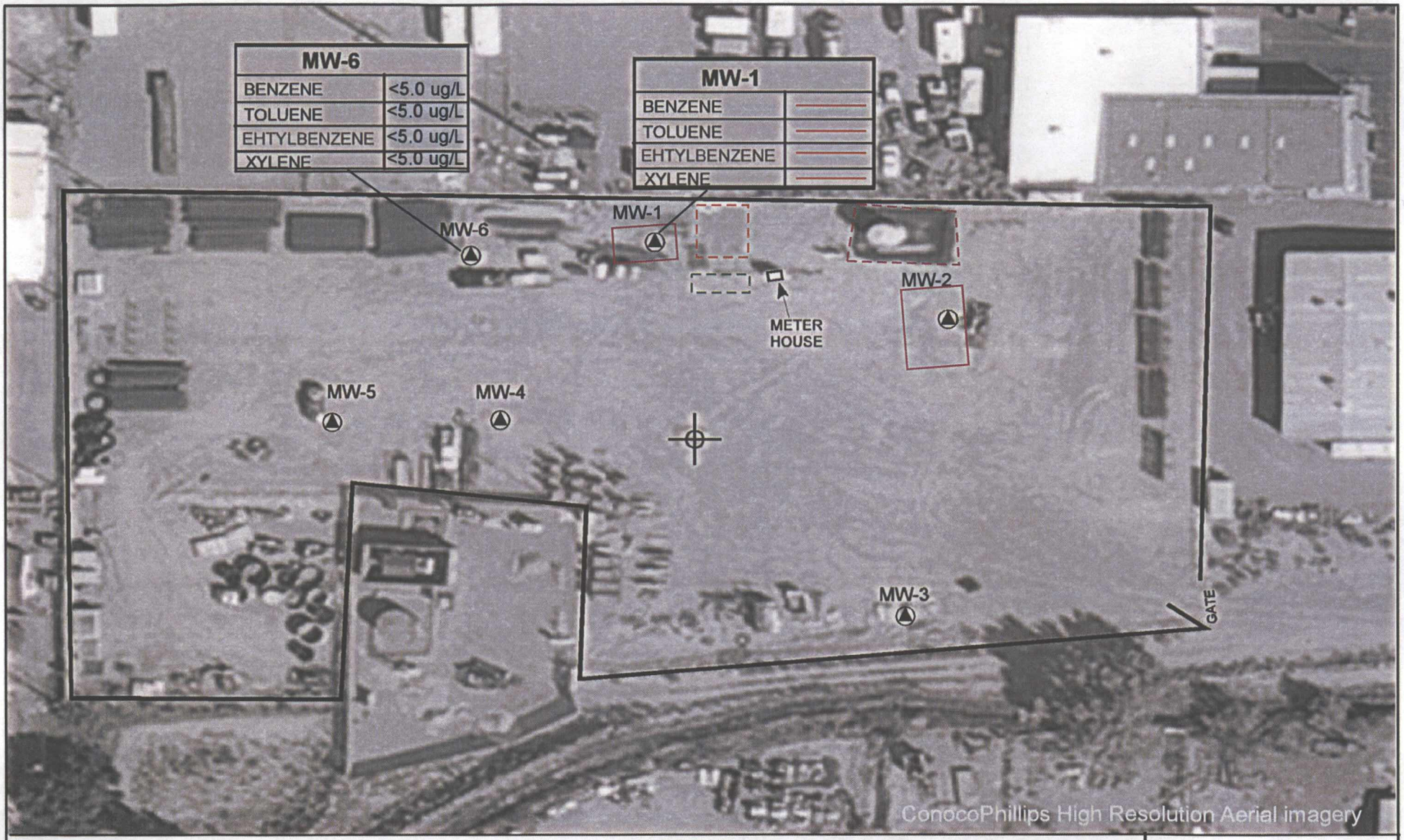

FIGURE 5:
BTEX CONCENTRATION MAP
01/21/2009
FARMINGTON
B COM NO. 1E
Section 15, T29N, R13W
San Juan County, NM

LEGEND

- WELLHEAD
- MONITORING WELL
- FENCE
- FORMER SEPARATOR/DEHYDRATOR
- FORMER SEPARATOR/DEHYDRATOR PIT
- EXISTING MERRION OIL PRODUCED WATER AND CONDENSATE TANKS
- FORMER PIT EXCAVATION
- DATA NOT AVAILABLE - LNAPL IN WELL

0 40 80
FEET

N

TETRA TECH, INC.

