## 3R - 0087

# QUARTERLY REPORTS

## 04/21/2008

## QUARTERLY GROUNDWATER MONITORING REPORT MARCH 2008 SAMPLING EVENT CONOCOPHILLIPS FEDERAL #15 FARMINGTON, NM OCD #3R087







April 2008

QUARTERLY GROUNDWATER MONITORING REPORT MARCH 2008 SAMPLING EVENT

### CONOCOPHILLIPS FEDERAL #15 FARMINGTON, NEW MEXICO

OCD # 3R087

**Prepared for:** 

ConocoPhillips

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#### QUARTERLY GROUNDWATER MONITORING REPORT CONOCOPHILLIPS FEDERAL #15, FARMINGTON, NEW MEXICO

#### **I.0 INTRODUCTION**

This report presents the results of quarterly groundwater monitoring completed by Tetra Tech, Inc. (Tetra Tech) on March 18, 2008, at the ConocoPhillips Federal #15 Site in Farmington, New Mexico. This event represents the second consecutive quarter of groundwater sampling at the site.

The site is located on the north side of Gila Street. The closest cross street is Main Street, located approximately 0.5 miles to the west of the site. The site consists of gas production well and associated equipment and installations. The location and general features of the Federal #15 site are shown on Figures 1 and 2, respectively.

#### I.I Site History

The history of the ConocoPhillips Federal #15 Site is outlined on Table 1 and discussed in more detail in the following paragraphs.

On October 23, 2004, a release was discovered at the site. It was estimated that up to 15 barrels of condensate were unaccounted for. Approximately 1,500 cubic yards of affected soil were excavated and replaced with clean fill during the week of October 25, 2004.

Following soil remediation activities, four, 2-inch PVC groundwater monitoring wells (MW-1 through MW-4) were installed on November 16 and 17, 2004 by Biosphere Environmental Sciences and Technologies, LLC to depths of approximately 20 feet below ground surface (bgs). An additional, downgradient monitoring well (MW-5) was installed to a depth of approximately 17.5 feet bgs on the property south of the site on October 19, 2005 by Spectrum Drilling under the supervision of Tetra Tech.

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

Beginning in July 2005, Tetra Tech conducted quarterly groundwater removal events at monitor well MW-2 using a vacuum truck. A total of 4343 gallons have been pumped from this well between July 2005 and January 2008. The pumped water was disposed of in the onsite waste water tank (Figure 2). Individual quarterly groundwater removal events are listed on Table 1.

Tetra Tech conducted annual groundwater sampling of monitor wells MW-1 through MW-5 in November of 2006 and 2007. The details of each sampling event are summarized in the 2006 and 2007 Annual Groundwater Monitoring and Site Activities Reports, dated January 2, 2007 and January 30, 2008, respectively. The most current sampling event, conducted on March 18, 2008, marks the initiation of quarterly groundwater monitoring at the Federal #15 site.

#### 2.0 METHODOLOGY AND RESULTS

The following subsections describe the groundwater monitoring methodology and sampling analytical results.

#### 2.1 Groundwater Removal

On March 18, 2008, a total of 278 gallons of groundwater was pumped from monitor well MW-2 as part of the quarterly groundwater removal program. In addition, a total of 288 gallons of groundwater was pumped from monitor well MW-4 because benzene was detected in this well above New Mexico Water Quality Control Commission (NMWQCC) standards during the November 2007 sampling event.

#### 2.1 Groundwater Monitoring Methodology

#### Groundwater Elevation Measurements

On March 18, 2008, groundwater elevation measurements were recorded in monitor wells MW-1, MW-2, MW-3, MW-4, and MW-5. Table 2 presents the monitor well specifications and groundwater level data. A groundwater elevation contour map is presented on Figure 3 that illustrates groundwater at the site flows to the south south-west toward the Animas River, which is located approximately 1 mile from the site.

#### Groundwater sampling

Monitor wells MW-1, MW-2, MW-3, MW-4, and MW-5 were sampled during this event to initiate the I<sup>st</sup> round of quarterly groundwater monitoring at the site. Approximately 6 gallons of water, or three well volumes, were purged from each monitoring well before sampling was performed. The purged water was disposed of in the waste water tank located on site (Figure 2). A I.5-inch dedicated, clear, poly-vinyl, disposable bailer was used in each well to purge and collect groundwater samples. The samples were placed in laboratory prepared bottles, packed on ice, and shipped with chain of custody documentation to Southern Petroleum Laboratory located in Houston, Texas. The samples were analyzed for presence of benzene, toluene, ethyl-benzene, and xylenes (BTEX) by Environmental Protection Agency (EPA) Method 8260B.

#### 2.2 Groundwater Sampling Analytical Results

The March 2008 analysis of the collected groundwater samples indicates that all contaminants of concern are below the NMWQCC standards. Historical laboratory analytical data, including the March 2008 data, are summarized on Table 3. The field groundwater sampling forms are presented in Appendix A and the laboratory analytical report is presented in Appendix B.

#### 3.0 CONCLUSIONS

Tetra Tech has conducted quarterly pumping events in monitor well MW-2 since July 2005. The concentrations of BTEX measured in this well have decreased steadily from October 2005 to March 2008 and are summarized below.

Tetra Tech

- Benzene concentrations decreased from 1300  $\mu$ g/L to 5  $\mu$ g/L and are now below the NMWQCC standard of 10  $\mu$ g/L.
- Toluene concentrations decreased from 3300  $\mu$ g/L (above the NMWQCC standard of 750  $\mu$ g/L) to less than the laboratory reporting limit (5  $\mu$ g/L).
- Ethylbenzene concentrations decreased from 380 µg/L to less than the laboratory reporting limit (5 µg/L).
- Xylene concentrations decreased from 3500  $\mu g/L$  (above the NMWQCC standard of 620  $\mu g/L)$  to 9  $\mu g/L.$

The decrease in BTEX concentrations indicates that the pumping events have been effective. Tetra Tech will discontinue the pumping of monitor well MW-2 and continue monitoring all wells quarterly in order to move toward closure of the site. Chloride levels in all wells have consistently been below the NMWQCC standard since sampling began in 2005 and as a result, ConocoPhillips discontinued this analysis prior to the March 2008 sampling event.

### **FIGURES**

I. Site Location Map

2. Site Layout Map

3. Groundwater Elevation Contour Map

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TETRA TECH, INC.

