3R - 427

SEP 2007
GWMR

09/28/2007

ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

September 28, 2007 Project No. 92115-250

Mr. Gregg Wurtz
ConocoPhillips
3401 East 30th Street
Farmington, New Mexico 87401

Phone: (505) 326-9537
Fax: (505) 599-4005

RE: MONITOR WELL INSTALLATION AND GROUNDWATER SAMPLING REPORT

Dear Mr. Wurtz:

Enclosed please find one (1) original of the report entitled, *Monitor Well Installation and Groundwater Sampling Report.* This report details the drilling, monitor well installation, and groundwater sampling for the El Paso #1A well site in San Juan County, New Mexico.

We appreciate the opportunity to be of service. If you should have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,
ENVIROTECH, INC.

Greg W. Crabtree, EIT
Environmental Engineer
gcrabtree@envirotech-inc.com

Enclosure: One (1) original

Cc: Client file 92115

3R 427

ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

MONITOR WELL INSTALLATION
AND
GROUNDWATER SAMPLING REPORT

AT:
BURLINGTON RESOURCES
EL PASO #1A
SEC 20 TWP 29N RNG 9W
SAN JUAN COUNTY, NEW MEXICO

FOR:
MR. GREGG WURTZ
CONOCOPHILLIPS
3401 EAST 30TH STREET
FARMINGTON, NEW MEXICO 87401

PROJECT NO. 92115-250
SEPTEMBER 2007

5796 U.S. HIGHWAY 64 • FARMINGTON, NM 87401 • (505) 632-0615

BURLINGTON RESOURCES
DRILLING AND GROUNDWATER SAMPLING REPORT
EL PASO #1A

TABLE OF CONTENTS

Introduction 1

Activities Performed 1

Summary and Conclusions 2

Statement of Limitations 2

Figures: Figure 1, Vicinity Map
Figure 2, Burlington Site Map
Figure 3, Site Map

Table: Table 1, Summary of Analytical Results

Sections: Section 1: Historical Analytical Results
Section 2: Lithology Logs
Section 3: Analytical Results
Section4: Field Notes

INTRODUCTION

Envirotech, Inc. has completed the installation of a temporary monitor well at the El Paso #1A well site in San Juan County, New Mexico; ***see Figure 1, Vicinity Map.*** The drilling was completed to assess the potential for groundwater contamination at the site. Contaminated soil was excavated from the sites in late February of 2007. Envirotech was not present during this portion of the project. Two samples were collected from the excavation and analyzed by Envirotech's Laboratory for Benzene, Ethylbenzene, Toluene and Total Xylenes (BTEX) via USEPA Method 8021B and Total Petroleum Hydrocarbons (TPH) via USEPA Method 8015. Results showed that all contaminants of concern analyzed, were below the most stringent NMOCD regulations. The analytical results are presented in ***Section 1, Historical Analytical Results*** and are also summarized in ***Table 1, Summary of Analytical Results***. Water samples were not collected at the time of excavation.

DRILLING AND SOIL SAMPLING PERFORMED

On September 21, 2007 Envirotech personnel mobilized to the site to perform monitor well installation at the El Paso #1A well site. One (1) temporary monitor well was installed near the previously excavated area. A drawing of the area excavated was provided to Envirotech by Burlington and the placement of the monitor well was based on this drawing. A copy of this drawing is presented as ***Figure 2***. Samples were taken every five (5) feet using a split spoon sampler. The samples were then analyzed with the use of an Organic Vapor Meter (OVM). A soil sample was also collected from the cuttings at the estimated soil water interface. A lithology log was completed on the boring and is included in ***Section 2, Lithology Logs***. An updated site map with the estimated area of excavation and monitor well location was also completed and is presented as **Figure 3** in this document.

During the drilling process it appeared the soil water interface was at approximately 9.5-10 feet. The sample at this depth had the highest OVM at 15.5 ppm and was turned into the lab for analysis via USEPA Method 8015 for TPH and Method 8021B for BTEX. The sample was collected from the split spoon at a depth of 10 feet Below Ground Surface (BGS). All contaminants of concern from the analysis were below the most stringent OCD regulations of 100 ppm TPH, 10 ppm Benzene, and 50 ppm for Total BTEX. Laboratory Certificates are presented in ***Section 3, Analytical Results*** and summarized in ***Table 1, Summary of Analytical Results***.

The aquifer in this area appears to be a perched aquifer with a shale layer acting as the aquitard. The perched aquifer is could be connected hydraulically to the aquifer associated with Largo Wash when the regional water table is high. The anticipated groundwater flow direction would therefore be to the West-Northwest following the flow of Largo wash.