TABLES

Table 1. Site History Timeline - Farmington B Com No. 1E

Date/Time Period	Event/Action	Description
February 18, 1982	Well Completed	Pioneer Production Corp. completed the Farmington B-COM No. 1E gas production well
July 1, 1991	Conoco Inc. well purchase	Conoco Inc. purchases wellsite from Mesa Operating Limited Partnership of Amarillo, Texas
January 1, 1997	Change of ownership	Conoco Inc. sold the property and mineral lease to Merrion Oil & Gas Co.
March, 1997	Site Assessment	Phase II Environmental Site Assessment is conducted by On Site Technologies.Three test holes advanced with Auger refusal encountered at 7 feet below ground surface (bgs) due to gravel and cobbles. No samples collected. On Site Technologies later excavates four additional test holes ranging in depth from 14 to 19 feet bgs. Soil samples are collected from each excavation. TPH and BTEX contamination is found in the vicinity of a former unlined pit.
September, 1997	Soil Excavation	On Site Technologies oversees soil excavation of two pits. 906 cubic yards of impacted soil were removed; of which 328 were disposed of offsite and 578 cubic yards were placed back in the pits along with clean fill. Approximately 10 gallons of liquid fertilizer was sprayed into each pit during backfill.
February and August 1998	Monitor Well Installation	Six monitor wells (MW-1 through MW-6) installed at the site under the supervision of On Site.
October 29, 2004	Groundwater Removal from Monitor Well MW-1	First removal of groundwater - 160 gallons removed by vacuum truck operated by Riley Industrial Services of Farmington, NM
November 1, 2004	Groundwater Removal from Monitor Well MW-1	40 gallons removed by vacuum truck operated by Riley Industrial Services of Farmington, NM
December 3, 2004	Groundwater Removal from Monitor Well MW-1	150 gallons removed by vacuum truck operated by Riley Industrial Services of Farmington, NM
May 9th and 10th, 2005	Monitor Well Sampling	Tetra Tech begins quarterly monitoring at the site. Groundwater samples collected from monitor wells MW-1 and MW-6. A sheen is noted in MW-1; an oil absorbant sock is placed in the well.
July 6, 2005	Groundwater Removal from Monitor Well MW-1	138 gallons removed by vacuum truck operated by Riley Industrial Services of Farmington, NM
October 19, 2005	Groundwater Removal from Monitor Well MW-1 and Monitor Well Sampling	Groundwater samples collected from monitor wells MW-1 and MW-6. 186 gallons removed from MW-1; a sheen is observed in purge water and oil absorbant sock is replaced.
February 16, 2006	Groundwater Removal from Monitor Well MW-1	144 gallons removed by vacuum truck operated by Riley Industrial Services of Farmington, NM
May 15, 2006		152 gallons removed by vacuum truck operated by Riley Industrial Services of Farmington, NM
August 2, 2006		457 gallons removed by vacuum truck operated by Riley Industrial Services of Farmington, NM
November 14, 2006		423 gallons removed by vacuum truck operated by Riley Industrial Services of Farmington, NM
November 14, 2006	Monitor Well Sampling	Third sampling of monitor wells MW-1 and MW-6 conducted by Tetra Tech
February 20, 2007	Groundwater Removal from Monitor Well MW-1	220 gallons removed vacuum truck operated by Riley Industrial Services of Farmington, NM
May 15, 2007		364 gallons removed by vacuum truck operated by Riley Industrial Services of Farmington, NM
August 21, 2007		684 gallons removed by vacuum truck operated by Riley Industrial Services of Farmington, NM
November 7, 2007		651 gallons removed by vacuum truck operated by Riley Industrial Services of Farmington, NM
November 7, 2007	Monitor Well Sampling	Fourth sampling of monitor wells MW-1 and MW-6 conducted by Tetra Tech
January 16, 2008	Groundwater Removal from Monitor Well MW-1	149 gallons removed by vacuum truck operated by Riley Industrial Services of Farmington, NM
March 18, 2008	Groundwater Removal from Monitor Well MW-1	93 gallons removed by vacuum truck operated by Riley Industrial Services of Farmington, NM

Table 1. Site History Timeline - Farmington B Com No. 1E

Date/Time Period	Event/Action	Description
July 24, 2008	Monitor Well Sampling	Initiation of quarterly sampling for monitor wells MW-1and MW-6
October 22, 2008	Monitor Well Sampling	Continuation of quarterly sampling for monitor wells MW-1 and MW-6
January 21, 2009	Monitor Well Sampling	Continuation of quarterly sampling for monitor wells MW-1 and MW-6. Free product found in MW-1; oil absorbent sock placed in the well.