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= Approximate ConocoPhillips Federal #15 Site Location

Figure 1. Site Location Map ConocoPhillips Federal #15 Farmington, New Mexico 87401



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### TABLES

I. Site History Timeline

2. Groundwater Elevation Summary (January 2005 – March 2008)

3. Laboratory Analytical Data Summary (January 2005 – March 2008)

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

Table 1. Site History Timeline - ConocoPhillins Federal #15

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Well ID	Date Installed	Total Depth (ft bgs)	Screen Interval (ft)	Date Measured	Groundwater Level (ft TOC)	Elevation (ft msl) (TOC)	Groundwater Elevation (ft msl)	
				1/18/2005	8.92		5429.07	
				7/7/2005	9.33		5428.66	
				10/19/2005	8.03		5429.96	
				2/16/2006	8.84		5429.15	
				5/15/2006	8.96		5429.03	
				8/2/2006	8.35		5429.64	
MW-1	11/17/2004	20	5 - 20	11/14/2006	8.10	5437.99	5429.89	
				2/20/2007	8.76		5429.23	
				5/15/2007	9.67 <sup>(1)</sup>		5428.32	
				8/21/2007	NM		NM	
				11/7/2007	AM		AM	
				1/16/2008	7.10		5430.89	
				3/18/2008	7.61		5430.38	
				1/18/2005	9.49		5427.84	
				7/7/2005	9.55		5427.78	
				10/19/2005	8.66		5428.67	
				2/16/2006	9.01		5428.32	
				5/15/2006	9.00		5428.33	
		۱ ۱		8/2/2006	8.52		8.52	5428.81
MW-2	11/17/2004	20	5 - 20	11/14/2006	/14/2006 8.28	5437.33	5429.05	
				2/20/2007	8.87		5428.46	
				5/15/2007	8.59		5428.74	
				8/21/2007	6.67		5430.66	
				11/7/2007	AM		AM	
				1/16/2008	7.41		5429.92	
				3/18/2008	8.00		5429.33	
				1/18/2005	8.54		5426.59	
				7/7/2005	8.51		5426.62	
				10/19/2005	7.75		5427.38	
				2/16/2006	NM		NM	
				5/15/2006	8.42		5426.71	
				8/2/2006	7.99		5427.14	
MW-3	11/22/2004	20	5 - 20	11/14/2006	7.72	5435.13	5427.41	
				2/20/2007	8.23		5426.90	
				5/15/2007	7.90		5427.23	
			ļ	8/21/2007	NM		NM	
					11/7/2007	AM	-	AM
				1/16/2008	7.20		5427.93	
1				3/18/2008	7.73		5427 40	

Table 2. Groundwater Elevation Summary (January 2005 - March 2008) - ConocoPhillips Federal #15

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Well ID	Date Installed	Total Depth (ft bgs)	Screen Interval (ft)	Date Measured	Groundwater Level (ft TOC)	Elevation (ft msl) (TOC)	Groundwater Elevation (ft msl)			
				1/18/2005	8.65		5426.03			
				7/7/2005	8.50		5426.18			
1				10/19/2005	7.72		5426.96			
			5 - 20	2/16/2006	8.35		5426.33			
				5/15/2006	8.40		5426.28			
				8/2/2006	7.96		5426.72			
MW-4	11/22/2004	20		11/14/2006	7.74	5434.68	5426.94			
				2/20/2007	8.18		5426.50			
				5/15/2007	7.91		5426.77			
				8/21/2007	NM		NM			
							11/7/2007	AM		AM
					1/16/2008	7.37		5427.31		
		_		3/18/2008	7.73		5426.95			
				10/20/2005	9.11		5425.05			
				2/16/2006	10.62		5423.54			
				5/15/2006	10.47	]	5423.69			
				8/2/2006	9.42		5424.74			
				11/14/2006	9.05		5425.11			
MW-5	10/19/2005	17.5	3.5-17.5	2/20/2007	9.84	5434.16	5424.32			
				5/15/2007	8.93		5425.23			
				8/21/2007	NM		NM			
				11/7/2007	AM		AM			
				1/16/2008	NM		NM			
				3/18/2008	10.21		5423.95			

 Table 2. Groundwater Elevation Summary (January 2005 - March 2008) - ConocoPhillips Federal #15

#### <u>Explanation</u>

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<sup>(1)</sup> = Water level near bottom of monitor well

AM = Anomolous measurement due to meter malfunction - reading not recorded

bgs = Below ground surface

ft = Feet

msl = Mean sea level

NM = Not measured

TOC = Top of casing

Table 3. Groundwater Laboratory Analytical Results Summary (January 2005 - March 2008) - ConocoPhillips Federal #15

		Benzene	Toluene	Ethylbenzen	Xylenes	2-Methylnaphthalene	1-Methylnaphthalene	Naphthalene	Total	Chloride
	naie	(µg/L)	(µg/L)	e (µg/L)	(μg/L)	(hg/L)	(hg/L)	(µg/L)	Naphthalene (µg/L)	(mg/L)
	1/18/2005	<1.0	<1.0	<1.0	<2.0	<10	<10	<10	<10	85
	10/18/2005	<1.0	<1.0	<1.0	<2.0	<10	<10	<10	<10	39
1-WM	11/15/2006	<1.0	<1.0	<1.0	<2.0	<10	<10	<10	<10	36
	11/7/2007	<1.0	<1.0	<1.0	<2.0	<10	<10	<10	<10	44
	3/18/2008	<5.0	<5.0	<5.0	<5.0	-				
	1/18/2005	1200	3300	380	3500	72	34	51	157	41
	Duplicate	1300	3700	410	3800	1	1	ł	1	-
	10/19/2005	1100	410	160	470	18	11	15	44	60
_	Duplicate	1100	500	150	610	1	1	1	1	5
MW-2	11/14/2006	23	29	6.6	120	<10	<10	<10	<10	50
	Duplicate	45	57	12	220	1			1	I
	11/7/2007	4.2	8.8	24	74	<10	<10	<10	<10	35
	Duplicate	3.9	6.7	22	69	-		1	1	ł
	3/18/2008	5	<5.0	<5.0	6	-		-	+	ł
	1/18/2005	190	<5.0	<5.0	<10	<10	<10	<10	<10	34
	10/19/2005	<1.0	<1.0	<1.0	<2.0	<10	<10	<10	<10	42
MW-3	11/14/2006	<1.0	<1.0	<1.0	<2.0	<10	<10	<10	<10	39
	11/7/2007	<1.0	<1.0	<1.0	<2.0	<10	<10	<10	<10	34
	3/18/2008	<5.0	<5.0	<5.0	<5.0			-	-	-
	1/18/2005	2.8	<1.0	<1.0	<2.0	<10	<10	<10	<10	37
	10/19/2005	23	2.2	<1.0	4.3	<10	<10	<10	<10	51
MW 4	11/14/2006	1.1	<1.0	<1.0	<2.0	<10	<10	<10	<10	44
	11/7/2007	36	<1.0	22	<2.0	<10	<10	<10	<10	24
1	3/18/2008	<5.0	<5.0	<5.0	<5.0	••		1	I	1
	10/20/2005	<1.0	<1.0	<1.0	<2.0	<10	<10	<10	<10	73
AW/-S	11/14/2006	<1.0	<1.0	<1.0	<2.0	<10	<10	<10	<10	- 62
	11/7/2007	<1.0	<1.0	<1.0	<2.0	<10	<10	<10	<10	58
	3/18/2008	<5.0	<5.0	<5.0	<5.0	-		a a	1	1
NMWQCC	Standards	10 (µg/L)	750 (µg/L)	750 (µg/L)	620 (µg/L)	NE	NE	NE	30 (µg/L)	250 mg/L

