

**1R - 0103**

**WORK PLANS**

**DATE:**

**JULY 2006**



**PLAINS  
PIPELINE**

IR-103

Work Plan

July 2006

July 31, 2006

Mr. Ben Stone  
New Mexico Oil Conservation Division  
Environmental Bureau  
1220 South St. Francis Drive  
Santa Fe, New Mexico

Re: Plains Pipeline Soil Closure Strategy and Site Restoration Work Plan  
LF-59 Release Site  
NMOCD Reference # 1R-0103  
NW ¼, SW ¼ of Section 32, Township 19 South, Range 37 East  
Lea County, New Mexico

IR-103

Dear Mr. Stone:

Please find attached for your approval the Soil Closure Strategy and Site Restoration Work Plan, dated July 2006, for the LF-59 release site located in the NW ¼, SW ¼ of Section 32, Township 19 South, Range 37 East in Lea County, New Mexico. The Soil Closure Strategy and Site Restoration Work Plan details site activities conducted to date and future activities for soil closure of the site.

Should you have any questions or comments, please contact me at (505) 441-0965.

Sincerely,

*Camille Reynolds*

Camille Reynolds  
Remediation Coordinator  
Plains All American Pipeline

Cc: Larry Johnson, NMOCD, Hobbs Office

Enclosure



## **SOIL CLOSURE STRATEGY AND SITE RESTORATION WORK PLAN**

**LF-59**

NW ¼, SW ¼, SECTION 32, TOWNSHIP 19 SOUTH, RANGE 37 EAST  
MONUMENT, NEW MEXICO  
PLAINS EMS NUMBER: TNM-LF-59  
NMOCD REF 1R-0103

Prepared for:

**PLAINS MARKETING, L.P.**  
333 Clay Street, Suite 1600  
Houston, Texas 77002



Prepared by:

**NOVA Safety and Environmental**  
2057 Commerce  
Midland, Texas 79703

**July 2006**

Curt D. Stanley  
Curt D. Stanley  
Project Manager

Todd K. Choban  
Todd K. Choban, P.G.  
Vice President, Technical Services

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## **1.0 INTRODUCTION**

On behalf of Plains Marking, L.P. (Plains), NOVA Safety and Environmental (NOVA) is pleased to submit this Soil Closure Strategy and Site Restoration Work Plan to the New Mexico Oil Conservation Division (NMOCD). The site is located approximately two miles southwest of the town of Monument, New Mexico, in the NW  $\frac{1}{4}$  of the SW  $\frac{1}{4}$  of Section 32 Township 19 South, Range 37 East. For reference, a site location and site map are provided as Figures 1 and 2, respectively. The Release Notification and Corrective Action (Form C-141) is included as Appendix C. The contents of this report are intended to fulfill requirements promulgated in Title 19 New Mexico Administrative Code (NMAC) 15.A19.E (3) and 19.E (4). The site, formerly the responsibility of Enron Oil Trading and Transportation (EOTT) is now the responsibility of Plains.

## **2.0 NMOCD SITE CLASSIFICATION**

The depth to groundwater in the on-site area is less than 50 feet bgs. Based on the NMOCD soil classification system, 20 points would be assigned to the site as a result of this criterion.

There are two water wells located within 1,000 feet of the site to the north and east. Neither of these wells is located in a down gradient position relative to the release point. Based on the NMOCD Soil Classification System, 20 points would be assigned to the site as a result of this criterion.

There are no surface-water features identified within a one-mile radius of the site. Based on the NMOCD Soil Classification System, 0 points would be assigned to the site as a result of this criterion. The NMOCD guidelines indicate that the site would have a Ranking Score of >19. The soil action levels for a site with a Ranking Score of >19 points are as follows:

- Benzene - 10 ppm
- BTEX - 50 ppm
- TPH - 100 ppm

## **3.0 SUMMARY OF FIELD ACTIVITIES**

The initial release on the LF-59 site is estimated to have occurred in November 1997 followed by a second undocumented release at an unknown date. The volumes released during these two episodes are unknown. The release was from an 8-inch pipeline and attributed to structural failure associated with internal pipeline corrosion. Following completion of pipeline repair actions, shallow soils were treated in-situ by injection of an oxidizing agent with minimal success. Initial site investigation actions were conducted by a previous contractor and consisted of the advancement of ten (10) soil borings. In February 2000, five (5) groundwater monitor wells (MW-1 through MW-5) were installed to characterize groundwater conditions on-site. On September 17, 2001, groundwater monitor wells MW-6 and MW-7 were installed to further delineate the dissolved phase contaminant plume. On October 4, 2005, monitor well MW-8 was installed approximately 120 feet north of monitor well MW-1 to further delineate hydrocarbon impact at the site. Groundwater at the site occurs at depths varying from approximately 20 to 22 feet below ground surface (bgs). No further site delineation is planned at this time.

Excavation of approximately 9,900 cubic yards (cy) impacted soil and rock was conducted from November 2001 through January 2002. Excavated materials were mechanically screened and shredded and segregated into stockpiles of caliche and soil. Approximately 6,900 cy of soil was subsequently spread onto an on-site soil treatment cell and combined with fertilizer to enhance bioremediation. On August 29, 2002, the treatment cell was sampled for baseline concentrations of Total Petroleum Hydrocarbon (TPH) and Benzene, Toluene, Ethylbenzene and Xylene (BTEX). The treatment cell has been mechanically tilled on a quarterly basis since inception to further enhance bioremediation. In January 2003, site access was restricted by a local landowner who was the holder of a surface lease at the site. In 2004, site access was allowed to resume by the landowner. In September 2005, analytical results of samples collected from the soil treatment cell indicated TPH concentrations were below NMOCD regulatory levels and mechanical tilling of the cell ceased. On February 2, 2006, samples were collected from the sidewalls of the existing excavation to evaluate the need for additional excavation of the sidewalls. The analytical results indicate additional excavation is required on the northeast, northwest, southwest, south and southeast sidewalls in order to progress the site toward an NMOCD approved soil closure. Please refer to Figure 3 for sample locations and proposed areas of excavation.

A summary of the analytical results of the soil samples collected during soil boring and monitor well installations and other soil related activities is provided as Table 1. Boring logs reflecting site lithology data and well completion details are included as Appendix A. Copies of the laboratory reports generated from well installation and sampling activities described herein are included as Appendix B. All soil samples were submitted under a completed chain-of-custody analyzed for TPH concentrations utilizing EPA SW 846-8015M GRO/DRO. Selected soil samples were analyzed for BTEX constituent concentrations utilizing EPA SW 846-8021B.

#### **4.0 SUPPLEMENTAL WORK PLAN**

Based on the analytical results of the February 2, 2006 excavation sidewall sampling event, Plains proposes to mobilize an excavator to remove additional soil from the sidewalls of the existing excavation. Please refer to Figure 3 for sample locations and proposed areas of excavation. The actual limits of the additional excavation will be determined by field screening utilizing a Photo-Ionization Detector (PID) and by visual and olfactory evaluation of the excavation sidewalls. Excavated material will be stockpiled onsite pending analysis. On completion of the excavation activities, one (1) excavation sidewall sample will be collected for every fifty (50) linear feet of excavated sidewall.

When the confirmation analytical results of excavation sidewalls indicate TPH concentrations are below the NMOCD regulatory standard of 100 mg/Kg TPH, Plains proposes a risk-based strategy for soil closure at the site. With NMOCD approval, a twenty (20) millimeter (mil) polyurethane liner, manufactured for this purpose, will be placed on the floor of the excavation. The liner will be cushioned by a six (6) inch layer of non-impacted sand placed beneath the liner. On completion of the liner installation a six (6) inch layer of non-impacted sand will be placed on top the liner to cushion any sharp objects from puncturing the liner. The liner will be positioned to allow any moisture to be shed off the sides. Monitor well locations within the excavation will be fitted with a forty (40) mil protective boot to maintain the impermeability of

the liner. The liner isolates hydrocarbon impacted soil beneath, while shedding surface moisture to the edges. The remediated soil contained in the treatment cell will then be placed in the excavation on top of the liner and compacted during backfilling activities. The backfilled area will be contoured to match the surrounding topography and then seeded with native grasses acceptable to the landowner.

## **5.0 REPORTING**

Plains is prepared to begin field activities and perform the corrective actions summarized in this Soil Closure Strategy and Site Restoration Work Plan, upon review and approval of the work plan by the NMOCD. Upon completion of the field activities summarized in this work plan, Plains will submit a Soil Closure Report to the NMOCD, documenting the results of confirmation soil samples, and final topographic restoration activities. In this report, Plains will request the NMOCD grant closure to soil issues at this site. A groundwater closure report will follow after eight successive quarterly sampling events have demonstrated that hydrocarbon concentrations are below NMOCD regulatory guidelines.

## **6.0 LIMITATIONS**

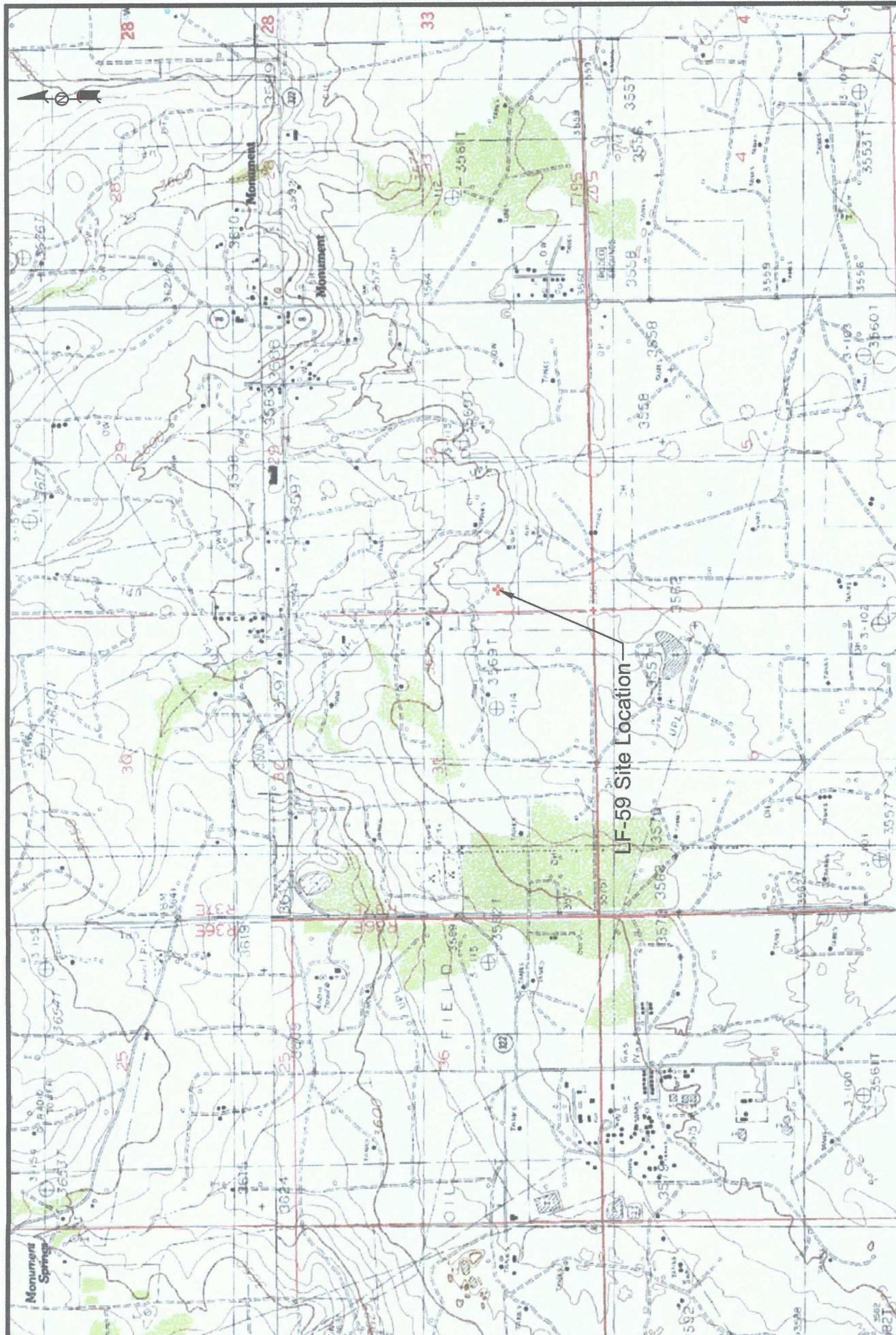
NOVA has prepared this Soil Closure Strategy and Site Restoration Work Plan to the best of its ability. No other warranty, expressed or implied, is made or intended. NOVA has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. NOVA has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. NOVA has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. NOVA also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Plains. The information contained in this report including all exhibits and attachments may not be used by any other party without the express written consent of NOVA and/or Plains.

## **7.0 DISTRIBUTION**

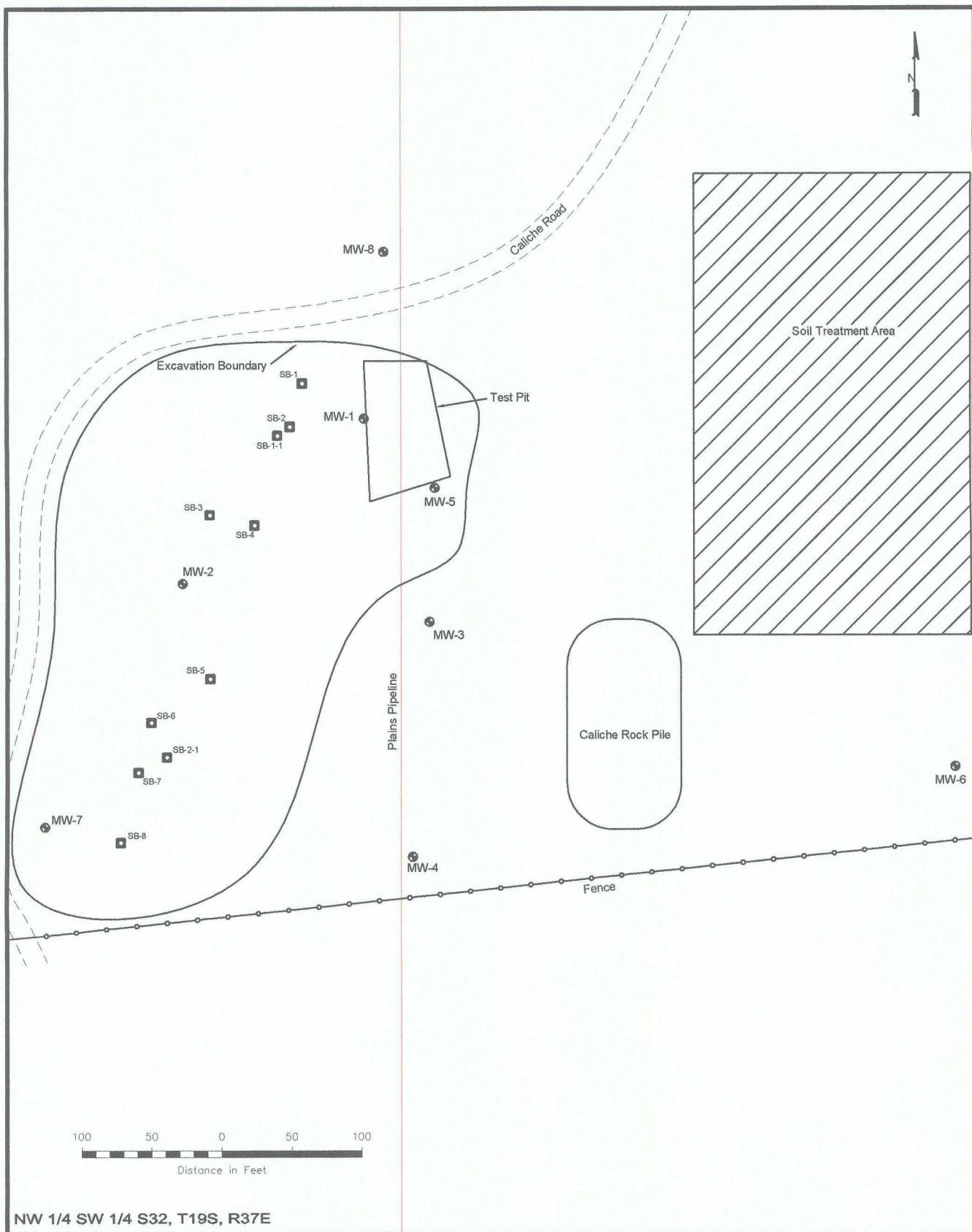
- Copy 1: Ben Stone  
New Mexico Oil Conservation Division  
Environmental Bureau  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505
- Copy 2: Larry Johnson and Paul Sheeley  
New Mexico Energy, Minerals and Natural Resources Department  
Oil Conservation Division District 1  
1625 French Drive  
Hobbs, NM 88240
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# Figures



NOVA Safety and Environmental

NW 1/4 SW 1/4 Sec 32 T19S, R37E  
32° 36' 50.1" N  
103° 16' 47.6" W



NW 1/4 SW 1/4 S32, T19S, R37E

#### LEGEND:

- Monitor Well Location
- Pipeline

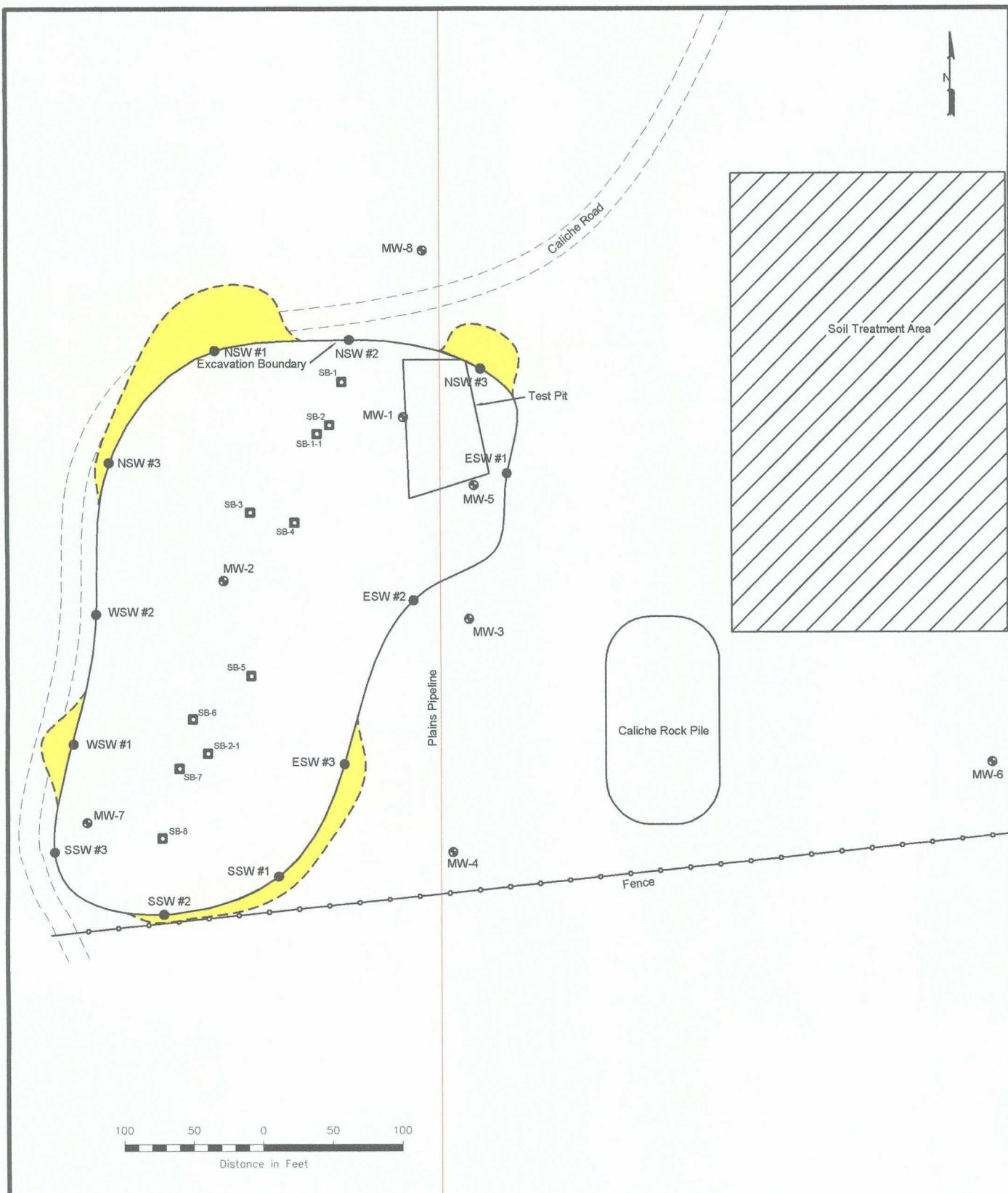
Figure 2  
Site Map

Plains Marketing, L.P.  
LF - 59  
Monument, NM

NOVA Safety and Environmental



Lat. 32° 36' 50.1"N Long 103° 16' 49.6"W	Scale: 1"=100'
NW1/4 SW1/4 Sec32 T19S R37E	Drawn By: DPM Prepared By: MRE
January 28, 2005	



NW 1/4 SW 1/4 S32, T19S, R37E

LEGEND:	
●	Monitor Well Location
—	Pipeline
■	Proposed Area of Excavation

Figure 3  
Sample Location and Proposed Excavation Map  
Plains Marketing, L.P.  
LF - 59  
Monument, NM

NOVA Safety and Environmental



Lat. 32° 36' 50.1"N Long 103° 16' 49.6"W	Scale: 1"=100'
NW1/4 SW1/4 Sec32 T19S R37E	Drawn By: DPM
Prepared By: MRE	
June 27, 2006	

# Tables

TABLE 1  
CONCENTRATIONS OF BTEX & TPH IN SOIL  
LF - 59  
MONUMENT, NEW MEXICO

SAMPLE DATE	SAMPLE LOCATION	Methods: EPA SW 846-8021B, 5030						EPA SW 846-8015M			
		BENZENE	TOLUENE	ETHYL-BENZENE	m,p-XYLENE	o-XYLENE	TOTAL BTEX	GRO C <sub>6</sub> -C <sub>10</sub>	DRO >C <sub>10</sub> -C <sub>25</sub>	DRO >C <sub>10</sub> -C <sub>28</sub>	TOTAL TPH >C <sub>6</sub> -C <sub>28</sub>
10/29/99	SB - 1-1 (1')	<0.200	40.0	35.7	158	63.8	297.500	6680	20263		26943
10/29/99	SB - 1-1 (5-7")	1.99	25.8	40.6	171	66.4	305.790	7645	14560		22205
10/29/99	SB - 1-1 (10-12")	<0.100	3.11	4.36	15.71	6.65	29.830	946	3455		4401
10/29/99	SB - 1-1 (15-17")	2.23	14.4	15.3	61.1	20.7	113.730	2677	4781		7458
10/29/99	SB - 2-1 (1')	1.45	30.9	33.8	143	49.2	258.350	6805	17789		24594
10/29/99	SB - 2-1 (5-7")	<0.100	<0.100	<0.100	0.227	<0.100	0.227	12	101		113
10/29/99	SB - 2-1 (10-12")	<0.100	<0.100	<0.100	0.153	<0.100	0.153	<10	20		20
10/29/99	SB - 2-1 (15')	<0.100	<0.100	<0.100	0.132	<0.100	0.132	<10	<10		<10
02/08/00	SB-1 (Surface)	<0.1	0.57	0.51	1.81	0.971	3.861	185		14184	14369
02/08/00	SB-1 (10')							62		725	787
02/08/00	SB-2 (Surface)							765		16530	17295
02/08/00	SB-2 (5')							313		1552	1865
02/08/00	SB-2 (10')							65		1158	1223
02/08/00	SB-2 (15')							225		1747	1972
02/08/00	SB-2 (20')							<10		207	207
02/08/00	SB-3 (Surface)							<10		1539	1539
02/08/00	SB-3 (15')							<10		70	70
02/08/00	SB-4 (Surface)							222		24742	24964
02/08/00	SB-4 (5')							826		3321	4147
02/08/00	SB-4 (15')							<10		89	89
02/08/00	SB-5 (Surface)							3937		19261	23198
02/08/00	SB-5 (15')							<10		81	81
02/08/00	SB-6 (Surface)							5808		25062	30870
02/08/00	SB-6 (5')							<10		171	171
02/08/00	SB-6 (10')							<10		41	41
02/08/00	SB-6 (15')							<10		12	12
02/08/00	SB-6 (19.5')							<10		<10	<10
02/08/00	SB-7 (Surface)							3725		22199	25924
02/08/00	SB-7 (10')							<10		148	148
02/08/00	SB-8 (Surface)							5121		23320	28441
02/08/00	SB-8 (15')							1528		5033	6561
02/08/00	MW-1 (Surface)							<10		151	151
02/08/00	MW-1 (15')							<10		17	17
02/08/00	MW-2 (15')							<10		<10	<10
02/09/00	MW-3 (15')							<10		<10	<10
02/09/00	MW-4 (15')							106		560	666
02/09/00	MW-4 (20')							<10		<10	<10
02/14/00	Surface 1-1	<0.1	9.71	9.29	43.8	20.7	83.500	2683		13792	16475
02/14/00	Surface 2-1	<0.1	<0.1	9.88	58.1	62.4	130.380	7289		29543	36832
02/14/00	SB-2-1	<0.1	<0.1	0.786	3.22	3.08	7.086	463		9556	10019
06/09/00	SB1-2C 0'							<50		15477	15477
06/09/00	SB1-2C 2'							834		15578	16412
06/09/00	SB1-2C 10'							414		2272	2686
06/09/00	SB2-2C 0'							<50		12951	12951
06/09/00	SB2-2C 2'							433		7861	8294
06/09/00	SB2-2C 6'							1325		9183	10508
06/09/00	SB2-2C 10'							146		1881	2027
06/09/00	SB2-2C 16'							767		3181	3948
06/09/00	SB4-2C 0'							<10		1169	1169
06/09/00	SB4-2C 6'							66		977	1043
06/09/00	SB4-2C 10'							<10		34	34
06/09/00	SB6-2C 0'							1883		60779	62662
06/09/00	SB6-2C 6'							<10		274	274
06/09/00	SB6-2C 10'							<10		36	36