Table 2. Farmington B Com #1E
Groundwater Elevation Summary

Well ID	Total Depth (ft. bgs)	Screen Interval (ft)	*Elevation (ft.) (TOC)	Date Measured	Depth to Water (ft. below TOC)	Depth to Product (ft. below TOC)**	Relative Groundwater Elevation (ft TOC)
MW-1	34.09	19.09 - 34.09	101.37	5/9/2005	28.30	Sheen	73.07
				7/6/2005	26.50	NA	74.87
				10/19/2005	25.12	Sheen	76.25
				2/16/2006	28.23	NA	73.14
				5/15/2006	27.02	NA	74.35
				8/2/2006	24.37	NA	77.00
				11/14/2006	26.48	Sheen	74.89
				2/20/2007	29.03	Sheen	72.34
				5/15/2007	26.97	NA	74.40
				8/21/2007	25.20	Sheen	76.17
				11/7/2007	26.30	26.1	75.07
				1/16/2008	29.24	27.88	72.13
				3/18/2008	29.27	29.27	72.10
				7/24/2008	25.73	Sheen	75.64
				10/22/2008	25.35	Sheen	76.02
				1/21/2009	28.25	27.90	73.12
MW-2	33.72	18.72 - 33.72	101.57	5/9/2005	27.28	NA	74.29
				7/6/2005	25.52	NA	76.05
				10/19/2005	24.30	NA	77.27
				2/16/2006	27.38	NA	74.19
				5/15/2006	25.62	NA	75.95
				8/2/2006	23.51	NA	78.06
				11/14/2006	26.08	NA	75.49
				2/20/2007	28.13	NA	73.44
				5/15/2007	25.86	NA	75.71
				8/21/2007	24.45	NA	77.12
				11/7/2007	25.31	NA	76.26
				1/16/2008	27.27	NA	74.30
				3/18/2008	28.68	NA	72.89
				7/24/2008	24.77	NA	76.80
				10/22/2008	24.55	NA	77.02
				1/21/2009	27.23	NA	74.34

Table 2. Farmington B Com #1E
Groundwater Elevation Summary

Well ID	Total Depth (ft. bgs)	Screen Interval (ft)	*Elevation (ft.) (TOC)	Date Measured	Depth to Water (ft. below TOC)	Depth to Product (ft. below TOC)**	Relative Groundwater Elevation (ft TOC)
MW-3	32.44	17.44 - 32.44	102.1	5/9/2005	27.81	NA	74.29
				7/6/2005	26.03	NA	76.07
				10/19/2005	25.06	NA	77.04
				2/16/2006	28.57	NA	73.53
				5/15/2006	26.15	NA	75.95
				8/2/2006	23.83	NA	78.27
				11/14/2006	26.75	NA	75.35
				2/20/2007	29.31	NA	72.79
				5/15/2007	26.23	NA	75.87
				8/21/2007	25.00	NA	77.10
				11/7/2007	26.12	NA	75.98
				1/16/2008	28.46	NA	73.64
				3/18/2008	29.97	NA	72.13
				7/24/2008	25.27	NA	76.83
				10/22/2008	25.35	NA	76.75
				1/21/2009	28.56	NA	73.54
MW-4	32.72	17.72 - 32.72	101.4	5/9/2005	28.73	NA	72.67
				7/6/2005	26.66	NA	74.74
				10/19/2005	25.62	NA	75.78
				2/16/2006	28.91	NA	72.49
				5/15/2006	26.86	NA	74.54
				8/2/2006	24.59	NA	76.81
				11/14/2006	27.02	NA	74.38
				2/20/2007	29.61	NA	71.79
				5/15/2007	27.25	NA	74.15
				8/21/2007	25.56	NA	75.84
				11/7/2007	26.50	NA	74.90
				1/16/2008	28.55	NA	72.85
				3/18/2008	29.99	NA	71.41
				7/24/2008	26.02	NA	75.38
				10/22/2008	25.84	NA	75.56
				1/21/2009	28.69	NA	72.71

Table 2. Farmington B Com #1E
Groundwater Elevation Summary

Well ID	Total Depth (ft. bgs)	Screen Interval (ft)	*Elevation (ft.) (TOC)	Date Measured	Depth to Water (ft. below TOC)	Depth to Product (ft. below TOC)**	Relative Groundwater Elevation (ft TOC)
MW-5	34.09	19.09 - 34.09	100.52	5/9/2005	28.50	NA	72.02
				7/6/2005	26.32	NA	74.20
				10/19/2005	25.30	NA	75.22
				2/16/2006	28.62	NA	71.90
				5/15/2006	26.55	NA	73.97
				8/2/2006	24.23	NA	76.29
				11/14/2006	27.67	NA	72.85
				2/20/2007	29.34	NA	71.18
				5/15/2007	27.04	NA	73.48
				8/21/2007	25.21	NA	75.31
				11/7/2007	26.13	NA	74.39
				1/16/2008	28.18	NA	72.34
				3/18/2008	29.65	NA	70.87
				7/24/2008	25.73	NA	74.79
				10/22/2008	25.49	NA	75.03
				1/21/2009	28.38	NA	72.14
MW-6	34.02	19.02 - 34.02	102.14	5/9/2005	29.94	NA	72.20
				7/6/2005	27.89	NA	74.25
				10/19/2005	26.70	NA	75.44
				2/16/2006	29.85	NA	72.29
				5/15/2006	28.11	NA	74.03
				8/2/2006	25.83	NA	76.31
				11/14/2006	27.91	NA	74.23
				2/20/2007	30.52	NA	71.62
				5/15/2007	28.61	NA	73.53
				8/21/2007	26.67	NA	75.47
				11/7/2007	27.52	NA	74.62
				1/16/2008	29.43	NA	72.71
				3/18/2008	30.85	NA	71.29
				7/24/2008	27.26	NA	74.88
				10/22/2008	26.85	NA	75.29
				1/21/2009	29.52	NA	72.62

ft. = Feet
TOC = Top of casing
bgs = below ground surface
* Relative Elevation
** Where non-aqueous phase liquid (NAPL) is present, depth to water equals the Top of Casing elevation minus the depth to water, plus the NAPL thickness multiplied by 0.79.
NA - not applicable or not measured.