GROUNDWATER SAMPLING

Envirotech returned to the site on the afternoon of September 21, 2007 to sample the well. Prior to sampling the well the water level was measured. The water level had come up to approximately seven (7) feet BGS. Three (3) well volumes were then bailed from the well using a new disposable bailer. Prior to sampling the temperature, conductivity, and pH was recorded; see ***Section4, Field Notes***. A water sample was then collected in 40-mL VOA vials and capped headspace free. The samples were placed on ice and transported to Envirotech's laboratory for

BTEX analysis. All contaminants of concern were below the drinking water standards set forth by the NMED. Benzene was present in the water sample at 1.4 ppb which is below the 10 ppb regulatory standard. Laboratory Certificates are presented in ***Section 3, Analytical Results*** and summarized in ***Table 1, Summary of Analytical Results***.

SUMMARY AND CONCLUSIONS

Envirotech has completed the installation of a temporary monitor well at the El Paso #1A well site. One temporary monitor well was completed to a depth of 10 feet BGS in the down gradient direction from the excavated area. Soil and water samples were collected from this well and analyzed at Envirotech's laboratory for TPH and BTEX constituents. None of the contaminants of concern analyzed for were above the regulatory limits set forth by either the NMOCD or the NMED. Envirotech recommends plugging of the temporary monitor well and a no further action determination be granted with regards to this incident.

STATEMENT OF LIMITATIONS

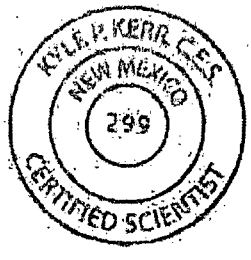
The undersigned has conducted this service at the above referenced site. This work has been conducted and reported in accordance with generally accepted professional practices in geology, engineering, environmental chemistry, and hydrogeology.

We appreciate the opportunity to be of service. Should you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully submitted,
ENVIROTECH, INC.

Greg Crabtree, EIT
Environmental Engineer
gcrabtree@envirotech-inc.com

Reviewed By:



Kyle P. Kerr
Chief Environmental Scientist/Manager
NMCES #299
kpkerr@envirotech-inc.com