TABLE 1  
CONCENTRATIONS OF BTEX & TPH IN SOIL  
LF - 59  
MONUMENT, NEW MEXICO

*All measurements recorded in mg/kg*

SAMPLE DATE	SAMPLE LOCATION	Methods: EPA SW 846-8021B, 5030						EPA SW 846-8015M			
		BENZENE	TOLUENE	ETHYL-BENZENE	m,p-XYLENE	o-XYLENE	TOTAL BTEX	GRO C <sub>6</sub> -C <sub>10</sub>	DRO >C <sub>10</sub> -C <sub>25</sub>	DRO >C <sub>10</sub> -C <sub>28</sub>	TOTAL TPH >C <sub>6</sub> -C <sub>28</sub>
06/09/00	SB8-2C 0'							1366		38438	39804
06/09/00	SB8-2C 6'							1450		5807	7257
06/09/00	SB8-2C 10'							<10		109	109
06/09/00	SB8-2C 16'							<10		319	319
03/13/01	SS 1							342		30817	31159
03/13/01	SS 2							1157		54604	55761
09/17/01	MW - 6 0-2'							<5	<5		<5
09/17/01	MW - 6 5-7'							<5	<5		<5
09/17/01	MW - 6 10-12'							<5	<5		<5
09/17/01	MW - 6 15-17'							<5	<5		<5
09/17/01	MW - 6 20-22'							<5	9.1		9.1
09/17/01	MW - 6 25-27'							<5	<5		<5
09/17/01	MW - 7 0-2'							309		4280	4589
09/17/01	MW - 7 5-7'							<5	<5		<5
09/17/01	MW - 7 10-12'							<5		5.31	5.31
09/17/01	MW - 7 15-17'							<5	<5		<5
09/17/01	MW - 7 20-22'							<5	<5		<5
09/17/01	MW - 7 25-27'							<5	<5		<5
12/02/01	SPS-01							512		4030	4542
12/02/01	SPUS-01							678		4420	5098
12/10/01	GP-1 0-3'							<10		<10	<10
12/10/01	GP-3 0-3'							<10		12	12
12/10/01	GP-4 0-4'							<10		<10	<10
12/10/01	GP 4 4-5'							<10		15	15
12/10/01	GP-5 0-3'							<10		<10	<10
12/10/01	GP-6 0-3'							<10		<10	<10
12/10/01	GP-7 0-3'							<10		<10	<10
12/10/01	GP-8 0-3'							<10		<10	<10
12/10/01	GP-9 0-4'							<10		68	68
12/10/01	GP-9 4-8'							<10		<10	<10
12/10/01	GP-9 8-10'							<10		12	12
12/10/01	GP-11							<10		<10	<10
12/10/01	GP-12 0-4'							<10		<10	<10
12/10/01	GP-13 0-4'							<10		<10	<10
12/20/01	East Wall	<0.025	0.044	<0.025	0.066	0.064	0.174	11		458	469
12/20/01	South Wall	0.026	0.128	0.729	2.6	1.28	4.763	125		1040	1165
12/20/01	W. Corner Pad	0.035	0.242	3.14	10.1	4.88	18.397	924		7360	8284
12/20/01	N. W. Wall	<0.025	0.047	<0.025	0.094	<0.025	0.141	<10		174	174
12/20/01	Center/N. Side	0.060	0.472	2.79	11.9	3.59	18.812	578		4620	5198
12/20/01	N.E. Wall	<0.025	0.186	0.46	4.14	1.59	6.376	285		2300	2585
12/20/01	Center/S. Side	0.1	0.987	1.3	5.77	4.61	12.767	1660		16900	18560
12/20/01	West Wall	<0.025	0.045	<0.025	0.036	0.026	0.107	14		888	902
12/27/01	Grid 1 Sample 1	<0.025	0.104	0.282	2.33	1.25	3.966	138		3540	3678
12/27/01	Grid 2 Sample 2	<0.100	0.236	0.675	4.68	1.9	7.491	211		4500	4711
12/27/01	Grid 3 Sample 3	<0.100	0.138	0.336	2.34	0.967	3.781	139		3920	4059
12/27/01	Grid 4 Sample 4	<0.100	0.174	0.324	2.87	1.78	5.148	169		3530	3699
12/18/04	SS1							<10	219		219
12/18/04	SS2							<5	176		176

TABLE 1  
CONCENTRATIONS OF BTEX & TPH IN SOIL  
LF - 59  
MONUMENT, NEW MEXICO

*All measurements recorded in mg/kg*

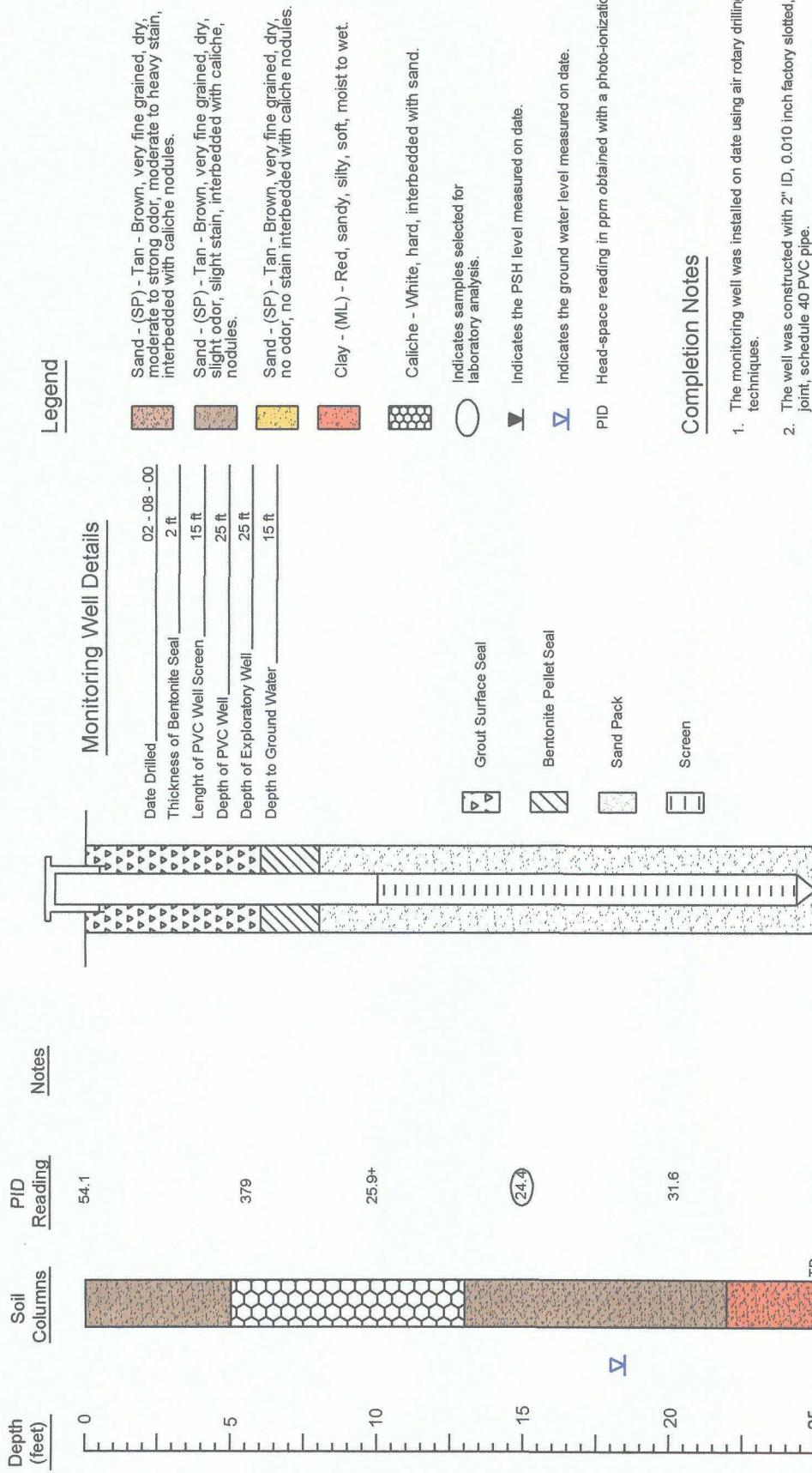
SAMPLE DATE	SAMPLE LOCATION	Methods: EPA SW 846-8021B, 5030						EPA SW 846-8015M			
		BENZENE	TOLUENE	ETHYL-BENZENE	m,p-XYLENE	o-XYLENE	TOTAL BTEX	GRO C <sub>6</sub> -C <sub>10</sub>	DRO >C <sub>10</sub> -C <sub>25</sub>	DRO >C <sub>10</sub> -C <sub>28</sub>	TOTAL TPH >C <sub>6</sub> -C <sub>28</sub>
12/18/04	SS3							<5	175		175
12/18/04	SS4							<5	254		254
09/07/05	SS-1							<1	102		102
09/07/05	SS-2							<1	115		115
09/07/05	SS-3							<1	60.7		60.7
09/07/05	SS-4							<1	<50.0		<50
10/04/05	MW-8 (15-20)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<b>1.68</b>	<50.0		1.68
02/02/06	NSW #1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01				
	SSW #1							<1	<b>282</b>		282
	SSW #2							<1	<b>259</b>		259
	SSW #3							<1	<50.0		<50.0
	WSW #1							<1	<b>611</b>		611
	WSW #2							<1	<50.0		<50.0
	WSW #3							<1	<b>170</b>		170
	NSW #1							<b>2.87</b>	<b>2520</b>		<b>2522.87</b>
	NSW #2							<1	<50.0		<50.0
	NSW #3							1.31	<b>537</b>		<b>538.31</b>
	ESW #1							<1	<50.0		<50.0
	ESW #2							<1	<50.0		<50.0
	ESW #3							<1	<b>360</b>		360

BOLD indicates concentration exceeding NMOCRD regulatory standards

## Appendices

**Appendix A**  
**Well Boring and Completion Logs**

## Monitoring Well MW - 1



1. The monitoring well was installed on date using air rotary drilling techniques.
2. The well was constructed with 2" ID, 0.010 inch factory slotted, threaded joint, schedule 40 PVC pipe.
3. The well is protected with a locked stick up steel cover and a compression cap.
4. The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
5. The depths indicated are referenced from the ground surface.

## Boring Log And Monitoring Well Details

### Monitoring Well - 1

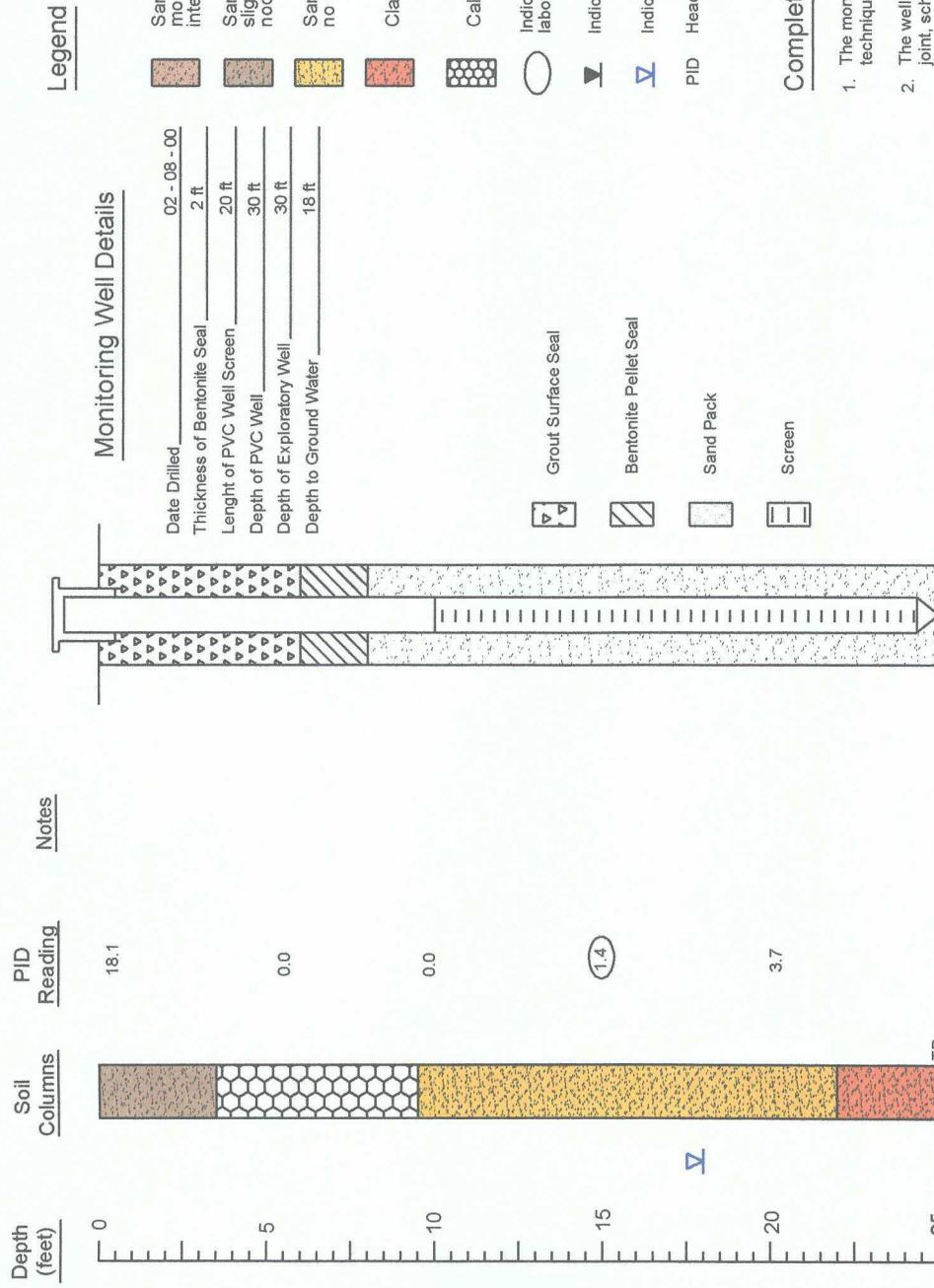
Plains Marketing, L.P. LF - 59 Lea County, NM



## NOVA Safety and Environmental

Scale: NTS	Prep By: RS	Checked By: JT
February 18, 2000		

## Monitoring Well MW - 2



### Legend

	Sand - (SP) - Tan - Brown, very fine grained, dry, moderate to strong odor, moderate to heavy stain, interbedded with caliche nodules.
	Sand - (SP) - Tan - Brown, very fine grained, dry, slight odor, slight stain, interbedded with caliche nodules.
	Sand - (SP) - Tan - Brown, very fine grained, dry, no odor, no stain interbedded with caliche nodules.
	Clay - (ML) - Red, sandy, silty, soft, moist to wet.
	Caliche - White, hard, interbedded with sand.

Indicates samples selected for laboratory analysis.

▼ Indicates the PSH level measured on date.

△ Indicates the ground water level measured on date.

PID Head-space reading in ppm obtained with a photo-ionization detector.

### Completion Notes

1. The monitoring well was installed on date using air rotary drilling techniques.
2. The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
3. The well is protected with a locked stick up steel cover and a compression cap.
4. The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
5. The depths indicated are referenced from the ground surface.

## Boring Log And Monitoring Well Details

### Monitoring Well - 2

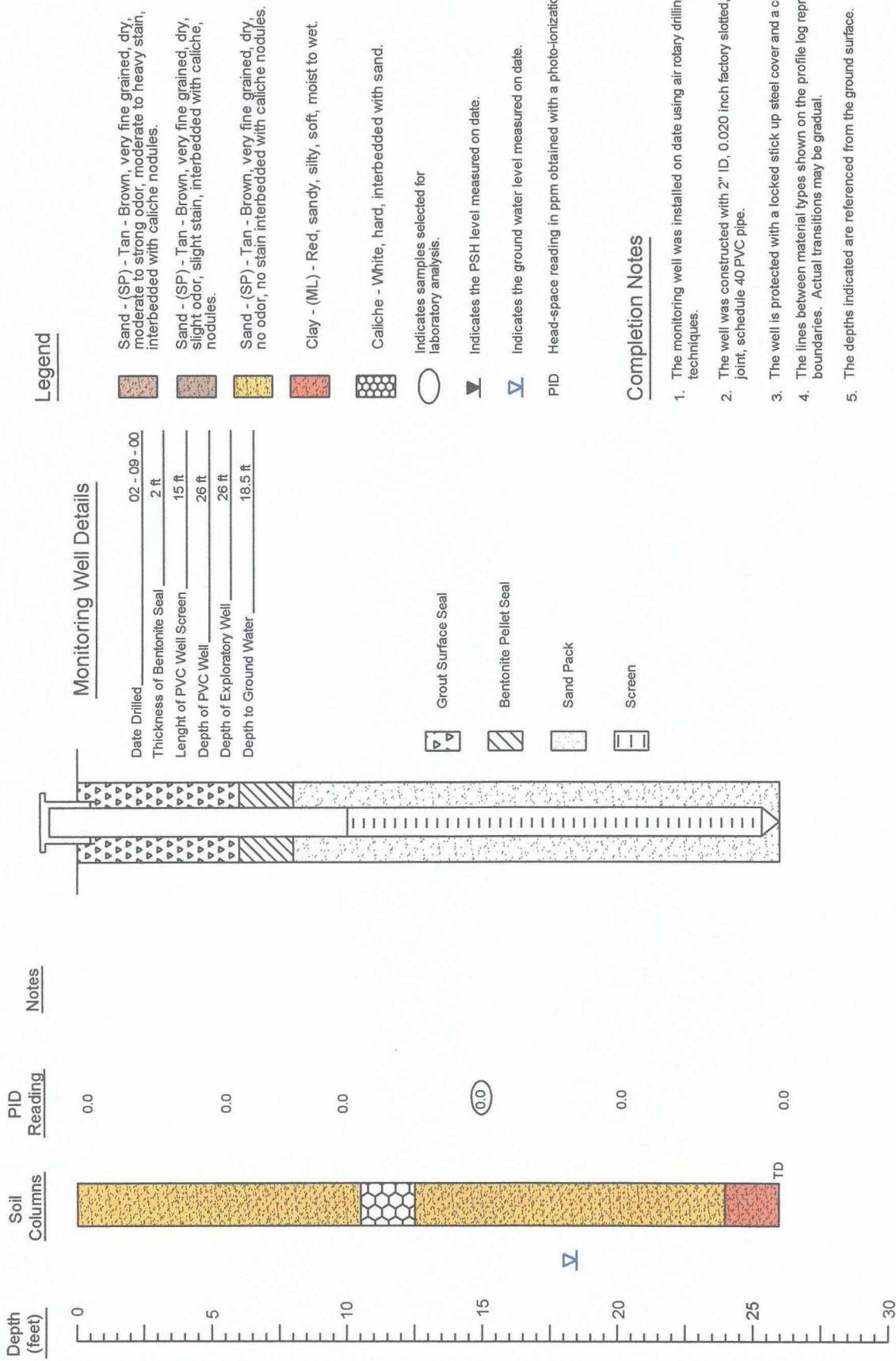
Plains Marketing, L.P. LF - 59 Lea County, NM



### NOVA Safety and Environmental

Scale: NTS  
February 18, 2000

## Monitoring Well MW - 3



## Boring Log And Monitoring Well Details

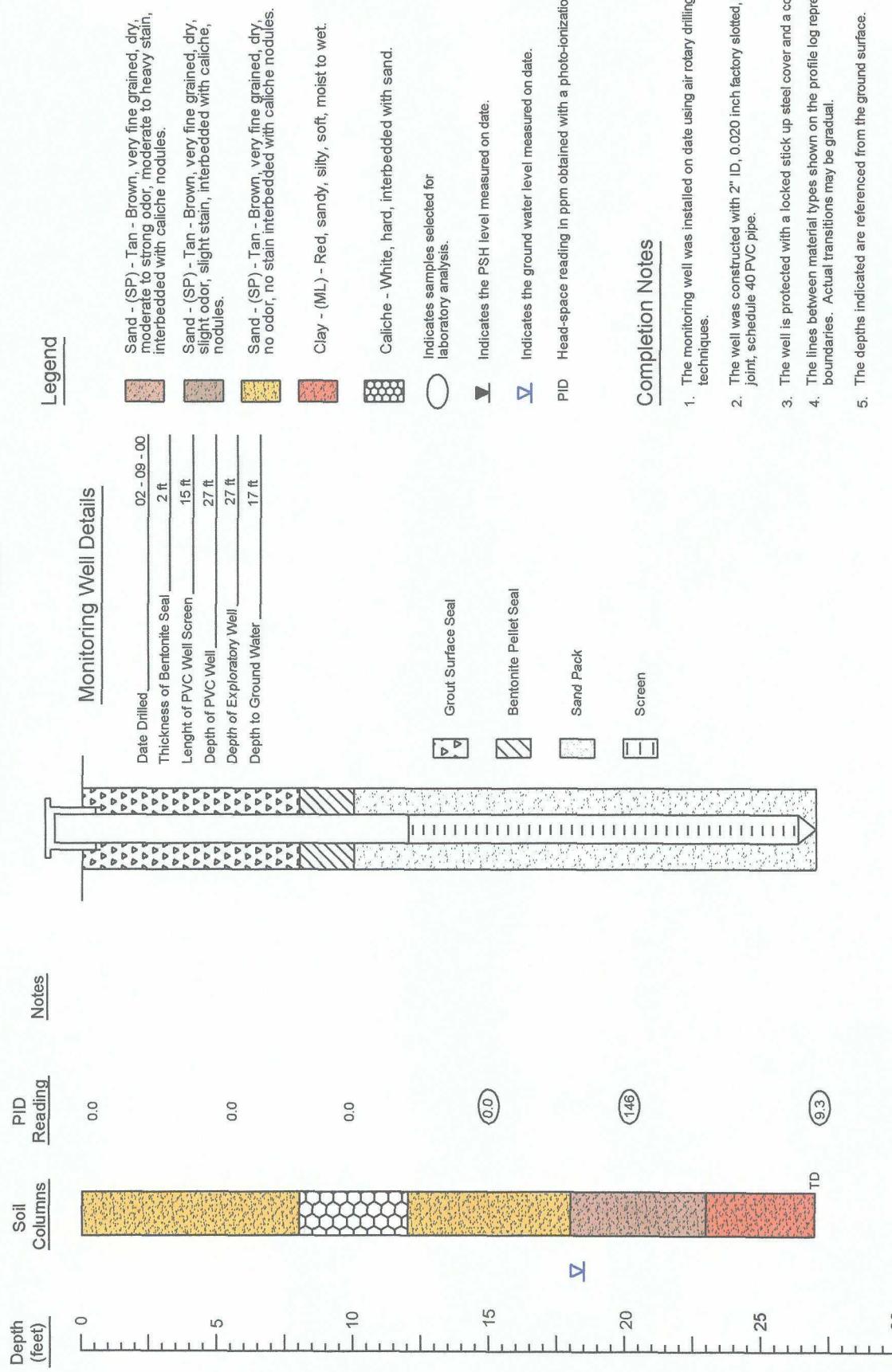
Plains Marketing, L.P. LF - 59 Lea County, NM