Table 3. Farmington B Com No.1E Groundwater Laboratory Analytical Results Summary

Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Nitrate as N (mg/L)	Sulfate (mg/L)	Iron (mg/L)
MW-1	2/19/1998	**210**	34	370	**2,044**	NS	NS	NS
	6/12/1998	3" free product in bailer - not sampled						
	9/15/1998	free product - not sampled						
	12/29/1998	**350**	BDL	420	**2,800**	NS	NS	NS
	1/22/2004	free product - not sampled						
	5/9/2005	**17**	<0.7	74	250	<0.40	77.8	14.9*
	10/19/2005	**34**	<1.0	170	**1400**	0.15	39.9	15*
	11/14/2006	**18**	<0.7	190	**1600**	<0.015	145	8.8*
	11/7/2007	7	<0.7	120	250	<0.015	38.4	6.4*
	7/24/2008	<5.0	<5.0	90	35	<0.5	4.76	17.2*
	Duplicate	<5.0	<5.0	110	59	NS	NS	NS
	10/22/2008	<5.0	<5.0	88	165	<0.5	17	21.1*
	Duplicate	<5.0	<5.0	95	186	NS	NS	NS
	1/21/2009	free product - not sampled						
MW-6	9/15/1998	BDL	BDL	BDL	BDL	NS	NS	NS
	12/29/1998	BDL	BDL	BDL	BDL	NS	NS	NS
	3/3/1999	BDL	BDL	BDL	BDL	NS	NS	NS
	6/15/1999	BDL	BDL	BDL	BDL	NS	NS	NS
	9/15/1999	BDL	0.7	1.1	BDL	NS	NS	NS
	12/14/1999	BDL	1.8	0.7	1.9	NS	NS	NS
	1/22/2004	BDL	BDL	BDL	BDL	NS	NS	NS
	5/9/2005	<0.5	<0.7	<0.8	<0.8	<0.4	97	15.9*
	10/19/2005	<0.5	<0.7	<0.8	<0.8	5.4	52.6	1.4*
	11/14/2006	<0.5	<0.7	<0.8	1	<0.015	159	5.8*
	11/7/2007	<0.5	<0.7	<0.8	<0.8	<0.015	112	3*
	7/24/2008	<5.0	<5.0	<5.0	<5.0	<0.5	44.4	28.5*
	10/22/2008	<5.0	<5.0	<5.0	<5.0	<0.5	43.7	1.77*
	1/21/2009	<5.0	<5.0	<5.0	<5.0	<0.5	31.1	9.59*
NMWQCC Standards		**10 (µg/L)**	**750 (µg/L)**	**750 (µg/L)**	**620 (µg/L)**	**10 (mg/L)**	**600 (mg/L)**	**1 (mg/L)**

NMWQCC = New Mexico Water Quality Control Commission
mg/L = milligrams per liter (parts per million)
µg/L = micrograms per liter (parts per billion)
NE=Not Established
NS = not sampled

BDL = Below laboratory detection limits
<0.7 = Below laboratory detection limit of 0.7 µg/L
* = Results reported for total ferrous iron, not comparable to NMWQCC standard for dissolved iron

APPENDIX A
GROUNDWATER SAMPLING FIELD FORMS

WATER SAMPLING FIELD FORM

Project No. B-COM 1 of 2

Site Location

Site/Well No. MW 6 Coded/ Replicate No. Date 1-21-09

Weather Sunny, warm Time Sampling Began 1500 Time Sampling Completed 1530

EVACUATION DATA

Description of Measuring Pt (MP)

Height of MP Above/Below Land Surface 34.02 MP Elevation

Total Sounded Depth of Well Below MP 29.52 Water-Level Elevation

Held ____ Depth to Water Below MP ____ Diameter of Casing (2 inch) 4 inch

Wet ____ Water Column in Well 4.5 Gallons Pumped/Bailed Prior to Sampling 3 gallons

Gallons per Foot .16

Gallons in Well .72 Sampling Pump Intake (feet below land surface) ~~3 gallons~~

Purging Equipment X3 = 2.16 gallons

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature	pH	Conductivity	TDS	DO	DO%	ORP	Other

Sampling Equipment Low Flow Pump / Disposable Bailer

Constituents Sampled	Container Description	Preservative
BTEX	3 VOAs	HCl
Chloride	32oz Plastic	None
PAHs	32oz Amber	None

Remarks Parameters not collected, 3 volumes bailed

Sampling Personnel CMKB/prior to sampling

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

WATER SAMPLING FIELD FORM

Project No. B-Com 2 of 2

Site Location

Site/Well No. MW- 1 Coded/ Replicate No. Date 1-21-09

Weather Sunny, warm Time Sampling Began Time Sampling Completed Not Sampled * product in well

EVACUATION DATA

Description of Measuring Pt (MP)

