

3R - 427

**JUNE 2010
QUARTERLY
GWMR**

02/23/2011

3R427

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



TETRA TECH, INC.

February 23, 2011

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

RE: ConocoPhillips El Paso No. 1A June 2010 Quarterly Groundwater Monitoring Report
Blanco, New Mexico

Dear Mr. von Gonten:

Enclosed please find a copy of the above-referenced document as compiled by Tetra Tech, Inc., formerly Maxim Technologies, for this Blanco 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
Project Manager/Geologist

Enclosures (1)

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

**QUARTERLY GROUNDWATER
MONITORING REPORT
JUNE 2010 SAMPLING EVENT
CONOCOPHILLIPS COMPANY
EL PASO NO.1A
SAN JUAN COUNTY, NEW MEXICO
API # 30-045-22778**

Prepared for:



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. 96900122.100

October 2010

TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1	Site History.....	1
2.0	METHODOLOGY AND RESULTS.....	1
2.1	Monitoring Summary.....	1
2.2	Groundwater Monitoring Methodology.....	1
2.3	Groundwater Sampling Analytical Results.....	2
3.0	CONCLUSIONS.....	2

FIGURES

1. Site Location Map
2. Site Layout Map
3. Generalized Geologic Cross Section
4. Groundwater Elevation Contour Map (June 2010)
5. Groundwater Quality Standard Exceedences Concentration Map

TABLES

1. Site History Timeline
2. Groundwater Elevation Data Summary
3. Groundwater Laboratory Analytical Results Summary

APPENDICES

- Appendix A. Groundwater Sampling Field Forms
- Appendix B. Groundwater Laboratory Analytical Report

QUARTERLY GROUNDWATER MONITORING REPORT CONOCOPHILLIPS COMPANY EL PASO NO. 1A, SAN JUAN COUNTY, NEW MEXICO

1.0 INTRODUCTION

This report details the results of quarterly groundwater monitoring completed by Tetra Tech, Inc. (Tetra Tech) on June 8, 2010 at the ConocoPhillips Company El Paso No. 1A site in San Juan County, New Mexico (Site). This sampling event represents the seventh quarter of groundwater monitoring conducted by Tetra Tech at the Site, with six of those events including all four Site monitor wells.

The Site is located on BLM land east of Blanco, NM near the intersection of New Mexico Highway 64 and County Road 4450 in Section 20, Township 29 North, Range 9 West. The Site can be accessed by turning southeast on County Road 4450 and traveling approximately 300 feet before veering south. Veer south again after traveling 0.1 miles and continue 0.4 miles to the Site. The Site consists of the El Paso No. 1S and El Paso No. 1A natural gas production wells, as well as all 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 history of the Site is outlined in **Table 1**.

2.0 METHODOLOGY AND RESULTS

2.1 Groundwater Monitoring Methodology

Groundwater Elevation Measurements

On June 8, 2010 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 June 2010 monitoring event data, groundwater flow is southwest and consistent with historic records at this site. The San Juan River is approximately 1 mile from the site and flows west.

Groundwater sampling

Each monitor well was sampled after three well casing volumes had been purged; or until measured groundwater parameters including temperature, pH, conductivity, total dissolved solids (TDS), oxidation-reduction potential (ORP), and dissolved oxygen (DO) had stabilized. Parameters were collected using a YSI 556 multi-parameter sonde and were recorded on Tetra Tech Groundwater Sampling Field Forms (**Appendix A**).

Purged groundwater was disposed of in the Site produced water tank (**Figure 2**). A dedicated 1.5-inch polyethylene bailer was used to purge and collect groundwater samples. The samples were then placed in laboratory prepared bottles, packed on ice, and shipped with chain of custody documentation to Southern Petroleum Laboratory (SPL) located in Houston, Texas. The samples were analyzed for presence of volatile organic compounds (VOC) including benzene, toluene, ethylbenzene, and xylenes

(BTEX) by Environmental Protection Agency (EPA) Method 8260B, ion chromatography by EPA Method E300.0, total dissolved solids (TDS) by EPA Method 2540C, and dissolved metals for manganese by EPA Method 6010B.

2.3 Groundwater Sampling Analytical Results

The June 2010 analysis of the collected groundwater samples indicates that all BTEX constituents are below NMWQCC groundwater quality standards. Groundwater laboratory analytical results are summarized in **Table 3**. A figure showing all NMWQCC standard exceedences is provided as **Figure 5**.

- **Fluoride**

The NMWQCC groundwater quality standard for fluoride is 1.6 milligrams per liter (mg/L). Groundwater collected from Monitor Well MW-4 was found to contain fluoride at a concentration of 2.78 mg/L. Lab results for MW-1, MW-2 and MW-3 are inconclusive with a result of < 5.0 due to laboratory detection limits being set above standard. This error has been discussed with SPL and will be corrected for future sampling events.

- **Sulfate**

The NMWQCC groundwater quality standard for sulfate is 600 mg/L. Groundwater collected from Monitor Wells MW-1, MW-2, MW-3 and MW-4 were found to contain sulfate at concentrations of 6,690 mg/L; 12,200 mg/L; 4,740 mg/L; and 3,910 mg/L; respectively. It should be noted that the highest concentration was found in the up-gradient monitoring well.

- **Manganese**

The NMWQCC groundwater quality standard for dissolved manganese is 0.2 mg/L. Groundwater collected from Monitor Wells MW-1, MW-2, and MW-3 were found to contain manganese at concentrations of 2.17 mg/L; 1.38 mg/L; and 0.409 mg/L; respectively.

- **Total Dissolved Solids**

The NMWQCC groundwater quality standard for TDS is 1,000 mg/L. Groundwater collected from Monitor Wells MW-1, MW-2, MW-3 and MW-4 were found to contain TDS at concentrations of 10,600 mg/L; 19,000 mg/L; 6,620 mg/L; and 3,380 mg/L; respectively. It should be noted that the highest concentration was found in the up-gradient monitoring well.

The laboratory analysis report for the June 2010 groundwater sampling event is included as **Appendix B**.

3.0 CONCLUSIONS

Tetra Tech recommends continued quarterly groundwater sampling at the Site in order to provide sufficient data for Site closure. Site closure will be requested when groundwater quality results indicate that all constituents of concern are consistently below NMWQCC groundwater quality standards or have reached Site-specific background levels. Please contact Kelly Blanchard at 505-237-8440 or kelly.blanchard@tetrattech.com if you have any questions or require additional information.

FIGURES

- 1. Site Location Map**
- 2. Site Layout Map**
- 3. Generalized Geologic Cross Section**
- 4. Groundwater Elevation Contour Map (June 2010)**
- 5. Groundwater Quality Standard Exceedences Concentration Map**



FIGURE 1.

Site Location Map
ConocoPhillips
Company
El Paso No. 1A
San Juan County, NM



Directions from HW 64 to
ConocoPhillips
El Paso No. 1A Site Location

Approximate ConocoPhillips
El Paso No. 1A
Site location



TETRA TECH, INC.