## NOVA Safety and Environmental

Scale: NTS	Prep By: RS	Checked By: JT
February 18, 2000		

## Monitoring Well MW - 4



## Boring Log And Monitoring Well Details

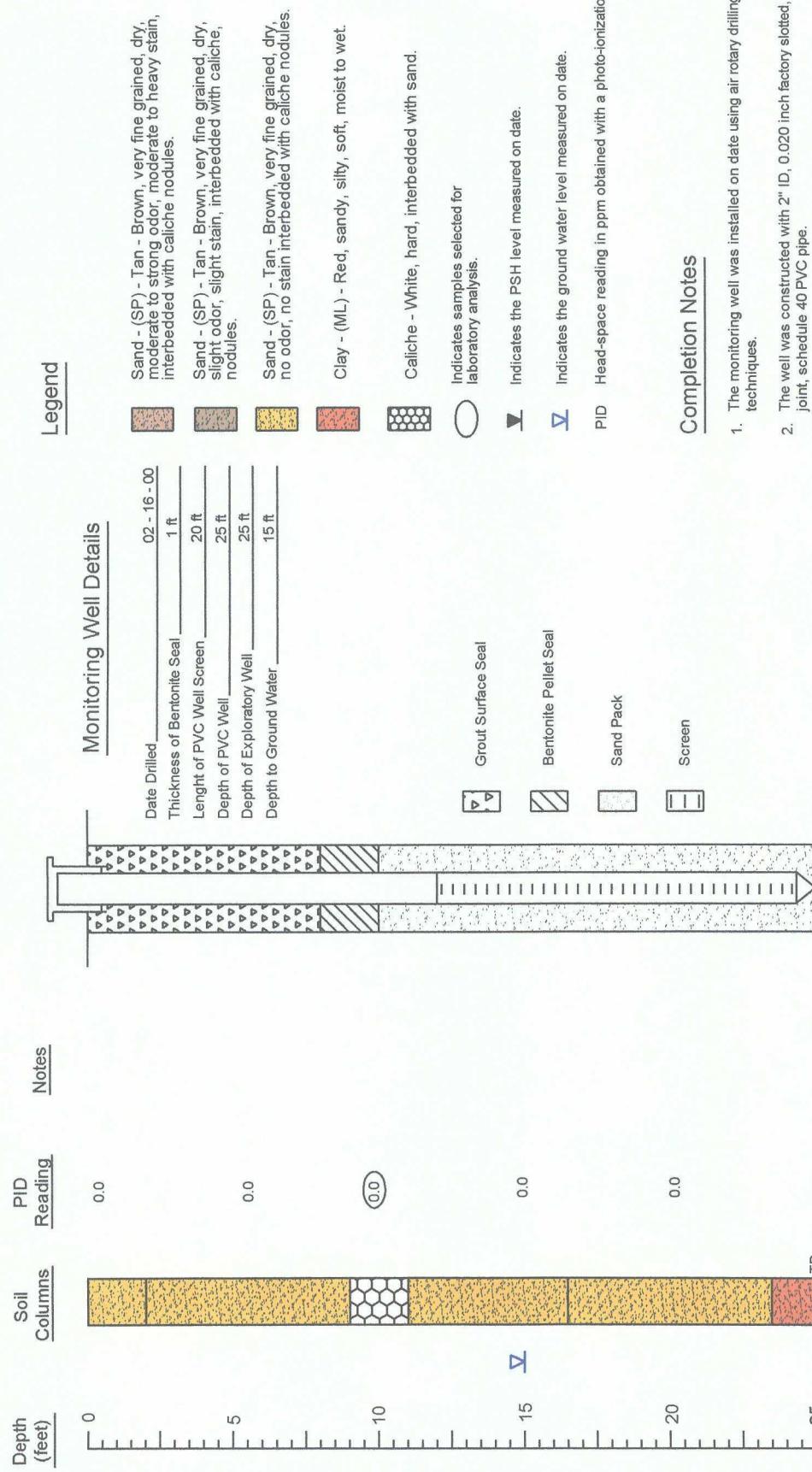
Plains Marketing, L.P.   LF - 59   Lea County, NM



## NOVA Safety and Environmental

Scale: NTS	Prep By: RS	Checked By: JT
February 18, 2000		

## Monitoring Well MW - 5



## Boring Log And Monitoring Well Details

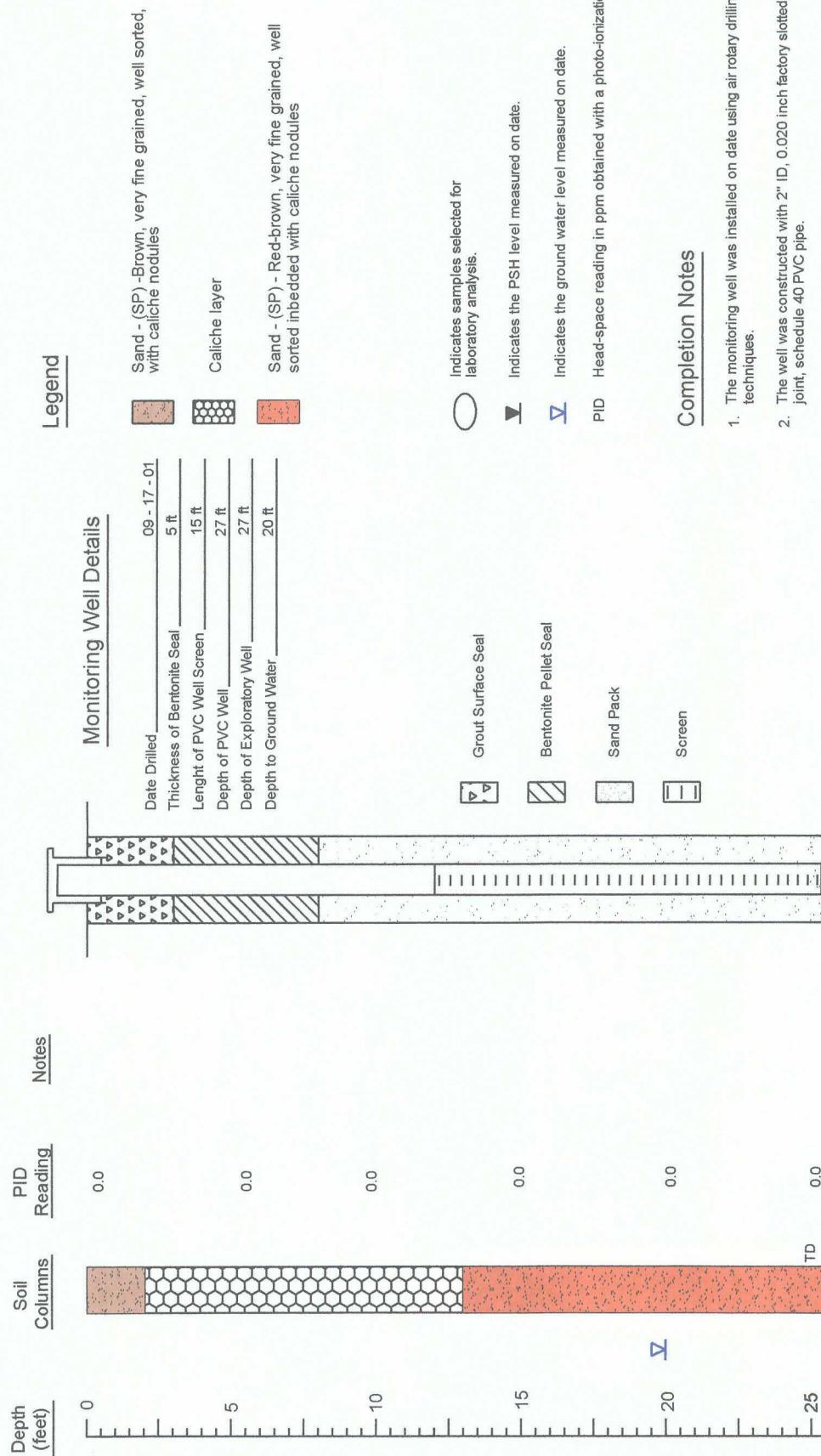
Monitoring Well - 5  
Plains Marketing, L.P. LF - 59 Lea County, NM



## NOVA Safety and Environmental

Scale: NTS	Prep By: RS	Checked By: JT
February 18, 2000		

## Monitoring Well MW - 6



## Boring Log And Monitoring Well Details

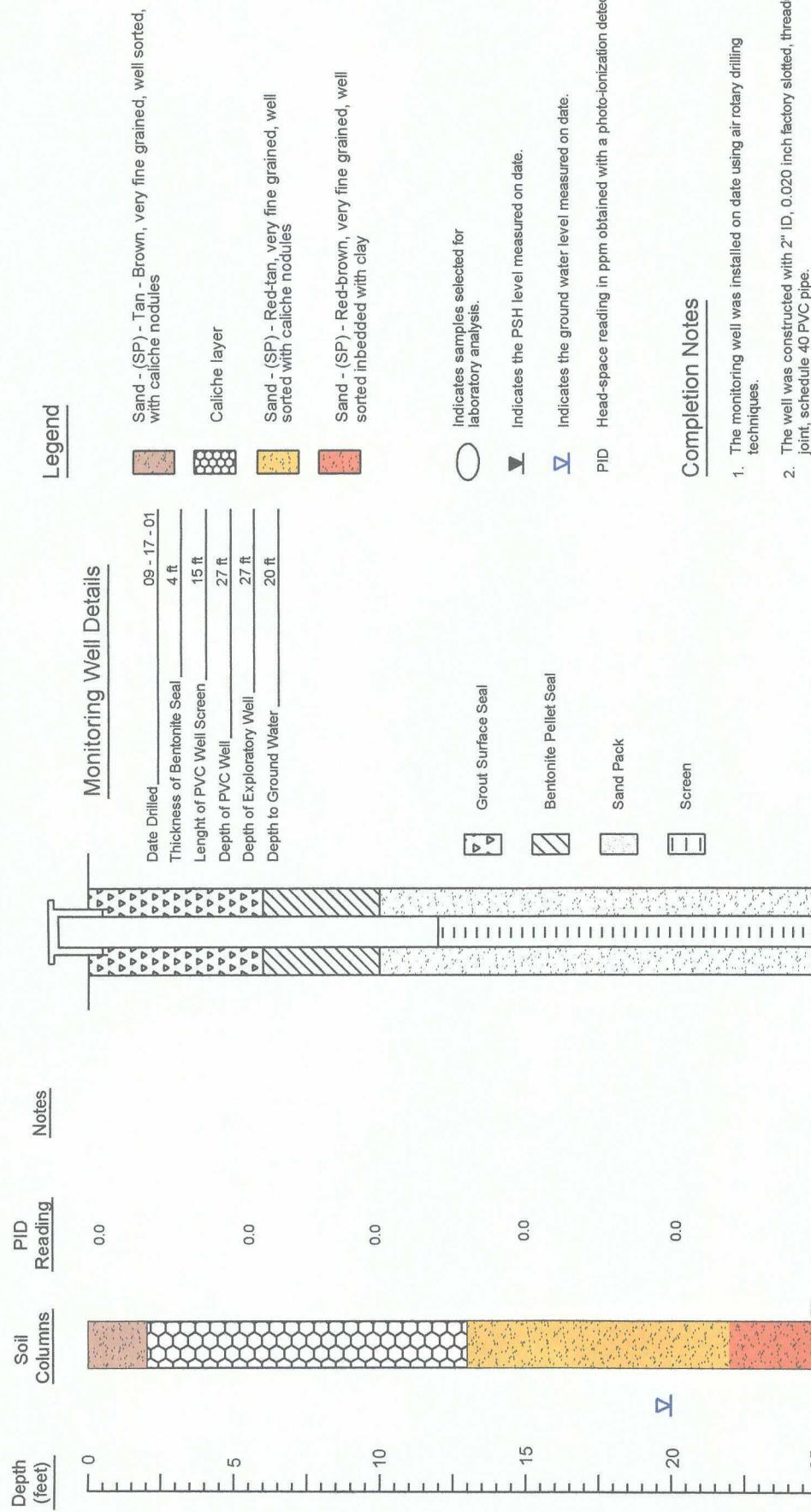
Monitoring Well - 6  
 Plains Marketing, L.P. LF - 59 Lea County, NM



## NOVA Safety and Environmental

Scale: NTS	CAD By: DGC	Checked By: CS
July 21, 2006		

## Monitoring Well MW - 7



### Completion Notes

1. The monitoring well was installed on date using air rotary drilling techniques.
2. The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
3. The well is protected with a locked stick up steel cover and a compression cap.
4. The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
5. The depths indicated are referenced from the ground surface.

## Boring Log And Monitoring Well Details

### Monitoring Well - 7

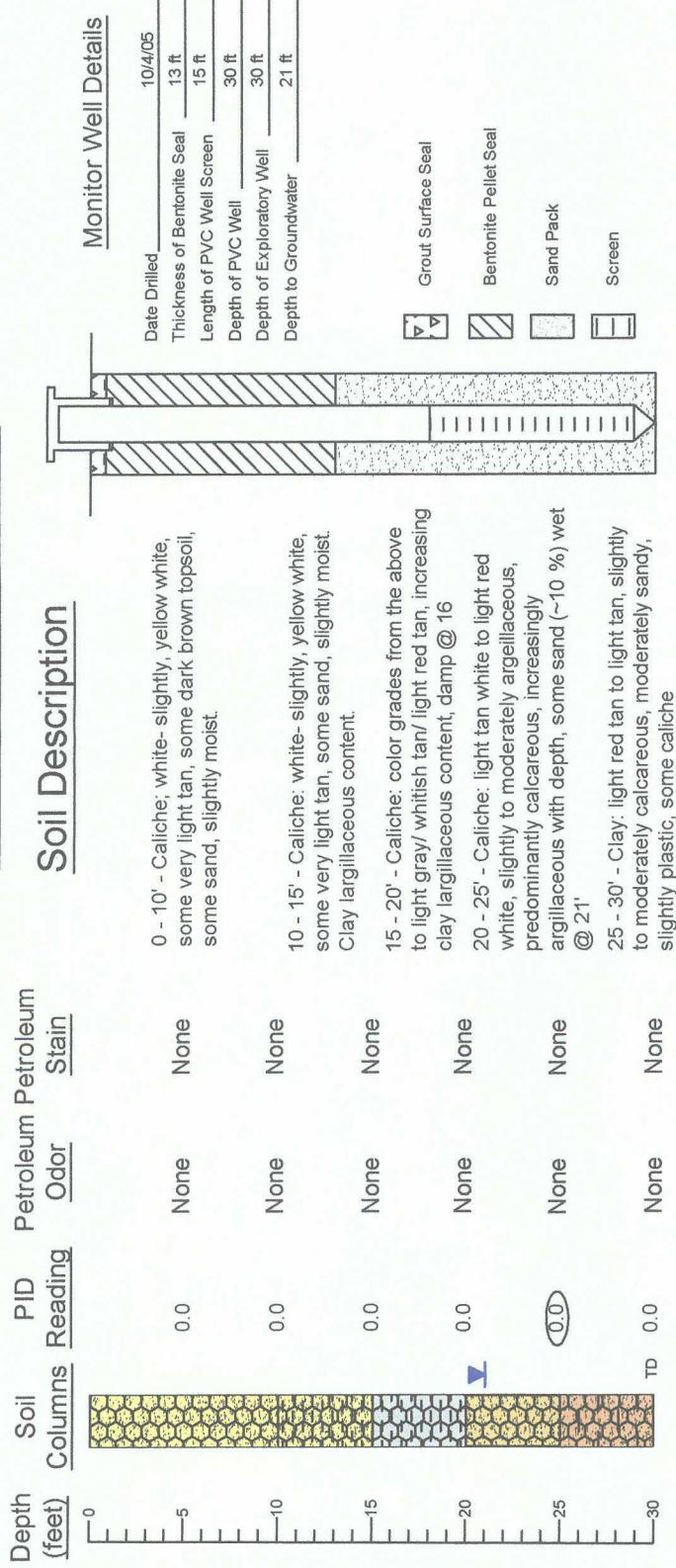
Plains Marketing, L.P. LF - 59 Lea County, NM



## NOVA Safety and Environmental

Scale: NTS	CAD By: DGC	Checked By: CS
July 21, 2006		

# Monitor Well MW-8



▼ Indicates the groundwater level measured on 10/4/05

○ Indicates samples selected for Laboratory Analysis.

PID Head-space reading in ppm obtained with a photo-ionization detector.

## Completion Notes

- The monitor well was installed on date using air rotary drilling techniques.
- The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
- The well is protected with a locked stick up steel cover and a compression cap.
- The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- The depths indicated are referenced from below ground surface. (bgs)

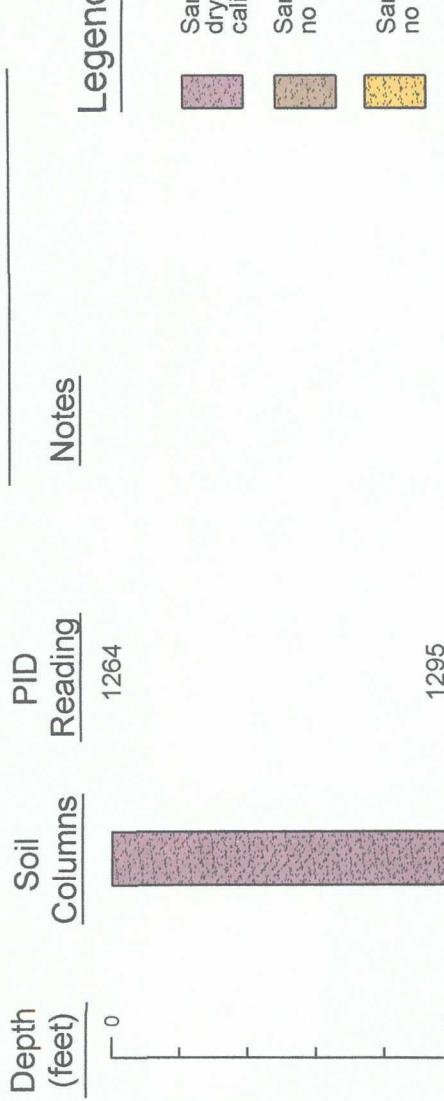
**Boring Log And Monitor Well Details**  
**Monitor Well MW 8**  
**LF-59 Lea County, New Mexico**  
**Plains Marketing, L.P.**



## NOVA Safety and Environmental

Prep By: DPM      Checked By: CDS  
 October 19, 2005

## Soil Boring SB 1-1



### Legend

-  Sand - (SP) - Reddish Brown, very fine grained, well sorted, dry to moist, fair stain, strong odor, interbedded with caliche nodules.
-  Sand - (SP) - White, very fine grained, well sorted, dry, no stain, slight odor, interbedded with caliche nodules.
-  Sand - (SP) - Tan, very fine grained, well sorted, dry, no stain, slight odor, interbedded with caliche nodules.
-  Clay - (ML) - Reddish brown, well sorted, moist, slight stain, slight odor, interbedded with caliche nodules.
-  Caliche - White, hard, interbedded with sand.

PID Head-space reading in ppm obtained with a photo-ionization detector.

 Indicates samples selected for laboratory analysis.

### Soil Boring Details

Date Drilled 10 / 29 / 99  
Plugged - Surface to TD with Bentonite and hydrated with deionized water

### NOVA Safety and Environmental

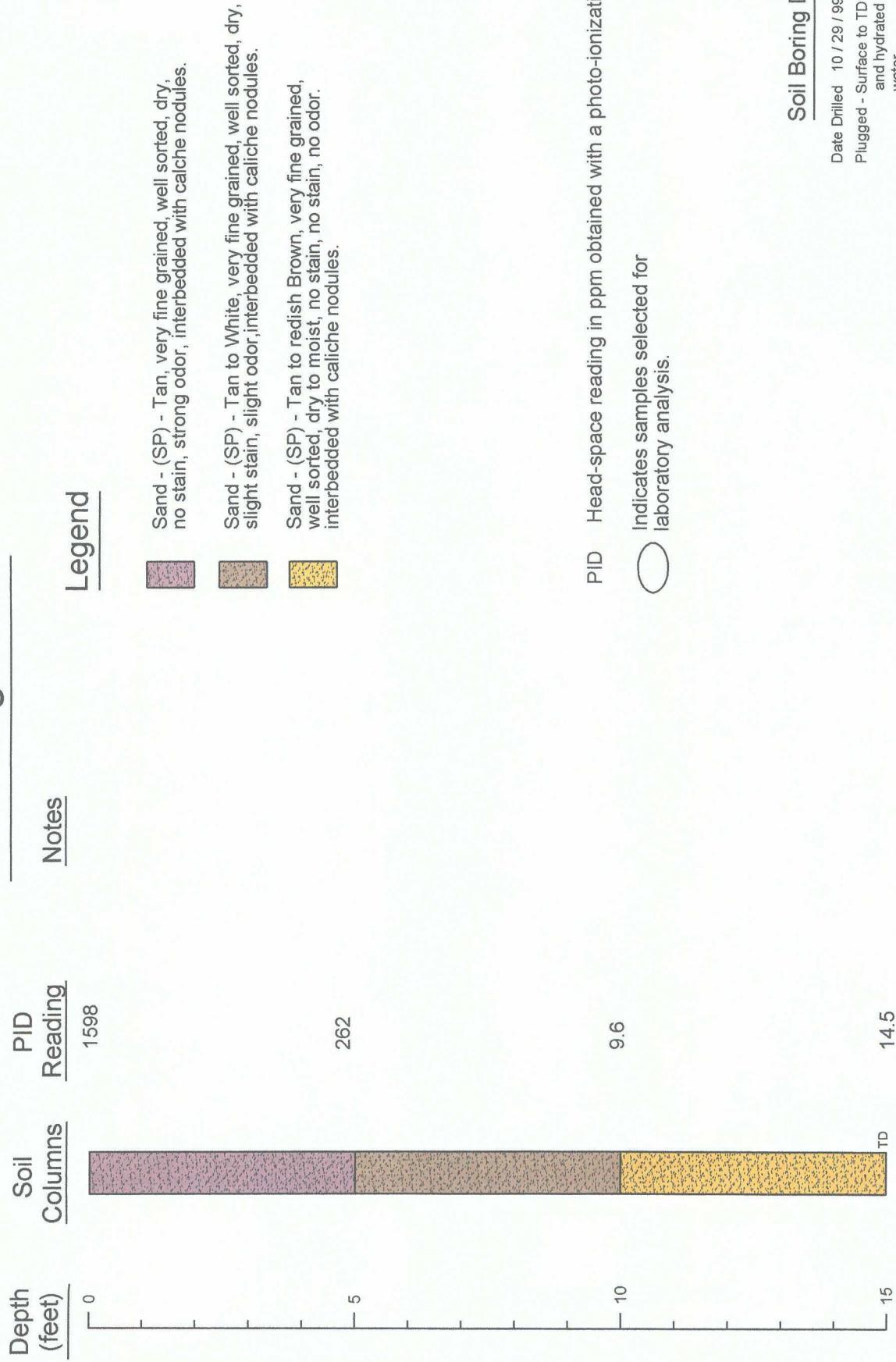


Soil Boring Log Details  
Soil Boring SB 1-1  
Plains Marketing, L.P. LF - 59 Lea County, NM

Scale: NTS Prep By: RS Checked By: JT

February 23, 2000

## Soil Boring SB 2-1



### Soil Boring Details

Date Drilled 10 / 29 / 99  
Plugged - Surface to TD with Bentonite and hydrated with deionized water

### NOVA Safety and Environmental



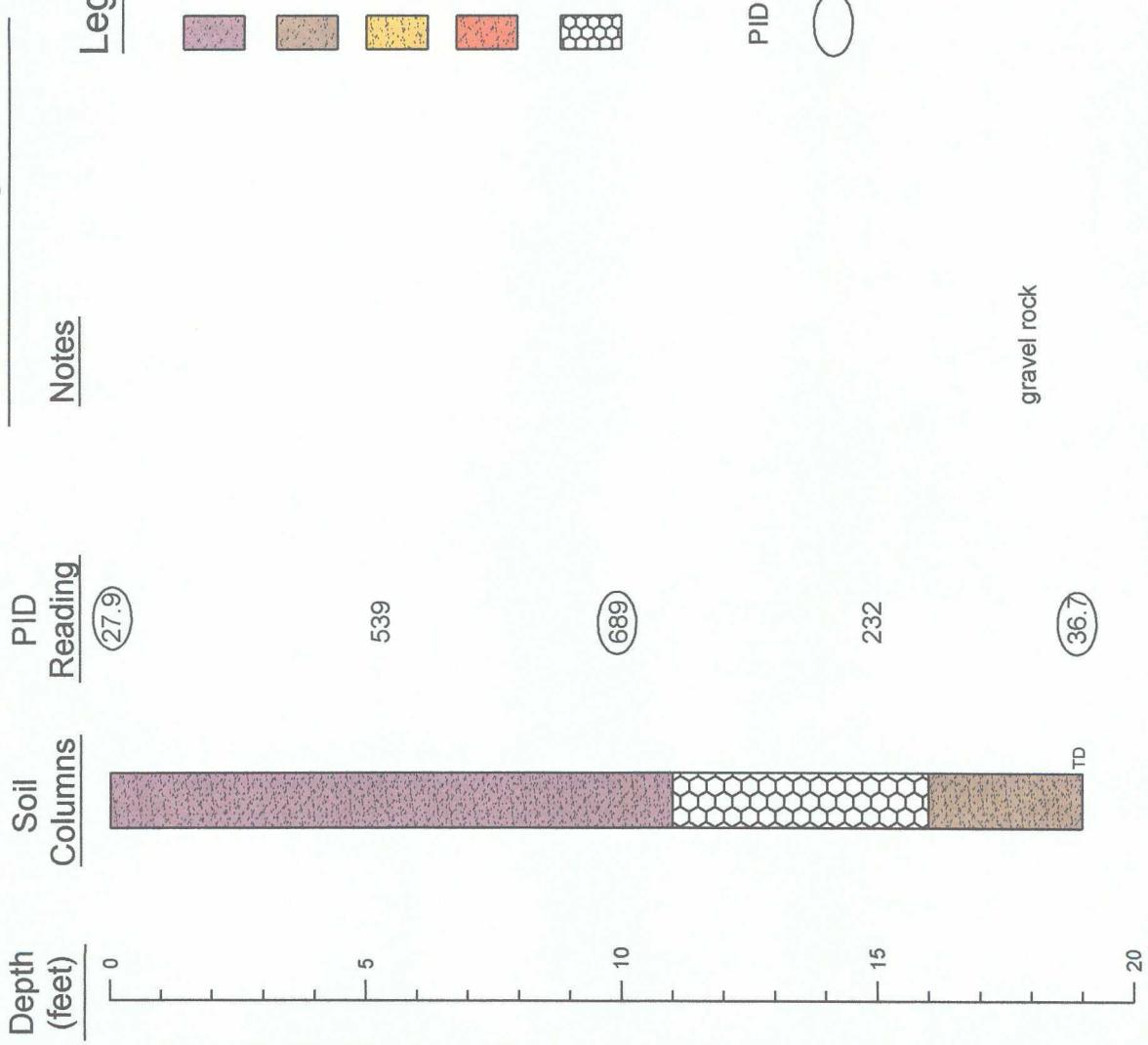
Plains Marketing, L.P. LF - 59 Lea County, NM

Scale: NTS   
February 23, 2000 

### Soil Boring Log Details

Soil Boring SB 2-1

## Soil Boring SB - 1



**Legend**

- Sand - (SP) - Tan - Brown, very fine grained, well sorted, dry, moderate/strong odor, moderate/heavy stain, interbedded with caliche nodules.
- Sand - (SP) - Tan - Brown, very fine grained, well sorted, dry, with slight stain, slight odor interbedded with caliche nodules.
- Sand - (SP) - Tan - Brown, very fine grained, well sorted, dry, no stain, no odor, interbedded with caliche nodules.
- Clay - (ML) - Red, sandy, silty, soft, moist to wet.
- Caliche - White, hard, interbedded with sand.