Height of MP Above/Below Land Surface MP Elevation

Total Sounded Depth of Well Below MP 34.09 Water-Level Elevation

Held Depth to Water Below MP 28.25 Diameter of Casing (2 inch) 4 inch

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

Gallons per Foot

Gallons in Well Sampling Pump Intake (feet below land surface)

Purging Equipment

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature	pH	Conductivity	TDS	DO	DO%	ORP	Other

Sampling Equipment Low Flow Pump / Disposable Bailer

Constituents Sampled	Container Description	Preservative

Remarks Product found @ 27.9. Redish orange in color, leaves, yellow residue on bailer

Sampling Personnel

not sampling due to product

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

LABORATORY ANALYTICAL REPORT

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

Conoco Phillips

Certificate of Analysis Number:

09010813

Report To:		Project Name:	COP BCom #1E
Tetra Tech, Inc.		Site:	Farmington, NM
Kelly Blanchard		Site Address:	
6121 Indian School Road, N.E.			
Suite 200		PO Number:	4509596739
Albuquerque		State:	New Mexico
NM		State Cert. No.:	
87110-		Date Reported:	2/2/2009
ph: (505) 237-8440	fax:		

This Report Contains A Total Of 13 Pages

Excluding This Page, Chain Of Custody

And

Any Attachments

2/2/2009

Date

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

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

Case Narrative for:

Conoco Phillips

Certificate of Analysis Number:

09010813

Report To:		Project Name:	COP BCom #1E
Tetra Tech, Inc.		Site:	Farmington, NM
Kelly Blanchard		Site Address:	
6121 Indian School Road, N.E.			
Suite 200		PO Number:	4509596739
Albuquerque		State:	New Mexico
NM		State Cert. No.:	
87110-		Date Reported:	2/2/2009
ph: (505) 237-8440	fax:		

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.

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.

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

Erica Cardenas

2/2/2009

Erica Cardenas
Project Manager

Date

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

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

Conoco Phillips

Certificate of Analysis Number:

09010813

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 BCom #1E
Site: Farmington, NM
Site Address:

PO Number: 4509596739
State: New Mexico
State Cert. No.:
Date Reported: 2/2/2009

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
MW-6	09010813-01	Water	1/21/2009 3:30:00 PM	1/22/2009 10:00:00 AM		☐
Trip Blank	09010813-02	Water	1/21/2009 4:00:00 PM	1/22/2009 10:00:00 AM		☐

E. A. Cardenas

2/2/2009

Erica Cardenas
Project Manager

Date

Richard R. Reed
Laboratory Director

Ted Yen
Quality Assurance Officer

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

Client Sample ID: MW-6 **Collected:** 01/21/2009 15:30 **SPL Sample ID:** 09010813-01

Site: Farmington, NM

Analyses/Method	Result	QUAL	Rep.Limit		Dil. Factor	Date Analyzed	Analyst	Seq. #
ION CHROMATOGRAPHY				**MCL**		**E300.0**	**Units: mg/L**	
Nitrogen,Nitrite (As N)	ND		0.5		1	01/22/09 17:59	BDG	4880244
Ortho-phosphate (As P)	ND		0.5		1	01/22/09 17:42	BDG	4880262
Sulfate	31.1		1		2	01/28/09 18:03	BDG	4884543
IRON, FERROUS				**MCL**		**M3500-FE D**	**Units: mg/L**	
Iron, Ferrous	9.59		1		10	01/22/09 12:30	ESK	4883783
VOLATILE ORGANICS BY METHOD 8260B				**MCL**		**SW8260B**	**Units: ug/L**	
Benzene	ND		5		1	01/24/09 5:43	LT	4879081
Ethylbenzene	ND		5		1	01/24/09 5:43	LT	4879081
Toluene	ND		5		1	01/24/09 5:43	LT	4879081
m,p-Xylene	ND		5		1	01/24/09 5:43	LT	4879081
o-Xylene	ND		5		1	01/24/09 5:43	LT	4879081
Xylenes,Total	ND		5		1	01/24/09 5:43	LT	4879081
Surr: 1,2-Dichloroethane-d4	110		% 62-130		1	01/24/09 5:43	LT	4879081
Surr: 4-Bromofluorobenzene	96.0		% 70-130		1	01/24/09 5:43	LT	4879081
Surr: Toluene-d8	98.0		% 74-122		1	01/24/09 5:43	LT	4879081

Qualifiers:

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

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

Client Sample ID: Trip Blank **Collected:** 01/21/2009 16:00 **SPL Sample ID:** 09010813-02

Site: Farmington, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**	**Units: ug/L**		
Benzene	ND		5	1	01/24/09 5:15	LT	4879080
Ethylbenzene	ND		5	1	01/24/09 5:15	LT	4879080
Toluene	ND		5	1	01/24/09 5:15	LT	4879080
m,p-Xylene	ND		5	1	01/24/09 5:15	LT	4879080
o-Xylene	ND		5	1	01/24/09 5:15	LT	4879080
Xylenes,Total	ND		5	1	01/24/09 5:15	LT	4879080
Surr: 1,2-Dichloroethane-d4	104		% 62-130	1	01/24/09 5:15	LT	4879080
Surr: 4-Bromofluorobenzene	94.0		% 70-130	1	01/24/09 5:15	LT	4879080
Surr: Toluene-d8	98.0		% 74-122	1	01/24/09 5:15	LT	4879080