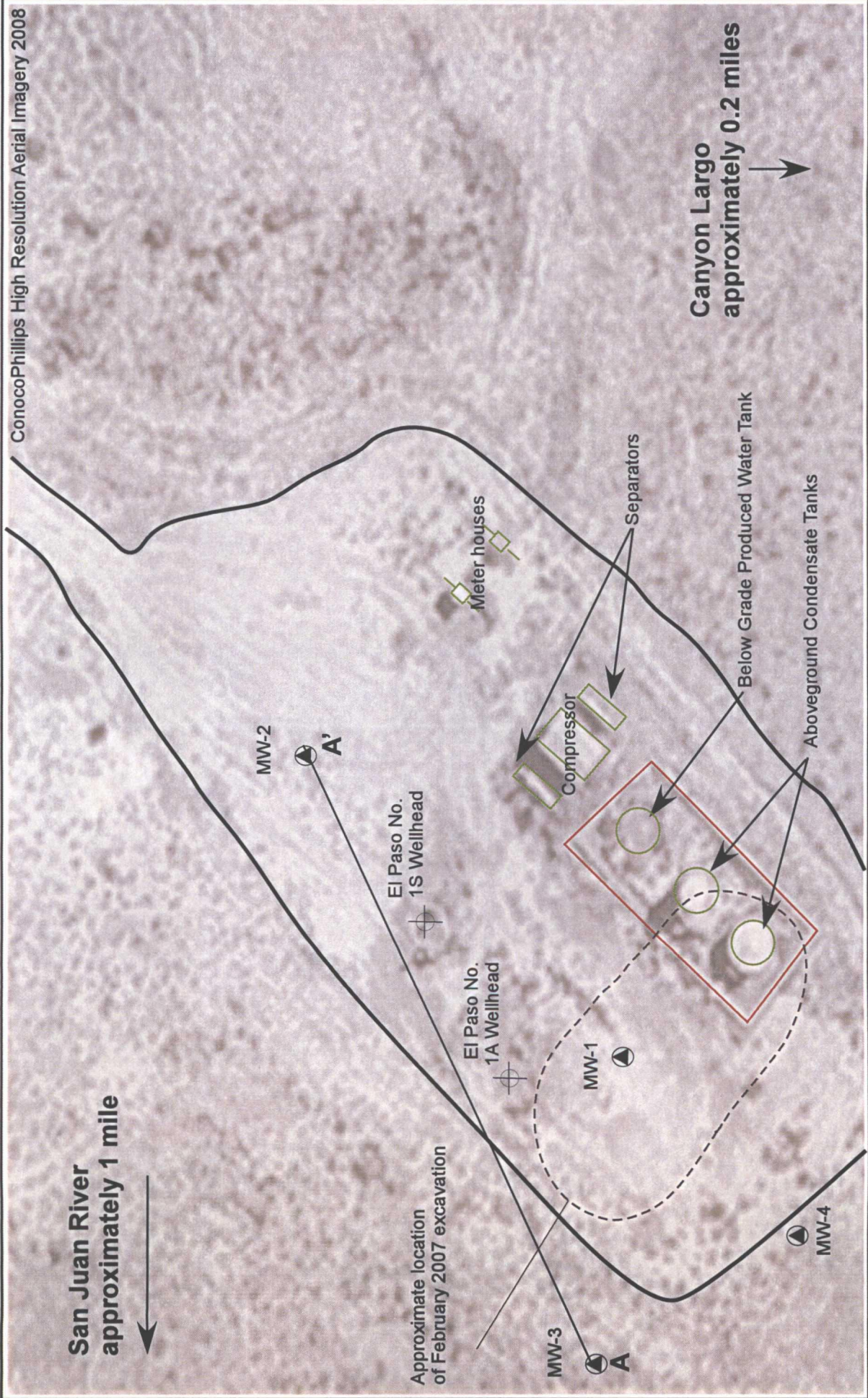
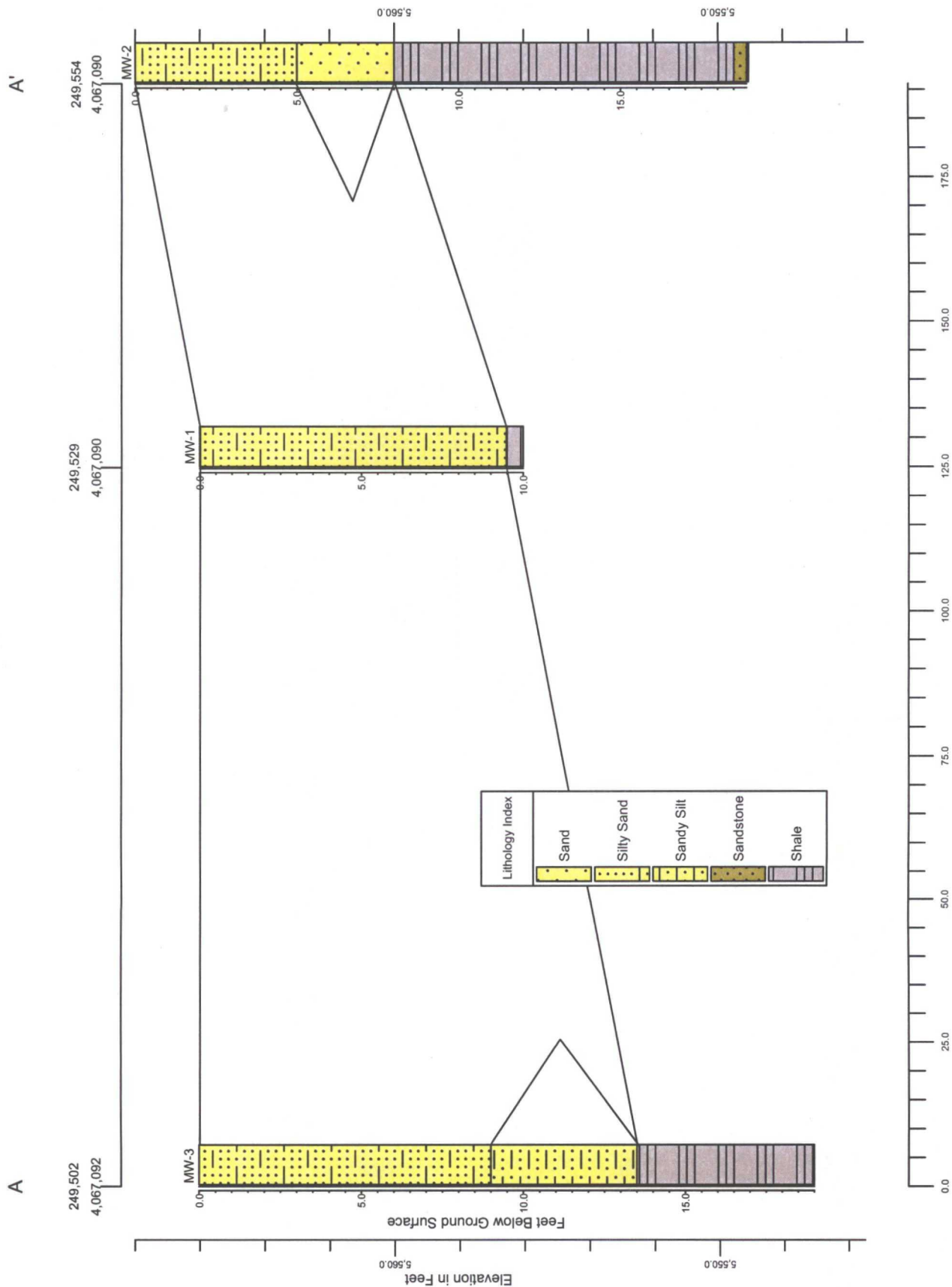


FIGURE 2: SITE LAYOUT MAP CONOCOPHILLIPS COMPANY EL PASO NO. 1A Sec 20, Twp 29N, Rng 09W San Juan County, New Mexico	LEGEND - WELLHEAD - MONITOR WELL - GENERAL SITE BOUNDARY - BERM - EQUIPMENT 0 20 40 FEET	North Arrow Tt TETRA TECH, INC.
--	---	---

Figure 3
El Paso No. 1A - Cross-Section A-A'



San Juan River
approximately 1 mile

Approximate location
of February 2007 excavation

Canyon Largo
approximately 0.2 miles

LEGEND

- EL PASO 1A WELLHEAD
- EL PASO 1S WELLHEAD
- MONITOR WELL
- BERM
- EQUIPMENT
- GROUNDWATER ELEVATION LINE (FEET)
- GENERAL SITE BOUNDARY



FIGURE 4:
GROUNDWATER ELEVATION MAP
JUNE 2010
CONOCOPHILLIPS COMPANY
EL PASO NO. 1A
Sec 20, Twp 29N, Rng 09W
San Juan County, New Mexico



TETRA TECH, INC.

San Juan River
approximately 1 mile



Sulfate = 12,200 mg/L
Manganese = 1.38 mg/L
TDS = 19,000 mg/L



El Paso No.
1S Wellhead



Approximate location
of February 2007 excavation

El Paso No.
1A Wellhead



Sulfate = 6,690 mg/L
Manganese = 2.17 mg/L
TDS = 10,600 mg/L

Sulfate = 4,740 mg/L
Manganese = 0.409 mg/L
TDS = 6,620 mg/L



MW-1



MW-3

Sulfate = 3,910 mg/L
Manganese = .177 mg/L
TDS = 3,380 mg/L

MW-4



Canyon Largo
approximately 0.2 miles



FIGURE 5:
GROUNDWATER QUALITY STANDARD
EXCEEDENCES CONCENTRATION MAP
JUNE 2010
CONOCOPHILLIPS COMPANY
EL PASO NO. 1A
Sec 20, Twp 29N, Rng 09W
San Juan County, New Mexico

LEGEND



WELLHEAD



MONITOR WELL



BERM



EQUIPMENT



GENERAL SITE BOUNDARY



TETRA TECH, INC.