FIGURES

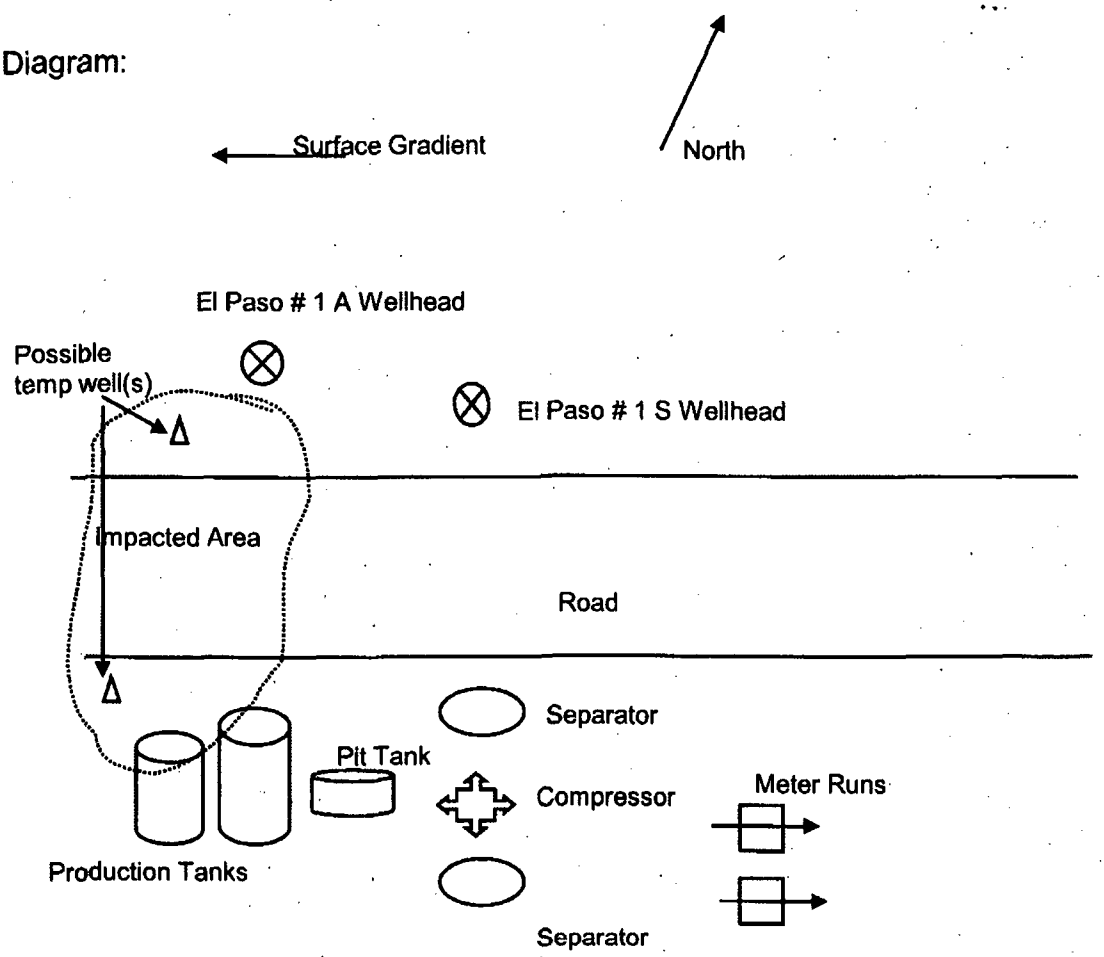
Figure 1, Vicinity Map

Figure 2, Burlington Site Map

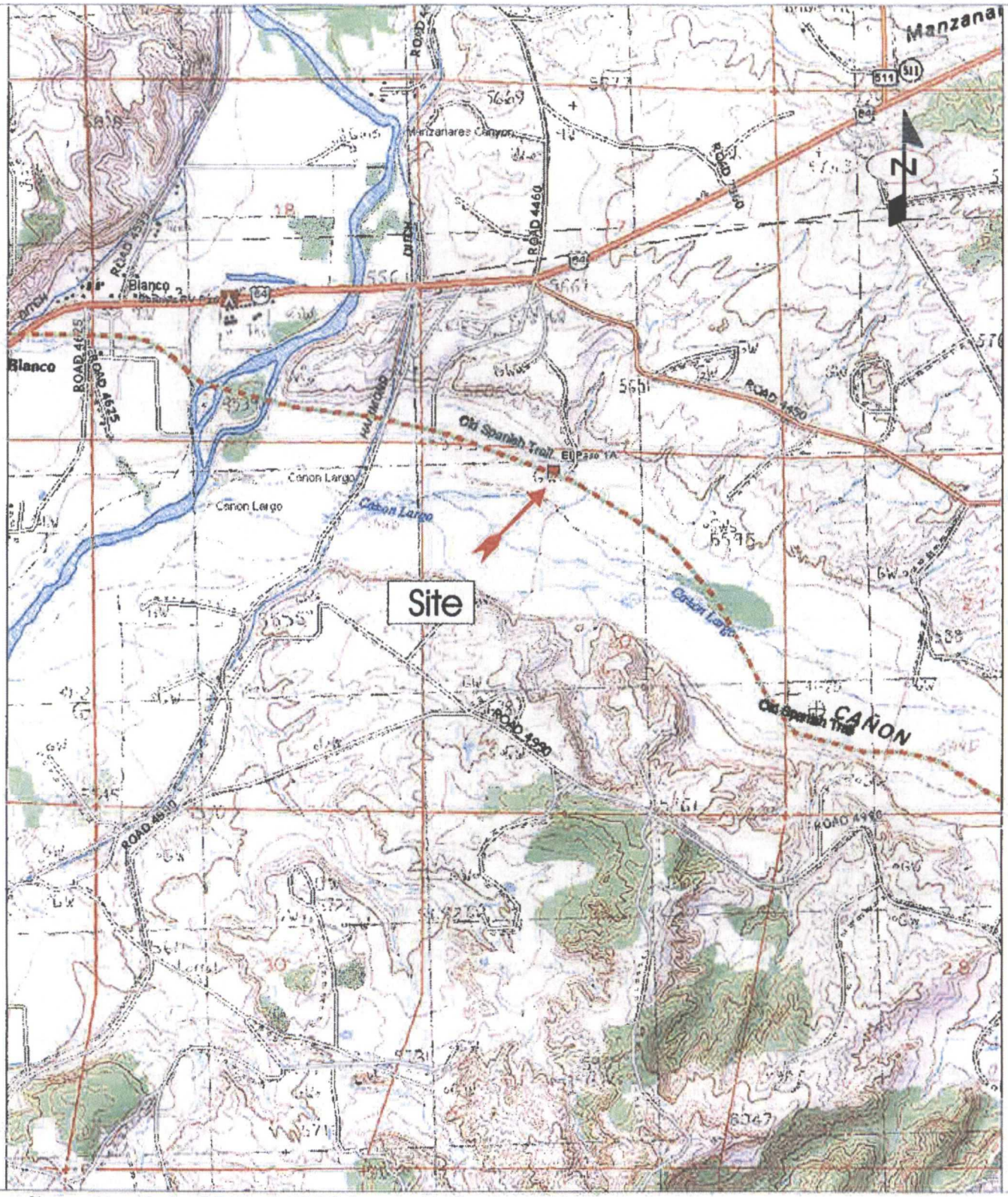
Figure 3, Site Map

Burlington Resources
El Paso # 1 A
500' FNL & 1840' FWL
Sec. 20, Twn 29 N, Rng 9 W
Lease # NM 0560422
36°43.0' & 107°48.3'

Diagram:

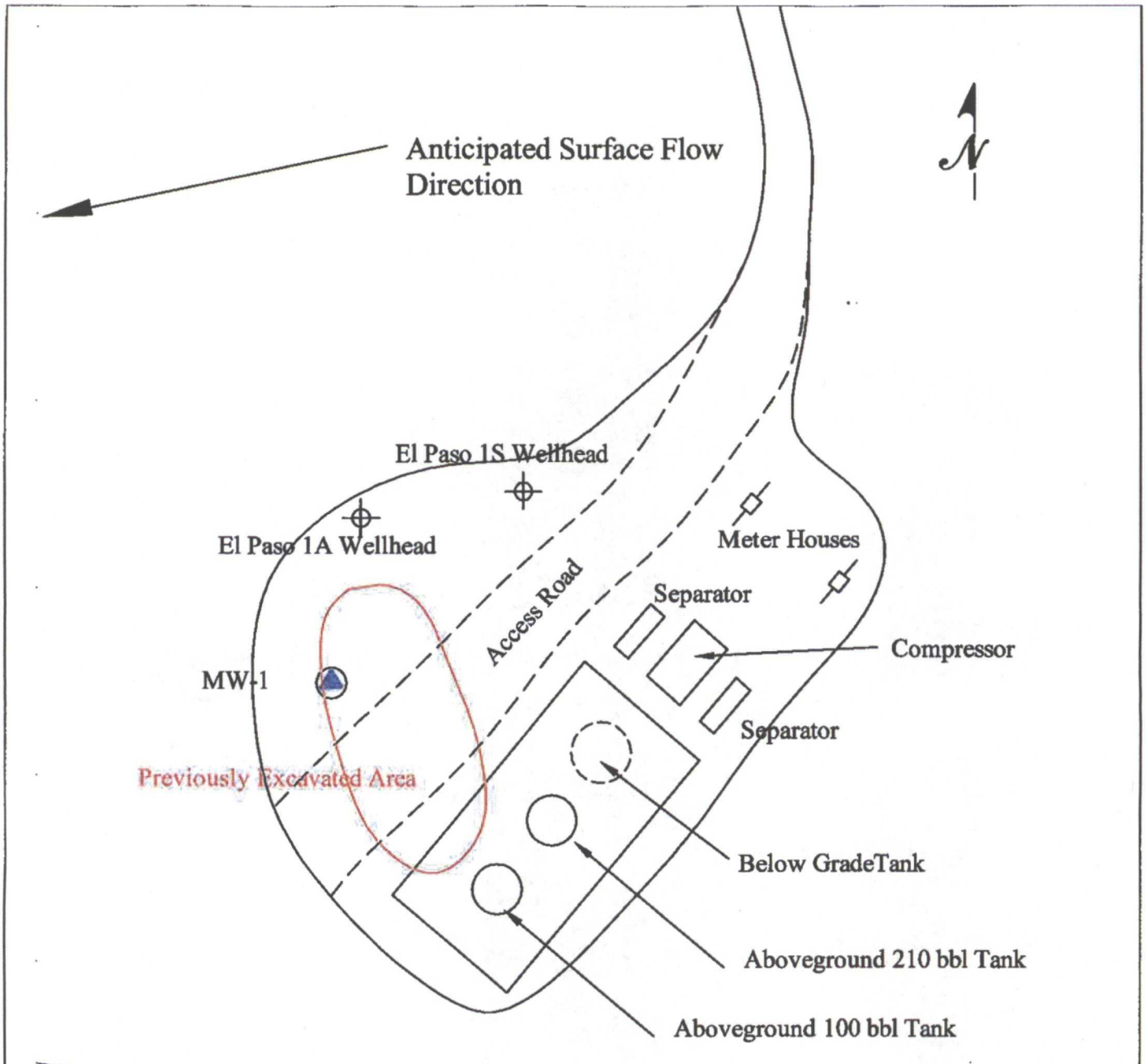


* Please Note : Not to Scale



Source: Blanco, New Mexico 7.5 Minute U.S.G.S. Topographic Quadrangle Map
Scale: 1:24,000 1" = 2000'

El Paso 1A Section 20, Township 29N, Range 09W		ENVIROTECH INC. ENVIRONMENTAL SCIENTISTS & ENGINEERS 5796 U.S. HIGHWAY 64 FARMINGTON, NEW MEXICO 87401 PHONE (505) 632-0615	Vicinity Map Figure 1
PROJECT No 92115-250	Date Drawn: 9/27/07		DRAWN BY: Greg Crabtree PROJECT MANAGER: Greg Crabtree



SITE MAP
Monitor Well Installation
El Paso 1A
Sec 20 Twp 29N Rng 09W
San Juan County, New Mexico

SCALE: nts	FIGURE NO. 3	REV
PROJECT NO. 92115-250		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	GWC	9/27/07	BASE DRWN	GWC	9/27/07

ENVIRONMENTAL SCIENTISTS & ENGINEERS
ENVIROTECH
5796 U.S. HIGHWAY 64, FARMINGTON, NM 87410 505-632-0615

TABLES

Table 1:Summary of Analytical Results

Table 1: Summary of Analytical Results

Soil Samples

Sample ID	Date	TPH (ppm)	Benzene (ppm)	Total BTEX (ppm)
NMOCD Regulations		**100**	**10**	**50**
SW corner @ 8'	2/27/2007	ND	ND	0.045
4-wall com @ 6'	2/27/2007	ND	ND	0.0022
10' BGS	9/21/2007	3.2	ND	0.069