## **Explanation**

mg/L = milligrams per liter (parts per million) µg/L = micrograms per liter (parts per billion) NE=Not established NMWQCC = New Mexico Water Quality Control Commission -- = Not analyzed <1.0 = Not detected at the reporting limit

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## APPENDIX A GROUNDWATER SAMPLING FIELD FORMS

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Project Name	Eederal # 15					Page_	1	of1
Project No.	1156690010							
Site Location	Farmington, NM							
Site/Well No.	<u>M</u> W-1	Coded/ Replicate	No.		Date		3/18/2	2008
Weather	Sunny	Time San Began	npling 1440		Time Sa Comple	ampling ted		1515
		ΕV	ACUATION DA	TA				
Description o	f Measuring Point (MP)	Top of Casing						
Height of MP	Above/Below Land Surfa	ce		MP Elevation		5437.9	9 feet A	MSL
Total Sounde	ed Depth of Well Below MI	⊃20 f	eet	Water-Level Ele	vation	54	30.38 fe	et AMSL
Held	Depth to Water Below	w MP7.61	feet	Diameter of Cas	sing		2'	•
Net	Water Column in	Well 12.39	feet	Galions Pumpeo Prior to Samplin	a/Ballea		5.9	5
					5		• •	
	— Gallons per	Foot 0.1	16					
	— Gallons per Gallons in	Foot 0.1	16 98	Sampling Pump (feet below land	Intake Se surface)	etting N/A		
Purging Equi	Gallons per Gallons in pment <u>Disposable po</u>	Foot 0.1 Well 1.9	98	Sampling Pump (feet below land	Intake Se surface)	etting N/A		
Purging Equi	Gallons per Gallons in pment <u>Disposable po</u>	Foot 0.1 Well 1.9 Divethylene baile	08 08 07 DATA/FIELD PA	Sampling Pump (feet below land ARAMETERS	Intake So surface)	etting N/A		
Purging Equi	Gallons per Gallons in pment <u>Disposable po</u> Temperature (C°)	Foot 0.1 Well <u>1.9</u> Divethylene baile SAMPLING I	08 08 DATA/FIELD PA Conductivity	Sampling Pump (feet below land ARAMETERS TDS in g/L	Intake So surface)	etting N/A		
Purging Equi	Gallons per Gallons in pment <u>Disposable po</u> Temperature (C°) 9.79	Foot 0.1 Well 1.9 Divethylene baile SAMPLING I pH 6.88	DATA/FIELD PA Conductivity 1423	Sampling Pump (feet below land ARAMETERS TDS in g/L 0.925	Intake Se surface)	mV)		
Purging Equi Time 1445 1451 1457	Gallons per Gallons in pment <u>Disposable po</u> Temperature (C°) 9.79 10.13	Foot 0.1 Well 1.9 Divethylene baile SAMPLING I pH 6.88 6.69 6 71	06 08 07 0ATA/FIELD PA Conductivity 1423 1452 1419	Sampling Pump (feet below land ARAMETERS TDS in g/L 0.925 0.945 0.923	Intake Se surface)	etting N/A (mV) .8		
<sup>2</sup> urging Equi Time 1445 1451 1457 1504	Gallons per Gallons in pment <u>Disposable po</u> Temperature (C°) 9.79 10.13 10.31 10.95	Foot 0.1 Well 1.9 Divethylene baile SAMPLING I pH 6.88 6.69 6.71 6.90	08 08 07 0ATA/FIELD PA Conductivity 1423 1452 1419 1367	Sampling Pump (feet below land ARAMETERS TDS in g/L 0.925 0.945 0.923 0.889	ORP ( -115 -115 -62	mV) .8 9.0 .0		
Durging Equi Time 1445 1451 1457 1504	Gallons per Gallons in pment <u>Disposable po</u> <u>Temperature (C°)</u> <u>9.79</u> 10.13 10.31 10.95	Foot 0.1 Well 1.9 Divethylene baile SAMPLING I pH 6.88 6.69 6.71 6.90	08 08 07 0ATA/FIELD PA Conductivity 1423 1452 1419 1367	Sampling Pump (feet below land ARAMETERS TDS in g/L 0.925 0.945 0.923 0.889	Intake Se surface) ORP ( -119 -119 -119 -62	etting N/A mV) .8 9.0 3.0 .0		
Time 1445 1451 1457 1504 Sampling Equ	Gallons per Gallons in pment <u>Disposable po</u> Temperature (C°) 9.79 10.13 10.31 10.95 uipment	Foot 0.1 Well 1.9 Divethylene baile SAMPLING I pH 6.88 6.69 6.71 6.90 Disposable poly	DATA/FIELD PA Conductivity 1423 1452 1419 1367 yethylene bailer	Sampling Pump (feet below land ARAMETERS TDS in g/L 0.925 0.945 0.923 0.889	Intake Se surface) ORP ( -97 -118 -62	etting N/A mV) .8 3.0 .0		