TABLES

- 1. Site History Timeline**
- 2. Groundwater Elevation Data Summary**
- 3. Groundwater Laboratory Analytical Results Summary**

Table 1. Site History Timeline - ConocoPhillips Company El Paso No. 1A

DATE	ACTIVITY
5-Jan-78	Well spudded by El Paso Natural Gas Co.
1-Nov-86	Meridian Oil, Inc. becomes the operator under El Paso Production Company
31-Dec-00	Operator name change from Burlington Resources Oil and Gas Company to Burlington Resources Oil and Gas Company LP.
31-Mar-06	ConocoPhillips Company completed the acquisition of Burlington Resources.
Feb-07	Hydrocarbon-impacted soils discovered during trench work being conducted for a new flowline. Original source of contamination is unknown.
Feb-07	Contaminated soil excavated from the Site. Soil samples collected and analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) were below NMOCD regulations.
21-Sep-07	Groundwater monitoring well installed to a depth of ten (10) feet below ground surface (bgs) by Envirotech Inc. of Farmington, NM (Envirotech). A soil sample obtained from the well boring was analyzed for benzene, BTEX and total petroleum hydrocarbons (TPH). Results were below NMOCD regulations of 10 parts per million (ppm), 50 ppm, and 100 ppm, respectively.
21-Sep-07	A ground water sample was collected from the temporary monitoring well and analyzed for BTEX; results were below the State of New Mexico drinking water standard for this constituent.
27-Sep-07	Depth to groundwater measured at seven (7) feet bgs.
Sep-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.
25-Oct-08	1st quarter sampling of MW-1 by Tetra Tech.
Jan-09	Attempt to install additional monitoring wells; roads inaccessible by drill rig due to winter weather conditions.
3 and 4-March-09	Monitoring wells MW-2, MW-3, MW-4 installed and developed by WDC overseen by Tetra Tech. Soil samples were collected from MW-3 and MW-2 boring locations.
2-Apr-09	First quarter of sampling to include all 4 monitoring wells. A baseline suite was collected for MW-1, MW-2, MW-3 and MW-4.
18-Jun-09	2nd quarter of groundwater sampling conducted by Tetra Tech to include wells MW-1, MW-2, MW-3 and MW-4.
29-Sep-09	3rd quarter of groundwater sampling conducted by Tetra Tech to include wells MW-1, MW-2, MW-3 and MW-4. Samples collected for dissolved metals exceeding standards that were previously run by the total metals test method; Al, Mn, Fe. Dissolved manganese was found in concentrations above NMWQCC standard.
15-Dec-09	4th quarter groundwater sampling conducted by Tetra Tech to include wells MW-1, MW-2, MW-3 and MW-4. Analytical results for fluoride are inconclusive.
28-Apr-10	5th quarter groundwater sampling conducted by Tetra Tech to include wells MW-1, MW-2, MW-3 and MW-4.
8-Jun-10	6th quarter groundwater sampling conducted by Tetra Tech to include wells MW-1, MW-2, MW-3 and MW-4. Analytical results for fluoride are inconclusive.

Table 2. Groundwater Elevation Data Summary - ConocoPhillips Company El Paso No. 1A

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	13.55	4.75-9.75	99.52	9/21/2007	7.00	92.52
				10/25/2008	10.92	88.60
				1/30/2009	NM	NM
				4/2/2009	10.33	89.19
				6/18/2009	10.65	88.87
				9/29/2009	10.96	88.56
				12/15/2009	10.99	88.53
				4/28/2010	10.53	88.99
MW-2	20.75	3-17.9	98.72	6/8/2010	10.48	89.04
				4/2/2009	8.49	90.23
				6/18/2009	8.71	90.01
				9/29/2009	8.70	90.02
				12/15/2009	8.75	89.97
				4/28/2010	8.38	90.34
				6/8/2010	8.30	90.42
				4/2/2009	9.71	88.47
MW-3	21.15	3.1-18.1	98.175	6/18/2009	9.75	88.43
				9/29/2009	10.10	88.08
				12/15/2009	10.07	88.11
				4/28/2010	9.66	88.52
				6/8/2010	9.62	88.56
				4/2/2009	9.74	88.54
				6/18/2009	9.78	88.50
				9/29/2009	10.04	88.24
MW-4	20.83	2.9-17.9	98.28	12/15/2009	10.06	88.22
				4/28/2010	9.70	88.58
				6/8/2010	9.61	88.67

ft = Feet

TOC = Top of casing

bgs = below ground surface

* Elevation relative to wellhead, set at an arbitrary elevation of 100 feet above mean sea level

NM = Not Measured

Table 3. Groundwater Laboratory Analytical Results Summary - ConocoPhillips Company El Paso No. 1A

Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Fluoride (mg/L)	Sulfate (mg/L)	Aluminum (mg/L)	Iron (mg/L)	Manganese (mg/L)	Total Dissolved Solids (mg/L)
MW-1	9/21/2007	1.4	0.5	<0.2	0.3	NS	NS	NS	NS	NS	NA
	10/25/2008	<0.5	<0.5	<0.5	<0.5	<2	6400	NS	26*	5.49*	NA
	1/30/2009	NA ⁽¹⁾	NA ⁽¹⁾	NA ⁽¹⁾	NA ⁽¹⁾	NA ⁽¹⁾	NA ⁽¹⁾	NA ⁽¹⁾	NA ⁽¹⁾	NA ⁽¹⁾	NA ⁽¹⁾
	4/2/2009	<0.5	<0.5	<0.5	<0.5	1.92	7580	2.21*	29.6*	3.14*	10000
	6/18/2009	<5	<5	<5	<5	2.04	7970	2.1*	7.66*	3.06*	NA
	9/29/2009	<1	<1	<1	<1	1.56	8030	<0.1	0.0237	1.42	10600
	12/15/2009	<1	<1	<1	<1	<50	10100	NA	NA	1.68	10400
	4/28/2010	<1	<1	<1	<1	2.14	8100	NA	NA	2.37	10300
MW-2	6/8/2010	<1	<1	<1	<1	<5.0	6690	NA	NA	2.17	10600
	4/2/2009	<0.5	<0.5	<0.5	<0.5	<0.5	15900	0.705*	0.751*	1.16*	22500
	6/18/2009	<5	<5	<5	<5	0.67	17000	1.49*	1.23*	1.92*	NA
	9/29/2009	<1	<1	<1	<1	<0.5	29800	<0.1	<0.02	2.03	31800
	12/15/2009	<1	<1	<1	<1	<100	22100	NA	NA	1.54	25100
	4/28/2010	<1	<1	<1	<1	2.18	8350	NA	NA	0.941	12300
	6/8/2010	<1	<1	<1	<1	<5.0	12200	NA	NA	1.38	19000
	4/2/2009	<0.5	<0.5	52	362	1.68	4090	5.47*	9.31*	0.788*	7530
MW-3	6/18/2009	<5	<5	15	87	1.68	5750	3.75*	5.3*	0.454*	NA
	9/29/2009	<1	<1	2.7	20	1.47	6890	0.224	0.14	0.432	8630
	12/15/2009	<1	<1	3	24	<50	7490	NA	NA	0.583	9230
	4/28/2010	2	<1	15	124	1.53	5680	NA	NA	0.519	6610
	6/8/2010	<1	<1	5.4	45.7	<5.0	4740	NA	NA	0.409	6620
	4/2/2009	<0.5	<0.5	<0.5	<0.5	2.42	4750	2.1*	2.12*	0.396*	6660
	6/18/2009	<5	<5	<5	<5	2.25	5300	5.52*	6.91*	0.333*	NA
	9/29/2009	<1	<1	<1	<1	2.26	5340	0.943	0.393	0.134	6760
MW-4	12/15/2009	<1	<1	<1	<1	<50	5660	NA	NA	0.201	6500
	4/28/2010	<1	<1	<1	<1	2.38	4820	NA	NA	0.198	8320
	6/8/2010	<1	<1	<1	<1	2.78	3910	NA	NA	0.177	3380
	NMWQCC Standards	10 (µg/L)	750 (µg/L)	750 (µg/L)	620 (µg/L)	1.6 (mg/L)	600 (mg/L)	5 (mg/L)	1 (mg/L)	0.2 (mg/L)	1000 (mg/L)

Explanation

ND = Not Detected

NMWQCC = New Mexico Water Quality Control Commission

mg/L = milligrams per liter (parts per million)

µg/L = micrograms per liter (parts per billion)

NA⁽¹⁾ = Not analyzed due to laboratory error

NA = Not Analyzed

<0.7 = Below laboratory detection limit of 0.7 ug/L

Bold = concentrations that exceed the NMWQCC limits

* = Results reported for total metals analysis, results can not be compared to NMWQCC Standards for dissolved metals

APPENDIX A
GROUNDWATER SAMPLING FIELD FORMS



TETRA TECH, INC.