Water Sample

Sample ID	Date	Benzene (ppb)	Toluene (ppb)	Ethylebenzene (ppb)	Total Xylenes (ppb)
NMOCD Regulations		**10**	**750**	**750**	**620**
MW-1	9/21/2007	ND	15.2	6	47.8

SECTION 1

Historical Analytical Results

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Burlington	Project #:	92115-001-2133
Sample ID:	4 - Wall Comp @ 6'	Date Reported:	02-28-07
Laboratory Number:	40210	Date Sampled:	02-27-07
Chain of Custody No:	2133	Date Received:	02-27-07
Sample Matrix:	Soil	Date Extracted:	02-27-07
Preservative:	Cool	Date Analyzed:	02-28-07
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**ND**	**0.2**
Diesel Range (C10 - C28)	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**0.2**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **El Paso 1S.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	02-28-07 QA/QC	Date Reported:	02-28-07
Laboratory Number:	40191	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-28-07
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF	C-Cal RF	% Difference	Accept. Range
Gasoline Range C5 - C10	07-11-05	1.6567E+003	1.6583E+003	**0.10%**	**0 - 15%**
Diesel Range C10 - C28	07-11-05	1.8753E+003	1.8791E+003	**0.20%**	**0 - 15%**

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	**ND**	**0.2**
Diesel Range C10 - C28	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**0.2**

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	**1.0**	**1.0**	**0.0%**	**0 - 30%**
Diesel Range C10 - C28	**4.6**	**4.5**	**2.2%**	**0 - 30%**

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	**1.0**	**250**	**249**	**99.2%**	**75 - 125%**
Diesel Range C10 - C28	**4.6**	**250**	**245**	**96.1%**	**75 - 125%**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **QA/QC for Samples 40191, 40193 - 40194 and 40210.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Burllington	Project #:	92115-001-2133
Sample ID:	4 - Wall Comp @ 6'	Date Reported:	02-28-07
Laboratory Number:	40210	Date Sampled:	02-27-07
Chain of Custody:	2133	Date Received:	02-27-07
Sample Matrix:	Soil	Date Analyzed:	02-28-07
Preservative:	Cool	Date Extracted:	02-27-07
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**1.8**
Toluene	**ND**	**1.7**
Ethylbenzene	**2.2**	**1.5**
p,m-Xylene	**ND**	**2.2**
o-Xylene	**ND**	**1.0**
Total BTEX	**2.2**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**97.0 %**
	1,4-difluorobenzene	**97.0 %**
	Bromochlorobenzene	**97.0 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **El Paso 1S.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	02-28-BTEX QA/QC	Date Reported:	02-28-07
Laboratory Number:	40189	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-28-07
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc.	Detect. Limit
Benzene	2.5906E+007	2.5958E+007	0.2%	ND	0.2
Toluene	3.6223E+007	3.6296E+007	0.2%	ND	0.2
Ethylbenzene	1.9182E+007	1.9221E+007	0.2%	ND	0.2
p,m-Xylene	7.6713E+007	7.6866E+007	0.2%	ND	0.2
o-Xylene	3.2464E+007	3.2529E+007	0.2%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept. Range	Detect. Limit
Benzene	29.6	28.6	3.4%	0 - 30%	1.8
Toluene	18.0	17.0	5.6%	0 - 30%	1.7
Ethylbenzene	33.4	32.4	3.0%	0 - 30%	1.5
p,m-Xylene	137	136	0.7%	0 - 30%	2.2
o-Xylene	51.4	50.4	1.9%	0 - 30%	1.0

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept. Range
Benzene	29.6	50.0	79.3	99.6%	39 - 150
Toluene	18.0	50.0	65.0	95.6%	46 - 148
Ethylbenzene	33.4	50.0	75.0	89.9%	32 - 160
p,m-Xylene	137	100	230	97.1%	46 - 148
o-Xylene	51.4	50.0	90.0	88.8%	46 - 148

ND - Parameter not detected at the stated detection limit.

References:
Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **QA/QC for Samples 40189 - 40191, 40193 - 40194 and 40210.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

CHAIN OF CUSTODY RECORD

2133

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Burlington	El Paso LS	
Sampler: J. McDonald	Client No. 92115-001-2133 ~~96052-0250~~	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	BTEX	DRO/GRO					Remarks
4-Well Comp @ 6'	2/27/07	1020	40210	Soil	1	x	x					