Purging Equi Time 1445 1451 1457 1504 Sampling Equ	Gallons per Gallons in pment <u>Disposable po</u> <u>Temperature (C°)</u> <u>9.79</u> <u>10.13</u> <u>10.31</u> <u>10.95</u> uipment stituents Sampled	Foot 0.1 Well 1.9 Dyethylene baile SAMPLING I pH 6.88 6.69 6.71 6.90 Disposable poly	DATA/FIELD PA Conductivity 1423 1452 1419 1367 yethylene bailer	Sampling Pump (feet below land ARAMETERS TDS in g/L 0.925 0.945 0.923 0.889	Intake Se surface) ORP ( -97 -118 -62	etting N/A mV) .8 3.0 .0 .0 Pre	servativ	<u>e</u>
Purging Equip Time 1445 1451 1457 1504 Sampling Equ <u>Cons</u> BTEX	Gallons per Gallons in pment <u>Disposable po</u> <u>Temperature (C°)</u> <u>9.79</u> 10.13 10.31 10.95 uipment stituents Sampled	Foot 0.1 Well 1.9 Divethylene baile SAMPLING I pH 6.88 6.69 6.71 6.90 Disposable poly <u>Cc</u> 3 - 40 mL	PATA/FIELD PA Conductivity 1423 1452 1419 1367 yethylene bailer ontainer Descrip	Sampling Pump (feet below land ARAMETERS TDS in g/L 0.925 0.945 0.923 0.889	Intake So surface)	etting N/A (mV) .8 9.0 3.0 .0 .0 Pre	servativ	<u>e</u>
Purging Equip Time 1445 1451 1457 1504 Sampling Equ <u>Cons</u> 3TEX	Gallons per Gallons in pment <u>Disposable po</u> <u>Temperature (C°)</u> <u>9.79</u> 10.13 10.31 10.95 uipment stituents Sampled	Foot 0.1 Well 1.9 Divethylene baile SAMPLING I pH 6.88 6.69 6.71 6.90 Disposable poly <u>Cc</u> 3 - 40 mL	DATA/FIELD PA Conductivity 1423 1452 1419 1367 yethylene bailer ontainer Descrip	Sampling Pump (feet below land ARAMETERS TDS in g/L 0.925 0.945 0.923 0.889	Intake So surface)	etting N/A (mV) .8 9.0 3.0 3.0 .0 Pre	servativ	<u>e</u>
Purging Equip Time 1445 1451 1457 1504 Sampling Equ <u>Cons</u> 3TEX	Gallons per Gallons in pment <u>Disposable po</u> <u>Temperature (C°)</u> <u>9.79</u> 10.13 10.31 10.95 uipment stituents Sampled	Foot 0.1 Well 1.9 Divethylene baile SAMPLING I pH 6.88 6.69 6.71 6.90 Disposable poly <u>Co</u> 3 - 40 mL	DATA/FIELD P/ Conductivity 1423 1452 1419 1367 yethylene bailer ontainer Descrip	Sampling Pump (feet below land ARAMETERS TDS in g/L 0.925 0.945 0.923 0.889	Intake So surface)	etting N/A mV) .8 9.0 3.0 .0 .0 Pre	servativ	<u>e</u>
Purging Equip Time 1445 1451 1457 1504 Sampling Equ <u>Cons</u> BTEX	Gallons per Gallons in pment <u>Disposable po</u> <u>Temperature (C°)</u> <u>9.79</u> <u>10.13</u> <u>10.31</u> <u>10.95</u> uipment stituents Sampled	Foot 0.1 Well 1.9 SAMPLING I PH 6.88 6.69 6.71 6.90 Disposable poly <u>Cc</u> 3 - 40 mL	DATA/FIELD PA Conductivity 1423 1452 1419 1367 yethylene bailer ontainer Descrip	Sampling Pump (feet below land ARAMETERS TDS in g/L 0.925 0.945 0.923 0.889	Intake So surface)	etting N/A mV) .8 9.0 3.0 .0 .0 Pre	servativ	<u>e</u>
Purging Equip Time 1445 1451 1457 1504 Sampling Equ <u>Cons</u> BTEX Remarks Sampling Per	Gallons per Gallons in pment <u>Disposable po</u> <u>Temperature (C°)</u> <u>9.79</u> <u>10.13</u> <u>10.31</u> <u>10.95</u> uipment stituents Sampled <u>Roots in water</u> rsonnel <u>Mitchell Crool</u>	Foot 0.1 Well 1.9 SAMPLING I pH 6.88 6.69 6.71 6.90 Disposable poly <u>Cc</u> 3 - 40 mL	DATA/FIELD PA Conductivity 1423 1452 1419 1367 yethylene bailer ontainer Descrip glass VOAs	Sampling Pump (feet below land ARAMETERS TDS in g/L 0.925 0.945 0.923 0.889 tion	Intake So surface)	etting N/A mV) .8 9.0 3.0 .0 .0 Pre	servativ	<u>e</u>