WATER SAMPLING FIELD FORM

Project Name El Paso 1APage 1 of 4

act No. _____

Site Location Blanco, NMSite/Well No. MW-1Coded/
Replicate No. Dup @ 1620Date 6/8/10Weather Sunny, hot 95°Time Sampling
Began 11:15Time Sampling
Completed 11:30

EVACUATION DATA

Dup 1620Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface _____ MP Elevation _____

Total Sounded Depth of Well Below MP 13.58 Water-Level Elevation _____Held _____ Depth to Water Below MP 10.48 Diameter of Casing 2"Wet _____ Water Column in Well 3.1 Gallons Pumped/Bailed
Prior to Sampling 1.5Gallons per Foot 0.16Gallons in Well .496Sampling Pump Intake Setting
(feet below land surface) _____Purging Equipment Purge pump (Bailer) x3 = 1.488

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm³)	TDS (g/L)	DO (mg/L)	DO %	ORP (mV)	Volume (gal.)
11021	19.84	8.09	12.70	—	1.18	12.0	-119.5	0.5
11023	19.71	8.00	12.69	—	1.06	10.9	-131.2	0.75
11024	14.32	7.95	12.67	—	1.09	10.8	-151.8	1.25
11025	14.23	7.93	12.63	—	1.10	11.2	-118.9	1.5

Sampling Equipment Purge Pump/Bailer

Constituents Sampled _____ Container Description _____ Preservative _____

BTEX _____ 3 40mL VOA's _____ HCl _____

~~Total Metals~~ Dissolved Mn plastic 11002 noneFluoride, Sulfate, TDS plastic 3202 noneRemarks water is light gray, no odor or sheen detectedSampling Personnel CM & CB Slight bad odor

Well Casing Volumes

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



TETRA TECH, INC.

WATER SAMPLING FIELD FORM

Project Name El Paso 1APage 2 of 4

act No. _____

Site Location Blanco, NMSite/Well No. MW-3 MW-2

Coded/

Replicate No. _____

Date 6/8/10Weather Sunny, hot 95°

Time Sampling

Began _____

Time Sampling

Completed 1655

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface _____ MP Elevation _____

Total Sounded Depth of Well Below MP 21.11 20.75 Water-Level Elevation _____Held _____ Depth to Water Below MP 8.30 Diameter of Casing 2"Wet _____ Water Column in Well 12.45 Gallons Pumped/Bailed Prior to Sampling 6 gallonsGallons per Foot 0.16Gallons in Well 1.922Sampling Pump Intake Setting
(feet below land surface) _____Purging Equipment Purge pump / Bailer X3 = 5.976

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm)	TDS (g/L)	DO (mg/L)	DO %	ORP (mV)	Volume (gal.)
1646	13.16	7.83	17.47	—	2.12	19.4	-148.1	4
1649	13.95	7.78	17.91	—	1.36	13.9	-159.4	4.5
1650	13.95	7.80	16.83	—	1.45	16.3	-162.7	5.25

Sampling Equipment Purge Pump/Bailer

Constituents Sampled

Container Description

Preservative

BTEX 3 40mL VOA's HCl _____None Metals Dissolved Mn plastic _____ none _____

Fluoride, Sulfate plastic _____ none _____

Remarks water is clear; slight bio odorSampling Personnel CM & CB

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 El Paso 1APage 3 of 4

ect No. _____

Site Location Blanco, NMSite/Well No. MM-2 MM-3Coded/
Replicate No. _____Date 6/8/10Weather Sunny, hot 95°Time Sampling
Began _____Time Sampling
Completed 1615

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface _____ MP Elevation _____

Total Sounded Depth of Well Below MP 21.11 Water-Level Elevation _____Held _____ Depth to Water Below MP 9.62 Diameter of Casing 2"Wet _____ Water Column in Well 11.49 Gallons Pumped/Bailed
Prior to Sampling 5.75 gallonsGallons per Foot 0.16Gallons in Well 1.888Sampling Pump Intake Setting
(feet below land surface) _____Purging Equipment Purge pump / Bailer X 3 = 5.515

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity ($\mu\text{S}/\text{cm}^2$)	TDS (g/L)	DO (mg/L)	DO %	ORP (mV)	Volume (gal.)
<u>1607</u>	<u>13.49</u>	<u>8.11</u>	<u>11.15</u>	<u>—</u>	<u>1.05</u>	<u>10.3</u>	<u>-251.5</u>	<u>4 gal</u>
<u>1609</u>	<u>13.88</u>	<u>8.11</u>	<u>11.10</u>	<u>—</u>	<u>0.98</u>	<u>9.8</u>	<u>-250.2</u>	<u>4.5</u>
<u>1612</u>	<u>14.08</u>	<u>8.22</u>	<u>10.99</u>	<u>—</u>	<u>1.59</u>	<u>16.0</u>	<u>-242.5</u>	<u>5.6</u>
<u>1614</u>	<u>14.22</u>	<u>8.25</u>	<u>11.03</u>	<u>—</u>	<u>1.52</u>	<u>11.03</u>	<u>-241.2</u>	<u>6.0</u>

Sampling Equipment Purge Pump/Bailer

Constituents Sampled

Container Description

Preservative

BTEX 3 40mL VOA's HCl _____MM-2 Dissolved, Mn plastic none

Fluoride, Sulfate plastic none

Remarks H₂O is dark gray with a strong bio odor observed, noSampling Personnel CM & CB Shen

Well Casing Volumes

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



TETRATECH, INC.

WATER SAMPLING FIELD FORM

Project Name El Paso 1APage 4 of 4

Project No. _____

Site Location Blanco, NMSite/Well No. MW-4Coded/
Replicate No. _____Date 6/8/10Weather Sunny, hot 95°Time Sampling
Began 1545Time Sampling
Completed 1600

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface _____

MP Elevation _____

Total Sounded Depth of Well Below MP 20.86

Water-Level Elevation _____

Held _____ Depth to Water Below MP 9.61Diameter of Casing 2"Wet _____ Water Column in Well 11.25Gallons Pumped/Bailed
Prior to Sampling 5.5Gallons per Foot 0.16Gallons in Well 1.8Sampling Pump Intake Setting
(feet below land surface) _____Purging Equipment Purge pump/Bailer X3 = 5.4

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm³)	TDS (g/L)	DO (mg/L)	DO %	ORP (mV)	Volume (gal.)
1555	13.08	8.21	8.651	—	2.49	243	-158.8	4
1557	13.56	8.16	8.656	—	1.81	17.6	-168.2	4.5
1559	13.43	8.03	8.657	—	1.75	17.1	-164.6	5.25

Sampling Equipment Purge Pump/Bailer

Constituents Sampled

Container Description

Preservative

BTEX 3 40mL VOA's HCl _____Total Metals plastic none _____Fluoride, Sulfate plastic none _____Remarks water is light gray slight bio odor observed, no SheenSampling Personnel CM & CB

Well Casing Volumes

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

APPENDIX B

GROUNDWATER LABORATORY ANALYTICAL REPORT



SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

Certificate of Analysis

June 24, 2010

Workorder: H10060247

Cassandra Brown
Tetra Tech, Inc.
6121 Indian School Road NE
Suite 200
Albuquerque, NM 87110

Project: El Paso No. 1A
Project Number: El Paso No. 1A
Site: Blanco, New Mexico
PO Number: ENFOS
NELAC Cert. No.: T104704205-09-1

This Report Contains A Total Of 25 Pages

Excluding Any Attachments



SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

Certificate of Analysis

June 24, 2010

Workorder: H10060247

Cassandra Brown
Tetra Tech, Inc.
6121 Indian School Road NE
Suite 200
Albuquerque, NM 87110

Project: El Paso No. 1A
Project Number: El Paso No. 1A
Site: Blanco, New Mexico
PO Number: ENFOS
NELAC Cert. No.: T104704205-09-1

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.