- PID** Head-space reading in ppm obtained with a photo-ionization detector.  
 Indicates samples selected for laboratory analysis.

### Soil Boring Details

Date Drilled 02 / 08 / 00  
Plugged - Surface to TD with Bentonite and hydrated with deionized water

NOVA Safety and Environmental			
Scale: NTS	Prep By: RS	Checked By: JT	
February 21, 2000			

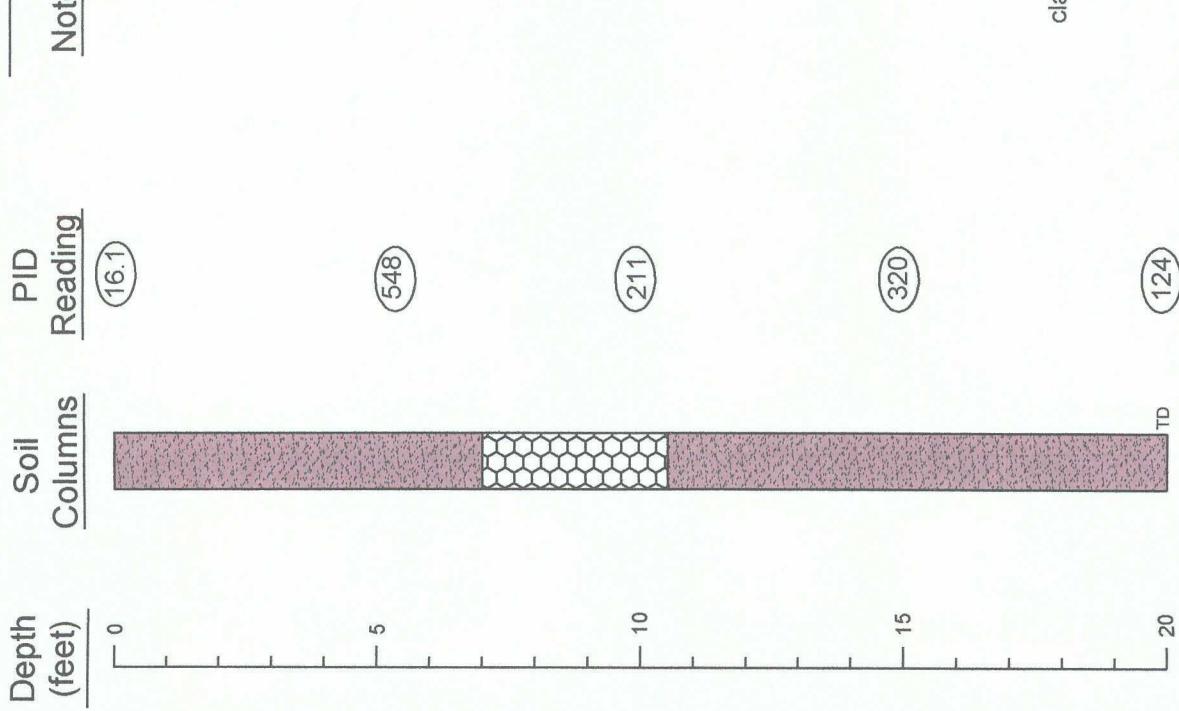
### Soil Boring Log Details

#### Soil Boring SB - 1

Plains Marketing, L.P. LF - 59 Lea County, NM

### NOVA Safety and Environmental

## Soil Boring SB - 2



PID Head-space reading in ppm obtained with a photo-ionization detector.

Indicates samples selected for laboratory analysis.

### Soil Boring Details

Date Drilled 02 / 08 / 00  
Plugged - Surface to TD with Bentonite and hydrated with deionized water

### Soil Boring Log Details

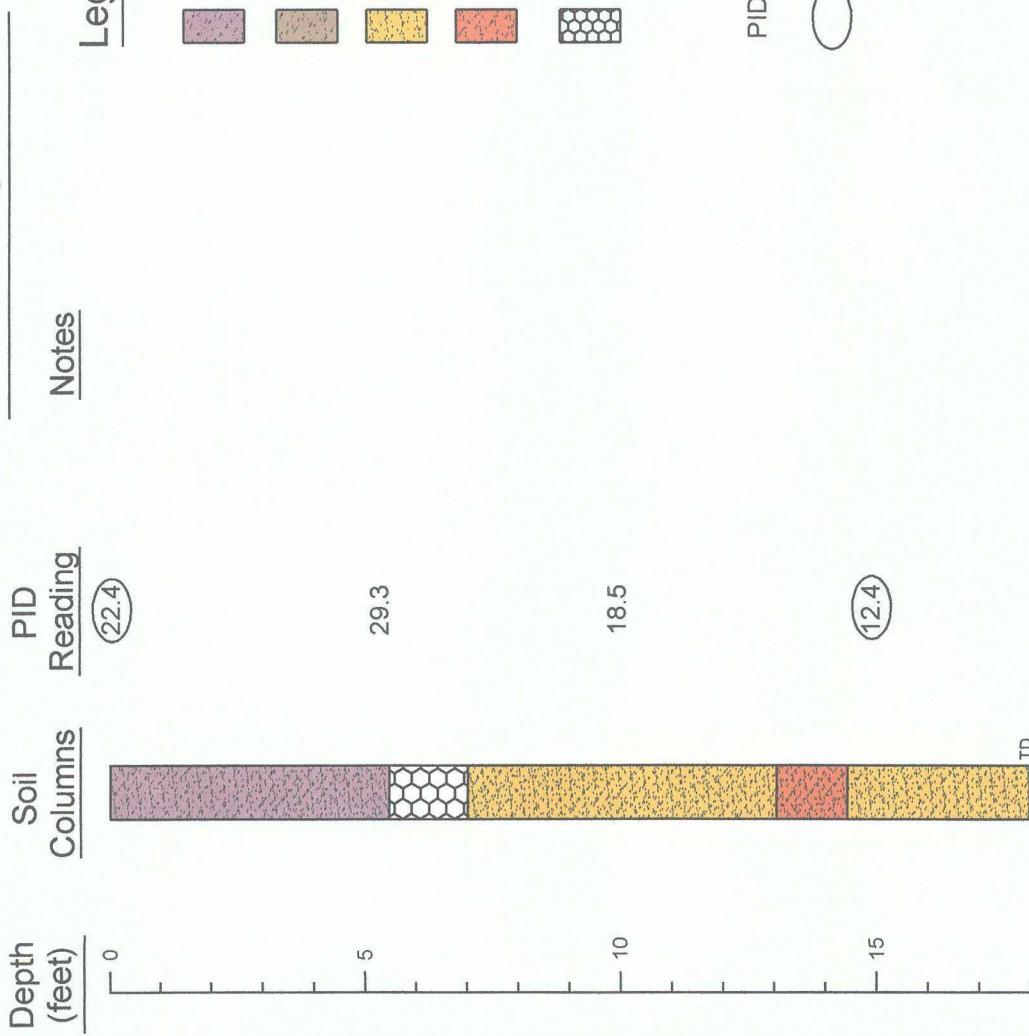
Soil Boring SB - 2  
Plains Marketing, L.P. LF - 59 Lea County, NM



### NOVA Safety and Environmental

Scale: NTS	Prep By: RS	Checked By: JT
February 21, 2000		

## Soil Boring SB - 3



PID Head-space reading in ppm obtained with a photo-ionization detector.

 Indicates samples selected for laboratory analysis.

### Soil Boring Details

Date Drilled 02 / 08 / 00  
Plugged - Surface to TD with Bentonite and hydrated with deionized water

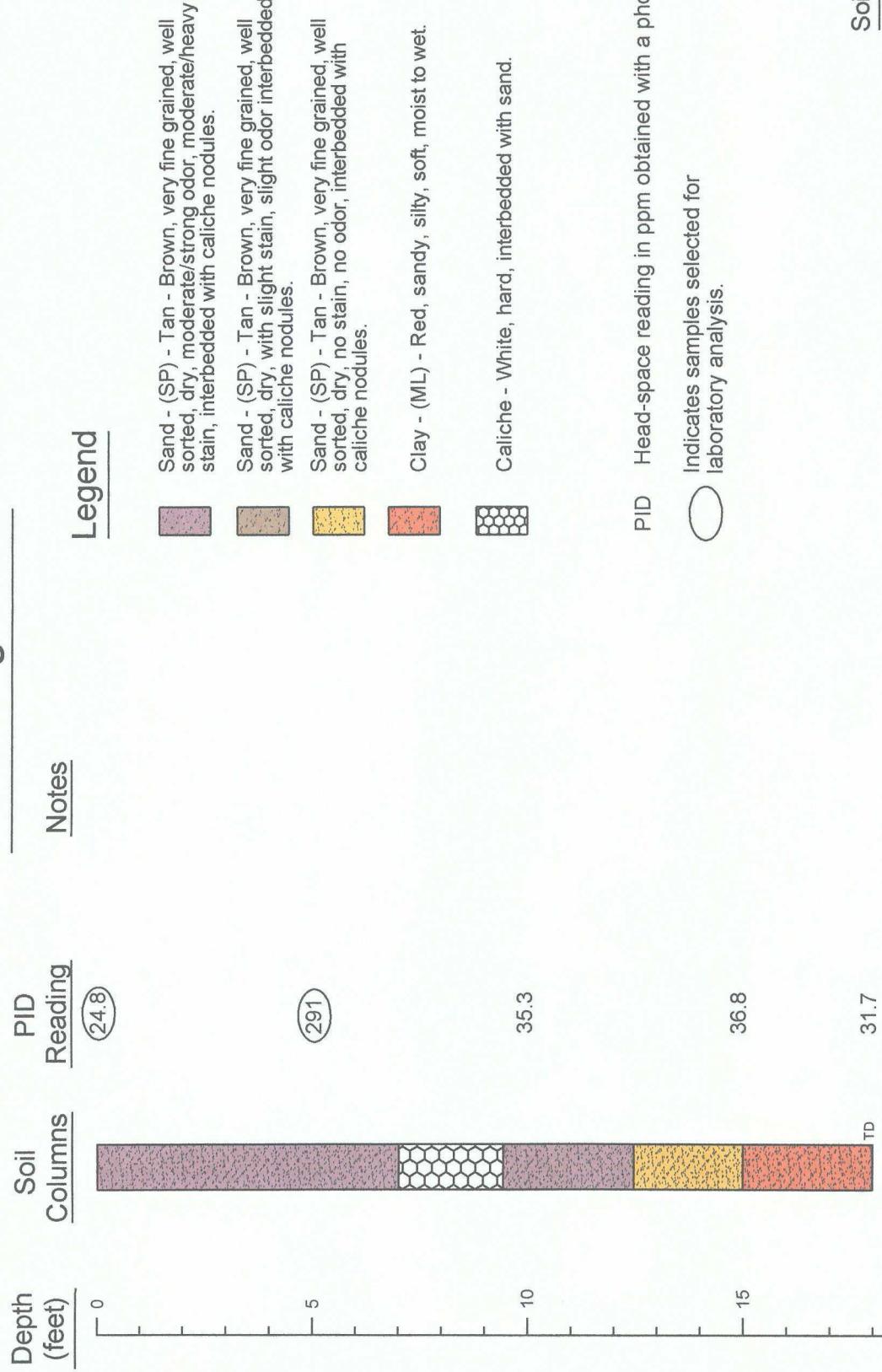
### NOVA Safety and Environmental



Soil Marketing, L.P. LF - 59 Lea County, NM

Scale: NTS Prep By: RS Checked By: JT  
February 21, 2000

## Soil Boring SB - 4



### Soil Boring Details

Date Drilled 02 / 08 / 00  
 Plugged - Surface to TD with Bentonite and hydrated with deionized water

### NOVA Safety and Environmental



Soil Marketing, L.P. LF - 59 Lea County, NM

Soil Boring Log Details

Scale: NTS Prep By: RS Checked By: JT  
 February 21, 2000

## Soil Boring SB - 5

Depth (feet)	Soil Columns	PID Reading	Notes
0		402	
5			
10			
15			
20			

### Legend

-  Sand - (SP) - Tan - Brown, very fine grained, well sorted, dry, moderate/strong odor, moderate/heavy stain, interbedded with caliche nodules.
-  Sand - (SP) - Tan - Brown, very fine grained, well sorted, dry, with slight stain, slight odor interbedded with caliche nodules.
-  Sand - (SP) - Tan - Brown, very fine grained, well sorted, dry, no stain, no odor, interbedded with caliche nodules.
-  Clay - (ML) - Red, sandy, silty, soft, moist to wet.

Caliche - White, hard, interbedded with sand.

- PID Head-space reading in ppm obtained with a photo-ionization detector.
-  Indicates samples selected for laboratory analysis.
-  14.4

### Soil Boring Details

Date Drilled 02/08/00  
Plugged - Surface to TD with Bentonite and hydrated with deionized water

### NOVA Safety and Environmental

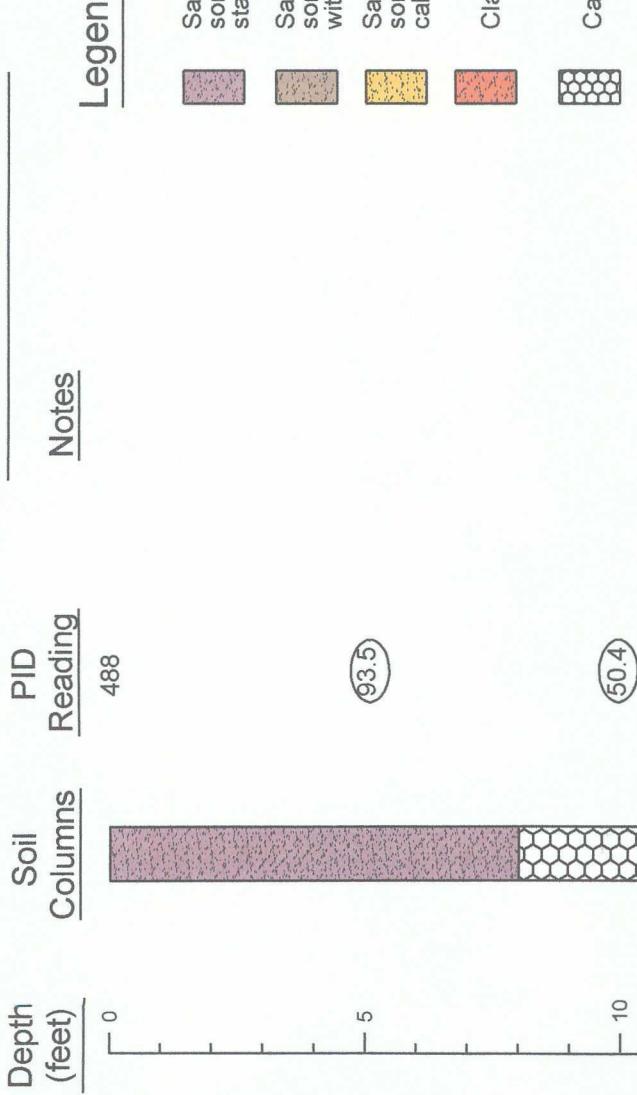


Soil Boring Log Details  
Soil Boring SB - 5  
Plains Marketing LF - 59 Lea County, NM

JT

Scale: NTS Prep By: RS Checked By: JT  
February 21, 2000

## Soil Boring SB - 6



### Legend

-  Sand - (SP) - Tan - Brown, very fine grained, well sorted, dry, moderate/strong odor, moderate/heavy stain, interbedded with caliche nodules.
-  Sand - (SP) - Tan - Brown, very fine grained, well sorted, dry, with slight stain, slight odor interbedded with caliche nodules.
-  Sand - (SP) - Tan - Brown, very fine grained, well sorted, dry, no stain, no odor, interbedded with caliche nodules.
-  Clay - (ML) - Red, sandy, silty, soft, moist to wet.

PID Head-space reading in ppm obtained with a photo-ionization detector.

 Indicates samples selected for laboratory analysis.

### Soil Boring Details

Date Drilled 02 / 08 / 00  
Plugged - Surface to TD with Bentonite and hydrated with deionized water

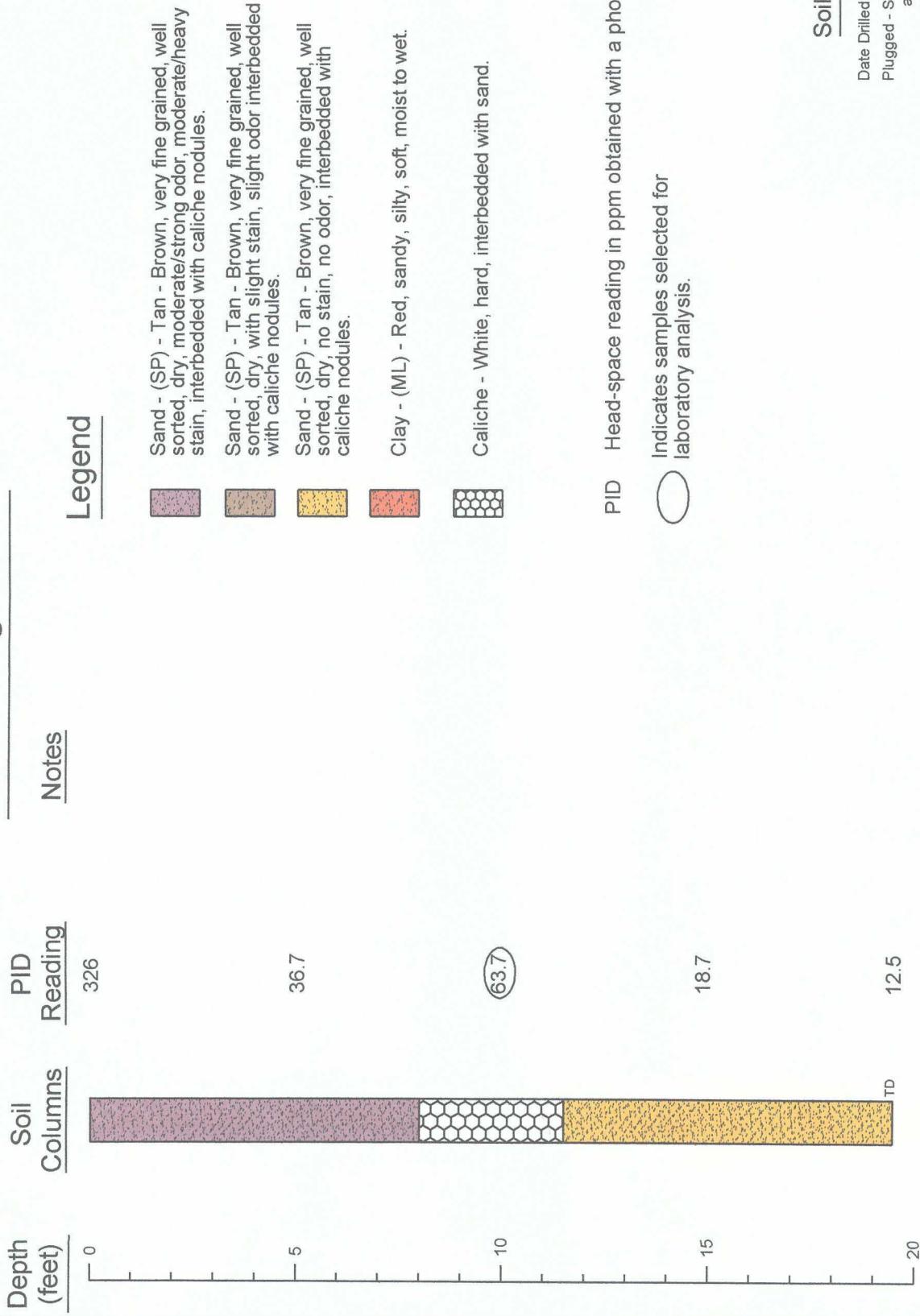
### **NOVA** Safety and Environmental

#### **Soil Boring Log Details**

**Soil Boring SB - 6**  
**Soil Marketing, L.P. LF - 59 Lea County, NM**

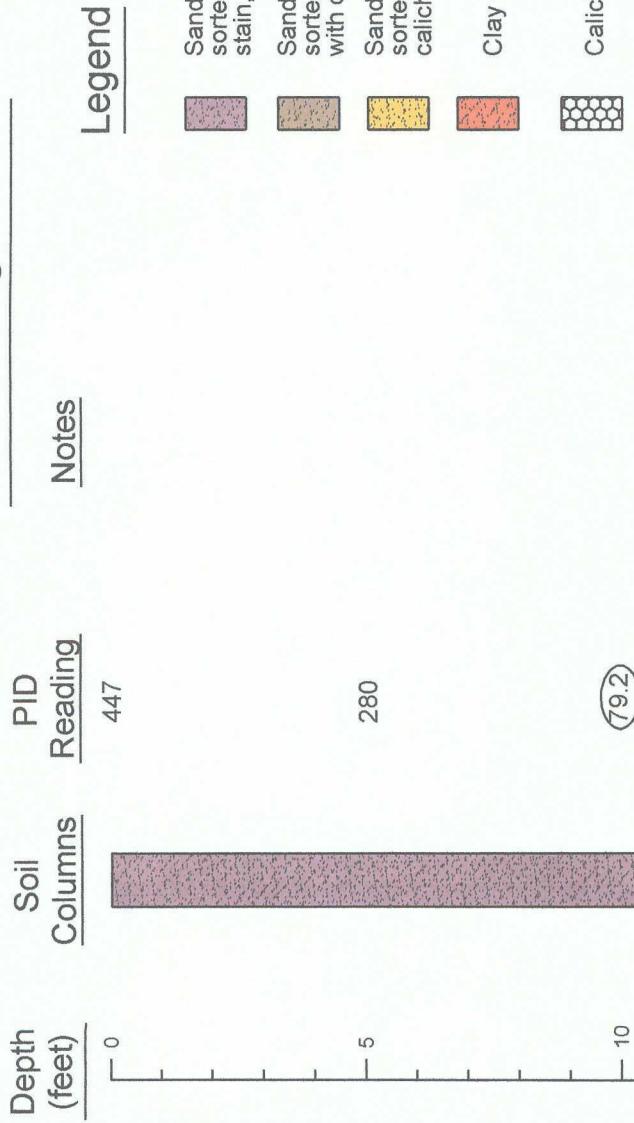
Scale: NTS	Prep By: RS	Checked By: JT
February 21, 2000		

## Soil Boring SB - 7



Soil Boring Details		
	NOVA Safety and Environmental	
Date Drilled	02 / 08 / 00	
Plugged	- Surface to TD with Bentonite and hydrated with deionized water	
Soil Boring Log Details		
Soil Boring SB - 7		
Plains Marketing, L.P.	LF - 59	Lea County, NM
Scale: NTS	Prep By: RS	Checked By: JT
February 21, 2000		

## Soil Boring SB - 8



### Legend

-  Sand - (SP) - Tan - Brown, very fine grained, well sorted, dry, moderate/strong odor, moderate/heavy stain, interbedded with caliche nodules.
-  Sand - (SP) - Tan - Brown, very fine grained, well sorted, dry, with slight stain, slight odor interbedded with caliche nodules.
-  Sand - (SP) - Tan - Brown, very fine grained, well sorted, dry, no stain, no odor, interbedded with caliche nodules.
-  Clay - (ML) - Red, sandy, silty, soft, moist to wet.
-  Caliche - White, hard, interbedded with sand.