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Project Name	Federal # 15					Page	1	of	1
Project No.	1156690010								
Site Location	Farmington, NM								
Site/Well No.	MW-2	Coded/ Replicate N	No.		Date	. <u></u>	3/18/2	2008	
Weather	Sunny	Time Samı Began	oling 1300		Time Sa Comple	impling ied		1315	
		EVA	CUATION DA	TA					
Description of	Measuring Point (MP)	Top of Casing	<u></u>						
Height of MP	Above/Below Land Surfa	ce	I	MP Elevation		5437.3	3 feet A	MSL	
Total Sounded	d Depth of Well Below MI	P20 fee	et	Water-Level Ele	vation	54	29.33 fe	et AMS	3L
Held	Depth to Water Below	w MP <u>8.00 fe</u>	eet	Diameter of Cas	ing I/Deiled		2'	•	
					1/18/31/15/2				
Wet	Water Column in	Well <u>12.00 f</u>	eet	Gallons Pumped Prior to Samplin	g		5.7	6	
Wet	Water Column in Gallons per	Well <u>12.00 f</u> Foot <u>0.16</u>	eet	Gallons Pumped Prior to Samplin	g Jataka Č		5.7	6	
	_ Water Column in Gallons per Gallons ir	Well <u>12.00 f</u> Foot <u>0.16</u> Well <u>1.92</u>	eet	Gallons Pumped Prior to Samplin Sampling Pump (feet below land	g Intake Se surface)	etting	5.7	6	
Wet	Water Column in Gallons per Gallons in oment <u>Pumped by tr</u>	Well <u>12.00 f</u> Foot <u>0.16</u> Well <u>1.92</u> uck for 3.5 hours	eet	Gallons Pumped Prior to Samplin Sampling Pump (feet below land	g Intake Se surface)	etting	5.7	6	
Wet	Water Column in Gallons per Gallons in oment <u>Pumped by tr</u>	Well <u>12.00 f</u> Foot <u>0.16</u> Well <u>1.92</u> uck for 3.5 hours SAMPLING D	ATA/FIELD PA	Gallons Pumped Prior to Samplin Sampling Pump (feet below land	g Intake Se surface)	etting	5.7	6	
Wet Purging Equip	Water Column in Gallons per Gallons in oment <u>Pumped by tr</u> Temperature (C <sup>o</sup> )	Well     12.00 f       Foot     0.16       Well     1.92       uck for 3.5 hours       SAMPLING D       pH	ATA/FIELD PA Conductivity	Callons Pumped Prior to Samplin Sampling Pump (feet below land ARAMETERS TDS (g/L)	g Intake Se surface)	mV)	5.7		
Net Purging Equip 	_ Water Column in Gallons per Gallons in oment <u>Pumped by tr</u> Temperature (C <sup>o</sup> ) 12.37 11.89	Well       12.00 f         Foot       0.16         Well       1.92         uck for 3.5 hours         SAMPLING D,         pH         6.74         6.96	ATA/FIELD PA Conductivity 1695 1558	Gallons Pumped Prior to Samplin Sampling Pump (feet below land ARAMETERS TDS (g/L) 1.101 1.013	g Intake Se surface)	mV) 3.6	5.7		
Wet Purging Equip 	Water Column in Gallons per Gallons in oment <u>Pumped by tr</u> Temperature (C <sup>o</sup> ) 12.37 11.89 11.95	Well <u>12.00 f</u> Foot <u>0.16</u> Well <u>1.92</u> uck for 3.5 hours SAMPLING D. pH 6.74 6.96 6.98	ATA/FIELD PA Conductivity 1695 1558 1483	Gallons Pumped Prior to Samplin Sampling Pump (feet below land ARAMETERS TDS (g/L) 1.101 1.013 0.965	g Intake Se surface) ORP ( -199 -197	mV) 6.6 1.2 7.5	5.7	6	
Wet Purging Equip 	Water Column in Gallons per Gallons in oment <u>Pumped by tr</u> Temperature (C°) 12.37 11.89 11.95	Well <u>12.00 f</u> Foot <u>0.16</u> Well <u>1.92</u> uck for 3.5 hours SAMPLING D/ pH 6.74 6.96 6.98	ATA/FIELD PA Conductivity 1695 1558 1483	Gallons Pumped Prior to Samplin Sampling Pump (feet below land ARAMETERS TDS (g/L) 1.101 1.013 0.965	g Intake Se surface) ORP ( -156 -195 -197	mV) 5.6 5.2 7.5	5.7	6	
Wet Purging Equip Time 1300 1303 1306 Sampling Equ	Water Column in Gallons per Gallons in oment <u>Pumped by tr</u> <u>Temperature (C°)</u> <u>12.37</u> <u>11.89</u> <u>11.95</u>  ipment	Well       12.00 f         Foot       0.16         Well       1.92         uck for 3.5 hours         SAMPLING D.         pH         6.74         6.96         6.98         Disposable polye	ATA/FIELD PA Conductivity 1695 1558 1483 ethylene bailer	Gallons Pumped Prior to Samplin Sampling Pump (feet below land ARAMETERS TDS (g/L) 1.101 1.013 0.965	g Intake Se surface) ORP ( -156 -199 -197	mV) 5.6 7.5	5.7	6	
Wet Purging Equip Time 1300 1303 1306 Sampling Equ <u>Const</u>	Water Column in Gallons per Gallons in oment <u>Pumped by tr</u> Temperature (C°) 12.37 11.89 11.95 ipment ituents Sampled	Well       12.00 f         Foot       0.16         Well       1.92         uck for 3.5 hours         SAMPLING D         pH         6.74         6.96         6.98         Disposable polye         Cor	ATA/FIELD PA Conductivity 1695 1558 1483 ethylene bailer	Gallons Pumped Prior to Samplin Sampling Pump (feet below land ARAMETERS TDS (g/L) 1.101 1.013 0.965	g Intake Se surface) ORP ( -156 -195	etting mV) 5.6 7.5  Pre:	5.7	<u>e</u>	
Wet Purging Equip 1300 1303 1306 Sampling Equ <u>Const</u> BTEX	Water Column in Gallons per Gallons in oment <u>Pumped by tr</u> Temperature (C°) 12.37 11.89 11.95 ipment ituents Sampled	Well       12.00 f         Foot       0.16         Well       1.92         uck for 3.5 hours         SAMPLING D         pH         6.74         6.96         6.98         Disposable polyee <u>Cor</u> 3 - 40ml gl	ATA/FIELD PA Conductivity 1695 1558 1483 ethylene bailer ntainer Descrip ass VOAs	Gallons Pumped Prior to Samplin Sampling Pump (feet below land ARAMETERS TDS (g/L) 1.101 1.013 0.965	g Intake Se surface) ORP ( -156 -195 -197 -197	etting mV) 5.6 2.2 2.5 Pres	5.7	<u>e</u>	
Wet Purging Equip 1300 1303 1306 Sampling Equ Const BTEX	Water Column in Gallons per Gallons in oment Pumped by tr Temperature (C°) 12.37 11.89 11.95 ipment ituents Sampled	Well       12.00 f         Foot       0.16         Well       1.92         uck for 3.5 hours         SAMPLING D/         pH         6.74         6.96         6.98         Disposable polyee         3 - 40ml gl	ATA/FIELD PA Conductivity 1695 1558 1483 ethylene bailer ntainer Descrip ass VOAs	Gallons Pumped Prior to Samplin Sampling Pump (feet below land ARAMETERS TDS (g/L) 1.101 1.013 0.965	g Intake Se surface) ORP ( -156 -199 -197 -197 	etting mV) 5.6 9.2 7.5 Pre:	5.7	<u>e</u>	
Wet Purging Equip Time 1300 1303 1306 Sampling Equ Const BTEX	Water Column in Gallons per Gallons in oment Pumped by tr Temperature (C°) 12.37 11.89 11.95 ipment ituents Sampled	Well       12.00 f         Foot       0.16         Well       1.92         uck for 3.5 hours         SAMPLING D/         pH         6.74         6.96         6.98         Disposable polyee         3 - 40ml gl	ATA/FIELD PA Conductivity 1695 1558 1483 ethylene bailer stainer Descrip ass VOAs	Gallons Pumped Prior to Samplin Sampling Pump (feet below land ARAMETERS TDS (g/L) 1.101 1.013 0.965	g Intake Se surface) ORP ( -156 -199 -197 	etting mV) 5.6 9.2 7.5 Pres	5.7	<u>e</u>	
Net Purging Equip  1300  1303  1306  Sampling Equ Const BTEX  BTEX	Water Column in Gallons per Gallons in oment <u>Pumped by tr</u> Temperature (C <sup>o</sup> ) 12.37 11.89 11.95 ipment ituents Sampled	Well       12.00 f         Foot       0.16         Well       1.92         uck for 3.5 hours         SAMPLING D/         pH         6.74         6.96         6.98         Disposable polyee         3 - 40ml gl	ATA/FIELD PA Conductivity 1695 1558 1483 ethylene bailer stainer Descrip ass VOAs	Gallons Pumped Prior to Samplin Sampling Pump (feet below land ARAMETERS TDS (g/L) 1.101 1.013 0.965	g Intake Se surface) ORP ( -156 -199 -197 -197	etting mV) 5.6 9.2 7.5 Pres	5.7	<u>e</u>	