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	2/27/07	10-35	Christine M Walters	2/27/07	1035
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Burlington Resources	Project #:	92115-001-2123
Sample ID:	SW Corner @ 8'	Date Reported:	02-26-07
Laboratory Number:	40182	Date Sampled:	02-26-07
Chain of Custody No:	2123	Date Received:	02-26-07
Sample Matrix:	Soil	Date Extracted:	02-26-07
Preservative:	Cool	Date Analyzed:	02-26-07
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**ND**	**0.2**
Diesel Range (C10 - C28)	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**0.2**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **El Paso 1S Spill.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	02-26-07 QA/QC	Date Reported:	02-26-07
Laboratory Number:	40174	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-26-07
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept Range
Gasoline Range C5 - C10	07-11-05	1.3013E+003	1.3026E+003	**0.10%**	**0 - 15%**
Diesel Range C10 - C28	07-11-05	1.4456E+003	1.4485E+003	**0.20%**	**0 - 15%**

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	**ND**	**0.2**
Diesel Range C10 - C28	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**0.2**

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept Range
Gasoline Range C5 - C10	**47.9**	**47.6**	**0.6%**	**0 - 30%**
Diesel Range C10 - C28	**122**	**121**	**0.6%**	**0 - 30%**

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	**47.9**	**250**	**297**	**99.8%**	**75 - 125%**
Diesel Range C10 - C28	**122**	**250**	**372**	**100.0%**	**75 - 125%**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **QA/QC for Samples 40174 - 40180 and 40182**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Burlington Resources	Project #:	92115-001-2123
Sample ID:	SW Corner @ 8'	Date Reported:	02-26-07
Laboratory Number:	40182	Date Sampled:	02-26-07
Chain of Custody:	2123	Date Received:	02-26-07
Sample Matrix:	Soil	Date Analyzed:	02-26-07
Preservative:	Cool	Date Extracted:	02-26-07
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**1.8**
Toluene	**6.1**	**1.7**
Ethylbenzene	**ND**	**1.5**
p,m-Xylene	**21.8**	**2.2**
o-Xylene	**17.8**	**1.0**
Total BTEX	**45.7**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**99.0 %**
	1,4-difluorobenzene	**99.0 %**
	Bromochlorobenzene	**99.0 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **El Paso 1S Spill.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	02-26-BTEX QA/QC	Date Reported:	02-26-07
Laboratory Number:	40174	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-26-07
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc	Detect. Limit
Benzene	3.1113E+007	3.1178E+007	**0.2%**	**ND**	**0.2**
Toluene	5.0741E+007	5.0843E+007	**0.2%**	**ND**	**0.2**
Ethylbenzene	2.3975E+007	2.4023E+007	**0.2%**	**ND**	**0.2**
p,m-Xylene	1.0385E+008	1.0406E+008	**0.2%**	**ND**	**0.2**
o-Xylene	4.6898E+007	4.6992E+007	**0.2%**	**ND**	**0.1**

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	**58.4**	**57.4**	**1.7%**	**0 - 30%**	**1.8**
Toluene	**80.0**	**79.0**	**1.3%**	**0 - 30%**	**1.7**
Ethylbenzene	**90.0**	**89.0**	**1.1%**	**0 - 30%**	**1.5**
p,m-Xylene	**900**	**900**	**0.0%**	**0 - 30%**	**2.2**
o-Xylene	**130**	**127**	**2.3%**	**0 - 30%**	**1.0**

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	**58.4**	**50.0**	**108**	**99.7%**	**39 - 150**
Toluene	**80.0**	**50.0**	**120**	**92.3%**	**46 - 148**
Ethylbenzene	**90.0**	**50.0**	**130**	**92.9%**	**32 - 160**
p,m-Xylene	**900**	**100**	**990**	**99.0%**	**46 - 148**
o-Xylene	**130**	**50.0**	**170**	**94.4%**	**46 - 148**

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **QA/QC for Samples 40174 - 40178 and 40182**

Christine M Walters
Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

CHAIN OF CUSTODY RECORD

2123

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Burlington Resources	El Paso 1S	
Sampler: F. McDonald	**Client No.** 92115-001-2123	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH 8015	BTEX 8021					Remarks
												RUSH
~~Spill~~ ... @ SW Corner @ 8'	2/26/07	900	40182	Soil	1	✓	✓					Spill

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	2/26/07	940	Christine M Walters	2/26/07	940
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

486-0058

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt

	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

san juan reproduction 578-129

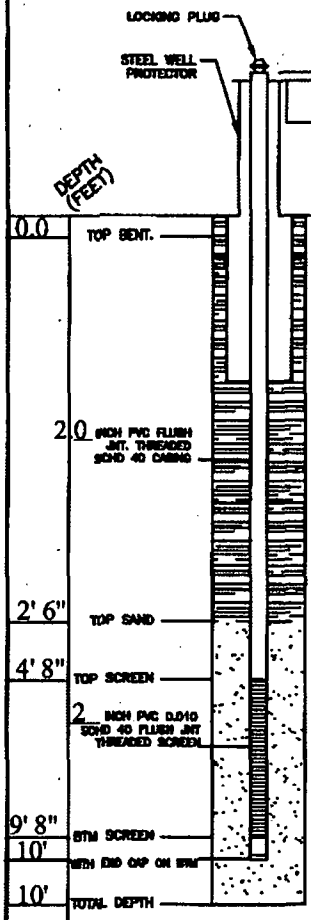
SECTION 2

Lithology Log

ABOVE GRADE WELL COMPLETION DIAGRAM / LITHOLOGY LOG

MW 1

SB



DEPTH (FEET)	Time	SAMPLE TYPE	HEADSPACE (PPM)	LITHOLOGY	SAMPLE DESCRIPTION	DEPTH (FEET)
					sand/silt, slightly moist light brown no odor	0
	0915	SS	0.7		sand/silt, slightly moist light brown no odor	5
					WL on 9/27/07 at 1354	
		C	0.9		sand/silt, dark gray/black, wet slight odor	
	0930	SS	15.5		shale, dark gray, wet slight odor	10