Ion Chromatography, Method 300:

Due to limited sample volume, a Matrix Spike (MS) or Matrix Spike Duplicate (MSD) was not extracted with Batch ID: IC/1331. A Laboratory Control Sample (LCS) and a Laboratory Control Sample Duplicate (LCSD) were extracted with the analytical batch and serve as the batch quality control (QC). The LCS and LCSD recovered acceptably and precision criteria were met.

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).



SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

Certificate of Analysis

June 24, 2010

Workorder: H10060247

Cassandra Brown
Tetra Tech, Inc.
6121 Indian School Road NE
Suite 200
Albuquerque, NM 87110

Project: El Paso No. 1A
Project Number: El Paso No. 1A
Site: Blanco, New Mexico
PO Number: ENFOS
NELAC Cert. No.: T104704205-09-1

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 his designee, as verified by the following signature.

Erica Cardenas, Senior Project Manager

Enclosures



SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

SAMPLE SUMMARY

Workorder: H10060247 : El Paso No. 1A

Project Number: El Paso No. 1A

Lab ID	Sample ID	Matrix	COC ID	Date/Time Collected	Date/Time Received
H10060247001	MW-1	Water		6/8/2010 16:30	6/10/2010 09:30
H10060247002	MW-2	Water		6/8/2010 16:55	6/10/2010 09:30
H10060247003	MW-3	Water		6/8/2010 16:15	6/10/2010 09:30
H10060247004	Duplicate	Water		6/8/2010 16:20	6/10/2010 09:30
H10060247005	MW-4	Water		6/8/2010 16:00	6/10/2010 13:17
H10060247006	Blank	Water		6/9/2010 08:15	6/10/2010 13:17



SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

ANALYTICAL RESULTS

Workorder: H10060247 : El Paso No. 1A

Project Number: El Paso No. 1A

Lab ID: H10060247001

Date/Time Received: 6/10/2010 09:30 Matrix: Water

Sample ID: MW-1

Date/Time Collected: 6/8/2010 16:30

WET CHEMISTRY

Analysis Desc: EPA 300.0

Analytical Batches:

Batch: 1330 EPA 300.0 on 06/11/2010 14:49 by CFS DF = 500.

Batch: 1331 EPA 300.0 on 06/12/2010 11:04 by CFS DF = 10.

Parameters	Results	Qual	Report Limit	MDL	DF	RegLmt	Batch Information	
	mg/l						Prep	Analysis
Fluoride	ND		5.00	0.430	10			1331
Sulfate	6690		250	21.8	500			1330

Analysis Desc: SM 2540 C

Analytical Batches:

Batch: 1649 SM 2540 C on 06/12/2010 12:15 by CFS

Parameters	Results	Qual	Report Limit	MDL	DF	RegLmt	Batch Information	
	mg/l						Prep	Analysis
Residue, Filterable (TDS)	10600		100	39.4	10			1649

ICP DISSOLVED METALS

Analysis Desc: SW-846 6010B

Preparation Batches:

Batch: 1819 SW-846 3010A on 06/10/2010 15:00 by R_V

Analytical Batches:

Batch: 1456 SW-846 6010B on 06/18/2010 15:40 by EBG

Parameters	Results	Qual	Report Limit	MDL	DF	RegLmt	Batch Information	
	mg/l						Prep	Analysis
Manganese	2.17		0.00500	0.000300	1		1819	1456

VOLATILES

Analysis Desc: SW-846 8260B

SW-846 5030 Analytical Batches:

Batch: 2036 SW-846 8260B on 06/11/2010 20:20 by LKL

Parameters	Results	Qual	Report Limit	MDL	DF	RegLmt	Batch Information	
	ug/l						Prep	Analysis
Benzene	ND		1.0	0.10	1			2036
Ethylbenzene	ND		1.0	0.15	1			2036
Toluene	ND		1.0	0.29	1			2036
m,p-Xylene	ND		1.0	0.18	1			2036
o-Xylene	ND		1.0	0.13	1			2036
Xylenes, Total	ND		1.0	0.13	1			2036
4-Bromofluorobenzene (S)	103 %		74-125		1			2036
1,2-Dichloroethane-d4 (S)	94.6 %		70-130		1			2036



SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

ANALYTICAL RESULTS

Workorder: H10060247 : El Paso No. 1A

Project Number: El Paso No. 1A

Lab ID: H10060247001

Date/Time Received: 6/10/2010 09:30 Matrix: Water

Sample ID: MW-1

Date/Time Collected: 6/8/2010 16:30

Parameters	Results			MDL	DF	RegLmt	Batch Information	
	Qual	Report Limit					Prep	Analysis
Toluene-d8 (S)	94.3 %	82-118			1			2036



SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

ANALYTICAL RESULTS

Workorder: H10060247 : El Paso No. 1A

Project Number: El Paso No. 1A

Lab ID: H10060247002

Date/Time Received: 6/10/2010 09:30 Matrix: Water

Sample ID: MW-2

Date/Time Collected: 6/8/2010 16:55

WET CHEMISTRY

Analysis Desc: EPA 300.0

Analytical Batches:

Batch: 1330 EPA 300.0 on 06/11/2010 15:54 by CFS DF = 1000

Batch: 1331 EPA 300.0 on 06/12/2010 11:20 by CFS DF = 10

Parameters	Results	Qual	Report Limit	MDL	DF	RegLmt	Batch Information	
	mg/l						Prep	Analysis
Fluoride	ND		5.00	0.430	10			1331
Sulfate	12200		500	43.5	1000			1330

Analysis Desc: SM 2540 C

Analytical Batches:

Batch: 1649 SM 2540 C on 06/12/2010 12:15 by CFS

Parameters	Results	Qual	Report Limit	MDL	DF	RegLmt	Batch Information	
	mg/l						Prep	Analysis
Residue, Filterable (TDS)	19000		100	39.4	10			1649

ICP DISSOLVED METALS

Analysis Desc: SW-846 6010B

Preparation Batches:

Batch: 1819 SW-846 3010A on 06/10/2010 15:00 by R_V

Analytical Batches:

Batch: 1456 SW-846 6010B on 06/18/2010 15:46 by EBG

Parameters	Results	Qual	Report Limit	MDL	DF	RegLmt	Batch Information	
	mg/l						Prep	Analysis
Manganese	1.38		0.00500	0.000300	1		1819	1456

VOLATILES

Analysis Desc: SW-846 8260B

SW-846 5030Analytical Batches:

Batch: 2036 SW-846 8260B on 06/11/2010 19:01 by LKL

Parameters	Results	Qual	Report Limit	MDL	DF	RegLmt	Batch Information	
	ug/l						Prep	Analysis
Benzene	ND		1.0	0.10	1			2036
Ethylbenzene	ND		1.0	0.15	1			2036
Toluene	ND		1.0	0.29	1			2036
m,p-Xylene	ND		1.0	0.18	1			2036
o-Xylene	ND		1.0	0.13	1			2036
Xylenes, Total	ND		1.0	0.13	1			2036
4-Bromofluorobenzene (S)	102 %		74-125		1			2036
1,2-Dichloroethane-d4 (S)	98.6 %		70-130		1			2036



SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

ANALYTICAL RESULTS

Workorder: H10060247 : El Paso No. 1A

Project Number: El Paso No. 1A

Lab ID: H10060247002

Date/Time Received: 6/10/2010 09:30

Matrix: Water

Sample ID: MW-2

Date/Time Collected: 6/8/2010 16:55

Parameters	Results	Qual	Report Limit	MDL	DF	RegLmt	Batch Information	
							Prep	Analysis
Toluene-d8 (S)	93.8 %		82-118		1			2036



SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

ANALYTICAL RESULTS

Workorder: H10060247 : El Paso No. 1A

Project Number: El Paso No. 1A

Lab ID: H10060247003

Date/Time Received: 6/10/2010 09:30 Matrix: Water

Sample ID: MW-3

Date/Time Collected: 6/8/2010 16:15

WET CHEMISTRY

Analysis Desc: EPA 300.0

Analytical Batches:

Batch: 1330 EPA 300.0 on 06/11/2010 15:22 by CFS DF = 500.