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Project Name	e Federal # 15					Page	1	of	1
Project No.	1156690010		<u> </u>			<u> </u>			
Site Location	Earmington, NM	·····							
Site/Well No.		Coded/ Replicate I	No		Date		3/18/	2008	
Weather	Sunny	Time Sam Began	pling 1340		Time Sa Complet	mpling ed		1400	
		EVA	CUATION DA	TA					
Description o	of Measuring Point (MP)	Top of Casing					=		
Height of MP	Above/Below Land Surfa	ce		MP Elevation		5435.1	3 feet A	MSL	
Total Sounde	ed Depth of Well Below M	P 20 fe	et	Water-Level Ele	vation	54	127.4 fe	et AMS	SL
Held	Depth to Water Belo	w MP7.73 fe	eet l	Diameter of Cas	sing d/Bailed		2		<del>.</del>
Wet	Water Column ir	Well <u>12.27 f</u>	eet	Prior to Samplin	ig Ig	<u> </u>	5.	89	
	Gallons pe	r Foot 0.16	5						
				Compling Dump	Intalia Ca				
	Gallons ir	n Well1.96	<u> </u>	Sampling Pump (feet below land	Intake Se surface)	etting			
Purging Equi	Gallons ir pment <u>Disposable p</u>	n Well1.96	<u>}                                    </u>	Sampling Pump (feet below land	Intake Se surface)	etting			
Purging Equi	Gallons ir pment <u>Disposable p</u>	n Weil 1.96 blyethylene bailer SAMPLING D		Sampling Pump (feet below land	Intake Se surface)	etting			
Purging Equi	Gallons ir pment <u>Disposable p</u> Temperature (C°)	n Weil1.96 blyethylene bailer SAMPLING D	ATA/FIELD PA Conductivity	Sampling Pump (feet below land ARAMETERS TDS (g/L)	Intake Se surface)	mV)		<u>_</u>	
Purging Equi	Gallons ir pment <u>Disposable p</u> Temperature (C°) 13.63	n Weil1.96 blyethylene bailer SAMPLING D pH 7.12	ATA/FIELD PA Conductivity 1473	Sampling Pump (feet below land ARAMETERS TDS (g/L) 0.958 0.964	Intake Se surface)	mV)			
<sup>2</sup> urging Equi Time 1340 1345	Gallons ir pment <u>Disposable provident disposable provident di provident disposable provident disposable provident</u>	N Well 1.96 Divethylene bailer SAMPLING D PH 7.12 6.92	ATA/FIELD PA Conductivity 1473 1482 1401	Sampling Pump (feet below land ARAMETERS TDS (g/L) 0.958 0.964 0.911	ORP ( -34.	mV) 5 5			
<sup>D</sup> urging Equi	Gallons ir pment <u>Disposable provided in the Disposable provided in the Dis</u>	Neil1.96	ATA/FIELD PA Conductivity 1473 1482 1401 1381	Sampling Pump (feet below land ARAMETERS TDS (g/L) 0.958 0.964 0.911 0.998	Intake Se surface)           ORP (           -31           -31           -31	mV) 5 1			
<sup>D</sup> urging Equi Time 1340 1345 1350 1355	Gallons ir           pment         Disposable provide           Temperature (C°)         13.63           14.08         13.04           12.99         12.99	2 Weil	ATA/FIELD PA Conductivity 1473 1482 1401 1381	Sampling Pump (feet below land ARAMETERS TDS (g/L) 0.958 0.964 0.911 0.898	Intake Se surface)           ORP (           -34.           -31.           -31.           -32.	mV) 55 1 1			
Purging Equi <u>Time</u> <u>1340</u> <u>1345</u> <u>1350</u> <u>1355</u> Sampling Eq	Gallons ir pment <u>Disposable providente di Disposable di Disposab</u>	n Weil1.96 olyethylene bailer SAMPLING D pH 7.12 6.92 6.94 7.04 Disposable polye	ATA/FIELD PA Conductivity 1473 1482 1401 1381 ethylene bailer	Sampling Pump (feet below land TDS (g/L) 0.958 0.964 0.911 0.898	Intake Se surface) ORP ( -34. -31. -32.	mV) .5 .5 .1 .1			
Purging Equi <u>Time</u> 1340 <u>1345</u> 1355 Sampling Eq <u>Cons</u>	Gallons ir pment <u>Disposable provided in the Disposable provided in the Dis</u>	n Weil1.96 olyethylene bailer SAMPLING D pH 7.12 6.92 6.94 7.04 Disposable polye	ATA/FIELD PA Conductivity 1473 1482 1401 1381 ethylene bailer	Sampling Pump (feet below land TDS (g/L) 0.958 0.964 0.911 0.898	Intake Se surface) ORP ( -34 -31 -31 -32	mV) 5 1 1 <u>Pre</u>	servativ	<u>/e</u>	
Purging Equi	Gallons ir pment <u>Disposable provided in the Disposable provided in the Dis</u>	n Weil1.96 olyethylene bailer SAMPLING D pH 7.12 6.92 6.94 7.04 Disposable polye <u>Cor</u> <u>3 - 40 ml g</u>	ATA/FIELD PA Conductivity 1473 1482 1401 1381 ethylene bailer ntainer Descrip lass VOAs	Sampling Pump (feet below land ARAMETERS TDS (g/L) 0.958 0.964 0.911 0.898 tion	Intake Se surface)	mV) 5 .5 .1 .1 .1 .1 .1 .1 .1 .1	servativ	<u>/e</u>	
Purging Equi	Gallons ir pment <u>Disposable provided in the Disposable provided in the Dis</u>	n Weil1.96 olyethylene bailer SAMPLING D pH 7.12 6.92 6.94 7.04 Disposable polye <u>Cor</u> <u>3 - 40 ml g</u>	ATA/FIELD PA Conductivity 1473 1482 1401 1381 ethylene bailer htainer Descrip lass VOAs	Sampling Pump (feet below land TDS (g/L) 0.958 0.964 0.911 0.898	Intake Second           surface)           ORP (           -34           -31           -31           -32           HCL	mV) 5 5 1 1 1 Pre:	servativ	<u>/e</u>	
Purging Equi	Gallons ir pment <u>Disposable provided in the Disposable provided in the Dis</u>	n Weil1.96 olyethylene bailer SAMPLING D pH 7.12 6.92 6.94 7.04 Disposable polye <u>Cor</u> <u>3 - 40 ml g</u>	ATA/FIELD PA Conductivity 1473 1482 1401 1381 ethylene bailer ntainer Descrip lass VOAs	Sampling Pump (feet below land ARAMETERS TDS (g/L) 0.958 0.964 0.911 0.898 tion	Intake Se surface)	mV) 5 5 1 1 .1 .1 .1	servativ	/ <u>e</u>	
Purging Equi	Gallons ir pment <u>Disposable provided in the Disposable provided in the Dis</u>	n Weil1.96 olyethylene bailer SAMPLING D pH 7.12 6.92 6.94 7.04 Disposable polye <u>Cor</u> <u>3 - 40 ml g</u>	ATA/FIELD PA Conductivity 1473 1482 1401 1381 ethylene bailer ntainer Descrip lass VOAs	Sampling Pump (feet below land ARAMETERS TDS (g/L) 0.958 0.964 0.911 0.898 tion	Intake Se surface)	mV) 5 5 1 1 1 <u>Pre</u>	servativ	<u>/e</u>	
Purging Equi Time 1340 1345 1350 1355 Sampling Eq <u>Cons</u> <u>Sampling Eq</u> <u>Remarks</u> Sampling Pe	Gallons ir pment <u>Disposable provided in the Disposable provided in the Dis</u>	N Weil1.96 Divethylene bailer SAMPLING D PH 7.12 6.92 6.94 7.04 Disposable polye <u>Cor</u> <u>3 - 40 ml g</u> Mitchell Crooks	ATA/FIELD P/ Conductivity 1473 1482 1401 1381 ethylene bailer ntainer Descrip lass VOAs	Sampling Pump (feet below land ARAMETERS TDS (g/L) 0.958 0.964 0.911 0.898 tion	Intake Se surface)	mV) 5 5 1 1 1 Pre	servativ	<u>/e</u>	
Purging Equi	Gallons ir pment <u>Disposable provided in the Disposable provided in the Dis</u>	n Weil1.96 olyethylene bailer SAMPLING D pH 7.12 6.92 6.94 7.04 Disposable polye <u>Cor</u> <u>3 - 40 ml g</u> Mitchell Crooks	ATA/FIELD P/ Conductivity 1473 1482 1401 1381 ethylene bailer ntainer Descrip lass VOAs	Sampling Pump (feet below land ARAMETERS TDS (g/L) 0.958 0.964 0.911 0.898 tion	Intake Se surface)	mV) 5 5 1 1 1 2 Pre-	servativ	<u>/e</u>	
Purging Equi	Gallons ir pment Disposable provided and a second	Meil Diyethylene bailer SAMPLING D PH 7.12 6.92 6.94 7.04 Disposable polye <u>Cor</u> <u>3 - 40 ml g</u> Mitchell Crooks	ATA/FIELD P/ Conductivity 1473 1482 1401 1381 ethylene bailer ntainer Descrip lass VOAs	Sampling Pump (feet below land ARAMETERS TDS (g/L) 0.958 0.964 0.911 0.898 tion	Intake Sesurface)           ORP (           -34.           -31.           -32.	etting <u>mV)</u> <u>5</u> <u>5</u> <u>1</u> <u>1</u> <u>Pre</u> <u>4</u> "	servativ = 0.6	/ <u>e</u>	