Qualifiers:

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

Quality Control Documentation

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

Quality Control Report

Conoco Phillips
COP BCom #1E

Analysis: Volatile Organics by Method 8260B
Method: SW8260B
WorkOrder: 09010813
Lab Batch ID: R263594

Method Blank

RunID: N_090123E-4879073 Units: ug/L
Analysis Date: 01/24/2009 1:59 Analyst: LT
Preparation Date: 01/24/2009 1:59 Prep By: Method

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09010813-01A	MW-6
09010813-02A	Trip Blank

Analyte	Result	Rep Limit
Benzene	ND	5.0
Ethylbenzene	ND	5.0
Toluene	ND	5.0
m,p-Xylene	ND	5.0
o-Xylene	ND	5.0
Xylenes,Total	ND	5.0
Surr: 1,2-Dichloroethane-d4	102.0	62-130
Surr: 4-Bromofluorobenzene	94.0	70-130
Surr: Toluene-d8	98.0	74-122

Laboratory Control Sample (LCS)

RunID: N_090123E-4879072 Units: ug/L
Analysis Date: 01/24/2009 1:03 Analyst: LT
Preparation Date: 01/24/2009 1:03 Prep By: Method

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	20.0	19.0	95.0	76	126
Ethylbenzene	20.0	18.0	90.0	67	122
Toluene	20.0	20.0	100	70	131
m,p-Xylene	40.0	37.0	92.5	72	150
o-Xylene	20.0	19.0	95.0	78	141
Xylenes,Total	60	56	93	72	150
Surr: 1,2-Dichloroethane-d4	50.0	49	98.0	62	130
Surr: 4-Bromofluorobenzene	50.0	51	102	70	130
Surr: Toluene-d8	50.0	49	98.0	74	122

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

Sample Spiked: 09010844-07
RunID: N_090123E-4879078 Units: mg/L
Analysis Date: 01/24/2009 4:19 Analyst: LT

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B/V - 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.

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

Quality Control Report

Conoco Phillips

COP BCom #1E

Analysis: Volatile Organics by Method 8260B **WorkOrder:** 09010813
Method: SW8260B **Lab Batch ID:** R263594

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	0.02	0.0190	95.0	0.02	0.0190	95.0	0	22	76	127
Ethylbenzene	ND	0.02	0.0180	90.0	0.02	0.0180	90.0	0	20	35	175
Toluene	ND	0.02	0.0200	100	0.02	0.0200	100	0	24	70	131
m,p-Xylene	ND	0.04	0.0360	90.0	0.04	0.0360	90.0	0	20	35	175
o-Xylene	ND	0.02	0.0190	95.0	0.02	0.0190	95.0	0	20	35	175
Xylenes,Total	ND	0.06	0.055	92	0.06	0.055	92	0	20	35	175
Surr: 1,2-Dichloroethane-d4	ND	50	46	92.0	50	48.0	96.0	4.26	30	62	130
Surr: 4-Bromofluorobenzene	ND	50	51	102	50	53.0	106	3.85	30	70	130
Surr: Toluene-d8	ND	50	48	96.0	50	50.0	100	4.08	30	74	122

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - 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.

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

Quality Control Report

Conoco Phillips

COP BCom #1E

Analysis: Ion Chromatography **WorkOrder:** 09010813
Method: E300.0 **Lab Batch ID:** R263650

Method Blank

RunID: IC1_090122A-4880239 Units: mg/L
Analysis Date: 01/22/2009 16:36 Analyst: BDG

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09010813-01C	MW-6

Analyte	Result	Rep Limit
Nitrogen,Nitrite (As N)	ND	0.50

Laboratory Control Sample (LCS)

RunID: IC1_090122A-4880240 Units: mg/L
Analysis Date: 01/22/2009 16:53 Analyst: BDG

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Nitrogen,Nitrite (As N)	10.00	10.52	105.2	90	110

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

Sample Spiked: 09010813-01
RunID: IC1_090122A-4880245 Units: mg/L
Analysis Date: 01/22/2009 18:15 Analyst: BDG

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Nitrogen,Nitrite (As N)	ND	10	10.83	108.3	10	10.34	103.4	4.640	20	80	120

Qualifiers:

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

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

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

Quality Control Report

Conoco Phillips

COP BCom #1E

Analysis: Ion Chromatography
Method: E300.0
WorkOrder: 09010813
Lab Batch ID: R263652

Method Blank

RunID: IC1_090122B-4880258 Units: mg/L
Analysis Date: 01/22/2009 16:36 Analyst: BDG

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09010813-01B	MW-6

Analyte	Result	Rep Limit
Ortho-phosphate (As P)	ND	0.50

Laboratory Control Sample (LCS)

RunID: IC1_090122B-4880259 Units: mg/L
Analysis Date: 01/22/2009 16:53 Analyst: BDG

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Ortho-phosphate (As P)	10.00	10.27	102.7	85	115

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

Sample Spiked: 09010813-01
RunID: IC1_090122B-4880263 Units: mg/L
Analysis Date: 01/22/2009 18:15 Analyst: BDG

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Ortho-phosphate (As P)	ND	10	10.39	103.9	10	10.06	100.6	3.219	20	80	120

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - 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.