Well Materials Used:

4.5 Sks 10–12 Silica Sand
1/2 Sks Bentonite Chips
___ Sks Class "A" Cement
___ Sks Quickcrete
10 Ft Blank Casing
5 Ft Screen

Well Development:

X Bailed
___ Pumped
15 Gallons of Water

Remarks:

DRILLER: Danny Padilla
HELPER: Robert Salazar
DRILLING COMPANY: Envirotech
DRILLING METHOD: HSA

BIT SIZE: 7 7/8"
TOTAL BORING DEPTH: 10
DATE STARTED: 9/21/07
SAMPLER TYPE: Split Spoon/Cuttings

LOCATION: El Paso #1A
ELEVATION: ___
DATE COMPLETED 9/21/07
GEOLOGIST: Greg Crabtree

Burlington Resources
El Paso #1A
Sec 20 Twp 29N Rng 9W

ENVIROTECH INC.

ENVIRONMENTAL SCIENTISTS & ENGINEERS
5796 U.S. HIGHWAY 64
FARMINGTON, NEW MEXICO 87401
(505) 632-0815
AbvGrdlog.dwg

MW-1

REVISIONS
BY ___ DATE ___
BY ___ DATE ___

JOB # 92115-250

DATE 9/27/07 DRAWN GWC
SCALE ___ APPROVED ___

PAGE 1 OF 1

SECTION 3

Analytical Results

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Burlington	Project #:	92115-250
Sample ID:	10' BGS	Date Reported:	09-25-07
Laboratory Number:	43139	Date Sampled:	09-21-07
Chain of Custody No:	3420	Date Received:	09-21-07
Sample Matrix:	Soil	Date Extracted:	09-24-07
Preservative:	Cool	Date Analyzed:	09-25-07
Condition:	Cool & Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**0.7**	**0.2**
Diesel Range (C10 - C28)	**2.5**	**0.1**
Total Petroleum Hydrocarbons	**3.2**	**0.2**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Elpaso #1A**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	09-25-07 QA/QC	Date Reported:	09-25-07
Laboratory Number:	43138	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-25-07
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	05-07-07	9.9960E+002	1.0000E+003	**0.04%**	**0 - 15%**
Diesel Range C10 - C28	05-07-07	9.9960E+002	1.0000E+003	**0.04%**	**0 - 15%**

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	**ND**	**0.2**
Diesel Range C10 - C28	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**0.2**

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	**25.6**	**25.4**	**0.8%**	**0 - 30%**
Diesel Range C10 - C28	**8.4**	**8.4**	**0.0%**	**0 - 30%**

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	**25.6**	**250**	**275**	**99.9%**	**75 - 125%**
Diesel Range C10 - C28	**8.4**	**250**	**258**	**99.9%**	**75 - 125%**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **QA/QC for Samples 43138 - 43139, 43141**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Burlington	Project #:	92115-250
Sample ID:	10' BGS	Date Reported:	09-25-07
Laboratory Number:	43139	Date Sampled:	09-21-07
Chain of Custody:	3420	Date Received:	09-21-07
Sample Matrix:	Soil	Date Analyzed:	09-25-07
Preservative:	Cool	Date Extracted:	09-24-07
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**0.9**
Toluene	**15.2**	**1.0**
Ethylbenzene	**6.0**	**1.0**
p,m-Xylene	**37.7**	**1.2**
o-Xylene	**10.1**	**0.9**
Total BTEX	**69.0**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**98.0 %**
	1,4-difluorobenzene	**98.0 %**
	Bromochlorobenzene	**98.0 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Elpaso #1A**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	09-25-BTEX QA/QC	Date Reported:	09-25-07
Laboratory Number:	43138	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-25-07
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc	Detect. Limit
Benzene	1.2169E+008	1.2194E+008	**0.2%**	**ND**	**0.1**
Toluene	1.0804E+008	1.0825E+008	**0.2%**	**ND**	**0.1**
Ethylbenzene	8.5790E+007	8.5962E+007	**0.2%**	**ND**	**0.1**
p,m-Xylene	1.6633E+008	1.6666E+008	**0.2%**	**ND**	**0.1**
o-Xylene	7.9506E+007	7.9666E+007	**0.2%**	**ND**	**0.1**