PID Head-space reading in ppm obtained with a photo-ionization detector.

 Indicates samples selected for laboratory analysis.

### Soil Boring Details

Date Drilled 02 / 08 / 00  
Plugged - Surface to TD with Bentonite and hydrated with deionized water

### NOVA Safety and Environmental



Plains Marketing, L.P. LF - 59 Lea County, NM

Scale: NTS Prep By: RS Checked By: JT

February 21, 2000

## **Appendix B**

## **Laboratory Reports**

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ETGI  
 ATTN: MR. JESSE TAYLOR  
 P.O. BOX 4845  
 MIDLAND, TEXAS 79704  
 FAX: 505-392-3760

Sample Type: Soil  
 Sample Condition: Intact/Iced  
 Project #: LF-59  
 Project Name: None Given  
 Project Location: Monument, N.M.

FAX: 915-520-4310      Sampling Date: 10/29/99  
 Receiving Date: 10/30/99  
 Analysis Date: 11/02/99

ELT#	FIELD CODE	GRO	DRO
		C6-C10 mg/kg	>C10-C25 mg/kg
21160	SB 1-1- (1')	6680	20263
21161	SB 1-1- (5-7')	7645	14560
21162	SB 1-1- (10-12')	846	3455
21163	SB 1-1- (15'17')	2677	4781
21164	SB 2-1- (1')	6805	17789
21165	SB 2-1- (5-7')	12	101
21166	SB 2-1- (10-12')	<10	20
21167	SB 2-1- (15')	<10	<10
% INSTRUMENT ACCURACY		110	100
% EXTRACTION ACCURACY		109	100
BLANK		<10	<10

Methods: EPA SW 846-8015M GRO/DRO

Raland K. Tuttle  
 Raland K. Tuttle

11-3-99  
 Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ETGI  
 ATTN: MR. JESSE TAYLOR  
 P.O. BOX 4845  
 MIDLAND, TEXAS 79704  
 FAX: 505-392-3760

Sample Type: Soil  
 Sample Condition: Intact  
 Project #: LF 59  
 Project Name: None Given  
 Project Location: Monument, N.M.

Sampling Date: 10/29/99  
 Receiving Date: 10/30/99  
 Analysis Date: 11/02-11/03/99

ELT#	FIELD CODE	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYLBENZENE (mg/kg)	m,p-XYLENE (mg/kg)	$\alpha$ -XYLENE (mg/kg)
21160	SB 1-1- (1')	<0.200	40.0	35.7	158	63.8
21161	SB 1-1- (5-7')	1.99	25.8	40.6	171	66.4
21162	SB 1-1- (10-12')	<0.100	3.11	4.36	15.71	6.65
21163	SB 1-1- (15'17')	2.23	14.4	15.3	61.1	20.7
21164	SB 2-1- (1')	1.45	30.9	33.8	143	49.2
21165	SB 2-1- (5-7')	<0.100	<0.100	<0.100	0.227	<0.100
21166	SB 2-1- (10-12')	<0.100	<0.100	<0.100	0.153	<0.100
21167	SB 2-1- (15')	<0.100	<0.100	<0.100	0.132	<0.100
<hr/>						
% IA		95	91	91	90	90
% EA*		*	*	*	*	*
BLANK		<0.100	<0.100	<0.100	<0.100	<0.100

\*Note: Poor recovery due to elevated hydrocarbon levels

METHODS: SW 846-8021.5030

Roland K. Tuttle  
 Roland K. Tuttle

11-3-99  
 Date

**Environmental Lab of Texas, Inc.** 12500 West I-20 East Odessa, Texas 79763  
915 563-1800 FAX (915) 563-1713

GURU NANAK DAS JEEVAN SAGAR

Digitized by srujanika@gmail.com

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Phase #: (915) 664-9166  
FAX #: (915) 520-4340

Company Name & Address: ETG&T, P. O. Box 4845  
MIDLAND TX 79304

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11401	SB- 1 - (1')	11402	X	X	10-29 0815X
11401	SB 2-1 - (5-7)	11402	X	X	X
11402	SB 1-1 -(10-12')	1			
11403	SB 1-1 -(15-17')	1			
11404	SB 2-1 - (1)	1			
11405	SB 2-1 - (5-7)	1			
11406	SB 2-1 -(10-12)	2			
11407	SB 2-1 -(15)	1			

Date	Times:	Received by:	REMARKS
30 Oct 99	1420	Halc. Dept.	FAX Results
Date	Times	Received by:	K. D. 470000 (505) 392-3968
Date	Times	Received by Laboratory:	ENGLISH: Kenneth Peter Potticier

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
 ATTN: MR. JESSE TAYLOR  
 P.O. BOX 4845  
 MIDLAND, TEXAS 79704  
 FAX: 505-392-3760

Sample Type: Soil  
 Sample Condition: Intact/Iced  
 Project #: EOT1012R  
 Project Name: LF-59  
 Project Location: Monument, N.M.

Sampling Date: See Below  
 Receiving Date: 02/10/00  
 Analysis Date: 02/11/00

ELT#	FIELD CODE	GRO	DRO	Sampling Date
		C6-C10	>C10-C28	
23471	SB-8 (15')	1528	5033	02/08/00
23472	MW-1 (Surface)	<10	151	02/08/00
23473	MW-1 (15')	<10	17	02/08/00
23474	MW-2 (15')	<10	<10	02/08/00
23475	MW-3 (15')	<10	<10	02/09/00
23476	MW-4 (15')	106	560	02/09/00
23477	MW-4 (20')	<10	<10	02/09/00

%INSTRUMENT ACCURACY	104	101
% EXTRACTION ACCURACY	104	108
BLANK	<10	<10

Methods: EPA SW 846-8015M GRO/DRO

Roland K. Tuttle  
 Roland K. Tuttle

2-12-00  
 Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
ATTN: MR. JESSE TAYLOR  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 505-392-3760

Sample Type: Soil  
Sample Condition: Intact/Iced  
Project #: EOT1012R  
Project Name: LF-59  
Project Location: Monument, N.M.

Sampling Date: 02/08/00  
Receiving Date: 02/10/00  
Analysis Date: 02/11/00

ELT#	FIELD CODE	GRO	DRO
		C6-C10	>C10-C28
		mg/kg	mg/kg
23449	SB-1 (surface)	185	14184
23450	SB-1 (10')	62	725
23451	SB-2 (Surface)	765	16530
23452	SB-2 (10')	65	1158
23453	SB-2 (15')	225	1747
23454	SB-2 (20')	<10	207
23455	SB-2 (5')	313	1552
23456	SB-3 (Surface)	<10	1539
23457	SB-3 (15')	<10	70
23458	SB-4 (Surface)	222	24742
23459	SB-4 (5')	826	3321
23460	SB-4 (15')	<10	89
23461	SB-5 (Surface)	3937	19261
23462	SB-5 (15')	<10	81
23463	SB-6 (Surface)	5808	25062
23464	SB-6 (5')	<10	171
23465	SB-6 (10')	<10	41
23466	SB-6 (15')	<10	12
23467	SB-8 (19.5')	<10	<10
23468	SB-7 (Surface)	3725	22199
23469	SB-7 (10')	<10	148
23470	SB-8 (Surface)	5121	23320
%INSTRUMENT ACCURACY		114	107
% EXTRACTION ACCURACY		102	96
BLANK		<10	<10

Methods: EPA SW 846-8015M GRO/DRO

Roland K. Tuttle  
Roland K. Tuttle

2-12-00  
Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR

P.O. BOX 4845

MIDLAND, TEXAS 79704

FAX: 505-392-3760

Sample Type: Soil

Sampling Date: 02/08/00

Sample Condition: Intact/Iced

Receiving Date: 02/10/00

Project #: EOT 1012R

Analysis Date: 02/11/00

Project Name: LF-59

Project Location: Monument, N.M.

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	<i>o</i> -XYLENE mg/kg
23449	SB-1 (Surface)	<0.100	0.570	0.510	1.81	0.971
% IA		91	89	87	87	86
% EA		97	93	90	92	91
BLANK		<0.100	<0.100	<0.100	<0.100	<0.100

METHODS: SW 846-8021B,5030

Raland K. Tuttle

Raland K. Tuttle

2-15-00

Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
ATTN: MR. JESSE TAYLOR  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 505-392-3760

Sample Type: Soil  
Sample Condition: Intact/Iced  
Project #: EOT 1012R  
Project Name: LF-59  
Project Location: Monument, N.M.

Sampling Date: 02/14/00  
Receiving Date: 02/15/00  
Analysis Date: 02/15/00

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	<i>o</i> -XYLENE mg/kg
23561	Surface 1-1	<0.100	9.71	9.29	43.8	20.7
23562	Surface 2-1	<0.100	<0.100	9.88	58.1	62.4
23563	SB 2-1	<0.100	<0.100	0.786	3.22	3.08
% IA		111	104	103	107	104
% EA		106	103	100	102	100
BLANK		<0.100	<0.100	<0.100	<0.100	<0.100

METHODS: SW 846-8021B,5030

Roland K. Tuttle  
Roland K. Tuttle

2-16-00  
Date

# ENVIRONMENTAL LAB OF INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.  
ATTN: MR. JESSE TAYLOR  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 505-392-3760

Sample Type: Soil  
Sample Condition: Intact/iced  
Project #: EOT1012R  
Project Name: LF-69  
Project Location: Monument, N.M.

Sampling Date: 02/14/00  
Receiving Date: 02/15/00  
Analysis Date: 02/16/00

ELT#	FIELD CODE	GRO	DRO
		C6-C10	>C10-C28
		mg/kg	mg/kg
23561	Surface 1-1	2683	13792
23562	Surface 2-1	7289	29543
23563	SB 2-1	463	9556

%INSTRUMENT ACCURACY	100	108
% EXTRACTION ACCURACY	106	109
BLANK	<10	<10

Methods: EPA SW 846-8015M GRO/DRO

Roland K. Tuttle  
Roland K. Tuttle

2-17-00  
Date



# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 915-520-4310  
FAX: 505-392-3760

Sample Type: Soil

Sample Condition: Intact/ Iced/ 32 deg. F

Project #: EOT 2012R

Project Name: LF 59

Project Location: Monument, N.M.

Sampling Date: 06/09/00

Receiving Date: 06/10/00

Analysis Date: 06/13/00

ELT#	FIELD CODE	GRO C6-C10 mg/kg	DRO >C10-C28 mg/kg
26516	SB1-2C 0'	<50	15477
26517	SB1-2C 2'	834	15578
26521	SB1-2C 10'	414	2272
26525	SB2-2C 0'	<50	12951
26526	SB2-2C 2'	433	7861
26528	SB2-2C 6'	1325	9183
26530	SB2-2C 10'	146	1881
26533	SB2-2C 16'	767	3181
26534	SB4-2C 0'	<10	1169
26537	SB4-2C 6'	66	977
26539	SB4-2C 10'	<10	34
26540	SB6-2C 0'	1883	60779
26543	SB6-2C 6'	<10	274
26545	SB6-2C 10'	<10	36
26546	SB8-2C 0'	1366	38438
26549	SB8-2C 6'	1450	5807
26551	SB8-2C 10'	<10	109
26554	SB8-2C 16'	<10	319
% IA		82	100
% EA		92	111
BLANK		<10	<10

METHODS: SW 846-8015M GRO/DRO

Umesh Rao

Umesh Rao, Ph. D.

6/15/00

Date

**Environmental Lab of Texas, Inc.** 12600 West I-20 East Odessa, Texas 79763  
(915) 563-1800 FAX (915) 563-1713

**CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST**

Dec: 153 1st 4

Phone #: (915) 664-9166  
FAX #: (525) 392-3768

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CONTINUATION

P.O. Box 4845 MECHANICSBURG PA 17044

Project #: FOT 10188 Project Name: LF 59

卷之三

Complex Systems

Monument, N

INDUSTRIAL

508

REMARKS  
F.R.: (505) 392.3768  
32° F.

Received by Lahey 10/10/1970

Time:

INVOICE: EOTT



**Environmental Lab of Texas, Inc.** 12600 West I-20 East Odessa, Texas 79763  
 (915) 563-1800 FAX (915) 563-1713

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager:	JESSE TAYLOR	Phone # (915) 664-9166	FAX # (505) 393-3760	CO. 153 ANALYSIS REQUEST																	
Company Name & Address:	P.O. Box 4845 Midland, TX 79704																				
Project #:	EST 2012R	Project Name:	LFS9																		
Project Location:	Monument, NM	Sampler Signature:	<i>Jeff Aldrich</i>																		
LAB # (LAB USE ONLY)	FIELD CODE	CONTAINERS #	VOLUME/AMOUNT	MATRIX	PRESERVATIVE METHOD	SAMPLING METHOD	DATE	TIME	RCI	TDS	TCLP SEMI VOLATILES	TCLP VOLATILES	Total Metals Ag As Be Cd Cr Pb Hg Se	BTEX 8020/5030	TPH 8025 DBO/GC	TPH 4445 DBO/GC	TCLP Metals Ag As Be Cd Cr Pb Hg Se	TCLP SEMI VOLATILES	TCLP VOLATILES	CO. 153 ANALYSIS REQUEST	
26S38	SB4-2c 8'	1	400	WATER	AIR	SLUDGE	HCl	1060	X	X	X	X	X								
26S39	SB4-2c 10'	1	400	WATER	AIR	SLUDGE	HCl	1060	X	X	X	X	X								
26S40	SB6-2c 0'	1	400	WATER	AIR	SLUDGE	HCl	1060	X	X	X	X	X								
26S41	SB6-2c 2'	1	400	WATER	AIR	SLUDGE	HCl	1060	X	X	X	X	X								
26S42	SB6-2c 4'	1	400	WATER	AIR	SLUDGE	HCl	1060	X	X	X	X	X								
26S43	SB6-2c 6'	1	400	WATER	AIR	SLUDGE	HCl	1060	X	X	X	X	X								
26S44	SB6-2c 8'	1	400	WATER	AIR	SLUDGE	HCl	1060	X	X	X	X	X								
26S45	SB6-2c 10'	1	400	WATER	AIR	SLUDGE	HCl	1060	X	X	X	X	X								
26S46	SB8-2c 0'	1	400	WATER	AIR	SLUDGE	HCl	1060	X	X	X	X	X								
26S47	SB8-2c 2'	1	400	WATER	AIR	SLUDGE	HCl	1060	X	X	X	X	X								
26S48	SB8-2c 4'	1	400	WATER	AIR	SLUDGE	HCl	1060	X	X	X	X	X								
Relinquished by:			Date:	Time:	Received by:			REMARKS													
<i>Jeff Aldrich</i>			09/04/04	1525	<i>Anna Clark</i>			Fr. (SB5) 392-3760													
Relinquished by:			Date:	Time:	Received by:			Anna Clark													
<i>Anna Clark</i>			09/04/04	1100	Received by:			Anna Clark													
Relinquished by:			Date:	Time:	Received by Laboratory:			TMOICF: EOT													



# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR

2540 W. MARLAND

HOBBS, N.M. 88240

FAX: 505-397-4701

FAX: 520-4310

Sample Type: Soil

Sampling Date: 03/13/01

Sample Condition: Intact/Iced/ -1.0 deg C

Receiving Date: 03/14/01

Project #: EOT 2012R

Analysis Date: 03/14/01

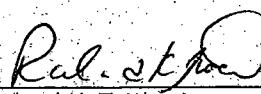
Project Name: LF-59

Project Location: Monument, N.M.

ELT#	FIELD CODE	GRO	DRO
38139	SS 1	342	30817
38140	SS 2	1157	54604

% INSTRUMENT ACCURACY	95	107
% EXTRACTION ACCURACY	87	88
BLANK	<10	<10

Methods: EPA SW 846-8015M

  
Raland K. Tuttle

3-26-01

Date

# **ENVIRONMENTAL LAB OF TEXAS, INC.**

*"Don't Treat Your Soil Like Dirt!"*

ENVIRONMENTAL TECHNOLOGY GROUP, INC.

ATTN: MR. JESSE TAYLOR

2540 W. MARLAND

HOBBS, N.M. 88240

FAX: 505-397-4701

FAX: 520-4310

Sample Type: Soil

Sample Condition: Intact/Iced/ +1.0 deg C

Project #: EOT 2012R

Project Name: LF-59

Project Name: El 331

Sampling Date: 03/13/01

Receiving Date: 03/14/01

Analysis Date: See Below

ELT#	FIELD CODE	Total Nitrogen mg/kg	pH s.u.
38139	SS 1	2980	7.83
38140	SS 2	5320	8.16

QUALITY CONTROL	242	7.01
TRUE VALUE	250	7.00
% INSTRUMENT ACCURACY	.97	100
BLANK	<10.0	*
ANALYSIS DATE	3/20/01	3/19/01

Methods: EPA SW 846-9045, SM4500N

Ral-

3-26-01



4221 Friedrich Lane, Suite 190, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 444-5896 • FAX (512) 447-4766

Client: Environmental Tech Group  
Attn: Ken Dutton  
Address: 2540 W. Maryland  
Hobbs  
Phone: 505 397-4882 FAX: 505 397-4701

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data	Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
TPH by GC (as diesel)	<5	mg/Kg	5	<5	09/26/01	8015 mod.	---	1.6	73.6	99.5	111.5	---
TPH by GC (as diesel-ext)	--	---	--	--	09/24/01	3540	---	--	--	--	--	--
TPH by GC (as gasoline)	<5	mg/Kg	5	<5	09/26/01	8015 mod.	---	5.5	77.3	92.2	87.3	---

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Respectfully Submitted,

*Richard Laster*  
Richard Laster

Report# /Lab ID#: 119525 Report Date: 09/28/01  
Project ID: LF-59 EOT 2012R  
Sample Name: MW 6 0-2  
Sample Matrix: soil  
Date Received: 09/21/2001 Time: 14:20  
Date Sampled: 09/17/2001 Time: 09:30

QUALITY ASSURANCE DATA<sup>1</sup>

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data	Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
TPH by GC (as diesel)	<5	mg/Kg	5	<5	09/26/01	8015 mod.	---	1.6	73.6	99.5	111.5	---
TPH by GC (as diesel-ext)	--	---	--	--	09/24/01	3540	---	--	--	--	--	--
TPH by GC (as gasoline)	<5	mg/Kg	5	<5	09/26/01	8015 mod.	---	5.5	77.3	92.2	87.3	---

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL, B = Analyte detected in associated method blank(s). S1 =MS and/or MSD recovery exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limits. S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P=Precision higher than advisory limit. M =Matrix interference.

2209 N. Padre Island Dr., Corpus Christi, TX 78404-08  
(512) 444-5896 • FAX (512) 447-4766

Client: Environmental Tech Group  
Attn: Ken Durton

Project ID: LF-59 EOT 2012R  
Sample Name: MW 6 0-2'

Report#/Lab ID#: 119525  
Sample Matrix: soil

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
Nitrobenzene-d5	8015 mod.	100	50-150	--
p-Terphenyl	8015 mod.	146	50-150	--

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

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2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 444-5896 • FAX (512) 447-4766

Environmental Tech Group  
Attn: Ken Dutton  
Address: 2540 W. Maryland  
Hobbs  
Phone: 505 397-4882 FAX: 505 397-4701

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
TPH by GC (as diesel)	<5	mg/Kg	5	<5	09/26/01	8015 mod.	---	1.6	73.6	99.5	111.5
TPH by GC (as diesel-ext)	---	---	---	---	09/24/01	3540	---	---	---	---	---
TPH by GC (as gasoline)	<5	mg/Kg	5	<5	09/26/01	8015 mod.	J	5.5	77.3	92.2	87.3

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Respectfully Submitted,

*Richard Laster*

Richard Laster

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Report#/ <u>Lab ID#:</u> 119526	Report Date: 09/28/01
Project ID: LF-59 EOT 2012R	
Sample Name: MW 6 5'-7'	
Sample Matrix: soil	
Date Received: 09/21/2001	Time: 14:20
Date Sampled: 09/17/2001	Time: 09:40

#### QUALITY ASSURANCE DATA<sup>1</sup>

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(512) 444-5896 • FAX (512) 447-4766

Client: Environmental Tech Group  
Attn: Ken Dutton

Project ID: LF-59 EOT 2012R  
Sample Name: MW 6 5'-7'

Report# /Lab ID#: 119526  
Sample Matrix: soil

## REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
Nitrobenzene-d5	8015 mod.	100	50-150	---
p-Terphenyl	8015 mod.	133	50-150	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

## Exceptions Report:

Report #/Lab ID#: 119526 Matrix: soil  
Client: Environmental Tech Group Attn: Ken Dutton  
Project ID: LF-59 EOT 2012R  
Sample Name: MW 6 5'-7'

### Sample Temperature/Condition <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

### Sample Bottles & Preservation

- Sample received in appropriate container(s) and appear to be appropriately preserved.
- Sample received in appropriate container(s). State of sample preservation unknown.
- Sample received in inappropriate container(s) and/or with unknown state of preservation.

### J flag Discussion

A J flag data qualifier indicates (as required under TNRC-C-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL), is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (e.g. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

### Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
TPH by GC (as gasoline)	J	See J-flag discussion above.

Notes:

LHNLQSY5  
INCE.

4221 Friedrich Lane, Suite 190, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 444-5896 • FAX (512) 447-4766

Client: Environmental Tech Group  
Attn: Ken Dutton  
Address: 2540 W. Marland Hobbs  
Phone: 505 397-4882 FAX: 505 397-4701

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec <sup>2</sup>	Recov <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
TPH by GC (as diesel)	<5	mg/Kg	5	<5	09/26/01	8015 mod.	---	1.6	73.6	99.5	111. <sup>5</sup>
TPH by GC (as diesel-ext)	--	mg/Kg	--	--	09/24/01	3540	---	--	--	--	--
TPH by GC (as gasoline)	<5	mg/Kg	5	<5	09/26/01	8015 mod.	---	5.5	77.3	92.2	87.3

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Respectfully Submitted,

Richard Laster

Richard Laster

Report#Lab ID#: 119527 Report Date: 09/28/01  
Project ID: LF-59 EOT 2012R  
Sample Name: MW 6 10-12'  
Sample Matrix: soil  
Date Received: 09/21/2001 Time: 14:20  
Date Sampled: 09/17/2001 Time: 09:50

QUALITY ASSURANCE DATA<sup>1</sup>

	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec <sup>2</sup>	Recov <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
TPH by GC (as diesel)	<5	mg/Kg	5	<5	09/26/01	8015 mod.	---	1.6	73.6	99.5	111. <sup>5</sup>
TPH by GC (as diesel-ext)	--	mg/Kg	--	--	09/24/01	3540	---	--	--	--	--
TPH by GC (as gasoline)	<5	mg/Kg	5	<5	09/26/01	8015 mod.	---	5.5	77.3	92.2	87.3

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S1 =MS and/or MSD recovery exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limit. S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.