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

Quality Control Report

Conoco Phillips

COP BCom #1E

Analysis: Iron, Ferrous
Method: M3500-Fe D

WorkOrder: 09010813
Lab Batch ID: R263873

Method Blank

RunID: WET_090122ZD-4883770 Units: mg/L
Analysis Date: 01/22/2009 12:30 Analyst: ESK

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09010813-01D	MW-6

Analyte	Result	Rep Limit
Iron, Ferrous	ND	0.10

Laboratory Control Sample (LCS)

RunID: WET_090122ZD-4883771 Units: mg/L
Analysis Date: 01/22/2009 12:30 Analyst: ESK

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Iron, Ferrous	2.000	1.991	99.53	85	115

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

Sample Spiked: 09010813-01
RunID: WET_090122ZD-4883786 Units: mg/L
Analysis Date: 01/22/2009 12:30 Analyst: ESK

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Iron, Ferrous	9.585	10	18.99	94.06	10	18.99	94.06	0	20	85	115

Qualifiers:

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

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

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

Quality Control Report

Conoco Phillips

COP BCom #1E

Analysis: Ion Chromatography **WorkOrder:** 09010813
Method: E300.0 **Lab Batch ID:** R263900

Method Blank

RunID: IC2_090128B-4884536 Units: mg/L
Analysis Date: 01/28/2009 14:33 Analyst: BDG

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09010813-01B	MW-6

Analyte	Result	Rep Limit
Sulfate	ND	0.50

Laboratory Control Sample (LCS)

RunID: IC2_090128B-4884537 Units: mg/L
Analysis Date: 01/28/2009 14:49 Analyst: BDG

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Sulfate	10.00	10.11	101.1	85	115

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

Sample Spiked: 09011040-02
RunID: IC2_090128B-4884541 Units: mg/L
Analysis Date: 01/28/2009 16:48 Analyst: BDG

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Sulfate	12.99	10	23.20	102.1	10	23.72	107.3	2.238	20	80	120

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - 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.

Sample Receipt Checklist

And

Chain of Custody

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

Sample Receipt Checklist

Workorder:	09010813	Received By:	RE
Date and Time Received:	1/22/2009 10:00:00 AM	Carrier name:	Fedex-Standard Overnight
Temperature:	2.5°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 ☑	
	1.Ferrous Iron is a field test and is received expired.			
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: 1.Continue with analysis per historicals.

Client Instructions: _____

Chain of Custody Record

Client: Tetra Tech/ Conoco Phillips

SPL Workorder Number: 0901081 3

Attention: Kelly Blanchard/Tetra Tech

Phone: 505-237-8440 | email: kelly.blanchard@tetratech.c

Address: 6121 Indian School Road, NE Ste. 200

City: Albuquerque | State: NM | Zip Code: 87110

Project Name: BCom #1 E

P.O. Number:

Sampled By: signature Christine Mathews

Sample ID	Collected Date	Collected Time	Sample Type Comp	Sample Type Grab	Matrix Water	Matrix Soil	Bottle Type	Preservative Type	# of Containers	Requested Analysis: 8260-BTEX	NO2,SO4	PO4 (SHORT HOLD)	Fe2 +2
~~MW-1~~ MW-6	1/21	1530		X	X		1	3	3	X			
MW-6	1/21	1530		X	X		6	1	1			X	
~~DUPLICATE~~ MW-6	1/21	1530		X	X		6	1	1		X		
MW-6	1/21	1530		X	X		7	3	1				X
Trip Blank	1/21	1600			X		1	3	2	X			

PUSH

Turnaround Time Requirements
24 hr( ) 48 hr( )
72 hr( ) 5 wday( )
10 wday - Standard( )

Remarks: Please analyze to the lowest limit possible

Intact? Y or N

Temperature: 2.5 C

Bottle Type: 1. 3/40ml Vials 2. 1L Glass 3. 1L Plastic 4. 1L Amber Glass 5. 8oz Plastic 6) 16oz Plas 7) 16oz Amber

Preservative Type: 1. NONE 2. HNO3 3. HCL 4. H2SO4

RUSH

	Date	Time	
Relinquished by: Sampler	1-21-09	1615	Received by:
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date 1/22/09	Time 0900	Received by SPL, Inc.