Batch: 1331 EPA 300.0 on 06/12/2010 11:37 by CFS DF = 10.

Parameters	Results					Batch Information	
	mg/l	Qual	Report Limit	MDL	DF	RegLmt	Prep Analysis
Fluoride	ND		5.00	0.430	10		1331
Sulfate	4740		250	21.8	500		1330

Analysis Desc: SM 2540 C

Analytical Batches:

Batch: 1649 SM 2540 C on 06/12/2010 12:15 by CFS

Parameters	Results					Batch Information	
	mg/l	Qual	Report Limit	MDL	DF	RegLmt	Prep Analysis
Residue, Filterable (TDS)	6620		50.0	19.7	5		1649

ICP DISSOLVED METALS

Analysis Desc: SW-846 6010B

Preparation Batches:

Batch: 1819 SW-846 3010A on 06/10/2010 15:00 by R_V

Analytical Batches:

Batch: 1456 SW-846 6010B on 06/18/2010 15:52 by EBG

Parameters	Results					Batch Information	
	mg/l	Qual	Report Limit	MDL	DF	RegLmt	Prep Analysis
Manganese	0.409		0.00500	0.000300	1		1819 1456

VOLATILES

Analysis Desc: SW-846 8260B

SW-846 5030Analytical Batches:

Batch: 2036 SW-846 8260B on 06/11/2010 20:45 by LKL

Parameters	Results					Batch Information	
	ug/l	Qual	Report Limit	MDL	DF	RegLmt	Prep Analysis
Benzene	ND		1.0	0.10	1		2036
Ethylbenzene	5.4		1.0	0.15	1		2036
Toluene	ND		1.0	0.29	1		2036
m,p-Xylene	41		1.0	0.18	1		2036
o-Xylene	4.7		1.0	0.13	1		2036
Xylenes, Total	45.7		1.0	0.13	1		2036
4-Bromofluorobenzene (S)	104 %		74-125		1		2036
1,2-Dichloroethane-d4 (S)	94.2 %		70-130		1		2036



SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

ANALYTICAL RESULTS

Workorder: H10060247 : El Paso No. 1A

Project Number: El Paso No. 1A

Lab ID: H10060247003

Date/Time Received: 6/10/2010 09:30 Matrix: Water

Sample ID: MW-3

Date/Time Collected: 6/8/2010 16:15

Parameters	Results					Batch Information	
	Qual	Report Limit	MDL	DF	RegLmt	Prep	Analysis
Toluene-d8 (S)	94.5 %	82-118		1			2036



SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

ANALYTICAL RESULTS

Workorder: H10060247 : El Paso No. 1A

Project Number: El Paso No. 1A

Lab ID: H10060247004

Date/Time Received: 6/10/2010 09:30 Matrix: Water

Sample ID: Duplicate

Date/Time Collected: 6/8/2010 16:20

VOLATILES

Analysis Desc: SW-846 8260B

SW-846 5030 Analytical Batches:

Batch: 2036 SW-846 8260B on 06/11/2010 19:27 by LKL

Parameters	Results					Batch Information	
	ug/l	Qual	Report Limit	MDL	DF	RegLmt	Prep Analysis
Benzene	ND		1.0	0.10	1		2036
Ethylbenzene	ND		1.0	0.15	1		2036
Toluene	ND		1.0	0.29	1		2036
m,p-Xylene	ND		1.0	0.18	1		2036
o-Xylene	ND		1.0	0.13	1		2036
Xylenes, Total	ND		1.0	0.13	1		2036
4-Bromofluorobenzene (S)	105 %		74-125		1		2036
1,2-Dichloroethane-d4 (S)	96.2 %		70-130		1		2036
Toluene-d8 (S)	95.1 %		82-118		1		2036



SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

ANALYTICAL RESULTS

Workorder: H10060247 : El Paso No. 1A

Project Number: El Paso No. 1A

Lab ID: H10060247005

Date/Time Received: 6/10/2010 13:17 Matrix: Water

Sample ID: MW-4

Date/Time Collected: 6/8/2010 16:00

WET CHEMISTRY

Analysis Desc: EPA 300.0

Analytical Batches:

Batch: 1330 EPA 300.0 on 06/11/2010 15:38 by CFS DF = 500.

Batch: 1331 EPA 300.0 on 06/12/2010 11:53 by CFS DF = 5.

Parameters	Results					Batch Information		
	mg/l	Qual	Report Limit	MDL	DF	RegLmt	Prep	Analysis
Fluoride	2.78		2.50	0.215	5			1331
Sulfate	3910		250	21.8	500			1330

Analysis Desc: SM 2540 C

Analytical Batches:

Batch: 1649 SM 2540 C on 06/12/2010 12:15 by CFS

Parameters	Results					Batch Information		
	mg/l	Qual	Report Limit	MDL	DF	RegLmt	Prep	Analysis
Residue, Filterable (TDS)	3380		20.0	7.88	2			1649

ICP DISSOLVED METALS

Analysis Desc: SW-846 6010B

Preparation Batches:

Batch: 1819 SW-846 3010A on 06/10/2010 15:00 by R_V

Analytical Batches:

Batch: 1456 SW-846 6010B on 06/18/2010 15:58 by EBG

Parameters	Results					Batch Information		
	mg/l	Qual	Report Limit	MDL	DF	RegLmt	Prep	Analysis
Manganese	0.177		0.00500	0.000300	1		1819	1456

VOLATILES

Analysis Desc: SW-846 8260B

SW-846 5030Analytical Batches:

Batch: 2036 SW-846 8260B on 06/11/2010 19:54 by LKL

Parameters	Results					Batch Information		
	ug/l	Qual	Report Limit	MDL	DF	RegLmt	Prep	Analysis
Benzene	ND		1.0	0.10	1			2036
Ethylbenzene	ND		1.0	0.15	1			2036
Toluene	ND		1.0	0.29	1			2036
m,p-Xylene	ND		1.0	0.18	1			2036
o-Xylene	ND		1.0	0.13	1			2036
Xylenes, Total	ND		1.0	0.13	1			2036
4-Bromofluorobenzene (S)	105 %		74-125		1			2036
1,2-Dichloroethane-d4 (S)	91.3 %		70-130		1			2036



SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

ANALYTICAL RESULTS

Workorder: H10060247 : El Paso No. 1A

Project Number: El Paso No. 1A

Lab ID: H10060247005

Date/Time Received: 6/10/2010 13:17

Matrix: Water

Sample ID: MW-4

Date/Time Collected: 6/8/2010 16:00

Parameters	Results		Report Limit	MDL	DF	RegLmt	Batch Information	
	Qual						Prep	Analysis
Toluene-d8 (S)	93 %		82-118		1			2036



SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

ANALYTICAL RESULTS

Workorder: H10060247 : El Paso No. 1A

Project Number: El Paso No. 1A

Lab ID: H10060247006

Date/Time Received: 6/10/2010 13:17

Matrix: Water

Sample ID: Blank

Date/Time Collected: 6/9/2010 08:15

VOLATILES

Analysis Desc: SW-846 8260B

SW-846 5030 Analytical Batches:

Batch: 2036 SW-846 8260B on 06/11/2010 18:32 by LKL

Parameters	Results					Batch Information		
	ug/l	Qual	Report Limit	MDL	DF	RegLmt	Prep	Analysis
Benzene	ND		1.0	0.10	1			2036
Ethylbenzene	ND		1.0	0.15	1			2036
Toluene	ND		1.0	0.29	1			2036
m,p-Xylene	ND		1.0	0.18	1			2036
o-Xylene	ND		1.0	0.13	1			2036
Xylenes, Total	ND		1.0	0.13	1			2036
4-Bromofluorobenzene (S)	106 %		74-125		1			2036
1,2-Dichloroethane-d4 (S)	94.5 %		70-130		1			2036
Toluene-d8 (S)	96.2 %		82-118		1			2036



SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

QUALITY CONTROL DATA

Workorder: H10060247 : El Paso No. 1A

Project Number: El Paso No. 1A

QC Batch: DIGM/1819

Analysis Method: SW-846 6010B

QC Batch Method: SW-846 3010A

Preparation: 06/10/2010 15:00 by R_V

Associated Lab Samples:	H10060237001	H10060237002	H10060237003	H10060237004	H10060241001	H10060241002
	H10060241003	H10060243001	H10060243002	H10060243003	H10060243004	H10060245001
	H10060245002	H10060245003	H10060245004	H10060247001	H10060247002	H10060247003
	H10060247005					

METHOD BLANK: 50257

Analysis Date/Time Analyst: 06/18/2010 13:14 EBG

Parameter	Units	Blank Result	Qualifiers	Reporting Limit
Manganese	mg/l	ND		0.00500

LABORATORY CONTROL SAMPLE: 50258

Analysis Date/Time Analyst: 06/18/2010 13:20 EBG

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits
Manganese	mg/l	0.10	0.1008	101	80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 50259

50260

Original: H10060241001

MS Analysis Date/Time Analyst: 06/18/2010 13:32 EBG

MSD Analysis Date/Time Analyst: 06/18/2010 13:38 EBG

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
Manganese	mg/l	0.206	0.10	0.3011	0.3025	95.5	96.9	75-125	0.5	20

QC results presented in the QC Control Data 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. Also, MS/MSD % recoveries are calculated by the SPL LIMS using any detected value greater than the MDL.



SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

QUALITY CONTROL DATA

Workorder: H10060247 : El Paso No. 1A

Project Number: El Paso No. 1A

QC Batch: IC/1330

Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0

Associated Lab Samples:	H10060241001	H10060241002	H10060241003	H10060243001	H10060243002	H10060243003
	H10060243004	H10060247001	H10060247002	H10060247003	H10060247005	H10060262001
	H10060269001	H10060275001	H10060283001	H10060283002	H10060283003	H10060283004

METHOD BLANK: 50605

Analysis Date/Time Analyst: 06/11/2010 09:09 CFS

Parameter	Units	Blank Result	Qualifiers	Reporting Limit
Sulfate	mg/l	ND		0.500

LABORATORY CONTROL SAMPLE & LCSD: 50606 50607

LCS Analysis Date/Time Analyst: 06/11/2010 09:25 CFS

LCSD Analysis Date/Time 06/11/2010 21:00 CFS

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD
Sulfate	mg/l	10	9.469	10.14	94.7	101	85-115	6.8	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 50612 50613 Original: H10060283001

MS Analysis Date/Time Analyst: 06/11/2010 18:51 CFS

MSD Analysis Date/Time Analyst: 06/11/2010 19:07 CFS

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
Sulfate	mg/l	1450	1000	2430	2119	98.2	67.2 *	80-120	13.7	20

QC results presented in the QC Control Data 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. Also, MS/MSD % recoveries are calculated by the SPL LIMS using any detected value greater than the MDL.



SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

QUALITY CONTROL DATA

Workorder: H10060247 : El Paso No. 1A

Project Number: El Paso No. 1A

QC Batch: WETS/1649

Analysis Method: SM 2540 C

QC Batch Method: SM 2540 C

Associated Lab Samples: H10060196001 H10060241001 H10060241002 H10060241003 H10060245001 H10060245002
H10060245003 H10060245004 H10060247001 H10060247002 H10060247003 H10060247005

METHOD BLANK: 50631

Analysis Date/Time Analyst: 06/12/2010 12:15 CFS

Parameter	Units	Blank Result	Qualifiers	Reporting Limit
Residue, Filterable (TDS)	mg/l	ND		10.0

LABORATORY CONTROL SAMPLE & LCSD: 50632 50633

LCS Analysis Date/Time Analyst: 06/12/2010 12:15 CFS

LCSD Analysis Date/Time 06/12/2010 12:15 CFS

Parameter	Units	Spike Conc	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD
Residue, Filterable (TDS)	mg/l	200	201.0	199.0	100	99.5	95-107	1.0	10

SAMPLE DUPLICATE: 50635

Original: H10060247005

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	DF
WET CHEMISTRY						2
Residue, Filterable (TDS)	mg/l	3380	3380	0.1	10	2

SAMPLE DUPLICATE: 50636

Original: H10060241001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	DF
WET CHEMISTRY						2
Residue, Filterable (TDS)	mg/l	2580	2580	0.1	10	2

QC results presented in the QC Control Data 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. Also, MS/MSD % recoveries are calculated by the SPL LIMS using any detected value greater than the MDL.



SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

QUALITY CONTROL DATA

Workorder: H10060247 : El Paso No. 1A

Project Number: El Paso No. 1A

QC Batch: IC/1331 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0
Associated Lab Samples: H10060247001 H10060247002 H10060247003 H10060247005

METHOD BLANK: 50705

Analysis Date/Time Analyst: 06/12/2010 10:00 CFS

Parameter	Units	Blank Result	Qualifiers	Reporting Limit
Fluoride	mg/l	ND		0.500

LABORATORY CONTROL SAMPLE & LCSD: 50706 50707

LCS Analysis Date/Time Analyst: 06/12/2010 10:16 CFS

LCSD Analysis Date/Time 06/12/2010 13:30 CFS

Parameter	Units	Spike Conc	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD
Fluoride	mg/l	10	9.774	10.15	97.7	101	85-115	3.7	20

QC results presented in the QC Control Data 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. Also, MS/MSD % recoveries are calculated by the SPL LIMS using any detected value greater than the MDL.



SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

QUALITY CONTROL DATA

Workorder: H10060247 : El Paso No. 1A

Project Number: El Paso No. 1A

QC Batch: MSV/2035

Analysis Method: SW-846 8260B

QC Batch Method: SW-846 5030

Preparation: 06/11/2010 00:00 by LKL

Associated Lab Samples: H10060245001 H10060245002 H10060245003 H10060245004 H10060245005 H10060245006
H10060247001 H10060247002 H10060247003 H10060247004 H10060247005 H10060247006

METHOD BLANK: 50773

Analysis Date/Time Analyst: 06/11/2010 12:10 LKL

Parameter	Units	Blank Result	Qualifiers	Reporting Limit
Benzene	ug/l	ND		1.0
Ethylbenzene	ug/l	ND		1.0
Toluene	ug/l	ND		1.0
m,p-Xylene	ug/l	ND		1.0
o-Xylene	ug/l	ND		1.0
Xylenes, Total	ug/l	ND		1.0
4-Bromofluorobenzene (S)	%	105		74-125
1,2-Dichloroethane-d4 (S)	%	95.7		70-130
Toluene-d8 (S)	%	97.2		82-118

LABORATORY CONTROL SAMPLE: 50774

Analysis Date/Time Analyst: 06/11/2010 11:42 LKL

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits
Benzene	ug/l	20	19.4	96.9	74-123
Ethylbenzene	ug/l	20	17.7	88.3	72-127
Toluene	ug/l	20	18.8	93.9	74-126
m,p-Xylene	ug/l	40	36.7	91.7	71-129
o-Xylene	ug/l	20	18.4	92.0	74-130
Xylenes, Total	ug/l	60	55.08	91.8	71-130
4-Bromofluorobenzene (S)	%			104	74-125
1,2-Dichloroethane-d4 (S)	%			92.4	70-130
Toluene-d8 (S)	%			96.5	82-118

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 50775

50776

Original: H10060245001

MS Analysis Date/Time Analyst: 06/11/2010 15:52 LKL

MSD Analysis Date/Time Analyst: 06/11/2010 16:22 LKL

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
Benzene	ug/l	ND	20	19.9	19.7	99.7	98.4	70-124	1.3	20
Ethylbenzene	ug/l	ND	20	18.3	18.4	91.3	91.9	35-175	0.6	20
Toluene	ug/l	ND	20	19.3	18.7	96.3	93.3	70-131	3.2	20

QC results presented in the QC Control Data 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. Also, MS/MSD % recoveries are calculated by the SPL LIMS using any detected value greater than the MDL.



SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

QUALITY CONTROL DATA

Workorder: H10060247 : El Paso No. 1A

Project Number: El Paso No. 1A

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 50775

50776

Original: H10060245001

MS Analysis Date/Time Analyst: 06/11/2010 15:52 LKL

MSD Analysis Date/Time Analyst: 06/11/2010 16:22 LKL

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
m,p-Xylene	ug/l	ND	40	35.7	35.8	89.3	89.6	35-175	0.3	20
o-Xylene	ug/l	ND	20	18.4	18.5	92.1	92.6	35-175	0.6	20
Xylenes, Total	ug/l	ND	60	54.15	54.36	90.2	90.6	35-175	0.4	20
4-Bromofluorobenzene (S)	%	103	)			107	102	74-125		30
1,2-Dichloroethane-d4 (S)	%	90.5	)			94.1	93.2	70-130		30
Toluene-d8 (S)	%	95	)			94.7	94.5	82-118		30

QC results presented in the QC Control Data 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. Also, MS/MSD % recoveries are calculated by the SPL LIMS using any detected value greater than the MDL.