2209 N. Padre Island Dr., Corpus Christi, TX 78404-08

(512) 444-5896 FAX (512) 447-4766

Report#/Lab ID#: 119527  
Sample Matrix: soil

Project ID: LF-59 EOT 2012R  
Sample Name: MW 6 10'-12'

Client: Environmental Tech Group  
Attn: Ken Dutton

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
Nitrobenzene-d5	8015 mod.	134	50-150	--
p-Terphenyl	8015 mod.	128	50-150	--

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

4221 Friedrich Lane, Suite 190, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 444-5896 • FAX (512) 447-4766

Client: Environmental Tech Group  
Attn: Ken Dutton  
Address: 2540 W. Marland  
            Hobbs  
Phone: 505 397-4882      FAX: 505 397-4701

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
TPH by GC (as diesel)	<5	mg/Kg	5	<5	09/26/01	8015 mod.	---	1.6	73.6	99.5	111.5
TPH by GC (as diesel-ext)	---	---	---	---	09/24/01	3540	---	---	---	---	---
TPH by GC (as gasoline)	<5	mg/Kg	5	<5	09/26/01	8015 mod.	---	5.5	77.3	92.2	87.3

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Respectfully Submitted,

*Richard Laster*  
Richard Laster

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Report#/Lab ID#: 119528      Report Date: 09/28/01  
Project ID: LF-59 EOT 2012R  
Sample Name: MW 6 15'-17'  
Sample Matrix: soil  
Date Received: 09/21/2001      Time: 14:20  
Date Sampled: 09/17/2001      Time: 10:00

#### QUALITY ASSURANCE DATA<sup>1</sup>

7840408

(512) 444-5896

Corpus Christi, TX

Pearl Island MR

7840408

(512) 447-4766

Client: Environmental Tech Group  
Attn: Ken Dutton

**REPORT OF SURROGATE RECOVERY**

Project ID: LF-59 EOT 2012R  
Sample Name: MW 6 15'-17'

Report#/Lab ID#: 119528  
Sample Matrix: soil

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
Nitrobenzene-d5	8015 mod.	92.2	50-150	---
p-Terphenyl	8015 mod.	141	50-150	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Client: Environmental Tech Group  
 Attn: Ken Dutton  
 Address: 2540 W. Maryland  
 Hobbs  
 Nm 88240  
 Phone: 505 397-4882 FAX: 505 397-4701

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
TPH by GC (as diesel)	9.1	mg/Kg	5	<5	09/26/01	8015 mod.	---	1.6	73.6	99.5	111. <sup>5</sup>
TPH by GC (as diesel-ext)	---	---	---	---	09/24/01	3540	---	---	---	---	---
TPH by GC (as gasoline)	<5	mg/Kg	5	<5	09/26/01	8015 mod.	---	5.5	77.3	92.2	87.3

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Respectfully Submitted,

*Richard Laster*

Richard Laster

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S1 =MS and/or MSD recovery exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limit. S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.

Report# / Lab ID#: 119529	Report Date: 09/28/01
Project ID: LF-59 EOT 2012R	
Sample Name: MW 6 20'-22'	
Sample Matrix: soil	
Date Received: 09/21/2001	Time: 14:20
Date Sampled: 09/17/2001	Time: 10:09

#### QUALITY ASSURANCE DATA<sup>1</sup>

Report# / Lab ID#: 119529	Report Date: 09/28/01
Project ID: LF-59 EOT 2012R	
Sample Name: MW 6 20'-22'	
Sample Matrix: soil	
Date Received: 09/21/2001	Time: 14:20
Date Sampled: 09/17/2001	Time: 10:09

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Client: Environmental Tech Group  
Attn: Ken Dutton

Project ID: LF-59 EOT 2012R  
Sample Name: MW 6 20'-22'

Report# /Lab ID#: 119529  
Sample Matrix: soil

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
Nitrobenzene-d5	8015 mod.	110	50-150	---
p-Terphenyl	8015 mod.	136	50-150	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

4221 Friedrich Lane, Suite 190, Austin, TX 78744 &  
2209 N. Padre Island Dr., Corpus Christi, TX 78408  
(512) 444-5896 • FAX (512) 447-4766

Client: Environmental Tech Group  
Attn: Ken Dutton  
Address: 2540 W. Marland  
Hobbs  
Phone: 505 397-4882 FAX: 505 397-4701

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
TPH by GC (as diesel)	<5	mg/Kg	5	<5	09/27/01	8015 mod.	---	1.6	73.6	99.5	111.5
TPH by GC (as diesel-ext)	---	---	---	---	09/24/01	3540	---	---	---	---	---
TPH by GC (as gasoline)	<5	mg/Kg	5	<5	09/27/01	8015 mod.	---	5.5	77.3	92.2	87.3

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Respectfully Submitted,

*Richard Laster*  
Richard Laster

Report#Lab ID#: 119530 Report Date: 09/28/01  
Project ID: LF-59 EOT 2012R  
Sample Name: MW 6 25-27  
Sample Matrix: soil  
Date Received: 09/21/2001 Time: 14:20  
Date Sampled: 09/17/2001 Time: 10:15

**QUALITY ASSURANCE DATA<sup>1</sup>**

	Data	Qual	7	Prec.	2	Recov.	3	CCV	4	LCS	4
8015 mod.	---	---	---	---	1.6	73.6	99.5	111.5	---	---	---
3540	---	---	---	---	---	---	---	---	---	---	---
8015 mod.	---	---	---	5.5	77.3	92.2	87.3	87.3	87.3	87.3	87.3

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S1 =MS and/or MSD recovery exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limit. S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.

Client: Environmental Tech Group  
Attn: Ken Dutton

Project ID: LF-59 EOT 2012R  
Sample Name: MW 6 25'-27'

Report#Lab ID#: 119530  
Sample Matrix: soil

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
Nitrobenzene-d5	8015 mod.	104	50-150	---
p-Terphenyl	8015 mod.	146	50-150	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.



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**REPORT OF ANALYSIS**

<b>Client:</b>	Environmental Tech Group
<b>Attn:</b>	Ken Dutton
<b>Address:</b>	2540 W. Marland Hobbs
<b>Phone:</b>	505 397-4882
<b>FAX:</b>	505 397-4701

**Report#**/Lab ID#: 119531      **Report Date:** 09/28/01  
**Project ID:** LF-59 EOT 2012R  
**Sample Name:** MW 7 0'-2'  
**Sample Matrix:** soil  
**Date Received:** 09/21/2001      **Time:** 14:20  
**Date Sampled:** 09/17/2001      **Time:** 11:35

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>		Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
						Data	Qual					
TPH by GC (as diesel)	4280	mg/Kg	50	<50	09/27/01	8015 mod.	---	1.6	73.6	99.5	111. <sup>c</sup>	
TPH by GC (as diesel-ext)	---	mg/Kg	---	---	09/24/01	3540	---	---	---	---	---	
TPH by GC (as gasoline)	309	mg/Kg	5	<5	09/26/01	8015 mod.	---	5.5	77.3	92.2	87.3	
Volatile organics-8260b/BTEX	---	---	---	---	09/28/01	8260b	---	---	---	---	---	
Benzene	<20	µg/Kg	20	<20	09/28/01	8260b	---	8.5	98.9	90.8	108	
Ethylbenzene	155	µg/Kg	20	<20	09/28/01	8260b	---	10.4	90.3	98.9	91.4	
m,p-Xylenes	378	µg/Kg	20	<20	09/28/01	8260b	---	10.7	90.1	98.5	91.2	
o-Xylene	322	µg/Kg	20	<20	09/28/01	8260b	---	10.8	88.6	99.3	91.3	
Toluene	<20	µg/Kg	20	<20	09/28/01	8260b	---	6.8	95.7	90.7	104.2	

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Respectfully Submitted,

*Richard Laster*  
Richard Laster

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Client: Environmental Tech Group  
Attn: Ken Dutton

Project ID: LF-59 EOT 2012R  
Sample Name: MW 7 0'-2'

Report# /Lab ID#: 119531  
Sample Matrix: soil

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
Nitrobenzene-d5	8015 mod.	none/diluted	diluted @ 10X	D
p-Terphenyl	8015 mod.	none/diluted	diluted @ 10X	D
1,2-Dichloroethane-d4	8260b	88.5	65-115	---
Toluene-d8	8260b	80	50-120	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

# Exceptions Report

Report #/Lab ID#:119531 Matrix:soil  
Client: Environmental Tech Group Attn: Ken Dutton  
Project ID: LF-59 EOT 2012R  
Sample Name: MW 7 0-2'

## Sample Temperature/Condition <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

## Sample Bottles & Preservation

- Sample received in appropriate container(s) and appear to be appropriately preserved.
- Sample received in appropriate container(s). State of sample preservation unknown.
- Sample received in inappropriate container(s) and/or with unknown state of preservation.

## J flag Discussion

A J flag data qualifier indicates (as required under TNRC-C-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

## Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
Nitrobenzene-d5	D	Sample diluted to assure quantitation within calibration range or due to Matrix interferences or other matrix effects (eg. high non-target organic levels). Surrogate recoveries not accurately quantifiable.
Nitrobenzene-d5	D	Sample diluted to assure quantitation within calibration range or due to Matrix interferences or other matrix effects (eg. high non-target organic levels). Surrogate recoveries not accurately quantifiable.
p-Terphenyl	D	Sample diluted to assure quantitation within calibration range or due to Matrix interferences or other matrix effects (eg. high non-target organic levels). Surrogate recoveries not accurately quantifiable.
p-Terphenyl	D	Sample diluted to assure quantitation within calibration range or due to Matrix interferences or other matrix effects (eg. high non-target organic levels). Surrogate recoveries not accurately quantifiable.

## Notes:

**Client:** Environmental Tech Group  
**Attn:** Ken Dutton  
**Address:** 2540 W. Marland  
 Hobbs  
**Phone:** 505 397-4882      **FAX:** 505 397-4701

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
TPH by GC (as diesel)	<5	mg/Kg	5	<5	09/27/01	8015 mod.	---	1.6	73.6	99.5	111.5
TPH by GC (as diesel-ext)	---	---	---	---	09/24/01	3540	---	---	---	---	---
TPH by GC (as gasoline)	<5	mg/Kg	5	<5	09/27/01	8015 mod.	---	5.5	77.3	92.2	87.3

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Respectfully Submitted,

*Richard Laster*

Richard Laster

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Report#Lab ID#: 119532	Report Date: 09/28/01
Project ID: LF-59 EOT 2012R	
Sample Name: MW 7 5-'7	
Sample Matrix: soil	
Date Received: 09/21/2001	Time: 14:20
Date Sampled: 09/17/2001	Time: 11:45

#### QUALITY ASSURANCE DATA<sup>1</sup>

Report#Lab ID#: 119532	Report Date: 09/28/01
Project ID: LF-59 EOT 2012R	
Sample Name: MW 7 5-'7	
Sample Matrix: soil	
Date Received: 09/21/2001	Time: 14:20
Date Sampled: 09/17/2001	Time: 11:45

Client: Environmental Tech Group  
Attn: Ken Dutton

Project ID: LF-59 EOT 2012R  
Sample Name: MW 7 5-'7

Report# /Lab ID#: 119532  
Sample Matrix: soil

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
Nitrobenzene-d5	8015 mod.	100	50-150	----
p-Terphenyl	8015 mod.	106	50-150	----

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

*Analysys Inc.*

Client: Environmental Tech Group  
Attn: Ken Dutton  
Address: 2540 W. Maryland  
Hobbs  
Phone: 505 397-4882 FAX: 505 397-4701

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
TPH by GC (as diesel)	5.31	mg/Kg	5	<5	09/27/01	8015 mod.	---	1.6	73.6	99.5	111.5
TPH by GC (as diesel-ext)	---	mg/Kg	---	---	09/24/01	3540	---	---	---	---	---
TPH by GC (as gasoline)	<5	mg/Kg	5	<5	09/27/01	8015 mod.	---	5.5	77.3	92.2	87.3

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Respectfully Submitted,

*Richard Laster*

Richard Laster

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Report#Lab ID#: 119533 Report Date: 09/28/01  
Project ID: LF-59 EOT 2012R  
Sample Name: MW 7 10'-12'  
Sample Matrix: soil

Date Received: 09/21/2001 Time: 14:20

Date Sampled: 09/17/2001 Time: 11:52

**QUALITY ASSURANCE DATA<sup>1</sup>**

	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
TPH by GC (as diesel)	5.31	mg/Kg	5	<5	09/27/01	8015 mod.	---	1.6	73.6	99.5	111.5
TPH by GC (as diesel-ext)	---	mg/Kg	---	---	09/24/01	3540	---	---	---	---	---
TPH by GC (as gasoline)	<5	mg/Kg	5	<5	09/27/01	8015 mod.	---	5.5	77.3	92.2	87.3

Environmental Testing Services  
1700 N. Padre Island Dr., Corpus Christi, TX 78404-08  
(512) 444-5896 • FAX (512) 447-4766

Report#/Lab ID#: 119533  
Sample Matrix: soil

Project ID: LF-59 EOT 2012R  
Sample Name: MW 7 10'-12'

Client: Environmental Tech Group  
Attn: Ken Dutton

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
Nitrobenzene-d5	8015 mod.	89.9	50-150	---
p-Terphenyl	8015 mod.	104	50-150	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

**Analytical Services**

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(512) 444-5896 FAX (512) 447-4766

Client: Environmental Tech Group  
Attn: Ken Dutton  
Address: 2540 W. Maryland  
Hobbs  
Phone: 505 397-4882 FAX: 505 397-4701

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
TPH by GC (as diesel)	<5	mg/Kg	5	<5	09/27/01	8015 mod.	---	1.6	73.6	99.5	111.5
TPH by GC (as diesel-ext)	---	---	---	---	09/24/01	3540	---	---	---	---	---
TPH by GC (as gasoline)	<5	mg/Kg	5	<5	09/27/01	8015 mod.	---	5.5	77.3	92.2	87.3

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Respectfully Submitted,

*Richard Laster*

Richard Laster

Report#Lab ID#: 119534 Report Date: 09/28/01  
Project ID: LF-59 EOT 2012R  
Sample Name: MW 7 15'-17'  
Sample Matrix: soil  
Date Received: 09/21/2001 Time: 14:20  
Date Sampled: 09/17/2001 Time: 12:00

**QUALITY ASSURANCE DATA<sup>1</sup>**

	Method 6	Data Qual 7	Prec. 2	Recov. 3	CCV <sup>4</sup>	LCS <sup>4</sup>
	8015 mod.	---	1.6	73.6	99.5	111.5
	3540	---	---	---	---	---
	8015 mod.	---	5.5	77.3	92.2	87.3

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL, B = Analyte detected in associated method blank(s). S1 = MS and/or MSD recovery exceed advisory limits. S2 = Post digestion spike (PDS) recovery exceeds advisory limit. S3 =MS and/or MSD recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.

Client: Environmental Tech Group  
Attn: Ken Durton

Project ID: LF-59 EOT 2012R  
Sample Name: MW 7 15'-17'

Report#/Lab ID#: 119534  
Sample Matrix: soil

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
Nitrobenzene-d5	8015 mod.	55.1	50-150	----
p-Terphenyl	8015 mod.	60.8	50-150	----

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

**AnalySys Inc.**

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Client: Environmental Tech Group  
Attn: Ken Dutton  
Address: 2540 W. Marland Hobbs  
Phone: 505 397-4882 FAX: 505 397-4701

**REPORT OF ANALYSIS**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
TPH by GC (as diesel)	<5	mg/Kg	5	<5	09/27/01	8015 mod.	---	1.6	73.6	99.5	111.5
TPH by GC (as diesel-ext)	--	---	--	--	09/24/01	3540	---	---	---	---	---
TPH by GC (as gasoline)	<5	mg/Kg	5	<5	09/27/01	8015 mod.	---	5.5	77.3	92.2	87.3

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*Richard Laster*

Richard Laster

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Report# /Lab ID#: 119535	Report Date: 09/28/01
Project ID: LF-59 EOT 2012R	
Sample Name: MW 7 20'-22'	
Sample Matrix: soil	
Date Received: 09/21/2001	Time: 14:20
Date Sampled: 09/17/2001	Time: 12:10

**QUALITY ASSURANCE DATA<sup>1</sup>**

Report# /Lab ID#: 119535	Report Date: 09/28/01
Project ID: LF-59 EOT 2012R	
Sample Name: MW 7 20'-22'	
Sample Matrix: soil	
Date Received: 09/21/2001	Time: 14:20
Date Sampled: 09/17/2001	Time: 12:10

Client: Environmental Tech Group  
Attn: Ken Dutton

**REPORT OF SURROGATE RECOVERY**

Project ID: LF-59 EOT 2012R  
Sample Name: MW 7 20'-22'

Report#/Lab ID#: 119535  
Sample Matrix: soil

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
Nitrobenzene-d5	8015 mod.	101	50-150	—
p-Terphenyl	8015 mod.	148	50-150	—

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

2209 N. Padre Island Dr., Corpus Christi, TX 78404-0888  
(512) 444-5896 FAX (512) 447-4766

**Client:** Environmental Tech Group  
**Attn:** Ken Dutton  
**Address:** 2540 W. Marland  
 Hobbs  
**Phone:** 505 397-4882    **FAX:** 505 397-4701

#### REPORT OF ANALYSIS

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
TPH by GC (as diesel)	<5	mg/Kg	5	<5	09/27/01	8015 mod.	---	1.6	73.6	99.5	111.5
TPH by GC (as diesel-ext)	---	---	---	---	09/24/01	3540	---	---	---	---	---
TPH by GC (as gasoline)	<5	mg/Kg	5	<5	09/27/01	8015 mod.	---	5.5	77.3	92.2	87.3

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program. © Copyright 2000, AnalySys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of AnalySys, Inc.

Respectfully Submitted,

*Richard Laster*

Richard Laster

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL, B = Analyte detected in associated method blank(s), S1 =MS and/or MSD recovery exceed advisory limits, S2 =Post digestion spike (PDS) recovery exceeds advisory limit, S3 =MS and/or MSD and PDS recoveries exceed advisory limits, P =Precision higher than advisory limit, M =Matrix interference.

Report# / Lab ID#: 119536	Report Date: 09/28/01
Project ID: LF-59 EOT 2012R	
Sample Name: MW 7 25'-27'	
Sample Matrix: soil	
Date Received: 09/21/2001	Time: 14:20
Date Sampled: 09/17/2001	Time: 12:20

#### QUALITY ASSURANCE DATA<sup>1</sup>

Client: Environmental Tech Group  
Attn: Ken Dutton

Project ID: LF-59 EOT'2012R  
Sample Name: MW 7 251-27

2209 N. Padre Island Dr., Corpus Christi, TX 78404-08  
(512) 444-5896 • FAX (512) 447-4766

Report# /Lab ID#: 119536  
Sample Matrix: soil

#### REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
Nitrobenzene-d5	8015 mod.	102	50-150	----
p-Terphenyl	8015 mod.	136	50-150	----

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

# CHAIN-OF-CUSTODY

## Send Reports To:

Company Name ETG  
 Address 2540 W MACEWAN  
 City Houston State NM Zip 87240

## Bill to (if different):

Company Name ETG  
 Address \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone (281) 577-4882 Fax (281) 577-4701

Rush Status (must be confirmed with lab mgr.):  
 Project Name/PO#: LFB-SG Sampler: Jessie Coates

## Analyses Requested (1)

Please attach explanatory information as required

#B7

11/10/01

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**ENVIRONMENTAL**

**LAB OF **, INC.

**"Don't Treat Your Soil Like Dirt!"**

E.T.G.I.  
ATTN: CHANCE JOHNSON  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 520-4310

Sample Type: Soil  
Sample Condition: Intact/Iced/ 2.0 deg C  
Project Name: LF-59 (TNM-LF-1999-59)  
Project #: EOT 2012R  
Project Location: Monument, NM  
EOTT Leak #: State Byrd

Sampling Date: 12/02/01  
Receiving Date: 12/03/01  
Analysis Date: 12/03/01

ELT#	FIELD CODE	GRO	DRO
		C6-C10 mg/kg	>C10-C28 mg/kg
0102116-01	SPS-01	512	4030
0102116-02	SPUS-01	678	4420
QUALITY CONTROL		478	580
TRUE VALUE		500	500
% INSTRUMENT ACCURACY		96	112
SPIKED AMOUNT		476	476
ORIGINAL SAMPLE		<10	752
SPIKE		434	1350
SPIKE DUP		440	1380
% EXTRACTION ACCURACY		91	126
BLANK		<10	<10
RPD		1.37	2.2

Methods: SW 846-8015M

*Raland K. Tuttle*

Raland K. Tuttle

*12-04-01*

Date



# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

E.T.G.I.  
ATTN: CHANCE JOHNSON  
P.O. BOX 4845  
MIDLAND, TEXAS 79704  
FAX: 520-4310

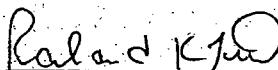
Sample Type: Soil  
Sample Condition: Intact/Iced/ 1.0 deg C  
Project Name: LF-59  
Project #: EOT 2012R  
Project Location: Monument, NM

Sampling Date: 12/10/01  
Receiving Date: 12/13/01  
Analysis Date: 12/13/01

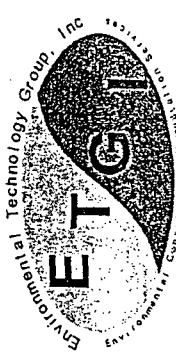
ELT#	FIELD CODE	GRO C6-C10 mg/kg	DRO >C10-C28 mg/kg
0102211-01	GP-1 0-3'	<10	<10
0102211-02	GP-3 0-3'	<10	12
0102211-03	GP-4 0-4'	<10	<10
0102211-04	GP-4 4-5'	<10	15
0102211-05	GP-5 0-3'	<10	<10
0102211-06	GP-6 0-3'	<10	<10
0102211-07	GP-7 0-3'	<10	<10
0102211-08	GP-8 0-3'	<10	<10
0102211-09	GP-9 0-4'	<10	68
0102211-10	GP-9 4-8'	<10	<10
0102211-11	GP-9 8-10'	<10	12
0102211-12	GP-11	<10	<10
0102211-13	GP-12 0-4'	<10	<10
0102211-14	GP-13 0-4'	<10	<10

QUALITY CONTROL		
TRUE VALUE	420	432
% INSTRUMENT ACCURACY	500	500
SPIKED AMOUNT	84	86
ORIGINAL SAMPLE	476	476
SPIKE	<10	.39
SPIKE DUP.	411	462
% EXTRACTION ACCURACY	408	455
BLANK	86	97
RPD	<10	<10
	0.73	1.53

Methods: EPA SW 846-8015M GRO/DRO

  
Celey D. Keene  
Raland K. Tuttle

12-14-01  
Date



Project Manager:	CHANCE Johnson	ETOTT Leak Number:	
Project Name:	ET-59	ETGI Project Number:	ETT301JR
Project Location:	Monument, NM	Sampler Signature:	<i>Jack</i>
For Use On EOTT ENERGY CORP. Projects Only			
4600 West Wall Midland, TX 79703 Tel (915) 522-1139 Fax (915) 520-4310		EOTT ENERGY CORP. 2540 West Wall Hobbs, NM 88242 Tel (505) 397-4882 Fax (505) 397-4701	
5805 East Business 20 Midland, TX 79702 Tel (915) 687-3400 Fax (915) 682-2781			

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST	
ANALYSIS REQUEST (Circle or Specify Method No.)	

LAB# (Lab Use Only)	FIELD CODE	# CONTAINERS	Volume/Amount	WATER	SOIL	AIR	SLUDGE	METHOD	PRESERVATION	TIME	DATE	ICE	NASHO <sub>4</sub>	HNO <sub>3</sub>	HCl	BTEX 8021B/5030	TPH TX1005/TX1006	TPH 418.1	TPH 8015M GRO/DRO	PAH 8270C (8100 New Mexico only)	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semivolatiles	Volatile 8260B	Semi Volatiles 8270C	TDS 160.1	Cations/Anions 375.4/325.3	REMARKS:	
010221-01	GP-1 0-3'	1	4/22	X						10/10/	10/17																			
02	GP-3 0-3'	1	1							1	11/00																			
03	GP-4 0-4'	1	1								11/30																			
04	GP-5 0-3'	1	1								11/35																			
05	GP-6 0-3'	1	1								11/49																			
06	GP-7 0-3'	1	1								12/09																			
07	GP-8 0-3'	1	1								12/35																			
08	GP-9 0-4'	1	1								12/42																			
09	GP-10 3-10'	1	1								13/05																			
10	GP-11 3-10'	1	1								13/10																			
11	GP-12 3-10'	1	1								13/31																			
12	GP-13 3-10'	1	1								14/47																			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	
<i>John Balleza</i>	10/12/2		<i>John Balleza</i>	12-13-01	8:15																									
<i>John Balleza</i>	11/13/01		<i>John Balleza</i>	12-13-01	8:15																									



# ENVIRONMENTAL LAB OF TEXAS, INC.

"Don't Treat Your Soil Like Dirt!"