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept. Range	Detect. Limit
Benzene	**5.4**	**5.4**	**0.0%**	**0 - 30%**	**0.9**
Toluene	**303**	**302**	**0.3%**	**0 - 30%**	**1.0**
Ethylbenzene	**188**	**187**	**0.5%**	**0 - 30%**	**1.0**
p,m-Xylene	**1,330**	**1,320**	**0.8%**	**0 - 30%**	**1.2**
o-Xylene	**444**	**443**	**0.2%**	**0 - 30%**	**0.9**

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept. Range
Benzene	**5.4**	**50.0**	**55.3**	**99.8%**	**39 - 150**
Toluene	**303**	**50.0**	**352**	**99.8%**	**46 - 148**
Ethylbenzene	**188**	**50.0**	**238**	**99.8%**	**32 - 160**
p,m-Xylene	**1,330**	**100**	**1,420**	**99.3%**	**46 - 148**
o-Xylene	**444**	**50.0**	**493**	**99.8%**	**46 - 148**

ND - Parameter not detected at the stated detection limit.

References:
Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **QA/QC for Samples 43138 - 43139**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Burlington	Project #:	92115-250
Sample ID:	MW - 1	Date Reported:	09-25-07
Chain of Custody:	3420	Date Sampled:	09-21-07
Laboratory Number:	43140	Date Received:	09-21-07
Sample Matrix:	Water	Date Analyzed:	09-25-07
Preservative:	Cool / HCL	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**1.4**	**1**	**0.2**
Toluene	**0.5**	**1**	**0.2**
Ethylbenzene	**ND**	**1**	**0.2**
p,m-Xylene	**0.3**	**1**	**0.2**
o-Xylene	**ND**	**1**	**0.1**
Total BTEX	**2.2**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	**97 %**
	1,4-difluorobenzene	**97 %**
	4-bromochlorobenzene	**97 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Elpaso #1A**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	09-25-BTEX QA/QC	Date Reported:	09-25-07
Laboratory Number:	43140	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-25-07
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc.	Detect. Limit
Benzene	1.2157E+008	1.2194E+008	0.30%	ND	0.2
Toluene	1.0793E+008	1.0825E+008	0.30%	ND	0.2
Ethylbenzene	8.5704E+007	8.5962E+007	0.30%	ND	0.2
p,m-Xylene	1.6616E+008	1.6666E+008	0.30%	ND	0.2
o-Xylene	7.9427E+007	7.9666E+007	0.30%	ND	0.1

Duplicate Conc. (ug/L)	Sample	Duplicate	%Diff.	Accept Limit
Benzene	1.4	1.4	0.0%	0 - 30%
Toluene	0.5	0.5	0.0%	0 - 30%
Ethylbenzene	ND	ND	0.0%	0 - 30%
p,m-Xylene	0.3	0.3	0.0%	0 - 30%
o-Xylene	ND	ND	0.0%	0 - 30%

Spike Conc. (ug/L)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Limits
Benzene	1.4	50.0	51.3	99.8%	39 - 150
Toluene	0.5	50.0	50.4	99.8%	46 - 148
Ethylbenzene	ND	50.0	50.1	100.1%	32 - 160
p,m-Xylene	0.3	100	100	99.8%	46 - 148
o-Xylene	ND	50.0	50.0	100.0%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **QA/QC for sample 43139**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

CHAIN OF CUSTODY RECORD

3420

Client: Burlington	Project Name / Location: Elpaso # 1A
Client Address: 3401 E. 30th	Sampler Name: G. Crabtree
Client Phone No.: 326-9700	Client No.: 92115-250

ANALYSIS / PARAMETERS

Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative $HgCl_2$	Preservative HNO_3	Preservative	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1)					Sample Cool	Sample Intact
10' BGS	9/21/07	0930	43139	Soil	1-4oz			HCl	✓	✓												✓	✓
MW-1	9/21/07	1430	43140	WATER	2-40mL			✓		✓													

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	9/21/07	1545	[signature]	9/21/07	1545
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64 • Farmington, New Mexico 87401 • (505) 632-0615

san juan reproduction 578-129

SECTION 4

Field Notes

ENVIROTECH INC.
FARMINGTON, NM 5796 HIGHWAY 64
MONITOR WELL DATA

Date: 9/21/07 Project No: 9215-250

Project Name: _____ Chain of Custody No: _____

Location: El Paso 1A

Project Manager: G. Crabtree Sampler: GDC

MONITOR WELL DATA

WELL #	TIME	D.O. mg/L	pH	COND. µS	TEMP. °C	DEPTH TO WATER FT.	TOTAL DEPTH FT.	WATER COLUMN FT.	BAILED Water Gal.	PRODUCT Ft.	WATER LEVEL FT.
1	1354		7.61	11.48	73.7	10.54	13.3		10		

Notes: TOC = Top of Casing
Bailed = 3 well volumes:
1.25" well = 0.19 gal/ft.
2.00" well = 0.49 gal/ft.
4.00" well = 1.96 gal/ft.
Note well diameter if not one of the above.