Legend

(S) - Indicates analyte is a surrogate

Qualifier	Qualifier Description
-----------	-----------------------

MI	Matrix Interference
I	Estimated value, between MDL and PQL (Florida)
JN	The analysis indicates the presence of an analyte
C	MTBE results were not confirmed by GCMS
NC	Not Calculated - Sample concentration > 4 times the spike
*	Recovery/RPD value outside QC limits
E	Results exceed calibration range
H	Exceeds holding time
J	Estimated value
Q	Received past holding time
B	Analyte detected in the Method Blank
N	Recovery outside of control limits
D	Recovery out of range due to dilution
NC	Not Calculable (Sample Duplicate)
P	Pesticide dual column results, greater than 25%
TNTC	Too numerous to count



SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: H10060247 : El Paso No. 1A

Project Number: El Paso No. 1A

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
H10060247001	MW-1	SW-846 3010A	DIGM/1819	SW-846 6010B	ICP/1456
H10060247002	MW-2	SW-846 3010A	DIGM/1819	SW-846 6010B	ICP/1456
H10060247003	MW-3	SW-846 3010A	DIGM/1819	SW-846 6010B	ICP/1456
H10060247005	MW-4	SW-846 3010A	DIGM/1819	SW-846 6010B	ICP/1456
H10060247001	MW-1	EPA 300.0	IC/1330		
H10060247002	MW-2	EPA 300.0	IC/1330		
H10060247003	MW-3	EPA 300.0	IC/1330		
H10060247005	MW-4	EPA 300.0	IC/1330		
H10060247001	MW-1	SM 2540 C	WETS/1649		
H10060247002	MW-2	SM 2540 C	WETS/1649		
H10060247003	MW-3	SM 2540 C	WETS/1649		
H10060247005	MW-4	SM 2540 C	WETS/1649		
H10060247001	MW-1	EPA 300.0	IC/1331		
H10060247002	MW-2	EPA 300.0	IC/1331		
H10060247003	MW-3	EPA 300.0	IC/1331		
H10060247005	MW-4	EPA 300.0	IC/1331		
H10060247001	MW-1	SW-846 5030	MSV/2035	SW-846 8260B	MSV/2036
H10060247002	MW-2	SW-846 5030	MSV/2035	SW-846 8260B	MSV/2036
H10060247003	MW-3	SW-846 5030	MSV/2035	SW-846 8260B	MSV/2036
H10060247004	Duplicate	SW-846 5030	MSV/2035	SW-846 8260B	MSV/2036
H10060247005	MW-4	SW-846 5030	MSV/2035	SW-846 8260B	MSV/2036
H10060247006	Blank	SW-846 5030	MSV/2035	SW-846 8260B	MSV/2036



SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

Sample Receipt Checklist

WorkOrder:	H10060247	Received By	LOG
Date and Time	06/10/2010 09:30	Carrier Name:	FEDEXS
Temperature:	4.0°C	Chilled By:	Water Ice

1. Shipping container/cooler in good condition? YES
2. Custody seals intact on shipping container/cooler? YES
3. Custody seals intact on sample bottles? Not Present
4. Chain of custody present? YES
5. Chain of custody signed when relinquished and received? YES
6. Chain of custody agrees with sample labels? YES
7. Samples in proper container/bottle? YES
8. Samples containers intact? YES
9. Sufficient sample volume for indicated test? YES
10. All samples received within holding time? YES
11. Container/Temp Blank temperature in compliance? YES
12. Water - VOA vials have zero headspace? YES
13. Water - Preservation checked upon receipt(except VOA*)? Not Applicable

*VOA Preservation Checked After Sample Analysis

SPL Representative:
Client Name Contacted:
Client Instructions:

Contact Date & Time:



SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975



Analysis Request & Chain of Custody Record

SPL, Inc.

H10060247

290411

page 1 of 2

Client Name: <u>Target (Donor) Phillips</u>		matrix	
Address: <u>4111 61st Indian School Rd NE 4800</u>		SL=sludge E=encore X=other	
City: <u>Waukegan</u> State: <u>IL</u> Zip: <u>60087</u>		P=plastic A=amber glass	
Phone/Fax: <u>(815) 937-8440</u>		G=glass V=vial X=other	
Client Contact: <u>Kelly Blanchard</u> Email: <u>kelly.blanchard@target.com</u>		1=1 liter 4=4oz 40=vial	
Project Name/No.: <u>JE10050 No. 1A</u>		8=8oz 16=16oz X=other	
Site Name:		1=HCl 2=HNO3	
Site Location: <u>Blanco, NH</u>		3=H2SO4 X=other	
Invoice To:		Number of Containers	
SAMPLE ID		DATE	
TIME		comp	
grab		size	
pres.		Requested Analysis	
Sulfate		Fluoride	
IDS		Dissolved Mn	
BTEX			
Mw-1		6/8/10 11:30	
Mw-1		6/8/10 11:30	
Mw-1		6/8/10 11:30	
Mw-2		6/8/10 11:30	
Mw-2		6/8/10 11:30	
Mw-2		6/8/10 11:30	
Mw-3		6/8/10 11:30	
Mw-3		6/8/10 11:30	
Mw-3		6/8/10 11:30	
Duplicate		6/8/10 11:30	
Client/Consultant Remarks: <u>Please see attached.</u>		Laboratory remarks:	
Requested TAT		Special Reporting Requirements	
1 Business Day		Contract	
2 Business Days		Standard	
3 Business Days		Other	
Rush TAT requires prior notice		Stamp QC	
1. Acquired by: <u>Target</u>		2. Received by: <u>Target</u>	
3. Relinquished by: <u>Target</u>		4. Received by: <u>Target</u>	
5. Relinquished by: <u>Target</u>		6. Received by: <u>Target</u>	

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



SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975



Analysis Request & Chain of Custody Record

SPL, Inc.

SPL Workorder No.

290415

P10060247 page 2 of 2

Requested Analysis

Client Name: Takata/Chrysler/Philips
Address: 1917 Indian Creek Rd. NE Ste 200
City: Albuquerque State: NT Zip: 87110
Phone/Fax: 505 237-8440
Client Contact: Kelly Blanchard Email: kelly.blanchard@chrysler.com
Project Name/No.: EL Paso No. 1A
Site Name: El Paso No. 1A
Site Location: Burns, NM
Invoice To: _____

matrix W=water S=soil O=oil A=air
SL=sludge E=encore 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

Sulfate
Fluoride
TDS
Dissolved Mn
BTEX

SAMPLE ID	DATE	TIME	comp	grab	matrix	bottle	size	pres.	Number of Containers	Requested Analysis
MW-4	10/8/10	1000		X	WP	P	1	1	X	X
MW-4	10/8/10	1000		X	WP	P	1	1	X	X
MW-4	10/8/10	1000		X	WP	P	1	1	X	X
Blank	10/9/10	0815			WV	V	40	1	2	

Client/Consultant Remarks: Please filter for preservation before analysis

Laboratory remarks:

Requested TAT

☐ 1 Business Day ☐ Contract
☐ 2 Business Days ☐ Standard
☐ 3 Business Days
☐ Other _____

Kush TAT requires prior notice

Special Reporting Requirements Results: ☐ Fax ☐ Email ☒ PDF ☒ LA RECAP

Special Detection Limits (specify):

Intact? ☒ Y ☐ N
Temp: 4.0 ☒ Y ☐ N
PNI review (initial): _____

1. Relinquished by: John Blair date: 10/10/10 time: 0900
2. Received by: _____
3. Relinquished by: _____ date: _____ time: _____
4. Received by: _____

5. Relinquished by: _____ date: 10/10/10 time: 0930
6. Received by: Michelle Wacker

☐ 8880 Interchange Drive
Houston, TX 77054 (713) 660-0901

☐ 500 Ambassador Caffery Parkway
Scott, LA 70583 (337) 237-4775

☐ 450 Hughes Drive
Traverse City MI 49686 (231) 947-5777