E.T.G.I.  
ATTN: KEN DUTTON  
2540 W. MARLAND  
HOBBS, NM 88240  
FAX: 505-397-4701

Sample Type: Soil  
Sample Condition: Intact/ Iced/ -2.0 deg C  
Project Name: LF-59  
Project #: EOT 2012R  
Project Location: Monument, NM

Sampling Date: 12/20/01  
Receiving Date: 12/21/01  
Analysis Date: 12/26/01

ELT#	FIELD CODE	GRO C6-C10 mg/kg	DRO >C10-C28 mg/kg
0102272-01	East Wall	11	458
0102272-02	South Wall	125	1040
0102272-03	West Corner Pad	924	7360
0102272-04	North West Wall	<10	174
0102272-05	Center of North Side	578	4620
0102272-06	North East Wall	285	2300
0102272-07	Center of South Side	1660	16900
0102272-08	West Wall	14	888
QUALITY CONTROL			
TRUE VALUE		463	464
% INSTRUMENT ACCURACY		500	500
SPIKED AMOUNT		93	93
ORIGINAL SAMPLE		476	476
SPIKE		<10	174
SPIKE DUP		457	697
% EXTRACTION ACCURACY		479	633
BLANK		101	96
RPD		<10	<10
		4.70	9.62

Methods: SW 846-8015M

*Raland K. Tuttle*  
Celey D. Keene  
Raland K. Tuttle

12-31-01  
Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

E.T.G.I.

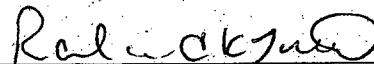
ATTN: KEN DUTTON  
2540 W. MARLAND  
HOBBES, NM 88240  
FAX: 505-397-4701

Sample Type: Soil  
Sample Condition: Intact/ Iced/ -2.0 deg C  
Project Name: LF-59  
Project #: EOT 2012R  
Project Location: Monument, NM

Sampling Date: 12/20/01  
Receiving Date: 12/21/01  
Analysis Date: 12/28/01

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	o-XYLENE mg/kg
0102272-01	East Wall	<0.025	0.044	<0.025	0.066	0.064
0102272-02	South Wall	0.026	0.128	0.729	2.60	1.28
0102272-03	West Corner Pad	0.035	0.242	3.14	10.1	4.88
0102272-04	North West Wall	<0.025	0.047	<0.025	0.094	<0.025
0102272-05	Center of North Side	0.060	0.472	2.79	11.9	3.59
0102272-06	North East Wall	<0.025	0.186	0.460	4.14	1.59
0102272-07	Center of South Side	0.100	0.987	1.30	5.77	4.61
0102272-08	West Wall	<0.025	0.045	<0.025	0.036	0.026
QUALITY CONTROL						
TRUE VALUE		0.109	0.115	0.109	0.228	0.114
% IA		100	100	100	200	100
SPIKED AMOUNT		0.100	0.100	0.100	0.200	0.100
ORIGINAL SAMPLE		<0.025	0.047	<0.025	0.094	<0.025
SPIKE		0.108	0.112	0.112	0.235	0.112
SPIKE DUP		0.114	0.116	0.115	0.233	0.111
%EA		114	114	115	114	111
BLANK		<0.025	<0.025	<0.025	<0.025	<0.025
RPD		5.40	3.57	2.64	1.74	0.90

METHODS: EPA SW 846-8021B, 5030



Celey D. Keene  
Raland K. Tuttle

12-31-01

Date

# Environmental Lab of Texas, Inc.

12600 West I-20 East  
Odessa, Texas 79763  
Phone: 915-563-1800  
Fax: 915-563-1713

Project Manager: Ken Dutkow

Company Name: E + G I

Company Address: 254 W. Maryland

City/State/Zip: Hobbs NM

Telephone No: 505-397-4882

Sampler Signature: Marcos Campof

## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Name: LF-59

Project #: EOT 2012R

Project Loc: Monument NM

PO #:

Fax No: 505-397-4701

Sample Signature:

LAB # (Lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Other (Specify)	Soil	Sludge	Water	None	HNO <sub>3</sub>	NaOH	HCl	HNO <sub>3</sub>	Na <sub>2</sub> SO <sub>4</sub>	H <sub>2</sub> SO <sub>4</sub>	Other (Specify)	Matrix	TOTAL	Analyze For:			
																			TCLP	RUSH TAT (Pre-Schedule)	Standard TAT	
0102272-01	East Wall	12-26-01	1330	1	X																	
02	South Wall		1340																			
03	West Corner Pad		1350																			
04	North west Wall		1400																			
05	Center of North side		1410																			
06	North east Wall		1420																			
07	Center of South side		1430																			
08	West Wall		1440																			

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
<u>Marcos Campof</u>	12-21-01	0930	<u>Connie Campbell</u>	21 Dec 0900	1450
Connie Campbell	12-21-01	0930	Received by ELOT		

Sample Container intact?	N
Temperature Upon Receipt	
Laboratory Comments:	-2,0°C

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

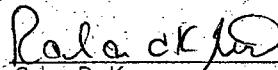
E.T.G.I.  
ATTN: KEN DUTTON  
2540 W. MARLAND  
HOBBS, NM 88240  
FAX: 505-397-4701

Sample Type: Soil  
Sample Condition: Intact/ Iced/ 4.0 deg C  
Project Name: LF-59  
Project #: EOT 2012R  
Project Location: Monument, NM

Sampling Date: 12/27/01  
Receiving Date: 12/28/01  
Analysis Date: 12/28/01

ELT#	FIELD CODE	GRO C6-C10 mg/kg	DRO >C10-C28 mg/kg
0102300-01	Grid 1 Sample 1	138	3540
0102300-02	Grid 2 Sample 2	211	4500
0102300-03	Grid 3 Sample 3	139	3920
0102300-04	Grid 4 Sample 4	169	3530
QUALITY CONTROL			
TRUE VALUE			
% INSTRUMENT ACCURACY			
SPIKED AMOUNT			
ORIGINAL SAMPLE			
SPIKE			
SPIKE DUP			
% EXTRACTION ACCURACY			
BLANK			
RPD			

Methods: SW 846-8015M.

  
Celey D. Keene  
Raland K. Tuttle

12-31-01  
Date

# ENVIRONMENTAL

## LAB OF INC.

"Don't Treat Your Soil Like Dirt!"

E.T.G.I.

ATTN: KEN DUTTON  
2540 W. MARLAND  
HOBBS, NM 88240  
FAX: 505-397-4701

Sample Type: Soil

Sample Condition: Intact/ Iced/ 4.0 deg C

Project Name: LF-59

Project #: EOT 2012R

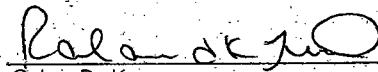
Project Location: Monument, NM

Sampling Date: 12/27/01  
Receiving Date: 12/28/01  
Analysis Date: 12/28/01

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	o-XYLENE mg/kg
0102300-01	Grid 1 Sample 1	<0.025	0.104	0.282	2.33	1.25
0102300-02	Grid 2 Sample 2	<0.100	0.236	0.675	4.68	1.90
0102300-03	Grid 3 Sample 3	<0.100	0.138	0.336	2.34	0.967
0102300-04	Grid 4 Sample 4	<0.100	0.174	0.324	2.87	1.78

QUALITY CONTROL	0.109	0.115	0.109	0.228	0.114
TRUE VALUE	0.100	0.100	0.100	0.200	0.100
% IA	109	115	109	114	114
SPIKED AMOUNT	0.100	0.100	0.100	0.200	0.100
ORIGINAL SAMPLE	<0.025	0.047	<0.025	0.094	<0.025
SPIKE	0.108	0.112	0.112	0.235	0.112
SPIKE DUP	0.114	0.116	0.115	0.233	0.111
%EA	114	114	115	114	111
BLANK	<0.025	<0.025	<0.025	<0.025	<0.025
RPD	5.40	3.57	2.64	1.74	0.90

METHODS: EPA SW 846-8021B ,5Q30



Celey D. Keene  
Raland K. Tuttle

12-21-01

Date

# Environmental Lab of Texas, Inc.

12600 West I-20 East  
Odessa, Texas 79763

Phone: 915-563-1800  
Fax: 915-563-1713

Project Manager: Ken Dutton

Company Name ETGI

Project Name: EF-59  
Project #: EST 2012 R

Project Loc: Monument, NM

PO #: PO#

Telephone No: (505) 397-4882  
Fax No: (505) 397-4701

Sampler Signature: Connie Reynolds

		Analyze For:		Standard TAT		RUSH TAT (Pre-Schedule)	
		TCLP	TOTAL	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEx 8021B/5030
		TPH TX 1005/1006	X	TPH 8015M GRO/DRO			
		TPH 4181		TDS / CL / SAR / EC			
		Other (Specify):		Soil			
		Sludge		Water			
		None		Other (Specify):			
		H <sub>2</sub> SO <sub>4</sub>		NaOH			
		HCl		HNO <sub>3</sub>			
		Ice		Le			
		No. of Containers		Date Sampled			
		Time Sampled		Time Sampled			
		FIELD CODE		2001			
		LAB # (Leave Blank)					
01	02	03	04	Grid 1 Sample 1	1515	1	X
				Grid 2 Sample 2	1520		
				Grid 3 Sample 3	1550		
				Grid 4 Sample 4	1556		

Special Instructions:

Verbal Results Please

Relinquished by:

Connie Reynolds

Relinquished by:

Received by ELT	Date	Time	Received by	Date	Time
<u>Connie Reynolds</u>	12/20/01	12:30	<u>Connie Reynolds</u>	12/20/01	12:30

# Analytical and Quality Control Report

Craig Eschberger  
Nova Safety & Environmental  
5023 Commerce  
Midland, TX 79703

Report Date: December 24, 2004

Work Order: 4122107

Project Location: Monument  
Project Name: LF-59  
Project Number: TNM-LF-59

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
51247	SS-1	soil	2004-12-18	09:42	2004-12-21
51248	SS-2	soil	2004-12-18	09:51	2004-12-21
51249	SS-3	soil	2004-12-18	10:00	2004-12-21
51250	SS-4	soil	2004-12-18	10:05	2004-12-21

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 7 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director

## Analytical Report

### Sample: 51247 - SS-1

Analysis: TPH DRO  
QC Batch: 14833  
Prep Batch: 13095

Analytical Method: Mod. 8015B  
Date Analyzed: 2004-12-21  
Date Prepared: 2004-12-21

Prep Method: N/A  
Analyzed By: BP  
Prepared By: DS

Parameter	Flag	Result	Units	Dilution	RL
DRO		219	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	1	193	mg/Kg	1	150	129	69.8 - 106.1

### Sample: 51247 - SS-1

Analysis: TPH GRO  
QC Batch: 14869  
Prep Batch: 13127

Analytical Method: S 8015B  
Date Analyzed: 2004-12-22  
Date Prepared: 2004-12-22

Prep Method: S 5035  
Analyzed By: MS  
Prepared By: MS

Parameter	Flag	Result	Units	Dilution	RL
GRO	2	<10.0	mg/Kg	100	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.825	mg/Kg	100	0.100	8	0 - 160
4-Bromofluorobenzene (4-BFB)		0.999	mg/Kg	100	0.100	10	0 - 174

### Sample: 51248 - SS-2

Analysis: TPH DRO  
QC Batch: 14833  
Prep Batch: 13095

Analytical Method: Mod. 8015B  
Date Analyzed: 2004-12-21  
Date Prepared: 2004-12-21

Prep Method: N/A  
Analyzed By: BP  
Prepared By: DS

Parameter	Flag	Result	Units	Dilution	RL
DRO		176	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	3	178	mg/Kg	1	150	119	69.8 - 106.1

### Sample: 51248 - SS-2

Analysis: TPH GRO

Analytical Method: S 8015B

Prep Method: S 5035

<sup>1</sup> Surrogate recovery out of control chart range but within method limits.

<sup>2</sup> Sample diluted due to surfactants.

<sup>3</sup> Surrogate recovery out of control chart range but within method limits.

Report Date: December 24, 2004  
TNM-LF-59

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LF-59

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Monument

QC Batch: 14869      Date Analyzed: 2004-12-22      Analyzed By: MS  
Prep Batch: 13127      Date Prepared: 2004-12-22      Prepared By: MS

Parameter	Flag	RL		Dilution	RL
		Result	Units		
GRO	<sup>4</sup>	<5.00	mg/Kg	50	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.873	mg/Kg	50	0.100	17	0 - 160
4-Bromofluorobenzene (4-BFB)		0.906	mg/Kg	50	0.100	18	0 - 174

#### Sample: 51249 - SS-3

Analysis: TPH DRO      Analytical Method: Mod. 8015B      Prep Method: N/A  
QC Batch: 14833      Date Analyzed: 2004-12-21      Analyzed By: BP  
Prep Batch: 13095      Date Prepared: 2004-12-21      Prepared By: DS

Parameter	Flag	RL		Dilution	RL
		Result	Units		
DRO		175	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	<sup>5</sup>	192	mg/Kg	1	150	128	69.8 - 106.1

#### Sample: 51249 - SS-3

Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
QC Batch: 14869      Date Analyzed: 2004-12-22      Analyzed By: MS  
Prep Batch: 13127      Date Prepared: 2004-12-22      Prepared By: MS

Parameter	Flag	RL		Dilution	RL
		Result	Units		
GRO	<sup>6</sup>	<5.00	mg/Kg	50	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.805	mg/Kg	50	0.100	16	0 - 160
4-Bromofluorobenzene (4-BFB)		0.881	mg/Kg	50	0.100	18	0 - 174

#### Sample: 51250 - SS-4

Analysis: TPH DRO      Analytical Method: Mod. 8015B      Prep Method: N/A  
QC Batch: 14833      Date Analyzed: 2004-12-21      Analyzed By: BP  
Prep Batch: 13095      Date Prepared: 2004-12-21      Prepared By: DS

<sup>4</sup>Sample diluted due to surfactants.

<sup>5</sup>Surrogate recovery out of control chart range but within method limits.

<sup>6</sup>Sample diluted due to surfactants.

Parameter	Flag	Result	Units	Dilution	RL		
DRO		254	mg/Kg	1	50.0		
Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery	Recovery Limits	
n-Triacontane	7	194	mg/Kg	1	150	129	69.8 - 106.1

**Sample: 51250 - SS-4**

Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
 QC Batch: 14869      Date Analyzed: 2004-12-22      Analyzed By: MS  
 Prep Batch: 13127      Date Prepared: 2004-12-22      Prepared By: MS

Parameter	Flag	Result	Units	Dilution	RL		
GRO	8	<5.00	mg/Kg	50	0.100		
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.763	mg/Kg	50	0.100	15	0 - 160
4-Bromofluorobenzene (4-BFB)		0.882	mg/Kg	50	0.100	18	0 - 174

**Method Blank (1) QC Batch: 14833**

Parameter	Flag	Result	Units	RL			
DRO		<50.0	mg/Kg	50			
Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery	Recovery Limits	
n-Triacontane		126	mg/Kg	1	150	84	69.8 - 106.1

**Method Blank (1) QC Batch: 14869**

Parameter	Flag	Result	Units	RL			
GRO		1.94	mg/Kg	0.1			
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.02	mg/Kg	10	0.100	102	81.8 - 109
4-Bromofluorobenzene (4-BFB)		0.624	mg/Kg	10	0.100	62	50.7 - 113

**Laboratory Control Spike (LCS-1) QC Batch: 14833**<sup>7</sup>Surrogate recovery out of control chart range but within method limits.<sup>8</sup>Sample diluted due to surfactants.

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	246	244	mg/Kg	1	250	<12.0	98	1	78.7 - 117.6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	138	140	mg/Kg	1	150	92	93	69.8 - 106.1

### Laboratory Control Spike (LCS-1) QC Batch: 14869

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	10.0	11.2	mg/Kg	10	1.00	<0.381	100	11	72 - 124	21

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.03	0.921	mg/Kg	10	0.100	103	92	80.4 - 113
4-Bromofluorobenzene (4-BFB)	0.927	0.891	mg/Kg	10	0.100	93	89	72.2 - 119

### Matrix Spike (MS-1) QC Batch: 14869 Spiked Sample: 51263

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	12.5	12.4	mg/Kg	10	1.00	<0.381	125	1	0 - 182	19.6

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.12	1.08	mg/Kg	10	0.1	112	108	0 - 160
4-Bromofluorobenzene (4-BFB)	1.05	1.06	mg/Kg	10	0.1	105	106	0 - 174

### Standard (ICV-1) QC Batch: 14833

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	248	99	75 - 125	2004-12-21

### Standard (CCV-1) QC Batch: 14833

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	244	98	75 - 125	2004-12-21

### Standard (ICV-1) QC Batch: 14869

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TNM-LF-59

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Monument

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.08	108	85 - 115	2004-12-22

Standard (CCV-1) QC Batch: 14869

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.928	93	85 - 115	2004-12-22





# TRACEANALYSIS, INC.

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155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944  
E-Mail: lab@traceanalysis.com

## Analytical and Quality Control Report

Jennifer Lange  
Nova Safety & Environmental  
2057 Commerce St.  
Midland, TX 79703

Report Date: September 13, 2005

Work Order: 5091209

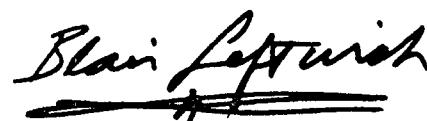
Project Location: Monument  
Project Name: LF-59  
Project Number: TNM-LF-59

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
73128	SS-1	soil	2005-09-07	13:35	2005-09-10
73129	SS-2	soil	2005-09-07	13:52	2005-09-10
73130	SS-3	soil	2005-09-07	14:08	2005-09-10
73131	SS-4	soil	2005-09-07	14:26	2005-09-10

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

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Dr. Blair Leftwich, Director

## Analytical Report

Sample: 73128 - SS-1

Analysis: TPH DRO  
QC Batch: 21197  
Prep Batch: 18606

Analytical Method: Mod. 8015B  
Date Analyzed: 2005-09-12  
Sample Preparation: 2005-09-12

Prep Method: N/A  
Analyzed By: JL  
Prepared By: JL

Parameter	Flag	Result	Units	Dilution	RL
DRO		102	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		139	mg/Kg	1	150	92	50 - 150

Sample: 73128 - SS-1

Analysis: TPH GRO  
QC Batch: 21209  
Prep Batch: 18617

Analytical Method: S 8015B  
Date Analyzed: 2005-09-12  
Sample Preparation: 2005-09-12

Prep Method: S 5035  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.997	mg/Kg	10	0.100	100	10 - 160
4-Bromofluorobenzene (4-BFB)		1.01	mg/Kg	10	0.100	101	10 - 174

Sample: 73129 - SS-2

Analysis: TPH DRO  
QC Batch: 21197  
Prep Batch: 18606

Analytical Method: Mod. 8015B  
Date Analyzed: 2005-09-12  
Sample Preparation: 2005-09-12

Prep Method: N/A  
Analyzed By: JL  
Prepared By: JL

Parameter	Flag	Result	Units	Dilution	RL
DRO		115	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		131	mg/Kg	1	150	87	50 - 150

Sample: 73129 - SS-2

Analysis: TPH GRO  
QC Batch: 21209  
Prep Batch: 18617

Analytical Method: S 8015B  
Date Analyzed: 2005-09-12  
Sample Preparation: 2005-09-12

Prep Method: S 5035  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100
Surrogate	Flag	Result	Units	Dilution	Spike Amount
Trifluorotoluene (TFT)		0.974	mg/Kg	10	0.100
4-Bromofluorobenzene (4-BFB)		1.01	mg/Kg	10	0.100
					Percent Recovery
					97
					101
					Recovery Limits
					10 - 160
					10 - 174

Sample: 73130 - SS-3

Analysis: TPH DRO  
QC Batch: 21197  
Prep Batch: 18606

Analytical Method: Mod. 8015B  
Date Analyzed: 2005-09-12  
Sample Preparation: 2005-09-12

Prep Method: N/A  
Analyzed By: JL  
Prepared By: JL

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		60.7	mg/Kg	1	50.0
Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery
n-Triacontane		130	mg/Kg	1	150

Sample: 73130 - SS-3

Analysis: TPH GRO  
QC Batch: 21209  
Prep Batch: 18617

Analytical Method: S 8015B  
Date Analyzed: 2005-09-12  
Sample Preparation: 2005-09-12

Prep Method: S 5035  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100
Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery
Trifluorotoluene (TFT)		1.02	mg/Kg	10	0.100
4-Bromofluorobenzene (4-BFB)		1.01	mg/Kg	10	0.100

Sample: 73131 - SS-4

Analysis: TPH DRO  
QC Batch: 21197  
Prep Batch: 18606

Analytical Method: Mod. 8015B  
Date Analyzed: 2005-09-12  
Sample Preparation: 2005-09-12

Prep Method: N/A  
Analyzed By: JL  
Prepared By: JL

Parameter	Flag	Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		145	mg/Kg	1	150	97	50 - 150

**Sample: 73131 - SS-4**Analysis: TPH GRO  
QC Batch: 21209  
Prep Batch: 18617Analytical Method: S 8015B  
Date Analyzed: 2005-09-12  
Sample Preparation: 2005-09-12Prep Method: S 5035  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.907	mg/Kg	10	0.100	91	10 - 160
4-Bromofluorobenzene (4-BFB)		0.930	mg/Kg	10	0.100	93	10 - 174

**Method Blank (1) QC Batch: 21197**

Parameter	Flag	Result	MDL	Units	RL
DRO		<12.0		mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		136	mg/Kg	1	150	91	50 - 150

**Method Blank (1) QC Batch: 21209**

Parameter	Flag	Result	MDL	Units	RL
GRO		2.10		mg/Kg	0.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.966	mg/Kg	10	0.100	96	81.8 - 109
4-Bromofluorobenzene (4-BFB)		0.849	mg/Kg	10	0.100	85	50.7 - 113

**Laboratory Control Spike (LCS-1) QC Batch: 21197**

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	233	249	mg/Kg	1	250	<12.0	93	7	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	138	134	mg/Kg	1	150	92	89	50 - 150

**Laboratory Control Spike (LCS-1)** QC Batch: 21209

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	9.27	9.77	mg/Kg	10	1.00	<0.381	93	5	72 - 124	21

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.877	0.916	mg/Kg	10	0.100	88	92	80.4 - 113
4-Bromofluorobenzene (4-BFB)	0.992	1.01	mg/Kg	10	0.100	99	101	72.2 - 119

**Matrix Spike (MS-1)** QC Batch: 21197 Spiked Sample: 73129

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	285	277	mg/Kg	1	250	114.9	68	3	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	130	136	mg/Kg	1	150	87	91	50 - 150

**Matrix Spike (MS-1)** QC Batch: 21209 Spiked Sample: 73124

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	9.62	9.50	mg/Kg	10	1.00	<0.381	96	1	10 - 182	19.6

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.928	0.835	mg/Kg	10	0.1	93	84	10 - 160
4-Bromofluorobenzene (4-BFB)	1.06	0.991	mg/Kg	10	0.1	106	99	10 - 174

**Standard (ICV-1)** QC Batch: 21197

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	284	114	75 - 125	2005-09-12

**Standard (CCV-1)** QC Batch: 21197

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	242	97	75 - 125	2005-09-12

Standard (CCV-2) QC Batch: 21197

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	234	94	75 - 125	2005-09-12

Standard (ICV-1) QC Batch: 21209

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.962	96	85 - 115	2005-09-12

Standard (CCV-1) QC Batch: 21209

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.885	88	85 - 115	2005-09-12

# TRACEANALYSIS, INC.

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155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944  
E-Mail: lab@traceanalysis.com

## Analytical and Quality Control Report

Kurt Stanley  
Nova Safety & Environmental  
2057 Commerce St.  
Midland, TX 79703

Report Date: October 12, 2005  
Work Order: 5101010

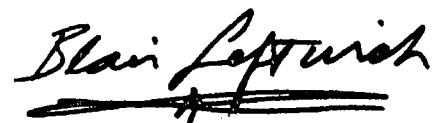
Project Location: Monument  
Project Name: LF-59  
Project Number: TNM-LF-59

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
75322	MW-8 (15-20)	soil	2005-10-04	10:54	2005-10-08

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 7 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director

## Analytical Report

Sample: 75322 - MW-8 (15-20)

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5035
QC Batch: 21873	Date Analyzed: 2005-10-10	Analyzed By: KB
Prep Batch: 19199	Sample Preparation: 2005-10-10	Prepared By: KB