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Project Name	Federal # 15				F	age	1	of	
Project No.	1156690010								
Site Location	Farmington, NM								
Site/Well No.	MW-4	Coded/ Replicate No	·		Date _		3/18/	2008	
Weather	Sunny	Time Sampli Began	ng 140	5	Time Sam Complete	npling d		1430	
		EVAC		ATA					
Description o	f Measuring Point (MP)	Fop of Casing							
Height of MP	Above/Below Land Surfac	e		MP Elevation	6	5434.68	3 feet A	MSL	
Total Sounde	d Depth of Well Below MP	20 feet		Water-Level Ele	vation	542	26.95 fe	eet AM	ISL
Held	Depth to Water Below	/ MP7.73 fee	<u>t</u>	Diameter of Cas	sing		2		
Net	Water Column in	Well 12.27 fee	et	Prior to Samplin	ig _		5.8	39	
	Gallons per	Foot 0.16		Sampling Dump	Intoko Sott	ling			
	Gallons in	Well <u>1.96</u>		(feet below land	surface)				
Purging Equi	oment Disposable po	lyethylene bailer							
		SAMPLING DAT	TA/FIELD F	ARAMETERS	<b>•</b>	<del></del>			
Time	Temperature (C°)		onductivity	1DS (g/L)		IV)			
1405	12./3	6.99	1348	0.877	-32.3				
1412	12.10	6.90	1342	0.072	-10.2				
1418	12.31	6.98	1343	0.873	-31.6				
Sampling Eq.	upment		wlene baile	r		J			
	tituents Sampled	Conta	iner Descri	ntion		Pres	servativ	(P	
STEX		3 - 40 mi glas	ss VOAs	puon	HCI	110	Servativ		
						•	<b>-</b>		
	Materia hannes '!	and has so							
Remarks Samoling Per	Water is brown in color	and has an organio /litchell Crooks							