Page ___ of ___

APPENDIX C

HISTORICAL ANALYTICAL DATA

Table 2
BTEX Ground Water Analytical Summary
Farmington B Com 1E
Unit O, Sec. 15 T29N, R13W

Sample Date	Sample ID#	Monitor Well	Remarks	BTEX per EPA 8020 (ppb)			
				Benzene	Toluene	Ethylbenzene	Total-Xylene
2/19/98	9802020-01A	MW#1	On Site Lab.	210.0	34.0	370.0	2044.0
6/12/98	3" of free product	in the bailer					
9/15/98	Not Sampled	free product	in well				
12/29/98	9812053-04A			350.0	BDL	420	2800.0
No	Water	Samples	Taken	in	1999		
1/22/04	Not Sampled	free product	in well				
2/19/98	9802020-02A	MW#2	On Site Lab.	2.4	5.3	16.0	470.0
6/12/98	9806055-02A			0.8	2.7	32.0	171.0
9/15/98	9809035-01A			1.3	2.5	39.0	33.3
12/29/98	9812053-05A			BDL	0.6	2.1	35.0
3/3/99	9903012-05A			BDL	BDL	64	119.0
6/15/99	9906055-05A			BDL	BDL	BDL	BDL
9/15/99	9909054-05A			BDL	BDL	4.1	68.1
12/14/99	9912018-05A			BDL	BDL	1.8	36.4
1/22/04	0401011-004A		lina ba Lab	BDL	BDL	BDL	BDL
2/19/98	9802020-03A	MW#3	On Site Lab.	0.9	1.2	1.6	5.3
06/12/98	9806055-01A			BDL	BDL	0.5	2.0
9/15/98	9809035-02A			BDL	BDL	BDL	BDL
12/29/98	9812053-06A			BDL	BDL	BDL	BDL
3/3/99	9903012-04A			BDL	BDL	BDL	BDL
6/15/99	9906055-04A			BDL	0.9	3.1	56.0
9/15/99	9909054-04A			BDL	0.6	BDL	BDL
12/14/99	9912018-04A			BDL	BDL	BDL	BDL
1/22/04	0401011-002A		lina ba Lab	BDL	BDL	BDL	BDL
WQCC	Action	Levels		10.0	750.0	750.0	620.0

Table 2
BTEX Ground Water Analytical Summary
Farmington B Com 1E
Unit O, Sec. 15 T29N, R13W

Sample Date	Sample ID#	Monitor Well	Remarks	BTEX per EPA 8020 (ppb)			
9/15/98	9809035-03A	MW#4	On Site Lab.	BDL	BDL	BDL	BDL
12/29/98	9812053-03A			BDL	BDL	0.6	BDL
3/3/99	9903012-03A			BDL	BDL	BDL	BDL
6/15/99	9906055-03A			BDL	BDL	BDL	BDL
9/15/99	9909054-03A			BDL	BDL	BDL	BDL
12/14/99	9912018-03A			BDL	0.7	BDL	BDL
3/27/00	0003041-01A			BDL	BDL	BDL	BDL
6/5/00	0006009-02A			BDL	BDL	BDL	BDL
9/11/00	0009020*01A			BDL	BDL	BDL	BDL
1/22/04	0401011-003A		lina ba Lab	BDL	BDL	BDL	BDL
9/15/98	9809035-04A	MW#5	On Site Lab.	BDL	BDL	BDL	BDL
12/29/98	9812053-02A			BDL	BDL	BDL	BDL
3/3/99	9903012-02A			BDL	BDL	BDL	BDL
6/15/99	9906055-02A			BDL	BDL	BDL	BDL
9/15/99	9909054-02A			BDL	BDL	BDL	BDL
12/14/99	9912018-02A			BDL	0.8	BDL	BDL
3/27/00	0003041-02A			BDL	BDL	BDL	BDL
6/5/00	0006009-01A			BDL	BDL	BDL	BDL
12/14/99	9912018-05A			BDL	BDL	1.8	36.4
1/22/04	0401011-005A		lina ba Lab	BDL	BDL	BDL	BDL
9/15/98	9809035-05A	MW#6	On Site Lab.	BDL	BDL	BDL	BDL
12/29/98	9812053-01A			BDL	BDL	BDL	BDL
3/3/99	9903012-01A			BDL	BDL	BDL	BDL
6/15/99	9906055-01A			BDL	BDL	BDL	BDL
9/15/99	9909054-01A			BDL	0.7	1.1	BDL
12/14/99	9912018-01A			BDL	1.8	0.7	1.9
1/22/04	0401011-006A		lina ba Lab	BDL	BDL	BDL	BDL
WQCC	Action	Levels		10.0	750.0	750.0	620.0

Table 2
BTEX Ground Water Analytical Summary
Farmington B Com 1E
Unit O, Sec. 15 T29N, R13W

Sample Date	Sample ID#	Monitor Well	Remarks	Anions ppm	Iron ppm	BOD	COD
1/22/04		MW#1	lina ba Lab	Not Sampled			
1/22/04	0401011-004	MW#2		65.1	BDL		
1/22/04	0401011-002	MW#3		73.3	BDL		
1/22/04	0401011-003	MW#4		67.7	BDL		
1/22/04	0401011-005	MW#5		86.8	BDL		
1/22/04	0401011-006	MW#6		28.2	0.194		