Parameter	Flag	Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	10	0.00100
Toluene		<0.0100	mg/Kg	10	0.00100
Ethylbenzene		<0.0100	mg/Kg	10	0.00100
Xylene		<0.0100	mg/Kg	10	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.896	mg/Kg	10	0.100	90	74.5 - 114
4-Bromofluorobenzene (4-BFB)		1.05	mg/Kg	10	0.100	105	36.6 - 112

Sample: 75322 - MW-8 (15-20)

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 21886	Date Analyzed: 2005-10-11	Analyzed By: JL
Prep Batch: 19212	Sample Preparation: 2005-10-10	Prepared By: JL

Parameter	Flag	Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		128	mg/Kg	1	150	85	50 - 150

Sample: 75322 - MW-8 (15-20)

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 21874	Date Analyzed: 2005-10-10	Analyzed By: KB
Prep Batch: 19199	Sample Preparation: 2005-10-10	Prepared By: KB

Parameter	Flag	Result	Units	Dilution	RL
GRO		1.68	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.07	mg/Kg	10	0.100	107	10 - 160
4-Bromofluorobenzene (4-BFB)		1.15	mg/Kg	10	0.100	115	10 - 174

Method Blank (1) QC Batch: 21873

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00333	mg/Kg	0.001
Toluene		<0.00353	mg/Kg	0.001
Ethylbenzene		<0.00339	mg/Kg	0.001
Xylene		<0.0103	mg/Kg	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.942	mg/Kg	10	0.100	94	74.5 - 114
4-Bromofluorobenzene (4-BFB)		0.746	mg/Kg	10	0.100	75	36.6 - 112

## Method Blank (1) QC Batch: 21874

Parameter	Flag	MDL Result	Units	RL			
GRO		1.67	mg/Kg	0.1			
Surrogate	Flag	Result	Units	Spike			
Trifluorotoluene (TFT)		0.974	mg/Kg	10	0.100	97	81.8 - 109
4-Bromofluorobenzene (4-BFB)		0.755	mg/Kg	10	0.100	76	50.7 - 113

## Method Blank (1) QC Batch: 21886

Parameter	Flag	MDL Result	Units	RL
DRO		<12.0	mg/Kg	50
Surrogate	Flag	Result	Units	Recovery
n-Triacontane		105	mg/Kg	100 - 150

## Laboratory Control Spike (LCS-1) QC Batch: 21873

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.965	0.954	mg/Kg	10	0.100	<0.0333	96	1	79.8 - 114	20
Toluene	0.964	0.959	mg/Kg	10	0.100	<0.0353	96	0	79.7 - 115	20
Ethylbenzene	0.995	1.00	mg/Kg	10	0.100	<0.0339	100	0	78.7 - 116	20
Xylene	3.00	3.04	mg/Kg	10	0.300	<0.103	100	1	78.7 - 118	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.977	0.910	mg/Kg	10	0.100	98	91	76.6 - 114
4-Bromofluorobenzene (4-BFB)	1.00	1.05	mg/Kg	10	0.100	100	105	72 - 111

Laboratory Control Spike (LCS-1) QC Batch: 21874

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	8.68	9.14	mg/Kg	10	1.00	<0.381	87	5	72 - 124	21

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.932	0.963	mg/Kg	10	0.100	93	96	80.4 - 113
4-Bromofluorobenzene (4-BFB)	0.956	1.00	mg/Kg	10	0.100	96	100	72.2 - 119

Laboratory Control Spike (LCS-1) QC Batch: 21886

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	212	219	mg/Kg	1	250	<12.0	85	3	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	108	109	mg/Kg	1	150	72	72	50 - 150

Matrix Spike (MS-1) QC Batch: 21873 Spiked Sample: 75378

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.943	0.926	mg/Kg	10	0.100	<0.0333	94	2	63.5 - 98.6	20
Toluene	1.02	0.983	mg/Kg	10	0.100	<0.0353	102	4	65.8 - 102	20
Ethylbenzene	<sup>12</sup> 1.13	1.09	mg/Kg	10	0.100	<0.0339	113	4	66.6 - 106	20
Xylene	<sup>34</sup> 3.52	3.39	mg/Kg	10	0.300	<0.103	117	4	67.4 - 108	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit	
Trifluorotoluene (TFT)		1.03	1.04	mg/Kg	10	0.1	103	104	60.1 - 104
4-Bromofluorobenzene (4-BFB)	<sup>56</sup>	1.19	1.13	mg/Kg	10	0.1	119	113	63.1 - 105

Matrix Spike (MS-1) QC Batch: 21874 Spiked Sample: 75378

continued ...

<sup>1</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

<sup>2</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

<sup>3</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

<sup>4</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

<sup>5</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

<sup>6</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

*matrix spikes continued ...*

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	10.5	10.6	mg/Kg	10	1.00	<0.381	105	1	10 - 182	19.6

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.08	1.14	mg/Kg	10	0.1	108	114	10 - 160
4-Bromofluorobenzene (4-BFB)	1.26	1.32	mg/Kg	10	0.1	126	132	10 - 174

**Matrix Spike (MS-1)** QC Batch: 21886 Spiked Sample: 75374

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	222	218	mg/Kg	1	250	<12.0	89	2	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	117	118	mg/Kg	1	150	78	79	50 - 150

**Standard (ICV-1)** QC Batch: 21873

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0938	94	85 - 115	2005-10-10
Toluene		mg/Kg	0.100	0.0937	94	85 - 115	2005-10-10
Ethylbenzene		mg/Kg	0.100	0.0959	96	85 - 115	2005-10-10
Xylene		mg/Kg	0.300	0.291	97	85 - 115	2005-10-10

**Standard (CCV-1)** QC Batch: 21873

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0933	93	85 - 115	2005-10-10
Toluene		mg/Kg	0.100	0.0945	94	85 - 115	2005-10-10
Ethylbenzene		mg/Kg	0.100	0.0988	99	85 - 115	2005-10-10
Xylene		mg/Kg	0.300	0.302	101	85 - 115	2005-10-10

**Standard (ICV-1)** QC Batch: 21874

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.916	92	85 - 115	2005-10-10

**Standard (CCV-1)** QC Batch: 21874

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.974	97	85 - 115	2005-10-10

**Standard (ICV-1)** QC Batch: 21886

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	206	82	75 - 125	2005-10-11

**Standard (CCV-1)** QC Batch: 21886

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	213	85	75 - 125	2005-10-11



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## Analytical and Quality Control Report

Jennifer Lange  
Nova Safety & Environmental  
2057 Commerce St.  
Midland, TX, 79703

Report Date: February 13, 2006

Work Order: 6020613



Project Location: Monument  
Project Name: LF-59  
Project Number: TNM-LF-59

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
83732	SSW #1	soil	2006-02-02	14:00	2006-02-06
83733	SSW #2	soil	2006-02-02	14:25	2006-02-06
83734	SSW #3	soil	2006-02-02	14:35	2006-02-06
83735	WSW #1	soil	2006-02-02	14:48	2006-02-06
83736	WSW #2	soil	2006-02-02	14:51	2006-02-06
83737	WSW #3	soil	2006-02-02	14:59	2006-02-06
83738	NSW #1	soil	2006-02-02	15:03	2006-02-06
83739	NSW #2	soil	2006-02-02	15:10	2006-02-06
83740	NSW #3	soil	2006-02-02	15:18	2006-02-06
83741	ESW #1	soil	2006-02-02	15:24	2006-02-06
83742	ESW #2	soil	2006-02-02	15:28	2006-02-06
83743	ESW #3	soil	2006-02-02	15:34	2006-02-06

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 14 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

*Blair Leftwich*

Dr. Blair Leftwich, Director

## Analytical Report

Sample: 83732 - SSW #1

Analysis: TPH DRO  
QC Batch: 24533  
Prep Batch: 21567

Analytical Method: Mod. 8015B  
Date Analyzed: 2006-02-06  
Sample Preparation: 2006-02-06

Prep Method: N/A  
Analyzed By: DS  
Prepared By: JL

Parameter	Flag	Result	RL	Units	Dilution	RL
DRO		282		mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	1	216	mg/Kg	1	150	144	57.5 - 139

Sample: 83732 - SSW #1

Analysis: TPH GRO  
QC Batch: 24562  
Prep Batch: 21593

Analytical Method: S 8015B  
Date Analyzed: 2006-02-12  
Sample Preparation: 2006-02-12

Prep Method: S 5035  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Result	RL	Units	Dilution	RL
GRO		<1.00		mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.15	mg/Kg	10	0.100	115	68 - 129.6
4-Bromofluorobenzene (4-BFB)		1.23	mg/Kg	10	0.100	123	71.9 - 123.7

Sample: 83733 - SSW #2

Analysis: TPH DRO  
QC Batch: 24533  
Prep Batch: 21567

Analytical Method: Mod. 8015B  
Date Analyzed: 2006-02-06  
Sample Preparation: 2006-02-06

Prep Method: N/A  
Analyzed By: DS  
Prepared By: JL

Parameter	Flag	Result	RL	Units	Dilution	RL
DRO		259		mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	2	228	mg/Kg	1	150	152	57.5 - 139

Sample: 83733 - SSW #2

Analysis: TPH GRO  
QC Batch: 24562  
Prep Batch: 21593

Analytical Method: S 8015B  
Date Analyzed: 2006-02-12  
Sample Preparation: 2006-02-12

Prep Method: S 5035  
Analyzed By: MT  
Prepared By: MT

<sup>1</sup>High surrogate recovery due to peak interference.

<sup>2</sup>High surrogate recovery due to peak interference.

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100
Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery
Trifluorotoluene (TFT)		1.02	mg/Kg	10	0.100
4-Bromofluorobenzene (4-BFB)		1.07	mg/Kg	10	0.100

## Sample: 83734 - SSW #3

Analysis: TPH DRO      Analytical Method: Mod. 8015B      Prep Method: N/A  
QC Batch: 24533      Date Analyzed: 2006-02-06      Analyzed By: DS  
Prep Batch: 21567      Sample Preparation: 2006-02-06      Prepared By: JL

Parameter	Flag	Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0
Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery
n-Triacontane		150	mg/Kg	1	150

## Sample: 83734 - SSW #3

Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
QC Batch: 24562      Date Analyzed: 2006-02-12      Analyzed By: MT  
Prep Batch: 21593      Sample Preparation: 2006-02-12      Prepared By: MT

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100
Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery
Trifluorotoluene (TFT)		1.03	mg/Kg	10	0.100
4-Bromofluorobenzene (4-BFB)		1.06	mg/Kg	10	0.100

## Sample: 83735 - WSW #1

Analysis: TPH DRO      Analytical Method: Mod. 8015B      Prep Method: N/A  
QC Batch: 24533      Date Analyzed: 2006-02-06      Analyzed By: DS  
Prep Batch: 21567      Sample Preparation: 2006-02-06      Prepared By: JL

Parameter	Flag	Result	Units	Dilution	RL
DRO		611	mg/Kg	10	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	3	839	mg/Kg	10	15.0	559	57.5 - 139

**Sample: 83735 - WSW #1**

Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
 QC Batch: 24562      Date Analyzed: 2006-02-12      Analyzed By: MT  
 Prep Batch: 21593      Sample Preparation: 2006-02-12      Prepared By: MT

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.01	mg/Kg	10	0.100	101	68 - 129.6
4-Bromofluorobenzene (4-BFB)		1.04	mg/Kg	10	0.100	104	71.9 - 123.7

**Sample: 83736 - WSW #2**

Analysis: TPH DRO      Analytical Method: Mod. 8015B      Prep Method: N/A  
 QC Batch: 24533      Date Analyzed: 2006-02-06      Analyzed By: DS  
 Prep Batch: 21567      Sample Preparation: 2006-02-06      Prepared By: JL

Parameter	Flag	Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		148	mg/Kg	1	150	98	57.5 - 139

**Sample: 83736 - WSW #2**

Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
 QC Batch: 24562      Date Analyzed: 2006-02-12      Analyzed By: MT  
 Prep Batch: 21593      Sample Preparation: 2006-02-12      Prepared By: MT

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.08	mg/Kg	10	0.100	108	68 - 129.6
4-Bromofluorobenzene (4-BFB)		1.11	mg/Kg	10	0.100	111	71.9 - 123.7

<sup>3</sup>High surrogate recovery due to peak interference.

Sample: 83737 - WSW #3

Analysis: TPH DRO      Analytical Method: Mod. 8015B      Prep Method: N/A  
QC Batch: 24533      Date Analyzed: 2006-02-06      Analyzed By: DS  
Prep Batch: 21567      Sample Preparation: 2006-02-06      Prepared By: JL

Parameter	Flag	Result	Units	Dilution	RL
DRO		170	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		176	mg/Kg	1	150	117	57.5 - 139

Sample: 83737 - WSW #3

Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
QC Batch: 24562      Date Analyzed: 2006-02-12      Analyzed By: MT  
Prep Batch: 21593      Sample Preparation: 2006-02-12      Prepared By: MT

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.05	mg/Kg	10	0.100	105	68 - 129.6
4-Bromofluorobenzene (4-BFB)		1.07	mg/Kg	10	0.100	107	71.9 - 123.7

Sample: 83738 - NSW #1

Analysis: TPH DRO      Analytical Method: Mod. 8015B      Prep Method: N/A  
QC Batch: 24533      Date Analyzed: 2006-02-06      Analyzed By: DS  
Prep Batch: 21567      Sample Preparation: 2006-02-06      Prepared By: JL

Parameter	Flag	Result	Units	Dilution	RL
DRO		2520	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	4	360	mg/Kg	1	150	240	57.5 - 139

Sample: 83738 - NSW #1

Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
QC Batch: 24562      Date Analyzed: 2006-02-12      Analyzed By: MT  
Prep Batch: 21593      Sample Preparation: 2006-02-12      Prepared By: MT

<sup>4</sup>High surrogate recovery due to peak interference.

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		2.87	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.968	mg/Kg	10	0.100	97	68 - 129.6
4-Bromofluorobenzene (4-BFB)		0.998	mg/Kg	10	0.100	100	71.9 - 123.7

**Sample: 83739 - NSW #2**

Analysis: TPH DRO      Analytical Method: Mod. 8015B      Prep Method: N/A  
 QC Batch: 24533      Date Analyzed: 2006-02-06      Analyzed By: DS  
 Prep Batch: 21567      Sample Preparation: 2006-02-06      Prepared By: JL

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		147	mg/Kg	1	150	98	57.5 - 139

**Sample: 83739 - NSW #2**

Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
 QC Batch: 24562      Date Analyzed: 2006-02-12      Analyzed By: MT  
 Prep Batch: 21593      Sample Preparation: 2006-02-12      Prepared By: MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.27	mg/Kg	10	0.100	127	68 - 129.6
4-Bromofluorobenzene (4-BFB)		1.31 <sup>5</sup>	mg/Kg	10	0.100	131	71.9 - 123.7

**Sample: 83740 - NSW #3**

Analysis: TPH DRO      Analytical Method: Mod. 8015B      Prep Method: N/A  
 QC Batch: 24533      Date Analyzed: 2006-02-06      Analyzed By: DS  
 Prep Batch: 21567      Sample Preparation: 2006-02-06      Prepared By: JL

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		537	mg/Kg	1	50.0

<sup>5</sup>High surrogate recovery. Sample non-detect, result bias high.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	6	315	mg/Kg	1	150	210	57.5 - 139

**Sample: 83740 - NSW #3**

Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
 QC Batch: 24562      Date Analyzed: 2006-02-12      Analyzed By: MT  
 Prep Batch: 21593      Sample Preparation: 2006-02-12      Prepared By: MT

Parameter	Flag	Result	Units	Dilution	RL
GRO		1.31	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.08	mg/Kg	10	0.100	108	68 - 129.6
4-Bromofluorobenzene (4-BFB)		1.15	mg/Kg	10	0.100	115	71.9 - 123.7

**Sample: 83741 - ESW #1**

Analysis: TPH DRO      Analytical Method: Mod. 8015B      Prep Method: N/A  
 QC Batch: 24533      Date Analyzed: 2006-02-06      Analyzed By: DS  
 Prep Batch: 21567      Sample Preparation: 2006-02-06      Prepared By: JL

Parameter	Flag	Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		149	mg/Kg	1	150	100	57.5 - 139

**Sample: 83741 - ESW #1**

Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
 QC Batch: 24562      Date Analyzed: 2006-02-12      Analyzed By: MT  
 Prep Batch: 21593      Sample Preparation: 2006-02-12      Prepared By: MT

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.04	mg/Kg	10	0.100	104	68 - 129.6
4-Bromofluorobenzene (4-BFB)		1.07	mg/Kg	10	0.100	107	71.9 - 123.7

<sup>6</sup>High surrogate recovery due to peak interference.

Report Date: February 13, 2006  
TNM-LF-59

Work Order: 6020613  
LF-59

Page Number: 9 of 14  
Monument

Sample: 83742 - ESW #2

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 24533	Date Analyzed: 2006-02-06	Analyzed By: DS
Prep Batch: 21567	Sample Preparation: 2006-02-06	Prepared By: JL

Parameter	Flag	Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		153	mg/Kg	1	150	102	57.5 - 139

Sample: 83742 - ESW #2

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 24562	Date Analyzed: 2006-02-12	Analyzed By: MT
Prep Batch: 21593	Sample Preparation: 2006-02-12	Prepared By: MT

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.02	mg/Kg	10	0.100	102	68 - 129.6
4-Bromofluorobenzene (4-BFB)		1.04	mg/Kg	10	0.100	104	71.9 - 123.7

Sample: 83743 - ESW #3

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 24533	Date Analyzed: 2006-02-06	Analyzed By: DS
Prep Batch: 21567	Sample Preparation: 2006-02-06	Prepared By: JL

Parameter	Flag	Result	Units	Dilution	RL
DRO		360	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		251	mg/Kg	1	150	167	57.5 - 139

Sample: 83743 - ESW #3

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 24562	Date Analyzed: 2006-02-12	Analyzed By: MT
Prep Batch: 21593	Sample Preparation: 2006-02-12	Prepared By: MT

<sup>7</sup>High surrogate recovery due to peak interference.

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.11	mg/Kg	10	0.100	111	68 - 129.6
4-Bromofluorobenzene (4-BFB)		1.12	mg/Kg	10	0.100	112	71.9 - 123.7

**Method Blank (1) QC Batch: 24533**

Parameter	Flag	Result	MDL	Units	RL
DRO		<10.9	Result	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		124	mg/Kg	1	150	83	57.5 - 139

**Method Blank (1) QC Batch: 24562**

Parameter	Flag	Result	MDL	Units	RL
GRO		2.06	Result	mg/Kg	0.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.03	mg/Kg	10	0.100	103	81.8 - 109
4-Bromofluorobenzene (4-BFB)		0.923	mg/Kg	10	0.100	92	50.7 - 113

**Laboratory Control Spike (LCS-1) QC Batch: 24533**

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	216	221	mg/Kg	1	250	<10.9	86	2	84 - 118	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	124	123	mg/Kg	1	150	83	82	57.5 - 139

**Laboratory Control Spike (LCS-1) QC Batch: 24562**

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	9.25	9.24	mg/Kg	10	1.00	<0.381	92	0	78 - 115	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.998	0.892	mg/Kg	10	0.100	100	89	76.1 - 115
4-Bromofluorobenzene (4-BFB)	1.01	0.966	mg/Kg	10	0.100	101	97	81.3 - 111

Matrix Spike (MS-1) QC Batch: 24533 Spiked Sample: 83733

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	MS Rec.	MSD Rec.	Rec. Limit	RPD Limit	
DRO	89	363	317	mg/Kg	1	250	259	42	14	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	182	168	mg/Kg	1	150	121	112	57.5 - 139

Matrix Spike (MS-1) QC Batch: 24562 Spiked Sample: 83732

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	MS Rec.	MSD Rec.	Rec. Limit	RPD Limit
GRO	10.2	11.2	mg/Kg	10	1.00	<0.381	102	9	54.2 - 156.3	19.6

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.851	0.910	mg/Kg	10	0.1	85	91	10 - 160
4-Bromofluorobenzene (4-BFB)	1.06	1.14	mg/Kg	10	0.1	106	114	10 - 174

Standard (ICV-1) QC Batch: 24533

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	221	88	57.5 - 139	2006-02-06

Standard (CCV-1) QC Batch: 24533

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	224	90	57.5 - 139	2006-02-06

Standard (CCV-2) QC Batch: 24533

<sup>8</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.<sup>9</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	240	96	57.5 - 139	2006-02-06

Standard (ICV-1) QC Batch: 24562

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.917	92	85 - 115	2006-02-12

Standard (CCV-1) QC Batch: 24562

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.930	93	85 - 115	2006-02-12

Page 1 of 2

# TraceAnalysis, Inc.

3701 Aberdeen Avenue, Ste. 9  
Lubbock, Texas 79412-9244  
Tel (806) 794-1298  
Fax (806) 794-1298  
e-mail: lab@traceanalysis.com

Company Name:  
NOVA A

Address: (Street, City, Zip)  
2057 Commerce

Contact Person:  
Curt Stanley

Office to:  
different from above)

Project #: TNM-LF-59

Project Location:  
Monument NM.

Phone #: (432) 520-7720  
Fax #: (432) 520-7701  
e-mail: (432) 520-7701

Sample Signature:

Project Name: LF-59

Sampler Signature:

Project ID #: 1020613

Work Order ID #: 1020613

ANALYSIS REQUEST  
(Circle or Specify Method No.)

TX 1005 Extended (G35)

PAH 8270C

TPH 418.1/TX1005

BTX 8021B/602

MTE 8021B/602

G/CMS Vol. 8260B/624

G/CMS SemI. Vol. 8270C/625

PCBs 8082B/608

Pesticides 8081A/608

BOD, TSS, PH

Moisture Content

Turn Around Time if different from standard

Hold

REMARKS: Break on highest T.R.A.

Carrier #

Log-in Review

Intact  Headspace  Temp

Dry Weight Basis Required  TRRP Report Required  Check If Special Reporting Limits Are Needed

Log-in Review

Carrier #

Log-in Review

Intact  Headspace  Temp

Dry Weight Basis Required  TRRP Report Required  Check If Special Reporting Limits Are Needed

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Dry Weight Basis Required  TRRP Report Required  Check If Special Reporting Limits Are Needed

Log-in Review

Carrier #

Log-in Review</u



**Appendix C**  
**Notification of Release and Corrective**  
**Action (Form C-141)**

BII Santa Fe  
Antec, NM 87510  
District III - (505) 334-6178  
1000 Rio Bravo Road  
Antec, NM 87510  
District IV - (505) 827-7131

Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

Submit 2 copies to  
Appropriation Division  
Office in accordance  
with Rule 116 on  
back side of form

STATE Byrd LF 1999-59

Release Notification and Corrective Action

OPERATOR

Initial Report  Final Report

Facility Name <b>EOTT Energy Pipeline</b>	Contact <b>Lennah Frost</b>
Address <b>PO Box 1660</b>	Telephone No. <b>915/6843467</b>
Facility Name	Facility Type <b>Pipeline</b>

Surface Owner <b>State of New Mexico</b>	Mineral Owner	Lease No.
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LOCATION OF RELEASE

Section Letter	Section	Township	Range	Recs from the	North/South Line	Recs from the	East/West Line	County
L	32	195	37E					Lea

NATURE OF RELEASE

Type of Release <b>Crude oil</b>	Volume of Release <b>260 bbls</b>	Volume Recovered <b>200 bbls</b>
Source of Release <b>Crude oil pipeline</b>	Date and Time of Occurrence <b>7/18/99 1pm</b>	Date and Hour of Discovery <b>7/18/99 1 pm</b>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> None Required	If YES, To Whom? <b>Chris Williams</b>	
By Whom? <b>Lennah Frost</b>	Date and Time <b>7/18/99 - 2:30p</b>	
Was a Workforce Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Worker Impacted the Workforce	

If a Workforce was Impacted, Describe Fully. (Attach Additional Sheets If Necessary)

Describe Cause of Problem and Remedial Action Taken. (Attach Additional Sheets If Necessary)

**Internal Corrosion - Leak Clamped off will replace pipe ASAP**

Describe Area Affected and Cleanup Action Taken. (Attach Additional Sheets If Necessary)

**Spill occurred in a previously remediated site. Will evaluate for cleanup this week**

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMODD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMODD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and mitigate contamination that pose a threat to ground water, surface waters, human health or the environment. In addition, NMODD acceptance of a C-141 report, does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <u>Lennah Frost</u>	OIL CONSERVATION DIVISION	
Printed Name: <u>Lennah Frost</u>	Approved by District Supervisor:	
Title: <u>SR. ENV. ENG</u>	Approval Date:	Expiration Date:
Date: <u>7-20-99</u>	Phone: <u>915/6843467</u>	Conditions of Approval: Attached <input type="checkbox"/>