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Project Name	e Federal # 15					Page_	1	_ of	1
Proiect No.	1156690010								
Site Location	Farmington, NM								
Site/Well No.	MW-5	Coded/ Replicate l	No.		Date		3/18/	/2008	
Weather	Sunny	Time Sam Began	pling 1500	)	Time Sa Comple	ampling ted		1515	
		EVA	CUATION DA	TA					
Description o	of Measuring Point (MP)	Top of Casing							
Height of MP	Above/Below Land Surf	ace		MP Elevation		5434.10	6 feet A	AMSL	
Total Sounde	ed Depth of Well Below N	ИР <u>17.5 f</u>	eet	Water-Level Ele	evation	54	23.95 1	eet AM	SL
-leld	Depth to Water Bel	ow MP10.21	feet	Diameter of Cas Gallons Pumper	sing d/Bailed		2	2"	
Net	Water Column	in Well 7.29 f	eet	Prior to Samplir	ng		4.	70	
	Gallons p	er Foot0.16	3	Sampling Pump	) Intake S	ettina			
	Gallons p Gallons	er Foot0.16	<u> </u>	Sampling Pump (feet below land	) Intake S I surface)	etting			
Purging Equi	Gallons p Gallons pment <u>Disposable</u>	er Foot 0.16 in Well 1.17 polyethylene bailer	<u>,</u>	Sampling Pump (feet below land	) Intake So I surface)	etting 	<u> </u>		
Purging Equi	Gallons p Gallons pment Disposable Temperature (C°)	er Foot 0.16 in Well 1.17 polyethylene bailer SAMPLING D	ATA/FIELD P/	Sampling Pump (feet below land ARAMETERS TDS (g/L)	Intake Si I surface)	etting (mV)			
Purging Equi	Gallons p Gallons pment Disposable Temperature (C <sup>o</sup> ) 11.14	er Foot 0.16 in Well 1.17 polyethylene bailer SAMPLING D pH 7.13	ATA/FIELD P/ Conductivity 1402	Sampling Pump (feet below land ARAMETERS TDS (g/L) 0.975	o Intake So I surface)	etting (mV) 6			
Purging Equi Time 1500 1503	Gallons p Gallons pment <u>Disposable</u> Temperature (C <sup>o</sup> ) 11.14 10.68	er Foot 0.16 in Well 1.17 polyethylene bailer SAMPLING D pH 7.13 6.88	ATA/FIELD P/ Conductivity 1402 1418	Sampling Pump (feet below land ARAMETERS TDS (g/L) 0.975 0.965	ORP ( 28. 28. 28. 28. 28.	etting (mV) 6 2			
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Purging Equi	Gallons p Gallons pment <u>Disposable</u> Temperature (C <sup>o</sup> ) 11.14 10.68 11.13 11.49 uipment stituents Sampled	er Foot 0.16 in Well 1.17 polyethylene bailer SAMPLING D PH 7.13 6.88 6.85 6.86 Disposable poly Cor 3 - 40 ml g	ATA/FIELD P/ Conductivity 1402 1418 1369 1329 ethylene bailer ntainer Descrip	Sampling Pump (feet below land ARAMETERS TDS (g/L) 0.975 0.965 0.975 0.970	ORP ( 26. 28. 33. 51. HCL	etting (mV) 6 2 8 3 	servati	ve	
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Purging Equi	Gallons p Gallons pment <u>Disposable</u> Temperature (C <sup>o</sup> ) <u>11.14</u> <u>10.68</u> <u>11.13</u> <u>11.49</u> uipment stituents Sampled <u>Water is brown in colo</u> rsonnel <u>Mitchell Cro</u> Gal./ft. 1 ¼" =	er Foot 0.16 in Well 1.17 polyethylene bailer SAMPLING D pH 7.13 6.88 6.85 6.86 Disposable polye <u>Cor</u> 3 - 40 ml g	ATA/FIELD P/ Conductivity 1402 1418 1369 1329 ethylene bailer ntainer Descrip lass VOAs	Sampling Pump (feet below land ARAMETERS TDS (g/L) 0.975 0.965 0.975 0.970 tion	0 Intake Si I surface) 0RP ( 26. 28. 33. 51. HCL HCL	etting (mV) 6 2 8 3 3 Pres	servati	<u>ve</u>	

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APPENDIX B

LABORATORY ANALYTICAL REPORT

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

Conoco, Inc.

Certificate of A <u>080</u>	Analysis Number: <u>31210</u>	
Report To:	Project Name:	COP Federal5
Tetra Tech EM, Inc.	Site:	Farmington,NM
Kelly Blanchard	Site Address:	
6121 Indian School Road, N.E.		
Suite 200	PO Number:	4509596743
Albuquerque	<u>r o number.</u>	400000140
NM	State:	Texas
87110-	State Cert. No.:	T104704205-06-TX
ph: (505) 881-3188 fax:	Date Reported:	3/31/08

#### This Report Contains A Total Of 12 Pages

#### Excluding This Page, Chain Of Custody

And

Any Attachments



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

**Case Narrative for:** 

Conoco, Inc.

Certifica	te of Analysis Number: <u>08031210</u>
Report To:	Project Name: COP Federal5
Tetra Tech EM, Inc.	Site: Farmington,NM
Kelly Blanchard	Site Address:
6121 Indian School Road, N.E.	
Suite 200 Albuaueraue	PO Number: 4509596743
NM	<u>State:</u> Texas
87110-	State Cert. No.: T104704205-06-TX
ph: (505) 881-3188 fax:	Date Reported: 3/31/08

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.

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 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.

08031210 Page 1 4/4/08

Bethany A. Agarwal Senior Project Manager

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